Traffic Noise Impact Analysis

Brent Spence Bridge Corridor Project

Kentucky – Northern Section

KYTC Item No. 6-17.00; ODOT PIN 116649

August 2023

TEAM KENTUCKY TRANSPORTATION CABINET

BRENT SPENCE BRIDGE CORRIDOR

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EXECUTIVE SUMMARY

This Traffic Noise Impact Analysis was conducted in accordance with the Federal Highway Administration's (FHWA) 23 CFR Part 772 – Procedures for Abatement of Highway Traffic Noise and Construction Noise and the latest version of the Kentucky Transportation Cabinet's (KYTC) Noise Analysis and Abatement Policy (KYTC 2022). Noise modeling and barrier analysis were completed using the FHWA's Traffic Noise Model (TNM), version 2.5, computer program.

The Brent Spence Bridge corridor consists of 7.8 miles of I-71 and I-75 located within portions of Ohio and Kentucky. This corridor is located within the Greater Cincinnati/Northern Kentucky region and is a major route for regional and local mobility. Regionally, the BSB carries both I-71 and I-75 traffic over the Ohio River and connects to I-74, I-275, and US-50. The corridor is also one of the busiest trucking routes in the United States, connecting Michigan to Florida via I-75. The BSB corridor also facilitates local travel by providing access to downtown Cincinnati in Hamilton County, Ohio and Covington in Kenton County, Kentucky. A noise analysis was performed for the re-evaluation of the Preferred Alternative, Concept I-W.

As a part of the efforts to update resource-specific studies, KYTC is completing traffic noise impact analyses of the project area in Kentucky. This effort has been divided into two sections, a Southern Section, and a Northern Section. This document is only analyzing the Northern Section, which begins at approximately mile point 189.5 and ends at the Kentucky/Ohio state line, which corresponds to the Brent Spence Bridge over the Ohio River. Six Noise Sensitive Areas (NSAs) were identified, with NSA's A through D covering the eastern side of the interstate and NSA's E and F covering the western side. There were 1,565 noise receptors (790 modeled receivers) identified in the Northern Section. The vast majority were residential homes (Activity Category B), but receptors representing public parks, pools, schools, churches, cemeteries, bars, restaurants, and hotels (Activity Categories C, D, and E) were also identified.

The study determined that the project would impact 1,103 receptors. Almost all the impacted receptors were impacts due to only exceeding their noise abatement criteria (1,102 receptors). Only one receptor was strictly a substantial increase impact, where the receptor had a greater than 10 dB(A) increase from the existing sound levels. Nineteen impacted receptors exceeded the noise abatement criteria and had a substantial noise increase. Abatement was considered at areas with impacted receptors. An independent analysis was not required at NSA D since there was only one impacted receptor, and a barrier could not meet KYTC's feasibility criteria of benefiting three or more impacted receptors. A detailed analysis was performed for the other five NSA's, with NSA's B, C, E and F were sub-divided into smaller areas for analysis. In addition to these independent barrier analyses, three barrier systems, covering multiple NSAs, were also evaluated.

The evaluations found that structural noise barriers were considered likely for Area C2 of NSA C and for Areas F1 and F2 of NSA F. Independent barriers were not reasonable and feasible for barriers for NSA A, NSA B (which includes Area B1, B2, and B3), Area C1 of NSA C, NSA E.

For the barrier systems, a structural noise barrier was found to be reasonable and feasible for barrier system C, which is all of NSA C, for barrier system E/F, which includes all the NSA's E and F, and for barrier system D/B20, which includes all of NSA D and the B20 analysis area from the Kentucky Southern Section. The Barrier System B, which covered all three areas of NSA B, was feasible but not reasonable. It could not provide 7 dB(A) of noise reduction for any receptor, therefore not meeting the design goal. It also had a cost per benefited ratio of $49,377, which is greater than KYTC's cost-effectiveness criteria.

The noise analysis determined that structural noise barriers were considered likely for the entire western section of the Northern Section (NSA's E and F), and for the area east of I-71/I-75 from the Kyles Lane interchange to Martin Luther King Jr Boulevard. The analysis of the barrier systems, in accordance with KYTC's noise policy, allowed for multiple barriers that were not considered reasonable individually to be reasonable in combination with other project barriers.

CHAPTER 1 – PROJECT INTRODUCTION

1.1 NOISE IMPACT ANALYSIS INTRODUCTION

The change in traffic that results from the introduction of a new highway and/or reconstruction of an existing highway presents the potential for noise impacts on adjacent properties. The purpose of this Noise Impact Analysis is to determine whether those impacts exist for this project based on the preliminary design. This analysis includes evaluating existing noise levels, predicting existing noise levels, predicting build noise levels, and when impacts occur, evaluating whether abatement measures are recommended.

This document analyzes the potential highway traffic noise impacts for the Preferred Alternative developed for the Brent Spence Bridge (BSB) Corridor project, and more specifically, the Phase III section of the larger project (KYTC Item No. 6-17.00 and ODOT PID 116649). All evaluations were conducted in accordance with Federal Highway Administration's (FHWA) 23 CFR Part 772 – *Procedures for Abatement of Highway Traffic Noise and Construction Noise* and Kentucky Transportation Cabinet's (KYTC) *Noise Analysis and Abatement Policy* effective August 1, 2022 (KYTC 2022). In addition, FHWA's *Noise Measurement Field Guide* (FHWA-HEP-18-066) was used as guidance during field investigations.

1.2 PROJECT DESCRIPTION

The Brent Spence Bridge corridor consists of 7.8 total miles of I-71 and I-75 located within portions of Ohio and Kentucky. This corridor is located within the Greater Cincinnati/Northern Kentucky region and is a major route for regional and local mobility. Regionally, the BSB carries both I-71 and I-75 traffic over the Ohio River and connects to I-74, I-275, and US-50. The corridor is also one of the busiest trucking routes in the United States, connecting Michigan to Florida via I-75. The BSB corridor also facilitates local travel by providing access to downtown Cincinnati in Hamilton County, Ohio and Covington in Kenton County, Kentucky.

The primary features of the BSB Corridor Project are illustrated in Figure 1.3–1. The project will:

- Reconstruct I-71/I-75 and add one lane in each direction;
- Rebuild the overpass bridges and interchanges in the corridor, including removing some left hand exits and adding a new exit at Ezzard Charles Drive in Ohio;
- Construct a collector-distributor system between West 12th Street/Martin Luther King Jr. Boulevard in Kentucky and Ezzard Charles Drive in Ohio;
- Extend frontage roads connecting Pike Street to West 4th Street and West 5th Street in Kentucky;
- Add collector-distributor lanes between Dixie Highway and Kyles Lane in Kentucky;
- Rehabilitate and reconfigure the existing double decker BSB to carry local traffic; and
- Build a new double decker companion bridge west of the existing BSB to carry through (interstate) traffic.

1.3 PURPOSE AND NEED

The Brent Spence Bridge Replacement/Rehabilitation Project will improve the operational characteristics within the I-75 corridor for both local and through traffic. In the Greater Cincinnati/Northern Kentucky region, the I-75 corridor suffers from congestion and safety–related issues as a result of inadequate capacity to accommodate current traffic demand. The purpose of this project is to:

- improve traffic flow and level of service,
- improve safety,
- correct geometric deficiencies, and
- maintain connections to key regional and national transportation corridors.

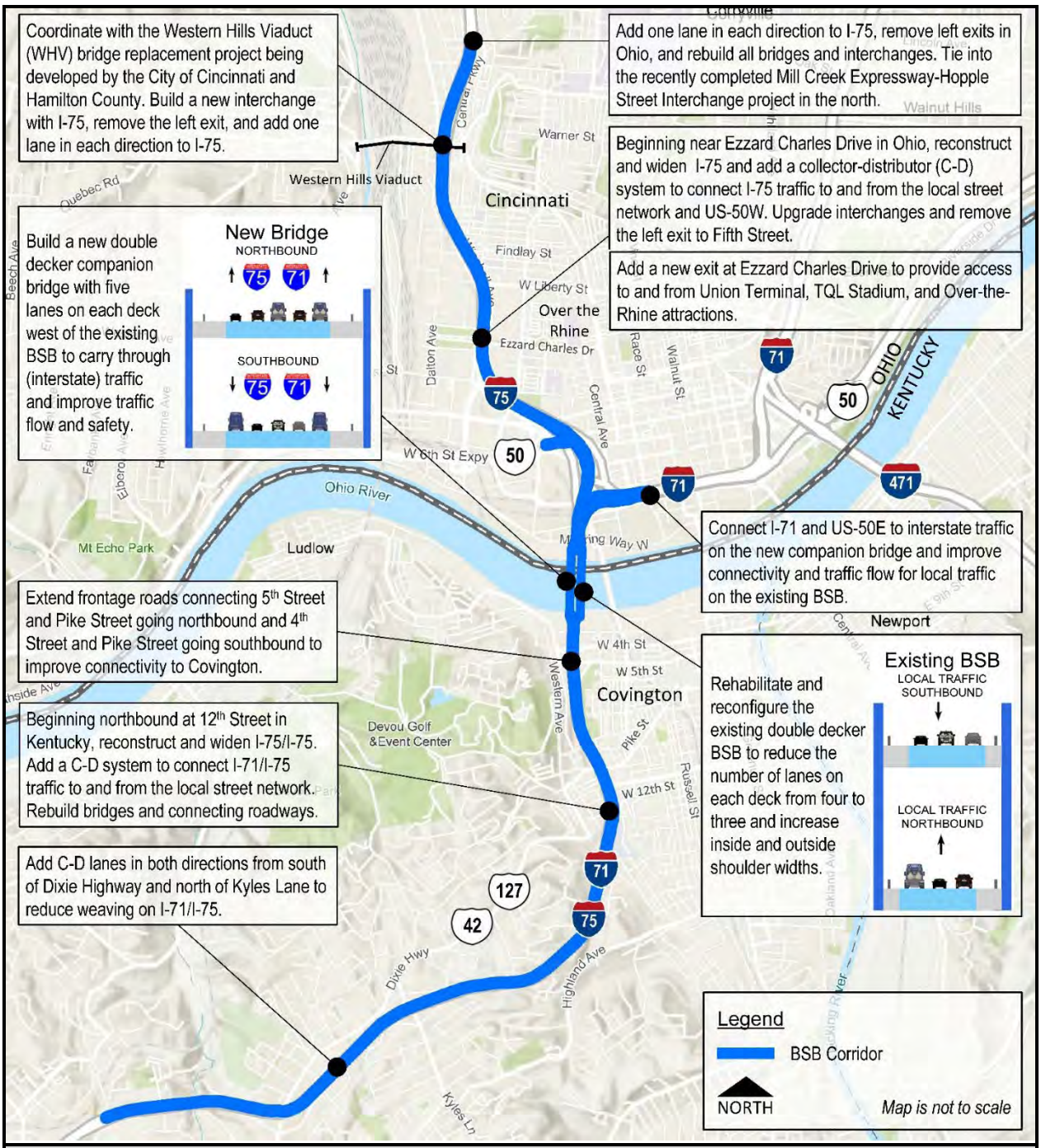

Figure 1.3–1. Primary Features of the BSB Corridor Project

1.4 PHASE III OF THE BSB CORRIDOR PROJECT

The BSB Corridor project will be constructed in three phases, as shown in Figure 1.4–1. This *Traffic Noise Impact Analysis* is solely for Phase III, which is following a progressive design-build process and is currently in the procurement process. The estimated total project cost is $2.64 billion with construction anticipated to begin in 2023 and be completed in 2029. The other two phases of the project will be analyzed at a later time and, therefore, will not be discussed further in this report.

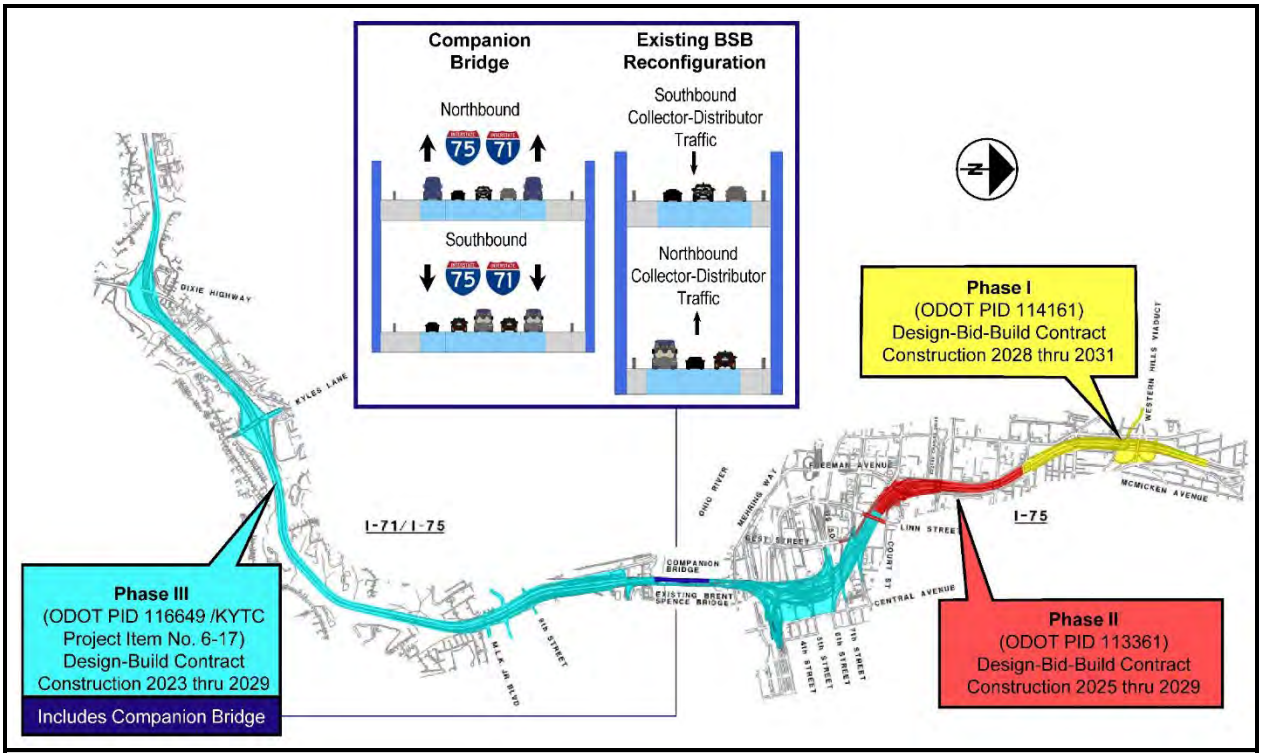

Figure 1.4–1. Brent Spence Bridge Corridor Project Phases

Phase III of the BSB Corridor project includes:

- Reconstructing and widening of approximately 6 miles of I-71/I-75 and reconfiguring interchanges from south of the Dixie Highway interchange in Kentucky to Linn Street in Ohio (approximately 5 miles in Kentucky and 1 mile in Ohio);
- Building a new I-75 exit at Ezzard Charles Drive;
- Rehabilitating and reconfiguring the existing double decker BSB to reduce the number of lanes on each deck from four to three and increase inside and outside shoulder widths;
- Constructing a double decker companion bridge with five lanes on each deck west of the existing BSB;
- Extending northbound frontage roads connecting West 5th Street and Pike Street in Kentucky;
- Extending southbound frontage roads connecting West 4th Street and Pike Street in Kentucky;
- Construct a collector-distributor system to connect I-71/I-75 traffic to and from the local street network between West 12th Street in Kentucky and Ezzard Charles Drive in Ohio; and
- Construct a collector-distributor system between Dixie Highway and Kyles Lane in Kentucky to reduce weaving movements on I-75.

1.5 PREFERRED ALTERNATIVE

KYTC and the Ohio Department of Transportation (ODOT) developed a range of alternatives for improving the I-71/I-75 corridor in Kentucky and Ohio through a series of preliminary engineering and planning studies coupled with extensive public and stakeholder involvement. These activities were documented in the project's Environmental Assessment (March 2012). On August 9, 2012, the Federal Highway Administration (FHWA) issued a Finding of No Significant Impact (FONSI) identifying Alternative I as the Preferred Alternative for the BSB project.

Since the approval of the FONSI, KYTC and the ODOT completed additional studies to update the Preferred Alternative to reflect current design standards, traffic counts, and traffic operations. KYTC and ODOT also conducted a value engineering analysis of the preferred alternative. These efforts resulted in refinements to Preferred Alternative I, which have been designated as Concept I-W.

Concept I-W matches Alternative I for the I-71/I-75 alignment from Dixie Highway north to West 12th Street in Kentucky and north of Freeman Avenue in Ohio. It also includes the local collector-distributor along both sides of I-75 in Ohio. Concept I-W also modifies the 5th Street intersection with Central Avenue in Ohio to include an additional eastbound through lane.

Concept I-W builds a new double decker companion bridge (with a width of 107 feet) just west of the existing BSB with all I-71 and I-75 traffic on the new bridge and all local collector-distributor traffic on the existing BSB. The new companion bridge carries five lanes of southbound I-71 and I-75 traffic on the lower deck and five lanes of northbound I-71 and I-75 traffic on the upper deck. The rehabilitated existing BSB carries three lanes of northbound local traffic on the lower deck and three lanes of southbound local traffic on the upper deck, as part of the collector-distributor roadway system.

In addition, Concept I-W includes the following value engineering components:

- Reconfigure the lanes on the existing BSB and new companion bridge to keep through (interstate) and local (collector-distributor) traffic on separate facilities.
- Optimize interchange geometry by utilizing the land formerly occupied by the Dunn-Humby building in Cincinnati.
- Adjust the design speed of the roadways to match the posted speed limits: 55 mph on the I-71/I-75 mainline and 45 mph on the collector-distributor roads.
- Allow the inside and outside shoulder widths on ramps to be flipped to reduce overall width and improve horizontal stopping sight distance.
- Provide 10-foot inside and outside shoulder widths for I-71/I-75 and the collector-distributor roads according to current design standards.
- Reduce the number of lanes on the frontage roads between West 12th Street and Pike Street in Kentucky, as supported by traffic operational analyses.

Furthermore, KYTC and ODOT are considering reducing the main span length of the new companion bridge from 1,000 feet to 870 feet based on informal coordination with the U.S. Coast Guard in late 2012 and early 2013.

The value engineering refinements incorporated within the limits of Phase III have not substantially changed the following major design components included in the 2012 EA/FONSI:

- The mainline and ramp layout from Dixie Highway (in Kentucky) to Linn Street (in Ohio);
- The number of interstate and collector-distributor lanes;
- The collector-distributor roadway concept between West 12th Street (Kentucky) and Ezzard Charles Drive (Ohio); and
- The approved bridge types for the new companion bridge – a simply supported arch bridge with inclined arch ribs and a two-tower cable-stayed bridge with vertical legs/towers.

The collective value engineering refinements that have been incorporated into the preferred alternative since the 2012 EA/FONSI are referred to as Preferred Alternative I (Concept I-W).

KYTC and ODOT are currently preparing a supplemental FONSI to reflect the refined Preferred Alternative (Concept I-W). These efforts also involve updating resource-specific studies to reflect any changes in conditions that have occurred since they were originally prepared.

1.6 NOISE IMPACT ANALYSIS STUDY AREA

As a part of the efforts to update resource-specific studies, KYTC is completing a traffic noise impact analyses of the project area in Kentucky. This effort has been divided into two sections, a *Southern Section,* and a *Northern Section*. This document is only analyzing the *Northern Section*, which begins approximately at mile points 189.5 and 190.1 for the northbound and southbound directions of I-71/I-75, and ends at the Kentucky/Ohio state line, which corresponds to the Brent Spence Bridge over the Ohio River. The noise impact analysis for the *Southern Section*, from the project's southern limits north to the beginning of the *Northern Section*, is being completed concurrently by others. The boundaries of the *Northern* and *Southern Sections* are shown on Figure 1.6–2 and Figure 1.6–1. The noise analysis for the Ohio portion of the BSB Corridor project will also be completed by others.

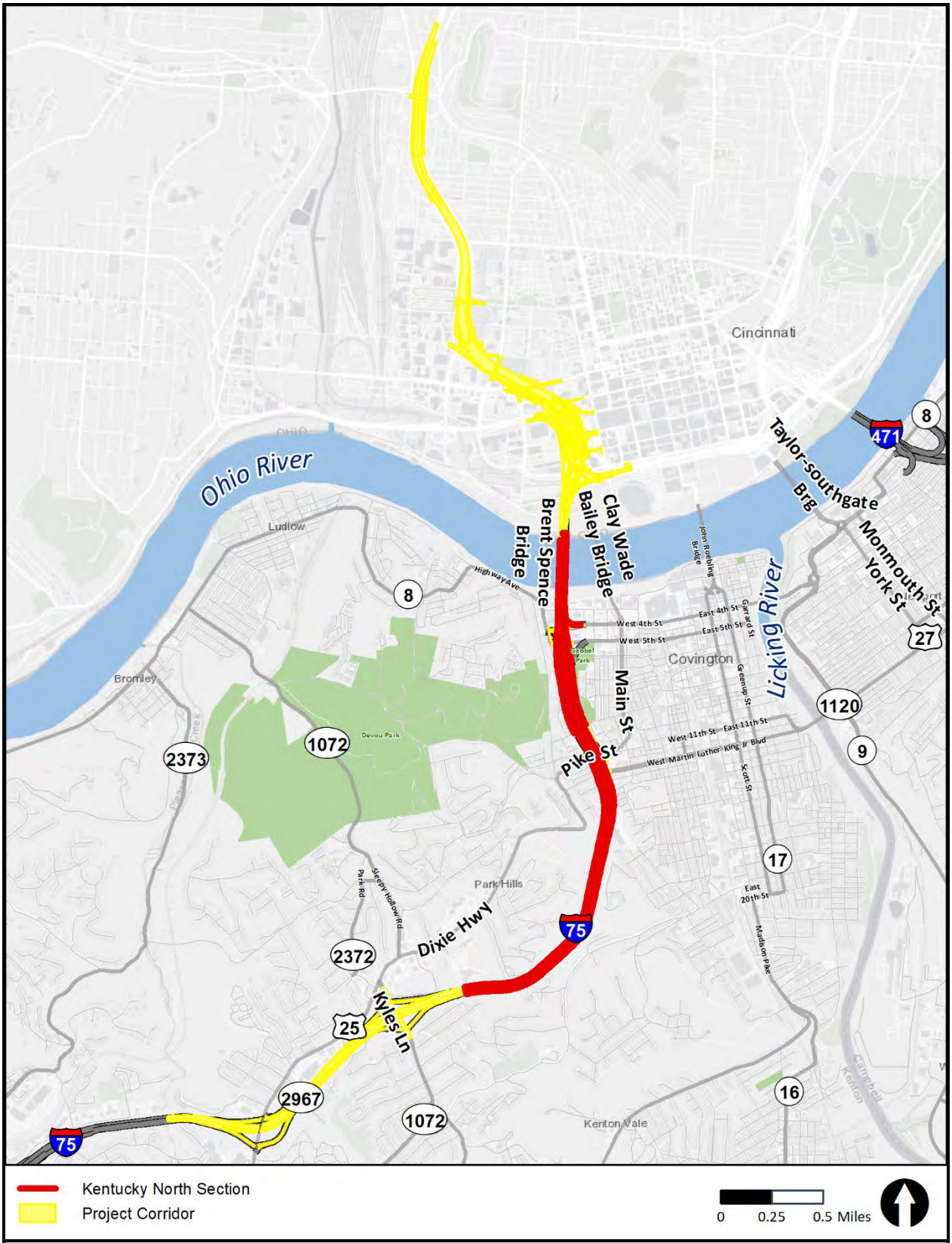

Figure 1.6–2. Preferred Alternative

CHAPTER 2 – POLICY, GUIDELINES, & METHODS

FHWA noise standards, *Procedures for Abatement of Highway Traffic Noise and Construction Noise, 23 CFR 772 [1]*, require that noise abatement measures be considered when traffic noise impacts are identified for Type 1 Federal projects. The noise standards define Type 1 projects as:

1. *The construction of a highway on new location; or,*
2. *The physical alteration of an existing highway where there is either:*
    a. *Substantial Horizontal Alteration. A project that halves the distance between the traffic noise source and the closest receptor between the existing condition to the future build condition; or,*
    b. *Substantial Vertical Alteration. A project that removes shielding therefore exposing the line-of-sight between the receptor and the traffic noise source. This is done by either altering the vertical alignment of the highway or by altering the topography between the highway traffic noise source and the receptor; or,*
3. *The addition of a through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a HOV lane, High-Occupancy Toll (HOT) lane, bus lane, or truck climbing lane; or,*
4. *The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane; or,*
5. *The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange; or,*
6. *Restriping existing pavement for the purpose of adding a through-traffic lane or an auxiliary lane; or,*
7. *The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot or toll plaza.*
8. *If a project is determined to be a Type I project per § 772.5 then the entire project area as defined in the environmental document is a Type I project. (FHWA 2010)*

The proposed project qualifies as a Type 1 project. Therefore, this study has been prepared in accordance with FHWA noise standards, as well as KYTC's *Noise Analysis and Abatement Policy* (KYTC 2022). The following tasks were performed:

- Identification of noise-sensitive areas: Identify specific areas within the study area with land uses that are sensitive to highway traffic noise.
- Determination of existing sound levels: Measurement/modeling of existing sound levels at noise sensitive receivers/receptors to characterize the existing noise environment in the study area.
- Determination of future sound levels: Prediction of future, design year, and worst-hour sound levels for the No Build Alternative and the proposed build alternative(s).
- Discussion of KYTC criteria for determining noise impacts.
- Determination of traffic noise impacts: Determination of noise impacts based on the increase in existing sound levels, as well as design year sound levels for the proposed build alternative(s).
- Noise abatement evaluation: Evaluation of noise abatement for areas determined to be impacted by the project along the proposed build alternative(s).
- Discussion of construction noise associated with the proposed build alternative(s).

Each of these analytical steps is discussed herein.

2.1 TRAFFIC NOISE TERMINOLOGY

Traffic noise levels are expressed in terms of the hourly A-weighted equivalent sound level in decibels (dB[A]). A sound level represents the magnitude of the rapid air pressure fluctuations caused by sources such as traffic that are heard as sound. A decibel (dB) is a unit signifying the amount of pressure fluctuation equivalent to the faintest sound the young human ear can hear.

The A-weighting refers to the amplification or attenuation of the different frequencies of the sound (the pitch) to correspond to the way the human ear "hears" these frequencies. A 9 – 10 dB increase in sound level is typically judged by the listener as twice as loud as the original sound, while a 9 – 10 dB reduction is judged as half as loud.

Because most environmental sound fluctuates from moment to moment, it is standard practice to condense data into a single level called the equivalent sound level (Leq). The Leq represents a steady sound level that would contain the same amount of sound energy as the actual time-varying sound evaluated over the same time period. The Leq averages the louder and quieter moments, but gives much more weight to the louder moments in the averaging. For traffic noise assessment purposes, Leq is typically evaluated over the 1-hour period with the greatest amount of noise generated per 24-hour period. Doubling the number of noise sources (i.e., vehicles) will increase the hourly equivalent sound level by approximately 3 dB, which is usually the smallest change in hourly equivalent A-weighted traffic noise levels that people can perceive.

The first step in any noise impact analysis is identification of areas, called Noise Sensitive Area(s) (NSA), where differing activity categories, separate neighborhoods, areas that are divided by terrain features, or areas where there is potential for increased traffic noise levels as a result of the project. Receptors are then identified within the NSA's. A receptor is a discrete or representative location of a noise sensitive area for any of the land uses listed in Table 2.3–1. Receptors (a real-world location) are represented in the noise modeling software by a receiver point. At some locations, such as a park, cemetery or multi-family dwelling unit, a single receiver can represent multiple receptors within the model. Traffic noise levels are predicted for each receiver and that result is used for each receptor it represents. While the noise value for each receiver is used to determine impacts, the number of benefited receptors is considered when analyzing for noise abatement.

2.2 IDENTIFICATION OF NOISE SENSITIVE AREAS

The project's study area was reviewed to determine NSAs for this project. Critical features were pinpointed along the route and were used to identify the begin and end points of the NSAs. The boundary of the NSAs consist of all lands within 800 feet of the proposed edge of pavement.

2.3 IDENTIFICATION OF RECEPTORS & RECEIVERS

Once NSAs were known, noise receptors within the NSA were identified and their land use noted according to Activity Category (AC), as described in Table 2.3–1. A receiver point was placed in the model to represent the identified receptors. In some cases, a single receiver could represent multiple receptors. For residential receivers, the number of receptors represented by each receiver was determined by examining the number of Dwelling Units (DU) near the receiver that were in similar proximity to the roadway.

Table 2.3–1. Activity Category Descriptions

ACTIVITY CATEGORY	L_{EQ} (1H) dB(A)	EVALUATION LOCATION	ACTIVITY DESCRIPTION
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[1]	67	Exterior	Residential.

ACTIVITY CATEGORY	L_{EQ} (1H) dB(A)	EVALUATION LOCATION	ACTIVITY DESCRIPTION
C[1]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structure, radio stations, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structure, radio studios, recording studios, schools, and television studios.
E[1]	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A–D, or F.
F	—	—	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	—	—	Undeveloped lands that are not permitted.

[1] Includes undeveloped lands permitted for this activity category

Source: *Procedures for Abatement of Highway Traffic and Construction Noise*

2.3.1 EQUIVALENT RESIDENCES

For certain land uses, such as recreational areas, the number of receptors was determined based on Equivalent Residences (ER), a value calculated in accordance with KYTC's noise policy. KYTC's noise policy provides the equations shown below for the calculation of ER:

$$ER = \left(\frac{X\ Persons}{2.5\ persons\ per\ avg\ household}\right)\left(\frac{X\ hour\ avg\ weekly\ use}{168\ hours\ per\ week}\right) = \text{Equivalent Residences}$$

$$ER = \left(\frac{X\ Persons}{2.5\ persons\ per\ avg\ household}\right)\left(\frac{X\ hour\ avg\ daily\ use}{24\ hours\ per\ day}\right) = \text{Equivalent Residences}$$

2.3.2 RECEIVER NAMING CONVENTION

A naming convention was established to identify receptors within the study area. Receptors were named by their NSA (A through F), receiver number, dwelling units, and special designator (see Figure 2.3–1). Special designators used were 'F' and 'V' which indicates front row receptors and validation measurement locations, respectfully.

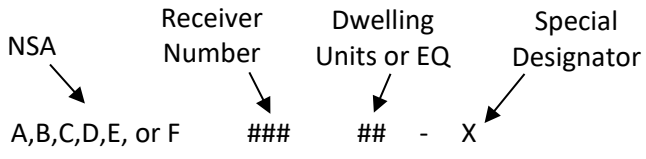

Figure 2.3–1. Receiver Naming Convention

2.4 CRITERIA FOR DETERMINING TRAFFIC NOISE IMPACTS

Predicted design hour equivalent sound levels for the design year are calculated using FHWA's Traffic Noise Model (TNM), Version 2.5 (TNM 2.5) software. Noise impacts are determined by comparing these sound levels to: (1) a set of Noise Abatement Criteria (NAC), and (2) to existing sound levels.

2.4.1 NOISE ABATEMENT CRITERIA

FHWA's noise standards and KYTC's noise policy states that traffic noise impacts require consideration of abatement when worst-hour sound levels approach (within 1 dB[A] Leq) or exceed the NAC listed in Table 2.3–1. Noise impacts will be identified, and noise abatement will be considered if design year sound levels at the Category B and C land uses are 66 dB(A) or higher.

2.4.2 SUBSTANTIAL INCREASE DEFINITION

FHWA's noise standards and KYTC's noise policy also define impacts to occur if there is a substantial increase in design year sound levels compared to existing sound levels. KYTC's criteria uses 10 dB(A) or more over the existing noise level as it's criteria for substantial noise increase. Noise abatement will be considered when noise impacts are identified due to a substantial increase in existing sound levels.

2.5 NOISE ABATEMENT EVALUATION

Abatement is evaluated when a receiver is predicted to receive impacts. For noise barriers to be included in the project plans for the impacted noise analysis areas, they must be determined to be both feasible and reasonable in accordance with KYTC's noise policy.

2.5.1 FHWA'S NOISE BARRIER FEASIBILITY

When determining the acoustic feasibility of a proposed noise abatement measure, KYTC considers whether the measure provides a substantial reduction (5 dB[A]) for, at a minimum, three impacted receptors.

Engineering or constructability issues may render an abatement measure infeasible if the barrier would pose overriding safety (visibility issues) or maintenance (drainage and right-of-way access) problems as determined by the American Association of State Highway and Transportation Officials (AASHTO) *Green Book, Roadside Design Guide,* or *Manual of Uniform Traffic Control Devices* (MUTCD).

2.5.2 NOISE BARRIER REASONABLENESS

If a barrier is determined to be feasible, then the barrier is assessed for reasonableness in accordance with KYTC's criteria. Potential noise abatement must meet the following criteria to be considered reasonable. If any of the criteria are not met, noise abatement measures would not be constructed.

Noise Reduction Design Goal: KYTC's noise reduction design goal is 7 dB(A) for a minimum of 50 percent of front row benefited receptors.

Cost Effectiveness: The total cost of a noise barrier is estimated based on an average cost of $32 per square foot of barrier wall, as outlined in KYTC's 2022 revised version of the *Noise Analysis and Abatement Policy* (KYTC 2022). Then, when applicable, adjustments are made to the total cost per the other reasonableness considerations outlined in KYTC's noise policy. This cost is then divided by the total number of benefited receptors as determined by the TNM 2.5 barrier analysis, to determine a total "cost per benefited receptor" (CBR). KYTC has established a CBR of $40,000 as a reasonable maximum threshold for this value. Locations where the CBR exceeds this threshold value would not be considered cost effective; locations where the CBR is less than this threshold would be cost effective.

Desires of Benefited Receptors: The views of the benefited receptors and property owners and residents would be considered in determining the reasonableness of noise barriers. When the majority of benefited receptors and property owners are opposed to construction of a noise barrier, KYTC will give deference to these opinions regardless of whether the proposal satisfies all other criteria for consideration. Where the majority of the benefited receptors and property owners involved in the public involvement process are in support of noise barrier construction, and the proposal satisfies all other criteria for consideration outlined in the KYTC Noise Policy then abatement measures will be incorporated into the project.

2.5.3 STRUCTURAL NOISE BARRIER ANALYSIS METHODOLOGY

A structural noise barrier is evaluated to assess the likeliness for noise impact mitigation when noise sensitive receptors are identified as impacted. Evaluations are completed in accordance with the feasibility

and reasonableness criteria outlined above and these criteria provide a framework for assessing the barriers modeled in TNM 2.5.

1) Each modeled barrier is evaluated for feasibility, in accordance with KYTC's noise policy, to determine if further analysis is necessary.
2) Next, each modeled barrier is evaluated for its ability to provide 7 dB(A) of attenuation for first row benefited receptors, in accordance with the design goals. If no combination of wall length and height could meet this criterion, then the analysis is concluded and the barrier with the greatest attenuation is recorded. If the design goal is achieved, then the cost-effectiveness criterion is evaluated and optimized.
3) If a structural noise barrier design is found to meet the design goal, the cost of the barrier is compared to the number of benefited receptors and compared to the reasonableness criterion for cost-effectiveness. If the barrier is not cost-effective, then the wall length and/or height is increased to increase the number of benefited receptors. If there is still no cost-effective barrier, the analysis continues by looking for a smaller sub–set of the analysis area that might meet the reasonableness criteria. The barriers are reduced to the lower limit of cost, while still meeting the design goal of 7 dB(A) for a majority of impacted first row receptors (i.e., less benefited first row receptors). The barrier is then optimized for benefited receptors and checked against the cost-effectiveness criterion. If the barrier is still not cost-effective, the barrier that is closest to meeting the criteria is recorded.
4) If a structural noise barrier is found to meet all the feasibility and reasonableness criteria, then the barrier analysis is complete, and that barrier is recorded.
5) After the structural noise barriers are evaluated independently, the project is evaluated for potential groups of barriers that can be identified as a barrier system. When found, these systems are evaluated as a group for feasibility and reasonableness.

2.6 OUTREACH TO LOCAL OFFICIALS

For tracts of undeveloped land adjacent to a project, KYTC encourages the local governments with jurisdiction over these lands, as well as potential developers of these lands, to practice noise compatibility planning to avoid future noise impacts. The following language is included in KYTC's noise policy:

> *Coordination with and providing information to local officials is critical to a developing a comprehensive approach to creating livable communities adjacent to highways. Impacts of highway traffic noise can be reduced through a program of shared responsibility. Requests to approve land use changes adjacent to the highways should consider the current and predicted traffic noise. Approval of land uses adjacent to a highway that are particularly noise sensitive should be an informed decision and should only occur after careful consideration. Thus, where local government exercises control over land development through planning and zoning ordinances, KYTC shall share predicted noise levels along highway corridors and techniques that can be used to minimize highway noise related impacts to adjacent properties. KYTC shall provide this information to local officials for all Type I projects developed within these local jurisdictions. (KYTC 2022)*

There are also two guidance documents on noise compatible land use planning that are available from FHWA: *The Audible Landscape: A Manual for Highway Noise and Land Use* (FHWA 1974) and *Entering the Quiet Zone: Noise Compatibility Land Use Planning* (FHWA 2002).

Table 2.6–1 presents design year sound levels for areas along the proposed alternatives where vacant and possibly developable lands exist. Noise predictions were made at distances between 50 feet and 500 feet from the edge of pavement of the closest travel lane, at–grade. As indicated, the entire area, from 50 feet from the roadway to 500 feet, exhibited sound levels exceeding the NAC of 66 dB(A). The values in Table 2.6–1 do not represent predicted levels at every location at a particular distance from the roadway. Sound levels will vary with changes in terrain and will be affected by the shielding of objects such as buildings. This information is being included to make local officials and planners aware of anticipated highway noise levels so that future development will be compatible with these levels.

Table 2.6–1. Undeveloped Lands Sound Levels

DISTANCE FROM ROADWAY (FT.)	NOISE LEVEL (dB[A])
50	77.6
100	75.9
200	73.4
300	71.4
400	69.7
500	68.3
600	67.0
700	65.8
800	64.7

CHAPTER 3 – EXISTING ANALYSIS & RESULTS

3.1 IDENTIFICATION OF NOISE SENSITIVE AREAS

Six NSAs were identified in the *Northern Section*. NSAs were labeled going north to south on the east side of I-71/I-75 and then the west side. The boundaries are described below and shown on Figure 3.2–1.

- NSA A – on the east side of the I-71/I-75 corridor, from the Brent Spence bridge south to West 5th Street (at I-71/I-75 mile point 191.15).
- NSA B – on the east side of the I-71/I-75 corridor, from West 5th Street (at I-71/I-75 mile point 191.15) south to MLK Jr. Boulevard (at I-71/I-75 mile point 190.45).
- NSA C – on the east side of the I-71/I-75 corridor, from MLK Jr. Boulevard (at I-71/I-75 mile point 190.45) south to I-71/I-75 mile point 189.75.
- NSA D – on the east side of the I-71/I-75 corridor, from I-71/I-75 mile point 189.75 south to mile point 189.20.
- NSA E – on the west side of the I-71/I-75 corridor, from the Brent Spence bridge south to I-71/I-75 mile point 190.95.
- NSA F – on the west side of the I-71/I-75 corridor, from I-71/I-75 mile point 190.95 to US 25 (at I-71/I-75 mile point 190.1).

3.2 IDENTIFICATION OF RECEPTORS

Review of electronic mapping and field reconnaissance revealed 1,565 noise receptors (790 modeled receivers) within the NSAs. The majority of receptors were residential homes (Activity Category B), consisting of single-family homes, apartments, condominiums, duplexes, and apartments. One receptor is for a pool associated with a condominium complex. In all, there were 1,210 noise receptors (755 modeled receivers) representing this activity category.

Parks, a public pool, daycare centers, an outdoor religious site, a school playground, a cemetery, a men's fraternity headquarters with outdoor activity areas (the Standard Club), and a hospital are noise receptors in the project area that fall under Activity Category C. The public places include the Goebel Park (and pool), Kenney Shields Park, the Garden of Hope (outdoor religious site), and the Linden Grove Cemetery and Arboretum. This activity category totaled 69 noise receptors (11 modeled receivers). There were 17 receptors (one modeled receiver) considered Activity Category D. This location is the interior classrooms associated with the Prince of Peace Catholic School. Note, a separate receptor was placed for the playground area outside of the school (Activity Category C).

Activity Category E receptors in the study were hotels, restaurants, and bars. Each of the hotels had different outdoor uses, which affected the number of equivalent receptors they represent. One of the hotels, the Radisson Hotel, has 15 floors with 16 rooms on each floor with a balcony. Therefore, a receiver representing 16 receptors was modeled for each floor. A second hotel, the Holiday Inn Express, where the rooms did not have a balcony, so the only outdoor use was a bench just outside of the hotel. This hotel was represented by 1 receptor (1 modeled receiver). The third hotel, a Holiday Inn, had a pool for its occupants, and it's 4 receptors were modeled with 1 receiver. The restaurants and bars modeled typically had outdoor seating or congregating areas. Activity Category E totaled 269 receptors (23 modeled receivers).

The general location of the receivers is shown in Figure 3.2–2 below, while a more detailed exhibit is provided in Appendix A. A summary of the breakdown of receptors by NSA is provided in Table 3.2–1. The number of dwelling units (or equivalent receptors) for each modeled receiver is provided in its name, as explained in the receptor naming convention (see Section 2.3.2). For dwelling units (or equivalent receptors) that were calculated using the Equivalent Receptor equation from Section 2.3.1, please refer to Appendix G for their calculations.

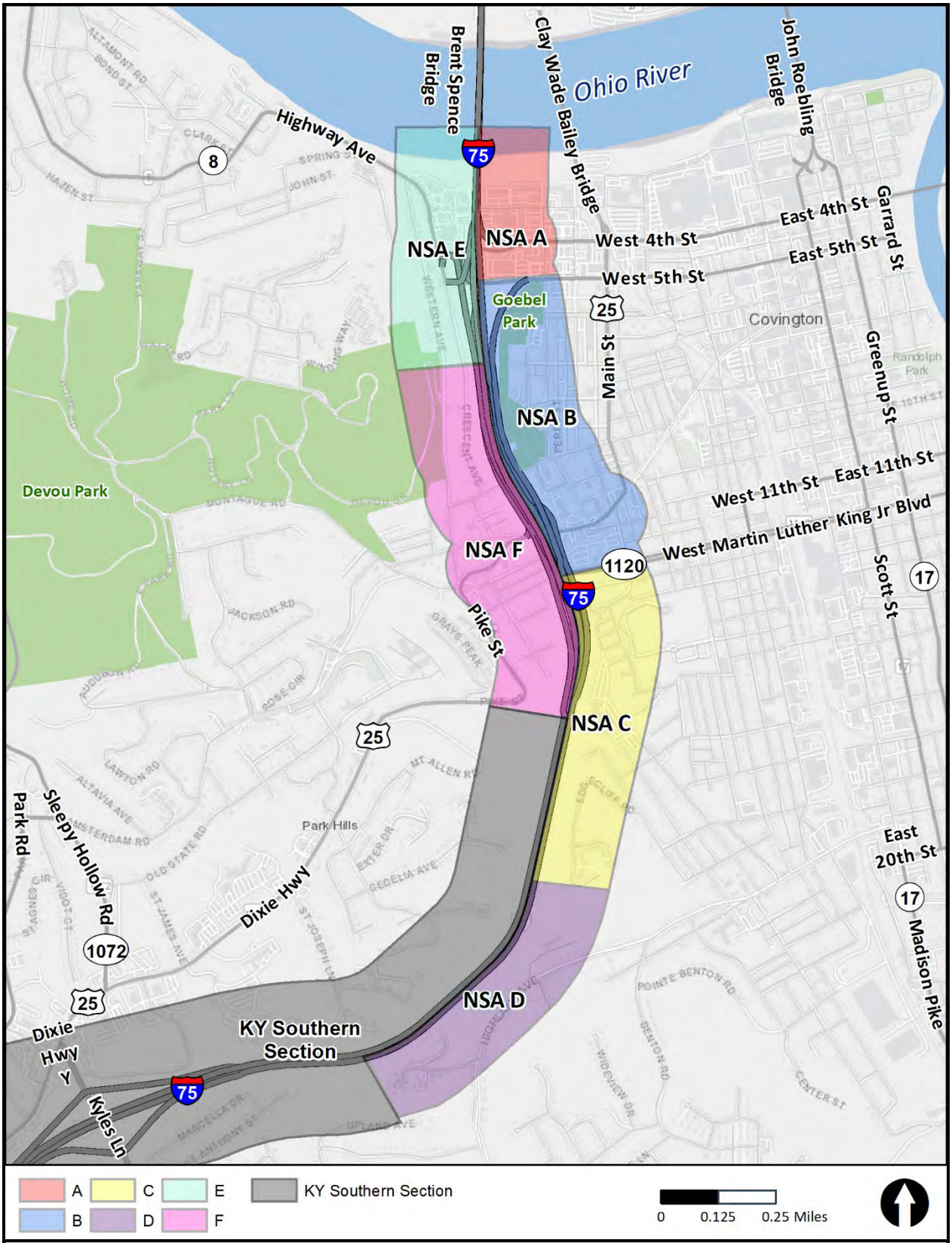

Figure 3.2–1. Noise Sensitive Areas

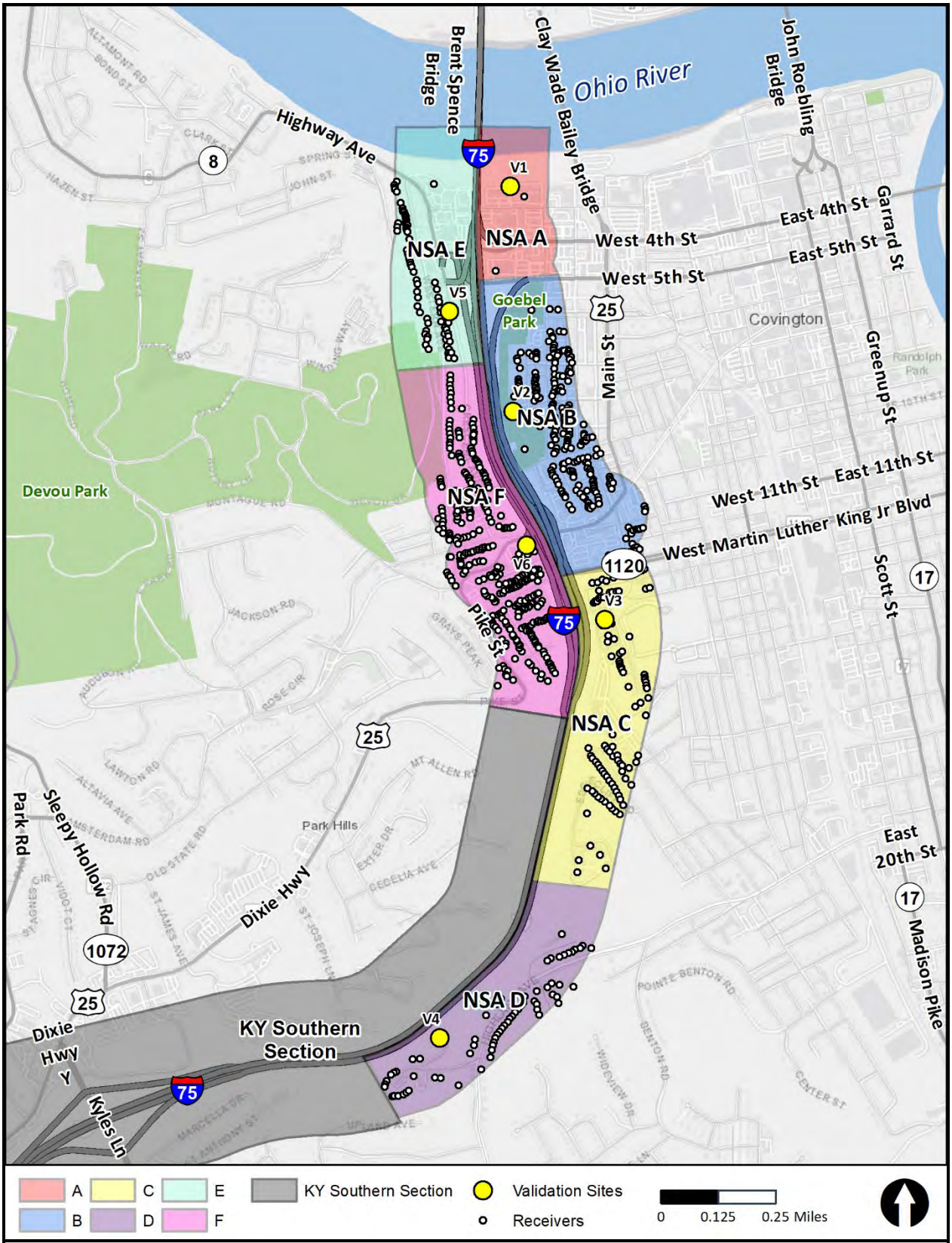

Figure 3.2–2. Receptor and Field Noise Measurement Locations

Table 3.2–1. Summary of Receptor Type

NSA	ACTIVITY CATEGORY B	ACTIVITY CATEGORY C	ACTIVITY CATEGORY D	ACTIVITY CATEGORY E	TOTAL
A	0	0	0	244	**244**
B	336	45	0	24	**405**
C	227	6	0	0	**233**
D	167	0	0	0	**167**
E	77	0	0	1	**78**
F	403	18	17	0	**438**
TOTAL	**1,210**	**69**	**17**	**269**	**1,565**

3.3 NOISE MEASUREMENTS

Noise measurements were conducted June 13-14, 2022, at noise-sensitive land uses in the study area and within 500 feet of the proposed alignments. Six, short–term, 15–minute noise measurements were conducted during meteorologically appropriate periods (i.e., no rain, wind less than 10 miles per hour [mph]). These measurements were conducted to provide field–measured levels along the existing roadways in the study area to utilize in model validation within TNM 2.5. Field data sheets are provided in Appendix C. Once validated, the model was used to predict existing noise levels for all receivers along existing roadways.

A Rion NL–20 sound meter and a Rion NC–73 sound level calibrator was used for all noise measurements. See Appendix D for noise meter calibration certificates.

3.4 TRAFFIC VOLUMES

Traffic conditions were obtained from the Certified 2049 Concept I-W Build Condition volumes provided with the *Brent Spence Bridge Corridor Project Certified Traffic Report* dated May 10, 2023. According to KYTC's noise policy, Level of Service C (LOS C) conditions are required because more congestion represents lower, non-free flowing, speeds. Non-free flowing traffic results in quieter conditions, even though the traffic may be greater, due to the fact that tires moving at speed are the greatest component of highway traffic noise. Therefore, LOS C conditions represent the highest amount of traffic that is still the closest to free-flow speeds.

The forecast volumes were given in 15-minute intervals which were used to calculate hourly volumes. Density for each 15-minute interval was provided. LOS is based on density for freeways, so it was used to find the noisiest hour for the combination of northbound and southbound traffic. Mainline I-71/I-75 was used to determine the noisiest conditions since it carries the most significant amount of traffic. The average density for the northbound and southbound I-71/I-75 segments was calculated, and the hour of 2:30 PM to 3:30 PM was selected to be the hour used for the noise analysis. This hour's average density fell the closest to LOS C conditions for all mainline segments in the study limits on the Kentucky northern portion. Density for LOS C ranges from 19 – 26 pcphpl (Passenger Cars Per Hour Per Lane), and this hour's density was 22.60 pcphpl which is 0.10 above the halfway point of the LOS C range. It was also selected because it contained no LOS F intervals or LOS E intervals while staying above the LOS C midrange point.

3.5 MODEL VALIDATION

The TNM 2.5 model was used for predicting noise levels for the proposed alternative. Noise measurements were validated prior to running the models. Validation involved obtaining noise measurements at a few selected points near the existing roadway while making simultaneous vehicle classification counts and estimating travel speed. The traffic counts were then converted to hourly volumes. These volumes, along with the estimated travel speeds, were entered into a TNM 2.5 model created for the project area. Modeled levels were compared to the measured levels, and if they were within 3 dB(A) of the measured levels, the model was considered validated. The general location of all receptors and the location of the field

measurements can be seen in Figure 3.2–2 and the location and names of all receivers can be seen in the exhibits in Appendix A. The predicted values for all validation receivers were found to be within 3 dB(A) of the field measured values. A summary of noise level validation results is provided in Table 3.5–1. With validated results, the TNM 2.5 model was used to predict values for receivers in the immediate vicinity of the roadways based on existing traffic data for the facility.

Table 3.5–1. Noise Level Validation Summary

RECEIVER	DESCRIPTION	START TIME	MEASURED SOUND LEVEL DB(A)	MODELED SOUND LEVEL DB(A)	VALIDATION SUCCESSFUL?
V1	Hotel	13:14	67.5	68.0	Yes
V2	Pool	13:51	65.5	67.0	Yes
C01901-V (V3)	Residential	14:17	65.5	68.5	Yes
D04801-FV (V4)	Residential	14:49	67.9	68.9	Yes
V5	Parking Lot	08:35	67.4	65.9	Yes
F15401-FV (V6)	Residential	09:05	73.0	74.7	Yes

3.6 EXISTING SOUND LEVELS

The existing roadways and traffic volumes were then used to model and establish the sound levels at all 1,567 receptors. Results showed existing noise levels range from a high of 77.0 dB(A) to a low of 46.4 dB(A), with 677 of the 1,567 receptors having noise levels that exceed their NAC. This occurred in every NSA and with every Activity Category in the project area. In general, the highest existing sound levels were in NSA F, a highly dense residential area with a direct line of sight to the interstate contributing to higher noise levels. The lowest existing sound levels, and only one receptor exceeding NAC, is in NSA D, where the interstate is at a higher elevation than the residential homes in the NSA. A summary of receptors with existing sound levels exceeding the NAC is provided in Table 3.6–1. Results for each receptor is provided in Table B-2 and B-3 in Appendix B, TNM output tables are in Appendix F.

Table 3.6–1. Summary of Existing Sound Levels Exceeding NAC

NSA	NUMBER OF RECEPTORS	EXISTING CONDITION ALREADY EXCEEDING THE NOISE ABATEMENT CRITERIA
A	244	240
B	405	75
C	233	45
D	167	1
E	78	42
F	438	276
TOTAL	1,565	**679**

CHAPTER 4 – CONCEPT I-W RESULTS

4.1 IMPACT DETERMINATION RESULTS

The proposed Concept I-W was modeled, and all 1,565 receptors (790 modeled receivers) were analyzed using the forecasted Certified 2049 Concept I-W Build Condition traffic volumes. In the proposed condition, the noise levels ranged from a high of 79.0 dB(A) to a low of 51.7 dB(A), a slight change from the existing conditions. Generally, the results were similar to the existing condition, with NSA F having the highest predicted noise levels and NSA D having the lowest. As with the existing condition, there was only 1 impacted receptor in NSA D.

There was a total of 1,103 impacted receptors (607 modeled receivers) recorded during analysis. Almost all the impacted receptors were due to exceeding the NAC (1,103 receptors). Only one receptor had a substantial increased impact, where the receptor had a greater than 10 dB(A) increase from the existing sound levels. Finally, 19 impacted receptors were from exceeding both the NAC and having a substantial noise increase. Impacts were identified in each NSA and for each Activity Category. Their locations can be seen in the Appendix A exhibits. Tables listing the receptors, their distance to roadway, and their predicted sound level results are provided in Appendix B, and TNM output data is provided in Appendix F.

Table 4.1–1. Summary of Proposed Receptor Impacts

NSA	NUMBER OF RECEPTORS	IMPACTED RECEPTORS	EXCEEDS NOISE ABATEMENT CRITERIA (NAC)	EXCEEDS SUBSTANTIAL INCREASE CRITERIA	EXCEEDS BOTH CRITERIA
A	244	240	240	0	0
B	405	303	292	0	11
C	233	91	90	1	0
D	167	1	1	0	0
E	78	78	70	0	8
F	438	390	390	0	0
TOTAL	1,565	**1,103**	**1,083**	**1**	**19**

4.2 NOISE ABATEMENT EVALUATION

Once all impacted receptors were known, they were analyzed to determine locations where noise abatement evaluations would be necessary. For NSA's B, C, and F, the noise abatement evaluations were broken down into smaller segments based on distinct features or roadways as shown in Figure 4.2–1. These segments were evaluated independently and, if necessary, as a whole barrier system. Although an independent noise abatement evaluation was not performed for NSA D, since there was only one impacted receptor and a structural noise barrier could not meet KYTC's feasibility criteria, a barrier system analysis with the adjacent neighborhood included in the Kentucky Southern Section was performed.

4.2.1 NSA A – NOISE ABATEMENT EVALUATION

NSA A – Analysis Area

NSA A covers the area east of the I-71/I-75 corridor from West 5th Street to the Brent Spence bridge and the Kentucky/Ohio state line. This is a highly developed area with several hotels, fast food restaurants, and other commercial properties. The only modeled receptors were a hotel with room balconies and a hotel with a pool. The I-71/I-75 roadway is entirely on structure through this area.

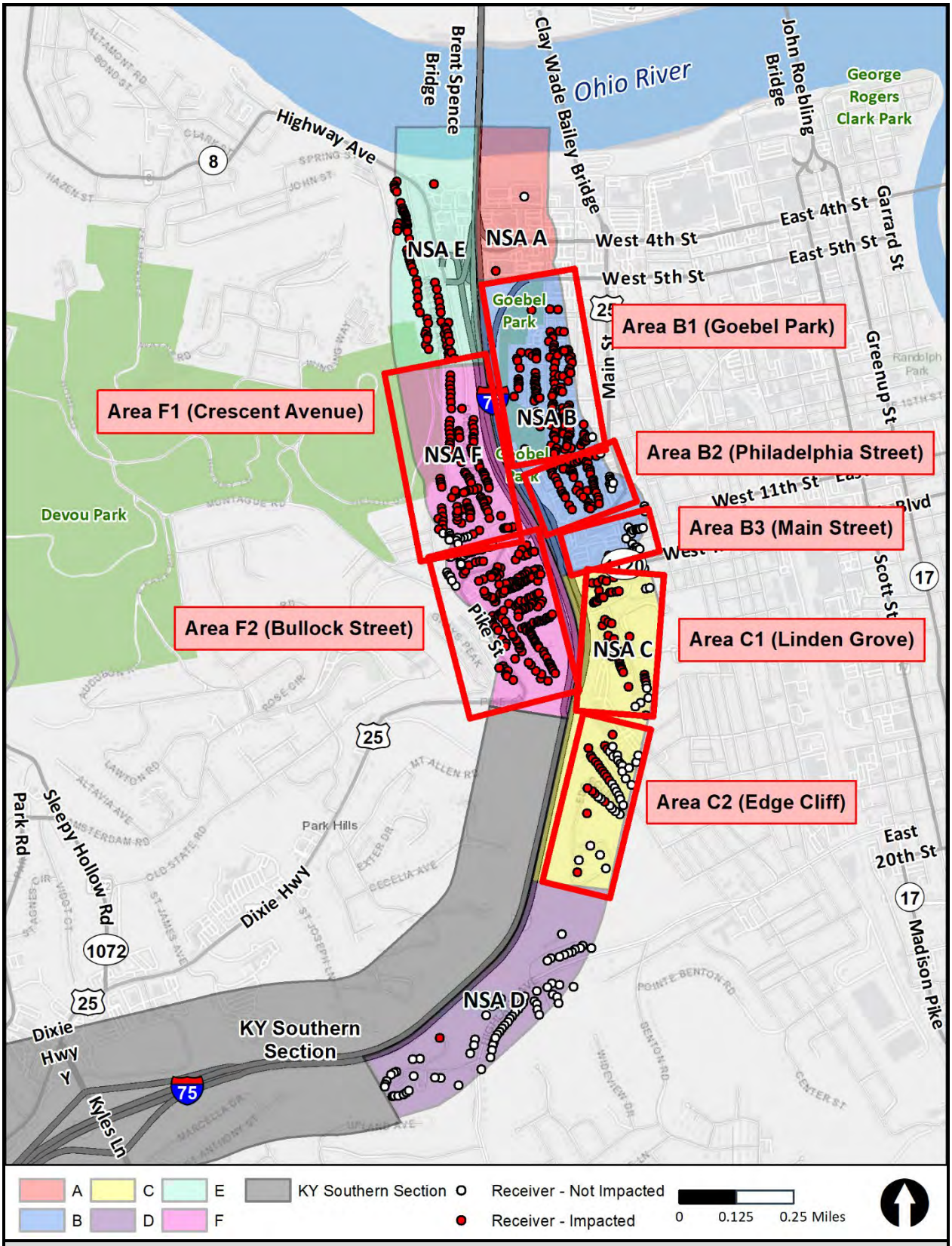

Figure 4.2–1. Impacted Receptors and Noise Abatement Evaluation Areas

Potential locations for structural noise barriers are limited due to the I-71/I-75 roadway being elevated throughout NSA A. Throughout NSA A, the interstate roadway is bridged over the local roads, including West 3rd Street, West 4th Street, and West 5th Street. Therefore, proposed structural noise barriers along the interstate are limited to 12-foot height barriers mounted on the structure's barrier wall. There are two segments of proposed structural noise barriers not mounted on a bridge. One is the on-ramp from West 4th Street, and the second is south of NSA A boundary in the Goebel Park area between West 5th Street and the I-71/I-75 off ramp to West 5th Street.

Modeled receivers, the modeled structural noise barrier location, and the receiver's attenuation level thresholds are presented in Figure 4.2–2. Tables of sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

NSA A – Barrier Summary

Four barrier segments, totaling 6,402 feet in length and averaging a height of 15.21 feet, were analyzed but were predicted to not benefit any of the receptors in this NSA. These barriers demonstrate that it was not possible to achieve a 5 dB(A) reduction at three or more impacted receptors, not meeting KYTC's feasibility criteria. The cost of the modeled barrier was $2,904,401. Since no receptors were benefited the modeled barriers would not meet KYTC's reasonableness threshold. The barriers also did not provide 7 dB(A) of attenuation for any of the front-row receptors (0.0 percent). This is below the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers do not meet this reasonableness criterion. See Table 4.2–1 and Table 4.2–2 for a summary of the barrier wall evaluation.

Table 4.2–1. NSA A – Barrier Description

BARRIER DESCRIPTION	NUMBER OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT
Four barrier segments; On the east side of the proposed I-71/I-75 roadways and on the W. 4th St. on-ramp.	240 / 244	6,402	15.21	90,455	$2,904,401

Table 4.2–2. NSA A – Barrier Summary

IS THE BARRIER FEASIBLE?	NUMBER OF BENEFITED RECEPTORS; COST PER BENEFITED RECEPTOR	IS THE BARRIER COST EFFECTIVE?	NUMBER OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
No	0 Benefited --	No	0 / 0 (0.0%)	No

NSA A – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is not feasible or reasonable in accordance with KYTC's noise policy and is not considered likely for this location.

Figure 4.2–2. Barrier Analysis for NSA A

4.2.2 NSA B, Area B1 (Goebel Park) – Noise Abatement Evaluation

NSA B, Area B1 (Goebel Park) – Analysis Area

The B1 area of NSA B is the area on the east side of I-71/I-75, from West 5th Street south to West 9th Street. Noise-sensitive land uses within the NSA are highlighted by the Kenney Shields Park and Goebel Park located adjacent to I-71/I-75 corridor. Beyond these parks is a dense residential area with a sporadic mix of restaurants and bars. The I-71/I-75 roadway is elevated in relation to the noise receptors; however, it is not on structure. There is also a northbound collector-distributor roadway through this NSA. The only potential location for structural noise barriers is immediately adjacent to the I-71/I-75 and the collector-distributor roadways. There is limited right-of-way beyond the edge of pavement through this area. Modeled receivers, the modeled structural noise barrier locations, and the receiver's attenuation level thresholds are presented in Figure 4.2–3. Tables of sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

NSA B, Area B1 (Goebel Park) – Barrier Summary

Seven barrier segments, totaling 10,793 feet in length and averaging a height of 17.30 feet, were predicted to benefit 138 receptors. The barrier demonstrates that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors, meeting KYTC's feasibility criteria. The cost of the modeled barrier was $6,091,910, for a cost–effectiveness ratio of $44,466 per benefited receptor. This value is above KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barrier does not meet KYTC's reasonableness threshold. The barrier did not provide 7 dB(A) of attenuation for any of the 27 first row benefited receptors (0.0 percent). This is below the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers do not meet this reasonableness criterion. See Table 4.2–3 and Table 4.2–4 for a summary of the barrier wall evaluation.

Table 4.2–3. NSA B, Area B1 (Goebel Park) – Barrier Description

BARRIER DESCRIPTION	NUMBER OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT
Seven barrier segments; Located along NB and SB I-71/I-75, and the collector-distributor road.	235 / 282	10,793	17.30	190,371	$6,091,910

Table 4.2–4. NSA B, Area B1 (Goebel Park) – Barrier Summary

IS THE BARRIER FEASIBLE?	NUMBER OF BENEFITED RECEPTORS; COST PER BENEFITED RECEPTOR	IS THE BARRIER COST EFFECTIVE?	NUMBER OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	138 Benefited $44,145 / Benefited	No	0 / 27 (0.0%)	No

NSA B, Area B1 (Goebel Park) – Statement of Likelihood

The existing noise levels (2022) approach or exceed FHWA's noise abatement criteria for all areas of the Goebel Park Complex within about 500 feet of existing I-71/I-75, including the pool and Kenney Shields Park. The playground area is further away from I-71/I-75, and existing noise levels in this area do not approach or exceed FHWA's noise abatement criteria. Refined Alternative I (Concept I-W) will increase the

capacity of I-71/I-75 and move vehicles closer to recreational areas within the Goebel Park Complex. For Refined Alternative I (Concept I-W), FHWA noise abatement criteria will be exceeded in all of the Goebel Park Complex in the design year (2049), except a small area within Kenney Shields Park which will experience a reduction in noise levels. KYTC evaluated noise abatement measures and determined a noise barrier is feasible but not reasonable for the Goebel Park Complex.

Recognizing from neighborhood outreach efforts that traffic noise is a primary concern of area residents, KYTC conducted a technical study to evaluate noise/visual screening barriers in the vicinity of the Goebel Park Complex. The results of the technical study are documented in a *Noise Analysis Technical Memorandum: Brent Spence Bridge Corridor Project Kentucky – Northern Section*. Based on the technical feasibility, public comments received during outreach activities, and coordination with the City of Covington, KYTC is proposing noise/visual screening barriers along I-71/I-75 for the entire length of the Goebel Park Complex. The noise/visual screening walls will reduce noise levels in all areas of the Goebel Park Complex.

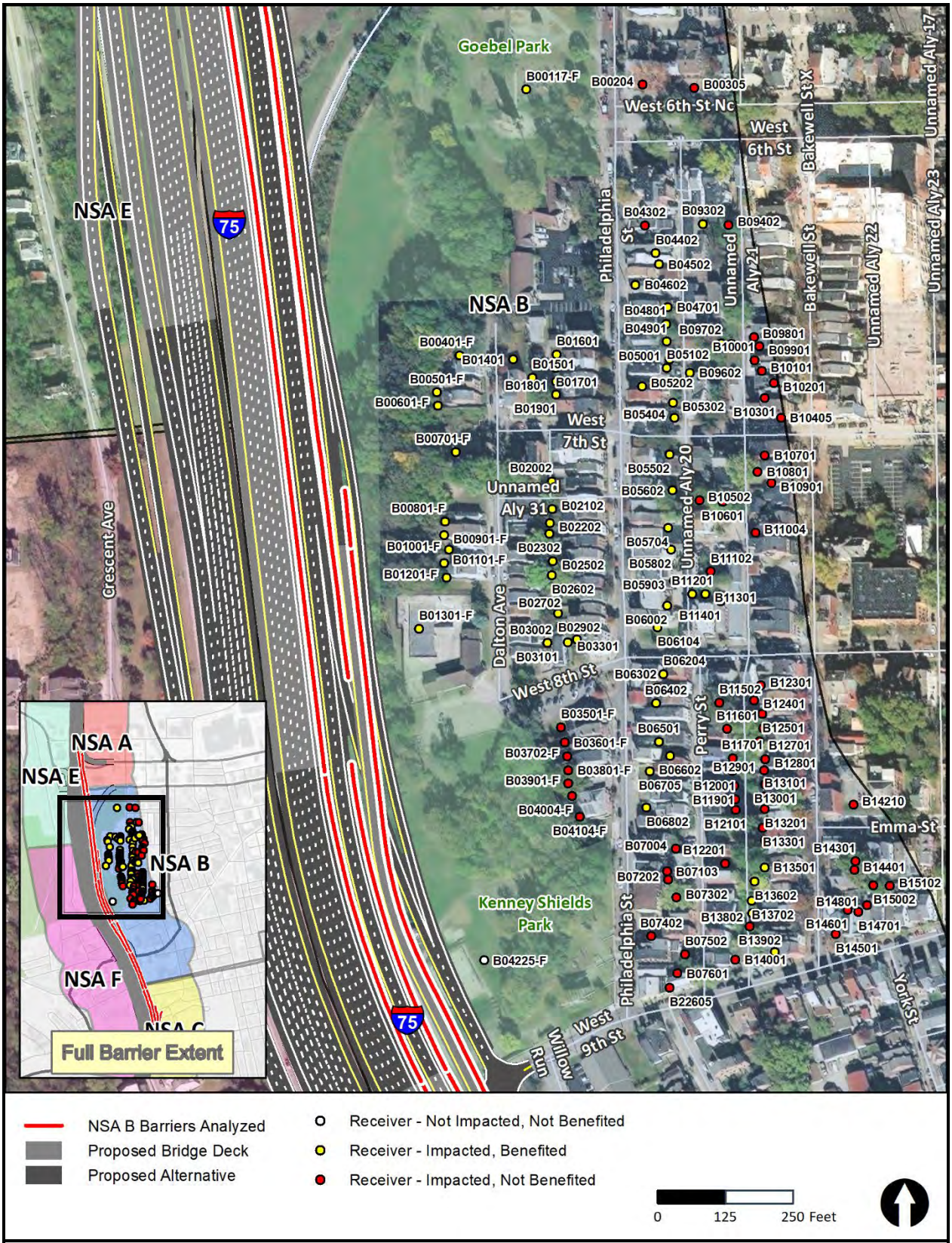

Figure 4.2–3. Barrier Analysis for NSA B, Area B1 (Goebel Park)

4.2.3 NSA B, Area B2 (9th to Pike) – Noise Abatement Evaluation

NSA B, Area B2 (9th to Pike) – Analysis Area

The B2 area of NSA B is the area on the east side of I-71/I-75, from West 5th Street south to West Pike Street (US 25). As with the B1 segment, the dense residential area represents the majority of the noise receptors in the B2 area. Other than the residential areas, there is one bar and one day care center. The I-71/I-75 roadway is elevated in relation to the noise receptors and is bridged over West 9th Street. There is also a northbound collector-distributor roadway through this NSA.

The only potential locations for structural noise barriers are immediately adjacent to the I-71/I-75 and the collector-distributor roadways. There is limited right-of-way beyond the edge of pavement through this area. Modeled receivers, the modeled structural noise barrier locations, and the receiver's attenuation level thresholds are presented in Figure 4.2–4. Tables of sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

NSA B, Area B2 (9th to Pike) – Barrier Summary

Six barrier segments, totaling 10,647 feet in length and averaging a height of 17.29 feet, were predicted to benefit seven receptors. The barrier demonstrates that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors; therefore, it meets KYTC's feasibility criteria. The cost of the modeled barrier was $6,089,341, for a cost-effectiveness ratio of $869,905 per benefited receptor. This value is above KYTC's cost–effectiveness criterion of $40,000 per benefited receptor and therefore the modeled barrier does not meet KYTC's reasonableness threshold. The barrier did not provide 7 dB(A) of attenuation for any of the first row benefited receptors (0.0 percent). This is below the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers do not meet this reasonableness criterion. See Table 4.2–5 and Table 4.2–6 for a summary of the barrier wall evaluation.

Table 4.2–5. NSA B, Area B2 (9th to Pike) – Barrier Description

BARRIER DESCRIPTION	NUMBER OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT
Six barrier segments; Located along NB I-71/I-75, the collector-distributor road, and the off-ramp.	65 / 81	10,793	17.29	190,291	$6,089,341

Table 4.2–6. NSA B, Area B2 (9th to Pike) – Barrier Summary

IS THE BARRIER FEASIBLE?	NUMBER OF BENEFITED RECEPTORS; COST PER BENEFITED RECEPTOR	IS THE BARRIER COST EFFECTIVE?	NUMBER OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	7 Benefited $869,905 / Benefited	No	0 / 4 (0.0%)	No

NSA B, Area B2 (9th to Pike) – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible but not reasonable in accordance with KYTC's noise policy and is not considered likely for this location.

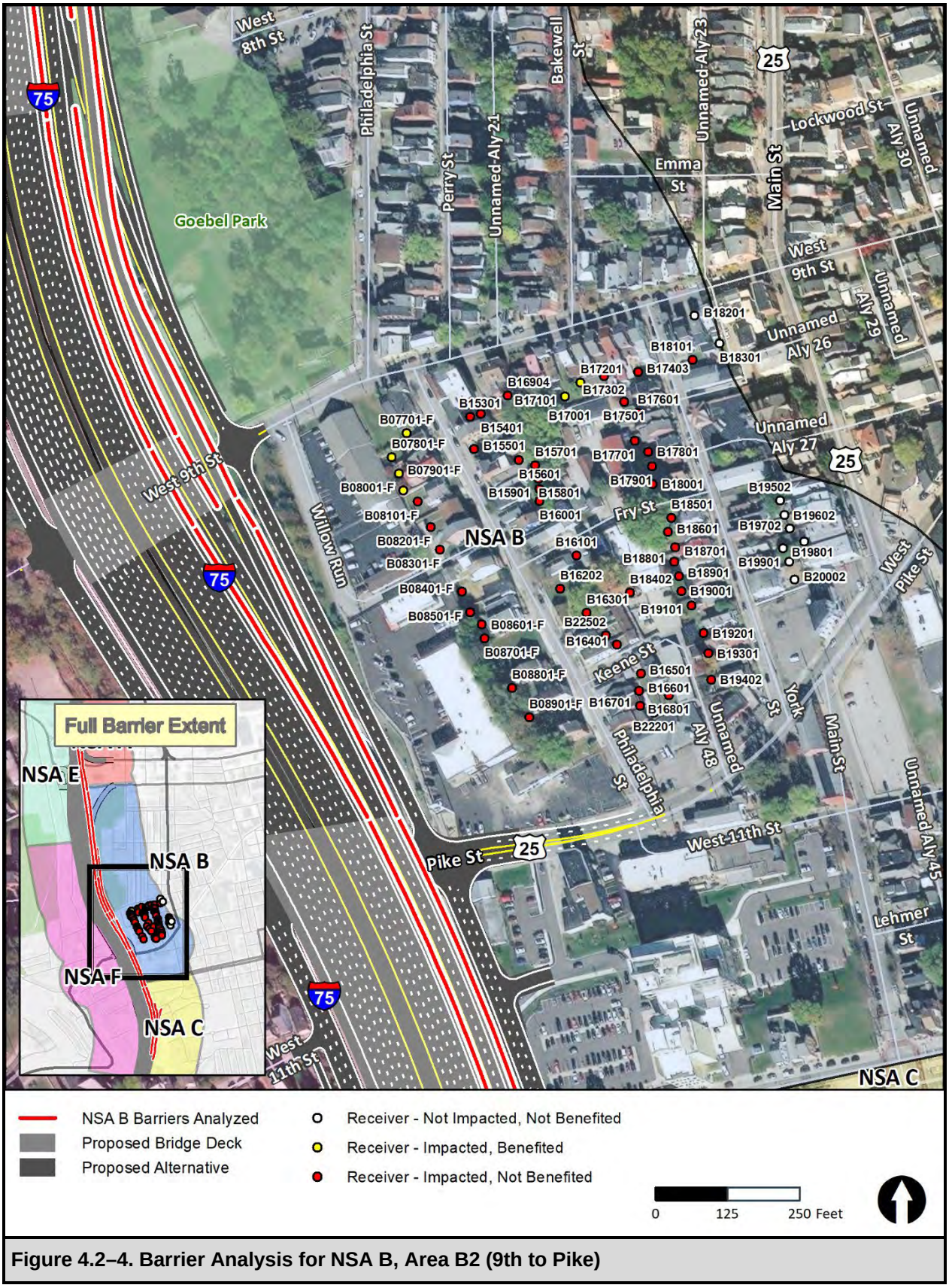

Figure 4.2–4. Barrier Analysis for NSA B, Area B2 (9th to Pike)

4.2.4 NSA B, Area B3 (Pike to MLK Jr) – Noise Abatement Evaluation

NSA B, Area B3 (Pike to MLK Jr) – Analysis Area

The B3 area of NSA B is the area on the east side of I-71/I-75, from West Pike Street (US 25) to MLK Jr Boulevard. All noise sensitive land uses in the B3 area are residential uses. The I-71/I-75 roadway is on structure throughout this area, with public parking located between Pike Street and MLK Jr. Boulevard. There is also a northbound collector-distributor roadway through this NSA.

As with the previous areas, the most logical location for structural noise barriers is immediately adjacent to the I-71/I-75 and the collector-distributor roadways. These roadways are elevated and placing barriers on them provides the easiest break in the line-of-sight. Modeled receivers, the modeled structural noise barrier locations, and the receiver's attenuation level thresholds are presented in Figure 4.2–5. Tables of sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

NSA B, Area B3 (Pike to MLK Jr) – Barrier Summary

Eight barrier segments, totaling 12,750 feet in length and averaging a height of 18.55 feet, were predicted to benefit 25 receptors. The barrier demonstrates that it was not possible to achieve a 5 dB(A) reduction at three or more impacted receptors; therefore, not meeting KYTC's feasibility criteria. The cost of the modeled barriers was $7,459,536, for a cost-effectiveness ratio of $298,381 per benefited receptor. This value is above KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barrier does not meet KYTC's reasonableness threshold. The barriers also did not provide 7 dB(A) of attenuation for the front-row receptor (0.0 percent). This is below the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers do not meet this reasonableness criterion. See Table 4.2–7 and Table 4.2–8 for a summary of the barrier wall evaluation.

Table 4.2–7. NSA B, Area B3 (Pike to MLK Jr) – Barrier Description

BARRIER DESCRIPTION	NO. OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT
Eight barrier segments; Located along NB I-71/I-75 and the collector-distributor road.	3 / 42	12,750	18.55	233,110	$7,459,536

Table 4.2–8. NSA B, Area B3 (Pike to MLK Jr) – Barrier Summary

IS THE BARRIER FEASIBLE?	NO. BENEFITED AND COST PER BENEFITED	IS THE BARRIER COST EFFECTIVE?	NO. OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
No	25 Benefited; $298,381 / Benefited	No	0 / 0 (0.0%)	No

NSA B, Area B3 (Pike to MLK Jr) – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is not feasible or reasonable in accordance with KYTC's noise policy and is not considered likely for this location.

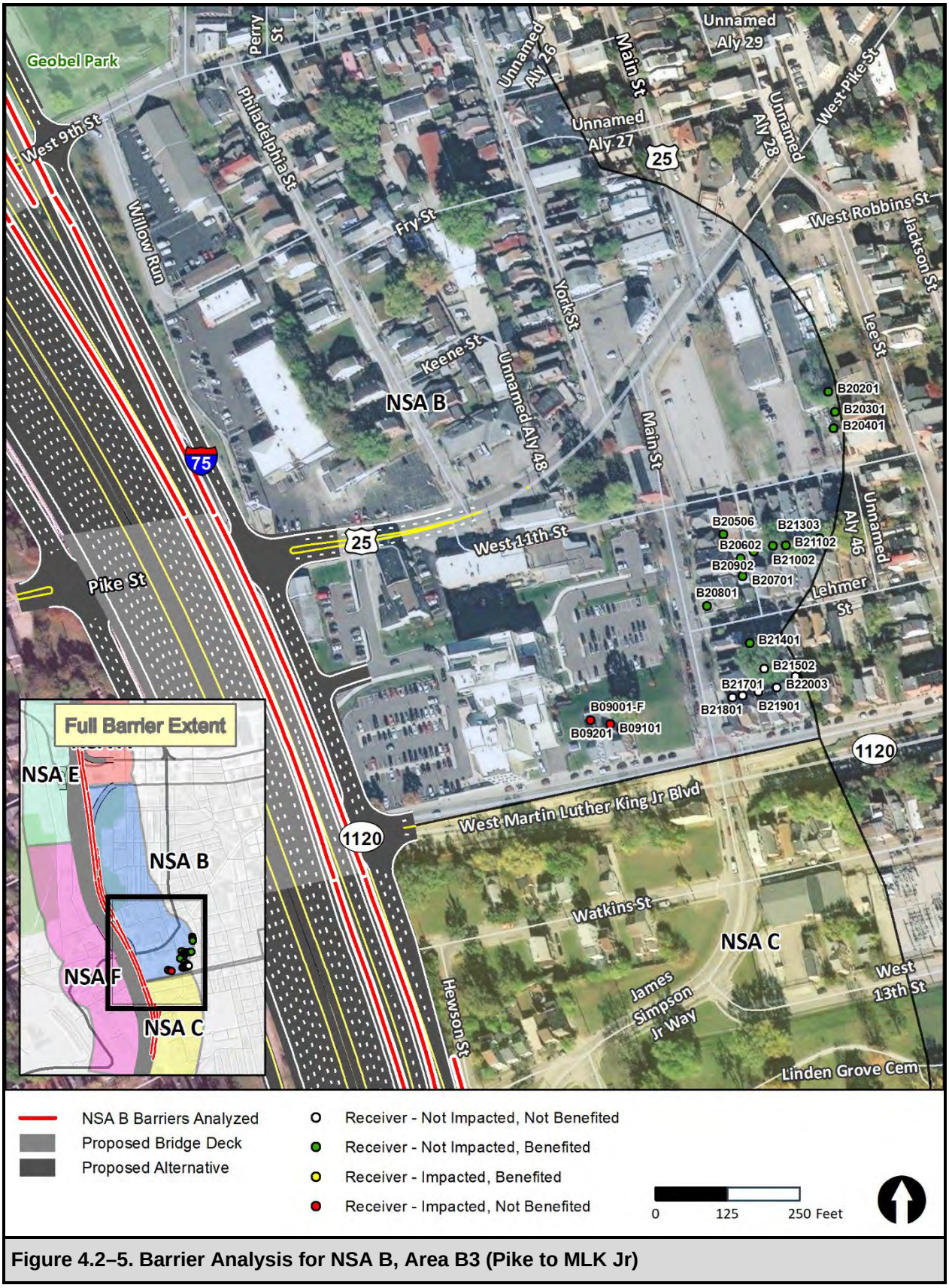

Figure 4.2–5. Barrier Analysis for NSA B, Area B3 (Pike to MLK Jr)

4.2.5 NSA C, Area C1 (Linden Grove) – Noise Abatement Evaluation

NSA C, Area C1 (Linden Grove) – Analysis Area

The C1 area of NSA C is on the east side of the I-71/I-75 corridor, from MLK Jr. Boulevard south to near the St. Elizabeth Covington Hospital. The primary feature in this area is the Historic Linden Grove Cemetery and Arboretum. A residential area, mostly single-family homes, surround the cemetery. Unlike the previous NSA's analyzed, in NSA C the I-71/I-75 roadway is not on structure and is lower in elevation than the noise sensitive land uses.

With the I-71/I-75 roadway not on structure, it allowed for more flexibility in locating structural noise barriers. Structure noise barriers were analyzed immediately adjacent to the I-71/I-75 roadway as well as at the edge of the proposed right-of-way. Modeled receivers, the modeled structural noise barrier locations, and the receiver's attenuation level thresholds are presented in Figure 4.2–6. Tables of sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

NSA C, Area C1 (Linden Grove) – Barrier Summary

Three barrier segments, totaling 2,486 feet in length and averaging a height of 19.76 feet, were predicted to benefit 25 receptors. The barrier demonstrates that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors; therefore, meeting KYTC's feasibility criteria. The cost of the modeled barriers was $1,433,760, for a cost–effectiveness ratio of $59,740 per benefited receptor. This value is above KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barriers does not meet KYTC's reasonableness threshold. The barriers provided 7 dB(A) of attenuation for all four front-row benefited receptors (100.0 percent). This is above the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers meet this reasonableness criterion. See Table 4.2–9 and Table 4.2–10 for a summary of the barrier wall evaluation.

Table 4.2–9. NSA C, Area C1 (Linden Grove) – Barrier Description

BARRIER DESCRIPTION	NO. OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT
Three barrier segments; Located along the I-71/I-75 off ramp, the collector-distributor road, and proposed ROW.	49 / 68	2,486	19.76	44,892	$1,433,760

Table 4.2–10. NSA C, Area C1 (Linden Grove) – Barrier Summary

IS THE BARRIER FEASIBLE?	NO. BENEFITED AND COST PER BENEFITED	IS THE BARRIER COST EFFECTIVE?	NO. OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	24 Benefited; $59,740 /Benefited	No	4 / 4 (100.0%)	Yes

NSA C, Area C1 (Linden Grove) – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible but not reasonable in accordance with KYTC's noise policy and is not considered likely for this location.

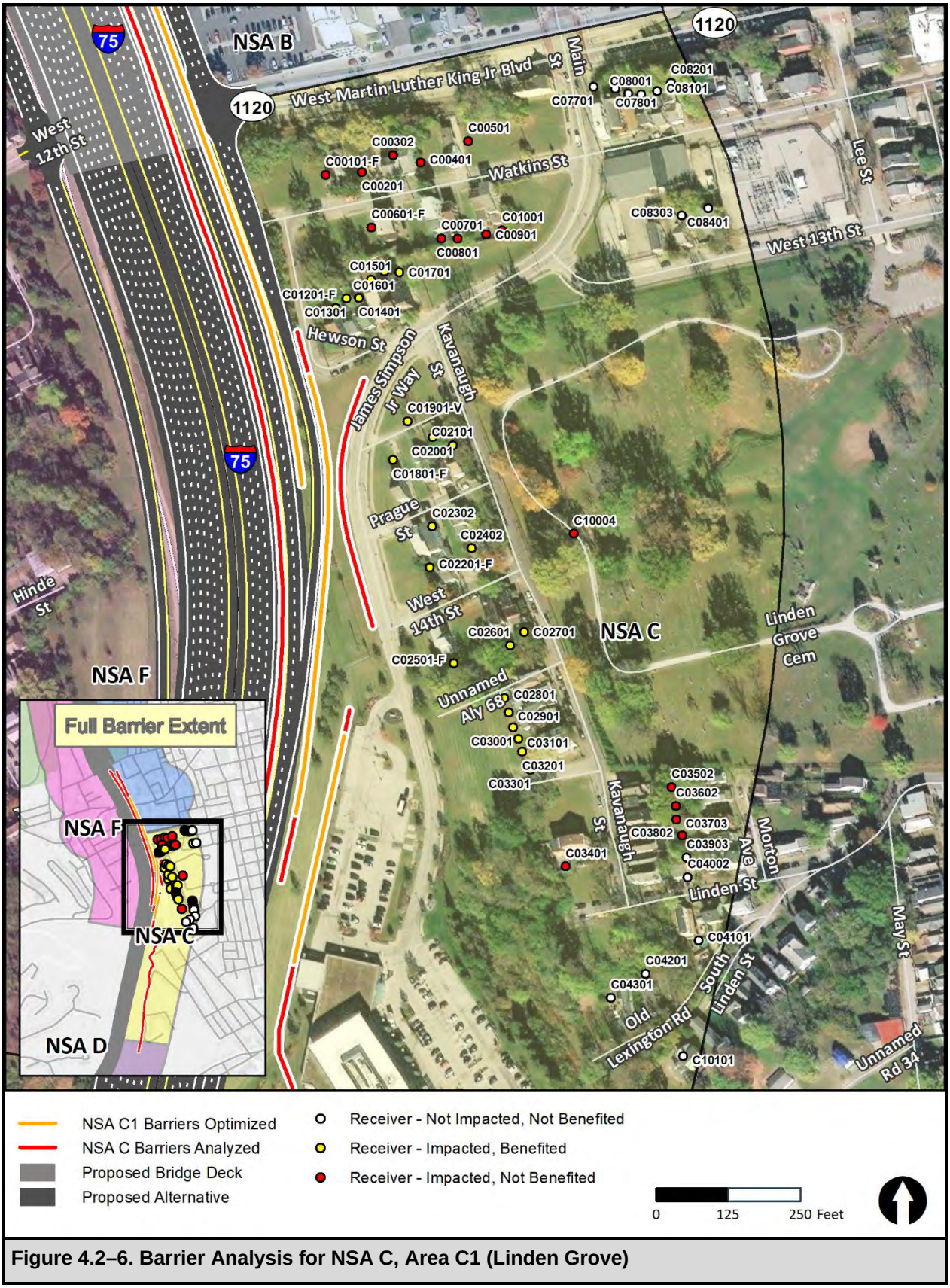

Figure 4.2–6. Barrier Analysis for NSA C, Area C1 (Linden Grove)

4.2.6 NSA C, Area C2 (Edge Cliff) – Noise Abatement Evaluation

NSA C, Area C2 (Edge Cliff) – Analysis Area

The C2 area of NSA C is on the east side of the I-71/I-75 corridor, from the St. Elizabeth Covington Hospital to the Crown Pointe apartment complex. The features adjacent to I-71/I-75 roadway are the St. Elizabeth Covington Hospital, the Crown Point apartment buildings, and the Garden of Hope religious destination. Beyond these features are numerous single-family homes. Within this area, the I-71/I-75 roadway is at a lower elevation than the noise sensitive land uses and there are trees blocking the view.

For the C2 area, a structure noise barrier was evaluated at the edge of the proposed right-of-way. Modeled receivers, the modeled structural noise barrier locations, and the receiver's attenuation level thresholds are presented in Figure 4.2–7. Tables of sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

NSA C, Area C2 (Edge Cliff) – Barrier Summary

One barrier, totaling 2,622 feet in length and averaging height of 23.33 feet, was predicted to benefit 61 receptors. The barrier demonstrates that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors; therefore, meeting KYTC's feasibility criteria. The cost of the modeled barriers was $1,957,811, for a cost–effectiveness ratio of $32,095 per benefited receptor. This value is below KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barrier meets KYTC's reasonableness threshold. The barrier provided 7 dB(A) of attenuation for 28 of the 55 front-row benefited receptors (50.9 percent). This is at the 50 percent design goal threshold per KYTC's noise policy; therefore, the barrier meets this reasonableness criterion. See Table 4.2–11 and Table 4.2–12 for a summary of the barrier wall evaluation.

Table 4.2–11. NSA C, Area C2 (Edge Cliff) – Barrier Description

BARRIER DESCRIPTION	NO. OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT
A single barrier along the edge of the proposed right of way.	42 / 165	2,622	23.33	61,182	$1,957,811

Table 4.2–12. NSA C, Area C2 (Edge Cliff) – Barrier Summary

IS THE BARRIER FEASIBLE?	NO. BENEFITED AND COST PER BENEFITED	IS THE BARRIER COST EFFECTIVE?	NO. OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	61 Benefited; $32,095 /Benefited	Yes	28 / 55 (50.9%)	Yes

NSA C, Area C2 (Edge Cliff) – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC's noise policy and is considered likely for this location.

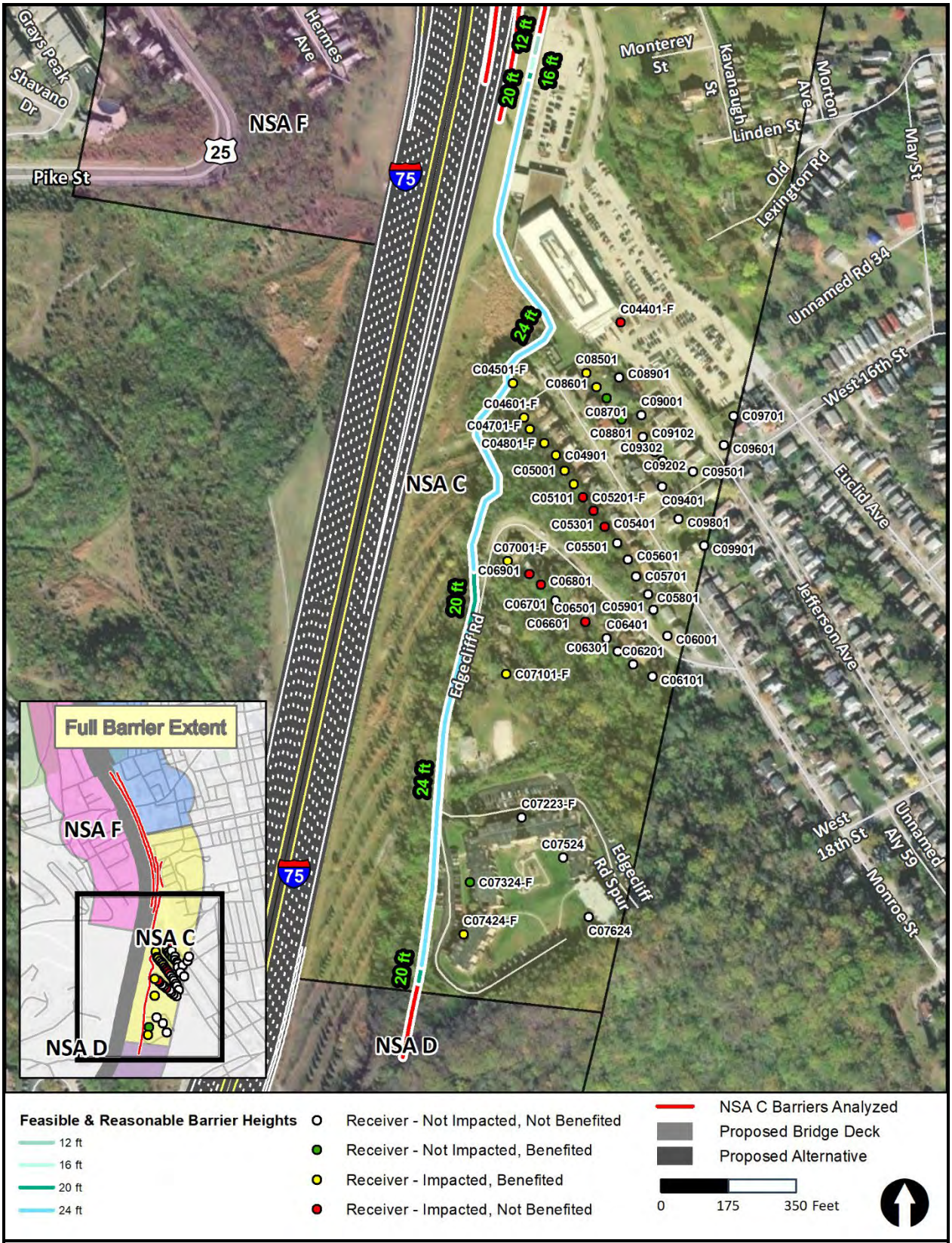

Figure 4.2–7. Barrier Analysis for NSA C, Area C2 (Edge Cliff)

4.2.7 NSA E – Noise Abatement Evaluation

NSA E – Analysis Area

NSA E is on the west side of the I-71/I-75 corridor, from the Brent Spence bridge south to the I-71/I-75 mile point 190.95. In this NSA is one hotel and numerous residential homes (single-family and duplexes). Within this area, the I-71/I-75 roadway is all on structure. The hotel is at a lower elevation than the roadway, but the residential areas are on a hillside and at a similar elevation as the roadway.

Structure noise barriers were evaluated at the edge of the proposed right-of-way and along Crescent Avenue, a local street on the hillside that runs parallel to I-71/I-75. Modeled receivers, the modeled structural noise barrier locations, and the receiver's attenuation level thresholds are presented in Figure 4.2–8. Tables of sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

NSA E – Barrier Summary

Six barrier segments, totaling 8,042 feet in length and averaging a height of 15.42 feet, were predicted to benefit five receptors. The barrier demonstrates that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors; therefore, meeting KYTC's feasibility criteria. The cost of the modeled barriers was $3,648,857, for a cost–effectiveness ratio of $456,107 per benefited receptor. This value is above KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barriers do not meet KYTC's reasonableness threshold. The barrier did not provide 7 dB(A) of attenuation for any of the four front-row benefited receptors (0.0 percent). This is below the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers do not meet this reasonableness criterion. See Table 4.2–13 and Table 4.2–14 for a summary of the barrier wall evaluation.

Table 4.2–13. NSA E – Barrier Description

BARRIER DESCRIPTION	NO. OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT
6 barrier segments; located along I-71/I-75, the off ramp, and Crescent Ave.	78 / 78	8,042	15.42	114,026	$3,648,857

Table 4.2–14. NSA E – Barrier Summary

IS THE BARRIER FEASIBLE?	NO. BENEFITED AND COST PER BENEFITED	IS THE BARRIER COST EFFECTIVE?	NO. OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	5 Benefited; $729,771 /Benefited	No	0 / 4 (0.0%)	No

NSA E – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible but not reasonable in accordance with KYTC's noise policy and is not considered likely for this location.

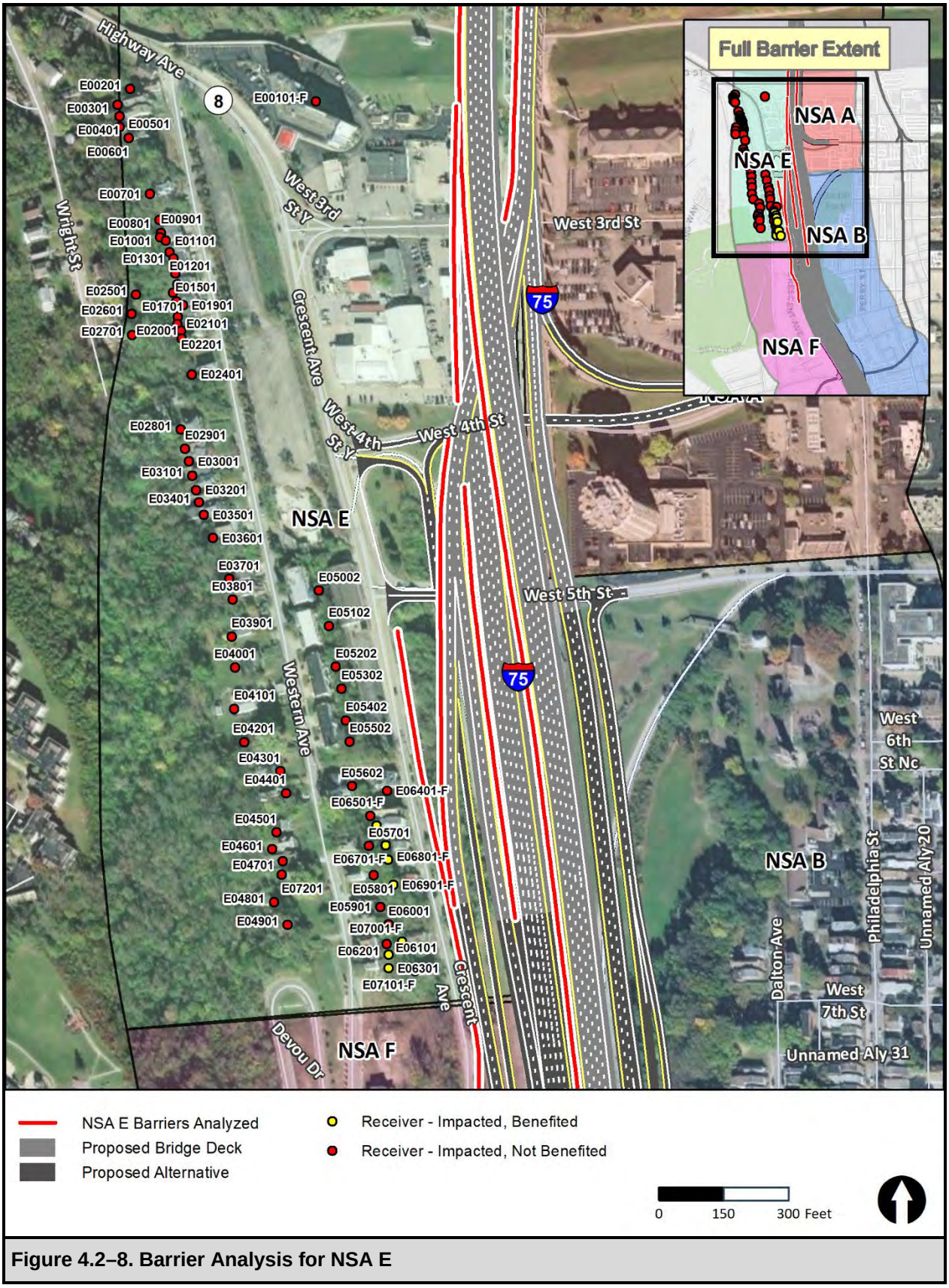

Figure 4.2–8. Barrier Analysis for NSA E

4.2.8 NSA F, Area F1 (Crescent Ave) – Noise Abatement Evaluation

NSA F, Area F1 (Crescent Ave) – Analysis Area

Area F1 of NSA F is on the west side of the I-71/I-75 corridor, from I-71/I-75 mile point 190.95 south to West Pike Street. The primary feature in this area is the rising hillside, with Crescent Avenue and Western Avenue running parallel to I-71/I-75 roadways. These local streets are lined with various types of residential areas. There is also a day care center and a privately owned club for men (the Standard Club). Towards the southern end of Area F1, the hillside recedes, and the surroundings are more of a typical urban setting.

Structure noise barriers were evaluated at the edge of the proposed I-71/I-75 roadway (including the northbound direction), as well as the proposed right-of-way and Crescent Avenue. Modeled receivers, the modeled structural noise barrier locations, and the receiver's attenuation level thresholds are presented in Figure 4.2–9 through Figure 4.2–11. The sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

NSA F, Area F1 (Crescent Ave) – Barrier Summary

Four barrier segments, totaling 6,698 feet in length and averaging a height of 19.33 feet, were predicted to benefit 116 receptors. The barrier demonstrates that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors; therefore, meeting KYTC's feasibility criteria. The cost of the modeled barrier was $3,795,846, however, nine of the benefited receptors had predicted noise levels at or above 76.0 dBA, so an additional reduction qualifier of $2,500 for these receptors was applied. This amounts to an adjusted total cost of $3,773,346, and a cost–effectiveness ratio of $32,529 per benefited receptor. This value is below KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barriers meet KYTC's reasonableness threshold. The barrier provided 7 dB(A) of attenuation for 18 of the 30 front-row benefited receptors (60.0 percent). This is above the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers meet this reasonableness criterion. See Table 4.2–15 and Table 4.2–16 for a summary of the barrier wall evaluation.

Table 4.2–15. NSA F, Area F1 (Crescent Ave) – Barrier Description

BARRIER DESCRIPTION	NO. OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT
4 barrier segments; located along I-71/I-75, the proposed ROW, and Crescent Ave.	160 / 208	6,698	19.33	118,240	$3,773,346 (adjusted)

Table 4.2–16. NSA F, Area F1 (Crescent Ave) – Barrier Summary

IS THE BARRIER FEASIBLE?	NO. BENEFITED AND COST PER BENEFITED	IS THE BARRIER COST EFFECTIVE?	NO. OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	116 Benefited; $32,529 /Benefited	Yes	18 / 30 (60.0%)	Yes

NSA F, Area F1 – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC's noise policy and is considered likely for this location.

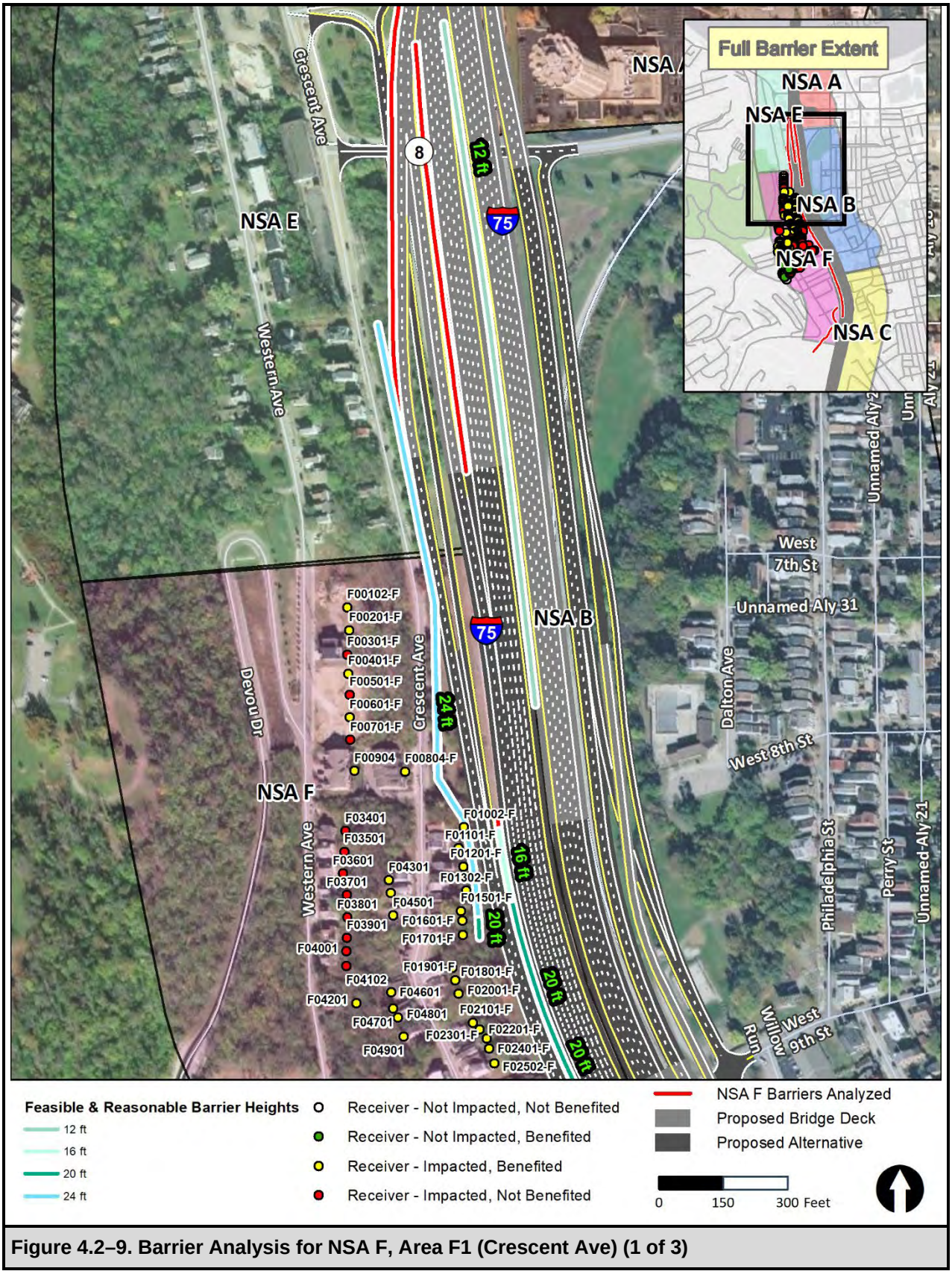

Figure 4.2–9. Barrier Analysis for NSA F, Area F1 (Crescent Ave) (1 of 3)

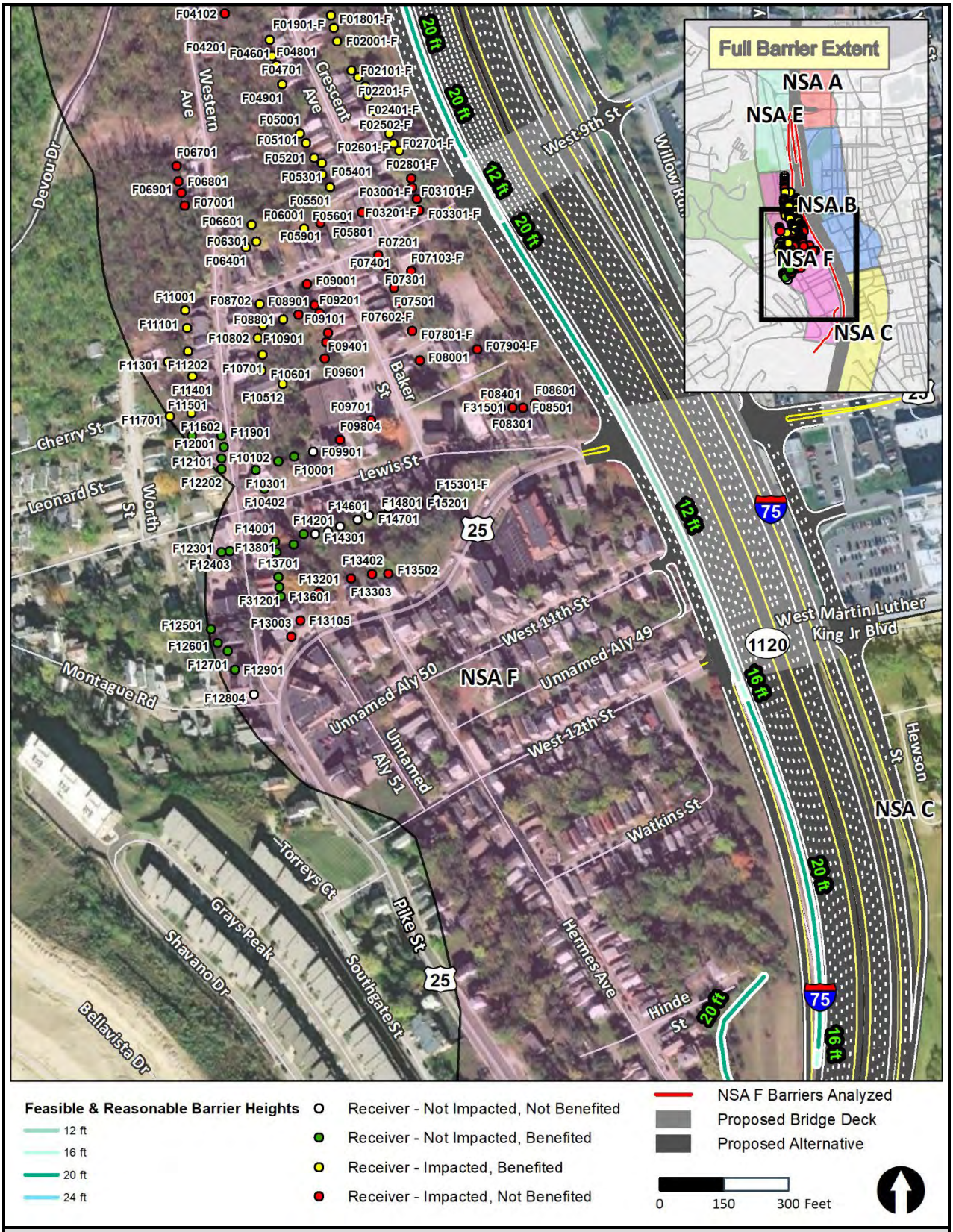

Figure 4.2–10. Barrier Analysis for NSA F, Area F1 (Crescent Ave) (2 of 3)

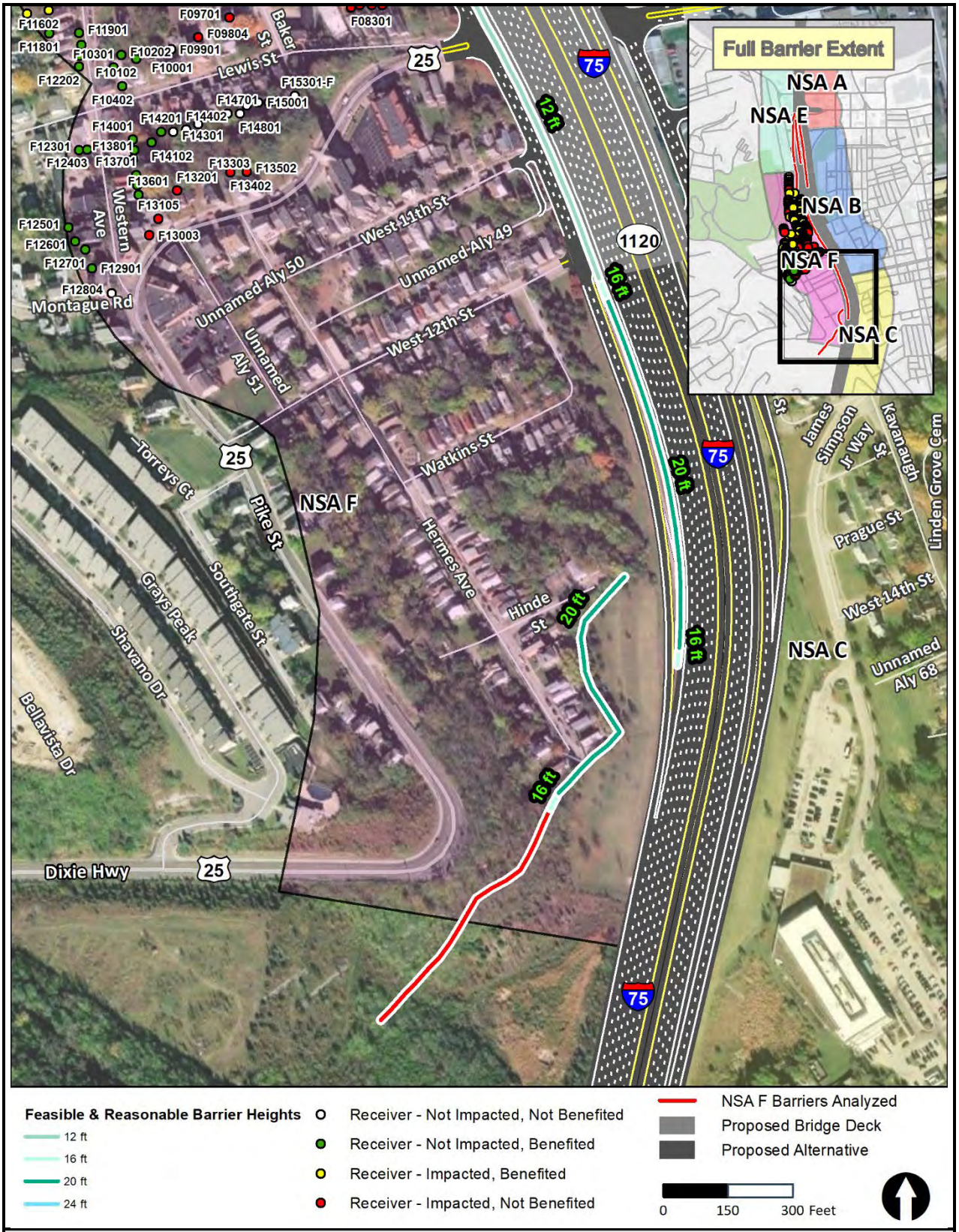

Figure 4.2–11. Barrier Analysis for NSA F, Area F1 (Crescent Ave) (3 of 3)

4.2.9 NSA F, Area F2 (Bullock St) – Noise Abatement Evaluation

NSA F, Area F2 (Bullock St) – Analysis Area

Area F2 of NSA F is on the west side of the I-71/I-75 corridor, covering the area from West Pike Street to the southern limits of the study area. This is a dense residential area located in the Lewisburg Historic District. Other land uses include a church and school (St. John's Evangelist Roman Catholic Church and Prince of Peace Catholic School), and a small park. The I-71/I-75 roadway is on structure through this area, bridging over Pike Street and West 12th Street, with public parking areas located under the interstate.

Structure noise barriers were evaluated at the edge of the proposed I-71/I-75 roadway as well as the proposed right-of-way. Modeled receivers, the modeled structural noise barrier locations, and the receiver's attenuation level thresholds are presented in Figure 4.2–12 and Figure 4.2–13. Tables of sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

NSA F, Area F2 (Bullock St) – Barrier Summary

Two barrier segments, totaling 3,358 feet in length and averaging a height of 17.60 feet, were predicted to benefit 88 receptors. The barrier demonstrates that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors; therefore, meeting KYTC's feasibility criteria. The cost of the modeled barriers was $1,781,861, however, three of the benefited receptors had predicted noise levels at or above 76.0 dBA, so an additional reduction qualifier of $2,500 for these receptors was applied. This amounts to an adjusted total cost of $1,774,361, and a cost–effectiveness ratio of $22,180 per benefited receptor. This value is below KYTC's cost-effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barriers meet KYTC's reasonableness threshold. The barrier provided 7 dB(A) of attenuation for 27 of the 34 front-row receptors (79.4 percent). This is above the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers meet this reasonableness criterion. See Table 4.2–17 and Table 4.2–18 for a summary of the barrier wall evaluation.

Table 4.2–17. NSA F, Area F2 (Bullock St) – Barrier Description

BARRIER DESCRIPTION	NO. OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT
2 barriers segments; located along I-71/I-75 and proposed ROW.	230 / 230	3,358	17.60	55,683	$1,774,361 (adjusted)

Table 4.2–18. NSA F, Area F2 (Bullock St) – Barrier Summary

IS THE BARRIER FEASIBLE?	NO. BENEFITED AND COST PER BENEFITED	IS THE BARRIER COST EFFECTIVE?	NO. OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	80 Benefited; $22,180 /Benefited	Yes	27 / 34 (79.4%)	Yes

NSA F, Area F2 (Bullock St) – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC's noise policy and is considered likely for this location.

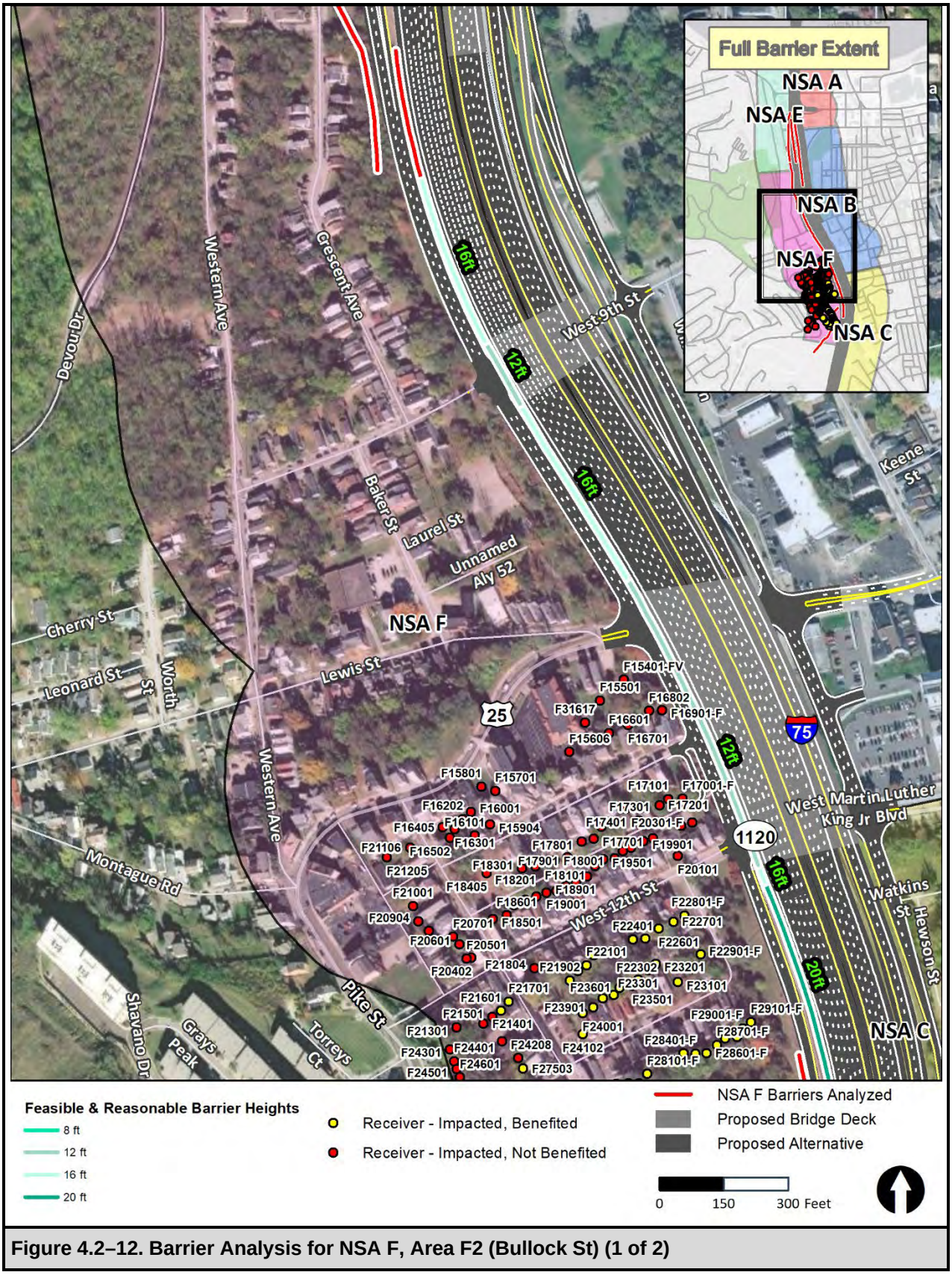

Figure 4.2–12. Barrier Analysis for NSA F, Area F2 (Bullock St) (1 of 2)

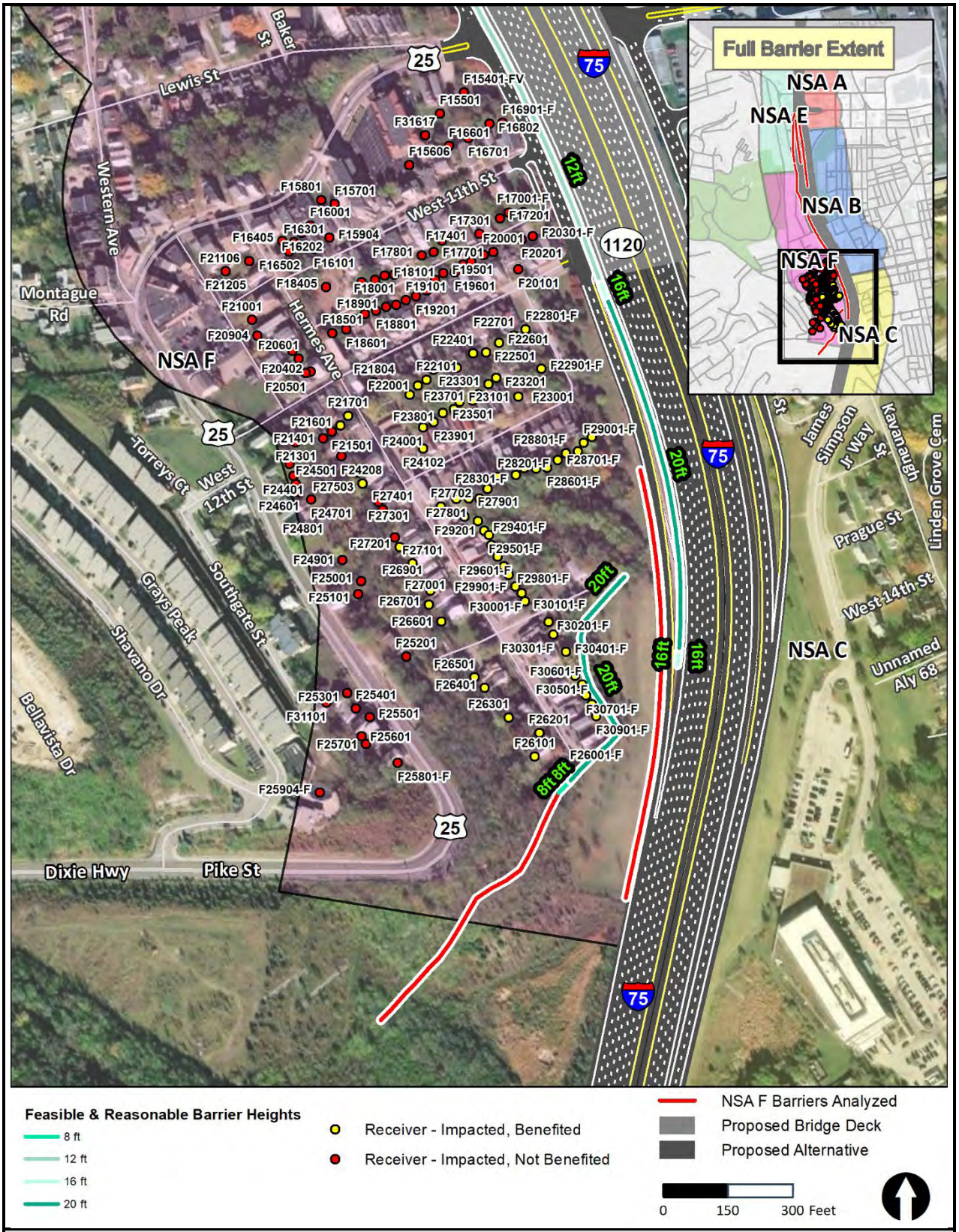

Figure 4.2–13. Barrier Analysis for NSA F, Area F2 (Bullock St) (2 of 2)

4.3 NOISE ABATEMENT EVALUATION FOR BARRIER SYSTEMS

4.3.1 BARRIER SYSTEM B – NOISE ABATEMENT EVALUATION

Barrier System B – Analysis Area

This barrier system combines the structural noise barriers proposed for the three areas within NSA B. This covers the area on the east side of I-71/I-75 from West 5th Street to MLK Jr. Boulevard. The structural noise barrier evaluation for areas B1 and B2 benefited numerous receptors and was found feasible. For area B3, the structural noise barriers were not found feasible due to not benefiting *impacted* receptors; however, they did benefit numerous *non-impacted* receptors by reducing their sound level by at least 5 dB(A). The analysis for B1, B2, and B3 ceased when none of the structural noise barriers were able to provide at least a 7 dB(A) reduction at front row receptor(s), hence not being able to meet the design goal. Because they could not meet the design goal, no further optimization for cost-effectiveness occurred. Refer to the individual barrier evaluations for Area's B1, B2, and B3 for their results.

Barrier System B – Barrier Summary

Although the structural noise barriers evaluated in NSA B could not provide 7 dB(A) reduction, and therefore not meet the design goal, the three independent areas were combined to provide perspective on the cost-per-benefited receptor value. The combined barrier system, totaling 12,750 feet in length and averaging a height of 18.55 feet, was predicted to benefit 169 receptors. These barriers demonstrate that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors, meeting KYTC's feasibility criteria. The cost of the modeled barriers was $7,459,536, for a cost–effectiveness ratio of $43,880 per benefited receptor. This value is above KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barriers still do not meet KYTC's reasonableness threshold. The barriers also did not provide 7 dB(A) of attenuation for any of the front-row benefited receptors (0.0 percent). See Table 4.3–1 and Table 4.3–2 for a summary of the barrier wall evaluation.

Table 4.3–1. Barrier System B – Barrier Description

BARRIER DESCRIPTION	NUMBER OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT / ADJUSTED BARRIER COST
Combined barriers of NSA B1, B2, and B3.	303 / 405	12,750	18.55	233,110	$7,459,536

Table 4.3–2. Barrier System B – Barrier Summary

IS THE BARRIER FEASIBLE?	NUMBER OF BENEFITED RECEPTORS; COST PER BENEFITED RECEPTOR	IS THE BARRIER COST EFFECTIVE?	NUMBER OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED; (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	170 Benefited $43,880	No	0 / 31 (0.0%)	No

Barrier System B – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible but not reasonable in accordance with KYTC's noise policy and is not considered likely for this location.

4.3.2 BARRIER SYSTEM C1/C2 – NOISE ABATEMENT EVALUATION

Barrier System C1/C2 – Analysis Area

This barrier system combines the structural noise barriers evaluated in areas C1 and C2 of NSA C. These NSA's cover the east side of the I-71/I-75 corridor from MLK Jr. Boulevard to I-71/I-75 mile point 189.75. Modeled receivers, the modeled structural noise barrier location, and the receiver's attenuation level thresholds are presented in Figure 4.3–1 and Figure 4.3–2. Tables with sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

Barrier System C1/C2 – Barrier Summary

The combined barrier system, totaling 4,794 feet in length and averaging a height of 19.67 feet, was predicted to benefit 87 receptors. These barriers demonstrate that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors, meeting KYTC's feasibility criteria. The cost of the modeled barriers was $3,178,403, for a cost–effectiveness ratio of $36,533 per benefited receptor. This value is below KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barriers meet KYTC's reasonableness threshold. The barrier provided 7 dB(A) of attenuation for 32 of the 60 front-row benefited receptors (53.3 percent). This is above the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers meet this reasonableness criterion. See Table 4.3–3 and Table 4.3–4 for a summary of the barrier wall evaluation.

Table 4.3–3. Barrier System C1/C2 – Barrier Description

BARRIER DESCRIPTION	NUMBER OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT / ADJUSTED BARRIER COST
Combined barriers of C1 and C2.	90 / 233	4,794	19.67	99,325	$3,178,403

Table 4.3–4. Barrier System C1/C2 – Barrier Summary

IS THE BARRIER FEASIBLE?	NUMBER OF BENEFITED RECEPTORS; COST PER BENEFITED RECEPTOR	IS THE BARRIER COST EFFECTIVE?	NUMBER OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED; (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	87 Benefited $36,533	Yes	32 / 60 (53.3%)	Yes

Barrier System C1/C2 – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC's noise policy and is considered likely for this location.

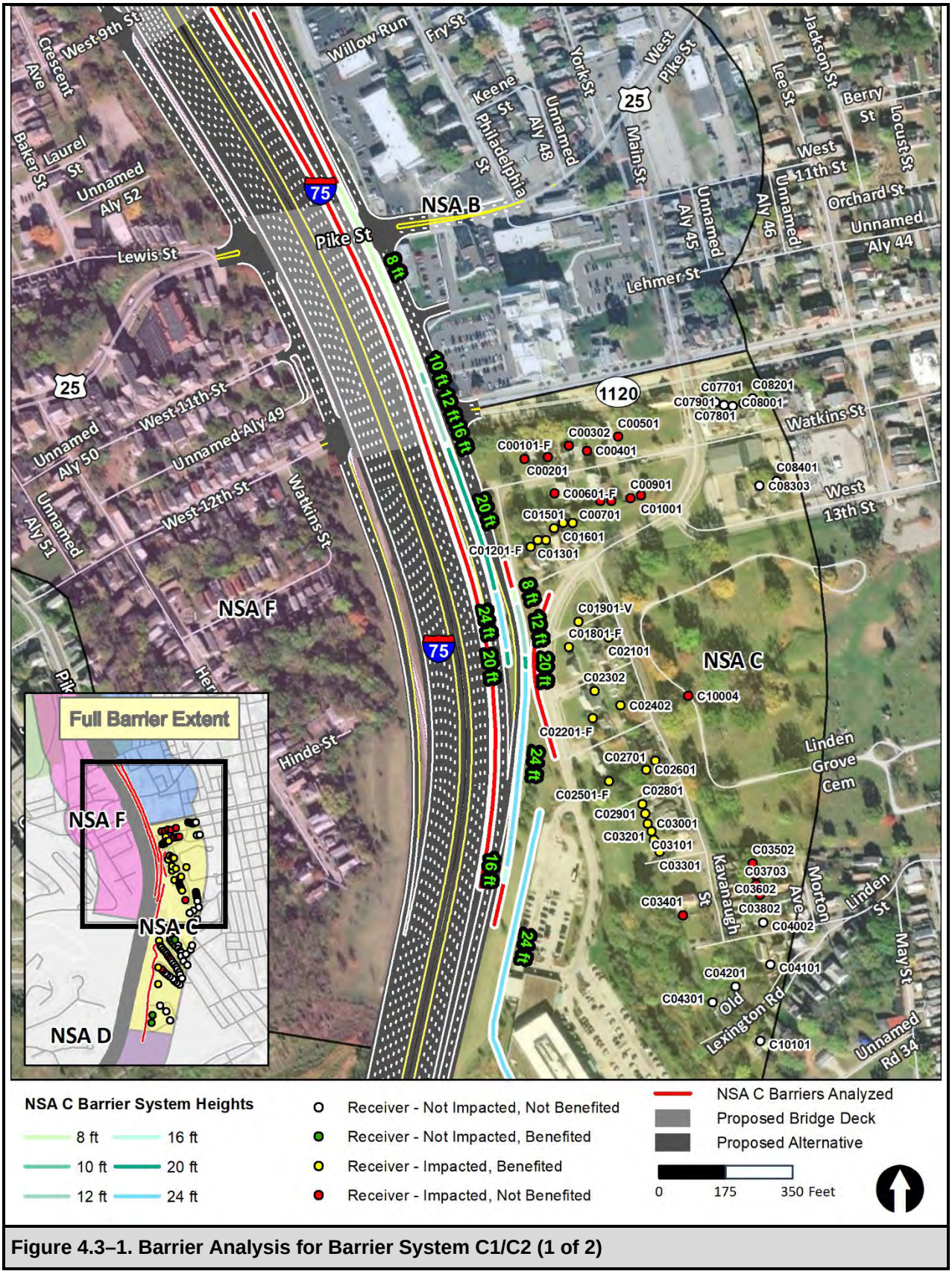

Figure 4.3–1. Barrier Analysis for Barrier System C1/C2 (1 of 2)

Figure 4.3–2. Barrier Analysis for Barrier System C1/C2 (2 of 2)

4.3.3 BARRIER SYSTEM E/F – NOISE ABATEMENT EVALUATION

Barrier System E/F – Analysis Area

This barrier system combines the structural noise barriers proposed for NSA's E and F. These NSA's cover the entire western side of the I-71/I-75 study area. Modeled receivers, the modeled structural noise barrier location, and the receiver's attenuation level thresholds are presented in Figure 4.3–3 through Figure 4.3–6. Tables with sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

Barrier System E/F – Barrier Summary

The combined barrier system, totaling 9,938 feet in length and averaging a height of 16.42 feet, was predicted to benefit 219 receptors. These barriers demonstrate that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors, meeting KYTC's feasibility criteria. The cost of the barrier system was $5,070,914; however, twelve of the benefited receptors had predicted noise levels at or above 76.0 dBA, so an additional reduction of $2,500 for the twelve receptors was applied. This amounts to an adjusted total cost of $5,040,914, and a cost–effectiveness ratio of $23,018 per benefited receptor. This value is below KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barriers meet KYTC's reasonableness threshold. The barriers provided 7 dB(A) of attenuation for 46 of the 70 front-row receptors (65.7 percent). This is above the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers meet this reasonableness criterion. See Table 4.3–5 and Table 4.3–6 for a summary of the barrier wall evaluation.

Table 4.3–5. Barrier System E/F – Barrier Description

BARRIER DESCRIPTION	NUMBER OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT / ADJUSTED BARRIER COST
Combined barriers of NSA E and F.	468 / 517	9,938	16.42	158,466	$5,040,914

Table 4.3–6. Barrier System E/F – Barrier Summary

IS THE BARRIER FEASIBLE?	NUMBER OF BENEFITED RECEPTORS; COST PER BENEFITED RECEPTOR	IS THE BARRIER COST EFFECTIVE?	NUMBER OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED; (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	219 Benefited $23,018	Yes	46 / 70 (65.7%)	Yes

Barrier System E/F – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC's noise policy and is considered likely for this location.

Figure 4.3–3. Barrier Analysis for Barrier System E/F (1 of 4)

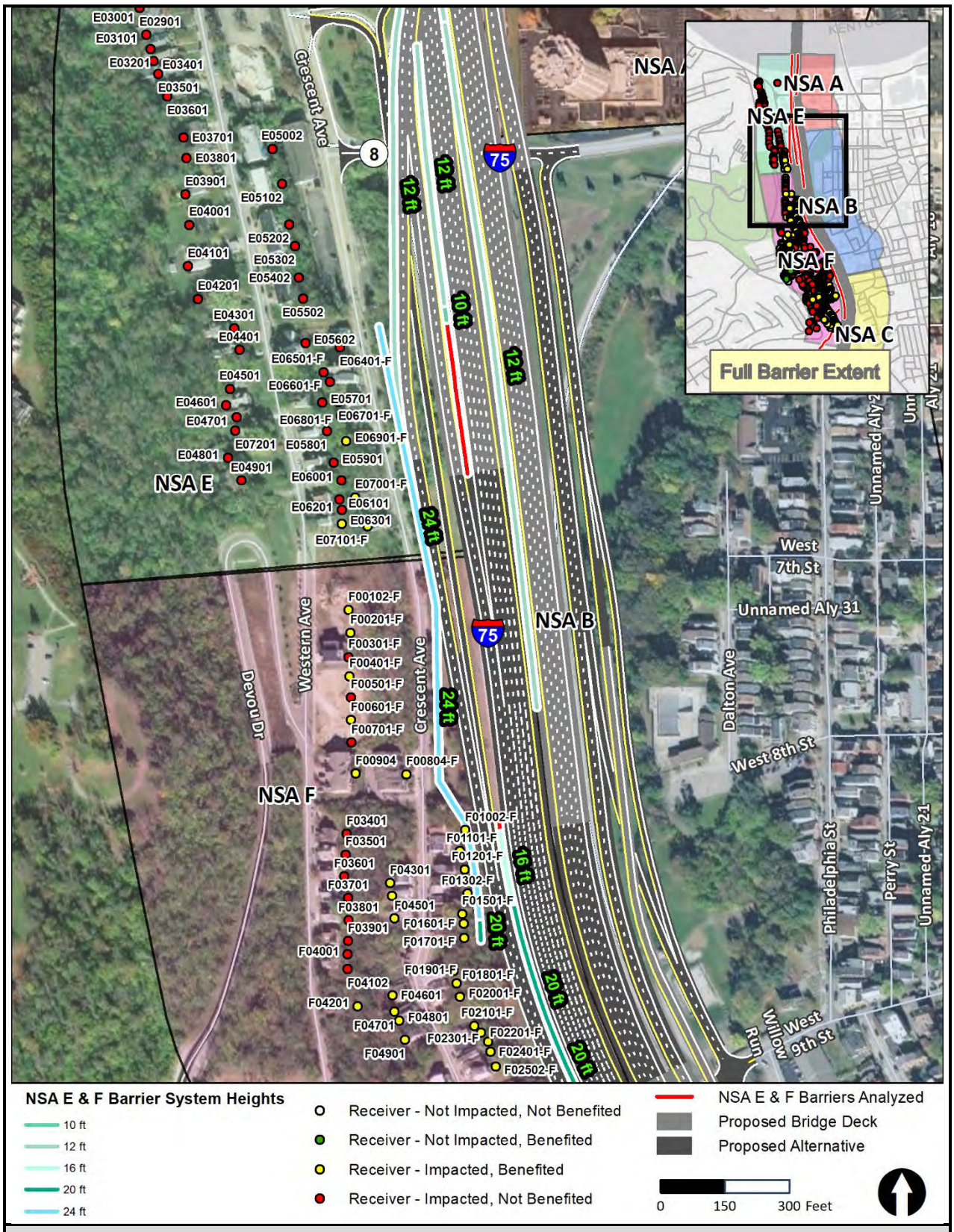

Figure 4.3–4. Barrier Analysis for Barrier System E/F (2 of 4)

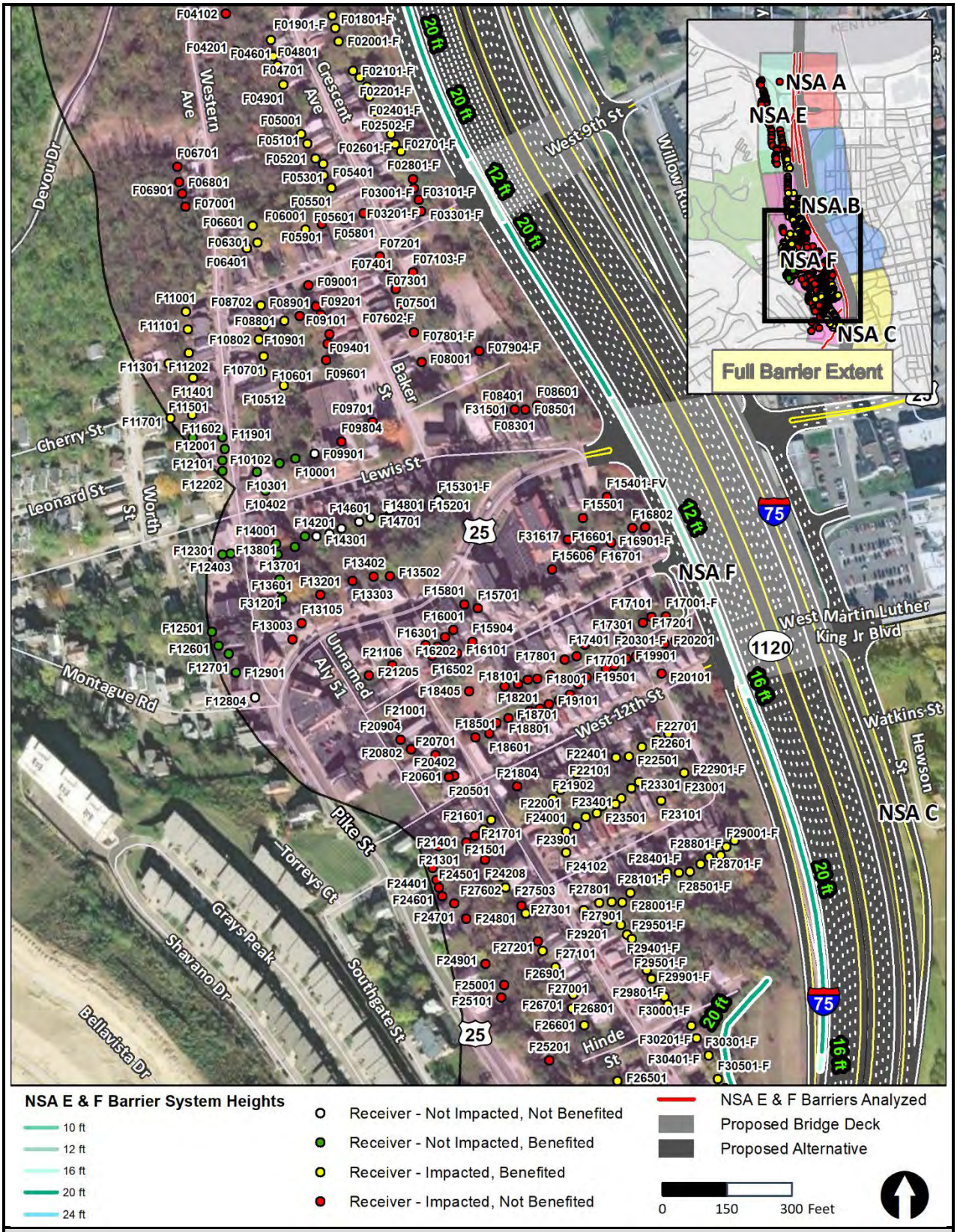

Figure 4.3–5. Barrier Analysis for Barrier System E/F (3 of 4)

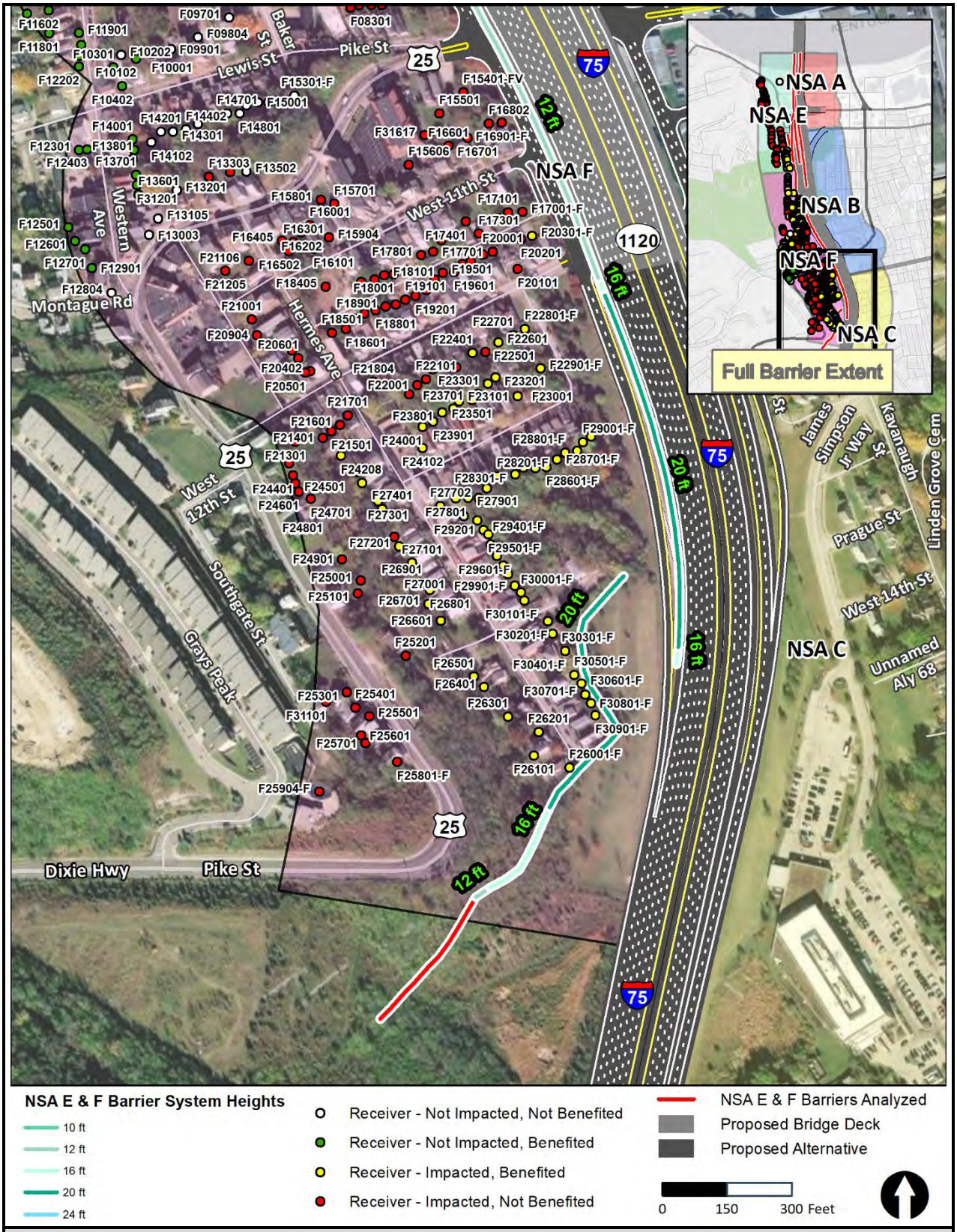

Figure 4.3–6. Barrier Analysis for Barrier System E/F (4 of 4)

4.3.4 BARRIER SYSTEM D/B20 (KY SOUTHERN) – NOISE ABATEMENT EVALUATION

Barrier System D/B20 – Analysis Area

A detailed noise abatement evaluation was not performed for NSA D since there was only one impacted receptor, and a structural noise barrier could not meet KYTC's feasibility criteria. However, there were 24 impacted receptors in the adjacent analysis area from the Kentucky Southern Section. This barrier system uses the structural noise barriers evaluated for the B20 section of the Kentucky Southern Section analysis area and extends it to include NSA D. This analysis area covers the eastern side of the I-71/I-75 study area from Kyles Lane to the Ivy Knoll Senior Living Community along Highland Avenue. Modeled receivers, the modeled structural noise barrier location, and the receiver's attenuation level thresholds are presented in Figure 4.3–7 through Figure 4.3–9. Tables with sound level results, including existing, predicted, and predicted with barrier, are presented in Appendix B. These tables also identify the number of receptors represented by the receiver, front row receiver/receptors, and an impact summary.

Barrier System D/B20 – Barrier Summary

The combined barrier system, totaling 5,255 feet in length and averaging a height of 19.56 feet, was predicted to benefit 138 receptors. These barriers demonstrate that it was possible to achieve a 5 dB(A) reduction at three or more impacted receptors, meeting KYTC's feasibility criteria. The cost of the barrier system was $3,149,580, for a cost–effectiveness ratio of $22,823 per benefited receptor. This value is below KYTC's cost–effectiveness criterion of $40,000 per benefited receptor; therefore, the modeled barriers meet KYTC's reasonableness threshold. The barriers provided 7 dB(A) of attenuation for 32 of the 52 front-row receptors (61.5 percent). This is above the 50 percent design goal threshold per KYTC's noise policy; therefore, the barriers meet this reasonableness criterion. See Table 4.3–57 and Table 4.3–68 for a summary of the barrier wall evaluation.

Table 4.3–7. Barrier System D/B20 – Barrier Description

BARRIER DESCRIPTION	NUMBER OF IMPACTED RECEPTORS / TOTAL RECEPTORS	BARRIER LENGTH (FT)	AVERAGE BARRIER HEIGHT (FT)	BARRIER AREA (SQ FT)	BARRIER COST @ $32/SQ FT / ADJUSTED BARRIER COST
Barrier B20 extended into NSA D.	25 / 242	5,255	19.56	100,452	$3,149,584

Table 4.3–8. Barrier System D/B20 – Barrier Summary

IS THE BARRIER FEASIBLE?	NUMBER OF BENEFITED RECEPTORS; COST PER BENEFITED RECEPTOR	IS THE BARRIER COST EFFECTIVE?	NUMBER OF 1ST – ROW BENEFITED W/ 7dB(A) OR GREATER ATTENUATION / NO. OF 1ST – ROW BENEFITED; (%)	DOES THE BARRIER MEET THE DESIGN GOAL?
Yes	138 Benefited $22,823	Yes	32 / 52 (61.5%)	Yes

Barrier System D/B20 – Statement of Likelihood

Based on the current project design and traffic projections, a structural noise barrier is feasible and reasonable in accordance with KYTC's noise policy and is considered likely for this location.

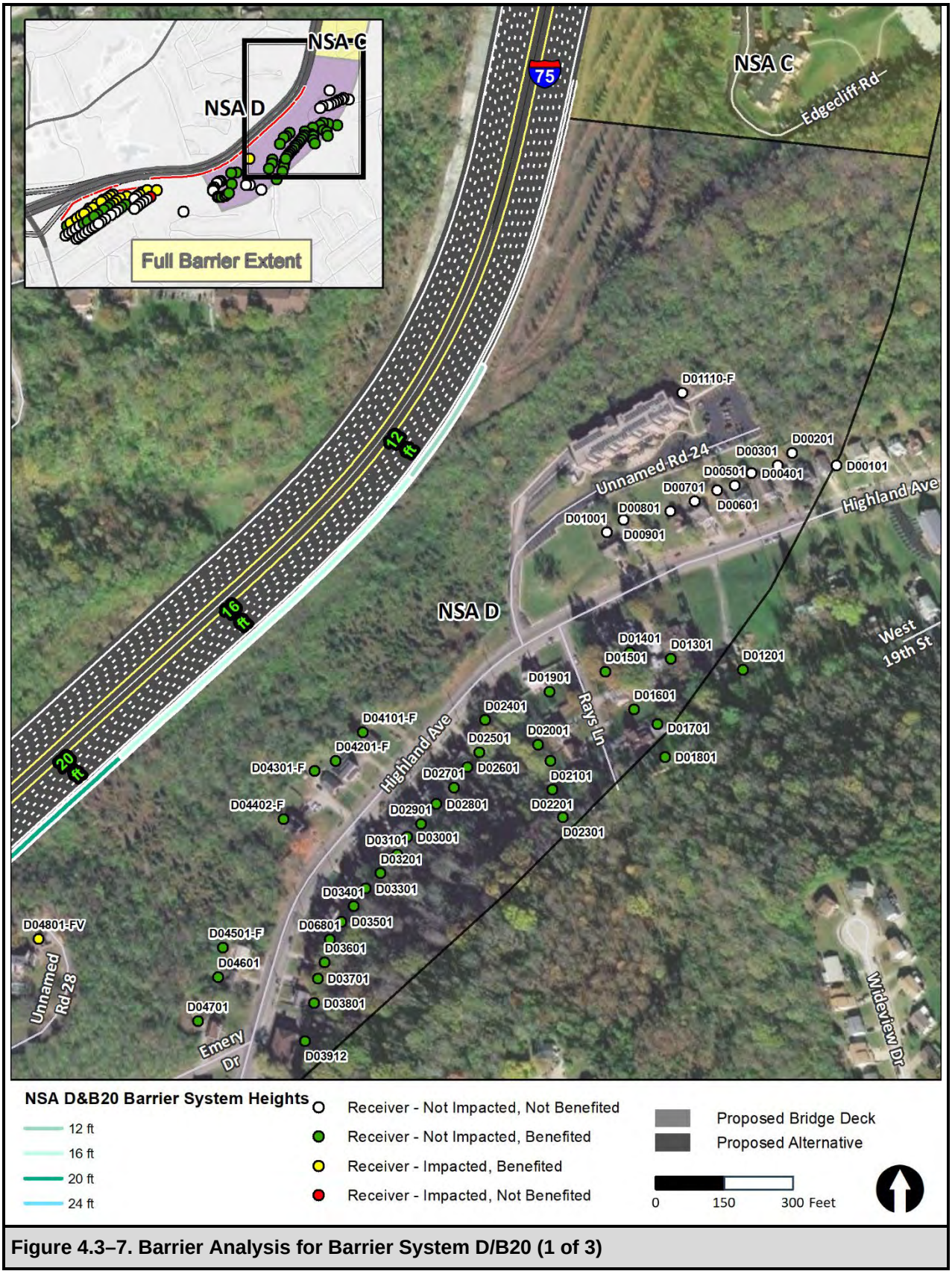

Figure 4.3–7. Barrier Analysis for Barrier System D/B20 (1 of 3)

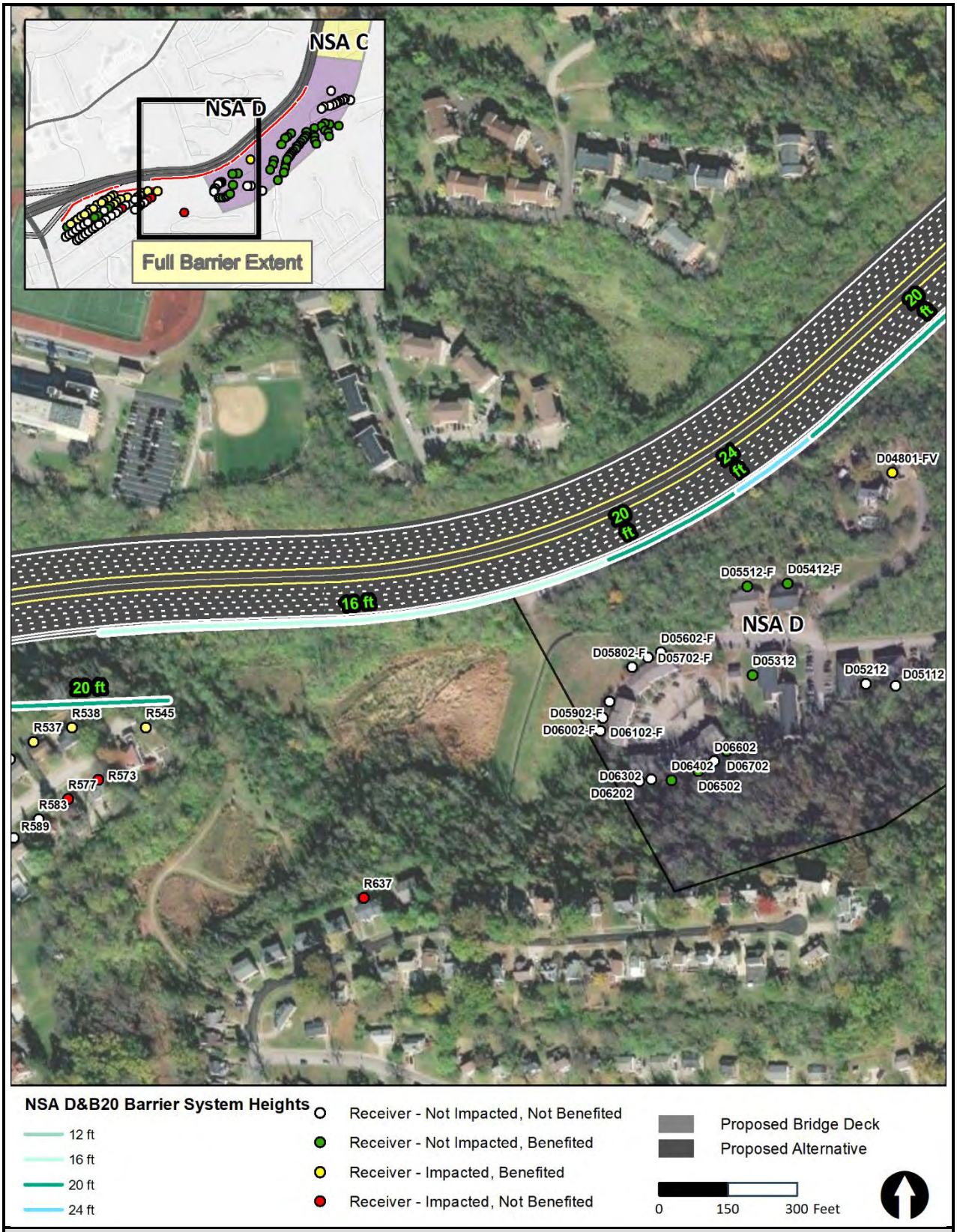

Figure 4.3–8. Barrier Analysis for Barrier System D/B20 (2 of 3)

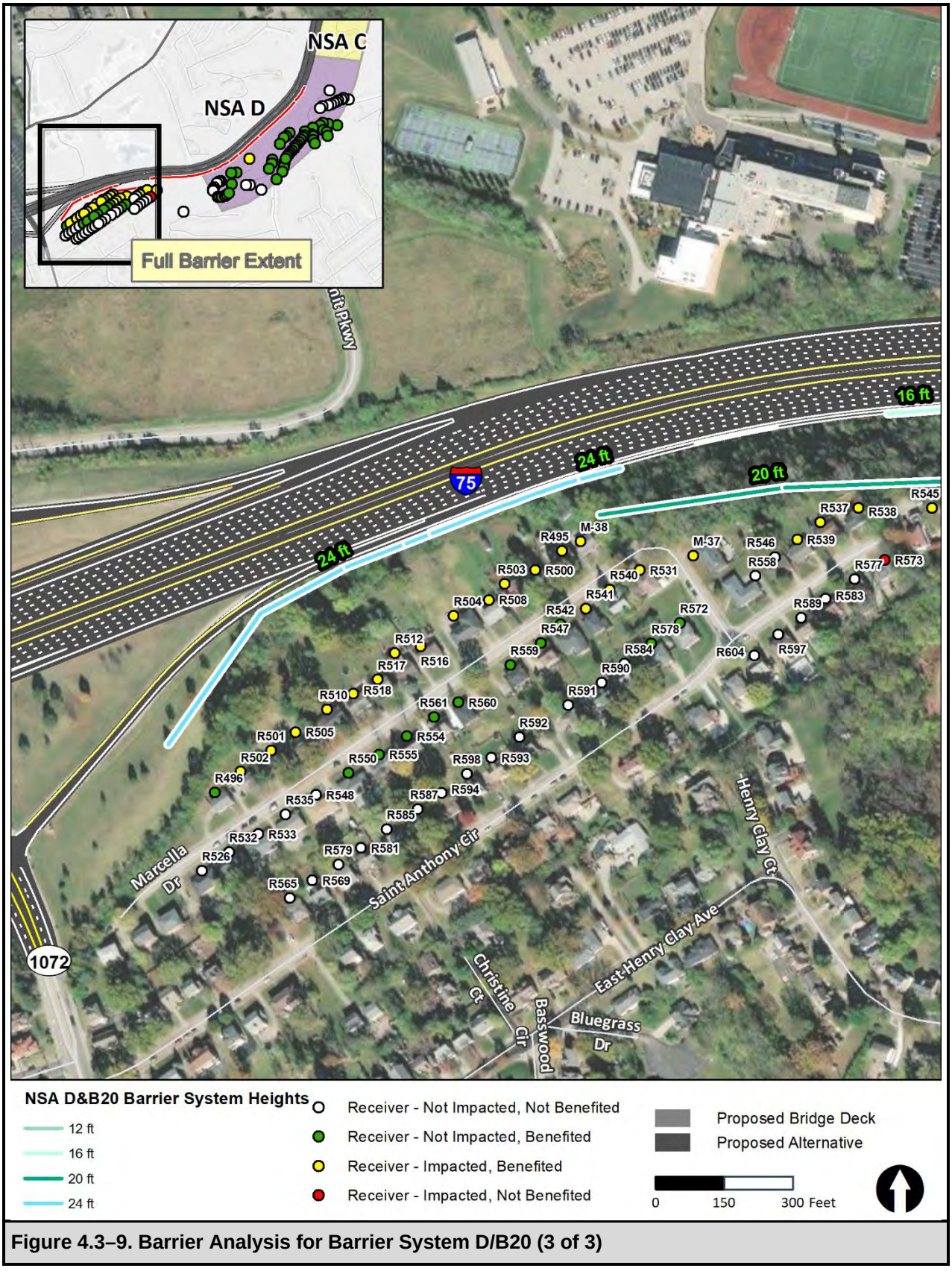

Figure 4.3–9. Barrier Analysis for Barrier System D/B20 (3 of 3)

4.4 CONSTRUCTION IMPACTS

Noise sensitive receptors will also be subjected to noise impacts associated with the construction phase of the proposed project. Construction noise will generate temporary noise impacts on adjacent and nearby properties, particularly those in residential land use. Construction noise will be emitted intermittently by a range of construction equipment at varying levels of intensity based on the types of operations being performed and the number of pieces of equipment in operation at any given time. Depending on project circumstances, options are available to minimize the temporary adverse noise impacts, including the proper maintenance of equipment, most notably adequate lubrication, and non-leaking mufflers, equipment restriction modifications to reduce noise emissions and restrict the use of certain equipment by location and time of day, controlling non-construction traffic by limiting heavy truck movements on residential streets, maximizing the distance between equipment and receptors where possible and, enclosing or screening noisy activities or stationary equipment. The contractor will be required to adhere to any and all federal, state, and local noise controls or ordinances in effect within the project limits. It will be the responsibility of the contractor to monitor construction noise and be aware of violations of the maximum allowable noise levels. Consideration of construction noise minimization and mitigation (as necessary) is required pursuant to CFR 772.19. Additional information on construction noise can be accessed in the FHWA Construction Noise Handbook (FHWA-HEP-06-015) and the Roadway Construction Noise Model (RCNM) Version 2.0.

During design development, in addition to evaluating parameters such as cost, schedule, access, traffic impacts, safety, risk, etc., in areas where noise sensitive receptors are present, the project team will also consider construction noise abatement. Some examples would include:

- *Foundation type selection.* Different foundation types have varying effects on the intensity and duration of construction noise. (e.g. piling versus cast-in-place concrete shafts)
- *Installation methodology.* The same feature of work can be achieved in a variety of ways and planned for in the design phase. This could involve using mechanical or chemical splitting as means of demolition versus the use of explosives, or drilling and setting a retaining wall versus driving soldier piles.
- *Storage and staging areas.* Identification or acquisition of locations/properties that provide separation from sensitive receptors. This could be by proximity or by the use of existing barriers.
- *Phasing of work.* Consideration of how work is phased can have a prominent impact on the duration for which a noise sensitive receptor is exposed to construction noise from a particular feature of work. This concept is especially evident when dealing with a receptor like a school that is out of session during the summer. Phasing the project to allow/facilitate all high decibel work to be completed at once, during this window, not only reduces, but eliminates this impact.
- *Permanent noise barriers.* Consideration will be given to the feasibility of constructing permanent noise barrier earlier in the project that are needed for noise abatement of the project's final configuration, to help mitigate temporary construction noise.
- *Maintenance of Traffic (MOT).* The development of the MOT plan provides a variety of opportunities with respect to mitigation of construction noise with respect to both intensity and duration. These include considering the location of noise sensitive receptors when setting detour routes and establishing haul routes. Note it will not only be important to evaluate the official routes, but also the "defacto" routes that may also be used as these can often result in heavy truck traffic utilizing residential streets. MOT plan development also provides for an avenue to evaluate the availability of night-time and weekend work in conjunction with the permitted lane closure maps.

- *Incentives.* There are provisions to establish schedule-based incentives. These incentives could be used to help minimize the duration of overall construction noise.

During construction, the project team will be both proactive and reactive with respect to construction noise. This will be accomplished through the following:

- *Equipment selection.* Often there is a variety of equipment available to the Contractor to perform a particular task. Where noise sensitive receptors are present, specific consideration will be given to the selection of equipment to be utilized. This may include: the age of the equipment as newer equipment typically employs new technology with respect to emissions and noise, if shielding or engine enclosures are standard, size appropriateness and power source (gas/diesel, electric/solar, pneumatic, hydraulic).
- *Equipment maintenance.* The Contractor will have an established maintenance program for their equipment fleet. They will ensure that necessary maintenance/repairs are performed before putting equipment into service. They will also be pulled out of service to address deficiencies identified during operation. When noise sensitive receptors are present, specific attention will be given to the muffler systems on all combustion engines, as that is often a primary source of construction noise.
- *Screening/shielding/barriers.* Having something between the source and the receptor is an effective mitigation technique and can take on many forms. The project team will take advantage of existing features where practical to minimize the impacts of construction noise on receptors. This will include bridges, berms, retaining walls, and buildings. Additionally, temporary features already necessary for performing the work like stockpiles and tool trailers can also be by strategically utilized to assist in this effort. Lastly, it may be necessary to construct temporary features such as hay bales specifically for this purpose.
- *Scheduling of Work.* If not dictated during design, the Contractor will give consideration to noise sensitive receptors when scheduling work. This may include: time of day, day of week, number of consecutive hours/days, special events and number of crews. With a project of this magnitude, there will also be opportunities to schedule concurrent operations in the same timeframe to reduce the overall duration of exposure, with potentially minimal increase in intensity.
- *Education of Staff.* The project staff will be educated on the noise sensitive receptors. This will include not only their location, but also the type (resident, school, business, etc.), hours of operation and any prior concerns communicated.
- *Communication plan.* As part of the project's overall communication plan, there will be a protocol established to notify the public, receive concerns/complaints and provide responses and/or resolutions. It will clearly provide contact information to submit electronically or via phone. All noise-related complaints will be investigated by project personnel.

In the event any issues arise that are not covered by the items above within the limits of the KY South and/or the KY North sections, KYTC will defer to KYTC's latest issue of Standard Specifications for Road and Bridge Construction and any applicable supplements issued.

CHAPTER 5 – SUMMARY

5.1 DIRECT IMPACTS

5.1.1 SUMMARY OF IMPACTED RECEPTORS

For the proposed Concept I-W, 1,565 receptors were identified within the 800 feet of the proposed edge of pavement that make up the various NSAs. The receptors were primarily Activity Categories B, with small numbers of Activity Category C, D, and E receptors. In the proposed condition, the noise levels ranged from a high of 79.0 dB(A) to a low of 51.7 dB(A). There was a total of 1,160 impacted receptors (607 modeled receivers) recorded during analysis, with impacts identified in each NSA and for each Activity Category. This is nearly two-thirds of all receptors in the Kentucky Northern Section project area. The majority (1,140 receptors) are impacts due to exceeding the NAC, while one receptor had substantial increase impacts, and 19 receptors were impacted due to exceeding both criteria. A summary of impacted receptors is provided in Table 5.1–1.

Table 5.1–1. Summary of Receptor Impacts

NSA	NUMBER OF RECEPTORS	IMPACTED RECEPTORS	EXCEEDS NOISE ABATEMENT CRITERIA (NAC)	EXCEEDS SUBSTANTIAL INCREASE CRITERIA	EXCEEDS BOTH CRITERIA
A	244	240	240	0	0
B	405	303	292	0	11
C	233	91	90	1	0
D	167	1	1	0	0
E	78	78	70	0	8
F	438	390	390	0	0
TOTAL	**1,565**	**1,103**	**1,083**	**1**	**19**

5.1.2 SUMMARY OF BARRIER ANALYSES

Abatement was considered at areas with impacted receptors. Although an independent noise abatement evaluation was not performed for NSA D, since there was only one impacted receptor and a structural noise barrier could not meet KYTC's feasibility criteria, a barrier system analysis with the adjacent neighborhood included in the Kentucky Southern Section was performed. A detailed analysis was not required at NSA D since there was only one impacted receptor, and a barrier could not meet KYTC's feasibility criteria of benefiting three or more impacted receptors; however detailed analyses was performed for the other five NSA's. In addition, NSA's B, C, E and F were sub-divided into smaller areas for analysis, and barrier systems, covering multiple NSAs, were also evaluated.

The evaluations found that structural noise barriers were considered likely for Area C2 of NSA C and for Areas F1 and F2 of NSA F. Barriers were not reasonable and feasible for barriers for NSA A, NSA B (which includes Area B1, B2, and B3), Area C1 of NSA C, NSA E.

For the barrier systems, structural noise abatement was found to be reasonable and feasible for barrier system C, which is all of NSA C, for barrier system E/F, which includes all of NSA's E and F, and for barrier system D/B20 which includes all of NSA D and the analysis area B20 in the Kentucky Southern Section. The barrier system B, which covered all three areas of NSA B, was feasible but not reasonable. The system could not provide 7 dB(A) of noise reduction for any receptor, therefore not meeting the design goal. It had a cost per benefited ratio of $49,377, which is greater than KYTC's cost-effectiveness criteria.

Table 5.1–2 summarizes the results of the barriers analyzed and Table 5.1–3 provides the structural noise barriers that are considered likely based on the current design and barrier analyses.

Table 5.1–2. Summary Barrier Analysis

BARRIER EVALUATION	FEASIBLE?	COST EFFECTIVE?	MEET DESIGN GOAL?	COST PER BENEFITED RATIO	PROPOSED COST
Independent Barrier Analyses					
NSA A	No	No	No	No	—
NSA B1 – Goebel Park	Yes	No	No	No	—
NSA B2 – Philadelphia St	Yes	No	No	No	—
NSA B3 – Main St	No	No	No	No	—
NSA C1 – Linden Grove	Yes	No	Yes	No	—
NSA C2 – Edge Cliff	Yes	Yes	Yes	Yes	$ 1,957, 811
NSA E	Yes	No	No	No	—
NSA F1 – Crescent Ave	Yes	Yes	Yes	Yes	$ 3,633,165
NSA F2 – Bullock St	Yes	Yes	Yes	Yes	$ 1,774.361
Barrier Systems					
System B	Yes	No	No	No	$7,459,536
System C1/C2	Yes	Yes	Yes	Yes	$3,178,408
System E/F	Yes	Yes	Yes	Yes	$5,040,914
System D/B20	Yes	Yes	Yes	Yes	$3,149,584

Table 5.1–3. Likely Barrier Walls Cost Estimate

BARRIER EVALUATION	BARRIER LOCATION	PROPOSED COST
System C1/C2	East of I-71/I-75, from MLK Jr. Blvd. to St. Elizabeth Covington Hospital	$3,178,408
System E/F	West of I-71/I-75, from the Brent Spence Bridge to West Pike Street	$5,040,914
System D/B20	East of I-71/I-75, from Kyles Lane to Highland Avenue	$3,149,584
	TOTAL	**$11,368,906**

5.1.3 Noise Abatement Statement of Likelihood – If Likely

Based on this analysis, it was determined that noise abatement is likely, but not guaranteed, at the locations listed above. Noise abatement recommended at these locations is based upon preliminary design costs and design criteria. Noise abatement in these locations would reduce noise levels to meet the design goals as described in KYTC's noise policy. Estimated costs range from $3.1 to $5.0 million. A re-evaluation of the noise analysis would occur during final design. If, during final design, it has been determined that conditions have changed such that noise abatement would not be feasible and/or reasonable, the abatement measures may not be provided. The final decision on the installation of any abatement measure(s) would be made upon the completion of the project's final design and the public involvement process. The viewpoints of the benefited residents and property owners would be sought and considered in determining

the reasonableness of highway traffic noise abatement measures for proposed highway construction projects. Highway traffic noise considerations will be considered in on-going public involvement activities for the Brent Spence Corridor project.

5.1.4 NOISE ABATEMENT STATEMENT OF LIKELIHOOD – IF NOT LIKELY

Based on this analysis, locations where noise abatement is not likely have been identified based on a lack of being both reasonable and feasible. Noise abatement measures that were studied at these locations were based upon preliminary design costs and design criteria. If additional changes occur during future design phases, a re-evaluation of the noise analysis may be necessary. If, during final design, it has been determined that conditions have changed such that noise abatement is feasible and reasonable, the abatement measures might be provided. The final decision on the installation of any abatement measure(s) will be made upon the completion of the project's final design and the public involvement processes. The viewpoints of the benefited residents and property owners are a major consideration in determining the reasonableness of highway traffic noise abatement measures for proposed highway construction projects.

These viewpoints will be determined and addressed during the environmental phase of project development. The will and desires of the public are an important factor in dealing with the overall problems of highway traffic noise. KYTC will incorporate highway traffic noise consideration in on-going activities for public involvement in the highway program, i.e., and will re-examine the residents' and property owners' views on the desirability and acceptability of abatement during project development.

5.1.5 CONSTRUCTION NOISE

Construction noise will generate temporary noise impacts on adjacent and nearby properties, particularly those in residential land use. However, there are various options to minimize the temporary adverse noise impacts. The contractor will be required to adhere to any and all federal, state, and local noise controls or ordinances in effect within the project limits. In addition, consideration of construction noise minimization and mitigation (as necessary) is required pursuant to CFR 772.19.

During construction, the project team will be both proactive and reactive with respect to construction noise. This will be accomplished through equipment selection and maintenance, potential screening/shielding/barriers, scheduling of work, education of staff, and the development of a communication plan.

5.2 INDIRECT AND CUMULATIVE IMPACTS

Indirect impacts are impacts caused not by the subject project, but rather by another action or actions that have an established relationship or connection to the project. These induced actions are those that would not or could not occur except for the implementation of a project, and cumulative impacts include the total effect on a human community due to past, present, and future activities or actions of federal, non-federal, public, and/or private entities.

The highway traffic noise analysis utilizes design year (2049) traffic generated by the constructed roadway network accounts for the presence of a wider I-71/I-75 roadway and a new bridge crossing the Ohio River. While the adjacent areas are already highly developed, it would be reasonably foreseeable that development of the areas that are currently undeveloped may add additional vehicle trips near noise sensitive receptors and therefore may indirectly induce additional noise in these areas.

CHAPTER 6 – REFERENCES

Esri

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Kentucky Transportation Cabinet

2022 Policy on Highway Traffic Noise Abatement

2019 Standard Specifications for Road and Bridge Construction

APPENDIX A – EXHIBITS

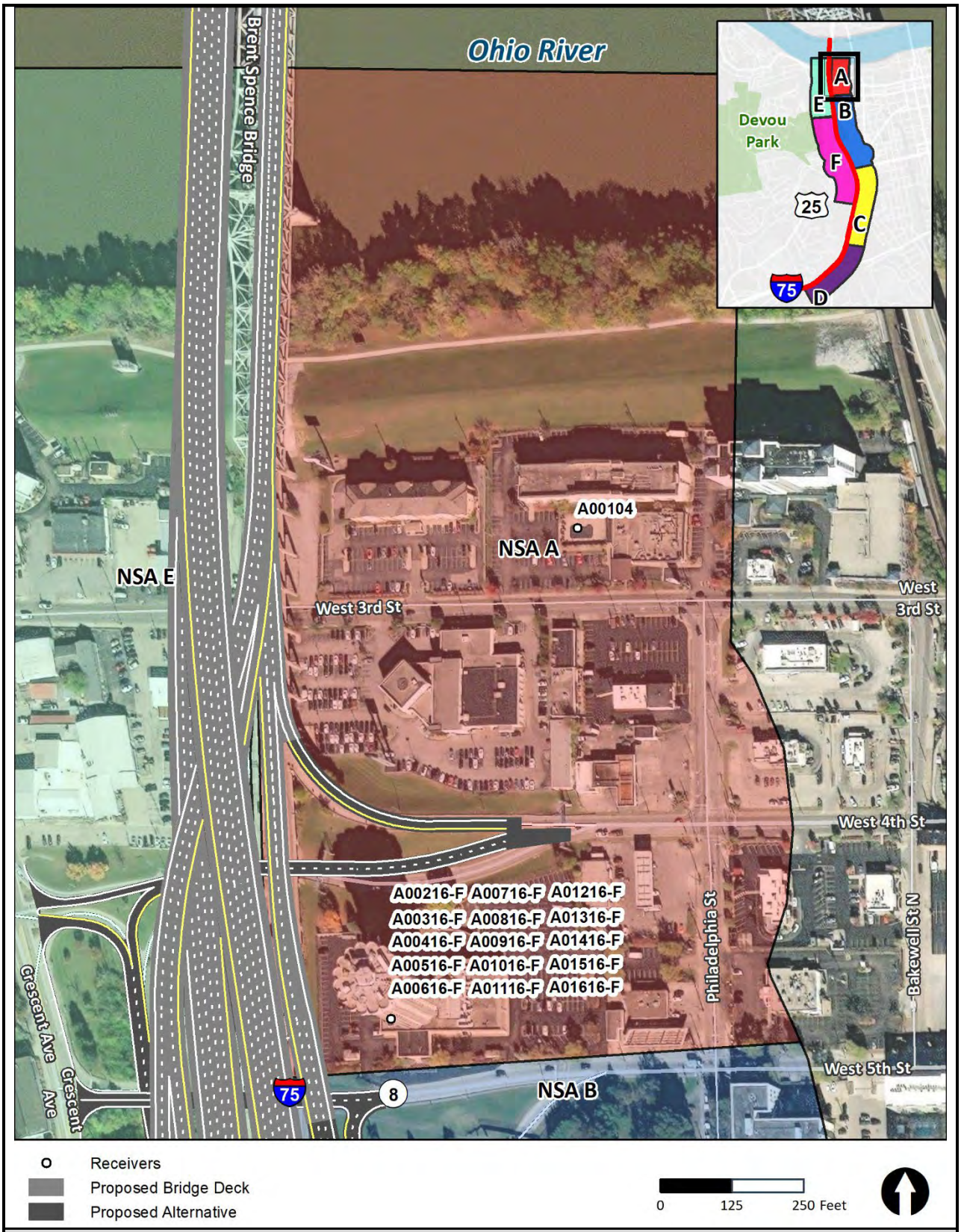


Figure A-1. NSA A Receivers

Figure A-2. NSA B1 Receivers (1 of 2)

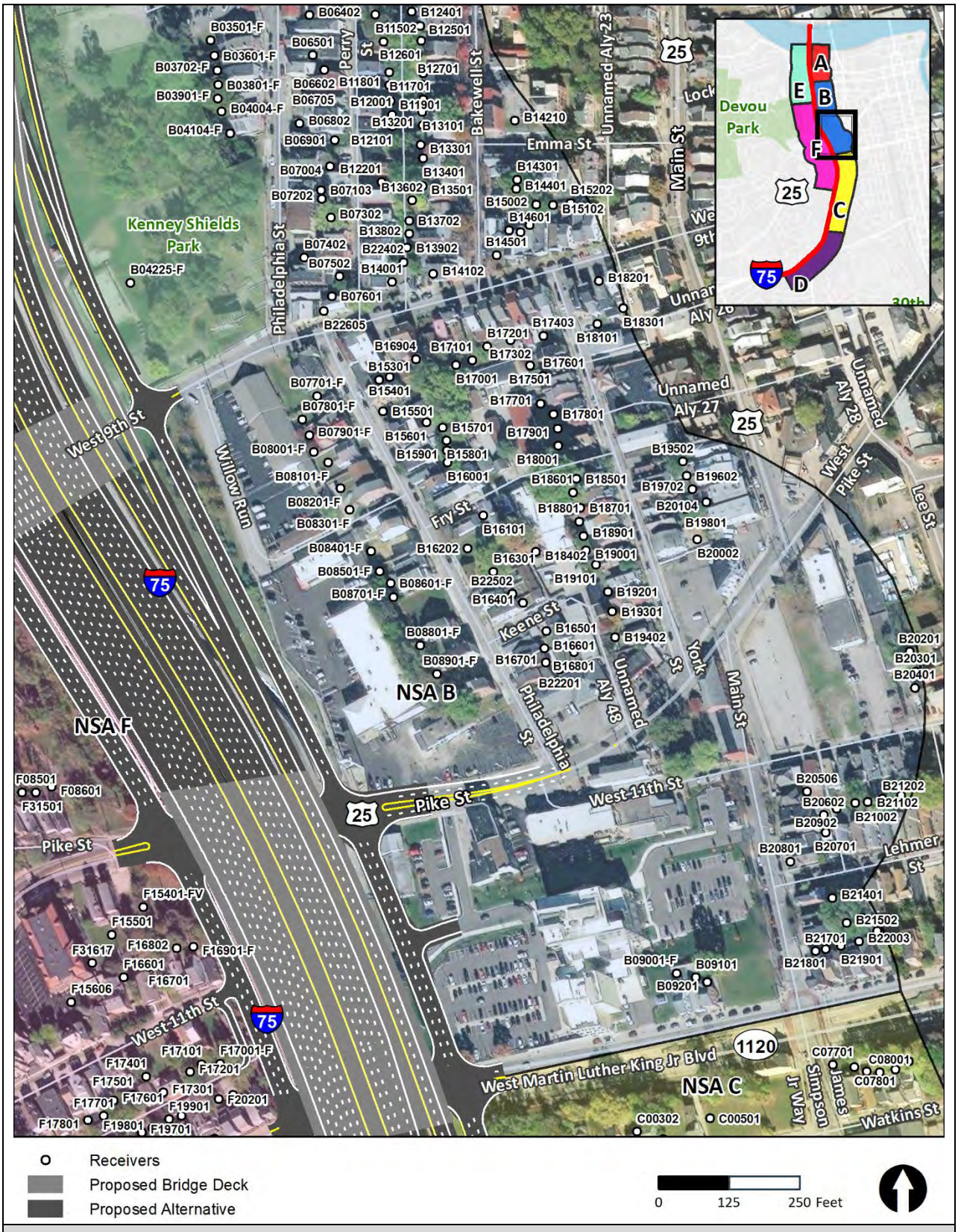


Figure A-3. NSA B Receivers (2 of 2)

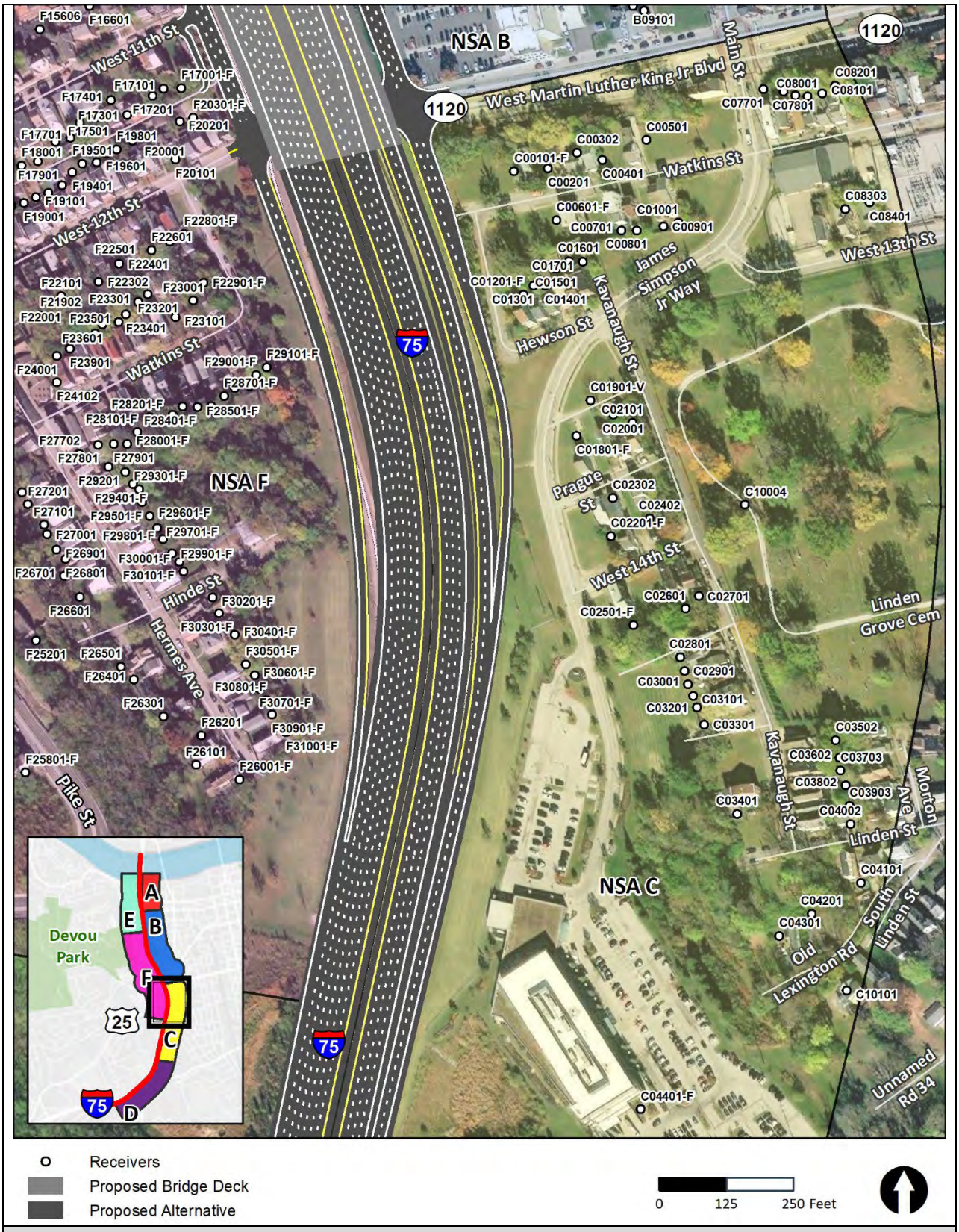


Figure A-3. NSA C Receivers (1 of 2)

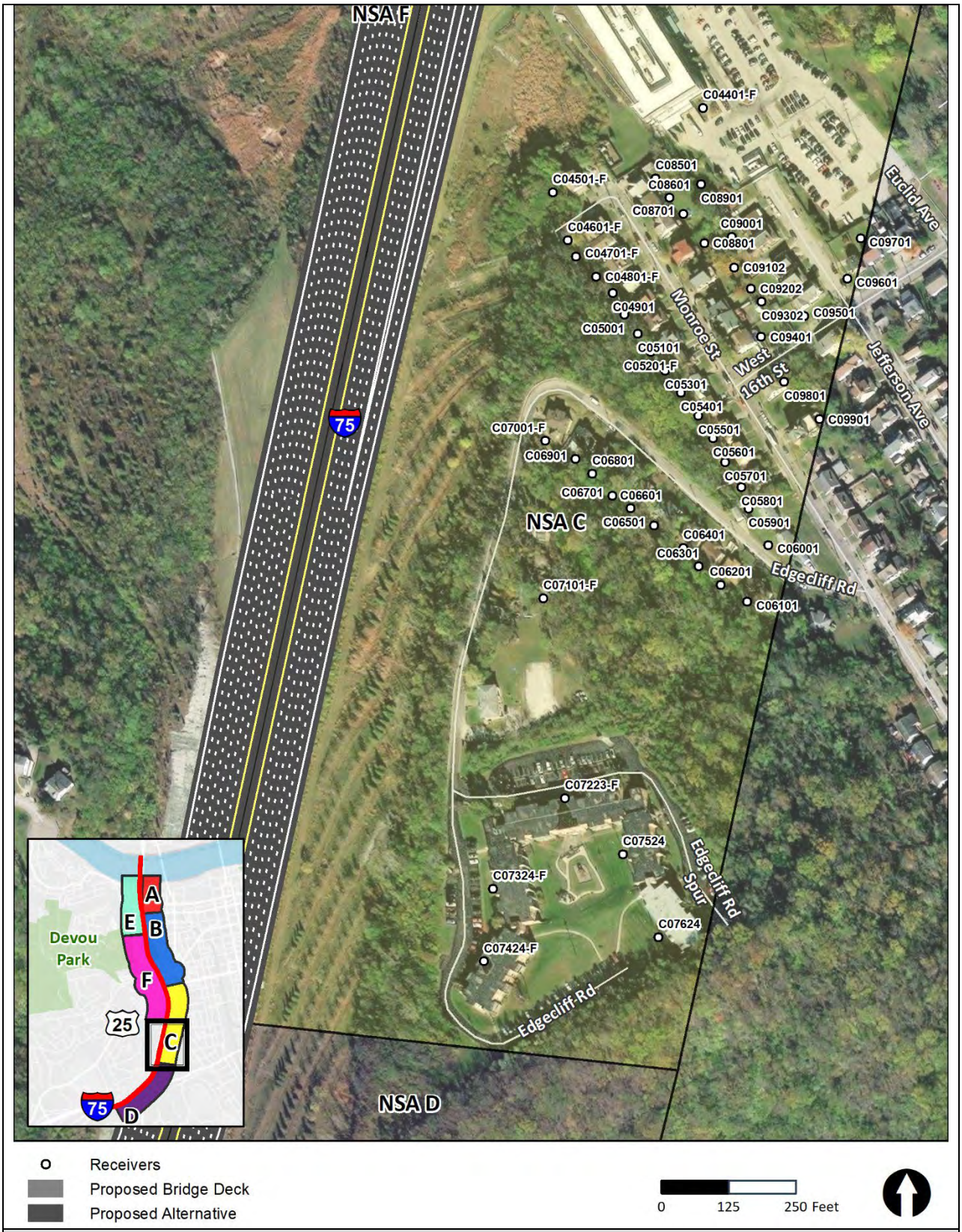


Figure A-4. NSA C Receivers (2 of 2)

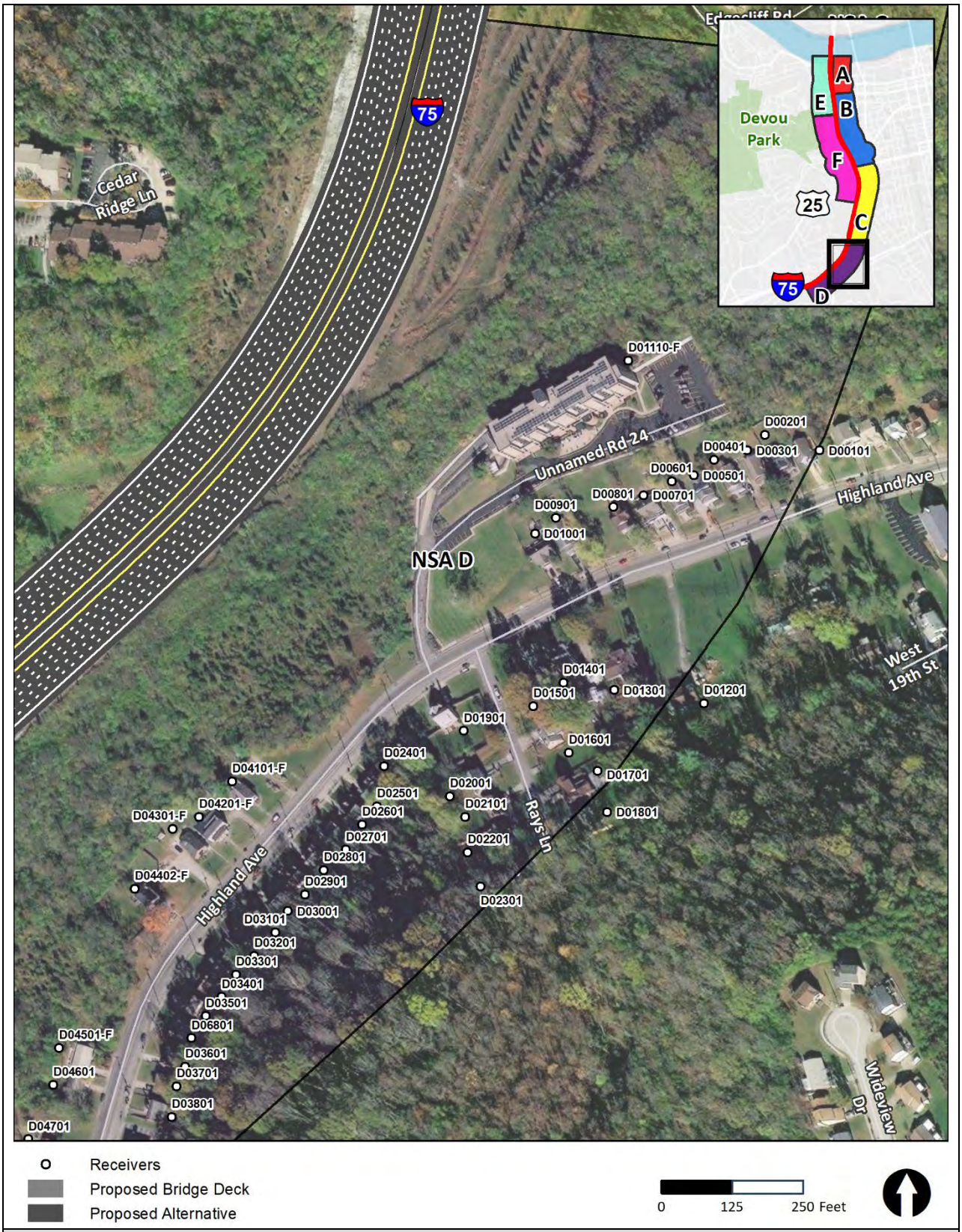


Figure A-5. NSA D Receivers (1 of 2)

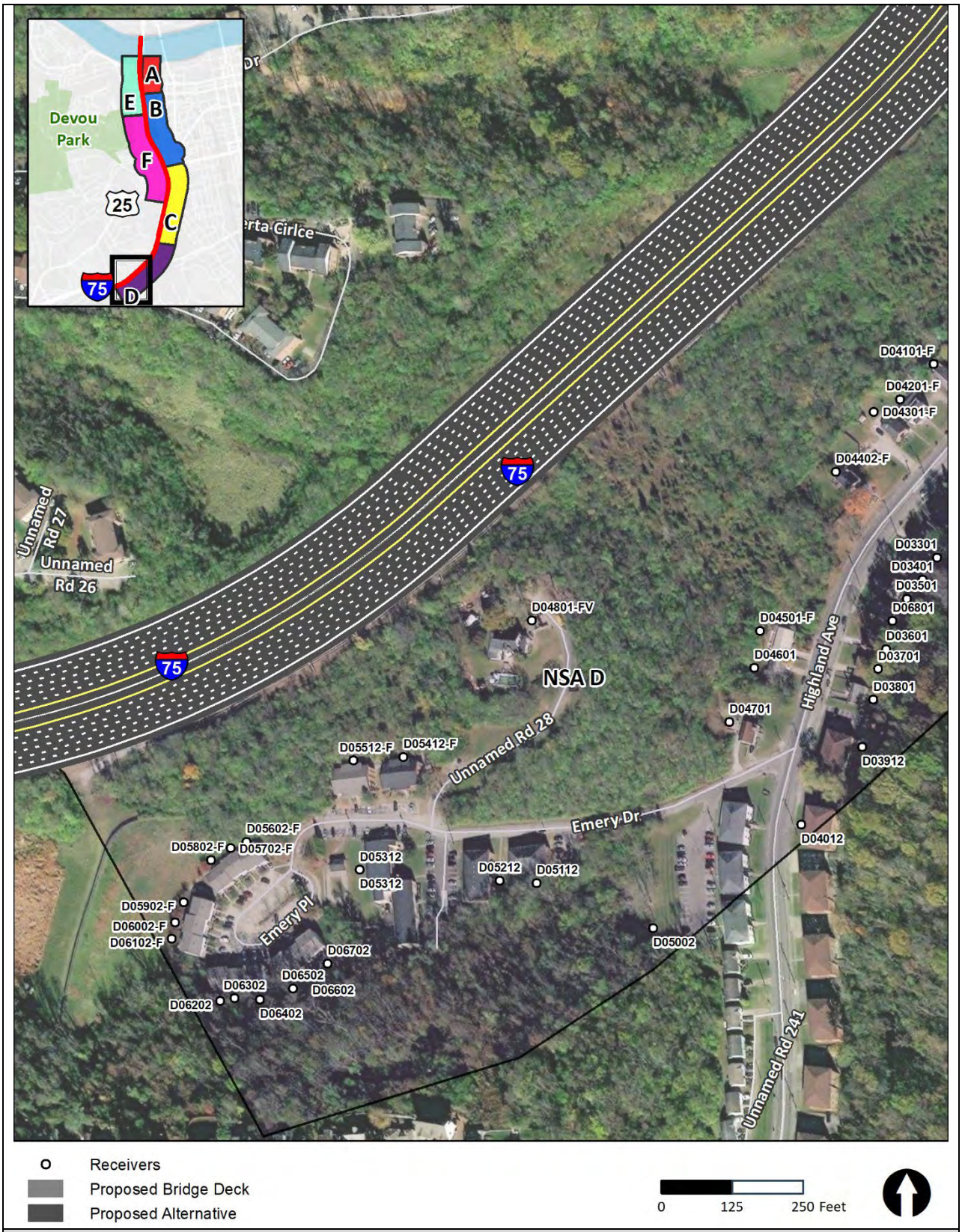


Figure A-6. NSA D Receivers (2 of 2)

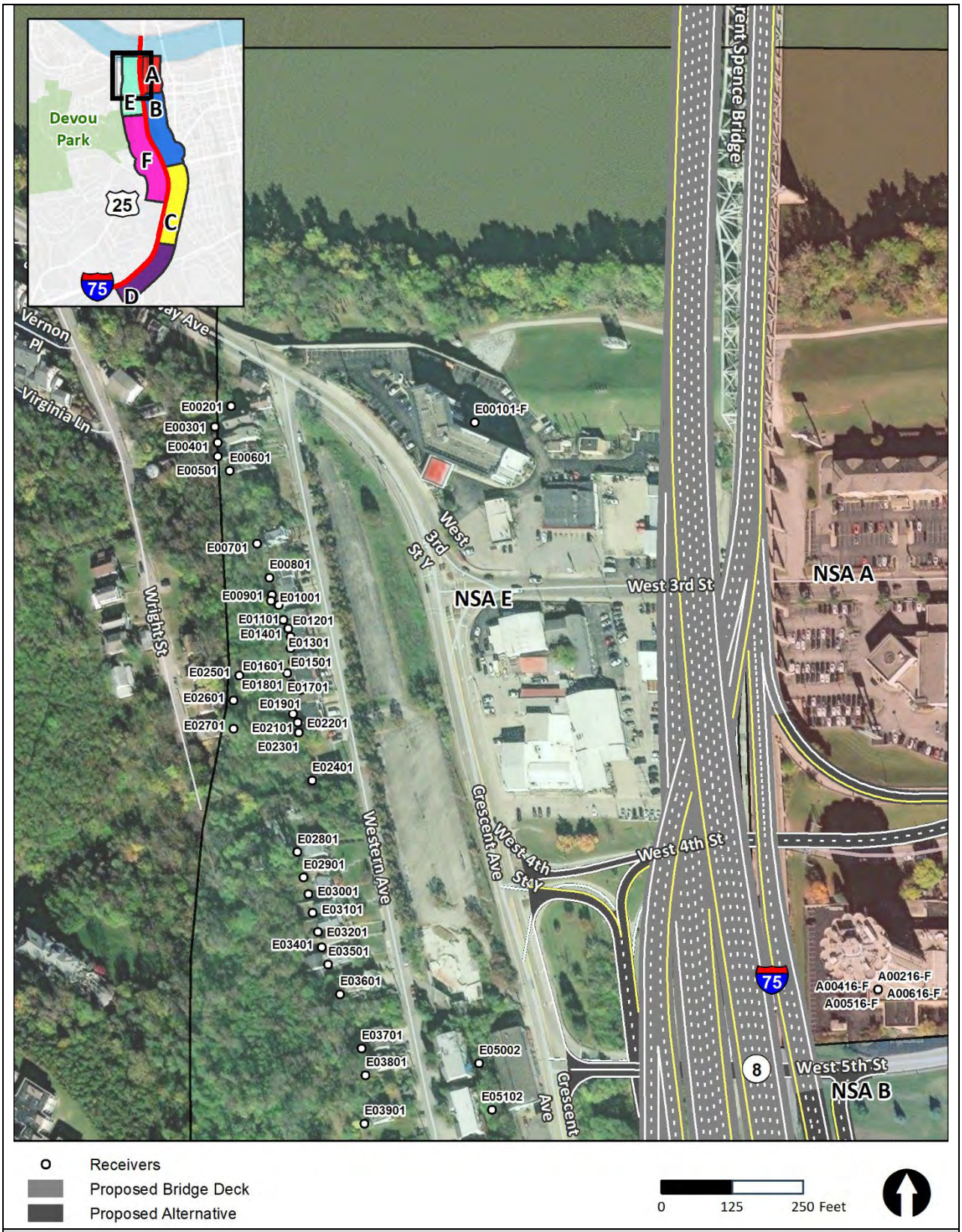


Figure A-7. NSA E Receivers (1 of 2)

Figure A-8. NSA E Receivers (2 of 2)

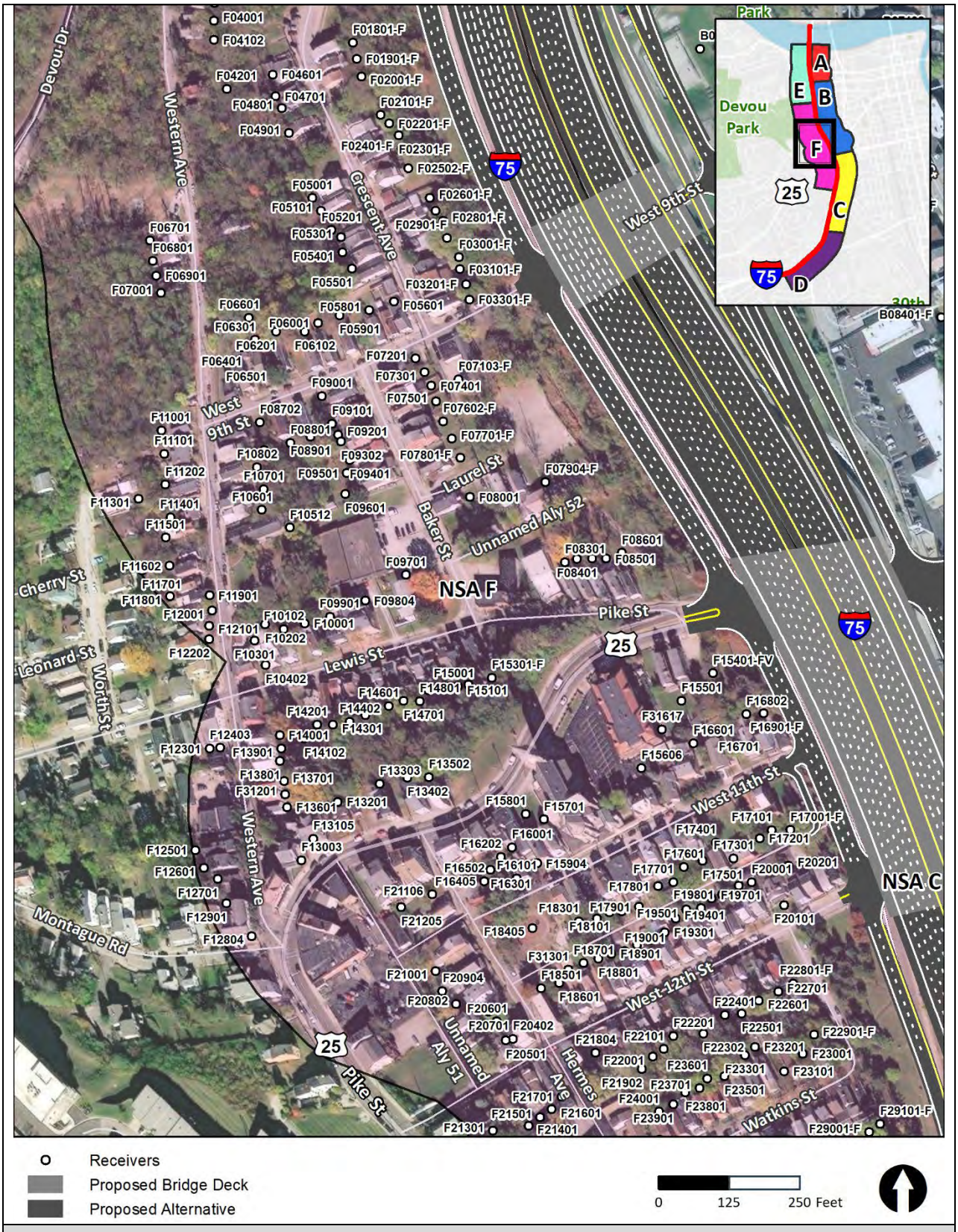


Figure A-9. NSA F Receivers (1 of 2)

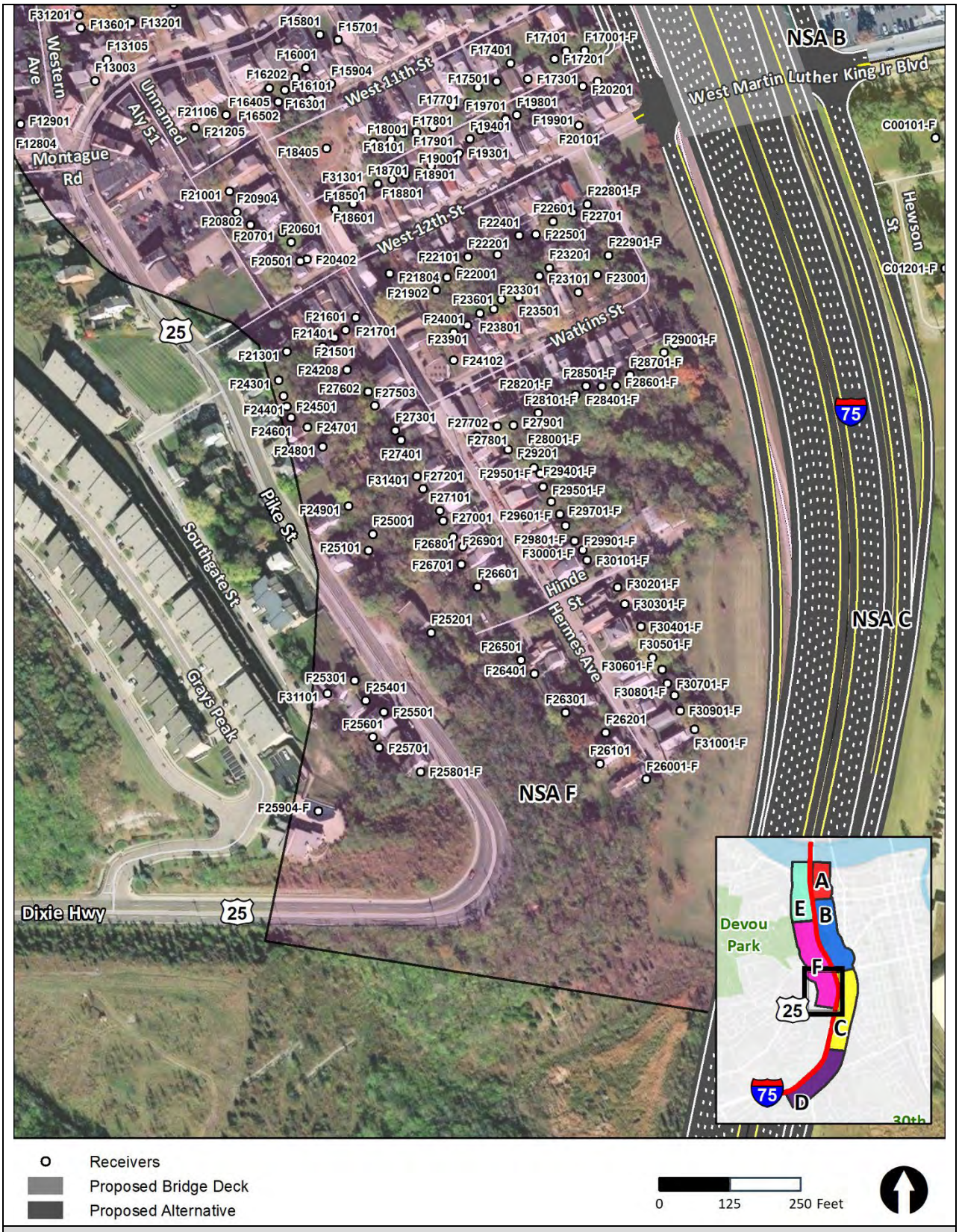


Figure A-10. NSA F Receivers (2 of 2)

APPENDIX B – TABLES

TABLE 1: RECEPTOR DESCRIPTION

Table 1: Receptor Description

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
A00104	Holiday Inn	Hotel (E)	600	W 3rd St	5270195.26	4286215.38
A00216-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A00316-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A00416-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A00516-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A00616-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A00716-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A00816-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A00916-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A01016-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A01116-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A01216-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A01316-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A01416-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A01516-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
A01616-F	Radison Hotel - Floor	Hotel (E)	668	W 5th St	5269870.47	4285359.72
B00601-F	House	Residential (B)	651	Dalton St	5270117.59	4284328.88
B00501-F	House	Residential (B)	649	Dalton St	5270115.43	4284353.46
B00701-F	House	Residential (B)	707	Dalton St	5270150.13	4284243.31
B00401-F	House	Residential (B)	647	Dalton St	5270157.57	4284421.56
B01401	House	Residential (B)	610	Dalton St	5270255.93	4284414.05
B01501	House	Residential (B)	612	Dalton St	5270291.85	4284380.20
B00801-F	House	Residential (B)	719	Dalton St	5270131.07	4284115.81
B00117-F	Goebel Park	Park (C)	501	Philadelphia St	5270280.19	4284910.78
B01301-F	Goebel Park Pool	Pool (C)	741	Dalton St	5270082.97	4283918.17
B01901	House	Residential (B)	637	Philadelphia St	5270335.02	4284349.32
B00901-F	House	Residential (B)	721	Dalton St	5270129.52	4284090.74
B01801	House	Residential (B)	635	Philadelphia St	5270335.45	4284373.36
B01701	House	Residential (B)	633	Philadelphia St	5270334.69	4284398.05
B02001	House	Residential (B)	705	Philadelphia St	5270327.79	4284189.70
B02102	House	Residential (B)	709; 716	Philadelphia St/Dalton St	5270328.57	4284138.62
B02202	House	Residential (B)	711; 718	Philadelphia St/Dalton St	5270323.72	4284112.54
B02302	House	Residential (B)	713; 720	Philadelphia St/Dalton St	5270322.76	4284093.58
B01001-F	House	Residential (B)	723	Dalton St	5270138.52	4284064.32
B01601	House	Residential (B)	631	Philadelphia St	5270336.44	4284423.07
B02401	House	Residential (B)	715	Philadelphia St	5270322.72	4284063.98
B01101-F	House	Residential (B)	725	Dalton St	5270128.93	4284039.23
B01201-F	House	Residential (B)	727	Dalton St	5270133.42	4284012.69
B02502	House	Residential (B)	717; 724	Philadelphia St/Dalton St	5270329.06	4284042.29
B02602	House	Residential (B)	719; 726	Philadelphia St/Dalton St	5270327.11	4284017.14
B02702	House	Residential (B)	721; 728	Philadelphia St/Dalton St	5270343.06	4283991.63
B02802	House	Residential (B)	725; 730	Philadelphia St/Dalton St	5270330.24	4283965.66
B02902	House	Residential (B)	727; 732	Philadelphia St/Dalton St	5270338.81	4283946.81
B03002	House	Residential (B)	729; 734	Philadelphia St/Dalton St	5270344.06	4283923.05
B03101	House	Residential (B)	736	Dalton St	5270319.44	4283892.42
B03201	House	Residential (B)	738	Dalton St	5270312.65	4283867.19
B03401	House	Residential (B)	731	Philadelphia St	5270373.90	4283898.32
B05202	House	Residential (B)	638	Philadelphia St	5270493.27	4284364.78

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
B03301	House	Residential (B)	608	W 8th St	5270357.19	4283893.12
B13802	House	Residential (B)	836	Perry St	5270696.14	4283394.47
B13702	House	Residential (B)	834	Perry St	5270695.32	4283417.81
B05302	House	Residential (B)	640	Philadelphia St	5270550.77	4284334.17
B06802	House	Residential (B)	819; 821	Perry St	5270501.67	4283589.47
B14102	Apartment	Residential (B)	845	Bakewell St	5270738.04	4283323.73
B04602	Apartment	Residential (B)	618	Philadelphia St	5270481.18	4284551.48
B05102	Apartment	Residential (B)	636	Philadelphia St	5270538.58	4284398.56
B05502	House	Residential (B)	702; 704	Philadelphia St	5270544.07	4284238.87
B05602	House	Residential (B)	706; 708	Philadelphia St	5270549.87	4284173.21
B06705	Apartment and House	Residential (B)	815; 817	Perry St	5270508.04	4283655.79
B04801	House	Residential (B)	626	Philadelphia St	5270538.04	4284479.42
B04901	House	Residential (B)	630	Philadelphia St	5270539.18	4284446.73
B05001	House	Residential (B)	632	Philadelphia St	5270543.92	4284414.30
B05404	Apartment	Residential (B)	642	Philadelphia St	5270553.31	4284306.86
B13501	House	Residential (B)	835	Bakewell St	5270719.03	4283479.33
B04701	House	Residential (B)	624	Philadelphia St	5270540.72	4284510.42
B05704	Duplex and Houses (2)	Residential (B)	710; 712; 714	Philadelphia St	5270542.00	4284103.71
B06302	Duplex	Residential (B)	803	Perry St	5270520.75	4283810.05
B06402	Duplex	Residential (B)	805	Perry St	5270519.54	4283780.95
B06501	House	Residential (B)	811	Perry St	5270525.17	4283710.04
B05802	Duplex	Residential (B)	716; 718	Philadelphia St.	5270546.76	4284063.84
B05903	Duplex & House	Residential (B)	722;720	Philadelphia St	5270552.32	4284006.44
B06002	Duplex	Residential (B)	726;724	Philadelphia St	5270539.49	4283961.14
B06104	Apartment	Residential (B)	728; 730	Philadephia St	5270522.23	4283920.51
B06204	Duplexes	Residential (B)	802; 801	Philadelphia St; Perry St	5270532.71	4283834.43
B06602	Duplex	Residential (B)	814	Philadelphia St	5270545.30	4283684.01
B09602	Duplex	Residential (B)	518; 516	W 7th St	5270581.84	4284389.39
B11201	House	Residential (B)	516	W 8th St	5270585.74	4283982.02
B11301	House	Residential (B)	514	W 8th St	5270610.45	4283982.52
B07601	House	Residential (B)	846	Philadelphia St	5270558.60	4283284.46
B07402	House	Residential (B)	837; 839	Perry St	5270510.24	4283352.43
B07502	House	Residential (B)	842; 844	Philadelphia St	5270572.51	4283319.25
B03501-F	House	Residential (B)	807	Philadelphia St	5270344.27	4283736.69
B03702-F	Duplex	Residential (B)	811	Philadelphia St	5270356.26	4283683.79
B07103	House	Residential (B)	830; 829	Philadelphia St; Perry St	5270539.44	4283471.79
B07202	House	Residential (B)	832	Philadelphia St	5270541.27	4283456.70
B07302	Duplex	Residential (B)	836; 834	Philadelphia St	5270557.08	4283423.81
B10502	House	Residential (B)	513	W 7th St	5270598.99	4284154.77
B13604	Apartment	Residential (B)	832	Perry St	5270700.94	4283453.60
B14001	House	Residential (B)	844	Perry St	5270665.63	4283309.47
B03802-F	Duplex	Residential (B)	813	Philadelphia St	5270357.75	4283658.10
B07004	Duplexes	Residential (B)	826; 828	Philadelphia St	5270556.00	4283513.53
B13301	House	Residential (B)	823	Bakewell St	5270716.27	4283551.93
B13401	House	Residential (B)	825	Bakewell St	5270720.48	4283528.42
B03601-F	House	Residential (B)	809	Philadelphia St	5270351.00	4283709.23
B06901	House	Residential (B)	824	Philadelphia St	5270563.67	4283560.43

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
B04302	Apartment	Residential (B)	612	Philadelphia St	5270498.59	4284660.54
B04402	Apartment	Residential (B)	614	Philadelphia St	5270518.55	4284609.39
B04502	Apartment	Residential (B)	616	Philadelphia St	5270524.89	4284589.32
B22402	House	Residential (B)	840	Perry St	5270685.61	4283344.22
B10601	House	Residential (B)	509	W 7th St	5270642.16	4284151.80
B13902	House	Residential (B)	838	Perry St	5270691.72	4283370.19
B09502	House	Residential (B)	514	W 7th St	5270605.09	4284419.63
B11102	Duplex	Residential (B)	519;517	Center Ct	5270620.16	4284023.65
B12201	House	Residential (B)	830	Perry St	5270646.55	4283486.18
B09302	House	Residential (B)	513	W 6th St	5270605.53	4284663.47
B03902-F	Duplex	Residential (B)	817; 815	Philadelphia St	5270357.63	4283633.38
B09702	House	Residential (B)	512	W 7th St	5270639.53	4284443.55
B14501	House	Residential (B)	428	W 9th St	5270850.23	4283356.61
B04004-F	Apartment	Residential (B)	819	Philadelphia St	5270364.41	4283610.61
B04104-F	Apartment	Residential (B)	823	Philadelphia St.	5270379.26	4283572.26
B11901	House	Residential (B)	818	Perry St	5270663.00	4283629.12
B12001	House	Residential (B)	820	Perry St	5270665.45	4283604.61
B12101	House	Residential (B)	822	Perry St	5270666.24	4283584.66
B22302	House	Residential (B)	510	W 7th St	5270658.02	4284442.99
B09402	House	Residential (B)	511	W 6th St	5270653.19	4284661.61
B11401	House	Residential (B)	512	W 8th St	5270638.72	4283969.09
B11502	House	Residential (B)	513	W 8th St	5270636.14	4283782.12
B11801	House	Residential (B)	816	Perry St	5270660.27	4283657.23
B13201	House	Residential (B)	821	Bakewell St	5270719.35	4283586.56
B10801	House	Residential (B)	703	Bakewell St	5270706.38	4284207.21
B11004	House	Residential (B)	713	Bakewell St	5270702.10	4284095.26
B11601	House	Residential (B)	812	Perry St	5270650.10	4283733.87
B11701	House	Residential (B)	814	Perry St	5270660.58	4283679.77
B14601	House	Residential (B)	426	W 9th St	5270872.38	4283400.98
B13101	House	Residential (B)	819	Bakewell St	5270718.23	4283609.84
B10001	House	Residential (B)	635	Bakewell St	5270700.74	4284412.79
B10301	House	Residential (B)	641	Bakewell St	5270719.24	4284343.16
B10901	House	Residential (B)	705	Bakewell St	5270731.94	4284186.61
B12301	House	Residential (B)	803	Bakewell St	5270712.71	4283813.96
B12401	House	Residential (B)	805	Bakewell St	5270699.75	4283787.07
B12901	House	Residential (B)	815	Bakewell St	5270718.53	4283657.68
B13001	House	Residential (B)	817	Bakewell St	5270720.56	4283631.83
B14701	House	Residential (B)	424	W 9th St	5270892.18	4283397.35
B09801	House	Residential (B)	631	Bakewell St	5270699.58	4284455.18
B09901	House	Residential (B)	633	Bakewell St	5270710.00	4284438.03
B10101	House	Residential (B)	637	Bakewell St	5270713.78	4284392.96
B12501	House	Residential (B)	807	Bakewell St	5270714.88	4283762.03
B12601	House	Residential (B)	809	Bakewell St	5270716.45	4283735.41
B12701	House	Residential (B)	811	Bakewell St	5270709.83	4283711.15
B12801	House	Residential (B)	813	Bakewell St	5270720.22	4283678.28
B14301	House	Residential (B)	830	Bakewell St	5270886.17	4283490.19
B14401	House	Residential (B)	832	Bakewell St	5270884.53	4283474.36
B14801	House	Residential (B)	422	W 9th St	5270908.06	4283409.71
B10201	House	Residential (B)	639	Bakewell St	5270736.13	4284370.89
B14210	Apartment	Residential (B)	412-422	Emma St	5270882.60	4283594.97
B22605	Larry's Bar	Bar (E)	536	W 9th St	5270544.65	4283257.92
B00204	Piper's Ice Cream Bar	Restaurant (E)	520	W 6th St	5270494.40	4284919.76
B00305	Mexican Restaraunt	Restaurant (E)	514	W 6th St	5270589.50	4284913.89
B10701	Bar 32	Bar (E)	701	Bakewell St	5270719.86	4284237.67

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
B10405	Rosie's Tavern	Bar (E)	643	Bakewell St	5270749.24	4284306.89
B15002	House	Residential (B)	420; 417	W 9th St & Emma St	5270919.85	4283446.06
B15102	House	Residential (B)	418; 415	W 9th St & Emma St	5270950.02	4283445.21
B15202	House	Residential (B)	416; 413	W 9th St & Emma St	5270980.86	4283448.83
B04225-F	Kenney Shields Park	Park (C)	620	W 9th St	5270202.63	4283308.07
B07701-F	House	Residential (B)	603	W 9th St	5270532.45	4283108.05
B07801-F	House	Residential (B)	901	Philadelphia St	5270506.99	4283066.81
B07901-F	House	Residential (B)	911	Philadelphia St	5270518.94	4283038.57
B08001-F	House	Residential (B)	913	Philadelphia St	5270526.68	4283008.95
B17001	House	Residential (B)	505	W 9th St	5270778.20	4283162.45
B17101	House	Residential (B)	503	W 9th St	5270807.19	4283171.20
B17201	House	Residential (B)	431	W 9th St	5270833.16	4283195.91
B08801-F	House	Residential (B)	949	Philadelphia St	5270715.33	4282667.75
B08901-F	House	Residential (B)	951	Philadelphia St	5270745.07	4282616.87
B08701-F	House	Residential (B)	937	Philadelphia St	5270667.47	4282752.98
B08601-F	House	Residential (B)	935	Philadelphia St	5270662.53	4282777.35
B15301	House	Residential (B)	517	W 9th St	5270642.71	4283136.39
B15401	House	Residential (B)	515	W 9th St	5270660.85	4283141.71
B15501	House	Residential (B)	912	Philadelphia St	5270649.25	4283080.98
B16904	Apartments	Residential (B)	509; 511	W 9th St	5270707.71	4283173.24
B08501-F	House	Residential (B)	933	Philadelphia St	5270642.99	4282798.48
B08101-F	House	Residential (B)	917	Philadelphia St	5270552.06	4282990.26
B08401-F	House	Residential (B)	929	Philadelphia St	5270628.32	4282833.66
B08201-F	House	Residential (B)	921	Philadelphia St	5270574.55	4282945.37
B15601	House	Residential (B)	918	Philadelphia St	5270726.44	4283061.60
B08301-F	House	Residential (B)	923	Philadelphia St	5270590.47	4282906.90
B16202	House	Residential (B)	936	Philadelphia St	5270798.80	4282838.92
B15901	House	Residential (B)	924	Philadelphia St	5270762.35	4283011.48
B16001	House	Residential (B)	926	Philadelphia St	5270762.95	4282990.78
B17302	Houses (2)	Residential (B)	427	W 9th St	5270874.63	4283206.97
B22502	House	Residential (B)	946	Philadelphia St	5270877.84	4282758.22
B15701	House	Residential (B)	920	Philadelphia St	5270755.03	4283052.27
B15801	House	Residential (B)	922	Philadelphia St	5270761.23	4283029.25
B16301	House	Residential (B)	940	Philadelphia St	5270844.18	4282797.43
B16101	House	Residential (B)	934	Philadelphia St	5270826.37	4282896.60
B16401	House	Residential (B)	948	Philadelphia St	5270896.74	4282742.74
B16501	House	Residential (B)	952	Philadelphia St	5270938.05	4282692.54
B16601	House	Residential (B)	954	Philadelphia St	5270934.92	4282662.19
B17501	House	Residential (B)	909	York St	5270909.41	4283162.05
B18402	Around the Clock Childcare	Day Care Center (C)	510	Keene St	5270919.21	4282832.39
B18601	House	Residential (B)	929	York St	5270984.90	4282937.19
B18801	House	Residential (B)	933	York St	5270996.13	4282885.87
B22201	House	Residential (B)	958	Philadelphia St	5270961.27	4282625.22
B18701	House	Residential (B)	931	York St	5270997.73	4282910.62
B18901	House	Residential (B)	935	York St	5271003.99	4282860.65
B19001	House	Residential (B)	937	York St	5271008.16	4282835.17
B16701	House	Residential (B)	956	Philadelphia St	5270936.79	4282636.54
B16801	House	Residential (B)	513	Keene St	5270986.97	4282655.18
B17403	House	Residential (B)	421	W 9th St	5270933.07	4283214.27
B18501	House	Residential (B)	927	York St	5270990.88	4282961.90
B19101	House	Residential (B)	939	York St	5271025.61	4282809.54
B17601	House	Residential (B)	913	York St	5270932.42	4283143.52
B19402	House	Residential (B)	949	York St	5271059.80	4282681.77
B17701	House	Residential (B)	915	York St	5270927.77	4283094.51

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
B19201	House	Residential (B)	943	York St	5271046.38	4282762.06
B19301	House	Residential (B)	945	York St	5271054.74	4282727.22
B18001	House	Residential (B)	921	York St	5270958.76	4283020.22
B17801	House	Residential (B)	917	York St	5270950.69	4283075.94
B17901	House	Residential (B)	919	York St	5270957.94	4283050.45
B18101	House	Residential (B)	413	W 9th St	5271027.81	4283235.25
B18201	House	Residential (B)	411	W 9th St	5271030.77	4283311.35
B18301	House	Residential (B)	409	W 9th St	5271073.98	4283262.99
B19801	House	Residential (B)	936	York St	5271183.89	4282908.97
B19901	House	Residential (B)	938	York St	5271194.73	4282885.58
B19502	House	Residential (B)	930; 927	Main St & York St	5271179.52	4282991.93
B19602	House	Residential (B)	932; 929	Main St & York St	5271186.44	4282966.61
B19702	House	Residential (B)	931; 934	Main St & York St	5271196.16	4282942.93
B20002	Duplex	Residential (B)	940; 942	York St	5271204.41	4282854.53
B20104	Mr. T's Tavern on Main	Bar (E)	933	Main St	5271220.96	4282920.58
B20801	House	Residential (B)	1114	Main St	5271369.56	4282285.28
B21401	House	Residential (B)	1120	Main St	5271443.58	4282221.03
B20701	House	Residential (B)	1112	Main St	5271431.72	4282336.77
B20602	Houses (2)	Residential (B)	1108; 1110	Main St.	5271428.31	4282367.50
B20506	Apartment and Duplex	Residential (B)	1102; 1104	Main St	5271398.39	4282408.90
B20902	House	Residential (B)	423;424	W 11th St & Lehmer St	5271451.06	4282379.07
B21002	House	Residential (B)	421; 420	W 11th St & Lehmer St	5271484.32	4282388.87
B21102	House	Residential (B)	419; 420	W 11th St & Lehmer St	5271506.24	4282390.44
B21202	House	Residential (B)	418	Lehmer St	5271531.81	4282396.18
B20201	House	Residential (B)	1033	Lee St	5271579.69	4282656.07
B21303	House	Residential (B)	415; 416	W 11th St & Lehmer St	5271565.19	4282402.76
B20301	House	Residential (B)	1035	Lee St	5271591.19	4282620.79
B20401	House	Residential (B)	1037	Lee St	5271589.12	4282592.49
B09001-F	House	Residential (B)	514	MLK Jr. Blvd	5271168.43	4282087.98
B09101	House	Residential (B)	512	MLK Jr. Blvd	5271202.23	4282080.61
B09201	House	Residential (B)	510	MLK Jr. Blvd	5271222.14	4282071.99
B21801	House	Residential (B)	428	MLK Jr. Blvd	5271431.45	4282130.46
B21701	House	Residential (B)	430	MLK Jr. Blvd	5271413.83	4282126.84
B21901	House	Residential (B)	426	MLK Jr. Blvd	5271459.01	4282136.47
B22003	Apartment	Residential (B)	424	MLK Jr. Blvd	5271491.06	4282144.23
B22104	Apartment	Residential (B)	422	MLK Jr. Blvd	5271523.03	4282163.02
B21502	House	Residential (B)	425	Lehmer St	5271468.61	4282176.80
B21602	House	Residential (B)	422; 423	MLK Jr. Blvd & Lehmer St	5271497.24	4282185.32
C01201-F	House	Residential (B)	536	W 13th St	5270998.31	4281543.62
C01801-F	House	Residential (B)	510	Prague St	5271097.46	4281281.17
C01301	House	Residential (B)	534	W 13th St	5271016.88	4281560.36
C01401	House	Residential (B)	532	W 13th St	5271038.46	4281560.95
C01501	House	Residential (B)	530	W 13th St	5271059.33	4281592.36
C01601	House	Residential (B)	528	W 13th St	5271082.63	4281606.28
C01701	House	Residential (B)	526	W 13th St	5271108.38	4281605.24
C02201-F	House	Residential (B)	509	Prague St	5271160.93	4281095.08
C01901-V	House	Residential (B)	506	Prague St	5271122.90	4281347.55
C02001	House	Residential (B)	504	Prague St	5271165.65	4281320.14
C02101	House	Residential (B)	502	Prague St	5271201.17	4281305.86
C02501-F	House	Residential (B)	511	W 14th St	5271202.85	4280929.42
C02302	House	Residential (B)	508; 507	W 14th St & Prague St	5271165.12	4281165.83
C02402	House	Residential (B)	502; 503	W 14th St & Prague St	5271233.06	4281127.94
C04501-F	House	Residential (B)	700	Anns Ln	5270937.74	4279872.38
C02601	House	Residential (B)	503	W 14th St	5271300.09	4280960.03

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
C02701	House	Residential (B)	501	W 14th St	5271324.51	4280983.56
C02801	House	Residential (B)	1413	Kavanaugh St	5271290.43	4280869.54
C02901	House	Residential (B)	1415	Kavanaugh S	5271297.89	4280844.02
C03001	House	Residential (B)	1417	Kavanaugh St	5271304.76	4280818.59
C03101	House	Residential (B)	1419	Kavanaugh St	5271313.87	4280798.08
C03201	House	Residential (B)	1421	Kavanaugh St	5271320.82	4280776.34
C03301	House	Residential (B)	1423	Kavanaugh St	5271335.04	4280744.74
C04601-F	House	Residential (B)	1501	Monroe St	5270965.94	4279783.23
C04701-F	House	Residential (B)	1503	Monroe St	5270981.12	4279753.39
C04801-F	House	Residential (B)	1505	Monroe St	5271018.40	4279716.19
C00601-F	House	Residential (B)	527	Watkins St	5271060.13	4281682.89
C04901	House	Residential (B)	1507	Monroe St	5271049.43	4279685.35
C05001	House	Residential (B)	1509	Monroe St	5271071.06	4279645.77
C05101	House	Residential (B)	1513	Monroe St	5271095.71	4279609.91
C04401-F	Hospital	Hospital (C)	1500	James Simpson Jr Way	5271216.06	4280028.86
C07001-F	House	Residential (B)	625	Edgecliff Rd	5270923.57	4279411.31
C07101-F	Garden of Hope	Place of Worship (C)	699	Edgecliff Rd	5270920.19	4279118.98
C08501-F	House	Residential (B)	1502	Monroe St	5271128.15	4279898.46
C08601	House	Residential (B)	1504	Monroe St	5271154.58	4279862.25
C10004	Arboretum	Cemetery (C)	401	W 13th St	5271410.24	4281152.95
C00101-F	House	Residential (B)	532	Watkins St	5270981.10	4281773.51
C00201	House	Residential (B)	528	Watkins St	5271043.54	4281778.20
C00302	Duplex	Residential (B)	524	Watkins St	5271097.94	4281807.93
C00401	House	Residential (B)	520	Watkins St	5271144.96	4281794.94
C00501	House	Residential (B)	516	Watkins St	5271227.15	4281831.53
C00701	House	Residential (B)	519	Watkins St	5271180.68	4281663.16
C00801	House	Residential (B)	517	Watkins St	5271209.44	4281663.39
C00901	House	Residential (B)	513	Watkins St	5271258.76	4281670.53
C01001	House	Residential (B)	509	Watkins St	5271286.19	4281677.83
C03401	House	Residential (B)	1509	Kavanaugh St	5271396.22	4280578.00
C03502	House	Residential (B)	1502; 1501	Kavanaugh St; Morton Ave	5271579.55	4280714.83
C03602	House	Residential (B)	1506; 1503	Kavanaugh St; Morton Ave	5271586.50	4280682.85
C03703	House	Residential (B)	1505; 1508; 1510	Kavanaugh St; Morton Ave	5271587.96	4280659.15
C03802	House	Residential (B)	1512; 1509	Kavanaugh St; Morton Ave	5271597.45	4280631.49
C05201	House	Residential (B)	1515	Monroe St	5271119.19	4279576.25
C05301	House	Residential (B)	1517	Monroe St	5271146.59	4279541.81
C06501	House	Residential (B)	615	Edgecliff Rd	5271125.43	4279254.50
C06801	House	Residential (B)	621	Edgecliff Rd	5271010.62	4279350.52
C06901	House	Residential (B)	623	Edgecliff Rd	5270980.36	4279378.18
C07424-F	Apartment	Residential (B)	725	Edgecliff Rd	5270810.47	4278445.50
C07324-F	Apartment	Residential (B)	725	Edgecliff Rd	5270826.91	4278580.52
C08701	House	Residential (B)	1506	Monroe St	5271179.81	4279832.44
C08801	House	Residential (B)	1510	Monroe St	5271218.86	4279778.10
C08901	House	Residential (B)	1553	Jefferson Ave	5271213.22	4279887.15
C03903	House	Residential (B)	1514; 1511 & 1513	Kavanaugh St; Morton Ave	5271605.10	4280593.31
C04002	Houses (2)	Residential (B)	430; 1516	Linden Ave; Kavanaugh St	5271607.08	4280559.13
C04101	House	Residential (B)	431	Linden Ave	5271625.91	4280450.05
C04201	House	Residential (B)	442	Old Lexington Rd	5271534.38	4280392.41
C04301	House	Residential (B)	499	Linden Ave	5271474.55	4280351.18
C05401	House	Residential (B)	1519	Monroe St	5271175.55	4279500.32
C05501	House	Residential (B)	1601	Monroe St	5271207.64	4279458.05
C05601	House	Residential (B)	1603	Monroe St	5271235.04	4279415.78
C05701	House	Residential (B)	1605	Monroe St	5271256.96	4279371.94
C05801	House	Residential (B)	1607	Monroe St	5271287.96	4279325.50

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
C05901	House	Residential (B)	1611	Monroe St	5271301.18	4279285.06
C06001	House	Residential (B)	1615	Monroe St	5271337.25	4279218.11
C06101	House	Residential (B)	607	Edgecliff Rd	5271298.42	4279112.56
C06201	House	Residential (B)	609	Edgecliff Rd	5271249.37	4279143.87
C06301	House	Residential (B)	611	Edgecliff Rd	5271208.66	4279178.31
C06401	House	Residential (B)	613	Edgecliff Rd	5271179.96	4279212.23
C06601	House	Residential (B)	617	Edgecliff Rd	5271082.64	4279285.81
C06701	House	Residential (B)	619	Edgecliff Rd	5271048.19	4279309.29
C07223-F	Apartment	Residential (B)	725	Edgecliff Rd	5270960.17	4278748.43
C07524	Apartment	Residential (B)	725	Edgecliff Rd	5271068.20	4278643.93
C07624	Apartment	Residential (B)	725	Edgecliff Rd	5271133.95	4278490.11
C07701	House	Residential (B)	432	Watkins St	5271444.63	4281926.17
C07801	House	Residential (B)	430	Watkins St	5271481.91	4281922.16
C07901	House	Residential (B)	428	Watkins St	5271504.53	4281914.32
C08001	House	Residential (B)	426	Watkins St	5271526.88	4281912.62
C08101	House	Residential (B)	424	Watkins St	5271554.59	4281918.18
C08201	House	Residential (B)	422	Watkins St	5271578.65	4281932.58
C08303	House & Duplex	Residential (B)	424; 426	W 13th St	5271597.07	4281703.00
C08401	House	Residential (B)	420	W 13th St	5271642.16	4281715.83
C09001	House	Residential (B)	1555	Jefferson Ave	5271270.07	4279789.56
C09102	House	Residential (B)	1512; 1557	Monroe St & Jefferson Ave	5271274.25	4279733.00
C09202	House	Residential (B)	1516; 1561	Monroe St & Jefferson Ave	5271305.25	4279693.70
C09302	House	Residential (B)	1518; 1563	Monroe St & Jefferson Ave	5271324.63	4279669.90
C09401	House	Residential (B)	1520	Monroe St	5271323.89	4279604.17
C09501	House	Residential (B)	1565	Jefferson Ave	5271404.16	4279642.91
C09601	House	Residential (B)	1564	Jefferson Ave	5271484.35	4279711.81
C09701	House	Residential (B)	508	16th St W	5271508.64	4279787.12
C09801	House	Residential (B)	1602	Monroe St	5271367.05	4279520.91
C09901	House	Residential (B)	1606	Monroe St	5271432.18	4279451.21
C10101	House	Residential (B)	441	S Linden Ave	5271599.52	4280249.66
D00101	House	Residential (B)	736	Highland Ave	5270967.34	4277572.18
D00201	House	Residential (B)	738	Highland Ave	5270871.06	4277599.58
D00301	House	Residential (B)	740	Highland Ave	5270839.75	4277572.18
D00401	House	Residential (B)	744	Highland Ave	5270781.79	4277555.54
D00501	House	Residential (B)	748	Highland Ave	5270746.05	4277528.60
D00601	House	Residential (B)	752	Highland Ave	5270707.32	4277517.52
D00701	House	Residential (B)	756	Highland Ave	5270657.58	4277493.62
D00801	House	Residential (B)	760	Highland Ave	5270604.65	4277472.57
D00901	House	Residential (B)	768	Highland Ave	5270503.19	4277453.29
D01001	House	Residential (B)	772	Highland Ave	5270466.39	4277425.88
D01110-F	Northern KY Assisted Living	Residential (B)	800	Highland Ave	5270630.55	4277730.74
D01201	House	Residential (B)	777	Highland Ave	5270763.43	4277126.79
D01301	House	Residential (B)	781	Highland Ave	5270606.09	4277150.27
D01401	House	Residential (B)	785	Highland Ave	5270516.86	4277163.58
D01501	House	Residential (B)	793	Highland Ave	5270463.63	4277122.09
D01601	House	Residential (B)	1880	Ray's Ln	5270525.77	4277040.11
D01701	House	Residential (B)	1884	Ray's Ln	5270576.74	4277007.81
D01801	House	Residential (B)	1886	Ray's Ln	5270593.18	4276935.79
D01901	House	Residential (B)	797	Highland Ave	5270341.15	4277078.68
D02001	House	Residential (B)	1881	Ray's Ln	5270316.86	4276963.19
D02101	House	Residential (B)	1883	Ray's Ln	5270343.47	4276927.18
D02201	House	Residential (B)	1885	Ray's Ln	5270347.39	4276864.56
D02301	House	Residential (B)	1887	Ray's Ln	5270370.87	4276804.29
D02401	House	Residential (B)	801	Highland Ave	5270200.62	4277016.42

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
D02501	House	Residential (B)	805	Highland Ave	5270188.10	4276945.97
D02601	House	Residential (B)	807	Highland Ave	5270162.26	4276913.88
D02701	House	Residential (B)	809	Highland Ave	5270133.30	4276869.26
D02801	House	Residential (B)	811	Highland Ave	5270094.55	4276833.25
D02901	House	Residential (B)	813	Highland Ave	5270061.68	4276790.20
D03001	House	Residential (B)	815	Highland Ave	5270031.15	4276761.24
D03101	House	Residential (B)	817	Highland Ave	5270009.23	4276723.66
D03201	House	Residential (B)	819	Highland Ave	5269972.44	4276682.18
D03301	House	Residential (B)	821	Highland Ave	5269940.35	4276649.30
D03401	House	Residential (B)	823	Highland Ave	5269914.52	4276610.16
D03501	House	Residential (B)	825	Highland Ave	5269887.12	4276576.50
D03601	House	Residential (B)	903	Highland Ave	5269850.35	4276487.71
D03701	House	Residential (B)	905	Highland Ave	5269835.85	4276452.78
D03801	House	Residential (B)	907	Highland Ave	5269827.38	4276398.91
D03912	Apartment	Residential (B)	911	Highland Ave	5269808.24	4276315.86
D04012	Apartment	Residential (B)	917	Highland Ave	5269701.34	4276178.52
D04101-F	House	Residential (B)	812	Highland Ave	5269933.72	4276989.59
D04201-F	House	Residential (B)	816	Highland Ave	5269874.92	4276927.31
D04301-F	House	Residential (B)	818	Highland Ave	5269828.65	4276905.75
D04402-F	Duplex	Residential (B)	822; 820	Highland Ave	5269761.68	4276800.33
D04501-F	House	Residential (B)	906	Highland Ave	5269628.72	4276520.10
D04601	House	Residential (B)	908	Highland Ave	5269618.55	4276455.13
D04701	House	Residential (B)	910	Highland Ave	5269574.71	4276359.63
D04801-FV	House	Residential (B)	1000	Emery Dr	5269227.34	4276538.54
D05002	Apartment	Residential (B)	918-922	Highland Ave	5269440.47	4275996.23
D05112	Apartment	Residential (B)	980-1030	Emery Dr	5269235.09	4276076.07
D05212	Apartment	Residential (B)	990	Emery Dr	5269170.38	4276080.25
D05312	Apartment	Residential (B)	1012; 1014; 1016	Emery Dr	5268923.83	4276099.24
D05412-F	Apartment	Residential (B)	1020	Emery Dr	5269000.52	4276297.73
D05512-F	Apartment	Residential (B)	1030	Emery Dr	5268913.11	4276291.60
D05602-F	House	Residential (B)	1032; 1034	Stonehill Ct	5268724.98	4276148.45
D05702-F	House	Residential (B)	1036; 1038	Stonehill Ct	5268696.59	4276137.23
D05802-F	House	Residential (B)	1040; 1042	Stonehill Ct	5268662.26	4276116.76
D05902-F	House	Residential (B)	1044; 1046	Stonehill Ct	5268614.06	4276042.16
D06002-F	House	Residential (B)	1048; 1050	Stonehill Ct	5268598.88	4276006.50
D06102-F	House	Residential (B)	1052; 1054	Stonehill Ct	5268593.60	4275978.11
D06202	House	Residential (B)	1056; 1058	Stonehill Ct	5268678.77	4275868.52
D06302	House	Residential (B)	1060; 1062	Stonehill Ct	5268703.86	4275873.14
D06402	House	Residential (B)	1064; 1066	Stonehill Ct	5268748.09	4275871.16
D06502	House	Residential (B)	1068; 1070	Stonehill Ct	5268806.85	4275890.30
D06602	House	Residential (B)	1072; 1074	Stonehill Ct	5268840.52	4275912.09
D06702	House	Residential (B)	1076; 1078	Stonehill Ct	5268867.59	4275934.54
D06801	House	Residential (B)	901	Highland Ave	5269861.90	4276537.73
E00301	House	Residential (B)	205	Western Ave	5268703.62	4286350.39
E00401	House	Residential (B)	207	Western Ave	5268708.49	4286322.90
E00501	House	Residential (B)	209	Western Ave	5268708.49	4286298.55
E00601	House	Residential (B)	211	Western Ave	5268729.71	4286273.15
E00701	House	Residential (B)	223	Western Ave	5268777.87	4286144.44
E00801	House	Residential (B)	227	Western Ave	5268799.85	4286084.60
E01001	House	Residential (B)	231	Western Ave	5268801.95	4286044.31
E01701	House	Residential (B)	307	Western Ave	5268831.10	4285916.44
E01801	House	Residential (B)	309	Western Ave	5268838.76	4285897.30
E02001	House	Residential (B)	313	Western Ave	5268842.93	4285861.47
E02101	House	Residential (B)	315	Western Ave	5268841.40	4285845.08

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
E02201	House	Residential (B)	317	Western Ave	5268849.89	4285829.46
E02301	House	Residential (B)	319	Western Ave	5268851.28	4285811.72
E02401	House	Residential (B)	321	Western Ave	5268874.87	4285728.03
E02501	House	Residential (B)	308	Wright St	5268746.41	4285912.56
E02601	House	Residential (B)	310	Wright St	5268736.33	4285868.39
E02701	House	Residential (B)	312	Wright St	5268736.67	4285819.00
E02801	House	Residential (B)	333	Western Ave	5268848.92	4285601.61
E02901	House	Residential (B)	401	Western Ave	5268859.81	4285556.89
E03001	House	Residential (B)	405	Western Ave	5268868.15	4285527.46
E03101	House	Residential (B)	407	Western Ave	5268875.50	4285495.06
E03201	House	Residential (B)	409	Western Ave	5268884.69	4285461.40
E03401	House	Residential (B)	411	Western Ave	5268892.01	4285433.88
E03501	House	Residential (B)	413	Western Ave	5268902.48	4285404.07
E03601	House	Residential (B)	417;419	Western Ave	5268924.09	4285351.26
E03701	House	Residential (B)	429	Western Ave	5268961.35	4285256.23
E03801	House	Residential (B)	431	Western Ave	5268968.91	4285208.58
E03901	House	Residential (B)	507	Western Ave	5268966.71	4285123.33
E04001	House	Residential (B)	511	Western Ave	5268974.98	4285052.68
E04101	House	Residential (B)	515	Western Ave	5268972.42	4284956.71
E04201	House	Residential (B)	521	Western Ave	5268995.63	4284880.62
E04301	House	Residential (B)	525	Western Ave	5269079.24	4284813.12
E04401	House	Residential (B)	601	Western Ave	5269092.11	4284762.33
E04501	House	Residential (B)	605	Western Ave	5269069.86	4284671.82
E04601	House	Residential (B)	611	Western Ave	5269060.25	4284633.24
E04701	House	Residential (B)	613	Western Ave	5269085.13	4284605.73
E04801	House	Residential (B)	633	Western Ave	5269064.85	4284511.18
E04901	House	Residential (B)	635	Western Ave	5269096.16	4284459.03
E05002	House	Residential (B)	506;504	Western Ave	5269168.30	4285229.79
E05102	Duplex	Residential (B)	508;510	Western Ave	5269191.22	4285148.35
E05202	Duplex	Residential (B)	514;512	Western Ave	5269206.99	4285054.18
E05302	Duplex	Residential (B)	516;518	Western Ave	5269220.45	4285003.80
E05402	Duplex	Residential (B)	520;522	Western Ave	5269230.10	4284930.59
E05502	Duplex	Residential (B)	524;526	Western Ave	5269239.15	4284881.56
E05602	Houses (2)	Residential (B)	604; 606	Western Ave	5269244.73	4284778.51
E05701	House	Residential (B)	616;618	Western Ave	5269283.78	4284640.91
E05801	House	Residential (B)	622	Western Ave	5269295.08	4284573.93
E05901	House	Residential (B)	628;630	Western Ave	5269310.44	4284500.49
E06001	House	Residential (B)	632	Western Ave	5269328.88	4284459.67
E06101	House	Residential (B)	636	Western Ave	5269324.63	4284414.66
E06201	House	Residential (B)	638	Western Ave	5269329.14	4284390.27
E06301	House	Residential (B)	640	Western Ave	5269329.13	4284358.54
E06401-F	House	Residential (B)	601;603	Crescent Ave	5269325.43	4284768.29
E06501-F	House	Residential (B)	605	Crescent Ave	5269287.46	4284710.36
E06601-F	House	Residential (B)	607	Crescent Ave	5269301.43	4284687.85
E06701-F	House	Residential (B)	609	Crescent Ave	5269322.10	4284641.99
E06801-F	House	Residential (B)	611	Crescent Ave	5269327.69	4284608.57
E06901-F	House	Residential (B)	615	Crescent Ave	5269339.89	4284550.93
E07001-F	House	Residential (B)	635;637	Crescent Ave	5269360.64	4284419.79
E07101-F	House	Residential (B)	641;643	Crescent Ave	5269390.20	4284352.66
E07201	House	Residential (B)	619	Western Ave	5269082.33	4284575.03
F00102-F	Permitted Housing	Residential (B)	660; 668	Western Ave	5269345.58	4284158.36
F00201-F	Permitted Housing	Residential (B)	676	Western Ave	5269349.49	4284105.13
F00301-F	Permitted Housing	Residential (B)	684	Western Ave	5269344.80	4284048.77
F00401-F	Permitted Housing	Residential (B)	692	Western Ave	5269347.93	4284004.15

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
F00501-F	Permitted Housing	Residential (B)	700	Western Ave	5269351.06	4283954.84
F00601-F	Permitted Housing	Residential (B)	708	Western Ave	5269350.28	4283902.39
F00701-F	Permitted Housing	Residential (B)	716	Western Ave	5269351.84	4283849.95
F00804-F	Landominiums	Residential (B)	725; 727; 729;731	Crescent Ave	5269479.82	4283776.36
F00904	Landominiums	Residential (B)	726;728; 730; 732	Western Ave	5269361.63	4283777.93
F01002-F	House	Residential (B)	804; 806	Crescent Ave	5269616.24	4283646.77
F01101-F	House	Residential (B)	808	Crescent Ave	5269604.03	4283597.92
F01201-F	House	Residential (B)	810;812	Crescent Ave	5269615.34	4283554.84
F01302-F	House	Residential (B)	816; 818	Crescent Ave	5269622.33	4283499.02
F01501-F	House	Residential (B)	820	Crescent Ave	5269610.12	4283451.52
F01601-F	House	Residential (B)	822	Crescent Ave	5269613.51	4283429.74
F01701-F	House	Residential (B)	824	Crescent Ave	5269614.14	4283396.36
F01801-F	House	Residential (B)	832	Crescent Ave	5269589.24	4283318.91
F01901-F	House	Residential (B)	834	Crescent Ave	5269596.02	4283290.61
F02001-F	House	Residential (B)	836	Crescent Ave	5269603.93	4283259.56
F02101-F	House	Residential (B)	846	Crescent Ave	5269637.72	4283191.48
F02201-F	House	Residential (B)	848	Crescent Ave	5269653.24	4283176.27
F02301-F	House	Residential (B)	850	Crescent Ave	5269669.75	4283155.17
F02401-F	House	Residential (B)	852	Crescent Ave	5269674.72	4283131.67
F02502-F	Houses (2)	Residential (B)	854	Crescent Ave	5269687.10	4283097.54
F02601-F	House	Residential (B)	856	Crescent Ave	5269725.17	4283044.95
F02701-F	House	Residential (B)	858	Crescent Ave	5269735.03	4283021.79
F02801-F	House	Residential (B)	860	Crescent Ave	5269748.29	4283004.60
F02901-F	House	Residential (B)	862	Crescent Ave	5269755.50	4282974.12
F03001-F	House	Residential (B)	866	Crescent Ave	5269776.43	4282939.98
F03101-F	House	Residential (B)	868	Crescent Ave	5269778.39	4282919.10
F03201-F	House	Residential (B)	870	Crescent Ave	5269789.12	4282892.45
F03301-F	House	Residential (B)	872	Crescent Ave	5269794.94	4282865.42
F03401	House	Residential (B)	802; 804; 806	Western Ave	5269340.47	4283637.92
F03501	House	Residential (B)	808	Western Ave	5269338.15	4283589.41
F03601	House	Residential (B)	814	Western Ave	5269335.60	4283538.95
F03701	House	Residential (B)	818	Western Ave	5269344.16	4283488.84
F03801	House	Residential (B)	822	Western Ave	5269345.46	4283436.78
F03901	House	Residential (B)	824	Western Ave	5269344.28	4283389.05
F04001	House	Residential (B)	826	Western Ave	5269343.48	4283357.90
F04102	Apartment	Residential (B)	828	Western Ave	5269343.20	4283323.82
F04201	House	Residential (B)	832;834	Western Ave	5269365.92	4283237.35
F04301	House	Residential (B)	811;813	Crescent Ave	5269441.82	4283523.39
F04401	House	Residential (B)	815;817	Crescent Ave	5269446.73	4283494.05
F04501	House	Residential (B)	819	Crescent Ave	5269452.00	4283441.11
F04601	House	Residential (B)	829	Crescent Ave	5269446.91	4283262.99
F04701	House	Residential (B)	831	Crescent Ave	5269452.40	4283224.48
F04801	House	Residential (B)	833	Crescent Ave	5269462.94	4283203.88
F04901	House	Residential (B)	837	Crescent Ave	5269475.85	4283159.28
F05001	House	Residential (B)	849	Crescent Ave	5269516.94	4283044.54
F05101	House	Residential (B)	851	Crescent Ave	5269532.11	4283022.03
F05201	House	Residential (B)	853	Crescent Ave	5269550.94	4282988.03
F05301	House	Residential (B)	855	Crescent Ave	5269568.00	4282975.74
F05401	House	Residential (B)	857	Crescent Ave	5269570.13	4282948.74
F05501	House	Residential (B)	859	Crescent Ave	5269587.44	4282920.00
F05601	House	Residential (B)	702	W 9th St	5269661.77	4282861.62
F05801	House	Residential (B)	706	W 9th St	5269617.79	4282846.64
F05901	House	Residential (B)	710	W 9th St	5269565.18	4282837.57
F06001	House	Residential (B)	714	W 9th St	5269527.41	4282824.18

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
F06102	House	Residential (B)	716; 720	W 9th St	5269503.86	4282808.38
F06301	House	Residential (B)	724	W 9th St	5269415.91	4282793.89
F06401	House	Residential (B)	728	W 9th St	5269392.17	4282780.36
F06501	House	Residential (B)	730	W 9th St	5269364.09	4282754.11
F06601	House	Residential (B)	868	Western Ave	5269405.33	4282832.92
F06701	House	Residential (B)	857	Western Ave	5269230.67	4282969.41
F06801	House	Residential (B)	859	Western Ave	5269235.66	4282933.54
F06901	House	Residential (B)	861;867	Western Ave	5269241.36	4282907.45
F07001	House	Residential (B)	863	Western Ave	5269249.39	4282876.62
F07103-F	Kiddie City Childcare	Day Care Center (C)	641	W 9th St	5269775.71	4282724.38
F07201	House	Residential (B)	902	Baker St	5269699.29	4282760.97
F07301	House	Residential (B)	904	Baker St	5269715.35	4282736.56
F07401	House	Residential (B)	906	Baker St	5269727.56	4282712.93
F07501	House	Residential (B)	908	Baker St	5269735.90	4282685.54
F07602-F	Duplex	Residential (B)	910	Baker St	5269748.51	4282650.30
F07701-F	House	Residential (B)	912	Baker St	5269763.50	4282619.73
F07801-F	House	Residential (B)	916	Baker St	5269778.85	4282585.62
F07904-F	Standard Club of Covington	Club (C)	643	Laurel St	5269929.15	4282542.94
F08001	House	Residential (B)	920	Baker St	5269795.94	4282516.49
F08301	House	Residential (B)	630	Lewis St	5269963.73	4282401.28
F08401	House	Residential (B)	628	Lewis St	5269984.39	4282407.21
F08501	House	Residential (B)	624	Lewis St	5270036.09	4282407.38
F08601	House	Residential (B)	622	Lewis St	5270063.66	4282417.56
F08702	House	Residential (B)	902	Western Ave	5269424.14	4282648.37
F08801	House	Residential (B)	721	W 9th St	5269478.27	4282612.10
F08901	House	Residential (B)	719	W 9th St	5269513.69	4282623.14
F09001	House	Residential (B)	901	Baker St	5269534.09	4282694.90
F09101	House	Residential (B)	905	Baker St	5269552.14	4282645.57
F09201	House	Residential (B)	909	Baker St	5269562.64	4282626.47
F09302	Duplex	Residential (B)	911	Baker St	5269567.83	4282614.52
F09401	House	Residential (B)	913	Baker St	5269582.99	4282581.22
F09501	House	Residential (B)	915	Baker St	5269578.24	4282558.76
F09601	House	Residential (B)	917	Baker St	5269575.60	4282521.41
F10512	Apartment	Residential (B)	918-928	Western Ave	5269477.79	4282462.16
F10601	House	Residential (B)	916	Western Ave	5269428.19	4282493.45
F10701	House	Residential (B)	914	Western Ave	5269430.85	4282530.21
F10802	House	Residential (B)	908	Western Ave	5269419.48	4282568.88
F10901	House	Residential (B)	904	Western Ave	5269431.93	4282599.05
F11001	House	Residential (B)	899	Western Ave	5269250.44	4282634.20
F11101	House	Residential (B)	901	Western Ave	5269255.64	4282592.71
F11202	Houses (2)	Residential (B)	905; 909	Western Ave	5269257.03	4282538.25
F11301	House	Residential (B)	902	Worth St	5269210.30	4282513.18
F11401	House	Residential (B)	911-913	Western Ave	5269266.82	4282480.41
F11501	House	Residential (B)	915	Western Ave	5269257.83	4282444.49
F13303	Apartment	Residential (B)	702	W Pike St	5269636.06	4282009.80
F13402	Duplex	Residential (B)	662	W Pike St	5269685.54	4282020.41
F15401-FV	House	Residential (B)	617	W Pike St	5270225.41	4282204.80
F15501	House	Residential (B)	619	W Pike St	5270169.95	4282156.30
F15606	Playground at Prince of Peace Catholic School	Playground (C)	627	W Pike St	5270098.30	4282037.17
F15701	House	Residential (B)	640	W 11th St	5269926.21	4281946.63
F15801	House	Residential (B)	642	W Pike St	5269894.71	4281956.19
F15904	Apartment	Residential (B)	651	W Pike St	5269914.35	4281868.99
F16001	House	Residential (B)	653	W Pike St	5269870.13	4281897.45

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
F16101	House	Residential (B)	646	W 11th St	5269878.72	4281842.69
F16202	Duplex	Residential (B)	655	W Pike St	5269850.92	4281880.64
F16301	House	Residential (B)	657	W Pike St	5269832.37	4281857.92
F16405	Apartment	Residential (B)	661	Pike	5269804.77	4281861.47
F16502	Duplex	Residential (B)	1008; 1010	Hermes Ave	5269821.07	4281837.36
F16601	House	Residential (B)	618	W 11th St	5270191.07	4282081.20
F16701	House	Residential (B)	614	W 11th St	5270235.07	4282099.77
F16802	House	Residential (B)	608; 610	W 11th St	5270284.41	4282132.72
F16901-F	House	Residential (B)	606	W 11th St	5270314.29	4282134.62
F17001-F	House	Residential (B)	609	W 11th St	5270361.84	4281928.12
F17101	House	Residential (B)	611	W 11th St	5270328.66	4281927.47
F17201	House	Residential (B)	613	W 11th St	5270308.31	4281913.38
F17301	House	Residential (B)	615	W 11th St	5270261.32	4281877.84
F17401	House	Residential (B)	619	W 11th St	5270230.61	4281905.66
F17501	House	Residential (B)	621	W 11th St	5270206.88	4281873.35
F17601	House	Residential (B)	625	W 11th St	5270173.60	4281862.88
F17701	House	Residential (B)	627	W 11th St	5270155.51	4281835.83
F17801	House	Residential (B)	629	W 11th St	5270127.84	4281828.54
F17901	House	Residential (B)	633;631	W 11th St	5270094.48	4281792.16
F18001	House	Residential (B)	635	W 11th St	5270064.47	4281783.69
F18101	House	Residential (B)	637	W 11th St	5270042.23	4281781.99
F18201	House	Residential (B)	639	W 11th St	5270019.79	4281771.08
F18301	House	Residential (B)	641	W 11th St	5269988.52	4281766.22
F18405	Park	Park (C)	643	W 11th St	5269906.50	4281754.95
F18501	House	Residential (B)	650	W 12th St	5269921.07	4281648.48
F18601	House	Residential (B)	646	W 12th St	5269953.28	4281657.21
F18701	House	Residential (B)	642	W 12th St	5269996.83	4281692.65
F18801	House	Residential (B)	640	W 12th St	5270022.41	4281700.58
F18901	House	Residential (B)	638	W 12th St	5270045.72	4281709.22
F19001	House	Residential (B)	636	W 12th St	5270069.11	4281714.29
F19101	House	Residential (B)	634	W 12th St	5270091.18	4281724.91
F19201	House	Residential (B)	632	W 12th St	5270114.29	4281733.27
F19301	House	Residential (B)	630	W 12th St	5270140.01	4281747.16
F19401	House	Residential (B)	628	W 12th St	5270159.06	4281771.86
F19501	House	Residential (B)	626	W 12th St	5270177.97	4281787.43
F19601	House	Residential (B)	624	W 12th St	5270204.50	4281789.77
F19701	House	Residential (B)	622	W 12th St	5270222.84	4281806.93
F19801	House	Residential (B)	620	W 12th St	5270241.70	4281813.95
F19901	House	Residential (B)	618	W 12th St	5270270.95	4281829.89
F20001	House	Residential (B)	616	W 12th St	5270293.21	4281835.99
F20101	House	Residential (B)	612	W 12th St	5270351.34	4281795.48
F20201	House	Residential (B)	610	W 12th St	5270358.78	4281865.32
F20301-F	House	Residential (B)	608	W 12th St	5270384.24	4281873.06
F20402	DUplex	Residential (B)	702	W 12th St	5269871.30	4281559.12
F20501	House	Residential (B)	704	W 12th St	5269859.39	4281556.33
F20601	House	Residential (B)	1113	Hermes Ave	5269843.38	4281589.77
F20701	House	Residential (B)	1111	Hermes Ave	5269828.38	4281607.25
F20802	Duplex	Residential (B)	1107-09	Hermes Ave	5269771.54	4281620.57
F20904	Apartment	Residential (B)	1105	Hermes Ave	5269747.19	4281643.01
F21001	House	Residential (B)	1103	Hermes Ave	5269735.21	4281678.99
F21106	Apartment	Residential (B)	701;703	W Pike St	5269728.75	4281814.40
F21205	Apartment and House	Residential (B)	705-707; 709	W Pike St	5269673.95	4281791.44
F21301	House	Residential (B)	711	W 12th St	5269836.31	4281396.42
F21401	House	Residential (B)	707	W 12th St	5269899.14	4281405.06

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
F21501	House	Residential (B)	705	W 12th St	5269920.06	4281420.75
F21601	House	Residential (B)	703	W 12th St	5269939.98	4281434.87
F21701	House	Residential (B)	1207	Hermes AVe	5269957.46	4281456.96
F21804	Apartment	Residential (B)	649;647	Hermes Ave	5270017.66	4281534.41
F21902	Houses (2)	Residential (B)	641; 643	W 12th St	5270099.74	4281505.78
F22001	House	Residential (B)	639	W 12th St	5270118.68	4281527.46
F22101	House	Residential (B)	637	W 12th St	5270138.69	4281540.67
F22201	House	Residential (B)	635	W 12th St	5270155.59	4281563.84
F22302	House	Residential (B)	631-33;629	W 12th St	5270208.16	4281567.95
F22401	House	Residential (B)	627	W 12th St	5270246.19	4281601.37
F22501	House	Residential (B)	625	W 12th St	5270275.84	4281603.54
F22601	House	Residential (B)	621;623	W 12th St	5270306.27	4281626.39
F22701	House	Residential (B)	619	W 12th St	5270340.55	4281642.49
F22801-F	House	Residential (B)	617	W 12th St	5270366.94	4281656.91
F22901-F	House	Residential (B)	612	W Watkins St	5270403.87	4281566.13
F23001	House	Residential (B)	616	W Watkins St	5270384.02	4281532.79
F23101	House	Residential (B)	618	W Watkins St	5270350.90	4281501.64
F23201	House	Residential (B)	620	W Watkins St	5270299.47	4281544.71
F23301	House	Residential (B)	622	W Watkins St	5270282.06	4281530.29
F23401	House	Residential (B)	624	W Watkins St	5270258.63	4281507.21
F23501	House	Residential (B)	626	W Watkins St	5270245.47	4281493.16
F23601	House	Residential (B)	628	W Watkins St	5270215.36	4281488.86
F23701	House	Residential (B)	630	W Watkins St	5270201.81	4281472.14
F23801	House	Residential (B)	632	W Watkins St	5270176.60	4281464.12
F23901	House	Residential (B)	634	W Watkins St	5270154.81	4281443.01
F24001	House	Residential (B)	636	W Watkins St	5270130.24	4281430.21
F24102	Duplex	Residential (B)	638;640	W Watkins St	5270130.33	4281381.08
F24208	Apartment	Residential (B)	1211;1213	Hermes Ave	5269942.43	4281364.29
F24301	House	Residential (B)	1206	W Pike St	5269821.39	4281345.71
F24401	House	Residential (B)	1208	W Pike St	5269830.43	4281317.88
F24501	House	Residential (B)	1212	W Pike St	5269836.35	4281299.80
F24601	House	Residential (B)	1214	W Pike St	5269844.00	4281280.32
F24701	House	Residential (B)	1216	W Pike St	5269872.17	4281263.62
F24801	House	Residential (B)	1218	W Pike St	5269899.65	4281228.32
F24901	House	Residential (B)	1228	W Pike St	5269944.56	4281124.13
F25001	House	Residential (B)	1232	W Pike St	5269987.57	4281074.51
F25101	House	Residential (B)	1234	W Pike St	5269980.79	4281045.41
F25201	Permitted Housing	Residential (B)	1246	Hermes Ave	5270091.35	4280900.64
F25301	House	Residential (B)	1249	W Pike St	5269955.66	4280815.68
F25401	House	Residential (B)	1251	W Pike St	5269975.60	4280780.65
F25501	House	Residential (B)	1253	W Pike St	5270007.20	4280760.71
F25601	House	Residential (B)	1255	W Pike St	5269988.12	4280716.05
F25701	House	Residential (B)	1257	W Pike St	5269999.08	4280697.76
F25801-F	House	Residential (B)	1261	W Pike St	5270072.08	4280655.14
F25904-F	Pool at Views Condominiums	Residential (B)	1281;1242	Grays Peak	5269891.87	4280585.69
F26001-F	House	Residential (B)	1325	Hermes Ave	5270470.32	4280641.89
F26101	House	Residential (B)	1321	Hermes Ave	5270389.09	4280669.19
F26201	House	Residential (B)	1319	Hermes Ave	5270399.30	4280724.01
F26301	House	Residential (B)	1313	Hermes Ave	5270328.46	4280759.34
F26401	House	Residential (B)	1307	Hermes Ave	5270273.38	4280827.89
F26501	House	Residential (B)	1305	Hermes Ave	5270249.67	4280852.23
F26601	House	Residential (B)	1245;1247	Hermes Ave	5270172.75	4280981.85
F26701	House	Residential (B)	1243	Hermes Ave	5270143.95	4281020.72
F26801	House	Residential (B)	1241	Hermes Ave	5270146.93	4281052.25

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
F26901	House	Residential (B)	1239	Hermes Ave	5270129.78	4281069.40
F27001	House	Residential (B)	1237	Hermes Ave	5270111.79	4281098.18
F27101	House	Residential (B)	1235	Hermes Ave	5270106.24	4281115.63
F27201	House	Residential (B)	1231	Hermes Ave	5270076.49	4281154.04
F27301	House	Residential (B)	1221	Hermes Ave	5270027.78	4281257.73
F27401	House	Residential (B)	1223	Hermes Ave	5270037.86	4281240.23
F27503	House and Apartment	Residential (B)	1219; 1217	Hermes Ave	5269990.95	4281300.90
F27602	Duplex	Residential (B)	1217	Hermes Ave	5269979.63	4281325.68
F27702	Houses (2)	Residential (B)	637; 639	W Watkins St	5270172.33	4281247.60
F27801	House	Residential (B)	635	W Watkins St	5270207.08	4281264.98
F27901	House	Residential (B)	633	W Watkins St	5270236.11	4281266.52
F28001-F	House	Residential (B)	631	W Watkins St	5270261.04	4281266.30
F28101-F	House	Residential (B)	629	W Watkins St	5270279.92	4281288.23
F28201-F	House	Residential (B)	627	W Watkins St	5270302.99	4281315.86
F28301-F	House	Residential (B)	623	W Watkins St	5270345.53	4281320.64
F28401-F	House	Residential (B)	621	W Watkins St	5270364.05	4281335.99
F28501-F	House	Residential (B)	619	W Watkins St	5270392.15	4281335.05
F28601-F	House	Residential (B)	617	W Watkins St	5270417.46	4281336.90
F28701-F	House	Residential (B)	615	W Watkins St	5270441.67	4281355.07
F28801-F	House	Residential (B)	613	W Watkins St	5270461.26	4281370.78
F28901-F	House	Residential (B)	611	W Watkins St	5270488.48	4281374.36
F29001-F	House	Residential (B)	609	W Watkins St	5270501.60	4281394.63
F29101-F	House	Residential (B)	607	W Watkins St	5270520.70	4281408.70
F29201	House	Residential (B)	1232	Hermes Ave	5270226.60	4281223.95
F29301-F	House	Residential (B)	1234	Hermes Ave	5270257.22	4281213.51
F29401-F	House	Residential (B)	1236	Hermes Ave	5270272.18	4281191.94
F29501-F	House	Residential (B)	1240	Hermes Ave	5270288.78	4281158.16
F29501-F	House	Residential (B)	1238	Hermes Ave	5270283.36	4281181.63
F29601-F	House	Residential (B)	1242	Hermes Ave	5270303.05	4281132.06
F29701-F	House	Residential (B)	1244	Hermes Ave	5270317.63	4281109.72
F29801-F	House	Residential (B)	1246	Hermes Ave	5270328.20	4281089.55
F29901-F	House	Residential (B)	1248	Hermes Ave	5270344.41	4281062.58
F30001-F	House	Residential (B)	1250	Hermes Ave	5270358.13	4281046.80
F30101-F	House	Residential (B)	1252	Hermes Ave	5270365.95	4281028.69
F30201-F	House	Residential (B)	1302	Hermes Ave	5270420.31	4280980.58
F30301-F	House	Residential (B)	1304	Hermes Ave	5270432.36	4280951.49
F30401-F	House	Residential (B)	1308	Hermes Ave	5270461.17	4280911.36
F30501-F	House	Residential (B)	1312	Hermes Ave	5270481.56	4280856.52
F30601-F	House	Residential (B)	1314	Hermes Ave	5270498.34	4280835.60
F30701-F	House	Residential (B)	1316	Hermes Ave	5270507.64	4280810.94
F30801-F	House	Residential (B)	1318	Hermes Ave	5270520.34	4280789.92
F30901-F	House	Residential (B)	1320	Hermes Ave	5270530.38	4280763.17
F31001-F	House	Residential (B)	1324	Hermes Ave	5270556.05	4280730.01
F31101	House	Residential (B)	1249	W Pike St	5269907.97	4280793.55
F31301	House	Residential (B)	644	W 12th St	5269969.31	4281681.30
F31401	House	Residential (B)	1229	Hermes Ave	5270065.50	4281176.31
F31501	House	Residential (B)	626;620	Lewis St	5270011.66	4282407.36
F316017	School	School (D)	625	W Pike St	5270135.10	4282105.84
E00101-F	Hotel	Hotel (E)	200	Crescent Ave	5269161.02	4286357.90
E00201	House	Residential (B)	203	Western Ave	5268732.52	4286386.76
E00901	House	Residential (B)	229	Western Ave	5268804.20	4286054.39
E01101	House	Residential (B)	233	Western Ave	5268815.37	4286036.31
E01201	House	Residential (B)	235	Western Ave	5268824.03	4286010.16
E01301	House	Residential (B)	237	Western Ave	5268832.23	4285995.42

Table 1: Receptor Description (cont.)

RECEIVER	LAND USE TYPE	DESCRIPTION (ACTIVITY CATEGORY)	ADDRESS		LOCATION	
			HOUSE NUMBER	STREET	EASTING (X)	NORTHING (Y)
E01401	House	Residential (B)	239	Western Ave	5268836.83	4285980.77
E01501	House	Residential (B)	241	Western Ave	5268837.15	4285960.85
E01601	House	Residential (B)	305	Western Ave	5268841.02	4285935.93
E01901	House	Residential (B)	311	Western Ave	5268854.53	4285887.40
F09701	House	Residential (B)	708	Lewis St	5269682.88	4282378.66
F09804	Apartment	Residential (B)	716	Lewis St	5269610.60	4282333.05
F09901	House	Residential (B)	720	Lewis St	5269548.08	4282304.83
F10001	House	Residential (B)	724	Lewis St	5269503.62	4282293.36
F10102	Duplex	Residential (B)	726	Lewis St	5269466.99	4282282.80
F10202	Duplex	Residential (B)	730; 732	Lewis St	5269433.38	4282291.39
F10301	House	Residential (B)	930	Western Ave	5269415.39	4282262.25
F10402	Duplex	Residential (B)	734; 736	Lewis St	5269434.86	4282219.43
F11602	Houses (2)	Residential (B)	917; 919	Western Ave	5269265.32	4282394.65
F11701	House	Residential (B)	908	Worth St	5269215.63	4282386.66
F11801	House	Residential (B)	921	Western Ave	5269266.08	4282341.21
F11901	House	Residential (B)	923	Western Ave	5269335.52	4282342.40
F12001	House	Residential (B)	925	Western Ave	5269340.43	4282315.41
F12101	House	Residential (B)	927	Western Ave	5269335.23	4282289.03
F12202	Duplex	Residential (B)	929; 931	Western Ave	5269335.36	4282265.31
F12301	House	Residential (B)	805	Lewis St	5269335.53	4282071.61
F12403	House	Residential (B)	801-03	Lewis St	5269354.19	4282073.23
F12501	House	Residential (B)	959	Western Ave	5269310.80	4281892.51
F12601	House	Residential (B)	961	Western Ave	5269325.86	4281860.86
F12701	House	Residential (B)	963	Western Ave	5269349.89	4281841.66
F12804	Apartment	Residential (B)	802	Montague Rd	5269410.29	4281740.57
F12901	House	Residential (B)	804	Montague Rd	5269365.70	4281798.13
F13003	House	Residential (B)	714	W Pike St	5269497.49	4281874.69
F13105	Apartment	Residential (B)	712	W Pike St	5269518.58	4281912.66
F13201	House	Residential (B)	710	W Pike St	5269561.79	4281977.75
F13502	Duplex	Residential (B)	656	W Pike St	5269723.34	4282021.47
F13601	House	Residential (B)	958	Western Ave	5269472.47	4281968.20
F13701	House	Residential (B)	954	Western Ave	5269467.14	4282014.14
F13801	House	Residential (B)	950	Western Ave	5269459.64	4282050.11
F13901	House	Residential (B)	948	Western Ave	5269462.65	4282072.01
F14001	House	Residential (B)	946	Western Ave	5269459.64	4282095.62
F14102	House	Residential (B)	727; 729	Lewis St	5269502.62	4282089.43
F14201	House	Residential (B)	725	Lewis St	5269525.72	4282114.13
F14301	House	Residential (B)	723	Lewis St	5269553.39	4282113.78
F14402	House	Residential (B)	721	Lewis St	5269582.94	4282118.97
F14501	House	Residential (B)	719	Lewis St	5269610.53	4282131.32
F14601	House	Residential (B)	715	Lewis St	5269652.05	4282147.36
F14701	House	Residential (B)	713	Lewis St	5269678.48	4282156.49
F14801	House	Residential (B)	711	Lewis St	5269707.43	4282155.56
F14901	House	Residential (B)	709	Lewis St	5269722.66	4282174.77
F15001	House	Residential (B)	707	Lewis St	5269749.77	4282181.87
F15101	House	Residential (B)	705	Lewis St	5269774.61	4282181.18
F15201	House	Residential (B)	703	Lewis St	5269793.23	4282185.12
F15301-F	House	Residential (B)	701	Lewis St	5269834.63	4282196.94
F31201	House	Residential (B)	956	Western Ave	5269469.21	4281990.86

TABLE 2: RESULTS FOR EXISTING ALIGNMENT

Table 2: Results for Existing Alignment

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
A00104	Hotel (E)	71	521	67.5	No
A00216-F	Hotel (E)	71	155	74.0	Yes
A00316-F	Hotel (E)	71	155	74.3	Yes
A00416-F	Hotel (E)	71	155	74.3	Yes
A00516-F	Hotel (E)	71	155	74.4	Yes
A00616-F	Hotel (E)	71	155	74.4	Yes
A00716-F	Hotel (E)	71	155	74.4	Yes
A00816-F	Hotel (E)	71	155	74.4	Yes
A00916-F	Hotel (E)	71	155	74.4	Yes
A01016-F	Hotel (E)	71	155	74.3	Yes
A01116-F	Hotel (E)	71	155	74.3	Yes
A01216-F	Hotel (E)	71	155	74.2	Yes
A01316-F	Hotel (E)	71	155	74.2	Yes
A01416-F	Hotel (E)	71	155	74.1	Yes
A01516-F	Hotel (E)	71	155	74.0	Yes
A01616-F	Hotel (E)	71	155	74.0	Yes
B00601-F	Residential (B)	66	321	67.3	Yes
B00501-F	Residential (B)	66	322	67.1	Yes
B00701-F	Residential (B)	66	342	67.3	Yes
B00401-F	Residential (B)	66	372	65.5	No
B01401	Residential (B)	66	469	63.4	No
B01501	Residential (B)	66	500	63.6	No
B00801-F	Residential (B)	66	307	66.8	Yes
B00117-F	Park (C)	66	550	65.2	No
B01301-F	Pool (C)	66	254	68.6	Yes
B01901	Residential (B)	66	539	63.4	No
B00901-F	Residential (B)	66	302	67.2	Yes
B01801	Residential (B)	66	542	63.4	No
B01701	Residential (B)	66	545	63.2	No
B02001	Residential (B)	66	511	63.7	No
B02102	Residential (B)	66	506	62.6	No
B02202	Residential (B)	66	498	62.3	No
B02302	Residential (B)	66	495	62.4	No
B01001-F	Residential (B)	66	309	67.2	Yes
B01601	Residential (B)	66	550	63.1	No
B02401	Residential (B)	66	493	62.7	No
B01101-F	Residential (B)	66	299	67.4	Yes
B01201-F	Residential (B)	66	305	67.5	Yes
B02502	Residential (B)	66	499	63.1	No
B02602	Residential (B)	66	498	62.7	No
B02702	Residential (B)	66	516	63.6	No
B02802	Residential (B)	66	505	63.0	No
B02902	Residential (B)	66	511	63.7	No
B03002	Residential (B)	66	514	64.0	No
B03101	Residential (B)	66	486	63.3	No
B03201	Residential (B)	66	476	64.9	No
B03401	Residential (B)	66	540	64.6	No
B05202	Residential (B)	66	698	61.5	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
B03301	Residential (B)	66	523	64.3	No
B13802	Residential (B)	66	729	63.2	No
B13702	Residential (B)	66	739	62.7	No
B05302	Residential (B)	66	751	60.3	No
B06802	Residential (B)	66	618	64.3	No
B14102	Residential (B)	66	733	63.4	No
B04602	Residential (B)	66	709	61.5	No
B05102	Residential (B)	66	747	58.6	No
B05502	Residential (B)	66	732	59.3	No
B05602	Residential (B)	66	730	59.6	No
B06705	Residential (B)	66	640	63.8	No
B04801	Residential (B)	66	757	58.0	No
B04901	Residential (B)	66	754	58.1	No
B05001	Residential (B)	66	754	58.7	No
B05404	Residential (B)	66	750	59.8	No
B13501	Residential (B)	66	787	62.5	No
B04701	Residential (B)	66	763	58.3	No
B05704	Residential (B)	66	714	59.1	No
B06302	Residential (B)	66	676	59.6	No
B06402	Residential (B)	66	671	59.6	No
B06501	Residential (B)	66	667	59.9	No
B05802	Residential (B)	66	717	59.1	No
B05903	Residential (B)	66	723	59.2	No
B06002	Residential (B)	66	712	59.6	No
B06104	Residential (B)	66	690	60.0	No
B06204	Residential (B)	66	690	60.0	No
B06602	Residential (B)	66	682	60.7	No
B09602	Residential (B)	66	789	58.9	No
B11201	Residential (B)	66	759	59.4	No
B11301	Residential (B)	66	783	59.6	No
B07601	Residential (B)	66	558	65.0	No
B07402	Residential (B)	66	545	66.6	Yes
B07502	Residential (B)	66	585	64.9	No
B03501-F	Residential (B)	66	492	65.4	No
B03702-F	Residential (B)	66	496	65.1	No
B07103	Residential (B)	66	618	62.8	No
B07202	Residential (B)	66	614	62.7	No
B07302	Residential (B)	66	617	63.7	No
B10502	Residential (B)	66	776	61.8	No
B13604	Residential (B)	66	760	62.4	No
B14001	Residential (B)	66	665	63.2	No
B03802-F	Residential (B)	66	493	64.8	No
B07004	Residential (B)	66	648	63.1	No
B13301	Residential (B)	66	812	62.3	No
B13401	Residential (B)	66	807	62.6	No
B03601-F	Residential (B)	66	495	65.1	No
B06901	Residential (B)	66	670	62.7	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
B04302	Residential (B)	66	740	56.3	No
B04402	Residential (B)	66	754	57.6	No
B04502	Residential (B)	66	757	57.6	No
B22402	Residential (B)	66	699	62.3	No
B10601	Residential (B)	66	818	61.0	No
B13902	Residential (B)	66	715	62.0	No
B09502	Residential (B)	66	816	58.8	No
B11102	Residential (B)	66	790	61.3	No
B12201	Residential (B)	66	723	59.2	No
B09302	Residential (B)	66	847	60.0	No
B03902-F	Residential (B)	66	488	64.2	No
B09702	Residential (B)	66	853	57.9	No
B14501	Residential (B)	66	845	62.5	No
B04004-F	Residential (B)	66	490	63.9	No
B04104-F	Residential (B)	66	495	63.5	No
B11901	Residential (B)	66	784	58.7	No
B12001	Residential (B)	66	780	58.8	No
B12101	Residential (B)	66	775	59.2	No
B22302	Residential (B)	66	871	57.8	No
B09402	Residential (B)	66	894	58.6	No
B11401	Residential (B)	66	812	59.2	No
B11502	Residential (B)	66	787	59.7	No
B11801	Residential (B)	66	789	58.0	No
B13201	Residential (B)	66	826	61.3	No
B10801	Residential (B)	66	889	59.6	No
B11004	Residential (B)	66	873	59.9	No
B11601	Residential (B)	66	794	57.1	No
B11701	Residential (B)	66	794	57.7	No
B14601	Residential (B)	66	888	58.2	No
B13101	Residential (B)	66	832	60.6	No
B10001	Residential (B)	66	910	57.6	No
B10301	Residential (B)	66	919	58.6	No
B10901	Residential (B)	66	912	59.4	No
B12301	Residential (B)	66	867	59.8	No
B12401	Residential (B)	66	851	59.5	No
B12901	Residential (B)	66	845	59.6	No
B13001	Residential (B)	66	840	60.2	No
B14701	Residential (B)	66	902	57.3	No
B09801	Residential (B)	66	914	57.2	No
B09901	Residential (B)	66	922	57.9	No
B10101	Residential (B)	66	920	57.7	No
B12501	Residential (B)	66	862	59.9	No
B12601	Residential (B)	66	860	59.4	No
B12701	Residential (B)	66	849	58.9	No
B12801	Residential (B)	66	852	59.5	No
B14301	Residential (B)	66	942	56.7	No
B14401	Residential (B)	66	934	56.6	No
B14801	Residential (B)	66	922	57.6	No
B10201	Residential (B)	66	939	58.1	No
B14210	Residential (B)	66	983	59.6	No
B22605	Bar (E)	71	536	64.9	No
B00204	Restaurant (E)	71	764	62.7	No
B00305	Restaurant (E)	71	859	61.3	No
B10701	Bar (E)	71	906	59.3	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
B10405	Bar (E)	71	944	58.5	No
B15002	Residential (B)	66	952	58.8	No
B15102	Residential (B)	66	977	58.7	No
B15202	Residential (B)	66	1005	58.6	No
B04225-F	Park (C)	66	245	67.5	Yes
B07701-F	Residential (B)	66	444	69.0	Yes
B07801-F	Residential (B)	66	401	69.3	Yes
B07901-F	Residential (B)	66	396	69.3	Yes
B08001-F	Residential (B)	66	386	69.4	Yes
B17001	Residential (B)	66	681	65.8	No
B17101	Residential (B)	66	710	65.6	No
B17201	Residential (B)	66	745	65.2	No
B08801-F	Residential (B)	66	330	71.2	Yes
B08901-F	Residential (B)	66	322	71.4	Yes
B08701-F	Residential (B)	66	367	70.7	Yes
B08601-F	Residential (B)	66	380	70.4	Yes
B15301	Residential (B)	66	553	60.5	No
B15401	Residential (B)	66	571	61.9	No
B15501	Residential (B)	66	529	67.0	Yes
B16904	Residential (B)	66	627	65.5	No
B08501-F	Residential (B)	66	374	69.9	Yes
B08101-F	Residential (B)	66	398	68.8	Yes
B08401-F	Residential (B)	66	380	69.7	Yes
B08201-F	Residential (B)	66	393	68.9	Yes
B15601	Residential (B)	66	584	62.5	No
B08301-F	Residential (B)	66	386	69.2	Yes
B16202	Residential (B)	66	513	68.0	Yes
B15901	Residential (B)	66	587	63.1	No
B16001	Residential (B)	66	577	62.6	No
B17302	Residential (B)	66	786	64.8	No
B22502	Residential (B)	66	512	65.3	No
B15701	Residential (B)	66	603	63.4	No
B15801	Residential (B)	66	596	63.0	No
B16301	Residential (B)	66	513	63.5	No
B16101	Residential (B)	66	575	63.3	No
B16401	Residential (B)	66	518	66.8	Yes
B16501	Residential (B)	66	526	66.0	Yes
B16601	Residential (B)	66	510	64.8	No
B17501	Residential (B)	66	792	64.9	No
B18402	Day Care Center (C)	66	592	66.9	Yes
B18601	Residential (B)	66	711	66.4	Yes
B18801	Residential (B)	66	685	66.6	Yes
B22201	Residential (B)	66	519	65.0	No
B18701	Residential (B)	66	702	66.4	Yes
B18901	Residential (B)	66	675	66.7	Yes
B19001	Residential (B)	66	663	66.8	Yes
B16701	Residential (B)	66	501	67.4	Yes
B16801	Residential (B)	66	554	67.8	Yes
B17403	Residential (B)	66	840	64.4	No
B18501	Residential (B)	66	733	66.1	Yes
B19101	Residential (B)	66	662	66.8	Yes
B17601	Residential (B)	66	802	64.7	No
B19402	Residential (B)	66	632	67.6	Yes
B17701	Residential (B)	66	772	64.7	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
B19201	Residential (B)	66	655	66.9	Yes
B19301	Residential (B)	66	646	67.2	Yes
B18001	Residential (B)	66	755	65.1	No
B17801	Residential (B)	66	781	64.6	No
B17901	Residential (B)	66	774	64.7	No
B18101	Residential (B)	66	931	63.1	No
B18201	Residential (B)	66	974	60.1	No
B18301	Residential (B)	66	985	62.8	No
B19801	Residential (B)	66	849	59.1	No
B19901	Residential (B)	66	845	60.5	No
B19502	Residential (B)	66	894	61.9	No
B19602	Residential (B)	66	884	60.6	No
B19702	Residential (B)	66	878	61.5	No
B20002	Residential (B)	66	838	63.0	No
B20104	Bar (E)	71	886	63.3	No
B20801	Residential (B)	66	783	66.1	Yes
B21401	Residential (B)	66	835	61.6	No
B20701	Residential (B)	66	858	60.6	No
B20602	Residential (B)	66	865	60.8	No
B20506	Residential (B)	66	850	60.1	No
B20902	Residential (B)	66	890	62.3	No
B21002	Residential (B)	66	924	63.4	No
B21102	Residential (B)	66	946	63.5	No
B21202	Residential (B)	66	972	63.1	No
B20201	Residential (B)	66	1105	63.0	No
B21303	Residential (B)	66	1006	62.7	No
B20301	Residential (B)	66	1103	62.8	No
B20401	Residential (B)	66	1091	62.6	No
B09001-F	Residential (B)	66	534	69.3	Yes
B09101	Residential (B)	66	564	68.5	Yes
B09201	Residential (B)	66	580	68.0	Yes
B21801	Residential (B)	66	797	66.0	Yes
B21701	Residential (B)	66	779	66.0	Yes
B21901	Residential (B)	66	825	65.3	No
B22003	Residential (B)	66	857	65.0	No
B22104	Residential (B)	66	894	64.5	No
B21502	Residential (B)	66	847	61.6	No
B21602	Residential (B)	66	877	62.5	No
C01201-F	Residential (B)	66	206	73.7	Yes
C01801-F	Residential (B)	66	242	71.4	Yes
C01301	Residential (B)	66	229	73.1	Yes
C01401	Residential (B)	66	249	72.2	Yes
C01501	Residential (B)	66	279	71.9	Yes
C01601	Residential (B)	66	305	71.0	Yes
C01701	Residential (B)	66	330	70.3	Yes
C02201-F	Residential (B)	66	287	70.7	Yes
C01901-V	Residential (B)	66	278	70.7	Yes
C02001	Residential (B)	66	316	70.2	Yes
C02101	Residential (B)	66	348	69.7	Yes
C02501-F	Residential (B)	66	329	69.1	Yes
C02302	Residential (B)	66	296	70.1	Yes
C02402	Residential (B)	66	361	68.5	Yes
C04501-F	Residential (B)	66	266	71.1	Yes
C02601	Residential (B)	66	425	68.4	Yes

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
C02701	Residential (B)	66	449	67.4	Yes
C02801	Residential (B)	66	420	68.7	Yes
C02901	Residential (B)	66	430	68.7	Yes
C03001	Residential (B)	66	439	68.7	Yes
C03101	Residential (B)	66	450	68.6	Yes
C03201	Residential (B)	66	460	68.4	Yes
C03301	Residential (B)	66	478	68.0	Yes
C04601-F	Residential (B)	66	312	70.0	Yes
C04701-F	Residential (B)	66	334	69.7	Yes
C04801-F	Residential (B)	66	378	68.6	Yes
C00601-F	Residential (B)	66	308	70.7	Yes
C04901	Residential (B)	66	415	67.7	Yes
C05001	Residential (B)	66	444	67.0	Yes
C05101	Residential (B)	66	476	66.0	Yes
C04401-F	Hospital (C)	66	504	65.7	No
C07001-F	Residential (B)	66	350	68.8	Yes
C07101-F	Place of Worship (C)	66	410	71.2	Yes
C08501-F	Residential (B)	66	446	66.4	Yes
C08601	Residential (B)	66	480	64.2	No
C10004	Cemetery (C)	66	539	65.9	No
C00101-F	Residential (B)	66	265	72.2	Yes
C00201	Residential (B)	66	325	69.9	Yes
C00302	Residential (B)	66	387	69.4	Yes
C00401	Residential (B)	66	426	67.4	Yes
C00501	Residential (B)	66	516	67.2	Yes
C00701	Residential (B)	66	416	67.6	Yes
C00801	Residential (B)	66	444	67.4	Yes
C00901	Residential (B)	66	493	66.2	Yes
C01001	Residential (B)	66	521	65.5	No
C03401	Residential (B)	66	565	66.8	Yes
C03502	Residential (B)	66	724	61.0	No
C03602	Residential (B)	66	735	60.8	No
C03703	Residential (B)	66	740	60.6	No
C03802	Residential (B)	66	754	61.7	No
C05201	Residential (B)	66	506	65.2	No
C05301	Residential (B)	66	540	64.0	No
C06501	Residential (B)	66	581	51.5	No
C06801	Residential (B)	66	448	57.9	No
C06901	Residential (B)	66	413	59.3	No
C07424-F	Residential (B)	66	446	62.4	No
C07324-F	Residential (B)	66	433	60.1	No
C08701	Residential (B)	66	511	62.9	No
C08801	Residential (B)	66	561	62.2	No
C08901	Residential (B)	66	532	63.5	No
C03903	Residential (B)	66	768	60.9	No
C04002	Residential (B)	66	776	62.2	No
C04101	Residential (B)	66	815	62.4	No
C04201	Residential (B)	66	737	62.1	No
C04301	Residential (B)	66	688	62.1	No
C05401	Residential (B)	66	577	62.6	No
C05501	Residential (B)	66	618	61.5	No
C05601	Residential (B)	66	654	61.5	No
C05701	Residential (B)	66	684	61.5	No
C05801	Residential (B)	66	725	60.9	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
C05901	Residential (B)	66	746	60.6	No
C06001	Residential (B)	66	796	59.8	No
C06101	Residential (B)	66	780	54.2	No
C06201	Residential (B)	66	726	54.5	No
C06301	Residential (B)	66	679	54.3	No
C06401	Residential (B)	66	643	54.0	No
C06601	Residential (B)	66	532	56.5	No
C06701	Residential (B)	66	494	57.2	No
C07223-F	Residential (B)	66	528	59.0	No
C07524	Residential (B)	66	656	54.5	No
C07624	Residential (B)	66	752	53.6	No
C07701	Residential (B)	66	753	63.6	No
C07801	Residential (B)	66	786	63.5	No
C07901	Residential (B)	66	805	63.0	No
C08001	Residential (B)	66	825	62.7	No
C08101	Residential (B)	66	853	62.6	No
C08201	Residential (B)	66	881	62.3	No
C08303	Residential (B)	66	825	61.6	No
C08401	Residential (B)	66	872	61.0	No
C09001	Residential (B)	66	608	61.1	No
C09102	Residential (B)	66	624	61.0	No
C09202	Residential (B)	66	663	60.5	No
C09302	Residential (B)	66	687	60.0	No
C09401	Residential (B)	66	700	59.4	No
C09501	Residential (B)	66	770	59.8	No
C09601	Residential (B)	66	834	60.3	No
C09701	Residential (B)	66	842	61.4	No
C09801	Residential (B)	66	760	59.4	No
C09901	Residential (B)	66	839	59.2	No
C10101	Residential (B)	66	832	63.4	No
D00101	Residential (B)	66	824	48.9	No
D00201	Residential (B)	66	725	51.1	No
D00301	Residential (B)	66	706	51.2	No
D00401	Residential (B)	66	660	51.7	No
D00501	Residential (B)	66	639	52.0	No
D00601	Residential (B)	66	609	52.6	No
D00701	Residential (B)	66	575	53.1	No
D00801	Residential (B)	66	538	53.8	No
D00901	Residential (B)	66	460	54.8	No
D01001	Residential (B)	66	442	55.1	No
D01110-F	Residential (B)	66	453	54.5	No
D01201	Residential (B)	66	854	52.7	No
D01301	Residential (B)	66	712	52.5	No
D01401	Residential (B)	66	632	52.6	No
D01501	Residential (B)	66	616	52.8	No
D01601	Residential (B)	66	716	53.4	No
D01701	Residential (B)	66	776	53.8	No
D01801	Residential (B)	66	835	54.0	No
D01901	Residential (B)	66	551	53.4	No
D02001	Residential (B)	66	612	54.0	No
D02101	Residential (B)	66	656	54.2	No
D02201	Residential (B)	66	703	55.4	No
D02301	Residential (B)	66	762	55.1	No
D02401	Residential (B)	66	492	55.3	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
D02501	Residential (B)	66	533	53.9	No
D02601	Residential (B)	66	538	53.8	No
D02701	Residential (B)	66	551	53.8	No
D02801	Residential (B)	66	551	54.0	No
D02901	Residential (B)	66	561	53.9	No
D03001	Residential (B)	66	562	54.1	No
D03101	Residential (B)	66	575	53.9	No
D03201	Residential (B)	66	581	53.8	No
D03301	Residential (B)	66	584	53.9	No
D03401	Residential (B)	66	595	53.5	No
D03501	Residential (B)	66	602	53.0	No
D03601	Residential (B)	66	643	52.6	No
D03701	Residential (B)	66	659	52.7	No
D03801	Residential (B)	66	693	53.0	No
D03912	Residential (B)	66	742	52.6	No
D04012	Residential (B)	66	771	52.2	No
D04101-F	Residential (B)	66	328	56.6	No
D04201-F	Residential (B)	66	334	56.9	No
D04301-F	Residential (B)	66	319	56.3	No
D04402-F	Residential (B)	66	352	55.6	No
D04501-F	Residential (B)	66	470	53.3	No
D04601	Residential (B)	66	511	52.7	No
D04701	Residential (B)	66	552	52.9	No
D04801-FV	Residential (B)	66	187	70.1	Yes
D05002	Residential (B)	66	740	53.2	No
D05112	Residential (B)	66	554	54.0	No
D05212	Residential (B)	66	514	55.7	No
D05312	Residential (B)	66	372	57.1	No
D05412-F	Residential (B)	66	240	50.3	No
D05512-F	Residential (B)	66	199	47.0	No
D05602-F	Residential (B)	66	241	46.5	No
D05702-F	Residential (B)	66	241	46.4	No
D05802-F	Residential (B)	66	247	47.9	No
D05902-F	Residential (B)	66	300	52.3	No
D06002-F	Residential (B)	66	329	52.6	No
D06102-F	Residential (B)	66	354	53.3	No
D06202	Residential (B)	66	485	57.1	No
D06302	Residential (B)	66	489	57.0	No
D06402	Residential (B)	66	507	58.8	No
D06502	Residential (B)	66	511	58.0	No
D06602	Residential (B)	66	504	56.8	No
D06702	Residential (B)	66	495	57.3	No
D06801	Residential (B)	66	613	52.6	No
E00301	Residential (B)	66	914	61.8	No
E00401	Residential (B)	66	908	62.1	No
E00501	Residential (B)	66	909	62.0	No
E00601	Residential (B)	66	888	62.0	No
E00701	Residential (B)	66	837	62.8	No
E00801	Residential (B)	66	811	61.9	No
E01001	Residential (B)	66	805	62.2	No
E01701	Residential (B)	66	757	63.0	No
E01801	Residential (B)	66	746	60.2	No
E02001	Residential (B)	66	736	60.7	No
E02101	Residential (B)	66	735	62.7	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
E02201	Residential (B)	66	724	61.2	No
E02301	Residential (B)	66	720	62.5	No
E02401	Residential (B)	66	690	64.3	No
E02501	Residential (B)	66	840	63.4	No
E02601	Residential (B)	66	842	63.6	No
E02701	Residential (B)	66	834	64.0	No
E02801	Residential (B)	66	725	65.1	No
E02901	Residential (B)	66	713	65.4	No
E03001	Residential (B)	66	691	65.5	No
E03101	Residential (B)	66	669	65.6	No
E03201	Residential (B)	66	647	65.8	No
E03401	Residential (B)	66	629	65.9	No
E03501	Residential (B)	66	609	66.0	Yes
E03601	Residential (B)	66	572	66.0	Yes
E03701	Residential (B)	66	517	66.8	Yes
E03801	Residential (B)	66	506	66.8	Yes
E03901	Residential (B)	66	513	67.0	Yes
E04001	Residential (B)	66	519	66.9	Yes
E04101	Residential (B)	66	555	66.7	Yes
E04201	Residential (B)	66	572	67.1	Yes
E04301	Residential (B)	66	524	67.7	Yes
E04401	Residential (B)	66	515	67.7	Yes
E04501	Residential (B)	66	554	66.8	Yes
E04601	Residential (B)	66	574	66.5	Yes
E04701	Residential (B)	66	556	66.1	Yes
E04801	Residential (B)	66	587	65.7	No
E04901	Residential (B)	66	562	66.0	Yes
E05002	Residential (B)	66	308	69.2	Yes
E05102	Residential (B)	66	288	69.2	Yes
E05202	Residential (B)	66	302	68.6	Yes
E05302	Residential (B)	66	317	68.3	Yes
E05402	Residential (B)	66	358	68.7	Yes
E05502	Residential (B)	66	361	68.6	Yes
E05602	Residential (B)	66	361	67.7	Yes
E05701	Residential (B)	66	355	69.1	Yes
E05801	Residential (B)	66	351	69.9	Yes
E05901	Residential (B)	66	344	70.6	Yes
E06001	Residential (B)	66	331	70.5	Yes
E06101	Residential (B)	66	340	70.6	Yes
E06201	Residential (B)	66	339	70.5	Yes
E06301	Residential (B)	66	343	70.5	Yes
E06401-F	Residential (B)	66	283	65.4	No
E06501-F	Residential (B)	66	334	66.7	Yes
E06601-F	Residential (B)	66	329	66.4	Yes
E06701-F	Residential (B)	66	317	66.5	Yes
E06801-F	Residential (B)	66	315	67.7	Yes
E06901-F	Residential (B)	66	309	69.0	Yes
E07001-F	Residential (B)	66	304	69.8	Yes
E07101-F	Residential (B)	66	283	69.5	Yes
E07201	Residential (B)	66	562	65.9	No
F00102-F	Residential (B)	66	350	71.7	Yes
F00201-F	Residential (B)	66	352	71.5	Yes
F00301-F	Residential (B)	66	363	71.7	Yes
F00401-F	Residential (B)	66	365	71.5	Yes

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
F00501-F	Residential (B)	66	368	71.6	Yes
F00601-F	Residential (B)	66	375	71.2	Yes
F00701-F	Residential (B)	66	379	71.1	Yes
F00804-F	Residential (B)	66	261	72.8	Yes
F00904	Residential (B)	66	378	70.2	Yes
F01002-F	Residential (B)	66	142	75.6	Yes
F01101-F	Residential (B)	66	160	74.7	Yes
F01201-F	Residential (B)	66	156	74.7	Yes
F01302-F	Residential (B)	66	159	74.4	Yes
F01501-F	Residential (B)	66	180	73.6	Yes
F01601-F	Residential (B)	66	181	73.4	Yes
F01701-F	Residential (B)	66	189	73.1	Yes
F01801-F	Residential (B)	66	232	70.7	Yes
F01901-F	Residential (B)	66	234	70.8	Yes
F02001-F	Residential (B)	66	235	70.8	Yes
F02101-F	Residential (B)	66	224	68.6	Yes
F02201-F	Residential (B)	66	215	68.7	Yes
F02301-F	Residential (B)	66	206	69.6	Yes
F02401-F	Residential (B)	66	210	69.8	Yes
F02502-F	Residential (B)	66	211	70.4	Yes
F02601-F	Residential (B)	66	195	69.4	Yes
F02701-F	Residential (B)	66	196	68.9	Yes
F02801-F	Residential (B)	66	191	68.6	Yes
F02901-F	Residential (B)	66	197	68.8	Yes
F03001-F	Residential (B)	66	193	68.8	Yes
F03101-F	Residential (B)	66	201	67.9	Yes
F03201-F	Residential (B)	66	206	68.6	Yes
F03301-F	Residential (B)	66	219	69.6	Yes
F03401	Residential (B)	66	416	70.4	Yes
F03501	Residential (B)	66	425	70.3	Yes
F03601	Residential (B)	66	435	69.9	Yes
F03701	Residential (B)	66	434	69.2	Yes
F03801	Residential (B)	66	442	68.5	Yes
F03901	Residential (B)	66	453	68.3	Yes
F04001	Residential (B)	66	461	68.2	Yes
F04102	Residential (B)	66	469	67.8	Yes
F04201	Residential (B)	66	469	67.4	Yes
F04301	Residential (B)	66	332	68.0	Yes
F04401	Residential (B)	66	332	65.1	No
F04501	Residential (B)	66	337	67.5	Yes
F04601	Residential (B)	66	384	65.4	No
F04701	Residential (B)	66	390	65.4	No
F04801	Residential (B)	66	386	65.0	No
F04901	Residential (B)	66	388	66.7	Yes
F05001	Residential (B)	66	388	65.8	No
F05101	Residential (B)	66	382	65.6	No
F05201	Residential (B)	66	378	66.4	Yes
F05301	Residential (B)	66	367	63.9	No
F05401	Residential (B)	66	376	64.2	No
F05501	Residential (B)	66	372	64.6	No
F05601	Residential (B)	66	331	67.5	Yes
F05801	Residential (B)	66	377	66.4	Yes
F05901	Residential (B)	66	428	65.9	No
F06001	Residential (B)	66	468	66.4	Yes

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
F06102	Residential (B)	66	496	66.9	Yes
F06301	Residential (B)	66	581	66.6	Yes
F06401	Residential (B)	66	608	66.4	Yes
F06501	Residential (B)	66	645	65.8	No
F06601	Residential (B)	66	574	66.8	Yes
F06701	Residential (B)	66	682	66.2	Yes
F06801	Residential (B)	66	691	66.3	Yes
F06901	Residential (B)	66	695	66.3	Yes
F07001	Residential (B)	66	699	66.2	Yes
F07103-F	Day Care Center (C)	66	298	69.5	Yes
F07201	Residential (B)	66	352	69.0	Yes
F07301	Residential (B)	66	346	68.2	Yes
F07401	Residential (B)	66	346	68.1	Yes
F07501	Residential (B)	66	353	68.1	Yes
F07602-F	Residential (B)	66	360	68.8	Yes
F07701-F	Residential (B)	66	363	68.7	Yes
F07801-F	Residential (B)	66	368	68.8	Yes
F07904-F	Club (C)	66	264	68.3	Yes
F08001	Residential (B)	66	390	67.5	Yes
F08301	Residential (B)	66	309	68.8	Yes
F08401	Residential (B)	66	288	69.5	Yes
F08501	Residential (B)	66	244	69.8	Yes
F08601	Residential (B)	66	215	70.2	Yes
F08702	Residential (B)	66	645	66.0	Yes
F08801	Residential (B)	66	614	66.4	Yes
F08901	Residential (B)	66	577	66.6	Yes
F09001	Residential (B)	66	529	66.4	Yes
F09101	Residential (B)	66	533	64.3	No
F09201	Residential (B)	66	532	63.0	No
F09302	Residential (B)	66	533	63.2	No
F09401	Residential (B)	66	537	62.6	No
F09501	Residential (B)	66	553	64.5	No
F09601	Residential (B)	66	575	65.5	No
F10512	Residential (B)	66	689	65.8	No
F10601	Residential (B)	66	715	65.8	No
F10701	Residential (B)	66	694	65.9	No
F10802	Residential (B)	66	686	65.9	No
F10901	Residential (B)	66	661	66.0	Yes
F11001	Residential (B)	66	801	63.2	No
F11101	Residential (B)	66	817	64.4	No
F11202	Residential (B)	66	845	63.2	No
F11301	Residential (B)	66	898	65.1	No
F11401	Residential (B)	66	862	64.1	No
F11501	Residential (B)	66	887	60.6	No
F13303	Residential (B)	66	763	66.3	Yes
F13402	Residential (B)	66	714	66.7	Yes
F15401-FV	Residential (B)	66	150	76.3	Yes
F15501	Residential (B)	66	221	74.2	Yes
F15606	Playground (C)	66	337	72.0	Yes
F15701	Residential (B)	66	531	70.5	Yes
F15801	Residential (B)	66	556	71.1	Yes
F15904	Residential (B)	66	574	66.8	Yes
F16001	Residential (B)	66	603	67.9	Yes
F16101	Residential (B)	66	617	66.7	Yes

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
F16202	Residential (B)	66	628	67.2	Yes
F16301	Residential (B)	66	654	66.2	Yes
F16405	Residential (B)	66	677	65.8	No
F16502	Residential (B)	66	672	65.5	No
F16601	Residential (B)	66	235	74.4	Yes
F16701	Residential (B)	66	187	75.6	Yes
F16802	Residential (B)	66	128	77.0	Yes
F16901-F	Residential (B)	66	100	76.5	Yes
F17001-F	Residential (B)	66	139	75.3	Yes
F17101	Residential (B)	66	170	75.3	Yes
F17201	Residential (B)	66	194	74.6	Yes
F17301	Residential (B)	66	251	73.6	Yes
F17401	Residential (B)	66	269	73.5	Yes
F17501	Residential (B)	66	303	72.8	Yes
F17601	Residential (B)	66	338	71.5	Yes
F17701	Residential (B)	66	365	70.9	Yes
F17801	Residential (B)	66	393	70.2	Yes
F17901	Residential (B)	66	438	69.3	Yes
F18001	Residential (B)	66	469	68.3	Yes
F18101	Residential (B)	66	490	68.3	Yes
F18201	Residential (B)	66	515	67.9	Yes
F18301	Residential (B)	66	546	67.4	Yes
F18405	Park (C)	66	626	67.3	Yes
F18501	Residential (B)	66	653	66.7	Yes
F18601	Residential (B)	66	620	67.0	Yes
F18701	Residential (B)	66	567	67.4	Yes
F18801	Residential (B)	66	540	67.8	Yes
F18901	Residential (B)	66	515	68.1	Yes
F19001	Residential (B)	66	491	68.3	Yes
F19101	Residential (B)	66	467	68.6	Yes
F19201	Residential (B)	66	442	69.0	Yes
F19301	Residential (B)	66	413	69.6	Yes
F19401	Residential (B)	66	386	70.4	Yes
F19501	Residential (B)	66	363	71.0	Yes
F19601	Residential (B)	66	337	71.3	Yes
F19701	Residential (B)	66	314	71.8	Yes
F19801	Residential (B)	66	294	72.1	Yes
F19901	Residential (B)	66	261	72.9	Yes
F20001	Residential (B)	66	238	73.3	Yes
F20101	Residential (B)	66	200	73.8	Yes
F20201	Residential (B)	66	166	72.9	Yes
F20301-F	Residential (B)	66	140	73.6	Yes
F20402	Residential (B)	66	733	62.5	No
F20501	Residential (B)	66	745	62.4	No
F20601	Residential (B)	66	748	62.0	No
F20701	Residential (B)	66	755	62.0	No
F20802	Residential (B)	66	802	62.5	No
F20904	Residential (B)	66	816	61.8	No
F21001	Residential (B)	66	813	63.7	No
F21106	Residential (B)	66	766	65.8	No
F21205	Residential (B)	66	825	65.5	No
F21301	Residential (B)	66	829	65.9	No
F21401	Residential (B)	66	769	65.8	No
F21501	Residential (B)	66	743	65.4	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
F21601	Residential (B)	66	719	65.1	No
F21701	Residential (B)	66	693	63.3	No
F21804	Residential (B)	66	605	69.8	Yes
F21902	Residential (B)	66	545	67.7	Yes
F22001	Residential (B)	66	518	67.9	Yes
F22101	Residential (B)	66	494	68.2	Yes
F22201	Residential (B)	66	468	68.3	Yes
F22302	Residential (B)	66	420	69.1	Yes
F22401	Residential (B)	66	371	69.9	Yes
F22501	Residential (B)	66	344	70.9	Yes
F22601	Residential (B)	66	306	71.9	Yes
F22701	Residential (B)	66	268	72.8	Yes
F22801-F	Residential (B)	66	238	73.8	Yes
F22901-F	Residential (B)	66	244	73.6	Yes
F23001	Residential (B)	66	274	72.1	Yes
F23101	Residential (B)	66	316	70.8	Yes
F23201	Residential (B)	66	350	71.4	Yes
F23301	Residential (B)	66	371	70.9	Yes
F23401	Residential (B)	66	401	70.3	Yes
F23501	Residential (B)	66	418	70.0	Yes
F23601	Residential (B)	66	448	69.5	Yes
F23701	Residential (B)	66	466	69.2	Yes
F23801	Residential (B)	66	492	69.1	Yes
F23901	Residential (B)	66	520	68.6	Yes
F24001	Residential (B)	66	547	68.0	Yes
F24102	Residential (B)	66	564	67.8	Yes
F24208	Residential (B)	66	746	66.5	Yes
F24301	Residential (B)	66	866	66.0	Yes
F24401	Residential (B)	66	868	66.0	Yes
F24501	Residential (B)	66	868	66.1	Yes
F24601	Residential (B)	66	867	66.3	Yes
F24701	Residential (B)	66	846	66.6	Yes
F24801	Residential (B)	66	830	66.6	Yes
F24901	Residential (B)	66	813	66.9	Yes
F25001	Residential (B)	66	778	67.1	Yes
F25101	Residential (B)	66	787	66.6	Yes
F25201	Residential (B)	66	668	67.1	Yes
F25301	Residential (B)	66	787	63.2	No
F25401	Residential (B)	66	760	62.8	No
F25501	Residential (B)	66	725	63.0	No
F25601	Residential (B)	66	735	61.4	No
F25701	Residential (B)	66	720	60.9	No
F25801-F	Residential (B)	66	640	62.1	No
F25904-F	Residential (B)	66	791	65.5	No
F26001-F	Residential (B)	66	248	72.8	Yes
F26101	Residential (B)	66	333	68.4	Yes
F26201	Residential (B)	66	334	70.7	Yes
F26301	Residential (B)	66	410	68.0	Yes
F26401	Residential (B)	66	477	66.8	Yes
F26501	Residential (B)	66	504	67.8	Yes
F26601	Residential (B)	66	595	66.5	Yes
F26701	Residential (B)	66	624	65.1	No
F26801	Residential (B)	66	620	62.4	No
F26901	Residential (B)	66	637	61.6	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
F27001	Residential (B)	66	652	61.9	No
F27101	Residential (B)	66	655	61.5	No
F27201	Residential (B)	66	678	61.9	No
F27301	Residential (B)	66	699	62.5	No
F27401	Residential (B)	66	694	63.1	No
F27503	Residential (B)	66	721	64.2	No
F27602	Residential (B)	66	724	66.0	Yes
F27702	Residential (B)	66	563	66.2	Yes
F27801	Residential (B)	66	525	68.3	Yes
F27901	Residential (B)	66	497	69.0	Yes
F28001-F	Residential (B)	66	473	69.8	Yes
F28101-F	Residential (B)	66	449	70.1	Yes
F28201-F	Residential (B)	66	419	70.2	Yes
F28301-F	Residential (B)	66	377	71.1	Yes
F28401-F	Residential (B)	66	355	71.4	Yes
F28501-F	Residential (B)	66	328	72.1	Yes
F28601-F	Residential (B)	66	303	72.7	Yes
F28701-F	Residential (B)	66	275	72.9	Yes
F28801-F	Residential (B)	66	251	73.2	Yes
F28901-F	Residential (B)	66	224	73.9	Yes
F29001-F	Residential (B)	66	206	74.4	Yes
F29101-F	Residential (B)	66	184	75.2	Yes
F29201	Residential (B)	66	517	68.9	Yes
F29301-F	Residential (B)	66	489	69.4	Yes
F29401-F	Residential (B)	66	479	69.6	Yes
F29501-F	Residential (B)	66	470	69.7	Yes
F29501-F	Residential (B)	66	468	69.9	Yes
F29601-F	Residential (B)	66	458	70.0	Yes
F29701-F	Residential (B)	66	446	70.1	Yes
F29801-F	Residential (B)	66	437	70.3	Yes
F29901-F	Residential (B)	66	423	70.5	Yes
F30001-F	Residential (B)	66	410	70.9	Yes
F30101-F	Residential (B)	66	402	71.0	Yes
F30201-F	Residential (B)	66	347	72.0	Yes
F30301-F	Residential (B)	66	334	72.2	Yes
F30401-F	Residential (B)	66	302	72.8	Yes
F30501-F	Residential (B)	66	275	73.0	Yes
F30601-F	Residential (B)	66	256	73.2	Yes
F30701-F	Residential (B)	66	243	73.4	Yes
F30801-F	Residential (B)	66	227	73.7	Yes
F30901-F	Residential (B)	66	212	74.1	Yes
F31001-F	Residential (B)	66	181	74.9	Yes
F31101	Residential (B)	66	829	62.0	No
F31301	Residential (B)	66	596	67.1	Yes
F31401	Residential (B)	66	684	63.8	No
F31501	Residential (B)	66	265	69.1	Yes
F316017	School (D)	71	275	73.4	Yes
E00101-F	Hotel (E)	71	457	67.7	No
E00201	Residential (B)	66	886	59.4	No
E00901	Residential (B)	66	804	59.1	No
E01101	Residential (B)	66	791	57.9	No
E01201	Residential (B)	66	779	57.9	No
E01301	Residential (B)	66	769	57.6	No
E01401	Residential (B)	66	762	57.8	No

Table 2: Results for Existing Alignment (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	EXISTING CONDITION		
			DISTANCE TO I-71 / I-75 (ft)	EXISTING NOISE LEVEL dB(A)	EXISTING IMPACT?
E01501	Residential (B)	66	759	57.8	No
E01601	Residential (B)	66	751	58.4	No
E01901	Residential (B)	66	729	57.9	No
F09701	Residential (B)	66	560	66.5	Yes
F09804	Residential (B)	66	645	65.6	No
F09901	Residential (B)	66	713	64.8	No
F10001	Residential (B)	66	757	64.5	No
F10102	Residential (B)	66	793	64.7	No
F10202	Residential (B)	66	817	64.6	No
F10301	Residential (B)	66	848	64.3	No
F10402	Residential (B)	66	854	62.4	No
F11602	Residential (B)	66	906	62.5	No
F11701	Residential (B)	66	952	64.1	No
F11801	Residential (B)	66	933	63.1	No
F11901	Residential (B)	66	873	64.6	No
F12001	Residential (B)	66	883	64.5	No
F12101	Residential (B)	66	902	64.3	No
F12202	Residential (B)	66	914	63.9	No
F12301	Residential (B)	66	1009	62.3	No
F12403	Residential (B)	66	991	62.5	No
F12501	Residential (B)	66	1105	61.8	No
F12601	Residential (B)	66	1106	62.5	No
F12701	Residential (B)	66	1094	62.8	No
F12804	Residential (B)	66	1086	63.6	No
F12901	Residential (B)	66	1100	62.9	No
F13003	Residential (B)	66	948	64.3	No
F13105	Residential (B)	66	912	62.9	No
F13201	Residential (B)	66	843	64.7	No
F13502	Residential (B)	66	680	66.4	Yes
F13601	Residential (B)	66	926	61.5	No
F13701	Residential (B)	66	910	61.8	No
F13801	Residential (B)	66	902	61.9	No
F13901	Residential (B)	66	891	62.2	No
F14001	Residential (B)	66	885	62.5	No
F14102	Residential (B)	66	847	62.5	No
F14201	Residential (B)	66	816	61.6	No
F14301	Residential (B)	66	791	62.0	No
F14402	Residential (B)	66	761	62.4	No
F14501	Residential (B)	66	731	62.8	No
F14601	Residential (B)	66	687	62.9	No
F14701	Residential (B)	66	659	63.1	No
F14801	Residential (B)	66	633	63.2	No
F14901	Residential (B)	66	611	63.3	No
F15001	Residential (B)	66	583	63.7	No
F15101	Residential (B)	66	561	64.3	No
F15201	Residential (B)	66	542	64.4	No
F15301-F	Residential (B)	66	500	65.5	No
F31201	Residential (B)	66	919	61.7	No

TABLE 3: CONCEPT I-W RESULTS (NO BARRIER WALL)

Table 3: Concept I-W Results (No Barrier Wall)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
A00104	Hotel (E)	71	532	69.2	No	No	No
A00216-F	Hotel (E)	71	138	75.3	Yes	No	Yes
A00316-F	Hotel (E)	71	138	75.5	Yes	No	Yes
A00416-F	Hotel (E)	71	138	75.7	Yes	No	Yes
A00516-F	Hotel (E)	71	138	76.1	Yes	No	Yes
A00616-F	Hotel (E)	71	138	76.8	Yes	No	Yes
A00716-F	Hotel (E)	71	138	76.9	Yes	No	Yes
A00816-F	Hotel (E)	71	138	76.9	Yes	No	Yes
A00916-F	Hotel (E)	71	138	76.9	Yes	No	Yes
A01016-F	Hotel (E)	71	138	76.9	Yes	No	Yes
A01116-F	Hotel (E)	71	138	76.9	Yes	No	Yes
A01216-F	Hotel (E)	71	138	76.8	Yes	No	Yes
A01316-F	Hotel (E)	71	138	76.9	Yes	No	Yes
A01416-F	Hotel (E)	71	138	76.8	Yes	No	Yes
A01516-F	Hotel (E)	71	138	76.8	Yes	No	Yes
A01616-F	Hotel (E)	71	138	76.8	Yes	No	Yes
B00117-F	Park (C)	66	467	69.9	Yes	No	Yes
B00204	Restaurant (E)	71	681	67.6	No	No	No
B00305	Restaurant (E)	71	775	66.9	No	No	No
B00401-F	Residential (B)	66	288	71.1	Yes	No	Yes
B00501-F	Residential (B)	66	238	71.9	Yes	No	Yes
B00601-F	Residential (B)	66	237	72.0	Yes	No	Yes
B00701-F	Residential (B)	66	258	71.9	Yes	No	Yes
B00801-F	Residential (B)	66	221	70.4	Yes	No	Yes
B00901-F	Residential (B)	66	216	70.0	Yes	No	Yes
B01001-F	Residential (B)	66	221	69.7	Yes	No	Yes
B01101-F	Residential (B)	66	208	69.6	Yes	No	Yes
B01201-F	Residential (B)	66	211	69.6	Yes	No	Yes
B01301-F	Pool (C)	66	166	70.0	Yes	No	Yes
B01401	Residential (B)	66	385	70.6	Yes	No	Yes
B01501	Residential (B)	66	416	70.6	Yes	No	Yes
B01601	Residential (B)	66	466	69.6	Yes	No	Yes
B01701	Residential (B)	66	461	69.7	Yes	No	Yes
B01801	Residential (B)	66	459	69.9	Yes	No	Yes
B01901	Residential (B)	66	455	70.0	Yes	No	Yes
B02001	Residential (B)	66	426	69.8	Yes	No	Yes
B02102	Residential (B)	66	420	69.8	Yes	No	Yes
B02202	Residential (B)	66	411	69.8	Yes	No	Yes
B02302	Residential (B)	66	408	69.7	Yes	No	Yes
B02401	Residential (B)	66	404	69.7	Yes	No	Yes
B02502	Residential (B)	66	408	69.5	Yes	No	Yes
B02602	Residential (B)	66	404	69.3	Yes	No	Yes
B02702	Residential (B)	66	420	69.3	Yes	No	Yes
B02802	Residential (B)	66	410	69.2	Yes	No	Yes
B02902	Residential (B)	66	420	69.1	Yes	No	Yes
B03002	Residential (B)	66	426	69.0	Yes	No	Yes
B03101	Residential (B)	66	398	68.9	Yes	No	Yes
B03201	Residential (B)	66	388	68.8	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
B03301	Residential (B)	66	436	68.8	Yes	No	Yes
B03401	Residential (B)	66	453	68.8	Yes	No	Yes
B03501-F	Residential (B)	66	404	68.4	Yes	No	Yes
B03601-F	Residential (B)	66	408	68.3	Yes	No	Yes
B03702-F	Residential (B)	66	409	68.5	Yes	No	Yes
B03802-F	Residential (B)	66	407	68.3	Yes	No	Yes
B03902-F	Residential (B)	66	403	67.8	Yes	No	Yes
B04004-F	Residential (B)	66	405	67.5	Yes	No	Yes
B04104-F	Residential (B)	66	411	67.5	Yes	No	Yes
B04225-F	Park (C)	66	161	63.8	No	No	No
B04302	Residential (B)	66	655	68.0	Yes	Yes	Yes
B04402	Residential (B)	66	668	67.9	Yes	Yes	Yes
B04502	Residential (B)	66	672	67.9	Yes	Yes	Yes
B04602	Residential (B)	66	625	68.2	Yes	No	Yes
B04701	Residential (B)	66	679	68.1	Yes	No	Yes
B04801	Residential (B)	66	672	68.2	Yes	Yes	Yes
B04901	Residential (B)	66	670	68.2	Yes	Yes	Yes
B05001	Residential (B)	66	671	68.2	Yes	No	Yes
B05102	Residential (B)	66	663	68.3	Yes	No	Yes
B05202	Residential (B)	66	614	68.8	Yes	No	Yes
B05302	Residential (B)	66	667	68.4	Yes	No	Yes
B05404	Residential (B)	66	666	68.2	Yes	No	Yes
B05502	Residential (B)	66	647	68.4	Yes	No	Yes
B05602	Residential (B)	66	644	68.3	Yes	No	Yes
B05704	Residential (B)	66	626	68.2	Yes	No	Yes
B05802	Residential (B)	66	626	68.1	Yes	No	Yes
B05903	Residential (B)	66	629	68.0	Yes	No	Yes
B06002	Residential (B)	66	618	68.1	Yes	No	Yes
B06104	Residential (B)	66	603	68.1	Yes	No	Yes
B06204	Residential (B)	66	603	68.1	Yes	No	Yes
B06302	Residential (B)	66	588	68.2	Yes	No	Yes
B06402	Residential (B)	66	584	68.2	Yes	No	Yes
B06501	Residential (B)	66	580	68.2	Yes	No	Yes
B06602	Residential (B)	66	596	68.1	Yes	No	Yes
B06705	Residential (B)	66	555	68.4	Yes	No	Yes
B06802	Residential (B)	66	534	68.5	Yes	No	Yes
B06901	Residential (B)	66	586	68.2	Yes	No	Yes
B07004	Residential (B)	66	564	68.3	Yes	No	Yes
B07103	Residential (B)	66	534	68.4	Yes	No	Yes
B07202	Residential (B)	66	531	68.4	Yes	No	Yes
B07302	Residential (B)	66	533	68.4	Yes	No	Yes
B07402	Residential (B)	66	461	68.9	Yes	No	Yes
B07502	Residential (B)	66	501	68.8	Yes	No	Yes
B07601	Residential (B)	66	472	69.0	Yes	No	Yes
B07701-F	Residential (B)	66	360	70.0	Yes	No	Yes
B07801-F	Residential (B)	66	317	69.5	Yes	No	Yes
B07901-F	Residential (B)	66	312	69.3	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
B08001-F	Residential (B)	66	304	69.1	Yes	No	Yes
B08101-F	Residential (B)	66	316	67.9	Yes	No	Yes
B08201-F	Residential (B)	66	312	67.8	Yes	No	Yes
B08301-F	Residential (B)	66	297	67.7	Yes	No	Yes
B08401-F	Residential (B)	66	286	67.9	Yes	No	Yes
B08501-F	Residential (B)	66	283	68.1	Yes	No	Yes
B08601-F	Residential (B)	66	292	68.9	Yes	No	Yes
B08701-F	Residential (B)	66	285	69.2	Yes	No	Yes
B08801-F	Residential (B)	66	290	69.6	Yes	No	Yes
B08901-F	Residential (B)	66	295	69.3	Yes	No	Yes
B09001-F	Residential (B)	66	475	67.5	Yes	No	Yes
B09101	Residential (B)	66	504	67.2	Yes	No	Yes
B09201	Residential (B)	66	520	67.1	Yes	No	Yes
B09302	Residential (B)	66	761	67.7	Yes	No	Yes
B09402	Residential (B)	66	808	67.2	Yes	No	Yes
B09502	Residential (B)	66	732	67.8	Yes	No	Yes
B09602	Residential (B)	66	705	68.0	Yes	No	Yes
B09702	Residential (B)	66	769	67.5	Yes	No	Yes
B09801	Residential (B)	66	830	66.9	Yes	No	Yes
B09901	Residential (B)	66	838	66.9	Yes	No	Yes
B10001	Residential (B)	66	826	67.0	Yes	No	Yes
B10101	Residential (B)	66	836	66.9	Yes	No	Yes
B10201	Residential (B)	66	856	66.7	Yes	No	Yes
B10301	Residential (B)	66	835	66.9	Yes	No	Yes
B10405	Bar (E)	71	860	66.7	No	No	No
B10502	Residential (B)	66	690	68.3	Yes	No	Yes
B10601	Residential (B)	66	732	67.9	Yes	No	Yes
B10701	Bar (E)	71	821	67.0	No	No	No
B10801	Residential (B)	66	804	67.2	Yes	No	Yes
B10901	Residential (B)	66	826	67.0	Yes	No	Yes
B11004	Residential (B)	66	784	67.2	Yes	No	Yes
B11102	Residential (B)	66	697	67.8	Yes	No	Yes
B11201	Residential (B)	66	663	67.7	Yes	No	Yes
B11301	Residential (B)	66	688	67.6	Yes	No	Yes
B11401	Residential (B)	66	717	67.3	Yes	No	Yes
B11502	Residential (B)	66	700	67.4	Yes	No	Yes
B11601	Residential (B)	66	707	67.3	Yes	Yes	Yes
B11701	Residential (B)	66	709	67.3	Yes	No	Yes
B11801	Residential (B)	66	704	67.3	Yes	No	Yes
B11901	Residential (B)	66	700	67.4	Yes	No	Yes
B12001	Residential (B)	66	696	67.4	Yes	No	Yes
B12101	Residential (B)	66	691	67.5	Yes	No	Yes
B12201	Residential (B)	66	640	67.8	Yes	No	Yes
B12301	Residential (B)	66	779	67.0	Yes	No	Yes
B12401	Residential (B)	66	763	67.1	Yes	No	Yes
B12501	Residential (B)	66	775	67.0	Yes	No	Yes
B12601	Residential (B)	66	773	66.9	Yes	No	Yes
B12701	Residential (B)	66	763	67.0	Yes	No	Yes
B12801	Residential (B)	66	767	66.9	Yes	No	Yes
B12901	Residential (B)	66	761	67.0	Yes	No	Yes
B13001	Residential (B)	66	756	67.1	Yes	No	Yes
B13101	Residential (B)	66	748	67.2	Yes	No	Yes
B13201	Residential (B)	66	742	67.3	Yes	No	Yes
B13301	Residential (B)	66	728	68.2	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
B13401	Residential (B)	66	724	68.3	Yes	No	Yes
B13501	Residential (B)	66	704	68.2	Yes	No	Yes
B13604	Residential (B)	66	676	68.3	Yes	No	Yes
B13702	Residential (B)	66	656	68.6	Yes	No	Yes
B13802	Residential (B)	66	646	68.7	Yes	No	Yes
B13902	Residential (B)	66	630	68.0	Yes	No	Yes
B14001	Residential (B)	66	577	68.3	Yes	No	Yes
B14102	Residential (B)	66	647	68.5	Yes	No	Yes
B14210	Residential (B)	66	899	66.7	Yes	No	Yes
B14301	Residential (B)	66	858	66.9	Yes	Yes	Yes
B14401	Residential (B)	66	849	66.9	Yes	Yes	Yes
B14501	Residential (B)	66	760	67.5	Yes	No	Yes
B14601	Residential (B)	66	802	67.2	Yes	No	Yes
B14701	Residential (B)	66	817	67.0	Yes	No	Yes
B14801	Residential (B)	66	837	66.9	Yes	No	Yes
B15002	Residential (B)	66	865	66.6	Yes	No	Yes
B15102	Residential (B)	66	891	66.2	Yes	No	Yes
B15202	Residential (B)	66	919	65.9	No	No	No
B15301	Residential (B)	66	469	68.6	Yes	No	Yes
B15401	Residential (B)	66	487	68.5	Yes	No	Yes
B15501	Residential (B)	66	446	68.4	Yes	No	Yes
B15601	Residential (B)	66	502	67.7	Yes	No	Yes
B15701	Residential (B)	66	516	67.5	Yes	No	Yes
B15801	Residential (B)	66	506	67.4	Yes	No	Yes
B15901	Residential (B)	66	495	67.5	Yes	No	Yes
B16001	Residential (B)	66	483	67.6	Yes	No	Yes
B16101	Residential (B)	66	491	67.3	Yes	No	Yes
B16202	Residential (B)	66	441	67.7	Yes	No	Yes
B16301	Residential (B)	66	463	67.4	Yes	No	Yes
B16401	Residential (B)	66	486	67.4	Yes	No	Yes
B16501	Residential (B)	66	501	67.1	Yes	No	Yes
B16601	Residential (B)	66	485	67.0	Yes	No	Yes
B16701	Residential (B)	66	475	66.9	Yes	No	Yes
B16801	Residential (B)	66	528	66.9	Yes	No	Yes
B16904	Residential (B)	66	543	68.4	Yes	No	Yes
B17001	Residential (B)	66	598	68.2	Yes	No	Yes
B17101	Residential (B)	66	628	68.1	Yes	No	Yes
B17201	Residential (B)	66	663	67.9	Yes	No	Yes
B17302	Residential (B)	66	704	67.5	Yes	No	Yes
B17403	Residential (B)	66	757	66.9	Yes	No	Yes
B17501	Residential (B)	66	705	67.2	Yes	No	Yes
B17601	Residential (B)	66	711	66.6	Yes	No	Yes
B17701	Residential (B)	66	678	66.4	Yes	No	Yes
B17801	Residential (B)	66	686	66.1	Yes	No	Yes
B17901	Residential (B)	66	679	66.1	Yes	No	Yes
B18001	Residential (B)	66	665	66.3	Yes	No	Yes
B18101	Residential (B)	66	843	66.1	Yes	No	Yes
B18201	Residential (B)	66	892	65.8	No	No	No
B18301	Residential (B)	66	896	65.6	No	No	No
B18402	Day Care Center (C)	66	546	67.2	Yes	No	Yes
B18501	Residential (B)	66	668	67.0	Yes	No	Yes
B18601	Residential (B)	66	651	67.2	Yes	No	Yes
B18701	Residential (B)	66	651	67.0	Yes	No	Yes
B18801	Residential (B)	66	639	67.1	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
B18901	Residential (B)	66	635	67.0	Yes	No	Yes
B19001	Residential (B)	66	627	67.0	Yes	No	Yes
B19101	Residential (B)	66	631	66.7	Yes	No	Yes
B19201	Residential (B)	66	629	66.4	Yes	No	Yes
B19301	Residential (B)	66	621	66.4	Yes	No	Yes
B19402	Residential (B)	66	606	66.4	Yes	No	Yes
B19502	Residential (B)	66	850	65.2	No	No	No
B19602	Residential (B)	66	845	65.2	No	No	No
B19702	Residential (B)	66	843	65.2	No	No	No
B19801	Residential (B)	66	817	65.4	No	No	No
B19901	Residential (B)	66	817	65.3	No	No	No
B20002	Residential (B)	66	812	65.2	No	No	No
B20104	Bar (E)	71	856	65.1	No	No	No
B20201	Residential (B)	66	1065	62.0	No	No	No
B20301	Residential (B)	66	1062	61.6	No	No	No
B20401	Residential (B)	66	1049	61.4	No	No	No
B20506	Residential (B)	66	803	62.6	No	No	No
B20602	Residential (B)	66	815	62.7	No	No	No
B20701	Residential (B)	66	808	62.8	No	No	No
B20801	Residential (B)	66	731	63.7	No	No	No
B20902	Residential (B)	66	841	62.6	No	No	No
B21002	Residential (B)	66	875	62.3	No	No	No
B21102	Residential (B)	66	896	62.3	No	No	No
B21202	Residential (B)	66	922	62.0	No	No	No
B21303	Residential (B)	66	956	61.9	No	No	No
B21401	Residential (B)	66	779	63.8	No	No	No
B21502	Residential (B)	66	787	64.1	No	No	No
B21602	Residential (B)	66	817	63.7	No	No	No
B21701	Residential (B)	66	719	65.0	No	No	No
B21801	Residential (B)	66	736	65.2	No	No	No
B21901	Residential (B)	66	764	65.0	No	No	No
B22003	Residential (B)	66	797	64.8	No	No	No
B22104	Residential (B)	66	834	64.4	No	No	No
B22201	Residential (B)	66	492	67.0	Yes	No	Yes
B22302	Residential (B)	66	787	67.4	Yes	No	Yes
B22402	Residential (B)	66	612	68.0	Yes	No	Yes
B22502	Residential (B)	66	476	67.5	Yes	No	Yes
B22605	Bar (E)	71	447	69.2	No	No	No
C00101-F	Residential (B)	66	191	72.8	Yes	No	Yes
C00201	Residential (B)	66	252	71.9	Yes	No	Yes
C00302	Residential (B)	66	313	70.9	Yes	No	Yes
C00401	Residential (B)	66	353	69.9	Yes	No	Yes
C00501	Residential (B)	66	442	68.6	Yes	No	Yes
C00601-F	Residential (B)	66	235	72.2	Yes	No	Yes
C00701	Residential (B)	66	343	70.4	Yes	No	Yes
C00801	Residential (B)	66	370	70.0	Yes	No	Yes
C00901	Residential (B)	66	419	69.1	Yes	No	Yes
C01001	Residential (B)	66	448	68.7	Yes	No	Yes
C01201-F	Residential (B)	66	133	75.2	Yes	No	Yes
C01301	Residential (B)	66	156	74.7	Yes	No	Yes
C01401	Residential (B)	66	177	74.2	Yes	No	Yes
C01501	Residential (B)	66	206	73.6	Yes	No	Yes
C01601	Residential (B)	66	232	72.8	Yes	No	Yes
C01701	Residential (B)	66	257	72.5	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
C01801-F	Residential (B)	66	176	73.8	Yes	No	Yes
C01901-V	Residential (B)	66	211	73.1	Yes	No	Yes
C02001	Residential (B)	66	249	72.5	Yes	No	Yes
C02101	Residential (B)	66	282	72.1	Yes	No	Yes
C02201-F	Residential (B)	66	223	73.0	Yes	No	Yes
C02302	Residential (B)	66	232	72.9	Yes	No	Yes
C02402	Residential (B)	66	297	72.0	Yes	No	Yes
C02501-F	Residential (B)	66	250	71.5	Yes	No	Yes
C02601	Residential (B)	66	348	70.8	Yes	No	Yes
C02701	Residential (B)	66	374	70.6	Yes	No	Yes
C02801	Residential (B)	66	344	70.7	Yes	No	Yes
C02901	Residential (B)	66	355	70.6	Yes	No	Yes
C03001	Residential (B)	66	365	70.6	Yes	No	Yes
C03101	Residential (B)	66	377	70.4	Yes	No	Yes
C03201	Residential (B)	66	388	70.3	Yes	No	Yes
C03301	Residential (B)	66	407	69.9	Yes	No	Yes
C03401	Residential (B)	66	501	68.8	Yes	No	Yes
C03502	Residential (B)	66	653	66.3	Yes	No	Yes
C03602	Residential (B)	66	666	66.2	Yes	No	Yes
C03703	Residential (B)	66	672	66.2	Yes	No	Yes
C03802	Residential (B)	66	686	66.1	Yes	No	Yes
C03903	Residential (B)	66	702	65.8	No	No	No
C04002	Residential (B)	66	712	65.7	No	No	No
C04101	Residential (B)	66	753	64.5	No	No	No
C04201	Residential (B)	66	677	63.1	No	No	No
C04301	Residential (B)	66	628	62.9	No	No	No
C04401-F	Hospital (C)	66	450	66.4	Yes	No	Yes
C04501-F	Residential (B)	66	215	72.7	Yes	No	Yes
C04601-F	Residential (B)	66	263	71.5	Yes	No	Yes
C04701-F	Residential (B)	66	285	72.2	Yes	No	Yes
C04801-F	Residential (B)	66	330	71.4	Yes	No	Yes
C04901	Residential (B)	66	367	70.6	Yes	No	Yes
C05001	Residential (B)	66	397	69.3	Yes	No	Yes
C05101	Residential (B)	66	429	68.5	Yes	No	Yes
C05201	Residential (B)	66	460	67.8	Yes	No	Yes
C05301	Residential (B)	66	495	66.8	Yes	No	Yes
C05401	Residential (B)	66	532	66.0	Yes	No	Yes
C05501	Residential (B)	66	573	65.2	No	No	No
C05601	Residential (B)	66	610	64.6	No	No	No
C05701	Residential (B)	66	641	63.9	No	No	No
C05801	Residential (B)	66	682	63.3	No	No	No
C05901	Residential (B)	66	704	62.9	No	No	No
C06001	Residential (B)	66	754	62.1	No	No	No
C06101	Residential (B)	66	741	61.6	No	No	No
C06201	Residential (B)	66	686	62.1	No	No	No
C06301	Residential (B)	66	638	62.5	No	No	No
C06401	Residential (B)	66	603	63.0	No	No	No
C06501	Residential (B)	66	540	63.6	Yes	Yes	No
C06601	Residential (B)	66	491	64.5	No	No	No
C06701	Residential (B)	66	452	65.8	No	No	No
C06801	Residential (B)	66	406	67.5	Yes	No	Yes
C06901	Residential (B)	66	370	69.2	Yes	No	Yes
C07001-F	Residential (B)	66	307	72.4	Yes	No	Yes
C07101-F	Place of Worship (C)	66	370	72.1	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
C07223-F	Residential (B)	66	488	62.6	No	No	No
C07324-F	Residential (B)	66	394	63.6	No	No	No
C07424-F	Residential (B)	66	407	66.2	Yes	No	Yes
C07524	Residential (B)	66	616	60.7	No	No	No
C07624	Residential (B)	66	713	60.5	No	No	No
C07701	Residential (B)	66	679	65.9	No	No	No
C07801	Residential (B)	66	713	65.7	No	No	No
C07901	Residential (B)	66	731	65.3	No	No	No
C08001	Residential (B)	66	752	65.1	No	No	No
C08101	Residential (B)	66	780	64.9	No	No	No
C08201	Residential (B)	66	807	64.7	No	No	No
C08303	Residential (B)	66	753	64.8	No	No	No
C08401	Residential (B)	66	800	64.1	No	No	No
C08501-F	Residential (B)	66	395	66.2	Yes	No	Yes
C08601	Residential (B)	66	429	67.1	Yes	No	Yes
C08701	Residential (B)	66	460	65.8	No	No	No
C08801	Residential (B)	66	511	65.6	No	No	No
C08901	Residential (B)	66	480	64.6	No	No	No
C09001	Residential (B)	66	558	63.4	No	No	No
C09102	Residential (B)	66	575	64.1	No	No	No
C09202	Residential (B)	66	614	63.7	No	No	No
C09302	Residential (B)	66	638	63.1	No	No	No
C09401	Residential (B)	66	653	63.8	No	No	No
C09501	Residential (B)	66	722	61.7	No	No	No
C09601	Residential (B)	66	784	60.6	No	No	No
C09701	Residential (B)	66	791	60.5	No	No	No
C09801	Residential (B)	66	714	63.1	No	No	No
C09901	Residential (B)	66	793	62.4	No	No	No
C10004	Cemetery (C)	66	475	69.3	Yes	No	Yes
C10101	Residential (B)	66	773	64.8	No	No	No
D00101	Residential (B)	66	802	54.7	No	No	No
D00201	Residential (B)	66	703	56.2	No	No	No
D00301	Residential (B)	66	687	56.1	No	No	No
D00401	Residential (B)	66	642	56.5	No	No	No
D00501	Residential (B)	66	622	56.6	No	No	No
D00601	Residential (B)	66	593	57.1	No	No	No
D00701	Residential (B)	66	561	57.5	No	No	No
D00801	Residential (B)	66	525	57.8	No	No	No
D00901	Residential (B)	66	449	58.4	No	No	No
D01001	Residential (B)	66	433	58.6	No	No	No
D01110-F	Residential (B)	66	430	59.4	No	No	No
D01201	Residential (B)	66	847	59.0	No	No	No
D01301	Residential (B)	66	707	59.1	No	No	No
D01401	Residential (B)	66	628	59.1	No	No	No
D01501	Residential (B)	66	613	59.7	No	No	No
D01601	Residential (B)	66	713	60.0	No	No	No
D01701	Residential (B)	66	773	60.2	No	No	No
D01801	Residential (B)	66	833	60.5	No	No	No
D01901	Residential (B)	66	550	60.5	No	No	No
D02001	Residential (B)	66	613	61.3	No	No	No
D02101	Residential (B)	66	657	61.3	No	No	No
D02201	Residential (B)	66	704	61.8	No	No	No
D02301	Residential (B)	66	764	62.1	No	No	No
D02401	Residential (B)	66	493	61.3	No	No	No

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
D02501	Residential (B)	66	535	61.6	No	No	No
D02601	Residential (B)	66	541	61.6	No	No	No
D02701	Residential (B)	66	554	61.7	No	No	No
D02801	Residential (B)	66	554	61.7	No	No	No
D02901	Residential (B)	66	564	61.7	No	No	No
D03001	Residential (B)	66	565	61.7	No	No	No
D03101	Residential (B)	66	578	61.7	No	No	No
D03201	Residential (B)	66	584	61.5	No	No	No
D03301	Residential (B)	66	587	61.4	No	No	No
D03401	Residential (B)	66	598	61.2	No	No	No
D03501	Residential (B)	66	605	60.5	No	No	No
D03601	Residential (B)	66	646	59.9	No	No	No
D03701	Residential (B)	66	662	59.7	No	No	No
D03801	Residential (B)	66	696	60.4	No	No	No
D03912	Residential (B)	66	744	60.2	No	No	No
D04012	Residential (B)	66	774	59.1	No	No	No
D04101-F	Residential (B)	66	330	61.5	No	No	No
D04201-F	Residential (B)	66	337	61.8	No	No	No
D04301-F	Residential (B)	66	322	61.7	No	No	No
D04402-F	Residential (B)	66	355	61.4	No	No	No
D04501-F	Residential (B)	66	473	60.8	No	No	No
D04601	Residential (B)	66	514	60.2	No	No	No
D04701	Residential (B)	66	555	60.4	No	No	No
D04801-FV	Residential (B)	66	189	72.1	Yes	No	Yes
D05002	Residential (B)	66	742	58.4	No	No	No
D05112	Residential (B)	66	557	58.3	No	No	No
D05212	Residential (B)	66	517	59.0	No	No	No
D05312	Residential (B)	66	375	59.6	No	No	No
D05412-F	Residential (B)	66	242	56.2	No	No	No
D05512-F	Residential (B)	66	202	53.5	No	No	No
D05602-F	Residential (B)	66	244	51.7	No	No	No
D05702-F	Residential (B)	66	243	53.2	No	No	No
D05802-F	Residential (B)	66	249	52.5	No	No	No
D05902-F	Residential (B)	66	302	54.5	No	No	No
D06002-F	Residential (B)	66	331	55.6	No	No	No
D06102-F	Residential (B)	66	356	55.7	No	No	No
D06202	Residential (B)	66	488	58.6	No	No	No
D06302	Residential (B)	66	492	58.5	No	No	No
D06402	Residential (B)	66	509	60.8	No	No	No
D06502	Residential (B)	66	514	60.2	No	No	No
D06602	Residential (B)	66	507	59.2	No	No	No
D06702	Residential (B)	66	498	59.6	No	No	No
D06801	Residential (B)	66	616	59.6	No	No	No
E00101-F	Hotel (E)	71	346	71.1	Yes	No	Yes
E00201	Residential (B)	66	774	67.3	Yes	No	Yes
E00301	Residential (B)	66	802	67.2	Yes	No	Yes
E00401	Residential (B)	66	793	67.3	Yes	No	Yes
E00501	Residential (B)	66	791	67.4	Yes	No	Yes
E00601	Residential (B)	66	768	67.5	Yes	No	Yes
E00701	Residential (B)	66	717	68.0	Yes	No	Yes
E00801	Residential (B)	66	695	68.2	Yes	No	Yes
E00901	Residential (B)	66	690	68.3	Yes	No	Yes
E01001	Residential (B)	66	693	68.3	Yes	No	Yes
E01101	Residential (B)	66	679	68.4	Yes	Yes	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
E01201	Residential (B)	66	670	68.5	Yes	Yes	Yes
E01301	Residential (B)	66	662	68.6	Yes	Yes	Yes
E01401	Residential (B)	66	658	68.7	Yes	Yes	Yes
E01501	Residential (B)	66	658	68.7	Yes	Yes	Yes
E01601	Residential (B)	66	654	68.8	Yes	Yes	Yes
E01701	Residential (B)	66	664	68.8	Yes	No	Yes
E01801	Residential (B)	66	657	68.8	Yes	No	Yes
E01901	Residential (B)	66	641	68.9	Yes	Yes	Yes
E02001	Residential (B)	66	653	68.9	Yes	No	Yes
E02101	Residential (B)	66	655	68.9	Yes	No	Yes
E02201	Residential (B)	66	647	68.9	Yes	No	Yes
E02301	Residential (B)	66	646	68.9	Yes	No	Yes
E02401	Residential (B)	66	625	69.1	Yes	No	Yes
E02501	Residential (B)	66	749	68.2	Yes	No	Yes
E02601	Residential (B)	66	760	68.2	Yes	No	Yes
E02701	Residential (B)	66	760	68.6	Yes	No	Yes
E02801	Residential (B)	66	658	69.3	Yes	No	Yes
E02901	Residential (B)	66	649	69.5	Yes	No	Yes
E03001	Residential (B)	66	643	69.7	Yes	No	Yes
E03101	Residential (B)	66	637	69.8	Yes	No	Yes
E03201	Residential (B)	66	630	69.9	Yes	No	Yes
E03401	Residential (B)	66	624	70.0	Yes	No	Yes
E03501	Residential (B)	66	616	70.1	Yes	No	Yes
E03601	Residential (B)	66	599	70.3	Yes	No	Yes
E03701	Residential (B)	66	570	70.9	Yes	No	Yes
E03801	Residential (B)	66	567	71.0	Yes	No	Yes
E03901	Residential (B)	66	578	70.9	Yes	No	Yes
E04001	Residential (B)	66	578	71.0	Yes	No	Yes
E04101	Residential (B)	66	593	70.8	Yes	No	Yes
E04201	Residential (B)	66	580	71.1	Yes	No	Yes
E04301	Residential (B)	66	506	72.0	Yes	No	Yes
E04401	Residential (B)	66	500	72.0	Yes	No	Yes
E04501	Residential (B)	66	534	71.5	Yes	No	Yes
E04601	Residential (B)	66	549	71.3	Yes	No	Yes
E04701	Residential (B)	66	528	71.5	Yes	No	Yes
E04801	Residential (B)	66	561	71.1	Yes	No	Yes
E04901	Residential (B)	66	537	71.3	Yes	No	Yes
E05002	Residential (B)	66	367	72.9	Yes	No	Yes
E05102	Residential (B)	66	353	73.4	Yes	No	Yes
E05202	Residential (B)	66	348	73.6	Yes	No	Yes
E05302	Residential (B)	66	341	73.9	Yes	No	Yes
E05402	Residential (B)	66	341	74.2	Yes	No	Yes
E05502	Residential (B)	66	338	74.2	Yes	No	Yes
E05602	Residential (B)	66	347	74.0	Yes	No	Yes
E05701	Residential (B)	66	326	74.6	Yes	No	Yes
E05801	Residential (B)	66	324	74.6	Yes	No	Yes
E05901	Residential (B)	66	319	74.7	Yes	No	Yes
E06001	Residential (B)	66	306	74.8	Yes	No	Yes
E06101	Residential (B)	66	316	74.5	Yes	No	Yes
E06201	Residential (B)	66	315	74.5	Yes	No	Yes
E06301	Residential (B)	66	319	74.4	Yes	No	Yes
E06401-F	Residential (B)	66	268	75.7	Yes	Yes	Yes
E06501-F	Residential (B)	66	313	74.8	Yes	No	Yes
E06601-F	Residential (B)	66	303	75.0	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
E06701-F	Residential (B)	66	288	75.4	Yes	No	Yes
E06801-F	Residential (B)	66	287	75.5	Yes	No	Yes
E06901-F	Residential (B)	66	283	75.4	Yes	No	Yes
E07001-F	Residential (B)	66	280	75.2	Yes	No	Yes
E07101-F	Residential (B)	66	260	75.5	Yes	No	Yes
E07201	Residential (B)	66	535	71.4	Yes	No	Yes
F00102-F	Residential (B)	66	330	74.0	Yes	No	Yes
F00201-F	Residential (B)	66	333	73.8	Yes	No	Yes
F00301-F	Residential (B)	66	345	73.7	Yes	No	Yes
F00401-F	Residential (B)	66	343	73.6	Yes	No	Yes
F00501-F	Residential (B)	66	333	73.6	Yes	No	Yes
F00601-F	Residential (B)	66	334	73.0	Yes	No	Yes
F00701-F	Residential (B)	66	339	73.4	Yes	No	Yes
F00804-F	Residential (B)	66	220	74.8	Yes	No	Yes
F00904	Residential (B)	66	337	73.2	Yes	No	Yes
F01002-F	Residential (B)	66	100	79.0	Yes	No	Yes
F01101-F	Residential (B)	66	119	78.1	Yes	No	Yes
F01201-F	Residential (B)	66	115	77.6	Yes	No	Yes
F01302-F	Residential (B)	66	118	78.1	Yes	No	Yes
F01501-F	Residential (B)	66	139	77.3	Yes	No	Yes
F01601-F	Residential (B)	66	140	77.2	Yes	No	Yes
F01701-F	Residential (B)	66	148	77.1	Yes	No	Yes
F01801-F	Residential (B)	66	191	75.5	Yes	No	Yes
F01901-F	Residential (B)	66	192	75.6	Yes	No	Yes
F02001-F	Residential (B)	66	194	75.4	Yes	No	Yes
F02101-F	Residential (B)	66	183	73.4	Yes	No	Yes
F02201-F	Residential (B)	66	173	73.6	Yes	No	Yes
F02301-F	Residential (B)	66	165	74.2	Yes	No	Yes
F02401-F	Residential (B)	66	168	74.2	Yes	No	Yes
F02502-F	Residential (B)	66	169	74.4	Yes	No	Yes
F02601-F	Residential (B)	66	154	73.7	Yes	No	Yes
F02701-F	Residential (B)	66	155	73.2	Yes	No	Yes
F02801-F	Residential (B)	66	150	72.7	Yes	No	Yes
F02901-F	Residential (B)	66	156	71.9	Yes	No	Yes
F03001-F	Residential (B)	66	152	71.5	Yes	No	Yes
F03101-F	Residential (B)	66	160	70.5	Yes	No	Yes
F03201-F	Residential (B)	66	163	70.3	Yes	No	Yes
F03301-F	Residential (B)	66	170	70.4	Yes	No	Yes
F03401	Residential (B)	66	375	72.9	Yes	No	Yes
F03501	Residential (B)	66	384	72.8	Yes	No	Yes
F03601	Residential (B)	66	393	72.6	Yes	No	Yes
F03701	Residential (B)	66	393	72.5	Yes	No	Yes
F03801	Residential (B)	66	401	72.3	Yes	No	Yes
F03901	Residential (B)	66	412	72.1	Yes	No	Yes
F04001	Residential (B)	66	420	72.1	Yes	No	Yes
F04102	Residential (B)	66	428	71.9	Yes	No	Yes
F04201	Residential (B)	66	428	71.8	Yes	No	Yes
F04301	Residential (B)	66	291	73.9	Yes	No	Yes
F04401	Residential (B)	66	291	73.6	Yes	No	Yes
F04501	Residential (B)	66	296	73.6	Yes	No	Yes
F04601	Residential (B)	66	343	72.9	Yes	No	Yes
F04701	Residential (B)	66	349	72.6	Yes	No	Yes
F04801	Residential (B)	66	345	72.6	Yes	No	Yes
F04901	Residential (B)	66	346	72.6	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
F05001	Residential (B)	66	347	71.3	Yes	No	Yes
F05101	Residential (B)	66	341	71.3	Yes	No	Yes
F05201	Residential (B)	66	337	71.2	Yes	No	Yes
F05301	Residential (B)	66	326	70.1	Yes	No	Yes
F05401	Residential (B)	66	335	69.6	Yes	No	Yes
F05501	Residential (B)	66	331	69.6	Yes	No	Yes
F05601	Residential (B)	66	290	69.4	Yes	No	Yes
F05801	Residential (B)	66	336	68.8	Yes	No	Yes
F05901	Residential (B)	66	387	68.3	Yes	No	Yes
F06001	Residential (B)	66	427	68.5	Yes	No	Yes
F06102	Residential (B)	66	455	69.1	Yes	No	Yes
F06301	Residential (B)	66	540	69.6	Yes	No	Yes
F06401	Residential (B)	66	567	69.5	Yes	No	Yes
F06501	Residential (B)	66	604	69.1	Yes	No	Yes
F06601	Residential (B)	66	533	70.1	Yes	No	Yes
F06701	Residential (B)	66	641	69.5	Yes	No	Yes
F06801	Residential (B)	66	649	69.5	Yes	No	Yes
F06901	Residential (B)	66	654	69.4	Yes	No	Yes
F07001	Residential (B)	66	658	69.3	Yes	No	Yes
F07103-F	Day Care Center (C)	66	258	69.3	Yes	No	Yes
F07201	Residential (B)	66	305	69.1	Yes	No	Yes
F07301	Residential (B)	66	303	68.3	Yes	No	Yes
F07401	Residential (B)	66	305	68.1	Yes	No	Yes
F07501	Residential (B)	66	312	68.0	Yes	No	Yes
F07602-F	Residential (B)	66	320	68.5	Yes	No	Yes
F07701-F	Residential (B)	66	323	68.4	Yes	No	Yes
F07801-F	Residential (B)	66	328	68.3	Yes	No	Yes
F07904-F	Club (C)	66	224	67.3	Yes	No	Yes
F08001	Residential (B)	66	351	67.2	Yes	No	Yes
F08301	Residential (B)	66	269	68.3	Yes	No	Yes
F08401	Residential (B)	66	249	68.6	Yes	No	Yes
F08501	Residential (B)	66	205	68.7	Yes	No	Yes
F08601	Residential (B)	66	176	68.8	Yes	No	Yes
F08702	Residential (B)	66	600	68.6	Yes	No	Yes
F08801	Residential (B)	66	570	68.2	Yes	No	Yes
F08901	Residential (B)	66	534	68.0	Yes	No	Yes
F09001	Residential (B)	66	481	68.2	Yes	No	Yes
F09101	Residential (B)	66	490	67.9	Yes	No	Yes
F09201	Residential (B)	66	491	67.7	Yes	No	Yes
F09302	Residential (B)	66	492	67.7	Yes	No	Yes
F09401	Residential (B)	66	497	67.4	Yes	No	Yes
F09501	Residential (B)	66	513	67.3	Yes	No	Yes
F09601	Residential (B)	66	535	67.1	Yes	No	Yes
F09701	Residential (B)	66	520	66.7	Yes	No	Yes
F09804	Residential (B)	66	605	66.1	Yes	No	Yes
F09901	Residential (B)	66	673	65.6	No	No	No
F10001	Residential (B)	66	717	65.4	No	No	No
F10102	Residential (B)	66	754	65.5	No	No	No
F10202	Residential (B)	66	778	65.5	No	No	No
F10301	Residential (B)	66	808	65.1	No	No	No
F10402	Residential (B)	66	815	64.8	No	No	No
F10512	Residential (B)	66	649	66.7	Yes	No	Yes
F10601	Residential (B)	66	675	67.3	Yes	No	Yes
F10701	Residential (B)	66	653	67.5	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
F10802	Residential (B)	66	643	67.8	Yes	No	Yes
F10901	Residential (B)	66	617	68.2	Yes	No	Yes
F11001	Residential (B)	66	760	68.2	Yes	No	Yes
F11101	Residential (B)	66	774	68.1	Yes	No	Yes
F11202	Residential (B)	66	799	67.7	Yes	No	Yes
F11301	Residential (B)	66	853	67.5	Yes	No	Yes
F11401	Residential (B)	66	819	67.4	Yes	No	Yes
F11501	Residential (B)	66	846	66.7	Yes	No	Yes
F11602	Residential (B)	66	865	66.4	Yes	No	Yes
F11701	Residential (B)	66	912	66.5	Yes	No	Yes
F11801	Residential (B)	66	893	65.8	No	No	No
F11901	Residential (B)	66	833	65.7	No	No	No
F12001	Residential (B)	66	843	65.5	No	No	No
F12101	Residential (B)	66	862	65.2	No	No	No
F12202	Residential (B)	66	874	64.9	No	No	No
F12301	Residential (B)	66	977	64.0	No	No	No
F12403	Residential (B)	66	961	64.2	No	No	No
F12501	Residential (B)	66	1091	64.1	No	No	No
F12601	Residential (B)	66	1094	64.3	No	No	No
F12701	Residential (B)	66	1082	64.6	No	No	No
F12804	Residential (B)	66	1075	65.3	No	No	No
F12901	Residential (B)	66	1089	64.8	No	No	No
F13003	Residential (B)	66	936	66.4	Yes	No	Yes
F13105	Residential (B)	66	900	66.4	Yes	No	Yes
F13201	Residential (B)	66	831	66.4	Yes	No	Yes
F13303	Residential (B)	66	750	67.1	Yes	No	Yes
F13402	Residential (B)	66	702	67.0	Yes	No	Yes
F13502	Residential (B)	66	668	66.7	Yes	No	Yes
F13601	Residential (B)	66	913	64.5	No	No	No
F13701	Residential (B)	66	895	64.4	No	No	No
F13801	Residential (B)	66	883	64.2	No	No	No
F13901	Residential (B)	66	869	64.2	No	No	No
F14001	Residential (B)	66	859	64.2	No	No	No
F14102	Residential (B)	66	826	64.3	No	No	No
F14201	Residential (B)	66	793	64.3	No	No	No
F14301	Residential (B)	66	770	64.3	No	No	No
F14402	Residential (B)	66	742	64.5	No	No	No
F14501	Residential (B)	66	712	64.7	No	No	No
F14601	Residential (B)	66	668	64.8	No	No	No
F14701	Residential (B)	66	641	64.9	No	No	No
F14801	Residential (B)	66	616	65.0	No	No	No
F14901	Residential (B)	66	593	65.2	No	No	No
F15001	Residential (B)	66	566	65.4	No	No	No
F15101	Residential (B)	66	545	65.4	No	No	No
F15201	Residential (B)	66	527	65.5	No	No	No
F15301-F	Residential (B)	66	485	65.8	No	No	No
F15401-FV	Residential (B)	66	138	74.7	Yes	No	Yes
F15501	Residential (B)	66	210	73.7	Yes	No	Yes
F15606	Playground (C)	66	326	72.2	Yes	No	Yes
F15701	Residential (B)	66	521	70.6	Yes	No	Yes
F15801	Residential (B)	66	545	70.9	Yes	No	Yes
F15904	Residential (B)	66	564	69.6	Yes	No	Yes
F16001	Residential (B)	66	592	69.9	Yes	No	Yes
F16101	Residential (B)	66	607	69.2	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
F16202	Residential (B)	66	617	69.6	Yes	No	Yes
F16301	Residential (B)	66	643	69.1	Yes	No	Yes
F16405	Residential (B)	66	667	68.8	Yes	No	Yes
F16502	Residential (B)	66	662	68.7	Yes	No	Yes
F16601	Residential (B)	66	224	73.9	Yes	No	Yes
F16701	Residential (B)	66	176	74.7	Yes	No	Yes
F16802	Residential (B)	66	117	75.3	Yes	No	Yes
F16901-F	Residential (B)	66	90	74.4	Yes	No	Yes
F17001-F	Residential (B)	66	129	73.7	Yes	No	Yes
F17101	Residential (B)	66	160	73.9	Yes	No	Yes
F17201	Residential (B)	66	184	74.0	Yes	No	Yes
F17301	Residential (B)	66	241	73.2	Yes	No	Yes
F17401	Residential (B)	66	259	73.3	Yes	No	Yes
F17501	Residential (B)	66	294	72.8	Yes	No	Yes
F17601	Residential (B)	66	328	72.2	Yes	No	Yes
F17701	Residential (B)	66	355	71.8	Yes	No	Yes
F17801	Residential (B)	66	384	71.5	Yes	No	Yes
F17901	Residential (B)	66	428	70.9	Yes	No	Yes
F18001	Residential (B)	66	459	70.4	Yes	No	Yes
F18101	Residential (B)	66	480	70.4	Yes	No	Yes
F18201	Residential (B)	66	505	70.1	Yes	No	Yes
F18301	Residential (B)	66	536	69.7	Yes	No	Yes
F18405	Park (C)	66	616	68.8	Yes	No	Yes
F18501	Residential (B)	66	641	68.7	Yes	No	Yes
F18601	Residential (B)	66	608	69.0	Yes	No	Yes
F18701	Residential (B)	66	555	69.6	Yes	No	Yes
F18801	Residential (B)	66	528	69.9	Yes	No	Yes
F18901	Residential (B)	66	503	70.1	Yes	No	Yes
F19001	Residential (B)	66	479	70.3	Yes	No	Yes
F19101	Residential (B)	66	455	70.6	Yes	No	Yes
F19201	Residential (B)	66	430	70.8	Yes	No	Yes
F19301	Residential (B)	66	402	71.1	Yes	No	Yes
F19401	Residential (B)	66	375	71.4	Yes	No	Yes
F19501	Residential (B)	66	352	71.6	Yes	No	Yes
F19601	Residential (B)	66	326	71.9	Yes	No	Yes
F19701	Residential (B)	66	303	72.1	Yes	No	Yes
F19801	Residential (B)	66	283	72.3	Yes	No	Yes
F19901	Residential (B)	66	250	72.8	Yes	No	Yes
F20001	Residential (B)	66	227	73.0	Yes	No	Yes
F20101	Residential (B)	66	187	72.7	Yes	No	Yes
F20201	Residential (B)	66	155	72.8	Yes	No	Yes
F20301-F	Residential (B)	66	129	73.1	Yes	No	Yes
F20402	Residential (B)	66	719	68.0	Yes	No	Yes
F20501	Residential (B)	66	731	67.9	Yes	No	Yes
F20601	Residential (B)	66	734	67.7	Yes	No	Yes
F20701	Residential (B)	66	742	67.6	Yes	No	Yes
F20802	Residential (B)	66	791	67.2	Yes	No	Yes
F20904	Residential (B)	66	806	66.9	Yes	No	Yes
F21001	Residential (B)	66	804	67.2	Yes	No	Yes
F21106	Residential (B)	66	756	67.7	Yes	No	Yes
F21205	Residential (B)	66	815	67.4	Yes	No	Yes
F21301	Residential (B)	66	808	67.9	Yes	No	Yes
F21401	Residential (B)	66	746	68.3	Yes	No	Yes
F21501	Residential (B)	66	721	68.4	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
F21601	Residential (B)	66	697	68.5	Yes	No	Yes
F21701	Residential (B)	66	673	68.7	Yes	No	Yes
F21804	Residential (B)	66	590	69.6	Yes	No	Yes
F21902	Residential (B)	66	523	70.3	Yes	No	Yes
F22001	Residential (B)	66	497	70.5	Yes	No	Yes
F22101	Residential (B)	66	474	70.8	Yes	No	Yes
F22201	Residential (B)	66	450	71.0	Yes	No	Yes
F22302	Residential (B)	66	399	71.6	Yes	No	Yes
F22401	Residential (B)	66	352	72.3	Yes	No	Yes
F22501	Residential (B)	66	324	72.7	Yes	No	Yes
F22601	Residential (B)	66	287	73.3	Yes	No	Yes
F22701	Residential (B)	66	249	73.6	Yes	No	Yes
F22801-F	Residential (B)	66	220	73.9	Yes	No	Yes
F22901-F	Residential (B)	66	216	75.0	Yes	No	Yes
F23001	Residential (B)	66	246	74.6	Yes	No	Yes
F23101	Residential (B)	66	288	74.1	Yes	No	Yes
F23201	Residential (B)	66	322	73.4	Yes	No	Yes
F23301	Residential (B)	66	343	73.1	Yes	No	Yes
F23401	Residential (B)	66	373	72.7	Yes	No	Yes
F23501	Residential (B)	66	390	72.5	Yes	No	Yes
F23601	Residential (B)	66	420	72.1	Yes	No	Yes
F23701	Residential (B)	66	438	71.9	Yes	No	Yes
F23801	Residential (B)	66	465	71.5	Yes	No	Yes
F23901	Residential (B)	66	492	71.2	Yes	No	Yes
F24001	Residential (B)	66	520	70.8	Yes	No	Yes
F24102	Residential (B)	66	536	70.7	Yes	No	Yes
F24208	Residential (B)	66	719	68.7	Yes	No	Yes
F24301	Residential (B)	66	839	67.7	Yes	No	Yes
F24401	Residential (B)	66	840	67.7	Yes	No	Yes
F24501	Residential (B)	66	841	67.8	Yes	No	Yes
F24601	Residential (B)	66	840	67.9	Yes	No	Yes
F24701	Residential (B)	66	819	68.1	Yes	No	Yes
F24801	Residential (B)	66	804	68.2	Yes	No	Yes
F24901	Residential (B)	66	787	68.4	Yes	No	Yes
F25001	Residential (B)	66	751	68.7	Yes	No	Yes
F25101	Residential (B)	66	760	68.5	Yes	No	Yes
F25201	Residential (B)	66	640	69.5	Yes	No	Yes
F25301	Residential (B)	66	747	68.1	Yes	No	Yes
F25401	Residential (B)	66	717	68.3	Yes	No	Yes
F25501	Residential (B)	66	680	68.4	Yes	No	Yes
F25601	Residential (B)	66	687	68.5	Yes	No	Yes
F25701	Residential (B)	66	672	68.6	Yes	No	Yes
F25801-F	Residential (B)	66	592	69.2	Yes	No	Yes
F25904-F	Residential (B)	66	754	68.5	Yes	No	Yes
F26001-F	Residential (B)	66	205	74.5	Yes	No	Yes
F26101	Residential (B)	66	290	72.8	Yes	No	Yes
F26201	Residential (B)	66	306	72.0	Yes	No	Yes
F26301	Residential (B)	66	383	71.1	Yes	No	Yes
F26401	Residential (B)	66	449	70.8	Yes	No	Yes
F26501	Residential (B)	66	477	70.2	Yes	No	Yes
F26601	Residential (B)	66	567	69.9	Yes	No	Yes
F26701	Residential (B)	66	597	69.9	Yes	No	Yes
F26801	Residential (B)	66	594	69.7	Yes	No	Yes
F26901	Residential (B)	66	610	69.7	Yes	No	Yes

Table 3: Concept I-W Results (No Barrier Wall) (cont.)

RECEIVER	DESCRIPTION (ACTIVITY CATEGORY)	NAC dB(A)	PROPOSED CONDITIONS				
			DISTANCE TO I-71 / I-75 (ft)	2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	EXCEEDS SUBST. INCR. CRITERIA?	EXCEEDS NAC?
F27001	Residential (B)	66	625	69.6	Yes	No	Yes
F27101	Residential (B)	66	629	69.5	Yes	No	Yes
F27201	Residential (B)	66	652	69.3	Yes	No	Yes
F27301	Residential (B)	66	673	69.5	Yes	No	Yes
F27401	Residential (B)	66	668	69.4	Yes	No	Yes
F27503	Residential (B)	66	694	68.9	Yes	No	Yes
F27602	Residential (B)	66	697	68.9	Yes	No	Yes
F27702	Residential (B)	66	537	70.7	Yes	No	Yes
F27801	Residential (B)	66	499	71.3	Yes	No	Yes
F27901	Residential (B)	66	470	71.7	Yes	No	Yes
F28001-F	Residential (B)	66	446	72.0	Yes	No	Yes
F28101-F	Residential (B)	66	422	72.4	Yes	No	Yes
F28201-F	Residential (B)	66	393	72.8	Yes	No	Yes
F28301-F	Residential (B)	66	350	73.3	Yes	No	Yes
F28401-F	Residential (B)	66	328	73.7	Yes	No	Yes
F28501-F	Residential (B)	66	302	74.1	Yes	No	Yes
F28601-F	Residential (B)	66	277	74.5	Yes	No	Yes
F28701-F	Residential (B)	66	248	75.0	Yes	No	Yes
F28801-F	Residential (B)	66	225	75.4	Yes	No	Yes
F28901-F	Residential (B)	66	198	75.9	Yes	No	Yes
F29001-F	Residential (B)	66	180	76.3	Yes	No	Yes
F29101-F	Residential (B)	66	157	76.8	Yes	No	Yes
F29201	Residential (B)	66	490	71.3	Yes	No	Yes
F29301-F	Residential (B)	66	463	71.6	Yes	No	Yes
F29401-F	Residential (B)	66	452	71.6	Yes	No	Yes
F29501-F	Residential (B)	66	443	71.7	Yes	No	Yes
F29501-F	Residential (B)	66	442	71.7	Yes	No	Yes
F29601-F	Residential (B)	66	431	71.6	Yes	No	Yes
F29701-F	Residential (B)	66	419	71.4	Yes	No	Yes
F29801-F	Residential (B)	66	410	71.4	Yes	No	Yes
F29901-F	Residential (B)	66	396	71.7	Yes	No	Yes
F30001-F	Residential (B)	66	383	72.5	Yes	No	Yes
F30101-F	Residential (B)	66	375	72.6	Yes	No	Yes
F30201-F	Residential (B)	66	320	73.5	Yes	No	Yes
F30301-F	Residential (B)	66	307	73.7	Yes	No	Yes
F30401-F	Residential (B)	66	275	74.3	Yes	No	Yes
F30501-F	Residential (B)	66	248	74.5	Yes	No	Yes
F30601-F	Residential (B)	66	228	74.6	Yes	No	Yes
F30701-F	Residential (B)	66	215	74.8	Yes	No	Yes
F30801-F	Residential (B)	66	199	75.1	Yes	No	Yes
F30901-F	Residential (B)	66	185	75.4	Yes	No	Yes
F31001-F	Residential (B)	66	154	76.4	Yes	No	Yes
F31101	Residential (B)	66	785	67.9	Yes	No	Yes
F31201	Residential (B)	66	905	64.4	No	No	No
F31301	Residential (B)	66	584	69.3	Yes	No	Yes
F31501	Residential (B)	66	226	68.4	Yes	No	Yes
F316017	School (D)	71	263	72.9	Yes	No	Yes

TABLE 4: BARRIER RESULTS FOR NSA A

Table 4: Barrier Results for NSA A

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
A00104	4	No	67.5	69.2	No	66.2	No	No
A00216-F	16	Yes	74.0	75.3	Yes	72.5	No	No
A00316-F	16	Yes	74.3	75.5	Yes	72.9	No	No
A00416-F	16	Yes	74.3	75.7	Yes	73.1	No	No
A00516-F	16	Yes	74.4	76.1	Yes	73.3	No	No
A00616-F	16	Yes	74.4	76.8	Yes	73.7	No	No
A00716-F	16	Yes	74.4	76.9	Yes	74.6	No	No
A00816-F	16	Yes	74.4	76.9	Yes	75.1	No	No
A00916-F	16	Yes	74.4	76.9	Yes	75.3	No	No
A01016-F	16	Yes	74.3	76.9	Yes	75.5	No	No
A01116-F	16	Yes	74.3	76.9	Yes	75.7	No	No
A01216-F	16	Yes	74.2	76.8	Yes	75.9	No	No
A01316-F	16	Yes	74.2	76.9	Yes	76.2	No	No
A01416-F	16	Yes	74.1	76.8	Yes	76.3	No	No
A01516-F	16	Yes	74.0	76.8	Yes	76.5	No	No
A01616-F	16	Yes	74.0	76.8	Yes	76.5	No	No

TABLE 5: BARRIER RESULTS FOR NSA B, AREA B1

Table 5: Barrier Results for NSA B, Area B1

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
B00601-F	1	Yes	69.9	71.2	Yes	64.6	Yes	No
B00501-F	1	Yes	67.6	71.1	Yes	63.1	Yes	Yes
B00701-F	1	Yes	66.9	71.1	Yes	62.4	Yes	Yes
B00401-F	1	Yes	71.1	70.4	Yes	65.5	No	No
B01401	1	No	71.9	69.8	Yes	66.2	No	No
B01501	1	No	72.0	69.8	Yes	66.3	No	No
B00801-F	1	Yes	71.9	69.6	Yes	66.0	No	No
B00117-F	17	Yes	70.4	69.4	Yes	63.8	Yes	No
B01301-F	1	Yes	70.0	69.3	Yes	63.5	Yes	No
B01901	1	No	69.7	69.3	Yes	63.4	Yes	No
B00901-F	1	Yes	69.6	69.2	Yes	63.5	Yes	No
B01801	1	No	69.6	69.2	Yes	63.8	Yes	No
B01701	1	No	70.0	69.0	Yes	64.5	No	No
B02001	1	No	70.6	69.0	Yes	65.0	No	No
B02102	2	No	70.6	69.0	Yes	64.8	No	No
B02202	2	No	69.6	69.0	Yes	64.3	No	No
B02302	2	No	69.7	69.0	Yes	64.3	No	No
B01001-F	1	Yes	69.9	68.9	Yes	64.3	No	No
B01601	1	No	70.0	68.9	Yes	64.3	No	No
B02401	1	No	69.8	68.9	Yes	64.0	No	No
B01101-F	1	Yes	69.8	68.8	Yes	64.0	No	No
B01201-F	1	Yes	69.8	68.8	Yes	64.1	No	No
B02502	2	No	69.7	68.8	Yes	64.0	No	No
B02602	2	No	69.7	68.6	Yes	64.1	No	No
B02702	2	No	69.5	68.5	Yes	64.0	No	No
B02802	2	No	69.3	68.4	Yes	63.9	No	No
B02902	2	No	69.3	68.4	Yes	63.9	No	No
B03002	2	No	69.2	68.3	Yes	63.9	No	No
B03101	1	No	69.1	68.1	Yes	63.9	No	No
B03201	1	No	69.0	68.1	Yes	63.8	No	No
B03401	1	No	68.9	68.1	Yes	63.8	No	No
B05202	2	No	68.8	68.1	Yes	63.9	No	No
B03301	1	No	68.8	68.0	Yes	63.6	No	No
B13802	2	No	68.8	68.0	Yes	63.6	No	No
B13702	2	No	68.4	67.8	Yes	63.7	No	No
B05302	2	No	68.3	67.7	Yes	63.6	No	No
B06802	2	No	68.5	67.7	Yes	63.9	No	No
B14102	2	No	68.3	67.7	Yes	63.7	No	No
B04602	2	No	67.8	67.6	Yes	63.4	No	No
B05102	2	No	67.5	67.6	Yes	63.2	No	No
B05502	2	No	67.5	67.6	Yes	63.1	No	No
B05602	2	No	63.8	67.6	Yes	61.3	Yes	No
B06705	5	No	68.0	67.6	Yes	63.1	No	No
B04801	1	No	67.9	67.5	Yes	62.9	No	No
B04901	1	No	67.9	67.5	Yes	62.9	No	No
B05001	1	No	68.2	67.5	Yes	63.1	No	No
B05404	4	No	68.1	67.5	Yes	62.8	No	No

Table 5: Barrier Results for NSA B, Area B1 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
B13501	1	No	68.2	67.5	Yes	62.8	No	No
B04701	1	No	68.2	67.4	Yes	62.9	No	No
B05704	4	No	68.2	67.4	Yes	63.0	No	No
B06302	2	No	68.3	67.4	Yes	63.0	No	No
B06402	2	No	68.8	67.4	Yes	63.3	No	No
B06501	1	No	68.4	67.4	Yes	63.0	No	No
B05802	2	No	68.2	67.3	Yes	62.9	No	No
B05903	3	No	68.4	67.3	Yes	63.1	No	No
B06002	2	No	68.3	67.3	Yes	63.1	No	No
B06104	4	No	68.2	67.3	Yes	62.9	No	No
B06204	4	No	68.1	67.3	Yes	62.7	No	No
B06602	2	No	68.0	67.3	Yes	62.6	No	No
B09602	2	No	68.1	67.3	Yes	62.6	No	No
B11201	1	No	68.1	67.0	Yes	62.6	No	No
B11301	1	No	68.1	66.8	Yes	62.8	No	No
B07601	1	No	68.2	68.2	Yes	62.8	Yes	No
B07402	2	No	68.2	68.1	Yes	62.9	Yes	No
B07502	2	No	68.2	68.1	Yes	63.0	Yes	No
B03501-F	1	Yes	68.1	67.6	Yes	63.0	No	No
B03702-F	2	Yes	68.4	67.6	Yes	63.3	No	No
B07103	3	No	68.5	67.6	Yes	63.5	No	No
B07202	2	No	68.2	67.6	Yes	63.7	No	No
B07302	2	No	68.3	67.6	Yes	63.8	No	No
B10502	2	No	68.4	67.6	Yes	63.8	No	No
B13604	4	No	68.4	67.6	Yes	63.8	No	No
B14001	1	No	68.4	67.6	Yes	64.0	No	No
B03802-F	2	Yes	68.9	67.5	Yes	64.3	No	No
B07004	4	No	68.8	67.5	Yes	64.1	No	No
B13301	1	No	69.0	67.5	Yes	64.1	No	No
B13401	1	No	67.7	67.5	Yes	62.7	No	No
B03601-F	1	Yes	67.2	67.4	Yes	62.3	Yes	No
B06901	1	No	67.8	67.4	Yes	62.7	No	No
B04302	2	No	68.0	67.3	Yes	62.7	No	No
B04402	2	No	67.5	67.3	Yes	62.4	No	No
B04502	2	No	66.9	67.3	Yes	62.0	Yes	No
B22402	2	No	66.9	67.3	Yes	62.0	Yes	No
B10601	1	No	67.0	67.2	Yes	62.1	Yes	No
B13902	2	No	66.9	67.2	Yes	62.0	Yes	No
B09502	2	No	66.7	67.1	Yes	62.0	Yes	No
B11102	2	No	66.9	67.1	Yes	62.2	No	No
B12201	1	No	66.7	67.1	Yes	62.1	Yes	No
B09302	2	No	68.3	67.0	Yes	64.1	No	No
B03902-F	2	Yes	67.9	66.9	Yes	63.8	No	No
B09702	2	No	67.0	66.8	Yes	62.6	No	No
B14501	1	No	67.2	66.8	Yes	62.7	No	No
B04004-F	4	Yes	67.0	66.7	Yes	62.6	No	No
B04104-F	4	Yes	67.2	66.7	Yes	62.8	No	No
B11901	1	No	67.8	66.7	Yes	63.2	No	No
B12001	1	No	67.7	66.7	Yes	62.4	No	No

Table 5: Barrier Results for NSA B, Area B1 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
B12101	1	No	67.6	66.7	Yes	62.4	No	No
B22302	2	No	67.3	66.7	Yes	62.2	No	No
B09402	2	No	67.4	66.6	Yes	62.5	No	No
B11401	1	No	67.3	66.6	Yes	62.6	No	No
B11502	2	No	67.3	66.6	Yes	62.8	No	No
B11801	1	No	67.3	66.6	Yes	63.0	No	No
B13201	1	No	67.4	66.6	Yes	63.1	No	No
B10801	1	No	67.4	66.5	Yes	63.2	No	No
B11004	1	No	67.5	66.5	Yes	63.2	No	No
B11601	1	No	67.8	66.5	Yes	63.4	No	No
B11701	1	No	67.0	66.5	Yes	62.8	No	No
B14601	1	No	67.1	66.5	Yes	62.9	No	No
B13101	1	No	67.0	66.4	Yes	62.8	No	No
B10001	1	No	66.9	66.3	Yes	62.8	No	No
B10301	1	No	67.0	66.3	Yes	62.8	No	No
B10901	1	No	66.9	66.3	Yes	62.7	No	No
B12301	1	No	67.0	66.3	Yes	62.8	No	No
B12401	1	No	67.1	66.3	Yes	62.8	No	No
B12901	1	No	67.2	66.3	Yes	62.9	No	No
B13001	1	No	67.3	66.3	Yes	63.0	No	No
B14701	1	No	68.2	66.3	Yes	63.3	No	No
B09801	1	No	68.3	66.2	Yes	63.3	No	No
B09901	1	No	68.2	66.2	Yes	63.2	No	No
B10101	1	No	68.3	66.2	Yes	63.3	No	No
B12501	1	No	68.6	66.2	Yes	63.4	No	No
B12601	1	No	68.7	66.2	Yes	63.4	No	No
B12701	1	No	68.0	66.2	Yes	63.3	No	No
B12801	1	No	68.3	66.2	Yes	63.5	No	No
B14301	1	No	68.5	66.2	Yes	63.3	No	No
B14401	1	No	66.7	66.2	Yes	62.2	No	No
B14801	1	No	66.9	66.2	Yes	62.2	No	No
B10201	1	No	66.9	66.0	Yes	62.2	No	No
B14210	10	No	67.5	66.0	Yes	62.6	No	No
B22605	5	No	67.2	68.5	No	62.4	Yes	No
B00204	4	No	67.0	67.1	No	62.3	No	No
B00305	5	No	66.9	66.3	No	62.2	No	No
B10701	1	No	66.6	66.3	No	62.1	No	No
B10405	5	No	66.2	66.0	No	62.0	No	No
B15002	2	No	65.9	65.9	No	61.8	No	No
B15102	2	No	67.4	65.5	No	62.4	No	No
B15202	2	No	68.0	65.2	No	63.4	No	No
B04225-F	25	Yes	69.2	62.7	No	64.3	No	No

TABLE 6: BARRIER RESULTS FOR NSA B, AREA B2

Table 6: Barrier Results for NSA B, Area B2

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
B07701-F	1	Yes	69.0	70.0	Yes	64.8	Yes	No
B07801-F	1	Yes	69.3	69.5	Yes	64.5	Yes	No
B07901-F	1	Yes	69.3	69.3	Yes	64.2	Yes	No
B08001-F	1	Yes	69.4	69.1	Yes	64.1	Yes	No
B17001	1	No	65.8	67.9	Yes	63.4	No	No
B17101	1	No	65.6	67.8	Yes	63.6	No	No
B17201	1	No	65.2	67.7	Yes	63.6	No	No
B08801-F	1	Yes	71.2	67.9	Yes	64.2	No	No
B08901-F	1	Yes	71.4	68.1	Yes	64.6	No	No
B08701-F	1	Yes	70.7	68.9	Yes	65.1	No	No
B08601-F	1	Yes	70.4	69.2	Yes	65.4	No	No
B15301	1	No	60.5	69.6	Yes	66.1	No	No
B15401	1	No	61.9	69.3	Yes	66.1	No	No
B15501	1	No	67.0	68.6	Yes	63.8	No	No
B16904	4	No	65.5	68.5	Yes	63.8	No	No
B08501-F	1	Yes	69.9	68.4	Yes	63.7	No	No
B08101-F	1	Yes	68.8	67.7	Yes	63.2	No	No
B08401-F	1	Yes	69.7	67.5	Yes	63.0	No	No
B08201-F	1	Yes	68.9	67.4	Yes	63.0	No	No
B15601	1	No	62.5	67.5	Yes	63.1	No	No
B08301-F	1	Yes	69.2	67.6	Yes	63.2	No	No
B16202	2	No	68.0	67.3	Yes	63.2	No	No
B15901	1	No	63.1	67.7	Yes	63.8	No	No
B16001	1	No	62.6	67.4	Yes	63.5	No	No
B17302	2	No	64.8	67.4	Yes	63.4	No	No
B22502	2	No	65.3	67.1	Yes	62.9	No	No
B15701	1	No	63.4	67.0	Yes	62.9	No	No
B15801	1	No	63.0	66.9	Yes	62.7	No	No
B16301	1	No	63.5	66.9	Yes	62.5	No	No
B16101	1	No	63.3	68.4	Yes	63.5	No	No
B16401	1	No	66.8	68.2	Yes	63.2	Yes	No
B16501	1	No	66.0	68.1	Yes	63.1	Yes	No
B16601	1	No	64.8	67.9	Yes	62.9	Yes	No
B17501	1	No	64.9	67.5	Yes	62.6	No	No
B18402	2	No	66.9	66.9	Yes	62.1	No	No
B18601	1	No	66.4	67.2	Yes	62.3	No	No
B18801	1	No	66.6	66.6	Yes	62.1	No	No
B22201	1	No	65.0	66.4	Yes	62.0	No	No
B18701	1	No	66.4	66.1	Yes	61.8	No	No
B18901	1	No	66.7	66.1	Yes	61.8	No	No
B19001	1	No	66.8	66.3	Yes	62.0	No	No
B16701	1	No	67.4	66.1	Yes	61.5	No	No
B16801	1	No	67.8	65.8	No	61.6	No	No
B17403	3	No	64.4	65.6	No	61.2	No	No
B18501	1	No	66.1	67.2	Yes	62.9	No	No
B19101	1	No	66.8	67.0	Yes	62.2	No	No
B17601	1	No	64.7	67.2	Yes	62.3	No	No
B19402	2	No	67.6	67.0	Yes	62.3	No	No
B17701	1	No	64.7	67.1	Yes	62.3	No	No
B19201	1	No	66.9	67.0	Yes	62.3	No	No
B19301	1	No	67.2	67.0	Yes	62.2	No	No
B18001	1	No	65.1	66.7	Yes	62.0	No	No
B17801	1	No	64.6	66.4	Yes	61.8	No	No
B17901	1	No	64.7	66.4	Yes	61.8	No	No

Table 6: Barrier Results for NSA B, Area B2 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
B18101	1	No	63.1	66.4	Yes	61.9	No	No
B18201	1	No	60.1	65.2	No	60.6	No	No
B18301	1	No	62.8	65.2	No	60.5	No	No
B19801	1	No	59.1	65.2	No	60.5	No	No
B19901	1	No	60.5	65.4	No	60.8	No	No
B19502	2	No	61.9	65.3	No	60.5	No	No
B19602	2	No	60.6	65.2	No	60.4	No	No
B19702	2	No	61.5	65.1	No	60.4	No	No
B20002	2	No	63.0	67.0	Yes	62.9	No	No
B20104	4	No	63.3	67.5	No	63.5	No	No

TABLE 7: BARRIER RESULTS FOR NSA B, AREA B3

Table 7: Barrier Results for NSA B, Area B3

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
B09001-F	1	No	69.3	67.5	Yes	62.8	No	No
B09101	1	No	68.5	67.2	Yes	62.6	No	No
B09201	1	No	68.0	67.1	Yes	62.7	No	No
B20201	1	No	63.0	62.0	No	56.6	Yes	No
B20301	1	No	62.8	61.6	No	56.3	Yes	No
B20401	1	No	62.6	61.4	No	56.3	Yes	No
B20506	6	No	60.1	62.6	No	57.3	Yes	No
B20602	2	No	60.8	62.7	No	57.3	Yes	No
B20701	1	No	60.6	62.8	No	57.4	Yes	No
B20801	1	No	66.1	63.7	No	58.3	Yes	No
B20902	2	No	62.3	62.6	No	57.2	Yes	No
B21002	2	No	63.4	62.3	No	57.1	Yes	No
B21102	2	No	63.5	62.3	No	57.0	Yes	No
B21202	2	No	63.1	62.0	No	56.8	Yes	No
B21303	3	No	62.7	61.9	No	56.6	Yes	No
B21401	1	No	61.6	63.8	No	58.6	Yes	No
B21502	2	No	61.6	64.1	No	59.3	No	No
B21602	2	No	62.5	63.7	No	58.9	No	No
B21701	1	No	66.0	65.0	No	60.6	No	No
B21801	1	No	66.0	65.2	No	60.6	No	No
B21901	1	No	65.3	65.0	No	60.4	No	No
B22003	3	No	65.0	64.8	No	60.1	No	No
B22104	4	No	64.5	64.4	No	59.5	No	No

TABLE 8: BARRIER RESULTS FOR NSA C, AREA C1

Table 8: Barrier Results for NSA C, Area C1

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
C00101-F	1	Yes	72.2	72.8	Yes	68.4	No	No
C00201	1	No	69.9	71.9	Yes	67.7	No	No
C00302	2	No	69.4	70.9	Yes	67.4	No	No
C00401	1	No	67.4	69.9	Yes	66.8	No	No
C00501	1	No	67.2	68.6	Yes	65.6	No	No
C00601-F	1	Yes	70.7	72.2	Yes	67.3	No	No
C00701	1	No	67.6	70.4	Yes	65.9	No	No
C00801	1	No	67.4	70.0	Yes	65.7	No	No
C00901	1	No	66.2	69.1	Yes	65.1	No	No
C01001	1	No	65.5	68.7	Yes	64.9	No	No
C01201-F	1	Yes	73.7	75.2	Yes	66.6	Yes	Yes
C01301	1	No	73.1	74.7	Yes	67.5	Yes	Yes
C01401	1	No	72.2	74.2	Yes	67.7	Yes	No
C01501	1	No	71.9	73.6	Yes	67.9	Yes	No
C01601	1	No	71.0	72.8	Yes	67.6	Yes	No
C01701	1	No	70.3	72.5	Yes	67.4	Yes	No
C01801-F	1	Yes	71.4	73.8	Yes	66.3	Yes	Yes
C01901-V	1	No	70.7	73.1	Yes	63.8	Yes	Yes
C02001	1	No	70.2	72.5	Yes	64.6	Yes	Yes
C02101	1	No	69.7	72.1	Yes	65.1	Yes	Yes
C02201-F	1	Yes	70.7	73.0	Yes	64.5	Yes	Yes
C02302	2	No	70.1	72.9	Yes	64.5	Yes	Yes
C02402	2	No	68.5	72.0	Yes	65.2	Yes	No
C02501-F	1	Yes	69.1	71.5	Yes	63.1	Yes	Yes
C02601	1	No	68.4	70.8	Yes	64.7	Yes	No
C02701	1	No	67.4	70.6	Yes	65.0	Yes	No
C02801	1	No	68.7	70.7	Yes	64.5	Yes	No
C02901	1	No	68.7	70.6	Yes	64.5	Yes	No
C03001	1	No	68.7	70.6	Yes	64.8	Yes	No
C03101	1	No	68.6	70.4	Yes	64.9	Yes	No
C03201	1	No	68.4	70.3	Yes	64.9	Yes	No
C03301	1	No	68.0	69.9	Yes	64.9	Yes	No
C03401	1	No	66.8	68.8	Yes	65.5	No	No
C03502	2	No	61.0	66.3	Yes	63.3	No	No
C03602	2	No	60.8	66.2	Yes	63.3	No	No
C03703	3	No	60.6	66.2	Yes	63.3	No	No
C03802	2	No	61.7	66.1	Yes	63.4	No	No
C03903	3	No	60.9	65.8	No	63.4	No	No
C04002	2	No	62.2	65.7	No	63.4	No	No
C04101	1	No	62.4	64.5	No	62.9	No	No
C04201	1	No	62.1	63.1	No	61.8	No	No
C04301	1	No	62.1	62.9	No	61.7	No	No
C07701	1	No	63.6	65.9	No	64.3	No	No
C07801	1	No	63.5	65.7	No	63.9	No	No
C07901	1	No	63.0	65.3	No	63.5	No	No
C08001	1	No	62.7	65.1	No	63.2	No	No
C08101	1	No	62.6	64.9	No	63.1	No	No
C08201	1	No	62.3	64.7	No	63.0	No	No
C08303	3	No	61.6	64.8	No	62.2	No	No
C08401	1	No	61.0	64.1	No	61.8	No	No
C10004	4	No	65.9	69.3	Yes	64.4	No	No
C10101	1	No	63.4	64.8	No	63.7	No	No

TABLE 9: BARRIER RESULTS FOR NSA C, AREA C2

Table 9: Barrier Results for NSA C, Area C2

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
C04401-F	1	Yes	65.7	66.4	Yes	61.5	No	No
C04501-F	1	Yes	71.1	72.7	Yes	63.0	Yes	Yes
C04601-F	1	Yes	70.0	71.5	Yes	61.2	Yes	Yes
C04701-F	1	Yes	69.7	72.2	Yes	62.2	Yes	Yes
C04801-F	1	Yes	68.6	71.4	Yes	63.5	Yes	Yes
C04901	1	No	67.7	70.6	Yes	64.0	Yes	No
C05001	1	No	67.0	69.3	Yes	64.1	Yes	No
C05101	1	No	66.0	68.5	Yes	63.4	Yes	No
C05201	1	No	65.2	67.8	Yes	63.1	No	No
C05301	1	No	64.0	66.8	Yes	62.4	No	No
C05401	1	No	62.6	66.0	Yes	61.7	No	No
C05501	1	No	61.5	65.2	No	61.1	No	No
C05601	1	No	61.5	64.6	No	61.0	No	No
C05701	1	No	61.5	63.9	No	60.8	No	No
C05801	1	No	60.9	63.3	No	60.5	No	No
C05901	1	No	60.6	62.9	No	60.4	No	No
C06001	1	No	59.8	62.1	No	59.8	No	No
C06101	1	No	54.2	61.6	No	59.9	No	No
C06201	1	No	54.5	62.1	No	60.8	No	No
C06301	1	No	54.3	62.5	No	61.4	No	No
C06401	1	No	54.0	63.0	No	62.0	No	No
C06501	1	No	51.5	63.6	Yes	62.9	No	No
C06601	1	No	56.5	64.5	No	63.9	No	No
C06701	1	No	57.2	65.8	No	64.2	No	No
C06801	1	No	57.9	67.5	Yes	64.6	No	No
C06901	1	No	59.3	69.2	Yes	65.0	No	No
C07001-F	1	Yes	68.8	72.4	Yes	65.9	Yes	No
C07101-F	1	Yes	71.2	72.1	Yes	66.5	Yes	No
C07223-F	23	Yes	59.0	62.6	No	60.5	No	No
C07324-F	24	Yes	60.1	63.6	No	57.3	Yes	No
C07424-F	24	Yes	62.4	66.2	Yes	59.2	Yes	Yes
C07524	24	No	54.5	60.7	No	59.8	No	No
C07624	24	No	53.6	60.5	No	60.0	No	No
C08501-F	1	Yes	66.4	66.2	Yes	60.2	Yes	No
C08601	1	No	64.2	67.1	Yes	61.1	Yes	No
C08701	1	No	62.9	65.8	No	60.4	Yes	No
C08801	1	No	62.2	65.6	No	60.3	Yes	No
C08901	1	No	63.5	64.6	No	59.7	No	No
C09001	1	No	61.1	63.4	No	58.9	No	No
C09102	2	No	61.0	64.1	No	59.5	No	No
C09202	2	No	60.5	63.7	No	59.4	No	No
C09302	2	No	60.0	63.1	No	59.0	No	No
C09401	1	No	59.4	63.8	No	59.9	No	No
C09501	1	No	59.8	61.7	No	58.6	No	No
C09601	1	No	60.3	60.6	No	58.2	No	No
C09701	1	No	61.4	60.5	No	58.1	No	No
C09801	1	No	59.4	63.1	No	59.6	No	No
C09901	1	No	59.2	62.4	No	59.0	No	No

TABLE 10: BARRIER RESULTS FOR NSA E

Table 10: Barrier Results for NSA E

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
E00101-F	1	Yes	67.7	71.1	Yes	70.1	No	No
E00201	1	No	59.4	67.3	Yes	65.6	No	No
E00301	1	No	61.8	67.2	Yes	65.5	No	No
E00401	1	No	62.1	67.3	Yes	65.5	No	No
E00501	1	No	62.0	67.4	Yes	65.5	No	No
E00601	1	No	62.0	67.5	Yes	65.7	No	No
E00701	1	No	62.8	68.0	Yes	65.9	No	No
E00801	1	No	61.9	68.2	Yes	65.9	No	No
E00901	1	No	59.1	68.3	Yes	65.9	No	No
E01001	1	No	62.2	68.3	Yes	66.0	No	No
E01101	1	No	57.9	68.4	Yes	66.0	No	No
E01201	1	No	57.9	68.5	Yes	66.1	No	No
E01301	1	No	57.6	68.6	Yes	66.1	No	No
E01401	1	No	57.8	68.7	Yes	66.2	No	No
E01501	1	No	57.8	68.7	Yes	66.2	No	No
E01601	1	No	58.4	68.8	Yes	66.2	No	No
E01701	1	No	63.0	68.8	Yes	66.3	No	No
E01801	1	No	60.2	68.8	Yes	66.3	No	No
E01901	1	No	57.9	68.9	Yes	66.3	No	No
E02001	1	No	60.7	68.9	Yes	66.4	No	No
E02101	1	No	62.7	68.9	Yes	66.4	No	No
E02201	1	No	61.2	68.9	Yes	66.4	No	No
E02301	1	No	62.5	68.9	Yes	66.4	No	No
E02401	1	No	64.3	69.1	Yes	66.5	No	No
E02501	1	No	63.4	68.2	Yes	66.1	No	No
E02601	1	No	63.6	68.2	Yes	66.0	No	No
E02701	1	No	64.0	68.6	Yes	66.4	No	No
E02801	1	No	65.1	69.3	Yes	66.7	No	No
E02901	1	No	65.4	69.5	Yes	66.9	No	No
E03001	1	No	65.5	69.7	Yes	67.0	No	No
E03101	1	No	65.6	69.8	Yes	67.0	No	No
E03201	1	No	65.8	69.9	Yes	67.2	No	No
E03401	1	No	65.9	70.0	Yes	67.2	No	No
E03501	1	No	66.0	70.1	Yes	67.3	No	No
E03601	1	No	66.0	70.3	Yes	67.3	No	No
E03701	1	No	66.8	70.9	Yes	68.1	No	No
E03801	1	No	66.8	71.0	Yes	68.1	No	No
E03901	1	No	67.0	70.9	Yes	68.2	No	No
E04001	1	No	66.9	71.0	Yes	68.2	No	No
E04101	1	No	66.7	70.8	Yes	68.0	No	No
E04201	1	No	67.1	71.1	Yes	68.3	No	No
E04301	1	No	67.7	72.0	Yes	69.1	No	No
E04401	1	No	67.7	72.0	Yes	69.0	No	No
E04501	1	No	66.8	71.5	Yes	68.2	No	No
E04601	1	No	66.5	71.3	Yes	68.1	No	No
E04701	1	No	66.1	71.5	Yes	68.0	No	No
E04801	1	No	65.7	71.1	Yes	67.8	No	No
E04901	1	No	66.0	71.3	Yes	68.0	No	No
E05002	2	No	69.2	72.9	Yes	69.9	No	No
E05102	2	No	69.2	73.4	Yes	70.6	No	No
E05202	2	No	68.6	73.6	Yes	70.7	No	No
E05302	2	No	68.3	73.9	Yes	70.8	No	No
E05402	2	No	68.7	74.2	Yes	70.9	No	No
E05502	2	No	68.6	74.2	Yes	70.8	No	No

Table 10: Barrier Results for NSA E (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
E05602	2	No	67.7	74.0	Yes	69.9	No	No
E05701	1	No	69.1	74.6	Yes	70.6	No	No
E05801	1	No	69.9	74.6	Yes	70.8	No	No
E05901	1	No	70.6	74.7	Yes	70.7	No	No
E06001	1	No	70.5	74.8	Yes	70.3	No	No
E06101	1	No	70.6	74.5	Yes	69.9	No	No
E06201	1	No	70.5	74.5	Yes	69.7	No	No
E06301	1	No	70.5	74.4	Yes	69.3	Yes	No
E06401-F	1	Yes	65.4	75.7	Yes	71.0	No	No
E06501-F	1	Yes	66.7	74.8	Yes	70.0	No	No
E06601-F	1	Yes	66.4	75.0	Yes	70.1	No	No
E06701-F	1	Yes	66.5	75.4	Yes	70.3	Yes	No
E06801-F	1	Yes	67.7	75.5	Yes	70.6	No	No
E06901-F	1	Yes	69.0	75.4	Yes	70.3	Yes	No
E07001-F	1	Yes	69.8	75.2	Yes	69.6	Yes	No
E07101-F	1	Yes	69.5	75.5	Yes	69.3	Yes	No
E07201	1	No	65.9	71.4	Yes	67.9	No	No

TABLE 11: BARRIER RESULTS FOR NSA F, AREA F1

Table 11: Barrier Results for NSA F, Area F1

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F00102-F	2	Yes	71.7	74.0	Yes	69.0	Yes	No
F00201-F	1	Yes	71.5	73.8	Yes	68.5	Yes	No
F00301-F	1	Yes	71.7	73.7	Yes	69.1	No	No
F00401-F	1	Yes	71.5	73.6	Yes	68.5	Yes	No
F00501-F	1	Yes	71.6	73.6	Yes	68.8	No	No
F00601-F	1	Yes	71.2	73.0	Yes	67.5	Yes	No
F00701-F	1	Yes	71.1	73.4	Yes	68.7	No	No
F00804-F	4	Yes	72.8	74.8	Yes	64.7	Yes	Yes
F00904	4	No	70.2	73.2	Yes	67.7	Yes	No
F01002-F	2	Yes	75.6	79.0	Yes	57.5	Yes	Yes
F01101-F	1	Yes	74.7	78.1	Yes	61.0	Yes	Yes
F01201-F	1	Yes	74.7	77.6	Yes	61.5	Yes	Yes
F01302-F	2	Yes	74.4	78.1	Yes	60.6	Yes	Yes
F01501-F	1	Yes	73.6	77.3	Yes	63.6	Yes	Yes
F01601-F	1	Yes	73.4	77.2	Yes	64.6	Yes	Yes
F01701-F	1	Yes	73.1	77.1	Yes	65.9	Yes	Yes
F01801-F	1	Yes	70.7	75.5	Yes	65.8	Yes	Yes
F01901-F	1	Yes	70.8	75.6	Yes	66.3	Yes	Yes
F02001-F	1	Yes	70.8	75.4	Yes	66.2	Yes	Yes
F02101-F	1	Yes	68.6	73.4	Yes	66.3	Yes	Yes
F02201-F	1	Yes	68.7	73.6	Yes	66.6	Yes	Yes
F02301-F	1	Yes	69.6	74.2	Yes	67.3	Yes	No
F02401-F	1	Yes	69.8	74.2	Yes	67.3	Yes	No
F02502-F	2	Yes	70.4	74.4	Yes	67.6	Yes	No
F02601-F	1	Yes	69.4	73.7	Yes	67.8	Yes	No
F02701-F	1	Yes	68.9	73.2	Yes	67.7	Yes	No
F02801-F	1	Yes	68.6	72.7	Yes	67.7	Yes	No
F02901-F	1	Yes	68.8	71.9	Yes	67.7	No	No
F03001-F	1	Yes	68.8	71.5	Yes	68.2	No	No
F03101-F	1	Yes	67.9	70.5	Yes	67.5	No	No
F03201-F	1	Yes	68.6	70.3	Yes	67.7	No	No
F03301-F	1	Yes	69.6	70.4	Yes	67.8	No	No
F03401	1	No	70.4	72.9	Yes	69.1	No	No
F03501	1	No	70.3	72.8	Yes	69.2	No	No
F03601	1	No	69.9	72.6	Yes	69.1	No	No
F03701	1	No	69.2	72.5	Yes	68.7	No	No
F03801	1	No	68.5	72.3	Yes	68.0	No	No
F03901	1	No	68.3	72.1	Yes	67.8	No	No
F04001	1	No	68.2	72.1	Yes	67.6	No	No
F04102	2	No	67.8	71.9	Yes	67.1	No	No
F04201	1	No	67.4	71.8	Yes	66.0	Yes	No
F04301	1	No	68.0	73.9	Yes	67.9	Yes	No
F04401	1	No	65.1	73.6	Yes	66.5	Yes	Yes
F04501	1	No	67.5	73.6	Yes	66.5	Yes	Yes
F04601	1	No	65.4	72.9	Yes	66.3	Yes	No
F04701	1	No	65.4	72.6	Yes	65.2	Yes	Yes
F04801	1	No	65.0	72.6	Yes	64.9	Yes	Yes
F04901	1	No	66.7	72.6	Yes	64.8	Yes	Yes
F05001	1	No	65.8	71.3	Yes	64.3	Yes	Yes
F05101	1	No	65.6	71.3	Yes	64.7	Yes	No
F05201	1	No	66.4	71.2	Yes	64.7	Yes	No
F05301	1	No	63.9	70.1	Yes	64.3	Yes	No
F05401	1	No	64.2	69.6	Yes	64.1	Yes	No
F05501	1	No	64.6	69.6	Yes	64.3	Yes	No

Table 11: Barrier Results for NSA F, Area F1 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F05601	1	No	67.5	69.4	Yes	65.3	No	No
F05801	1	No	66.4	68.8	Yes	64.6	No	No
F05901	1	No	65.9	68.3	Yes	63.8	No	No
F06001	1	No	66.4	68.5	Yes	63.5	Yes	No
F06102	2	No	66.9	69.1	Yes	63.7	Yes	No
F06301	1	No	66.6	69.6	Yes	63.5	Yes	No
F06401	1	No	66.4	69.5	Yes	63.4	Yes	No
F06501	1	No	65.8	69.1	Yes	63.1	Yes	No
F06601	1	No	66.8	70.1	Yes	63.8	Yes	No
F06701	1	No	66.2	69.5	Yes	64.8	No	No
F06801	1	No	66.3	69.5	Yes	64.9	No	No
F06901	1	No	66.3	69.4	Yes	64.7	No	No
F07001	1	No	66.2	69.3	Yes	64.4	No	No
F07103-F	3	Yes	69.5	69.3	Yes	65.5	No	No
F07201	1	No	69.0	69.1	Yes	65.1	No	No
F07301	1	No	68.2	68.3	Yes	64.3	No	No
F07401	1	No	68.1	68.1	Yes	64.0	No	No
F07501	1	No	68.1	68.0	Yes	64.1	No	No
F07602-F	2	Yes	68.8	68.5	Yes	64.4	No	No
F07701-F	1	Yes	68.7	68.4	Yes	64.3	No	No
F07801-F	1	Yes	68.8	68.3	Yes	64.3	No	No
F07904-F	4	Yes	68.3	67.3	Yes	63.5	No	No
F08001	1	No	67.5	67.2	Yes	62.8	No	No
F08301	1	No	68.8	68.3	Yes	64.0	No	No
F08401	1	No	69.5	68.6	Yes	64.8	No	No
F08501	1	No	69.8	68.7	Yes	65.0	No	No
F08601	1	No	70.2	68.8	Yes	65.3	No	No
F08702	2	No	66.0	68.6	Yes	63.0	Yes	No
F08801	1	No	66.4	68.2	Yes	63.0	Yes	No
F08901	1	No	66.6	68.0	Yes	63.1	No	No
F09001	1	No	66.4	68.2	Yes	63.4	No	No
F09101	1	No	64.3	67.9	Yes	63.2	No	No
F09201	1	No	63.0	67.7	Yes	63.1	No	No
F09302	2	No	63.2	67.7	Yes	63.1	No	No
F09401	1	No	62.6	67.4	Yes	62.9	No	No
F09501	1	No	64.5	67.3	Yes	62.8	No	No
F09601	1	No	65.5	67.1	Yes	62.4	No	No
F09701	1	No	66.5	66.7	Yes	62.0	No	No
F09804	4	No	65.6	66.1	Yes	61.2	No	No
F09901	1	No	64.8	65.6	No	60.7	No	No
F10001	1	No	64.5	65.4	No	60.3	Yes	No
F10102	2	No	64.7	65.5	No	60.4	Yes	No
F10202	2	No	64.6	65.5	No	60.5	Yes	No
F10301	1	No	64.3	65.1	No	60.0	Yes	No
F10402	2	No	62.4	64.8	No	59.6	Yes	No
F10512	12	No	65.8	66.7	Yes	61.7	Yes	No
F10601	1	No	65.8	67.3	Yes	61.9	Yes	No
F10701	1	No	65.9	67.5	Yes	62.1	Yes	No
F10802	2	No	65.9	67.8	Yes	62.2	Yes	No
F10901	1	No	66.0	68.2	Yes	62.6	Yes	No
F11001	1	No	63.2	68.2	Yes	62.6	Yes	No
F11101	1	No	64.4	68.1	Yes	62.7	Yes	No
F11202	2	No	63.2	67.7	Yes	62.0	Yes	No
F11301	1	No	65.1	67.5	Yes	62.3	Yes	No

Table 11: Barrier Results for NSA F, Area F1 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F11401	1	No	64.1	67.4	Yes	61.6	Yes	No
F11501	1	No	60.6	66.7	Yes	60.9	Yes	No
F11602	2	No	62.5	66.4	Yes	60.7	Yes	No
F11701	1	No	64.1	66.5	Yes	60.8	Yes	No
F11801	1	No	63.1	65.8	No	60.2	Yes	No
F11901	1	No	64.6	65.7	No	60.5	Yes	No
F12001	1	No	64.5	65.5	No	60.2	Yes	No
F12101	1	No	64.3	65.2	No	59.9	Yes	No
F12202	2	No	63.9	64.9	No	59.7	Yes	No
F12301	1	No	62.3	64.0	No	58.5	Yes	No
F12403	3	No	62.5	64.2	No	58.7	Yes	No
F12501	1	No	61.8	64.1	No	58.9	Yes	No
F12601	1	No	62.5	64.3	No	59.2	Yes	No
F12701	1	No	62.8	64.6	No	59.5	Yes	No
F12804	4	No	63.6	65.3	No	60.4	No	No
F12901	1	No	62.9	64.8	No	59.8	Yes	No
F13003	3	No	64.3	66.4	Yes	61.5	No	No
F13105	5	No	62.9	66.4	Yes	61.5	No	No
F13201	1	No	64.7	66.4	Yes	61.5	No	No
F13303	3	No	66.3	67.1	Yes	62.8	No	No
F13402	2	No	66.7	67.0	Yes	63.1	No	No
F13502	2	No	66.4	66.7	Yes	63.0	No	No
F13601	1	No	61.5	64.5	No	59.3	Yes	No
F13701	1	No	61.8	64.4	No	59.0	Yes	No
F13801	1	No	61.9	64.2	No	59.0	Yes	No
F13901	1	No	62.2	64.2	No	59.1	Yes	No
F14001	1	No	62.5	64.2	No	59.0	Yes	No
F14102	2	No	62.5	64.3	No	59.3	Yes	No
F14201	1	No	61.6	64.3	No	59.3	Yes	No
F14301	1	No	62.0	64.3	No	59.4	No	No
F14402	2	No	62.4	64.5	No	59.7	No	No
F14501	1	No	62.8	64.7	No	59.8	No	No
F14601	1	No	62.9	64.8	No	60.0	No	No
F14701	1	No	63.1	64.9	No	60.2	No	No
F14801	1	No	63.2	65.0	No	60.3	No	No
F14901	1	No	63.3	65.2	No	60.5	No	No
F15001	1	No	63.7	65.4	No	60.8	No	No
F15101	1	No	64.3	65.4	No	60.8	No	No
F15201	1	No	64.4	65.5	No	61.0	No	No
F15301-F	1	Yes	65.5	65.8	No	61.7	No	No
F31201	1	No	61.7	64.4	No	59.0	Yes	No
F31501	1	No	69.1	68.4	Yes	64.3	No	No

TABLE 12: BARRIER RESULTS FOR NSA F, AREA F2

Table 12: Barrier Results for NSA F, Area F2

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F15401-FV	1	Yes	76.3	74.7	Yes	72.7	No	No
F15501	1	No	74.2	73.7	Yes	70.6	No	No
F15606	6	No	72.0	72.2	Yes	68.7	No	No
F15701	1	No	70.5	70.6	Yes	67.1	No	No
F15801	1	No	71.1	70.9	Yes	68.0	No	No
F15904	4	No	66.8	69.6	Yes	65.6	No	No
F16001	1	No	67.9	69.9	Yes	66.4	No	No
F16101	1	No	66.7	69.2	Yes	65.2	No	No
F16202	2	No	67.2	69.6	Yes	66.0	No	No
F16301	1	No	66.2	69.1	Yes	65.3	No	No
F16405	5	No	65.8	68.8	Yes	65.2	No	No
F16502	2	No	65.5	68.7	Yes	64.9	No	No
F16601	1	No	74.4	73.9	Yes	70.5	No	No
F16701	1	No	75.6	74.7	Yes	71.8	No	No
F16802	2	No	77.0	75.3	Yes	73.5	No	No
F16901-F	1	Yes	76.5	74.4	Yes	73.5	No	No
F17001-F	1	Yes	75.3	73.7	Yes	71.7	No	No
F17101	1	No	75.3	73.9	Yes	71.5	No	No
F17201	1	No	74.6	74.0	Yes	71.6	No	No
F17301	1	No	73.6	73.2	Yes	70.4	No	No
F17401	1	No	73.5	73.3	Yes	70.1	No	No
F17501	1	No	72.8	72.8	Yes	69.4	No	No
F17601	1	No	71.5	72.2	Yes	68.6	No	No
F17701	1	No	70.9	71.8	Yes	68.2	No	No
F17801	1	No	70.2	71.5	Yes	67.8	No	No
F17901	1	No	69.3	70.9	Yes	67.0	No	No
F18001	1	No	68.3	70.4	Yes	66.5	No	No
F18101	1	No	68.3	70.4	Yes	66.4	No	No
F18201	1	No	67.9	70.1	Yes	66.0	No	No
F18301	1	No	67.4	69.7	Yes	65.5	No	No
F18405	5	No	67.3	68.8	Yes	64.6	No	No
F18501	1	No	66.7	68.7	Yes	64.1	No	No
F18601	1	No	67.0	69.0	Yes	64.5	No	No
F18701	1	No	67.4	69.6	Yes	65.1	No	No
F18801	1	No	67.8	69.9	Yes	65.5	No	No
F18901	1	No	68.1	70.1	Yes	65.8	No	No
F19001	1	No	68.3	70.3	Yes	66.1	No	No
F19101	1	No	68.6	70.6	Yes	66.4	No	No
F19201	1	No	69.0	70.8	Yes	66.8	No	No
F19301	1	No	69.6	71.1	Yes	67.2	No	No
F19401	1	No	70.4	71.4	Yes	67.7	No	No
F19501	1	No	71.0	71.6	Yes	68.1	No	No
F19601	1	No	71.3	71.9	Yes	68.5	No	No
F19701	1	No	71.8	72.1	Yes	68.9	No	No
F19801	1	No	72.1	72.3	Yes	69.3	No	No
F19901	1	No	72.9	72.8	Yes	70.0	No	No
F20001	1	No	73.3	73.0	Yes	70.3	No	No
F20101	1	No	73.8	72.7	Yes	69.4	No	No
F20201	1	No	72.9	72.8	Yes	70.2	No	No
F20301-F	1	Yes	73.6	73.1	Yes	71.0	No	No
F20402	2	No	62.5	68.0	Yes	63.4	No	No
F20501	1	No	62.4	67.9	Yes	63.2	No	No
F20601	1	No	62.0	67.7	Yes	63.0	No	No
F20701	1	No	62.0	67.6	Yes	62.9	No	No

Table 12: Barrier Results for NSA F, Area F2 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F20802	2	No	62.5	67.2	Yes	62.7	No	No
F20904	4	No	61.8	66.9	Yes	62.5	No	No
F21001	1	No	63.7	67.2	Yes	62.9	No	No
F21106	6	No	65.8	67.7	Yes	63.8	No	No
F21205	5	No	65.5	67.4	Yes	63.3	No	No
F21301	1	No	65.9	67.9	Yes	63.6	No	No
F21401	1	No	65.8	68.3	Yes	63.5	No	No
F21501	1	No	65.4	68.4	Yes	63.6	No	No
F21601	1	No	65.1	68.5	Yes	63.5	Yes	No
F21701	1	No	63.3	68.7	Yes	63.7	Yes	No
F21804	4	No	69.8	69.6	Yes	65.0	No	No
F21902	2	No	67.7	70.3	Yes	65.2	Yes	No
F22001	1	No	67.9	70.5	Yes	65.5	Yes	No
F22101	1	No	68.2	70.8	Yes	65.8	Yes	No
F22201	1	No	68.3	71.0	Yes	66.0	Yes	No
F22302	2	No	69.1	71.6	Yes	66.3	Yes	No
F22401	1	No	69.9	72.3	Yes	67.2	Yes	No
F22501	1	No	70.9	72.7	Yes	67.3	Yes	No
F22601	1	No	71.9	73.3	Yes	68.0	Yes	No
F22701	1	No	72.8	73.6	Yes	68.4	Yes	No
F22801-F	1	Yes	73.8	73.9	Yes	68.6	Yes	No
F22901-F	1	Yes	73.6	75.0	Yes	68.1	Yes	No
F23001	1	No	72.1	74.6	Yes	67.6	Yes	Yes
F23101	1	No	70.8	74.1	Yes	67.2	Yes	No
F23201	1	No	71.4	73.4	Yes	67.0	Yes	No
F23301	1	No	70.9	73.1	Yes	66.8	Yes	No
F23401	1	No	70.3	72.7	Yes	66.6	Yes	No
F23501	1	No	70.0	72.5	Yes	66.4	Yes	No
F23601	1	No	69.5	72.1	Yes	66.1	Yes	No
F23701	1	No	69.2	71.9	Yes	66.0	Yes	No
F23801	1	No	69.1	71.5	Yes	65.9	Yes	No
F23901	1	No	68.6	71.2	Yes	65.6	Yes	No
F24001	1	No	68.0	70.8	Yes	65.3	Yes	No
F24102	2	No	67.8	70.7	Yes	64.9	Yes	No
F24208	8	No	66.5	68.7	Yes	63.9	No	No
F24301	1	No	66.0	67.7	Yes	63.6	No	No
F24401	1	No	66.0	67.7	Yes	63.6	No	No
F24501	1	No	66.1	67.8	Yes	63.7	No	No
F24601	1	No	66.3	67.9	Yes	63.8	No	No
F24701	1	No	66.6	68.1	Yes	64.1	No	No
F24801	1	No	66.6	68.2	Yes	64.2	No	No
F24901	1	No	66.9	68.4	Yes	64.6	No	No
F25001	1	No	67.1	68.7	Yes	64.8	No	No
F25101	1	No	66.6	68.5	Yes	64.7	No	No
F25201	1	No	67.1	69.5	Yes	66.7	No	No
F25301	1	No	63.2	68.1	Yes	66.3	No	No
F25401	1	No	62.8	68.3	Yes	66.7	No	No
F25501	1	No	63.0	68.4	Yes	66.7	No	No
F25601	1	No	61.4	68.5	Yes	67.1	No	No
F25701	1	No	60.9	68.6	Yes	67.4	No	No
F25801-F	1	Yes	62.1	69.2	Yes	68.0	No	No
F25904-F	4	Yes	65.5	68.5	Yes	67.8	No	No
F26001-F	1	Yes	72.8	74.5	Yes	62.4	Yes	Yes
F26101	1	No	68.4	72.8	Yes	64.0	Yes	Yes

Table 12: Barrier Results for NSA F, Area F2 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F26201	1	No	70.7	72.0	Yes	66.0	Yes	No
F26301	1	No	68.0	71.1	Yes	64.9	Yes	No
F26401	1	No	66.8	70.8	Yes	65.0	Yes	No
F26501	1	No	67.8	70.2	Yes	64.9	Yes	No
F26601	1	No	66.5	69.9	Yes	64.8	Yes	No
F26701	1	No	65.1	69.9	Yes	64.4	Yes	No
F26801	1	No	62.4	69.7	Yes	64.1	Yes	No
F26901	1	No	61.6	69.7	Yes	64.3	Yes	No
F27001	1	No	61.9	69.6	Yes	64.3	Yes	No
F27101	1	No	61.5	69.5	Yes	64.2	Yes	No
F27201	1	No	61.9	69.3	Yes	64.3	Yes	No
F27301	1	No	62.5	69.5	Yes	64.7	No	No
F27401	1	No	63.1	69.4	Yes	64.5	No	No
F27503	3	No	64.2	68.9	Yes	63.9	Yes	No
F27602	2	No	66.0	68.9	Yes	64.0	No	No
F27702	2	No	66.2	70.7	Yes	64.7	Yes	No
F27801	1	No	68.3	71.3	Yes	65.1	Yes	No
F27901	1	No	69.0	71.7	Yes	65.4	Yes	No
F28001-F	1	Yes	69.8	72.0	Yes	65.7	Yes	No
F28101-F	1	Yes	70.1	72.4	Yes	65.9	Yes	No
F28201-F	1	Yes	70.2	72.8	Yes	66.2	Yes	No
F28301-F	1	Yes	71.1	73.3	Yes	66.1	Yes	Yes
F28401-F	1	Yes	71.4	73.7	Yes	66.4	Yes	Yes
F28501-F	1	Yes	72.1	74.1	Yes	66.5	Yes	Yes
F28601-F	1	Yes	72.7	74.5	Yes	66.8	Yes	Yes
F28701-F	1	Yes	72.9	75.0	Yes	66.7	Yes	Yes
F28801-F	1	Yes	73.2	75.4	Yes	67.0	Yes	Yes
F28901-F	1	Yes	73.9	75.9	Yes	67.3	Yes	Yes
F29001-F	1	Yes	74.4	76.3	Yes	67.4	Yes	Yes
F29101-F	1	Yes	75.2	76.8	Yes	67.9	Yes	Yes
F29201	1	No	68.9	71.3	Yes	65.0	Yes	No
F29301-F	1	Yes	69.4	71.6	Yes	65.0	Yes	No
F29401-F	1	Yes	69.6	71.6	Yes	64.8	Yes	No
F29501-F	1	Yes	69.7	71.7	Yes	64.5	Yes	Yes
F29501-F	1	Yes	69.9	71.7	Yes	64.6	Yes	Yes
F29601-F	1	Yes	70.0	71.6	Yes	64.4	Yes	Yes
F29701-F	1	Yes	70.1	71.4	Yes	64.1	Yes	Yes
F29801-F	1	Yes	70.3	71.4	Yes	64.0	Yes	Yes
F29901-F	1	Yes	70.5	71.7	Yes	64.1	Yes	Yes
F30001-F	1	Yes	70.9	72.5	Yes	64.9	Yes	Yes
F30101-F	1	Yes	71.0	72.6	Yes	64.9	Yes	Yes
F30201-F	1	Yes	72.0	73.5	Yes	65.0	Yes	Yes
F30301-F	1	Yes	72.2	73.7	Yes	65.1	Yes	Yes
F30401-F	1	Yes	72.8	74.3	Yes	64.6	Yes	Yes
F30501-F	1	Yes	73.0	74.5	Yes	63.3	Yes	Yes
F30601-F	1	Yes	73.2	74.6	Yes	61.6	Yes	Yes
F30701-F	1	Yes	73.4	74.8	Yes	61.2	Yes	Yes
F30801-F	1	Yes	73.7	75.1	Yes	60.6	Yes	Yes
F30901-F	1	Yes	74.1	75.4	Yes	61.1	Yes	Yes
F31001-F	1	Yes	74.9	76.4	Yes	60.5	Yes	Yes
F31101	1	No	62.0	67.9	Yes	66.3	No	No
F31301	1	No	67.1	69.3	Yes	64.8	No	No
F316017	17	No	73.4	72.9	Yes	69.6	No	No

TABLE 13: BARRIER RESULTS FOR BARRIER SYSTEM C1/C2

Table 13: Barrier Results for Barrier System C1/C2

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
C00101-F	1	Yes	72.2	72.8	Yes	68.4	No	No
C00201	1	No	69.9	71.9	Yes	67.7	No	No
C00302	2	No	69.4	70.9	Yes	67.4	No	No
C00401	1	No	67.4	69.9	Yes	66.8	No	No
C00501	1	No	67.2	68.6	Yes	65.6	No	No
C00601-F	1	Yes	70.7	72.2	Yes	67.3	No	No
C00701	1	No	67.6	70.4	Yes	65.9	No	No
C00801	1	No	67.4	70.0	Yes	65.7	No	No
C00901	1	No	66.2	69.1	Yes	65.1	No	No
C01001	1	No	65.5	68.7	Yes	64.9	No	No
C01201-F	1	Yes	73.7	75.2	Yes	66.6	Yes	Yes
C01301	1	No	73.1	74.7	Yes	67.5	Yes	Yes
C01401	1	No	72.2	74.2	Yes	67.7	Yes	No
C01501	1	No	71.9	73.6	Yes	67.9	Yes	No
C01601	1	No	71.0	72.8	Yes	67.6	Yes	No
C01701	1	No	70.3	72.5	Yes	67.4	Yes	No
C01801-F	1	Yes	71.4	73.8	Yes	66.3	Yes	Yes
C01901-V	1	No	70.7	73.1	Yes	63.8	Yes	Yes
C02001	1	No	70.2	72.5	Yes	64.6	Yes	Yes
C02101	1	No	69.7	72.1	Yes	65.1	Yes	Yes
C02201-F	1	Yes	70.7	73.0	Yes	64.3	Yes	Yes
C02302	2	No	70.1	72.9	Yes	64.5	Yes	Yes
C02402	2	No	68.5	72.0	Yes	65.1	Yes	No
C02501-F	1	Yes	69.1	71.5	Yes	63.1	Yes	Yes
C02601	1	No	68.4	70.8	Yes	64.7	Yes	No
C02701	1	No	67.4	70.6	Yes	65.0	Yes	No
C02801	1	No	68.7	70.7	Yes	64.2	Yes	No
C02901	1	No	68.7	70.6	Yes	64.3	Yes	No
C03001	1	No	68.7	70.6	Yes	64.5	Yes	No
C03101	1	No	68.6	70.4	Yes	64.6	Yes	No
C03201	1	No	68.4	70.3	Yes	64.5	Yes	No
C03301	1	No	68.0	69.9	Yes	64.3	Yes	No
C03401	1	No	66.8	68.8	Yes	64.1	No	No
C03502	2	No	61.0	66.3	Yes	62.5	No	No
C03602	2	No	60.8	66.2	Yes	62.4	No	No
C03703	3	No	60.6	66.2	Yes	62.3	No	No
C03802	2	No	61.7	66.1	Yes	62.3	No	No
C03903	3	No	60.9	65.8	No	62.0	No	No
C04002	2	No	62.2	65.7	No	61.9	No	No
C04101	1	No	62.4	64.5	No	60.6	No	No
C04201	1	No	62.1	63.1	No	59.6	No	No
C04301	1	No	62.1	62.9	No	59.3	No	No
C04401-F	1	Yes	65.7	66.4	Yes	61.2	Yes	No
C04501-F	1	Yes	71.1	72.7	Yes	63.0	Yes	Yes
C04601-F	1	Yes	70.0	71.5	Yes	61.2	Yes	Yes
C04701-F	1	Yes	69.7	72.2	Yes	62.2	Yes	Yes
C04801-F	1	Yes	68.6	71.4	Yes	63.5	Yes	Yes
C04901	1	No	67.7	70.6	Yes	64.0	Yes	No
C05001	1	No	67.0	69.3	Yes	64.1	Yes	No
C05101	1	No	66.0	68.5	Yes	63.4	Yes	No
C05201	1	No	65.2	67.8	Yes	63.0	No	No
C05301	1	No	64.0	66.8	Yes	62.4	No	No
C05401	1	No	62.6	66.0	Yes	61.7	No	No

Table 13: Barrier Results for Barrier System C1/C2 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
C05501	1	No	61.5	65.2	No	61.1	No	No
C05601	1	No	61.5	64.6	No	60.9	No	No
C05701	1	No	61.5	63.9	No	60.8	No	No
C05801	1	No	60.9	63.3	No	60.4	No	No
C05901	1	No	60.6	62.9	No	60.4	No	No
C06001	1	No	59.8	62.1	No	59.7	No	No
C06101	1	No	54.2	61.6	No	59.8	No	No
C06201	1	No	54.5	62.1	No	60.7	No	No
C06301	1	No	54.3	62.5	No	61.4	No	No
C06401	1	No	54.0	63.0	No	62.0	No	No
C06501	1	No	51.5	63.6	Yes	62.9	No	No
C06601	1	No	56.5	64.5	No	63.9	No	No
C06701	1	No	57.2	65.8	No	64.2	No	No
C06801	1	No	57.9	67.5	Yes	64.6	No	No
C06901	1	No	59.3	69.2	Yes	65.0	No	No
C07001-F	1	Yes	68.8	72.4	Yes	65.9	Yes	No
C07101-F	1	Yes	71.2	72.1	Yes	66.5	Yes	No
C07223-F	23	Yes	59.0	62.6	No	60.5	No	No
C07324-F	24	Yes	60.1	63.6	No	57.3	Yes	No
C07424-F	24	Yes	62.4	66.2	Yes	59.2	Yes	Yes
C07524	24	No	54.5	60.7	No	59.8	No	No
C07624	24	No	53.6	60.5	No	60.0	No	No
C07701	1	No	63.6	65.9	No	64.3	No	No
C07801	1	No	63.5	65.7	No	63.9	No	No
C07901	1	No	63.0	65.3	No	63.5	No	No
C08001	1	No	62.7	65.1	No	63.2	No	No
C08101	1	No	62.6	64.9	No	63.1	No	No
C08201	1	No	62.3	64.7	No	63.0	No	No
C08303	3	No	61.6	64.8	No	62.2	No	No
C08401	1	No	61.0	64.1	No	61.8	No	No
C08501-F	1	Yes	66.4	66.2	Yes	60.2	Yes	No
C08601	1	No	64.2	67.1	Yes	61.0	Yes	No
C08701	1	No	62.9	65.8	No	60.3	Yes	No
C08801	1	No	62.2	65.6	No	60.1	Yes	No
C08901	1	No	63.5	64.6	No	59.5	Yes	No
C09001	1	No	61.1	63.4	No	58.6	No	No
C09102	2	No	61.0	64.1	No	59.2	No	No
C09202	2	No	60.5	63.7	No	59.0	No	No
C09302	2	No	60.0	63.1	No	58.6	No	No
C09401	1	No	59.4	63.8	No	59.6	No	No
C09501	1	No	59.8	61.7	No	57.8	No	No
C09601	1	No	60.3	60.6	No	57.5	No	No
C09701	1	No	61.4	60.5	No	57.7	No	No
C09801	1	No	59.4	63.1	No	59.3	No	No
C09901	1	No	59.2	62.4	No	58.6	No	No
C10004	4	No	65.9	69.3	Yes	64.4	No	No
C10101	1	No	63.4	64.8	No	60.8	No	No

TABLE 14: BARRIER RESULTS FOR BARRIER SYSTEM E/F

Table 14: Barrier Results for Barrier System E/F

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
E00101-F	1	Yes	67.7	71.1	Yes	70.1	No	No
E00201	1	No	59.4	67.3	Yes	65.6	No	No
E00301	1	No	61.8	67.2	Yes	65.5	No	No
E00401	1	No	62.1	67.3	Yes	65.5	No	No
E00501	1	No	62.0	67.4	Yes	65.5	No	No
E00601	1	No	62.0	67.5	Yes	65.7	No	No
E00701	1	No	62.8	68.0	Yes	65.9	No	No
E00801	1	No	61.9	68.2	Yes	65.9	No	No
E00901	1	No	59.1	68.3	Yes	65.9	No	No
E01001	1	No	62.2	68.3	Yes	66.0	No	No
E01101	1	No	57.9	68.4	Yes	66.0	No	No
E01201	1	No	57.9	68.5	Yes	66.1	No	No
E01301	1	No	57.6	68.6	Yes	66.1	No	No
E01401	1	No	57.8	68.7	Yes	66.2	No	No
E01501	1	No	57.8	68.7	Yes	66.2	No	No
E01601	1	No	58.4	68.8	Yes	66.2	No	No
E01701	1	No	63.0	68.8	Yes	66.3	No	No
E01801	1	No	60.2	68.8	Yes	66.3	No	No
E01901	1	No	57.9	68.9	Yes	66.3	No	No
E02001	1	No	60.7	68.9	Yes	66.4	No	No
E02101	1	No	62.7	68.9	Yes	66.4	No	No
E02201	1	No	61.2	68.9	Yes	66.4	No	No
E02301	1	No	62.5	68.9	Yes	66.4	No	No
E02401	1	No	64.3	69.1	Yes	66.5	No	No
E02501	1	No	63.4	68.2	Yes	66.1	No	No
E02601	1	No	63.6	68.2	Yes	66.0	No	No
E02701	1	No	64.0	68.6	Yes	66.4	No	No
E02801	1	No	65.1	69.3	Yes	66.7	No	No
E02901	1	No	65.4	69.5	Yes	66.9	No	No
E03001	1	No	65.5	69.7	Yes	67.0	No	No
E03101	1	No	65.6	69.8	Yes	67.0	No	No
E03201	1	No	65.8	69.9	Yes	67.2	No	No
E03401	1	No	65.9	70.0	Yes	67.2	No	No
E03501	1	No	66.0	70.1	Yes	67.3	No	No
E03601	1	No	66.0	70.3	Yes	67.3	No	No
E03701	1	No	66.8	70.9	Yes	68.1	No	No
E03801	1	No	66.8	71.0	Yes	68.1	No	No
E03901	1	No	67.0	70.9	Yes	68.2	No	No
E04001	1	No	66.9	71.0	Yes	68.2	No	No
E04101	1	No	66.7	70.8	Yes	68.0	No	No
E04201	1	No	67.1	71.1	Yes	68.3	No	No
E04301	1	No	67.7	72.0	Yes	69.1	No	No
E04401	1	No	67.7	72.0	Yes	69.0	No	No
E04501	1	No	66.8	71.5	Yes	68.2	No	No
E04601	1	No	66.5	71.3	Yes	68.1	No	No
E04701	1	No	66.1	71.5	Yes	68.0	No	No
E04801	1	No	65.7	71.1	Yes	67.8	No	No
E04901	1	No	66.0	71.3	Yes	68.0	No	No
E05002	2	No	69.2	72.9	Yes	69.9	No	No
E05102	2	No	69.2	73.4	Yes	70.6	No	No
E05202	2	No	68.6	73.6	Yes	70.7	No	No
E05302	2	No	68.3	73.9	Yes	70.8	No	No
E05402	2	No	68.7	74.2	Yes	70.9	No	No

Table 14: Barrier Results for Barrier System E/F (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
E05502	2	No	68.6	74.2	Yes	70.8	No	No
E05602	2	No	67.7	74.0	Yes	69.9	No	No
E05701	1	No	69.1	74.6	Yes	70.6	No	No
E05801	1	No	69.9	74.6	Yes	70.8	No	No
E05901	1	No	70.6	74.7	Yes	70.7	No	No
E06001	1	No	70.5	74.8	Yes	70.3	No	No
E06101	1	No	70.6	74.5	Yes	69.9	No	No
E06201	1	No	70.5	74.5	Yes	69.7	No	No
E06301	1	No	70.5	74.4	Yes	69.3	Yes	No
E06401-F	1	Yes	65.4	75.7	Yes	71.0	No	No
E06501-F	1	Yes	66.7	74.8	Yes	70.0	No	No
E06601-F	1	Yes	66.4	75.0	Yes	70.1	No	No
E06701-F	1	Yes	66.5	75.4	Yes	70.3	Yes	No
E06801-F	1	Yes	67.7	75.5	Yes	70.6	No	No
E06901-F	1	Yes	69.0	75.4	Yes	70.3	Yes	No
E07001-F	1	Yes	69.8	75.2	Yes	69.6	Yes	No
E07101-F	1	Yes	69.5	75.5	Yes	69.3	Yes	No
E07201	1	No	65.9	71.4	Yes	67.9	No	No
F00102-F	2	Yes	71.7	74.0	Yes	69.0	Yes	No
F00201-F	1	Yes	71.5	73.8	Yes	68.5	Yes	No
F00301-F	1	Yes	71.7	73.7	Yes	69.1	No	No
F00401-F	1	Yes	71.5	73.6	Yes	68.5	Yes	No
F00501-F	1	Yes	71.6	73.6	Yes	68.8	No	No
F00601-F	1	Yes	71.2	73.0	Yes	67.5	Yes	No
F00701-F	1	Yes	71.1	73.4	Yes	68.7	No	No
F00804-F	4	Yes	72.8	74.8	Yes	64.7	Yes	Yes
F00904	4	No	70.2	73.2	Yes	67.7	Yes	No
F01002-F	2	Yes	75.6	79.0	Yes	57.5	Yes	Yes
F01101-F	1	Yes	74.7	78.1	Yes	61.0	Yes	Yes
F01201-F	1	Yes	74.7	77.6	Yes	61.5	Yes	Yes
F01302-F	2	Yes	74.4	78.1	Yes	60.6	Yes	Yes
F01501-F	1	Yes	73.6	77.3	Yes	63.6	Yes	Yes
F01601-F	1	Yes	73.4	77.2	Yes	64.6	Yes	Yes
F01701-F	1	Yes	73.1	77.1	Yes	65.9	Yes	Yes
F01801-F	1	Yes	70.7	75.5	Yes	65.8	Yes	Yes
F01901-F	1	Yes	70.8	75.6	Yes	66.3	Yes	Yes
F02001-F	1	Yes	70.8	75.4	Yes	66.2	Yes	Yes
F02101-F	1	Yes	68.6	73.4	Yes	66.3	Yes	Yes
F02201-F	1	Yes	68.7	73.6	Yes	66.6	Yes	Yes
F02301-F	1	Yes	69.6	74.2	Yes	67.3	Yes	No
F02401-F	1	Yes	69.8	74.2	Yes	67.3	Yes	No
F02502-F	2	Yes	70.4	74.4	Yes	67.6	Yes	No
F02601-F	1	Yes	69.4	73.7	Yes	67.8	Yes	No
F02701-F	1	Yes	68.9	73.2	Yes	67.7	Yes	No
F02801-F	1	Yes	68.6	72.7	Yes	67.7	Yes	No
F02901-F	1	Yes	68.8	71.9	Yes	67.7	No	No
F03001-F	1	Yes	68.8	71.5	Yes	68.2	No	No
F03101-F	1	Yes	67.9	70.5	Yes	67.5	No	No
F03201-F	1	Yes	68.6	70.3	Yes	67.7	No	No
F03301-F	1	Yes	69.6	70.4	Yes	67.8	No	No
F03401	1	No	70.4	72.9	Yes	69.1	No	No
F03501	1	No	70.3	72.8	Yes	69.2	No	No
F03601	1	No	69.9	72.6	Yes	69.1	No	No

Table 14: Barrier Results for Barrier System E/F (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F03701	1	No	69.2	72.5	Yes	68.7	No	No
F03801	1	No	68.5	72.3	Yes	68.0	No	No
F03901	1	No	68.3	72.1	Yes	67.8	No	No
F04001	1	No	68.2	72.1	Yes	67.6	No	No
F04102	2	No	67.8	71.9	Yes	67.1	No	No
F04201	1	No	67.4	71.8	Yes	66.0	Yes	No
F04301	1	No	68.0	73.9	Yes	67.9	Yes	No
F04401	1	No	65.1	73.6	Yes	66.5	Yes	Yes
F04501	1	No	67.5	73.6	Yes	66.5	Yes	Yes
F04601	1	No	65.4	72.9	Yes	66.3	Yes	No
F04701	1	No	65.4	72.6	Yes	65.2	Yes	Yes
F04801	1	No	65.0	72.6	Yes	64.9	Yes	Yes
F04901	1	No	66.7	72.6	Yes	64.8	Yes	Yes
F05001	1	No	65.8	71.3	Yes	64.3	Yes	Yes
F05101	1	No	65.6	71.3	Yes	64.7	Yes	No
F05201	1	No	66.4	71.2	Yes	64.7	Yes	No
F05301	1	No	63.9	70.1	Yes	64.3	Yes	No
F05401	1	No	64.2	69.6	Yes	64.1	Yes	No
F05501	1	No	64.6	69.6	Yes	64.3	Yes	No
F05601	1	No	67.5	69.4	Yes	65.3	No	No
F05801	1	No	66.4	68.8	Yes	64.6	No	No
F05901	1	No	65.9	68.3	Yes	63.8	No	No
F06001	1	No	66.4	68.5	Yes	63.5	Yes	No
F06102	2	No	66.9	69.1	Yes	63.7	Yes	No
F06301	1	No	66.6	69.6	Yes	63.5	Yes	No
F06401	1	No	66.4	69.5	Yes	63.4	Yes	No
F06501	1	No	65.8	69.1	Yes	63.1	Yes	No
F06601	1	No	66.8	70.1	Yes	63.8	Yes	No
F06701	1	No	66.2	69.5	Yes	64.8	No	No
F06801	1	No	66.3	69.5	Yes	64.9	No	No
F06901	1	No	66.3	69.4	Yes	64.7	No	No
F07001	1	No	66.2	69.3	Yes	64.4	No	No
F07103-F	3	Yes	69.5	69.3	Yes	65.5	No	No
F07201	1	No	69.0	69.1	Yes	65.1	No	No
F07301	1	No	68.2	68.3	Yes	64.3	No	No
F07401	1	No	68.1	68.1	Yes	64.0	No	No
F07501	1	No	68.1	68.0	Yes	64.1	No	No
F07602-F	2	Yes	68.8	68.5	Yes	64.4	No	No
F07701-F	1	Yes	68.7	68.4	Yes	64.3	No	No
F07801-F	1	Yes	68.8	68.3	Yes	64.3	No	No
F07904-F	4	Yes	68.3	67.3	Yes	63.5	No	No
F08001	1	No	67.5	67.2	Yes	62.8	No	No
F08301	1	No	68.8	68.3	Yes	64.0	No	No
F08401	1	No	69.5	68.6	Yes	64.8	No	No
F08501	1	No	69.8	68.7	Yes	65.0	No	No
F08601	1	No	70.2	68.8	Yes	65.3	No	No
F08702	2	No	66.0	68.6	Yes	63.0	Yes	No
F08801	1	No	66.4	68.2	Yes	63.0	Yes	No
F08901	1	No	66.6	68.0	Yes	63.1	No	No
F09001	1	No	66.4	68.2	Yes	63.4	No	No
F09101	1	No	64.3	67.9	Yes	63.2	No	No
F09201	1	No	63.0	67.7	Yes	63.1	No	No
F09302	2	No	63.2	67.7	Yes	63.1	No	No

Table 14: Barrier Results for Barrier System E/F (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F09401	1	No	62.6	67.4	Yes	62.9	No	No
F09501	1	No	64.5	67.3	Yes	62.8	No	No
F09601	1	No	65.5	67.1	Yes	62.4	No	No
F09701	1	No	66.5	66.7	Yes	62.0	No	No
F09804	4	No	65.6	66.1	Yes	61.2	No	No
F09901	1	No	64.8	65.6	No	60.7	No	No
F10001	1	No	64.5	65.4	No	60.3	Yes	No
F10102	2	No	64.7	65.5	No	60.4	Yes	No
F10202	2	No	64.6	65.5	No	60.5	Yes	No
F10301	1	No	64.3	65.1	No	60.0	Yes	No
F10402	2	No	62.4	64.8	No	59.6	Yes	No
F10512	12	No	65.8	66.7	Yes	61.7	Yes	No
F10601	1	No	65.8	67.3	Yes	61.9	Yes	No
F10701	1	No	65.9	67.5	Yes	62.1	Yes	No
F10802	2	No	65.9	67.8	Yes	62.2	Yes	No
F10901	1	No	66.0	68.2	Yes	62.6	Yes	No
F11001	1	No	63.2	68.2	Yes	62.6	Yes	No
F11101	1	No	64.4	68.1	Yes	62.7	Yes	No
F11202	2	No	63.2	67.7	Yes	62.0	Yes	No
F11301	1	No	65.1	67.5	Yes	62.3	Yes	No
F11401	1	No	64.1	67.4	Yes	61.6	Yes	No
F11501	1	No	60.6	66.7	Yes	60.9	Yes	No
F11602	2	No	62.5	66.4	Yes	60.7	Yes	No
F11701	1	No	64.1	66.5	Yes	60.8	Yes	No
F11801	1	No	63.1	65.8	No	60.2	Yes	No
F11901	1	No	64.6	65.7	No	60.5	Yes	No
F12001	1	No	64.5	65.5	No	60.2	Yes	No
F12101	1	No	64.3	65.2	No	59.9	Yes	No
F12202	2	No	63.9	64.9	No	59.7	Yes	No
F12301	1	No	62.3	64.0	No	58.5	Yes	No
F12403	3	No	62.5	64.2	No	58.7	Yes	No
F12501	1	No	61.8	64.1	No	58.9	Yes	No
F12601	1	No	62.5	64.3	No	59.2	Yes	No
F12701	1	No	62.8	64.6	No	59.5	Yes	No
F12804	4	No	63.6	65.3	No	60.4	No	No
F12901	1	No	62.9	64.8	No	59.8	Yes	No
F13003	3	No	64.3	66.4	Yes	61.5	No	No
F13105	5	No	62.9	66.4	Yes	61.5	No	No
F13201	1	No	64.7	66.4	Yes	61.5	No	No
F13303	3	No	66.3	67.1	Yes	62.8	No	No
F13402	2	No	66.7	67.0	Yes	63.1	No	No
F13502	2	No	66.4	66.7	Yes	63.0	No	No
F13601	1	No	61.5	64.5	No	59.3	Yes	No
F13701	1	No	61.8	64.4	No	59.0	Yes	No
F13801	1	No	61.9	64.2	No	59.0	Yes	No
F13901	1	No	62.2	64.2	No	59.1	Yes	No
F14001	1	No	62.5	64.2	No	59.0	Yes	No
F14102	2	No	62.5	64.3	No	59.3	Yes	No
F14201	1	No	61.6	64.3	No	59.3	Yes	No
F14301	1	No	62.0	64.3	No	59.4	No	No
F14402	2	No	62.4	64.5	No	59.7	No	No
F14501	1	No	62.8	64.7	No	59.8	No	No
F14601	1	No	62.9	64.8	No	60.0	No	No

Table 14: Barrier Results for Barrier System E/F (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F14701	1	No	63.1	64.9	No	60.2	No	No
F14801	1	No	63.2	65.0	No	60.3	No	No
F14901	1	No	63.3	65.2	No	60.5	No	No
F15001	1	No	63.7	65.4	No	60.8	No	No
F15101	1	No	64.3	65.4	No	60.8	No	No
F15201	1	No	64.4	65.5	No	61.0	No	No
F15301-F	1	Yes	65.5	65.8	No	61.7	No	No
F15401-FV	1	Yes	76.3	74.7	Yes	72.7	No	No
F15501	1	No	74.2	73.7	Yes	70.6	No	No
F15606	6	No	72.0	72.2	Yes	68.7	No	No
F15701	1	No	70.5	70.6	Yes	67.1	No	No
F15801	1	No	71.1	70.9	Yes	68.0	No	No
F15904	4	No	66.8	69.6	Yes	65.6	No	No
F16001	1	No	67.9	69.9	Yes	66.4	No	No
F16101	1	No	66.7	69.2	Yes	65.2	No	No
F16202	2	No	67.2	69.6	Yes	66.0	No	No
F16301	1	No	66.2	69.1	Yes	65.3	No	No
F16405	5	No	65.8	68.8	Yes	65.2	No	No
F16502	2	No	65.5	68.7	Yes	64.9	No	No
F16601	1	No	74.4	73.9	Yes	70.5	No	No
F16701	1	No	75.6	74.7	Yes	71.8	No	No
F16802	2	No	77.0	75.3	Yes	73.5	No	No
F16901-F	1	Yes	76.5	74.4	Yes	73.5	No	No
F17001-F	1	Yes	75.3	73.7	Yes	71.7	No	No
F17101	1	No	75.3	73.9	Yes	71.5	No	No
F17201	1	No	74.6	74.0	Yes	71.6	No	No
F17301	1	No	73.6	73.2	Yes	70.4	No	No
F17401	1	No	73.5	73.3	Yes	70.1	No	No
F17501	1	No	72.8	72.8	Yes	69.4	No	No
F17601	1	No	71.5	72.2	Yes	68.6	No	No
F17701	1	No	70.9	71.8	Yes	68.2	No	No
F17801	1	No	70.2	71.5	Yes	67.8	No	No
F17901	1	No	69.3	70.9	Yes	67.0	No	No
F18001	1	No	68.3	70.4	Yes	66.5	No	No
F18101	1	No	68.3	70.4	Yes	66.4	No	No
F18201	1	No	67.9	70.1	Yes	66.0	No	No
F18301	1	No	67.4	69.7	Yes	65.5	No	No
F18405	5	No	67.3	68.8	Yes	64.6	No	No
F18501	1	No	66.7	68.7	Yes	64.1	No	No
F18601	1	No	67.0	69.0	Yes	64.5	No	No
F18701	1	No	67.4	69.6	Yes	65.1	No	No
F18801	1	No	67.8	69.9	Yes	65.5	No	No
F18901	1	No	68.1	70.1	Yes	65.8	No	No
F19001	1	No	68.3	70.3	Yes	66.1	No	No
F19101	1	No	68.6	70.6	Yes	66.4	No	No
F19201	1	No	69.0	70.8	Yes	66.8	No	No
F19301	1	No	69.6	71.1	Yes	67.2	No	No
F19401	1	No	70.4	71.4	Yes	67.7	No	No
F19501	1	No	71.0	71.6	Yes	68.1	No	No
F19601	1	No	71.3	71.9	Yes	68.5	No	No
F19701	1	No	71.8	72.1	Yes	68.9	No	No
F19801	1	No	72.1	72.3	Yes	69.3	No	No
F19901	1	No	72.9	72.8	Yes	70.0	No	No

Table 14: Barrier Results for Barrier System E/F (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F20001	1	No	73.3	73.0	Yes	70.3	No	No
F20101	1	No	73.8	72.7	Yes	69.4	No	No
F20201	1	No	72.9	72.8	Yes	70.2	No	No
F20301-F	1	Yes	73.6	73.1	Yes	71.0	No	No
F20402	2	No	62.5	68.0	Yes	63.4	No	No
F20501	1	No	62.4	67.9	Yes	63.2	No	No
F20601	1	No	62.0	67.7	Yes	63.0	No	No
F20701	1	No	62.0	67.6	Yes	62.9	No	No
F20802	2	No	62.5	67.2	Yes	62.7	No	No
F20904	4	No	61.8	66.9	Yes	62.5	No	No
F21001	1	No	63.7	67.2	Yes	62.9	No	No
F21106	6	No	65.8	67.7	Yes	63.8	No	No
F21205	5	No	65.5	67.4	Yes	63.3	No	No
F21301	1	No	65.9	67.9	Yes	63.6	No	No
F21401	1	No	65.8	68.3	Yes	63.5	No	No
F21501	1	No	65.4	68.4	Yes	63.6	No	No
F21601	1	No	65.1	68.5	Yes	63.5	Yes	No
F21701	1	No	63.3	68.7	Yes	63.7	Yes	No
F21804	4	No	69.8	69.6	Yes	65.0	No	No
F21902	2	No	67.7	70.3	Yes	65.2	Yes	No
F22001	1	No	67.9	70.5	Yes	65.5	Yes	No
F22101	1	No	68.2	70.8	Yes	65.8	Yes	No
F22201	1	No	68.3	71.0	Yes	66.0	Yes	No
F22302	2	No	69.1	71.6	Yes	66.3	Yes	No
F22401	1	No	69.9	72.3	Yes	67.2	Yes	No
F22501	1	No	70.9	72.7	Yes	67.3	Yes	No
F22601	1	No	71.9	73.3	Yes	68.0	Yes	No
F22701	1	No	72.8	73.6	Yes	68.4	Yes	No
F22801-F	1	Yes	73.8	73.9	Yes	68.6	Yes	No
F22901-F	1	Yes	73.6	75.0	Yes	68.1	Yes	No
F23001	1	No	72.1	74.6	Yes	67.6	Yes	Yes
F23101	1	No	70.8	74.1	Yes	67.2	Yes	No
F23201	1	No	71.4	73.4	Yes	67.0	Yes	No
F23301	1	No	70.9	73.1	Yes	66.8	Yes	No
F23401	1	No	70.3	72.7	Yes	66.6	Yes	No
F23501	1	No	70.0	72.5	Yes	66.4	Yes	No
F23601	1	No	69.5	72.1	Yes	66.1	Yes	No
F23701	1	No	69.2	71.9	Yes	66.0	Yes	No
F23801	1	No	69.1	71.5	Yes	65.9	Yes	No
F23901	1	No	68.6	71.2	Yes	65.6	Yes	No
F24001	1	No	68.0	70.8	Yes	65.3	Yes	No
F24102	2	No	67.8	70.7	Yes	64.9	Yes	No
F24208	8	No	66.5	68.7	Yes	63.9	No	No
F24301	1	No	66.0	67.7	Yes	63.6	No	No
F24401	1	No	66.0	67.7	Yes	63.6	No	No
F24501	1	No	66.1	67.8	Yes	63.7	No	No
F24601	1	No	66.3	67.9	Yes	63.8	No	No
F24701	1	No	66.6	68.1	Yes	64.1	No	No
F24801	1	No	66.6	68.2	Yes	64.2	No	No
F24901	1	No	66.9	68.4	Yes	64.6	No	No
F25001	1	No	67.1	68.7	Yes	64.8	No	No
F25101	1	No	66.6	68.5	Yes	64.7	No	No
F25201	1	No	67.1	69.5	Yes	66.7	No	No

Table 14: Barrier Results for Barrier System E/F (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F25301	1	No	63.2	68.1	Yes	66.3	No	No
F25401	1	No	62.8	68.3	Yes	66.7	No	No
F25501	1	No	63.0	68.4	Yes	66.7	No	No
F25601	1	No	61.4	68.5	Yes	67.1	No	No
F25701	1	No	60.9	68.6	Yes	67.4	No	No
F25801-F	1	Yes	62.1	69.2	Yes	68.0	No	No
F25904-F	4	Yes	65.5	68.5	Yes	67.8	No	No
F26001-F	1	Yes	72.8	74.5	Yes	62.4	Yes	Yes
F26101	1	No	68.4	72.8	Yes	64.0	Yes	Yes
F26201	1	No	70.7	72.0	Yes	66.0	Yes	No
F26301	1	No	68.0	71.1	Yes	64.9	Yes	No
F26401	1	No	66.8	70.8	Yes	65.0	Yes	No
F26501	1	No	67.8	70.2	Yes	64.9	Yes	No
F26601	1	No	66.5	69.9	Yes	64.8	Yes	No
F26701	1	No	65.1	69.9	Yes	64.4	Yes	No
F26801	1	No	62.4	69.7	Yes	64.1	Yes	No
F26901	1	No	61.6	69.7	Yes	64.3	Yes	No
F27001	1	No	61.9	69.6	Yes	64.3	Yes	No
F27101	1	No	61.5	69.5	Yes	64.2	Yes	No
F27201	1	No	61.9	69.3	Yes	64.3	Yes	No
F27301	1	No	62.5	69.5	Yes	64.7	No	No
F27401	1	No	63.1	69.4	Yes	64.5	No	No
F27503	3	No	64.2	68.9	Yes	63.9	Yes	No
F27602	2	No	66.0	68.9	Yes	64.0	No	No
F27702	2	No	66.2	70.7	Yes	64.7	Yes	No
F27801	1	No	68.3	71.3	Yes	65.1	Yes	No
F27901	1	No	69.0	71.7	Yes	65.4	Yes	No
F28001-F	1	Yes	69.8	72.0	Yes	65.7	Yes	No
F28101-F	1	Yes	70.1	72.4	Yes	65.9	Yes	No
F28201-F	1	Yes	70.2	72.8	Yes	66.2	Yes	No
F28301-F	1	Yes	71.1	73.3	Yes	66.1	Yes	Yes
F28401-F	1	Yes	71.4	73.7	Yes	66.4	Yes	Yes
F28501-F	1	Yes	72.1	74.1	Yes	66.5	Yes	Yes
F28601-F	1	Yes	72.7	74.5	Yes	66.8	Yes	Yes
F28701-F	1	Yes	72.9	75.0	Yes	66.7	Yes	Yes
F28801-F	1	Yes	73.2	75.4	Yes	67.0	Yes	Yes
F28901-F	1	Yes	73.9	75.9	Yes	67.3	Yes	Yes
F29001-F	1	Yes	74.4	76.3	Yes	67.4	Yes	Yes
F29101-F	1	Yes	75.2	76.8	Yes	67.9	Yes	Yes
F29201	1	No	68.9	71.3	Yes	65.0	Yes	No
F29301-F	1	Yes	69.4	71.6	Yes	65.0	Yes	No
F29401-F	1	Yes	69.6	71.6	Yes	64.8	Yes	No
F29501-F	1	Yes	69.7	71.7	Yes	64.5	Yes	Yes
F29501-F	1	Yes	69.9	71.7	Yes	64.6	Yes	Yes
F29601-F	1	Yes	70.0	71.6	Yes	64.4	Yes	Yes
F29701-F	1	Yes	70.1	71.4	Yes	64.1	Yes	Yes
F29801-F	1	Yes	70.3	71.4	Yes	64.0	Yes	Yes
F29901-F	1	Yes	70.5	71.7	Yes	64.1	Yes	Yes
F30001-F	1	Yes	70.9	72.5	Yes	64.9	Yes	Yes
F30101-F	1	Yes	71.0	72.6	Yes	64.9	Yes	Yes
F30201-F	1	Yes	72.0	73.5	Yes	65.0	Yes	Yes
F30301-F	1	Yes	72.2	73.7	Yes	65.1	Yes	Yes
F30401-F	1	Yes	72.8	74.3	Yes	64.6	Yes	Yes

Table 14: Barrier Results for Barrier System E/F (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2049 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2049 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
F30501-F	1	Yes	73.0	74.5	Yes	63.3	Yes	Yes
F30601-F	1	Yes	73.2	74.6	Yes	61.6	Yes	Yes
F30701-F	1	Yes	73.4	74.8	Yes	61.2	Yes	Yes
F30801-F	1	Yes	73.7	75.1	Yes	60.6	Yes	Yes
F30901-F	1	Yes	74.1	75.4	Yes	61.1	Yes	Yes
F31001-F	1	Yes	74.9	76.4	Yes	60.5	Yes	Yes
F31101	1	No	62.0	67.9	Yes	66.3	No	No
F31201	1	No	61.7	64.4	No	59.0	Yes	No
F31301	1	No	67.1	69.3	Yes	64.8	No	No
F31501	1	No	69.1	68.4	Yes	64.3	No	No
F316017	17	No	73.4	72.9	Yes	69.6	No	No

TABLE 15: BARRIER RESULTS FOR BARRIER SYSTEM D/B20

Table 15: Barrier Results for Barrier System D/B20

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2050 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2050 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
D00101	1	No	48.9	54.7	No	51.0	No	No
D00201	1	No	51.1	56.2	No	52.6	No	No
D00301	1	No	51.2	56.1	No	52.6	No	No
D00401	1	No	51.7	56.5	No	53.0	No	No
D00501	1	No	52.0	56.6	No	53.0	No	No
D00601	1	No	52.6	57.1	No	53.5	No	No
D00701	1	No	53.1	57.5	No	53.8	No	No
D00801	1	No	53.8	57.8	No	54.1	No	No
D00901	1	No	54.8	58.4	No	54.5	No	No
D01001	1	No	55.1	58.6	No	54.7	No	No
D01110-F	10	Yes	54.5	59.4	No	56.4	No	No
D01201	1	No	52.7	59.0	No	54.0	Yes	No
D01301	1	No	52.5	59.1	No	54.1	Yes	No
D01401	1	No	52.6	59.1	No	54.1	Yes	No
D01501	1	No	52.8	59.7	No	54.3	Yes	No
D01601	1	No	53.4	60.0	No	54.4	Yes	No
D01701	1	No	53.8	60.2	No	54.6	Yes	No
D01801	1	No	54.0	60.5	No	54.7	Yes	No
D01901	1	No	53.4	60.5	No	54.7	Yes	No
D02001	1	No	54.0	61.3	No	55.1	Yes	No
D02101	1	No	54.2	61.3	No	54.8	Yes	No
D02201	1	No	55.4	61.8	No	54.9	Yes	No
D02301	1	No	55.1	62.1	No	55.1	Yes	Yes
D02401	1	No	55.3	61.3	No	55.1	Yes	No
D02501	1	No	53.9	61.6	No	54.3	Yes	Yes
D02601	1	No	53.8	61.6	No	54.2	Yes	Yes
D02701	1	No	53.8	61.7	No	54.2	Yes	Yes
D02801	1	No	54.0	61.7	No	54.2	Yes	Yes
D02901	1	No	53.9	61.7	No	54.1	Yes	Yes
D03001	1	No	54.1	61.7	No	54.1	Yes	Yes
D03101	1	No	53.9	61.7	No	54.0	Yes	Yes
D03201	1	No	53.8	61.5	No	53.8	Yes	Yes
D03301	1	No	53.9	61.4	No	53.7	Yes	Yes
D03401	1	No	53.5	61.2	No	53.5	Yes	Yes
D03501	1	No	53.0	60.5	No	53.2	Yes	Yes
D03601	1	No	52.6	59.9	No	53.0	Yes	No
D03701	1	No	52.7	59.7	No	52.8	Yes	No
D03801	1	No	53.0	60.4	No	53.3	Yes	Yes
D03912	12	No	52.6	60.2	No	53.1	Yes	Yes
D04012	12	No	52.2	59.1	No	53.2	Yes	No
D04101-F	1	Yes	56.6	61.5	No	56.1	Yes	No
D04201-F	1	Yes	56.9	61.8	No	56.2	Yes	No
D04301-F	1	Yes	56.3	61.7	No	56.1	Yes	No
D04402-F	2	Yes	55.6	61.4	No	55.8	Yes	No
D04501-F	1	Yes	53.3	60.8	No	54.6	Yes	No
D04601	1	No	52.7	60.2	No	54.1	Yes	No
D04701	1	No	52.9	60.4	No	54.4	Yes	No
D04801-FV	1	Yes	70.1	72.1	Yes	62.8	Yes	Yes
D05002	2	No	53.2	58.4	No	53.6	No	No
D05112	12	No	54.0	58.3	No	53.7	No	No
D05212	12	No	55.7	59.0	No	54.1	No	No
D05312	12	No	57.1	59.6	No	54.5	Yes	No
D05412-F	12	Yes	50.3	56.2	No	49.8	Yes	No

Table 15: Barrier Results for Barrier System D/B20 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2050 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2050 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
D05512-F	12	Yes	47.0	53.5	No	46.5	Yes	Yes
D05602-F	2	Yes	46.5	51.7	No	49.4	No	No
D05702-F	2	Yes	46.4	53.2	No	50.3	No	No
D05802-F	2	Yes	47.9	52.5	No	50.0	No	No
D05902-F	2	Yes	52.3	54.5	No	51.2	No	No
D06002-F	2	Yes	52.6	55.6	No	51.7	No	No
D06102-F	2	Yes	53.3	55.7	No	51.9	No	No
D06202	2	No	57.1	58.6	No	54.3	No	No
D06302	2	No	57.0	58.5	No	53.8	No	No
D06402	2	No	58.8	60.8	No	55.0	Yes	No
D06502	2	No	58.0	60.2	No	54.6	Yes	No
D06602	2	No	56.8	59.2	No	54.6	No	No
D06702	2	No	57.3	59.6	No	54.6	Yes	No
D06801	1	No	52.6	59.6	No	52.7	Yes	No
M-37	1	Yes	66.4	68.8	Yes	59.8	Yes	Yes
M-38	1	Yes	71.9	74.5	Yes	62.9	Yes	Yes
R495	1	Yes	73.3	75.9	Yes	67.4	Yes	Yes
R496	1	Yes	62.4	65.4	No	58.7	Yes	No
R500	1	Yes	72.4	74.9	Yes	65.8	Yes	Yes
R501	1	Yes	64.7	68.3	Yes	58.4	Yes	Yes
R502	1	Yes	64.0	67.8	Yes	58.5	Yes	Yes
R503	1	Yes	72.1	74.6	Yes	65.1	Yes	Yes
R504	1	Yes	71.2	72.8	Yes	63.2	Yes	Yes
R505	1	Yes	66.1	69.9	Yes	59.0	Yes	Yes
R508	1	Yes	71.5	73.7	Yes	63.9	Yes	Yes
R510	1	Yes	67.2	70.9	Yes	59.4	Yes	Yes
R512	1	Yes	69.7	72.2	Yes	61.9	Yes	Yes
R516	1	Yes	69.7	71.7	Yes	61.4	Yes	Yes
R517	1	Yes	67.5	70.9	Yes	59.1	Yes	Yes
R518	1	Yes	67.6	71.0	Yes	59.2	Yes	Yes
R526	1	No	56.7	58.7	No	57.3	No	No
R531	1	Yes	67.6	71.5	Yes	61.9	Yes	Yes
R532	2	No	56.2	58.5	No	56.9	No	No
R533	2	No	56.8	59.4	No	56.5	No	No
R535	2	No	56.5	60.1	No	55.9	No	No
R537	1	No	66.3	73.1	Yes	62.3	Yes	Yes
R538	1	Yes	69.4	73.7	Yes	64.2	Yes	Yes
R539	1	Yes	63.8	69.4	Yes	61.4	Yes	Yes
R540	1	No	66.2	69.0	Yes	60.9	Yes	Yes
R541	1	No	64.2	67.0	Yes	60.0	Yes	Yes
R542	1	No	62.1	65.4	No	59.6	Yes	No
R545	1	Yes	72.1	73.6	Yes	68.0	Yes	No
R546	1	Yes	61.1	63.2	No	59.6	No	No
R547	1	No	60.7	64.1	No	58.0	Yes	No
R548	2	No	57.1	60.7	No	55.9	No	No
R550	2	No	58.4	62.0	No	56.5	Yes	No
R554	1	No	59.0	62.5	No	57.2	Yes	No
R555	1	No	58.8	62.2	No	56.9	Yes	No
R558	1	Yes	58.5	59.6	No	57.8	No	No
R559	1	No	59.6	63.1	No	57.7	Yes	No
R560	1	No	59.2	62.1	No	55.9	Yes	No
R561	1	No	59.4	62.8	No	57.4	Yes	No
R562	1	No	52.2	55.7	No	55.4	No	No

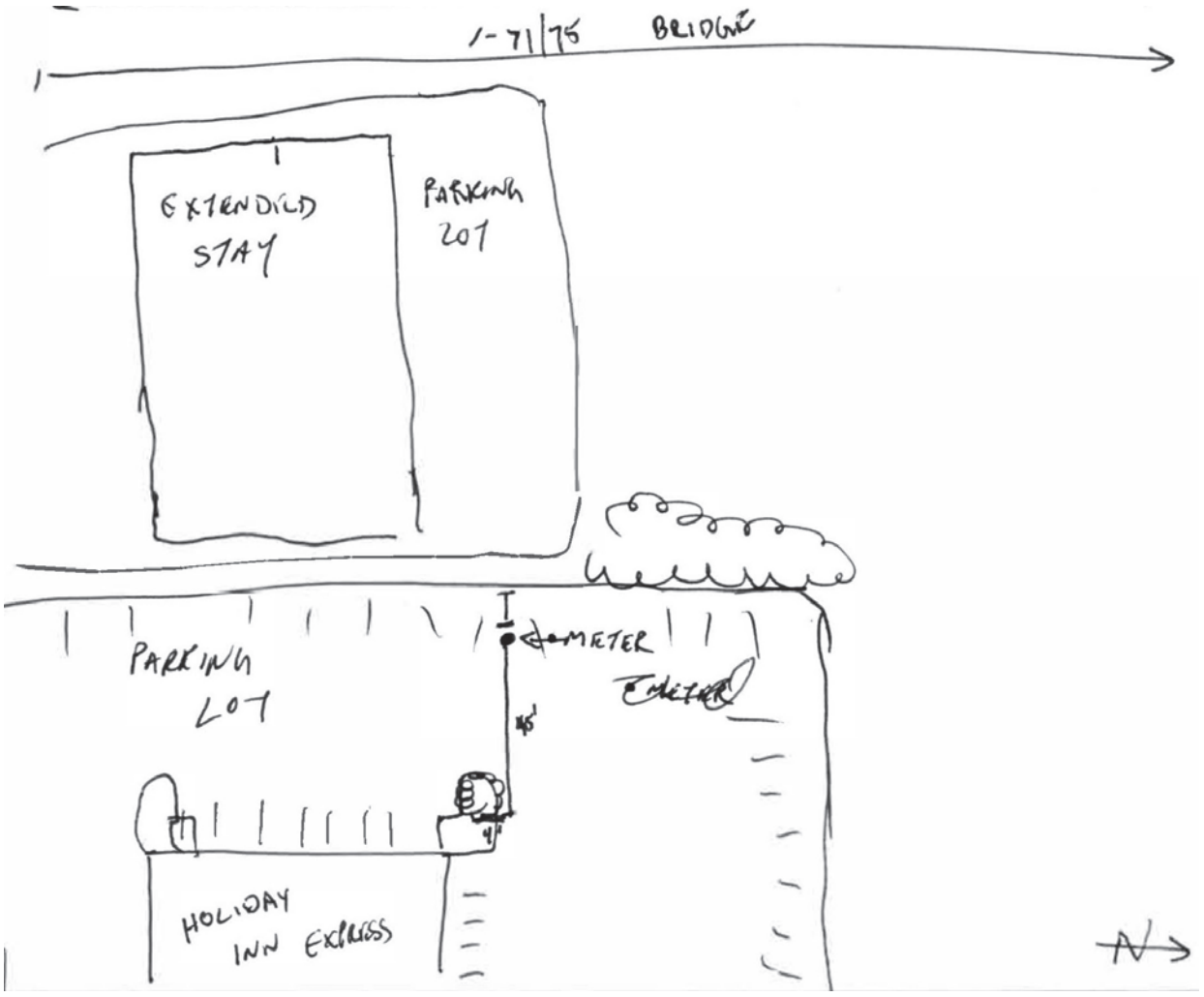
Table 15: Barrier Results for Barrier System D/B20 (cont.)

RECEIVER	NUMBER OF RECEPTORS	FRONT ROW?	EXISTING NOISE LEVEL dB(A)	PROPOSED CONDITIONS				
				2050 PRED. NOISE LEVEL dB(A)	PRED. IMPACT?	2050 PREDICTED NOISE LEVEL W/ BARRIER SYSTEM dB(A)	BENEFITED WITH 5dB(A) or MORE REDUCTION?	DESIGN GOAL: FRONT ROW WITH 7dB(A) or MORE REDUCTION?
R565	1	No	52.4	54.7	No	53.6	No	No
R569	1	No	52.7	54.7	No	53.5	No	No
R572	1	No	55.5	60.5	No	55.4	Yes	No
R573	1	No	68.0	66.8	Yes	64.0	No	No
R577	1	No	65.5	62.8	No	61.4	No	No
R578	1	No	58.4	61.7	No	55.5	Yes	No
R579	1	No	53.3	55.9	No	54.2	No	No
R581	1	No	53.1	56.1	No	54.0	No	No
R583	1	No	63.3	61.0	No	59.9	No	No
R584	1	No	56.4	59.6	No	55.6	No	No
R585	1	No	53.6	56.8	No	54.5	No	No
R587	1	No	54.2	57.9	No	54.6	No	No
R589	1	No	61.9	59.9	No	59.0	No	No
R590	1	No	56.3	59.8	No	55.1	No	No
R591	1	No	55.9	59.4	No	54.7	No	No
R592	1	No	56.1	59.1	No	54.5	No	No
R593	1	No	55.4	58.8	No	54.9	No	No
R594	1	No	54.2	57.8	No	54.8	No	No
R597	1	No	61.4	60.6	No	58.7	No	No
R598	1	No	54.4	58.2	No	54.8	No	No
R599	2	No	53.3	55.7	No	55.3	No	No
R604	1	No	61.6	60.2	No	57.5	No	No
R605	2	No	53.5	54.8	No	54.4	No	No
R607	2	No	53.5	54.2	No	53.9	No	No
R612	1	No	54.1	54.7	No	54.2	No	No
R637	1	No	67.0	64.1	No	64.0	No	No

APPENDIX C – FIELD DATA SHEETS

NOISE FIELD MEASUREMENT DATA SHEET

PROJECT:	Brent Spence Bridge (6-17.00)	TECHNICIAN(S):	Mark Gavula, Nick Pilcher
SITE:	V1	SPEED LIMIT:	55 mph
JOB NUMBER:	1415.04	TEMPERATURE:	90° F WIND SPEED: 5.4 mph
DATE:	06/13/2022	DURATION:	15 minutes
TIME:	13:14	NOISE LEVEL:	67.5 dBA Leq



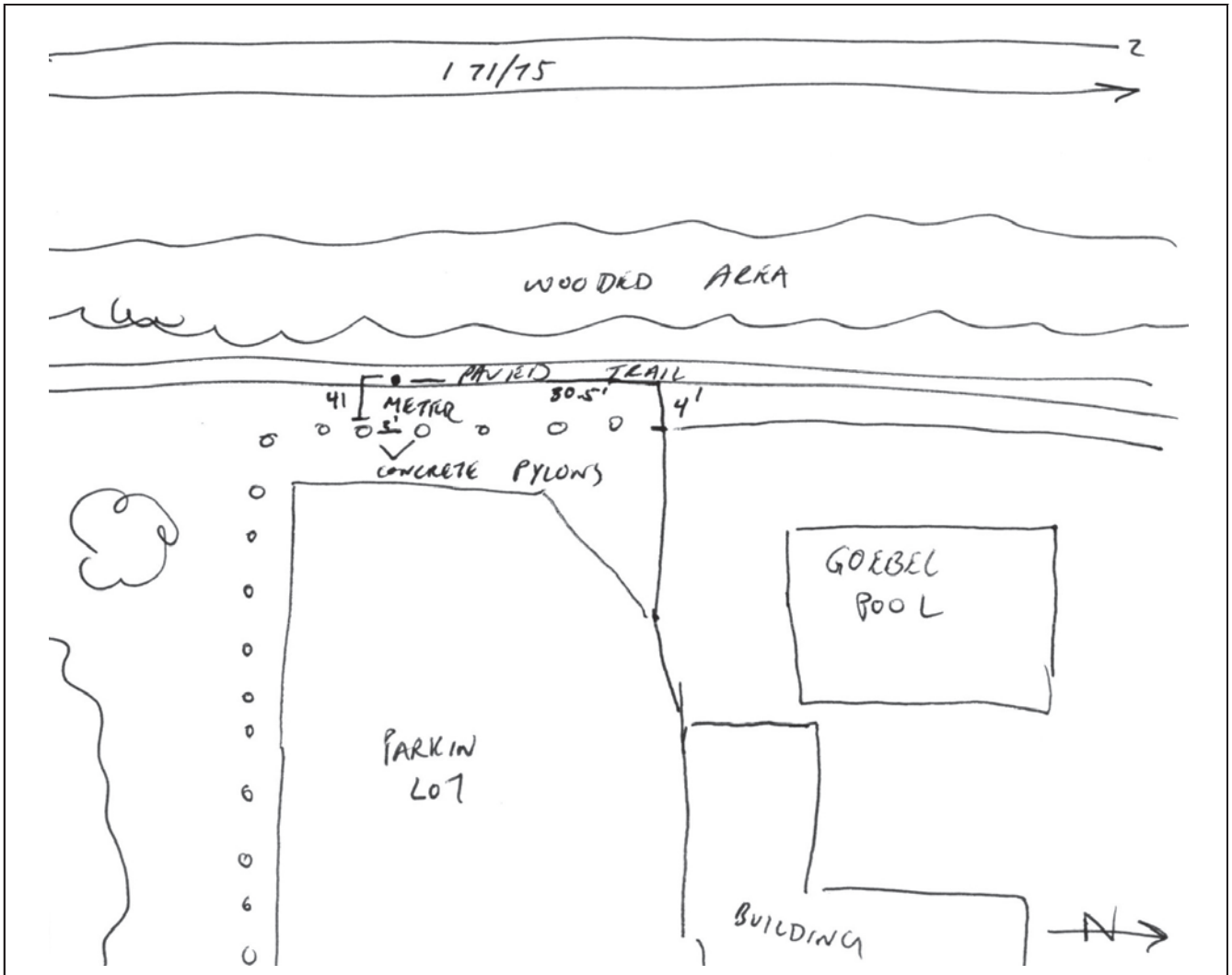
SEGMENT	AUTOMOBILES	MEDIUM TRUCKS	HEAVY TRUCKS	BUSES	MOTORCYCLES	DIRECTION
1	967	52	125	4	1	NB
2	946	63	170	9	2	SB
3						
4						

NOTES: Peak Times = Heavy Traffic; measurements recorded at time for free flowing state.

Train just east of the site, 10:00 minute mark.

NOISE FIELD MEASUREMENT DATA SHEET

PROJECT:	Brent Spence Bridge (6-17.00)	TECHNICIAN(S):	Mark Gavula, Nick Pilcher
SITE:	V2 - Goebel Park Pool	SPEED LIMIT:	55 mph
JOB NUMBER:	1415.04	TEMPERATURE:	91° F WIND SPEED: 5.6 mph
DATE:	06/13/2022	DURATION:	15 minutes
TIME:	13:51	NOISE LEVEL:	65.5 dBA Leq

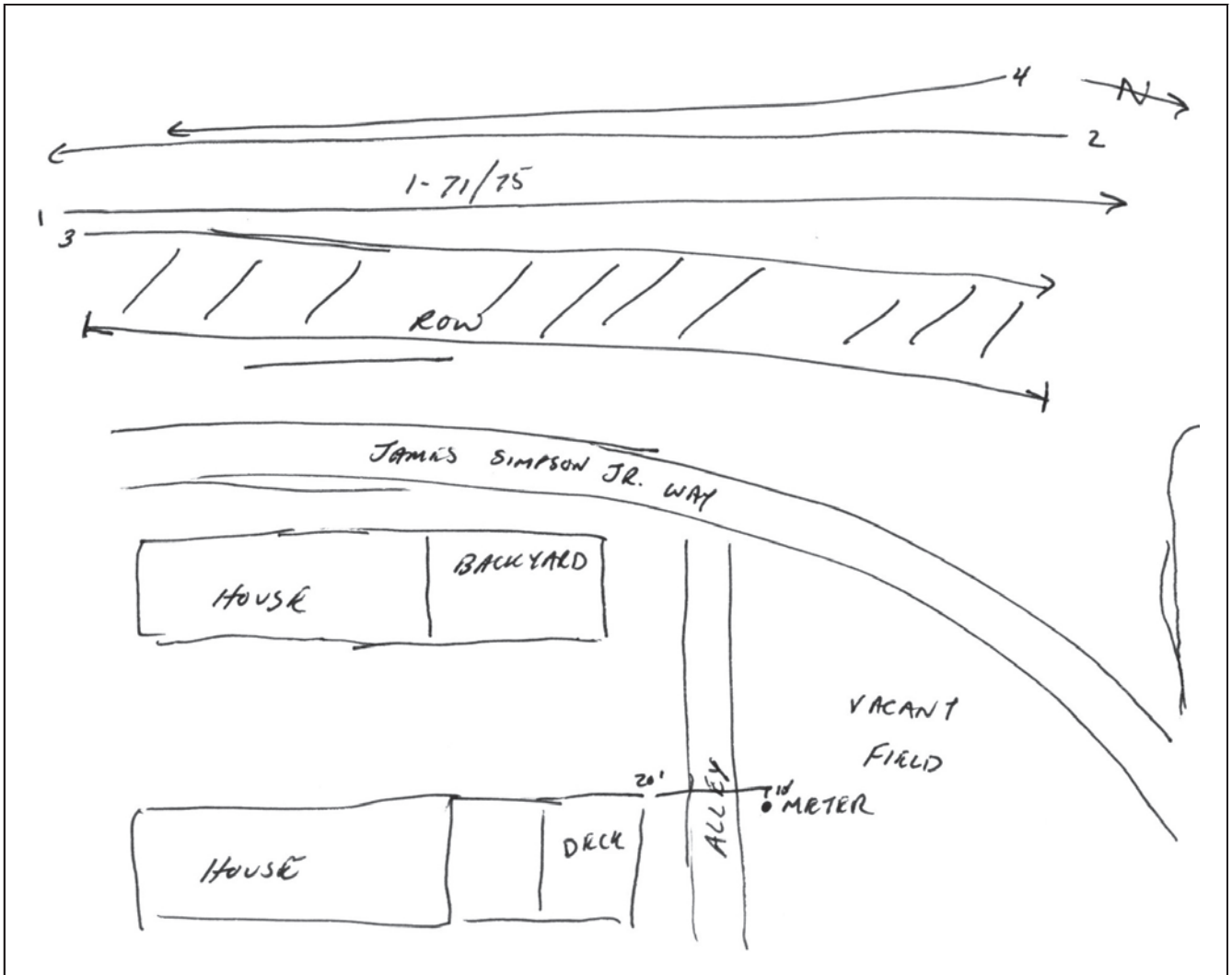


SEGMENT	AUTOMOBILES	MEDIUM TRUCKS	HEAVY TRUCKS	BUSES	MOTORCYCLES	DIRECTION
1	768	25	104	3	1	NB
2	781	27	170	1	1	SB
3	195	5	5			SB-on ramp
4						

NOTES:

NOISE FIELD MEASUREMENT DATA SHEET

PROJECT:	Brent Spence Bridge (6-17.00)	TECHNICIAN(S):	Mark Gavula, Nick Pilcher
SITE:	V3	SPEED LIMIT:	55 mph
JOB NUMBER:	1415.04	TEMPERATURE:	91° F WIND SPEED: 5.3 mph
DATE:	06/13/2022	DURATION:	15 minutes
TIME:	14:17	NOISE LEVEL:	65.5 dBA Leq

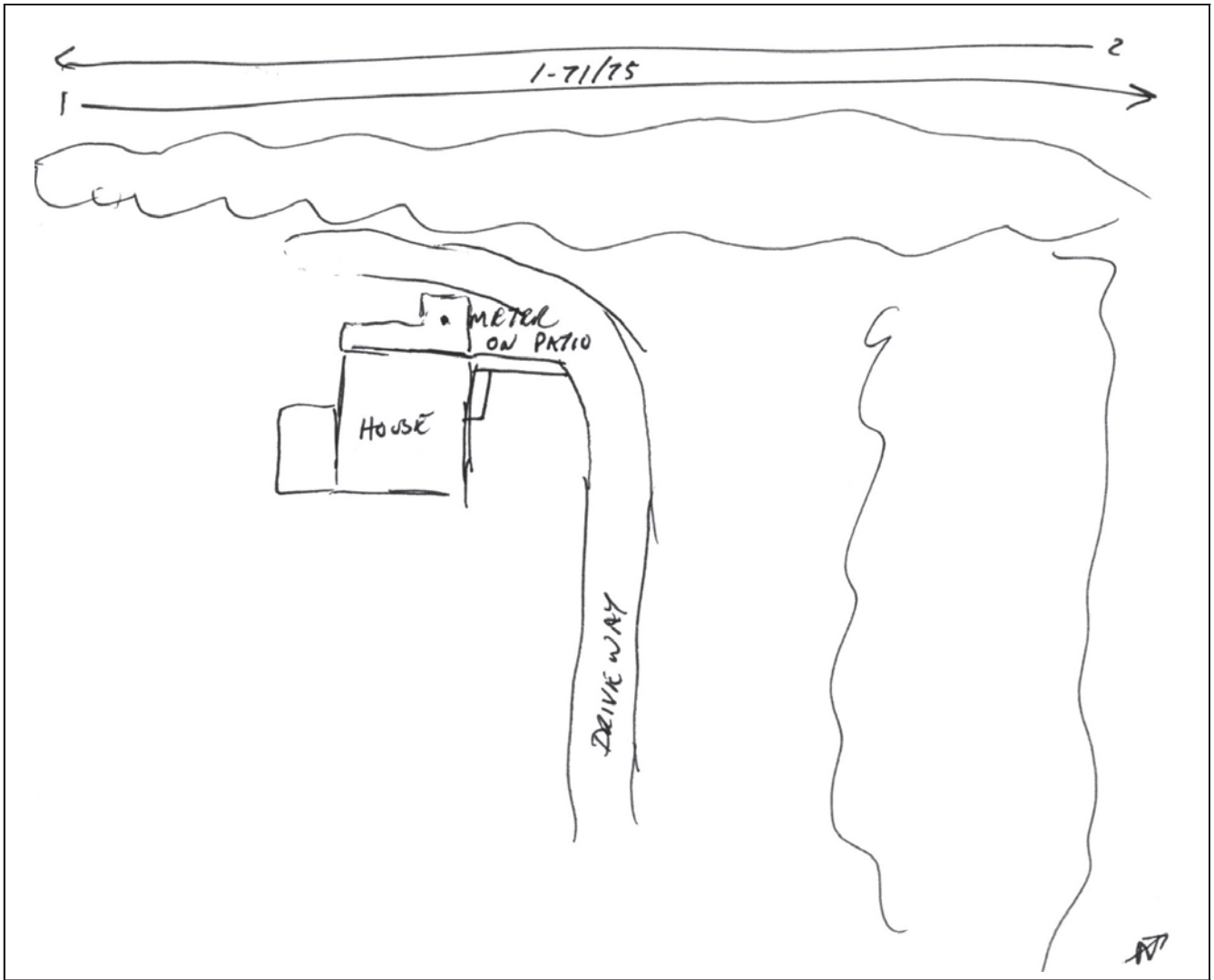


SEGMENT	AUTOMOBILES	MEDIUM TRUCKS	HEAVY TRUCKS	BUSES	MOTORCYCLES	DIRECTION
1	738	33	84	3	1	NB
2	1017	44	138	4	3	SB
3	134	4			1	NB-off ramp
4	72	5				SB-on ramp

NOTES:

NOISE FIELD MEASUREMENT DATA SHEET

PROJECT:	Brent Spence Bridge (6-17.00)	TECHNICIAN(S):	Mark Gavula, Nick Pilcher
SITE:	V4	SPEED LIMIT:	55 mph
JOB NUMBER:	1415.04	TEMPERATURE:	91° F WIND SPEED: 5.7 mph
DATE:	06/13/2022	DURATION:	15 minutes
TIME:	14:49	NOISE LEVEL:	67.9 dBA Leq

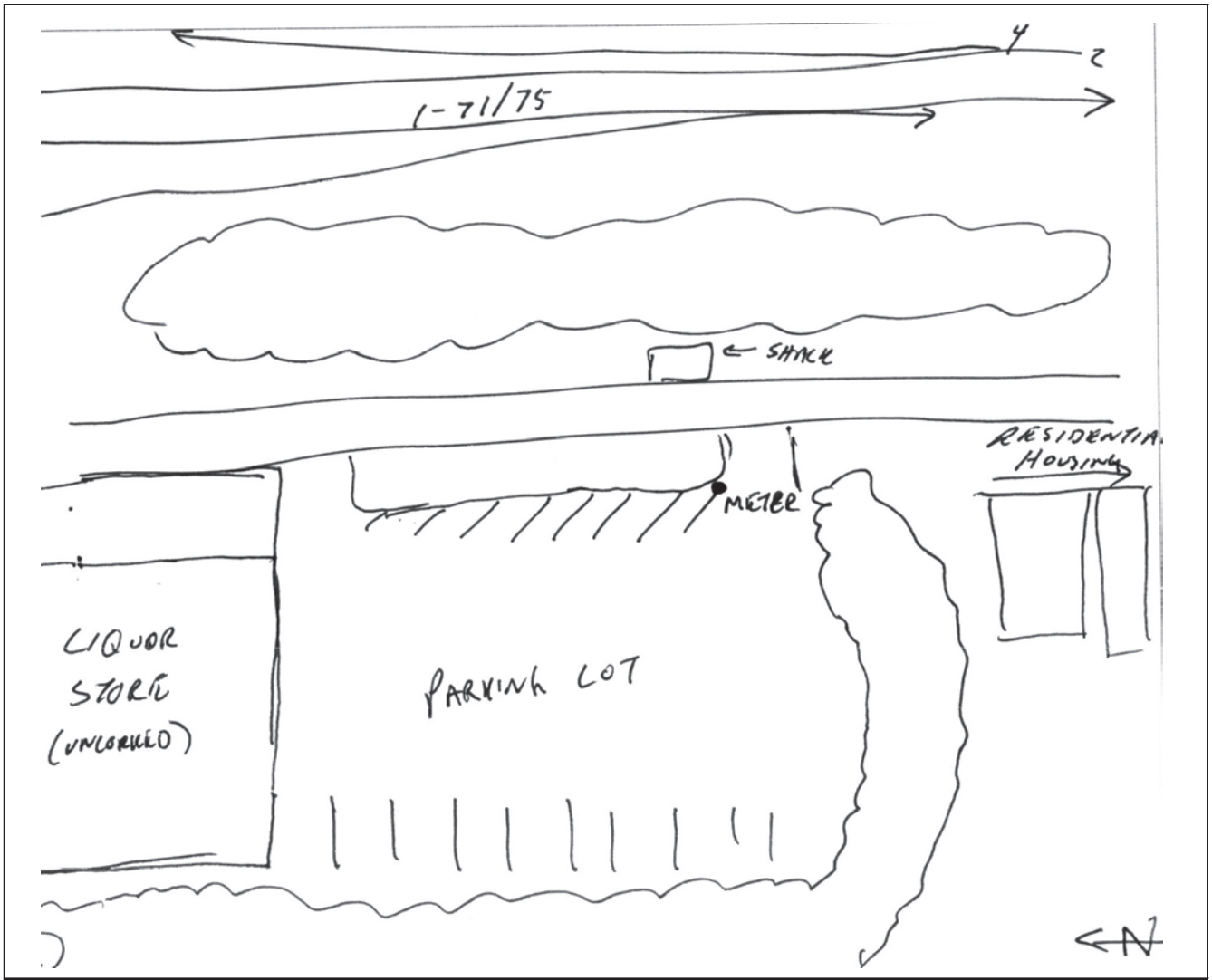


SEGMENT	AUTOMOBILES	MEDIUM TRUCKS	HEAVY TRUCKS	BUSES	MOTORCYCLES	DIRECTION
1	993	28	117	6	6	NB
2	1127	39	146	3	2	SB
3						
4						

NOTES:

NOISE FIELD MEASUREMENT DATA SHEET

PROJECT:	Brent Spence Bridge (6-17.00)	TECHNICIAN(S):	Mark Gavula, Nick Pilcher
SITE:	V5	SPEED LIMIT:	55 mph
JOB NUMBER:	1415.04	TEMPERATURE:	77° F WIND SPEED: 2.4 mph
DATE:	06/14/2022	DURATION:	15 minutes
TIME:	08:35	NOISE LEVEL:	67.4 dBA Leq

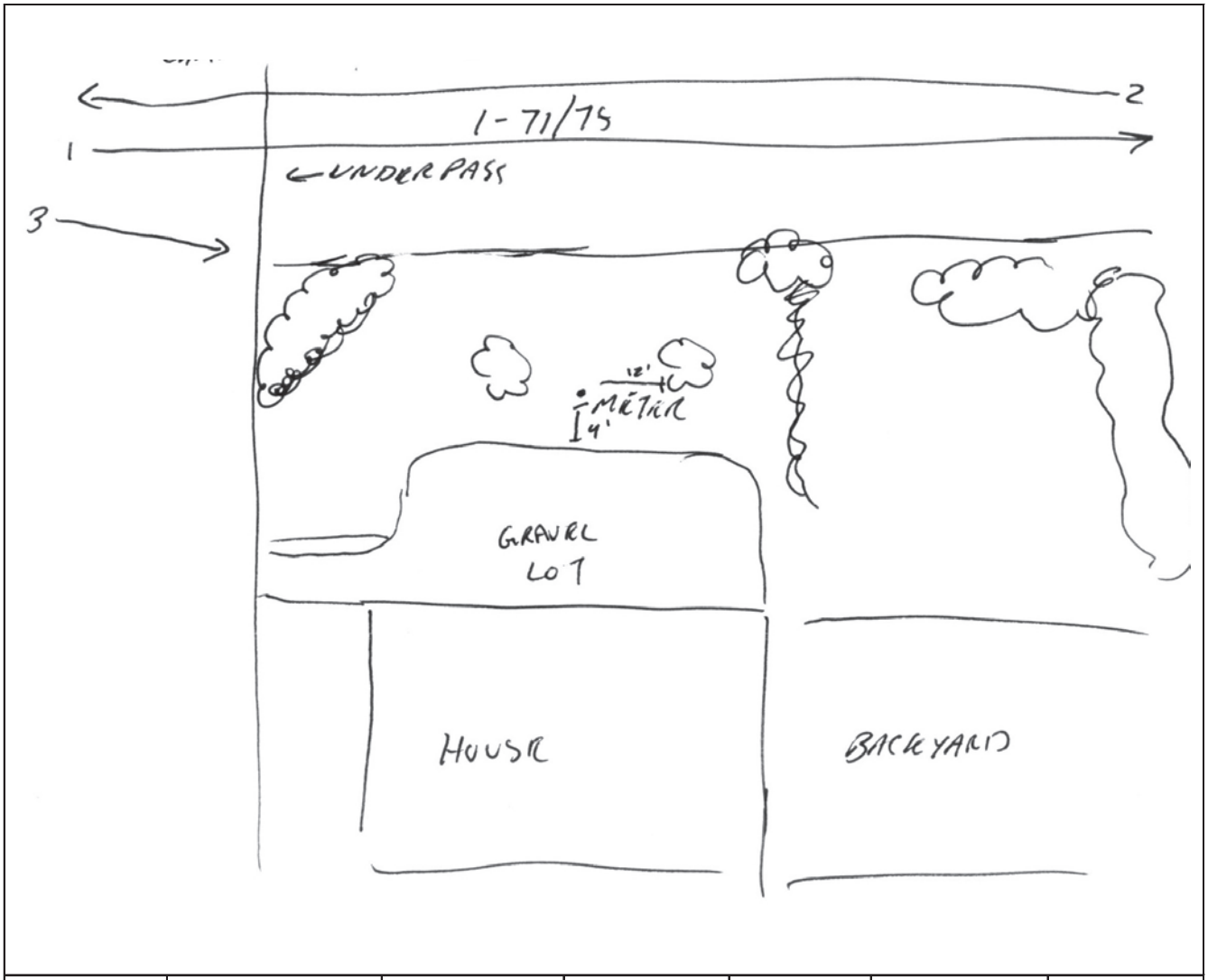


SEGMENT	AUTOMOBILES	MEDIUM TRUCKS	HEAVY TRUCKS	BUSES	MOTORCYCLES	DIRECTION
1	711	63	118	1	3	SB
2	845	48	136	2	2	NB
3	96	1				SB-on ramp
4						

NOTES: Meter was near at-grade with the interstate.

NOISE FIELD MEASUREMENT DATA SHEET

PROJECT:	Brent Spence Bridge (6-17.00)	TECHNICIAN(S):	Mark Gavula, Nick Pilcher
SITE:	V6	SPEED LIMIT:	55 mph
JOB NUMBER:	1415.04	TEMPERATURE:	79° F WIND SPEED: 2.7 mph
DATE:	06/14/2022	DURATION:	15 minutes
TIME:	09:05	NOISE LEVEL:	73.0 dBA Leq



SEGMENT	AUTOMOBILES	MEDIUM TRUCKS	HEAVY TRUCKS	BUSES	MOTORCYCLES	DIRECTION
1	738	30	149		1	SB
2	721	27	177	1	3	NB
3	78					SB on ramp
4						

NOTES:

APPENDIX D – NOISE METER CERTIFICATIONS

Scantek, Inc.
CALIBRATION LABORATORY

ISO 17025: 2017, ANSI/NCSL Z540:1994 Part 1
ACCREDITED by NVLAP (an ILAC MRA signatory)

NVLAP®
CALIBRATION
NVLAP Lab Code: 200625-0

Calibration Certificate No.46215

Instrument: **Sound Level Meter**
Model: **NL20**
Manufacturer: **Rion**
Serial number: **00110039**
Tested with: **Microphone UC52 s/n 77412**
Preamplifier NH21 s/n 00177
Type (class): **2**
Customer: **HMB Professional Engineers, Inc.**
Tel/Fax: **502-695-9800 / -9810**

Date Calibrated: **3/25/2021** *Cal Due:* **3/25/2023**

Status:	Received	Sent
In tolerance:	X	X
Out of tolerance:		
See comments:		

Contains non-accredited tests: __Yes _X_ No
Calibration service: __ Basic _X_ Standard
Address: **3 HMB Circle US 460, Frankfort, KY, 40601**

Tested in accordance with the following procedures and standards:
Calibration of Sound Level Meters, Scantek Inc., Rev. 6/26/2015
SLM & Dosimeters – Acoustical Tests, Scantek Inc., Rev. 7/6/2011

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence Cal. Lab / Accreditation	Cal. Due
483B-Norsonic	SME Cal Unit	31061	Jul 31, 2020	Scantek, Inc./ NVLAP	Jul 31, 2021
DS-360-SRS	Function Generator	61646	Dec 3, 2020	ACR Env./ A2LA	Dec 3, 2022
34401A-Agilent Technologies	Digital Voltmeter	MY41022043	Dec 04, 2020	ACR Env./ A2LA	Dec 04, 2021
HM30-Thommen	Meteo Station	1040170/39633	Dec 7, 2021	ACR Env./ A2LA	Dec 7, 2022
PC Program 1019 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1251-Norsonic	Calibrator	30878	Oct 26, 2020	Scantek, Inc./ NVLAP	Oct 26, 2021
4226-Brüel&Kjær	Multifunction calibrator	2305103	Sep 25, 2019	Brüel&Kjær/ DANAK	Sep 25, 2021

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK).

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
23.4	100.26	45.5

Calibrated by:	Ronnie Buchanan	**Authorized signatory:**	William D. Gallagher
Signature	Ronnie Buchanan	Signature	William D Gallagher
Date	3/25/2021	Date	3/26/2021

Results summary: Device complies with following clauses of mentioned specifications:

CLAUSES [1] FROM IEC/ANSI STANDARDS REFERENCED IN PROCEDURES:	RESULT[2,3]	EXPANDED UNCERTAINTY (coverage factor 2) [dB]
INDICATION AT THE CALIBRATION CHECK FREQUENCY - IEC61672-3 ED.2 CLAUSE 10	Passed	0.15
SELF-GENERATED NOISE - IEC 61672-3 ED.2 CLAUSE 11	Passed	0.3
ACOUSTICAL TEST OF A FREQUENCY WEIGHTING - IEC 61672-3 ED.2.0 CLAUSE 12	Passed	0.3
FREQUENCY WEIGHTINGS: A NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.2
FREQUENCY WEIGHTINGS: C NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.2
FREQUENCY WEIGHTINGS: Z NETWORK - IEC 61672-3 ED.2.0 CLAUSE 13	Passed	0.2
FREQUENCY AND TIME WEIGHTINGS AT 1 KHZ IEC 61672-3 ED.2.0 CLAUSE 14	Passed	0.2
LEVEL LINEARITY ON THE REFERENCE LEVEL RANGE - IEC 61672-3 ED.2 CLAUSE 16	Passed	0.25
LEVEL LINEARITY INCLUDING THE LEVEL RANGE CONTROL - IEC 61672-3 ED.2.0 CLAUSE 17	Passed	0.25
TONEBURST RESPONSE - IEC 61672-3 ED.2.0 CLAUSE 18	Passed	0.3
OVERLOAD INDICATION - IEC 61672-3 ED.2.0 CLAUSE 20	Passed	0.25
HIGH LEVEL STABILITY TEST - IEC 61672-3 ED.2.0 CLAUSE 21	Passed	0.1
LONG TERM STABILITY TEST - IEC 61672-3 ED.2.0 CLAUSE 15	Passed	0.1

1 The results of this calibration apply only to the instrument type with serial number identified in this report.

2 Parameters are certified at actual environmental conditions.

3 The tests marked with (*) are not covered by the current NVLAP accreditation.

Comments: The sound level meter submitted for testing has successfully completed the class 2 periodic tests of IEC 61672-3, for the environmental conditions under which the tests were performed. However, No general statement or conclusion can be made about conformance of the sound level meter to the full requirements of IEC 61672-1 because evidence was not publicly available, from an independent testing organization responsible for pattern approvals, to demonstrate that the model of sound level meter fully conforms to the requirements of IEC 61672-1:2002, and because the periodic tests of IEC 61672-3 cover only a limited subset of the specifications in IEC 61672-1.

Note: The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger.
Compliance with any standard cannot be claimed based solely on the periodic tests.

Tests made with the following attachments to the instrument:

Microphone: Rion UC52 s/n 77412 for acoustical test
Preamplifier: Rion NH21 s/n 00177 for all tests
Other: line adaptor ADP005 (18pF) for electrical tests
Accompanying acoustical calibrator: Rion NC-73 s/n 10417585
Windscreen: Rion WS-10

Measured Data: in Test Report # 46215 of 8+1 pages.

Place of Calibration: Scantek, Inc.
6430 Dobbin Road, Suite C
Columbia, MD 21045 USA
Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

Summary of Test Report No.:46215

Rion Type: NL20 Serial no: 00110039

Customer:	**HMB Professional Engineers, Inc.**
Address:	**3 HMB Circle US 460, Frankfort, KY, 40601**
Contact Person:	**Mark Gavula**
Phone No.:	**502-695-9800**
Fax No.:	**-9810**
eMail:	**mgavula@hmbpe.com**

Microphone:	Rion	Type: UC52	Serial no: 77412	Sens:dB
Preamplifier	Rion	Type: NH21	Serial no: 00177	
Calibrator:	Rion	Type: NC-73	Serial no: 10417585	Level:93.89dB
Wind screen	Rion	Type: WS-10		

Measurement Results:

Indication at the calibration check frequency - IEC61672-3 Ed.2 Clause 10	Passed
Self-generated noise - IEC 61672-3 Ed.2 Clause 11	Passed
Acoustical test of a frequency weighting - IEC 61672-3 Ed.2.0 Clause 12	Passed
Frequency weightings: A Network - IEC 61672-3 Ed.2.0 Clause 13	Passed
Frequency weightings: C Network - IEC 61672-3 Ed.2.0 Clause 13	Passed
Frequency weightings: Z Network - IEC 61672-3 Ed.2.0 Clause 13	Passed
Frequency and time weightings at 1 kHz IEC 61672-3 Ed.2.0 Clause 14	Passed
Level linearity on the reference level range - IEC 61672-3 Ed.2 Clause 16	Passed
Level linearity including the level range control - IEC 61672-3 Ed.2.0 Clause 17	Passed
Toneburst response - IEC 61672-3 Ed.2.0 Clause 18	Passed
Overload indication - IEC 61672-3 Ed.2.0 Clause 20	Passed
High level stability test - IEC 61672-3 Ed.2.0 Clause 21	Passed
Long term stability test - IEC 61672-3 Ed.2.0 Clause 15	Passed

Environmental conditions:

Pressure:	Temperature:	Relative humidity:
100.26	23.4	45.5

Date of calibration: 3/25/2021
Date of issue: 3/26/2021
Supervisor: Steven E. Marshall
Measurements performed by:

Ronnie Buchanan

Software version: 6.1 T

Scantek, Inc.
6430 Dobbin Rd., Suite C, Columbia, MD 21045
Ph: 410-290-7726 eMail: callab@scantekinc.com

Test Report No.:46215

Manufacturer:	Rion
Instrument type:	NL20
Serial no:	00110039
Customer:	HMB Professional Engineers, Inc.
Department:	
Order No:	
Contact Person:	Mark Gavula
Address:	3 HMB Circle US 460, Frankfort, KY, 40601

Environmental conditions:

Pressure:	100.26
Temperature:	23.4
Relative humidity:	45.5

Supervisor	Steven E. Marshall
Engineer	Ronnie Buchanan
Date:	3/25/2021

Measurement Results:

Indication at the calibration check frequency - IEC61672-3 Ed.2 Clause 10

```
Reference Calibrator: WSC4 - NOR1251-30878
Reference calibrator level: 114.00
Before calibration:
  Environmental corrections: 0.00
  Other corrections: -0.02
  Notional level: 113.98
Reference calibrator level before calibration: 114.0
After calibration:
  Environmental corrections: 0.00
  Other corrections: -0.02
  Notional level: 113.98
Reference calibrator level after calibration: 114.2
Associated Calibrator: Rion - NC-73 - 10417585
Associated calibrator level: 93.89
Initial level check:
  Environmental corrections: 0.00
  Other corrections: -0.02
  Notional level: 93.87
Indicated level: 93.9
Final level statement:
  Environmental corrections after calibration: 0.00
  Other corrections: -0.02
  Notional level: 93.87
Indicated level after calibration: 94.0
This value shall be used for adjusting the sound level meter in the future.
Test Passed
```

Self-generated noise - IEC 61672-3 Ed.2 Clause 11

Network	Level (dB)	Max (dB)	Uncert. (dB)	Result	Comment
A	18.3	20.0	0.3	P	Equivalent capacity
C	25.4	27.0	0.3	P	Equivalent capacity
Z	24.6	32.0	0.3	P	Equivalent capacity

Test Passed

Acoustical test of a frequency weighting - IEC 61672-3 Ed.2.0 Clause 12

A-Weighted results: free field response

Frequency	Response (dB)	Tol. (dB)	(dB)	Uncert. (dB)	Result
125 Hz	-0.3	1.5	-1.5	0.1	P
1 kHz	0.0	1.0	-1.0	0.1	P
4 kHz	-1.1	3.0	-3.0	0.2	P
8 kHz	1.6	5.0	-5.0	0.4	P

Test Passed

Acoustical test of a frequency weighting - IEC 61672-3 Ed.2.0 Clause 12

The overall frequency response of the sound level meter, nominal case reflections and microphone response has shown to conform with the requirements in IEC 61672-3 for a class 2 sound level meter.
Frequency response test using multi frequency calibrator.
Sources for correction data:
Calibrator levels and uncertainty: B&K
Microphone field corrections and uncertainty:
Case reflections and uncertainty:
Wind screen corrections and uncertainty:
Tabular information
Calibrator = WSC4 at 94dB
txtMFCL125 = 94.06
txtMFCLU125 = 0.10
txtSU125 = 0.20
txtM125_1 = 78.5
txtM125_2 = 78.5
txtM125_3 = 78.5
txtMFCL1k = 94.05
txtMFCLU1k = 0.10
txtSU1k = 0.15
txtM1k_1 = 94.5
txtM1k_2 = 94.5
txtM1k_3 = 94.5
txtMFCL4k = 93.92
txtMFCLU4k = 0.10
txtSU4k = 0.40
txtM4k_1 = 94.5
txtM4k_2 = 94.5
txtM4k_3 = 94.5
txtMFCL8k = 93.88
txtMFCLU8k = 0.11
txtSU8k = 0.50
txtM8k_1 = 92.5
txtM8k_2 = 92.5
txtM8k_3 = 92.5
txtSLM125 = 78.5
txtNC125 = 16.1
txtSLMU125 = 0.1
txtMic125 = 0.0
txtMicU125 = 0.05
txtCR125 = 0.0
txtCRU125 = 0.0
txtWS125 =
txtWSU125 =
txtSLM1k = 94.5
txtNC1k = 0
txtSLMU1k = 0.1
txtMFCL1k = 94.05
txtMFCLU1k = 0.10
txtMic1k = 0.4
txtMicU1k = 0.1
txtCR1k = 0.0
txtCRU1k = 0.0
txtWS1k =
txtWSU1k =
txtSLM4k = 94.5
txtNC4k = -1.0
txtSLMU4k = 0.1
txtMFCL4k = 93.92

Acoustical test of a frequency weighting - IEC 61672-3 Ed.2.0 Clause 12

txtMFCLU4k = 0.10
txtMic4k = 0.2
txtMicU4k = 0.2
txtCR4k = 0.0
txtCRU4k = 0.0
txtWS4k =
txtWSU4k =
txtSLM8k = 92.5
txtNC8k = 1.1
txtSLMU8k = 0.1
txtMFCL8k = 93.88
txtMFCLU8k = 0.11
txtMic8k = 2.7
txtMicU8k = 0.4
txtCR8k = 0.0
txtCRU8k = 0.0
txtWS8k =
txtWSU8k =

Frequency weightings: A Network - IEC 61672-3 Ed.2.0 Clause 13

Freq (Hz)	Ref. (dB)	Meas. (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
63.1	83.0	82.9	2.0	-2.0	0.2	-0.1	P
125.9	83.0	82.8	1.5	-1.5	0.2	-0.2	P
251.2	83.0	82.8	1.5	-1.5	0.2	-0.2	P
501.2	83.0	82.9	1.5	-1.5	0.2	-0.1	P
1000.0	83.0	83.0	1.0	-1.0	0.2	0.0	P
1995.3	83.0	83.0	2.0	-2.0	0.2	0.0	P
3981.1	83.0	83.0	3.0	-3.0	0.2	0.0	P
7943.3	83.0	83.1	5.0	-5.0	0.2	0.1	P

Test Passed

Frequency weightings: C Network - IEC 61672-3 Ed.2.0 Clause 13

Freq (Hz)	Ref. Level (dB)	Meas. Value (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
63.1	83.0	82.9	2.0	-2.0	0.2	-0.1	P
125.9	83.0	82.9	1.5	-1.5	0.2	-0.1	P
251.2	83.0	82.9	1.5	-1.5	0.2	-0.1	P
501.2	83.0	83.0	1.5	-1.5	0.2	0.0	P
1000.0	83.0	83.0	1.0	-1.0	0.2	0.0	P
1995.3	83.0	83.0	2.0	-2.0	0.2	0.0	P
3981.1	83.0	83.0	3.0	-3.0	0.2	0.0	P
7943.3	83.0	83.1	5.0	-5.0	0.2	0.1	P

Test Passed

Frequency weightings: Z Network - IEC 61672-3 Ed.2.0 Clause 13

Freq	Ref. Level	Meas. Value	Tol.		Uncert.	Dev.	Result
(Hz)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	
63.1	83.0	82.8	2.0	-2.0	0.2	-0.2	P
125.9	83.0	82.9	1.5	-1.5	0.2	-0.1	P
251.2	83.0	82.9	1.5	-1.5	0.2	-0.1	P
501.2	83.0	83.0	1.5	-1.5	0.2	0.0	P
1000.0	83.0	83.0	1.0	-1.0	0.2	0.0	P
1995.3	83.0	83.1	2.0	-2.0	0.2	0.1	P
3981.1	83.0	83.0	3.0	-3.0	0.2	0.0	P
7943.3	83.0	83.0	5.0	-5.0	0.2	0.0	P

Test Passed

Frequency and time weightings at 1 kHz IEC 61672-3 Ed.2.0 Clause 14

Weightings		Ref.	Measured	Tol.		Uncert.	Dev.	Result
Time	Netw	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	
Fast	A	94.0	94.1	0.1	-0.1	0.2	0.1	P
Fast	C	94.0	94.1	0.1	-0.1	0.2	0.1	P
Fast	Z	94.0	94.1	0.1	-0.1	0.2	0.1	P
Fast	Flat	94.0	94.1	0.1	-0.1	0.2	0.1	P
Slow	A	94.0	94.1	0.1	-0.1	0.2	0.1	P
Leq	A	94.0	94.0	0.1	-0.1	0.2	0.0	P
SEL	A	104.0	104.0	0.1	-0.1	0.2	0.0	P

Test Passed

Level linearity on the reference level range - IEC 61672-3 Ed.2 Clause 16

Ref. (dB)	Measured (dB)	Tol. (dB)	(dB)	Uncert. (dB)	Dev. (dB)	Result
Full scale setting: 120dB						
The following measurements are SPL measurements						
Measured at 31.5 Hz						
74.0	74.0	1.1	-1.1	0.25	0.0	P
79.0	79.0	1.1	-1.1	0.25	0.0	P
84.6	84.6	1.1	-1.1	0.25	0.0	P
85.6	85.6	1.1	-1.1	0.25	0.0	P
86.6	86.6	1.1	-1.1	0.25	0.0	P
87.6	87.6	1.1	-1.1	0.25	0.0	P
88.6	88.6	1.1	-1.1	0.25	0.0	P
74.0	74.9	1.1	-1.1	0.25	0.9	P
69.0	69.1	1.1	-1.1	0.25	0.1	P
64.0	64.1	1.1	-1.1	0.25	0.1	P
59.0	59.1	1.1	-1.1	0.25	0.1	P
54.0	54.1	1.1	-1.1	0.25	0.1	P
49.0	49.1	1.1	-1.1	0.25	0.1	P
44.0	44.0	1.1	-1.1	0.25	0.0	P
39.0	39.0	1.1	-1.1	0.25	0.0	P
37.0	37.0	1.1	-1.1	0.25	0.0	P
36.0	35.9	1.1	-1.1	0.25	-0.1	P
35.0	35.0	1.1	-1.1	0.25	0.0	P

Level linearity on the reference level range - IEC 61672-3 Ed.2 Clause 16

Ref. (dB)	Measured (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
34.0	34.1	1.1	-1.1	0.25	0.1	P
33.0	33.0	1.1	-1.1	0.25	0.0	P
Measured at 1 kHz						
94.0	94.0	1.1	-1.1	0.25	0.0	P
99.0	99.0	1.1	-1.1	0.25	0.0	P
104.0	103.9	1.1	-1.1	0.25	-0.1	P
109.0	109.0	1.1	-1.1	0.25	0.0	P
114.0	114.0	1.1	-1.1	0.25	0.0	P
119.0	119.0	1.1	-1.1	0.25	0.0	P
124.0	124.0	1.1	-1.1	0.25	0.0	P
125.0	125.0	1.1	-1.1	0.25	0.0	P
126.0	126.0	1.1	-1.1	0.25	0.0	P
127.0	127.0	1.1	-1.1	0.25	0.0	P
128.0	128.0	1.1	-1.1	0.25	0.0	P
94.0	94.0	1.1	-1.1	0.25	0.0	P
89.0	89.0	1.1	-1.1	0.25	0.0	P
84.0	84.0	1.1	-1.1	0.25	0.0	P
79.0	78.9	1.1	-1.1	0.25	-0.1	P
74.0	73.9	1.1	-1.1	0.25	-0.1	P
69.0	68.9	1.1	-1.1	0.25	-0.1	P
64.0	63.9	1.1	-1.1	0.25	-0.1	P
59.0	58.9	1.1	-1.1	0.25	-0.1	P
54.0	53.9	1.1	-1.1	0.25	-0.1	P
49.0	49.0	1.1	-1.1	0.25	0.0	P
44.0	43.9	1.1	-1.1	0.25	-0.1	P
39.0	38.9	1.1	-1.1	0.25	-0.1	P
37.0	36.9	1.1	-1.1	0.25	-0.1	P
36.0	35.9	1.1	-1.1	0.25	-0.1	P
35.0	34.9	1.1	-1.1	0.25	-0.1	P
34.0	33.8	1.1	-1.1	0.25	-0.2	P
33.0	32.9	1.1	-1.1	0.25	-0.1	P
Measured at 8 kHz						
94.0	94.0	1.1	-1.1	0.25	0.0	P
99.0	99.0	1.1	-1.1	0.25	0.0	P
104.0	104.0	1.1	-1.1	0.25	0.0	P
109.0	109.0	1.1	-1.1	0.25	0.0	P
114.0	114.0	1.1	-1.1	0.25	0.0	P
119.0	119.0	1.1	-1.1	0.25	0.0	P
122.9	123.0	1.1	-1.1	0.25	0.1	P
123.9	124.0	1.1	-1.1	0.25	0.1	P
124.9	125.0	1.1	-1.1	0.25	0.1	P
125.9	126.0	1.1	-1.1	0.25	0.1	P
94.0	94.0	1.1	-1.1	0.25	0.0	P
89.0	89.0	1.1	-1.1	0.25	0.0	P
84.0	84.0	1.1	-1.1	0.25	0.0	P
79.0	79.0	1.1	-1.1	0.25	0.0	P
74.0	74.0	1.1	-1.1	0.25	0.0	P
69.0	69.0	1.1	-1.1	0.25	0.0	P
64.0	64.0	1.1	-1.1	0.25	0.0	P
59.0	59.0	1.1	-1.1	0.25	0.0	P
54.0	54.1	1.1	-1.1	0.25	0.1	P
49.0	49.1	1.1	-1.1	0.25	0.1	P
44.0	44.1	1.1	-1.1	0.25	0.1	P
39.0	39.0	1.1	-1.1	0.25	0.0	P
37.0	37.0	1.1	-1.1	0.25	0.0	P
36.0	36.0	1.1	-1.1	0.25	0.0	P
35.0	35.0	1.1	-1.1	0.25	0.0	P

Level linearity on the reference level range - IEC 61672-3 Ed.2 Clause 16

Ref. (dB)	Measured (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
34.0	34.0	1.1	-1.1	0.25	0.0	P
33.0	33.0	1.1	-1.1	0.25	0.0	P

Test Passed

Level linearity including the level range control - IEC 61672-3 Ed.2.0 Clause 17

Full Scale (dB)	Ref. Value (dB)	Measured Value (dB)	Tol. Value (dB)	Uncert. (dB)	Dev. (dB)	Result
Measured at 1 kHz						
The following measurements are SPL measurements						
Measuring the reference level on the available ranges.						
130	94.0	93.9	1.1	0.25	-0.1	P
120	94.0	93.9	1.1	0.25	-0.1	P
110	94.0	93.9	1.1	0.25	-0.1	P
100	94.0	94.0	1.1	0.25	0.0	P
Measuring 5 dB below full scale on all available ranges.						
130	125.0	125.0	1.1	0.25	0.0	P
120	115.0	115.0	1.1	0.25	0.0	P
110	105.0	105.0	1.1	0.25	0.0	P
100	95.0	95.0	1.1	0.25	0.0	P
90	85.0	85.0	1.1	0.25	0.0	P
80	75.0	75.0	1.1	0.25	0.0	P

Test Passed

Toneburst response - IEC 61672-3 Ed.2.0 Clause 18

Burst type	Ref. (dB)	Measured (dB)	Tol. (dB)	Tol. (dB)	Uncert. (dB)	Dev. (dB)	Result
Fast 200 mSec	125.0	125.0	1.0	-1.0	0.3	0.0	P
Fast 2.0 mSec	108.0	108.0	1.0	-2.5	0.3	0.0	P
Fast 0.25 mSec	99.0	98.9	1.5	-5.0	0.3	-0.1	P
Slow 200 mSec	118.6	118.6	1.0	-1.0	0.3	0.0	P
Slow 2.0 mSec	99.0	99.0	1.0	-5.0	0.3	0.0	P
SEL 200 mSec	119.0	119.0	1.0	-1.0	0.3	0.0	P
SEL 2.0 mSec	99.0	99.0	1.0	-2.5	0.3	0.0	P
SEL 0.25 mSec	90.0	89.9	1.8	-5.0	0.3	-0.1	P

Test Passed

Overload indication - IEC 61672-3 Ed.2.0 Clause 20

	Measured (dB)	Tol. (+/-dB)	Uncert. (dB)	Result
Level difference of positive and negative pulses:	0.1	1.5	0.25	P
Positive 1/2 cycle 4 kHz. Overload occurred at:	139.3			
Negative 1/2 cycle 4 kHz. Overload occurred at:	139.2			

Test Passed

High level stability test - IEC 61672-3 Ed.2.0 Clause 21

Test signal: Sine wave at 1 kHz

Initial level (dB)	Final level (dB)	Diff. (dB)	Tol. value (dB)	Uncert. (dB)	Result
137.0	137.0	0.0	0.3	0.1	P

Test Passed

Long term stability test - IEC 61672-3 Ed.2.0 Clause 15

Test signal: Sine wave at 1 kHz

Time inteval (mm:SS)	StartLevel (dB)	StopLevel (dB)	Difference (dB)	Tolerence (dB)	Result
25:17	94.0	94.1	0.1	0.3	P

Test Passed
RIONL20.ini
RIONL20.ini

RB

Scantek, Inc.
CALIBRATION LABORATORY

ISO 17025: 2017, ANSI/NCSL Z540:1994 Part 1
ACCREDITED by NVLAP (an ILAC MRA signatory)

NVLAP®
CALIBRATION
NVLAP Lab Code: 200625-0

Calibration Certificate No.46216

Instrument:	**Acoustical Calibrator**	*Date Calibrated:* **3/25/2021**	*Cal Due:* **3/25/2023**
Model:	**NC-73**	*Status:*	**Received** / **Sent**
Manufacturer:	**Rion**	*In tolerance:*	X / X
Serial number:	**10417585**	*Out of tolerance:*	
Class (IEC 60942):	**2**	*See comments:*	
Barometer type:		*Contains non-accredited tests:*	**__Yes _X_ No**
Barometer s/n:			
Customer:	**HMB Professional Engineers, Inc.**	*Address:*	**3 HMB Circle US 460, Frankfort, KY, 40601**
Tel/Fax:	**502-695-9800 / -9810**		

Tested in accordance with the following procedures and standards:
Calibration of Acoustical Calibrators, Scantek Inc., Rev. 10/1/2010

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence Cal. Lab / Accreditation	Cal. Due
483B-Norsonic	SME Cal Unit	31061	Jul 31, 2020	Scantek, Inc./ NVLAP	Jul 31, 2021
DS-360-SRS	Function Generator	61646	Dec 3, 2020	ACR Env./ A2LA	Dec 3, 2022
34401A-Agilent Technologies	Digital Voltmeter	MY41022043	Dec 04, 2020	ACR Env./ A2LA	Dec 04, 2021
HM30-Thommen	Meteo Station	1040170/39633	Dec 7, 2021	ACR Env./ A2LA	Dec 7, 2022
140-Norsonic	Real Time Analyzer	1403978	Mar 25, 2021	Scantek, Inc. / NVLAP	Mar 25, 2022
PC Program 1018 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
4192-Brüel&Kjær	Microphone	2854675	Jan 15, 2021	Scantek, Inc. / NVLAP	Jan 15, 2022
1203-Norsonic	Preamplifier	21270	Jan 15, 2021	Scantek, Inc./ NVLAP	Jan 15, 2022

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK)

Calibrated by:	Ronnie Buchanan	**Authorized signatory:**	William D. Gallagher
Signature	Ronnie Buchanan	Signature	William D. Gallagher
Date	3/25/2021	Date	3/29/2021

Results summary: Device was tested and complies with following clauses of mentioned specifications:

CLAUSES[1] FROM STANDARDS REFERENCED IN PROCEDURES:	MET[2]	NOT MET	COMMENTS
Manufacturer specifications			
Manufacturer specifications: Sound pressure level	X		
Manufacturer specifications: Frequency	X		
Manufacturer specifications: Total harmonic distortion	X		
Current standards			
ANSI S1.40:2006 B.3 / IEC 60942: 2003 B.2 - Preliminary inspection	X		
ANSI S1.40:2006 B.4.4 / IEC 60942: 2003 B.3.4 - Sound pressure level	X		
ANSI S1.40:2006 A.5.4 / IEC 60942: 2003 A.4.4 - Sound pressure level stability	-	-	
ANSI S1.40:2006 B.4.5 / IEC 60942: 2003 B.3.5 - Frequency	X		
ANSI S1.40:2006 B.4.6 / IEC 60942: 2003 B.3.6 - Total harmonic distortion	X		

1 The results of this calibration apply only to the instrument type with serial number identified in this report.

2 The tests marked with (*) are not covered by the current NVLAP accreditation.

Main measured parameters [3]:

Measured[4]/Acceptable[5] Tone frequency (Hz):	Measured[4]/Acceptable[5] Total Harmonic Distortion (%):	Measured [4]/Acceptable Level[5] (dB):
994.32 ± 0.99/1000.0 ± 20.0	0.18 ± 0.10/ < 4	93.89 ± 0.12/94.0 ± 0.75

3 The stated level is valid at measurement conditions.

4 The above expanded uncertainties for frequency and distortion are calculated with a coverage factor k=2; for level k=2.00

5 Acceptable parameters values are from the current standards

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
22.6 ± 0.4	100.32 ± 0.000	44.9 ± 0.4

Tests made with following attachments to instrument:

Calibrator ½" Adaptor Type: NC-71-S02
Other:

Adjustments: Unit was not adjusted.
Comments: The instrument was tested and met all specifications found in the referenced procedures.

Note: The instrument was tested for the parameters listed in the table above, using the test methods described in the listed standards. All tests were performed around the reference conditions. The test results were compared with the manufacturer's or with the standard's specifications, whichever are larger.
Compliance with any standard cannot be claimed based solely on the periodic tests.

Measured Data: in Acoustical Calibrator Test Report # 46216 of one page.

Place of Calibration: Scantek, Inc.
6430 Dobbin Road, Suite C
Columbia, MD 21045 USA
Ph/Fax: 410-290-7726/ -9167
callab@scantekinc.com

Test Report No.:46216

Manufacturer:	**Rion**
Type:	**NC-73**
Serial no:	**10417585**

Customer:	**HMB Professional Engineers, Inc.**
Department:	
Address:	**3 HMB Circle US 460, Frankfort, KY, 40601**
Order No:	
Contact Person:	**Mark Gavula**
Phone No.:	**502-695-9800**
Fax No.:	**-9810**
eMail:	**mgavula@hmbpe.com**

Measurement Results:

	Level: (dB)	P. Stab : (dB)	Frequency: (Hz)	F. Stab : (%)	Distortion: (% TD)
1:	93.90	0.02	994.32	0.00	0.18
2:	93.89	0.01	994.33	0.00	0.18
3:	93.89	0.01	994.32	0.00	0.18
Result (Average):	**93.89**	**0.01**	**994.32**	**0.00**	**0.18**
Expanded Uncertainty:	0.12	0.02	0.99	0.01	0.10
Degree of Freedom:	>100	>100	>100	41	>100
Coverage Factor:	2.00	2.00	2.00	2.13	2.00

The stated levels are relative to 20µPa.

The stated level is valid at measurement conditions.
Reference microphone: 4192-2854675. Volume correction: 0.000 dB
Records:Y:\Calibration Lab\Cal 2021\RIONNC73_10417585_M1.nmf

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EA publication EA-4/02.

Environmental conditions:

Pressure:	Temperature:	Relative humidity:
100.315 ± 0.030 kPa	22.6 ± 0.4 °C	44.9 ± 0.4 %RH

Date of calibration: 3/25/2021
Date of issue: 3/25/2021

Supervisor : Steven E. Marshall
Measurements performed by:

RB

Ronnie Buchanan
Software version: 6.1T

Scantek, Inc.
6430 Dobbin Rd., Suite C, Columbia, MD 21045
Ph: 410-290-7726 eMail: callab@scantekinc.com

APPENDIX E – TRAFFIC VOLUMES

PM LOS

Mainline	Link Name	Link ID	Segment ID	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
I-75 N	Mainline South of Dixie Hwy	22493	36721	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C
	Mainline btw Dixie and Kyles	2164	2497	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C
	Mainline North of Kyles CD	22143	36302	C	C	C	C	D	C	D	D	D	D	D	D	D	D	C	D	C	C	C	B
	Mainline North of Kyles Ramp	21441	36697	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	C	C	C	C	B
	Mainline North of 12th CD exit	22145	1855	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B	B
	Companion Bridge	22335	36428	B	B	B	B	B	B	B	B	B	C	C	C	C	C	C	B	B	B	B	B
	Mainline North of Companion Bridge	22191	36509	B	B	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B	B
	Mainline North of US-50	22236	36560	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B	B
	Mainline North of Freeman Ave	3707	36562	C	C	D	D	D	D	D	D	D	D	D	D	D	E	D	D	D	C	C	C
	Mainline North of Ezzard Charles	22204	36565	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	C
	Mainline at WHV	22209	36570	C	C	D	D	D	D	D	D	D	D	D	D	E	D	E	D	D	D	C	C
	Mainline North of WHV	22417	36574	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	D	D	D	D	D

Mainline	Link Name	Link ID		2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
I-75 S	Mainline North of WHV	20480	3666	B	C	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B
	Mainline at WHV	22213	3681	C	C	C	C	C	C	D	C	C	C	C	C	D	D	C	C	C	C	C	B
	Mainline North of Ezzard Charles	3682	3683	B	B	B	C	B	C	C	C	C	C	C	C	C	C	C	C	B	B	B	B
	Mainline at Ezzard Charles	22216	36345	A	B	B	B	B	B	C	B	C	C	C	C	B	C	C	B	B	B	B	A
	Mainline North of US-50/6th	22217	3711	B	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B
	Mainline North of Companion Bridge	22231	36512	A	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	A
	Companion Bridge	1866	36712	B	B	B	B	B	B	B	B	B	B	B	B	C	B	B	C	B	B	B	B
	Mainline North of Bullock Ramp/12th	22168	36604	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B
	Mainline South of Bullock Ramp/12th	22176	36698	D	D	D	D	D	D	D	E	E	E	E	E	E	E	E	E	D	D	D	C
	Mainline btw Dixie and Kyles	21440	2488	C	C	C	C	D	C	C	D	D	D	D	D	D	D	D	D	C	C	C	C
	Mainline at Dixie Hwy	22186	36720	C	C	C	C	C	C	C	C	C	C	D	C	C	C	C	C	C	C	C	B
	Mainline South of Dixie Hwy	22301	36725	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	D	C	C	C	C

Mainline	Link Name	Link ID		2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
I-71	1-71N off Companion Bridge	22190	36244	B	B	B	B	B	B	C	C	C	C	C	C	C	C	C	B	C	B	B	B
	I-71N after BSB merge	22195	36327	C	C	C	C	D	C	C	C	C	D	C	C	D	D	C	C	C	C	C	C
	I-71N after BSB merge	3550	3551	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	D	C	C	C	C
	I-71S	3547	3548	D	D	D	E	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
	I-71S btw BSB and Companion ramps	22336	36728	C	B	C	B	C	B	C	B	D	C	C	C	C	B	B	B	C	C	C	C
	I-71S before Companion Bridge	22337	36989	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

Road Type	Link Name	Link ID		2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
Distributor/System Ramps	NB btw Dixie Ramps	22140	36301	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	NB North of Dixie Entrance Ramp	22142	36225	B	C	C	C	C	B	C	C	C	C	C	C	C	C	C	B	C	B	B	B
	NB Entrance Ramp from Dixie CD	22144	36303	A	A	A	A	A	B	A	A	A	A	B	A	B	B	B	B	A	A	A	A
	NB Exit to 12th CD	22147	36605	C	C	C	C	C	D	C	C	D	D	C	D	D	D	D	C	C	C	C	B
	12th Ramp to 5th Ramp	22148	36594	B	B	B	B	B	B	B	C	C	B	C	C	C	C	B	B	B	B	B	B
	5th Ramp to BSB	22149	36612	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	A
	9th to Local 5th Ramp	22154	36310	A	A	B	A	B	B	B	B	B	B	C	B	B	B	B	A	A	B	A	A
	Local 5th Ramp to BSB	22155	36311	B	B	B	C	B	B	B	C	C	B	C	C	C	C	B	C	B	B	A	A
	Approach to BSB Lower level	22156	36614	B	B	A	B	B	B	B	B	B	B	C	C	B	B	B	B	B	B	A	B
	BSB Lower Level	21389	3740	B	B	B	B	B	B	B	B	B	C	B	C	B	C	C	B	B	B	B	B
	From BSB to I-71N and 2nd	3738	3739	B	B	B	B	C	B	B	B	B	C	B	C	C	B	C	B	B	B	B	B
	From BSB to I-71N merge	22193	3741	B	A	B	B	B	B	C	C	B	B	A	A	B	B	B	B	C	C	B	B
	From I-71S to US-50 & I-75N	3552	36522	D	D	D	E	E	E	E	E	E	E	E	E	E	E	E	D	E	D	E	E
	From I-71S to US-50	3556	3557	D	D	D	D	D	D	D	D	D	D	D	D	D	E	D	D	D	D	D	D
	From BSB to US-50	3559	36246	A	A	A	B	A	A	A	B	B	A	A	A	A	A	A	A	A	B	A	A
	US-50 WB	3747	36157	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	CD from I-71S to I-75N	3557	36547	D	D	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
	CD to I-75N after 4th Ramp	3712	10729	C	C	C	C	D	C	C	D	D	D	C	D	D	D	D	C	C	C	C	B

Collector-Distri	From BSB to I-75N and 5th	3739	36675	A	A	A	B	B	B	A	A	B	B	B	B	B	B	B	B	A	A	A	A
	From BSB to Winchell CD	22197	10737	B	A	B	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A
	NB Winchell CD	7034	10731	C	C	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	C	C
	NB CD to Ezzard Charles	22202	36552	C	C	C	D	D	C	D	D	D	C	D	D	D	D	D	D	C	C	C	C
	SB CD I-75S split at Ezzard Charles	3718	36635	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	SB CD after Western ramp	22220	36347	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	SB CD after 2nd St exit	3750	3751	A	A	A	A	A	A	A	A	A	A	B	B	B	B	B	B	B	A	A	A
	US-50 EB	10392	3556	B	A	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	A
	US-50 EB to SB BSB	3725	3726	B	B	B	B	B	C	C	B	B	B	B	C	C	C	C	B	B	B	B	A
	SB CD btw US-50 and I-71S Ramps	22233	36355	C	C	C	C	C	C	C	D	D	C	D	D	D	D	C	C	C	C	B	C
	BSB SB	3734	3735	C	C	C	C	C	C	D	D	D	D	D	D	D	D	D	D	C	C	C	B
	SB BSB to Covington and I-75S	22161	36315	B	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	B
	SB BSB to I-75S	20508	36620	C	C	C	C	C	C	D	D	C	D	D	D	D	D	D	C	C	C	C	C
	SB CD at Kyles	22184	36323	A	A	A	A	A	A	A	A	A	B	B	B	A	A	B	A	B	A	A	A
	SB CD btw Kyles and Dixie	22185	36385	B	B	C	B	B	B	C	C	C	C	C	C	C	C	C	C	B	B	B	B
	SB CD Kyles to I-75S	22187	36326	A	A	A	A	A	A	A	A	A	B	A	A	A	A	B	A	A	A	A	B

PM Density

Mainline	Link Name	Link ID	Segment ID	PM Range	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
I-75 N	Mainline South of Dixie Hwy	22493	#N/A	23 - 34	23	23	26	27	27	28	30	30	31	32	33	33	34	34	32	28	26	23	21	20
	Mainline btw Dixie and Kyles	2164	2497	23 - 33	23	24	26	27	28	29	29	30	31	31	32	32	33	33	32	28	27	24	23	21
	Mainline North of Kyles CD	22143	36302	20 - 32	20	21	24	24	27	26	26	26	28	28	30	31	32	31	26	27	23	20	20	17
	Mainline North of Kyles Ramp	21441	36697	19 - 27	19	20	21	22	23	23	24	25	25	25	26	27	27	27	26	23	21	20	19	17
	Mainline North of 12th CD exit	22145	1855	17 - 24	17	18	19	19	21	21	22	22	22	23	23	24	24	24	24	22	20	17	17	16
	Companion Bridge	22335	36428	14 - 21	15	14	16	17	14	17	17	18	17	19	19	21	20	21	21	17	14	16	15	12
	Mainline North of Companion Bridge	22191	36509	16 - 22	16	16	17	18	19	19	19	20	21	20	21	21	22	21	21	20	19	16	15	14
	Mainline North of US-50	22236	36560	16 - 24	17	16	18	18	19	19	20	22	21	21	21	23	24	22	24	20	19	18	16	15
	Mainline North of Freeman Ave	3707	36562	22 - 36	22	23	27	27	27	29	29	29	31	33	32	33	34	36	33	30	27	23	23	22
	Mainline North of Ezzard Charles	22204	36565	22 - 32	24	22	26	26	27	27	28	30	30	29	29	32	30	32	32	27	26	26	26	21
	Mainline at WHV	22209	36570	24 - 35	24	24	26	28	29	29	30	31	32	32	32	33	35	35	35	30	28	26	26	22
	Mainline North of WHV	22417	#N/A	27 - 43	27	27	31	32	33	34	34	36	37	37	38	39	43	43	41	35	31	29	26	26
					22.03	23.01	24.11	24.76	25.44	26.10	26.71	27.31	27.94	28.60	29.21	29.42	28.53	26.89	24.80	22.74	20.98			

Mainline	Link Name	Link ID		PM Range	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
I-75 S	Mainline North of WHV	20480	3666	17 - 24	17	18	18	19	20	21	20	22	24	22	24	24	24	24	24	24	19	18	16	15
	Mainline at WHV	22213	3681	20 - 27	20	21	22	25	23	23	27	26	26	25	26	26	27	27	26	26	23	22	19	15
	Mainline North of Ezzard Charles	3682	3683	16 - 22	16	16	17	19	18	19	20	20	19	20	20	21	21	22	20	20	18	16	14	13
	Mainline at Ezzard Charles	22216	36345	11 - 20	11	13	15	13	17	15	18	15	20	18	20	20	18	20	20	17	15	14	16	9
	Mainline North of US-50/6th	22217	3711	17 - 24	18	17	19	20	20	20	21	23	21	22	23	23	23	24	23	23	18	19	16	15
	Mainline North of Companion Bridge	22231	36512	10 - 16	10	11	12	11	13	13	13	13	15	15	15	15	14	14	15	16	12	10	11	9
	Companion Bridge	1866	36712	15 - 18	15	15	16	17	18	17	17	17	17	18	18	18	18	17	18	18	16	16	15	14
	Mainline North of Bullock Ramp/12th	22168	36604	18 - 24	18	19	21	21	22	22	22	22	23	23	23	23	24	24	24	22	20	19	19	18
	Mainline South of Bullock Ramp/12th	22176	36698	27 - 44	27	28	32	33	35	34	32	35	36	39	38	40	44	42	42	41	32	28	27	24
	Mainline btw Dixie and Kyles	21440	2488	22 - 28	22	22	23	24	26	26	25	26	27	27	27	28	27	28	28	27	25	23	22	21
	Mainline at Dixie Hwy	22186	36720	20 - 27	20	21	23	25	23	24	22	22	24	24	27	25	25	26	26	25	25	18	19	18
	Mainline South of Dixie Hwy	22301	36725	21 - 27	21	21	23	24	25	25	25	25	25	26	26	26	27	27	27	27	25	22	21	20

				PM Volume																			
Mainline	**Link Name**	**Link ID**	**Segment ID**	**PM Total**	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
I-75 N	Mainline South of Dixie Hwy	22493	36721	30840	1300	1348	1429	1501	1554	1557	1590	1637	1675	1688	1735	1752	1821	1804	1702	1554	1459	1341	1247	1146
	Mainline btw Dixie and Kyles	2164	2497	26833	1132	1167	1239	1309	1348	1359	1385	1416	1470	1462	1508	1523	1578	1576	1485	1348	1272	1172	1085	999
	Mainline North of Kyles CD	22143	36302	29140	1236	1252	1354	1402	1445	1477	1498	1556	1589	1593	1620	1685	1673	1702	1622	1489	1382	1277	1194	1094
	Mainline North of Kyles Ramp	21441	36697	32085	1352	1380	1493	1539	1603	1629	1674	1704	1734	1764	1788	1870	1841	1870	1814	1645	1515	1389	1329	1152
	Mainline North of 12th CD exit	22145	1855	21783	910	944	987	1043	1075	1101	1119	1157	1154	1186	1229	1259	1267	1266	1237	1123	1042	954	888	842
	Companion Bridge	22335	36428	21792	921	924	1003	1041	1071	1097	1105	1163	1173	1179	1203	1264	1277	1261	1240	1155	1036	948	910	821
	Mainline North of Companion Bridge	22191	36509	13015	552	541	601	625	636	645	666	695	705	690	730	747	767	749	756	680	620	558	555	497
	Mainline North of US-50	22236	36560	14323	619	605	659	696	696	719	719	760	767	768	800	821	834	832	829	740	697	629	594	539
	Mainline North of Freeman Ave	3707	36562	34362	1465	1482	1601	1677	1719	1705	1791	1782	1842	1848	1851	1879	1925	1929	1934	1777	1672	1572	1515	1396
	Mainline North of Ezzard Charles	22204	36565	34361	1462	1485	1596	1678	1715	1711	1794	1781	1839	1841	1848	1883	1925	1922	1943	1786	1672	1563	1518	1399
	Mainline at WHV	22209	36570	34711	1490	1493	1598	1679	1737	1749	1782	1817	1856	1878	1886	1886	1976	1969	1950	1813	1671	1594	1492	1395
	Mainline North of WHV	22417	36574	39564	1699	1694	1844	1906	1968	1996	2028	2078	2121	2125	2163	2169	2245	2260	2229	2041	1912	1813	1702	1571

Mainline	**Link Name**	**Link ID**		**PM Total**	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
I-75 S	Mainline North of WHV	20480	3666	32644	1386	1428	1512	1588	1629	1653	1731	1724	1796	1778	1842	1829	1852	1849	1834	1792	1524	1418	1329	1150
	Mainline at WHV	22213	3681	28853	1220	1263	1329	1401	1438	1465	1516	1530	1582	1572	1625	1614	1635	1644	1614	1587	1344	1256	1182	1036
	Mainline North of Ezzard Charles	3682	3683	26776	1143	1155	1254	1298	1321	1357	1396	1431	1451	1461	1495	1520	1506	1537	1500	1480	1232	1167	1092	980
	Mainline at Ezzard Charles	22216	36345	24895	1059	1062	1157	1211	1246	1233	1302	1331	1357	1344	1402	1410	1405	1419	1403	1378	1129	1115	1018	914
	Mainline North of US-50/6th	22217	3711	15837	667	680	738	763	789	787	835	850	860	863	894	906	894	901	896	895	722	707	648	542
	Mainline North of Companion Bridge	22231	36512	9461	407	401	441	446	467	479	479	526	500	513	530	539	528	538	535	539	446	422	387	338
	Companion Bridge	1866	36712	20746	934	957	1020	1053	1075	1041	1038	1075	1045	1084	1103	1079	1108	1075	1111	1095	1024	980	945	904
	Mainline North of Bullock Ramp/12th	22168	36604	33500	1475	1525	1606	1673	1699	1694	1682	1772	1736	1794	1783	1796	1853	1811	1820	1768	1603	1560	1479	1371
	Mainline South of Bullock Ramp/12th	22176	36698	38726	1700	1775	1839	1918	1982	1965	1930	2025	2023	2097	2072	2092	2130	2133	2083	2063	1903	1777	1707	1512
	Mainline btw Dixie and Kyles	21440	2488	32356	1415	1449	1526	1576	1658	1673	1591	1686	1703	1720	1722	1754	1741	1795	1771	1727	1636	1487	1437	1289
	Mainline at Dixie Hwy	22186	36720	34388	1518	1531	1609	1678	1748	1783	1698	1796	1779	1823	1832	1842	1878	1866	1870	1847	1746	1579	1537	1428
	Mainline South of Dixie Hwy	22301	36725	36750	1610	1608	1740	1795	1852	1878	1860	1927	1876	1957	1982	1954	2019	2020	2005	1966	1859	1681	1653	1508

Mainline	**Link Name**	**Link ID**		**PM Total**	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
I-71	1-71N off Companion Bridge	22190	36244	8782	367	379	404	420	430	434	456	462	472	482	487	505	509	507	503	463	416	383	369	334
	I-71N after BSB merge	22195	36327	12228	519	531	557	610	604	614	629	635	647	664	662	692	684	688	678	630	597	554	537	496
	I-71N after BSB merge	3550	3551	26506	1121	1166	1209	1299	1317	1340	1375	1391	1419	1433	1489	1505	1504	1510	1470	1378	1274	1174	1105	1027
	I-71S	3547	3548	30217	1376	1444	1523	1593	1601	1530	1516	1532	1505	1537	1494	1467	1513	1526	1548	1521	1538	1504	1524	1425
	I-71S btw BSB and Companion ramps	22336	36728	13731	647	674	703	738	736	692	671	678	667	692	678	663	701	668	692	696	693	671	689	682
	I-71S before Companion Bridge	22337	36989	11299	536	553	582	604	615	565	554	554	549	572	553	553	571	547	569	566	567	562	558	569

Road Type	**Link Name**	**Link ID**		**PM Total**	2:00 PM	2:15 PM	2:30 PM	2:45 PM	3:00 PM	3:15 PM	3:30 PM	3:45 PM	4:00 PM	4:15 PM	4:30 PM	4:45 PM	5:00 PM	5:15 PM	5:30 PM	5:45 PM	6:00 PM	6:15 PM	6:30 PM	6:45 PM
ibutor/System Ramps	NB btw Dixie Ramps	22140	36301	1866	79	88	85	91	96	91	97	102	97	102	106	108	112	102	107	93	90	79	72	69
	NB North of Dixie Entrance Ramp	22142	36225	4277	185	194	199	211	212	209	229	231	222	233	252	247	250	242	243	216	195	191	169	147
	NB Entrance Ramp from Dixie CD	22144	36303	2287	103	92	110	115	113	113	121	121	124	118	140	131	135	131	126	114	103	97	96	84
	NB Exit to 12th CD	22147	36605	10398	436	447	488	504	529	519	538	554	558	562	573	607	586	596	571	555	486	458	421	410
	12th Ramp to 5th Ramp	22148	36594	7795	320	333	366	374	403	389	411	412	422	421	426	452	440	454	425	414	371	336	317	309
	5th Ramp to BSB	22149	36612	5920	238	249	265	300	301	288	311	322	306	321	325	352	330	342	339	305	280	262	241	243
	9th to Local 5th Ramp	22154	36310	4281	190	191	203	212	224	206	231	229	230	235	240	244	247	225	247	214	204	183	165	161
	Local 5th Ramp to BSB	22155	36311	3844	176	168	183	191	200	182	209	208	203	216	216	221	216	204	221	191	184	167	147	141
	Approach to BSB Lower level	22156	36614	9762	413	421	449	490	496	470	522	532	509	538	539	572	545	551	558	498	455	438	387	379
	BSB Lower Level	21389	3740	12885	563	571	594	651	655	645	656	673	683	681	696	716	688	699	707	643	625	605	572	562
	From BSB to I-71N and 2nd	3738	3739	5664	250	249	261	290	290	283	292	294	293	297	301	309	304	306	301	281	288	275	251	249
	From BSB to I-71N merge	22193	3741	3440	148	157	158	180	180	178	177	169	177	180	178	181	177	182	174	168	182	171	160	163
	From I-71S to US-50 & I-75N	3552	36522	16531	728	770	802	838	849	820	849	855	839	828	821	804	833	872	838	828	843	831	837	846
	From I-71S to US-50	3556	3557	7379	336	349	367	386	388	367	371	381	370	370	366	360	363	394	369	363	376	369	367	367
	From BSB to US-50	3559	36246	2093	90	101	100	100	110	104	109	120	113	122	112	118	111	107	118	106	95	87	86	84
	US-50 WB	3747	36157	13317	585	602	639	673	688	658	679	688	688	692	695	697	704	728	713	673	659	640	628	588
	CD from I-71S to I-75N	3557	36547	9140	393	420	435	452	462	452	477	475	470	457	455	444	471	478	467	466	469	460	471	466
	CD to I-75N after 4th Ramp	3712	10729	6718	281	307	320	324	347	344	349	363	369	377	369	375	378	382	370	347	308	283	277	248

Collector-Distri	From BSB to I-75N and 5th	3739	36675	7221	313	322	332	362	364	363	365	376	391	386	394	406	386	391	407	363	335	331	321	313
	From BSB to Winchell CD	22197	10737	3695	152	160	172	186	180	185	190	180	195	197	196	205	196	207	211	182	180	185	176	160
	NB Winchell CD	7034	10731	21324	916	947	1009	1054	1082	1056	1119	1126	1143	1135	1125	1141	1165	1159	1154	1116	1029	973	976	899
	NB CD to Ezzard Charles	22202	36552	20040	861	883	947	989	1016	992	1042	1055	1067	1079	1050	1070	1099	1101	1078	1046	971	925	913	856
	SB CD I-75S split at Ezzard Charles	3718	36635	9015	386	388	418	450	445	450	472	483	494	479	507	507	511	518	501	492	403	405	371	335
	SB CD after Western ramp	22220	36347	10279	447	439	485	491	515	510	532	545	558	547	579	581	578	588	577	556	477	470	413	391
	SB CD after 2nd St exit	3750	3751	2790	121	126	131	128	136	136	143	154	138	150	161	156	154	170	152	156	132	136	110	100
	US-50 EB	10392	3556	10636	449	475	498	520	539	541	559	571	583	577	611	607	631	615	579	532	486	454	424	385
	US-50 EB to SB BSB	3725	3726	3815	163	178	183	189	186	196	206	204	207	206	218	215	221	221	205	182	175	168	150	142
	SB CD btw US-50 and I-71S Ramps	22233	36355	11000	478	488	511	534	552	558	564	595	589	589	624	631	640	643	598	558	520	496	429	403
	BSB SB	3734	3735	18567	801	849	879	908	935	944	950	990	987	996	1030	1029	1060	1064	1007	939	878	847	766	708
	SB BSB to Covington and I-75S	22161	36315	15804	673	718	748	761	787	805	808	851	848	842	886	892	907	906	864	810	738	721	643	596
	SB BSB to I-75S	20508	36620	12750	539	576	602	615	633	648	656	680	701	687	707	728	739	742	700	653	586	569	514	475
	SB CD at Kyles	22184	36323	2181	97	99	109	104	99	106	118	104	117	122	117	124	113	124	117	118	117	92	100	84
	SB CD btw Kyles and Dixie	22185	36385	4319	192	195	212	208	197	226	221	219	229	235	227	233	227	243	226	242	215	195	196	181
	SB CD Kyles to I-75S	22187	36326	1962	93	85	93	102	91	106	98	100	105	106	98	100	105	102	107	109	95	90	93	84

APPENDIX F – TNM OUTPUT

TNM RESULTS: EXISTING ALIGNMENT

HMB Professional Engineers
Mark Gavula

7 September 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: Existing NSA A
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
A00104	1	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
A00216-F	3	16	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0
A00316-F	4	16	0.0	74.3	66	74.3	10	Snd Lvl	74.3	0.0	8	-8.0
A00416-F	5	16	0.0	74.3	66	74.3	10	Snd Lvl	74.3	0.0	8	-8.0
A00516-F	6	16	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
A00616-F	7	16	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
A00716-F	8	16	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
A00816-F	9	16	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
A00916-F	10	16	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
A01016-F	11	16	0.0	74.3	66	74.3	10	Snd Lvl	74.3	0.0	8	-8.0
A01116-F	12	16	0.0	74.3	66	74.3	10	Snd Lvl	74.3	0.0	8	-8.0
A01216-F	13	16	0.0	74.2	66	74.2	10	Snd Lvl	74.2	0.0	8	-8.0
A01316-F	14	16	0.0	74.2	66	74.2	10	Snd Lvl	74.2	0.0	8	-8.0
A01416-F	15	16	0.0	74.1	66	74.1	10	Snd Lvl	74.1	0.0	8	-8.0
A01516-F	16	16	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0
A01616-F	17	16	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	241	0.0	0.0	0.0
All Impacted	241	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

7 September 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: Existing NSA B
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
B00117-F	1	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
B00204	3	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
B00304	4	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
B00401-F	5	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
B00501-F	6	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
B00601-F	7	1	0.0	67.3	66	67.3	10	Snd Lvl	67.3	0.0	8	-8.0
B00701-F	8	1	0.0	67.3	66	67.3	10	Snd Lvl	67.3	0.0	8	-8.0
B00801-F	9	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
B00901-F	10	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
B01001-F	11	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
B01101-F	12	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
B01201-F	13	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
B01301-F	14	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
B01401	15	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
B01501	16	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
B01601	17	2	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
B01701	18	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
B01801	19	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
B01901	20	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
B02002	21	2	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
B02102	23	2	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
B02202	24	2	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
B02302	25	2	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
B02401	26	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0

B02502	27	2	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
B02602	28	2	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
B02702	29	2	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
B02802	30	2	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
B02902	31	2	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
B03002	32	2	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
B03101	33	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
B03201	34	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
B03301	35	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
B03401	36	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
B03501-F	37	4	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
B03601-F	38	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
B03702-F	39	2	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
B03801-F	40	1	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
B03901-F	41	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
B04004-F	42	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
B04104-F	43	2	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
B04225-F	44	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
B04302	45	2	0.0	56.3	66	56.3	10	----	56.3	0.0	8	-8.0
B04402	46	2	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
B04502	47	2	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
B04602	48	2	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
B04701	49	1	0.0	58.3	66	58.3	10	----	58.3	0.0	8	-8.0
B04801	50	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
B04901	51	1	0.0	58.1	66	58.1	10	----	58.1	0.0	8	-8.0
B05001	52	1	0.0	58.7	66	58.7	10	----	58.7	0.0	8	-8.0
B05102	53	2	0.0	58.6	66	58.6	10	----	58.6	0.0	8	-8.0
B05202	54	2	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
B05302	55	2	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
B05404	56	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
B05502	57	2	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
B05602	58	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
B05704	59	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
B05802	60	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
B05903	61	2	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
B06002	62	2	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
B06104	63	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
B06204	64	2	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
B06302	65	2	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
B06402	66	2	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
B06501	67	1	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0

B06602	68	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
B06705	69	2	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0
B06802	70	2	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
B06901	71	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
B07006	72	2	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
B07103	73	3	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
B07202	76	2	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
B07302	77	2	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
B07402	78	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
B07502	79	2	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
B07601	80	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
B07701-F	81	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
B07801-F	82	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
B07901-F	83	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
B08001-F	84	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
B08101-F	85	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
B08201-F	86	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0
B08301-F	87	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0
B08401-F	88	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
B08501-F	89	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
B08601-F	90	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
B08701-F	91	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
B08801-F	92	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
B08901-F	93	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
B09001-F	94	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
B09101	95	1	0.0	68.5	66	68.5	10	Snd Lvl	68.5	0.0	8	-8.0
B09201	96	1	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0
B09302	97	2	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
B09402	8	2	0.0	58.6	66	58.6	10	----	58.6	0.0	8	-8.0
B09502	99	2	0.0	58.8	66	58.8	10	----	58.8	0.0	8	-8.0
B09602	100	2	0.0	58.9	66	58.9	10	----	58.9	0.0	8	-8.0
B09702	101	2	0.0	57.9	66	57.9	10	----	57.9	0.0	8	-8.0
B09801	102	1	0.0	57.2	66	57.2	10	----	57.2	0.0	8	-8.0
B22302	103	2	0.0	57.8	66	57.8	10	----	57.8	0.0	8	-8.0
B09901	104	1	0.0	57.9	66	57.9	10	----	57.9	0.0	8	-8.0
B10001	105	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
B10101	106	1	0.0	57.7	66	57.7	10	----	57.7	0.0	8	-8.0
B10201	107	1	0.0	58.1	66	58.1	10	----	58.1	0.0	8	-8.0
B10301	108	1	0.0	58.6	66	58.6	10	----	58.6	0.0	8	-8.0
B10405	109	1	0.0	58.5	66	58.5	10	----	58.5	0.0	8	-8.0
B10502	110	2	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0

B10601	111	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
B10701	112	1	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
B10801	113	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
B10901	114	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
B11004	115	4	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0
B11102	116	2	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
B11201	117	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
B11301	118	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
B11401	119	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
B11502	120	2	0.0	59.7	66	59.7	10	----	59.7	0.0	8	-8.0
B11601	121	1	0.0	57.1	66	57.1	10	----	57.1	0.0	8	-8.0
B11701	122	1	0.0	57.7	66	57.7	10	----	57.7	0.0	8	-8.0
B11801	123	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
B11901	124	1	0.0	58.7	66	58.7	10	----	58.7	0.0	8	-8.0
B12001	125	1	0.0	58.8	66	58.8	10	----	58.8	0.0	8	-8.0
B12101	126	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
B12201	127	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
B12301	128	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
B12401	129	1	0.0	59.5	66	59.5	10	----	59.5	0.0	8	-8.0
B12501	130	1	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0
B12601	131	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
B12701	132	1	0.0	58.9	66	58.9	10	----	58.9	0.0	8	-8.0
B12801	133	1	0.0	59.5	66	59.5	10	----	59.5	0.0	8	-8.0
B12901	134	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
B13001	135	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
B13101	136	1	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
B13201	137	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
B13301	138	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
B13401	139	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
B13501	140	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
B13602	141	2	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
B13702	142	2	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
B13802	143	2	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
B13902	144	2	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
B14001	145	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
B22402	146	2	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
B14102	147	2	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
B14210	148	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
B14301	149	1	0.0	56.7	66	56.7	10	----	56.7	0.0	8	-8.0
B14401	150	1	0.0	56.6	66	56.6	10	----	56.6	0.0	8	-8.0
B14501	151	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0

B14601	152	1	0.0	58.2	66	58.2	10	----	58.2	0.0	8	-8.0
B14701	153	1	0.0	57.3	66	57.3	10	----	57.3	0.0	8	-8.0
B14801	154	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
B15002	155	2	0.0	58.8	66	58.8	10	----	58.8	0.0	8	-8.0
B15102	156	2	0.0	58.7	66	58.7	10	----	58.7	0.0	8	-8.0
B15202	157	2	0.0	58.6	66	58.6	10	----	58.6	0.0	8	-8.0
B15301	158	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0
B15401	159	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
B15501	160	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
B15601	161	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
B15701	162	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
B15801	163	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
B15901	164	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
B16001	165	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
B16101	166	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
B16202	167	2	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0
B16301	168	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
B16401	169	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
B22502	170	2	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
B16501	171	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
B16601	172	1	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
B16701	173	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
B22201	174	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
B16801	175	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
B16904	176	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
B17001	177	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
B17101	178	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
B17201	179	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
B17302	180	2	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
B17403	181	3	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
B17501	182	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
B17601	183	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
B17701	184	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
B17801	185	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
B17901	186	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
B18001	187	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
B18101	188	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
B18201	189	1	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
B18301	190	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
B18401	191	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
B18501	192	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0

B18601	193	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
B18701	194	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
B18801	195	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
B18901	196	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
B19001	197	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
B19101	198	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
B19201	199	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
B19301	200	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
B19402	201	2	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
B19502	202	2	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
B19602	203	2	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
B19702	204	2	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
B19801	205	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
B19901	206	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0
B20002	207	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
B20104	208	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
B20201	209	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
B20301	210	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
B20401	211	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
B20506	212	2	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
B20602	213	2	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
B20701	214	2	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
B20801	215	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
B20902	216	2	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
B21002	217	2	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
B21102	218	2	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
B21202	219	2	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
B21303	220	3	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
B21401	221	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
B21502	222	2	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
B21602	223	2	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
B21701	224	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
B21801	226	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
B21901	227	1	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
B22003	228	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
B22104	229	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	302	0.0	0.0	0.0
All Impacted	49	0.0	0.0	0.0

All that meet NR Goal		0	0.0	0.0	0.0							

HMB Professional Engineers
Mark Gavula

7 September 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: Existing NSA C
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
C00101-F	1	1	0.0	72.2	66	72.2	10	Snd Lvl	72.2	0.0	8	-8.0
C00201	3	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
C00302	4	2	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
C00401	5	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
C00501	6	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
C00601-F	7	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
C00701	8	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
C00801	9	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
C00901	10	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0
C01001	11	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
C01201-F	12	1	0.0	73.7	66	73.7	10	Snd Lvl	73.7	0.0	8	-8.0
C01301	13	1	0.0	73.1	66	73.1	10	Snd Lvl	73.1	0.0	8	-8.0
C01401	14	1	0.0	72.2	66	72.2	10	Snd Lvl	72.2	0.0	8	-8.0
C01501	15	1	0.0	71.9	66	71.9	10	Snd Lvl	71.9	0.0	8	-8.0
C01601	16	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
C01701	17	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
C01801-F	18	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
C01901-V	19	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
C02001	20	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
C02101	21	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
C02201-F	22	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
C02302	23	2	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
C02402	24	2	0.0	68.5	66	68.5	10	Snd Lvl	68.5	0.0	8	-8.0
C02501-F	25	1	0.0	69.1	66	69.1	10	Snd Lvl	69.1	0.0	8	-8.0

C02601	26	1	0.0	68.4	66	68.4	10	Snd Lvl	68.4	0.0	8	-8.0
C02701	27	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
C02801	28	1	0.0	68.7	66	68.7	10	Snd Lvl	68.7	0.0	8	-8.0
C02901	29	1	0.0	68.7	66	68.7	10	Snd Lvl	68.7	0.0	8	-8.0
C03001	30	1	0.0	68.7	66	68.7	10	Snd Lvl	68.7	0.0	8	-8.0
C03101	31	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
C03201	32	1	0.0	68.4	66	68.4	10	Snd Lvl	68.4	0.0	8	-8.0
C03301	33	1	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0
C03401	34	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
C03502	35	2	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
C03602	36	2	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
C03701	37	1	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
C03802	38	2	0.0	61.7	66	61.7	10	----	61.7	0.0	8	-8.0
C03902	39	2	0.0	60.9	66	60.9	10	----	60.9	0.0	8	-8.0
C04001	40	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
C04101	41	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
C04201	42	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
C04301	43	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
C04401-F	44	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
C04501-F	45	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
C04601-F	46	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
C04701-F	47	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
C04801-F	48	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
C04901	49	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
C05001	50	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
C05101	51	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
C05201	52	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
C05301	53	1	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
C05401	54	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
C05501	55	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
C05601	56	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
C05701	57	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
C05801	58	1	0.0	60.9	66	60.9	10	----	60.9	0.0	8	-8.0
C05901	59	1	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
C06001	60	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
C06101	61	1	0.0	54.2	66	54.2	10	----	54.2	0.0	8	-8.0
C06201	62	1	0.0	54.5	66	54.5	10	----	54.5	0.0	8	-8.0
C06301	63	1	0.0	54.3	66	54.3	10	----	54.3	0.0	8	-8.0
C06401	64	1	0.0	54.0	66	54.0	10	----	54.0	0.0	8	-8.0
C06501	65	1	0.0	51.5	66	51.5	10	----	51.5	0.0	8	-8.0
C06601	66	1	0.0	56.5	66	56.5	10	----	56.5	0.0	8	-8.0

C06701	67	1	0.0	57.2	66	57.2	10	----	57.2	0.0	8	-8.0
C06801	68	1	0.0	57.9	66	57.9	10	----	57.9	0.0	8	-8.0
C06901	69	1	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
C07001-F	70	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
C07101-F	71	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
C07223-F	72	23	0.0	59.0	66	59.0	10	----	59.0	0.0	8	-8.0
C07324-F	73	24	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
C07424-F	74	24	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
C07524	75	24	0.0	54.5	66	54.5	10	----	54.5	0.0	8	-8.0
C07624	76	24	0.0	53.6	66	53.6	10	----	53.6	0.0	8	-8.0
C07701	77	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
C07801	78	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
C07901	79	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
C08001	80	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
C08101	81	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
C08201	82	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
C08301	83	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
C08401	84	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
C08501-F	86	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
C08601	87	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
C08701	88	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
C08801	89	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
C08901	90	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
C09001	91	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
C09102	92	2	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
C09202	93	2	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0
C09302	94	2	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
C09401	95	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
C09501	96	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0
C09601	97	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
C09701	98	1	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0
C09801	99	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
C09901	100	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
C10004	101	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
C10101	102	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	224	0.0	0.0	0.0
All Impacted	45	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

7 September 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: Existing NSA D
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
D00101	1	1	0.0	48.9	66	48.9	10	----	48.9	0.0	7	-7.0
D00201	3	1	0.0	51.1	66	51.1	10	----	51.1	0.0	7	-7.0
D00301	4	1	0.0	51.2	66	51.2	10	----	51.2	0.0	7	-7.0
D00401	5	1	0.0	51.7	66	51.7	10	----	51.7	0.0	7	-7.0
D00501	6	1	0.0	52.0	66	52.0	10	----	52.0	0.0	7	-7.0
D00601	7	1	0.0	52.6	66	52.6	10	----	52.6	0.0	7	-7.0
D00701	8	1	0.0	53.1	66	53.1	10	----	53.1	0.0	7	-7.0
D00801	9	1	0.0	53.8	66	53.8	10	----	53.8	0.0	7	-7.0
D00901	10	1	0.0	54.8	66	54.8	10	----	54.8	0.0	7	-7.0
D01001	11	1	0.0	55.1	66	55.1	10	----	55.1	0.0	7	-7.0
D01110-F	12	1	0.0	54.5	66	54.5	10	----	54.5	0.0	7	-7.0
D01201	13	1	0.0	52.7	66	52.7	10	----	52.7	0.0	7	-7.0
D01301	14	1	0.0	52.5	66	52.5	10	----	52.5	0.0	7	-7.0
D01401	15	1	0.0	52.6	66	52.6	10	----	52.6	0.0	7	-7.0
D01501	16	1	0.0	52.8	66	52.8	10	----	52.8	0.0	7	-7.0
D01601	17	1	0.0	53.4	66	53.4	10	----	53.4	0.0	7	-7.0
D01701	18	1	0.0	53.8	66	53.8	10	----	53.8	0.0	7	-7.0
D01801	19	1	0.0	54.0	66	54.0	10	----	54.0	0.0	7	-7.0
D01901	20	1	0.0	53.4	66	53.4	10	----	53.4	0.0	7	-7.0
D02001	21	1	0.0	54.0	66	54.0	10	----	54.0	0.0	7	-7.0
D02101	22	1	0.0	54.2	66	54.2	10	----	54.2	0.0	7	-7.0
D02201	23	1	0.0	55.4	66	55.4	10	----	55.4	0.0	7	-7.0
D02301	24	1	0.0	55.1	66	55.1	10	----	55.1	0.0	7	-7.0
D02401	25	1	0.0	55.3	66	55.3	10	----	55.3	0.0	7	-7.0

D02501	26	1	0.0	53.9	66	53.9	10	----	53.9	0.0	7	-7.0
D02601	27	1	0.0	53.8	66	53.8	10	----	53.8	0.0	7	-7.0
D02701	28	1	0.0	53.8	66	53.8	10	----	53.8	0.0	7	-7.0
D02801	29	1	0.0	54.0	66	54.0	10	----	54.0	0.0	7	-7.0
D02901	30	1	0.0	53.9	66	53.9	10	----	53.9	0.0	7	-7.0
D03001	31	1	0.0	54.1	66	54.1	10	----	54.1	0.0	7	-7.0
D03101	32	1	0.0	53.9	66	53.9	10	----	53.9	0.0	7	-7.0
D03201	33	1	0.0	53.8	66	53.8	10	----	53.8	0.0	7	-7.0
D03301	34	1	0.0	53.9	66	53.9	10	----	53.9	0.0	7	-7.0
D03401	35	1	0.0	53.5	66	53.5	10	----	53.5	0.0	7	-7.0
D03501	36	1	0.0	53.0	66	53.0	10	----	53.0	0.0	7	-7.0
D06801	37	1	0.0	52.6	66	52.6	10	----	52.6	0.0	7	-7.0
D03601	38	1	0.0	52.6	66	52.6	10	----	52.6	0.0	7	-7.0
D03701	39	1	0.0	52.7	66	52.7	10	----	52.7	0.0	7	-7.0
D03801	40	1	0.0	53.0	66	53.0	10	----	53.0	0.0	7	-7.0
D03912	41	12	0.0	52.6	66	52.6	10	----	52.6	0.0	7	-7.0
D04012	42	12	0.0	52.2	66	52.2	10	----	52.2	0.0	7	-7.0
D04101-F	43	1	0.0	56.6	66	56.6	10	----	56.6	0.0	7	-7.0
D04201-F	44	1	0.0	56.9	66	56.9	10	----	56.9	0.0	7	-7.0
D04301-F	45	1	0.0	56.3	66	56.3	10	----	56.3	0.0	7	-7.0
D04402-F	46	2	0.0	55.6	66	55.6	10	----	55.6	0.0	7	-7.0
D04501-F	47	1	0.0	53.3	66	53.3	10	----	53.3	0.0	7	-7.0
D04601	48	1	0.0	52.7	66	52.7	10	----	52.7	0.0	7	-7.0
D04701	49	1	0.0	52.9	66	52.9	10	----	52.9	0.0	7	-7.0
D04801-FV	50	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	7	-7.0
D05002	51	1	0.0	53.2	66	53.2	10	----	53.2	0.0	7	-7.0
D05112	52	12	0.0	54.0	66	54.0	10	----	54.0	0.0	7	-7.0
D05212	53	12	0.0	55.7	66	55.7	10	----	55.7	0.0	7	-7.0
D05312	54	12	0.0	57.1	66	57.1	10	----	57.1	0.0	7	-7.0
D05412-F	55	12	0.0	50.3	66	50.3	10	----	50.3	0.0	7	-7.0
D05512-F	56	12	0.0	47.0	66	47.0	10	----	47.0	0.0	7	-7.0
D05602-F	57	2	0.0	46.5	66	46.5	10	----	46.5	0.0	7	-7.0
D05702-F	58	2	0.0	46.4	66	46.4	10	----	46.4	0.0	7	-7.0
D05802-F	59	2	0.0	47.9	66	47.9	10	----	47.9	0.0	7	-7.0
D05902-F	60	2	0.0	52.3	66	52.3	10	----	52.3	0.0	7	-7.0
D06002-F	61	2	0.0	52.6	66	52.6	10	----	52.6	0.0	7	-7.0
D06102-F	62	2	0.0	53.3	66	53.3	10	----	53.3	0.0	7	-7.0
D06202	63	2	0.0	57.1	66	57.1	10	----	57.1	0.0	7	-7.0
D06302	64	2	0.0	57.0	66	57.0	10	----	57.0	0.0	7	-7.0
D06402	65	2	0.0	58.8	66	58.8	10	----	58.8	0.0	7	-7.0
D06502	66	2	0.0	58.0	66	58.0	10	----	58.0	0.0	7	-7.0

D06602	67	2	0.0	56.8	66	56.8	10	----	56.8	0.0	7	-7.0
D06702	68	2	0.0	57.3	66	57.3	10	----	57.3	0.0	7	-7.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	157	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
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7 September 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: Existing NSA E
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E00101-F	1	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
E00201	3	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
E00301	4	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
E00401	5	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
E00501	6	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
E00601	7	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
E00701	8	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
E00801	9	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
E00901	10	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
E01001	11	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
E01101	12	1	0.0	57.9	66	57.9	10	----	57.9	0.0	8	-8.0
E01201	13	1	0.0	57.9	66	57.9	10	----	57.9	0.0	8	-8.0
E01301	14	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
E01401	15	1	0.0	57.8	66	57.8	10	----	57.8	0.0	8	-8.0
E01501	16	1	0.0	57.8	66	57.8	10	----	57.8	0.0	8	-8.0
E01601	17	1	0.0	58.4	66	58.4	10	----	58.4	0.0	8	-8.0
E01701	18	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
E01801	19	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
E01901	20	1	0.0	57.9	66	57.9	10	----	57.9	0.0	8	-8.0
E02001	21	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
E02101	23	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
E02201	24	1	0.0	61.2	66	61.2	10	----	61.2	0.0	8	-8.0
E02301	25	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
E02401	26	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0

E02501	27	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
E02601	28	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
E02701	29	1	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
E02801	30	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
E02901	31	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
E03001	32	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
E03101	33	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
E03201	34	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
E03401	35	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
E03501	36	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
E03601	37	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
E03701	38	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
E03801	39	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
E03901	40	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
E04001	41	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
E04101	42	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
E04201	43	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
E04301	44	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
E04401	45	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
E04501	46	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
E04601	47	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
E04701	48	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
E07201	49	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
E04801	50	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
E04901	51	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
E05002	52	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0
E05102	53	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0
E05202	54	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
E05302	55	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
E05402	56	1	0.0	68.7	66	68.7	10	Snd Lvl	68.7	0.0	8	-8.0
E05502	57	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
E05602	58	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
E05701	59	1	0.0	69.1	66	69.1	10	Snd Lvl	69.1	0.0	8	-8.0
E05801	60	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
E05901	61	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
E06001	62	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
E06101	63	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
E06201	64	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
E06301	65	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
E06401-F	66	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
E06501-F	67	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0

E06601-F	68	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
E06701-F	69	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
E06801-F	70	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
E06901-F	71	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
E07001-F	72	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
E07101-F	73	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	71	0.0	0.0	0.0
All Impacted	36	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

7 September 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: Existing NSA F
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F00102-F	1	1	0.0	71.7	66	71.7	10	Snd Lvl	71.7	0.0	8	-8.0
F00201-F	3	1	0.0	71.5	66	71.5	10	Snd Lvl	71.5	0.0	8	-8.0
F00301-F	4	1	0.0	71.7	66	71.7	10	Snd Lvl	71.7	0.0	8	-8.0
F00401-F	5	1	0.0	71.5	66	71.5	10	Snd Lvl	71.5	0.0	8	-8.0
F00501-F	6	1	0.0	71.6	66	71.6	10	Snd Lvl	71.6	0.0	8	-8.0
F00601-F	7	1	0.0	71.2	66	71.2	10	Snd Lvl	71.1	0.1	8	-7.9
F00701-F	8	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
F00804-F	9	1	0.0	72.8	66	72.8	10	Snd Lvl	72.8	0.0	8	-8.0
F00904	10	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
F01002-F	11	1	0.0	75.6	66	75.6	10	Snd Lvl	75.6	0.0	8	-8.0
F01101-F	12	1	0.0	74.7	66	74.7	10	Snd Lvl	74.7	0.0	8	-8.0
F01201-F	13	1	0.0	74.7	66	74.7	10	Snd Lvl	74.7	0.0	8	-8.0
F01302-F	14	1	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
F01401-F	15	1	0.0	73.8	66	73.8	10	Snd Lvl	73.8	0.0	8	-8.0
F01501-F	16	1	0.0	73.6	66	73.6	10	Snd Lvl	73.6	0.0	8	-8.0
F01601-F	17	1	0.0	73.4	66	73.4	10	Snd Lvl	73.4	0.0	8	-8.0
F01701-F	18	1	0.0	73.1	66	73.1	10	Snd Lvl	73.1	0.0	8	-8.0
F01801-F	19	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
F01901-F	20	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
F02001-F	21	1	0.0	70.8	66	70.8	10	Snd Lvl	70.7	0.1	8	-7.9
F02101-F	23	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
F02201-F	24	1	0.0	68.7	66	68.7	10	Snd Lvl	68.6	0.1	8	-7.9
F02301-F	25	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
F02401-F	26	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0

F02502-F	27	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
F02601-F	28	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
F02701-F	29	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0
F02801-F	30	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
F02901-F	31	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
F03001-F	32	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
F03101-F	33	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0
F03201-F	34	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
F03301-F	35	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
F03401	36	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
F03501	37	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
F03601	38	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
F03701	39	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0
F03801	40	1	0.0	68.5	66	68.5	10	Snd Lvl	68.5	0.0	8	-8.0
F03901	41	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
F04001	42	1	0.0	68.2	66	68.2	10	Snd Lvl	68.2	0.0	8	-8.0
F04102	43	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
F04201	44	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
F04301	45	1	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0
F04401	46	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
F04501	47	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
F04601	48	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
F04701	49	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
F04801	50	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
F04901	51	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
F05001	52	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
F05101	53	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
F05201	54	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
F05301	55	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
F05401	56	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
F05501	57	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
F05601	58	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
F05801	59	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
F05901	60	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
F06001	61	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
F06102	62	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
F06201	63	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
F06301	64	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
F06401	65	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
F06501	66	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
F06601	67	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0

F06701	68	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0
F06801	69	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0
F06901	70	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0
F07001	71	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0
F07103-F	8	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
F07201	73	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
F07301	75	1	0.0	68.2	66	68.2	10	Snd Lvl	68.2	0.0	8	-8.0
F07401	76	1	0.0	68.1	66	68.1	10	Snd Lvl	68.1	0.0	8	-8.0
F07501	77	1	0.0	68.1	66	68.1	10	Snd Lvl	68.1	0.0	8	-8.0
F07602-F	78	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
F07701-F	79	1	0.0	68.7	66	68.7	10	Snd Lvl	68.7	0.0	8	-8.0
F07801-F	80	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
F07904-F	81	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
F08001	82	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
F08101	83	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
F08201	84	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
F08301	85	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
F08401	86	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
F31501	87	1	0.0	69.1	66	69.1	10	Snd Lvl	69.1	0.0	8	-8.0
F08501	88	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
F08601	89	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
F08702	90	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
F08801	91	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
F08901	92	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
F09001	94	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
F09102	95	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
F09201	96	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
F09301	97	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
F09401	98	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
F09501	99	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
F09601	100	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
F09701	101	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
F09804	102	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
F09901	103	1	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
F10001	104	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
F10101	105	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
F10202	106	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
F10301	107	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
F10402	108	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
F10512	109	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
F10601	110	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0

F10701	111	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
F10801	112	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
F10901	114	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
F11001	115	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
F11101	116	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
F11202	117	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
F11301	118	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
F11401	119	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
F11501	120	1	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
F11602	121	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
F11701	122	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
F11801	123	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
F11901	124	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
F12001	125	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
F12101	126	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
F12202	127	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
F12301	128	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
F12403	129	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
F12501	130	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
F12601	131	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
F12701	132	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
F12804	133	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
F12901	134	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
F13003	135	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
F13105	136	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
F13201	137	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
F13303	138	1	0.0	66.3	66	66.3	10	Snd Lvl	66.2	0.1	8	-7.9
F13402	140	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
F13502	141	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
F13601	142	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
F13701	143	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
F31201	144	1	0.0	61.7	66	61.7	10	----	61.7	0.0	8	-8.0
F13801	145	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
F13901	146	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
F14001	147	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
F14102	148	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
F14201	149	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
F14301	150	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
F14402	151	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
F14501	153	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
F14601	154	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0

F14701	155	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
F14801	156	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
F14901	157	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
F15001	158	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
F15101	159	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
F15201	160	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
F15301-F	161	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
F15401-FV	162	1	0.0	76.3	66	76.3	10	Snd Lvl	76.3	0.0	8	-8.0
F15501	163	1	0.0	74.2	66	74.2	10	Snd Lvl	74.2	0.0	8	-8.0
F15606	164	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0
F15701	165	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
F15801	166	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
F15904	167	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
F16001	168	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0
F16101	169	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
F16202	170	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
F16301	171	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0
F16405	172	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
F16502	173	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
F16601	174	1	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
F16701	175	1	0.0	75.6	66	75.6	10	Snd Lvl	75.6	0.0	8	-8.0
F16802	176	1	0.0	77.0	66	77.0	10	Snd Lvl	77.0	0.0	8	-8.0
F16901-F	177	1	0.0	76.5	66	76.5	10	Snd Lvl	76.5	0.0	8	-8.0
F17001-F	178	1	0.0	75.3	66	75.3	10	Snd Lvl	75.3	0.0	8	-8.0
F17101	179	1	0.0	75.3	66	75.3	10	Snd Lvl	75.3	0.0	8	-8.0
F17201	180	1	0.0	74.6	66	74.6	10	Snd Lvl	74.6	0.0	8	-8.0
F17301	181	1	0.0	73.6	66	73.6	10	Snd Lvl	73.6	0.0	8	-8.0
F17401	182	1	0.0	73.5	66	73.5	10	Snd Lvl	73.5	0.0	8	-8.0
F17501	183	1	0.0	72.8	66	72.8	10	Snd Lvl	72.8	0.0	8	-8.0
F17601	184	1	0.0	71.5	66	71.5	10	Snd Lvl	71.5	0.0	8	-8.0
F17701	185	1	0.0	70.9	66	70.9	10	Snd Lvl	70.9	0.0	8	-8.0
F17801	186	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
F17901	187	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
F18001	188	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
F18101	189	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
F18201	190	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0
F18301	191	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
F18405	192	1	0.0	67.3	66	67.3	10	Snd Lvl	67.3	0.0	8	-8.0
F18501	193	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
F18601	194	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
F18701	195	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0

F31301	196	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
F18801	197	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
F18901	198	1	0.0	68.1	66	68.1	10	Snd Lvl	68.1	0.0	8	-8.0
F19001	199	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
F19101	200	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
F19201	201	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
F19301	202	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
F19401	203	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
F19501	204	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
F19601	206	1	0.0	71.3	66	71.3	10	Snd Lvl	71.3	0.0	8	-8.0
F19701	207	1	0.0	71.8	66	71.8	10	Snd Lvl	71.8	0.0	8	-8.0
F19801	208	1	0.0	72.1	66	72.1	10	Snd Lvl	72.1	0.0	8	-8.0
F19901	209	1	0.0	72.9	66	72.9	10	Snd Lvl	72.9	0.0	8	-8.0
F20001	210	1	0.0	73.3	66	73.3	10	Snd Lvl	73.3	0.0	8	-8.0
F20101	211	1	0.0	73.8	66	73.8	10	Snd Lvl	73.8	0.0	8	-8.0
F20201	212	1	0.0	72.9	66	72.9	10	Snd Lvl	72.9	0.0	8	-8.0
F20301-F	213	1	0.0	73.6	66	73.6	10	Snd Lvl	73.6	0.0	8	-8.0
F20402	214	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
F20501	215	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
F20601	216	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
F20701	217	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
F20802	218	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
F20904	219	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
F21001	220	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
F21106	221	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
F21205	222	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
F21301	223	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
F21401	224	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
F21501	225	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
F21601	226	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
F21701	227	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
F21804	228	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
F21902	229	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
F22001	230	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0
F22101	231	1	0.0	68.2	66	68.2	10	Snd Lvl	68.2	0.0	8	-8.0
F22201	232	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
F22302	233	1	0.0	69.1	66	69.1	10	Snd Lvl	69.1	0.0	8	-8.0
F22408	234	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
F22501	235	1	0.0	70.9	66	70.9	10	Snd Lvl	70.9	0.0	8	-8.0
F22601	236	1	0.0	71.9	66	71.9	10	Snd Lvl	71.9	0.0	8	-8.0
F22701	237	1	0.0	72.8	66	72.8	10	Snd Lvl	72.8	0.0	8	-8.0

F22801-F	238	1	0.0	73.8	66	73.8	10	Snd Lvl	73.8	0.0	8	-8.0
F22901-F	239	1	0.0	73.6	66	73.6	10	Snd Lvl	73.6	0.0	8	-8.0
F23001	240	1	0.0	72.1	66	72.1	10	Snd Lvl	72.1	0.0	8	-8.0
F23101	241	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
F23201	242	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
F23301	243	1	0.0	70.9	66	70.9	10	Snd Lvl	70.9	0.0	8	-8.0
F23401	244	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
F23501	245	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
F23601	246	1	0.0	69.5	66	69.5	10	Snd Lvl	69.5	0.0	8	-8.0
F23701	247	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0
F23801	248	1	0.0	69.1	66	69.1	10	Snd Lvl	69.1	0.0	8	-8.0
F23901	249	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
F24001	250	1	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0
F24102	251	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
F24204	252	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
F24301	253	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
F24401	254	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
F24501	255	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
F24601	256	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0
F24701	257	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
F24801	258	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
F24901	259	1	0.0	66.9	66	66.9	10	Snd Lvl	66.8	0.1	8	-7.9
F25001	260	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
F25101	261	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
F25201	262	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
F25301	264	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
F25401	265	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
F25501	266	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
F25601	267	1	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0
F25701	268	1	0.0	60.9	66	60.9	10	----	60.9	0.0	8	-8.0
F25801-F	269	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
F25904-F	270	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
F26001-F	271	1	0.0	72.8	66	72.8	10	Snd Lvl	72.8	0.0	8	-8.0
F26101	272	1	0.0	68.4	66	68.4	10	Snd Lvl	68.4	0.0	8	-8.0
F26201	273	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
F26301	274	1	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0
F26401	275	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
F26501	276	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
F26601	277	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
F26701	278	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
F26801	279	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0

F26901	280	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
F27001	281	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
F27101	282	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
F27201	283	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
F27301	284	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
F27301	285	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0
F27401	286	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
F27503	287	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
F27602	288	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
F27702	289	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0
F27801	290	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
F27901	291	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
F28001-F	292	1	0.0	69.8	66	69.8	10	Snd Lvl	69.8	0.0	8	-8.0
F28101-F	293	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
F28201-F	294	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
F28301-F	295	1	0.0	71.1	66	71.1	10	Snd Lvl	71.1	0.0	8	-8.0
F28401-F	296	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	8	-8.0
F28501-F	297	1	0.0	72.1	66	72.1	10	Snd Lvl	72.1	0.0	8	-8.0
F28601-F	298	1	0.0	72.7	66	72.7	10	Snd Lvl	72.7	0.0	8	-8.0
F28701-F	299	1	0.0	72.9	66	72.9	10	Snd Lvl	72.9	0.0	8	-8.0
F28801-F	300	1	0.0	73.2	66	73.2	10	Snd Lvl	73.2	0.0	8	-8.0
F28901-F	301	1	0.0	73.9	66	73.9	10	Snd Lvl	73.9	0.0	8	-8.0
F29001-F	302	1	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
F29101-F	303	1	0.0	75.2	66	75.2	10	Snd Lvl	75.2	0.0	8	-8.0
F29201	304	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0
F29301-F	305	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
F29401-F	306	1	0.0	69.6	66	69.6	10	Snd Lvl	69.6	0.0	8	-8.0
F29501-F	307	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	8	-8.0
F29501-F	308	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
F29601-F	309	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
F29701-F	310	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
F29801-F	311	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0
F29901-F	312	1	0.0	70.5	66	70.5	10	Snd Lvl	70.5	0.0	8	-8.0
F30001-F	313	1	0.0	70.9	66	70.9	10	Snd Lvl	70.9	0.0	8	-8.0
F30101-F	315	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
F30201-F	316	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	8	-8.0
F30301-F	317	1	0.0	72.2	66	72.2	10	Snd Lvl	72.2	0.0	8	-8.0
F30401-F	318	1	0.0	72.8	66	72.8	10	Snd Lvl	72.8	0.0	8	-8.0
F30501-F	319	1	0.0	73.0	66	73.0	10	Snd Lvl	73.0	0.0	8	-8.0
F30601-F	320	1	0.0	73.2	66	73.2	10	Snd Lvl	73.2	0.0	8	-8.0
F30701-F	321	1	0.0	73.4	66	73.4	10	Snd Lvl	73.4	0.0	8	-8.0

F30801-F	322	1	0.0	73.7	66	73.7	10	Snd Lvl	73.7	0.0	8	-8.0
F30901-F	323	1	0.0	74.1	66	74.1	10	Snd Lvl	74.1	0.0	8	-8.0
F31001-F	324	1	0.0	74.9	66	74.9	10	Snd Lvl	74.9	0.0	8	-8.0
F31101	325	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	315	0.0	0.0	0.1
All Impacted	211	0.0	0.0	0.1
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

7 September 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: Existing NSA F
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F31615	327	1	0.0	73.4	66	73.4	10	Snd Lvl	73.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

TNM RESULTS: NSA A

HMB Professional Engineers
Mark Gavula

27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA A 2049 Certified
BARRIER DESIGN: A-v1-updated
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
A00104	1	4	67.5	69.2	66	1.7	10	Snd Lvl	66.2	3.0	7	-4.0
A00216-F	2	16	74.0	75.3	66	1.3	10	Snd Lvl	72.5	2.8	7	-4.2
A00316-F	3	16	74.3	75.5	66	1.2	10	Snd Lvl	72.9	2.6	7	-4.4
A00416-F	4	16	74.3	75.7	66	1.4	10	Snd Lvl	73.1	2.6	7	-4.4
A00516-F	5	16	74.4	76.1	66	1.7	10	Snd Lvl	73.3	2.8	7	-4.2
A00616-F	6	16	74.4	76.8	66	2.4	10	Snd Lvl	73.7	3.1	7	-3.9
A00716-F	7	16	74.4	76.9	66	2.5	10	Snd Lvl	74.6	2.3	7	-4.7
A00816-F	8	16	74.4	76.9	66	2.5	10	Snd Lvl	75.1	1.8	7	-5.2
A00916-F	9	16	74.4	76.9	66	2.5	10	Snd Lvl	75.3	1.6	7	-5.4
A01016-F	10	16	74.3	76.9	66	2.6	10	Snd Lvl	75.5	1.4	7	-5.6
A01116-F	11	16	74.3	76.9	66	2.6	10	Snd Lvl	75.7	1.2	7	-5.8
A01216-F	12	16	74.2	76.8	66	2.6	10	Snd Lvl	75.9	0.9	7	-6.1
A01316-F	13	16	74.2	76.9	66	2.7	10	Snd Lvl	76.2	0.7	7	-6.3
A01416-F	14	16	74.1	76.8	66	2.7	10	Snd Lvl	76.3	0.5	7	-6.5
A01516-F	15	16	74.0	76.8	66	2.8	10	Snd Lvl	76.5	0.3	7	-6.7
A01616-F	16	16	74.0	76.8	66	2.8	10	Snd Lvl	76.5	0.3	7	-6.7

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	244	0.3	1.7	3.1
All Impacted	244	0.3	1.7	3.1
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers **27 June 2023**
Mark Gavula **TNM 2.5**
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA A 2049 Certified
BARRIER DESIGN: A-v1-updated

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
A00104	1	66.2	3.0	7	-4.0	NB4thStEnt	A-Ramp-07	233	24.0	48.9
						NB4thStEnt	A-Ramp-05	231	24.0	47.2
						NB4thStEnt	A-Ramp-06	232	24.0	46.5
						NB4thStEnt	A-Ramp-03	229	24.0	46.3
						NB4thStEnt	A-Ramp-04	230	24.0	46.2
						NB4thStEnt	A-Ramp-02	228	24.0	46.1
						NB4thStEnt	A-Ramp-01	226	24.0	45.8
						75NB-E2	A-01-63	136	12.0	39.5
						75NB-E2	A-01-62	135	12.0	39.4
						75NB-E2	A-01-50	123	12.0	39.3
A00216-F	2	72.5	2.8	7	-4.2	NB4thStEnt	A-Ramp-04	230	24.0	54.9
						NB4thStEnt	A-Ramp-05	231	24.0	53.3
						NB4thStEnt	A-Ramp-03	229	24.0	49.1
						75NB-E2	A-01-40	113	12.0	49.1
						NB4thStEnt	A-Ramp-06	232	24.0	48.4
						75NB-E2	A-01-43	116	12.0	48.4
						75NB-E2	A-01-42	115	12.0	48.3
						75NB-E2	A-01-44	117	12.0	48.1
						75NB-E2	A-01-45	118	12.0	47.6
						75NB-E2	A-01-41	114	12.0	47.4
A00316-F	3	72.9	2.6	7	-4.4	NB4thStEnt	A-Ramp-04	230	24.0	55.6

						NB4thStEnt	A-Ramp-05	231	24.0	55.1
						NBCD-E3	A-03-03	162	12.0	52.9
						NBCD-E3	A-03-04	163	12.0	52.7
						NBCD-E3	A-03-05	164	12.0	52.4
						NBCD-E3	A-03-02	161	12.0	51.2
						NB4thStEnt	A-Ramp-06	232	24.0	51.1
						NBCD-E3	A-03-06	165	12.0	50.7
						NBCD-E3	A-03-01	159	12.0	50.0
						NBCD-E3	A-03-07	166	12.0	49.8
A00416-F	4	73.1	2.6	7	-4.4	NB4thStEnt	A-Ramp-04	230	24.0	56.1
						NB4thStEnt	A-Ramp-05	231	24.0	56.1
						NBCD-E3	A-03-03	162	12.0	52.8
						NBCD-E3	A-03-04	163	12.0	52.6
						NB4thStEnt	A-Ramp-06	232	24.0	52.4
						NBCD-E3	A-03-05	164	12.0	51.3
						NBCD-E3	A-03-06	165	12.0	51.0
						NBCD-E3	A-03-02	161	12.0	51.0
						75NB-E2	A-01-40	113	12.0	51.0
						NBCD-E3	A-03-08	167	12.0	50.2
A00516-F	5	73.3	2.8	7	-4.2	NB4thStEnt	A-Ramp-04	230	24.0	56.6
						NB4thStEnt	A-Ramp-05	231	24.0	56.3
						NBCD-E3	A-03-03	162	12.0	53.5
						NBCD-E3	A-03-05	164	12.0	53.4
						NBCD-E3	A-03-04	163	12.0	53.3
						NB4thStEnt	A-Ramp-06	232	24.0	53.0
						NBCD-E3	A-03-06	165	12.0	51.6
						NB4thStEnt	A-Ramp-03	229	24.0	51.5
						75NB-E2	A-01-43	116	12.0	51.4
						NBCD-E3	A-03-02	161	12.0	51.3
A00616-F	6	73.7	3.1	7	-3.9	NB4thStEnt	A-Ramp-04	230	24.0	56.9
						NB4thStEnt	A-Ramp-05	231	24.0	56.8
						NBCD-E3	A-03-04	163	12.0	54.2
						NBCD-E3	A-03-03	162	12.0	54.0
						NBCD-E3	A-03-06	165	12.0	53.5
						NB4thStEnt	A-Ramp-06	232	24.0	53.0
						75NB-E2	A-01-43	116	12.0	52.9

						75NB-E2	A-01-44	117	12.0	52.9
						75NB-E2	A-01-42	115	12.0	52.6
						75NB-E2	A-01-45	118	12.0	52.5
A00716-F	7	74.6	2.3	7	-4.7	75NB-E2	A-01-44	117	12.0	59.1
						75NB-E2	A-01-45	118	12.0	58.5
						75NB-E2	A-01-42	115	12.0	58.5
						75NB-E2	A-01-43	116	12.0	58.0
						75NB-E2	A-01-41	114	12.0	57.6
						NB4thStEnt	A-Ramp-04	230	24.0	57.3
						NB4thStEnt	A-Ramp-05	231	24.0	57.0
						75NB-E2	A-01-40	113	12.0	56.4
						NBCD-E3	A-03-04	163	12.0	56.0
						75NB-E2	A-01-46	119	12.0	56.0
A00816-F	8	75.1	1.8	7	-5.2	75NB-E2	A-01-43	116	12.0	59.3
						75NB-E2	A-01-44	117	12.0	59.3
						75NB-E2	A-01-45	118	12.0	58.8
						75NB-E2	A-01-42	115	12.0	58.7
						75NB-E2	A-01-46	119	12.0	58.1
						75NB-E2	A-01-41	114	12.0	57.8
						NB4thStEnt	A-Ramp-04	230	24.0	57.5
						NB4thStEnt	A-Ramp-05	231	24.0	57.2
						75NB-E2	A-01-47	120	12.0	57.2
						NBCD-E3	A-02-22	199	24.0	56.9
A00916-F	9	75.3	1.6	7	-5.4	75NB-E2	A-01-44	117	12.0	59.6
						75NB-E2	A-01-43	116	12.0	59.5
						75NB-E2	A-01-45	118	12.0	59.1
						75NB-E2	A-01-42	115	12.0	58.9
						75NB-E2	A-01-46	119	12.0	58.3
						75NB-E2	A-01-41	114	12.0	57.8
						NB4thStEnt	A-Ramp-04	230	24.0	57.6
						NBCD-E3	A-02-22	199	24.0	57.5
						NBCD-E3	A-03-06	165	12.0	57.4
						75NB-E2	A-01-47	120	12.0	57.4
A01016-F	10	75.5	1.4	7	-5.6	75NB-E2	A-01-44	117	12.0	59.9
						75NB-E2	A-01-43	116	12.0	59.7
						75NB-E2	A-01-45	118	12.0	59.7

						75NB-E2	A-01-42	115	12.0	59.0
						75NB-E2	A-01-46	119	12.0	58.9
						NBCD-E3	A-02-22	199	24.0	58.1
						75NB-E2	A-01-41	114	12.0	58.0
						75NB-E2	A-01-47	120	12.0	58.0
						NB4thStEnt	A-Ramp-04	230	24.0	57.9
						NBCD-E3	A-03-06	165	12.0	57.5
A01116-F	11	75.7	1.2	7	-5.8	75NB-E2	A-01-44	117	12.0	60.7
						75NB-E2	A-01-43	116	12.0	60.5
						75NB-E2	A-01-45	118	12.0	60.4
						75NB-E2	A-01-42	115	12.0	59.9
						75NB-E2	A-01-46	119	12.0	59.7
						75NB-E2	A-01-47	120	12.0	58.9
						NBCD-E3	A-02-22	199	24.0	58.8
						75NB-E2	A-01-41	114	12.0	58.8
						75NB-E2	A-01-48	121	12.0	57.9
						NB4thStEnt	A-Ramp-04	230	24.0	57.9
A01216-F	12	75.9	0.9	7	-6.1	75NB-E2	A-01-44	117	12.0	61.0
						75NB-E2	A-01-45	118	12.0	60.8
						75NB-E2	A-01-43	116	12.0	60.8
						75NB-E2	A-01-46	119	12.0	60.2
						75NB-E2	A-01-42	115	12.0	60.2
						75NB-E2	A-01-47	120	12.0	59.4
						75NB-E2	A-01-41	114	12.0	59.2
						NBCD-E3	A-02-22	199	24.0	59.2
						75NB-E2	A-01-48	121	12.0	58.5
						NBCD-E3	A-02-21	198	24.0	58.2
A01316-F	13	76.2	0.7	7	-6.3	75NB-E2	A-01-44	117	12.0	61.8
						75NB-E2	A-01-45	118	12.0	61.7
						75NB-E2	A-01-43	116	12.0	61.5
						75NB-E2	A-01-46	119	12.0	61.1
						75NB-E2	A-01-42	115	12.0	60.8
						75NB-E2	A-01-47	120	12.0	60.3
						75NB-E2	A-01-41	114	12.0	59.6
						NBCD-E3	A-02-22	199	24.0	59.6
						75NB-E2	A-01-48	121	12.0	59.4

						NBCD-E3	A-02-21	198	24.0	58.3
A01416-F	14	76.3	0.5	7	-6.5	75NB-E2	A-01-44	117	12.0	61.7
						75NB-E2	A-01-45	118	12.0	61.6
						75NB-E2	A-01-43	116	12.0	61.4
						75NB-E2	A-01-46	119	12.0	61.3
						75NB-E2	A-01-42	115	12.0	60.8
						75NB-E2	A-01-47	120	12.0	60.5
						NBCD-E3	A-02-22	199	24.0	59.8
						75NB-E2	A-01-41	114	12.0	59.6
						75NB-E2	A-01-48	121	12.0	59.5
						NBCD-E3	A-02-21	198	24.0	58.3
A01516-F	15	76.5	0.3	7	-6.7	75NB-E2	A-01-45	118	12.0	62.2
						75NB-E2	A-01-44	117	12.0	62.2
						75NB-E2	A-01-43	116	12.0	61.8
						75NB-E2	A-01-46	119	12.0	61.7
						75NB-E2	A-01-42	115	12.0	61.1
						75NB-E2	A-01-47	120	12.0	61.0
						75NB-E2	A-01-48	121	12.0	60.1
						75NB-E2	A-01-41	114	12.0	60.1
						NBCD-E3	A-02-22	199	24.0	60.0
						75NB-E2	A-01-49	122	12.0	58.7
A01616-F	16	76.5	0.3	7	-6.7	75NB-E2	A-01-44	117	12.0	62.1
						75NB-E2	A-01-45	118	12.0	62.1
						75NB-E2	A-01-46	119	12.0	61.7
						75NB-E2	A-01-43	116	12.0	61.7
						75NB-E2	A-01-47	120	12.0	61.0
						75NB-E2	A-01-42	115	12.0	61.0
						75NB-E2	A-01-48	121	12.0	60.2
						NBCD-E3	A-02-22	199	24.0	59.9
						75NB-E2	A-01-41	114	12.0	59.9
						75NB-E2	A-01-49	122	12.0	58.8
Total Cost, All Barriers (including additional cost(s))					$2904401					

HMB Professional Engineers 27 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA A 2049 Certified
BARRIER DESIGN: A-v1-updated

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
SBCD-E1	W	12.00	12.00	12.00	932	11190				358070
75NB-E2	W	12.00	12.00	12.00	3368	40415				1293289
NB4thStEnt	W	12.00	17.95	24.00	552	9897				316705
NBCD-E3	W	12.00	18.87	24.00	1550	29261				936336
									Total Cost:	2904401

HMB Professional Engineers 27 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA A 2049 Certified
BARRIER DESIGN: A-v1-updated

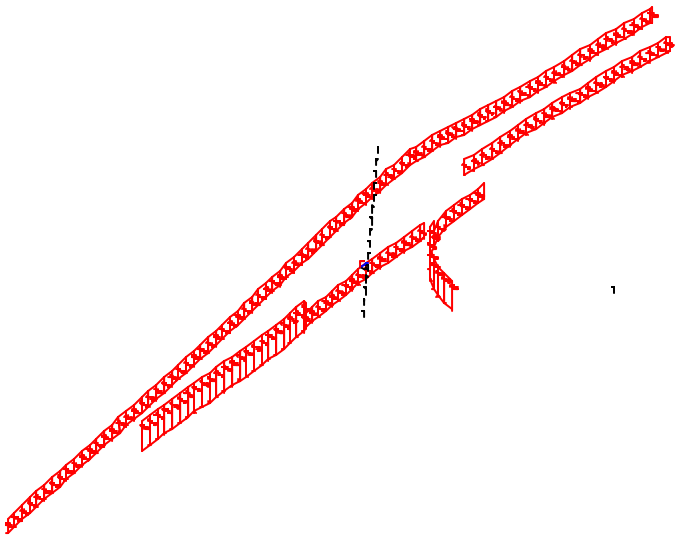
Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
SBCD-E1	W	A-SBCD-01-(	201	12.00	12.00	12.00	40	483	Y			15457
		A-SBCD-01-(	203	12.00	12.00	12.00	40	477	Y			15266
		A-SBCD-01-(	204	12.00	12.00	12.00	40	481	Y			15403
		A-SBCD-01-(	205	12.00	12.00	12.00	40	480	Y			15371
		A-SBCD-01-(	206	12.00	12.00	12.00	40	480	Y			15371
		A-SBCD-01-(	207	12.00	12.00	12.00	40	480	Y			15361
		A-SBCD-01-(	208	12.00	12.00	12.00	40	480	Y			15361
		A-SBCD-01-(	209	12.00	12.00	12.00	40	480	Y			15360
		A-SBCD-01-(	210	12.00	12.00	12.00	40	480	Y			15371
		A-SBCD-01-1	211	12.00	12.00	12.00	40	480	Y			15365
		A-SBCD-01-1	212	12.00	12.00	12.00	40	480	Y			15365
		A-SBCD-01-1	213	12.00	12.00	12.00	40	480	Y			15371
		A-SBCD-01-1	214	12.00	12.00	12.00	40	480	Y			15365
		A-SBCD-01-1	215	12.00	12.00	12.00	40	480	Y			15371
		A-SBCD-01-1	216	12.00	12.00	12.00	40	480	Y			15365
		A-SBCD-01-1	217	12.00	12.00	12.00	40	480	Y			15371
		A-SBCD-01-1	218	12.00	12.00	12.00	40	480	Y			15365
		A-SBCD-01-1	219	12.00	12.00	12.00	40	480	Y			15365
		A-SBCD-01-1	220	12.00	12.00	12.00	40	480	Y			15371
		A-SBCD-01-2	221	12.00	12.00	12.00	40	480	Y			15365
		A-SBCD-01-2	222	12.00	12.00	12.00	40	480	Y			15371
		A-SBCD-01-2	223	12.00	12.00	12.00	40	480	Y			15365
		A-SBCD-01-2	224	12.00	12.00	12.00	40	480	Y			15365
		A-SBCD-01-2	225	12.00	12.00	12.00	12	144	Y			4612
75NB-E2	W	A-01-01	73	12.00	12.00	12.00	40	478	Y			15289

		A-01-02	75	12.00	12.00	12.00	40	485	Y			15505
		A-01-03	76	12.00	12.00	12.00	40	478	Y			15289
		A-01-04	77	12.00	12.00	12.00	40	484	Y			15480
		A-01-05	78	12.00	12.00	12.00	40	477	Y			15266
		A-01-06	79	12.00	12.00	12.00	40	478	Y			15289
		A-01-07	80	12.00	12.00	12.00	40	483	Y			15457
		A-01-08	81	12.00	12.00	12.00	40	478	Y			15289
		A-01-09	82	12.00	12.00	12.00	40	483	Y			15457
		A-01-10	83	12.00	12.00	12.00	40	477	Y			15266
		A-01-11	84	12.00	12.00	12.00	40	484	Y			15480
		A-01-12	85	12.00	12.00	12.00	40	477	Y			15266
		A-01-13	86	12.00	12.00	12.00	40	484	Y			15480
		A-01-14	87	12.00	12.00	12.00	40	477	Y			15266
		A-01-15	88	12.00	12.00	12.00	40	484	Y			15480
		A-01-16	89	12.00	12.00	12.00	40	477	Y			15266
		A-01-17	90	12.00	12.00	12.00	40	478	Y			15289
		A-01-18	91	12.00	12.00	12.00	40	483	Y			15457
		A-01-19	92	12.00	12.00	12.00	40	477	Y			15266
		A-01-20	93	12.00	12.00	12.00	40	484	Y			15480
		A-01-21	94	12.00	12.00	12.00	40	477	Y			15266
		A-01-22	95	12.00	12.00	12.00	40	484	Y			15480
		A-01-23	96	12.00	12.00	12.00	40	477	Y			15266
		A-01-24	97	12.00	12.00	12.00	40	484	Y			15480
		A-01-25	98	12.00	12.00	12.00	40	478	Y			15289
		A-01-26	99	12.00	12.00	12.00	40	478	Y			15289
		A-01-27	100	12.00	12.00	12.00	40	485	Y			15505
		A-01-28	101	12.00	12.00	12.00	40	479	Y			15314
		A-01-29	102	12.00	12.00	12.00	40	478	Y			15289
		A-01-30	103	12.00	12.00	12.00	40	479	Y			15342
		A-01-31	104	12.00	12.00	12.00	40	479	Y			15314
		A-01-32	105	12.00	12.00	12.00	40	485	Y			15532
		A-01-33	106	12.00	12.00	12.00	40	479	Y			15342
		A-01-34	107	12.00	12.00	12.00	40	479	Y			15342
		A-01-35	108	12.00	12.00	12.00	40	479	Y			15342
		A-01-36	109	12.00	12.00	12.00	40	480	Y			15372
		A-01-37	110	12.00	12.00	12.00	40	479	Y			15342
		A-01-38	111	12.00	12.00	12.00	40	479	Y			15342
		A-01-39	112	12.00	12.00	12.00	40	479	Y			15342
		A-01-40	113	12.00	12.00	12.00	40	479	Y			15342

		A-01-41	114	12.00	12.00	12.00	40	479	Y			15342
		A-01-42	115	12.00	12.00	12.00	40	480	Y			15372
		A-01-43	116	12.00	12.00	12.00	40	485	Y			15532
		A-01-44	117	12.00	12.00	12.00	40	479	Y			15342
		A-01-45	118	12.00	12.00	12.00	40	479	Y			15342
		A-01-46	119	12.00	12.00	12.00	40	479	Y			15342
		A-01-47	120	12.00	12.00	12.00	40	479	Y			15342
		A-01-48	121	12.00	12.00	12.00	40	480	Y			15372
		A-01-49	122	12.00	12.00	12.00	40	479	Y			15342
		A-01-50	123	12.00	12.00	12.00	40	479	Y			15314
		A-01-51	124	12.00	12.00	12.00	40	479	Y			15342
		A-01-52	125	12.00	12.00	12.00	40	485	Y			15505
		A-01-53	126	12.00	12.00	12.00	40	479	Y			15314
		A-01-54	127	12.00	12.00	12.00	40	477	Y			15266
		A-01-55	128	12.00	12.00	12.00	40	483	Y			15457
		A-01-56	129	12.00	12.00	12.00	40	477	Y			15266
		A-01-57	130	12.00	12.00	12.00	40	482	Y			15419
		A-01-58	131	12.00	12.00	12.00	40	482	Y			15419
		A-01-59	132	12.00	12.00	12.00	40	476	Y			15227
		A-01-60	133	12.00	12.00	12.00	40	482	Y			15419
		A-01-61	134	12.00	12.00	12.00	40	482	Y			15419
		A-01-62	135	12.00	12.00	12.00	40	481	Y			15379
		A-01-63	136	12.00	12.00	12.00	40	481	Y			15390
		A-01-64	137	12.00	12.00	12.00	40	481	Y			15379
		A-01-65	138	12.00	12.00	12.00	40	475	Y			15187
		A-01-66	139	12.00	12.00	12.00	40	480	Y			15365
		A-01-67	140	12.00	12.00	12.00	40	480	Y			15365
		A-01-68	141	12.00	12.00	12.00	40	480	Y			15361
		A-01-69	142	12.00	12.00	12.00	40	480	Y			15365
		A-01-70	143	12.00	12.00	12.00	40	480	Y			15361
		A-01-71	144	12.00	12.00	12.00	40	480	Y			15360
		A-01-72	145	12.00	12.00	12.00	40	480	Y			15361
		A-01-73	146	12.00	12.00	12.00	40	480	Y			15365
		A-01-74	147	12.00	12.00	12.00	40	480	Y			15365
		A-01-75	148	12.00	12.00	12.00	40	480	Y			15365
		A-01-76	149	12.00	12.00	12.00	40	480	Y			15365
		A-01-77	150	12.00	12.00	12.00	40	480	Y			15371
		A-01-78	151	12.00	12.00	12.00	40	480	Y			15365
		A-01-79	152	12.00	12.00	12.00	40	480	Y			15365

		A-01-80	153	12.00	12.00	12.00	40	480	Y			15371
		A-01-81	154	12.00	12.00	12.00	40	480	Y			15365
		A-01-82	155	12.00	12.00	12.00	40	480	Y			15365
		A-01-83	156	12.00	12.00	12.00	40	480	Y			15365
		A-01-84	157	12.00	12.00	12.00	40	480	Y			15371
		A-01-85	158	12.00	12.00	12.00	8	90	Y			2880
NB4thStEnt	W	A-Ramp-01	226	24.00	24.00	24.00	40	951				30423
		A-Ramp-02	228	24.00	24.00	24.00	40	966				30921
		A-Ramp-03	229	24.00	24.00	24.00	40	963				30809
		A-Ramp-04	230	24.00	24.00	24.00	40	953				30491
		A-Ramp-05	231	24.00	24.00	24.00	40	961				30742
		A-Ramp-06	232	24.00	24.00	24.00	40	965				30885
		A-Ramp-07	233	24.00	22.00	20.00	40	879				28134
		A-Ramp-08	234	12.00	12.00	12.00	40	478	Y			15305
		A-Ramp-09	235	12.00	12.00	12.00	40	485	Y			15515
		A-Ramp-10	236	12.00	12.00	12.00	40	475	Y			15212
		A-Ramp-11	237	12.00	12.00	12.00	40	481	Y			15379
		A-Ramp-12	238	12.00	12.00	12.00	40	481	Y			15390
		A-Ramp-13	239	12.00	12.00	12.00	40	481	Y			15379
		A-Ramp-14	240	12.00	12.00	12.00	32	379	Y			12120
NBCD-E3	W	A-02-01	177	24.00	24.00	24.00	40	966				30914
		A-02-02	179	24.00	24.00	24.00	40	956				30578
		A-02-03	180	24.00	24.00	24.00	40	966				30914
		A-02-04	181	24.00	24.00	24.00	40	956				30578
		A-02-05	182	24.00	24.00	24.00	40	966				30914
		A-02-06	183	24.00	24.00	24.00	40	956				30578
		A-02-07	184	24.00	24.00	24.00	40	954				30532
		A-02-08	185	24.00	24.00	24.00	40	967				30959
		A-02-09	186	24.00	24.00	24.00	40	954				30532
		A-02-10	187	24.00	24.00	24.00	40	966				30914
		A-02-11	188	24.00	24.00	24.00	40	956				30578
		A-02-12	189	24.00	24.00	24.00	40	966				30914
		A-02-13	190	24.00	24.00	24.00	40	956				30578
		A-02-14	191	24.00	24.00	24.00	40	966				30914
		A-02-15	192	24.00	24.00	24.00	40	956				30578
		A-02-16	193	24.00	24.00	24.00	40	966				30914
		A-02-17	194	24.00	24.00	24.00	40	957				30629

		A-02-18	195	24.00	24.00	24.00	40	956				30578
		A-02-19	196	24.00	24.00	24.00	40	961				30744
		A-02-20	197	24.00	24.00	24.00	40	963				30809
		A-02-21	198	24.00	24.00	24.00	40	955				30576
		A-02-22	199	24.00	24.00	24.00	40	965				30878
		A-02-23	200	24.00	22.00	20.00	9	203	Y			6491
		A-03-01	159	12.00	12.00	12.00	40	477	Y			15250
		A-03-02	161	12.00	12.00	12.00	40	482	Y			15439
		A-03-03	162	12.00	12.00	12.00	40	477	Y			15250
		A-03-04	163	12.00	12.00	12.00	40	484	Y			15476
		A-03-05	164	12.00	12.00	12.00	40	478	Y			15288
		A-03-06	165	12.00	12.00	12.00	40	484	Y			15476
		A-03-07	166	12.00	12.00	12.00	40	479	Y			15328
		A-03-08	167	12.00	12.00	12.00	40	481	Y			15404
		A-03-09	168	12.00	12.00	12.00	40	474	Y			15183
		A-03-10	169	12.00	12.00	12.00	40	481	Y			15404
		A-03-11	170	12.00	12.00	12.00	40	481	Y			15390
		A-03-12	171	12.00	12.00	12.00	40	481	Y			15390
		A-03-13	172	12.00	12.00	12.00	40	481	Y			15390
		A-03-14	173	12.00	12.00	12.00	40	481	Y			15390
		A-03-15	174	12.00	12.00	12.00	40	481	Y			15403
		A-03-16	175	12.00	12.00	12.00	40	475	Y			15198
		A-03-17	176	12.00	12.00	12.00	21	253	Y			8085



ALT NSA A 2049 Certified		Sheet 1 of 1	27 Jun 2023
		HMB Professional Engineers	
Barrier View-A-v1-updated		Project/Contract No. Brent Spence Bridge 6-17.00	
Run name: NSA A		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: NSA B, AREA B1

HMB Professional Engineers
Mark Gavula
27 June 2023
TNM 2.5
Calculated with TNM 2.5
RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: B1 V1
BARRIER DESIGN: B1-update
ATMOSPHERICS: 68 deg F, 50% RH
Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
B00117-F	19	17	65.2	69.9	66	4.7	10	Snd Lvl	64.6	5.3	7	-1.7
B00204	20	4	62.7	67.6	66	4.9	10	Snd Lvl	63.1	4.5	7	-2.5
B00304	21	4	61.3	66.9	66	5.6	10	Snd Lvl	62.4	4.5	7	-2.5
B00401-F	22	1	65.5	71.1	66	5.6	10	Snd Lvl	65.5	5.6	7	-1.4
B00501-F	24	1	67.1	71.9	66	4.8	10	Snd Lvl	66.2	5.7	7	-1.3
B00601-F	25	1	67.3	72.0	66	4.7	10	Snd Lvl	66.3	5.7	7	-1.3
B00701-F	26	1	67.3	71.9	66	4.6	10	Snd Lvl	66.0	5.9	7	-1.1
B00801-F	27	1	66.8	70.4	66	3.6	10	Snd Lvl	63.8	6.6	7	-0.4
B00901-F	28	1	67.2	70.0	66	2.8	10	Snd Lvl	63.5	6.5	7	-0.5
B01001-F	29	1	67.2	69.7	66	2.5	10	Snd Lvl	63.4	6.3	7	-0.7
B01101-F	30	1	67.4	69.6	66	2.2	10	Snd Lvl	63.5	6.1	7	-0.9
B01201-F	31	1	67.5	69.6	66	2.1	10	Snd Lvl	63.8	5.8	7	-1.2
B01301-F	32	1	68.6	70.0	66	1.4	10	Snd Lvl	64.5	5.5	7	-1.5
B01401	33	1	63.4	70.6	66	7.2	10	Snd Lvl	65.0	5.6	7	-1.4
B01501	34	1	63.6	70.6	66	7.0	10	Snd Lvl	64.8	5.8	7	-1.2
B01601	35	1	63.1	69.6	66	6.5	10	Snd Lvl	64.3	5.3	7	-1.7
B01701	36	1	63.2	69.7	66	6.5	10	Snd Lvl	64.3	5.4	7	-1.6
B01801	37	1	63.4	69.9	66	6.5	10	Snd Lvl	64.3	5.6	7	-1.4
B01901	38	1	63.4	70.0	66	6.6	10	Snd Lvl	64.3	5.7	7	-1.3
B02002	39	2	63.7	69.8	66	6.1	10	Snd Lvl	64.0	5.8	7	-1.2
B02102	40	2	62.6	69.8	66	7.2	10	Snd Lvl	64.0	5.8	7	-1.2
B02202	41	2	62.3	69.8	66	7.5	10	Snd Lvl	64.1	5.7	7	-1.3
B02302	42	2	62.4	69.7	66	7.3	10	Snd Lvl	64.0	5.7	7	-1.3
B02401	43	1	62.7	69.7	66	7.0	10	Snd Lvl	64.1	5.6	7	-1.4

B02502	44	2	63.1	69.5	66	6.4	10	Snd Lvl	64.0	5.5	7	-1.5
B02602	45	2	62.7	69.3	66	6.6	10	Snd Lvl	63.9	5.4	7	-1.6
B02702	46	2	63.6	69.3	66	5.7	10	Snd Lvl	63.9	5.4	7	-1.6
B02802	47	2	63.0	69.2	66	6.2	10	Snd Lvl	63.9	5.3	7	-1.7
B02902	48	2	63.7	69.1	66	5.4	10	Snd Lvl	63.9	5.2	7	-1.8
B03002	49	2	64.0	69.0	66	5.0	10	Snd Lvl	63.8	5.2	7	-1.8
B03101	50	1	63.3	68.9	66	5.6	10	Snd Lvl	63.8	5.1	7	-1.9
B03201	51	1	64.9	68.8	66	3.9	10	Snd Lvl	63.9	4.9	7	-2.1
B03301	52	1	64.3	68.8	66	4.5	10	Snd Lvl	63.6	5.2	7	-1.8
B03401	53	1	64.6	68.8	66	4.2	10	Snd Lvl	63.6	5.2	7	-1.8
B03501-F	54	1	65.4	68.4	66	3.0	10	Snd Lvl	63.7	4.7	7	-2.3
B03601-F	55	1	65.1	68.3	66	3.2	10	Snd Lvl	63.6	4.7	7	-2.3
B03702-F	56	2	65.1	68.5	66	3.4	10	Snd Lvl	63.9	4.6	7	-2.4
B03801-F	57	1	64.8	68.3	66	3.5	10	Snd Lvl	63.7	4.6	7	-2.4
B03901-F	58	1	64.2	67.8	66	3.6	10	Snd Lvl	63.4	4.4	7	-2.6
B04004-F	59	4	63.9	67.5	66	3.6	10	Snd Lvl	63.2	4.3	7	-2.7
B04104-F	60	4	63.5	67.5	66	4.0	10	Snd Lvl	63.1	4.4	7	-2.6
B04225-F	61	25	67.5	63.8	66	-3.7	10	----	61.3	2.5	7	-4.5
B04302	62	2	56.3	68.0	66	11.7	10	Both	63.1	4.9	7	-2.1
B04402	63	2	57.6	67.9	66	10.3	10	Both	62.9	5.0	7	-2.0
B04502	64	2	57.6	67.9	66	10.3	10	Both	62.9	5.0	7	-2.0
B04602	65	2	61.5	68.2	66	6.7	10	Snd Lvl	63.1	5.1	7	-1.9
B04701	66	1	58.3	68.1	66	9.8	10	Snd Lvl	62.8	5.3	7	-1.7
B04801	67	1	58.0	68.2	66	10.2	10	Both	62.8	5.4	7	-1.6
B04901	68	1	58.1	68.2	66	10.1	10	Both	62.9	5.3	7	-1.7
B05001	69	1	58.7	68.2	66	9.5	10	Snd Lvl	63.0	5.2	7	-1.8
B05102	70	2	58.6	68.3	66	9.7	10	Snd Lvl	63.0	5.3	7	-1.7
B05202	71	2	61.5	68.8	66	7.3	10	Snd Lvl	63.3	5.5	7	-1.5
B05302	72	2	60.3	68.4	66	8.1	10	Snd Lvl	63.0	5.4	7	-1.6
B05404	73	1	59.8	68.2	66	8.4	10	Snd Lvl	62.9	5.3	7	-1.7
B05502	74	2	59.3	68.4	66	9.1	10	Snd Lvl	63.1	5.3	7	-1.7
B05602	75	1	59.6	68.3	66	8.7	10	Snd Lvl	63.1	5.2	7	-1.8
B05704	76	1	59.1	68.2	66	9.1	10	Snd Lvl	62.9	5.3	7	-1.7
B05802	77	1	59.1	68.1	66	9.0	10	Snd Lvl	62.7	5.4	7	-1.6
B05903	78	2	59.2	68.0	66	8.8	10	Snd Lvl	62.6	5.4	7	-1.6
B06002	79	2	59.6	68.1	66	8.5	10	Snd Lvl	62.6	5.5	7	-1.5
B06104	80	1	60.0	68.1	66	8.1	10	Snd Lvl	62.6	5.5	7	-1.5
B06204	81	2	60.0	68.1	66	8.1	10	Snd Lvl	62.8	5.3	7	-1.7
B06302	82	2	59.6	68.2	66	8.6	10	Snd Lvl	62.8	5.4	7	-1.6
B06402	83	2	59.6	68.2	66	8.6	10	Snd Lvl	62.9	5.3	7	-1.7
B06501	84	1	59.9	68.2	66	8.3	10	Snd Lvl	63.0	5.2	7	-1.8

B06602	85	1	60.7	68.1	66	7.4	10	Snd Lvl	63.0	5.1	7	-1.9
B06705	86	2	63.8	68.4	66	4.6	10	Snd Lvl	63.3	5.1	7	-1.9
B06802	87	2	64.3	68.5	66	4.2	10	Snd Lvl	63.5	5.0	7	-2.0
B06901	88	1	62.7	68.2	66	5.5	10	Snd Lvl	63.7	4.5	7	-2.5
B07006	89	2	63.1	68.3	66	5.2	10	Snd Lvl	63.8	4.5	7	-2.5
B07103	90	3	62.8	68.4	66	5.6	10	Snd Lvl	63.8	4.6	7	-2.4
B07202	91	2	62.7	68.4	66	5.7	10	Snd Lvl	63.8	4.6	7	-2.4
B07302	92	2	63.7	68.4	66	4.7	10	Snd Lvl	64.0	4.4	7	-2.6
B07402	93	1	66.6	68.9	66	2.3	10	Snd Lvl	64.3	4.6	7	-2.4
B07502	94	2	64.9	68.8	66	3.9	10	Snd Lvl	64.1	4.7	7	-2.3
B07601	95	1	65.0	69.0	66	4.0	10	Snd Lvl	64.1	4.9	7	-2.1
B09302	113	2	60.0	67.7	66	7.7	10	Snd Lvl	62.7	5.0	7	-2.0
B09402	114	2	58.6	67.2	66	8.6	10	Snd Lvl	62.3	4.9	7	-2.1
B09502	115	2	58.8	67.8	66	9.0	10	Snd Lvl	62.7	5.1	7	-1.9
B09602	116	2	58.9	68.0	66	9.1	10	Snd Lvl	62.7	5.3	7	-1.7
B09801	118	1	57.2	66.9	66	9.7	10	Snd Lvl	62.0	4.9	7	-2.1
B22302	119	2	57.8	67.4	66	9.6	10	Snd Lvl	62.4	5.0	7	-2.0
B09901	120	1	57.9	66.9	66	9.0	10	Snd Lvl	62.0	4.9	7	-2.1
B10001	121	1	57.6	67.0	66	9.4	10	Snd Lvl	62.1	4.9	7	-2.1
B10101	122	1	57.7	66.9	66	9.2	10	Snd Lvl	62.0	4.9	7	-2.1
B10201	123	1	58.1	66.7	66	8.6	10	Snd Lvl	62.0	4.7	7	-2.3
B10301	124	1	58.6	66.9	66	8.3	10	Snd Lvl	62.2	4.7	7	-2.3
B10405	125	1	58.5	66.7	66	8.2	10	Snd Lvl	62.1	4.6	7	-2.4
B10502	126	2	61.8	68.3	66	6.5	10	Snd Lvl	64.1	4.2	7	-2.8
B10601	127	1	61.0	67.9	66	6.9	10	Snd Lvl	63.8	4.1	7	-2.9
B10701	128	1	59.3	67.0	66	7.7	10	Snd Lvl	62.6	4.4	7	-2.6
B10801	129	1	59.6	67.2	66	7.6	10	Snd Lvl	62.7	4.5	7	-2.5
B10901	130	1	59.4	67.0	66	7.6	10	Snd Lvl	62.6	4.4	7	-2.6
B11004	131	4	59.9	67.2	66	7.3	10	Snd Lvl	62.8	4.4	7	-2.6
B11102	132	2	61.3	67.8	66	6.5	10	Snd Lvl	63.2	4.6	7	-2.4
B11201	133	1	59.4	67.7	66	8.3	10	Snd Lvl	62.4	5.3	7	-1.7
B11301	135	1	59.6	67.6	66	8.0	10	Snd Lvl	62.4	5.2	7	-1.8
B11401	136	1	59.2	67.3	66	8.1	10	Snd Lvl	62.2	5.1	7	-1.9
B11502	137	2	59.7	67.4	66	7.7	10	Snd Lvl	62.5	4.9	7	-2.1
B11601	138	1	57.1	67.3	66	10.2	10	Both	62.6	4.7	7	-2.3
B11701	139	1	57.7	67.3	66	9.6	10	Snd Lvl	62.8	4.5	7	-2.5
B11801	140	1	58.0	67.3	66	9.3	10	Snd Lvl	63.0	4.3	7	-2.7
B11901	141	1	58.7	67.4	66	8.7	10	Snd Lvl	63.1	4.3	7	-2.7
B12001	142	1	58.8	67.4	66	8.6	10	Snd Lvl	63.2	4.2	7	-2.8
B12101	143	1	59.2	67.5	66	8.3	10	Snd Lvl	63.2	4.3	7	-2.7
B12201	144	1	59.2	67.8	66	8.6	10	Snd Lvl	63.4	4.4	7	-2.6

B12301	145	1	59.8	67.0	66	7.2	10	Snd Lvl	62.8	4.2	7	-2.8
B12401	146	1	59.5	67.1	66	7.6	10	Snd Lvl	62.9	4.2	7	-2.8
B12501	147	1	59.9	67.0	66	7.1	10	Snd Lvl	62.8	4.2	7	-2.8
B12601	148	1	59.4	66.9	66	7.5	10	Snd Lvl	62.8	4.1	7	-2.9
B12701	149	1	58.9	67.0	66	8.1	10	Snd Lvl	62.8	4.2	7	-2.8
B12801	150	1	59.5	66.9	66	7.4	10	Snd Lvl	62.7	4.2	7	-2.8
B12901	151	1	59.6	67.0	66	7.4	10	Snd Lvl	62.8	4.2	7	-2.8
B13001	152	1	60.2	67.1	66	6.9	10	Snd Lvl	62.8	4.3	7	-2.7
B13101	153	1	60.6	67.2	66	6.6	10	Snd Lvl	62.9	4.3	7	-2.7
B13201	154	1	61.3	67.3	66	6.0	10	Snd Lvl	63.0	4.3	7	-2.7
B13301	155	1	62.3	68.2	66	5.9	10	Snd Lvl	63.3	4.9	7	-2.1
B13401	156	1	62.6	68.3	66	5.7	10	Snd Lvl	63.3	5.0	7	-2.0
B13501	157	1	62.5	68.2	66	5.7	10	Snd Lvl	63.2	5.0	7	-2.0
B13602	158	2	62.4	68.3	66	5.9	10	Snd Lvl	63.3	5.0	7	-2.0
B13702	159	2	62.7	68.6	66	5.9	10	Snd Lvl	63.4	5.2	7	-1.8
B13802	160	2	63.2	68.7	66	5.5	10	Snd Lvl	63.4	5.3	7	-1.7
B13902	161	2	62.0	68.0	66	6.0	10	Snd Lvl	63.3	4.7	7	-2.3
B14001	162	1	63.2	68.3	66	5.1	10	Snd Lvl	63.5	4.8	7	-2.2
B22402	163	2	62.3	68.0	66	5.7	10	Snd Lvl	63.4	4.6	7	-2.4
B14102	164	2	63.4	68.5	66	5.1	10	Snd Lvl	63.3	5.2	7	-1.8
B14210	165	1	59.6	66.7	66	7.1	10	Snd Lvl	62.2	4.5	7	-2.5
B14301	166	1	56.7	66.9	66	10.2	10	Both	62.2	4.7	7	-2.3
B14401	167	1	56.6	66.9	66	10.3	10	Both	62.2	4.7	7	-2.3
B14501	168	1	62.5	67.5	66	5.0	10	Snd Lvl	62.6	4.9	7	-2.1
B14601	169	1	58.2	67.2	66	9.0	10	Snd Lvl	62.4	4.8	7	-2.2
B14701	170	1	57.3	67.0	66	9.7	10	Snd Lvl	62.3	4.7	7	-2.3
B14801	171	1	57.6	66.9	66	9.3	10	Snd Lvl	62.2	4.7	7	-2.3
B15002	172	2	58.8	66.6	66	7.8	10	Snd Lvl	62.1	4.5	7	-2.5
B15102	173	2	58.7	66.2	66	7.5	10	Snd Lvl	62.0	4.2	7	-2.8
B15202	174	2	58.6	65.9	66	7.3	10	----	61.8	4.1	7	-2.9
B22605	251	1	0.0	69.2	66	69.2	10	Snd Lvl	64.3	4.9	8	-3.1
B09702	252	1	0.0	67.5	66	67.5	10	Snd Lvl	62.4	5.1	8	-2.9

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	242	2.5	5.0	6.6
All Impacted	215	4.1	5.0	6.6
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: B1 V1
BARRIER DESIGN: B1-update

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
B00117-F	19	64.6	5.3	7	-1.7	NBCD-E3	A-02-12	167	24.0	50.5
						NBCD-E3	A-02-11	166	24.0	50.4
						NBCD-E3	A-02-10	165	24.0	50.3
						NBCD-E3	A-02-13	168	24.0	50.2
						NBCD-E3	A-02-09	164	24.0	50.0
						NBCD-E3	A-02-14	169	24.0	49.4
						NBCD-E3	A-02-15	170	24.0	48.5
						NBCD-E3	A-02-16	171	24.0	48.2
						NBCD-E3	A-02-17	172	24.0	47.7
						NBCD-E3	A-02-18	173	24.0	47.3
B00204	20	63.1	4.5	7	-2.5	NBCD-E3	A-02-15	170	24.0	48.4
						NBCD-E3	A-02-12	167	24.0	47.9
						NBCD-E3	A-02-11	166	24.0	47.8
						NBCD-E3	A-02-13	168	24.0	47.8
						NBCD-E3	A-02-10	165	24.0	47.8
						NBCD-E3	A-02-14	169	24.0	47.7
						NBCD-E3	A-02-09	164	24.0	47.6
						NBCD-E3	A-02-16	171	24.0	46.9
						NBCD-E3	A-02-08	163	24.0	45.9
						NBCD-E3	A-02-17	172	24.0	45.7
B00304	21	62.4	4.5	7	-2.5	NBCD-E3	A-02-14	169	24.0	47.4

						NBCD-E3	A-02-13	168	24.0	47.3
						NBCD-E3	A-02-10	165	24.0	47.3
						NBCD-E3	A-02-15	170	24.0	47.3
						NBCD-E3	A-02-11	166	24.0	47.2
						NBCD-E3	A-02-12	167	24.0	47.2
						NBCD-E3	A-02-09	164	24.0	47.1
						NBCD-E3	A-02-08	163	24.0	46.4
						NBCD-E3	A-02-16	171	24.0	46.3
						NBCD-E3	A-02-17	172	24.0	45.0
B00401-F	22	65.5	5.6	7	-1.4	NBCD-E3	A-02-07	162	24.0	54.1
						NBCD-E3	A-02-08	163	24.0	53.6
						NBCD-E3	A-02-09	164	24.0	53.3
						NBCD-E3	A-02-10	165	24.0	52.9
						NBCD-E3	A-02-06	161	24.0	52.2
						NBCD-E3	A-02-11	166	24.0	52.0
						NBCD-E3	point455	455	24.0	49.8
						NBCD-E3	A-02-12	167	24.0	49.0
						NBCD-E3	A-02-15	170	24.0	48.4
						NBCD-E3	point446	446	24.0	48.4
B00501-F	24	66.2	5.7	7	-1.3	NBCD-E3	A-02-06	161	24.0	55.7
						NBCD-E3	A-02-07	162	24.0	54.8
						NBCD-E3	A-02-08	163	24.0	53.8
						NBCD-E3	A-02-10	165	24.0	53.1
						NBCD-E3	A-02-09	164	24.0	53.0
						NBCD-E3	A-02-05	160	24.0	51.3
						NBCD-E3	point446	446	24.0	50.8
						NBCD-E3	A-02-11	166	24.0	50.5
						NBCD-E3	point448	448	24.0	50.3
						NBCD-E3	point456	456	24.0	49.7
B00601-F	25	66.3	5.7	7	-1.3	NBCD-E3	A-02-06	161	24.0	55.9
						NBCD-E3	A-02-07	162	24.0	54.3
						NBCD-E3	A-02-05	160	24.0	53.5
						NBCD-E3	A-02-08	163	24.0	53.4
						NBCD-E3	A-02-10	165	24.0	52.9
						NBCD-E3	A-02-09	164	24.0	52.7
						NBCD-E3	point448	448	24.0	51.0

						NBCD-E3	point446	446	24.0	50.9
						NBCD-E3	point455	455	24.0	50.1
						NBCD-E3	point456	456	24.0	49.8
B00701-F	26	66.0	5.9	7	-1.1	NBCD-E3	A-02-05	160	24.0	54.1
						NBCD-E3	A-02-06	161	24.0	54.0
						NBCD-E3	point447	447	24.0	52.9
						NBCD-E3	A-02-07	162	24.0	52.5
						NBCD-E3	A-02-08	163	24.0	51.7
						NBCD-E3	A-02-09	164	24.0	51.4
						NBCD-E3	A-02-10	165	24.0	51.3
						NBCD-E3	A-02-04	159	24.0	50.2
						NBCD-E3	point446	446	24.0	50.1
						NBCD-E3	point455	455	24.0	49.9
B00801-F	27	63.8	6.6	7	-0.4	NBCD-E3	point446	446	24.0	49.1
						NBCD-E3	A-02-03	158	24.0	49.0
						NBCD-E3	A-02-04	159	24.0	48.9
						NBCD-E3	point447	447	24.0	48.4
						NBCD-E3	point452	452	24.0	48.1
						NBCD-E3	point451	451	24.0	47.8
						NBCD-E3	point453	453	24.0	47.8
						NBCD-E3	point450	450	24.0	47.8
						NBCD-E3	A-02-08	163	24.0	47.6
						NBCD-E3	A-02-09	164	24.0	47.4
B00901-F	28	63.5	6.5	7	-0.5	NBCD-E3	point446	446	24.0	49.2
						NBCD-E3	point451	451	24.0	47.8
						NBCD-E3	point450	450	24.0	47.8
						NBCD-E3	A-02-04	159	24.0	47.7
						NBCD-E3	point447	447	24.0	47.7
						NBCD-E3	A-02-08	163	24.0	47.5
						NBCD-E3	point449	449	24.0	47.5
						NBCD-E3	point453	453	24.0	47.4
						NBCD-E3	point452	452	24.0	47.4
						NBCD-E3	A-02-03	158	24.0	47.3
B01001-F	29	63.4	6.3	7	-0.7	NBCD-E3	point446	446	24.0	49.3
						NBCD-E3	A-02-03	158	24.0	49.2
						NBCD-E3	point450	450	24.0	47.8

						NBCD-E3	point449	449	24.0	47.7
						NBCD-E3	point451	451	24.0	47.5
						NBCD-E3	point454	454	24.0	47.4
						NBCD-E3	A-02-08	163	24.0	47.3
						NBCD-E3	point448	448	24.0	47.2
						NBCD-E3	point452	452	24.0	47.0
						NBCD-E3	point453	453	24.0	47.0
B01101-F	30	63.5	6.1	7	-0.9	NBCD-E3	point446	446	24.0	49.2
						NBCD-E3	A-02-03	158	24.0	48.9
						NBCD-E3	point448	448	24.0	48.2
						NBCD-E3	point449	449	24.0	48.1
						NBCD-E3	point450	450	24.0	48.0
						NBCD-E3	point447	447	24.0	47.6
						NBCD-E3	point451	451	24.0	47.5
						NBCD-E3	point456	456	24.0	47.4
						NBCD-E3	A-02-08	163	24.0	47.3
						NBCD-E3	point452	452	24.0	47.1
B01201-F	31	63.8	5.8	7	-1.2	NBCD-E3	point446	446	24.0	49.2
						NBCD-E3	A-02-03	158	24.0	48.5
						NBCD-E3	point449	449	24.0	48.2
						NBCD-E3	point448	448	24.0	48.1
						NBCD-E3	point447	447	24.0	48.0
						NBCD-E3	point450	450	24.0	48.0
						NBCD-E3	point456	456	24.0	47.8
						NBCD-E3	point451	451	24.0	47.4
						NBCD-E3	A-02-02	157	24.0	47.1
						NBCD-E3	point452	452	24.0	46.8
B01301-F	32	64.5	5.5	7	-1.5	NBCD-E3	point449	449	24.0	50.6
						NBCD-E3	point451	451	24.0	49.8
						NBCD-E3	point448	448	24.0	49.4
						NBCD-E3	point446	446	24.0	49.4
						NBCD-E3	point447	447	24.0	49.2
						NBCD-E3	A-02-01	155	24.0	49.0
						NBCD-E3	point450	450	24.0	48.9
						NBCD-E3	point452	452	24.0	47.6
						NBCD-E3	point457	457	24.0	47.1

						75NB-E2	A-01-07	203	18.0	46.4
B01401	33	65.0	5.6	7	-1.4	NBCD-E3	A-02-08	163	24.0	53.2
						NBCD-E3	A-02-07	162	24.0	53.2
						NBCD-E3	A-02-09	164	24.0	52.6
						NBCD-E3	A-02-10	165	24.0	52.1
						NBCD-E3	A-02-11	166	24.0	51.5
						NBCD-E3	A-02-12	167	24.0	51.0
						NBCD-E3	A-02-06	161	24.0	50.2
						NBCD-E3	point447	447	24.0	49.8
						NBCD-E3	A-02-13	168	24.0	49.4
						NBCD-E3	A-02-14	169	24.0	48.1
B01501	34	64.8	5.8	7	-1.2	NBCD-E3	A-02-07	162	24.0	52.7
						NBCD-E3	A-02-08	163	24.0	52.5
						NBCD-E3	A-02-09	164	24.0	52.0
						NBCD-E3	A-02-10	165	24.0	51.6
						NBCD-E3	A-02-11	166	24.0	51.1
						NBCD-E3	A-02-12	167	24.0	50.5
						NBCD-E3	A-02-06	161	24.0	50.1
						NBCD-E3	point447	447	24.0	49.4
						NBCD-E3	A-02-13	168	24.0	49.2
						NBCD-E3	point446	446	24.0	48.6
B01601	35	64.3	5.3	7	-1.7	NBCD-E3	A-02-07	162	24.0	51.8
						NBCD-E3	A-02-08	163	24.0	51.8
						NBCD-E3	A-02-09	164	24.0	51.7
						NBCD-E3	A-02-10	165	24.0	51.3
						NBCD-E3	A-02-11	166	24.0	50.5
						NBCD-E3	A-02-12	167	24.0	50.2
						NBCD-E3	A-02-13	168	24.0	49.4
						NBCD-E3	A-02-14	169	24.0	48.1
						NBCD-E3	point457	457	24.0	48.1
						NBCD-E3	point446	446	24.0	47.5
B01701	36	64.3	5.4	7	-1.6	NBCD-E3	A-02-07	162	24.0	53.0
						NBCD-E3	A-02-08	163	24.0	51.7
						NBCD-E3	A-02-09	164	24.0	51.5
						NBCD-E3	A-02-10	165	24.0	51.1
						NBCD-E3	A-02-11	166	24.0	50.3

						NBCD-E3	A-02-12	167	24.0	50.3
						NBCD-E3	A-02-13	168	24.0	49.1
						NBCD-E3	A-02-06	161	24.0	48.4
						NBCD-E3	point446	446	24.0	48.2
						NBCD-E3	A-02-14	169	24.0	47.9
B01801	37	64.3	5.6	7	-1.4	NBCD-E3	A-02-08	163	24.0	51.8
						NBCD-E3	A-02-07	162	24.0	51.8
						NBCD-E3	A-02-09	164	24.0	51.4
						NBCD-E3	A-02-10	165	24.0	50.9
						NBCD-E3	A-02-11	166	24.0	50.3
						NBCD-E3	A-02-12	167	24.0	50.1
						NBCD-E3	point446	446	24.0	49.3
						NBCD-E3	A-02-06	161	24.0	49.2
						NBCD-E3	A-02-13	168	24.0	48.9
						NBCD-E3	A-02-14	169	24.0	47.7
B01901	38	64.3	5.7	7	-1.3	NBCD-E3	A-02-07	162	24.0	51.7
						NBCD-E3	A-02-08	163	24.0	51.7
						NBCD-E3	A-02-09	164	24.0	51.2
						NBCD-E3	A-02-10	165	24.0	50.7
						NBCD-E3	A-02-11	166	24.0	50.3
						NBCD-E3	A-02-12	167	24.0	49.9
						NBCD-E3	point446	446	24.0	49.9
						NBCD-E3	A-02-06	161	24.0	49.8
						NBCD-E3	A-02-13	168	24.0	48.5
						NBCD-E3	A-02-14	169	24.0	47.3
B02002	39	64.0	5.8	7	-1.2	NBCD-E3	A-02-06	161	24.0	51.0
						NBCD-E3	A-02-07	162	24.0	50.5
						NBCD-E3	point446	446	24.0	50.2
						NBCD-E3	A-02-08	163	24.0	50.0
						NBCD-E3	A-02-09	164	24.0	49.3
						NBCD-E3	A-02-10	165	24.0	49.0
						NBCD-E3	A-02-11	166	24.0	48.8
						NBCD-E3	A-02-05	160	24.0	48.8
						NBCD-E3	A-02-12	167	24.0	46.9
						NBCD-E3	point451	451	24.0	45.8
B02102	40	64.0	5.8	7	-1.2	NBCD-E3	A-02-06	161	24.0	50.4

						NBCD-E3	A-02-07	162	24.0	49.8
						NBCD-E3	A-02-05	160	24.0	49.6
						NBCD-E3	point446	446	24.0	49.3
						NBCD-E3	A-02-08	163	24.0	49.3
						NBCD-E3	A-02-10	165	24.0	48.9
						NBCD-E3	A-02-09	164	24.0	48.8
						NBCD-E3	A-02-11	166	24.0	47.9
						NBCD-E3	A-02-12	167	24.0	47.1
						NBCD-E3	point449	449	24.0	46.1
B02202	41	64.1	5.7	7	-1.3	NBCD-E3	A-02-06	161	24.0	50.1
						NBCD-E3	A-02-05	160	24.0	49.7
						NBCD-E3	A-02-07	162	24.0	49.5
						NBCD-E3	point446	446	24.0	49.1
						NBCD-E3	A-02-08	163	24.0	49.0
						NBCD-E3	A-02-10	165	24.0	48.9
						NBCD-E3	A-02-09	164	24.0	48.5
						NBCD-E3	A-02-11	166	24.0	47.2
						NBCD-E3	point447	447	24.0	47.2
						NBCD-E3	A-02-04	159	24.0	46.2
B02302	42	64.0	5.7	7	-1.3	NBCD-E3	A-02-06	161	24.0	49.9
						NBCD-E3	A-02-05	160	24.0	49.7
						NBCD-E3	A-02-07	162	24.0	49.2
						NBCD-E3	point446	446	24.0	48.8
						NBCD-E3	A-02-10	165	24.0	48.7
						NBCD-E3	A-02-08	163	24.0	48.6
						NBCD-E3	A-02-09	164	24.0	48.3
						NBCD-E3	A-02-04	159	24.0	46.9
						NBCD-E3	A-02-11	166	24.0	46.7
						NBCD-E3	point450	450	24.0	46.2
B02401	43	64.1	5.6	7	-1.4	NBCD-E3	A-02-05	160	24.0	49.6
						NBCD-E3	A-02-06	161	24.0	49.5
						NBCD-E3	A-02-07	162	24.0	49.1
						NBCD-E3	A-02-10	165	24.0	48.6
						NBCD-E3	A-02-08	163	24.0	48.3
						NBCD-E3	point446	446	24.0	48.1
						NBCD-E3	A-02-09	164	24.0	48.0

						NBCD-E3	A-02-04	159	24.0	47.7
						NBCD-E3	point449	449	24.0	46.2
						NBCD-E3	point450	450	24.0	46.2
B02502	44	64.0	5.5	7	-1.5	NBCD-E3	A-02-05	160	24.0	49.3
						NBCD-E3	A-02-06	161	24.0	49.1
						NBCD-E3	A-02-07	162	24.0	48.5
						NBCD-E3	A-02-10	165	24.0	48.2
						NBCD-E3	A-02-08	163	24.0	48.0
						NBCD-E3	A-02-04	159	24.0	47.8
						NBCD-E3	A-02-09	164	24.0	47.8
						NBCD-E3	point446	446	24.0	47.1
						NBCD-E3	point448	448	24.0	46.1
						NBCD-E3	point449	449	24.0	46.1
B02602	45	63.9	5.4	7	-1.6	NBCD-E3	A-02-05	160	24.0	48.9
						NBCD-E3	A-02-06	161	24.0	48.6
						NBCD-E3	A-02-07	162	24.0	48.1
						NBCD-E3	A-02-04	159	24.0	47.8
						NBCD-E3	A-02-08	163	24.0	47.7
						NBCD-E3	A-02-09	164	24.0	47.3
						NBCD-E3	A-02-10	165	24.0	47.2
						NBCD-E3	point446	446	24.0	46.2
						NBCD-E3	point448	448	24.0	46.1
						NBCD-E3	point449	449	24.0	45.9
B02702	46	63.9	5.4	7	-1.6	NBCD-E3	A-02-05	160	24.0	48.7
						NBCD-E3	A-02-06	161	24.0	48.3
						NBCD-E3	A-02-04	159	24.0	47.8
						NBCD-E3	A-02-07	162	24.0	47.8
						NBCD-E3	A-02-08	163	24.0	47.4
						NBCD-E3	A-02-09	164	24.0	47.2
						NBCD-E3	A-02-10	165	24.0	47.1
						NBCD-E3	point446	446	24.0	46.1
						NBCD-E3	point448	448	24.0	46.0
						NBCD-E3	point447	447	24.0	45.7
B02802	47	63.9	5.3	7	-1.7	NBCD-E3	A-02-05	160	24.0	48.1
						NBCD-E3	A-02-04	159	24.0	48.1
						NBCD-E3	A-02-06	161	24.0	47.6

						NBCD-E3	A-02-07	162	24.0	47.1
						NBCD-E3	A-02-08	163	24.0	46.5
						NBCD-E3	A-02-09	164	24.0	46.2
						NBCD-E3	point446	446	24.0	46.1
						NBCD-E3	point448	448	24.0	46.0
						NBCD-E3	point447	447	24.0	45.8
						NBCD-E3	A-02-10	165	24.0	45.7
B02902	48	63.9	5.2	7	-1.8	NBCD-E3	A-02-05	160	24.0	48.0
						NBCD-E3	A-02-04	159	24.0	47.9
						NBCD-E3	A-02-06	161	24.0	47.7
						NBCD-E3	A-02-07	162	24.0	47.1
						NBCD-E3	A-02-08	163	24.0	46.2
						NBCD-E3	A-02-09	164	24.0	46.1
						NBCD-E3	point446	446	24.0	46.0
						NBCD-E3	point448	448	24.0	45.9
						NBCD-E3	point447	447	24.0	45.8
						NBCD-E3	A-02-10	165	24.0	45.6
B03002	49	63.8	5.2	7	-1.8	NBCD-E3	A-02-05	160	24.0	47.6
						NBCD-E3	A-02-04	159	24.0	47.4
						NBCD-E3	A-02-06	161	24.0	47.0
						NBCD-E3	point451	451	24.0	46.2
						NBCD-E3	A-02-07	162	24.0	46.1
						NBCD-E3	point446	446	24.0	45.9
						NBCD-E3	point448	448	24.0	45.7
						NBCD-E3	point447	447	24.0	45.7
						NBCD-E3	A-02-09	164	24.0	45.6
						NBCD-E3	point449	449	24.0	45.5
B03101	50	63.8	5.1	7	-1.9	NBCD-E3	A-02-04	159	24.0	47.0
						NBCD-E3	A-02-05	160	24.0	46.3
						NBCD-E3	point449	449	24.0	46.1
						NBCD-E3	point446	446	24.0	45.8
						NBCD-E3	point448	448	24.0	45.7
						NBCD-E3	point447	447	24.0	45.6
						NBCD-E3	A-02-06	161	24.0	45.5
						NBCD-E3	A-02-09	164	24.0	45.4
						NBCD-E3	A-02-03	158	24.0	45.3

						NBCD-E3	point450	450	24.0	44.9
B03201	51	63.9	4.9	7	-2.1	NBCD-E3	point449	449	24.0	46.8
						NBCD-E3	A-02-04	159	24.0	46.8
						NBCD-E3	point446	446	24.0	45.9
						NBCD-E3	point447	447	24.0	45.7
						NBCD-E3	A-02-03	158	24.0	45.7
						NBCD-E3	point448	448	24.0	45.6
						NBCD-E3	A-02-05	160	24.0	45.6
						NBCD-E3	A-02-09	164	24.0	45.4
						NBCD-E3	point456	456	24.0	45.3
						NBCD-E3	point450	450	24.0	44.8
B03301	52	63.6	5.2	7	-1.8	NBCD-E3	A-02-05	160	24.0	47.1
						NBCD-E3	A-02-04	159	24.0	47.0
						NBCD-E3	A-02-06	161	24.0	46.5
						NBCD-E3	point449	449	24.0	45.7
						NBCD-E3	point446	446	24.0	45.6
						NBCD-E3	A-02-07	162	24.0	45.5
						NBCD-E3	point448	448	24.0	45.4
						NBCD-E3	point447	447	24.0	45.4
						NBCD-E3	A-02-09	164	24.0	45.1
						NBCD-E3	point450	450	24.0	44.8
B03401	53	63.6	5.2	7	-1.8	NBCD-E3	A-02-06	161	24.0	47.0
						NBCD-E3	A-02-04	159	24.0	46.9
						NBCD-E3	A-02-05	160	24.0	46.6
						NBCD-E3	A-02-07	162	24.0	46.5
						NBCD-E3	A-02-08	163	24.0	45.6
						NBCD-E3	point446	446	24.0	45.5
						NBCD-E3	A-02-09	164	24.0	45.5
						NBCD-E3	point449	449	24.0	45.4
						NBCD-E3	point448	448	24.0	45.3
						NBCD-E3	point447	447	24.0	45.3
B03501-F	54	63.7	4.7	7	-2.3	NBCD-E3	point448	448	24.0	48.6
						NBCD-E3	A-02-03	158	24.0	45.9
						NBCD-E3	point446	446	24.0	45.0
						75NB-E1	B-02-02	365	12.0	45.0
						NBCD-E3	point456	456	24.0	44.7

						NBCD-E3	point447	447	24.0	44.5
						NBCD-E3	point452	452	24.0	44.3
						NBCD-E3	A-02-09	164	24.0	44.1
						NBCD-E3	point449	449	24.0	43.9
						NBCD-E3	A-02-04	159	24.0	43.9
B03601-F	55	63.6	4.7	7	-2.3	NBCD-E3	point448	448	24.0	48.8
						NBCD-E3	A-02-03	158	24.0	45.7
						NBCD-E3	point446	446	24.0	44.7
						NBCD-E3	point447	447	24.0	44.3
						NBCD-E3	point452	452	24.0	44.1
						NBCD-E3	point451	451	24.0	44.1
						NBCD-E3	point456	456	24.0	44.1
						NBCD-E3	A-02-02	157	24.0	44.1
						75NB-E1	B-02-02	365	12.0	44.0
						NBCD-E3	point455	455	24.0	43.9
B03702-F	56	63.9	4.6	7	-2.4	NBCD-E3	point448	448	24.0	48.8
						NBCD-E3	A-02-03	158	24.0	45.9
						NBCD-E3	point456	456	24.0	45.5
						NBCD-E3	point451	451	24.0	45.0
						75NB-E1	B-02-02	365	12.0	44.9
						NBCD-E3	point447	447	24.0	44.9
						NBCD-E3	point446	446	24.0	44.7
						NBCD-E3	point455	455	24.0	44.1
						NBCD-E3	A-02-04	159	24.0	44.1
						NBCD-E3	A-02-02	157	24.0	43.9
B03801-F	57	63.7	4.6	7	-2.4	NBCD-E3	point448	448	24.0	48.6
						NBCD-E3	point447	447	24.0	45.7
						NBCD-E3	A-02-03	158	24.0	45.6
						NBCD-E3	point451	451	24.0	45.5
						75NB-E1	B-02-02	365	12.0	45.3
						NBCD-E3	point455	455	24.0	44.5
						NBCD-E3	point446	446	24.0	44.4
						NBCD-E3	A-02-02	157	24.0	44.0
						75NB-E2	A-01-02	198	12.0	43.8
						NBCD-E3	point450	450	24.0	43.7
B03901-F	58	63.4	4.4	7	-2.6	NBCD-E3	point448	448	24.0	47.9

						NBCD-E3	point447	447	24.0	46.5
						NBCD-E3	point451	451	24.0	45.6
						NBCD-E3	A-02-03	158	24.0	44.8
						NBCD-E3	point455	455	24.0	44.7
						75NB-E1	B-02-02	365	12.0	44.2
						NBCD-E3	A-02-02	157	24.0	44.0
						NBCD-E3	point446	446	24.0	43.9
						NBCD-E3	A-02-08	163	24.0	43.5
						NBCD-E3	point450	450	24.0	43.5
B04004-F	59	63.2	4.3	7	-2.7	NBCD-E3	point448	448	24.0	47.5
						NBCD-E3	point447	447	24.0	47.1
						NBCD-E3	point451	451	24.0	45.7
						NBCD-E3	point455	455	24.0	44.6
						NBCD-E3	A-02-03	158	24.0	44.5
						75NB-E1	B-02-02	365	12.0	44.4
						NBCD-E3	point446	446	24.0	44.3
						NBCD-E3	A-02-02	157	24.0	43.9
						NBCD-E3	point457	457	24.0	43.7
						NBCD-E3	point450	450	24.0	43.5
B04104-F	60	63.1	4.4	7	-2.6	NBCD-E3	point447	447	24.0	48.1
						NBCD-E3	point448	448	24.0	46.3
						NBCD-E3	point451	451	24.0	45.7
						75NB-E1	B-02-02	365	12.0	45.3
						NBCD-E3	point455	455	24.0	44.5
						NBCD-E3	A-02-03	158	24.0	44.3
						NBCD-E3	point446	446	24.0	43.9
						NBCD-E3	A-02-02	157	24.0	43.8
						NBCD-E3	point449	449	24.0	43.4
						NBCD-E3	point450	450	24.0	43.3
B04225-F	61	61.3	2.5	7	-4.5	NBCD-E2	BCD-03-14	443	24.0	44.2
						NBCD-E3	point447	447	24.0	43.2
						NBCD-E3	point451	451	24.0	42.9
						NBCD-E3	point446	446	24.0	42.9
						NBCD-E2	BCD-03-13	442	24.0	42.8
						NBCD-E3	point448	448	24.0	42.5
						NBCD-E3	point450	450	24.0	42.4

						NBCD-E2	BCD-03-15	444	24.0	42.2
						75NB-E2	A-01-01	196	18.0	42.2
						NBCD-E3	point455	455	24.0	41.8
B04302	62	63.1	4.9	7	-2.1	NBCD-E3	A-02-08	163	24.0	49.5
						NBCD-E3	A-02-09	164	24.0	49.5
						NBCD-E3	A-02-10	165	24.0	49.5
						NBCD-E3	A-02-11	166	24.0	49.1
						NBCD-E3	A-02-13	168	24.0	48.9
						NBCD-E3	A-02-14	169	24.0	48.8
						NBCD-E3	A-02-12	167	24.0	48.8
						NBCD-E3	A-02-15	170	24.0	48.3
						NBCD-E3	A-02-16	171	24.0	47.1
						NBCD-E3	A-02-07	162	24.0	46.3
B04402	63	62.9	5.0	7	-2.0	NBCD-E3	A-02-08	163	24.0	49.4
						NBCD-E3	A-02-09	164	24.0	49.4
						NBCD-E3	A-02-10	165	24.0	49.3
						NBCD-E3	A-02-11	166	24.0	48.9
						NBCD-E3	A-02-13	168	24.0	48.7
						NBCD-E3	A-02-12	167	24.0	48.5
						NBCD-E3	A-02-14	169	24.0	48.4
						NBCD-E3	A-02-15	170	24.0	47.9
						NBCD-E3	A-02-07	162	24.0	47.2
						NBCD-E3	A-02-16	171	24.0	46.7
B04502	64	62.9	5.0	7	-2.0	NBCD-E3	A-02-08	163	24.0	49.4
						NBCD-E3	A-02-09	164	24.0	49.3
						NBCD-E3	A-02-10	165	24.0	49.2
						NBCD-E3	A-02-11	166	24.0	48.8
						NBCD-E3	A-02-12	167	24.0	48.7
						NBCD-E3	A-02-13	168	24.0	48.6
						NBCD-E3	A-02-14	169	24.0	48.3
						NBCD-E3	A-02-15	170	24.0	47.7
						NBCD-E3	A-02-07	162	24.0	47.5
						NBCD-E3	A-02-16	171	24.0	46.5
B04602	65	63.1	5.1	7	-1.9	NBCD-E3	A-02-08	163	24.0	49.9
						NBCD-E3	A-02-10	165	24.0	49.8
						NBCD-E3	A-02-09	164	24.0	49.8

						NBCD-E3	A-02-11	166	24.0	49.3
						NBCD-E3	A-02-12	167	24.0	49.1
						NBCD-E3	A-02-13	168	24.0	48.8
						NBCD-E3	A-02-07	162	24.0	48.6
						NBCD-E3	A-02-14	169	24.0	48.4
						NBCD-E3	A-02-15	170	24.0	47.3
						NBCD-E3	A-02-16	171	24.0	46.5
B04701	66	62.8	5.3	7	-1.7	NBCD-E3	A-02-10	165	24.0	49.4
						NBCD-E3	A-02-08	163	24.0	49.4
						NBCD-E3	A-02-09	164	24.0	49.2
						NBCD-E3	A-02-11	166	24.0	49.0
						NBCD-E3	A-02-07	162	24.0	48.7
						NBCD-E3	A-02-12	167	24.0	48.5
						NBCD-E3	A-02-13	168	24.0	48.1
						NBCD-E3	A-02-14	169	24.0	47.9
						NBCD-E3	A-02-15	170	24.0	47.2
						NBCD-E3	point446	446	24.0	46.7
B04801	67	62.8	5.4	7	-1.6	NBCD-E3	A-02-10	165	24.0	49.4
						NBCD-E3	A-02-08	163	24.0	49.4
						NBCD-E3	A-02-09	164	24.0	49.3
						NBCD-E3	A-02-07	162	24.0	49.0
						NBCD-E3	A-02-11	166	24.0	48.9
						NBCD-E3	A-02-12	167	24.0	48.4
						NBCD-E3	A-02-13	168	24.0	48.0
						NBCD-E3	A-02-14	169	24.0	47.8
						NBCD-E3	A-02-15	170	24.0	46.8
						NBCD-E3	point446	446	24.0	46.7
B04901	68	62.9	5.3	7	-1.7	NBCD-E3	A-02-08	163	24.0	49.6
						NBCD-E3	A-02-09	164	24.0	49.5
						NBCD-E3	A-02-07	162	24.0	49.4
						NBCD-E3	A-02-10	165	24.0	49.3
						NBCD-E3	A-02-11	166	24.0	48.7
						NBCD-E3	A-02-12	167	24.0	48.3
						NBCD-E3	A-02-13	168	24.0	47.8
						NBCD-E3	A-02-14	169	24.0	47.6
						NBCD-E3	point446	446	24.0	47.0

						NBCD-E3	A-02-15	170	24.0	46.6
B05001	69	63.0	5.2	7	-1.8	NBCD-E3	A-02-08	163	24.0	49.5
						NBCD-E3	A-02-09	164	24.0	49.4
						NBCD-E3	A-02-07	162	24.0	49.3
						NBCD-E3	A-02-10	165	24.0	49.2
						NBCD-E3	A-02-11	166	24.0	48.7
						NBCD-E3	A-02-12	167	24.0	48.2
						NBCD-E3	A-02-13	168	24.0	47.6
						NBCD-E3	A-02-14	169	24.0	47.5
						NBCD-E3	point446	446	24.0	47.1
						NBCD-E3	point456	456	24.0	46.9
B05102	70	63.0	5.3	7	-1.7	NBCD-E3	A-02-10	165	24.0	49.6
						NBCD-E3	A-02-08	163	24.0	49.5
						NBCD-E3	A-02-07	162	24.0	49.4
						NBCD-E3	A-02-09	164	24.0	49.3
						NBCD-E3	A-02-11	166	24.0	48.7
						NBCD-E3	A-02-12	167	24.0	48.1
						NBCD-E3	A-02-13	168	24.0	47.6
						NBCD-E3	A-02-14	169	24.0	47.4
						NBCD-E3	point446	446	24.0	47.3
						NBCD-E3	A-02-15	170	24.0	46.2
B05202	71	63.3	5.5	7	-1.5	NBCD-E3	A-02-08	163	24.0	50.1
						NBCD-E3	A-02-09	164	24.0	49.7
						NBCD-E3	A-02-07	162	24.0	49.5
						NBCD-E3	A-02-10	165	24.0	49.4
						NBCD-E3	A-02-11	166	24.0	48.9
						NBCD-E3	point446	446	24.0	48.7
						NBCD-E3	A-02-12	167	24.0	48.4
						NBCD-E3	A-02-13	168	24.0	47.8
						NBCD-E3	A-02-14	169	24.0	47.4
						NBCD-E3	A-02-16	171	24.0	46.6
B05302	72	63.0	5.4	7	-1.6	NBCD-E3	A-02-07	162	24.0	49.5
						NBCD-E3	A-02-08	163	24.0	49.4
						NBCD-E3	A-02-09	164	24.0	49.1
						NBCD-E3	A-02-10	165	24.0	48.8
						NBCD-E3	A-02-11	166	24.0	48.3

						NBCD-E3	point446	446	24.0	48.1
						NBCD-E3	A-02-12	167	24.0	47.9
						NBCD-E3	A-02-13	168	24.0	47.2
						NBCD-E3	A-02-14	169	24.0	47.0
						NBCD-E3	A-02-06	161	24.0	46.1
B05404	73	62.9	5.3	7	-1.7	NBCD-E3	A-02-07	162	24.0	49.4
						NBCD-E3	A-02-08	163	24.0	49.2
						NBCD-E3	A-02-09	164	24.0	48.9
						NBCD-E3	A-02-10	165	24.0	48.6
						NBCD-E3	A-02-11	166	24.0	48.0
						NBCD-E3	A-02-12	167	24.0	47.7
						NBCD-E3	point446	446	24.0	47.1
						NBCD-E3	A-02-13	168	24.0	47.0
						NBCD-E3	A-02-14	169	24.0	46.5
						NBCD-E3	A-02-06	161	24.0	46.5
B05502	74	63.1	5.3	7	-1.7	NBCD-E3	A-02-07	162	24.0	49.2
						NBCD-E3	A-02-08	163	24.0	48.9
						NBCD-E3	A-02-09	164	24.0	48.6
						NBCD-E3	A-02-10	165	24.0	48.3
						NBCD-E3	A-02-06	161	24.0	48.2
						NBCD-E3	A-02-11	166	24.0	47.6
						NBCD-E3	A-02-12	167	24.0	47.5
						NBCD-E3	point446	446	24.0	47.0
						NBCD-E3	A-02-13	168	24.0	46.7
						NBCD-E3	point447	447	24.0	46.1
B05602	75	63.1	5.2	7	-1.8	NBCD-E3	A-02-06	161	24.0	48.9
						NBCD-E3	A-02-07	162	24.0	48.6
						NBCD-E3	A-02-08	163	24.0	48.5
						NBCD-E3	A-02-09	164	24.0	48.1
						NBCD-E3	A-02-10	165	24.0	47.8
						NBCD-E3	A-02-11	166	24.0	47.4
						NBCD-E3	A-02-12	167	24.0	47.0
						NBCD-E3	point450	450	24.0	46.6
						NBCD-E3	point446	446	24.0	46.2
						NBCD-E3	A-02-13	168	24.0	46.1
B05704	76	62.9	5.3	7	-1.7	NBCD-E3	A-02-06	161	24.0	49.0

						NBCD-E3	A-02-07	162	24.0	48.3
						NBCD-E3	A-02-08	163	24.0	48.0
						NBCD-E3	A-02-09	164	24.0	47.6
						NBCD-E3	A-02-11	166	24.0	47.5
						NBCD-E3	A-02-10	165	24.0	47.2
						NBCD-E3	A-02-12	167	24.0	46.1
						NBCD-E3	A-02-13	168	24.0	45.4
						NBCD-E3	point446	446	24.0	44.8
						NBCD-E3	A-02-05	160	24.0	44.8
B05802	77	62.7	5.4	7	-1.6	NBCD-E3	A-02-06	161	24.0	48.3
						NBCD-E3	A-02-07	162	24.0	47.9
						NBCD-E3	A-02-08	163	24.0	47.6
						NBCD-E3	A-02-11	166	24.0	47.2
						NBCD-E3	A-02-09	164	24.0	47.2
						NBCD-E3	A-02-10	165	24.0	46.5
						NBCD-E3	A-02-05	160	24.0	45.8
						NBCD-E3	A-02-12	167	24.0	45.7
						NBCD-E3	A-02-13	168	24.0	45.2
						NBCD-E3	point446	446	24.0	44.4
B05903	78	62.6	5.4	7	-1.6	NBCD-E3	A-02-06	161	24.0	47.8
						NBCD-E3	A-02-10	165	24.0	47.6
						NBCD-E3	A-02-07	162	24.0	47.4
						NBCD-E3	A-02-08	163	24.0	47.0
						NBCD-E3	A-02-11	166	24.0	46.8
						NBCD-E3	A-02-09	164	24.0	46.7
						NBCD-E3	A-02-05	160	24.0	46.5
						NBCD-E3	point449	449	24.0	45.4
						NBCD-E3	A-02-12	167	24.0	44.9
						NBCD-E3	point446	446	24.0	44.0
B06002	79	62.6	5.5	7	-1.5	NBCD-E3	A-02-06	161	24.0	47.5
						NBCD-E3	A-02-07	162	24.0	47.1
						NBCD-E3	A-02-05	160	24.0	47.0
						NBCD-E3	A-02-08	163	24.0	46.7
						NBCD-E3	A-02-10	165	24.0	46.3
						NBCD-E3	A-02-09	164	24.0	46.2
						NBCD-E3	A-02-11	166	24.0	46.2

						NBCD-E3	point446	446	24.0	44.3
						NBCD-E3	A-02-12	167	24.0	44.3
						NBCD-E3	point448	448	24.0	44.1
B06104	80	62.6	5.5	7	-1.5	NBCD-E3	A-02-06	161	24.0	48.0
						NBCD-E3	A-02-05	160	24.0	46.9
						NBCD-E3	A-02-07	162	24.0	46.6
						NBCD-E3	A-02-08	163	24.0	46.2
						NBCD-E3	A-02-10	165	24.0	46.0
						NBCD-E3	A-02-09	164	24.0	45.8
						NBCD-E3	A-02-11	166	24.0	45.4
						NBCD-E3	A-02-04	159	24.0	44.3
						NBCD-E3	point446	446	24.0	43.8
						NBCD-E3	point448	448	24.0	43.8
B06204	81	62.8	5.3	7	-1.7	NBCD-E3	A-02-05	160	24.0	46.6
						NBCD-E3	A-02-07	162	24.0	46.6
						NBCD-E3	A-02-06	161	24.0	46.4
						NBCD-E3	A-02-10	165	24.0	45.8
						NBCD-E3	A-02-04	159	24.0	45.5
						NBCD-E3	A-02-08	163	24.0	45.5
						NBCD-E3	A-02-09	164	24.0	45.3
						NBCD-E3	point449	449	24.0	44.6
						NBCD-E3	point446	446	24.0	43.8
						NBCD-E3	point448	448	24.0	43.7
B06302	82	62.8	5.4	7	-1.6	NBCD-E3	A-02-05	160	24.0	46.7
						NBCD-E3	A-02-06	161	24.0	46.2
						NBCD-E3	A-02-07	162	24.0	45.8
						NBCD-E3	A-02-10	165	24.0	45.7
						NBCD-E3	A-02-04	159	24.0	45.7
						NBCD-E3	A-02-08	163	24.0	45.3
						NBCD-E3	A-02-09	164	24.0	45.2
						NBCD-E3	point449	449	24.0	45.1
						75NB-E1	B-02-02	365	12.0	44.0
						NBCD-E3	point448	448	24.0	44.0
B06402	83	62.9	5.3	7	-1.7	NBCD-E3	A-02-05	160	24.0	46.5
						NBCD-E3	A-02-04	159	24.0	46.1
						NBCD-E3	A-02-06	161	24.0	46.0

						NBCD-E3	A-02-07	162	24.0	45.6
						NBCD-E3	A-02-10	165	24.0	45.5
						NBCD-E3	A-02-08	163	24.0	45.1
						NBCD-E3	A-02-09	164	24.0	45.1
						NBCD-E3	point449	449	24.0	44.9
						NBCD-E3	point448	448	24.0	44.8
						75NB-E1	B-02-02	365	12.0	44.2
B06501	84	63.0	5.2	7	-1.8	NBCD-E3	point448	448	24.0	47.0
						NBCD-E3	A-02-04	159	24.0	46.2
						NBCD-E3	A-02-05	160	24.0	46.0
						NBCD-E3	A-02-06	161	24.0	45.5
						75NB-E1	B-02-02	365	12.0	45.3
						NBCD-E3	A-02-07	162	24.0	45.1
						NBCD-E3	A-02-10	165	24.0	44.8
						NBCD-E3	A-02-09	164	24.0	44.7
						NBCD-E3	A-02-08	163	24.0	44.5
						NBCD-E3	point447	447	24.0	44.0
B06602	85	63.0	5.1	7	-1.9	NBCD-E3	point448	448	24.0	47.0
						NBCD-E3	A-02-04	159	24.0	45.9
						NBCD-E3	A-02-05	160	24.0	45.8
						NBCD-E3	A-02-06	161	24.0	45.3
						75NB-E1	B-02-02	365	12.0	45.1
						NBCD-E3	A-02-07	162	24.0	44.9
						NBCD-E3	A-02-10	165	24.0	44.6
						NBCD-E3	A-02-09	164	24.0	44.6
						NBCD-E3	point447	447	24.0	44.0
						NBCD-E3	A-02-08	163	24.0	44.0
B06705	86	63.3	5.1	7	-1.9	NBCD-E3	point448	448	24.0	47.7
						NBCD-E3	A-02-04	159	24.0	46.2
						75NB-E1	B-02-02	365	12.0	45.9
						NBCD-E3	point446	446	24.0	45.6
						NBCD-E3	A-02-05	160	24.0	45.6
						NBCD-E3	A-02-07	162	24.0	45.3
						NBCD-E3	A-02-06	161	24.0	45.0
						NBCD-E3	A-02-03	158	24.0	44.9
						NBCD-E2	BCD-03-15	444	24.0	44.7

						NBCD-E3	A-02-09	164	24.0	44.7
B06802	87	63.5	5.0	7	-2.0	NBCD-E3	point448	448	24.0	47.7
						75NB-E1	B-02-02	365	12.0	47.0
						NBCD-E2	BCD-03-15	444	24.0	46.0
						NBCD-E3	A-02-04	159	24.0	45.9
						NBCD-E3	A-02-03	158	24.0	45.5
						NBCD-E3	A-02-05	160	24.0	45.1
						NBCD-E3	point447	447	24.0	45.0
						NBCD-E3	point452	452	24.0	44.9
						NBCD-E3	A-02-06	161	24.0	44.6
						NBCD-E3	point456	456	24.0	44.6
B06901	88	63.7	4.5	7	-2.5	NBCD-E3	point448	448	24.0	47.5
						75NB-E2	A-01-02	198	12.0	46.5
						NBCD-E3	point451	451	24.0	46.3
						NBCD-E2	BCD-03-15	444	24.0	46.3
						NBCD-E3	point447	447	24.0	46.3
						NBCD-E3	A-02-04	159	24.0	46.1
						75NB-E1	B-02-02	365	12.0	46.0
						75NB-E2	A-01-01	196	18.0	45.8
						75NB-E2	A-01-03	199	12.0	45.6
						75NB-E1	B-02-01	364	14.0	45.5
B07006	89	63.8	4.5	7	-2.5	NBCD-E3	point448	448	24.0	47.4
						NBCD-E2	BCD-03-15	444	24.0	47.2
						75NB-E1	B-02-02	365	12.0	47.1
						NBCD-E3	point447	447	24.0	46.7
						75NB-E2	A-01-02	198	12.0	46.4
						NBCD-E3	A-02-04	159	24.0	46.1
						75NB-E1	B-02-01	364	14.0	46.0
						75NB-E2	A-01-01	196	12.0	45.9
						75NB-E2	A-01-03	199	12.0	45.6
						NBCD-E3	point451	451	24.0	45.6
B07103	90	63.8	4.6	7	-2.4	NBCD-E2	BCD-03-15	444	24.0	48.1
						75NB-E1	B-02-02	365	12.0	48.0
						NBCD-E3	point447	447	24.0	47.7
						NBCD-E3	point448	448	24.0	46.8
						75NB-E2	A-01-02	198	12.0	46.4

						75NB-E1	B-02-01	364	14.0	46.2
						75NB-E2	A-01-01	196	12.0	46.1
						NBCD-E3	point451	451	24.0	45.9
						NBCD-E3	A-02-03	158	24.0	45.9
						75NB-E1	B-02-03	366	12.0	45.8
B07202	91	63.8	4.6	7	-2.4	NBCD-E2	BCD-03-15	444	24.0	48.1
						75NB-E1	B-02-02	365	12.0	48.0
						NBCD-E3	point447	447	24.0	47.8
						NBCD-E3	point448	448	24.0	46.5
						75NB-E1	B-02-01	364	14.0	46.4
						75NB-E2	A-01-02	198	12.0	46.3
						75NB-E2	A-01-01	196	18.0	45.9
						75NB-E1	B-02-03	366	12.0	45.9
						NBCD-E3	point451	451	24.0	45.9
						NBCD-E3	A-02-03	158	24.0	45.8
B07302	92	64.0	4.4	7	-2.6	75NB-E1	B-02-02	365	12.0	48.7
						NBCD-E2	BCD-03-15	444	24.0	48.1
						NBCD-E3	point447	447	24.0	47.8
						75NB-E1	B-02-01	364	14.0	46.8
						NBCD-E3	point448	448	24.0	46.4
						75NB-E1	B-02-03	366	12.0	46.1
						NBCD-E3	point446	446	24.0	46.1
						75NB-E2	A-01-02	198	12.0	46.0
						NBCD-E3	A-02-03	158	24.0	45.8
						NBCD-E3	point451	451	24.0	45.8
B07402	93	64.3	4.6	7	-2.4	75NB-E1	B-02-02	365	12.0	50.3
						NBCD-E2	BCD-03-15	444	24.0	48.6
						NBCD-E3	point447	447	24.0	48.4
						75NB-E1	B-02-03	366	12.0	47.3
						75NB-E1	B-02-01	364	14.0	47.1
						NBCD-E3	point446	446	24.0	46.9
						75NB-E2	A-01-01	196	18.0	46.0
						NBCD-E3	A-02-03	158	24.0	46.0
						75NB-E2	A-01-02	198	12.0	45.9
						NBCD-E3	point451	451	24.0	45.9
B07502	94	64.1	4.7	7	-2.3	75NB-E1	B-02-02	365	12.0	49.5

						NBCD-E2	BCD-03-15	444	24.0	47.9
						NBCD-E3	point447	447	24.0	47.8
						75NB-E1	B-02-03	366	12.0	47.4
						75NB-E1	B-02-01	364	14.0	46.7
						NBCD-E3	point446	446	24.0	46.1
						NBCD-E3	A-02-03	158	24.0	45.7
						NBCD-E3	point451	451	24.0	45.6
						75NB-E2	A-01-01	196	18.0	45.4
						75NB-E2	A-01-02	198	12.0	45.3
B07601	95	64.1	4.9	7	-2.1	75NB-E1	B-02-02	365	12.0	49.8
						75NB-E1	B-02-01	364	14.0	48.0
						NBCD-E2	BCD-03-15	444	24.0	47.9
						NBCD-E3	point447	447	24.0	47.5
						75NB-E1	B-02-03	366	12.0	47.5
						NBCD-E3	point446	446	24.0	46.5
						NBCD-E3	A-02-03	158	24.0	45.9
						NBCD-E3	point450	450	24.0	45.4
						75NB-E2	A-01-01	196	18.0	45.3
						75NB-E2	A-01-02	198	12.0	45.2
B09302	113	62.7	5.0	7	-2.0	NBCD-E3	A-02-10	165	24.0	48.7
						NBCD-E3	A-02-08	163	24.0	48.7
						NBCD-E3	A-02-09	164	24.0	48.6
						NBCD-E3	A-02-11	166	24.0	48.5
						NBCD-E3	A-02-12	167	24.0	48.3
						NBCD-E3	A-02-13	168	24.0	48.0
						NBCD-E3	A-02-14	169	24.0	47.9
						NBCD-E3	A-02-15	170	24.0	47.6
						NBCD-E3	A-02-16	171	24.0	47.0
						NBCD-E3	A-02-07	162	24.0	45.8
B09402	114	62.3	4.9	7	-2.1	NBCD-E3	A-02-08	163	24.0	48.1
						NBCD-E3	A-02-10	165	24.0	48.1
						NBCD-E3	A-02-09	164	24.0	48.0
						NBCD-E3	A-02-11	166	24.0	47.8
						NBCD-E3	A-02-12	167	24.0	47.7
						NBCD-E3	A-02-13	168	24.0	47.6
						NBCD-E3	A-02-14	169	24.0	47.4

						NBCD-E3	A-02-15	170	24.0	47.1
						NBCD-E3	A-02-16	171	24.0	46.5
						NBCD-E3	A-02-07	162	24.0	45.4
B09502	115	62.7	5.1	7	-1.9	NBCD-E3	A-02-08	163	24.0	49.0
						NBCD-E3	A-02-09	164	24.0	48.9
						NBCD-E3	A-02-07	162	24.0	48.8
						NBCD-E3	A-02-10	165	24.0	48.7
						NBCD-E3	A-02-11	166	24.0	48.2
						NBCD-E3	A-02-12	167	24.0	47.7
						NBCD-E3	A-02-13	168	24.0	47.2
						NBCD-E3	A-02-14	169	24.0	47.0
						NBCD-E3	point446	446	24.0	46.7
						NBCD-E3	A-02-15	170	24.0	46.6
B09602	116	62.7	5.3	7	-1.7	NBCD-E3	A-02-08	163	24.0	49.1
						NBCD-E3	A-02-09	164	24.0	49.0
						NBCD-E3	A-02-07	162	24.0	48.9
						NBCD-E3	A-02-10	165	24.0	48.8
						NBCD-E3	A-02-11	166	24.0	48.3
						NBCD-E3	A-02-12	167	24.0	47.7
						NBCD-E3	A-02-13	168	24.0	47.2
						NBCD-E3	A-02-14	169	24.0	47.0
						NBCD-E3	point446	446	24.0	46.7
						NBCD-E3	A-02-15	170	24.0	46.2
B09801	118	62.0	4.9	7	-2.1	NBCD-E3	A-02-08	163	24.0	48.0
						NBCD-E3	A-02-09	164	24.0	48.0
						NBCD-E3	A-02-10	165	24.0	47.8
						NBCD-E3	A-02-07	162	24.0	47.5
						NBCD-E3	A-02-11	166	24.0	47.4
						NBCD-E3	A-02-12	167	24.0	47.1
						NBCD-E3	A-02-13	168	24.0	46.6
						NBCD-E3	A-02-14	169	24.0	46.4
						NBCD-E3	A-02-15	170	24.0	46.0
						NBCD-E3	A-02-16	171	24.0	45.0
B22302	119	62.4	5.0	7	-2.0	NBCD-E3	A-02-08	163	24.0	48.4
						NBCD-E3	A-02-09	164	24.0	48.4
						NBCD-E3	A-02-10	165	24.0	48.2

						NBCD-E3	A-02-07	162	24.0	48.2
						NBCD-E3	A-02-11	166	24.0	47.8
						NBCD-E3	A-02-12	167	24.0	47.4
						NBCD-E3	A-02-13	168	24.0	46.9
						NBCD-E3	A-02-14	169	24.0	46.7
						NBCD-E3	A-02-15	170	24.0	46.3
						NBCD-E3	point446	446	24.0	46.0
B09901	120	62.0	4.9	7	-2.1	NBCD-E3	A-02-08	163	24.0	47.9
						NBCD-E3	A-02-09	164	24.0	47.9
						NBCD-E3	A-02-10	165	24.0	47.7
						NBCD-E3	A-02-07	162	24.0	47.6
						NBCD-E3	A-02-11	166	24.0	47.3
						NBCD-E3	A-02-13	168	24.0	46.5
						NBCD-E3	A-02-12	167	24.0	46.4
						NBCD-E3	A-02-14	169	24.0	46.3
						NBCD-E3	A-02-15	170	24.0	45.9
						NBCD-E3	A-02-16	171	24.0	45.0
B10001	121	62.1	4.9	7	-2.1	NBCD-E3	A-02-08	163	24.0	48.0
						NBCD-E3	A-02-09	164	24.0	47.9
						NBCD-E3	A-02-07	162	24.0	47.8
						NBCD-E3	A-02-10	165	24.0	47.7
						NBCD-E3	A-02-11	166	24.0	47.3
						NBCD-E3	A-02-12	167	24.0	46.9
						NBCD-E3	A-02-13	168	24.0	46.4
						NBCD-E3	A-02-14	169	24.0	46.2
						NBCD-E3	A-02-15	170	24.0	45.8
						NBCD-E3	A-02-16	171	24.0	44.7
B10101	122	62.0	4.9	7	-2.1	NBCD-E3	A-02-08	163	24.0	47.8
						NBCD-E3	A-02-09	164	24.0	47.8
						NBCD-E3	A-02-07	162	24.0	47.6
						NBCD-E3	A-02-10	165	24.0	47.6
						NBCD-E3	A-02-11	166	24.0	47.2
						NBCD-E3	A-02-12	167	24.0	46.8
						NBCD-E3	A-02-13	168	24.0	46.2
						NBCD-E3	A-02-14	169	24.0	46.1
						NBCD-E3	A-02-15	170	24.0	45.7

						NBCD-E3	point446	446	24.0	44.7
B10201	123	62.0	4.7	7	-2.3	NBCD-E3	A-02-09	164	24.0	47.5
						NBCD-E3	A-02-07	162	24.0	47.4
						NBCD-E3	A-02-10	165	24.0	47.3
						NBCD-E3	A-02-11	166	24.0	46.9
						NBCD-E3	A-02-08	163	24.0	46.6
						NBCD-E3	A-02-12	167	24.0	46.5
						NBCD-E3	A-02-13	168	24.0	46.0
						NBCD-E3	A-02-14	169	24.0	45.8
						NBCD-E3	A-02-15	170	24.0	45.4
						NBCD-E3	point446	446	24.0	45.2
B10301	124	62.2	4.7	7	-2.3	NBCD-E3	A-02-08	163	24.0	48.1
						NBCD-E3	A-02-07	162	24.0	47.7
						NBCD-E3	A-02-09	164	24.0	47.7
						NBCD-E3	A-02-10	165	24.0	47.4
						NBCD-E3	A-02-11	166	24.0	47.0
						NBCD-E3	A-02-12	167	24.0	46.6
						NBCD-E3	point446	446	24.0	46.4
						NBCD-E3	A-02-13	168	24.0	46.0
						NBCD-E3	A-02-14	169	24.0	45.8
						NBCD-E3	A-02-15	170	24.0	45.4
B10405	125	62.1	4.6	7	-2.4	NBCD-E3	A-02-08	163	24.0	48.0
						NBCD-E3	A-02-07	162	24.0	47.6
						NBCD-E3	A-02-09	164	24.0	47.5
						NBCD-E3	A-02-10	165	24.0	47.1
						NBCD-E3	A-02-11	166	24.0	46.7
						NBCD-E3	point446	446	24.0	46.3
						NBCD-E3	A-02-12	167	24.0	46.2
						NBCD-E3	A-02-13	168	24.0	45.6
						NBCD-E3	A-02-14	169	24.0	45.4
						NBCD-E3	A-02-15	170	24.0	45.0
B10502	126	64.1	4.2	7	-2.8	NBCD-E3	A-02-07	162	24.0	50.1
						NBCD-E3	A-02-08	163	24.0	49.5
						NBCD-E3	A-02-06	161	24.0	49.4
						NBCD-E3	A-02-09	164	24.0	49.3
						NBCD-E3	point446	446	24.0	48.7

						NBCD-E3	A-02-10	165	24.0	48.7
						NBCD-E3	point448	448	24.0	48.6
						NBCD-E3	point449	449	24.0	48.6
						NBCD-E3	A-02-11	166	24.0	48.0
						NBCD-E3	point447	447	24.0	47.8
B10601	127	63.8	4.1	7	-2.9	NBCD-E3	A-02-07	162	24.0	49.7
						NBCD-E3	A-02-08	163	24.0	49.3
						NBCD-E3	A-02-09	164	24.0	49.0
						NBCD-E3	A-02-06	161	24.0	48.9
						NBCD-E3	point449	449	24.0	48.5
						NBCD-E3	point446	446	24.0	48.3
						NBCD-E3	A-02-10	165	24.0	48.3
						NBCD-E3	point448	448	24.0	48.1
						NBCD-E3	A-02-11	166	24.0	47.7
						NBCD-E3	point447	447	24.0	47.7
B10701	128	62.6	4.4	7	-2.6	NBCD-E3	A-02-08	163	24.0	48.4
						NBCD-E3	A-02-07	162	24.0	48.1
						NBCD-E3	A-02-09	164	24.0	47.7
						NBCD-E3	A-02-10	165	24.0	47.5
						NBCD-E3	point446	446	24.0	47.0
						NBCD-E3	A-02-11	166	24.0	46.7
						NBCD-E3	A-02-06	161	24.0	46.5
						NBCD-E3	A-02-12	167	24.0	46.2
						NBCD-E3	A-02-13	168	24.0	45.5
						NBCD-E3	A-02-14	169	24.0	45.3
B10801	129	62.7	4.5	7	-2.5	NBCD-E3	A-02-07	162	24.0	48.5
						NBCD-E3	A-02-08	163	24.0	48.4
						NBCD-E3	A-02-10	165	24.0	47.7
						NBCD-E3	A-02-09	164	24.0	47.7
						NBCD-E3	point446	446	24.0	47.2
						NBCD-E3	A-02-06	161	24.0	47.2
						NBCD-E3	A-02-11	166	24.0	46.7
						NBCD-E3	A-02-12	167	24.0	46.3
						NBCD-E3	A-02-13	168	24.0	45.5
						NBCD-E3	A-02-14	169	24.0	45.3
B10901	130	62.6	4.4	7	-2.6	NBCD-E3	A-02-08	163	24.0	48.1

						NBCD-E3	A-02-07	162	24.0	48.1
						NBCD-E3	A-02-10	165	24.0	47.5
						NBCD-E3	A-02-09	164	24.0	47.5
						NBCD-E3	A-02-06	161	24.0	47.1
						NBCD-E3	point446	446	24.0	47.0
						NBCD-E3	A-02-11	166	24.0	46.5
						NBCD-E3	A-02-12	167	24.0	46.3
						NBCD-E3	A-02-13	168	24.0	45.2
						NBCD-E3	A-02-14	169	24.0	45.2
B11004	131	62.8	4.4	7	-2.6	NBCD-E3	A-02-07	162	24.0	48.4
						NBCD-E3	A-02-06	161	24.0	48.0
						NBCD-E3	A-02-08	163	24.0	47.8
						NBCD-E3	A-02-09	164	24.0	47.4
						NBCD-E3	A-02-10	165	24.0	47.3
						NBCD-E3	A-02-11	166	24.0	46.5
						NBCD-E3	A-02-12	167	24.0	46.4
						NBCD-E3	point446	446	24.0	45.3
						NBCD-E3	point448	448	24.0	45.3
						NBCD-E3	point450	450	24.0	45.3
B11102	132	63.2	4.6	7	-2.4	NBCD-E3	A-02-06	161	24.0	48.8
						NBCD-E3	A-02-07	162	24.0	48.3
						NBCD-E3	A-02-08	163	24.0	47.4
						NBCD-E3	A-02-09	164	24.0	47.3
						NBCD-E3	A-02-10	165	24.0	46.9
						NBCD-E3	A-02-11	166	24.0	46.7
						NBCD-E3	A-02-05	160	24.0	46.5
						NBCD-E3	point448	448	24.0	46.1
						NBCD-E3	point450	450	24.0	46.1
						NBCD-E3	point447	447	24.0	45.9
B11201	133	62.4	5.3	7	-1.7	NBCD-E3	A-02-06	161	24.0	47.4
						NBCD-E3	A-02-07	162	24.0	47.1
						NBCD-E3	A-02-08	163	24.0	46.7
						NBCD-E3	A-02-11	166	24.0	46.5
						NBCD-E3	A-02-09	164	24.0	46.3
						NBCD-E3	A-02-05	160	24.0	46.1
						NBCD-E3	A-02-10	165	24.0	46.0

						NBCD-E3	A-02-12	167	24.0	44.8
						NBCD-E3	point446	446	24.0	44.2
						NBCD-E3	point448	448	24.0	44.0
B11301	135	62.4	5.2	7	-1.8	NBCD-E3	A-02-06	161	24.0	47.3
						NBCD-E3	A-02-07	162	24.0	47.0
						NBCD-E3	A-02-08	163	24.0	46.4
						NBCD-E3	A-02-11	166	24.0	46.4
						NBCD-E3	A-02-09	164	24.0	46.3
						NBCD-E3	A-02-10	165	24.0	45.9
						NBCD-E3	A-02-05	160	24.0	45.8
						NBCD-E3	A-02-12	167	24.0	44.8
						NBCD-E3	point446	446	24.0	44.3
						NBCD-E3	point448	448	24.0	44.3
B11401	136	62.2	5.1	7	-1.9	NBCD-E3	A-02-06	161	24.0	47.1
						NBCD-E3	A-02-08	163	24.0	47.0
						NBCD-E3	A-02-07	162	24.0	46.7
						NBCD-E3	A-02-11	166	24.0	46.1
						NBCD-E3	A-02-09	164	24.0	46.1
						NBCD-E3	A-02-10	165	24.0	45.7
						NBCD-E3	A-02-05	160	24.0	45.4
						NBCD-E3	A-02-12	167	24.0	44.7
						NBCD-E3	point448	448	24.0	44.3
						NBCD-E3	point446	446	24.0	44.1
B11502	137	62.5	4.9	7	-2.1	NBCD-E3	A-02-06	161	24.0	46.0
						NBCD-E3	A-02-05	160	24.0	45.9
						75NB-E2	A-01-02	198	12.0	45.8
						NBCD-E3	A-02-07	162	24.0	45.4
						NBCD-E3	A-02-10	165	24.0	45.2
						NBCD-E3	point448	448	24.0	45.1
						NBCD-E3	A-02-08	163	24.0	45.0
						NBCD-E3	A-02-11	166	24.0	44.7
						NBCD-E3	point449	449	24.0	44.6
						NBCD-E3	A-02-04	159	24.0	44.3
B11601	138	62.6	4.7	7	-2.3	NBCD-E3	A-02-05	160	24.0	45.9
						NBCD-E3	point448	448	24.0	45.9
						NBCD-E3	A-02-06	161	24.0	45.8

						75NB-E2	A-01-02	198	12.0	45.7
						NBCD-E3	A-02-07	162	24.0	45.1
						NBCD-E3	A-02-10	165	24.0	45.1
						NBCD-E3	point449	449	24.0	44.7
						NBCD-E3	A-02-08	163	24.0	44.7
						NBCD-E3	A-02-11	166	24.0	44.6
						NBCD-E3	A-02-04	159	24.0	44.6
B11701	139	62.8	4.5	7	-2.5	NBCD-E3	point448	448	24.0	46.6
						NBCD-E3	A-02-05	160	24.0	46.2
						NBCD-E3	A-02-06	161	24.0	46.1
						75NB-E2	A-01-02	198	12.0	45.5
						NBCD-E3	point447	447	24.0	45.4
						NBCD-E3	A-02-07	162	24.0	45.0
						NBCD-E3	A-02-09	164	24.0	44.9
						75NB-E2	A-01-04	200	12.0	44.8
						NBCD-E3	A-02-08	163	24.0	44.7
						NBCD-E3	A-02-04	159	24.0	44.6
B11801	140	63.0	4.3	7	-2.7	NBCD-E3	point448	448	24.0	46.7
						NBCD-E3	A-02-05	160	24.0	46.4
						NBCD-E3	A-02-06	161	24.0	46.1
						NBCD-E3	point447	447	24.0	45.5
						75NB-E2	A-01-02	198	12.0	45.5
						NBCD-E3	A-02-10	165	24.0	45.3
						NBCD-E3	A-02-08	163	24.0	45.2
						NBCD-E3	A-02-07	162	24.0	45.1
						75NB-E1	B-02-02	365	12.0	45.0
						NBCD-E3	point446	446	24.0	45.0
B11901	141	63.1	4.3	7	-2.7	NBCD-E3	point448	448	24.0	46.8
						NBCD-E3	A-02-05	160	24.0	46.7
						NBCD-E3	A-02-06	161	24.0	46.1
						75NB-E1	B-02-02	365	12.0	45.7
						NBCD-E3	point446	446	24.0	45.7
						NBCD-E3	point447	447	24.0	45.5
						75NB-E2	A-01-02	198	12.0	45.5
						NBCD-E3	A-02-08	163	24.0	45.4
						NBCD-E3	A-02-10	165	24.0	45.3

						NBCD-E3	A-02-07	162	24.0	45.2
B12001	142	63.2	4.2	7	-2.8	NBCD-E3	point448	448	24.0	46.8
						NBCD-E3	A-02-05	160	24.0	46.5
						NBCD-E3	point447	447	24.0	46.3
						75NB-E1	B-02-02	365	12.0	46.2
						NBCD-E3	A-02-06	161	24.0	46.0
						75NB-E2	A-01-02	198	12.0	45.4
						NBCD-E3	A-02-09	164	24.0	45.3
						NBCD-E3	point446	446	24.0	45.3
						NBCD-E3	A-02-10	165	24.0	45.2
						NBCD-E3	A-02-04	159	24.0	45.2
B12101	143	63.2	4.3	7	-2.7	NBCD-E3	point448	448	24.0	47.0
						NBCD-E3	A-02-05	160	24.0	46.5
						75NB-E1	B-02-02	365	12.0	46.5
						NBCD-E3	A-02-06	161	24.0	45.9
						NBCD-E3	point446	446	24.0	45.6
						NBCD-E3	A-02-04	159	24.0	45.4
						75NB-E2	A-01-02	198	12.0	45.3
						NBCD-E3	point447	447	24.0	45.3
						NBCD-E3	A-02-10	165	24.0	45.1
						75NB-E2	A-01-03	199	12.0	45.1
B12201	144	63.4	4.4	7	-2.6	75NB-E1	B-02-02	365	12.0	47.5
						NBCD-E3	point448	448	24.0	46.7
						NBCD-E2	BCD-03-15	444	24.0	46.5
						NBCD-E3	A-02-05	160	24.0	45.9
						NBCD-E3	A-02-04	159	24.0	45.8
						75NB-E1	B-02-01	364	18.0	45.7
						NBCD-E3	point447	447	24.0	45.5
						NBCD-E3	A-02-06	161	24.0	45.4
						NBCD-E3	point446	446	24.0	45.3
						75NB-E2	A-01-02	198	12.0	45.3
B12301	145	62.8	4.2	7	-2.8	NBCD-E3	A-02-06	161	24.0	47.0
						NBCD-E3	A-02-05	160	24.0	46.6
						NBCD-E3	A-02-07	162	24.0	46.4
						NBCD-E3	A-02-08	163	24.0	45.9
						NBCD-E3	point454	454	24.0	45.9

						NBCD-E3	A-02-09	164	24.0	45.7
						NBCD-E3	A-02-10	165	24.0	45.6
						NBCD-E3	A-02-11	166	24.0	45.6
						NBCD-E3	point446	446	24.0	45.5
						NBCD-E3	point449	449	24.0	45.5
B12401	146	62.9	4.2	7	-2.8	NBCD-E3	A-02-06	161	24.0	46.9
						NBCD-E3	A-02-05	160	24.0	46.7
						NBCD-E3	A-02-07	162	24.0	46.2
						NBCD-E3	A-02-08	163	24.0	45.8
						NBCD-E3	point449	449	24.0	45.7
						NBCD-E3	A-02-10	165	24.0	45.6
						NBCD-E3	A-02-09	164	24.0	45.6
						NBCD-E3	point446	446	24.0	45.6
						NBCD-E3	point447	447	24.0	45.5
						NBCD-E3	point448	448	24.0	45.5
B12501	147	62.8	4.2	7	-2.8	NBCD-E3	A-02-06	161	24.0	46.9
						NBCD-E3	A-02-05	160	24.0	46.6
						NBCD-E3	A-02-07	162	24.0	46.1
						NBCD-E3	A-02-08	163	24.0	45.7
						NBCD-E3	point449	449	24.0	45.5
						NBCD-E3	point446	446	24.0	45.5
						NBCD-E3	point447	447	24.0	45.4
						NBCD-E3	A-02-10	165	24.0	45.4
						NBCD-E3	A-02-09	164	24.0	45.4
						NBCD-E3	point448	448	24.0	45.3
B12601	148	62.8	4.1	7	-2.9	NBCD-E3	A-02-06	161	24.0	46.4
						NBCD-E3	A-02-05	160	24.0	46.1
						NBCD-E3	A-02-07	162	24.0	45.8
						NBCD-E3	point448	448	24.0	45.4
						NBCD-E3	A-02-08	163	24.0	45.4
						NBCD-E3	point450	450	24.0	45.4
						NBCD-E3	point449	449	24.0	45.4
						NBCD-E3	A-02-10	165	24.0	45.3
						NBCD-E3	point447	447	24.0	45.3
						NBCD-E3	point446	446	24.0	45.2
B12701	149	62.8	4.2	7	-2.8	NBCD-E3	A-02-05	160	24.0	46.5

						NBCD-E3	A-02-06	161	24.0	46.3
						NBCD-E3	point448	448	24.0	45.7
						NBCD-E3	A-02-07	162	24.0	45.6
						NBCD-E3	point447	447	24.0	45.3
						NBCD-E3	point449	449	24.0	45.3
						NBCD-E3	A-02-08	163	24.0	45.2
						NBCD-E3	point446	446	24.0	45.2
						NBCD-E3	A-02-10	165	24.0	45.2
						NBCD-E3	A-02-09	164	24.0	45.0
B12801	150	62.7	4.2	7	-2.8	NBCD-E3	A-02-05	160	24.0	46.6
						NBCD-E3	A-02-06	161	24.0	46.3
						NBCD-E3	point448	448	24.0	45.8
						NBCD-E3	A-02-07	162	24.0	45.4
						75NB-E1	B-02-02	365	12.0	45.3
						NBCD-E3	point446	446	24.0	45.2
						NBCD-E3	point447	447	24.0	45.1
						NBCD-E3	A-02-10	165	24.0	45.1
						NBCD-E3	A-02-08	163	24.0	45.1
						75NB-E2	A-01-02	198	12.0	44.9
B12901	151	62.8	4.2	7	-2.8	NBCD-E3	A-02-05	160	24.0	46.7
						NBCD-E3	A-02-06	161	24.0	46.2
						NBCD-E3	point448	448	24.0	46.1
						75NB-E1	B-02-02	365	12.0	45.7
						NBCD-E3	A-02-07	162	24.0	45.5
						NBCD-E3	point446	446	24.0	45.4
						NBCD-E3	point447	447	24.0	45.1
						NBCD-E3	A-02-10	165	24.0	45.1
						NBCD-E3	A-02-08	163	24.0	45.0
						75NB-E2	A-01-02	198	12.0	44.9
B13001	152	62.8	4.3	7	-2.7	NBCD-E3	A-02-05	160	24.0	46.7
						NBCD-E3	A-02-06	161	24.0	46.1
						NBCD-E3	point448	448	24.0	46.1
						75NB-E1	B-02-02	365	12.0	45.6
						NBCD-E3	A-02-07	162	24.0	45.4
						NBCD-E3	point446	446	24.0	45.3
						NBCD-E3	A-02-10	165	24.0	45.0

						NBCD-E3	point447	447	24.0	45.0
						75NB-E2	A-01-02	198	12.0	44.9
						NBCD-E3	A-02-08	163	24.0	44.8
B13101	153	62.9	4.3	7	-2.7	NBCD-E3	A-02-05	160	24.0	46.5
						NBCD-E3	point448	448	24.0	46.2
						NBCD-E3	A-02-06	161	24.0	46.1
						75NB-E1	B-02-02	365	12.0	45.9
						NBCD-E3	A-02-07	162	24.0	45.3
						NBCD-E3	point446	446	24.0	45.3
						NBCD-E3	point447	447	24.0	44.9
						75NB-E2	A-01-02	198	12.0	44.8
						NBCD-E3	A-02-08	163	24.0	44.7
						75NB-E2	A-01-03	199	12.0	44.6
B13201	154	63.0	4.3	7	-2.7	75NB-E1	B-02-02	365	12.0	46.9
						NBCD-E3	A-02-05	160	24.0	46.4
						NBCD-E3	point448	448	24.0	46.2
						NBCD-E3	A-02-06	161	24.0	46.0
						NBCD-E3	point446	446	24.0	45.7
						NBCD-E3	A-02-07	162	24.0	45.5
						NBCD-E3	A-02-10	165	24.0	44.9
						75NB-E1	B-02-03	366	12.0	44.8
						75NB-E2	A-01-02	198	12.0	44.8
						NBCD-E3	point447	447	24.0	44.7
B13301	155	63.3	4.9	7	-2.1	75NB-E1	B-02-02	365	12.0	47.6
						NBCD-E3	point446	446	24.0	46.5
						NBCD-E3	point448	448	24.0	46.4
						NBCD-E3	A-02-05	160	24.0	46.2
						NBCD-E3	A-02-06	161	24.0	45.8
						NBCD-E3	A-02-07	162	24.0	45.6
						75NB-E1	B-02-03	366	12.0	45.4
						75NB-E1	B-02-01	364	14.0	45.4
						NBCD-E2	BCD-03-15	444	24.0	45.2
						NBCD-E3	A-02-08	163	24.0	45.0
B13401	156	63.3	5.0	7	-2.0	75NB-E1	B-02-02	365	12.0	47.5
						NBCD-E3	point446	446	24.0	47.0
						NBCD-E3	point448	448	24.0	46.4

						NBCD-E3	A-02-05	160	24.0	46.0
						75NB-E1	B-02-03	366	12.0	45.8
						NBCD-E3	A-02-06	161	24.0	45.6
						NBCD-E2	BCD-03-15	444	24.0	45.5
						75NB-E1	B-02-01	364	14.0	45.5
						NBCD-E3	A-02-07	162	24.0	45.4
						NBCD-E3	A-02-08	163	24.0	44.9
B13501	157	63.2	5.0	7	-2.0	75NB-E1	B-02-02	365	12.0	47.6
						NBCD-E3	point448	448	24.0	46.2
						75NB-E1	B-02-03	366	12.0	45.8
						NBCD-E2	BCD-03-15	444	24.0	45.8
						NBCD-E3	A-02-05	160	24.0	45.7
						NBCD-E3	A-02-06	161	24.0	45.3
						75NB-E1	B-02-01	364	14.0	45.3
						NBCD-E3	point446	446	24.0	45.1
						NBCD-E3	A-02-07	162	24.0	45.0
						NBCD-E3	A-02-04	159	24.0	45.0
B13602	158	63.3	5.0	7	-2.0	75NB-E1	B-02-02	365	12.0	47.9
						NBCD-E2	BCD-03-15	444	24.0	46.4
						NBCD-E3	point448	448	24.0	46.1
						75NB-E1	B-02-03	366	12.0	46.1
						75NB-E1	B-02-01	364	14.0	45.7
						NBCD-E3	A-02-05	160	24.0	45.6
						NBCD-E3	A-02-04	159	24.0	45.3
						NBCD-E3	A-02-06	161	24.0	45.2
						NBCD-E3	point447	447	24.0	45.0
						NBCD-E3	point446	446	24.0	44.9
B13702	159	63.4	5.2	7	-1.8	75NB-E1	B-02-02	365	12.0	47.7
						NBCD-E2	BCD-03-15	444	24.0	47.0
						75NB-E1	B-02-03	366	12.0	46.4
						75NB-E1	B-02-01	364	14.0	46.1
						NBCD-E3	point448	448	24.0	45.9
						NBCD-E3	A-02-05	160	24.0	45.4
						NBCD-E3	A-02-04	159	24.0	45.3
						NBCD-E3	point447	447	24.0	45.3
						NBCD-E3	A-02-06	161	24.0	45.0

						NBCD-E3	point446	446	24.0	45.0
B13802	160	63.4	5.3	7	-1.7	75NB-E1	B-02-02	365	12.0	48.4
						NBCD-E2	BCD-03-15	444	24.0	47.0
						75NB-E1	B-02-03	366	12.0	46.6
						75NB-E1	B-02-01	364	14.0	46.3
						NBCD-E3	point448	448	24.0	45.7
						NBCD-E3	point447	447	24.0	45.5
						NBCD-E3	A-02-04	159	24.0	45.3
						NBCD-E3	A-02-05	160	24.0	45.3
						NBCD-E3	point446	446	24.0	45.0
						NBCD-E3	A-02-06	161	24.0	44.9
B13902	161	63.3	4.7	7	-2.3	75NB-E1	B-02-02	365	12.0	48.1
						NBCD-E2	BCD-03-15	444	24.0	46.9
						75NB-E1	B-02-01	364	14.0	46.6
						75NB-E1	B-02-03	366	12.0	46.4
						NBCD-E3	point447	447	24.0	45.7
						NBCD-E3	point448	448	24.0	45.6
						NBCD-E3	A-02-04	159	24.0	45.3
						NBCD-E3	A-02-05	160	24.0	45.1
						NBCD-E3	point446	446	24.0	44.8
						NBCD-E3	point451	451	24.0	44.7
B14001	162	63.5	4.8	7	-2.2	75NB-E1	B-02-02	365	12.0	48.3
						NBCD-E2	BCD-03-15	444	24.0	47.0
						75NB-E1	B-02-01	364	14.0	47.0
						NBCD-E3	point447	447	24.0	46.6
						75NB-E1	B-02-03	366	12.0	46.6
						NBCD-E3	point446	446	24.0	44.9
						NBCD-E3	point448	448	24.0	44.9
						NBCD-E3	A-02-04	159	24.0	44.9
						NBCD-E3	A-02-05	160	24.0	44.8
						NBCD-E3	point451	451	24.0	44.7
B22402	163	63.4	4.6	7	-2.4	75NB-E1	B-02-02	365	12.0	48.2
						NBCD-E2	BCD-03-15	444	24.0	46.9
						75NB-E1	B-02-01	364	14.0	46.8
						75NB-E1	B-02-03	366	12.0	46.3
						NBCD-E3	point447	447	24.0	46.1

						NBCD-E3	point450	450	24.0	45.7
						NBCD-E3	A-02-04	159	24.0	45.3
						NBCD-E3	point448	448	24.0	45.3
						NBCD-E3	A-02-05	160	24.0	45.0
						NBCD-E3	point446	446	24.0	44.8
B14102	164	63.3	5.2	7	-1.8	75NB-E1	B-02-02	365	12.0	48.0
						NBCD-E2	BCD-03-15	444	24.0	46.5
						75NB-E1	B-02-03	366	12.0	46.4
						75NB-E1	B-02-01	364	14.0	46.2
						NBCD-E3	point447	447	24.0	45.5
						NBCD-E3	point448	448	24.0	45.0
						NBCD-E3	A-02-04	159	24.0	44.8
						NBCD-E3	A-02-05	160	24.0	44.7
						NBCD-E3	point446	446	24.0	44.5
						NBCD-E3	A-02-06	161	24.0	44.3
B14210	165	62.2	4.5	7	-2.5	NBCD-E3	point448	448	24.0	46.1
						NBCD-E3	point446	446	24.0	46.0
						NBCD-E3	point447	447	24.0	45.5
						NBCD-E3	A-02-06	161	24.0	45.3
						75NB-E1	B-02-02	365	12.0	45.2
						NBCD-E3	A-02-07	162	24.0	45.1
						NBCD-E3	A-02-05	160	24.0	45.0
						NBCD-E3	A-02-08	163	24.0	44.8
						NBCD-E3	A-02-09	164	24.0	44.4
						75NB-E1	B-02-03	366	12.0	44.1
B14301	166	62.2	4.7	7	-2.3	75NB-E1	B-02-02	365	12.0	46.1
						NBCD-E3	point448	448	24.0	45.8
						NBCD-E3	point446	446	24.0	45.5
						NBCD-E3	point447	447	24.0	45.1
						NBCD-E3	A-02-05	160	24.0	45.0
						75NB-E1	B-02-03	366	12.0	44.8
						NBCD-E3	A-02-06	161	24.0	44.7
						NBCD-E3	A-02-07	162	24.0	44.6
						75NB-E1	B-02-01	364	14.0	44.5
						NBCD-E3	A-02-08	163	24.0	44.2
B14401	167	62.2	4.7	7	-2.3	75NB-E1	B-02-02	365	12.0	46.3

						NBCD-E3	point448	448	24.0	45.8
						NBCD-E3	point446	446	24.0	45.4
						NBCD-E3	point447	447	24.0	45.1
						75NB-E1	B-02-03	366	12.0	45.1
						NBCD-E3	A-02-05	160	24.0	45.0
						NBCD-E3	A-02-06	161	24.0	44.6
						NBCD-E3	A-02-07	162	24.0	44.5
						75NB-E1	B-02-01	364	14.0	44.4
						NBCD-E3	A-02-08	163	24.0	44.2
B14501	168	62.6	4.9	7	-2.1	75NB-E1	B-02-02	365	12.0	46.7
						NBCD-E2	BCD-03-15	444	24.0	45.4
						75NB-E1	B-02-03	366	12.0	45.4
						NBCD-E3	point447	447	24.0	45.3
						NBCD-E3	point446	446	24.0	45.2
						NBCD-E3	point448	448	24.0	45.1
						75NB-E1	B-02-01	364	14.0	44.7
						NBCD-E3	A-02-05	160	24.0	44.5
						NBCD-E3	A-02-06	161	24.0	44.1
						NBCD-E3	A-02-07	162	24.0	44.0
B14601	169	62.4	4.8	7	-2.2	75NB-E1	B-02-02	365	12.0	46.4
						NBCD-E3	point448	448	24.0	46.0
						75NB-E1	B-02-03	366	12.0	45.4
						NBCD-E3	point446	446	24.0	45.3
						NBCD-E3	point447	447	24.0	45.1
						NBCD-E2	BCD-03-15	444	24.0	44.9
						75NB-E1	B-02-01	364	14.0	44.9
						NBCD-E3	A-02-05	160	24.0	44.6
						NBCD-E3	A-02-06	161	24.0	44.3
						NBCD-E3	A-02-07	162	24.0	44.2
B14701	170	62.3	4.7	7	-2.3	75NB-E1	B-02-02	365	12.0	46.2
						NBCD-E3	point448	448	24.0	45.7
						75NB-E1	B-02-03	366	12.0	45.3
						NBCD-E3	point446	446	24.0	45.2
						NBCD-E3	point447	447	24.0	44.8
						NBCD-E2	BCD-03-15	444	24.0	44.7
						75NB-E1	B-02-01	364	14.0	44.6

						NBCD-E3	A-02-05	160	24.0	44.6
						NBCD-E3	A-02-06	161	24.0	44.2
						NBCD-E3	A-02-07	162	24.0	44.1
B14801	171	62.2	4.7	7	-2.3	75NB-E1	B-02-02	365	12.0	46.0
						NBCD-E3	point448	448	24.0	45.7
						75NB-E1	B-02-03	366	12.0	45.4
						NBCD-E3	point446	446	24.0	45.0
						NBCD-E3	point447	447	24.0	44.7
						NBCD-E3	A-02-05	160	24.0	44.5
						NBCD-E2	BCD-03-15	444	24.0	44.5
						75NB-E1	B-02-01	364	14.0	44.5
						NBCD-E3	A-02-06	161	24.0	44.2
						NBCD-E3	point449	449	24.0	44.2
B15002	172	62.1	4.5	7	-2.5	75NB-E1	B-02-02	365	12.0	45.9
						NBCD-E3	point448	448	24.0	45.6
						75NB-E1	B-02-03	366	12.0	45.1
						NBCD-E3	point446	446	24.0	45.1
						NBCD-E3	point447	447	24.0	44.7
						NBCD-E3	A-02-05	160	24.0	44.7
						75NB-E1	B-02-01	364	14.0	44.4
						NBCD-E3	A-02-06	161	24.0	44.3
						NBCD-E3	point449	449	24.0	44.3
						NBCD-E3	A-02-07	162	24.0	44.2
B15102	173	62.0	4.2	7	-2.8	75NB-E1	B-02-02	365	12.0	45.5
						NBCD-E3	point448	448	24.0	45.4
						NBCD-E3	point446	446	24.0	44.8
						75NB-E1	B-02-03	366	12.0	44.8
						NBCD-E3	point447	447	24.0	44.4
						NBCD-E3	A-02-05	160	24.0	44.3
						NBCD-E3	A-02-06	161	24.0	44.2
						75NB-E1	B-02-01	364	14.0	44.1
						NBCD-E3	A-02-07	162	24.0	44.1
						NBCD-E3	point449	449	24.0	44.0
B15202	174	61.8	4.1	7	-2.9	75NB-E1	B-02-02	365	12.0	45.1
						NBCD-E3	point448	448	24.0	45.1
						NBCD-E3	point446	446	24.0	44.5

						75NB-E1	B-02-03	366	12.0	44.4
						NBCD-E3	point447	447	24.0	44.2
						NBCD-E3	A-02-06	161	24.0	44.1
						NBCD-E3	A-02-05	160	24.0	44.0
						NBCD-E3	A-02-07	162	24.0	43.9
						NBCD-E3	point450	450	24.0	43.7
						NBCD-E3	point451	451	24.0	43.7
B22605	251	64.3	4.9	8	-3.1	75NB-E1	B-02-02	365	12.0	50.2
						75NB-E1	B-02-03	366	12.0	48.1
						75NB-E1	B-02-01	364	14.0	48.0
						NBCD-E2	BCD-03-15	444	24.0	47.8
						NBCD-E3	point447	447	24.0	47.4
						NBCD-E3	point446	446	24.0	47.0
						NBCD-E3	point450	450	24.0	45.7
						NBCD-E3	A-02-03	158	24.0	45.6
						NBCD-E2	BCD-03-14	443	24.0	45.6
						NBCD-E3	point448	448	24.0	45.3
B09702	252	62.4	5.1	8	-2.9	NBCD-E3	A-02-08	163	24.0	48.6
						NBCD-E3	A-02-09	164	24.0	48.5
						NBCD-E3	A-02-12	167	24.0	48.4
						NBCD-E3	A-02-10	165	24.0	48.4
						NBCD-E3	A-02-07	162	24.0	48.3
						NBCD-E3	A-02-11	166	24.0	47.8
						NBCD-E3	A-02-13	168	24.0	47.0
						NBCD-E3	A-02-14	169	24.0	46.8
						NBCD-E3	A-02-15	170	24.0	46.5
						NBCD-E3	point446	446	24.0	45.8
Total Cost, All Barriers (including additional cost(s))					$6091910					

HMB Professional Engineers **27 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **Brent Spence Bridge Technical Memo**
RUN: **B1 V1**
BARRIER DESIGN: **B1-update**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
75NB-E1	W	12.00	20.27	24.00	2657	53843				1722984
NBCD-E2	W	24.00	24.00	24.00	590	14170				453441
75NB-E2	W	12.00	12.00	12.00	2240	26882				860238
NBCD-5thStExit	W	12.00	13.18	24.00	1295	17067				546157
NBCD-E4	W	12.00	12.00	12.00	146	1750				55998
NBCD-E1	W	12.00	19.56	24.00	1834	35860				1147519
NBCD-E3	W	12.00	20.09	24.00	2031	40799				1305573
									Total Cost:	6091910

HMB Professional Engineers 27 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: B1 V1
BARRIER DESIGN: B1-update

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
75NB-E1	W	point445	445	24.00	24.00	24.00	40	966				30914
		C-03-16	269	24.00	24.00	24.00	40	965				30878
		C-03-17	270	24.00	24.00	24.00	40	951				30431
		C-03-18	271	24.00	24.00	24.00	40	970				31030
		C-03-19	272	24.00	24.00	24.00	40	955				30549
		C-03-20	273	24.00	24.00	24.00	40	963				30828
		C-03-21	274	24.00	24.00	24.00	40	956				30605
		C-03-22	275	24.00	24.00	24.00	40	964				30859
		C-03-23	276	24.00	24.00	24.00	40	960				30722
		C-03-24	277	24.00	24.00	24.00	40	964				30845
		C-03-25	278	24.00	24.00	24.00	40	949				30358
		C-03-26	279	24.00	24.00	24.00	40	972				31102
		C-03-27	280	24.00	24.00	24.00	40	957				30609
		C-03-28	281	24.00	24.00	24.00	40	953				30481
		C-03-29	282	24.00	24.00	24.00	40	960				30722
		C-03-30	283	24.00	22.00	20.00	30	658				21041
		C-04-01	284	12.00	12.00	12.00	37	450	Y			14390
		C-04-02	285	12.00	12.00	12.00	40	478	Y			15302
		C-04-03	286	12.00	12.00	12.00	40	480	Y			15361
		C-04-04	287	12.00	12.00	12.00	40	482	Y			15422
		C-04-05	288	12.00	12.00	12.00	40	476	Y			15241
		C-04-06	289	12.00	12.00	12.00	40	480	Y			15371
		C-04-07	290	12.00	12.00	12.00	40	485	Y			15509
		C-04-08	291	12.00	12.00	12.00	40	477	Y			15260
		C-04-09	292	12.00	12.00	12.00	40	481	Y			15404
		C-04-10	293	12.00	12.00	12.00	40	478	Y			15303

		C-04-11	294	12.00	12.00	12.00	40	484	Y			15480
		C-04-12	295	12.00	12.00	12.00	40	475	Y			15207
		C-04-13	296	12.00	12.00	12.00	40	483	Y			15462
		C-04-14	297	12.00	12.00	12.00	40	478	Y			15288
		C-04-15	298	12.00	12.00	12.00	40	480	Y			15371
		C-04-16	299	12.00	12.00	12.00	40	483	Y			15456
		C-04-17	300	12.00	14.00	16.00	43	607	Y			19435
		C-05-01	301	24.00	24.00	24.00	37	881				28197
		C-05-02	302	24.00	24.00	24.00	40	962				30770
		C-05-03	303	24.00	24.00	24.00	40	956				30585
		C-05-04	304	24.00	24.00	24.00	40	957				30626
		C-05-05	305	24.00	24.00	24.00	40	957				30626
		C-05-06	306	24.00	24.00	24.00	40	963				30821
		C-05-07	307	24.00	24.00	24.00	40	969				31019
		C-05-08	308	24.00	24.00	24.00	40	953				30491
		C-05-09	309	24.00	24.00	24.00	40	965				30895
		C-05-10	310	24.00	24.00	24.00	40	959				30691
		C-05-11	311	24.00	24.00	24.00	40	959				30691
		C-05-12	312	24.00	24.00	24.00	40	955				30571
		C-05-13	313	24.00	24.00	24.00	40	969				31019
		C-05-14	314	24.00	24.00	24.00	40	959				30691
		C-05-15	315	24.00	22.00	20.00	35	760				24329
		B-02-01	364	14.00	14.00	14.00	40	562	Y			17979
		B-02-02	365	12.00	12.00	12.00	40	481	Y			15385
		B-02-03	366	12.00	12.00	12.00	40	476	Y			15218
		B-02-04	367	12.00	14.00	16.00	35	485	Y			15527
		B-01-01	369	24.00	24.00	24.00	40	950				30397
		B-01-02	371	24.00	24.00	24.00	40	966				30923
		B-01-03	372	24.00	24.00	24.00	40	952				30455
		B-01-04	373	24.00	24.00	24.00	40	967				30959
		B-01-05	374	24.00	24.00	24.00	40	961				30742
		B-01-06	375	24.00	24.00	24.00	40	957				30609
		B-01-07	376	24.00	24.00	24.00	40	964				30845
		B-01-08	377	24.00	24.00	24.00	40	964				30859
		B-01-09	378	24.00	24.00	24.00	40	953				30491
		B-01-10	379	24.00	24.00	24.00	40	966				30921
		B-01-11	380	24.00	24.00	24.00	40	949				30365
		B-01-12	381	24.00	24.00	24.00	41	972				31113
		B-01-13	382	24.00	24.00	24.00	40	953				30501

		B-01-14	383	24.00	24.00	24.00	40	963				30809
		B-01-15	384	24.00	24.00	24.00	40	957				30629
NBCD-E2	W	BCD-03-01	429	24.00	24.00	24.00	40	955				30568
		BCD-03-02	431	24.00	24.00	24.00	40	966				30923
		BCD-03-03	432	24.00	24.00	24.00	40	961				30763
		BCD-03-04	433	24.00	24.00	24.00	40	952				30455
		BCD-03-05	434	24.00	24.00	24.00	40	965				30878
		BCD-03-06	435	24.00	24.00	24.00	40	957				30609
		BCD-03-07	436	24.00	24.00	24.00	40	960				30722
		BCD-03-08	437	24.00	24.00	24.00	40	968				30971
		BCD-03-09	438	24.00	24.00	24.00	40	958				30648
		BCD-03-10	439	24.00	24.00	24.00	40	955				30549
		BCD-03-11	440	24.00	24.00	24.00	40	961				30739
		BCD-03-12	441	24.00	24.00	24.00	40	965				30878
		BCD-03-13	442	24.00	24.00	24.00	40	963				30809
		BCD-03-14	443	24.00	24.00	24.00	40	959				30684
		BCD-03-15	444	24.00	24.00	24.00	30	726				23244
75NB-E2	W	A-01-01	196	12.00	12.00	12.00	40	478	Y			15289
		A-01-02	198	12.00	12.00	12.00	40	485	Y			15505
		A-01-03	199	12.00	12.00	12.00	40	478	Y			15289
		A-01-04	200	12.00	12.00	12.00	40	484	Y			15480
		A-01-05	201	12.00	12.00	12.00	40	477	Y			15266
		A-01-06	202	12.00	12.00	12.00	40	478	Y			15289
		A-01-07	203	12.00	12.00	12.00	40	483	Y			15457
		A-01-08	204	12.00	12.00	12.00	40	478	Y			15289
		A-01-09	205	12.00	12.00	12.00	40	483	Y			15457
		A-01-10	206	12.00	12.00	12.00	40	477	Y			15266
		A-01-11	207	12.00	12.00	12.00	40	484	Y			15480
		A-01-12	208	12.00	12.00	12.00	40	477	Y			15266
		A-01-13	209	12.00	12.00	12.00	40	484	Y			15480
		A-01-14	210	12.00	12.00	12.00	40	477	Y			15266
		A-01-15	211	12.00	12.00	12.00	40	484	Y			15480
		A-01-16	212	12.00	12.00	12.00	40	477	Y			15266
		A-01-17	213	12.00	12.00	12.00	40	478	Y			15289
		A-01-18	214	12.00	12.00	12.00	40	483	Y			15457
		A-01-19	215	12.00	12.00	12.00	40	477	Y			15266
		A-01-20	216	12.00	12.00	12.00	40	484	Y			15480

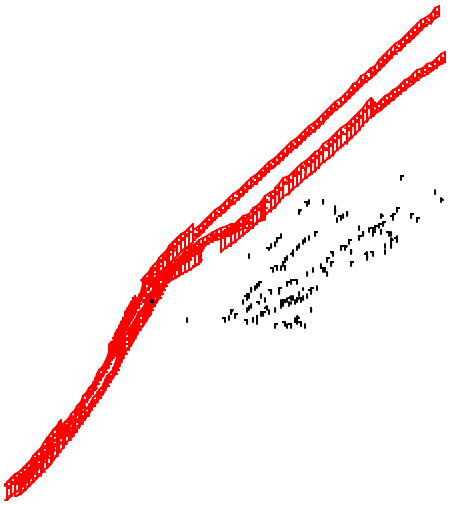
		A-01-21	217	12.00	12.00	12.00	40	477	Y			15266
		A-01-22	218	12.00	12.00	12.00	40	484	Y			15480
		A-01-23	219	12.00	12.00	12.00	40	477	Y			15266
		A-01-24	220	12.00	12.00	12.00	40	484	Y			15480
		A-01-25	221	12.00	12.00	12.00	40	478	Y			15289
		A-01-26	222	12.00	12.00	12.00	40	478	Y			15289
		A-01-27	223	12.00	12.00	12.00	40	485	Y			15505
		A-01-28	224	12.00	12.00	12.00	40	479	Y			15314
		A-01-29	225	12.00	12.00	12.00	40	478	Y			15289
		A-01-30	226	12.00	12.00	12.00	40	479	Y			15342
		A-01-31	227	12.00	12.00	12.00	40	479	Y			15314
		A-01-32	228	12.00	12.00	12.00	40	485	Y			15532
		A-01-33	229	12.00	12.00	12.00	40	479	Y			15342
		A-01-34	230	12.00	12.00	12.00	40	479	Y			15342
		A-01-35	231	12.00	12.00	12.00	40	479	Y			15342
		A-01-36	232	12.00	12.00	12.00	40	480	Y			15372
		A-01-37	233	12.00	12.00	12.00	40	479	Y			15342
		A-01-38	234	12.00	12.00	12.00	40	479	Y			15342
		A-01-39	235	12.00	12.00	12.00	40	479	Y			15342
		A-01-40	236	12.00	12.00	12.00	40	479	Y			15342
		A-01-41	237	12.00	12.00	12.00	40	479	Y			15342
		A-01-42	238	12.00	12.00	12.00	40	480	Y			15372
		A-01-43	239	12.00	12.00	12.00	40	485	Y			15532
		A-01-44	240	12.00	12.00	12.00	40	479	Y			15342
		A-01-45	241	12.00	12.00	12.00	40	479	Y			15342
		A-01-46	242	12.00	12.00	12.00	40	479	Y			15342
		A-01-47	243	12.00	12.00	12.00	40	479	Y			15342
		A-01-48	244	12.00	12.00	12.00	40	480	Y			15372
		A-01-49	245	12.00	12.00	12.00	40	479	Y			15342
		A-01-50	246	12.00	12.00	12.00	40	479	Y			15314
		A-01-51	247	12.00	12.00	12.00	40	479	Y			15342
		A-01-52	248	12.00	12.00	12.00	40	485	Y			15505
		A-01-53	249	12.00	12.00	12.00	40	479	Y			15314
		A-01-54	250	12.00	12.00	12.00	40	477	Y			15266
		A-01-55	251	12.00	12.00	12.00	40	483	Y			15457
		A-01-56	252	12.00	12.00	12.00	40	477	Y			15266
NBCD-5thStExit	W	B5-01-01	385	16.00	16.00	16.00	40	639				20461
		B5-01-02	386	16.00	14.00	12.00	33	459				14675

		B5-02-01	388	12.00	12.00	12.00	40	480	Y			15371
		B5-02-02	390	12.00	12.00	12.00	40	483	Y			15456
		B5-02-03	391	12.00	12.00	12.00	40	475	Y			15198
		B5-02-04	392	12.00	12.00	12.00	40	483	Y			15456
		B5-02-05	393	12.00	12.00	12.00	40	480	Y			15371
		B5-02-06	394	12.00	12.00	12.00	40	480	Y			15371
		B5-02-07	395	12.00	12.00	12.00	40	478	Y			15284
		B5-02-08	396	12.00	12.00	12.00	40	480	Y			15371
		B5-02-09	397	12.00	12.00	12.00	40	478	Y			15288
		B5-02-10	398	12.00	12.00	12.00	40	485	Y			15509
		B5-02-11	399	12.00	12.00	12.00	40	478	Y			15305
		B5-02-12	400	12.00	12.00	12.00	40	480	Y			15376
		B5-02-13	401	12.00	12.00	12.00	40	480	Y			15370
		B5-02-14	402	12.00	12.00	12.00	40	481	Y			15404
		B5-02-15	403	12.00	12.00	12.00	40	478	Y			15289
		B5-02-16	404	12.00	12.00	12.00	40	477	Y			15266
		B5-02-17	405	12.00	12.00	12.00	40	484	Y			15480
		B5-02-18	406	12.00	12.00	12.00	40	477	Y			15266
		B5-02-19	407	12.00	12.00	12.00	40	483	Y			15457
		B5-02-20	408	12.00	12.00	12.00	40	477	Y			15266
		B5-02-21	409	12.00	12.00	12.00	40	483	Y			15457
		B5-02-22	410	12.00	12.00	12.00	40	477	Y			15266
		B5-02-23	411	12.00	12.00	12.00	40	484	Y			15480
		B5-02-24	412	12.00	12.00	12.00	40	477	Y			15266
		B5-02-25	413	12.00	12.00	12.00	40	483	Y			15457
		B5-02-26	414	12.00	12.00	12.00	40	477	Y			15266
		B5-02-27	415	12.00	12.00	12.00	40	483	Y			15457
		B5-02-28	416	12.00	14.00	16.00	40	557	Y			17810
		B5-03-01	417	24.00	24.00	24.00	40	966				30914
		B5-03-02	418	24.00	24.00	24.00	40	953				30491
		B5-03-03	419	24.00	24.00	24.00	22	531				17005
NBCD-E4	W	BCD-02-01	424	12.00	12.00	12.00	40	482	Y			15410
		BCD-02-02	425	12.00	12.00	12.00	40	482	Y			15410
		BCD-02-03	426	12.00	12.00	12.00	40	481	Y			15385
		BCD-02-04	427	12.00	12.00	12.00	26	306	Y			9792
NBCD-E1	W	C-06-01	316	24.00	24.00	24.00	40	957				30629
		C-06-02	318	24.00	24.00	24.00	40	959				30684

		C-06-03	319	24.00	24.00	24.00	40	965				30878
		C-06-04	320	24.00	24.00	24.00	40	955				30576
		C-06-05	321	24.00	24.00	24.00	40	961				30739
		C-06-06	322	24.00	24.00	24.00	40	966				30921
		C-06-07	323	24.00	24.00	24.00	40	958				30648
		C-06-08	324	24.00	24.00	24.00	40	964				30859
		C-06-09	325	24.00	24.00	24.00	40	960				30722
		C-06-10	326	24.00	24.00	24.00	40	957				30609
		C-06-11	327	24.00	24.00	24.00	40	957				961 9
		C-06-12	328	24.00	24.00	24.00	40	968				30971
		C-06-13	329	24.00	24.00	24.00	40	957				30609
		C-06-14	330	24.00	24.00	24.00	40	961				30742
		C-06-15	331	24.00	22.00	20.00	49	1075				34404
		BC-01-01	333	12.00	12.00	12.00	40	478	Y			15305
		BC-01-02	334	12.00	12.00	12.00	40	484	Y			15485
		BC-01-03	335	12.00	12.00	12.00	40	480	Y			15371
		BC-01-04	336	12.00	12.00	12.00	40	478	Y			15305
		BC-01-05	337	12.00	12.00	12.00	40	478	Y			15305
		BC-01-06	338	12.00	12.00	12.00	40	480	Y			15371
		BC-01-07	339	12.00	12.00	12.00	40	482	Y			15439
		BC-01-08	340	12.00	12.00	12.00	40	479	Y			15331
		BC-01-09	341	12.00	12.00	12.00	40	479	Y			15331
		BC-01-10	342	12.00	12.00	12.00	40	484	Y			15480
		BC-01-11	343	12.00	12.00	12.00	40	476	Y			15227
		BC-01-12	344	12.00	12.00	12.00	40	478	Y			15303
		BC-01-13	345	12.00	12.00	12.00	40	483	Y			15462
		BC-01-14	346	12.00	12.00	12.00	40	483	Y			15462
		BC-01-15	347	12.00	12.00	12.00	40	478	Y			15288
		BC-01-16	348	12.00	12.00	12.00	40	480	Y			15371
		BC-01-17	349	12.00	14.00	16.00	36	510	Y			16329
		BC-02-01	350	24.00	24.00	24.00	40	961				30742
		BC-02-02	351	24.00	24.00	24.00	40	961				30742
		BC-02-03	352	24.00	24.00	24.00	40	966				30911
		BC-02-04	353	24.00	24.00	24.00	40	950				30397
		BC-02-05	354	24.00	24.00	24.00	40	966				30911
		BC-02-06	355	24.00	24.00	24.00	40	961				30742
		BC-02-07	356	24.00	24.00	24.00	40	961				30742
		BC-02-08	357	24.00	24.00	24.00	40	955				30568
		BC-02-09	358	24.00	24.00	24.00	40	961				30742

		BC-02-10	359	24.00	24.00	24.00	40	966				30911
		BC-02-11	360	24.00	24.00	24.00	40	961				30742
		BC-02-12	361	24.00	24.00	24.00	40	950				30397
		BC-02-13	362	24.00	24.00	24.00	40	966				30911
		BC-02-14	363	24.00	24.00	24.00	28	666				21297
NBCD-E3	W	point446	446	24.00	24.00	24.00	40	967				30959
		point447	447	24.00	24.00	24.00	40	956				30578
		point448	448	24.00	24.00	24.00	40	966				30914
		point449	449	24.00	24.00	24.00	40	956				30578
		point450	450	24.00	24.00	24.00	40	967				30959
		point451	451	24.00	24.00	24.00	40	956				30578
		point452	452	24.00	24.00	24.00	40	956				30578
		point453	453	24.00	24.00	24.00	40	966				30914
		point454	454	24.00	24.00	24.00	40	956				30578
		point455	455	24.00	24.00	24.00	40	967				30959
		point456	456	24.00	24.00	24.00	40	957				30629
		point457	457	24.00	24.00	24.00	40	957				30629
		point458	458	24.00	24.00	24.00	0	12				384
		A-02-01	155	24.00	24.00	24.00	40	966				30914
		A-02-02	157	24.00	24.00	24.00	40	956				30578
		A-02-03	158	24.00	24.00	24.00	40	966				30914
		A-02-04	159	24.00	24.00	24.00	40	956				30578
		A-02-05	160	24.00	24.00	24.00	40	966				30914
		A-02-06	161	24.00	24.00	24.00	40	956				30578
		A-02-07	162	24.00	24.00	24.00	40	954				30532
		A-02-08	163	24.00	24.00	24.00	40	967				30959
		A-02-09	164	24.00	24.00	24.00	40	954				30532
		A-02-10	165	24.00	24.00	24.00	40	966				30914
		A-02-11	166	24.00	24.00	24.00	40	956				30578
		A-02-12	167	24.00	24.00	24.00	40	966				30914
		A-02-13	168	24.00	24.00	24.00	40	956				30578
		A-02-14	169	24.00	24.00	24.00	40	966				30914
		A-02-15	170	24.00	24.00	24.00	40	956				30578
		A-02-16	171	24.00	24.00	24.00	40	966				30914
		A-02-17	172	24.00	24.00	24.00	40	957				30629
		A-02-18	173	24.00	24.00	24.00	40	956				30578
		A-02-19	174	24.00	24.00	24.00	40	961				30744
		A-02-20	175	24.00	24.00	24.00	40	963				30809

		A-02-21	176	24.00	24.00	24.00	40	955				30576
		A-02-22	177	24.00	24.00	24.00	40	965				30878
		A-02-23	178	24.00	22.00	20.00	9	203				6491
		A-03-01	179	12.00	12.00	12.00	40	477	Y			15250
		A-03-02	180	12.00	12.00	12.00	40	482	Y			15439
		A-03-03	181	12.00	12.00	12.00	40	477	Y			15250
		A-03-04	182	12.00	12.00	12.00	40	484	Y			15476
		A-03-05	183	12.00	12.00	12.00	40	478	Y			15288
		A-03-06	184	12.00	12.00	12.00	40	484	Y			15476
		A-03-07	185	12.00	12.00	12.00	40	479	Y			15328
		A-03-08	186	12.00	12.00	12.00	40	481	Y			15404
		A-03-09	187	12.00	12.00	12.00	40	474	Y			15183
		A-03-10	188	12.00	12.00	12.00	40	481	Y			15404
		A-03-11	189	12.00	12.00	12.00	40	481	Y			15390
		A-03-12	190	12.00	12.00	12.00	40	481	Y			15390
		A-03-13	191	12.00	12.00	12.00	40	481	Y			15390
		A-03-14	192	12.00	12.00	12.00	40	481	Y			15390
		A-03-15	193	12.00	12.00	12.00	40	481	Y			15403
		A-03-16	194	12.00	12.00	12.00	40	475	Y			15198
		A-03-17	195	12.00	12.00	12.00	21	253	Y			8085



B1 V1		Sheet 1 of 1	27 Jun 2023
		HMB Professional Engineers	
Barrier View-B1-update		Project/Contract No. Brent Spence Bridge Technic	
Run name: b1v2_back		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: NSA B, AREA B2

HMB Professional Engineers
Mark Gavula
27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: B2 V1
BARRIER DESIGN: B2-BAR-final
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
B07701-F	254	1	69.0	70.0	66	1.0	10	Snd Lvl	64.8	5.2	7	-1.8
B07801-F	255	1	69.3	69.5	66	0.2	10	Snd Lvl	64.5	5.0	7	-2.0
B07901-F	256	1	69.3	69.3	66	0.0	10	Snd Lvl	64.2	5.1	7	-1.9
B08001-F	257	1	69.4	69.1	66	-0.3	10	Snd Lvl	64.1	5.0	7	-2.0
B08101-F	258	1	68.8	67.9	66	-0.9	10	Snd Lvl	63.4	4.5	7	-2.5
B08201-F	259	1	68.9	67.8	66	-1.1	10	Snd Lvl	63.6	4.2	7	-2.8
B08301-F	260	1	69.2	67.7	66	-1.5	10	Snd Lvl	63.6	4.1	7	-2.9
B08401-F	261	1	69.7	67.9	66	-1.8	10	Snd Lvl	64.2	3.7	7	-3.3
B08501-F	262	1	69.9	68.1	66	-1.8	10	Snd Lvl	64.6	3.5	7	-3.5
B08601-F	263	1	70.4	68.9	66	-1.5	10	Snd Lvl	65.1	3.8	7	-3.2
B08701-F	264	1	70.7	69.2	66	-1.5	10	Snd Lvl	65.4	3.8	7	-3.2
B08801-F	265	1	71.2	69.6	66	-1.6	10	Snd Lvl	66.1	3.5	7	-3.5
B08901-F	266	1	71.4	69.3	66	-2.1	10	Snd Lvl	66.1	3.2	7	-3.8
B15301	267	1	60.5	68.6	66	8.1	10	Snd Lvl	63.8	4.8	7	-2.2
B15401	268	1	61.9	68.5	66	6.6	10	Snd Lvl	63.8	4.7	7	-2.3
B15501	269	1	67.0	68.4	66	1.4	10	Snd Lvl	63.7	4.7	7	-2.3
B15601	270	1	62.5	67.7	66	5.2	10	Snd Lvl	63.2	4.5	7	-2.5
B15701	271	1	63.4	67.5	66	4.1	10	Snd Lvl	63.0	4.5	7	-2.5
B15801	272	1	63.0	67.4	66	4.4	10	Snd Lvl	63.0	4.4	7	-2.6
B15901	273	1	63.1	67.5	66	4.4	10	Snd Lvl	63.1	4.4	7	-2.6
B16001	274	1	62.6	67.6	66	5.0	10	Snd Lvl	63.2	4.4	7	-2.6
B16101	275	1	63.3	67.3	66	4.0	10	Snd Lvl	63.2	4.1	7	-2.9
B16202	276	2	68.0	67.7	66	-0.3	10	Snd Lvl	63.8	3.9	7	-3.1
B16301	277	1	63.5	67.4	66	3.9	10	Snd Lvl	63.5	3.9	7	-3.1

B16401	278	1	66.8	67.4	66	0.6	10	Snd Lvl	63.4	4.0	7	-3.0
B22502	279	2	65.3	67.5	66	2.2	10	Snd Lvl	63.5	4.0	7	-3.0
B16501	280	1	66.0	67.1	66	1.1	10	Snd Lvl	62.9	4.2	7	-2.8
B16601	281	1	64.8	67.0	66	2.2	10	Snd Lvl	62.9	4.1	7	-2.9
B16701	282	1	67.4	66.9	66	-0.5	10	Snd Lvl	62.7	4.2	7	-2.8
B22201	283	1	65.0	67.0	66	2.0	10	Snd Lvl	62.9	4.1	7	-2.9
B16801	284	1	67.8	66.9	66	-0.9	10	Snd Lvl	62.5	4.4	7	-2.6
B16904	285	4	65.5	68.4	66	2.9	10	Snd Lvl	63.5	4.9	7	-2.1
B17001	286	1	65.8	68.2	66	2.4	10	Snd Lvl	63.2	5.0	7	-2.0
B17101	287	1	65.6	68.1	66	2.5	10	Snd Lvl	63.1	5.0	7	-2.0
B17201	288	1	65.2	67.9	66	2.7	10	Snd Lvl	62.9	5.0	7	-2.0
B17302	289	2	64.8	67.5	66	2.7	10	Snd Lvl	62.6	4.9	7	-2.1
B17403	290	3	64.4	66.9	66	2.5	10	Snd Lvl	62.1	4.8	7	-2.2
B17501	291	1	64.9	67.2	66	2.3	10	Snd Lvl	62.3	4.9	7	-2.1
B17601	292	1	64.7	66.6	66	1.9	10	Snd Lvl	62.1	4.5	7	-2.5
B17701	293	1	64.7	66.4	66	1.7	10	Snd Lvl	62.0	4.4	7	-2.6
B17801	294	1	64.6	66.1	66	1.5	10	Snd Lvl	61.8	4.3	7	-2.7
B17901	295	1	64.7	66.1	66	1.4	10	Snd Lvl	61.8	4.3	7	-2.7
B18001	296	1	65.1	66.3	66	1.2	10	Snd Lvl	62.0	4.3	7	-2.7
B18101	297	1	63.1	66.1	66	3.0	10	Snd Lvl	61.5	4.6	7	-2.4
B18201	298	1	60.1	65.8	66	5.7	10	----	61.6	4.2	7	-2.8
B18301	299	1	62.8	65.6	66	2.8	10	----	61.2	4.4	7	-2.6
B18401	300	1	66.9	67.2	66	0.3	10	Snd Lvl	62.9	4.3	7	-2.7
B18501	301	1	66.1	67.0	66	0.9	10	Snd Lvl	62.2	4.8	7	-2.2
B18601	302	1	66.4	67.2	66	0.8	10	Snd Lvl	62.3	4.9	7	-2.1
B18701	303	1	66.4	67.0	66	0.6	10	Snd Lvl	62.3	4.7	7	-2.3
B18801	304	1	66.6	67.1	66	0.5	10	Snd Lvl	62.3	4.8	7	-2.2
B18901	305	1	66.7	67.0	66	0.3	10	Snd Lvl	62.3	4.7	7	-2.3
B19001	306	1	66.8	67.0	66	0.2	10	Snd Lvl	62.2	4.8	7	-2.2
B19101	307	1	66.8	66.7	66	-0.1	10	Snd Lvl	62.0	4.7	7	-2.3
B19201	308	1	66.9	66.4	66	-0.5	10	Snd Lvl	61.8	4.6	7	-2.4
B19301	309	1	67.2	66.4	66	-0.8	10	Snd Lvl	61.8	4.6	7	-2.4
B19402	310	2	67.6	66.4	66	-1.2	10	Snd Lvl	61.9	4.5	7	-2.5
B19502	311	2	61.9	65.2	66	3.3	10	----	60.6	4.6	7	-2.4
B19602	312	2	60.6	65.2	66	4.6	10	----	60.5	4.7	7	-2.3
B19702	313	2	61.5	65.2	66	3.7	10	----	60.5	4.7	7	-2.3
B19801	314	1	59.1	65.4	66	6.3	10	----	60.8	4.6	7	-2.4
B19901	315	1	60.5	65.3	66	4.8	10	----	60.5	4.8	7	-2.2
B20002	316	2	63.0	65.2	66	2.2	10	----	60.4	4.8	7	-2.2
B20104	317	4	63.3	65.1	66	1.8	10	----	60.4	4.7	7	-2.3

Dwelling Units	**# DUs**	**Noise Reduction**

			Min	Avg	Max
			dB	dB	dB
All Selected		80	3.2	4.5	5.2
All Impacted		64	3.2	4.4	5.2
All that meet NR Goal		0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: B2 V1
BARRIER DESIGN: B2-BAR-final

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
B07701-F	254	64.8	5.2	7	-1.8	75NB-E1	B-02-02	365	12.0	50.4
						75NB-E1	B-02-01	364	12.0	48.9
						75NB-E1	B-02-03	366	12.0	48.4
						NBCD-E3	point446	446	24.0	47.6
						NBCD-E2	BCD-03-14	443	24.0	47.4
						NBCD-E2	BCD-03-15	444	24.0	46.9
						75NB-E1	B-02-04	367	12.0	45.4
						NBCD-E3	point450	450	24.0	45.2
						NBCD-E3	point447	447	24.0	45.2
						NBCD-E3	A-02-02	157	24.0	45.1
B07801-F	255	64.5	5.0	7	-2.0	75NB-E1	B-02-02	365	12.0	49.8
						75NB-E1	B-02-03	366	12.0	48.7
						NBCD-E2	BCD-03-14	443	24.0	47.5
						NBCD-E3	point446	446	24.0	47.1
						75NB-E1	B-02-01	364	12.0	46.5
						NBCD-E2	BCD-03-15	444	24.0	46.4
						NBCD-E3	point449	449	24.0	45.1
						75NB-E2	A-01-01	196	18.0	44.4
						NBCD-E3	point448	448	24.0	44.3
						NBCD-E3	point450	450	24.0	44.3
B07901-F	256	64.2	5.1	7	-1.9	75NB-E1	B-02-02	365	12.0	47.4

						NBCD-E2	BCD-03-14	443	24.0	47.2
						NBCD-E3	point446	446	24.0	46.8
						75NB-E1	B-02-03	366	12.0	45.8
						NBCD-E2	BCD-03-15	444	24.0	45.7
						NBCD-E3	point449	449	24.0	44.9
						75NB-E2	A-01-01	196	18.0	44.2
						NBCD-E3	point448	448	24.0	44.0
						NBCD-E3	point450	450	24.0	43.9
						NBCD-E3	point447	447	24.0	43.9
B08001-F	257	64.1	5.0	7	-2.0	NBCD-E2	BCD-03-14	443	24.0	46.8
						NBCD-E3	point446	446	24.0	46.3
						75NB-E1	B-02-03	366	12.0	45.5
						NBCD-E2	BCD-03-15	444	24.0	45.4
						NBCD-E3	point449	449	24.0	44.7
						75NB-E1	B-02-02	365	12.0	44.5
						NBCD-E3	point448	448	24.0	43.9
						75NB-E2	A-01-01	196	18.0	43.9
						75NB-E2	A-01-02	198	18.0	43.5
						NBCD-E3	point447	447	24.0	43.5
B08101-F	258	63.4	4.5	7	-2.5	NBCD-E3	point446	446	24.0	45.9
						NBCD-E2	BCD-03-14	443	24.0	45.8
						NBCD-E2	BCD-03-15	444	24.0	44.8
						NBCD-E3	point450	450	24.0	44.0
						NBCD-E3	point449	449	24.0	43.9
						75NB-E1	B-02-03	366	12.0	43.6
						75NB-E2	A-01-01	196	18.0	43.2
						75NB-E2	A-01-02	198	18.0	43.2
						NBCD-E3	point447	447	24.0	43.0
						75NB-E2	A-01-03	199	12.0	42.5
B08201-F	259	63.6	4.2	7	-2.8	NBCD-E3	point446	446	24.0	45.4
						NBCD-E2	BCD-03-14	443	24.0	45.3
						NBCD-E2	BCD-03-15	444	24.0	44.3
						NBCD-E3	point449	449	24.0	43.7
						75NB-E2	A-01-01	196	18.0	42.9
						NBCD-E3	point450	450	24.0	42.8
						75NB-E2	A-01-02	198	18.0	42.7

						NBCD-E3	point447	447	24.0	42.5
						75NB-E2	A-01-03	199	12.0	42.3
						75NB-E1	B-02-03	366	12.0	42.0
B08301-F	260	63.6	4.1	7	-2.9	NBCD-E3	point446	446	24.0	44.9
						NBCD-E2	BCD-03-14	443	24.0	44.8
						NBCD-E2	BCD-03-15	444	24.0	43.8
						NBCD-E3	point449	449	24.0	43.4
						75NB-E2	A-01-01	196	18.0	42.6
						75NB-E2	A-01-02	198	18.0	42.4
						NBCD-E3	point447	447	24.0	42.1
						NBCD-E3	point450	450	24.0	42.1
						NBCD-E3	point448	448	24.0	42.0
						75NB-E2	A-01-03	199	12.0	41.7
B08401-F	261	64.2	3.7	7	-3.3	NBCD-E3	point446	446	24.0	44.2
						NBCD-E2	BCD-03-14	443	24.0	44.1
						NBCD-E2	BCD-03-15	444	24.0	43.0
						NBCD-E3	point449	449	24.0	42.8
						NBCD-E3	point448	448	24.0	41.9
						75NB-E2	A-01-01	196	18.0	41.9
						75NB-E2	A-01-02	198	18.0	41.6
						NBCD-E3	point450	450	24.0	41.5
						NBCD-E3	point453	453	24.0	41.4
						NBCD-E3	point447	447	24.0	41.4
B08501-F	262	64.6	3.5	7	-3.5	NBCD-E2	BCD-03-14	443	24.0	43.9
						NBCD-E3	point446	446	24.0	43.7
						NBCD-E2	BCD-03-15	444	24.0	42.7
						NBCD-E3	point449	449	24.0	42.6
						NBCD-E3	point448	448	24.0	41.8
						75NB-E2	A-01-01	196	18.0	41.6
						75NB-E2	A-01-02	198	18.0	41.3
						NBCD-E3	point450	450	24.0	41.2
						NBCD-E3	point447	447	24.0	41.0
						NBCD-E3	A-02-02	157	24.0	41.0
B08601-F	263	65.1	3.8	7	-3.2	NBCD-E2	BCD-03-14	443	24.0	44.0
						NBCD-E3	point446	446	24.0	43.7
						NBCD-E2	BCD-03-15	444	24.0	42.8

						NBCD-E3	point449	449	24.0	42.5
						NBCD-E3	A-02-02	157	24.0	41.9
						NBCD-E3	point448	448	24.0	41.8
						NBCD-E3	A-02-01	155	24.0	41.7
						NBCD-E3	point454	454	24.0	41.5
						75NB-E2	A-01-01	196	18.0	41.5
						NBCD-E3	point450	450	24.0	41.3
B08701-F	264	65.4	3.8	7	-3.2	NBCD-E2	BCD-03-14	443	24.0	43.9
						NBCD-E3	point446	446	24.0	43.4
						NBCD-E2	BCD-03-15	444	24.0	42.7
						NBCD-E3	point449	449	24.0	42.5
						NBCD-E3	A-02-02	157	24.0	41.9
						NBCD-E3	A-02-01	155	24.0	41.8
						NBCD-E3	point448	448	24.0	41.8
						NBCD-E2	BCD-03-13	442	24.0	41.4
						NBCD-E3	point453	453	24.0	41.3
						75NB-E2	A-01-01	196	18.0	41.3
B08801-F	265	66.1	3.5	7	-3.5	75NB-E1	C-04-15	298	12.0	44.5
						NBCD-E2	BCD-03-14	443	24.0	43.2
						NBCD-E3	point446	446	24.0	42.8
						75NB-E1	C-04-14	297	12.0	42.7
						NBCD-E2	BCD-03-15	444	24.0	41.9
						NBCD-E3	point449	449	24.0	41.8
						NBCD-E3	A-02-02	157	24.0	41.6
						NBCD-E3	A-02-01	155	24.0	41.6
						NBCD-E2	BCD-03-13	442	24.0	41.1
						NBCD-E3	point448	448	24.0	40.9
B08901-F	266	66.1	3.2	7	-3.8	75NB-E1	C-04-14	297	12.0	43.6
						NBCD-E2	BCD-03-14	443	24.0	42.5
						75NB-E1	C-04-13	296	12.0	42.1
						NBCD-E3	point446	446	24.0	42.1
						75NB-E1	C-04-15	298	12.0	41.9
						NBCD-E3	point449	449	24.0	41.4
						NBCD-E2	BCD-03-15	444	24.0	41.3
						NBCD-E3	A-02-02	157	24.0	41.3
						NBCD-E1	BC-01-14	346	12.0	41.3

						75NB-E1	C-04-17	300	12.0	41.1
B15301	267	63.8	4.8	7	-2.2	75NB-E1	B-02-02	365	12.0	48.2
						75NB-E1	B-02-03	366	12.0	46.7
						75NB-E1	B-02-01	364	12.0	46.3
						NBCD-E2	BCD-03-15	444	24.0	46.1
						NBCD-E3	point446	446	24.0	45.7
						NBCD-E3	point447	447	24.0	45.7
						NBCD-E2	BCD-03-14	443	24.0	45.1
						NBCD-E3	A-02-03	158	24.0	44.7
						NBCD-E3	point450	450	24.0	44.4
						NBCD-E3	point448	448	24.0	43.9
B15401	268	63.8	4.7	7	-2.3	75NB-E1	B-02-02	365	12.0	47.9
						75NB-E1	B-02-03	366	12.0	46.4
						75NB-E1	B-02-01	364	12.0	46.1
						NBCD-E2	BCD-03-15	444	24.0	46.1
						NBCD-E3	point447	447	24.0	45.8
						NBCD-E3	point446	446	24.0	45.4
						NBCD-E2	BCD-03-14	443	24.0	44.8
						NBCD-E3	A-02-03	158	24.0	44.5
						NBCD-E3	point450	450	24.0	44.1
						NBCD-E3	point448	448	24.0	43.8
B15501	269	63.7	4.7	7	-2.3	75NB-E1	B-02-02	365	12.0	47.5
						75NB-E1	B-02-03	366	12.0	47.1
						NBCD-E3	point446	446	24.0	45.6
						NBCD-E2	BCD-03-15	444	24.0	45.5
						NBCD-E2	BCD-03-14	443	24.0	45.2
						NBCD-E3	point447	447	24.0	45.0
						NBCD-E3	point450	450	24.0	44.3
						NBCD-E3	A-02-03	158	24.0	44.0
						NBCD-E3	point448	448	24.0	43.4
						75NB-E2	A-01-01	196	18.0	43.4
B15601	270	63.2	4.5	7	-2.5	75NB-E1	B-02-02	365	12.0	45.3
						NBCD-E2	BCD-03-15	444	24.0	44.9
						75NB-E1	B-02-03	366	12.0	44.8
						NBCD-E3	point447	447	24.0	44.7
						NBCD-E3	point446	446	24.0	44.4

						NBCD-E2	BCD-03-14	443	24.0	44.0
						NBCD-E3	A-02-03	158	24.0	43.6
						NBCD-E3	point450	450	24.0	43.1
						NBCD-E3	point448	448	24.0	42.7
						NBCD-E3	point451	451	24.0	42.6
B15701	271	63.0	4.5	7	-2.5	NBCD-E2	BCD-03-15	444	24.0	44.5
						NBCD-E3	point447	447	24.0	44.5
						75NB-E1	B-02-02	365	12.0	44.4
						75NB-E1	B-02-03	366	12.0	44.3
						NBCD-E3	point446	446	24.0	43.9
						NBCD-E2	BCD-03-14	443	24.0	43.6
						NBCD-E3	A-02-03	158	24.0	43.2
						NBCD-E3	point450	450	24.0	42.7
						NBCD-E3	point451	451	24.0	42.5
						75NB-E2	A-01-01	196	18.0	42.5
B15801	272	63.0	4.4	7	-2.6	NBCD-E2	BCD-03-15	444	24.0	44.7
						NBCD-E3	point447	447	24.0	44.2
						NBCD-E3	point446	446	24.0	44.0
						75NB-E1	B-02-03	366	12.0	43.8
						NBCD-E2	BCD-03-14	443	24.0	43.6
						75NB-E1	B-02-02	365	12.0	43.3
						NBCD-E3	A-02-03	158	24.0	43.1
						NBCD-E3	point450	450	24.0	42.6
						NBCD-E3	point451	451	24.0	42.3
						75NB-E2	A-01-01	196	18.0	42.3
B15901	273	63.1	4.4	7	-2.6	NBCD-E2	BCD-03-15	444	24.0	44.2
						NBCD-E3	point447	447	24.0	44.0
						NBCD-E3	point446	446	24.0	44.0
						75NB-E1	B-02-03	366	12.0	43.7
						NBCD-E2	BCD-03-14	443	24.0	43.6
						NBCD-E3	A-02-03	158	24.0	43.1
						NBCD-E3	point450	450	24.0	42.6
						75NB-E1	B-02-02	365	12.0	42.5
						NBCD-E3	point448	448	24.0	42.1
						75NB-E2	A-01-01	196	18.0	42.1
B16001	274	63.2	4.4	7	-2.6	NBCD-E2	BCD-03-15	444	24.0	44.0

						NBCD-E3	point446	446	24.0	44.0
						NBCD-E3	point447	447	24.0	43.8
						NBCD-E2	BCD-03-14	443	24.0	43.7
						75NB-E1	B-02-03	366	12.0	43.3
						NBCD-E3	A-02-03	158	24.0	43.0
						NBCD-E3	point450	450	24.0	42.6
						NBCD-E3	point448	448	24.0	42.0
						75NB-E2	A-01-01	196	18.0	42.0
						75NB-E2	A-01-02	198	12.0	41.9
B16101	275	63.2	4.1	7	-2.9	NBCD-E3	point446	446	24.0	43.2
						NBCD-E2	BCD-03-14	443	24.0	43.1
						NBCD-E2	BCD-03-15	444	24.0	42.9
						NBCD-E3	point447	447	24.0	42.7
						NBCD-E3	A-02-03	158	24.0	42.4
						NBCD-E3	point450	450	24.0	41.9
						NBCD-E3	A-02-04	159	24.0	41.2
						NBCD-E3	point455	455	24.0	41.1
						NBCD-E3	point448	448	24.0	41.1
						75NB-E2	A-01-01	196	18.0	41.0
B16202	276	63.8	3.9	7	-3.1	NBCD-E2	BCD-03-14	443	24.0	43.8
						NBCD-E3	point446	446	24.0	43.5
						NBCD-E2	BCD-03-15	444	24.0	42.3
						NBCD-E3	A-02-03	158	24.0	42.3
						NBCD-E3	point450	450	24.0	42.2
						NBCD-E3	point447	447	24.0	42.1
						NBCD-E3	point449	449	24.0	41.0
						NBCD-E3	point448	448	24.0	40.9
						NBCD-E3	A-02-02	157	24.0	40.8
						NBCD-E3	point455	455	24.0	40.8
B16301	277	63.5	3.9	7	-3.1	NBCD-E2	BCD-03-14	443	24.0	43.1
						NBCD-E3	point446	446	24.0	42.9
						NBCD-E3	A-02-03	158	24.0	42.1
						NBCD-E3	point447	447	24.0	42.0
						NBCD-E3	point450	450	24.0	41.4
						NBCD-E3	point449	449	24.0	41.3
						NBCD-E2	BCD-03-15	444	24.0	41.3

						NBCD-E3	A-02-04	159	24.0	40.6
						NBCD-E3	point455	455	24.0	40.5
						NBCD-E3	point448	448	24.0	40.4
B16401	278	63.4	4.0	7	-3.0	NBCD-E2	BCD-03-14	443	24.0	42.5
						NBCD-E3	point446	446	24.0	42.3
						NBCD-E2	BCD-03-15	444	24.0	41.9
						NBCD-E3	A-02-03	158	24.0	41.6
						NBCD-E3	point447	447	24.0	41.2
						NBCD-E3	point450	450	24.0	41.1
						75NB-E1	C-04-14	297	12.0	40.7
						NBCD-E3	A-02-04	159	24.0	40.6
						NBCD-E3	point455	455	24.0	40.1
						75NB-E1	C-04-13	296	12.0	40.1
B22502	279	63.5	4.0	7	-3.0	NBCD-E2	BCD-03-14	443	24.0	42.8
						NBCD-E3	point446	446	24.0	42.6
						NBCD-E3	A-02-03	158	24.0	41.8
						NBCD-E2	BCD-03-15	444	24.0	41.8
						NBCD-E3	point447	447	24.0	41.3
						NBCD-E3	point450	450	24.0	41.3
						75NB-E1	C-04-14	297	12.0	40.7
						NBCD-E3	A-02-04	159	24.0	40.6
						NBCD-E3	point449	449	24.0	40.3
						NBCD-E3	point455	455	24.0	40.3
B16501	280	62.9	4.2	7	-2.8	NBCD-E2	BCD-03-14	443	24.0	42.0
						NBCD-E3	point446	446	24.0	41.8
						75NB-E1	C-04-15	298	12.0	41.7
						NBCD-E3	A-02-03	158	24.0	41.2
						NBCD-E2	BCD-03-15	444	24.0	41.0
						75NB-E1	C-04-16	299	12.0	40.8
						75NB-E1	C-04-14	297	12.0	40.7
						NBCD-E3	point447	447	24.0	40.7
						NBCD-E3	point450	450	24.0	40.6
						75NB-E1	C-04-13	296	12.0	40.5
B16601	281	62.9	4.1	7	-2.9	75NB-E1	C-04-15	298	12.0	42.6
						75NB-E1	C-04-16	299	12.0	42.1
						NBCD-E2	BCD-03-14	443	24.0	41.9

						NBCD-E3	point446	446	24.0	41.8
						NBCD-E3	A-02-03	158	24.0	41.2
						75NB-E1	C-04-14	297	12.0	40.9
						75NB-E1	C-04-13	296	12.0	40.8
						75NB-E1	C-04-11	294	12.0	40.7
						NBCD-E2	BCD-03-15	444	24.0	40.7
						NBCD-E3	point447	447	24.0	40.3
B16701	282	62.7	4.2	7	-2.8	NBCD-E3	point446	446	24.0	41.5
						NBCD-E2	BCD-03-14	443	24.0	41.5
						75NB-E1	C-04-16	299	12.0	41.2
						75NB-E1	C-04-11	294	12.0	41.0
						75NB-E1	C-04-14	297	12.0	40.9
						75NB-E1	C-04-15	298	12.0	40.9
						NBCD-E3	A-02-03	158	24.0	40.9
						75NB-E1	C-04-13	296	12.0	40.9
						75NB-E1	C-04-02	285	12.0	40.4
						NBCD-E2	BCD-03-15	444	24.0	40.3
B22201	283	62.9	4.1	7	-2.9	75NB-E1	C-04-16	299	12.0	42.0
						NBCD-E2	BCD-03-14	443	24.0	41.8
						NBCD-E3	point446	446	24.0	41.7
						NBCD-E3	A-02-03	158	24.0	41.1
						75NB-E1	C-04-14	297	12.0	41.1
						75NB-E1	C-04-11	294	12.0	41.0
						75NB-E1	C-04-13	296	12.0	41.0
						NBCD-E2	BCD-03-15	444	24.0	40.4
						NBCD-E3	point450	450	24.0	40.4
						NBCD-E3	point447	447	24.0	40.0
B16801	284	62.5	4.4	7	-2.6	NBCD-E3	point446	446	24.0	41.6
						NBCD-E2	BCD-03-14	443	24.0	41.5
						75NB-E1	C-04-16	299	12.0	41.4
						NBCD-E2	BCD-03-15	444	24.0	40.8
						NBCD-E3	A-02-03	158	24.0	40.7
						75NB-E1	C-04-11	294	12.0	40.7
						NBCD-E3	point447	447	24.0	40.6
						75NB-E1	C-04-14	297	12.0	40.6
						75NB-E1	C-04-13	296	12.0	40.5

						NBCD-E3	point450	450	24.0	40.1
B16904	285	63.5	4.9	7	-2.1	75NB-E1	B-02-02	365	12.0	47.4
						75NB-E1	B-02-01	364	12.0	46.3
						NBCD-E2	BCD-03-15	444	24.0	46.1
						NBCD-E3	point447	447	24.0	45.9
						75NB-E1	B-02-03	366	12.0	45.7
						NBCD-E3	point446	446	24.0	44.5
						NBCD-E3	A-02-03	158	24.0	44.1
						NBCD-E3	point451	451	24.0	43.9
						NBCD-E2	BCD-03-14	443	24.0	43.9
						NBCD-E3	A-02-04	159	24.0	43.9
B17001	286	63.2	5.0	7	-2.0	75NB-E1	B-02-02	365	12.0	46.7
						75NB-E1	B-02-03	366	12.0	45.7
						NBCD-E3	point447	447	24.0	45.7
						NBCD-E2	BCD-03-15	444	24.0	45.6
						75NB-E1	B-02-01	364	12.0	44.6
						NBCD-E3	A-02-04	159	24.0	44.1
						NBCD-E3	point446	446	24.0	43.6
						NBCD-E3	A-02-05	160	24.0	43.6
						NBCD-E3	point451	451	24.0	43.3
						NBCD-E3	A-02-06	161	24.0	43.1
B17101	287	63.1	5.0	7	-2.0	75NB-E1	B-02-02	365	12.0	46.3
						NBCD-E2	BCD-03-15	444	24.0	45.2
						NBCD-E3	point447	447	24.0	45.1
						75NB-E1	B-02-03	366	12.0	45.1
						NBCD-E3	point446	446	24.0	43.8
						NBCD-E3	A-02-04	159	24.0	43.7
						75NB-E1	B-02-01	364	12.0	43.5
						NBCD-E3	A-02-05	160	24.0	43.4
						NBCD-E3	A-02-06	161	24.0	43.1
						NBCD-E3	point451	451	24.0	43.0
B17201	288	62.9	5.0	7	-2.0	75NB-E1	B-02-02	365	12.0	46.4
						75NB-E1	B-02-03	366	12.0	45.6
						NBCD-E2	BCD-03-15	444	24.0	45.3
						NBCD-E3	point447	447	24.0	45.0
						75NB-E1	B-02-01	364	12.0	44.7

						NBCD-E3	point446	446	24.0	43.9
						NBCD-E3	A-02-04	159	24.0	43.8
						NBCD-E3	A-02-05	160	24.0	43.6
						NBCD-E3	point448	448	24.0	43.3
						NBCD-E3	A-02-06	161	24.0	43.3
B17302	289	62.6	4.9	7	-2.1	75NB-E1	B-02-02	365	12.0	45.8
						75NB-E1	B-02-03	366	12.0	45.1
						NBCD-E2	BCD-03-15	444	24.0	44.8
						NBCD-E3	point447	447	24.0	44.0
						75NB-E1	B-02-01	364	12.0	44.0
						NBCD-E3	point446	446	24.0	43.8
						NBCD-E3	A-02-05	160	24.0	43.6
						NBCD-E3	A-02-04	159	24.0	43.3
						NBCD-E3	point448	448	24.0	43.3
						NBCD-E3	A-02-06	161	24.0	43.2
B17403	290	62.1	4.8	7	-2.2	75NB-E1	B-02-02	365	12.0	44.8
						75NB-E1	B-02-03	366	12.0	44.4
						NBCD-E2	BCD-03-15	444	24.0	44.2
						NBCD-E3	point446	446	24.0	43.4
						NBCD-E3	A-02-05	160	24.0	43.4
						NBCD-E3	point448	448	24.0	43.0
						NBCD-E3	A-02-06	161	24.0	43.0
						NBCD-E3	A-02-07	162	24.0	42.9
						75NB-E1	B-02-01	364	12.0	42.9
						NBCD-E3	point447	447	24.0	42.9
B17501	291	62.3	4.9	7	-2.1	75NB-E1	B-02-02	365	12.0	44.9
						75NB-E1	B-02-03	366	12.0	44.2
						NBCD-E2	BCD-03-15	444	24.0	44.2
						NBCD-E3	point447	447	24.0	43.6
						NBCD-E3	A-02-05	160	24.0	43.2
						NBCD-E3	A-02-04	159	24.0	42.9
						NBCD-E3	A-02-06	161	24.0	42.8
						NBCD-E3	point448	448	24.0	42.6
						NBCD-E3	A-02-07	162	24.0	42.5
						NBCD-E3	point446	446	24.0	42.4
B17601	292	62.1	4.5	7	-2.5	75NB-E1	B-02-03	366	12.0	44.2

						75NB-E1	B-02-02	365	12.0	44.2
						NBCD-E2	BCD-03-15	444	24.0	43.8
						NBCD-E3	point447	447	24.0	43.3
						NBCD-E3	A-02-05	160	24.0	42.9
						NBCD-E3	A-02-04	159	24.0	42.7
						NBCD-E3	A-02-06	161	24.0	42.5
						NBCD-E3	point448	448	24.0	42.3
						NBCD-E3	A-02-07	162	24.0	42.1
						NBCD-E3	point446	446	24.0	41.9
B17701	293	62.0	4.4	7	-2.6	75NB-E1	B-02-03	366	12.0	43.7
						NBCD-E2	BCD-03-15	444	24.0	43.4
						NBCD-E3	point447	447	24.0	43.4
						NBCD-E3	A-02-05	160	24.0	42.7
						NBCD-E3	A-02-04	159	24.0	42.6
						75NB-E1	B-02-02	365	12.0	42.6
						NBCD-E3	A-02-06	161	24.0	42.1
						NBCD-E3	point448	448	24.0	41.7
						NBCD-E3	point446	446	24.0	41.7
						NBCD-E3	A-02-08	163	24.0	41.6
B17801	294	61.8	4.3	7	-2.7	NBCD-E2	BCD-03-15	444	24.0	43.1
						NBCD-E3	point447	447	24.0	43.1
						75NB-E1	B-02-03	366	12.0	42.8
						NBCD-E3	A-02-05	160	24.0	42.4
						NBCD-E3	A-02-04	159	24.0	42.4
						NBCD-E3	A-02-06	161	24.0	41.8
						75NB-E1	B-02-02	365	12.0	41.7
						NBCD-E3	point448	448	24.0	41.4
						NBCD-E3	point446	446	24.0	41.4
						NBCD-E3	point451	451	24.0	41.2
B17901	295	61.8	4.3	7	-2.7	NBCD-E3	point447	447	24.0	43.1
						NBCD-E2	BCD-03-15	444	24.0	42.9
						75NB-E1	B-02-03	366	12.0	42.6
						NBCD-E3	A-02-04	159	24.0	42.3
						NBCD-E3	A-02-05	160	24.0	42.3
						NBCD-E3	A-02-06	161	24.0	41.6
						NBCD-E3	point446	446	24.0	41.2

						NBCD-E3	point451	451	24.0	41.1
						NBCD-E3	point448	448	24.0	41.0
						NBCD-E3	A-02-09	164	24.0	40.9
B18001	296	62.0	4.3	7	-2.7	NBCD-E3	point447	447	24.0	43.1
						NBCD-E2	BCD-03-15	444	24.0	42.8
						75NB-E1	B-02-03	366	12.0	42.3
						NBCD-E3	A-02-04	159	24.0	42.3
						NBCD-E3	A-02-05	160	24.0	42.1
						NBCD-E3	A-02-06	161	24.0	41.6
						NBCD-E3	point446	446	24.0	41.3
						NBCD-E3	point451	451	24.0	41.1
						NBCD-E3	A-02-07	162	24.0	40.9
						NBCD-E3	A-02-09	164	24.0	40.8
B18101	297	61.5	4.6	7	-2.4	NBCD-E3	point448	448	24.0	43.8
						75NB-E1	B-02-03	366	12.0	43.6
						75NB-E1	B-02-02	365	12.0	43.6
						NBCD-E2	BCD-03-15	444	24.0	43.3
						NBCD-E3	point447	447	24.0	43.2
						NBCD-E3	point446	446	24.0	43.2
						NBCD-E3	A-02-05	160	24.0	43.1
						NBCD-E3	A-02-06	161	24.0	42.8
						NBCD-E3	A-02-07	162	24.0	42.7
						NBCD-E3	A-02-08	163	24.0	42.3
B18201	298	61.6	4.2	7	-2.8	75NB-E1	B-02-02	365	12.0	44.2
						NBCD-E3	point448	448	24.0	44.2
						NBCD-E3	point446	446	24.0	43.5
						75NB-E1	B-02-03	366	12.0	43.5
						NBCD-E3	A-02-05	160	24.0	43.5
						NBCD-E2	BCD-03-15	444	24.0	43.4
						NBCD-E3	point447	447	24.0	43.3
						75NB-E1	B-02-01	364	12.0	43.3
						NBCD-E3	A-02-06	161	24.0	43.2
						NBCD-E3	A-02-07	162	24.0	43.1
B18301	299	61.2	4.4	7	-2.6	NBCD-E3	point448	448	24.0	43.6
						75NB-E1	B-02-02	365	12.0	43.3
						NBCD-E3	A-02-05	160	24.0	43.0

						NBCD-E3	point446	446	24.0	42.9
						NBCD-E2	BCD-03-15	444	24.0	42.9
						NBCD-E3	A-02-06	161	24.0	42.7
						NBCD-E3	point447	447	24.0	42.7
						75NB-E1	B-02-03	366	12.0	42.6
						NBCD-E3	A-02-07	162	24.0	42.6
						NBCD-E3	A-02-08	163	24.0	42.3
B18401	300	62.9	4.3	7	-2.7	NBCD-E2	BCD-03-14	443	24.0	42.2
						NBCD-E3	point446	446	24.0	42.2
						NBCD-E2	BCD-03-15	444	24.0	42.1
						NBCD-E3	point447	447	24.0	42.1
						NBCD-E3	A-02-03	158	24.0	41.5
						NBCD-E3	A-02-04	159	24.0	41.2
						NBCD-E3	A-02-05	160	24.0	41.1
						NBCD-E3	point450	450	24.0	40.8
						NBCD-E3	point455	455	24.0	40.6
						NBCD-E3	point451	451	24.0	40.5
B18501	301	62.2	4.8	7	-2.2	NBCD-E3	point447	447	24.0	43.3
						NBCD-E2	BCD-03-15	444	24.0	42.7
						75NB-E1	B-02-03	366	12.0	42.1
						NBCD-E3	A-02-04	159	24.0	42.0
						NBCD-E3	A-02-07	162	24.0	42.0
						NBCD-E3	point446	446	24.0	41.9
						NBCD-E3	A-02-05	160	24.0	41.8
						NBCD-E3	A-02-06	161	24.0	41.3
						NBCD-E2	BCD-03-14	443	24.0	41.1
						NBCD-E3	point451	451	24.0	41.0
B18601	302	62.3	4.9	7	-2.1	NBCD-E3	point447	447	24.0	43.3
						NBCD-E2	BCD-03-15	444	24.0	42.6
						NBCD-E3	point446	446	24.0	42.0
						75NB-E1	B-02-03	366	12.0	42.0
						NBCD-E3	A-02-04	159	24.0	42.0
						NBCD-E3	A-02-06	161	24.0	41.5
						NBCD-E3	A-02-05	160	24.0	41.5
						NBCD-E2	BCD-03-14	443	24.0	41.2
						NBCD-E3	point451	451	24.0	41.2

						NBCD-E3	A-02-07	162	24.0	41.1
B18701	303	62.3	4.7	7	-2.3	NBCD-E3	point447	447	24.0	43.0
						NBCD-E2	BCD-03-15	444	24.0	42.3
						NBCD-E3	point446	446	24.0	41.9
						NBCD-E3	A-02-04	159	24.0	41.8
						NBCD-E3	A-02-05	160	24.0	41.5
						NBCD-E3	A-02-06	161	24.0	41.2
						75NB-E1	B-02-03	366	12.0	41.2
						NBCD-E2	BCD-03-14	443	24.0	41.2
						NBCD-E3	point451	451	24.0	40.9
						NBCD-E3	point448	448	24.0	40.8
B18801	304	62.3	4.8	7	-2.2	NBCD-E3	point447	447	24.0	42.9
						NBCD-E2	BCD-03-15	444	24.0	42.3
						NBCD-E3	point446	446	24.0	41.9
						NBCD-E3	A-02-04	159	24.0	41.5
						NBCD-E3	A-02-05	160	24.0	41.4
						NBCD-E2	BCD-03-14	443	24.0	41.3
						NBCD-E3	A-02-06	161	24.0	41.1
						NBCD-E3	point451	451	24.0	40.9
						NBCD-E3	point448	448	24.0	40.7
						NBCD-E3	A-02-07	162	24.0	40.6
B18901	305	62.3	4.7	7	-2.3	NBCD-E3	point447	447	24.0	42.6
						NBCD-E2	BCD-03-15	444	24.0	42.0
						NBCD-E3	point446	446	24.0	41.8
						NBCD-E3	A-02-05	160	24.0	41.5
						NBCD-E2	BCD-03-14	443	24.0	41.3
						NBCD-E3	A-02-04	159	24.0	41.1
						NBCD-E3	A-02-06	161	24.0	40.9
						NBCD-E3	point451	451	24.0	40.7
						NBCD-E3	A-02-03	158	24.0	40.6
						NBCD-E3	point448	448	24.0	40.3
B19001	306	62.2	4.8	7	-2.2	NBCD-E3	point447	447	24.0	42.3
						NBCD-E2	BCD-03-15	444	24.0	41.8
						NBCD-E3	point446	446	24.0	41.8
						NBCD-E3	A-02-04	159	24.0	41.5
						NBCD-E2	BCD-03-14	443	24.0	41.3

						NBCD-E3	A-02-05	160	24.0	41.1
						NBCD-E3	A-02-06	161	24.0	40.8
						NBCD-E3	A-02-03	158	24.0	40.6
						NBCD-E3	point451	451	24.0	40.6
						NBCD-E3	point448	448	24.0	40.3
B19101	307	62.0	4.7	7	-2.3	NBCD-E3	point447	447	24.0	41.7
						NBCD-E2	BCD-03-15	444	24.0	41.7
						NBCD-E3	point446	446	24.0	41.5
						NBCD-E3	A-02-04	159	24.0	41.2
						NBCD-E2	BCD-03-14	443	24.0	41.0
						NBCD-E3	A-02-05	160	24.0	40.9
						NBCD-E3	A-02-06	161	24.0	40.5
						NBCD-E3	A-02-03	158	24.0	40.4
						NBCD-E3	point451	451	24.0	40.2
						NBCD-E3	point448	448	24.0	39.9
B19201	308	61.8	4.6	7	-2.4	NBCD-E3	point447	447	24.0	41.6
						NBCD-E2	BCD-03-14	443	24.0	41.1
						NBCD-E2	BCD-03-15	444	24.0	41.0
						NBCD-E3	point446	446	24.0	40.9
						75NB-E1	C-04-16	299	12.0	40.6
						NBCD-E3	A-02-04	159	24.0	40.6
						NBCD-E3	A-02-05	160	24.0	40.6
						NBCD-E3	A-02-03	158	24.0	40.2
						NBCD-E3	A-02-06	161	24.0	40.1
						75NB-E1	C-04-15	298	12.0	40.1
B19301	309	61.8	4.6	7	-2.4	NBCD-E3	point447	447	24.0	41.4
						NBCD-E3	point446	446	24.0	41.2
						NBCD-E2	BCD-03-14	443	24.0	40.9
						NBCD-E2	BCD-03-15	444	24.0	40.7
						NBCD-E3	A-02-05	160	24.0	40.4
						NBCD-E3	A-02-04	159	24.0	40.4
						75NB-E1	C-04-16	299	12.0	40.3
						NBCD-E3	A-02-03	158	24.0	40.1
						NBCD-E3	A-02-06	161	24.0	39.9
						75NB-E1	C-04-11	294	12.0	39.6
B19402	310	61.9	4.5	7	-2.5	NBCD-E3	point446	446	24.0	41.1

						NBCD-E3	point447	447	24.0	40.9
						NBCD-E2	BCD-03-14	443	24.0	40.7
						NBCD-E2	BCD-03-15	444	24.0	40.4
						NBCD-E3	A-02-05	160	24.0	40.2
						75NB-E1	C-04-16	299	12.0	40.2
						75NB-E1	C-04-15	298	12.0	40.1
						NBCD-E3	A-02-04	159	24.0	40.1
						NBCD-E3	A-02-03	158	24.0	40.0
						75NB-E1	C-04-11	294	12.0	39.8
B19502	311	60.6	4.6	7	-2.4	NBCD-E3	point447	447	24.0	41.7
						75NB-E1	B-02-03	366	12.0	41.7
						NBCD-E3	point448	448	24.0	41.4
						NBCD-E3	A-02-05	160	24.0	41.3
						NBCD-E2	BCD-03-15	444	24.0	41.2
						NBCD-E3	A-02-06	161	24.0	41.0
						NBCD-E3	point446	446	24.0	41.0
						NBCD-E3	A-02-07	162	24.0	40.9
						NBCD-E3	A-02-08	163	24.0	40.6
						NBCD-E3	point450	450	24.0	40.6
B19602	312	60.5	4.7	7	-2.3	NBCD-E3	point447	447	24.0	41.7
						NBCD-E3	point448	448	24.0	41.2
						75NB-E1	B-02-03	366	12.0	41.1
						NBCD-E3	A-02-05	160	24.0	41.1
						NBCD-E2	BCD-03-15	444	24.0	41.1
						NBCD-E3	A-02-06	161	24.0	40.8
						NBCD-E3	A-02-07	162	24.0	40.8
						NBCD-E3	point446	446	24.0	40.8
						NBCD-E3	A-02-08	163	24.0	40.5
						NBCD-E3	A-02-04	159	24.0	40.2
B19702	313	60.5	4.7	7	-2.3	NBCD-E3	point447	447	24.0	41.6
						NBCD-E3	A-02-05	160	24.0	41.0
						NBCD-E3	point448	448	24.0	41.0
						NBCD-E2	BCD-03-15	444	24.0	40.9
						NBCD-E3	A-02-06	161	24.0	40.7
						NBCD-E3	A-02-07	162	24.0	40.6
						NBCD-E3	point446	446	24.0	40.6

						75NB-E1	B-02-03	366	12.0	40.5
						NBCD-E3	A-02-08	163	24.0	40.3
						NBCD-E3	A-02-04	159	24.0	40.1
B19801	314	60.8	4.6	7	-2.4	NBCD-E3	point447	447	24.0	41.5
						NBCD-E3	A-02-05	160	24.0	40.8
						NBCD-E2	BCD-03-15	444	24.0	40.8
						NBCD-E3	A-02-06	161	24.0	40.6
						NBCD-E3	point446	446	24.0	40.5
						NBCD-E3	A-02-07	162	24.0	40.5
						NBCD-E3	A-02-04	159	24.0	40.2
						NBCD-E3	A-02-08	163	24.0	40.1
						NBCD-E3	point448	448	24.0	40.1
						NBCD-E3	A-02-10	165	24.0	39.9
B19901	315	60.5	4.8	7	-2.2	NBCD-E3	point447	447	24.0	41.3
						NBCD-E3	A-02-05	160	24.0	40.7
						NBCD-E2	BCD-03-15	444	24.0	40.6
						NBCD-E3	A-02-06	161	24.0	40.4
						NBCD-E3	A-02-07	162	24.0	40.4
						NBCD-E3	point446	446	24.0	40.4
						NBCD-E3	A-02-04	159	24.0	40.1
						NBCD-E3	point448	448	24.0	40.0
						NBCD-E3	A-02-08	163	24.0	40.0
						NBCD-E3	A-02-10	165	24.0	39.8
B20002	316	60.4	4.8	7	-2.2	NBCD-E3	point447	447	24.0	41.3
						NBCD-E3	A-02-05	160	24.0	40.5
						NBCD-E2	BCD-03-15	444	24.0	40.4
						NBCD-E3	A-02-06	161	24.0	40.2
						NBCD-E3	A-02-07	162	24.0	40.2
						NBCD-E3	point446	446	24.0	40.1
						NBCD-E3	A-02-04	159	24.0	40.0
						NBCD-E3	A-02-08	163	24.0	39.7
						NBCD-E3	A-02-10	165	24.0	39.6
						NBCD-E3	point448	448	24.0	39.5
B20104	317	60.4	4.7	7	-2.3	NBCD-E3	point447	447	24.0	41.4
						NBCD-E3	A-02-05	160	24.0	40.8
						NBCD-E2	BCD-03-15	444	24.0	40.7

						NBCD-E3	point448	448	24.0	40.7
						NBCD-E3	A-02-06	161	24.0	40.5
						NBCD-E3	A-02-07	162	24.0	40.5
						NBCD-E3	point446	446	24.0	40.4
						NBCD-E3	point451	451	24.0	40.2
						NBCD-E3	A-02-08	163	24.0	40.1
						NBCD-E3	point450	450	24.0	40.1
Total Cost, All Barriers (including additional cost(s))					$6089341					

HMB Professional Engineers **27 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **Brent Spence Bridge Technical Memo**
RUN: **B2 V1**
BARRIER DESIGN: **B2-BAR-final**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
NBCD-E4	W	12.00	12.00	12.00	146	1750				55998
75NB-E1	W	12.00	20.24	24.00	2657	53763				1720415
NBCD-E2	W	24.00	24.00	24.00	590	14170				453441
NBCD-5thStExit	W	12.00	13.18	24.00	1295	17067				546157
NBCD-E1	W	12.00	19.56	24.00	1834	35860				1147519
NBCD-E3	W	12.00	20.09	24.00	2031	40799				1305573
75NB-E2	W	12.00	12.00	12.00	2240	26882				860238
									Total Cost:	6089341

HMB Professional Engineers 27 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: B2 V1
BARRIER DESIGN: B2-BAR-final

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
NBCD-E4	W	BCD-02-01	424	12.00	12.00	12.00	40	482	Y			15410
		BCD-02-02	425	12.00	12.00	12.00	40	482	Y			15410
		BCD-02-03	426	12.00	12.00	12.00	40	481	Y			15385
		BCD-02-04	427	12.00	12.00	12.00	26	306	Y			9792
75NB-E1	W	point445	445	24.00	24.00	24.00	40	966				30914
		C-03-16	269	24.00	24.00	24.00	40	965				30878
		C-03-17	270	24.00	24.00	24.00	40	951				30431
		C-03-18	271	24.00	24.00	24.00	40	970				31030
		C-03-19	272	24.00	24.00	24.00	40	955				30549
		C-03-20	273	24.00	24.00	24.00	40	963				30828
		C-03-21	274	24.00	24.00	24.00	40	956				30605
		C-03-22	275	24.00	24.00	24.00	40	964				30859
		C-03-23	276	24.00	24.00	24.00	40	960				30722
		C-03-24	277	24.00	24.00	24.00	40	964				30845
		C-03-25	278	24.00	24.00	24.00	40	949				30358
		C-03-26	279	24.00	24.00	24.00	40	972				31102
		C-03-27	280	24.00	24.00	24.00	40	957				30609
		C-03-28	281	24.00	24.00	24.00	40	953				30481
		C-03-29	282	24.00	24.00	24.00	40	960				30722
		C-03-30	283	24.00	22.00	20.00	30	658				21041
		C-04-01	284	12.00	12.00	12.00	37	450	Y			14390
		C-04-02	285	12.00	12.00	12.00	40	478	Y			15302
		C-04-03	286	12.00	12.00	12.00	40	480	Y			15361
		C-04-04	287	12.00	12.00	12.00	40	482	Y			15422
		C-04-05	288	12.00	12.00	12.00	40	476	Y			15241

		C-04-06	289	12.00	12.00	12.00	40	480	Y			15371
		C-04-07	290	12.00	12.00	12.00	40	485	Y			15509
		C-04-08	291	12.00	12.00	12.00	40	477	Y			15260
		C-04-09	292	12.00	12.00	12.00	40	481	Y			15404
		C-04-10	293	12.00	12.00	12.00	40	478	Y			15303
		C-04-11	294	12.00	12.00	12.00	40	484	Y			15480
		C-04-12	295	12.00	12.00	12.00	40	475	Y			15207
		C-04-13	296	12.00	12.00	12.00	40	483	Y			15462
		C-04-14	297	12.00	12.00	12.00	40	478	Y			15288
		C-04-15	298	12.00	12.00	12.00	40	480	Y			15371
		C-04-16	299	12.00	12.00	12.00	40	483	Y			15456
		C-04-17	300	12.00	14.00	16.00	43	607	Y			19435
		C-05-01	301	24.00	24.00	24.00	37	881				28197
		C-05-02	302	24.00	24.00	24.00	40	962				30770
		C-05-03	303	24.00	24.00	24.00	40	956				30585
		C-05-04	304	24.00	24.00	24.00	40	957				30626
		C-05-05	305	24.00	24.00	24.00	40	957				30626
		C-05-06	306	24.00	24.00	24.00	40	963				30821
		C-05-07	307	24.00	24.00	24.00	40	969				31019
		C-05-08	308	24.00	24.00	24.00	40	953				30491
		C-05-09	309	24.00	24.00	24.00	40	965				30895
		C-05-10	310	24.00	24.00	24.00	40	959				30691
		C-05-11	311	24.00	24.00	24.00	40	959				30691
		C-05-12	312	24.00	24.00	24.00	40	955				30571
		C-05-13	313	24.00	24.00	24.00	40	969				31019
		C-05-14	314	24.00	24.00	24.00	40	959				30691
		C-05-15	315	24.00	22.00	20.00	35	760				24329
		B-02-01	364	12.00	12.00	12.00	40	482	Y			15410
		B-02-02	365	12.00	12.00	12.00	40	481	Y			15385
		B-02-03	366	12.00	12.00	12.00	40	476	Y			15218
		B-02-04	367	12.00	14.00	16.00	35	485	Y			15527
		B-01-01	369	24.00	24.00	24.00	40	950				30397
		B-01-02	371	24.00	24.00	24.00	40	966				30923
		B-01-03	372	24.00	24.00	24.00	40	952				30455
		B-01-04	373	24.00	24.00	24.00	40	967				30959
		B-01-05	374	24.00	24.00	24.00	40	961				30742
		B-01-06	375	24.00	24.00	24.00	40	957				30609
		B-01-07	376	24.00	24.00	24.00	40	964				30845
		B-01-08	377	24.00	24.00	24.00	40	964				30859

		B-01-09	378	24.00	24.00	24.00	40	953				30491
		B-01-10	379	24.00	24.00	24.00	40	966				30921
		B-01-11	380	24.00	24.00	24.00	40	949				30365
		B-01-12	381	24.00	24.00	24.00	41	972				31113
		B-01-13	382	24.00	24.00	24.00	40	953				30501
		B-01-14	383	24.00	24.00	24.00	40	963				30809
		B-01-15	384	24.00	24.00	24.00	40	957				30629
NBCD-E2	W	BCD-03-01	429	24.00	24.00	24.00	40	955				30568
		BCD-03-02	431	24.00	24.00	24.00	40	966				30923
		BCD-03-03	432	24.00	24.00	24.00	40	961				30763
		BCD-03-04	433	24.00	24.00	24.00	40	952				30455
		BCD-03-05	434	24.00	24.00	24.00	40	965				30878
		BCD-03-06	435	24.00	24.00	24.00	40	957				30609
		BCD-03-07	436	24.00	24.00	24.00	40	960				30722
		BCD-03-08	437	24.00	24.00	24.00	40	968				30971
		BCD-03-09	438	24.00	24.00	24.00	40	958				30648
		BCD-03-10	439	24.00	24.00	24.00	40	955				30549
		BCD-03-11	440	24.00	24.00	24.00	40	961				30739
		BCD-03-12	441	24.00	24.00	24.00	40	965				30878
		BCD-03-13	442	24.00	24.00	24.00	40	963				30809
		BCD-03-14	443	24.00	24.00	24.00	40	959				30684
		BCD-03-15	444	24.00	24.00	24.00	30	726				23244
NBCD-5thStExit	W	B5-01-01	385	16.00	16.00	16.00	40	639				20461
		B5-01-02	386	16.00	14.00	12.00	33	459				14675
		B5-02-01	388	12.00	12.00	12.00	40	480	Y			15371
		B5-02-02	390	12.00	12.00	12.00	40	483	Y			15456
		B5-02-03	391	12.00	12.00	12.00	40	475	Y			15198
		B5-02-04	392	12.00	12.00	12.00	40	483	Y			15456
		B5-02-05	393	12.00	12.00	12.00	40	480	Y			15371
		B5-02-06	394	12.00	12.00	12.00	40	480	Y			15371
		B5-02-07	395	12.00	12.00	12.00	40	478	Y			15284
		B5-02-08	396	12.00	12.00	12.00	40	480	Y			15371
		B5-02-09	397	12.00	12.00	12.00	40	478	Y			15288
		B5-02-10	398	12.00	12.00	12.00	40	485	Y			15509
		B5-02-11	399	12.00	12.00	12.00	40	478	Y			15305
		B5-02-12	400	12.00	12.00	12.00	40	480	Y			15376
		B5-02-13	401	12.00	12.00	12.00	40	480	Y			15370

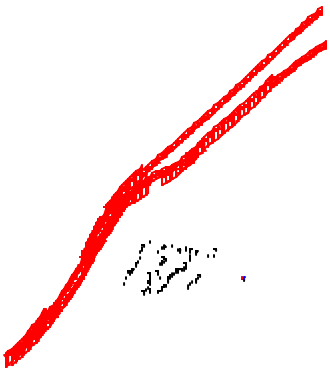
		B5-02-14	402	12.00	12.00	12.00	40	481	Y			15404
		B5-02-15	403	12.00	12.00	12.00	40	478	Y			15289
		B5-02-16	404	12.00	12.00	12.00	40	477	Y			15266
		B5-02-17	405	12.00	12.00	12.00	40	484	Y			15480
		B5-02-18	406	12.00	12.00	12.00	40	477	Y			15266
		B5-02-19	407	12.00	12.00	12.00	40	483	Y			15457
		B5-02-20	408	12.00	12.00	12.00	40	477	Y			15266
		B5-02-21	409	12.00	12.00	12.00	40	483	Y			15457
		B5-02-22	410	12.00	12.00	12.00	40	477	Y			15266
		B5-02-23	411	12.00	12.00	12.00	40	484	Y			15480
		B5-02-24	412	12.00	12.00	12.00	40	477	Y			15266
		B5-02-25	413	12.00	12.00	12.00	40	483	Y			15457
		B5-02-26	414	12.00	12.00	12.00	40	477	Y			15266
		B5-02-27	415	12.00	12.00	12.00	40	483	Y			15457
		B5-02-28	416	12.00	14.00	16.00	40	557	Y			17810
		B5-03-01	417	24.00	24.00	24.00	40	966				30914
		B5-03-02	418	24.00	24.00	24.00	40	953				30491
		B5-03-03	419	24.00	24.00	24.00	22	531				17005
NBCD-E1	W	C-06-01	316	24.00	24.00	24.00	40	957				30629
		C-06-02	318	24.00	24.00	24.00	40	959				30684
		C-06-03	319	24.00	24.00	24.00	40	965				30878
		C-06-04	320	24.00	24.00	24.00	40	955				30576
		C-06-05	321	24.00	24.00	24.00	40	961				30739
		C-06-06	322	24.00	24.00	24.00	40	966				30921
		C-06-07	323	24.00	24.00	24.00	40	958				30648
		C-06-08	324	24.00	24.00	24.00	40	964				30859
		C-06-09	325	24.00	24.00	24.00	40	960				30722
		C-06-10	326	24.00	24.00	24.00	40	957				30609
		C-06-11	327	24.00	24.00	24.00	40	957				30609
		C-06-12	328	24.00	24.00	24.00	40	968				30971
		C-06-13	329	24.00	24.00	24.00	40	957				30609
		C-06-14	330	24.00	24.00	24.00	40	961				30742
		C-06-15	331	24.00	22.00	20.00	49	1075				34404
		BC-01-01	333	12.00	12.00	12.00	40	478	Y			15305
		BC-01-02	334	12.00	12.00	12.00	40	484	Y			15485
		BC-01-03	335	12.00	12.00	12.00	40	480	Y			15371
		BC-01-04	336	12.00	12.00	12.00	40	478	Y			15305
		BC-01-05	337	12.00	12.00	12.00	40	478	Y			15305

		BC-01-06	338	12.00	12.00	12.00	40	480	Y			15371
		BC-01-07	339	12.00	12.00	12.00	40	482	Y			15439
		BC-01-08	340	12.00	12.00	12.00	40	479	Y			15331
		BC-01-09	341	12.00	12.00	12.00	40	479	Y			15331
		BC-01-10	342	12.00	12.00	12.00	40	484	Y			15480
		BC-01-11	343	12.00	12.00	12.00	40	476	Y			15227
		BC-01-12	344	12.00	12.00	12.00	40	478	Y			15303
		BC-01-13	345	12.00	12.00	12.00	40	483	Y			15462
		BC-01-14	346	12.00	12.00	12.00	40	483	Y			15462
		BC-01-15	347	12.00	12.00	12.00	40	478	Y			15288
		BC-01-16	348	12.00	12.00	12.00	40	480	Y			15371
		BC-01-17	349	12.00	14.00	16.00	36	510	Y			16329
		BC-02-01	350	24.00	24.00	24.00	40	961				30742
		BC-02-02	351	24.00	24.00	24.00	40	961				30742
		BC-02-03	352	24.00	24.00	24.00	40	966				30911
		BC-02-04	353	24.00	24.00	24.00	40	950				30397
		BC-02-05	354	24.00	24.00	24.00	40	966				30911
		BC-02-06	355	24.00	24.00	24.00	40	961				30742
		BC-02-07	356	24.00	24.00	24.00	40	961				30742
		BC-02-08	357	24.00	24.00	24.00	40	955				30568
		BC-02-09	358	24.00	24.00	24.00	40	961				30742
		BC-02-10	359	24.00	24.00	24.00	40	966				30911
		BC-02-11	360	24.00	24.00	24.00	40	961				30742
		BC-02-12	361	24.00	24.00	24.00	40	950				30397
		BC-02-13	362	24.00	24.00	24.00	40	966				30911
		BC-02-14	363	24.00	24.00	24.00	28	666				21297
NBCD-E3	W	point446	446	24.00	24.00	24.00	40	967				30959
		point447	447	24.00	24.00	24.00	40	956				30578
		point448	448	24.00	24.00	24.00	40	966				30914
		point449	449	24.00	24.00	24.00	40	956				30578
		point450	450	24.00	24.00	24.00	40	967				30959
		point451	451	24.00	24.00	24.00	40	956				30578
		point452	452	24.00	24.00	24.00	40	956				30578
		point453	453	24.00	24.00	24.00	40	966				30914
		point454	454	24.00	24.00	24.00	40	956				30578
		point455	455	24.00	24.00	24.00	40	967				30959
		point456	456	24.00	24.00	24.00	40	957				30629
		point457	457	24.00	24.00	24.00	40	957				30629

		point458	458	24.00	24.00	24.00	0	12				384
		A-02-01	155	24.00	24.00	24.00	40	966				30914
		A-02-02	157	24.00	24.00	24.00	40	956				30578
		A-02-03	158	24.00	24.00	24.00	40	966				30914
		A-02-04	159	24.00	24.00	24.00	40	956				30578
		A-02-05	160	24.00	24.00	24.00	40	966				30914
		A-02-06	161	24.00	24.00	24.00	40	956				30578
		A-02-07	162	24.00	24.00	24.00	40	954				30532
		A-02-08	163	24.00	24.00	24.00	40	967				30959
		A-02-09	164	24.00	24.00	24.00	40	954				30532
		A-02-10	165	24.00	24.00	24.00	40	966				30914
		A-02-11	166	24.00	24.00	24.00	40	956				30578
		A-02-12	167	24.00	24.00	24.00	40	966				30914
		A-02-13	168	24.00	24.00	24.00	40	956				30578
		A-02-14	169	24.00	24.00	24.00	40	966				30914
		A-02-15	170	24.00	24.00	24.00	40	956				30578
		A-02-16	171	24.00	24.00	24.00	40	966				30914
		A-02-17	172	24.00	24.00	24.00	40	957				30629
		A-02-18	173	24.00	24.00	24.00	40	956				30578
		A-02-19	174	24.00	24.00	24.00	40	961				30744
		A-02-20	175	24.00	24.00	24.00	40	963				30809
		A-02-21	176	24.00	24.00	24.00	40	955				30576
		A-02-22	177	24.00	24.00	24.00	40	965				30878
		A-02-23	178	24.00	22.00	20.00	9	203				6491
		A-03-01	179	12.00	12.00	12.00	40	477	Y			15250
		A-03-02	180	12.00	12.00	12.00	40	482	Y			15439
		A-03-03	181	12.00	12.00	12.00	40	477	Y			15250
		A-03-04	182	12.00	12.00	12.00	40	484	Y			15476
		A-03-05	183	12.00	12.00	12.00	40	478	Y			15288
		A-03-06	184	12.00	12.00	12.00	40	484	Y			15476
		A-03-07	185	12.00	12.00	12.00	40	479	Y			15328
		A-03-08	186	12.00	12.00	12.00	40	481	Y			15404
		A-03-09	187	12.00	12.00	12.00	40	474	Y			15183
		A-03-10	188	12.00	12.00	12.00	40	481	Y			15404
		A-03-11	189	12.00	12.00	12.00	40	481	Y			15390
		A-03-12	190	12.00	12.00	12.00	40	481	Y			15390
		A-03-13	191	12.00	12.00	12.00	40	481	Y			15390
		A-03-14	192	12.00	12.00	12.00	40	481	Y			15390
		A-03-15	193	12.00	12.00	12.00	40	481	Y			15403

		A-03-16	194	12.00	12.00	12.00	40	475	Y			15198
		A-03-17	195	12.00	12.00	12.00	21	253	Y			8085
75NB-E2	W	A-01-01	196	12.00	12.00	12.00	40	478	Y			15289
		A-01-02	198	12.00	12.00	12.00	40	485	Y			15505
		A-01-03	199	12.00	12.00	12.00	40	478	Y			15289
		A-01-04	200	12.00	12.00	12.00	40	484	Y			15480
		A-01-05	201	12.00	12.00	12.00	40	477	Y			15266
		A-01-06	202	12.00	12.00	12.00	40	478	Y			15289
		A-01-07	203	12.00	12.00	12.00	40	483	Y			15457
		A-01-08	204	12.00	12.00	12.00	40	478	Y			15289
		A-01-09	205	12.00	12.00	12.00	40	483	Y			15457
		A-01-10	206	12.00	12.00	12.00	40	477	Y			15266
		A-01-11	207	12.00	12.00	12.00	40	484	Y			15480
		A-01-12	208	12.00	12.00	12.00	40	477	Y			15266
		A-01-13	209	12.00	12.00	12.00	40	484	Y			15480
		A-01-14	210	12.00	12.00	12.00	40	477	Y			15266
		A-01-15	211	12.00	12.00	12.00	40	484	Y			15480
		A-01-16	212	12.00	12.00	12.00	40	477	Y			15266
		A-01-17	213	12.00	12.00	12.00	40	478	Y			15289
		A-01-18	214	12.00	12.00	12.00	40	483	Y			15457
		A-01-19	215	12.00	12.00	12.00	40	477	Y			15266
		A-01-20	216	12.00	12.00	12.00	40	484	Y			15480
		A-01-21	217	12.00	12.00	12.00	40	477	Y			15266
		A-01-22	218	12.00	12.00	12.00	40	484	Y			15480
		A-01-23	219	12.00	12.00	12.00	40	477	Y			15266
		A-01-24	220	12.00	12.00	12.00	40	484	Y			15480
		A-01-25	221	12.00	12.00	12.00	40	478	Y			15289
		A-01-26	222	12.00	12.00	12.00	40	478	Y			15289
		A-01-27	223	12.00	12.00	12.00	40	485	Y			15505
		A-01-28	224	12.00	12.00	12.00	40	479	Y			15314
		A-01-29	225	12.00	12.00	12.00	40	478	Y			15289
		A-01-30	226	12.00	12.00	12.00	40	479	Y			15342
		A-01-31	227	12.00	12.00	12.00	40	479	Y			15314
		A-01-32	228	12.00	12.00	12.00	40	485	Y			15532
		A-01-33	229	12.00	12.00	12.00	40	479	Y			15342
		A-01-34	230	12.00	12.00	12.00	40	479	Y			15342
		A-01-35	231	12.00	12.00	12.00	40	479	Y			15342
		A-01-36	232	12.00	12.00	12.00	40	480	Y			15372

		A-01-37	233	12.00	12.00	12.00	40	479	Y			15342
		A-01-38	234	12.00	12.00	12.00	40	479	Y			15342
		A-01-39	235	12.00	12.00	12.00	40	479	Y			15342
		A-01-40	236	12.00	12.00	12.00	40	479	Y			15342
		A-01-41	237	12.00	12.00	12.00	40	479	Y			15342
		A-01-42	238	12.00	12.00	12.00	40	480	Y			15372
		A-01-43	239	12.00	12.00	12.00	40	485	Y			15532
		A-01-44	240	12.00	12.00	12.00	40	479	Y			15342
		A-01-45	241	12.00	12.00	12.00	40	479	Y			15342
		A-01-46	242	12.00	12.00	12.00	40	479	Y			15342
		A-01-47	243	12.00	12.00	12.00	40	479	Y			15342
		A-01-48	244	12.00	12.00	12.00	40	480	Y			15372
		A-01-49	245	12.00	12.00	12.00	40	479	Y			15342
		A-01-50	246	12.00	12.00	12.00	40	479	Y			15314
		A-01-51	247	12.00	12.00	12.00	40	479	Y			15342
		A-01-52	248	12.00	12.00	12.00	40	485	Y			15505
		A-01-53	249	12.00	12.00	12.00	40	479	Y			15314
		A-01-54	250	12.00	12.00	12.00	40	477	Y			15266
		A-01-55	251	12.00	12.00	12.00	40	483	Y			15457
		A-01-56	252	12.00	12.00	12.00	40	477	Y			15266



B2 V1		Sheet 1 of 1	27 Jun 2023
		HMB Professional Engineers	
Barrier View-B2-BAR		Project/Contract No. Brent Spence Bridge Technic	
Run name: b2_v1_back		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: NSA B, AREA B3

HMB Professional Engineers
Mark Gavula
27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: B3 V1
BARRIER DESIGN: B3-FINAL
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
B09001-F	254	1	69.3	67.5	66	-1.8	10	Snd Lvl	63.0	4.5	7	-2.5
B09101	255	1	68.5	67.2	66	-1.3	10	Snd Lvl	62.9	4.3	7	-2.7
B09201	256	1	68.0	67.1	66	-0.9	10	Snd Lvl	63.1	4.0	7	-3.0
B20201	257	1	63.0	62.1	66	-0.9	10	----	57.3	4.8	7	-2.2
B20301	258	1	62.8	61.7	66	-1.1	10	----	57.0	4.7	7	-2.3
B20401	259	1	62.6	61.4	66	-1.2	10	----	56.9	4.5	7	-2.5
B20506	260	2	60.1	62.6	66	2.5	10	----	57.8	4.8	7	-2.2
B20602	261	2	60.8	62.8	66	2.0	10	----	57.8	5.0	7	-2.0
B20701	262	2	60.6	62.9	66	2.3	10	----	57.8	5.1	7	-1.9
B20801	263	1	66.1	63.8	66	-2.3	10	----	58.8	5.0	7	-2.0
B20902	264	2	62.3	0.0	66	0.0	10	invalid	0.0	0.0	7	0.0
B21002	265	2	63.4	62.4	66	-1.0	10	----	57.6	4.8	7	-2.2
B21102	266	2	63.5	62.4	66	-1.1	10	----	57.6	4.8	7	-2.2
B21202	267	2	63.1	62.1	66	-1.0	10	----	57.5	4.6	7	-2.4
B21303	268	3	62.7	62.0	66	-0.7	10	----	57.3	4.7	7	-2.3
B21401	269	1	61.6	63.8	66	2.2	10	----	59.3	4.5	7	-2.5
B21502	270	2	61.6	64.1	66	2.5	10	----	60.1	4.0	7	-3.0
B21602	271	2	62.5	63.8	66	1.3	10	----	59.7	4.1	7	-2.9
B21701	272	1	66.0	65.0	66	-1.0	10	----	61.3	3.7	7	-3.3
B21801	273	1	66.0	65.3	66	-0.7	10	----	61.4	3.9	7	-3.1
B21901	274	1	65.3	65.1	66	-0.2	10	----	61.2	3.9	7	-3.1
B22003	275	1	65.0	64.9	66	-0.1	10	----	61.0	3.9	7	-3.1
B22104	276	1	64.5	64.5	66	0.0	10	----	60.5	4.0	7	-3.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	34	0.0	4.2	5.1
All Impacted	3	4.0	4.3	4.5
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: B3 V1
BARRIER DESIGN: B3-FINAL

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
B09001-F	254	63.0	4.5	7	-2.5	75NB-E1	C-04-06	289	12.0	42.9
						75NB-E1	C-04-02	285	12.0	42.8
						75NB-E1	C-04-07	290	12.0	42.7
						75NB-E1	C-04-04	287	12.0	42.4
						75NB-E1	C-04-03	286	12.0	42.3
						75NB-E1	C-04-08	291	12.0	41.7
						75NB-E1	C-04-16	299	12.0	41.6
						75NB-E1	C-04-09	292	12.0	41.5
						75NB-E1	C-04-10	293	12.0	41.4
						75NB-E1	C-04-11	294	12.0	41.2
B09101	255	62.9	4.3	7	-2.7	75NB-E1	C-04-02	285	12.0	43.5
						75NB-E1	C-04-03	286	12.0	42.5
						75NB-E1	C-04-06	289	12.0	42.3
						75NB-E1	C-04-07	290	12.0	42.2
						75NB-E1	C-04-16	299	12.0	42.2
						75NB-E1	C-04-04	287	12.0	42.0
						75NB-E1	C-04-08	291	12.0	41.2
						75NB-E1	C-04-09	292	12.0	41.1
						75NB-E1	C-04-10	293	12.0	41.0
						75NB-E1	C-04-11	294	12.0	40.8
B09201	256	63.1	4.0	7	-3.0	75NB-E1	C-04-02	285	12.0	43.4

						75NB-E1	C-04-03	286	12.0	42.7
						75NB-E1	C-04-06	289	12.0	42.1
						75NB-E1	C-04-07	290	12.0	41.9
						75NB-E1	C-04-16	299	12.0	41.9
						75NB-E1	C-04-04	287	12.0	41.8
						75NB-E1	C-04-08	291	12.0	40.9
						75NB-E1	C-04-09	292	12.0	40.8
						75NB-E1	C-04-10	293	12.0	40.8
						75NB-E1	C-04-11	294	12.0	40.5
B20201	257	57.3	4.8	7	-2.2	NBCD-E3	A-02-05	160	24.0	38.1
						NBCD-E3	A-02-07	162	24.0	37.9
						NBCD-E3	A-02-06	161	24.0	37.9
						75NB-E1	C-04-02	285	12.0	37.7
						NBCD-E3	point447	447	24.0	37.5
						NBCD-E3	A-02-08	163	24.0	37.5
						NBCD-E3	A-02-09	164	24.0	37.1
						75NB-E1	C-04-15	298	12.0	37.0
						NBCD-E3	A-02-10	165	24.0	36.9
						NBCD-E3	point448	448	24.0	36.6
B20301	258	57.0	4.7	7	-2.3	NBCD-E3	A-02-05	160	24.0	37.9
						NBCD-E3	A-02-07	162	24.0	37.7
						NBCD-E3	A-02-06	161	24.0	37.6
						NBCD-E3	A-02-08	163	24.0	37.2
						NBCD-E3	point447	447	24.0	37.0
						75NB-E1	C-04-15	298	12.0	36.8
						NBCD-E3	A-02-10	165	24.0	36.8
						75NB-E1	C-04-02	285	12.0	36.7
						NBCD-E3	A-02-09	164	24.0	36.6
						75NB-E1	C-04-16	299	12.0	36.6
B20401	259	56.9	4.5	7	-2.5	NBCD-E3	A-02-05	160	24.0	37.7
						75NB-E1	C-04-02	285	12.0	37.5
						NBCD-E3	A-02-07	162	24.0	37.5
						NBCD-E3	A-02-06	161	24.0	37.5
						NBCD-E3	point447	447	24.0	37.0
						NBCD-E3	A-02-08	163	24.0	36.8
						NBCD-E3	A-02-10	165	24.0	36.7

						NBCD-E3	A-02-04	159	24.0	36.4
						NBCD-E3	A-02-09	164	24.0	36.4
						NBCD-E3	A-02-11	166	24.0	36.4
B20506	260	57.8	4.8	7	-2.2	75NB-E1	C-04-02	285	12.0	40.9
						75NB-E1	C-04-16	299	12.0	40.6
						75NB-E1	C-04-07	290	12.0	38.5
						75NB-E1	C-04-15	298	12.0	38.4
						75NB-E1	C-04-06	289	12.0	38.0
						75NB-E1	C-04-11	294	12.0	37.7
						75NB-E1	C-04-10	293	12.0	37.7
						75NB-E1	C-04-09	292	12.0	37.6
						75NB-E1	C-04-08	291	12.0	37.5
						75NB-E1	C-04-12	295	12.0	37.3
B20602	261	57.8	5.0	7	-2.0	75NB-E1	C-04-16	299	12.0	40.3
						75NB-E1	C-04-15	298	12.0	39.0
						75NB-E1	C-04-07	290	12.0	38.5
						75NB-E1	C-04-06	289	12.0	38.1
						75NB-E1	C-04-02	285	12.0	37.7
						75NB-E1	C-04-11	294	12.0	37.6
						75NB-E1	C-04-10	293	12.0	37.6
						75NB-E1	C-04-09	292	12.0	37.5
						75NB-E1	C-04-08	291	12.0	37.5
						75NB-E1	C-04-04	287	12.0	37.2
B20701	262	57.8	5.1	7	-1.9	75NB-E1	C-04-16	299	12.0	41.2
						75NB-E1	C-04-15	298	12.0	39.1
						75NB-E1	C-04-07	290	12.0	38.7
						75NB-E1	C-04-06	289	12.0	38.3
						75NB-E1	C-04-02	285	12.0	37.8
						75NB-E1	C-04-11	294	12.0	37.7
						75NB-E1	C-04-10	293	12.0	37.7
						75NB-E1	C-04-09	292	12.0	37.7
						75NB-E1	C-04-08	291	12.0	37.6
						75NB-E1	C-04-04	287	12.0	37.5
B20801	263	58.8	5.0	7	-2.0	75NB-E1	C-04-16	299	12.0	43.1
						75NB-E1	C-04-15	298	12.0	40.2
						75NB-E1	C-04-07	290	12.0	39.6

						75NB-E1	C-04-06	289	12.0	39.3
						75NB-E1	C-04-10	293	12.0	38.6
						75NB-E1	C-04-11	294	12.0	38.6
						75NB-E1	C-04-09	292	12.0	38.5
						75NB-E1	C-04-08	291	12.0	38.5
						75NB-E1	C-04-04	287	12.0	38.4
						75NB-E1	C-04-12	295	12.0	38.1
B20902	264	invalid	invalid	7	invalid					
B21002	265	57.6	4.8	7	-2.2	75NB-E1	C-04-16	299	12.0	39.4
						75NB-E1	C-04-15	298	12.0	39.1
						75NB-E1	C-04-07	290	12.0	37.9
						75NB-E1	C-04-06	289	12.0	37.5
						75NB-E1	C-04-02	285	12.0	37.1
						75NB-E1	C-04-11	294	12.0	37.1
						75NB-E1	C-04-10	293	12.0	37.0
						75NB-E1	C-04-09	292	12.0	37.0
						75NB-E1	C-04-08	291	12.0	36.9
						75NB-E1	C-04-04	287	12.0	36.7
B21102	266	57.6	4.8	7	-2.2	75NB-E1	C-04-16	299	12.0	39.8
						75NB-E1	C-04-15	298	12.0	38.7
						75NB-E1	C-04-07	290	12.0	37.7
						75NB-E1	C-04-06	289	12.0	37.3
						NBCD-E3	A-02-05	160	24.0	37.2
						NBCD-E3	A-02-04	159	24.0	37.1
						75NB-E1	C-04-02	285	12.0	37.0
						NBCD-E3	A-02-06	161	24.0	36.9
						75NB-E1	C-04-11	294	12.0	36.9
						75NB-E1	C-04-10	293	12.0	36.9
B21202	267	57.5	4.6	7	-2.4	75NB-E1	C-04-16	299	12.0	39.3
						75NB-E1	C-04-15	298	12.0	38.2
						75NB-E1	C-04-07	290	12.0	37.4
						NBCD-E3	A-02-05	160	24.0	37.2
						75NB-E1	C-04-06	289	12.0	37.1
						NBCD-E3	A-02-04	159	24.0	36.9
						NBCD-E3	A-02-06	161	24.0	36.8
						75NB-E1	C-04-11	294	12.0	36.6

						75NB-E1	C-04-10	293	12.0	36.6
						75NB-E1	C-04-09	292	12.0	36.5
B21303	268	57.3	4.7	7	-2.3	75NB-E1	C-04-16	299	12.0	38.8
						75NB-E1	C-04-15	298	12.0	37.3
						75NB-E1	C-04-07	290	12.0	37.1
						NBCD-E3	A-02-05	160	24.0	37.1
						NBCD-E3	A-02-06	161	24.0	36.8
						75NB-E1	C-04-06	289	12.0	36.8
						NBCD-E3	A-02-04	159	24.0	36.7
						NBCD-E3	A-02-07	162	24.0	36.6
						75NB-E1	C-04-11	294	12.0	36.3
						NBCD-E3	A-02-10	165	24.0	36.3
B21401	269	59.3	4.5	7	-2.5	75NB-E1	C-04-16	299	12.0	43.7
						75NB-E1	C-04-02	285	12.0	40.1
						75NB-E1	C-04-15	298	12.0	40.0
						75NB-E1	C-04-07	290	12.0	39.3
						75NB-E1	C-04-06	289	12.0	38.9
						75NB-E1	C-04-04	287	12.0	38.2
						75NB-E1	C-04-10	293	12.0	38.1
						75NB-E1	C-04-11	294	12.0	38.1
						75NB-E1	C-04-08	291	12.0	38.1
						75NB-E1	C-04-09	292	12.0	38.1
B21502	270	60.1	4.0	7	-3.0	75NB-E1	C-04-16	299	12.0	42.2
						75NB-E1	C-04-15	298	12.0	40.6
						75NB-E1	C-04-06	289	12.0	39.7
						75NB-E1	C-04-07	290	12.0	39.2
						75NB-E1	C-04-02	285	12.0	38.7
						75NB-E1	C-04-03	286	12.0	38.3
						75NB-E1	C-04-04	287	12.0	38.2
						75NB-E1	C-04-10	293	12.0	38.0
						75NB-E1	C-04-08	291	12.0	38.0
						75NB-E1	C-04-09	292	12.0	38.0
B21602	271	59.7	4.1	7	-2.9	75NB-E1	C-04-16	299	12.0	42.8
						75NB-E1	C-04-15	298	12.0	39.9
						75NB-E1	C-04-06	289	12.0	39.4
						75NB-E1	C-04-07	290	12.0	38.9

						75NB-E1	C-04-02	285	12.0	38.2
						75NB-E1	C-04-03	286	12.0	38.1
						75NB-E1	C-04-04	287	12.0	37.9
						75NB-E1	C-04-10	293	12.0	37.7
						75NB-E1	C-04-08	291	12.0	37.7
						75NB-E1	C-04-11	294	12.0	37.7
B21701	272	61.3	3.7	7	-3.3	75NB-E1	C-04-16	299	12.0	41.0
						75NB-E1	C-04-02	285	12.0	40.9
						75NB-E1	C-04-15	298	12.0	40.2
						75NB-E1	C-04-07	290	12.0	40.1
						75NB-E1	C-04-06	289	12.0	39.6
						75NB-E1	C-04-03	286	12.0	39.5
						75NB-E1	C-04-04	287	12.0	39.1
						75NB-E1	C-04-08	291	12.0	38.7
						75NB-E1	C-04-10	293	12.0	38.7
						75NB-E1	C-04-09	292	18.0	38.6
B21801	273	61.4	3.9	7	-3.1	75NB-E1	C-04-02	285	12.0	40.5
						75NB-E1	C-04-16	299	12.0	40.5
						75NB-E1	C-04-15	298	12.0	40.2
						75NB-E1	C-04-06	289	12.0	40.1
						75NB-E1	C-04-07	290	12.0	40.0
						75NB-E1	C-04-04	287	12.0	39.0
						75NB-E1	C-04-03	286	12.0	38.9
						75NB-E1	C-04-11	294	12.0	38.9
						75NB-E1	C-04-10	293	12.0	38.9
						75NB-E1	C-04-08	291	12.0	38.6
B21901	274	61.2	3.9	7	-3.1	75NB-E1	C-04-06	289	12.0	40.4
						75NB-E1	C-04-07	290	12.0	39.7
						75NB-E1	C-04-16	299	12.0	39.4
						75NB-E1	C-04-03	286	12.0	39.3
						75NB-E1	C-04-15	298	12.0	39.1
						75NB-E1	C-04-04	287	12.0	38.7
						75NB-E1	C-04-11	294	12.0	38.7
						75NB-E1	C-04-10	293	12.0	38.6
						75NB-E1	C-04-02	285	12.0	38.5
						75NB-E1	C-04-08	291	12.0	38.3

B22003	275	61.0	3.9	7	-3.1	75NB-E1	C-04-06	289	12.0	40.2
						75NB-E1	C-04-03	286	12.0	39.6
						75NB-E1	C-04-15	298	12.0	39.6
						75NB-E1	C-04-16	299	12.0	39.4
						75NB-E1	C-04-07	290	12.0	39.3
						75NB-E1	C-04-02	285	12.0	39.1
						75NB-E1	C-04-11	294	12.0	38.4
						75NB-E1	C-04-10	293	12.0	38.3
						75NB-E1	C-04-04	287	12.0	38.3
						75NB-E1	C-04-08	291	12.0	38.0
B22104	276	60.5	4.0	7	-3.0	75NB-E1	C-04-16	299	12.0	40.9
						75NB-E1	C-04-02	285	12.0	40.0
						75NB-E1	C-04-15	298	12.0	40.0
						75NB-E1	C-04-06	289	12.0	39.9
						75NB-E1	C-04-07	290	12.0	38.9
						75NB-E1	C-04-03	286	12.0	38.2
						75NB-E1	C-04-11	294	12.0	38.1
						75NB-E1	C-04-10	293	12.0	38.0
						75NB-E1	C-04-04	287	12.0	37.9
						75NB-E1	C-04-08	291	12.0	37.7
Total Cost, All Barriers (including additional cost(s))					$6107957					

HMB Professional Engineers				**27 June 2023**						
Mark Gavula				**TNM 2.5**						
RESULTS: BARRIER DESCRIPTIONS										
PROJECT/CONTRACT:	**Brent Spence Bridge Technical Memo**									
RUN:	**B3 V1**									
BARRIER DESIGN:	**INPUT HEIGHTS**									
Barriers										
Name	**Type**	**Heights along Barrier**			**Length**	**If Wall**	**If Berm**			**Cost**
		Min	**Avg**	**Max**		**Area**	**Volume**	**Top Width**	**Run:Rise**	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
75NB-E2	W	12.00	12.00	12.00	2240	26882				860238
NBCD-E1	W	12.00	14.51	16.00	1834	26605				851358
NBCD-E4	W	12.00	12.00	12.00	146	1750				55998
NBCD-E2	W	16.00	16.00	16.00	590	9447				302294
NBCD-5thStExit	W	12.00	12.55	16.00	1295	16251				520020
75NB-E1	W	12.00	14.75	16.00	2657	39193				1254169
NBCD-E3	W	12.00	14.69	16.00	2031	29836				954767
									Total Cost:	4798844

HMB Professional Engineers 27 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: B3 V1
BARRIER DESIGN: B3-FINAL

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
75NB-E1	W	point445	445	24.00	24.00	24.00	40	966				30914
		C-03-16	269	24.00	24.00	24.00	40	965				30878
		C-03-17	270	24.00	24.00	24.00	40	951				30431
		C-03-18	271	24.00	24.00	24.00	40	970				31030
		C-03-19	272	24.00	24.00	24.00	40	955				30549
		C-03-20	273	24.00	24.00	24.00	40	963				30828
		C-03-21	274	24.00	24.00	24.00	40	956				30605
		C-03-22	275	24.00	24.00	24.00	40	964				30859
		C-03-23	276	24.00	24.00	24.00	40	960				30722
		C-03-24	277	24.00	24.00	24.00	40	964				30845
		C-03-25	278	24.00	24.00	24.00	40	949				30358
		C-03-26	279	24.00	24.00	24.00	40	972				31102
		C-03-27	280	24.00	24.00	24.00	40	957				30609
		C-03-28	281	24.00	24.00	24.00	40	953				30481
		C-03-29	282	24.00	24.00	24.00	40	960				30722
		C-03-30	283	24.00	22.00	20.00	30	658				21041
		C-04-01	284	12.00	12.00	12.00	37	450	Y			14390
		C-04-02	285	12.00	12.00	12.00	40	478	Y			15302
		C-04-03	286	12.00	12.00	12.00	40	480	Y			15361
		C-04-04	287	12.00	12.00	12.00	40	482	Y			15422
		C-04-05	288	12.00	12.00	12.00	40	476	Y			15241
		C-04-06	289	12.00	12.00	12.00	40	480	Y			15371
		C-04-07	290	12.00	12.00	12.00	40	485	Y			15509
		C-04-08	291	12.00	12.00	12.00	40	477	Y			15260
		C-04-09	292	12.00	12.00	12.00	40	481	Y			15404
		C-04-10	293	12.00	12.00	12.00	40	478	Y			15303

		C-04-11	294	12.00	12.00	12.00	40	484	Y			15480
		C-04-12	295	12.00	12.00	12.00	40	475	Y			15207
		C-04-13	296	12.00	12.00	12.00	40	483	Y			15462
		C-04-14	297	12.00	12.00	12.00	40	478	Y			15288
		C-04-15	298	12.00	12.00	12.00	40	480	Y			15371
		C-04-16	299	12.00	12.00	12.00	40	483	Y			15456
		C-04-17	300	12.00	14.00	16.00	43	607	Y			19435
		C-05-01	301	24.00	24.00	24.00	37	881				28197
		C-05-02	302	24.00	24.00	24.00	40	962				30770
		C-05-03	303	24.00	24.00	24.00	40	956				30585
		C-05-04	304	24.00	24.00	24.00	40	957				30626
		C-05-05	305	24.00	24.00	24.00	40	957				30626
		C-05-06	306	24.00	24.00	24.00	40	963				30821
		C-05-07	307	24.00	24.00	24.00	40	969				31019
		C-05-08	308	24.00	24.00	24.00	40	953				30491
		C-05-09	309	24.00	24.00	24.00	40	965				30895
		C-05-10	310	24.00	24.00	24.00	40	959				30691
		C-05-11	311	24.00	24.00	24.00	40	959				30691
		C-05-12	312	24.00	24.00	24.00	40	955				30571
		C-05-13	313	24.00	24.00	24.00	40	969				31019
		C-05-14	314	24.00	24.00	24.00	40	959				30691
		C-05-15	315	24.00	22.00	20.00	35	760				24329
		B-02-01	364	12.00	12.00	12.00	40	482	Y			15410
		B-02-02	365	12.00	12.00	12.00	40	481	Y			15385
		B-02-03	366	12.00	12.00	12.00	40	476	Y			15218
		B-02-04	367	12.00	14.00	16.00	35	485	Y			15527
		B-01-01	369	24.00	24.00	24.00	40	950				30397
		B-01-02	371	24.00	24.00	24.00	40	966				30923
		B-01-03	372	24.00	24.00	24.00	40	952				30455
		B-01-04	373	24.00	24.00	24.00	40	967				30959
		B-01-05	374	24.00	24.00	24.00	40	961				30742
		B-01-06	375	24.00	24.00	24.00	40	957				30609
		B-01-07	376	24.00	24.00	24.00	40	964				30845
		B-01-08	377	24.00	24.00	24.00	40	964				30859
		B-01-09	378	24.00	24.00	24.00	40	953				30491
		B-01-10	379	24.00	24.00	24.00	40	966				30921
		B-01-11	380	24.00	24.00	24.00	40	949				30365
		B-01-12	381	24.00	24.00	24.00	41	972				31113
		B-01-13	382	24.00	24.00	24.00	40	953				30501

		B-01-14	383	24.00	24.00	24.00	40	963				30809
		B-01-15	384	24.00	24.00	24.00	40	957				30629
NBCD-E4	W	BCD-02-01	424	12.00	12.00	12.00	40	482	Y			15410
		BCD-02-02	425	12.00	12.00	12.00	40	482	Y			15410
		BCD-02-03	426	12.00	12.00	12.00	40	481	Y			15385
		BCD-02-04	427	12.00	12.00	12.00	26	306	Y			9792
NBCD-E2	W	BCD-03-01	429	24.00	24.00	24.00	40	955				30568
		BCD-03-02	431	24.00	24.00	24.00	40	966				30923
		BCD-03-03	432	24.00	24.00	24.00	40	961				30763
		BCD-03-04	433	24.00	24.00	24.00	40	952				30455
		BCD-03-05	434	24.00	24.00	24.00	40	965				30878
		BCD-03-06	435	24.00	24.00	24.00	40	957				30609
		BCD-03-07	436	24.00	24.00	24.00	40	960				30722
		BCD-03-08	437	24.00	24.00	24.00	40	968				30971
		BCD-03-09	438	24.00	24.00	24.00	40	958				30648
		BCD-03-10	439	24.00	24.00	24.00	40	955				30549
		BCD-03-11	440	24.00	24.00	24.00	40	961				30739
		BCD-03-12	441	24.00	24.00	24.00	40	965				30878
		BCD-03-13	442	24.00	24.00	24.00	40	963				30809
		BCD-03-14	443	24.00	24.00	24.00	40	959				30684
		BCD-03-15	444	24.00	24.00	24.00	30	726				23244
NBCD-5thStExit	W	B5-01-01	385	24.00	24.00	24.00	40	959				30691
		B5-01-02	386	24.00	22.00	20.00	33	721				23061
		B5-02-01	388	12.00	12.00	12.00	40	480	Y			15371
		B5-02-02	390	12.00	12.00	12.00	40	483	Y			15456
		B5-02-03	391	12.00	12.00	12.00	40	475	Y			15198
		B5-02-04	392	12.00	12.00	12.00	40	483	Y			15456
		B5-02-05	393	12.00	12.00	12.00	40	480	Y			15371
		B5-02-06	394	12.00	12.00	12.00	40	480	Y			15371
		B5-02-07	395	12.00	12.00	12.00	40	478	Y			15284
		B5-02-08	396	12.00	12.00	12.00	40	480	Y			15371
		B5-02-09	397	12.00	12.00	12.00	40	478	Y			15288
		B5-02-10	398	12.00	12.00	12.00	40	485	Y			15509
		B5-02-11	399	12.00	12.00	12.00	40	478	Y			15305
		B5-02-12	400	12.00	12.00	12.00	40	480	Y			15376
		B5-02-13	401	12.00	12.00	12.00	40	480	Y			15370

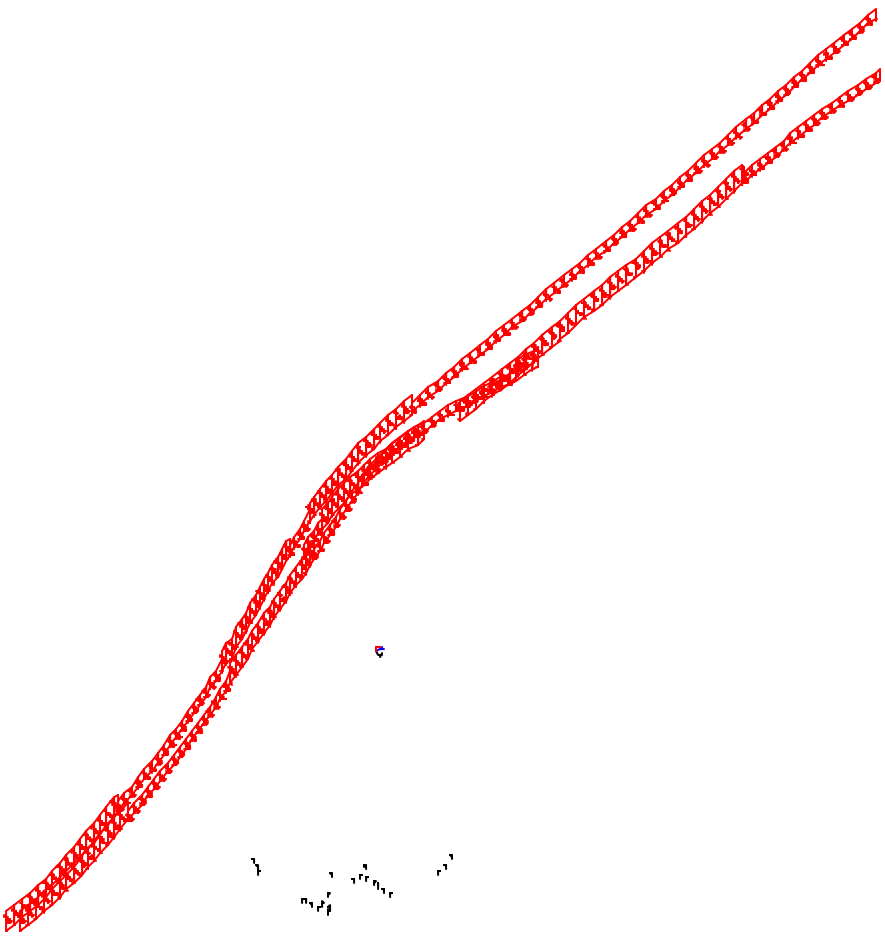
		B5-02-14	402	12.00	12.00	12.00	40	481	Y			15404
		B5-02-15	403	12.00	12.00	12.00	40	478	Y			15289
		B5-02-16	404	12.00	12.00	12.00	40	477	Y			15266
		B5-02-17	405	12.00	12.00	12.00	40	484	Y			15480
		B5-02-18	406	12.00	12.00	12.00	40	477	Y			15266
		B5-02-19	407	12.00	12.00	12.00	40	483	Y			15457
		B5-02-20	408	12.00	12.00	12.00	40	477	Y			15266
		B5-02-21	409	12.00	12.00	12.00	40	483	Y			15457
		B5-02-22	410	12.00	12.00	12.00	40	477	Y			15266
		B5-02-23	411	12.00	12.00	12.00	40	484	Y			15480
		B5-02-24	412	12.00	12.00	12.00	40	477	Y			15266
		B5-02-25	413	12.00	12.00	12.00	40	483	Y			15457
		B5-02-26	414	12.00	12.00	12.00	40	477	Y			15266
		B5-02-27	415	12.00	12.00	12.00	40	483	Y			15457
		B5-02-28	416	12.00	14.00	16.00	40	557	Y			17810
		B5-03-01	417	24.00	24.00	24.00	40	966				30914
		B5-03-02	418	24.00	24.00	24.00	40	953				30491
		B5-03-03	419	24.00	24.00	24.00	22	531				17005
NBCD-E1	W	C-06-01	316	24.00	24.00	24.00	40	957				30629
		C-06-02	318	24.00	24.00	24.00	40	959				30684
		C-06-03	319	24.00	24.00	24.00	40	965				30878
		C-06-04	320	24.00	24.00	24.00	40	955				30576
		C-06-05	321	24.00	24.00	24.00	40	961				30739
		C-06-06	322	24.00	24.00	24.00	40	966				30921
		C-06-07	323	24.00	24.00	24.00	40	958				30648
		C-06-08	324	24.00	24.00	24.00	40	964				30859
		C-06-09	325	24.00	24.00	24.00	40	960				30722
		C-06-10	326	24.00	24.00	24.00	40	957				30609
		C-06-11	327	24.00	24.00	24.00	40	957				30609
		C-06-12	328	24.00	24.00	24.00	40	968				30971
		C-06-13	329	24.00	24.00	24.00	40	957				30609
		C-06-14	330	24.00	24.00	24.00	40	961				30742
		C-06-15	331	24.00	22.00	20.00	49	1075				34404
		BC-01-01	333	12.00	12.00	12.00	40	478	Y			15305
		BC-01-02	334	12.00	12.00	12.00	40	484	Y			15485
		BC-01-03	335	12.00	12.00	12.00	40	480	Y			15371
		BC-01-04	336	12.00	12.00	12.00	40	478	Y			15305
		BC-01-05	337	12.00	12.00	12.00	40	478	Y			15305

		BC-01-06	338	12.00	12.00	12.00	40	480	Y			15371
		BC-01-07	339	12.00	12.00	12.00	40	482	Y			15439
		BC-01-08	340	12.00	12.00	12.00	40	479	Y			15331
		BC-01-09	341	12.00	12.00	12.00	40	479	Y			15331
		BC-01-10	342	12.00	12.00	12.00	40	484	Y			15480
		BC-01-11	343	12.00	12.00	12.00	40	476	Y			15227
		BC-01-12	344	12.00	12.00	12.00	40	478	Y			15303
		BC-01-13	345	12.00	12.00	12.00	40	483	Y			15462
		BC-01-14	346	12.00	12.00	12.00	40	483	Y			15462
		BC-01-15	347	12.00	12.00	12.00	40	478	Y			15288
		BC-01-16	348	12.00	12.00	12.00	40	480	Y			15371
		BC-01-17	349	12.00	14.00	16.00	36	510	Y			16329
		BC-02-01	350	24.00	24.00	24.00	40	961				30742
		BC-02-02	351	24.00	24.00	24.00	40	961				30742
		BC-02-03	352	24.00	24.00	24.00	40	966				30911
		BC-02-04	353	24.00	24.00	24.00	40	950				30397
		BC-02-05	354	24.00	24.00	24.00	40	966				30911
		BC-02-06	355	24.00	24.00	24.00	40	961				30742
		BC-02-07	356	24.00	24.00	24.00	40	961				30742
		BC-02-08	357	24.00	24.00	24.00	40	955				30568
		BC-02-09	358	24.00	24.00	24.00	40	961				30742
		BC-02-10	359	24.00	24.00	24.00	40	966				30911
		BC-02-11	360	24.00	24.00	24.00	40	961				30742
		BC-02-12	361	24.00	24.00	24.00	40	950				30397
		BC-02-13	362	24.00	24.00	24.00	40	966				30911
		BC-02-14	363	24.00	24.00	24.00	28	666				21297
NBCD-E3	W	point446	446	24.00	24.00	24.00	40	967				30959
		point447	447	24.00	24.00	24.00	40	956				30578
		point448	448	24.00	24.00	24.00	40	966				30914
		point449	449	24.00	24.00	24.00	40	956				30578
		point450	450	24.00	24.00	24.00	40	967				30959
		point451	451	24.00	24.00	24.00	40	956				30578
		point452	452	24.00	24.00	24.00	40	956				30578
		point453	453	24.00	24.00	24.00	40	966				30914
		point454	454	24.00	24.00	24.00	40	956				30578
		point455	455	24.00	24.00	24.00	40	967				30959
		point456	456	24.00	24.00	24.00	40	957				30629
		point457	457	24.00	24.00	24.00	40	957				30629

		point458	458	24.00	24.00	24.00	0	12				384
		A-02-01	155	24.00	24.00	24.00	40	966				30914
		A-02-02	157	24.00	24.00	24.00	40	956				30578
		A-02-03	158	24.00	24.00	24.00	40	966				30914
		A-02-04	159	24.00	24.00	24.00	40	956				30578
		A-02-05	160	24.00	24.00	24.00	40	966				30914
		A-02-06	161	24.00	24.00	24.00	40	956				30578
		A-02-07	162	24.00	24.00	24.00	40	954				30532
		A-02-08	163	24.00	24.00	24.00	40	967				30959
		A-02-09	164	24.00	24.00	24.00	40	954				30532
		A-02-10	165	24.00	24.00	24.00	40	966				30914
		A-02-11	166	24.00	24.00	24.00	40	956				30578
		A-02-12	167	24.00	24.00	24.00	40	966				30914
		A-02-13	168	24.00	24.00	24.00	40	956				30578
		A-02-14	169	24.00	24.00	24.00	40	966				30914
		A-02-15	170	24.00	24.00	24.00	40	956				30578
		A-02-16	171	24.00	24.00	24.00	40	966				30914
		A-02-17	172	24.00	24.00	24.00	40	957				30629
		A-02-18	173	24.00	24.00	24.00	40	956				30578
		A-02-19	174	24.00	24.00	24.00	40	961				30744
		A-02-20	175	24.00	24.00	24.00	40	963				30809
		A-02-21	176	24.00	24.00	24.00	40	955				30576
		A-02-22	177	24.00	24.00	24.00	40	965				30878
		A-02-23	178	24.00	22.00	20.00	9	203				6491
		A-03-01	179	12.00	12.00	12.00	40	477	Y			15250
		A-03-02	180	12.00	12.00	12.00	40	482	Y			15439
		A-03-03	181	12.00	12.00	12.00	40	477	Y			15250
		A-03-04	182	12.00	12.00	12.00	40	484	Y			15476
		A-03-05	183	12.00	12.00	12.00	40	478	Y			15288
		A-03-06	184	12.00	12.00	12.00	40	484	Y			15476
		A-03-07	185	12.00	12.00	12.00	40	479	Y			15328
		A-03-08	186	12.00	12.00	12.00	40	481	Y			15404
		A-03-09	187	12.00	12.00	12.00	40	474	Y			15183
		A-03-10	188	12.00	12.00	12.00	40	481	Y			15404
		A-03-11	189	12.00	12.00	12.00	40	481	Y			15390
		A-03-12	190	12.00	12.00	12.00	40	481	Y			15390
		A-03-13	191	12.00	12.00	12.00	40	481	Y			15390
		A-03-14	192	12.00	12.00	12.00	40	481	Y			15390
		A-03-15	193	12.00	12.00	12.00	40	481	Y			15403

		A-03-16	194	12.00	12.00	12.00	40	475	Y			15198
		A-03-17	195	12.00	12.00	12.00	21	253	Y			8085
75NB-E2	W	A-01-01	196	12.00	12.00	12.00	40	478	Y			15289
		A-01-02	198	12.00	12.00	12.00	40	485	Y			15505
		A-01-03	199	12.00	12.00	12.00	40	478	Y			15289
		A-01-04	200	12.00	12.00	12.00	40	484	Y			15480
		A-01-05	201	12.00	12.00	12.00	40	477	Y			15266
		A-01-06	202	12.00	12.00	12.00	40	478	Y			15289
		A-01-07	203	12.00	12.00	12.00	40	483	Y			15457
		A-01-08	204	12.00	12.00	12.00	40	478	Y			15289
		A-01-09	205	12.00	12.00	12.00	40	483	Y			15457
		A-01-10	206	12.00	12.00	12.00	40	477	Y			15266
		A-01-11	207	12.00	12.00	12.00	40	484	Y			15480
		A-01-12	208	12.00	12.00	12.00	40	477	Y			15266
		A-01-13	209	12.00	12.00	12.00	40	484	Y			15480
		A-01-14	210	12.00	12.00	12.00	40	477	Y			15266
		A-01-15	211	12.00	12.00	12.00	40	484	Y			15480
		A-01-16	212	12.00	12.00	12.00	40	477	Y			15266
		A-01-17	213	12.00	12.00	12.00	40	478	Y			15289
		A-01-18	214	12.00	12.00	12.00	40	483	Y			15457
		A-01-19	215	12.00	12.00	12.00	40	477	Y			15266
		A-01-20	216	12.00	12.00	12.00	40	484	Y			15480
		A-01-21	217	12.00	12.00	12.00	40	477	Y			15266
		A-01-22	218	12.00	12.00	12.00	40	484	Y			15480
		A-01-23	219	12.00	12.00	12.00	40	477	Y			15266
		A-01-24	220	12.00	12.00	12.00	40	484	Y			15480
		A-01-25	221	12.00	12.00	12.00	40	478	Y			15289
		A-01-26	222	12.00	12.00	12.00	40	478	Y			15289
		A-01-27	223	12.00	12.00	12.00	40	485	Y			15505
		A-01-28	224	12.00	12.00	12.00	40	479	Y			15314
		A-01-29	225	12.00	12.00	12.00	40	478	Y			15289
		A-01-30	226	12.00	12.00	12.00	40	479	Y			15342
		A-01-31	227	12.00	12.00	12.00	40	479	Y			15314
		A-01-32	228	12.00	12.00	12.00	40	485	Y			15532
		A-01-33	229	12.00	12.00	12.00	40	479	Y			15342
		A-01-34	230	12.00	12.00	12.00	40	479	Y			15342
		A-01-35	231	12.00	12.00	12.00	40	479	Y			15342
		A-01-36	232	12.00	12.00	12.00	40	480	Y			15372

		A-01-37	233	12.00	12.00	12.00	40	479	Y			15342
		A-01-38	234	12.00	12.00	12.00	40	479	Y			15342
		A-01-39	235	12.00	12.00	12.00	40	479	Y			15342
		A-01-40	236	12.00	12.00	12.00	40	479	Y			15342
		A-01-41	237	12.00	12.00	12.00	40	479	Y			15342
		A-01-42	238	12.00	12.00	12.00	40	480	Y			15372
		A-01-43	239	12.00	12.00	12.00	40	485	Y			15532
		A-01-44	240	12.00	12.00	12.00	40	479	Y			15342
		A-01-45	241	12.00	12.00	12.00	40	479	Y			15342
		A-01-46	242	12.00	12.00	12.00	40	479	Y			15342
		A-01-47	243	12.00	12.00	12.00	40	479	Y			15342
		A-01-48	244	12.00	12.00	12.00	40	480	Y			15372
		A-01-49	245	12.00	12.00	12.00	40	479	Y			15342
		A-01-50	246	12.00	12.00	12.00	40	479	Y			15314
		A-01-51	247	12.00	12.00	12.00	40	479	Y			15342
		A-01-52	248	12.00	12.00	12.00	40	485	Y			15505
		A-01-53	249	12.00	12.00	12.00	40	479	Y			15314
		A-01-54	250	12.00	12.00	12.00	40	477	Y			15266
		A-01-55	251	12.00	12.00	12.00	40	483	Y			15457
		A-01-56	252	12.00	12.00	12.00	40	477	Y			15266



B3 V1		Sheet 1 of 1	27 Jun 2023
		HMB Professional Engineers	
Barrier View-B3-FINAL		Project/Contract No. Brent Spence Bridge Technic	
Run name: B3_V1_Back		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: NSA C, AREA C1

HMB Professional Engineers
Mark Gavula

28 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C1V2
BARRIER DESIGN: c1-opt
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
C00101-F	1	1	72.2	72.8	66	0.6	10	Snd Lvl	68.4	4.4	7	-2.6
C00201	2	1	69.9	71.9	66	2.0	10	Snd Lvl	67.7	4.2	7	-2.8
C00302	3	2	69.4	70.9	66	1.5	10	Snd Lvl	67.4	3.5	7	-3.5
C00401	4	1	67.4	69.9	66	2.5	10	Snd Lvl	66.8	3.1	7	-3.9
C00501	5	1	67.2	68.6	66	1.4	10	Snd Lvl	65.6	3.0	7	-4.0
C00601-F	6	1	70.7	72.2	66	1.5	10	Snd Lvl	67.3	4.9	7	-2.1
C00701	7	1	67.6	70.4	66	2.8	10	Snd Lvl	65.9	4.5	7	-2.5
C00801	8	1	67.4	70.0	66	2.6	10	Snd Lvl	65.7	4.3	7	-2.7
C00901	9	1	66.2	69.1	66	2.9	10	Snd Lvl	65.1	4.0	7	-3.0
C01001	10	1	65.5	68.7	66	3.2	10	Snd Lvl	64.9	3.8	7	-3.2
C01201-F	11	1	73.7	75.2	66	1.5	10	Snd Lvl	66.6	8.6	7	1.6
C01301	12	1	73.1	74.7	66	1.6	10	Snd Lvl	67.5	7.2	7	0.2
C01401	13	1	72.2	74.2	66	2.0	10	Snd Lvl	67.7	6.5	7	-0.5
C01501	14	1	71.9	73.6	66	1.7	10	Snd Lvl	67.9	5.7	7	-1.3
C01601	15	1	71.0	72.8	66	1.8	10	Snd Lvl	67.6	5.2	7	-1.8
C01701	16	1	70.3	72.5	66	2.2	10	Snd Lvl	67.4	5.1	7	-1.9
C01801-F	17	1	71.4	73.8	66	2.4	10	Snd Lvl	66.3	7.5	7	0.5
C01901-V	18	1	70.7	73.1	66	2.4	10	Snd Lvl	63.8	9.3	7	2.3
C02001	19	1	70.2	72.5	66	2.3	10	Snd Lvl	64.6	7.9	7	0.9
C02101	20	1	69.7	72.1	66	2.4	10	Snd Lvl	65.1	7.0	7	0.0
C02201-F	21	1	70.7	73.0	66	2.3	10	Snd Lvl	64.5	8.5	7	1.5
C02302	22	2	70.1	72.9	66	2.8	10	Snd Lvl	64.5	8.4	7	1.4
C02402	23	2	68.5	72.0	66	3.5	10	Snd Lvl	65.2	6.8	7	-0.2
C02501-F	24	1	69.1	71.5	66	2.4	10	Snd Lvl	63.1	8.4	7	1.4

C02602/C02701	25	2	68.4	70.8	66	2.4	10	Snd Lvl	64.7	6.1	7	-0.9
C02801	27	1	68.7	70.7	66	2.0	10	Snd Lvl	64.5	6.2	7	-0.8
C02901	28	1	68.7	70.6	66	1.9	10	Snd Lvl	64.5	6.1	7	-0.9
C03001	29	1	68.7	70.6	66	1.9	10	Snd Lvl	64.8	5.8	7	-1.2
C03101	30	1	68.6	70.4	66	1.8	10	Snd Lvl	64.9	5.5	7	-1.5
C03201	31	1	68.4	70.3	66	1.9	10	Snd Lvl	64.9	5.4	7	-1.6
C03301	32	1	68.0	69.9	66	1.9	10	Snd Lvl	64.9	5.0	7	-2.0
C03401	33	1	66.8	68.8	66	2.0	10	Snd Lvl	65.5	3.3	7	-3.7
C03502	34	2	61.0	66.3	66	5.3	10	Snd Lvl	63.3	3.0	7	-4.0
C03602	35	2	60.8	66.2	66	5.4	10	Snd Lvl	63.3	2.9	7	-4.1
C03701	36	1	60.6	66.2	66	5.6	10	Snd Lvl	63.3	2.9	7	-4.1
C03802	37	2	61.7	66.1	66	4.4	10	Snd Lvl	63.4	2.7	7	-4.3
C03902	38	2	60.9	65.8	66	4.9	10	----	63.4	2.4	7	-4.6
C04001	39	1	62.2	65.7	66	3.5	10	----	63.4	2.3	7	-4.7
C04101	40	1	62.4	64.5	66	2.1	10	----	62.9	1.6	7	-5.4
C04201	41	1	62.1	63.1	66	1.0	10	----	61.8	1.3	7	-5.7
C04301	42	1	62.1	62.9	66	0.8	10	----	61.7	1.2	7	-5.8
C07701	76	1	63.6	65.9	66	2.3	10	----	64.3	1.6	7	-5.4
C07801	77	1	63.5	65.7	66	2.2	10	----	63.9	1.8	7	-5.2
C07901	78	1	63.0	65.3	66	2.3	10	----	63.5	1.8	7	-5.2
C08001	79	1	62.7	65.1	66	2.4	10	----	63.2	1.9	7	-5.1
C08101	80	1	62.6	64.9	66	2.3	10	----	63.1	1.8	7	-5.2
C08201	81	1	62.3	64.7	66	2.4	10	----	63.0	1.7	7	-5.3
C08301	82	1	61.6	64.8	66	3.2	10	----	62.2	2.6	7	-4.4
C08401	83	1	61.0	64.1	66	3.1	10	----	61.8	2.3	7	-4.7
C10004	99	1	65.9	69.3	66	3.4	10	Snd Lvl	64.4	4.9	7	-2.1
C10101	100	1	63.4	64.8	66	1.4	10	----	63.7	1.1	7	-5.9
C02701	102	1	0.0	70.6	66	70.6	10	Snd Lvl	65.0	5.6	8	-2.4

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	60	1.1	4.5	9.3
All Impacted	45	2.7	5.5	9.3
All that meet NR Goal	10	7.0	8.1	9.3

HMB Professional Engineers **28 June 2023**
Mark Gavula **TNM 2.5**
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C1V2
BARRIER DESIGN: c1-opt

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
C00101-F	1	68.4	4.4	7	-2.6	NB 12th Exit	point396	396	8.0	49.8
						NBCD-01	C-06-05	347	24.0	49.1
						75NB-01	C-03-17	275	20.0	48.9
						NBCD-01	C-06-06	348	20.0	48.5
						75NB-01	C-03-25	283	20.0	48.1
						NBCD-01	C-06-13	355	20.0	48.1
						NBCD-01	C-06-12	354	20.0	47.9
						NBCD-01	C-06-14	356	20.0	47.6
						NBCD-01	C-06-11	353	20.0	47.5
						NBCD-01	C-06-10	352	20.0	46.9
C00201	2	67.7	4.2	7	-2.8	NB 12th Exit	point395	395	12.0	52.7
						NBCD-01	C-06-01	342	24.0	49.7
						75NB-01	C-03-11	269	12.0	49.5
						NBCD-01	C-06-03	345	24.0	48.7
						75NB-01	C-03-10	268	12.0	48.5
						75NB-01	C-03-14	272	24.0	48.0
						75NB-01	C-03-12	270	20.0	47.4
						NBCD-01	C-06-02	344	24.0	47.4
						NB 12th Exit	point394	394	12.0	47.2
						75NB-01	C-03-15	273	24.0	46.5
C00302	3	67.4	3.5	7	-3.5	NB 12th Exit	point394	394	12.0	55.0

						NB 12th Exit	point393	393	12.0	54.7
						75NB-01	C-03-11	269	12.0	51.5
						75NB-01	C-03-12	270	12.0	51.3
						75NB-01	C-03-09	267	12.0	50.5
						75NB-01	C-03-08	266	12.0	50.2
						75NB-01	C-03-10	268	12.0	50.1
						NBCD-01	C-06-01	342	24.0	49.8
						75NB-01	C-03-07	265	12.0	49.6
						NB 12th Exit	point395	395	12.0	48.2
C00401	4	66.8	3.1	7	-3.9	NB 12th Exit	point393	393	12.0	54.5
						NB 12th Exit	point394	394	24.0	52.9
						75NB-01	C-03-11	269	12.0	52.2
						75NB-01	C-03-12	270	12.0	52.0
						NB 12th Exit	point392	392	20.0	51.4
						75NB-01	C-03-10	268	20.0	50.9
						75NB-01	C-03-09	267	20.0	49.1
						NB 12th Exit	point391	391	24.0	49.0
						75NB-01	C-03-08	266	24.0	47.7
						NB 12th Exit	point390	390	24.0	47.7
C00501	5	65.6	3.0	7	-4.0	James Simpson Jr Way	C-01-04	172	0.0	50.6
						NB 12th Exit	point393	393	24.0	49.4
						75NB-01	C-03-12	270	12.0	47.7
						NB 12th Exit	point388	388	24.0	47.0
						NB 12th Exit	point389	389	24.0	46.5
						NB 12th Exit	point387	387	24.0	46.3
						NB 12th Exit	point390	390	24.0	46.2
						NB 12th Exit	point386	386	24.0	46.2
						NB 12th Exit	point385	385	24.0	46.1
						James Simpson Jr Way	C-01-03	171	0.0	46.0
C00601-F	6	67.3	4.9	7	-2.1	NB 12th Exit	point394	394	12.0	57.2
						75NB-01	C-03-09	267	12.0	53.0
						NB 12th Exit	point393	393	12.0	52.8
						75NB-01	C-03-11	269	12.0	52.1
						75NB-01	C-03-10	268	12.0	51.8
						75NB-01	C-03-12	270	0.0	51.4
						NB 12th Exit	point395	395	12.0	50.9

						75NB-01	C-03-08	266	12.0	50.9
						NBCD-01	C-06-01	342	24.0	49.8
						75NB-01	C-03-13	271	0.0	47.7
C00701	7	65.9	4.5	7	-2.5	James Simpson Jr Way	C-01-04	172	24.0	52.2
						NB 12th Exit	point393	393	24.0	51.7
						75NB-01	C-03-13	271	12.0	49.4
						NB 12th Exit	point388	388	24.0	48.6
						75NB-01	C-03-12	270	20.0	48.2
						NB 12th Exit	point387	387	24.0	48.0
						NB 12th Exit	point385	385	24.0	48.0
						NB 12th Exit	point386	386	24.0	47.8
						NB 12th Exit	point389	389	24.0	47.4
						NB 12th Exit	point392	392	24.0	47.4
C00801	8	65.7	4.3	7	-2.7	James Simpson Jr Way	C-01-03	171	24.0	52.4
						NB 12th Exit	point393	393	24.0	50.0
						75NB-01	C-03-13	271	12.0	48.8
						James Simpson Jr Way	C-01-04	172	24.0	47.9
						NB 12th Exit	point386	386	24.0	47.6
						NB 12th Exit	point385	385	24.0	47.4
						NB 12th Exit	point384	384	24.0	47.3
						NB 12th Exit	point387	387	24.0	47.3
						NB 12th Exit	point382	382	24.0	47.1
						NB 12th Exit	point383	383	24.0	47.1
C00901	9	65.1	4.0	7	-3.0	James Simpson Jr Way	C-01-02	170	0.0	52.2
						James Simpson Jr Way	C-01-01	169	0.0	49.5
						James Simpson Jr Way	C-01-03	171	24.0	48.9
						NB 12th Exit	point393	393	24.0	47.6
						NB 12th Exit	point384	384	24.0	46.9
						75NB-01	C-03-13	271	20.0	46.7
						NB 12th Exit	point385	385	24.0	46.6
						NB 12th Exit	point383	383	24.0	46.4
						NB 12th Exit	point382	382	24.0	46.4
						NB 12th Exit	point380	380	24.0	46.2
C01001	10	64.9	3.8	7	-3.2	James Simpson Jr Way	C-01-01	169	0.0	52.1
						James Simpson Jr Way	C-01-02	170	24.0	51.5
						NB 12th Exit	point383	383	24.0	46.6

						NB 12th Exit	point393	393	24.0	46.3
						NB 12th Exit	point382	382	24.0	46.2
						NB 12th Exit	point381	381	24.0	46.1
						NB 12th Exit	point384	384	24.0	46.1
						NB 12th Exit	point380	380	24.0	46.1
						NB 12th Exit	point378	378	24.0	45.4
						NB 12th Exit	point385	385	24.0	45.2
C01201-F	11	66.6	8.6	7	1.6	NB 12th Exit	point395	395	12.0	59.1
						75NB-01	C-03-11	269	12.0	54.4
						75NB-01	C-03-10	268	12.0	54.0
						NB 12th Exit	point394	394	12.0	53.2
						NBCD-01	C-06-01	342	24.0	53.1
						NBCD-01	C-06-02	344	24.0	52.2
						NBCD-01	C-06-08	350	20.0	52.1
						NBCD-01	C-06-07	349	24.0	51.7
						NBCD-01	C-06-09	351	20.0	51.6
						NBCD-01	C-06-06	348	24.0	51.1
C01301	12	67.5	7.2	7	0.2	NB 12th Exit	point395	395	12.0	59.1
						NB 12th Exit	point394	394	12.0	58.8
						75NB-01	C-03-11	269	12.0	57.0
						75NB-01	C-03-10	268	0.0	56.6
						NBCD-01	C-06-01	342	24.0	54.7
						75NB-01	C-03-09	267	12.0	54.2
						75NB-01	C-03-12	270	12.0	53.2
						NB 12th Exit	point393	393	12.0	52.0
						NBCD-01	C-06-08	350	20.0	51.2
						75NB-01	C-03-13	271	24.0	51.2
C01401	13	67.7	6.5	7	-0.5	NB 12th Exit	point394	394	12.0	61.8
						NB 12th Exit	point393	393	12.0	58.6
						75NB-01	C-03-12	270	12.0	56.7
						75NB-01	C-03-11	269	12.0	56.5
						75NB-01	C-03-09	267	12.0	55.2
						75NB-01	C-03-10	268	12.0	55.2
						75NB-01	C-03-08	266	12.0	54.4
						NBCD-01	C-06-01	342	24.0	51.8
						75NB-01	C-03-07	265	12.0	51.1

						NBCD-01	C-06-08	350	20.0	50.2
C01501	14	67.9	5.7	7	-1.3	NB 12th Exit	point394	394	24.0	60.1
						NB 12th Exit	point393	393	12.0	59.6
						75NB-01	C-03-12	270	20.0	57.0
						75NB-01	C-03-11	269	12.0	56.3
						75NB-01	C-03-09	267	12.0	54.6
						75NB-01	C-03-10	268	12.0	54.6
						NB 12th Exit	point392	392	20.0	53.8
						75NB-01	C-03-08	266	12.0	53.7
						75NB-01	C-03-07	265	20.0	51.2
						75NB-01	C-03-06	264	20.0	50.5
C01601	15	67.6	5.2	7	-1.8	NB 12th Exit	point393	393	12.0	58.9
						NB 12th Exit	point394	394	12.0	57.4
						75NB-01	C-03-12	270	12.0	56.2
						75NB-01	C-03-11	269	12.0	55.8
						NB 12th Exit	point392	392	20.0	55.2
						75NB-01	C-03-10	268	12.0	54.5
						NB 12th Exit	point391	391	24.0	53.0
						75NB-01	C-03-09	267	12.0	52.3
						75NB-01	C-03-13	271	12.0	51.6
						75NB-01	C-03-08	266	20.0	50.9
C01701	16	67.4	5.1	7	-1.9	NB 12th Exit	point393	393	12.0	58.2
						NB 12th Exit	point392	392	24.0	56.0
						75NB-01	C-03-12	270	12.0	55.5
						75NB-01	C-03-11	269	20.0	55.1
						NB 12th Exit	point391	391	24.0	53.5
						NB 12th Exit	point394	394	12.0	53.3
						75NB-01	C-03-10	268	20.0	53.3
						75NB-01	C-03-13	271	12.0	53.3
						75NB-01	C-03-09	267	24.0	52.5
						NB 12th Exit	point390	390	24.0	52.2
C01801-F	17	66.3	7.5	7	0.5	James Simpson Jr Way	C-01-07	175	24.0	61.7
						75NB-01	C-03-14	272	20.0	60.1
						75NB-01	C-03-13	271	24.0	58.6
						James Simpson Jr Way	C-01-06	174	24.0	58.2
						75NB-01	C-03-15	273	0.0	56.4

						James Simpson Jr Way	C-01-03	171	0.0	55.7
						James Simpson Jr Way	C-01-11	179	0.0	54.9
						75NB-01	C-03-18	276	0.0	53.8
						James Simpson Jr Way	C-01-08	176	24.0	51.6
						James Simpson Jr Way	C-01-09	177	24.0	51.3
C01901-V	18	63.8	9.3	7	2.3	James Simpson Jr Way	C-01-03	171	0.0	55.3
						NB 12th Exit	point392	392	24.0	50.6
						James Simpson Jr Way	C-01-02	170	0.0	49.8
						NB 12th Exit	point382	382	24.0	49.6
						NB 12th Exit	point383	383	24.0	49.1
						NB 12th Exit	point381	381	24.0	49.1
						NB 12th Exit	point380	380	24.0	48.7
						75NB-01	C-03-14	272	20.0	48.7
						NB 12th Exit	point391	391	24.0	48.5
						NB 12th Exit	point384	384	24.0	48.4
C02001	19	64.6	7.9	7	0.9	James Simpson Jr Way	C-01-01	169	0.0	56.7
						James Simpson Jr Way	C-01-02	170	24.0	53.0
						NB 12th Exit	point381	381	24.0	49.6
						NB 12th Exit	point380	380	24.0	49.6
						75NB-01	C-03-11	269	24.0	49.5
						NB 12th Exit	point392	392	24.0	49.5
						NB 12th Exit	point382	382	24.0	49.5
						NB 12th Exit	point378	378	24.0	49.3
						75NB-01	C-03-14	272	24.0	48.6
						NB 12th Exit	point391	391	24.0	48.6
C02101	20	65.1	7.0	7	-0.0	James Simpson Jr Way	C-01-01	169	24.0	54.4
						NB 12th Exit	point378	378	16.0	50.7
						NB 12th Exit	point380	380	24.0	50.4
						NB 12th Exit	point381	381	24.0	49.8
						NB 12th Exit	point379	379	24.0	49.7
						Edge Cliff	C-02-74	255	0.0	49.5
						NB 12th Exit	point377	377	0.0	49.4
						NB 12th Exit	point382	382	24.0	49.2
						NB 12th Exit	point392	392	24.0	48.9
						NB 12th Exit	point391	391	24.0	48.8
C02201-F	21	64.5	8.5	7	1.5	Edge Cliff	C-02-74	255	24.0	55.6

						NB 12th Exit	point377	377	0.0	53.8
						NB 12th Exit	point378	378	24.0	53.2
						Edge Cliff	C-02-73	254	24.0	52.3
						NB 12th Exit	point376	376	24.0	51.7
						Edge Cliff	C-02-72	253	24.0	51.3
						Edge Cliff	C-02-71	252	24.0	50.8
						James Simpson Jr Way	C-01-10	178	0.0	50.3
						NB 12th Exit	point374	374	24.0	50.2
						Edge Cliff	C-02-70	251	24.0	49.7
C02302	22	64.5	8.4	7	1.4	James Simpson Jr Way	C-01-11	179	0.0	53.6
						Edge Cliff	C-02-74	255	0.0	52.7
						NB 12th Exit	point378	378	16.0	52.2
						NB 12th Exit	point377	377	0.0	52.0
						NB 12th Exit	point376	376	0.0	51.0
						Edge Cliff	C-02-73	254	24.0	50.8
						NB 12th Exit	point374	374	0.0	50.0
						Edge Cliff	C-02-72	253	24.0	49.9
						NB 12th Exit	point390	390	24.0	49.6
						NB 12th Exit	point391	391	24.0	49.5
C02402	23	65.2	6.8	7	-0.2	Edge Cliff	C-02-73	254	24.0	53.3
						Edge Cliff	C-02-72	253	24.0	52.9
						NB 12th Exit	point378	378	24.0	52.9
						Edge Cliff	C-02-71	252	24.0	52.5
						Edge Cliff	C-02-74	255	24.0	52.5
						NB 12th Exit	point377	377	24.0	52.1
						Edge Cliff	C-02-70	251	24.0	52.0
						James Simpson Jr Way	C-01-11	179	0.0	51.8
						NB 12th Exit	point376	376	24.0	51.5
						Edge Cliff	C-02-69	250	24.0	51.3
C02501-F	24	63.1	8.4	7	1.4	Edge Cliff	C-02-59	240	0.0	50.7
						Edge Cliff	C-02-68	249	24.0	49.7
						Edge Cliff	C-02-67	248	24.0	49.5
						Edge Cliff	C-02-66	247	24.0	49.4
						Edge Cliff	C-02-71	252	24.0	49.3
						Edge Cliff	C-02-70	251	24.0	49.2
						Edge Cliff	C-02-69	250	24.0	49.0

						Edge Cliff	C-02-65	246	24.0	49.0
						Edge Cliff	C-02-64	245	24.0	49.0
						Edge Cliff	C-02-63	244	0.0	48.8
C02602/C02701	25	64.7	6.1	7	-0.9	James Simpson Jr Way	C-01-11	179	24.0	52.9
						Edge Cliff	C-02-68	249	24.0	51.9
						Edge Cliff	C-02-67	248	24.0	51.8
						Edge Cliff	C-02-59	240	0.0	51.6
						Edge Cliff	C-02-69	250	24.0	51.5
						Edge Cliff	C-02-71	252	24.0	51.4
						Edge Cliff	C-02-70	251	24.0	51.3
						Edge Cliff	C-02-66	247	24.0	51.2
						Edge Cliff	C-02-63	244	0.0	50.7
						Edge Cliff	C-02-60	241	0.0	50.7
C02801	27	64.5	6.2	7	-0.8	Edge Cliff	C-02-59	240	0.0	53.0
						Edge Cliff	C-02-63	244	0.0	52.3
						Edge Cliff	C-02-60	241	0.0	52.1
						Edge Cliff	C-02-62	243	0.0	51.7
						Edge Cliff	C-02-61	242	0.0	51.0
						Edge Cliff	C-02-64	245	24.0	51.0
						Edge Cliff	C-02-68	249	24.0	50.8
						Edge Cliff	C-02-65	246	24.0	50.8
						Edge Cliff	C-02-58	239	0.0	50.7
						Edge Cliff	C-02-66	247	24.0	50.7
C02901	28	64.5	6.1	7	-0.9	Edge Cliff	C-02-59	240	0.0	53.5
						Edge Cliff	C-02-63	244	0.0	52.7
						Edge Cliff	C-02-60	241	0.0	52.4
						Edge Cliff	C-02-62	243	0.0	52.2
						Edge Cliff	C-02-58	239	0.0	51.7
						Edge Cliff	C-02-61	242	0.0	51.4
						Edge Cliff	C-02-64	245	24.0	51.0
						Edge Cliff	C-02-67	248	24.0	50.8
						Edge Cliff	C-02-65	246	24.0	50.8
						Edge Cliff	C-02-68	249	24.0	50.8
C03001	29	64.8	5.8	7	-1.2	Edge Cliff	C-02-59	240	0.0	53.9
						Edge Cliff	C-02-63	244	0.0	53.2
						Edge Cliff	C-02-60	241	0.0	52.7

						Edge Cliff	C-02-58	239	0.0	52.6
						Edge Cliff	C-02-62	243	0.0	52.6
						Edge Cliff	C-02-61	242	0.0	51.8
						Edge Cliff	C-02-64	245	24.0	51.2
						Edge Cliff	C-02-67	248	24.0	51.0
						Edge Cliff	C-02-65	246	24.0	50.9
						Edge Cliff	C-02-68	249	24.0	50.8
C03101	30	64.9	5.5	7	-1.5	Edge Cliff	C-02-59	240	0.0	54.0
						Edge Cliff	C-02-63	244	0.0	53.5
						Edge Cliff	C-02-58	239	0.0	53.2
						Edge Cliff	C-02-60	241	0.0	52.9
						Edge Cliff	C-02-62	243	0.0	52.7
						Edge Cliff	C-02-61	242	0.0	52.1
						Edge Cliff	C-02-57	238	0.0	51.5
						Edge Cliff	C-02-64	245	24.0	51.0
						Edge Cliff	C-02-67	248	24.0	50.7
						Edge Cliff	C-02-66	247	24.0	50.7
C03201	31	64.9	5.4	7	-1.6	Edge Cliff	C-02-59	240	0.0	54.1
						Edge Cliff	C-02-63	244	0.0	53.8
						Edge Cliff	C-02-58	239	0.0	53.5
						Edge Cliff	C-02-62	243	0.0	53.1
						Edge Cliff	C-02-60	241	0.0	53.1
						Edge Cliff	C-02-61	242	0.0	52.3
						Edge Cliff	C-02-57	238	0.0	52.1
						Edge Cliff	C-02-64	245	24.0	50.9
						Edge Cliff	C-02-66	247	24.0	50.6
						Edge Cliff	C-02-56	237	0.0	50.5
C03301	32	64.9	5.0	7	-2.0	Edge Cliff	C-02-59	240	0.0	54.2
						Edge Cliff	C-02-63	244	0.0	54.1
						Edge Cliff	C-02-58	239	0.0	53.7
						Edge Cliff	C-02-62	243	0.0	53.5
						Edge Cliff	C-02-60	241	0.0	53.3
						Edge Cliff	C-02-57	238	0.0	53.1
						Edge Cliff	C-02-61	242	0.0	52.7
						NB 12th Exit	point377	377	24.0	51.5
						75NB-01	C-03-01	258	0.0	51.5

						Edge Cliff	C-02-56	237	0.0	51.0
C03401	33	65.5	3.3	7	-3.7	Edge Cliff	C-02-63	244	0.0	54.7
						Edge Cliff	C-02-59	240	0.0	54.7
						Edge Cliff	C-02-62	243	0.0	54.4
						Edge Cliff	C-02-58	239	0.0	54.3
						Edge Cliff	C-02-60	241	0.0	54.3
						Edge Cliff	C-02-57	238	0.0	54.3
						Edge Cliff	C-02-56	237	0.0	54.1
						Edge Cliff	C-02-61	242	0.0	54.0
						Edge Cliff	C-02-55	236	0.0	53.6
						NB 12th Exit	point377	377	24.0	53.2
C03502	34	63.3	3.0	7	-4.0	Edge Cliff	C-02-59	240	0.0	51.6
						Edge Cliff	C-02-57	238	0.0	51.4
						Edge Cliff	C-02-56	237	0.0	51.3
						Edge Cliff	C-02-58	239	0.0	51.3
						Edge Cliff	C-02-60	241	0.0	51.1
						Edge Cliff	C-02-63	244	0.0	51.1
						Edge Cliff	C-02-55	236	0.0	51.1
						Edge Cliff	C-02-54	235	0.0	50.9
						Edge Cliff	C-02-62	243	0.0	50.8
						Edge Cliff	C-02-61	242	0.0	50.8
C03602	35	63.3	2.9	7	-4.1	Edge Cliff	C-02-59	240	0.0	51.7
						Edge Cliff	C-02-57	238	0.0	51.4
						Edge Cliff	C-02-56	237	0.0	51.4
						Edge Cliff	C-02-58	239	0.0	51.4
						Edge Cliff	C-02-60	241	0.0	51.3
						Edge Cliff	C-02-55	236	0.0	51.2
						Edge Cliff	C-02-63	244	0.0	51.2
						Edge Cliff	C-02-54	235	0.0	51.0
						Edge Cliff	C-02-62	243	0.0	51.0
						Edge Cliff	C-02-61	242	0.0	50.8
C03701	36	63.3	2.9	7	-4.1	Edge Cliff	C-02-59	240	0.0	51.8
						Edge Cliff	C-02-57	238	0.0	51.5
						Edge Cliff	C-02-58	239	0.0	51.5
						Edge Cliff	C-02-56	237	0.0	51.4
						Edge Cliff	C-02-60	241	0.0	51.4

						Edge Cliff	C-02-55	236	0.0	51.3
						Edge Cliff	C-02-63	244	0.0	51.3
						Edge Cliff	C-02-54	235	0.0	51.2
						Edge Cliff	C-02-62	243	0.0	51.1
						Edge Cliff	C-02-61	242	0.0	50.9
C03802	37	63.4	2.7	7	-4.3	Edge Cliff	C-02-59	240	0.0	51.8
						Edge Cliff	C-02-57	238	0.0	51.6
						Edge Cliff	C-02-58	239	0.0	51.5
						Edge Cliff	C-02-56	237	0.0	51.5
						Edge Cliff	C-02-60	241	0.0	51.4
						Edge Cliff	C-02-55	236	0.0	51.4
						Edge Cliff	C-02-63	244	0.0	51.3
						Edge Cliff	C-02-54	235	0.0	51.2
						Edge Cliff	C-02-62	243	0.0	51.0
						Edge Cliff	C-02-61	242	0.0	50.9
C03902	38	63.4	2.4	7	-4.6	Edge Cliff	C-02-59	240	0.0	51.8
						Edge Cliff	C-02-57	238	0.0	51.6
						Edge Cliff	C-02-58	239	0.0	51.6
						Edge Cliff	C-02-55	236	0.0	51.4
						Edge Cliff	C-02-56	237	0.0	51.4
						Edge Cliff	C-02-60	241	0.0	51.4
						Edge Cliff	C-02-63	244	0.0	51.4
						Edge Cliff	C-02-54	235	0.0	51.3
						Edge Cliff	C-02-62	243	0.0	51.1
						Edge Cliff	C-02-61	242	0.0	50.9
C04001	39	63.4	2.3	7	-4.7	Edge Cliff	C-02-59	240	0.0	51.9
						Edge Cliff	C-02-58	239	0.0	51.6
						Edge Cliff	C-02-57	238	0.0	51.6
						Edge Cliff	C-02-56	237	0.0	51.5
						Edge Cliff	C-02-55	236	0.0	51.5
						Edge Cliff	C-02-63	244	0.0	51.5
						Edge Cliff	C-02-60	241	0.0	51.4
						Edge Cliff	C-02-54	235	0.0	51.4
						Edge Cliff	C-02-62	243	0.0	51.2
						Edge Cliff	C-02-61	242	0.0	51.1
C04101	40	62.9	1.6	7	-5.4	Edge Cliff	C-02-57	238	0.0	51.5

						Edge Cliff	C-02-59	240	0.0	51.5
						Edge Cliff	C-02-58	239	0.0	51.4
						Edge Cliff	C-02-54	235	0.0	51.3
						Edge Cliff	C-02-60	241	0.0	51.3
						Edge Cliff	C-02-56	237	0.0	51.2
						Edge Cliff	C-02-63	244	0.0	51.2
						Edge Cliff	C-02-55	236	0.0	51.2
						Edge Cliff	C-02-61	242	0.0	51.0
						Edge Cliff	C-02-53	234	0.0	50.9
C04201	41	61.8	1.3	7	-5.7	Edge Cliff	C-02-55	236	0.0	51.0
						Edge Cliff	C-02-57	238	0.0	51.0
						Edge Cliff	C-02-56	237	0.0	50.8
						Edge Cliff	C-02-54	235	0.0	50.0
						Edge Cliff	C-02-60	241	0.0	49.9
						Edge Cliff	C-02-61	242	0.0	49.7
						Edge Cliff	C-02-59	240	0.0	49.7
						Edge Cliff	C-02-58	239	0.0	49.6
						Edge Cliff	C-02-53	234	0.0	49.6
						Edge Cliff	C-02-62	243	0.0	49.5
C04301	42	61.7	1.2	7	-5.8	Edge Cliff	C-02-57	238	0.0	50.9
						Edge Cliff	C-02-58	239	0.0	50.4
						Edge Cliff	C-02-56	237	0.0	50.4
						Edge Cliff	C-02-59	240	0.0	50.2
						Edge Cliff	C-02-54	235	0.0	50.1
						Edge Cliff	C-02-60	241	0.0	50.0
						Edge Cliff	C-02-53	234	0.0	49.7
						Edge Cliff	C-02-61	242	0.0	49.5
						Edge Cliff	C-02-62	243	0.0	49.3
						Edge Cliff	C-02-55	236	0.0	49.3
C07701	76	64.3	1.6	7	-5.4	James Simpson Jr Way	C-01-01	169	0.0	47.5
						NBCD-01	BC-02-02	361	0.0	44.6
						NBCD-01	BC-02-03	362	0.0	43.8
						NBCD-01	BC-02-04	363	0.0	43.7
						NBCD-01	BC-02-05	364	0.0	42.8
						NB 12th Exit	point377	377	0.0	42.6
						James Simpson Jr Way	C-01-02	170	24.0	42.5

						NB 12th Exit	point378	378	24.0	42.5
						NB 12th Exit	point380	380	24.0	42.5
						75NB-01	C-05-04	312	0.0	42.4
C07801	77	63.9	1.8	7	-5.2	James Simpson Jr Way	C-01-01	169	0.0	47.1
						NBCD-01	BC-02-02	361	0.0	45.1
						NBCD-01	BC-02-03	362	0.0	44.4
						NBCD-01	BC-02-04	363	0.0	44.3
						NB 12th Exit	point378	378	16.0	43.6
						Edge Cliff	C-02-74	255	0.0	43.6
						NBCD-01	BC-02-05	364	0.0	43.6
						NB 12th Exit	point377	377	0.0	43.6
						75NB-01	C-05-01	308	0.0	43.3
						NB 12th Exit	point380	380	24.0	43.1
C07901	78	63.5	1.8	7	-5.2	James Simpson Jr Way	C-01-01	169	24.0	45.1
						NBCD-01	BC-02-02	361	0.0	44.9
						NBCD-01	BC-02-03	362	0.0	44.3
						Edge Cliff	C-02-74	255	0.0	44.1
						NBCD-01	BC-02-04	363	0.0	44.1
						NB 12th Exit	point377	377	0.0	43.9
						NB 12th Exit	point378	378	16.0	43.5
						NBCD-01	BC-02-05	364	0.0	43.4
						NB 12th Exit	point376	376	0.0	43.3
						75NB-01	C-05-01	308	0.0	43.2
C08001	79	63.2	1.9	7	-5.1	NBCD-01	BC-02-02	361	0.0	44.8
						Edge Cliff	C-02-74	255	0.0	44.6
						NBCD-01	BC-02-04	363	0.0	44.1
						NB 12th Exit	point377	377	0.0	43.9
						NBCD-01	BC-02-03	362	0.0	43.9
						NB 12th Exit	point376	376	0.0	43.6
						NBCD-01	BC-02-05	364	0.0	43.3
						Edge Cliff	C-02-73	254	24.0	43.3
						75NB-01	C-05-01	308	0.0	43.1
						James Simpson Jr Way	C-01-01	169	24.0	43.1
C08101	80	63.1	1.8	7	-5.2	NBCD-01	BC-02-02	361	0.0	44.8
						Edge Cliff	C-02-74	255	0.0	44.6
						NBCD-01	BC-02-04	363	0.0	44.6

						NBCD-01	BC-02-03	362	0.0	44.1
						NB 12th Exit	point377	377	0.0	44.0
						NBCD-01	BC-02-05	364	0.0	43.6
						NB 12th Exit	point376	376	0.0	43.4
						Edge Cliff	C-02-73	254	24.0	43.2
						Edge Cliff	C-02-72	253	24.0	43.2
						NB 12th Exit	point378	378	16.0	43.2
C08201	81	63.0	1.7	7	-5.3	NBCD-01	BC-02-02	361	0.0	44.6
						Edge Cliff	C-02-74	255	0.0	44.5
						NBCD-01	BC-02-04	363	0.0	44.5
						NBCD-01	BC-02-03	362	0.0	43.9
						NBCD-01	BC-02-05	364	0.0	43.9
						NB 12th Exit	point377	377	0.0	43.8
						Edge Cliff	C-02-72	253	24.0	43.2
						NB 12th Exit	point378	378	16.0	43.1
						Edge Cliff	C-02-70	251	24.0	43.0
						Edge Cliff	C-02-71	252	24.0	43.0
C08301	82	62.2	2.6	7	-4.4	Edge Cliff	C-02-59	240	0.0	45.5
						Edge Cliff	C-02-72	253	24.0	44.6
						Edge Cliff	C-02-71	252	24.0	44.5
						NB 12th Exit	point378	378	24.0	44.4
						Edge Cliff	C-02-74	255	24.0	44.2
						Edge Cliff	C-02-73	254	24.0	44.2
						Edge Cliff	C-02-68	249	24.0	44.1
						Edge Cliff	C-02-70	251	24.0	44.0
						Edge Cliff	C-02-67	248	24.0	44.0
						NB 12th Exit	point376	376	24.0	43.9
C08401	83	61.8	2.3	7	-4.7	Edge Cliff	C-02-59	240	0.0	45.6
						Edge Cliff	C-02-60	241	0.0	44.1
						Edge Cliff	C-02-71	252	24.0	44.0
						Edge Cliff	C-02-58	239	0.0	43.9
						Edge Cliff	C-02-70	251	24.0	43.9
						Edge Cliff	C-02-72	253	24.0	43.6
						NBCD-01	BC-02-02	361	0.0	43.6
						Edge Cliff	C-02-67	248	24.0	43.5
						Edge Cliff	C-02-66	247	24.0	43.4

						NB 12th Exit	point374	374	24.0	43.4
C10004	99	64.4	4.9	7	-2.1	Edge Cliff	C-02-59	240	0.0	50.8
						Edge Cliff	C-02-70	251	24.0	50.4
						Edge Cliff	C-02-71	252	24.0	50.3
						Edge Cliff	C-02-69	250	24.0	50.1
						Edge Cliff	C-02-72	253	24.0	50.0
						Edge Cliff	C-02-68	249	24.0	50.0
						Edge Cliff	C-02-67	248	24.0	49.7
						NB 12th Exit	point376	376	24.0	49.7
						NB 12th Exit	point374	374	24.0	49.6
						Edge Cliff	C-02-58	239	0.0	49.6
C10101	100	63.7	1.1	7	-5.9	Edge Cliff	C-02-53	234	0.0	52.5
						Edge Cliff	C-02-54	235	0.0	51.9
						Edge Cliff	C-02-55	236	0.0	51.8
						Edge Cliff	C-02-56	237	0.0	51.8
						Edge Cliff	C-02-57	238	0.0	51.7
						Edge Cliff	C-02-60	241	0.0	51.5
						Edge Cliff	C-02-59	240	0.0	51.4
						Edge Cliff	C-02-58	239	0.0	51.3
						Edge Cliff	C-02-61	242	0.0	51.3
						Edge Cliff	C-02-62	243	0.0	51.3
C02701	102	65.0	5.6	8	-2.4	Edge Cliff	C-02-59	240	0.0	52.3
						Edge Cliff	C-02-68	249	24.0	52.2
						Edge Cliff	C-02-69	250	24.0	52.0
						Edge Cliff	C-02-67	248	24.0	52.0
						Edge Cliff	C-02-70	251	24.0	51.9
						Edge Cliff	C-02-71	252	24.0	51.6
						Edge Cliff	C-02-66	247	24.0	51.5
						NB 12th Exit	point374	374	24.0	51.3
						NB 12th Exit	point376	376	24.0	50.9
						Edge Cliff	C-02-60	241	0.0	50.9

Total Cost, All Barriers (including additional cost(s))	$1433760					

HMB Professional Engineers **28 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **Brent Spence Bridge 6-17.00/1415.04**
RUN: **ALT NSA C1V2**
BARRIER DESIGN: **c1-opt**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Edge Cliff	W	24.00	24.00	24.00	400	9599				307179
NB 12th Exit	W	8.00	20.63	24.00	760	15688				502016
75NB-01	W	0.00	2.00	4.00	43	87				0
James Simpson Jr Way	W	0.00	0.00	0.00	0	0				0
NBCD-01	W	8.00	14.72	24.00	1326	19518				624566
									Total Cost:	1433760

HMB Professional Engineers **28 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C1V2
BARRIER DESIGN: c1-opt

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Edge Cliff	W	point257	257	0.00	0.00	0.00	0	0				0
		C-02-04	185	0.00	0.00	0.00	0	0				0
		C-02-05	186	0.00	0.00	0.00	0	0				0
		C-02-06	187	0.00	0.00	0.00	0	0				0
		C-02-07	188	0.00	0.00	0.00	0	0				0
		C-02-08	189	0.00	0.00	0.00	0	0				0
		C-02-09	190	0.00	0.00	0.00	0	0				0
		C-02-10	191	0.00	0.00	0.00	0	0				0
		C-02-11	192	0.00	0.00	0.00	0	0				0
		C-02-12	193	0.00	0.00	0.00	0	0				0
		C-02-13	194	0.00	0.00	0.00	0	0				0
		C-02-14	195	0.00	0.00	0.00	0	0				0
		C-02-15	196	0.00	0.00	0.00	0	0				0
		C-02-16	197	0.00	0.00	0.00	0	0				0
		C-02-17	198	0.00	0.00	0.00	0	0				0
		C-02-18	199	0.00	0.00	0.00	0	0				0
		C-02-19	200	0.00	0.00	0.00	0	0				0
		C-02-20	201	0.00	0.00	0.00	0	0				0
		C-02-21	202	0.00	0.00	0.00	0	0				0
		C-02-22	203	0.00	0.00	0.00	0	0				0
		C-02-23	204	0.00	0.00	0.00	0	0				0
		C-02-24	205	0.00	0.00	0.00	0	0				0
		C-02-25	206	0.00	0.00	0.00	0	0				0
		C-02-26	207	0.00	0.00	0.00	0	0				0
		C-02-27	208	0.00	0.00	0.00	0	0				0
		C-02-28	209	0.00	0.00	0.00	0	0				0

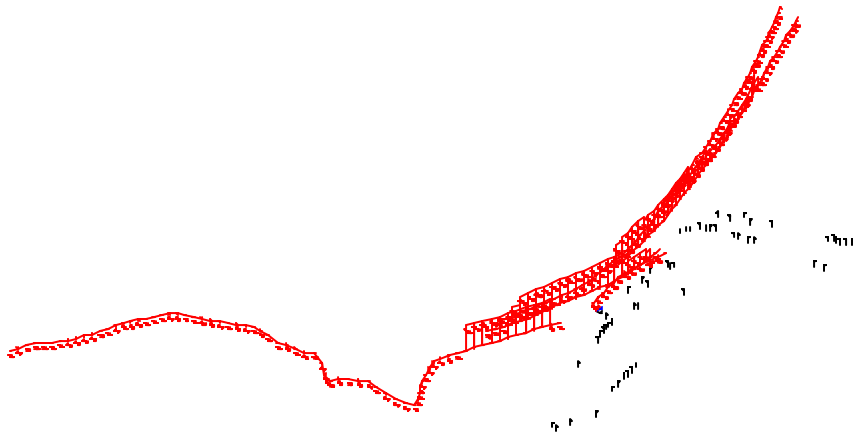
		C-02-29	210	0.00	0.00	0.00	0	0				0
		C-02-30	211	0.00	0.00	0.00	0	0				0
		C-02-31	212	0.00	0.00	0.00	0	0				0
		C-02-32	213	0.00	0.00	0.00	0	0				0
		C-02-33	214	0.00	0.00	0.00	0	0				0
		C-02-34	215	0.00	0.00	0.00	0	0				0
		C-02-35	216	0.00	0.00	0.00	0	0				0
		C-02-36	217	0.00	0.00	0.00	0	0				0
		C-02-37	218	0.00	0.00	0.00	0	0				0
		C-02-38	219	0.00	0.00	0.00	0	0				0
		C-02-39	220	0.00	0.00	0.00	0	0				0
		C-02-40	221	0.00	0.00	0.00	0	0				0
		C-02-41	222	0.00	0.00	0.00	0	0				0
		C-02-42	223	0.00	0.00	0.00	0	0				0
		C-02-43	224	0.00	0.00	0.00	0	0				0
		C-02-44	225	0.00	0.00	0.00	0	0				0
		C-02-45	226	0.00	0.00	0.00	0	0				0
		C-02-46	227	0.00	0.00	0.00	0	0				0
		C-02-47	228	0.00	0.00	0.00	0	0				0
		C-02-48	229	0.00	0.00	0.00	0	0				0
		C-02-49	230	0.00	0.00	0.00	0	0				0
		C-02-50	231	0.00	0.00	0.00	0	0				0
		C-02-51	232	0.00	0.00	0.00	0	0				0
		C-02-52	233	0.00	0.00	0.00	0	0				0
		C-02-53	234	0.00	0.00	0.00	0	0				0
		C-02-54	235	0.00	0.00	0.00	0	0				0
		C-02-55	236	0.00	0.00	0.00	0	0				0
		C-02-56	237	0.00	0.00	0.00	0	0				0
		C-02-57	238	0.00	0.00	0.00	0	0				0
		C-02-58	239	0.00	0.00	0.00	0	0				0
		C-02-59	240	0.00	0.00	0.00	0	0				0
		C-02-60	241	0.00	0.00	0.00	0	0				0
		C-02-61	242	0.00	0.00	0.00	0	0				0
		C-02-62	243	0.00	0.00	0.00	0	0				0
		C-02-63	244	0.00	0.00	0.00	0	0				0
		C-02-64	245	24.00	24.00	24.00	40	958				30655
		C-02-65	246	24.00	24.00	24.00	40	961				30739
		C-02-66	247	24.00	24.00	24.00	40	958				30655
		C-02-67	248	24.00	24.00	24.00	40	958				30655

		C-02-68	249	24.00	24.00	24.00	40	970				31030
		C-02-69	250	24.00	24.00	24.00	40	961				30739
		C-02-70	251	24.00	24.00	24.00	40	958				30655
		C-02-71	252	24.00	24.00	24.00	40	958				30655
		C-02-72	253	24.00	24.00	24.00	40	958				30655
		C-02-73	254	24.00	24.00	24.00	40	961				30739
		C-02-74	255	0.00	0.00	0.00	0	0				0
		C-02-75	256	0.00	0.00	0.00	0	0				0
NB 12th Exit	W	point374	374	0.00	0.00	0.00	0	0				0
		point376	376	0.00	0.00	0.00	0	0				0
		point377	377	0.00	0.00	0.00	0	0				0
		point378	378	16.00	16.00	16.00	40	642				20539
		point379	379	24.00	24.00	24.00	40	963				30809
		point380	380	24.00	24.00	24.00	40	954				30532
		point381	381	24.00	24.00	24.00	40	967				30959
		point382	382	24.00	24.00	24.00	40	954				30532
		point383	383	24.00	24.00	24.00	40	966				30914
		point384	384	24.00	24.00	24.00	40	953				30491
		point385	385	24.00	24.00	24.00	40	965				30873
		point386	386	24.00	24.00	24.00	40	965				30873
		point387	387	24.00	24.00	24.00	40	953				30491
		point388	388	24.00	24.00	24.00	40	963				30806
		point389	389	24.00	24.00	24.00	40	964				30837
		point390	390	24.00	24.00	24.00	40	960				30730
		point391	391	24.00	24.00	24.00	40	960				30720
		point392	392	20.00	20.00	20.00	40	801				25618
		point393	393	12.00	12.00	12.00	40	477				15266
		point394	394	12.00	12.00	12.00	40	481				15404
		point395	395	12.00	12.00	12.00	40	480				15370
		point396	396	8.00	8.00	8.00	40	320				10250
		point397	397	0.00	0.00	0.00	0	0				0
		point398	398	0.00	0.00	0.00	0	0				0
75NB-01	W	C-03-01	258	0.00	0.00	0.00	0	0				0
		C-03-02	260	0.00	0.00	0.00	0	0				0
		C-03-03	261	0.00	0.00	0.00	0	0				0
		C-03-04	262	0.00	0.00	0.00	0	0				0
		C-03-05	263	0.00	0.00	0.00	0	0				0

		C-03-06	264	0.00	0.00	0.00	0	0				0
		C-03-07	265	0.00	0.00	0.00	0	0				0
		C-03-08	266	0.00	0.00	0.00	0	0				0
		C-03-09	267	0.00	0.00	0.00	0	0				0
		C-03-10	268	0.00	0.00	0.00	0	0				0
		C-03-11	269	0.00	0.00	0.00	0	0				0
		C-03-12	270	0.00	0.00	0.00	0	0				0
		C-03-13	271	0.00	0.00	0.00	0	0				0
		C-03-14	272	0.00	0.00	0.00	0	0				0
		C-03-15	273	0.00	0.00	0.00	0	0				0
		C-03-16	274	0.00	0.00	0.00	0	0				0
		C-03-17	275	0.00	0.00	0.00	0	0				0
		C-03-18	276	0.00	0.00	0.00	0	0				0
		C-03-19	277	0.00	0.00	0.00	0	0				0
		C-03-20	278	0.00	0.00	0.00	0	0				0
		C-03-21	279	0.00	0.00	0.00	0	0				0
		C-03-22	280	0.00	0.00	0.00	0	0				0
		C-03-23	281	0.00	0.00	0.00	0	0				0
		C-03-24	282	0.00	0.00	0.00	0	0				0
		C-03-25	283	0.00	0.00	0.00	0	0				0
		C-03-26	284	0.00	0.00	0.00	0	0				0
		C-03-27	285	0.00	0.00	0.00	0	0				0
		C-03-28	286	0.00	0.00	0.00	0	0				0
		C-03-29	287	0.00	0.00	0.00	0	0				0
		C-03-30	288	0.00	0.00	-4.00	0	0				0
		C-04-01	289	0.00	0.00	0.00	0	0	Y			0
		C-04-02	291	0.00	0.00	0.00	0	0	Y			0
		C-04-03	292	0.00	0.00	0.00	0	0	Y			0
		C-04-04	293	0.00	0.00	0.00	0	0	Y			0
		C-04-05	294	0.00	0.00	0.00	0	0	Y			0
		C-04-06	295	0.00	0.00	0.00	0	0	Y			0
		C-04-07	296	0.00	0.00	0.00	0	0	Y			0
		C-04-08	297	0.00	0.00	0.00	0	0	Y			0
		C-04-09	298	0.00	0.00	0.00	0	0	Y			0
		C-04-10	299	0.00	0.00	0.00	0	0	Y			0
		C-04-11	300	0.00	0.00	0.00	0	0	Y			0
		C-04-12	301	0.00	0.00	0.00	0	0	Y			0
		C-04-13	302	0.00	0.00	0.00	0	0	Y			0
		C-04-14	303	0.00	0.00	0.00	0	0	Y			0

		C-04-15	304	0.00	0.00	0.00	0	0	Y			0
		C-04-16	305	0.00	0.00	0.00	0	0	Y			0
		C-04-17	306	0.00	2.00	4.00	43	87	Y			0
		C-05-01	308	0.00	0.00	0.00	0	0				0
		C-05-02	310	0.00	0.00	0.00	0	0				0
		C-05-03	311	0.00	0.00	0.00	0	0				0
		C-05-04	312	0.00	0.00	0.00	0	0				0
		C-05-05	313	0.00	0.00	0.00	0	0				0
		C-05-06	314	0.00	0.00	0.00	0	0				0
		C-05-07	315	0.00	0.00	0.00	0	0				0
		C-05-08	316	0.00	0.00	0.00	0	0				0
		C-05-09	317	0.00	0.00	0.00	0	0				0
		C-05-10	318	0.00	0.00	0.00	0	0				0
		C-05-11	319	0.00	0.00	0.00	0	0				0
		C-05-12	320	0.00	0.00	0.00	0	0				0
		C-05-13	321	0.00	0.00	0.00	0	0				0
		C-05-14	322	0.00	0.00	0.00	0	0				0
		C-05-15	323	0.00	0.00	0.00	0	0				0
James Simpson Jr Way	W	C-01-01	169	0.00	0.00	0.00	0	0				0
		C-01-02	170	0.00	0.00	0.00	0	0				0
		C-01-03	171	0.00	0.00	0.00	0	0				0
		C-01-04	172	0.00	0.00	0.00	0	0				0
		C-01-05	173	0.00	0.00	0.00	0	0				0
		C-01-06	174	0.00	0.00	0.00	0	0				0
		C-01-07	175	0.00	0.00	0.00	0	0				0
		C-01-08	176	0.00	0.00	0.00	0	0				0
		C-01-09	177	0.00	0.00	0.00	0	0				0
		C-01-10	178	0.00	0.00	0.00	0	0				0
		C-01-11	179	0.00	0.00	0.00	0	0				0
NBCD-01	W	C-06-01	342	20.00	20.00	20.00	40	798				25524
		C-06-02	344	24.00	24.00	24.00	40	959				30684
		C-06-03	345	24.00	24.00	24.00	40	965				30878
		C-06-04	346	24.00	24.00	24.00	40	955				30576
		C-06-05	347	24.00	24.00	24.00	40	961				30739
		C-06-06	348	20.00	20.00	20.00	40	805				25767
		C-06-07	349	20.00	20.00	20.00	40	798				25540
		C-06-08	350	20.00	20.00	20.00	40	804				25716

		C-06-09	351	20.00	20.00	20.00	40	800				25602
		C-06-10	352	20.00	20.00	20.00	40	797				25508
		C-06-11	353	20.00	20.00	20.00	40	797				25508
		C-06-12	354	20.00	20.00	20.00	40	807				25809
		C-06-13	355	20.00	20.00	20.00	40	797				25508
		C-06-14	356	20.00	20.00	20.00	40	801				25618
		C-06-15	357	20.00	20.00	20.00	40	797				25508
		C-06-16	358	16.00	14.00	12.00	9	126				4038
		BC-01-01	324	12.00	12.00	12.00	40	478	Y			15305
		BC-01-02	326	12.00	12.00	12.00	40	484	Y			15485
		BC-01-03	327	12.00	12.00	12.00	40	480	Y			15371
		BC-01-04	328	12.00	12.00	12.00	40	478	Y			15305
		BC-01-05	329	10.00	10.00	10.00	40	399	Y			12754
		BC-01-06	330	8.00	8.00	8.00	40	320	Y			10247
		BC-01-07	331	8.00	8.00	8.00	40	322	Y			10293
		BC-01-08	332	8.00	8.00	8.00	40	319	Y			10221
		BC-01-09	333	8.00	8.00	8.00	40	319	Y			10221
		BC-01-10	334	8.00	8.00	8.00	40	322	Y			10320
		BC-01-11	335	10.00	10.00	10.00	40	397	Y			12690
		BC-01-12	336	8.00	8.00	8.00	40	319	Y			10202
		BC-01-13	337	8.00	8.00	8.00	40	322	Y			10308
		BC-01-14	338	8.00	8.00	8.00	40	322	Y			10308
		BC-01-15	339	8.00	8.00	8.00	40	318	Y			10192
		BC-01-16	340	8.00	8.00	8.00	40	320	Y			10247
		BC-01-17	341	12.00	14.00	16.00	36	510	Y			16329
		BC-02-01	359	8.00	8.00	8.00	40	320				10247
		BC-02-02	361	0.00	0.00	0.00	0	0				0
		BC-02-03	362	0.00	0.00	0.00	0	0				0
		BC-02-04	363	0.00	0.00	0.00	0	0				0
		BC-02-05	364	0.00	0.00	0.00	0	0				0
		BC-02-06	365	0.00	0.00	0.00	0	0				0
		BC-02-07	366	0.00	0.00	0.00	0	0				0
		BC-02-08	367	0.00	0.00	0.00	0	0				0
		BC-02-09	368	0.00	0.00	0.00	0	0				0
		BC-02-10	369	0.00	0.00	0.00	0	0				0
		BC-02-11	370	0.00	0.00	0.00	0	0				0
		BC-02-12	371	0.00	0.00	0.00	0	0				0
		BC-02-13	372	0.00	0.00	0.00	0	0				0
		BC-02-14	373	0.00	0.00	0.00	0	0				0



ALT NSA C1V2		Sheet 1 of 1	28 Jun 2023
		HMB Professional Engineers	
Barrier View-c1-opt		Project/Contract No. Brent Spence Bridge 6-17.00	
Run name: NSA_C1_V1_backup		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: NSA C, AREA C2

HMB Professional Engineers
Mark Gavula

28 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C 2
BARRIER DESIGN: c2-ind
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
C04401-F	43	1	65.7	66.4	66	0.7	10	Snd Lvl	61.5	4.9	7	-2.1
C04501-F	44	1	71.1	72.7	66	1.6	10	Snd Lvl	63.0	9.7	7	2.7
C04601-F	45	1	70.0	71.5	66	1.5	10	Snd Lvl	61.2	10.3	7	3.3
C04701-F	46	1	69.7	72.2	66	2.5	10	Snd Lvl	62.2	10.0	7	3.0
C04801-F	47	1	68.6	71.4	66	2.8	10	Snd Lvl	63.5	7.9	7	0.9
C04901	48	1	67.7	70.6	66	2.9	10	Snd Lvl	64.0	6.6	7	-0.4
C05001	49	1	67.0	69.3	66	2.3	10	Snd Lvl	64.1	5.2	7	-1.8
C05101	50	1	66.0	68.5	66	2.5	10	Snd Lvl	63.4	5.1	7	-1.9
C05201	51	1	65.2	67.8	66	2.6	10	Snd Lvl	63.1	4.7	7	-2.3
C05301	52	1	64.0	66.8	66	2.8	10	Snd Lvl	62.4	4.4	7	-2.6
C05401	53	1	62.6	66.0	66	3.4	10	Snd Lvl	61.7	4.3	7	-2.7
C05501	54	1	61.5	65.2	66	3.7	10	----	61.1	4.1	7	-2.9
C05601	55	1	61.5	64.6	66	3.1	10	----	61.0	3.6	7	-3.4
C05701	56	1	61.5	63.9	66	2.4	10	----	60.8	3.1	7	-3.9
C05801	57	1	60.9	63.3	66	2.4	10	----	60.5	2.8	7	-4.2
C05901	58	1	60.6	62.9	66	2.3	10	----	60.4	2.5	7	-4.5
C06001	59	1	59.8	62.1	66	2.3	10	----	59.8	2.3	7	-4.7
C06101	60	1	54.2	61.6	66	7.4	10	----	59.9	1.7	7	-5.3
C06201	61	1	54.5	62.1	66	7.6	10	----	60.8	1.3	7	-5.7
C06301	62	1	54.3	62.5	66	8.2	10	----	61.4	1.1	7	-5.9
C06401	63	1	54.0	63.0	66	9.0	10	----	62.0	1.0	7	-6.0
C06501	64	1	51.5	63.6	66	12.1	10	Sub'l Inc	62.9	0.7	7	-6.3
C06601	65	1	56.5	64.5	66	8.0	10	----	63.9	0.6	7	-6.4
C06701	66	1	57.2	65.8	66	8.6	10	----	64.2	1.6	7	-5.4

C06801	67	1	57.9	67.5	66	9.6	10	Snd Lvl	64.6	2.9	7	-4.1
C06901	68	1	59.3	69.2	66	9.9	10	Snd Lvl	65.0	4.2	7	-2.8
C07001-F	69	1	68.8	72.4	66	3.6	10	Snd Lvl	65.9	6.5	7	-0.5
C07101-F	70	1	71.2	72.1	66	0.9	10	Snd Lvl	66.5	5.6	7	-1.4
C07223-F	71	23	59.0	62.6	66	3.6	10	----	60.5	2.1	7	-4.9
C07324-F	72	24	60.1	63.6	66	3.5	10	----	57.3	6.3	7	-0.7
C07424-F	73	24	62.4	66.2	66	3.8	10	Snd Lvl	59.2	7.0	7	0.0
C07524	74	24	54.5	60.7	66	6.2	10	----	59.8	0.9	7	-6.1
C07624	75	24	53.6	60.5	66	6.9	10	----	60.0	0.5	7	-6.5
C08501-F	84	1	66.4	66.2	66	-0.2	10	Snd Lvl	60.2	6.0	7	-1.0
C08601	85	1	64.2	67.1	66	2.9	10	Snd Lvl	61.1	6.0	7	-1.0
C08701	86	1	62.9	65.8	66	2.9	10	----	60.4	5.4	7	-1.6
C08801	87	1	62.2	65.6	66	3.4	10	----	60.3	5.3	7	-1.7
C08901	88	1	63.5	64.6	66	1.1	10	----	59.7	4.9	7	-2.1
C09001	89	1	61.1	63.4	66	2.3	10	----	58.9	4.5	7	-2.5
C09102	90	2	61.0	64.1	66	3.1	10	----	59.5	4.6	7	-2.4
C09202	91	2	60.5	63.7	66	3.2	10	----	59.4	4.3	7	-2.7
C09302	92	2	60.0	63.1	66	3.1	10	----	59.0	4.1	7	-2.9
C09401	93	1	59.4	63.8	66	4.4	10	----	59.9	3.9	7	-3.1
C09501	94	1	59.8	61.7	66	1.9	10	----	58.6	3.1	7	-3.9
C09601	95	1	60.3	60.6	66	0.3	10	----	58.2	2.4	7	-4.6
C09701	96	1	61.4	60.5	66	-0.9	10	----	58.1	2.4	7	-4.6
C09801	97	1	59.4	63.1	66	3.7	10	----	59.6	3.5	7	-3.5
C09901	98	1	59.2	62.4	66	3.2	10	----	59.0	3.4	7	-3.6

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	165	0.5	4.2	10.3
All Impacted	42	0.7	5.9	10.3
All that meet NR Goal	4	7.9	9.5	10.3

HMB Professional Engineers **28 June 2023**
Mark Gavula **TNM 2.5**
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C 2
BARRIER DESIGN: c2-ind

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
C04401-F	43	61.5	4.9	7	-2.1	Edge Cliff	C-02-53	234	24.0	52.0
						Edge Cliff	C-02-52	233	24.0	51.1
						Edge Cliff	C-02-54	235	24.0	50.0
						Edge Cliff	C-02-55	236	24.0	48.6
						Edge Cliff	C-02-57	238	24.0	47.8
						Edge Cliff	C-02-56	237	24.0	47.8
						Edge Cliff	C-02-72	253	12.0	47.0
						Edge Cliff	C-02-70	251	20.0	47.0
						Edge Cliff	C-02-48	229	24.0	46.7
						Edge Cliff	C-02-51	232	24.0	46.5
C04501-F	44	63.0	9.7	7	2.7	Edge Cliff	C-02-49	230	24.0	57.3
						Edge Cliff	C-02-50	231	24.0	56.4
						Edge Cliff	C-02-48	229	24.0	54.5
						Edge Cliff	C-02-61	242	24.0	49.8
						Edge Cliff	C-02-44	225	24.0	48.7
						Edge Cliff	C-02-43	224	24.0	48.6
						Edge Cliff	C-02-47	228	24.0	48.6
						Edge Cliff	C-02-57	238	24.0	48.0
						Edge Cliff	C-02-58	239	24.0	48.0
						Edge Cliff	C-02-62	243	24.0	47.2
C04601-F	45	61.2	10.3	7	3.3	Edge Cliff	C-02-49	230	24.0	54.5

						Edge Cliff	C-02-46	227	24.0	51.9
						Edge Cliff	C-02-47	228	24.0	51.7
						Edge Cliff	C-02-44	225	24.0	51.5
						Edge Cliff	C-02-43	224	24.0	50.9
						Edge Cliff	C-02-45	226	24.0	50.9
						Edge Cliff	C-02-42	223	24.0	48.5
						Edge Cliff	C-02-59	240	24.0	47.6
						Edge Cliff	C-02-48	229	24.0	47.6
						Edge Cliff	C-02-61	242	24.0	46.1
C04701-F	46	62.2	10.0	7	3.0	Edge Cliff	C-02-49	230	24.0	56.1
						Edge Cliff	C-02-44	225	24.0	51.8
						Edge Cliff	C-02-46	227	24.0	51.8
						Edge Cliff	C-02-45	226	24.0	51.3
						Edge Cliff	C-02-47	228	24.0	51.3
						Edge Cliff	C-02-43	224	24.0	51.0
						Edge Cliff	C-02-42	223	24.0	49.3
						Edge Cliff	C-02-61	242	24.0	49.2
						Edge Cliff	C-02-59	240	24.0	49.0
						Edge Cliff	C-02-50	231	24.0	48.4
C04801-F	47	63.5	7.9	7	0.9	Edge Cliff	C-02-50	231	24.0	57.3
						Edge Cliff	C-02-49	230	24.0	55.1
						Edge Cliff	C-02-61	242	24.0	51.6
						Edge Cliff	C-02-44	225	24.0	51.3
						Edge Cliff	C-02-57	238	24.0	51.1
						Edge Cliff	C-02-46	227	24.0	51.0
						Edge Cliff	C-02-45	226	24.0	50.8
						Edge Cliff	C-02-47	228	24.0	50.7
						Edge Cliff	C-02-43	224	24.0	50.2
						Edge Cliff	C-02-62	243	24.0	50.1
C04901	48	64.0	6.6	7	-0.4	Edge Cliff	C-02-50	231	24.0	58.5
						Edge Cliff	C-02-49	230	24.0	55.8
						Edge Cliff	C-02-56	237	24.0	52.9
						Edge Cliff	C-02-62	243	24.0	51.5
						Edge Cliff	C-02-61	242	24.0	51.1
						Edge Cliff	C-02-44	225	24.0	50.7
						Edge Cliff	C-02-46	227	24.0	50.4

						Edge Cliff	C-02-45	226	24.0	50.4
						Edge Cliff	C-02-47	228	24.0	50.2
						Edge Cliff	C-02-63	244	24.0	50.1
C05001	49	64.1	5.2	7	-1.8	Edge Cliff	C-02-50	231	24.0	58.5
						Edge Cliff	C-02-49	230	24.0	56.3
						Edge Cliff	C-02-56	237	24.0	51.8
						Edge Cliff	C-02-63	244	24.0	51.2
						Edge Cliff	C-02-62	243	24.0	51.1
						Edge Cliff	C-02-44	225	24.0	50.2
						Edge Cliff	C-02-55	236	24.0	50.1
						Edge Cliff	C-02-45	226	24.0	50.0
						Edge Cliff	C-02-61	242	24.0	49.9
						Edge Cliff	C-02-46	227	24.0	49.9
C05101	50	63.4	5.1	7	-1.9	Edge Cliff	C-02-50	231	24.0	57.5
						Edge Cliff	C-02-49	230	24.0	54.9
						Edge Cliff	C-02-55	236	24.0	51.5
						Edge Cliff	C-02-63	244	24.0	51.1
						Edge Cliff	C-02-56	237	24.0	50.1
						Edge Cliff	C-02-62	243	24.0	50.1
						Edge Cliff	C-02-51	232	24.0	49.8
						Edge Cliff	C-02-64	245	24.0	49.8
						Edge Cliff	C-02-44	225	24.0	49.3
						Edge Cliff	C-02-45	226	24.0	49.3
C05201	51	63.1	4.7	7	-2.3	Edge Cliff	C-02-50	231	24.0	56.7
						Edge Cliff	C-02-49	230	24.0	54.2
						Edge Cliff	C-02-51	232	24.0	51.5
						Edge Cliff	C-02-55	236	24.0	50.8
						Edge Cliff	C-02-63	244	24.0	50.5
						Edge Cliff	C-02-64	245	24.0	50.4
						75NB	C-03-01	258	24.0	49.2
						Edge Cliff	C-02-62	243	24.0	49.1
						Edge Cliff	C-02-45	226	24.0	48.7
						Edge Cliff	C-02-65	246	24.0	48.6
C05301	52	62.4	4.4	7	-2.6	Edge Cliff	C-02-50	231	24.0	55.6
						Edge Cliff	C-02-49	230	24.0	53.1
						Edge Cliff	C-02-51	232	24.0	52.5

						Edge Cliff	C-02-64	245	24.0	50.4
						Edge Cliff	C-02-54	235	24.0	49.9
						Edge Cliff	C-02-63	244	24.0	49.3
						75NB	C-03-01	258	24.0	49.1
						Edge Cliff	C-02-65	246	24.0	49.0
						Edge Cliff	C-02-55	236	24.0	48.5
						75NB	C-03-02	260	24.0	48.1
C05401	53	61.7	4.3	7	-2.7	Edge Cliff	C-02-50	231	24.0	54.4
						Edge Cliff	C-02-51	232	24.0	52.8
						Edge Cliff	C-02-49	230	24.0	52.0
						Edge Cliff	C-02-64	245	24.0	49.3
						Edge Cliff	C-02-65	246	24.0	49.0
						Edge Cliff	C-02-54	235	24.0	48.5
						Edge Cliff	C-02-63	244	24.0	48.2
						75NB	C-03-01	258	24.0	48.1
						75NB	C-03-02	260	24.0	47.7
						Edge Cliff	C-02-66	247	24.0	47.1
C05501	54	61.1	4.1	7	-2.9	Edge Cliff	C-02-50	231	24.0	53.3
						Edge Cliff	C-02-51	232	24.0	52.7
						Edge Cliff	C-02-49	230	24.0	50.9
						Edge Cliff	C-02-65	246	24.0	49.1
						Edge Cliff	C-02-66	247	24.0	48.0
						Edge Cliff	C-02-64	245	24.0	47.9
						75NB	C-03-02	260	0.0	47.7
						75NB	C-03-01	258	0.0	47.2
						Edge Cliff	C-02-63	244	24.0	46.7
						75NB	C-03-03	261	24.0	46.7
C05601	55	61.0	3.6	7	-3.4	Edge Cliff	C-02-50	231	24.0	53.3
						Edge Cliff	C-02-51	232	24.0	52.7
						Edge Cliff	C-02-49	230	24.0	50.7
						Edge Cliff	C-02-65	246	24.0	48.9
						Edge Cliff	C-02-66	247	24.0	48.7
						75NB	C-03-02	260	0.0	48.0
						75NB	C-03-03	261	0.0	47.2
						Edge Cliff	C-02-64	245	24.0	47.0
						Edge Cliff	C-02-67	248	24.0	46.7

						75NB	C-03-01	258	0.0	46.5
C05701	56	60.8	3.1	7	-3.9	Edge Cliff	C-02-50	231	24.0	53.0
						Edge Cliff	C-02-51	232	24.0	52.1
						Edge Cliff	C-02-49	230	24.0	50.6
						Edge Cliff	C-02-66	247	24.0	49.1
						Edge Cliff	C-02-65	246	24.0	48.3
						75NB	C-03-02	260	0.0	47.8
						Edge Cliff	C-02-67	248	24.0	47.7
						75NB	C-03-03	261	0.0	47.6
						75NB	C-03-04	262	24.0	46.5
						Edge Cliff	C-02-64	245	24.0	46.3
C05801	57	60.5	2.8	7	-4.2	Edge Cliff	C-02-50	231	24.0	52.2
						Edge Cliff	C-02-51	232	24.0	51.7
						Edge Cliff	C-02-49	230	24.0	50.2
						Edge Cliff	C-02-66	247	24.0	49.1
						Edge Cliff	C-02-67	248	24.0	48.1
						75NB	C-03-03	261	0.0	47.9
						Edge Cliff	C-02-65	246	24.0	47.0
						75NB	C-03-02	260	0.0	46.9
						75NB	C-03-04	262	0.0	46.8
						Edge Cliff	C-02-69	250	24.0	46.2
C05901	58	60.4	2.5	7	-4.5	Edge Cliff	C-02-50	231	24.0	51.8
						Edge Cliff	C-02-51	232	24.0	51.2
						Edge Cliff	C-02-49	230	24.0	50.3
						Edge Cliff	C-02-66	247	24.0	49.1
						Edge Cliff	C-02-67	248	24.0	48.2
						75NB	C-03-03	261	0.0	48.0
						75NB	C-03-04	262	0.0	47.0
						Edge Cliff	C-02-65	246	24.0	47.0
						75NB	C-03-02	260	0.0	46.8
						Edge Cliff	C-02-68	249	24.0	46.2
C06001	59	59.8	2.3	7	-4.7	Edge Cliff	C-02-50	231	24.0	50.8
						Edge Cliff	C-02-51	232	24.0	50.5
						Edge Cliff	C-02-49	230	24.0	49.2
						Edge Cliff	C-02-67	248	24.0	48.2
						Edge Cliff	C-02-66	247	24.0	48.1

						75NB	C-03-03	261	0.0	47.5
						75NB	C-03-04	262	0.0	46.9
						Edge Cliff	C-02-68	249	24.0	46.8
						Edge Cliff	C-02-70	251	20.0	46.0
						75NB	C-03-02	260	0.0	45.8
C06101	60	59.9	1.7	7	-5.3	Edge Cliff	C-02-50	231	24.0	50.4
						Edge Cliff	C-02-49	230	24.0	49.6
						Edge Cliff	C-02-65	246	24.0	48.8
						Edge Cliff	C-02-66	247	24.0	47.8
						75NB	C-03-02	260	0.0	47.8
						Edge Cliff	C-02-51	232	24.0	47.2
						75NB	C-03-03	261	0.0	46.8
						Edge Cliff	C-02-64	245	24.0	46.6
						Edge Cliff	C-02-63	244	24.0	46.4
						Edge Cliff	C-02-54	235	24.0	46.3
C06201	61	60.8	1.3	7	-5.7	Edge Cliff	C-02-50	231	24.0	51.2
						Edge Cliff	C-02-49	230	24.0	50.6
						Edge Cliff	C-02-64	245	24.0	49.5
						Edge Cliff	C-02-65	246	24.0	48.8
						Edge Cliff	C-02-54	235	24.0	48.5
						75NB	C-03-01	258	24.0	48.5
						Edge Cliff	C-02-63	244	24.0	48.3
						Edge Cliff	C-02-55	236	24.0	48.0
						Edge Cliff	C-02-45	226	24.0	48.0
						75NB	C-03-02	260	0.0	47.9
C06301	62	61.4	1.1	7	-5.9	Edge Cliff	C-02-50	231	24.0	52.5
						Edge Cliff	C-02-49	230	24.0	51.3
						Edge Cliff	C-02-55	236	24.0	50.3
						Edge Cliff	C-02-63	244	24.0	50.0
						Edge Cliff	C-02-64	245	24.0	49.6
						Edge Cliff	C-02-45	226	24.0	49.4
						Edge Cliff	C-02-46	227	24.0	49.3
						Edge Cliff	C-02-62	243	24.0	49.2
						Edge Cliff	C-02-56	237	24.0	49.0
						Edge Cliff	C-02-47	228	24.0	48.9
C06401	63	62.0	1.0	7	-6.0	Edge Cliff	C-02-50	231	24.0	53.0

						Edge Cliff	C-02-49	230	24.0	51.9
						Edge Cliff	C-02-45	226	24.0	50.5
						Edge Cliff	C-02-63	244	24.0	50.5
						Edge Cliff	C-02-47	228	24.0	50.5
						Edge Cliff	C-02-46	227	24.0	50.4
						Edge Cliff	C-02-56	237	24.0	50.2
						Edge Cliff	C-02-55	236	24.0	50.2
						Edge Cliff	C-02-62	243	24.0	49.7
						Edge Cliff	C-02-64	245	24.0	49.5
C06501	64	62.9	0.7	7	-6.3	Edge Cliff	C-02-49	230	24.0	53.6
						Edge Cliff	C-02-45	226	24.0	53.0
						Edge Cliff	C-02-46	227	24.0	52.9
						Edge Cliff	C-02-47	228	24.0	52.5
						Edge Cliff	C-02-50	231	24.0	52.5
						Edge Cliff	C-02-44	225	24.0	51.5
						Edge Cliff	C-02-56	237	24.0	51.2
						Edge Cliff	C-02-62	243	24.0	50.8
						Edge Cliff	C-02-61	242	24.0	50.8
						Edge Cliff	C-02-57	238	24.0	49.5
C06601	65	63.9	0.6	7	-6.4	Edge Cliff	C-02-45	226	24.0	55.1
						Edge Cliff	C-02-49	230	24.0	54.9
						Edge Cliff	C-02-46	227	24.0	54.8
						Edge Cliff	C-02-47	228	24.0	54.2
						Edge Cliff	C-02-44	225	24.0	53.3
						Edge Cliff	C-02-61	242	24.0	51.4
						Edge Cliff	C-02-50	231	24.0	51.4
						Edge Cliff	C-02-57	238	24.0	50.7
						Edge Cliff	C-02-62	243	24.0	50.3
						Edge Cliff	C-02-60	241	24.0	49.4
C06701	66	64.2	1.6	7	-5.4	Edge Cliff	C-02-49	230	24.0	56.4
						Edge Cliff	C-02-45	226	24.0	55.7
						Edge Cliff	C-02-46	227	24.0	55.4
						Edge Cliff	C-02-47	228	24.0	55.3
						Edge Cliff	C-02-44	225	24.0	53.6
						Edge Cliff	C-02-61	242	24.0	50.9
						Edge Cliff	C-02-59	240	24.0	49.8

						Edge Cliff	C-02-58	239	24.0	49.4
						Edge Cliff	C-02-63	244	24.0	48.8
						Edge Cliff	C-02-60	241	24.0	48.5
C06801	67	64.6	2.9	7	-4.1	Edge Cliff	C-02-46	227	24.0	56.7
						Edge Cliff	C-02-45	226	24.0	56.7
						Edge Cliff	C-02-47	228	24.0	56.6
						Edge Cliff	C-02-49	230	24.0	55.6
						Edge Cliff	C-02-44	225	24.0	54.4
						Edge Cliff	C-02-62	243	24.0	49.4
						Edge Cliff	C-02-59	240	24.0	49.3
						Edge Cliff	C-02-39	220	24.0	49.1
						Edge Cliff	C-02-61	242	24.0	48.9
						Edge Cliff	C-02-48	229	24.0	48.7
C06901	68	65.0	4.2	7	-2.8	Edge Cliff	C-02-47	228	24.0	58.0
						Edge Cliff	C-02-46	227	24.0	57.6
						Edge Cliff	C-02-45	226	24.0	57.4
						Edge Cliff	C-02-44	225	24.0	54.9
						Edge Cliff	C-02-39	220	24.0	51.8
						Edge Cliff	C-02-41	222	24.0	51.1
						Edge Cliff	C-02-42	223	24.0	50.5
						Edge Cliff	C-02-49	230	24.0	50.3
						Edge Cliff	C-02-43	224	24.0	49.9
						Edge Cliff	C-02-61	242	24.0	49.8
C07001-F	69	65.9	6.5	7	-0.5	Edge Cliff	C-02-45	226	24.0	59.1
						Edge Cliff	C-02-46	227	24.0	58.9
						Edge Cliff	C-02-41	222	24.0	57.9
						Edge Cliff	C-02-39	220	24.0	56.8
						Edge Cliff	C-02-42	223	24.0	55.8
						Edge Cliff	C-02-38	219	24.0	55.7
						Edge Cliff	C-02-44	225	24.0	55.3
						Edge Cliff	C-02-43	224	24.0	54.7
						Edge Cliff	C-02-37	218	24.0	53.6
						Edge Cliff	C-02-35	216	24.0	53.6
C07101-F	70	66.5	5.6	7	-1.4	Edge Cliff	C-02-32	213	20.0	57.0
						Edge Cliff	C-02-45	226	24.0	56.8
						Edge Cliff	C-02-31	212	20.0	56.4

						Edge Cliff	C-02-36	217	24.0	55.9
						Edge Cliff	C-02-37	218	24.0	55.3
						Edge Cliff	C-02-42	223	24.0	54.9
						Edge Cliff	C-02-38	219	24.0	54.7
						Edge Cliff	C-02-35	216	24.0	54.3
						Edge Cliff	C-02-33	214	20.0	54.1
						Edge Cliff	C-02-46	227	24.0	54.1
C07223-F	71	60.5	2.1	7	-4.9	Edge Cliff	C-02-45	226	24.0	53.4
						Edge Cliff	C-02-46	227	24.0	51.3
						Edge Cliff	C-02-42	223	24.0	51.1
						Edge Cliff	C-02-41	222	24.0	50.7
						Edge Cliff	C-02-43	224	24.0	50.1
						Edge Cliff	C-02-38	219	24.0	49.5
						Edge Cliff	C-02-37	218	24.0	49.2
						Edge Cliff	C-02-36	217	24.0	48.1
						Edge Cliff	C-02-47	228	24.0	47.8
						Edge Cliff	C-02-44	225	24.0	47.8
C07324-F	72	57.3	6.3	7	-0.7	Edge Cliff	C-02-11	192	24.0	48.2
						Edge Cliff	C-02-13	194	24.0	46.9
						Edge Cliff	C-02-14	195	24.0	46.7
						Edge Cliff	C-02-12	193	24.0	46.6
						Edge Cliff	C-02-15	196	24.0	46.1
						Edge Cliff	C-02-45	226	24.0	45.4
						Edge Cliff	C-02-16	197	24.0	44.6
						Edge Cliff	C-02-17	198	24.0	43.0
						Edge Cliff	C-02-36	217	24.0	42.9
						Edge Cliff	C-02-43	224	24.0	42.8
C07424-F	73	59.2	7.0	7	-0.0	Edge Cliff	C-02-07	188	0.0	54.3
						Edge Cliff	C-02-08	189	20.0	49.5
						Edge Cliff	C-02-10	191	24.0	48.0
						Edge Cliff	C-02-09	190	24.0	47.6
						Edge Cliff	C-02-11	192	24.0	47.4
						Edge Cliff	C-02-12	193	24.0	46.7
						Edge Cliff	C-02-13	194	24.0	45.4
						Edge Cliff	C-02-14	195	24.0	43.3
						Edge Cliff	C-02-45	226	24.0	42.1

						Edge Cliff	C-02-15	196	24.0	41.8
C07524	74	59.8	0.9	7	-6.1	Edge Cliff	C-02-47	228	24.0	51.6
						Edge Cliff	C-02-46	227	24.0	51.0
						Edge Cliff	C-02-45	226	24.0	50.8
						Edge Cliff	C-02-49	230	24.0	48.8
						Edge Cliff	C-02-41	222	24.0	46.9
						Edge Cliff	C-02-44	225	24.0	46.8
						Edge Cliff	C-02-42	223	24.0	46.2
						Edge Cliff	C-02-43	224	24.0	46.1
						Edge Cliff	C-02-63	244	24.0	45.1
						Edge Cliff	C-02-39	220	24.0	44.7
C07624	75	60.0	0.5	7	-6.5	Edge Cliff	C-02-47	228	24.0	49.8
						Edge Cliff	C-02-46	227	24.0	49.7
						Edge Cliff	C-02-49	230	24.0	49.5
						Edge Cliff	C-02-45	226	24.0	49.4
						Edge Cliff	C-02-44	225	24.0	45.4
						Edge Cliff	C-02-41	222	24.0	44.9
						Edge Cliff	C-02-42	223	24.0	44.8
						Edge Cliff	C-02-61	242	24.0	44.7
						Edge Cliff	C-02-43	224	24.0	44.3
						Edge Cliff	C-02-63	244	24.0	44.3
C08501-F	84	60.2	6.0	7	-1.0	Edge Cliff	C-02-52	233	24.0	51.9
						Edge Cliff	C-02-51	232	24.0	51.3
						Edge Cliff	C-02-50	231	24.0	49.9
						Edge Cliff	C-02-49	230	24.0	49.1
						Edge Cliff	C-02-48	229	24.0	47.8
						Edge Cliff	C-02-66	247	24.0	45.7
						Edge Cliff	C-02-43	224	24.0	45.6
						Edge Cliff	C-02-44	225	24.0	45.5
						Edge Cliff	C-02-47	228	24.0	44.9
						Edge Cliff	C-02-67	248	24.0	44.7
C08601	85	61.1	6.0	7	-1.0	Edge Cliff	C-02-52	233	24.0	52.9
						Edge Cliff	C-02-51	232	24.0	52.4
						Edge Cliff	C-02-50	231	24.0	51.3
						Edge Cliff	C-02-49	230	24.0	50.1
						Edge Cliff	C-02-48	229	24.0	48.2

						Edge Cliff	C-02-67	248	24.0	46.2
						Edge Cliff	C-02-44	225	24.0	46.2
						Edge Cliff	C-02-43	224	24.0	45.9
						Edge Cliff	C-02-47	228	24.0	45.8
						Edge Cliff	C-02-66	247	24.0	45.3
C08701	86	60.4	5.4	7	-1.6	Edge Cliff	C-02-52	233	24.0	51.6
						Edge Cliff	C-02-51	232	24.0	51.3
						Edge Cliff	C-02-50	231	24.0	50.4
						Edge Cliff	C-02-49	230	24.0	49.4
						Edge Cliff	C-02-48	229	24.0	47.2
						Edge Cliff	C-02-44	225	24.0	45.7
						Edge Cliff	C-02-67	248	24.0	45.7
						Edge Cliff	C-02-47	228	24.0	45.4
						Edge Cliff	C-02-43	224	24.0	45.3
						Edge Cliff	C-02-68	249	24.0	44.6
C08801	87	60.3	5.3	7	-1.7	Edge Cliff	C-02-52	233	24.0	51.4
						Edge Cliff	C-02-51	232	24.0	51.2
						Edge Cliff	C-02-50	231	24.0	50.3
						Edge Cliff	C-02-49	230	24.0	49.2
						Edge Cliff	C-02-48	229	24.0	46.4
						Edge Cliff	C-02-68	249	24.0	45.7
						Edge Cliff	C-02-44	225	24.0	45.5
						Edge Cliff	C-02-47	228	24.0	45.3
						Edge Cliff	C-02-43	224	24.0	44.7
						Edge Cliff	C-02-46	227	24.0	44.6
C08901	88	59.7	4.9	7	-2.1	Edge Cliff	C-02-52	233	24.0	50.3
						Edge Cliff	C-02-51	232	24.0	49.1
						Edge Cliff	C-02-50	231	24.0	48.0
						Edge Cliff	C-02-49	230	24.0	47.5
						Edge Cliff	C-02-53	234	24.0	46.6
						Edge Cliff	C-02-48	229	24.0	46.2
						Edge Cliff	C-02-69	250	24.0	44.8
						Edge Cliff	C-02-44	225	24.0	44.4
						Edge Cliff	C-02-43	224	24.0	44.3
						Edge Cliff	C-02-71	252	16.0	44.2
C09001	89	58.9	4.5	7	-2.5	Edge Cliff	C-02-52	233	24.0	49.0

						Edge Cliff	C-02-51	232	24.0	48.4
						Edge Cliff	C-02-50	231	24.0	47.7
						Edge Cliff	C-02-49	230	24.0	47.0
						Edge Cliff	C-02-48	229	24.0	44.9
						Edge Cliff	C-02-72	253	12.0	44.8
						Edge Cliff	C-02-69	250	24.0	44.4
						Edge Cliff	C-02-53	234	24.0	44.2
						Edge Cliff	C-02-44	225	24.0	44.0
						Edge Cliff	C-02-47	228	24.0	43.6
C09102	90	59.5	4.6	7	-2.4	Edge Cliff	C-02-52	233	24.0	50.2
						Edge Cliff	C-02-51	232	24.0	49.9
						Edge Cliff	C-02-50	231	24.0	49.1
						Edge Cliff	C-02-49	230	24.0	48.0
						Edge Cliff	C-02-48	229	24.0	45.2
						Edge Cliff	C-02-69	250	24.0	45.0
						Edge Cliff	C-02-71	252	16.0	44.7
						Edge Cliff	C-02-72	253	12.0	44.6
						Edge Cliff	C-02-44	225	24.0	44.5
						Edge Cliff	C-02-47	228	24.0	44.2
C09202	91	59.4	4.3	7	-2.7	Edge Cliff	C-02-52	233	24.0	49.9
						Edge Cliff	C-02-51	232	24.0	49.6
						Edge Cliff	C-02-50	231	24.0	48.7
						Edge Cliff	C-02-49	230	24.0	47.5
						Edge Cliff	C-02-72	253	12.0	46.8
						Edge Cliff	C-02-70	251	20.0	45.2
						Edge Cliff	C-02-69	250	24.0	44.7
						Edge Cliff	C-02-48	229	24.0	44.7
						Edge Cliff	C-02-44	225	24.0	44.1
						Edge Cliff	C-02-71	252	16.0	44.0
C09302	92	59.0	4.1	7	-2.9	Edge Cliff	C-02-52	233	24.0	49.4
						Edge Cliff	C-02-51	232	24.0	49.1
						Edge Cliff	C-02-50	231	24.0	48.2
						Edge Cliff	C-02-49	230	24.0	47.1
						Edge Cliff	C-02-72	253	12.0	46.6
						Edge Cliff	C-02-70	251	20.0	45.2
						Edge Cliff	C-02-73	254	0.0	45.1

						Edge Cliff	C-02-48	229	24.0	44.3
						Edge Cliff	C-02-71	252	16.0	44.1
						Edge Cliff	C-02-69	250	24.0	43.9
C09401	93	59.9	3.9	7	-3.1	Edge Cliff	C-02-51	232	24.0	51.3
						Edge Cliff	C-02-52	233	24.0	51.1
						Edge Cliff	C-02-50	231	24.0	50.1
						Edge Cliff	C-02-49	230	24.0	47.9
						Edge Cliff	C-02-72	253	12.0	47.1
						Edge Cliff	C-02-69	250	24.0	46.4
						Edge Cliff	C-02-71	252	16.0	45.8
						Edge Cliff	C-02-70	251	20.0	45.8
						75NB	C-03-05	263	0.0	44.9
						Edge Cliff	C-02-68	249	24.0	44.6
C09501	94	58.6	3.1	7	-3.9	Edge Cliff	C-02-52	233	24.0	48.4
						Edge Cliff	C-02-51	232	24.0	47.9
						Edge Cliff	C-02-74	255	0.0	47.0
						Edge Cliff	C-02-50	231	24.0	46.9
						Edge Cliff	C-02-72	253	12.0	46.5
						Edge Cliff	C-02-73	254	0.0	46.2
						Edge Cliff	C-02-71	252	16.0	46.2
						Edge Cliff	C-02-49	230	24.0	45.8
						75NB	C-03-08	266	12.0	44.5
						75NB	C-03-09	267	0.0	44.3
C09601	95	58.2	2.4	7	-4.6	Edge Cliff	C-02-74	255	0.0	48.6
						Edge Cliff	C-02-73	254	0.0	47.8
						Edge Cliff	C-02-52	233	24.0	46.6
						75NB	C-03-10	268	0.0	46.3
						Edge Cliff	C-02-51	232	24.0	45.9
						75NB	C-03-11	269	0.0	45.7
						Edge Cliff	C-02-50	231	24.0	45.2
						75NB	C-03-12	270	0.0	44.8
						Edge Cliff	C-02-49	230	24.0	44.4
						Edge Cliff	C-02-53	234	24.0	43.5
C09701	96	58.1	2.4	7	-4.6	Edge Cliff	C-02-74	255	0.0	46.6
						Edge Cliff	C-02-52	233	24.0	46.5
						Edge Cliff	C-02-51	232	24.0	45.3

						Edge Cliff	C-02-50	231	24.0	44.4
						75NB	C-03-12	270	0.0	44.2
						Edge Cliff	C-02-53	234	24.0	44.1
						75NB	C-03-11	269	0.0	44.1
						75NB	C-03-13	271	0.0	43.9
						Edge Cliff	C-02-49	230	24.0	43.8
						Edge Cliff	C-02-73	254	0.0	43.4
C09801	97	59.6	3.5	7	-3.5	Edge Cliff	C-02-51	232	24.0	50.5
						Edge Cliff	C-02-52	233	24.0	49.9
						Edge Cliff	C-02-50	231	24.0	49.8
						Edge Cliff	C-02-49	230	24.0	47.7
						Edge Cliff	C-02-69	250	24.0	47.4
						Edge Cliff	C-02-72	253	12.0	47.4
						Edge Cliff	C-02-70	251	20.0	46.8
						75NB	C-03-05	263	24.0	45.7
						75NB	C-03-06	264	0.0	45.6
						Edge Cliff	C-02-73	254	0.0	45.2
C09901	98	59.0	3.4	7	-3.6	Edge Cliff	C-02-51	232	24.0	49.5
						Edge Cliff	C-02-52	233	24.0	48.9
						Edge Cliff	C-02-50	231	24.0	48.5
						Edge Cliff	C-02-70	251	20.0	47.9
						Edge Cliff	C-02-73	254	0.0	47.7
						Edge Cliff	C-02-71	252	16.0	47.4
						Edge Cliff	C-02-49	230	24.0	46.8
						75NB	C-03-06	264	24.0	45.9
						75NB	C-03-07	265	0.0	45.9
						75NB	C-03-08	266	0.0	45.5
Total Cost, All Barriers (including additional cost(s))					$1957811					

HMB Professional Engineers 28 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

PROJECT/CONTRACT:	**Brent Spence Bridge 6-17.00/1415.04**
RUN:	**ALT NSA C 2**
BARRIER DESIGN:	**c2-ind**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Edge Cliff	W	12.00	23.33	24.00	2622	61182				1957811
James Simpson Jr Way	W	0.00	0.00	0.00	0	0				0
75NB	W	0.00	2.00	4.00	43	87				0
NBCD	W	0.00	2.00	4.00	36	73				0
									Total Cost:	1957811

HMB Professional Engineers 28 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C 2
BARRIER DESIGN: c2-ind

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Edge Cliff	W	point257	257	0.00	0.00	0.00	0	0				0
		C-02-04	185	0.00	0.00	0.00	0	0				0
		C-02-05	186	0.00	0.00	0.00	0	0				0
		C-02-06	187	0.00	0.00	0.00	0	0				0
		C-02-07	188	0.00	0.00	0.00	0	0				0
		C-02-08	189	20.00	20.00	20.00	40	796				25480
		C-02-09	190	24.00	24.00	24.00	40	957				30629
		C-02-10	191	24.00	24.00	24.00	40	969				31009
		C-02-11	192	24.00	24.00	24.00	40	956				30578
		C-02-12	193	24.00	24.00	24.00	40	957				30629
		C-02-13	194	24.00	24.00	24.00	40	969				31009
		C-02-14	195	24.00	24.00	24.00	40	950				30397
		C-02-15	196	24.00	24.00	24.00	40	962				30780
		C-02-16	197	24.00	24.00	24.00	40	963				30806
		C-02-17	198	24.00	24.00	24.00	40	962				30780
		C-02-18	199	24.00	24.00	24.00	40	962				30780
		C-02-19	200	24.00	24.00	24.00	40	951				30423
		C-02-20	201	24.00	24.00	24.00	40	964				30837
		C-02-21	202	24.00	24.00	24.00	40	963				30806
		C-02-22	203	24.00	24.00	24.00	40	963				30806
		C-02-23	204	24.00	24.00	24.00	40	964				30837
		C-02-24	205	24.00	24.00	24.00	40	956				30578
		C-02-25	206	24.00	24.00	24.00	40	952				30455
		C-02-26	207	24.00	24.00	24.00	40	963				30828
		C-02-27	208	24.00	24.00	24.00	40	966				30921
		C-02-28	209	24.00	24.00	24.00	40	955				30549

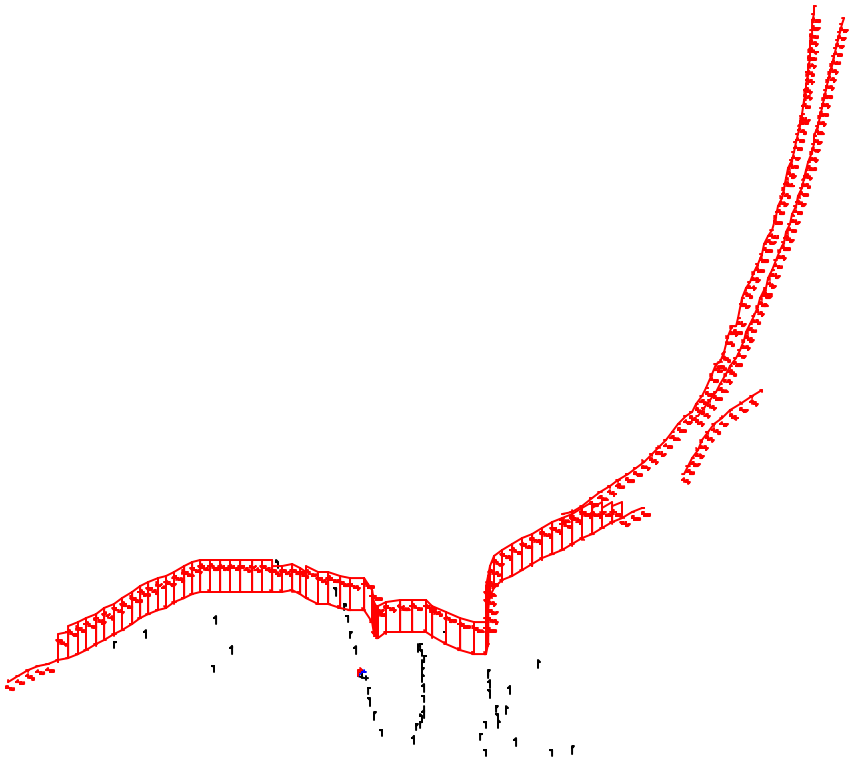
		C-02-29	210	24.00	24.00	24.00	40	966				30921
		C-02-30	211	24.00	24.00	24.00	40	955				30549
		C-02-31	212	20.00	20.00	20.00	40	805				25767
		C-02-32	213	20.00	20.00	20.00	40	800				25616
		C-02-33	214	20.00	20.00	20.00	40	792				25331
		C-02-34	215	20.00	20.00	20.00	40	801				25632
		C-02-35	216	24.00	24.00	24.00	62	1491				47715
		C-02-36	217	24.00	24.00	24.00	40	964				30859
		C-02-37	218	24.00	24.00	24.00	40	961				30751
		C-02-38	219	24.00	24.00	24.00	40	956				30605
		C-02-39	220	24.00	24.00	24.00	40	965				30892
		C-02-40	221	24.00	24.00	24.00	40	960				30720
		C-02-41	222	24.00	24.00	24.00	40	961				30744
		C-02-42	223	24.00	24.00	24.00	40	955				30568
		C-02-43	224	24.00	24.00	24.00	40	961				30744
		C-02-44	225	24.00	24.00	24.00	40	966				30914
		C-02-45	226	24.00	24.00	24.00	40	952				30455
		C-02-46	227	24.00	24.00	24.00	40	960				30713
		C-02-47	228	24.00	24.00	24.00	40	965				30892
		C-02-48	229	24.00	24.00	24.00	40	962				30780
		C-02-49	230	24.00	24.00	24.00	40	963				30828
		C-02-50	231	24.00	24.00	24.00	40	963				30821
		C-02-51	232	24.00	24.00	24.00	40	959				30691
		C-02-52	233	24.00	24.00	24.00	40	953				30491
		C-02-53	234	24.00	24.00	24.00	40	961				30763
		C-02-54	235	24.00	24.00	24.00	40	965				30885
		C-02-55	236	24.00	24.00	24.00	40	956				30585
		C-02-56	237	24.00	24.00	24.00	40	958				30648
		C-02-57	238	24.00	24.00	24.00	40	966				30911
		C-02-58	239	24.00	24.00	24.00	40	954				30520
		C-02-59	240	24.00	24.00	24.00	40	969				31019
		C-02-60	241	24.00	24.00	24.00	40	960				30730
		C-02-61	242	24.00	24.00	24.00	40	961				30739
		C-02-62	243	24.00	24.00	24.00	40	958				30655
		C-02-63	244	24.00	24.00	24.00	40	958				30655
		C-02-64	245	24.00	24.00	24.00	40	958				30655
		C-02-65	246	24.00	24.00	24.00	40	961				30739
		C-02-66	247	24.00	24.00	24.00	40	958				30655
		C-02-67	248	24.00	24.00	24.00	40	958				30655

		C-02-68	249	24.00	24.00	24.00	40	970				31030
		C-02-69	250	24.00	24.00	24.00	40	961				30739
		C-02-70	251	20.00	20.00	20.00	40	798				25546
		C-02-71	252	16.00	16.00	16.00	40	639				20437
		C-02-72	253	12.00	12.00	12.00	40	479				15328
		C-02-73	254	0.00	0.00	0.00	0	0				0
		C-02-74	255	0.00	0.00	0.00	0	0				0
		C-02-75	256	0.00	0.00	0.00	0	0				0
James Simpson Jr Way	W	C-01-01	169	0.00	0.00	0.00	0	0				0
		C-01-02	170	0.00	0.00	0.00	0	0				0
		C-01-03	171	0.00	0.00	0.00	0	0				0
		C-01-04	172	0.00	0.00	0.00	0	0				0
		C-01-05	173	0.00	0.00	0.00	0	0				0
		C-01-06	174	0.00	0.00	0.00	0	0				0
		C-01-07	175	0.00	0.00	0.00	0	0				0
		C-01-08	176	0.00	0.00	0.00	0	0				0
		C-01-09	177	0.00	0.00	0.00	0	0				0
		C-01-10	178	0.00	0.00	0.00	0	0				0
		C-01-11	179	0.00	0.00	0.00	0	0				0
75NB	W	C-03-01	258	0.00	0.00	0.00	0	0				0
		C-03-02	260	0.00	0.00	0.00	0	0				0
		C-03-03	261	0.00	0.00	0.00	0	0				0
		C-03-04	262	0.00	0.00	0.00	0	0				0
		C-03-05	263	0.00	0.00	0.00	0	0				0
		C-03-06	264	0.00	0.00	0.00	0	0				0
		C-03-07	265	0.00	0.00	0.00	0	0				0
		C-03-08	266	0.00	0.00	0.00	0	0				0
		C-03-09	267	0.00	0.00	0.00	0	0				0
		C-03-10	268	0.00	0.00	0.00	0	0				0
		C-03-11	269	0.00	0.00	0.00	0	0				0
		C-03-12	270	0.00	0.00	0.00	0	0				0
		C-03-13	271	0.00	0.00	0.00	0	0				0
		C-03-14	272	0.00	0.00	0.00	0	0				0
		C-03-15	273	0.00	0.00	0.00	0	0				0
		C-03-16	274	0.00	0.00	0.00	0	0				0
		C-03-17	275	0.00	0.00	0.00	0	0				0
		C-03-18	276	0.00	0.00	0.00	0	0				0

		C-03-19	277	0.00	0.00	0.00	0	0			0
		C-03-20	278	0.00	0.00	0.00	0	0			0
		C-03-21	279	0.00	0.00	0.00	0	0			0
		C-03-22	280	0.00	0.00	0.00	0	0			0
		C-03-23	281	0.00	0.00	0.00	0	0			0
		C-03-24	282	0.00	0.00	0.00	0	0			0
		C-03-25	283	0.00	0.00	0.00	0	0			0
		C-03-26	284	0.00	0.00	0.00	0	0			0
		C-03-27	285	0.00	0.00	0.00	0	0			0
		C-03-28	286	0.00	0.00	0.00	0	0			0
		C-03-29	287	0.00	0.00	0.00	0	0			0
		C-03-30	288	0.00	0.00	-4.00	0	0			0
		C-04-01	289	0.00	0.00	0.00	0	0	Y		0
		C-04-02	291	0.00	0.00	0.00	0	0	Y		0
		C-04-03	292	0.00	0.00	0.00	0	0	Y		0
		C-04-04	293	0.00	0.00	0.00	0	0	Y		0
		C-04-05	294	0.00	0.00	0.00	0	0	Y		0
		C-04-06	295	0.00	0.00	0.00	0	0	Y		0
		C-04-07	296	0.00	0.00	0.00	0	0	Y		0
		C-04-08	297	0.00	0.00	0.00	0	0	Y		0
		C-04-09	298	0.00	0.00	0.00	0	0	Y		0
		C-04-10	299	0.00	0.00	0.00	0	0	Y		0
		C-04-11	300	0.00	0.00	0.00	0	0	Y		0
		C-04-12	301	0.00	0.00	0.00	0	0	Y		0
		C-04-13	302	0.00	0.00	0.00	0	0	Y		0
		C-04-14	303	0.00	0.00	0.00	0	0	Y		0
		C-04-15	304	0.00	0.00	0.00	0	0	Y		0
		C-04-16	305	0.00	0.00	0.00	0	0	Y		0
		C-04-17	306	0.00	2.00	4.00	43	87	Y		0
		C-05-01	308	0.00	0.00	0.00	0	0			0
		C-05-02	310	0.00	0.00	0.00	0	0			0
		C-05-03	311	0.00	0.00	0.00	0	0			0
		C-05-04	312	0.00	0.00	0.00	0	0			0
		C-05-05	313	0.00	0.00	0.00	0	0			0
		C-05-06	314	0.00	0.00	0.00	0	0			0
		C-05-07	315	0.00	0.00	0.00	0	0			0
		C-05-08	316	0.00	0.00	0.00	0	0			0
		C-05-09	317	0.00	0.00	0.00	0	0			0
		C-05-10	318	0.00	0.00	0.00	0	0			0

		C-05-11	319	0.00	0.00	0.00	0	0				0
		C-05-12	320	0.00	0.00	0.00	0	0				0
		C-05-13	321	0.00	0.00	0.00	0	0				0
		C-05-14	322	0.00	0.00	0.00	0	0				0
		C-05-15	323	0.00	0.00	0.00	0	0				0
NBCD	W	C-06-01	342	0.00	0.00	0.00	0	0				0
		C-06-02	344	0.00	0.00	0.00	0	0				0
		C-06-03	345	0.00	0.00	0.00	0	0				0
		C-06-04	346	0.00	0.00	0.00	0	0				0
		C-06-05	347	0.00	0.00	0.00	0	0				0
		C-06-06	348	0.00	0.00	0.00	0	0				0
		C-06-07	349	0.00	0.00	0.00	0	0				0
		C-06-08	350	0.00	0.00	0.00	0	0				0
		C-06-09	351	0.00	0.00	0.00	0	0				0
		C-06-10	352	0.00	0.00	0.00	0	0				0
		C-06-11	353	0.00	0.00	0.00	0	0				0
		C-06-12	354	0.00	0.00	0.00	0	0				0
		C-06-13	355	0.00	0.00	0.00	0	0				0
		C-06-14	356	0.00	0.00	0.00	0	0				0
		C-06-15	357	0.00	0.00	0.00	0	0				0
		C-06-16	358	0.00	0.00	-4.00	0	0				0
		BC-01-01	324	0.00	0.00	0.00	0	0	Y			0
		BC-01-02	326	0.00	0.00	0.00	0	0	Y			0
		BC-01-03	327	0.00	0.00	0.00	0	0	Y			0
		BC-01-04	328	0.00	0.00	0.00	0	0	Y			0
		BC-01-05	329	0.00	0.00	0.00	0	0	Y			0
		BC-01-06	330	0.00	0.00	0.00	0	0	Y			0
		BC-01-07	331	0.00	0.00	0.00	0	0	Y			0
		BC-01-08	332	0.00	0.00	0.00	0	0	Y			0
		BC-01-09	333	0.00	0.00	0.00	0	0	Y			0
		BC-01-10	334	0.00	0.00	0.00	0	0	Y			0
		BC-01-11	335	0.00	0.00	0.00	0	0	Y			0
		BC-01-12	336	0.00	0.00	0.00	0	0	Y			0
		BC-01-13	337	0.00	0.00	0.00	0	0	Y			0
		BC-01-14	338	0.00	0.00	0.00	0	0	Y			0
		BC-01-15	339	0.00	0.00	0.00	0	0	Y			0
		BC-01-16	340	0.00	0.00	0.00	0	0	Y			0
		BC-01-17	341	0.00	2.00	4.00	36	73	Y			0

		BC-02-01	359	0.00	0.00	0.00	0	0				0
		BC-02-02	361	0.00	0.00	0.00	0	0				0
		BC-02-03	362	0.00	0.00	0.00	0	0				0
		BC-02-04	363	0.00	0.00	0.00	0	0				0
		BC-02-05	364	0.00	0.00	0.00	0	0				0
		BC-02-06	365	0.00	0.00	0.00	0	0				0
		BC-02-07	366	0.00	0.00	0.00	0	0				0
		BC-02-08	367	0.00	0.00	0.00	0	0				0
		BC-02-09	368	0.00	0.00	0.00	0	0				0
		BC-02-10	369	0.00	0.00	0.00	0	0				0
		BC-02-11	370	0.00	0.00	0.00	0	0				0
		BC-02-12	371	0.00	0.00	0.00	0	0				0
		BC-02-13	372	0.00	0.00	0.00	0	0				0
		BC-02-14	373	0.00	0.00	0.00	0	0				0



ALT NSA C 2		Sheet 1 of 1	28 Jun 2023
		HMB Professional Engineers	
Barrier View-c2-ind		Project/Contract No. Brent Spence Bridge 6-17.00	
Run name: C2_V1_back		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: NSA D

HMB Professional Engineers
Mark Gavula

26 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA D
BARRIER DESIGN: V4
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
D00101	1	1	48.9	54.7	66	5.8	10	----	51.0	3.7	7	-3.3
D00201	2	1	51.1	56.2	66	5.1	10	----	52.6	3.6	7	-3.4
D00301	3	1	51.2	56.1	66	4.9	10	----	52.6	3.5	7	-3.5
D00401	4	1	51.7	56.5	66	4.8	10	----	53.0	3.5	7	-3.5
D00501	5	1	52.0	56.6	66	4.6	10	----	53.0	3.6	7	-3.4
D00601	6	1	52.6	57.1	66	4.5	10	----	53.5	3.6	7	-3.4
D00701	7	1	53.1	57.5	66	4.4	10	----	53.8	3.7	7	-3.3
D00801	8	1	53.8	57.8	66	4.0	10	----	54.1	3.7	7	-3.3
D00901	9	1	54.8	58.4	66	3.6	10	----	54.5	3.9	7	-3.1
D01001	10	1	55.1	58.6	66	3.5	10	----	54.7	3.9	7	-3.1
D01110-F	11	10	54.5	59.4	66	4.9	10	----	56.4	3.0	7	-4.0
D01201	12	1	52.7	59.0	66	6.3	10	----	54.0	5.0	7	-2.0
D01301	13	1	52.5	59.1	66	6.6	10	----	54.1	5.0	7	-2.0
D01401	14	1	52.6	59.1	66	6.5	10	----	54.1	5.0	7	-2.0
D01501	15	1	52.8	59.7	66	6.9	10	----	54.3	5.4	7	-1.6
D01601	16	1	53.4	60.0	66	6.6	10	----	54.4	5.6	7	-1.4
D01701	17	1	53.8	60.2	66	6.4	10	----	54.6	5.6	7	-1.4
D01801	18	1	54.0	60.5	66	6.5	10	----	54.7	5.8	7	-1.2
D01901	19	1	53.4	60.5	66	7.1	10	----	54.7	5.8	7	-1.2
D02001	20	1	54.0	61.3	66	7.3	10	----	55.1	6.2	7	-0.8
D02101	21	1	54.2	61.3	66	7.1	10	----	54.8	6.5	7	-0.5
D02201	22	1	55.4	61.8	66	6.4	10	----	54.9	6.9	7	-0.1
D02301	23	1	55.1	62.1	66	7.0	10	----	55.1	7.0	7	0.0
D02401	24	1	55.3	61.3	66	6.0	10	----	55.1	6.2	7	-0.8

D02501	25	1	53.9	61.6	66	7.7	10	----	54.3	7.3	7	0.3
D02601	26	1	53.8	61.6	66	7.8	10	----	54.2	7.4	7	0.4
D02701	27	1	53.8	61.7	66	7.9	10	----	54.2	7.5	7	0.5
D02801	28	1	54.0	61.7	66	7.7	10	----	54.2	7.5	7	0.5
D02901	29	1	53.9	61.7	66	7.8	10	----	54.1	7.6	7	0.6
D03001	30	1	54.1	61.7	66	7.6	10	----	54.1	7.6	7	0.6
D03101	31	1	53.9	61.7	66	7.8	10	----	54.0	7.7	7	0.7
D03201	32	1	53.8	61.5	66	7.7	10	----	53.8	7.7	7	0.7
D03301	33	1	53.9	61.4	66	7.5	10	----	53.7	7.7	7	0.7
D03401	34	1	53.5	61.2	66	7.7	10	----	53.5	7.7	7	0.7
D03501	35	1	53.0	60.5	66	7.5	10	----	53.2	7.3	7	0.3
D06801	36	1	52.6	59.6	66	7.0	10	----	52.7	6.9	7	-0.1
D03601	37	1	52.6	59.9	66	7.3	10	----	53.0	6.9	7	-0.1
D03701	38	1	52.7	59.7	66	7.0	10	----	52.8	6.9	7	-0.1
D03801	39	1	53.0	60.4	66	7.4	10	----	53.3	7.1	7	0.1
D03912	40	12	52.6	60.2	66	7.6	10	----	53.1	7.1	7	0.1
D04012	41	12	52.2	59.1	66	6.9	10	----	53.2	5.9	7	-1.1
D04101-F	42	1	56.6	61.5	66	4.9	10	----	56.1	5.4	7	-1.6
D04201-F	43	1	56.9	61.8	66	4.9	10	----	56.2	5.6	7	-1.4
D04301-F	44	1	56.3	61.7	66	5.4	10	----	56.1	5.6	7	-1.4
D04402-F	45	2	55.6	61.4	66	5.8	10	----	55.8	5.6	7	-1.4
D04501-F	46	1	53.3	60.8	66	7.5	10	----	54.6	6.2	7	-0.8
D04601	47	1	52.7	60.2	66	7.5	10	----	54.1	6.1	7	-0.9
D04701	48	1	52.9	60.4	66	7.5	10	----	54.4	6.0	7	-1.0
D04801-FV	49	1	70.1	72.1	66	2.0	10	Snd Lvl	62.8	9.3	7	2.3
D05002	50	2	53.2	58.4	66	5.2	10	----	53.6	4.8	7	-2.2
D05112	51	12	54.0	58.3	66	4.3	10	----	53.7	4.6	7	-2.4
D05212	52	12	55.7	59.0	66	3.3	10	----	54.1	4.9	7	-2.1
D05312	53	12	57.1	59.6	66	2.5	10	----	54.5	5.1	7	-1.9
D05412-F	54	12	50.3	56.2	66	5.9	10	----	49.8	6.4	7	-0.6
D05512-F	55	12	47.0	53.5	66	6.5	10	----	46.5	7.0	7	0.0
D05602-F	56	2	46.5	51.7	66	5.2	10	----	49.4	2.3	7	-4.7
D05702-F	57	2	46.4	53.2	66	6.8	10	----	50.3	2.9	7	-4.1
D05802-F	58	2	47.9	52.5	66	4.6	10	----	50.0	2.5	7	-4.5
D05902-F	59	2	52.3	54.5	66	2.2	10	----	51.2	3.3	7	-3.7
D06002-F	60	2	52.6	55.6	66	3.0	10	----	51.7	3.9	7	-3.1
D06102-F	61	2	53.3	55.7	66	2.4	10	----	51.9	3.8	7	-3.2
D06202	62	2	57.1	58.6	66	1.5	10	----	54.3	4.3	7	-2.7
D06302	63	2	57.0	58.5	66	1.5	10	----	53.8	4.7	7	-2.3
D06402	64	2	58.8	60.8	66	2.0	10	----	55.0	5.8	7	-1.2
D06502	65	2	58.0	60.2	66	2.2	10	----	54.6	5.6	7	-1.4

D06602	66	2	56.8	59.2	66	2.4	10	----	54.6	4.6	7	-2.4
D06702	67	2	57.3	59.6	66	2.3	10	----	54.6	5.0	7	-2.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	167	2.3	5.5	9.3
All Impacted	1	9.3	9.3	9.3
All that meet NR Goal	38	7.0	7.5	9.3

HMB Professional Engineers
Mark Gavula

26 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA D
BARRIER DESIGN: V4

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
D00101	1	51.0	3.7	7	-3.3	D2	d2-12	100	0.0	36.3
						D1	d1-89	195	0.0	36.0
						D2	d2-11	99	0.0	35.9
						D2	d2-10	98	0.0	35.7
						D1	d1-91	197	0.0	35.5
						D1	d1-90	196	0.0	35.5
						D1	d1-56	162	20.0	35.5
						D1	d1-79	185	16.0	35.2
						D1	d1-63	169	16.0	35.2
						D1	d1-64	170	16.0	35.1
D00201	2	52.6	3.6	7	-3.4	D2	d2-12	100	0.0	39.1
						D1	d1-89	195	0.0	38.7
						D2	d2-11	99	0.0	38.4
						D1	d1-90	196	0.0	38.1
						D1	d1-82	188	12.0	37.8
						D1	d1-80	186	16.0	37.7
						D1	d1-83	189	12.0	37.7
						D1	d1-79	185	16.0	37.6
						D2	d2-10	98	0.0	37.5
						D1	d1-78	184	16.0	37.4
D00301	3	52.6	3.5	7	-3.5	D2	d2-12	100	0.0	39.1

						D1	d1-89	195	0.0	38.6
						D2	d2-11	99	0.0	38.2
						D1	d1-90	196	0.0	38.1
						D1	d1-82	188	12.0	37.9
						D1	d1-81	187	16.0	37.8
						D1	d1-80	186	16.0	37.7
						D1	d1-83	189	12.0	37.7
						D1	d1-79	185	16.0	37.6
						D1	d1-78	184	16.0	37.4
D00401	4	53.0	3.5	7	-3.5	D2	d2-12	100	0.0	39.8
						D1	d1-89	195	0.0	39.0
						D1	d1-82	188	12.0	39.0
						D1	d1-90	196	0.0	38.8
						D2	d2-11	99	0.0	38.7
						D1	d1-83	189	12.0	38.3
						D1	d1-81	187	16.0	38.2
						D1	d1-80	186	16.0	38.2
						D1	d1-79	185	16.0	38.0
						D2	d2-10	98	0.0	37.9
D00501	5	53.0	3.6	7	-3.4	D2	d2-12	100	0.0	39.9
						D1	d1-82	188	12.0	39.5
						D1	d1-89	195	0.0	38.9
						D2	d2-11	99	0.0	38.6
						D1	d1-83	189	12.0	38.6
						D2	d2-13	101	24.0	38.6
						D1	d1-81	187	16.0	38.4
						D1	d1-90	196	0.0	38.4
						D1	d1-80	186	16.0	38.2
						D1	d1-79	185	16.0	38.1
D00601	6	53.5	3.6	7	-3.4	D1	d1-82	188	12.0	40.1
						D2	d2-12	100	0.0	39.8
						D2	d2-11	99	0.0	39.5
						D2	d2-13	101	24.0	39.5
						D1	d1-83	189	12.0	39.4
						D1	d1-89	195	0.0	39.2
						D1	d1-90	196	0.0	39.2

						D1	d1-81	187	16.0	38.8
						D1	d1-91	197	0.0	38.7
						D1	d1-80	186	16.0	38.6
D00701	7	53.8	3.7	7	-3.3	D2	d2-12	100	0.0	40.7
						D1	d1-82	188	12.0	40.5
						D2	d2-13	101	0.0	40.4
						D2	d2-11	99	0.0	40.0
						D1	d1-83	189	12.0	39.8
						D1	d1-89	195	0.0	39.5
						D1	d1-90	196	0.0	39.4
						D1	d1-91	197	0.0	39.2
						D1	d1-81	187	16.0	39.2
						D1	d1-80	186	16.0	39.0
D00801	8	54.1	3.7	7	-3.3	D2	d2-12	100	0.0	41.2
						D1	d1-82	188	12.0	41.0
						D2	d2-13	101	0.0	40.9
						D1	d1-83	189	12.0	40.2
						D1	d1-89	195	0.0	39.7
						D1	d1-90	196	0.0	39.7
						D1	d1-81	187	16.0	39.7
						D2	d2-11	99	0.0	39.6
						D1	d1-80	186	16.0	39.4
						D1	d1-91	197	0.0	39.4
D00901	9	54.5	3.9	7	-3.1	D2	d2-12	100	0.0	42.0
						D1	d1-82	188	12.0	41.9
						D2	d2-13	101	0.0	41.5
						D2	d2-14	102	24.0	41.2
						D1	d1-81	187	16.0	40.6
						D1	d1-89	195	0.0	40.4
						D1	d1-80	186	16.0	40.3
						D1	d1-83	189	12.0	39.8
						D1	d1-79	185	16.0	39.8
						D1	d1-78	184	16.0	39.7
D01001	10	54.7	3.9	7	-3.1	D1	d1-82	188	12.0	42.5
						D2	d2-14	102	0.0	42.1
						D2	d2-12	100	0.0	41.8

						D2	d2-13	101	0.0	41.7
						D1	d1-81	187	16.0	40.8
						D1	d1-89	195	0.0	40.5
						D1	d1-83	189	12.0	40.3
						D1	d1-80	186	16.0	40.3
						D1	d1-78	184	16.0	40.2
						D1	d1-79	185	16.0	40.0
D01110-F	11	56.4	3.0	7	-4.0	D2	d2-10	98	0.0	44.5
						D2	d2-11	99	0.0	44.5
						D1	d1-89	195	0.0	43.3
						D1	d1-90	196	0.0	43.3
						D1	d1-91	197	0.0	43.0
						D2	d2-12	100	24.0	42.7
						D1	d1-82	188	12.0	42.2
						D1	d1-83	189	24.0	42.0
						D1	d1-80	186	16.0	41.8
						D1	d1-81	187	16.0	41.6
D01201	12	54.0	5.0	7	-2.0	D1	d1-84	190	12.0	39.0
						D2	d2-17	105	24.0	39.0
						D2	d2-12	100	0.0	39.0
						D1	d1-85	191	24.0	38.9
						D1	d1-83	189	12.0	38.7
						D2	d2-14	102	24.0	38.7
						D2	d2-13	101	0.0	38.4
						D1	d1-86	192	24.0	38.2
						D1	d1-89	195	0.0	38.0
						D2	d2-11	99	0.0	38.0
D01301	13	54.1	5.0	7	-2.0	D2	d2-14	102	0.0	39.4
						D1	d1-84	190	12.0	39.4
						D2	d2-12	100	0.0	39.2
						D1	d1-85	191	24.0	39.0
						D2	d2-13	101	0.0	39.0
						D1	d1-89	195	0.0	38.3
						D1	d1-82	188	12.0	38.1
						D1	d1-79	185	16.0	38.1
						D1	d1-77	183	16.0	38.0

						D1	d1-78	184	16.0	38.0
D01401	14	54.1	5.0	7	-2.0	D2	d2-14	102	0.0	39.4
						D2	d2-12	100	0.0	39.2
						D2	d2-13	101	0.0	39.2
						D1	d1-79	185	16.0	38.6
						D1	d1-78	184	16.0	38.6
						D1	d1-77	183	16.0	38.6
						D1	d1-76	182	16.0	38.5
						D1	d1-82	188	12.0	38.5
						D1	d1-75	181	16.0	38.4
						D1	d1-80	186	16.0	38.4
D01501	15	54.3	5.4	7	-1.6	D2	d2-14	102	0.0	39.6
						D2	d2-13	101	0.0	39.2
						D2	d2-12	100	0.0	39.0
						D2	d2-15	103	24.0	39.0
						D1	d1-78	184	16.0	38.9
						D1	d1-77	183	16.0	38.8
						D1	d1-79	185	16.0	38.8
						D1	d1-76	182	16.0	38.8
						D1	d1-80	186	16.0	38.8
						D1	d1-75	181	16.0	38.7
D01601	16	54.4	5.6	7	-1.4	D2	d2-14	102	0.0	39.5
						D2	d2-13	101	0.0	39.3
						D2	d2-12	100	0.0	39.2
						D2	d2-15	103	24.0	38.8
						D1	d1-77	183	16.0	38.4
						D2	d2-17	105	24.0	38.4
						D1	d1-76	182	16.0	38.4
						D1	d1-78	184	16.0	38.4
						D1	d1-82	188	12.0	38.3
						D1	d1-79	185	16.0	38.3
D01701	17	54.6	5.6	7	-1.4	D2	d2-17	105	24.0	39.7
						D2	d2-12	100	0.0	39.6
						D2	d2-14	102	0.0	39.5
						D2	d2-13	101	0.0	39.4
						D1	d1-86	192	24.0	38.9

						D2	d2-15	103	24.0	38.7
						D1	d1-64	170	16.0	38.5
						D1	d1-65	171	16.0	38.4
						D1	d1-85	191	24.0	38.3
						D1	d1-89	195	0.0	38.3
D01801	18	54.7	5.8	7	-1.2	D2	d2-12	100	0.0	39.6
						D2	d2-17	105	24.0	39.6
						D2	d2-14	102	0.0	39.5
						D2	d2-13	101	0.0	39.4
						D2	d2-15	103	24.0	39.0
						D1	d1-67	173	16.0	39.0
						D1	d1-86	192	24.0	38.7
						D1	d1-66	172	16.0	38.7
						D2	d2-16	104	24.0	38.5
						D1	d1-89	195	0.0	38.4
D01901	19	54.7	5.8	7	-1.2	D2	d2-15	103	0.0	40.0
						D2	d2-14	102	0.0	39.8
						D1	d1-77	183	16.0	39.6
						D1	d1-76	182	16.0	39.5
						D1	d1-78	184	16.0	39.4
						D1	d1-79	185	16.0	39.4
						D1	d1-75	181	16.0	39.4
						D1	d1-74	180	16.0	39.3
						D2	d2-13	101	0.0	39.3
						D1	d1-73	179	16.0	39.2
D02001	20	55.1	6.2	7	-0.8	D2	d2-14	102	0.0	40.1
						D2	d2-15	103	0.0	39.7
						D2	d2-13	101	0.0	39.4
						D1	d1-70	176	16.0	39.4
						D1	d1-69	175	16.0	39.3
						D1	d1-76	182	16.0	39.2
						D1	d1-74	180	16.0	39.2
						D1	d1-72	178	16.0	39.2
						D1	d1-73	179	16.0	39.2
						D1	d1-67	173	16.0	39.2
D02101	21	54.8	6.5	7	-0.5	D2	d2-15	103	0.0	40.2

						D2	d2-14	102	0.0	39.9
						D2	d2-13	101	0.0	39.6
						D1	d1-67	173	16.0	39.2
						D1	d1-69	175	16.0	39.2
						D1	d1-68	174	16.0	39.1
						D1	d1-66	172	16.0	39.1
						D1	d1-70	176	16.0	39.1
						D1	d1-71	177	16.0	38.9
						D1	d1-76	182	16.0	38.8
D02201	22	54.9	6.9	7	-0.1	D2	d2-15	103	0.0	40.5
						D2	d2-14	102	0.0	40.2
						D2	d2-13	101	0.0	39.9
						D1	d1-67	173	16.0	39.3
						D1	d1-66	172	16.0	39.2
						D1	d1-68	174	16.0	39.1
						D1	d1-63	169	16.0	39.1
						D1	d1-62	168	16.0	38.9
						D1	d1-69	175	16.0	38.8
						D1	d1-61	167	16.0	38.8
D02301	23	55.1	7.0	7	0.0	D2	d2-15	103	0.0	40.6
						D2	d2-14	102	0.0	40.4
						D2	d2-13	101	0.0	40.1
						D1	d1-67	173	16.0	39.7
						D1	d1-66	172	16.0	39.5
						D1	d1-63	169	16.0	39.3
						D1	d1-68	174	16.0	39.3
						D1	d1-64	170	16.0	39.2
						D1	d1-65	171	16.0	39.2
						D2	d2-12	100	0.0	39.1
D02401	24	55.1	6.2	7	-0.8	D2	d2-16	104	0.0	40.6
						D1	d1-70	176	16.0	40.1
						D1	d1-71	177	16.0	40.1
						D1	d1-74	180	16.0	40.0
						D1	d1-76	182	16.0	40.0
						D1	d1-73	179	16.0	40.0
						D1	d1-75	181	16.0	40.0

						D1	d1-72	178	16.0	40.0
						D1	d1-69	175	16.0	40.0
						D1	d1-77	183	16.0	39.8
D02501	25	54.3	7.3	7	0.3	D2	d2-16	104	0.0	39.8
						D2	d2-15	103	0.0	39.7
						D1	d1-70	176	16.0	39.2
						D1	d1-69	175	16.0	39.2
						D1	d1-68	174	16.0	39.0
						D1	d1-71	177	16.0	39.0
						D1	d1-67	173	16.0	38.9
						D1	d1-72	178	16.0	38.8
						D1	d1-73	179	16.0	38.8
						D1	d1-74	180	16.0	38.8
D02601	26	54.2	7.4	7	0.4	D2	d2-16	104	0.0	39.9
						D2	d2-15	103	0.0	39.3
						D1	d1-69	175	16.0	39.3
						D1	d1-70	176	16.0	39.2
						D1	d1-68	174	16.0	39.2
						D1	d1-67	173	16.0	39.1
						D1	d1-71	177	16.0	38.9
						D1	d1-66	172	16.0	38.9
						D1	d1-72	178	16.0	38.8
						D1	d1-73	179	16.0	38.7
D02701	27	54.2	7.5	7	0.5	D2	d2-16	104	0.0	39.8
						D1	d1-69	175	16.0	39.2
						D1	d1-68	174	16.0	39.2
						D1	d1-67	173	16.0	39.0
						D1	d1-70	176	16.0	38.9
						D1	d1-66	172	16.0	38.8
						D1	d1-71	177	16.0	38.8
						D1	d1-65	171	16.0	38.7
						D1	d1-72	178	16.0	38.7
						D1	d1-64	170	16.0	38.5
D02801	28	54.2	7.5	7	0.5	D1	d1-69	175	16.0	39.2
						D1	d1-67	173	16.0	39.2
						D1	d1-68	174	16.0	39.2

						D1	d1-70	176	16.0	39.1
						D1	d1-66	172	16.0	39.1
						D1	d1-65	171	16.0	39.0
						D1	d1-64	170	16.0	38.8
						D1	d1-71	177	16.0	38.8
						D2	d2-17	105	0.0	38.7
						D1	d1-72	178	16.0	38.5
D02901	29	54.1	7.6	7	0.6	D1	d1-67	173	16.0	39.3
						D1	d1-69	175	16.0	39.2
						D1	d1-66	172	16.0	39.2
						D1	d1-68	174	16.0	39.2
						D1	d1-65	171	16.0	39.0
						D1	d1-64	170	16.0	39.0
						D1	d1-70	176	16.0	38.9
						D1	d1-63	169	16.0	38.7
						D1	d1-71	177	16.0	38.5
						D1	d1-62	168	16.0	38.4
D03001	30	54.1	7.6	7	0.6	D1	d1-67	173	16.0	39.3
						D1	d1-66	172	16.0	39.3
						D1	d1-65	171	16.0	39.2
						D1	d1-68	174	16.0	39.2
						D1	d1-69	175	16.0	39.1
						D1	d1-64	170	16.0	39.1
						D1	d1-63	169	16.0	38.9
						D1	d1-70	176	16.0	38.9
						D1	d1-62	168	16.0	38.7
						D1	d1-61	167	16.0	38.6
D03101	31	54.0	7.7	7	0.7	D1	d1-67	173	16.0	39.3
						D1	d1-64	170	16.0	39.2
						D1	d1-66	172	16.0	39.2
						D1	d1-65	171	16.0	39.2
						D1	d1-68	174	16.0	39.1
						D1	d1-63	169	16.0	39.0
						D1	d1-69	175	16.0	39.0
						D1	d1-62	168	16.0	38.8
						D1	d1-61	167	16.0	38.6

						D1	d1-70	176	16.0	38.6
D03201	32	53.8	7.7	7	0.7	D1	d1-64	170	16.0	39.1
						D1	d1-63	169	16.0	39.1
						D1	d1-67	173	16.0	39.1
						D1	d1-65	171	16.0	39.1
						D1	d1-66	172	16.0	39.0
						D1	d1-62	168	16.0	38.9
						D1	d1-61	167	16.0	38.9
						D1	d1-68	174	16.0	38.9
						D1	d1-60	166	16.0	38.7
						D1	d1-69	175	16.0	38.7
D03301	33	53.7	7.7	7	0.7	D1	d1-61	167	16.0	39.1
						D1	d1-63	169	16.0	39.1
						D1	d1-64	170	16.0	39.0
						D1	d1-62	168	16.0	39.0
						D1	d1-65	171	16.0	39.0
						D1	d1-60	166	16.0	39.0
						D1	d1-66	172	16.0	38.9
						D1	d1-67	173	16.0	38.8
						D1	d1-68	174	16.0	38.5
						D1	d1-69	175	16.0	38.4
D03401	34	53.5	7.7	7	0.7	D1	d1-63	169	16.0	39.0
						D1	d1-62	168	16.0	39.0
						D1	d1-64	170	16.0	38.9
						D1	d1-61	167	16.0	38.9
						D1	d1-65	171	16.0	38.9
						D1	d1-60	166	16.0	38.8
						D1	d1-66	172	16.0	38.6
						D1	d1-67	173	16.0	38.5
						D1	d1-68	174	16.0	38.3
						D1	d1-69	175	16.0	38.2
D03501	35	53.2	7.3	7	0.3	D1	d1-62	168	16.0	38.9
						D1	d1-61	167	16.0	38.8
						D1	d1-63	169	16.0	38.8
						D1	d1-64	170	16.0	38.8
						D1	d1-60	166	16.0	38.7

						D1	d1-65	171	16.0	38.6
						D1	d1-66	172	16.0	38.5
						D1	d1-67	173	16.0	38.4
						D1	d1-83	189	12.0	38.2
						D1	d1-68	174	16.0	38.0
D06801	36	52.7	6.9	7	-0.1	D1	d1-83	189	12.0	38.3
						D1	d1-61	167	16.0	37.9
						D1	d1-60	166	16.0	37.8
						D1	d1-62	168	16.0	37.8
						D1	d1-64	170	16.0	37.8
						D1	d1-63	169	16.0	37.7
						D1	d1-66	172	16.0	37.7
						D1	d1-65	171	16.0	37.6
						D1	d1-67	173	16.0	37.6
						D1	d1-82	188	12.0	37.5
D03601	37	53.0	6.9	7	-0.1	D1	d1-83	189	12.0	39.0
						D1	d1-82	188	12.0	38.5
						D1	d1-64	170	16.0	38.3
						D1	d1-63	169	16.0	38.3
						D1	d1-65	171	16.0	38.1
						D1	d1-61	167	16.0	38.0
						D1	d1-66	172	16.0	38.0
						D1	d1-62	168	16.0	37.9
						D1	d1-60	166	16.0	37.9
						D1	d1-67	173	16.0	37.9
D03701	38	52.8	6.9	7	-0.1	D1	d1-82	188	12.0	38.8
						D1	d1-83	189	12.0	38.7
						D1	d1-65	171	16.0	37.9
						D1	d1-66	172	16.0	37.8
						D1	d1-60	166	16.0	37.7
						D1	d1-61	167	16.0	37.7
						D1	d1-63	169	16.0	37.6
						D1	d1-64	170	16.0	37.6
						D1	d1-62	168	16.0	37.6
						D1	d1-67	173	16.0	37.5
D03801	39	53.3	7.1	7	0.1	D1	d1-83	189	12.0	38.5

						D1	d1-82	188	12.0	38.5
						D1	d1-60	166	16.0	38.3
						D1	d1-61	167	16.0	38.3
						D1	d1-62	168	16.0	38.2
						D1	d1-63	169	16.0	38.1
						D1	d1-64	170	16.0	37.9
						D1	d1-66	172	16.0	37.7
						D1	d1-65	171	16.0	37.7
						D1	d1-67	173	16.0	37.5
D03912	40	53.1	7.1	7	0.1	D1	d1-82	188	12.0	38.2
						D1	d1-83	189	12.0	38.1
						D1	d1-61	167	16.0	37.8
						D1	d1-62	168	16.0	37.8
						D1	d1-60	166	16.0	37.7
						D1	d1-63	169	16.0	37.5
						D1	d1-64	170	16.0	37.4
						D1	d1-65	171	16.0	37.1
						D1	d1-66	172	16.0	36.9
						D1	d1-67	173	16.0	36.9
D04012	41	53.2	5.9	7	-1.1	D1	d1-60	166	16.0	38.3
						D1	d1-61	167	16.0	38.0
						D1	d1-81	187	16.0	37.9
						D1	d1-62	168	16.0	37.9
						D1	d1-63	169	16.0	37.6
						D1	d1-64	170	16.0	37.5
						D1	d1-80	186	16.0	37.3
						D1	d1-65	171	16.0	37.2
						D1	d1-56	162	20.0	37.0
						D1	d1-58	164	20.0	37.0
D04101-F	42	56.1	5.4	7	-1.6	D1	d1-69	175	16.0	42.6
						D1	d1-70	176	16.0	42.6
						D1	d1-68	174	16.0	42.5
						D1	d1-67	173	16.0	42.4
						D1	d1-71	177	16.0	42.2
						D1	d1-66	172	16.0	42.0
						D1	d1-72	178	16.0	41.9

						D1	d1-82	188	12.0	41.8
						D1	d1-65	171	16.0	41.7
						D1	d1-73	179	16.0	41.7
D04201-F	43	56.2	5.6	7	-1.4	D1	d1-67	173	16.0	42.8
						D1	d1-68	174	16.0	42.7
						D1	d1-69	175	16.0	42.6
						D1	d1-66	172	16.0	42.6
						D1	d1-65	171	16.0	42.5
						D1	d1-70	176	16.0	42.3
						D1	d1-64	170	24.0	42.1
						D1	d1-71	177	16.0	41.9
						D1	d1-63	169	24.0	41.7
						D1	d1-62	168	16.0	41.5
D04301-F	44	56.1	5.6	7	-1.4	D1	d1-67	173	16.0	43.0
						D1	d1-66	172	16.0	43.0
						D1	d1-65	171	16.0	43.0
						D1	d1-68	174	16.0	42.8
						D1	d1-69	175	16.0	42.6
						D1	d1-64	170	16.0	42.6
						D1	d1-63	169	16.0	42.3
						D1	d1-62	168	16.0	42.3
						D1	d1-70	176	16.0	42.2
						D1	d1-79	185	16.0	42.1
D04402-F	45	55.8	5.6	7	-1.4	D1	d1-64	170	16.0	42.5
						D1	d1-65	171	16.0	42.5
						D1	d1-66	172	16.0	42.3
						D1	d1-63	169	16.0	42.3
						D1	d1-62	168	16.0	42.2
						D1	d1-67	173	16.0	42.1
						D1	d1-61	167	16.0	42.1
						D1	d1-60	166	16.0	41.8
						D1	d1-68	174	16.0	41.6
						D1	d1-69	175	16.0	41.2
D04501-F	46	54.6	6.2	7	-0.8	D1	d1-60	166	16.0	41.3
						D1	d1-61	167	16.0	41.1
						D1	d1-62	168	16.0	40.8

						D1	d1-63	169	16.0	40.5
						D1	d1-64	170	16.0	40.3
						D1	d1-57	163	20.0	40.2
						D1	d1-58	164	20.0	40.2
						D1	d1-59	165	20.0	40.1
						D1	d1-56	162	20.0	40.1
						D1	d1-55	161	20.0	40.0
D04601	47	54.1	6.1	7	-0.9	D1	d1-60	166	16.0	40.6
						D1	d1-61	167	16.0	40.4
						D1	d1-62	168	16.0	40.1
						D1	d1-63	169	16.0	39.9
						D1	d1-64	170	16.0	39.7
						D1	d1-57	163	20.0	39.6
						D1	d1-55	161	20.0	39.6
						D1	d1-56	162	20.0	39.5
						D1	d1-58	164	20.0	39.5
						D1	d1-54	160	20.0	39.5
D04701	48	54.4	6.0	7	-1.0	D1	d1-60	166	16.0	40.2
						D1	d1-61	167	16.0	40.0
						D1	d1-62	168	16.0	39.8
						D1	d1-63	169	16.0	39.6
						D1	d1-55	161	20.0	39.5
						D1	d1-76	182	16.0	39.5
						D1	d1-54	160	20.0	39.5
						D1	d1-53	159	20.0	39.4
						D1	d1-56	162	20.0	39.4
						D1	d1-52	158	20.0	39.3
D04801-FV	49	62.8	9.3	7	2.3	D1	d1-42	148	20.0	50.6
						D1	d1-50	156	20.0	50.3
						D1	d1-49	155	20.0	50.3
						D1	d1-51	157	20.0	50.1
						D1	d1-48	154	20.0	50.0
						D1	d1-52	158	20.0	49.8
						D1	d1-53	159	20.0	49.1
						D1	d1-43	149	24.0	48.4
						D1	d1-54	160	20.0	48.4

						D1	d1-47	153	24.0	48.3
D05002	50	53.6	4.8	7	-2.2	D1	d1-76	182	16.0	38.0
						D1	d1-60	166	16.0	37.6
						D1	d1-77	183	16.0	37.5
						D1	d1-61	167	16.0	37.2
						D1	d1-62	168	16.0	37.1
						D1	d1-63	169	16.0	37.0
						D1	d1-75	181	16.0	36.9
						D1	d1-64	170	16.0	36.8
						D1	d1-65	171	16.0	36.6
						D1	d1-42	148	20.0	36.5
D05112	51	53.7	4.6	7	-2.4	D1	d1-38	144	20.0	38.7
						D1	d1-72	178	16.0	38.6
						D1	d1-37	143	20.0	38.6
						D1	d1-71	177	16.0	38.4
						D1	d1-36	142	20.0	38.4
						D1	d1-39	145	20.0	38.3
						D1	d1-44	150	24.0	38.2
						D1	d1-45	151	24.0	38.2
						D1	d1-46	152	24.0	38.0
						D1	d1-73	179	16.0	38.0
D05212	52	54.1	4.9	7	-2.1	D1	d1-37	143	20.0	40.2
						D1	d1-39	145	20.0	40.1
						D1	d1-38	144	20.0	39.6
						D1	d1-40	146	20.0	39.6
						D1	d1-36	142	20.0	39.1
						D1	d1-70	176	16.0	39.0
						D1	d1-45	151	24.0	38.9
						D1	d1-46	152	24.0	38.8
						D1	d1-47	153	24.0	38.6
						D1	d1-71	177	16.0	38.6
D05312	53	54.5	5.1	7	-1.9	D1	d1-39	145	20.0	42.6
						D1	d1-38	144	20.0	42.5
						D1	d1-37	143	20.0	42.1
						D1	d1-41	147	20.0	41.9
						D1	d1-36	142	20.0	41.7

						D1	d1-40	146	20.0	40.8
						D1	d1-35	141	20.0	40.8
						D1	d1-42	148	20.0	40.3
						D1	d1-27	133	16.0	39.5
						D1	d1-31	137	16.0	38.7
D05412-F	54	49.8	6.4	7	-0.6	D1	d1-35	141	20.0	40.8
						D1	d1-36	142	20.0	40.4
						D1	d1-34	140	16.0	38.2
						D1	d1-33	139	16.0	37.8
						D1	d1-37	143	20.0	36.7
						D1	d1-32	138	16.0	36.0
						D1	d1-61	167	16.0	35.9
						D1	d1-60	166	16.0	35.4
						D1	d1-62	168	16.0	35.3
						D1	d1-38	144	20.0	34.7
D05512-F	55	46.5	7.0	7	-0.0	D1	d1-36	142	20.0	37.0
						D1	d1-37	143	20.0	36.3
						D1	d1-35	141	20.0	35.4
						D1	d1-38	144	20.0	34.8
						D1	d1-39	145	20.0	33.7
						D1	d1-34	140	16.0	33.5
						D1	d1-33	139	16.0	33.4
						D1	d1-40	146	20.0	32.6
						D1	d1-41	147	20.0	31.5
						D1	d1-32	138	16.0	31.0
D05602-F	56	49.4	2.3	7	-4.7	D1	d1-27	133	16.0	41.1
						D1	d1-29	135	16.0	40.6
						D1	d1-26	132	16.0	40.0
						D1	d1-28	134	16.0	39.9
						D1	d1-25	131	16.0	34.0
						D1	d1-34	140	16.0	33.6
						D1	d1-30	136	16.0	33.1
						D1	d1-24	130	16.0	32.8
						D1	d1-37	143	20.0	32.3
						D1	d1-35	141	20.0	31.9
D05702-F	57	50.3	2.9	7	-4.1	D1	d1-30	136	16.0	42.0

						D1	d1-29	135	16.0	41.8
						D1	d1-28	134	16.0	41.8
						D1	d1-27	133	16.0	41.3
						D1	d1-26	132	16.0	39.3
						D1	d1-25	131	16.0	34.1
						D1	d1-32	138	16.0	33.8
						D1	d1-34	140	16.0	33.5
						D1	d1-31	137	16.0	33.4
						D1	d1-24	130	16.0	33.1
D05802-F	58	50.0	2.5	7	-4.5	D1	d1-28	134	16.0	42.2
						D1	d1-29	135	16.0	42.1
						D1	d1-30	136	16.0	41.7
						D1	d1-27	133	16.0	40.8
						D1	d1-26	132	16.0	35.0
						D1	d1-32	138	16.0	34.3
						D1	d1-25	131	16.0	34.2
						D1	d1-31	137	16.0	34.1
						D1	d1-33	139	16.0	32.9
						D1	d1-34	140	16.0	32.2
D05902-F	59	51.2	3.3	7	-3.7	D1	d1-29	135	16.0	43.2
						D1	d1-30	136	16.0	42.3
						D1	d1-31	137	16.0	42.1
						D1	d1-28	134	16.0	41.5
						D1	d1-33	139	16.0	37.5
						D1	d1-32	138	16.0	37.3
						D1	d1-27	133	16.0	36.7
						D1	d1-35	141	20.0	34.3
						D1	d1-26	132	16.0	34.1
						D1	d1-39	145	20.0	33.5
D06002-F	60	51.7	3.9	7	-3.1	D1	d1-29	135	16.0	42.7
						D1	d1-30	136	16.0	42.7
						D1	d1-31	137	16.0	42.5
						D1	d1-28	134	16.0	41.1
						D1	d1-32	138	16.0	39.9
						D1	d1-33	139	16.0	38.1
						D1	d1-35	141	20.0	36.0

						D1	d1-27	133	16.0	35.5
						D1	d1-36	142	20.0	34.9
						D1	d1-34	140	16.0	34.8
D06102-F	61	51.9	3.8	7	-3.2	D1	d1-30	136	16.0	42.4
						D1	d1-29	135	16.0	42.3
						D1	d1-31	137	16.0	42.2
						D1	d1-32	138	16.0	41.4
						D1	d1-28	134	16.0	40.4
						D1	d1-33	139	16.0	39.1
						D1	d1-35	141	20.0	35.8
						D1	d1-36	142	20.0	35.6
						D1	d1-27	133	16.0	35.5
						D1	d1-34	140	16.0	35.1
D06202	62	54.3	4.3	7	-2.7	D1	d1-33	139	16.0	41.3
						D1	d1-29	135	16.0	41.2
						D1	d1-25	131	16.0	41.0
						D1	d1-31	137	16.0	41.0
						D1	d1-30	136	16.0	40.9
						D1	d1-32	138	16.0	40.6
						D1	d1-24	130	16.0	40.5
						D1	d1-35	141	20.0	40.4
						D1	d1-36	142	20.0	40.1
						D1	d1-28	134	16.0	39.7
D06302	63	53.8	4.7	7	-2.3	D1	d1-33	139	16.0	40.9
						D1	d1-32	138	16.0	40.3
						D1	d1-31	137	16.0	40.2
						D1	d1-28	134	16.0	40.1
						D1	d1-30	136	16.0	40.0
						D1	d1-29	135	16.0	39.8
						D1	d1-27	133	16.0	39.7
						D1	d1-35	141	20.0	39.6
						D1	d1-24	130	16.0	39.6
						D1	d1-25	131	16.0	39.4
D06402	64	55.0	5.8	7	-1.2	D1	d1-33	139	16.0	41.9
						D1	d1-32	138	16.0	41.6
						D1	d1-35	141	20.0	40.7

						D1	d1-31	137	16.0	40.5
						D1	d1-36	142	20.0	40.5
						D1	d1-28	134	16.0	40.4
						D1	d1-29	135	16.0	40.4
						D1	d1-25	131	16.0	40.3
						D1	d1-37	143	20.0	40.3
						D1	d1-30	136	16.0	40.3
D06502	65	54.6	5.6	7	-1.4	D1	d1-32	138	16.0	41.1
						D1	d1-33	139	16.0	40.8
						D1	d1-31	137	16.0	40.7
						D1	d1-35	141	20.0	40.2
						D1	d1-36	142	20.0	40.0
						D1	d1-37	143	20.0	39.8
						D1	d1-30	136	16.0	39.6
						D1	d1-38	144	20.0	39.5
						D1	d1-29	135	16.0	39.3
						D1	d1-28	134	16.0	39.1
D06602	66	54.6	4.6	7	-2.4	D1	d1-32	138	16.0	41.0
						D1	d1-31	137	16.0	40.7
						D1	d1-33	139	16.0	40.3
						D1	d1-35	141	20.0	40.2
						D1	d1-37	143	20.0	40.0
						D1	d1-36	142	20.0	39.9
						D1	d1-30	136	16.0	39.7
						D1	d1-38	144	20.0	39.6
						D1	d1-39	145	20.0	39.1
						D1	d1-29	135	16.0	39.1
D06702	67	54.6	5.0	7	-2.0	D1	d1-38	144	20.0	40.8
						D1	d1-39	145	20.0	40.6
						D1	d1-40	146	20.0	40.4
						D1	d1-32	138	16.0	40.3
						D1	d1-41	147	20.0	40.0
						D1	d1-31	137	16.0	39.8
						D1	d1-37	143	20.0	39.7
						D1	d1-35	141	20.0	39.6
						D1	d1-36	142	20.0	39.5

						D1	d1-33	139	16.0	39.4
Total Cost, All Barriers (including additional cost(s))					$1797250					

HMB Professional Engineers **26 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **Brent Spence Bridge 6-17.00/1415.04**
RUN: **ALT NSA D**
BARRIER DESIGN: **V4**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
D1	W	12.00	17.12	24.00	3280	56164				1797250
D2	W	0.00	0.00	0.00	0	0				0
									Total Cost:	1797250

HMB Professional Engineers 26 June 2023
Mark Gavula TNM 2.5

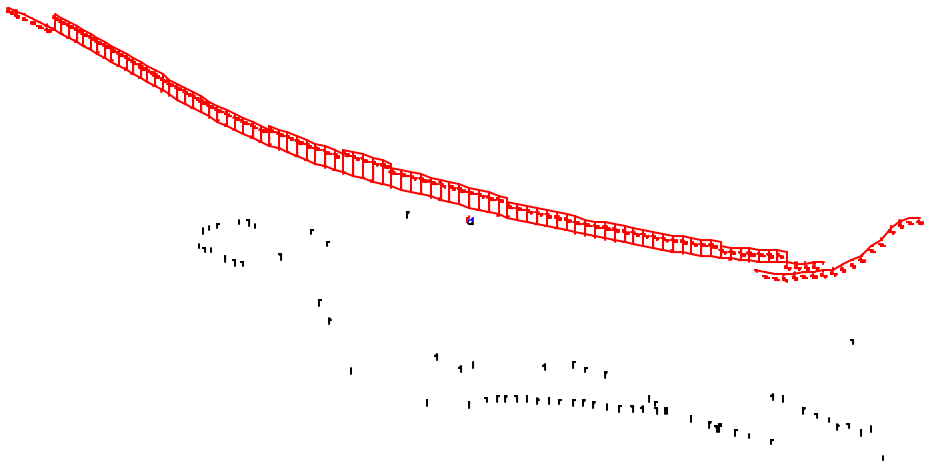
RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA D
BARRIER DESIGN: V4

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
D1	W	d1-1	106	0.00	0.00	0.00	0	0				0
		d1-2	108	0.00	0.00	0.00	0	0				0
		d1-3	109	0.00	0.00	0.00	0	0				0
		d1-4	110	0.00	0.00	0.00	0	0				0
		d1-5	111	0.00	0.00	0.00	0	0				0
		d1-6	112	0.00	0.00	0.00	0	0				0
		d1-7	113	16.00	16.00	16.00	40	634				20303
		d1-8	114	16.00	16.00	16.00	40	642				20538
		d1-9	115	16.00	16.00	16.00	40	642				20538
		d1-10	116	16.00	16.00	16.00	40	641				20506
		d1-11	117	16.00	16.00	16.00	40	641				20506
		d1-12	118	16.00	16.00	16.00	40	640				20494
		d1-13	119	16.00	16.00	16.00	40	640				20486
		d1-14	120	16.00	16.00	16.00	40	640				20494
		d1-15	121	16.00	16.00	16.00	40	640				20494
		d1-16	122	16.00	16.00	16.00	40	632				20239
		d1-17	123	16.00	16.00	16.00	40	640				20486
		d1-18	124	16.00	16.00	16.00	40	640				20494
		d1-19	125	16.00	16.00	16.00	40	641				20506
		d1-20	126	16.00	16.00	16.00	40	641				20520
		d1-21	127	16.00	16.00	16.00	40	642				20558
		d1-22	128	16.00	16.00	16.00	40	636				20355
		d1-23	129	16.00	16.00	16.00	40	645				20639
		d1-24	130	16.00	16.00	16.00	40	640				20496
		d1-25	131	16.00	16.00	16.00	40	634				20287
		d1-26	132	16.00	16.00	16.00	40	645				20635

		d1-27	133	16.00	16.00	16.00	40	640				20493
		d1-28	134	16.00	16.00	16.00	40	636				20366
		d1-29	135	16.00	16.00	16.00	40	638				20432
		d1-30	136	16.00	16.00	16.00	40	645				20647
		d1-31	137	16.00	16.00	16.00	40	638				20403
		d1-32	138	16.00	16.00	16.00	40	638				20406
		d1-33	139	16.00	16.00	16.00	40	643				20585
		d1-34	140	16.00	16.00	16.00	40	639				20442
		d1-35	141	20.00	20.00	20.00	40	806				25799
		d1-36	142	20.00	20.00	20.00	40	792				25345
		d1-37	143	20.00	20.00	20.00	40	801				25618
		d1-38	144	20.00	20.00	20.00	40	801				25620
		d1-39	145	20.00	20.00	20.00	40	805				25769
		d1-40	146	20.00	20.00	20.00	40	798				25522
		d1-41	147	20.00	20.00	20.00	40	799				25576
		d1-42	148	20.00	20.00	20.00	40	805				25746
		d1-43	149	24.00	24.00	24.00	40	959				30674
		d1-44	150	24.00	24.00	24.00	40	956				30578
		d1-45	151	24.00	24.00	24.00	40	970				31028
		d1-46	152	24.00	24.00	24.00	40	958				30648
		d1-47	153	24.00	24.00	24.00	40	956				30585
		d1-48	154	20.00	20.00	20.00	40	794				25407
		d1-49	155	20.00	20.00	20.00	40	807				25831
		d1-50	156	20.00	20.00	20.00	40	800				25594
		d1-51	157	20.00	20.00	20.00	40	793				25379
		d1-52	158	20.00	20.00	20.00	40	807				25831
		d1-53	159	20.00	20.00	20.00	40	800				25594
		d1-54	160	20.00	20.00	20.00	40	800				25594
		d1-55	161	20.00	20.00	20.00	40	800				25594
		d1-56	162	20.00	20.00	20.00	40	800				25594
		d1-57	163	20.00	20.00	20.00	40	801				25618
		d1-58	164	20.00	20.00	20.00	40	800				25594
		d1-59	165	20.00	20.00	20.00	40	800				25594
		d1-60	166	16.00	16.00	16.00	40	640				20475
		d1-61	167	16.00	16.00	16.00	40	640				20475
		d1-62	168	16.00	16.00	16.00	40	640				20494
		d1-63	169	16.00	16.00	16.00	40	640				20475
		d1-64	170	16.00	16.00	16.00	40	640				20475
		d1-65	171	16.00	16.00	16.00	40	640				20475

		d1-66	172	16.00	16.00	16.00	40	640				20475
		d1-67	173	16.00	16.00	16.00	40	646				20665
		d1-68	174	16.00	16.00	16.00	40	634				20303
		d1-69	175	16.00	16.00	16.00	40	640				20475
		d1-70	176	16.00	16.00	16.00	40	640				20475
		d1-71	177	16.00	16.00	16.00	40	640				20475
		d1-72	178	16.00	16.00	16.00	40	640				20475
		d1-73	179	16.00	16.00	16.00	40	639				20462
		d1-74	180	16.00	16.00	16.00	40	639				20462
		d1-75	181	16.00	16.00	16.00	40	639				20456
		d1-76	182	16.00	16.00	16.00	40	645				20636
		d1-77	183	16.00	16.00	16.00	40	639				20462
		d1-78	184	16.00	16.00	16.00	40	640				20475
		d1-79	185	16.00	16.00	16.00	40	646				20665
		d1-80	186	16.00	16.00	16.00	40	636				20355
		d1-81	187	16.00	16.00	16.00	40	637				20390
		d1-82	188	12.00	12.00	12.00	40	484				15476
		d1-83	189	12.00	12.00	12.00	40	476				15246
		d1-84	190	12.00	12.00	12.00	40	479				15337
		d1-85	191	12.00	12.00	12.00	40	481				15390
		d1-86	192	12.00	12.00	12.00	40	480				15346
		d1-87	193	12.00	12.00	12.00	40	482				15410
		d1-88	194	12.00	12.00	12.00	40	481				15385
		d1-89	195	0.00	0.00	0.00	0	0				0
		d1-90	196	0.00	0.00	0.00	0	0				0
		d1-91	197	0.00	0.00	0.00	0	0				0
		d1-92	198	0.00	0.00	0.00	0	0				0
D2	W	d2-1	88	0.00	0.00	0.00	0	0				0
		d2-2	90	0.00	0.00	0.00	0	0				0
		d2-3	91	0.00	0.00	0.00	0	0				0
		d2-4	92	0.00	0.00	0.00	0	0				0
		d2-5	93	0.00	0.00	0.00	0	0				0
		d2-6	94	0.00	0.00	0.00	0	0				0
		d2-7	95	0.00	0.00	0.00	0	0				0
		d2-8	96	0.00	0.00	0.00	0	0				0
		d2-9	97	0.00	0.00	0.00	0	0				0
		d2-10	98	0.00	0.00	0.00	0	0				0
		d2-11	99	0.00	0.00	0.00	0	0				0

		d2-12	100	0.00	0.00	0.00	0	0				0
		d2-13	101	0.00	0.00	0.00	0	0				0
		d2-14	102	0.00	0.00	0.00	0	0				0
		d2-15	103	0.00	0.00	0.00	0	0				0
		d2-16	104	0.00	0.00	0.00	0	0				0
		d2-17	105	0.00	0.00	0.00	0	0				0



ALT NSA D		Sheet 1 of 1	26 Jun 2023
		HMB Professional Engineers	
Barrier View-V4		Project/Contract No. Brent Spence Bridge 6-17.00	
Run name: NSA_D_Bar		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: NSA E

HMB Professional Engineers
Mark Gavula

27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA E 2049 Certified
BARRIER DESIGN: ev2-ind
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E00101-F	18	1	67.7	71.1	66	3.4	10	Snd Lvl	69.2	1.9	7	-5.1
E00201	19	1	59.4	67.3	66	7.9	10	Snd Lvl	64.9	2.4	7	-4.6
E00301	20	1	61.8	67.2	66	5.4	10	Snd Lvl	64.7	2.5	7	-4.5
E00401	21	1	62.1	67.3	66	5.2	10	Snd Lvl	64.8	2.5	7	-4.5
E00501	22	1	62.0	67.4	66	5.4	10	Snd Lvl	64.8	2.6	7	-4.4
E00601	23	1	62.0	67.5	66	5.5	10	Snd Lvl	64.9	2.6	7	-4.4
E00701	24	1	62.8	68.0	66	5.2	10	Snd Lvl	65.2	2.8	7	-4.2
E00801	25	1	61.9	68.2	66	6.3	10	Snd Lvl	65.2	3.0	7	-4.0
E00901	26	1	59.1	68.3	66	9.2	10	Snd Lvl	65.2	3.1	7	-3.9
E01001	27	1	62.2	68.3	66	6.1	10	Snd Lvl	65.3	3.0	7	-4.0
E01101	28	1	57.9	68.4	66	10.5	10	Both	65.3	3.1	7	-3.9
E01201	29	1	57.9	68.5	66	10.6	10	Both	65.4	3.1	7	-3.9
E01301	30	1	57.6	68.6	66	11.0	10	Both	65.4	3.2	7	-3.8
E01401	31	1	57.8	68.7	66	10.9	10	Both	65.5	3.2	7	-3.8
E01501	32	1	57.8	68.7	66	10.9	10	Both	65.5	3.2	7	-3.8
E01601	33	1	58.4	68.8	66	10.4	10	Both	65.6	3.2	7	-3.8
E01701	34	1	63.0	68.8	66	5.8	10	Snd Lvl	65.7	3.1	7	-3.9
E01801	35	1	60.2	68.8	66	8.6	10	Snd Lvl	65.7	3.1	7	-3.9
E01901	36	1	57.9	68.9	66	11.0	10	Both	65.7	3.2	7	-3.8
E02001	37	1	60.7	68.9	66	8.2	10	Snd Lvl	65.8	3.1	7	-3.9
E02101	38	1	62.7	68.9	66	6.2	10	Snd Lvl	65.9	3.0	7	-4.0
E02201	39	1	61.2	68.9	66	7.7	10	Snd Lvl	65.8	3.1	7	-3.9
E02301	40	1	62.5	68.9	66	6.4	10	Snd Lvl	65.8	3.1	7	-3.9
E02401	41	1	64.3	69.1	66	4.8	10	Snd Lvl	66.0	3.1	7	-3.9

E02501	42	1	63.4	68.2	66	4.8	10	Snd Lvl	65.6	2.6	7	-4.4
E02601	43	1	63.6	68.2	66	4.6	10	Snd Lvl	65.4	2.8	7	-4.2
E02701	44	1	64.0	68.6	66	4.6	10	Snd Lvl	65.8	2.8	7	-4.2
E02801	45	1	65.1	69.3	66	4.2	10	Snd Lvl	66.3	3.0	7	-4.0
E02901	46	1	65.4	69.5	66	4.1	10	Snd Lvl	66.5	3.0	7	-4.0
E03001	47	1	65.5	69.7	66	4.2	10	Snd Lvl	66.6	3.1	7	-3.9
E03101	48	1	65.6	69.8	66	4.2	10	Snd Lvl	66.6	3.2	7	-3.8
E03201	49	1	65.8	69.9	66	4.1	10	Snd Lvl	66.8	3.1	7	-3.9
E03401	50	1	65.9	70.0	66	4.1	10	Snd Lvl	66.8	3.2	7	-3.8
E03501	51	1	66.0	70.1	66	4.1	10	Snd Lvl	66.9	3.2	7	-3.8
E03601	52	1	66.0	70.3	66	4.3	10	Snd Lvl	67.0	3.3	7	-3.7
E03701	53	1	66.8	70.9	66	4.1	10	Snd Lvl	67.8	3.1	7	-3.9
E03801	54	1	66.8	71.0	66	4.2	10	Snd Lvl	67.8	3.2	7	-3.8
E03901	55	1	67.0	70.9	66	3.9	10	Snd Lvl	67.9	3.0	7	-4.0
E04001	56	1	66.9	71.0	66	4.1	10	Snd Lvl	67.9	3.1	7	-3.9
E04101	57	1	66.7	70.8	66	4.1	10	Snd Lvl	67.7	3.1	7	-3.9
E04201	58	1	67.1	71.1	66	4.0	10	Snd Lvl	67.9	3.2	7	-3.8
E04301	59	1	67.7	72.0	66	4.3	10	Snd Lvl	68.7	3.3	7	-3.7
E04401	60	1	67.7	72.0	66	4.3	10	Snd Lvl	68.6	3.4	7	-3.6
E04501	61	1	66.8	71.5	66	4.7	10	Snd Lvl	67.8	3.7	7	-3.3
E04601	62	1	66.5	71.3	66	4.8	10	Snd Lvl	67.7	3.6	7	-3.4
E04701	63	1	66.1	71.5	66	5.4	10	Snd Lvl	67.6	3.9	7	-3.1
E07201	64	1	65.9	71.4	66	5.5	10	Snd Lvl	67.5	3.9	7	-3.1
E04801	65	1	65.7	71.1	66	5.4	10	Snd Lvl	67.3	3.8	7	-3.2
E04901	66	1	66.0	71.3	66	5.3	10	Snd Lvl	67.5	3.8	7	-3.2
E05002	67	2	69.2	72.9	66	3.7	10	Snd Lvl	69.5	3.4	7	-3.6
E05102	68	2	69.2	73.4	66	4.2	10	Snd Lvl	70.2	3.2	7	-3.8
E05202	69	2	68.6	73.6	66	5.0	10	Snd Lvl	70.3	3.3	7	-3.7
E05302	70	2	68.3	73.9	66	5.6	10	Snd Lvl	70.4	3.5	7	-3.5
E05402	71	2	68.7	74.2	66	5.5	10	Snd Lvl	70.6	3.6	7	-3.4
E05502	72	2	68.6	74.2	66	5.6	10	Snd Lvl	70.5	3.7	7	-3.3
E05602	73	2	67.7	74.0	66	6.3	10	Snd Lvl	69.7	4.3	7	-2.7
E05701	74	1	69.1	74.6	66	5.5	10	Snd Lvl	70.5	4.1	7	-2.9
E05801	75	1	69.9	74.6	66	4.7	10	Snd Lvl	70.6	4.0	7	-3.0
E05901	76	1	70.6	74.7	66	4.1	10	Snd Lvl	70.4	4.3	7	-2.7
E06001	77	1	70.5	74.8	66	4.3	10	Snd Lvl	70.1	4.7	7	-2.3
E06101	78	1	70.6	74.5	66	3.9	10	Snd Lvl	69.7	4.8	7	-2.2
E06201	79	1	70.5	74.5	66	4.0	10	Snd Lvl	69.5	5.0	7	-2.0
E06301	80	1	70.5	74.4	66	3.9	10	Snd Lvl	69.1	5.3	7	-1.7
E06401-F	81	1	65.4	75.7	66	10.3	10	Both	71.0	4.7	7	-2.3
E06501-F	82	1	66.7	74.8	66	8.1	10	Snd Lvl	69.9	4.9	7	-2.1

E06601-F	83	1	66.4	75.0	66	8.6	10	Snd Lvl	70.0	5.0	7	-2.0
E06701-F	84	1	66.5	75.4	66	8.9	10	Snd Lvl	70.2	5.2	7	-1.8
E06801-F	85	1	67.7	75.5	66	7.8	10	Snd Lvl	70.5	5.0	7	-2.0
E06901-F	86	1	69.0	75.4	66	6.4	10	Snd Lvl	70.2	5.2	7	-1.8
E07001-F	87	1	69.8	75.2	66	5.4	10	Snd Lvl	69.5	5.7	7	-1.3
E07101-F	88	1	69.5	75.5	66	6.0	10	Snd Lvl	69.3	6.2	7	-0.8

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	78	1.9	3.5	6.2
All Impacted	78	1.9	3.5	6.2
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA E 2049 Certified
BARRIER DESIGN: ev2-ind

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
E00101-F	18	69.2	1.9	7	-5.1	NB75-W	E-05-69	311	12.0	42.2
						SB75-W1	E-02/03-44	117	12.0	42.0
						NB75-W	E-05-68	310	12.0	42.0
						NB75-W	E-05-67	309	12.0	41.9
						NB75-W	E-05-64	306	12.0	41.9
						SB75-W1	E-02/03-43	116	12.0	41.9
						NB75-W	E-05-71	313	12.0	41.9
						NB75-W	E-05-65	307	12.0	41.8
						NB75-W	E-05-66	308	12.0	41.8
						NB75-W	E-05-73	315	12.0	41.7
E00201	19	64.9	2.4	7	-4.6	NB75-W	E-05-63	305	12.0	39.7
						NB75-W	E-05-64	306	12.0	39.6
						NB75-W	E-05-65	307	12.0	39.2
						NB75-W	E-05-67	309	12.0	39.2
						NB75-W	E-05-66	308	12.0	39.1
						SB75-W2	E-02/03-21	94	12.0	39.0
						NB75-W	E-05-68	310	12.0	39.0
						SB75-W1	E-02/03-44	117	12.0	38.8
						SB75-W1	E-02/03-43	116	12.0	38.8
						SB75-W2	E-02/03-20	93	12.0	38.8
E00301	20	64.7	2.5	7	-4.5	NB75-W	E-05-63	305	12.0	39.9

						SB75-W2	E-02/03-23	96	12.0	39.9
						NB75-W	E-05-64	306	12.0	39.8
						SB75-W2	E-02/03-25	98	12.0	39.8
						SB75-W2	E-02/03-24	97	12.0	39.7
						SB75-W2	E-02/03-22	95	12.0	39.7
						NB75-W	E-05-65	307	12.0	39.4
						SB75-W2	E-02/03-21	94	12.0	39.4
						NB75-W	E-05-67	309	12.0	39.4
						NB75-W	E-05-66	308	12.0	39.3
E00401	21	64.8	2.5	7	-4.5	SB75-W2	E-02/03-25	98	12.0	40.5
						SB75-W2	E-02/03-24	97	12.0	40.3
						SB75-W2	E-02/03-23	96	12.0	40.1
						NB75-W	E-05-63	305	12.0	40.1
						NB75-W	E-05-64	306	12.0	40.0
						SB75-W2	E-02/03-22	95	12.0	39.9
						NB75-W	E-05-65	307	12.0	39.6
						NB75-W	E-05-67	309	12.0	39.6
						SB75-W2	E-02/03-21	94	12.0	39.6
						NB75-W	E-05-66	308	12.0	39.5
E00501	22	64.8	2.6	7	-4.4	SB75-W2	E-02/03-25	98	12.0	40.7
						SB75-W2	E-02/03-24	97	12.0	40.5
						NB75-W	E-05-63	305	12.0	40.2
						SB75-W2	E-02/03-23	96	12.0	40.2
						NB75-W	E-05-64	306	12.0	40.1
						SB75-W2	E-02/03-22	95	12.0	40.0
						NB75-W	E-05-65	307	12.0	39.7
						SB75-W2	E-02/03-20	93	12.0	39.7
						SB75-W2	E-02/03-21	94	12.0	39.7
						NB75-W	E-05-67	309	12.0	39.6
E00601	23	64.9	2.6	7	-4.4	SB75-W2	E-02/03-25	98	12.0	41.0
						SB75-W2	E-02/03-23	96	12.0	40.5
						NB75-W	E-05-63	305	12.0	40.3
						SB75-W2	E-02/03-22	95	12.0	40.3
						NB75-W	E-05-64	306	12.0	40.2
						SB75-W2	E-02/03-21	94	12.0	39.9
						NB75-W	E-05-65	307	12.0	39.8

						SB75-W1	E-02/03-43	116	12.0	39.8
						SB75-W1	E-02/03-44	117	12.0	39.8
						SB75-W1	E-02/03-42	115	12.0	39.7
E00701	24	65.2	2.8	7	-4.2	SB75-W2	E-02/03-25	98	12.0	42.1
						SB75-W2	E-02/03-24	97	12.0	41.8
						SB75-W2	E-02/03-23	96	12.0	41.5
						SB75-W2	E-02/03-22	95	12.0	41.2
						SB75-W1	E-02/03-41	114	12.0	41.1
						SB75-W1	E-02/03-40	113	12.0	41.1
						NB75-W	E-05-63	305	12.0	41.0
						SB75-W1	E-02/03-43	116	12.0	41.0
						SB75-W1	E-02/03-42	115	12.0	40.9
						NB75-W	E-05-64	306	12.0	40.9
E00801	25	65.2	3.0	7	-4.0	SB75-W2	E-02/03-25	98	12.0	42.5
						SB75-W2	E-02/03-24	97	12.0	42.2
						SB75-W2	E-02/03-23	96	12.0	42.1
						SB75-W2	E-02/03-22	95	12.0	41.7
						SB75-W1	E-02/03-41	114	12.0	41.5
						SB75-W1	E-02/03-40	113	12.0	41.4
						SB75-W2	E-02/03-21	94	12.0	41.3
						SB75-W1	E-02/03-42	115	12.0	41.1
						SB75-W1	E-02/03-43	116	12.0	41.1
						SB75-W2	E-02/03-20	93	12.0	41.0
E00901	26	65.2	3.1	7	-3.9	SB75-W2	E-02/03-25	98	12.0	42.7
						SB75-W2	E-02/03-24	97	12.0	42.5
						SB75-W2	E-02/03-23	96	12.0	42.2
						SB75-W2	E-02/03-22	95	12.0	41.9
						SB75-W2	E-02/03-21	94	12.0	41.5
						SB75-W1	E-02/03-41	114	12.0	41.5
						SB75-W1	E-02/03-40	113	12.0	41.5
						SB75-W2	E-02/03-20	93	12.0	41.2
						SB75-W1	E-02/03-42	115	12.0	41.1
						SB75-W1	E-02/03-37	110	12.0	41.1
E01001	27	65.3	3.0	7	-4.0	SB75-W2	E-02/03-25	98	12.0	42.8
						SB75-W2	E-02/03-24	97	12.0	42.6
						SB75-W2	E-02/03-23	96	12.0	42.2

						SB75-W2	E-02/03-22	95	12.0	42.0
						SB75-W1	E-02/03-41	114	12.0	41.7
						SB75-W2	E-02/03-21	94	12.0	41.6
						SB75-W1	E-02/03-40	113	12.0	41.6
						SB75-W2	E-02/03-20	93	12.0	41.3
						SB75-W1	E-02/03-37	110	12.0	41.2
						SB75-W1	E-02/03-42	115	12.0	41.2
E01101	28	65.3	3.1	7	-3.9	SB75-W2	E-02/03-25	98	12.0	42.9
						SB75-W2	E-02/03-24	97	12.0	42.7
						SB75-W2	E-02/03-23	96	12.0	42.4
						SB75-W2	E-02/03-22	95	12.0	42.1
						SB75-W2	E-02/03-21	94	12.0	41.7
						SB75-W1	E-02/03-41	114	12.0	41.6
						SB75-W1	E-02/03-40	113	12.0	41.5
						SB75-W2	E-02/03-20	93	12.0	41.4
						SB75-W1	E-02/03-37	110	12.0	41.2
						SB75-W1	E-02/03-42	115	12.0	41.2
E01201	29	65.4	3.1	7	-3.9	SB75-W2	E-02/03-25	98	12.0	43.2
						SB75-W2	E-02/03-24	97	12.0	43.0
						SB75-W2	E-02/03-23	96	12.0	42.6
						SB75-W2	E-02/03-22	95	12.0	42.4
						SB75-W2	E-02/03-21	94	12.0	42.0
						SB75-W1	E-02/03-41	114	12.0	41.9
						SB75-W2	E-02/03-20	93	12.0	41.6
						SB75-W1	E-02/03-40	113	12.0	41.6
						SB75-W1	E-02/03-37	110	12.0	41.5
						SB75-W1	E-02/03-36	109	12.0	41.4
E01301	30	65.4	3.2	7	-3.8	SB75-W2	E-02/03-25	98	12.0	43.4
						SB75-W2	E-02/03-24	97	12.0	43.1
						SB75-W2	E-02/03-23	96	12.0	42.8
						SB75-W2	E-02/03-22	95	12.0	42.5
						SB75-W2	E-02/03-21	94	12.0	42.1
						SB75-W1	E-02/03-41	114	12.0	42.1
						SB75-W2	E-02/03-20	93	12.0	41.8
						SB75-W1	E-02/03-40	113	12.0	41.8
						SB75-W1	E-02/03-37	110	12.0	41.6

						SB75-W1	E-02/03-36	109	12.0	41.6
E01401	31	65.5	3.2	7	-3.8	SB75-W2	E-02/03-25	98	12.0	43.6
						SB75-W2	E-02/03-24	97	12.0	43.3
						SB75-W2	E-02/03-23	96	12.0	42.9
						SB75-W2	E-02/03-22	95	12.0	42.7
						SB75-W2	E-02/03-21	94	12.0	42.3
						SB75-W1	E-02/03-41	114	12.0	42.2
						SB75-W1	E-02/03-40	113	12.0	42.0
						SB75-W2	E-02/03-20	93	12.0	41.9
						SB75-W1	E-02/03-37	110	12.0	41.8
						SB75-W1	E-02/03-36	109	12.0	41.7
E01501	32	65.5	3.2	7	-3.8	SB75-W2	E-02/03-25	98	12.0	43.7
						SB75-W2	E-02/03-24	97	12.0	43.4
						SB75-W2	E-02/03-23	96	12.0	43.1
						SB75-W2	E-02/03-22	95	12.0	42.9
						SB75-W2	E-02/03-21	94	12.0	42.5
						SB75-W1	E-02/03-41	114	12.0	42.2
						SB75-W2	E-02/03-20	93	12.0	42.1
						SB75-W1	E-02/03-40	113	12.0	42.0
						SB75-W1	E-02/03-37	110	12.0	41.9
						SB75-W1	E-02/03-36	109	12.0	41.8
E01601	33	65.6	3.2	7	-3.8	SB75-W2	E-02/03-25	98	12.0	43.9
						SB75-W2	E-02/03-24	97	12.0	43.6
						SB75-W2	E-02/03-23	96	12.0	43.4
						SB75-W2	E-02/03-22	95	12.0	43.1
						SB75-W2	E-02/03-21	94	12.0	42.7
						SB75-W1	E-02/03-41	114	12.0	42.4
						SB75-W1	E-02/03-40	113	12.0	42.3
						SB75-W2	E-02/03-20	93	12.0	42.2
						SB75-W1	E-02/03-37	110	12.0	42.1
						SB75-W1	E-02/03-36	109	12.0	42.1
E01701	34	65.7	3.1	7	-3.9	SB75-W2	E-02/03-25	98	12.0	43.9
						SB75-W1	E-02/03-41	114	12.0	43.7
						SB75-W2	E-02/03-24	97	12.0	43.7
						SB75-W1	E-02/03-37	110	12.0	43.7
						SB75-W1	E-02/03-36	109	12.0	43.6

						SB75-W1	E-02/03-40	113	12.0	43.5
						SB75-W2	E-02/03-23	96	12.0	43.5
						SB75-W1	E-02/03-42	115	12.0	43.3
						SB75-W1	E-02/03-43	116	12.0	43.2
						SB75-W2	E-02/03-22	95	12.0	43.1
E01801	35	65.7	3.1	7	-3.9	SB75-W2	E-02/03-25	98	12.0	44.1
						SB75-W2	E-02/03-24	97	12.0	43.9
						SB75-W2	E-02/03-23	96	12.0	43.7
						SB75-W1	E-02/03-41	114	12.0	43.4
						SB75-W1	E-02/03-37	110	12.0	43.1
						SB75-W2	E-02/03-21	94	12.0	42.9
						SB75-W1	E-02/03-36	109	12.0	42.9
						SB75-W1	E-02/03-40	113	12.0	42.8
						SB75-W1	E-02/03-42	115	12.0	42.7
						SB75-W2	E-02/03-22	95	12.0	42.7
E01901	36	65.7	3.2	7	-3.8	SB75-W2	E-02/03-25	98	12.0	44.3
						SB75-W2	E-02/03-24	97	12.0	44.1
						SB75-W2	E-02/03-23	96	12.0	43.9
						SB75-W2	E-02/03-22	95	12.0	43.5
						SB75-W2	E-02/03-21	94	12.0	43.1
						SB75-W2	E-02/03-20	93	12.0	42.7
						SB75-W1	E-02/03-41	114	12.0	42.6
						SB75-W1	E-02/03-40	113	12.0	42.5
						SB75-W1	E-02/03-37	110	12.0	42.4
						SB75-W1	E-02/03-36	109	12.0	42.4
E02001	37	65.8	3.1	7	-3.9	SB75-W2	E-02/03-25	98	12.0	44.4
						SB75-W2	E-02/03-24	97	12.0	44.2
						SB75-W1	E-02/03-42	115	12.0	44.0
						SB75-W1	E-02/03-41	114	12.0	43.9
						SB75-W2	E-02/03-23	96	12.0	43.9
						SB75-W1	E-02/03-37	110	12.0	43.8
						SB75-W1	E-02/03-40	113	12.0	43.8
						SB75-W2	E-02/03-22	95	12.0	43.6
						SB75-W1	E-02/03-36	109	12.0	43.4
						SB75-W2	E-02/03-21	94	12.0	43.2
E02101	38	65.9	3.0	7	-4.0	SB75-W1	E-02/03-41	114	12.0	46.5

						SB75-W1	E-02/03-40	113	12.0	46.4
						SB75-W1	E-02/03-42	115	12.0	46.0
						SB75-W1	E-02/03-43	116	12.0	45.8
						SB75-W1	E-02/03-39	112	12.0	44.7
						SB75-W1	E-02/03-37	110	12.0	44.6
						SB75-W2	E-02/03-25	98	12.0	44.5
						SB75-W2	E-02/03-24	97	12.0	44.3
						SB75-W2	E-02/03-23	96	12.0	43.9
						SB75-W1	E-02/03-36	109	12.0	43.8
E02201	39	65.8	3.1	7	-3.9	SB75-W1	E-02/03-43	116	12.0	45.8
						SB75-W1	E-02/03-42	115	12.0	45.2
						SB75-W2	E-02/03-25	98	12.0	44.7
						SB75-W1	E-02/03-41	114	12.0	44.6
						SB75-W2	E-02/03-24	97	12.0	44.5
						SB75-W2	E-02/03-19	92	12.0	44.3
						SB75-W1	E-02/03-37	110	12.0	44.1
						SB75-W2	E-02/03-23	96	12.0	44.1
						SB75-W1	E-02/03-36	109	12.0	43.9
						SB75-W2	E-02/03-22	95	12.0	43.8
E02301	40	65.8	3.1	7	-3.9	SB75-W1	E-02/03-41	114	12.0	46.6
						SB75-W1	E-02/03-42	115	12.0	45.9
						SB75-W1	E-02/03-43	116	12.0	45.7
						SB75-W1	E-02/03-40	113	12.0	45.4
						SB75-W2	E-02/03-25	98	12.0	44.9
						SB75-W2	E-02/03-24	97	12.0	44.6
						SB75-W1	E-02/03-37	110	12.0	44.2
						SB75-W1	E-02/03-39	112	12.0	44.0
						SB75-W2	E-02/03-22	95	12.0	44.0
						SB75-W2	E-02/03-23	96	12.0	43.9
E02401	41	66.0	3.1	7	-3.9	SB75-W1	E-02/03-37	110	12.0	46.4
						SB75-W1	E-02/03-40	113	12.0	46.4
						SB75-W1	E-02/03-41	114	12.0	46.3
						SB75-W1	E-02/03-39	112	12.0	45.8
						SB75-W2	E-02/03-25	98	12.0	45.8
						SB75-W1	E-02/03-42	115	12.0	45.6
						SB75-W2	E-02/03-24	97	12.0	45.6

						SB75-W1	E-02/03-36	109	12.0	45.4
						SB75-W1	E-02/03-43	116	12.0	45.1
						SB75-W2	E-02/03-23	96	12.0	45.1
E02501	42	65.6	2.6	7	-4.4	SB75-W1	E-02/03-41	114	12.0	45.1
						SB75-W1	E-02/03-40	113	12.0	45.0
						SB75-W1	E-02/03-37	110	12.0	44.9
						SB75-W1	E-02/03-36	109	12.0	44.8
						SB75-W1	E-02/03-35	108	12.0	44.8
						SB75-W1	E-02/03-34	107	12.0	44.7
						SB75-W1	E-02/03-33	106	12.0	44.6
						SB75-W1	E-02/03-42	115	12.0	44.6
						SB75-W1	E-02/03-32	105	12.0	44.5
						SB75-W1	E-02/03-43	116	12.0	44.5
E02601	43	65.4	2.8	7	-4.2	SB75-W1	E-02/03-41	114	12.0	45.2
						SB75-W1	E-02/03-40	113	12.0	44.8
						SB75-W1	E-02/03-36	109	12.0	44.4
						SB75-W1	E-02/03-37	110	12.0	44.3
						SB75-W1	E-02/03-35	108	12.0	44.3
						SB75-W1	E-02/03-34	107	12.0	44.3
						SB75-W1	E-02/03-33	106	12.0	44.2
						SB75-W1	E-02/03-32	105	12.0	44.1
						SB75-W1	point332	332	12.0	44.0
						SB75-W1	E-02/03-42	115	12.0	43.9
E02701	44	65.8	2.8	7	-4.2	SB75-W1	E-02/03-32	105	12.0	45.1
						SB75-W1	E-02/03-41	114	12.0	45.1
						SB75-W1	point332	332	12.0	45.1
						SB75-W1	E-02/03-33	106	12.0	45.0
						SB75-W1	E-02/03-35	108	12.0	44.9
						SB75-W1	E-02/03-34	107	12.0	44.9
						SB75-W1	E-02/03-36	109	12.0	44.9
						SB75-W1	E-02/03-40	113	12.0	44.8
						SB75-W1	E-02/03-37	110	12.0	44.8
						SB75-W2	E-02/03-25	98	12.0	44.4
E02801	45	66.3	3.0	7	-4.0	SB75-W1	point332	332	12.0	46.6
						SB75-W1	E-02/03-32	105	12.0	46.6
						SB75-W1	E-02/03-33	106	12.0	46.5

						SB75-W1	E-02/03-34	107	12.0	46.4
						SB75-W1	E-02/03-35	108	12.0	46.2
						SB75-W1	E-02/03-36	109	12.0	46.1
						SB75-W2	E-02/03-25	98	12.0	46.0
						SB75-W2	E-02/03-24	97	12.0	45.9
						SB75-W1	E-02/03-37	110	12.0	45.7
						SB75-W2	E-02/03-23	96	12.0	45.6
E02901	46	66.5	3.0	7	-4.0	SB75-W1	point332	332	12.0	46.7
						SB75-W1	E-02/03-32	105	12.0	46.6
						SB75-W1	E-02/03-33	106	12.0	46.5
						SB75-W2	E-02/03-25	98	12.0	46.4
						SB75-W1	E-02/03-34	107	12.0	46.3
						SB75-W2	E-02/03-24	97	12.0	46.2
						SB75-W1	E-02/03-35	108	12.0	46.1
						SB75-W2	E-02/03-23	96	12.0	46.0
						SB75-W1	E-02/03-36	109	12.0	45.9
						SB75-W2	E-02/03-22	95	12.0	45.9
E03001	47	66.6	3.1	7	-3.9	SB75-W1	point332	332	12.0	46.7
						SB75-W1	E-02/03-32	105	12.0	46.6
						SB75-W2	E-02/03-25	98	12.0	46.6
						SB75-W2	E-02/03-24	97	12.0	46.4
						SB75-W1	E-02/03-33	106	12.0	46.4
						SB75-W2	E-02/03-23	96	12.0	46.3
						SB75-W1	E-02/03-34	107	12.0	46.3
						SB75-W2	E-02/03-22	95	12.0	46.2
						SB75-W1	E-02/03-35	108	12.0	46.1
						SB75-W2	E-02/03-21	94	12.0	46.0
E03101	48	66.6	3.2	7	-3.8	SB75-W2	E-02/03-25	98	12.0	46.7
						SB75-W2	E-02/03-24	97	12.0	46.7
						SB75-W1	point332	332	12.0	46.7
						SB75-W2	E-02/03-23	96	12.0	46.6
						SB75-W1	E-02/03-32	105	12.0	46.5
						SB75-W2	E-02/03-22	95	12.0	46.5
						SB75-W1	E-02/03-33	106	12.0	46.4
						SB75-W2	E-02/03-21	94	12.0	46.3
						SB75-W1	E-02/03-34	107	12.0	46.2

						SB75-W2	E-02/03-20	93	12.0	46.1
E03201	49	66.8	3.1	7	-3.9	SB75-W2	E-02/03-24	97	12.0	47.0
						SB75-W2	E-02/03-22	95	12.0	47.0
						SB75-W2	E-02/03-25	98	12.0	47.0
						SB75-W2	E-02/03-23	96	12.0	46.9
						SB75-W2	E-02/03-21	94	12.0	46.7
						SB75-W1	point332	332	12.0	46.6
						SB75-W1	E-02/03-32	105	12.0	46.5
						SB75-W2	E-02/03-20	93	12.0	46.5
						SB75-W1	E-02/03-33	106	12.0	46.3
						SB75-W2	E-02/03-19	92	12.0	46.2
E03401	50	66.8	3.2	7	-3.8	SB75-W2	E-02/03-24	97	12.0	47.1
						SB75-W2	E-02/03-25	98	12.0	47.1
						SB75-W2	E-02/03-23	96	12.0	47.1
						SB75-W2	E-02/03-22	95	12.0	47.1
						SB75-W2	E-02/03-21	94	12.0	46.9
						SB75-W2	E-02/03-19	92	12.0	46.8
						SB75-W2	E-02/03-20	93	12.0	46.7
						SB75-W1	point332	332	12.0	46.6
						SB75-W1	E-02/03-32	105	12.0	46.4
						SB75-W2	E-02/03-17	90	12.0	46.3
E03501	51	66.9	3.2	7	-3.8	SB75-W2	E-02/03-22	95	12.0	47.4
						SB75-W2	E-02/03-23	96	12.0	47.3
						SB75-W2	E-02/03-25	98	12.0	47.3
						SB75-W2	E-02/03-24	97	12.0	47.3
						SB75-W2	E-02/03-20	93	12.0	47.0
						SB75-W2	E-02/03-21	94	12.0	46.9
						SB75-W2	E-02/03-19	92	12.0	46.6
						SB75-W2	E-02/03-18	91	12.0	46.6
						SB75-W1	point332	332	12.0	46.5
						SB75-W2	E-02/03-17	90	12.0	46.5
E03601	52	67.0	3.3	7	-3.7	SB75-W2	E-02/03-19	92	12.0	48.1
						SB75-W2	E-02/03-20	93	12.0	47.8
						SB75-W2	E-02/03-22	95	12.0	47.8
						SB75-W2	E-02/03-23	96	12.0	47.8
						SB75-W2	E-02/03-24	97	12.0	47.7

						SB75-W2	E-02/03-21	94	12.0	47.7
						SB75-W2	E-02/03-25	98	12.0	47.6
						SB75-W2	E-02/03-18	91	12.0	47.3
						SB75-W2	E-02/03-17	90	12.0	46.9
						SB75-W2	E-02/03-16	89	12.0	46.8
E03701	53	67.8	3.1	7	-3.9	SB75-W2	E-02/03-19	92	12.0	49.0
						SB75-W2	E-02/03-22	95	12.0	48.9
						SB75-W2	E-02/03-20	93	12.0	48.8
						SB75-W2	E-02/03-23	96	12.0	48.7
						Crescent Ave	point369	369	24.0	48.6
						SB75-W2	E-02/03-24	97	12.0	48.5
						SB75-W2	E-02/03-25	98	12.0	48.4
						SB75-W2	E-02/03-18	91	12.0	48.3
						SB75-W2	E-02/03-17	90	12.0	48.1
						SB75-W2	E-02/03-21	94	12.0	48.0
E03801	54	67.8	3.2	7	-3.8	Crescent Ave	point369	369	24.0	49.5
						SB75-W2	E-02/03-22	95	12.0	48.9
						SB75-W2	E-02/03-20	93	12.0	48.8
						SB75-W2	E-02/03-23	96	12.0	48.7
						SB75-W2	E-02/03-18	91	12.0	48.6
						SB75-W2	E-02/03-17	90	12.0	48.5
						SB75-W2	E-02/03-24	97	12.0	48.4
						SB75-W2	E-02/03-19	92	12.0	48.4
						SB75-W2	E-02/03-25	98	12.0	48.2
						SB75-W2	E-02/03-16	89	12.0	48.2
E03901	55	67.9	3.0	7	-4.0	Crescent Ave	point369	369	24.0	51.4
						SB75-W2	E-02/03-20	93	12.0	48.9
						SB75-W2	E-02/03-17	90	12.0	48.8
						SB75-W2	E-02/03-18	91	12.0	48.7
						SB75-W2	E-02/03-16	89	12.0	48.7
						SB75-W2	E-02/03-22	95	12.0	48.5
						SB75-W2	E-02/03-15	88	12.0	48.4
						SB75-W2	E-02/03-19	92	12.0	48.3
						Crescent Ave	point368	368	24.0	48.3
						SB75-W2	E-02/03-23	96	12.0	48.3
E04001	56	67.9	3.1	7	-3.9	Crescent Ave	point369	369	24.0	52.6

						Crescent Ave	point368	368	24.0	49.3
						SB75-W2	E-02/03-20	93	12.0	48.9
						SB75-W2	E-02/03-17	90	12.0	48.9
						SB75-W2	E-02/03-18	91	12.0	48.8
						SB75-W2	E-02/03-16	89	12.0	48.8
						SB75-W2	E-02/03-15	88	12.0	48.6
						Crescent Ave	point367	367	24.0	48.6
						SB75-W2	E-02/03-14	87	12.0	48.6
						SB75-W2	E-02/03-13	86	12.0	48.4
E04101	57	67.7	3.1	7	-3.9	Crescent Ave	point369	369	24.0	53.7
						Crescent Ave	point368	368	24.0	50.7
						Crescent Ave	point367	367	24.0	50.1
						Crescent Ave	point366	366	24.0	49.1
						SB75-W2	E-02/03-20	93	12.0	49.0
						SB75-W2	E-02/03-12	85	12.0	48.5
						SB75-W2	E-02/03-14	87	12.0	48.5
						SB75-W2	E-02/03-11	84	12.0	48.5
						SB75-W2	E-02/03-15	88	12.0	48.5
						SB75-W2	E-02/03-13	86	12.0	48.5
E04201	58	67.9	3.2	7	-3.8	Crescent Ave	point369	369	24.0	55.0
						Crescent Ave	point368	368	24.0	52.1
						Crescent Ave	point367	367	24.0	51.6
						Crescent Ave	point366	366	24.0	50.7
						Crescent Ave	point365	365	24.0	49.9
						Crescent Ave	point364	364	24.0	49.5
						SB75-W2	E-02/03-11	84	12.0	49.0
						SB75-W2	E-02/03-12	85	12.0	49.0
						SB75-W2	E-02/03-14	87	12.0	48.9
						SB75-W2	E-02/03-20	93	12.0	48.9
E04301	59	68.7	3.3	7	-3.7	Crescent Ave	point369	369	24.0	56.8
						Crescent Ave	point368	368	24.0	53.9
						Crescent Ave	point367	367	24.0	53.5
						Crescent Ave	point366	366	24.0	52.6
						Crescent Ave	point365	365	24.0	52.1
						Crescent Ave	point364	364	24.0	51.2
						Crescent Ave	point363	363	24.0	50.4

						SB75-W2	E-02/03-12	85	12.0	50.2
						SB75-W2	E-02/03-11	84	12.0	50.1
						SB75-W2	E-02/03-13	86	12.0	50.0
E04401	60	68.6	3.4	7	-3.6	Crescent Ave	point369	369	24.0	57.3
						Crescent Ave	point368	368	24.0	54.4
						Crescent Ave	point367	367	24.0	54.1
						Crescent Ave	point366	366	24.0	53.5
						Crescent Ave	point365	365	24.0	52.8
						Crescent Ave	point364	364	24.0	52.1
						Crescent Ave	point363	363	24.0	51.2
						SB75-W2	E-02/03-09	82	12.0	50.2
						SB75-W2	E-02/03-11	84	12.0	50.2
						SB75-W2	E-02/03-10	83	12.0	50.1
E04501	61	67.8	3.7	7	-3.3	Crescent Ave	point369	369	24.0	56.5
						Crescent Ave	point368	368	24.0	53.9
						Crescent Ave	point367	367	24.0	53.7
						Crescent Ave	point366	366	24.0	53.6
						Crescent Ave	point365	365	24.0	53.3
						Crescent Ave	point364	364	24.0	52.7
						Crescent Ave	point363	363	24.0	51.5
						Crescent Ave	point362	362	24.0	50.0
						SB75-W2	E-02/03-08	81	12.0	49.3
						SB75-W2	E-02/03-09	82	12.0	49.3
E04601	62	67.7	3.6	7	-3.4	Crescent Ave	point369	369	24.0	56.0
						Crescent Ave	point368	368	24.0	53.8
						Crescent Ave	point367	367	24.0	53.5
						Crescent Ave	point366	366	24.0	53.4
						Crescent Ave	point365	365	24.0	53.4
						Crescent Ave	point364	364	24.0	53.0
						Crescent Ave	point363	363	24.0	52.1
						Crescent Ave	point362	362	24.0	50.6
						Crescent Ave	point361	361	24.0	49.2
						SB75-W2	E-02/03-07	80	12.0	49.1
E04701	63	67.6	3.9	7	-3.1	Crescent Ave	point369	369	24.0	56.1
						Crescent Ave	point366	366	24.0	53.9
						Crescent Ave	point368	368	24.0	53.9

						Crescent Ave	point365	365	24.0	53.8
						Crescent Ave	point367	367	24.0	53.8
						Crescent Ave	point364	364	24.0	53.5
						Crescent Ave	point363	363	24.0	52.4
						Crescent Ave	point362	362	24.0	50.6
						Crescent Ave	point361	361	24.0	49.6
						SB75-W2	E-02/03-04	77	12.0	49.4
E07201	64	67.5	3.9	7	-3.1	Crescent Ave	point369	369	24.0	56.1
						Crescent Ave	point368	368	24.0	53.8
						Crescent Ave	point365	365	24.0	53.8
						Crescent Ave	point366	366	24.0	53.7
						Crescent Ave	point364	364	24.0	53.7
						Crescent Ave	point367	367	24.0	53.6
						Crescent Ave	point363	363	24.0	52.7
						Crescent Ave	point362	362	24.0	51.2
						Crescent Ave	point361	361	24.0	50.0
						Crescent Ave	point360	360	24.0	49.4
E04801	65	67.3	3.8	7	-3.2	Crescent Ave	point369	369	24.0	55.0
						Crescent Ave	point364	364	24.0	53.4
						Crescent Ave	point365	365	24.0	53.3
						Crescent Ave	point368	368	24.0	53.3
						Crescent Ave	point363	363	24.0	53.1
						Crescent Ave	point367	367	24.0	53.1
						Crescent Ave	point366	366	24.0	53.0
						Crescent Ave	point362	362	24.0	51.9
						Crescent Ave	point361	361	24.0	51.1
						Crescent Ave	point360	360	24.0	50.1
E04901	66	67.5	3.8	7	-3.2	Crescent Ave	point369	369	24.0	54.8
						Crescent Ave	point365	365	24.0	53.7
						Crescent Ave	point363	363	24.0	53.7
						Crescent Ave	point367	367	24.0	53.6
						Crescent Ave	point364	364	24.0	53.6
						Crescent Ave	point368	368	24.0	53.4
						Crescent Ave	point366	366	24.0	53.2
						Crescent Ave	point362	362	24.0	52.9
						Crescent Ave	point361	361	24.0	52.4

						Crescent Ave	point360	360	24.0	51.5
E05002	67	69.5	3.4	7	-3.6	SB75-W2	E-02/03-20	93	12.0	51.9
						SB75-W2	E-02/03-25	98	12.0	51.8
						SB75-W2	E-02/03-24	97	12.0	51.8
						SB75-W2	E-02/03-21	94	12.0	50.7
						SB75-W2	E-02/03-17	90	12.0	50.6
						SB75-W2	E-02/03-18	91	12.0	50.5
						SB75-W2	E-02/03-19	92	12.0	50.0
						SB75-W2	E-02/03-14	87	12.0	49.9
						SB75-W2	E-02/03-23	96	12.0	49.8
						SB75-W2	E-02/03-22	95	12.0	49.8
E05102	68	70.2	3.2	7	-3.8	SB75-W2	E-02/03-16	89	12.0	52.7
						SB75-W2	E-02/03-18	91	12.0	52.5
						SB75-W2	E-02/03-20	93	12.0	52.5
						SB75-W2	E-02/03-15	88	12.0	52.4
						SB75-W2	E-02/03-17	90	12.0	52.3
						SB75-W2	E-02/03-22	95	12.0	51.9
						SB75-W2	E-02/03-14	87	12.0	51.8
						SB75-W2	E-02/03-19	92	12.0	51.6
						SB75-W2	E-02/03-23	96	12.0	51.6
						SB75-W2	E-02/03-24	97	12.0	51.5
E05202	69	70.3	3.3	7	-3.7	SB75-W2	E-02/03-20	93	12.0	53.8
						SB75-W2	E-02/03-17	90	12.0	53.7
						SB75-W2	E-02/03-16	89	12.0	53.6
						SB75-W2	E-02/03-18	91	12.0	53.5
						SB75-W2	E-02/03-15	88	12.0	53.3
						SB75-W2	E-02/03-14	87	12.0	53.1
						SB75-W2	E-02/03-13	86	12.0	52.7
						SB75-W2	E-02/03-12	85	12.0	52.2
						SB75-W2	E-02/03-11	84	12.0	51.6
						SB75-W2	E-02/03-22	95	12.0	51.5
E05302	70	70.4	3.5	7	-3.5	SB75-W2	E-02/03-15	88	12.0	53.7
						SB75-W2	E-02/03-14	87	12.0	53.7
						SB75-W2	E-02/03-16	89	12.0	53.6
						SB75-W2	E-02/03-20	93	12.0	53.4
						SB75-W2	E-02/03-13	86	12.0	53.3

						SB75-W2	E-02/03-18	91	12.0	53.1
						SB75-W2	E-02/03-12	85	12.0	53.0
						SB75-W2	E-02/03-17	90	12.0	52.7
						SB75-W2	E-02/03-11	84	12.0	52.6
						SB75-W2	E-02/03-10	83	12.0	51.9
E05402	71	70.6	3.6	7	-3.4	Crescent Ave	point369	369	24.0	55.6
						SB75-W2	E-02/03-13	86	12.0	53.8
						SB75-W2	E-02/03-14	87	12.0	53.8
						SB75-W2	E-02/03-12	85	12.0	53.8
						SB75-W2	E-02/03-11	84	12.0	53.6
						SB75-W2	E-02/03-15	88	12.0	53.5
						SB75-W2	E-02/03-16	89	12.0	53.2
						SB75-W2	E-02/03-10	83	12.0	53.1
						SB75-W2	E-02/03-17	90	12.0	52.8
						SB75-W2	E-02/03-09	82	12.0	52.5
E05502	72	70.5	3.7	7	-3.3	Crescent Ave	point369	369	24.0	58.4
						SB75-W2	E-02/03-11	84	12.0	53.8
						SB75-W2	E-02/03-12	85	12.0	53.8
						SB75-W2	E-02/03-13	86	12.0	53.7
						SB75-W2	E-02/03-14	87	12.0	53.5
						SB75-W2	E-02/03-10	83	12.0	53.4
						SB75-W2	E-02/03-09	82	12.0	53.1
						SB75-W2	E-02/03-15	88	12.0	53.0
						SB75-W2	E-02/03-08	81	12.0	52.7
						SB75-W2	E-02/03-16	89	12.0	52.6
E05602	73	69.7	4.3	7	-2.7	Crescent Ave	point369	369	24.0	59.5
						Crescent Ave	point368	368	24.0	55.2
						Crescent Ave	point367	367	24.0	53.6
						SB75-W2	E-02/03-10	83	12.0	53.5
						SB75-W2	E-02/03-09	82	12.0	53.3
						SB75-W2	E-02/03-11	84	12.0	53.3
						SB75-W2	E-02/03-12	85	12.0	53.0
						Crescent Ave	point366	366	24.0	52.7
						SB75-W2	E-02/03-13	86	12.0	52.6
						SB75-W2	E-02/03-14	87	12.0	52.2
E05701	74	70.5	4.1	7	-2.9	Crescent Ave	point369	369	24.0	60.6

						Crescent Ave	point367	367	24.0	59.3
						Crescent Ave	point368	368	24.0	59.0
						Crescent Ave	point366	366	24.0	58.6
						Crescent Ave	point365	365	24.0	57.8
						Crescent Ave	point364	364	24.0	56.2
						Crescent Ave	point363	363	24.0	54.2
						SB75-W2	E-02/03-07	80	12.0	53.5
						SB75-W2	E-02/03-08	81	12.0	53.3
						SB75-W2	E-02/03-06	79	12.0	53.2
E05801	75	70.6	4.0	7	-3.0	Crescent Ave	point369	369	24.0	59.4
						Crescent Ave	point365	365	24.0	59.3
						Crescent Ave	point366	366	24.0	59.3
						Crescent Ave	point364	364	24.0	59.0
						Crescent Ave	point367	367	24.0	58.7
						Crescent Ave	point368	368	24.0	58.3
						Crescent Ave	point363	363	24.0	57.6
						Crescent Ave	point362	362	24.0	55.2
						SB75-W2	E-02/03-04	77	12.0	54.1
						SB75-W2	E-02/03-06	79	12.0	53.7
E05901	76	70.4	4.3	7	-2.7	Crescent Ave	point364	364	24.0	59.8
						Crescent Ave	point363	363	24.0	59.1
						Crescent Ave	point365	365	24.0	58.6
						Crescent Ave	point369	369	24.0	58.2
						Crescent Ave	point366	366	24.0	58.2
						Crescent Ave	point367	367	24.0	57.6
						Crescent Ave	point368	368	24.0	57.0
						Crescent Ave	point362	362	24.0	56.8
						Crescent Ave	point361	361	24.0	56.2
						Crescent Ave	point360	360	24.0	54.9
E06001	77	70.1	4.7	7	-2.3	Crescent Ave	point364	364	24.0	58.9
						Crescent Ave	point363	363	24.0	58.6
						Crescent Ave	point365	365	24.0	57.8
						Crescent Ave	point369	369	24.0	57.5
						Crescent Ave	point362	362	24.0	57.0
						Crescent Ave	point361	361	24.0	57.0
						Crescent Ave	point366	366	24.0	57.0

						Crescent Ave	point367	367	24.0	56.5
						Crescent Ave	point360	360	24.0	56.1
						Crescent Ave	point368	368	24.0	55.9
E06101	78	69.7	4.8	7	-2.2	Crescent Ave	point363	363	24.0	58.2
						Crescent Ave	point364	364	24.0	57.6
						Crescent Ave	point369	369	24.0	57.0
						Crescent Ave	point365	365	24.0	56.9
						Crescent Ave	point362	362	24.0	56.9
						Crescent Ave	point360	360	24.0	56.7
						Crescent Ave	point361	361	24.0	56.3
						Crescent Ave	point366	366	24.0	56.1
						Crescent Ave	point359	359	24.0	55.9
						Crescent Ave	point367	367	24.0	55.7
E06201	79	69.5	5.0	7	-2.0	Crescent Ave	point363	363	24.0	57.8
						Crescent Ave	point360	360	24.0	57.3
						Crescent Ave	point364	364	24.0	56.9
						Crescent Ave	point362	362	24.0	56.7
						Crescent Ave	point361	361	24.0	56.6
						Crescent Ave	point369	369	24.0	56.4
						Crescent Ave	point359	359	24.0	56.2
						Crescent Ave	point365	365	24.0	56.0
						Crescent Ave	point366	366	24.0	55.5
						Crescent Ave	point367	367	24.0	55.3
E06301	80	69.1	5.3	7	-1.7	Crescent Ave	point363	363	24.0	56.7
						Crescent Ave	point360	360	24.0	56.5
						Crescent Ave	point362	362	24.0	56.4
						Crescent Ave	point359	359	24.0	56.3
						Crescent Ave	point361	361	24.0	56.3
						Crescent Ave	point364	364	24.0	56.1
						Crescent Ave	point358	358	24.0	55.6
						Crescent Ave	point369	369	24.0	55.6
						Crescent Ave	point365	365	24.0	55.2
						Crescent Ave	point366	366	24.0	54.8
E06401-F	81	71.0	4.7	7	-2.3	Crescent Ave	point369	369	24.0	55.8
						SB75-W2	E-02/03-12	85	12.0	54.1
						SB75-W2	E-02/03-13	86	12.0	53.4

						SB75-W2	E-02/03-14	87	12.0	53.0
						Crescent Ave	point368	368	24.0	52.6
						SB75-W2	E-02/03-11	84	12.0	51.4
						SB75-W2	E-02/03-15	88	12.0	51.3
						Crescent Ave	point367	367	24.0	50.9
						SB75-W2	E-02/03-18	91	12.0	48.3
						SB75-W2	E-02/03-16	89	12.0	47.9
E06501-F	82	69.9	4.9	7	-2.1	Crescent Ave	point369	369	24.0	59.4
						Crescent Ave	point367	367	24.0	55.8
						Crescent Ave	point368	368	24.0	55.3
						Crescent Ave	point366	366	24.0	53.7
						SB75-W2	E-02/03-12	85	12.0	52.8
						Crescent Ave	point365	365	24.0	52.5
						SB75-W2	E-02/03-13	86	12.0	52.4
						SB75-W2	E-02/03-11	84	12.0	51.8
						SB75-W2	E-02/03-14	87	12.0	51.8
						Crescent Ave	point364	364	24.0	51.2
E06601-F	83	70.0	5.0	7	-2.0	Crescent Ave	point369	369	24.0	58.9
						Crescent Ave	point367	367	24.0	56.0
						Crescent Ave	point368	368	24.0	54.9
						Crescent Ave	point366	366	24.0	54.9
						Crescent Ave	point365	365	24.0	53.2
						SB75-W2	E-02/03-13	86	12.0	51.6
						NB75-W	E-05-27	269	12.0	51.1
						NB75-W	E-05-26	268	12.0	50.9
						SB75-W2	E-02/03-15	88	12.0	50.8
						Crescent Ave	point364	364	24.0	50.7
E06701-F	84	70.2	5.2	7	-1.8	Crescent Ave	point369	369	24.0	57.5
						Crescent Ave	point366	366	24.0	56.6
						Crescent Ave	point367	367	24.0	55.4
						Crescent Ave	point368	368	24.0	54.9
						Crescent Ave	point365	365	24.0	54.7
						Crescent Ave	point364	364	24.0	53.3
						NB75-W	E-05-26	268	12.0	51.3
						NB75-W	E-05-27	269	12.0	51.2
						NB75-W	E-05-25	267	12.0	50.8

						NB75-W	E-05-28	270	12.0	50.2
E06801-F	85	70.5	5.0	7	-2.0	Crescent Ave	point369	369	24.0	58.7
						Crescent Ave	point365	365	24.0	57.9
						Crescent Ave	point366	366	24.0	57.7
						Crescent Ave	point364	364	24.0	56.5
						Crescent Ave	point367	367	24.0	56.4
						Crescent Ave	point368	368	24.0	55.8
						Crescent Ave	point363	363	24.0	54.3
						NB75-W	E-05-27	269	12.0	52.7
						NB75-W	E-05-26	268	12.0	52.5
						NB75-W	E-05-25	267	12.0	52.5
E06901-F	86	70.2	5.2	7	-1.8	Crescent Ave	point364	364	24.0	58.2
						Crescent Ave	point369	369	24.0	57.5
						Crescent Ave	point365	365	24.0	57.4
						Crescent Ave	point363	363	24.0	57.3
						Crescent Ave	point366	366	24.0	56.5
						Crescent Ave	point367	367	24.0	55.8
						Crescent Ave	point368	368	24.0	54.7
						NB75-W	E-05-25	267	12.0	52.7
						NB75-W	E-05-26	268	12.0	52.7
						NB75-W	E-05-24	266	12.0	52.6
E07001-F	87	69.5	5.7	7	-1.3	Crescent Ave	point362	362	24.0	56.9
						Crescent Ave	point361	361	24.0	56.3
						Crescent Ave	point363	363	24.0	56.1
						Crescent Ave	point369	369	24.0	55.8
						Crescent Ave	point364	364	24.0	55.5
						Crescent Ave	point365	365	24.0	54.0
						Crescent Ave	point367	367	24.0	53.4
						Crescent Ave	point366	366	24.0	53.4
						Crescent Ave	point368	368	24.0	52.9
						Crescent Ave	point360	360	24.0	52.4
E07101-F	88	69.3	6.2	7	-0.8	Crescent Ave	point369	369	24.0	55.5
						Crescent Ave	point362	362	24.0	53.3
						Crescent Ave	point363	363	24.0	53.3
						Crescent Ave	point367	367	24.0	52.5
						Crescent Ave	point368	368	24.0	52.3

						Crescent Ave	point364	364	24.0	52.2
						Crescent Ave	point366	366	24.0	51.7
						Crescent Ave	point365	365	24.0	51.7
						Crescent Ave	point360	360	24.0	51.7
						Crescent Ave	point359	359	24.0	51.5
Total Cost, All Barriers (including additional cost(s))					$3648857					

HMB Professional Engineers **27 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **Brent Spence Bridge 6-17.00/1415.04**
RUN: **ALT NSA E 2049 Certified**
BARRIER DESIGN: **ev2-ind**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
SB9thStExit-2	W	12.00	12.00	12.00	880	10557				337838
SB75-W1	W	12.00	12.00	12.00	680	8162				261194
SB75-W2	W	12.00	12.00	12.00	1000	12002				384061
NB75-W	W	12.00	12.00	12.00	3091	37091				1186921
Crescent Ave	W	24.00	24.00	24.00	1071	25695				822237
Crescent Ave - Additional Phase	W	24.00	24.00	24.00	389	9341				298921
SBCD-W	W	12.00	12.00	12.00	931	11178				357684
									Total Cost:	3648857

HMB Professional Engineers 27 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA E 2049 Certified
BARRIER DESIGN: ev2-ind

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
SB9thStExit-2	W	point370	370	12.00	12.00	12.00	40	481	Y			15390
		E-01-07	184	12.00	12.00	12.00	40	474	Y			15179
		E-01-08	185	12.00	12.00	12.00	40	480	Y			15361
		E-01-09	186	12.00	12.00	12.00	40	480	Y			15360
		E-01-10	187	12.00	12.00	12.00	40	480	Y			15361
		E-01-11	188	12.00	12.00	12.00	40	480	Y			15361
		E-01-12	189	12.00	12.00	12.00	40	480	Y			15360
		E-01-13	190	12.00	12.00	12.00	40	480	Y			15360
		E-01-14	191	12.00	12.00	12.00	40	480	Y			15361
		E-01-15	192	12.00	12.00	12.00	40	486	Y			15552
		E-01-16	193	12.00	12.00	12.00	40	480	Y			15361
		E-01-17	194	12.00	12.00	12.00	40	480	Y			15360
		E-01-18	195	12.00	12.00	12.00	40	480	Y			15360
		E-01-19	196	12.00	12.00	12.00	40	480	Y			15360
		E-01-20	197	12.00	12.00	12.00	40	480	Y			15361
		E-01-21	198	12.00	12.00	12.00	40	480	Y			15360
		E-01-22	199	12.00	12.00	12.00	40	480	Y			15360
		E-01-23	200	12.00	12.00	12.00	40	480	Y			15371
		E-01-24	201	12.00	12.00	12.00	40	475	Y			15212
		E-01-25	202	12.00	12.00	12.00	40	481	Y			15403
		E-01-26	203	12.00	12.00	12.00	40	479	Y			15342
		E-01-27	204	12.00	12.00	12.00	40	479	Y			15342
SB75-W1	W	point332	332	12.00	12.00	12.00	40	480	Y			15371
		E-02/03-32	105	12.00	12.00	12.00	40	480	Y			15371
		E-02/03-33	106	12.00	12.00	12.00	40	480	Y			15371

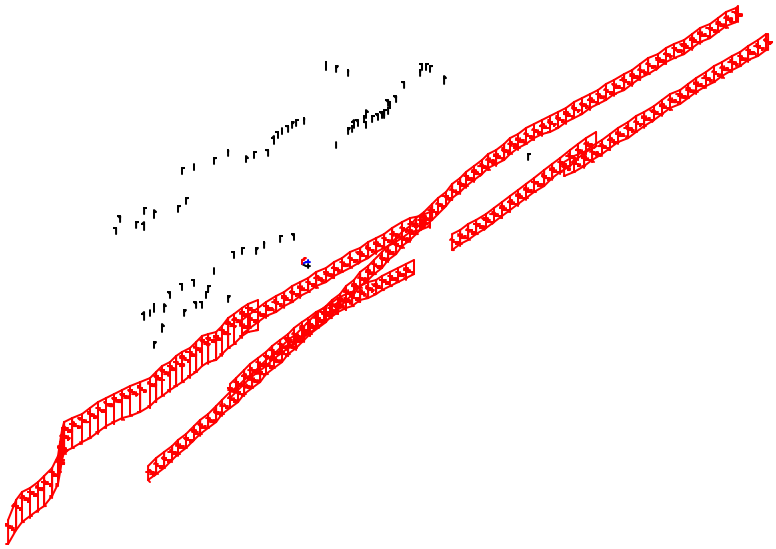
		E-02/03-34	107	12.00	12.00	12.00	40	480	Y			15365
		E-02/03-35	108	12.00	12.00	12.00	40	480	Y			15365
		E-02/03-36	109	12.00	12.00	12.00	40	480	Y			15365
		E-02/03-37	110	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-38	111	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-39	112	12.00	12.00	12.00	40	480	Y			15360
		E-02/03-40	113	12.00	12.00	12.00	40	480	Y			15360
		E-02/03-41	114	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-42	115	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-43	116	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-44	117	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-45	118	12.00	12.00	12.00	40	480	Y			15371
		E-02/03-46	119	12.00	12.00	12.00	40	480	Y			15365
		E-02/03-47	120	12.00	12.00	12.00	40	480	Y			15365
SB75-W2	W	E-02/03-01	73	12.00	12.00	12.00	40	479	Y			15314
		E-02/03-02	75	12.00	12.00	12.00	40	479	Y			15314
		E-02/03-03	76	12.00	12.00	12.00	40	478	Y			15289
		E-02/03-04	77	12.00	12.00	12.00	40	485	Y			15505
		E-02/03-05	78	12.00	12.00	12.00	40	479	Y			15314
		E-02/03-06	79	12.00	12.00	12.00	40	478	Y			15289
		E-02/03-07	80	12.00	12.00	12.00	40	485	Y			15505
		E-02/03-08	81	12.00	12.00	12.00	40	479	Y			15314
		E-02/03-09	82	12.00	12.00	12.00	40	479	Y			15314
		E-02/03-10	83	12.00	12.00	12.00	40	478	Y			15289
		E-02/03-11	84	12.00	12.00	12.00	40	485	Y			15505
		E-02/03-12	85	12.00	12.00	12.00	40	479	Y			15314
		E-02/03-13	86	12.00	12.00	12.00	40	479	Y			15314
		E-02/03-14	87	12.00	12.00	12.00	40	484	Y			15480
		E-02/03-15	88	12.00	12.00	12.00	40	478	Y			15289
		E-02/03-16	89	12.00	12.00	12.00	40	483	Y			15457
		E-02/03-17	90	12.00	12.00	12.00	40	477	Y			15266
		E-02/03-18	91	12.00	12.00	12.00	40	478	Y			15289
		E-02/03-19	92	12.00	12.00	12.00	40	483	Y			15457
		E-02/03-20	93	12.00	12.00	12.00	40	482	Y			15419
		E-02/03-21	94	12.00	12.00	12.00	40	475	Y			15212
		E-02/03-22	95	12.00	12.00	12.00	40	481	Y			15403
		E-02/03-23	96	12.00	12.00	12.00	40	481	Y			15403
		E-02/03-24	97	12.00	12.00	12.00	40	481	Y			15403

		E-02/03-25	98	12.00	12.00	12.00	40	481	Y			15403
NB75-W	W	point328	328	12.00	12.00	12.00	40	477	Y			15266
		E-05-09	251	12.00	12.00	12.00	40	484	Y			15480
		E-05-10	252	12.00	12.00	12.00	40	477	Y			15266
		E-05-11	253	12.00	12.00	12.00	40	478	Y			15289
		E-05-12	254	12.00	12.00	12.00	40	483	Y			15457
		E-05-13	255	12.00	12.00	12.00	40	478	Y			15289
		E-05-14	256	12.00	12.00	12.00	40	483	Y			15457
		E-05-15	257	12.00	12.00	12.00	40	477	Y			15266
		E-05-16	258	12.00	12.00	12.00	40	484	Y			15480
		E-05-17	259	12.00	12.00	12.00	40	477	Y			15266
		E-05-18	260	12.00	12.00	12.00	40	484	Y			15480
		E-05-19	261	12.00	12.00	12.00	40	477	Y			15266
		E-05-20	262	12.00	12.00	12.00	40	478	Y			15289
		E-05-21	263	12.00	12.00	12.00	40	484	Y			15480
		E-05-22	264	12.00	12.00	12.00	40	477	Y			15266
		E-05-23	265	12.00	12.00	12.00	40	484	Y			15480
		E-05-24	266	12.00	12.00	12.00	40	478	Y			15289
		E-05-25	267	12.00	12.00	12.00	40	478	Y			15289
		E-05-26	268	12.00	12.00	12.00	40	484	Y			15480
		E-05-27	269	12.00	12.00	12.00	40	478	Y			15289
		E-05-28	270	12.00	12.00	12.00	40	484	Y			15480
		E-05-29	271	12.00	12.00	12.00	40	478	Y			15289
		E-05-30	272	12.00	12.00	12.00	40	478	Y			15289
		E-05-31	273	12.00	12.00	12.00	40	485	Y			15505
		E-05-32	274	12.00	12.00	12.00	40	479	Y			15342
		E-05-33	275	12.00	12.00	12.00	40	479	Y			15342
		E-05-34	276	12.00	12.00	12.00	40	479	Y			15342
		E-05-35	277	12.00	12.00	12.00	40	479	Y			15342
		E-05-36	278	12.00	12.00	12.00	40	480	Y			15372
		E-05-37	279	12.00	12.00	12.00	40	480	Y			15372
		E-05-38	280	12.00	12.00	12.00	40	480	Y			15372
		E-05-39	281	12.00	12.00	12.00	40	480	Y			15372
		E-05-40	282	12.00	12.00	12.00	40	480	Y			15372
		E-05-41	283	12.00	12.00	12.00	40	479	Y			15342
		E-05-42	284	12.00	12.00	12.00	40	479	Y			15314
		E-05-43	285	12.00	12.00	12.00	40	479	Y			15342
		E-05-44	286	12.00	12.00	12.00	40	479	Y			15342

		E-05-45	287	12.00	12.00	12.00	40	485	Y			15505
		E-05-46	288	12.00	12.00	12.00	40	479	Y			15342
		E-05-47	289	12.00	12.00	12.00	40	479	Y			15342
		E-05-48	290	12.00	12.00	12.00	40	479	Y			15314
		E-05-49	291	12.00	12.00	12.00	40	479	Y			15342
		E-05-50	292	12.00	12.00	12.00	40	479	Y			15342
		E-05-51	293	12.00	12.00	12.00	40	485	Y			15505
		E-05-52	294	12.00	12.00	12.00	40	478	Y			15289
		E-05-53	295	12.00	12.00	12.00	40	479	Y			15314
		E-05-54	296	12.00	12.00	12.00	40	483	Y			15457
		E-05-55	297	12.00	12.00	12.00	40	477	Y			15266
		E-05-56	298	12.00	12.00	12.00	40	482	Y			15437
		E-05-57	299	12.00	12.00	12.00	40	476	Y			15246
		E-05-58	300	12.00	12.00	12.00	40	482	Y			15437
		E-05-59	301	12.00	12.00	12.00	40	481	Y			15403
		E-05-60	302	12.00	12.00	12.00	40	482	Y			15419
		E-05-61	303	12.00	12.00	12.00	40	475	Y			15212
		E-05-62	304	12.00	12.00	12.00	40	481	Y			15390
		E-05-63	305	12.00	12.00	12.00	40	481	Y			15379
		E-05-64	306	12.00	12.00	12.00	40	481	Y			15390
		E-05-65	307	12.00	12.00	12.00	40	480	Y			15371
		E-05-66	308	12.00	12.00	12.00	40	480	Y			15371
		E-05-67	309	12.00	12.00	12.00	40	480	Y			15365
		E-05-68	310	12.00	12.00	12.00	40	480	Y			15365
		E-05-69	311	12.00	12.00	12.00	40	480	Y			15361
		E-05-70	312	12.00	12.00	12.00	40	480	Y			15361
		E-05-71	313	12.00	12.00	12.00	40	480	Y			15360
		E-05-72	314	12.00	12.00	12.00	40	480	Y			15361
		E-05-73	315	12.00	12.00	12.00	40	480	Y			15365
		E-05-74	316	12.00	12.00	12.00	40	480	Y			15361
		E-05-75	317	12.00	12.00	12.00	40	480	Y			15365
		E-05-76	318	12.00	12.00	12.00	40	480	Y			15361
		E-05-77	319	12.00	12.00	12.00	40	480	Y			15371
		E-05-78	320	12.00	12.00	12.00	40	480	Y			15365
		E-05-79	321	12.00	12.00	12.00	40	480	Y			15365
		E-05-80	322	12.00	12.00	12.00	40	480	Y			15371
		E-05-81	323	12.00	12.00	12.00	40	480	Y			15365
		E-05-82	324	12.00	12.00	12.00	40	480	Y			15371
		E-05-83	325	12.00	12.00	12.00	40	480	Y			15365

		E-05-84	326	12.00	12.00	12.00	40	480	Y			15365
		E-05-85	327	12.00	12.00	12.00	11	126	Y			4037
Crescent Ave	W	point343	343	24.00	24.00	24.00	40	960				30730
		point345	345	24.00	24.00	24.00	40	960				30722
		point346	346	24.00	24.00	24.00	40	960				30730
		point347	347	24.00	24.00	24.00	40	960				30722
		point348	348	24.00	24.00	24.00	40	960				30730
		point349	349	24.00	24.00	24.00	40	960				30722
		point350	350	24.00	24.00	24.00	40	960				30722
		point351	351	24.00	24.00	24.00	40	960				30730
		point352	352	24.00	24.00	24.00	40	960				30722
		point353	353	24.00	24.00	24.00	51	1212				38792
		point354	354	24.00	24.00	24.00	40	955				30576
		point355	355	24.00	24.00	24.00	40	955				30576
		point356	356	24.00	24.00	24.00	40	967				30952
		point357	357	24.00	24.00	24.00	40	958				30655
		point358	358	24.00	24.00	24.00	40	955				30576
		point359	359	24.00	24.00	24.00	40	967				30952
		point360	360	24.00	24.00	24.00	40	955				30576
		point361	361	24.00	24.00	24.00	40	967				30952
		point362	362	24.00	24.00	24.00	40	955				30576
		point363	363	24.00	24.00	24.00	40	955				30576
		point364	364	24.00	24.00	24.00	40	967				30952
		point365	365	24.00	24.00	24.00	40	955				30576
		point366	366	24.00	24.00	24.00	40	958				30655
		point367	367	24.00	24.00	24.00	40	967				30952
		point368	368	24.00	24.00	24.00	40	955				30576
		point369	369	24.00	24.00	24.00	60	1445				46240
Crescent Ave - Additional Phase	W	CAA-01	371	24.00	24.00	24.00	40	963				30806
		CAA-02	373	24.00	24.00	24.00	40	951				30423
		CAA-03	374	24.00	24.00	24.00	40	963				30806
		CAA-04	375	24.00	24.00	24.00	40	957				30629
		CAA-05	376	24.00	24.00	24.00	40	961				30744
		CAA-06	377	24.00	24.00	24.00	40	967				30952
		CAA-07	378	24.00	24.00	24.00	40	963				30828
		CAA-08	379	24.00	24.00	24.00	40	955				30571
		CAA-09	380	24.00	24.00	24.00	40	955				30571

		CAA-10	381	24.00	24.00	24.00	29	706				22591
SBCD-W	W	point329	329	12.00	12.00	12.00	40	482	Y			15439
		E-01-42	219	12.00	12.00	12.00	41	488	Y			15628
		E-01-43	220	12.00	12.00	12.00	39	464	Y			14845
		E-01-44	221	12.00	12.00	12.00	41	492	Y			15744
		E-01-45	222	12.00	12.00	12.00	40	480	Y			15365
		E-01-46	223	12.00	12.00	12.00	40	474	Y			15173
		E-01-47	224	12.00	12.00	12.00	40	481	Y			15390
		E-01-48	225	12.00	12.00	12.00	40	480	Y			15365
		E-01-49	226	12.00	12.00	12.00	40	480	Y			15365
		E-01-50	227	12.00	12.00	12.00	40	480	Y			15371
		E-01-51	228	12.00	12.00	12.00	40	480	Y			15365
		E-01-52	229	12.00	12.00	12.00	40	480	Y			15371
		E-01-53	230	12.00	12.00	12.00	40	480	Y			15365
		E-01-54	231	12.00	12.00	12.00	40	480	Y			15365
		E-01-55	232	12.00	12.00	12.00	40	480	Y			15371
		E-01-56	233	12.00	12.00	12.00	40	480	Y			15365
		E-01-57	234	12.00	12.00	12.00	40	480	Y			15371
		E-01-58	235	12.00	12.00	12.00	40	480	Y			15365
		E-01-59	236	12.00	12.00	12.00	40	480	Y			15371
		E-01-60	237	12.00	12.00	12.00	40	480	Y			15365
		E-01-61	238	12.00	12.00	12.00	40	480	Y			15365
		E-01-62	239	12.00	12.00	12.00	40	480	Y			15371
		E-01-63	240	12.00	12.00	12.00	40	480	Y			15365
		E-01-64	241	12.00	12.00	12.00	11	132	Y			4228



ALT NSA E 2049 Certified		Sheet 1 of 1	20 Jun 2023
		HMB Professional Engineers	
Barrier View-E-1		Project/Contract No. Brent Spence Bridge 6-17.00	
Run name: NSA_E_V1		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: NSA F, AREA F1

HMB Professional Engineers
Mark Gavula
26 June 2023
TNM 2.5
Calculated with TNM 2.5
RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge
RUN: F1
BARRIER DESIGN: f1new-ind-1
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F00102-F	18	1	71.7	74.0	66	2.3	10	Snd Lvl	69.0	5.0	7	-2.0
F00201-F	19	1	71.5	73.8	66	2.3	10	Snd Lvl	68.5	5.3	7	-1.7
F00301-F	20	1	71.7	73.7	66	2.0	10	Snd Lvl	69.2	4.5	7	-2.5
F00401-F	21	1	71.5	73.6	66	2.1	10	Snd Lvl	68.5	5.1	7	-1.9
F00501-F	22	1	71.6	73.6	66	2.0	10	Snd Lvl	68.8	4.8	7	-2.2
F00601-F	23	1	71.1	73.0	66	1.9	10	Snd Lvl	67.6	5.4	7	-1.6
F00701-F	24	1	71.1	73.4	66	2.3	10	Snd Lvl	68.7	4.7	7	-2.3
F00804-F	25	4	72.8	74.8	66	2.0	10	Snd Lvl	64.7	10.1	7	3.1
F00904	26	4	70.2	73.2	66	3.0	10	Snd Lvl	67.7	5.5	7	-1.5
F01002-F	27	1	75.6	79.0	66	3.4	10	Snd Lvl	57.5	21.5	7	14.5
F01101-F	28	1	74.7	78.1	66	3.4	10	Snd Lvl	61.0	17.1	7	10.1
F01201-F	29	1	74.7	77.6	66	2.9	10	Snd Lvl	61.5	16.1	7	9.1
F01302-F	30	2	74.4	78.1	66	3.7	10	Snd Lvl	60.6	17.5	7	10.5
F01501-F	32	1	73.6	77.3	66	3.7	10	Snd Lvl	63.6	13.7	7	6.7
F01601-F	33	1	73.4	77.2	66	3.8	10	Snd Lvl	64.6	12.6	7	5.6
F01701-F	34	1	73.1	77.1	66	4.0	10	Snd Lvl	65.9	11.2	7	4.2
F01801-F	35	1	70.7	75.5	66	4.8	10	Snd Lvl	65.8	9.7	7	2.7
F01901-F	36	1	70.8	75.6	66	4.8	10	Snd Lvl	66.3	9.3	7	2.3
F02001-F	37	1	70.7	75.4	66	4.7	10	Snd Lvl	66.2	9.2	7	2.2
F02101-F	38	1	68.6	73.4	66	4.8	10	Snd Lvl	66.3	7.1	7	0.1
F02201-F	39	1	68.6	73.6	66	5.0	10	Snd Lvl	66.7	6.9	7	-0.1
F02301-F	40	1	69.6	74.2	66	4.6	10	Snd Lvl	67.3	6.9	7	-0.1
F02401-F	41	1	69.8	74.2	66	4.4	10	Snd Lvl	67.3	6.9	7	-0.1
F02502-F	42	2	70.4	74.4	66	4.0	10	Snd Lvl	67.6	6.8	7	-0.2

F02601-F	43	1	69.4	73.7	66	4.3	10	Snd Lvl	67.8	5.9	7	-1.1
F02701-F	44	1	68.9	73.2	66	4.3	10	Snd Lvl	67.7	5.5	7	-1.5
F02801-F	45	1	68.6	72.7	66	4.1	10	Snd Lvl	67.7	5.0	7	-2.0
F02901-F	46	1	68.8	71.9	66	3.1	10	Snd Lvl	67.7	4.2	7	-2.8
F03001-F	47	1	68.8	71.5	66	2.7	10	Snd Lvl	68.2	3.3	7	-3.7
F03101-F	48	1	67.9	70.5	66	2.6	10	Snd Lvl	67.5	3.0	7	-4.0
F03201-F	49	1	68.6	70.3	66	1.7	10	Snd Lvl	67.7	2.6	7	-4.4
F03301-F	50	1	69.6	70.4	66	0.8	10	Snd Lvl	67.8	2.6	7	-4.4
F03401	51	1	70.4	72.9	66	2.5	10	Snd Lvl	69.1	3.8	7	-3.2
F03501	52	1	70.3	72.8	66	2.5	10	Snd Lvl	69.2	3.6	7	-3.4
F03601	53	1	69.9	72.6	66	2.7	10	Snd Lvl	69.1	3.5	7	-3.5
F03701	54	1	69.2	72.5	66	3.3	10	Snd Lvl	68.7	3.8	7	-3.2
F03801	55	1	68.5	72.3	66	3.8	10	Snd Lvl	68.0	4.3	7	-2.7
F03901	56	1	68.3	72.1	66	3.8	10	Snd Lvl	67.8	4.3	7	-2.7
F04001	57	1	68.2	72.1	66	3.9	10	Snd Lvl	67.6	4.5	7	-2.5
F04102	58	2	67.8	71.9	66	4.1	10	Snd Lvl	67.1	4.8	7	-2.2
F04201	59	1	67.4	71.8	66	4.4	10	Snd Lvl	66.0	5.8	7	-1.2
F04301	60	1	68.0	73.9	66	5.9	10	Snd Lvl	67.9	6.0	7	-1.0
F04401	61	1	65.1	73.6	66	8.5	10	Snd Lvl	66.5	7.1	7	0.1
F04501	62	1	67.5	73.6	66	6.1	10	Snd Lvl	66.5	7.1	7	0.1
F04601	64	1	65.4	72.9	66	7.5	10	Snd Lvl	66.3	6.6	7	-0.4
F04701	65	1	65.4	72.6	66	7.2	10	Snd Lvl	65.2	7.4	7	0.4
F04801	66	1	65.0	72.6	66	7.6	10	Snd Lvl	64.9	7.7	7	0.7
F04901	67	1	66.7	72.6	66	5.9	10	Snd Lvl	64.8	7.8	7	0.8
F05001	68	1	65.8	71.3	66	5.5	10	Snd Lvl	64.3	7.0	7	0.0
F05101	69	1	65.6	71.3	66	5.7	10	Snd Lvl	64.7	6.6	7	-0.4
F05201	70	1	66.4	71.2	66	4.8	10	Snd Lvl	64.7	6.5	7	-0.5
F05301	71	1	63.9	70.1	66	6.2	10	Snd Lvl	64.3	5.8	7	-1.2
F05401	72	1	64.2	69.6	66	5.4	10	Snd Lvl	64.1	5.5	7	-1.5
F05501	73	1	64.6	69.6	66	5.0	10	Snd Lvl	64.3	5.3	7	-1.7
F05601	74	1	67.5	69.4	66	1.9	10	Snd Lvl	65.3	4.1	7	-2.9
F05801	75	1	66.4	68.8	66	2.4	10	Snd Lvl	64.6	4.2	7	-2.8
F05901	76	1	65.9	68.3	66	2.4	10	Snd Lvl	63.8	4.5	7	-2.5
F06001	77	1	66.4	68.5	66	2.1	10	Snd Lvl	63.5	5.0	7	-2.0
F06102	78	1	66.9	69.1	66	2.2	10	Snd Lvl	63.7	5.4	7	-1.6
F06201	79	1	66.8	69.5	66	2.7	10	Snd Lvl	63.7	5.8	7	-1.2
F06301	80	1	66.6	69.6	66	3.0	10	Snd Lvl	63.5	6.1	7	-0.9
F06401	81	1	66.4	69.5	66	3.1	10	Snd Lvl	63.4	6.1	7	-0.9
F06501	82	1	65.8	69.1	66	3.3	10	Snd Lvl	63.1	6.0	7	-1.0
F06601	83	1	66.8	70.1	66	3.3	10	Snd Lvl	63.8	6.3	7	-0.7
F06701	84	1	66.2	69.5	66	3.3	10	Snd Lvl	64.8	4.7	7	-2.3

F06801	85	1	66.3	69.5	66	3.2	10	Snd Lvl	64.9	4.6	7	-2.4
F06901	86	1	66.3	69.4	66	3.1	10	Snd Lvl	64.7	4.7	7	-2.3
F07001	87	1	66.2	69.3	66	3.1	10	Snd Lvl	64.4	4.9	7	-2.1
F07103-F	88	1	69.5	69.3	66	-0.2	10	Snd Lvl	65.5	3.8	7	-3.2
F07201	89	1	69.0	69.1	66	0.1	10	Snd Lvl	65.1	4.0	7	-3.0
F07301	90	1	68.2	68.3	66	0.1	10	Snd Lvl	64.3	4.0	7	-3.0
F07401	91	1	68.1	68.1	66	0.0	10	Snd Lvl	64.0	4.1	7	-2.9
F07501	92	1	68.1	68.0	66	-0.1	10	Snd Lvl	64.1	3.9	7	-3.1
F07602-F	93	2	68.8	68.5	66	-0.3	10	Snd Lvl	64.5	4.0	7	-3.0
F07701-F	94	1	68.7	68.4	66	-0.3	10	Snd Lvl	64.3	4.1	7	-2.9
F07801-F	95	1	68.8	68.3	66	-0.5	10	Snd Lvl	64.3	4.0	7	-3.0
F07904-F	96	1	68.3	67.3	66	-1.0	10	Snd Lvl	63.5	3.8	7	-3.2
F08001	97	1	67.5	67.2	66	-0.3	10	Snd Lvl	62.8	4.4	7	-2.6
F08101	98	1	67.5	67.2	66	-0.3	10	Snd Lvl	63.0	4.2	7	-2.8
F08201	99	1	67.8	67.3	66	-0.5	10	Snd Lvl	62.8	4.5	7	-2.5
F08301	100	1	68.8	68.3	66	-0.5	10	Snd Lvl	64.0	4.3	7	-2.7
F08401	101	1	69.5	68.6	66	-0.9	10	Snd Lvl	64.8	3.8	7	-3.2
F31501	102	1	69.1	68.4	66	-0.7	10	Snd Lvl	64.3	4.1	7	-2.9
F08501	103	1	69.8	68.7	66	-1.1	10	Snd Lvl	65.0	3.7	7	-3.3
F08601	104	1	70.2	68.8	66	-1.4	10	Snd Lvl	65.3	3.5	7	-3.5
F08702	105	1	66.0	68.6	66	2.6	10	Snd Lvl	63.0	5.6	7	-1.4
F08801	106	1	66.4	68.2	66	1.8	10	Snd Lvl	63.0	5.2	7	-1.8
F08901	107	1	66.6	68.0	66	1.4	10	Snd Lvl	63.1	4.9	7	-2.1
F09001	108	1	66.4	68.2	66	1.8	10	Snd Lvl	63.4	4.8	7	-2.2
F09102	109	2	64.3	67.9	66	3.6	10	Snd Lvl	63.2	4.7	7	-2.3
F09201	110	1	63.0	67.7	66	4.7	10	Snd Lvl	63.1	4.6	7	-2.4
F09301	111	1	63.2	67.7	66	4.5	10	Snd Lvl	63.1	4.6	7	-2.4
F09401	112	1	62.6	67.4	66	4.8	10	Snd Lvl	62.9	4.5	7	-2.5
F09501	113	1	64.5	67.3	66	2.8	10	Snd Lvl	62.8	4.5	7	-2.5
F09601	114	1	65.5	67.1	66	1.6	10	Snd Lvl	62.4	4.7	7	-2.3
F09701	115	1	66.5	66.7	66	0.2	10	Snd Lvl	62.1	4.6	7	-2.4
F09804	116	1	65.6	66.1	66	0.5	10	Snd Lvl	61.2	4.9	7	-2.1
F09901	117	1	64.8	65.6	66	0.8	10	----	60.7	4.9	7	-2.1
F10001	118	2	64.5	65.4	66	0.9	10	----	60.3	5.1	7	-1.9
F10101	119	1	64.7	65.5	66	0.8	10	----	60.4	5.1	7	-1.9
F10202	120	1	64.6	65.5	66	0.9	10	----	60.5	5.0	7	-2.0
F10301	121	1	64.3	65.1	66	0.8	10	----	60.0	5.1	7	-1.9
F10402	122	1	62.4	64.8	66	2.4	10	----	59.6	5.2	7	-1.8
F10512	123	12	65.8	66.7	66	0.9	10	Snd Lvl	61.7	5.0	7	-2.0
F10601	124	1	65.8	67.3	66	1.5	10	Snd Lvl	61.9	5.4	7	-1.6
F10701	125	1	65.9	67.5	66	1.6	10	Snd Lvl	62.1	5.4	7	-1.6

F10801	126	1	65.9	67.8	66	1.9	10	Snd Lvl	62.3	5.5	7	-1.5
F10901	127	1	66.0	68.2	66	2.2	10	Snd Lvl	62.6	5.6	7	-1.4
F11001	128	1	63.2	68.2	66	5.0	10	Snd Lvl	62.6	5.6	7	-1.4
F11101	129	1	64.4	68.1	66	3.7	10	Snd Lvl	62.7	5.4	7	-1.6
F11202	130	1	63.2	67.7	66	4.5	10	Snd Lvl	62.0	5.7	7	-1.3
F11301	131	1	65.1	67.5	66	2.4	10	Snd Lvl	62.3	5.2	7	-1.8
F11401	132	1	64.1	67.4	66	3.3	10	Snd Lvl	61.6	5.8	7	-1.2
F11501	133	1	60.6	66.7	66	6.1	10	Snd Lvl	60.9	5.8	7	-1.2
F11602	134	1	62.5	66.4	66	3.9	10	Snd Lvl	60.7	5.7	7	-1.3
F11701	135	1	64.1	66.5	66	2.4	10	Snd Lvl	60.8	5.7	7	-1.3
F11801	136	1	63.1	65.8	66	2.7	10	----	60.2	5.6	7	-1.4
F11901	137	1	64.6	65.7	66	1.1	10	----	60.5	5.2	7	-1.8
F12001	138	1	64.5	65.5	66	1.0	10	----	60.2	5.3	7	-1.7
F12101	139	1	64.3	65.2	66	0.9	10	----	59.9	5.3	7	-1.7
F12202	140	2	63.9	64.9	66	1.0	10	----	59.7	5.2	7	-1.8
F12301	141	1	62.3	64.0	66	1.7	10	----	58.5	5.5	7	-1.5
F12403	142	1	62.5	64.2	66	1.7	10	----	58.7	5.5	7	-1.5
F12501	143	1	61.8	64.1	66	2.3	10	----	58.9	5.2	7	-1.8
F12601	144	1	62.5	64.3	66	1.8	10	----	59.2	5.1	7	-1.9
F12701	145	1	62.8	64.6	66	1.8	10	----	59.5	5.1	7	-1.9
F12804	146	1	63.6	65.3	66	1.7	10	----	60.4	4.9	7	-2.1
F12901	147	1	62.9	64.8	66	1.9	10	----	59.8	5.0	7	-2.0
F13003	148	1	64.3	66.4	66	2.1	10	Snd Lvl	61.5	4.9	7	-2.1
F13105	149	5	62.9	66.4	66	3.5	10	Snd Lvl	61.5	4.9	7	-2.1
F13201	150	1	64.7	66.4	66	1.7	10	Snd Lvl	61.5	4.9	7	-2.1
F13303	151	3	66.2	67.1	66	0.9	10	Snd Lvl	62.8	4.3	7	-2.7
F13402	152	1	66.7	67.0	66	0.3	10	Snd Lvl	63.1	3.9	7	-3.1
F13502	153	1	66.4	66.7	66	0.3	10	Snd Lvl	63.0	3.7	7	-3.3
F13601	154	1	61.5	64.5	66	3.0	10	----	59.3	5.2	7	-1.8
F13701	155	1	61.8	64.4	66	2.6	10	----	59.0	5.4	7	-1.6
F31201	156	1	61.7	64.4	66	2.7	10	----	59.0	5.4	7	-1.6
F13801	157	1	61.9	64.2	66	2.3	10	----	59.0	5.2	7	-1.8
F13901	158	1	62.2	64.2	66	2.0	10	----	59.1	5.1	7	-1.9
F14001	159	1	62.5	64.2	66	1.7	10	----	59.0	5.2	7	-1.8
F14102	160	1	62.5	64.3	66	1.8	10	----	59.3	5.0	7	-2.0
F14201	161	1	61.6	64.3	66	2.7	10	----	59.3	5.0	7	-2.0
F14301	162	1	62.0	64.3	66	2.3	10	----	59.4	4.9	7	-2.1
F14402	163	1	62.4	64.5	66	2.1	10	----	59.6	4.9	7	-2.1
F14501	164	2	62.8	64.7	66	1.9	10	----	59.8	4.9	7	-2.1
F14601	165	1	62.9	64.8	66	1.9	10	----	60.0	4.8	7	-2.2
F14701	166	1	63.1	64.9	66	1.8	10	----	60.2	4.7	7	-2.3

F14801	167	1	63.2	65.0	66	1.8	10	----	60.3	4.7	7	-2.3
F14901	168	1	63.3	65.2	66	1.9	10	----	60.5	4.7	7	-2.3
F15001	169	1	63.7	65.4	66	1.7	10	----	60.8	4.6	7	-2.4
F15101	170	1	64.3	65.4	66	1.1	10	----	60.8	4.6	7	-2.4
F15201	171	1	64.4	65.5	66	1.1	10	----	61.0	4.5	7	-2.5
F15301-F	172	1	65.5	65.8	66	0.3	10	----	61.7	4.1	7	-2.9

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	184	2.6	5.6	21.5
All Impacted	144	2.6	5.8	21.5
All that meet NR Goal	22	7.0	11.1	21.5

HMB Professional Engineers
Mark Gavula

26 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge
RUN: F1
BARRIER DESIGN: f1new-ind-1

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
F00102-F	18	69.0	5.0	7	-2.0	Crescent Ave	point482	482	24.0	56.5
						Crescent Ave	CA-04	488	24.0	56.5
						Crescent Ave	CA-05	489	24.0	56.3
						Crescent Ave	CA-03	487	24.0	56.2
						Crescent Ave	point474	474	24.0	56.1
						Crescent Ave	CA-02	486	24.0	55.8
						Crescent Ave	point484	484	24.0	55.7
						Crescent Ave	point483	483	24.0	55.7
						Crescent Ave	CA-01	485	24.0	55.6
						Crescent Ave	CA-06	490	24.0	55.5
F00201-F	19	68.5	5.3	7	-1.7	Crescent Ave	point482	482	24.0	56.5
						Crescent Ave	point472	472	24.0	55.6
						Crescent Ave	point483	483	24.0	55.3
						Crescent Ave	point481	481	24.0	55.2
						Crescent Ave	CA-04	488	24.0	55.0
						Crescent Ave	point484	484	24.0	55.0
						Crescent Ave	CA-05	489	24.0	54.9
						Crescent Ave	CA-03	487	24.0	54.8
						Crescent Ave	CA-01	485	24.0	54.8
						Crescent Ave - Additional Phase	CAA-06	505	24.0	54.7
F00301-F	20	69.2	4.5	7	-2.5	scent Ave - Additional Phase	CAA-05	504	24.0	55.9

						Crescent Ave	point482	482	24.0	55.7
						Crescent Ave	point480	480	24.0	55.6
						Crescent Ave	point478	478	24.0	55.3
						Crescent Ave	point481	481	24.0	55.3
					Crescent Ave - Additional Phase		CAA-07	506	24.0	55.3
						Crescent Ave	point479	479	24.0	55.3
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.1
						Crescent Ave	CA-04	488	24.0	54.9
						Crescent Ave	CA-03	487	24.0	54.9
F00401-F	21	68.5	5.1	7	-1.9	scent Ave - Additional Phase	CAA-06	505	24.0	55.9
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.8
						Crescent Ave	point480	480	24.0	55.0
						Crescent Ave	point482	482	24.0	54.9
					Crescent Ave - Additional Phase		CAA-05	504	24.0	54.9
						Crescent Ave	point479	479	24.0	54.9
					Crescent Ave - Additional Phase		CAA-03	502	24.0	54.7
						Crescent Ave	point481	481	24.0	54.6
						SB75-W3	F-01-13	402	24.0	54.3
						Crescent Ave	point478	478	24.0	54.2
F00501-F	22	68.8	4.8	7	-2.2	scent Ave - Additional Phase	CAA-05	504	24.0	56.5
					Crescent Ave - Additional Phase		CAA-03	502	24.0	56.3
						Crescent Ave	point477	477	24.0	55.5
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.2
						Crescent Ave	point476	476	24.0	55.1
						Crescent Ave	point479	479	24.0	55.1
						Crescent Ave	point478	478	24.0	55.0
					Crescent Ave - Additional Phase		CAA-06	505	24.0	54.9
						SB75-W3	F-01-12	401	24.0	54.6
						Crescent Ave	point480	480	24.0	54.5
F00601-F	23	67.6	5.4	7	-1.6	scent Ave - Additional Phase	CAA-02	501	24.0	55.8
					Crescent Ave - Additional Phase		CAA-03	502	24.0	55.8
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.3
					Crescent Ave - Additional Phase		CAA-01	499	24.0	54.8
					Crescent Ave - Additional Phase		CAA-05	504	24.0	54.2
					Crescent Ave - Additional Phase		CAA-06	505	24.0	53.9
						SB75-W3	F-01-11	400	20.0	53.4

						SB75-W3	F-01-10	399	24.0	52.9
						SB75-W3	F-01-12	401	20.0	52.7
						Crescent Ave	point480	480	24.0	52.7
F00701-F	24	68.7	4.7	7	-2.3	scent Ave - Additional Phase	CAA-03	502	24.0	57.1
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.5
						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.1
						Crescent Ave	point475	475	24.0	55.8
						Crescent Ave	point474	474	24.0	55.5
						Crescent Ave - Additional Phase	CAA-04	503	24.0	55.5
						Crescent Ave - Additional Phase	CAA-06	505	24.0	55.2
						Crescent Ave - Additional Phase	CAA-05	504	24.0	55.1
						Crescent Ave	point476	476	24.0	54.8
						Crescent Ave - Additional Phase	CAA-07	506	24.0	54.3
F00804-F	25	64.7	10.1	7	3.1	scent Ave - Additional Phase	CAA-05	504	24.0	57.6
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.4
						Crescent Ave - Additional Phase	CAA-03	502	24.0	55.8
						SB75-W3	F-01-12	401	24.0	55.2
						SB75-W3	F-01-13	402	20.0	53.9
						Crescent Ave - Additional Phase	CAA-06	505	24.0	53.6
						SB75-W3	F-01-09	398	24.0	52.7
						SB75-W3	F-01-10	399	24.0	52.7
						Crescent Ave	point472	472	24.0	52.5
						SB75-W3	F-01-11	400	24.0	52.2
F00904	26	67.7	5.5	7	-1.5	scent Ave - Additional Phase	CAA-02	501	24.0	56.9
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.6
						Crescent Ave - Additional Phase	CAA-03	502	24.0	55.7
						Crescent Ave - Additional Phase	CAA-06	505	24.0	55.4
						Crescent Ave - Additional Phase	CAA-05	504	24.0	55.4
						Crescent Ave - Additional Phase	CAA-04	503	24.0	55.2
						SB75-W3	F-01-15	404	24.0	54.4
						SB75-W3	F-01-14	403	24.0	54.0
						SB75-W3	F-01-09	398	24.0	53.7
						SB75-W3	F-01-16	405	24.0	53.7
F01002-F	27	57.5	21.5	7	14.5	scent Ave - Additional Phase	CAA-07	506	24.0	57.3
						SB75-W3	F-01-17	406	24.0	47.9
						SB75-W3	F-01-18	407	12.0	47.7

						SB75-W3	F-01-16	405	24.0	46.0
						SB75-W3	F-01-15	404	24.0	44.8
						SB75-W3	F-01-14	403	24.0	44.7
						SB75-W3	F-01-12	401	24.0	43.2
						SB75-W3	F-01-13	402	24.0	42.9
					Crescent Ave - Additional Phase		CAA-06	505	24.0	39.9
						SB75-W3	F-01-11	400	24.0	39.5
F01101-F	28	61.0	17.1	7	10.1	scent Ave - Additional Phase	CAA-06	505	24.0	56.4
					Crescent Ave - Additional Phase		CAA-05	504	24.0	54.9
					Crescent Ave - Additional Phase		CAA-07	506	24.0	53.3
					Crescent Ave - Additional Phase		CAA-04	503	24.0	52.0
						SB75-W3	F-01-17	406	24.0	51.0
					Crescent Ave - Additional Phase		CAA-08	507	24.0	50.4
						SB75-W3	F-01-16	405	24.0	50.4
						SB75-W3	F-01-18	407	12.0	49.3
						SB75-W3	F-01-15	404	24.0	49.1
						SB75-W3	F-01-14	403	24.0	48.8
F01201-F	29	61.5	16.1	7	9.1	scent Ave - Additional Phase	CAA-05	504	24.0	56.0
					Crescent Ave - Additional Phase		CAA-06	505	24.0	54.6
					Crescent Ave - Additional Phase		CAA-04	503	24.0	54.0
					Crescent Ave - Additional Phase		CAA-03	502	24.0	53.0
						SB75-W3	F-01-16	405	24.0	51.5
						SB75-W3	F-01-17	406	24.0	50.8
					Crescent Ave - Additional Phase		CAA-07	506	24.0	50.8
						SB75-W3	F-01-15	404	24.0	50.6
					Crescent Ave - Additional Phase		CAA-08	507	24.0	50.0
						SB75-W3	F-01-14	403	24.0	49.3
F01302-F	30	60.6	17.5	7	10.5	scent Ave - Additional Phase	CAA-03	502	24.0	55.3
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.1
					Crescent Ave - Additional Phase		CAA-05	504	24.0	52.0
					Crescent Ave - Additional Phase		CAA-02	501	24.0	51.8
						SB75-W3	F-01-15	404	24.0	50.5
					Crescent Ave - Additional Phase		CAA-06	505	24.0	49.6
						SB75-W3	F-01-14	403	24.0	49.4
						SB75-W3	F-01-16	405	24.0	49.3
						SB75-W3	F-01-17	406	24.0	48.2

						SB75-W3	F-01-13	402	24.0	47.8
F01501-F	32	63.6	13.7	7	6.7	scent Ave - Additional Phase	CAA-01	499	24.0	57.5
						Crescent Ave - Additional Phase	CAA-03	502	24.0	54.3
						Crescent Ave - Additional Phase	CAA-02	501	24.0	54.3
						Crescent Ave - Additional Phase	CAA-04	503	24.0	52.1
						SB75-W3	F-01-15	404	24.0	50.6
						SB75-W3	F-01-14	403	24.0	50.3
						SB75-W3	F-01-06	395	24.0	50.1
						Crescent Ave - Additional Phase	CAA-05	504	24.0	50.0
						SB75-W3	F-01-08	397	24.0	49.7
						SB75-W3	F-01-16	405	24.0	49.5
F01601-F	33	64.6	12.6	7	5.6	scent Ave - Additional Phase	CAA-01	499	24.0	56.3
						Crescent Ave - Additional Phase	CAA-02	501	24.0	54.5
						SB75-W3	F-01-07	396	20.0	53.1
						SB75-W3	F-01-08	397	20.0	52.9
						Crescent Ave - Additional Phase	CAA-03	502	24.0	52.5
						SB75-W3	F-01-06	395	20.0	51.2
						Crescent Ave - Additional Phase	CAA-04	503	24.0	50.6
						SB75-W3	F-01-14	403	24.0	50.4
						SB75-W3	F-01-05	394	20.0	50.1
						SB75-W3	F-01-15	404	24.0	50.1
F01701-F	34	65.9	11.2	7	4.2	scent Ave - Additional Phase	CAA-01	499	20.0	55.4
						Crescent Ave - Additional Phase	CAA-02	501	24.0	53.0
						SB75-W3	F-01-10	399	20.0	52.9
						SB75-W3	F-01-09	398	20.0	52.3
						SB75-W3	F-01-08	397	20.0	52.0
						SB75-W3	F-01-07	396	20.0	51.9
						SB75-W3	F-01-06	395	20.0	51.4
						SB75-W3	F-01-14	403	24.0	51.0
						SB75-W3	F-01-11	400	20.0	50.8
						SB75-W3	F-01-13	402	24.0	50.6
F01801-F	35	65.8	9.7	7	2.7	SB75-W3	F-01-12	401	20.0	51.7
						SB75-W3	F-01-10	399	20.0	51.5
						SB75-W3	F-01-11	400	20.0	51.4
						SB75-W3	F-01-13	402	24.0	51.2
						SB75-W3	F-01-09	398	20.0	51.0

					Crescent Ave - Additional Phase	CAA-01	499	20.0	50.6
					SB75-W3	F-01-08	397	20.0	50.4
					SB75-W3	F-01-07	396	20.0	49.9
					SB75-W3	F-01-06	395	20.0	49.3
					SB75-W3	F-01-04	393	20.0	48.9
F01901-F	36	66.3	9.3	7	2.3 SB75-W3	F-01-14	403	24.0	53.8
					SB75-W3	F-01-12	401	20.0	51.6
					SB75-W3	F-01-10	399	20.0	51.4
					SB75-W3	F-01-13	402	20.0	51.3
					SB75-W3	F-01-11	400	20.0	51.2
					SB75-W3	F-01-09	398	20.0	51.0
					SB75-W3	F-01-08	397	20.0	50.5
					SB75-W3	F-01-07	396	20.0	50.0
					SB75-W3	F-01-06	395	20.0	49.6
					Crescent Ave - Additional Phase	CAA-01	499	20.0	49.6
F02001-F	37	66.2	9.2	7	2.2 SB75-W3	F-01-14	403	16.0	52.5
					SB75-W3	F-01-15	404	24.0	52.1
					SB75-W3	F-01-10	399	20.0	50.5
					SB75-W3	F-01-09	398	20.0	50.3
					SB75-W3	F-01-12	401	20.0	50.3
					SB75-W3	F-01-11	400	20.0	50.3
					SB75-W3	F-01-08	397	20.0	50.1
					SB75-W3	F-01-13	402	20.0	50.0
					SB75-W3	F-01-07	396	20.0	49.7
					SB75-W3	F-01-06	395	20.0	49.1
F02101-F	38	66.3	7.1	7	0.1 SB75-W3	F-01-18	407	24.0	51.9
					SB75-W3	F-01-07	396	20.0	49.3
					SB75-W3	F-01-06	395	20.0	49.2
					SB75-W3	F-01-08	397	20.0	49.1
					SB75-W3	F-01-09	398	24.0	48.9
					SB75-W3	F-01-05	394	20.0	48.6
					SB75-W3	F-01-10	399	24.0	48.5
					SB75-W3	F-01-14	403	16.0	48.4
					SB75-W3	F-01-11	400	20.0	48.4
					SB75-W3	F-01-15	404	16.0	48.1
F02201-F	39	66.7	6.9	7	-0.1 SB75-W3	F-01-18	407	24.0	50.9

						SB75-W3	F-01-08	397	20.0	49.3
						SB75-W3	F-01-07	396	20.0	49.3
						SB75-W3	F-01-09	398	20.0	48.8
						SB75-W3	F-01-06	395	20.0	48.7
						SB75-W3	F-01-05	394	20.0	48.5
						SB75-W3	F-01-10	399	20.0	48.5
						SB75-W3	F-01-04	393	20.0	48.3
						SB75-W3	F-01-11	400	20.0	48.3
						SB75-W3	F-01-14	403	16.0	48.1
F02301-F	40	67.3	6.9	7	-0.1	SB75-W3	F-01-18	407	24.0	50.6
						SB75-W3	F-01-06	395	20.0	49.5
						SB75-W3	F-01-08	397	20.0	49.3
						SB75-W3	F-01-05	394	20.0	49.2
						SB75-W3	F-01-07	396	20.0	49.1
						SB75-W3	F-01-04	393	20.0	49.0
						SB75-W3	F-01-09	398	20.0	48.8
						SB75-W3	F-01-10	399	20.0	48.8
						SB75-W3	F-01-03	392	20.0	48.3
						SB75-W3	F-01-11	400	20.0	48.2
F02401-F	41	67.3	6.9	7	-0.1	SB75-W3	F-01-18	407	0.0	50.1
						SB75-W3	F-01-06	395	20.0	49.3
						SB75-W3	F-01-05	394	20.0	49.1
						SB75-W3	F-01-08	397	20.0	49.0
						SB75-W3	F-01-07	396	20.0	49.0
						SB75-W3	F-01-04	393	20.0	48.9
						SB75-W3	F-01-09	398	20.0	48.5
						SB75-W3	F-01-03	392	20.0	48.4
						SB75-W3	F-01-10	399	20.0	48.4
						SB75-W3	F-01-11	400	20.0	47.9
F02502-F	42	67.6	6.8	7	-0.2	SB75-W3	F-01-04	393	20.0	49.2
						SB75-W3	F-01-05	394	20.0	49.1
						SB75-W3	F-01-06	395	20.0	49.0
						SB75-W3	F-01-07	396	20.0	48.8
						SB75-W3	F-01-03	392	20.0	48.5
						SB75-W3	F-01-18	407	24.0	48.5
						SB75-W3	F-01-08	397	20.0	48.4

						SB75-W3	F-01-09	398	20.0	48.4
						SB75-W3	F-01-10	399	20.0	48.1
						SB75-W3	F-01-01	389	20.0	47.7
F02601-F	43	67.8	5.9	7	-1.1	SB75-W3	F-02-04	411	12.0	48.2
						SB75-W3	F-01-05	394	20.0	48.2
						SB75-W3	F-01-06	395	20.0	48.1
						SB75-W3	F-01-04	393	20.0	47.8
						SB75-W3	F-01-07	396	20.0	47.8
						SB75-W3	F-01-08	397	20.0	47.6
						SB75-W3	F-01-03	392	20.0	47.6
						SB75-W3	F-01-02	391	20.0	47.3
						SB75-W3	F-01-09	398	20.0	47.1
						SB75-W3	F-01-01	389	20.0	47.1
F02701-F	44	67.7	5.5	7	-1.5	SB75-W3	F-01-04	393	20.0	48.5
						SB75-W3	F-01-05	394	24.0	48.2
						SB75-W3	F-02-04	411	12.0	48.0
						SB75-W3	F-01-06	395	24.0	47.8
						SB75-W3	F-01-03	392	20.0	47.6
						SB75-W3	F-02-03	410	12.0	47.5
						SB75-W3	F-01-07	396	20.0	47.3
						SB75-W3	F-01-02	391	20.0	47.1
						SB75-W3	F-01-08	397	20.0	47.0
						SB75-W3	F-01-01	389	20.0	47.0
F02801-F	45	67.7	5.0	7	-2.0	SB75-W3	F-01-04	393	20.0	48.2
						SB75-W3	F-02-03	410	12.0	48.1
						SB75-W3	F-01-03	392	20.0	47.6
						SB75-W3	F-02-04	411	12.0	47.5
						SB75-W3	F-01-05	394	20.0	47.5
						SB75-W3	F-01-01	389	20.0	47.2
						SB75-W3	F-01-06	395	20.0	47.2
						SB75-W3	F-01-02	391	20.0	47.1
						SB75-W3	F-01-07	396	20.0	47.0
						SB75-W3	F-02-02	409	12.0	46.5
F02901-F	46	67.7	4.2	7	-2.8	SB75-W3	F-02-03	410	12.0	49.0
						SB75-W3	F-01-01	389	20.0	48.4
						SB75-W3	F-01-02	391	20.0	48.3

						SB75-W3	F-01-03	392	20.0	47.8
						SB75-W3	F-01-04	393	20.0	47.6
						SB75-W3	F-02-02	409	12.0	47.3
						SB75-W3	F-01-05	394	20.0	46.9
						SB75-W3	F-01-06	395	20.0	46.4
						SB75-W3	F-01-07	396	20.0	46.3
						SB75-W3	F-01-08	397	20.0	45.8
F03001-F	47	68.2	3.3	7	-3.7	SB75-W3	F-02-03	410	12.0	50.4
						SB75-W3	F-02-02	409	12.0	48.9
						SB75-W3	F-01-01	389	20.0	48.4
						SB75-W3	F-01-02	391	20.0	47.7
						SB75-W3	F-01-03	392	20.0	47.3
						SB75-W3	F-01-04	393	20.0	46.6
						SB75-W3	F-03-13	427	16.0	46.2
						SB75-W3	F-01-05	394	20.0	46.1
						SB75-W3	F-01-06	395	20.0	46.1
						SB75-W3	F-02-01	408	12.0	45.9
F03101-F	48	67.5	3.0	7	-4.0	SB75-W3	F-02-02	409	12.0	49.1
						SB75-W3	F-02-03	410	12.0	48.7
						SB75-W3	F-01-01	389	20.0	47.6
						SB75-W3	F-01-02	391	20.0	47.3
						SB75-W3	F-01-03	392	20.0	46.5
						SB75-W3	F-03-13	427	16.0	46.1
						SB75-W3	F-02-01	408	12.0	46.0
						SB75-W3	F-01-04	393	20.0	45.7
						SB75-W3	F-01-06	395	20.0	45.3
						SB75-W3	F-01-05	394	20.0	45.1
F03201-F	49	67.7	2.6	7	-4.4	SB75-W3	F-02-03	410	12.0	51.2
						SB75-W3	F-02-02	409	12.0	49.6
						SB75-W3	F-02-01	408	18.0	47.5
						SB75-W3	F-01-01	389	20.0	47.1
						SB75-W3	F-03-13	427	24.0	46.7
						SB75-W3	F-01-02	391	20.0	46.4
						SB75-W3	F-01-03	392	20.0	45.8
						SB75-W3	F-01-06	395	24.0	45.0
						SB75-W3	F-01-04	393	20.0	45.0

						SB75-W3	F-01-05	394	24.0	44.8
F03301-F	50	67.8	2.6	7	-4.4	SB75-W3	F-02-02	409	12.0	49.6
						SB75-W3	F-02-01	408	12.0	48.9
						SB75-W3	F-03-13	427	16.0	47.5
						SB75-W3	F-01-01	389	20.0	46.5
						SB75-W3	F-01-02	391	20.0	45.7
						SB75-W3	F-03-12	426	20.0	45.1
						SB75-W3	F-01-03	392	20.0	45.1
						SB75-W3	F-01-06	395	20.0	44.8
						SB75-W3	F-01-05	394	20.0	44.7
						SB75-W3	F-01-04	393	20.0	44.6
F03401	51	69.1	3.8	7	-3.2	scent Ave - Additional Phase	CAA-06	505	24.0	57.4
						Crescent Ave - Additional Phase	CAA-07	506	24.0	57.0
						Crescent Ave - Additional Phase	CAA-05	504	24.0	56.8
						SB75-W3	F-01-17	406	16.0	56.4
						SB75-W3	F-01-16	405	24.0	56.3
						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.3
						Crescent Ave - Additional Phase	CAA-03	502	24.0	56.1
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.1
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.1
						SB75-W3	F-01-15	404	24.0	55.4
F03501	52	69.2	3.6	7	-3.4	scent Ave - Additional Phase	CAA-06	505	24.0	57.3
						Crescent Ave - Additional Phase	CAA-05	504	24.0	57.2
						Crescent Ave - Additional Phase	CAA-07	506	24.0	57.0
						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.5
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.4
						SB75-W3	F-01-16	405	24.0	56.4
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.3
						SB75-W3	F-01-17	406	24.0	56.3
						Crescent Ave - Additional Phase	CAA-03	502	24.0	56.2
						SB75-W3	F-01-15	404	24.0	55.8
F03601	53	69.1	3.5	7	-3.5	scent Ave - Additional Phase	CAA-05	504	24.0	57.1
						Crescent Ave - Additional Phase	CAA-06	505	24.0	57.1
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.6
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.6
						Crescent Ave - Additional Phase	CAA-07	506	24.0	56.5

						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.4
						SB75-W3	F-01-16	405	24.0	56.2
						Crescent Ave - Additional Phase	CAA-03	502	24.0	56.1
						SB75-W3	F-01-17	406	24.0	56.1
						SB75-W3	F-01-15	404	24.0	55.9
F03701	54	68.7	3.8	7	-3.2	scent Ave - Additional Phase	CAA-01	499	20.0	56.7
						Crescent Ave - Additional Phase	CAA-05	504	24.0	56.7
						Crescent Ave - Additional Phase	CAA-06	505	24.0	56.5
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.1
						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.1
						SB75-W3	F-01-17	406	24.0	55.8
						SB75-W3	F-01-16	405	24.0	55.6
						Crescent Ave - Additional Phase	CAA-03	502	24.0	55.5
						SB75-W3	F-01-15	404	24.0	55.2
						SB75-W3	F-01-11	400	24.0	55.1
F03801	55	68.0	4.3	7	-2.7	scent Ave - Additional Phase	CAA-01	499	20.0	56.4
						Crescent Ave - Additional Phase	CAA-05	504	24.0	54.9
						SB75-W3	F-01-11	400	20.0	54.8
						Crescent Ave - Additional Phase	CAA-06	505	24.0	54.8
						SB75-W3	F-01-12	401	24.0	54.7
						SB75-W3	F-01-10	399	20.0	54.7
						SB75-W3	F-01-09	398	20.0	54.4
						SB75-W3	F-01-17	406	24.0	54.3
						SB75-W3	F-01-08	397	20.0	54.2
						Crescent Ave - Additional Phase	CAA-04	503	24.0	53.9
F03901	56	67.8	4.3	7	-2.7	scent Ave - Additional Phase	CAA-01	499	20.0	55.9
						SB75-W3	F-01-12	401	24.0	54.8
						SB75-W3	F-01-11	400	20.0	54.3
						SB75-W3	F-01-10	399	20.0	54.1
						Crescent Ave - Additional Phase	CAA-05	504	24.0	53.8
						SB75-W3	F-01-09	398	20.0	53.8
						SB75-W3	F-01-08	397	20.0	53.7
						Crescent Ave - Additional Phase	CAA-06	505	24.0	53.6
						SB75-W3	F-01-07	396	20.0	53.6
						SB75-W3	F-01-06	395	20.0	53.4
F04001	57	67.6	4.5	7	-2.5	scent Ave - Additional Phase	CAA-01	499	20.0	55.5

						SB75-W3	F-01-12	401	24.0	54.4
						SB75-W3	F-01-11	400	20.0	54.0
						SB75-W3	F-01-10	399	20.0	53.6
						SB75-W3	F-01-08	397	20.0	53.3
						SB75-W3	F-01-07	396	20.0	53.3
						SB75-W3	F-01-09	398	20.0	53.3
					Crescent Ave - Additional Phase		CAA-05	504	24.0	53.3
						SB75-W3	F-01-06	395	20.0	52.9
					Crescent Ave - Additional Phase		CAA-02	501	24.0	52.8
F04102	58	67.1	4.8	7	-2.2	scent Ave - Additional Phase	CAA-01	499	20.0	54.8
						SB75-W3	F-01-12	401	20.0	53.7
						SB75-W3	F-01-11	400	20.0	53.1
						SB75-W3	F-01-13	402	20.0	52.7
						SB75-W3	F-01-10	399	20.0	52.5
						SB75-W3	F-01-07	396	20.0	52.4
						SB75-W3	F-01-08	397	20.0	52.2
					Crescent Ave - Additional Phase		CAA-02	501	24.0	52.1
						SB75-W3	F-01-05	394	20.0	52.1
					Crescent Ave - Additional Phase		CAA-05	504	24.0	52.1
F04201	59	66.0	5.8	7	-1.2	scent Ave - Additional Phase	CAA-01	499	20.0	52.7
						SB75-W3	F-01-13	402	24.0	51.9
						SB75-W3	F-01-12	401	24.0	51.3
						SB75-W3	F-01-10	399	20.0	51.1
						SB75-W3	F-01-09	398	20.0	51.0
						SB75-W3	F-01-11	400	20.0	50.9
						SB75-W3	F-01-08	397	20.0	50.7
						SB75-W3	F-01-07	396	20.0	50.7
						SB75-W3	F-01-06	395	20.0	50.6
						SB75-W3	F-01-05	394	20.0	50.4
F04301	60	67.9	6.0	7	-1.0	scent Ave - Additional Phase	CAA-01	499	20.0	58.3
					Crescent Ave - Additional Phase		CAA-05	504	24.0	56.3
					Crescent Ave - Additional Phase		CAA-06	505	24.0	56.1
						SB75-W3	F-01-10	399	24.0	55.6
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.4
						SB75-W3	F-01-09	398	20.0	55.2
						SB75-W3	F-01-11	400	24.0	55.1

					Crescent Ave - Additional Phase	CAA-02	501	24.0	55.1
					SB75-W3	F-01-15	404	24.0	55.0
					SB75-W3	F-01-16	405	24.0	54.8
F04401	61	66.5	7.1	7	0.1 scent Ave - Additional Phase	CAA-01	499	20.0	56.2
					SB75-W3	F-01-10	399	20.0	53.8
					SB75-W3	F-01-05	394	20.0	53.7
					SB75-W3	F-01-11	400	24.0	53.7
					SB75-W3	F-01-06	395	20.0	53.7
					SB75-W3	F-01-07	396	20.0	53.4
					SB75-W3	F-01-08	397	20.0	53.4
					SB75-W3	F-01-09	398	20.0	53.3
					SB75-W3	F-01-04	393	20.0	52.9
					Crescent Ave - Additional Phase	CAA-05	504	24.0	52.2
F04501	62	66.5	7.1	7	0.1 scent Ave - Additional Phase	CAA-01	499	20.0	55.9
					SB75-W3	F-01-11	400	20.0	53.9
					SB75-W3	F-01-10	399	20.0	53.5
					SB75-W3	F-01-04	393	20.0	53.5
					SB75-W3	F-01-05	394	20.0	53.3
					SB75-W3	F-01-09	398	20.0	53.2
					SB75-W3	F-01-08	397	20.0	53.1
					SB75-W3	F-01-07	396	20.0	52.7
					SB75-W3	F-01-06	395	20.0	52.7
					SB75-W3	F-01-12	401	24.0	52.6
F04601	64	66.3	6.6	7	-0.4 scent Ave - Additional Phase	CAA-01	499	20.0	53.7
					SB75-W3	F-01-13	402	20.0	52.8
					SB75-W3	F-01-12	401	24.0	52.5
					SB75-W3	F-01-10	399	20.0	52.2
					SB75-W3	F-01-09	398	20.0	52.2
					SB75-W3	F-01-11	400	20.0	52.2
					SB75-W3	F-01-08	397	20.0	52.2
					SB75-W3	F-01-07	396	20.0	52.0
					SB75-W3	F-01-06	395	20.0	51.6
					SB75-W3	F-01-05	394	20.0	51.3
F04701	65	65.2	7.4	7	0.4 SB75-W3	F-01-12	401	20.0	52.0
					SB75-W3	F-01-13	402	20.0	51.7
					Crescent Ave - Additional Phase	CAA-01	499	20.0	51.6

						SB75-W3	F-01-11	400	20.0	50.2
						SB75-W3	F-01-10	399	20.0	49.0
						SB75-W3	F-01-09	398	20.0	48.7
						SB75-W3	F-01-07	396	20.0	48.7
						SB75-W3	F-01-08	397	20.0	48.6
						SB75-W3	F-01-06	395	20.0	48.5
						SB75-W3	F-01-05	394	20.0	48.5
F04801	66	64.9	7.7	7	0.7	SB75-W3	F-01-13	402	24.0	51.5
					Crescent Ave - Additional Phase		CAA-01	499	20.0	50.4
						SB75-W3	F-01-12	401	20.0	50.0
						SB75-W3	F-02-03	410	12.0	48.5
						SB75-W3	F-01-11	400	20.0	48.4
						SB75-W3	F-01-10	399	20.0	48.4
						SB75-W3	F-01-14	403	16.0	48.4
						SB75-W3	F-01-07	396	20.0	48.2
						SB75-W3	F-01-09	398	20.0	48.2
						SB75-W3	F-01-08	397	20.0	48.1
F04901	67	64.8	7.8	7	0.8	SB75-W3	F-02-04	411	12.0	49.5
						SB75-W3	F-01-13	402	20.0	49.2
						SB75-W3	F-01-14	403	16.0	48.7
					Crescent Ave - Additional Phase		CAA-01	499	20.0	48.4
						SB75-W3	F-01-12	401	20.0	48.1
						SB75-W3	F-01-11	400	20.0	47.5
						SB75-W3	F-01-06	395	20.0	47.4
						SB75-W3	F-02-03	410	12.0	47.4
						SB75-W3	F-01-10	399	20.0	47.3
						SB75-W3	F-01-07	396	20.0	47.3
F05001	68	64.3	7.0	7	-0.0	SB75-W3	F-01-14	403	16.0	49.0
						SB75-W3	F-02-03	410	12.0	47.5
						SB75-W3	F-01-15	404	24.0	46.9
						SB75-W3	F-02-04	411	12.0	45.7
						SB75-W3	F-01-12	401	20.0	45.7
						SB75-W3	F-01-04	393	20.0	45.6
						SB75-W3	F-01-11	400	20.0	45.6
						SB75-W3	F-01-13	402	20.0	45.6
						SB75-W3	F-01-03	392	20.0	45.6

						SB75-W3	F-01-05	394	20.0	45.5
F05101	69	64.7	6.6	7	-0.4	SB75-W3	F-01-14	403	16.0	48.7
						SB75-W3	F-01-15	404	16.0	48.1
						SB75-W3	F-02-03	410	12.0	47.4
						SB75-W3	F-01-16	405	16.0	47.0
						Crescent Ave - Additional Phase	CAA-01	499	20.0	46.8
						Crescent Ave - Additional Phase	CAA-07	506	24.0	46.2
						SB75-W3	F-01-03	392	20.0	45.6
						SB75-W3	F-01-04	393	20.0	45.6
						Crescent Ave - Additional Phase	CAA-05	504	24.0	45.6
						SB75-W3	F-02-02	409	12.0	45.6
F05201	70	64.7	6.5	7	-0.5	SB75-W3	F-01-14	403	16.0	48.1
						SB75-W3	F-01-15	404	16.0	47.6
						SB75-W3	F-02-03	410	12.0	47.6
						SB75-W3	F-02-02	409	12.0	46.8
						SB75-W3	F-01-16	405	16.0	46.5
						SB75-W3	F-01-03	392	20.0	45.7
						SB75-W3	F-01-04	393	20.0	45.6
						SB75-W3	F-01-02	391	20.0	45.3
						SB75-W3	F-01-05	394	20.0	45.3
						SB75-W3	F-01-06	395	20.0	45.1
F05301	71	64.3	5.8	7	-1.2	SB75-W3	F-02-03	410	12.0	46.3
						SB75-W3	F-02-02	409	12.0	46.2
						SB75-W3	F-01-03	392	20.0	44.8
						SB75-W3	F-01-04	393	20.0	44.8
						SB75-W3	F-01-02	391	20.0	44.7
						SB75-W3	F-01-14	403	16.0	44.6
						SB75-W3	F-01-05	394	20.0	44.5
						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-01-06	395	20.0	44.4
						SB75-W3	F-01-10	399	20.0	44.3
F05401	72	64.1	5.5	7	-1.5	SB75-W3	F-02-02	409	12.0	46.6
						SB75-W3	F-02-03	410	12.0	46.2
						SB75-W3	F-03-13	427	16.0	44.5
						SB75-W3	F-01-03	392	20.0	44.4
						SB75-W3	F-01-04	393	20.0	44.3

						SB75-W3	F-01-02	391	20.0	44.2
						SB75-W3	F-01-05	394	20.0	44.0
						SB75-W3	F-01-06	395	20.0	43.8
						SB75-W3	F-01-01	389	20.0	43.7
						SB75-W3	F-01-10	399	20.0	43.7
F05501	73	64.3	5.3	7	-1.7	SB75-W3	F-02-02	409	12.0	47.1
						SB75-W3	F-02-03	410	12.0	46.1
						SB75-W3	F-03-13	427	16.0	44.8
						SB75-W3	F-02-01	408	12.0	44.4
						SB75-W3	F-01-03	392	20.0	44.3
						SB75-W3	F-01-02	391	20.0	44.2
						SB75-W3	F-01-04	393	20.0	44.1
						SB75-W3	F-01-01	389	20.0	43.9
						SB75-W3	F-01-10	399	20.0	43.6
						SB75-W3	F-01-05	394	20.0	43.6
F05601	74	65.3	4.1	7	-2.9	SB75-W3	F-02-03	410	12.0	49.1
						SB75-W3	F-02-02	409	12.0	47.3
						SB75-W3	F-02-01	408	12.0	46.7
						SB75-W3	F-03-13	427	16.0	45.6
						SB75-W3	F-01-01	389	20.0	44.3
						SB75-W3	F-01-02	391	20.0	44.3
						SB75-W3	F-01-03	392	20.0	44.1
						SB75-W3	F-01-04	393	20.0	43.6
						SB75-W3	F-03-12	426	20.0	43.3
						SB75-W3	F-01-05	394	20.0	43.2
F05801	75	64.6	4.2	7	-2.8	SB75-W3	F-02-03	410	12.0	48.4
						SB75-W3	F-02-02	409	12.0	46.3
						SB75-W3	F-02-01	408	12.0	46.3
						SB75-W3	F-03-13	427	16.0	45.0
						SB75-W3	F-01-01	389	20.0	43.3
						SB75-W3	F-01-02	391	20.0	43.2
						SB75-W3	F-01-03	392	20.0	43.2
						SB75-W3	F-01-04	393	20.0	42.9
						SB75-W3	F-03-12	426	20.0	42.7
						SB75-W3	F-01-05	394	20.0	42.6
F05901	76	63.8	4.5	7	-2.5	SB75-W3	F-02-03	410	12.0	47.5

						SB75-W3	F-02-01	408	12.0	45.8
						SB75-W3	F-02-02	409	12.0	45.7
						SB75-W3	F-03-13	427	16.0	44.5
						SB75-W3	F-01-01	389	20.0	42.6
						SB75-W3	F-01-03	392	20.0	42.6
						SB75-W3	F-01-04	393	20.0	42.4
						SB75-W3	F-03-12	426	20.0	42.2
						SB75-W3	F-01-05	394	20.0	42.2
						SB75-W3	F-01-06	395	20.0	41.9
F06001	77	63.5	5.0	7	-2.0	SB75-W3	F-02-03	410	12.0	46.9
						SB75-W3	F-02-01	408	12.0	46.1
						SB75-W3	F-02-02	409	12.0	45.8
						SB75-W3	F-03-13	427	16.0	44.6
						SB75-W3	F-01-03	392	20.0	42.4
						SB75-W3	F-01-01	389	20.0	42.4
						SB75-W3	F-01-02	391	20.0	42.3
						SB75-W3	F-03-12	426	20.0	42.2
						SB75-W3	F-01-04	393	20.0	42.2
						SB75-W3	F-01-05	394	20.0	41.9
F06102	78	63.7	5.4	7	-1.6	SB75-W3	F-02-01	408	12.0	47.1
						SB75-W3	F-02-03	410	12.0	46.2
						SB75-W3	F-02-02	409	12.0	46.2
						SB75-W3	F-03-13	427	16.0	45.1
						SB75-W3	F-01-14	403	16.0	44.6
						SB75-W3	F-01-15	404	16.0	43.9
						SB75-W3	F-01-03	392	20.0	42.7
						SB75-W3	F-01-01	389	20.0	42.6
						SB75-W3	F-03-12	426	20.0	42.6
						SB75-W3	F-01-10	399	20.0	42.5
F06201	79	63.7	5.8	7	-1.2	SB75-W3	F-02-01	408	12.0	49.2
						SB75-W3	F-02-02	409	12.0	47.7
						SB75-W3	F-02-03	410	12.0	46.6
						SB75-W3	F-01-14	403	16.0	46.4
						SB75-W3	F-03-13	427	16.0	46.1
						SB75-W3	F-01-15	404	16.0	45.9
						SB75-W3	F-01-12	401	20.0	43.3

						SB75-W3	F-01-13	402	20.0	43.2
						SB75-W3	F-01-11	400	20.0	43.2
						SB75-W3	F-01-10	399	20.0	43.0
F06301	80	63.5	6.1	7	-0.9	SB75-W3	F-02-01	408	12.0	49.4
						SB75-W3	F-02-02	409	12.0	49.1
						SB75-W3	F-02-03	410	12.0	47.6
						SB75-W3	F-03-13	427	16.0	47.2
						SB75-W3	F-01-14	403	16.0	46.9
						SB75-W3	F-01-13	402	20.0	45.1
						SB75-W3	F-01-15	404	16.0	45.0
						SB75-W3	F-01-12	401	20.0	43.6
						SB75-W3	F-01-11	400	20.0	43.4
						SB75-W3	F-01-10	399	20.0	43.0
F06401	81	63.4	6.1	7	-0.9	SB75-W3	F-02-01	408	12.0	49.2
						SB75-W3	F-02-02	409	12.0	48.8
						SB75-W3	F-03-13	427	16.0	47.3
						SB75-W3	F-01-14	403	16.0	46.9
						SB75-W3	F-02-03	410	12.0	46.9
						SB75-W3	F-01-13	402	20.0	45.9
						SB75-W3	F-01-15	404	24.0	45.3
						SB75-W3	F-01-12	401	20.0	43.7
						SB75-W3	F-01-11	400	20.0	43.4
					Crescent Ave - Additional Phase		CAA-01	499	20.0	43.1
F06501	82	63.1	6.0	7	-1.0	SB75-W3	F-02-01	408	12.0	48.9
						SB75-W3	F-02-02	409	12.0	47.7
						SB75-W3	F-03-13	427	16.0	47.0
						SB75-W3	F-01-14	403	16.0	46.3
						SB75-W3	F-02-03	410	12.0	46.0
						SB75-W3	F-01-13	402	20.0	45.5
						SB75-W3	F-01-15	404	24.0	44.0
						SB75-W3	F-01-12	401	20.0	43.4
						SB75-W3	F-01-11	400	20.0	42.9
					Crescent Ave - Additional Phase		CAA-01	499	20.0	42.7
F06601	83	63.8	6.3	7	-0.7	SB75-W3	F-02-02	409	12.0	49.5
						SB75-W3	F-02-01	408	12.0	49.1
						SB75-W3	F-02-03	410	12.0	48.8

						SB75-W3	F-01-14	403	16.0	47.8
						SB75-W3	F-03-13	427	16.0	47.6
						SB75-W3	F-01-13	402	20.0	46.7
						SB75-W3	F-01-15	404	24.0	45.8
						SB75-W3	F-01-12	401	20.0	44.6
					Crescent Ave - Additional Phase		CAA-01	499	20.0	44.1
						SB75-W3	F-01-11	400	20.0	44.1
F06701	84	64.8	4.7	7	-2.3	SB75-W3	F-02-02	409	12.0	51.2
						SB75-W3	F-02-03	410	12.0	50.6
					Crescent Ave - Additional Phase		CAA-01	499	20.0	49.7
						SB75-W3	F-03-13	427	16.0	49.4
						SB75-W3	F-02-04	411	12.0	49.0
						SB75-W3	F-01-14	403	16.0	49.0
						SB75-W3	F-01-13	402	24.0	48.6
						SB75-W3	F-01-12	401	20.0	48.3
						SB75-W3	F-01-06	395	20.0	47.6
						SB75-W3	F-01-04	393	20.0	47.5
F06801	85	64.9	4.6	7	-2.4	SB75-W3	F-02-02	409	12.0	51.5
						SB75-W3	F-02-03	410	12.0	51.0
					Crescent Ave - Additional Phase		CAA-01	499	20.0	49.7
						SB75-W3	F-03-13	427	16.0	49.6
						SB75-W3	F-01-14	403	24.0	49.3
						SB75-W3	F-01-13	402	24.0	48.5
						SB75-W3	F-02-04	411	12.0	48.4
						SB75-W3	F-02-01	408	12.0	48.2
						SB75-W3	F-01-12	401	20.0	48.1
						SB75-W3	F-01-06	395	20.0	47.5
F06901	86	64.7	4.7	7	-2.3	SB75-W3	F-02-02	409	12.0	51.7
						SB75-W3	F-02-03	410	12.0	50.9
						SB75-W3	F-03-13	427	16.0	49.6
					Crescent Ave - Additional Phase		CAA-01	499	20.0	49.4
						SB75-W3	F-01-14	403	24.0	49.2
						SB75-W3	F-02-01	408	12.0	48.9
						SB75-W3	F-01-13	402	24.0	48.0
						SB75-W3	F-01-12	401	20.0	47.8
						SB75-W3	F-01-04	393	20.0	47.3

						SB75-W3	F-01-03	392	20.0	47.3
F07001	87	64.4	4.9	7	-2.1	SB75-W3	F-02-02	409	12.0	51.5
						SB75-W3	F-02-01	408	12.0	49.9
						SB75-W3	F-02-03	410	12.0	49.8
						SB75-W3	F-03-13	427	16.0	49.4
						SB75-W3	F-01-14	403	16.0	48.9
					Crescent Ave - Additional Phase		CAA-01	499	20.0	48.8
						SB75-W3	F-01-13	402	20.0	47.6
						SB75-W3	F-01-12	401	20.0	47.1
						SB75-W3	F-01-03	392	20.0	47.1
						SB75-W3	F-01-04	393	20.0	47.0
F07103-F	88	65.5	3.8	7	-3.2	SB75-W3	F-02-01	408	12.0	47.8
						SB75-W3	F-03-13	427	16.0	46.8
						SB75-W3	F-03-12	426	20.0	45.8
						SB75-W3	F-03-11	425	20.0	44.8
						SB75-W3	F-02-02	409	12.0	43.9
						SB75-W3	F-03-10	424	20.0	43.4
						SB75-W3	F-01-01	389	20.0	43.4
						SB75-W3	F-01-06	395	20.0	43.3
						SB75-W3	F-01-05	394	20.0	43.0
						SB75-W3	F-03-09	423	20.0	43.0
F07201	89	65.1	4.0	7	-3.0	SB75-W3	F-02-01	408	12.0	47.3
						SB75-W3	F-02-02	409	12.0	46.4
						SB75-W3	F-03-13	427	16.0	46.1
						SB75-W3	F-03-12	426	20.0	44.3
						SB75-W3	F-04-16	444	12.0	43.7
						SB75-W3	F-01-01	389	20.0	43.2
						SB75-W3	F-03-11	425	20.0	43.0
						SB75-W3	F-01-02	391	20.0	42.9
						SB75-W3	F-01-03	392	20.0	42.8
						SB75-W3	F-01-04	393	20.0	42.4
F07301	90	64.3	4.0	7	-3.0	SB75-W3	F-02-01	408	12.0	46.8
						SB75-W3	F-03-13	427	16.0	45.8
						SB75-W3	F-02-02	409	12.0	44.9
						SB75-W3	F-03-12	426	20.0	44.2
						SB75-W3	F-03-11	425	20.0	43.1

						SB75-W3	F-01-01	389	20.0	42.7
						SB75-W3	F-01-02	391	20.0	42.3
						SB75-W3	F-01-03	392	20.0	42.3
						SB75-W3	F-01-07	396	20.0	42.2
						SB75-W3	F-01-06	395	20.0	42.0
F07401	91	64.0	4.1	7	-2.9	SB75-W3	F-02-01	408	12.0	46.5
						SB75-W3	F-03-13	427	16.0	45.6
						SB75-W3	F-03-12	426	20.0	44.3
						SB75-W3	F-02-02	409	12.0	43.8
						SB75-W3	F-03-11	425	20.0	43.4
						SB75-W3	F-01-01	389	20.0	42.4
						SB75-W3	F-01-07	396	20.0	42.1
						SB75-W3	F-03-10	424	20.0	42.1
						SB75-W3	F-01-02	391	20.0	42.1
						SB75-W3	F-01-06	395	20.0	42.0
F07501	92	64.1	3.9	7	-3.1	SB75-W3	F-02-01	408	12.0	46.2
						SB75-W3	F-03-13	427	16.0	45.2
						SB75-W3	F-03-12	426	20.0	44.2
						SB75-W3	F-03-11	425	20.0	43.5
						SB75-W3	F-02-02	409	12.0	42.3
						SB75-W3	F-03-10	424	24.0	42.1
						SB75-W3	F-01-01	389	20.0	42.1
						SB75-W3	F-01-06	395	20.0	42.0
						SB75-W3	F-01-07	396	20.0	42.0
						SB75-W3	F-03-09	423	24.0	41.9
F07602-F	93	64.5	4.0	7	-3.0	SB75-W3	F-02-01	408	12.0	46.0
						SB75-W3	F-03-13	427	16.0	44.8
						SB75-W3	F-03-12	426	20.0	44.2
						SB75-W3	F-03-11	425	20.0	43.6
						SB75-W3	F-03-10	424	20.0	42.9
						SB75-W3	F-01-06	395	20.0	42.3
						SB75-W3	F-03-09	423	20.0	42.2
						SB75-W3	F-03-08	422	20.0	42.1
						SB75-W3	F-01-01	389	20.0	42.0
						SB75-W3	F-03-07	421	20.0	41.9
F07701-F	94	64.3	4.1	7	-2.9	SB75-W3	F-02-01	408	12.0	45.1

						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-03-12	426	20.0	44.0
						SB75-W3	F-03-11	425	20.0	43.8
						SB75-W3	F-03-10	424	20.0	43.2
						SB75-W3	F-04-16	444	12.0	42.5
						SB75-W3	F-03-09	423	20.0	42.3
						SB75-W3	F-03-08	422	20.0	42.2
						SB75-W3	F-01-06	395	20.0	42.2
						SB75-W3	F-03-07	421	20.0	42.2
F07801-F	95	64.3	4.0	7	-3.0	SB75-W3	F-03-13	427	16.0	44.1
						SB75-W3	F-02-01	408	12.0	44.0
						SB75-W3	F-04-16	444	12.0	44.0
						SB75-W3	F-03-11	425	20.0	43.7
						SB75-W3	F-03-12	426	20.0	43.5
						SB75-W3	F-03-10	424	20.0	43.3
						SB75-W3	F-03-09	423	20.0	42.5
						SB75-W3	F-03-07	421	20.0	42.4
						SB75-W3	F-03-08	422	20.0	42.3
						SB75-W3	F-03-06	420	20.0	42.2
F07904-F	96	63.5	3.8	7	-3.2	SB75-W3	F-03-09	423	20.0	45.0
						SB75-W3	F-03-07	421	20.0	44.7
						SB75-W3	F-03-06	420	20.0	44.6
						SB75-W3	F-03-10	424	20.0	44.5
						SB75-W3	F-03-08	422	20.0	44.4
						SB75-W3	F-01-01	389	20.0	44.4
						SB75-W3	F-03-05	419	20.0	44.2
						SB75-W3	F-03-04	418	20.0	43.5
						SB75-W3	F-03-11	425	20.0	43.4
						SB75-W3	F-01-03	392	20.0	43.2
F08001	97	62.8	4.4	7	-2.6	SB75-W3	F-03-13	427	16.0	42.6
						SB75-W3	F-03-11	425	20.0	42.6
						SB75-W3	F-03-10	424	20.0	42.6
						SB75-W3	F-03-09	423	20.0	42.3
						SB75-W3	F-03-06	420	20.0	42.0
						SB75-W3	F-03-07	421	20.0	42.0
						SB75-W3	F-03-08	422	20.0	41.8

						SB75-W3	F-03-05	419	20.0	41.8
						SB75-W3	F-03-12	426	20.0	41.8
						SB75-W3	F-04-18	446	16.0	41.5
F08101	98	63.0	4.2	7	-2.8	SB75-W3	F-04-16	444	12.0	42.7
						SB75-W3	F-03-09	423	20.0	42.4
						SB75-W3	F-03-10	424	20.0	42.3
						SB75-W3	F-04-18	446	16.0	42.2
						SB75-W3	F-03-13	427	16.0	42.1
						SB75-W3	F-03-05	419	20.0	42.1
						SB75-W3	F-03-07	421	20.0	42.0
						SB75-W3	F-03-11	425	20.0	42.0
						SB75-W3	F-03-08	422	20.0	41.9
						SB75-W3	F-03-04	418	20.0	41.8
F08201	99	62.8	4.5	7	-2.5	SB75-W3	F-04-16	444	12.0	45.6
						SB75-W3	F-04-15	443	12.0	44.8
						SB75-W3	F-04-18	446	16.0	43.9
						SB75-W3	F-03-05	419	20.0	43.4
						SB75-W3	F-03-04	418	20.0	43.3
						SB75-W3	F-03-06	420	20.0	43.2
						SB75-W3	F-01-02	391	20.0	43.2
						SB75-W3	F-04-17	445	12.0	43.1
						SB75-W3	F-03-03	417	20.0	43.1
						SB75-W3	F-03-08	422	20.0	43.1
F08301	100	64.0	4.3	7	-2.7	SB75-W3	F-04-16	444	12.0	47.3
						SB75-W3	F-04-15	443	12.0	46.5
						SB75-W3	F-04-18	446	16.0	45.2
						SB75-W3	F-04-17	445	12.0	44.6
						SB75-W3	F-03-04	418	20.0	44.5
						SB75-W3	F-03-05	419	20.0	44.4
						SB75-W3	F-03-03	417	20.0	44.4
						SB75-W3	F-03-06	420	20.0	44.1
						SB75-W3	F-03-07	421	20.0	43.9
						SB75-W3	F-03-02	416	20.0	43.7
F08401	101	64.8	3.8	7	-3.2	SB75-W3	F-04-16	444	12.0	48.1
						SB75-W3	F-04-18	446	16.0	46.2
						SB75-W3	F-03-04	418	20.0	45.7

						SB75-W3	F-03-03	417	20.0	45.6
						SB75-W3	F-04-15	443	12.0	45.5
						SB75-W3	F-03-05	419	20.0	45.5
						SB75-W3	F-04-17	445	12.0	45.4
						SB75-W3	F-03-06	420	20.0	44.9
						SB75-W3	F-03-02	416	20.0	44.9
						SB75-W3	F-03-07	421	20.0	44.8
F31501	102	64.3	4.1	7	-2.9	SB75-W3	F-04-16	444	12.0	47.6
						SB75-W3	F-04-15	443	12.0	46.4
						SB75-W3	F-04-18	446	16.0	45.6
						SB75-W3	F-03-04	418	20.0	45.0
						SB75-W3	F-03-03	417	20.0	44.9
						SB75-W3	F-04-17	445	12.0	44.9
						SB75-W3	F-03-05	419	20.0	44.8
						SB75-W3	F-03-06	420	20.0	44.4
						SB75-W3	F-03-07	421	20.0	44.3
						SB75-W3	F-03-02	416	20.0	44.2
F08501	103	65.0	3.7	7	-3.3	SB75-W3	F-04-16	444	12.0	47.7
						SB75-W3	F-04-18	446	16.0	46.8
						SB75-W3	F-03-03	417	20.0	46.3
						SB75-W3	F-03-04	418	20.0	46.2
						SB75-W3	F-03-05	419	20.0	45.8
						SB75-W3	F-04-17	445	12.0	45.8
						SB75-W3	F-03-02	416	20.0	45.6
						SB75-W3	F-03-06	420	20.0	45.4
						SB75-W3	F-03-07	421	20.0	45.1
						SB75-W3	F-04-15	443	12.0	44.3
F08601	104	65.3	3.5	7	-3.5	SB75-W3	F-04-18	446	16.0	47.5
						SB75-W3	F-04-16	444	12.0	47.5
						SB75-W3	F-03-03	417	20.0	47.3
						SB75-W3	F-03-04	418	20.0	47.2
						SB75-W3	F-03-05	419	20.0	46.5
						SB75-W3	F-03-02	416	20.0	46.4
						SB75-W3	F-04-17	445	12.0	46.1
						SB75-W3	F-03-06	420	20.0	45.8
						SB75-W3	F-04-15	443	12.0	45.5

						SB75-W3	F-03-07	421	20.0	45.3
F08702	105	63.0	5.6	7	-1.4	SB75-W3	F-02-01	408	12.0	47.8
						SB75-W3	F-02-02	409	12.0	46.2
						SB75-W3	F-03-13	427	16.0	45.6
						SB75-W3	F-01-14	403	16.0	45.2
						SB75-W3	F-01-15	404	16.0	44.9
						SB75-W3	F-01-13	402	20.0	43.4
						SB75-W3	F-03-12	426	20.0	42.3
						SB75-W3	F-01-16	405	16.0	42.3
						SB75-W3	F-01-12	401	20.0	42.2
						SB75-W3	F-01-11	400	20.0	42.0
F08801	106	63.0	5.2	7	-1.8	SB75-W3	F-02-01	408	12.0	45.3
						SB75-W3	F-02-02	409	12.0	44.8
						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-01-14	403	16.0	44.0
						SB75-W3	F-01-15	404	16.0	43.4
						SB75-W3	F-01-16	405	24.0	42.4
						SB75-W3	F-03-12	426	20.0	42.0
						SB75-W3	F-01-11	400	20.0	41.4
						SB75-W3	F-01-10	399	20.0	41.3
						SB75-W3	F-01-12	401	20.0	41.2
F08901	107	63.1	4.9	7	-2.1	SB75-W3	F-02-01	408	12.0	45.1
						SB75-W3	F-02-02	409	12.0	45.0
						SB75-W3	F-03-13	427	16.0	44.1
						SB75-W3	F-01-14	403	16.0	43.3
						SB75-W3	F-01-15	404	16.0	42.4
						SB75-W3	F-03-12	426	20.0	42.0
						SB75-W3	F-03-11	425	20.0	41.2
						SB75-W3	F-01-16	405	24.0	41.2
						SB75-W3	F-01-10	399	20.0	41.1
						SB75-W3	F-01-11	400	20.0	41.0
F09001	108	63.4	4.8	7	-2.2	SB75-W3	F-02-01	408	12.0	45.7
						SB75-W3	F-02-02	409	12.0	44.9
					Crescent Ave - Additional Phase		CAA-09	508	24.0	44.8
						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-03-12	426	20.0	42.2

						SB75-W3	F-01-01	389	20.0	41.4
						SB75-W3	F-01-10	399	20.0	41.3
						SB75-W3	F-01-02	391	20.0	41.3
						SB75-W3	F-03-11	425	20.0	41.2
						SB75-W3	F-01-03	392	20.0	41.2
F09102	109	63.2	4.7	7	-2.3	SB75-W3	F-02-02	409	12.0	45.1
						SB75-W3	F-02-01	408	12.0	45.0
						SB75-W3	F-03-13	427	16.0	44.1
						SB75-W3	F-03-12	426	20.0	42.1
						SB75-W3	F-03-11	425	20.0	41.3
						SB75-W3	F-01-10	399	20.0	40.9
						SB75-W3	F-01-09	398	20.0	40.9
					Crescent Ave - Additional Phase		CAA-07	506	24.0	40.9
						SB75-W3	F-01-01	389	20.0	40.9
						SB75-W3	F-01-02	391	20.0	40.8
F09201	110	63.1	4.6	7	-2.4	SB75-W3	F-02-01	408	12.0	44.7
						SB75-W3	F-03-13	427	16.0	43.7
						SB75-W3	F-02-02	409	12.0	42.9
						SB75-W3	F-03-12	426	20.0	42.0
						SB75-W3	F-03-11	425	20.0	41.2
						SB75-W3	F-01-09	398	20.0	40.7
					Crescent Ave - Additional Phase		CAA-08	507	24.0	40.7
						SB75-W3	F-01-01	389	20.0	40.6
						SB75-W3	F-01-10	399	20.0	40.6
						SB75-W3	F-01-02	391	20.0	40.5
F09301	111	63.1	4.6	7	-2.4	SB75-W3	F-02-01	408	12.0	44.7
						SB75-W3	F-03-13	427	16.0	43.6
						SB75-W3	F-02-02	409	12.0	42.6
						SB75-W3	F-03-12	426	20.0	41.9
						SB75-W3	F-03-11	425	20.0	41.3
						SB75-W3	F-01-09	398	20.0	40.7
						SB75-W3	F-01-10	399	20.0	40.6
						SB75-W3	F-01-01	389	20.0	40.5
						SB75-W3	F-01-02	391	20.0	40.4
						SB75-W3	F-01-08	397	20.0	40.4
F09401	112	62.9	4.5	7	-2.5	SB75-W3	F-02-01	408	12.0	44.3

						SB75-W3	F-03-13	427	16.0	43.1
						SB75-W3	F-03-12	426	20.0	41.7
						SB75-W3	F-03-11	425	20.0	41.3
						SB75-W3	F-02-02	409	12.0	41.2
						SB75-W3	F-03-10	424	20.0	40.5
						SB75-W3	F-01-09	398	20.0	40.4
						SB75-W3	F-01-10	399	20.0	40.4
						SB75-W3	F-01-08	397	20.0	40.3
						SB75-W3	F-01-01	389	20.0	40.2
F09501	113	62.8	4.5	7	-2.5	SB75-W3	F-02-01	408	12.0	44.1
						SB75-W3	F-03-13	427	16.0	42.8
						SB75-W3	F-03-12	426	20.0	41.5
						SB75-W3	F-04-16	444	12.0	41.1
						SB75-W3	F-03-11	425	20.0	41.1
						SB75-W3	F-02-02	409	12.0	40.5
						SB75-W3	F-03-10	424	20.0	40.3
						SB75-W3	F-01-09	398	20.0	40.2
						SB75-W3	F-01-08	397	20.0	40.2
						SB75-W3	F-03-07	421	20.0	40.1
F09601	114	62.4	4.7	7	-2.3	SB75-W3	F-02-01	408	12.0	43.7
						SB75-W3	F-03-13	427	16.0	42.3
						SB75-W3	F-04-16	444	12.0	41.5
						SB75-W3	F-03-12	426	20.0	41.2
						SB75-W3	F-03-11	425	20.0	40.8
						SB75-W3	F-04-15	443	12.0	40.8
						SB75-W3	F-03-10	424	20.0	40.3
						SB75-W3	F-03-06	420	20.0	40.0
						SB75-W3	F-03-07	421	20.0	40.0
						SB75-W3	F-01-10	399	20.0	39.9
F09701	115	62.1	4.6	7	-2.4	SB75-W3	F-04-16	444	12.0	44.8
						SB75-W3	F-04-15	443	12.0	42.2
						SB75-W3	F-04-17	445	12.0	41.3
						SB75-W3	F-03-13	427	16.0	41.2
						SB75-W3	F-04-18	446	16.0	41.1
						SB75-W3	F-03-09	423	20.0	40.5
						SB75-W3	F-03-05	419	20.0	40.5

						SB75-W3	F-03-11	425	20.0	40.4
						SB75-W3	F-03-06	420	20.0	40.4
						SB75-W3	F-03-10	424	20.0	40.4
F09804	116	61.2	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	43.6
						SB75-W3	F-04-17	445	12.0	40.9
						SB75-W3	F-03-13	427	16.0	40.6
						SB75-W3	F-04-18	446	16.0	40.4
						SB75-W3	F-02-01	408	12.0	40.1
						SB75-W3	F-04-14	442	12.0	40.0
						SB75-W3	F-03-05	419	20.0	39.7
						SB75-W3	F-04-13	441	12.0	39.7
						SB75-W3	F-04-15	443	12.0	39.7
						SB75-W3	F-03-06	420	20.0	39.6
F09901	117	60.7	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	40.9
						SB75-W3	F-04-17	445	12.0	40.5
						SB75-W3	F-02-01	408	12.0	40.2
						SB75-W3	F-03-13	427	16.0	40.2
						SB75-W3	F-04-14	442	12.0	39.6
						SB75-W3	F-04-18	446	16.0	39.4
						SB75-W3	F-04-13	441	12.0	39.3
						SB75-W3	F-04-15	443	12.0	39.2
						SB75-W3	F-03-11	425	20.0	39.1
						SB75-W3	F-03-05	419	20.0	39.1
F10001	118	60.3	5.1	7	-1.9	SB75-W3	F-04-16	444	12.0	40.6
						SB75-W3	F-02-01	408	12.0	40.4
						SB75-W3	F-04-17	445	12.0	40.3
						SB75-W3	F-03-13	427	16.0	40.0
						SB75-W3	F-01-14	403	16.0	39.9
						SB75-W3	F-04-18	446	16.0	39.5
						SB75-W3	F-04-15	443	12.0	39.4
						SB75-W3	F-04-14	442	12.0	39.4
						SB75-W3	F-04-13	441	12.0	39.1
						SB75-W3	F-01-15	404	24.0	38.9
F10101	119	60.4	5.1	7	-1.9	SB75-W3	F-04-17	445	12.0	41.3
						SB75-W3	F-04-16	444	12.0	41.1
						SB75-W3	F-02-01	408	12.0	40.7

						SB75-W3	F-04-14	442	12.0	40.4
						SB75-W3	F-01-14	403	16.0	40.3
						SB75-W3	F-03-13	427	16.0	40.1
						SB75-W3	F-04-15	443	12.0	40.0
						SB75-W3	F-04-13	441	12.0	39.9
						SB75-W3	F-04-12	440	12.0	39.7
						SB75-W3	F-04-11	439	12.0	39.5
F10202	120	60.5	5.0	7	-2.0	SB75-W3	F-04-17	445	12.0	41.1
						SB75-W3	F-02-01	408	12.0	41.0
						SB75-W3	F-04-16	444	12.0	41.0
						SB75-W3	F-01-14	403	16.0	40.2
						SB75-W3	F-03-13	427	16.0	40.1
						SB75-W3	F-04-14	442	12.0	40.0
						SB75-W3	F-04-15	443	12.0	39.8
						SB75-W3	F-04-12	440	12.0	39.7
						SB75-W3	F-04-11	439	12.0	39.4
						SB75-W3	F-01-15	404	16.0	39.4
F10301	121	60.0	5.1	7	-1.9	SB75-W3	F-04-17	445	12.0	40.8
						SB75-W3	F-02-01	408	12.0	40.6
						SB75-W3	F-04-16	444	12.0	40.5
						SB75-W3	F-04-14	442	12.0	39.8
						SB75-W3	F-03-13	427	16.0	39.7
						SB75-W3	F-04-15	443	12.0	39.7
						SB75-W3	F-01-14	403	16.0	39.6
						SB75-W3	F-04-12	440	12.0	39.5
						SB75-W3	F-04-13	441	12.0	39.4
						SB75-W3	F-04-11	439	12.0	39.3
F10402	122	59.6	5.2	7	-1.8	SB75-W3	F-04-16	444	12.0	40.9
						SB75-W3	F-04-17	445	12.0	40.8
						SB75-W3	F-04-14	442	12.0	40.0
						SB75-W3	F-04-13	441	12.0	39.9
						SB75-W3	F-02-01	408	12.0	39.7
						SB75-W3	F-04-15	443	12.0	39.6
						SB75-W3	F-04-12	440	12.0	39.5
						SB75-W3	F-04-11	439	12.0	39.3
						SB75-W3	F-03-13	427	16.0	39.3

						SB75-W3	F-01-14	403	16.0	39.2
F10512	123	61.7	5.0	7	-2.0	SB75-W3	F-02-01	408	12.0	43.3
						SB75-W3	F-04-16	444	12.0	42.7
						SB75-W3	F-03-13	427	16.0	42.0
						SB75-W3	F-01-14	403	16.0	41.6
						SB75-W3	F-04-15	443	12.0	41.2
						SB75-W3	F-04-17	445	12.0	41.0
						SB75-W3	F-01-15	404	16.0	40.8
						SB75-W3	F-03-12	426	20.0	40.5
						SB75-W3	F-03-11	425	20.0	40.2
						SB75-W3	F-01-10	399	20.0	39.7
F10601	124	61.9	5.4	7	-1.6	SB75-W3	F-02-01	408	12.0	44.0
						SB75-W3	F-03-13	427	16.0	43.0
						SB75-W3	F-01-14	403	16.0	42.9
						SB75-W3	F-01-15	404	16.0	42.3
						SB75-W3	F-02-02	409	12.0	41.6
						SB75-W3	F-01-16	405	16.0	41.3
						SB75-W3	F-04-16	444	12.0	41.1
						SB75-W3	F-03-12	426	20.0	40.9
						SB75-W3	F-04-17	445	12.0	40.8
						SB75-W3	F-04-15	443	12.0	40.4
F10701	125	62.1	5.4	7	-1.6	SB75-W3	F-02-01	408	12.0	44.4
						SB75-W3	F-03-13	427	16.0	43.5
						SB75-W3	F-01-14	403	16.0	43.2
						SB75-W3	F-01-15	404	16.0	42.7
						SB75-W3	F-02-02	409	12.0	42.5
						SB75-W3	F-04-15	443	12.0	41.5
						SB75-W3	F-04-16	444	12.0	41.5
						SB75-W3	F-01-16	405	16.0	41.4
						SB75-W3	F-03-12	426	20.0	41.2
						SB75-W3	F-01-11	400	20.0	40.6
F10801	126	62.3	5.5	7	-1.5	SB75-W3	F-02-01	408	12.0	45.2
						SB75-W3	F-02-02	409	12.0	44.6
						SB75-W3	F-03-13	427	16.0	44.3
						SB75-W3	F-01-14	403	16.0	43.9
						SB75-W3	F-01-15	404	16.0	43.4

						SB75-W3	F-03-12	426	20.0	41.6
						SB75-W3	F-01-16	405	16.0	41.5
						SB75-W3	F-01-13	402	20.0	41.3
						SB75-W3	F-01-11	400	20.0	41.2
						SB75-W3	F-01-12	401	20.0	41.1
F10901	127	62.6	5.6	7	-1.4	SB75-W3	F-02-01	408	12.0	46.2
						SB75-W3	F-02-02	409	12.0	44.9
						SB75-W3	F-03-13	427	16.0	44.7
						SB75-W3	F-01-14	403	16.0	44.5
						SB75-W3	F-01-15	404	16.0	44.0
						SB75-W3	F-01-16	405	16.0	42.5
						SB75-W3	F-03-12	426	20.0	42.0
						SB75-W3	F-01-13	402	20.0	41.9
						SB75-W3	F-01-12	401	20.0	41.6
						SB75-W3	F-01-10	399	20.0	41.4
F11001	128	62.6	5.6	7	-1.4	SB75-W3	F-02-01	408	12.0	49.1
						SB75-W3	F-02-02	409	12.0	47.9
						SB75-W3	F-03-13	427	16.0	47.4
						SB75-W3	F-01-14	403	24.0	46.9
						SB75-W3	F-01-13	402	20.0	44.9
						SB75-W3	F-01-11	400	20.0	44.9
						SB75-W3	F-01-12	401	20.0	44.9
					Crescent Ave - Additional Phase		CAA-01	499	20.0	44.4
						SB75-W3	F-01-10	399	20.0	44.0
						SB75-W3	F-01-15	404	24.0	43.7
F11101	129	62.7	5.4	7	-1.6	SB75-W3	F-02-01	408	12.0	49.0
						SB75-W3	F-02-02	409	12.0	48.0
						SB75-W3	F-03-13	427	16.0	47.3
						SB75-W3	F-01-14	403	16.0	46.9
						SB75-W3	F-01-13	402	20.0	44.8
						SB75-W3	F-01-11	400	20.0	44.7
						SB75-W3	F-01-12	401	20.0	44.7
						SB75-W3	F-01-15	404	24.0	44.6
					Crescent Ave - Additional Phase		CAA-01	499	20.0	44.5
						SB75-W3	F-01-10	399	20.0	44.4
F11202	130	62.0	5.7	7	-1.3	SB75-W3	F-02-01	408	12.0	47.6

						SB75-W3	F-03-13	427	16.0	46.5
						SB75-W3	F-02-02	409	12.0	46.3
						SB75-W3	F-01-14	403	16.0	45.7
						SB75-W3	F-01-12	401	20.0	44.0
						SB75-W3	F-01-13	402	20.0	43.9
						SB75-W3	F-01-11	400	20.0	43.9
						SB75-W3	F-01-15	404	24.0	43.7
					Crescent Ave - Additional Phase		CAA-01	499	20.0	42.6
						SB75-W3	F-03-12	426	20.0	41.9
F11301	131	62.3	5.2	7	-1.8	SB75-W3	F-02-01	408	12.0	48.2
						SB75-W3	F-02-02	409	12.0	47.5
						SB75-W3	F-03-13	427	16.0	46.6
						SB75-W3	F-01-14	403	24.0	46.0
						SB75-W3	F-01-13	402	20.0	44.2
						SB75-W3	F-01-15	404	24.0	44.1
						SB75-W3	F-01-12	401	20.0	44.0
					Crescent Ave - Additional Phase		CAA-01	499	20.0	43.9
						SB75-W3	F-01-11	400	20.0	43.9
						SB75-W3	F-01-10	399	20.0	43.9
F11401	132	61.6	5.8	7	-1.2	SB75-W3	F-02-01	408	12.0	45.8
						SB75-W3	F-03-13	427	16.0	45.6
						SB75-W3	F-02-02	409	12.0	45.1
						SB75-W3	F-01-14	403	16.0	44.9
						SB75-W3	F-01-15	404	24.0	43.6
						SB75-W3	F-01-12	401	20.0	43.5
						SB75-W3	F-01-13	402	20.0	43.3
						SB75-W3	F-01-11	400	20.0	42.3
					Crescent Ave - Additional Phase		CAA-01	499	20.0	41.5
						SB75-W3	F-04-16	444	12.0	41.2
F11501	133	60.9	5.8	7	-1.2	SB75-W3	F-02-01	408	12.0	45.3
						SB75-W3	F-03-13	427	16.0	44.5
						SB75-W3	F-02-02	409	12.0	44.1
						SB75-W3	F-01-14	403	16.0	42.9
						SB75-W3	F-01-15	404	24.0	42.2
						SB75-W3	F-01-13	402	20.0	42.2
						SB75-W3	F-01-12	401	20.0	41.9

						SB75-W3	F-04-17	445	12.0	40.5
						SB75-W3	F-04-18	446	16.0	40.3
						SB75-W3	F-03-12	426	20.0	40.3
F11602	134	60.7	5.7	7	-1.3	SB75-W3	F-02-01	408	12.0	44.9
						SB75-W3	F-03-13	427	16.0	43.6
						SB75-W3	F-02-02	409	12.0	42.7
						SB75-W3	F-01-14	403	16.0	42.3
						SB75-W3	F-01-15	404	24.0	42.2
						SB75-W3	F-01-13	402	20.0	41.9
						SB75-W3	F-01-12	401	20.0	41.6
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-04-18	446	16.0	40.2
F11701	135	60.8	5.7	7	-1.3	SB75-W3	F-02-01	408	12.0	44.8
						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-01-14	403	16.0	43.7
						SB75-W3	F-02-02	409	12.0	43.0
						SB75-W3	F-01-12	401	20.0	42.5
						SB75-W3	F-01-13	402	20.0	42.2
						SB75-W3	F-01-15	404	24.0	42.2
						SB75-W3	F-01-11	400	20.0	41.1
						SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-03-06	420	20.0	40.4
F11801	136	60.2	5.6	7	-1.4	SB75-W3	F-02-01	408	12.0	44.1
						SB75-W3	F-03-13	427	16.0	42.2
						SB75-W3	F-01-14	403	16.0	41.1
						SB75-W3	F-01-13	402	20.0	40.9
						SB75-W3	F-01-15	404	16.0	40.9
						SB75-W3	F-02-02	409	12.0	40.7
						SB75-W3	F-04-16	444	12.0	40.5
						SB75-W3	F-04-17	445	12.0	40.5
						SB75-W3	F-04-18	446	16.0	39.6
						SB75-W3	F-01-12	401	20.0	39.4
F11901	137	60.5	5.2	7	-1.8	SB75-W3	F-02-01	408	12.0	42.1
						SB75-W3	F-04-16	444	12.0	41.3
						SB75-W3	F-03-13	427	16.0	40.8

						SB75-W3	F-04-17	445	12.0	40.4
						SB75-W3	F-01-14	403	16.0	40.4
						SB75-W3	F-01-15	404	16.0	39.7
						SB75-W3	F-04-18	446	16.0	39.2
						SB75-W3	F-03-12	426	20.0	39.2
						SB75-W3	F-03-11	425	20.0	38.8
						SB75-W3	F-01-10	399	20.0	38.5
F12001	138	60.2	5.3	7	-1.7	SB75-W3	F-02-01	408	12.0	41.7
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-17	445	12.0	40.4
						SB75-W3	F-03-13	427	16.0	40.3
						SB75-W3	F-01-14	403	16.0	40.0
						SB75-W3	F-01-15	404	16.0	39.4
						SB75-W3	F-03-12	426	20.0	39.0
						SB75-W3	F-04-15	443	12.0	38.8
						SB75-W3	F-04-18	446	16.0	38.8
						SB75-W3	F-03-11	425	20.0	38.6
F12101	139	59.9	5.3	7	-1.7	SB75-W3	F-02-01	408	12.0	41.3
						SB75-W3	F-04-16	444	12.0	40.4
						SB75-W3	F-04-17	445	12.0	40.1
						SB75-W3	F-03-13	427	16.0	39.9
						SB75-W3	F-01-14	403	16.0	39.4
						SB75-W3	F-04-15	443	12.0	39.0
						SB75-W3	F-04-14	442	12.0	38.8
						SB75-W3	F-04-11	439	12.0	38.8
						SB75-W3	F-01-15	404	16.0	38.7
						SB75-W3	F-03-12	426	20.0	38.6
F12202	140	59.7	5.2	7	-1.8	SB75-W3	F-02-01	408	12.0	40.9
						SB75-W3	F-04-17	445	12.0	40.2
						SB75-W3	F-04-16	444	12.0	40.1
						SB75-W3	F-03-13	427	16.0	39.6
						SB75-W3	F-04-14	442	12.0	38.8
						SB75-W3	F-01-14	403	16.0	38.8
						SB75-W3	F-04-15	443	12.0	38.8
						SB75-W3	F-04-11	439	12.0	38.7
						SB75-W3	F-04-12	440	12.0	38.7

					Crescent Ave - Additional Phase		CAA-07	506	24.0	38.5
F12301	141	58.5	5.5	7	-1.5	SB75-W3	F-04-17	445	12.0	39.7
						SB75-W3	F-04-14	442	12.0	39.2
						SB75-W3	F-04-13	441	12.0	38.9
						SB75-W3	F-04-15	443	12.0	38.8
						SB75-W3	F-04-16	444	12.0	38.8
						SB75-W3	F-04-11	439	12.0	38.4
						SB75-W3	F-04-10	438	12.0	38.3
						SB75-W3	F-04-12	440	12.0	38.2
						SB75-W3	F-02-01	408	12.0	37.9
						SB75-W3	F-04-18	446	16.0	37.9
F12403	142	58.7	5.5	7	-1.5	SB75-W3	F-04-17	445	12.0	39.8
						SB75-W3	F-04-14	442	12.0	39.3
						SB75-W3	F-04-13	441	12.0	39.1
						SB75-W3	F-04-15	443	12.0	39.0
						SB75-W3	F-04-16	444	12.0	38.9
						SB75-W3	F-04-11	439	12.0	38.6
						SB75-W3	F-04-10	438	12.0	38.5
						SB75-W3	F-04-12	440	12.0	38.4
						SB75-W3	F-01-14	403	16.0	38.2
						SB75-W3	F-04-09	437	12.0	38.1
F12501	143	58.9	5.2	7	-1.8	SB75-W3	F-01-16	405	24.0	38.9
						SB75-W3	F-04-13	441	12.0	38.6
						SB75-W3	F-04-14	442	12.0	38.6
						SB75-W3	F-05-23	470	16.0	38.5
						SB75-W3	F-04-17	445	12.0	38.5
						SB75-W3	F-04-04	432	12.0	38.4
						SB75-W3	F-04-05	433	12.0	38.4
						SB75-W3	F-04-11	439	12.0	38.3
						SB75-W3	F-04-16	444	12.0	38.3
						SB75-W3	F-01-15	404	16.0	38.3
F12601	144	59.2	5.1	7	-1.9	SB75-W3	F-04-16	444	12.0	39.9
						SB75-W3	F-01-15	404	16.0	39.9
						SB75-W3	F-01-14	403	16.0	39.1
						SB75-W3	F-05-23	470	16.0	39.1
						SB75-W3	F-04-13	441	12.0	38.8

						SB75-W3	F-04-14	442	12.0	38.8
						SB75-W3	F-01-16	405	24.0	38.8
						SB75-W3	F-04-04	432	12.0	38.7
						SB75-W3	F-04-05	433	12.0	38.7
						SB75-W3	F-04-06	434	12.0	38.6
F12701	145	59.5	5.1	7	-1.9	SB75-W3	F-01-15	404	16.0	40.6
						SB75-W3	F-04-16	444	12.0	40.3
						SB75-W3	F-01-14	403	16.0	40.1
						SB75-W3	F-05-23	470	16.0	39.6
						SB75-W3	F-04-13	441	12.0	39.1
						SB75-W3	F-04-05	433	12.0	39.1
						SB75-W3	F-01-12	401	20.0	39.1
						SB75-W3	F-04-14	442	12.0	39.1
						SB75-W3	F-04-04	432	12.0	39.1
						SB75-W3	F-04-06	434	12.0	39.0
F12804	146	60.4	4.9	7	-2.1	SB75-W3	F-05-23	470	16.0	41.6
						SB75-W3	F-01-14	403	16.0	41.2
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-03	431	12.0	40.3
						SB75-W3	F-04-04	432	12.0	40.2
						SB75-W3	F-01-10	399	20.0	40.1
						SB75-W3	F-04-02	430	12.0	40.1
						SB75-W3	F-01-11	400	20.0	40.1
						SB75-W3	F-04-05	433	12.0	40.1
						SB75-W3	F-01-13	402	20.0	40.0
F12901	147	59.8	5.0	7	-2.0	SB75-W3	F-01-14	403	16.0	41.0
						SB75-W3	F-01-15	404	16.0	40.6
						SB75-W3	F-05-23	470	16.0	40.3
						SB75-W3	F-04-16	444	12.0	39.9
						SB75-W3	F-04-04	432	12.0	39.6
						SB75-W3	F-04-05	433	12.0	39.5
						SB75-W3	F-01-11	400	20.0	39.4
						SB75-W3	F-04-02	430	12.0	39.4
						SB75-W3	F-04-03	431	12.0	39.4
						SB75-W3	F-04-11	439	12.0	39.4
F13003	148	61.5	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	42.2

						SB75-W3	F-05-23	470	16.0	41.5
						SB75-W3	F-01-13	402	20.0	41.3
						SB75-W3	F-01-10	399	20.0	41.3
						SB75-W3	F-01-11	400	20.0	41.2
						SB75-W3	F-01-12	401	20.0	41.1
						SB75-W3	F-01-14	403	24.0	41.1
						SB75-W3	F-04-04	432	12.0	41.0
						SB75-W3	F-04-05	433	12.0	40.9
						SB75-W3	F-04-06	434	12.0	40.9
F13105	149	61.5	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	42.6
						SB75-W3	F-01-11	400	20.0	41.2
						SB75-W3	F-01-13	402	20.0	41.0
						SB75-W3	F-05-23	470	16.0	40.9
						SB75-W3	F-01-10	399	20.0	40.8
						SB75-W3	F-04-05	433	12.0	40.8
						SB75-W3	F-04-11	439	12.0	40.8
						SB75-W3	F-01-18	407	24.0	40.8
						SB75-W3	F-04-04	432	12.0	40.7
						SB75-W3	F-01-14	403	24.0	40.7
F13201	150	61.5	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	42.3
						SB75-W3	F-04-14	442	12.0	41.4
						SB75-W3	F-04-13	441	12.0	41.3
						SB75-W3	F-04-11	439	12.0	41.2
						SB75-W3	F-01-12	401	20.0	41.1
						SB75-W3	F-04-10	438	12.0	41.1
						SB75-W3	F-01-11	400	20.0	41.0
						SB75-W3	F-04-17	445	12.0	41.0
						SB75-W3	F-01-18	407	24.0	40.8
						SB75-W3	F-04-09	437	12.0	40.7
F13303	151	62.8	4.3	7	-2.7	SB75-W3	F-04-16	444	12.0	44.3
						SB75-W3	F-01-14	403	24.0	42.3
						SB75-W3	F-04-11	439	12.0	41.9
						SB75-W3	F-01-11	400	20.0	41.9
						SB75-W3	F-01-15	404	24.0	41.9
						SB75-W3	F-04-10	438	12.0	41.9
						SB75-W3	F-04-13	441	12.0	41.7

						SB75-W3	F-01-10	399	20.0	41.7
						SB75-W3	F-04-17	445	12.0	41.7
						SB75-W3	F-04-02	430	12.0	41.6
F13402	152	63.1	3.9	7	-3.1	SB75-W3	F-04-16	444	12.0	45.0
						SB75-W3	F-04-14	442	12.0	42.7
						SB75-W3	F-04-17	445	12.0	42.7
						SB75-W3	F-04-13	441	12.0	42.6
						SB75-W3	F-04-11	439	12.0	42.3
						SB75-W3	F-04-10	438	12.0	42.3
						SB75-W3	F-04-09	437	12.0	42.0
						SB75-W3	F-04-15	443	12.0	42.0
						SB75-W3	F-01-14	403	16.0	41.9
						SB75-W3	F-04-08	436	12.0	41.9
F13502	153	63.0	3.7	7	-3.3	SB75-W3	F-04-16	444	12.0	45.1
						SB75-W3	F-04-17	445	12.0	43.2
						SB75-W3	F-04-15	443	12.0	43.0
						SB75-W3	F-04-14	442	12.0	42.9
						SB75-W3	F-04-13	441	12.0	42.8
						SB75-W3	F-04-11	439	12.0	42.6
						SB75-W3	F-04-10	438	12.0	42.6
						SB75-W3	F-04-09	437	12.0	42.2
						SB75-W3	F-04-08	436	12.0	42.2
						SB75-W3	F-04-07	435	12.0	42.1
F13601	154	59.3	5.2	7	-1.8	SB75-W3	F-04-17	445	12.0	40.3
						SB75-W3	F-04-16	444	12.0	40.2
						SB75-W3	F-04-14	442	12.0	39.6
						SB75-W3	F-04-13	441	12.0	39.5
						SB75-W3	F-04-15	443	12.0	39.1
						SB75-W3	F-04-11	439	12.0	39.0
						SB75-W3	F-01-14	403	16.0	38.9
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-05-23	470	16.0	38.6
						SB75-W3	F-01-18	407	24.0	38.5
F13701	155	59.0	5.4	7	-1.6	SB75-W3	F-04-17	445	12.0	40.4
						SB75-W3	F-04-14	442	12.0	39.8
						SB75-W3	F-04-15	443	12.0	39.6

						SB75-W3	F-04-13	441	12.0	39.6
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-01-14	403	16.0	38.8
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-01-18	407	24.0	38.6
						SB75-W3	F-04-16	444	12.0	38.6
						SB75-W3	F-04-09	437	12.0	38.4
F31201	156	59.0	5.4	7	-1.6	SB75-W3	F-04-17	445	12.0	40.4
						SB75-W3	F-04-14	442	12.0	39.7
						SB75-W3	F-04-13	441	12.0	39.6
						SB75-W3	F-04-16	444	12.0	39.2
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-04-15	443	12.0	39.0
						SB75-W3	F-01-14	403	16.0	38.8
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-01-18	407	24.0	38.8
						SB75-W3	F-04-09	437	12.0	38.3
F13801	157	59.0	5.2	7	-1.8	SB75-W3	F-04-17	445	12.0	40.5
						SB75-W3	F-04-14	442	12.0	39.9
						SB75-W3	F-04-15	443	12.0	39.9
						SB75-W3	F-04-13	441	12.0	39.6
						SB75-W3	F-04-16	444	12.0	39.4
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-01-14	403	16.0	38.6
						SB75-W3	F-04-12	440	12.0	38.4
						SB75-W3	F-04-09	437	12.0	38.3
F13901	158	59.1	5.1	7	-1.9	SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-04-15	443	12.0	40.0
						SB75-W3	F-04-14	442	12.0	39.9
						SB75-W3	F-04-16	444	12.0	39.8
						SB75-W3	F-04-13	441	12.0	39.7
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-04-10	438	12.0	38.9
						SB75-W3	F-04-12	440	12.0	38.8
						SB75-W3	F-01-14	403	16.0	38.8

						SB75-W3	F-04-18	446	16.0	38.5
F14001	159	59.0	5.2	7	-1.8	SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-04-15	443	12.0	40.2
						SB75-W3	F-04-14	442	12.0	39.9
						SB75-W3	F-04-16	444	12.0	39.8
						SB75-W3	F-04-13	441	12.0	39.7
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-04-12	440	12.0	39.0
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-01-14	403	16.0	38.7
						SB75-W3	F-04-18	446	16.0	38.7
F14102	160	59.3	5.0	7	-2.0	SB75-W3	F-04-17	445	12.0	41.0
						SB75-W3	F-04-16	444	12.0	40.4
						SB75-W3	F-04-14	442	12.0	40.3
						SB75-W3	F-04-15	443	12.0	40.2
						SB75-W3	F-04-13	441	12.0	40.1
						SB75-W3	F-04-11	439	12.0	39.4
						SB75-W3	F-04-12	440	12.0	39.2
						SB75-W3	F-04-10	438	12.0	39.1
						SB75-W3	F-01-14	403	24.0	38.9
						SB75-W3	F-04-18	446	16.0	38.8
F14201	161	59.3	5.0	7	-2.0	SB75-W3	F-04-17	445	12.0	39.9
						SB75-W3	F-04-15	443	12.0	39.6
						SB75-W3	F-04-14	442	12.0	39.4
						SB75-W3	F-04-16	444	12.0	39.3
						SB75-W3	F-04-13	441	12.0	39.2
						SB75-W3	F-01-14	403	24.0	38.9
						SB75-W3	F-04-11	439	12.0	38.8
						SB75-W3	F-04-18	446	16.0	38.8
						SB75-W3	F-04-10	438	12.0	38.6
						SB75-W3	F-04-12	440	12.0	38.5
F14301	162	59.4	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	40.3
						SB75-W3	F-04-17	445	12.0	40.1
						SB75-W3	F-04-14	442	12.0	39.6
						SB75-W3	F-04-15	443	12.0	39.6
						SB75-W3	F-04-13	441	12.0	39.4

						SB75-W3	F-04-18	446	16.0	39.2
						SB75-W3	F-04-11	439	12.0	39.0
						SB75-W3	F-01-14	403	24.0	39.0
						SB75-W3	F-04-12	440	12.0	38.7
						SB75-W3	F-03-13	427	16.0	38.5
F14402	163	59.6	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	40.4
						SB75-W3	F-04-17	445	12.0	40.3
						SB75-W3	F-04-14	442	12.0	39.9
						SB75-W3	F-04-15	443	12.0	39.8
						SB75-W3	F-04-13	441	12.0	39.7
						SB75-W3	F-04-18	446	16.0	39.4
						SB75-W3	F-01-14	403	24.0	39.4
						SB75-W3	F-04-12	440	12.0	38.9
						SB75-W3	F-01-15	404	24.0	38.7
						SB75-W3	F-03-13	427	16.0	38.6
F14501	164	59.8	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	40.9
						SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-04-15	443	12.0	40.2
						SB75-W3	F-04-14	442	12.0	40.2
						SB75-W3	F-04-13	441	12.0	39.9
						SB75-W3	F-04-18	446	16.0	39.7
						SB75-W3	F-01-14	403	24.0	39.7
						SB75-W3	F-04-12	440	12.0	39.2
						SB75-W3	F-03-13	427	16.0	38.7
						SB75-W3	F-01-15	404	24.0	38.7
F14601	165	60.0	4.8	7	-2.2	SB75-W3	F-04-17	445	12.0	40.9
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-14	442	12.0	40.4
						SB75-W3	F-04-15	443	12.0	40.4
						SB75-W3	F-04-13	441	12.0	40.1
						SB75-W3	F-04-18	446	16.0	40.0
						SB75-W3	F-01-14	403	24.0	39.1
						SB75-W3	F-03-03	417	20.0	39.1
						SB75-W3	F-03-04	418	20.0	39.0
						SB75-W3	F-03-02	416	20.0	38.9
F14701	166	60.2	4.7	7	-2.3	SB75-W3	F-04-17	445	12.0	41.2

						SB75-W3	F-04-14	442	12.0	40.7
						SB75-W3	F-04-15	443	12.0	40.6
						SB75-W3	F-04-16	444	12.0	40.5
						SB75-W3	F-04-18	446	16.0	40.3
						SB75-W3	F-03-03	417	20.0	39.3
						SB75-W3	F-03-04	418	20.0	39.2
						SB75-W3	F-03-02	416	20.0	39.2
						SB75-W3	F-03-05	419	20.0	39.1
						SB75-W3	F-03-13	427	16.0	38.9
F14801	167	60.3	4.7	7	-2.3	SB75-W3	F-04-17	445	12.0	41.4
						SB75-W3	F-04-16	444	12.0	40.6
						SB75-W3	F-04-15	443	12.0	40.4
						SB75-W3	F-04-18	446	16.0	40.4
						SB75-W3	F-03-03	417	20.0	39.5
						SB75-W3	F-03-04	418	20.0	39.4
						SB75-W3	F-03-02	416	20.0	39.4
						SB75-W3	F-03-05	419	20.0	39.3
						SB75-W3	F-03-08	422	20.0	39.0
						SB75-W3	F-03-06	420	20.0	39.0
F14901	168	60.5	4.7	7	-2.3	SB75-W3	F-04-17	445	12.0	41.6
						SB75-W3	F-04-15	443	12.0	41.0
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-18	446	16.0	40.7
						SB75-W3	F-03-03	417	20.0	39.8
						SB75-W3	F-03-04	418	20.0	39.7
						SB75-W3	F-03-02	416	20.0	39.7
						SB75-W3	F-03-05	419	20.0	39.6
						SB75-W3	F-03-08	422	20.0	39.3
						SB75-W3	F-03-06	420	20.0	39.3
F15001	169	60.8	4.6	7	-2.4	SB75-W3	F-04-17	445	12.0	41.9
						SB75-W3	F-04-16	444	12.0	41.0
						SB75-W3	F-04-18	446	16.0	41.0
						SB75-W3	F-04-15	443	12.0	40.6
						SB75-W3	F-03-03	417	20.0	40.1
						SB75-W3	F-03-02	416	20.0	40.0
						SB75-W3	F-03-04	418	20.0	40.0

						SB75-W3	F-03-05	419	20.0	39.8
						SB75-W3	F-03-08	422	20.0	39.5
						SB75-W3	F-01-06	395	20.0	39.5
F15101	170	60.8	4.6	7	-2.4	SB75-W3	F-04-17	445	12.0	42.1
						SB75-W3	F-04-16	444	12.0	41.1
						SB75-W3	F-04-18	446	16.0	41.1
						SB75-W3	F-03-03	417	20.0	40.3
						SB75-W3	F-03-02	416	20.0	40.2
						SB75-W3	F-03-04	418	20.0	40.2
						SB75-W3	F-03-05	419	20.0	39.9
						SB75-W3	F-01-06	395	20.0	39.8
						SB75-W3	F-03-08	422	20.0	39.7
						SB75-W3	F-01-07	396	20.0	39.7
F15201	171	61.0	4.5	7	-2.5	SB75-W3	F-04-17	445	12.0	42.3
						SB75-W3	F-04-18	446	16.0	41.2
						SB75-W3	F-04-16	444	12.0	40.7
						SB75-W3	F-03-03	417	20.0	40.5
						SB75-W3	F-03-02	416	20.0	40.4
						SB75-W3	F-03-04	418	20.0	40.3
						SB75-W3	F-03-05	419	20.0	40.1
						SB75-W3	F-01-06	395	20.0	40.0
						SB75-W3	F-01-05	394	24.0	40.0
						SB75-W3	F-01-07	396	20.0	39.9
F15301-F	172	61.7	4.1	7	-2.9	SB75-W3	F-04-17	445	12.0	42.8
						SB75-W3	F-04-18	446	16.0	41.6
						SB75-W3	F-03-03	417	20.0	41.0
						SB75-W3	F-03-02	416	20.0	40.9
						SB75-W3	F-03-04	418	20.0	40.8
						SB75-W3	F-01-06	395	20.0	40.7
						SB75-W3	F-01-05	394	20.0	40.6
						SB75-W3	F-04-16	444	12.0	40.6
						SB75-W3	F-01-04	393	20.0	40.6
						SB75-W3	F-03-08	422	20.0	40.2

Total Cost, All Barriers (including additional cost(s))					$3795846					

HMB Professional Engineers 26 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge
RUN: F1
BARRIER DESIGN: f1new-ind-1

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
NB75-W	W	12.00	12.00	12.00	1600	19201				614441
Crescent Ave	W	24.00	24.00	24.00	1071	25695				822237
SB75-W3	W	12.00	17.30	20.00	2980	51547				1649512
Crescent Ave - Additional Phase	W	20.00	23.59	24.00	389	9181				293786
Hermes Ave	W	16.00	19.76	20.00	658	12996				415870
									Total Cost:	3795846

HMB Professional Engineers 26 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge
RUN: F1
BARRIER DESIGN: f1new-ind-1

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
NB75-W	W	point328	250	12.00	12.00	12.00	40	477	Y			15266
		E-05-09	252	12.00	12.00	12.00	40	484	Y			15480
		E-05-10	253	12.00	12.00	12.00	40	477	Y			15266
		E-05-11	254	12.00	12.00	12.00	40	478	Y			15289
		E-05-12	255	12.00	12.00	12.00	40	483	Y			15457
		E-05-13	256	12.00	12.00	12.00	40	478	Y			15289
		E-05-14	257	12.00	12.00	12.00	40	483	Y			15457
		E-05-15	258	12.00	12.00	12.00	40	477	Y			15266
		E-05-16	259	12.00	12.00	12.00	40	484	Y			15480
		E-05-17	260	12.00	12.00	12.00	40	477	Y			15266
		E-05-18	261	12.00	12.00	12.00	40	484	Y			15480
		E-05-19	262	12.00	12.00	12.00	40	477	Y			15266
		E-05-20	263	12.00	12.00	12.00	40	478	Y			15289
		E-05-21	264	12.00	12.00	12.00	40	484	Y			15480
		E-05-22	265	12.00	12.00	12.00	40	477	Y			15266
		E-05-23	266	12.00	12.00	12.00	40	484	Y			15480
		E-05-24	267	12.00	12.00	12.00	40	478	Y			15289
		E-05-25	268	12.00	12.00	12.00	40	478	Y			15289
		E-05-26	269	12.00	12.00	12.00	40	484	Y			15480
		E-05-27	270	12.00	12.00	12.00	40	478	Y			15289
		E-05-28	271	12.00	12.00	12.00	40	484	Y			15480
		E-05-29	272	12.00	12.00	12.00	40	478	Y			15289
		E-05-30	273	12.00	12.00	12.00	40	478	Y			15289
		E-05-31	274	12.00	12.00	12.00	40	485	Y			15505
		E-05-32	275	12.00	12.00	12.00	40	479	Y			15342
		E-05-33	276	12.00	12.00	12.00	40	479	Y			15342

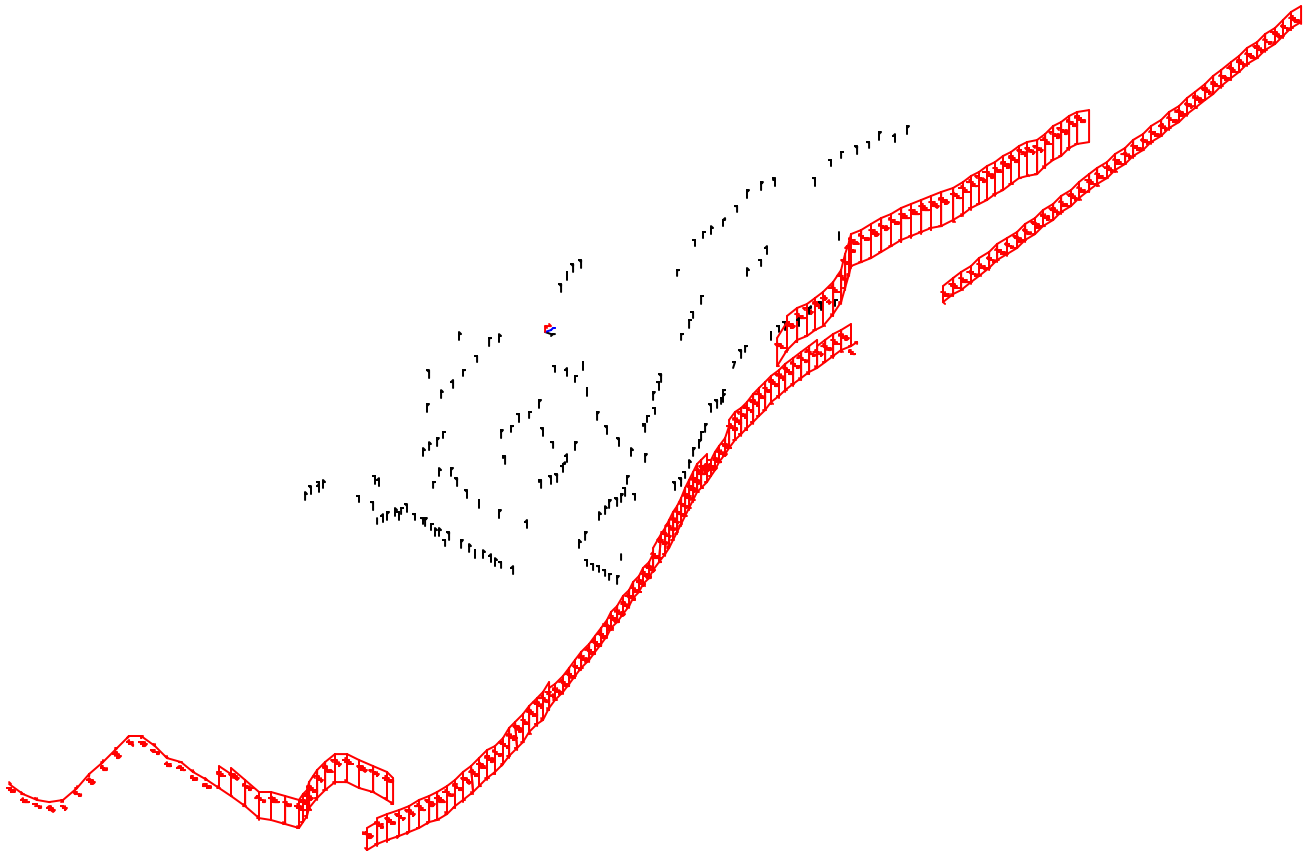
		E-05-34	277	12.00	12.00	12.00	40	479	Y			15342
		E-05-35	278	12.00	12.00	12.00	40	479	Y			15342
		E-05-36	279	12.00	12.00	12.00	40	480	Y			15372
		E-05-37	280	12.00	12.00	12.00	40	480	Y			15372
		E-05-38	281	12.00	12.00	12.00	40	480	Y			15372
		E-05-39	282	12.00	12.00	12.00	40	480	Y			15372
		E-05-40	283	12.00	12.00	12.00	40	480	Y			15372
		E-05-41	284	12.00	12.00	12.00	40	479	Y			15342
		E-05-42	285	12.00	12.00	12.00	40	479	Y			15314
		E-05-43	286	12.00	12.00	12.00	40	479	Y			15342
		E-05-44	287	12.00	12.00	12.00	40	479	Y			15342
		E-05-45	288	12.00	12.00	12.00	40	485	Y			15505
		E-05-46	289	12.00	12.00	12.00	40	479	Y			15342
		E-05-47	290	12.00	12.00	12.00	40	479	Y			15342
Crescent Ave	W	point472	472	24.00	24.00	24.00	40	960				30730
		point474	474	24.00	24.00	24.00	40	960				30722
		point475	475	24.00	24.00	24.00	40	960				30730
		point476	476	24.00	24.00	24.00	40	960				30722
		point477	477	24.00	24.00	24.00	40	960				30730
		point478	478	24.00	24.00	24.00	40	960				30722
		point479	479	24.00	24.00	24.00	40	960				30722
		point480	480	24.00	24.00	24.00	40	960				30730
		point481	481	24.00	24.00	24.00	40	960				30722
		point482	482	24.00	24.00	24.00	51	1212				38792
		point483	483	24.00	24.00	24.00	40	955				30576
		point484	484	24.00	24.00	24.00	40	955				30576
		CA-01	485	24.00	24.00	24.00	40	967				30952
		CA-02	486	24.00	24.00	24.00	40	958				30655
		CA-03	487	24.00	24.00	24.00	40	955				30576
		CA-04	488	24.00	24.00	24.00	40	967				30952
		CA-05	489	24.00	24.00	24.00	40	955				30576
		CA-06	490	24.00	24.00	24.00	40	967				30952
		CA-07	491	24.00	24.00	24.00	40	955				30576
		CA-08	492	24.00	24.00	24.00	40	955				30576
		CA-09	493	24.00	24.00	24.00	40	967				30952
		CA-10	494	24.00	24.00	24.00	40	955				30576
		CA-11	495	24.00	24.00	24.00	40	958				30655
		CA-12	496	24.00	24.00	24.00	40	967				30952

		CA-13	497	24.00	24.00	24.00	40	955				30576
		CA-14	498	24.00	24.00	24.00	60	1445				46240
SB75-W3	W	F-05-01	447	16.00	16.00	16.00	40	642				20558
		F-05-02	449	20.00	20.00	20.00	40	802				25650
		F-05-03	450	20.00	20.00	20.00	40	800				25608
		F-05-04	451	20.00	20.00	20.00	40	800				25600
		F-05-05	452	20.00	20.00	20.00	40	800				25608
		F-05-06	453	20.00	20.00	20.00	40	799				25650
		F-05-07	454	20.00	20.00	20.00	40	803				25698
		F-05-08	455	20.00	20.00	20.00	40	796				25482
		F-05-09	456	20.00	20.00	20.00	40	799				25570
		F-05-10	457	20.00	20.00	20.00	40	802				25674
		F-05-11	458	20.00	20.00	20.00	40	798				25546
		F-05-12	459	20.00	20.00	20.00	40	796				25458
		F-05-13	460	20.00	20.00	20.00	40	808				25849
		F-05-14	461	20.00	20.00	20.00	40	796				25458
		F-05-15	462	20.00	20.00	20.00	40	800				25602
		F-05-16	463	20.00	20.00	20.00	40	797				25504
		F-05-17	464	20.00	20.00	20.00	40	807				25809
		F-05-18	465	20.00	20.00	20.00	40	803				25704
		F-05-19	466	20.00	20.00	20.00	40	797				25508
		F-05-20	467	20.00	20.00	20.00	40	801				25618
		F-05-21	468	20.00	20.00	20.00	40	795				25433
		F-05-22	469	20.00	20.00	20.00	40	802				25674
		F-05-23	470	16.00	14.00	12.00	43	603				19300
		F-04-01	428	12.00	12.00	12.00	40	478	Y			15305
		F-04-02	430	12.00	12.00	12.00	40	480	Y			15371
		F-04-03	431	12.00	12.00	12.00	40	480	Y			15371
		F-04-04	432	12.00	12.00	12.00	40	480	Y			15371
		F-04-05	433	12.00	12.00	12.00	40	477	Y			15260
		F-04-06	434	12.00	12.00	12.00	40	481	Y			15404
		F-04-07	435	12.00	12.00	12.00	40	481	Y			15404
		F-04-08	436	12.00	12.00	12.00	40	478	Y			15303
		F-04-09	437	12.00	12.00	12.00	40	481	Y			15382
		F-04-10	438	12.00	12.00	12.00	40	481	Y			15382
		F-04-11	439	12.00	12.00	12.00	40	480	Y			15371
		F-04-12	440	12.00	12.00	12.00	40	480	Y			15371
		F-04-13	441	12.00	12.00	12.00	40	478	Y			15284

		F-04-14	442	12.00	12.00	12.00	40	480	Y			15372
		F-04-15	443	12.00	12.00	12.00	40	480	Y			15372
		F-04-16	444	12.00	12.00	12.00	40	481	Y			15385
		F-04-17	445	12.00	12.00	12.00	40	480	Y			15372
		F-04-18	446	16.00	18.00	20.00	55	988	Y			31614
		F-03-02	416	20.00	20.00	20.00	40	794				25409
		F-03-03	417	20.00	20.00	20.00	40	808				25849
		F-03-04	418	20.00	20.00	20.00	40	794				25409
		F-03-05	419	20.00	20.00	20.00	40	799				25576
		F-03-06	420	20.00	20.00	20.00	40	799				25576
		F-03-07	421	20.00	20.00	20.00	40	805				25746
		F-03-08	422	20.00	20.00	20.00	40	799				25576
		F-03-09	423	20.00	20.00	20.00	40	796				25476
		F-03-10	424	20.00	20.00	20.00	40	805				25746
		F-03-11	425	20.00	20.00	20.00	40	803				25684
		F-03-12	426	20.00	20.00	20.00	40	798				25522
		F-03-13	427	16.00	14.00	12.00	35	490				15674
		F-02-01	408	12.00	12.00	12.00	40	481	Y			15385
		F-02-02	409	12.00	12.00	12.00	40	481	Y			15385
		F-02-03	410	12.00	12.00	12.00	40	481	Y			15385
		F-02-04	411	12.00	14.00	16.00	47	658	Y			21061
		F-01-01	389	20.00	20.00	20.00	40	801				25620
		F-01-02	391	20.00	20.00	20.00	40	805				25769
		F-01-03	392	20.00	20.00	20.00	40	801				25636
		F-01-04	393	20.00	20.00	20.00	40	793				25379
		F-01-05	394	20.00	20.00	20.00	40	798				25552
		F-01-06	395	20.00	20.00	20.00	40	804				25732
		F-01-07	396	20.00	20.00	20.00	40	797				25508
		F-01-08	397	20.00	20.00	20.00	40	800				25602
		F-01-09	398	20.00	20.00	20.00	40	797				25504
		F-01-10	399	20.00	20.00	20.00	40	804				25716
		F-01-11	400	20.00	20.00	20.00	40	798				25540
		F-01-12	401	20.00	20.00	20.00	40	803				25690
		F-01-13	402	20.00	20.00	20.00	40	800				25616
		F-01-14	403	16.00	16.00	16.00	40	639				20437
		F-01-15	404	16.00	16.00	16.00	40	643				20585
		F-01-16	405	16.00	16.00	16.00	40	640				20496
		F-01-17	406	16.00	16.00	16.00	40	638				20419
		F-01-18	407	0.00	0.00	0.00	0	0				0

Crescent Ave - Additional Phase	W	CAA-01	499	20.00	20.00	20.00	40	802				25672
		CAA-02	501	24.00	24.00	24.00	40	951				30423
		CAA-03	502	24.00	24.00	24.00	40	963				30806
		CAA-04	503	24.00	24.00	24.00	40	957				30629
		CAA-05	504	24.00	24.00	24.00	40	961				30744
		CAA-06	505	24.00	24.00	24.00	40	967				30952
		CAA-07	506	24.00	24.00	24.00	40	963				30828
		CAA-08	507	24.00	24.00	24.00	40	955				30571
		CAA-09	508	24.00	24.00	24.00	40	955				30571
		CAA-10	509	24.00	24.00	24.00	29	706				22591
Hermes Ave	W	F-06-01	291	0.00	0.00	0.00	0	0				0
		F-06-02	293	0.00	0.00	0.00	0	0				0
		F-06-03	294	0.00	0.00	0.00	0	0				0
		F-06-04	295	0.00	0.00	0.00	0	0				0
		F-06-05	296	0.00	0.00	0.00	0	0				0
		F-06-06	297	0.00	0.00	0.00	0	0				0
		F-06-07	298	0.00	0.00	0.00	0	0				7
		F-06-08	299	0.00	0.00	0.00	0	0				0
		F-06-09	300	0.00	0.00	0.00	0	0				0
		F-06-10	301	0.00	0.00	0.00	0	0				0
		F-06-11	302	0.00	0.00	0.00	0	0				0
		F-06-12	303	0.00	0.00	0.00	0	0				0
		F-06-13	304	0.00	0.00	0.00	0	0				0
		F-06-14	305	0.00	0.00	0.00	0	0				0
		F-06-15	306	0.00	0.00	0.00	0	0				0
		F-06-16	307	0.00	0.00	0.00	0	0				0
		F-06-17	308	16.00	16.00	16.00	40	637				20390
		F-06-18	309	20.00	20.00	20.00	40	799				25578
		F-06-19	310	20.00	20.00	20.00	40	807				25811
		F-06-20	311	20.00	20.00	20.00	40	792				25347
		F-06-21	312	20.00	20.00	20.00	40	803				25690
		F-06-22	313	20.00	20.00	20.00	40	801				25618
		F-06-23	314	20.00	20.00	20.00	40	796				25476
		F-06-24	315	20.00	20.00	20.00	40	805				25746
		F-06-25	316	20.00	20.00	20.00	40	799				25562
		F-06-26	317	20.00	20.00	20.00	40	797				25508
		F-06-27	318	20.00	20.00	20.00	40	798				25524

		F-06-28	319	20.00	20.00	20.00	40	806				25799
		F-06-29	320	20.00	20.00	20.00	40	796				25480
		F-06-30	321	20.00	20.00	20.00	40	800				25594
		F-06-31	322	20.00	20.00	20.00	40	800				25594
		F-06-32	323	20.00	20.00	20.00	40	800				25594
		F-06-33	324	20.00	20.00	20.00	18	361				11560



F1		Sheet 1 of 1	26 Jun 2023
		HMB Professional Engineers	
Barrier View-f1new-ind-1		Project/Contract No. Brent Spence Bridge	
Run name: f1_v4_ca_backup		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: NSA F, AREA F2

HMB Professional Engineers
20 June 2023
Mark Gavula
TNM 2.5
Calculated with TNM 2.5
RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: F2
BARRIER DESIGN: f2-ind-1
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F15401-FV	173	1	76.3	74.7	66	-1.6	10	Snd Lvl	72.7	2.0	7	-5.0
F15501	174	1	74.2	73.7	66	-0.5	10	Snd Lvl	70.6	3.1	7	-3.9
F15606	175	1	72.0	72.2	66	0.2	10	Snd Lvl	68.7	3.5	7	-3.5
F15701	176	1	70.5	70.6	66	0.1	10	Snd Lvl	67.1	3.5	7	-3.5
F15801	177	1	71.1	70.9	66	-0.2	10	Snd Lvl	68.0	2.9	7	-4.1
F15904	178	1	66.8	69.6	66	2.8	10	Snd Lvl	65.6	4.0	7	-3.0
F16001	179	1	67.9	69.9	66	2.0	10	Snd Lvl	66.4	3.5	7	-3.5
F16101	180	1	66.7	69.2	66	2.5	10	Snd Lvl	65.2	4.0	7	-3.0
F16202	181	1	67.2	69.6	66	2.4	10	Snd Lvl	66.0	3.6	7	-3.4
F16301	182	1	66.2	69.1	66	2.9	10	Snd Lvl	65.3	3.8	7	-3.2
F16405	183	5	65.8	68.8	66	3.0	10	Snd Lvl	65.2	3.6	7	-3.4
F16502	184	1	65.5	68.7	66	3.2	10	Snd Lvl	64.9	3.8	7	-3.2
F16601	185	1	74.4	73.9	66	-0.5	10	Snd Lvl	70.5	3.4	7	-3.6
F16701	186	1	75.6	74.7	66	-0.9	10	Snd Lvl	71.8	2.9	7	-4.1
F16802	187	1	77.0	75.3	66	-1.7	10	Snd Lvl	73.5	1.8	7	-5.2
F16901-F	188	1	76.5	74.4	66	-2.1	10	Snd Lvl	73.5	0.9	7	-6.1
F17001-F	189	1	75.3	73.7	66	-1.6	10	Snd Lvl	71.7	2.0	7	-5.0
F17101	190	1	75.3	73.9	66	-1.4	10	Snd Lvl	71.5	2.4	7	-4.6
F17201	191	1	74.6	74.0	66	-0.6	10	Snd Lvl	71.6	2.4	7	-4.6
F17301	192	1	73.6	73.2	66	-0.4	10	Snd Lvl	70.4	2.8	7	-4.2
F17401	193	1	73.5	73.3	66	-0.2	10	Snd Lvl	70.1	3.2	7	-3.8
F17501	194	1	72.8	72.8	66	0.0	10	Snd Lvl	69.4	3.4	7	-3.6
F17601	195	1	71.5	72.2	66	0.7	10	Snd Lvl	68.6	3.6	7	-3.4
F17701	196	1	70.9	71.8	66	0.9	10	Snd Lvl	68.2	3.6	7	-3.4

F17801	197	1	70.2	71.5	66	1.3	10	Snd Lvl	67.8	3.7	7	-3.3
F17901	198	1	69.3	70.9	66	1.6	10	Snd Lvl	67.0	3.9	7	-3.1
F18001	199	1	68.3	70.4	66	2.1	10	Snd Lvl	66.5	3.9	7	-3.1
F18101	200	1	68.3	70.4	66	2.1	10	Snd Lvl	66.4	4.0	7	-3.0
F18201	201	1	67.9	70.1	66	2.2	10	Snd Lvl	66.0	4.1	7	-2.9
F18301	202	1	67.4	69.7	66	2.3	10	Snd Lvl	65.5	4.2	7	-2.8
F18405	203	1	67.3	68.8	66	1.5	10	Snd Lvl	64.6	4.2	7	-2.8
F18501	204	1	66.7	68.7	66	2.0	10	Snd Lvl	64.1	4.6	7	-2.4
F18601	205	1	67.0	69.0	66	2.0	10	Snd Lvl	64.5	4.5	7	-2.5
F18701	206	1	67.4	69.6	66	2.2	10	Snd Lvl	65.1	4.5	7	-2.5
F31301	207	1	67.1	69.3	66	2.2	10	Snd Lvl	64.8	4.5	7	-2.5
F18801	208	1	67.8	69.9	66	2.1	10	Snd Lvl	65.5	4.4	7	-2.6
F18901	209	1	68.1	70.1	66	2.0	10	Snd Lvl	65.8	4.3	7	-2.7
F19001	210	1	68.3	70.3	66	2.0	10	Snd Lvl	66.1	4.2	7	-2.8
F19101	211	1	68.6	70.6	66	2.0	10	Snd Lvl	66.4	4.2	7	-2.8
F19201	212	1	69.0	70.8	66	1.8	10	Snd Lvl	66.8	4.0	7	-3.0
F19301	213	1	69.6	71.1	66	1.5	10	Snd Lvl	67.2	3.9	7	-3.1
F19401	214	1	70.4	71.4	66	1.0	10	Snd Lvl	67.7	3.7	7	-3.3
F19501	215	1	71.0	71.6	66	0.6	10	Snd Lvl	68.1	3.5	7	-3.5
F19601	216	1	71.3	71.9	66	0.6	10	Snd Lvl	68.5	3.4	7	-3.6
F19701	217	1	71.8	72.1	66	0.3	10	Snd Lvl	68.9	3.2	7	-3.8
F19801	218	1	72.1	72.3	66	0.2	10	Snd Lvl	69.3	3.0	7	-4.0
F19901	219	1	72.9	72.8	66	-0.1	10	Snd Lvl	70.0	2.8	7	-4.2
F20001	220	1	73.3	73.0	66	-0.3	10	Snd Lvl	70.3	2.7	7	-4.3
F20101	221	1	73.8	72.7	66	-1.1	10	Snd Lvl	69.4	3.3	7	-3.7
F20201	222	1	72.9	72.8	66	-0.1	10	Snd Lvl	70.2	2.6	7	-4.4
F20301-F	223	1	73.6	73.1	66	-0.5	10	Snd Lvl	71.0	2.1	7	-4.9
F20402	224	1	62.5	68.0	66	5.5	10	Snd Lvl	63.4	4.6	7	-2.4
F20501	225	2	62.4	67.9	66	5.5	10	Snd Lvl	63.2	4.7	7	-2.3
F20601	226	1	62.0	67.7	66	5.7	10	Snd Lvl	63.0	4.7	7	-2.3
F20701	227	1	62.0	67.6	66	5.6	10	Snd Lvl	62.9	4.7	7	-2.3
F20802	228	1	62.5	67.2	66	4.7	10	Snd Lvl	62.7	4.5	7	-2.5
F20904	229	1	61.8	66.9	66	5.1	10	Snd Lvl	62.5	4.4	7	-2.6
F21001	230	1	63.7	67.2	66	3.5	10	Snd Lvl	62.9	4.3	7	-2.7
F21106	231	1	65.8	67.7	66	1.9	10	Snd Lvl	63.8	3.9	7	-3.1
F21205	232	1	65.5	67.4	66	1.9	10	Snd Lvl	63.3	4.1	7	-2.9
F21301	233	1	65.9	67.9	66	2.0	10	Snd Lvl	63.6	4.3	7	-2.7
F21401	234	1	65.8	68.3	66	2.5	10	Snd Lvl	63.5	4.8	7	-2.2
F21501	235	1	65.4	68.4	66	3.0	10	Snd Lvl	63.6	4.8	7	-2.2
F21601	236	1	65.1	68.5	66	3.4	10	Snd Lvl	63.5	5.0	7	-2.0
F21701	237	1	63.3	68.7	66	5.4	10	Snd Lvl	63.7	5.0	7	-2.0

F21804	238	4	69.8	69.6	66	-0.2	10	Snd Lvl	65.0	4.6	7	-2.4
F21902	239	1	67.7	70.3	66	2.6	10	Snd Lvl	65.2	5.1	7	-1.9
F22001	240	1	67.9	70.5	66	2.6	10	Snd Lvl	65.5	5.0	7	-2.0
F22101	241	1	68.2	70.8	66	2.6	10	Snd Lvl	65.8	5.0	7	-2.0
F22201	242	1	68.3	71.0	66	2.7	10	Snd Lvl	66.0	5.0	7	-2.0
F22302	243	2	69.1	71.6	66	2.5	10	Snd Lvl	66.3	5.3	7	-1.7
F22408	244	1	69.9	72.3	66	2.4	10	Snd Lvl	67.2	5.1	7	-1.9
F22501	245	1	70.9	72.7	66	1.8	10	Snd Lvl	67.3	5.4	7	-1.6
F22601	246	1	71.9	73.3	66	1.4	10	Snd Lvl	68.0	5.3	7	-1.7
F22701	247	1	72.8	73.6	66	0.8	10	Snd Lvl	68.4	5.2	7	-1.8
F22801-F	248	1	73.8	73.9	66	0.1	10	Snd Lvl	68.6	5.3	7	-1.7
F22901-F	249	1	73.6	75.0	66	1.4	10	Snd Lvl	68.1	6.9	7	-0.1
F23001	250	1	72.1	74.6	66	2.5	10	Snd Lvl	67.6	7.0	7	0.0
F23101	251	1	70.8	74.1	66	3.3	10	Snd Lvl	67.2	6.9	7	-0.1
F23201	252	1	71.4	73.4	66	2.0	10	Snd Lvl	67.0	6.4	7	-0.6
F23301	253	1	70.9	73.1	66	2.2	10	Snd Lvl	66.8	6.3	7	-0.7
F23401	254	1	70.3	72.7	66	2.4	10	Snd Lvl	66.6	6.1	7	-0.9
F23501	255	1	70.0	72.5	66	2.5	10	Snd Lvl	66.4	6.1	7	-0.9
F23601	256	1	69.5	72.1	66	2.6	10	Snd Lvl	66.1	6.0	7	-1.0
F23701	257	1	69.2	71.9	66	2.7	10	Snd Lvl	66.0	5.9	7	-1.1
F23801	258	1	69.1	71.5	66	2.4	10	Snd Lvl	65.9	5.6	7	-1.4
F23901	259	1	68.6	71.2	66	2.6	10	Snd Lvl	65.6	5.6	7	-1.4
F24001	260	1	68.0	70.8	66	2.8	10	Snd Lvl	65.3	5.5	7	-1.5
F24102	261	2	67.8	70.7	66	2.9	10	Snd Lvl	64.9	5.8	7	-1.2
F24204	262	4	66.5	68.7	66	2.2	10	Snd Lvl	63.9	4.8	7	-2.2
F24301	263	1	66.0	67.7	66	1.7	10	Snd Lvl	63.6	4.1	7	-2.9
F24401	264	1	66.0	67.7	66	1.7	10	Snd Lvl	63.6	4.1	7	-2.9
F24501	265	1	66.1	67.8	66	1.7	10	Snd Lvl	63.7	4.1	7	-2.9
F24601	266	1	66.3	67.9	66	1.6	10	Snd Lvl	63.8	4.1	7	-2.9
F24701	267	1	66.6	68.1	66	1.5	10	Snd Lvl	64.1	4.0	7	-3.0
F24801	268	1	66.6	68.2	66	1.6	10	Snd Lvl	64.2	4.0	7	-3.0
F24901	269	1	66.8	68.4	66	1.6	10	Snd Lvl	64.6	3.8	7	-3.2
F25001	270	1	67.1	68.7	66	1.6	10	Snd Lvl	64.8	3.9	7	-3.1
F25101	271	1	66.6	68.5	66	1.9	10	Snd Lvl	64.7	3.8	7	-3.2
F25201	272	1	67.1	69.5	66	2.4	10	Snd Lvl	66.7	2.8	7	-4.2
F25301	273	1	63.2	68.1	66	4.9	10	Snd Lvl	66.3	1.8	7	-5.2
F25401	274	1	62.8	68.3	66	5.5	10	Snd Lvl	66.7	1.6	7	-5.4
F25501	275	1	63.0	68.4	66	5.4	10	Snd Lvl	66.7	1.7	7	-5.3
F25601	276	1	61.4	68.5	66	7.1	10	Snd Lvl	67.1	1.4	7	-5.6
F25701	277	1	60.9	68.6	66	7.7	10	Snd Lvl	67.4	1.2	7	-5.8
F25801-F	278	1	62.1	69.2	66	7.1	10	Snd Lvl	68.0	1.2	7	-5.8

F25904-F	279	1	65.5	68.5	66	3.0	10	Snd Lvl	67.8	0.7	7	-6.3
F26001-F	280	1	72.8	74.5	66	1.7	10	Snd Lvl	62.4	12.1	7	5.1
F26101	281	1	68.4	0.0	66	0.0	10	invalid	0.0	0.0	7	0.0
F26201	282	1	70.7	72.8	66	2.1	10	Snd Lvl	64.0	8.8	7	1.8
F26301	283	1	68.0	72.0	66	4.0	10	Snd Lvl	66.0	6.0	7	-1.0
F26401	284	1	66.8	71.1	66	4.3	10	Snd Lvl	64.9	6.2	7	-0.8
F26501	285	1	67.8	70.8	66	3.0	10	Snd Lvl	65.0	5.8	7	-1.2
F26601	286	1	66.5	70.2	66	3.7	10	Snd Lvl	64.9	5.3	7	-1.7
F26701	287	1	65.1	69.9	66	4.8	10	Snd Lvl	64.8	5.1	7	-1.9
F26801	288	1	62.4	69.9	66	7.5	10	Snd Lvl	64.4	5.5	7	-1.5
F26901	289	1	61.6	69.7	66	8.1	10	Snd Lvl	64.1	5.6	7	-1.4
F27001	290	1	61.9	69.7	66	7.8	10	Snd Lvl	64.3	5.4	7	-1.6
F27101	291	1	61.5	69.6	66	8.1	10	Snd Lvl	64.3	5.3	7	-1.7
F27201	292	1	61.9	69.5	66	7.6	10	Snd Lvl	64.2	5.3	7	-1.7
F27301	293	1	62.5	69.3	66	6.8	10	Snd Lvl	64.3	5.0	7	-2.0
F27301	294	1	63.8	69.5	66	5.7	10	Snd Lvl	64.7	4.8	7	-2.2
F27401	295	1	63.1	69.4	66	6.3	10	Snd Lvl	64.5	4.9	7	-2.1
F27503	296	1	64.2	68.9	66	4.7	10	Snd Lvl	63.9	5.0	7	-2.0
F27602	297	1	66.0	68.9	66	2.9	10	Snd Lvl	64.0	4.9	7	-2.1
F27702	298	2	66.2	70.7	66	4.5	10	Snd Lvl	64.7	6.0	7	-1.0
F27801	299	1	68.3	71.3	66	3.0	10	Snd Lvl	65.1	6.2	7	-0.8
F27901	300	1	69.0	71.7	66	2.7	10	Snd Lvl	65.4	6.3	7	-0.7
F28001-F	301	1	69.8	72.0	66	2.2	10	Snd Lvl	65.7	6.3	7	-0.7
F28101-F	302	1	70.1	72.4	66	2.3	10	Snd Lvl	65.9	6.5	7	-0.5
F28201-F	303	1	70.2	72.8	66	2.6	10	Snd Lvl	66.2	6.6	7	-0.4
F28301-F	304	1	71.1	73.3	66	2.2	10	Snd Lvl	66.1	7.2	7	0.2
F28401-F	305	1	71.4	73.7	66	2.3	10	Snd Lvl	66.4	7.3	7	0.3
F28501-F	306	1	72.1	74.1	66	2.0	10	Snd Lvl	66.5	7.6	7	0.6
F28601-F	307	1	72.7	74.5	66	1.8	10	Snd Lvl	66.8	7.7	7	0.7
F28701-F	308	1	72.9	75.0	66	2.1	10	Snd Lvl	66.7	8.3	7	1.3
F28801-F	309	1	73.2	75.4	66	2.2	10	Snd Lvl	67.0	8.4	7	1.4
F28901-F	310	1	73.9	75.9	66	2.0	10	Snd Lvl	67.3	8.6	7	1.6
F29001-F	311	1	74.4	76.3	66	1.9	10	Snd Lvl	67.4	8.9	7	1.9
F29101-F	312	1	75.2	76.8	66	1.6	10	Snd Lvl	67.9	8.9	7	1.9
F29201	313	1	68.9	71.3	66	2.4	10	Snd Lvl	65.0	6.3	7	-0.7
F29301-F	314	1	69.4	71.6	66	2.2	10	Snd Lvl	65.0	6.6	7	-0.4
F29401-F	315	1	69.6	71.6	66	2.0	10	Snd Lvl	64.8	6.8	7	-0.2
F29501-F	316	1	69.9	71.7	66	1.8	10	Snd Lvl	64.5	7.2	7	0.2
F29501-F	317	1	69.7	71.7	66	2.0	10	Snd Lvl	64.6	7.1	7	0.1
F29601-F	318	1	70.0	71.6	66	1.6	10	Snd Lvl	64.4	7.2	7	0.2
F29701-F	319	1	70.1	71.4	66	1.3	10	Snd Lvl	64.1	7.3	7	0.3

F29801-F	320	1	70.3	71.4	66	1.1	10	Snd Lvl	64.0	7.4	7	0.4
F29901-F	321	1	70.5	71.7	66	1.2	10	Snd Lvl	64.1	7.6	7	0.6
F30001-F	322	1	70.9	72.5	66	1.6	10	Snd Lvl	64.9	7.6	7	0.6
F30101-F	323	1	71.0	72.6	66	1.6	10	Snd Lvl	64.9	7.7	7	0.7
F30201-F	324	1	72.0	73.5	66	1.5	10	Snd Lvl	65.0	8.5	7	1.5
F30301-F	325	1	72.2	73.7	66	1.5	10	Snd Lvl	65.1	8.6	7	1.6
F30401-F	326	1	72.8	74.3	66	1.5	10	Snd Lvl	64.6	9.7	7	2.7
F30501-F	327	1	73.0	74.5	66	1.5	10	Snd Lvl	63.3	11.2	7	4.2
F30601-F	328	1	73.2	74.6	66	1.4	10	Snd Lvl	61.6	13.0	7	6.0
F30701-F	329	1	73.4	74.8	66	1.4	10	Snd Lvl	61.2	13.6	7	6.6
F30801-F	330	1	73.7	75.1	66	1.4	10	Snd Lvl	60.6	14.5	7	7.5
F30901-F	331	1	74.1	75.4	66	1.3	10	Snd Lvl	61.1	14.3	7	7.3
F31001-F	332	1	74.9	76.4	66	1.5	10	Snd Lvl	60.5	15.9	7	8.9
F31101	333	1	62.0	67.9	66	5.9	10	Snd Lvl	66.3	1.6	7	-5.4
F31617	336	1	0.0	72.9	66	72.9	10	Snd Lvl	69.6	3.3	8	-4.7

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	176	0.0	5.1	15.9
All Impacted	175	0.7	5.2	15.9
All that meet NR Goal	29	7.0	9.3	15.9

HMB Professional Engineers
Mark Gavula

20 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: F2
BARRIER DESIGN: f2-ind-1

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
F15401-FV	173	72.7	2.0	7	-5.0	SB75-W3	F-04-16	444	12.0	55.4
						SB75-W3	F-04-15	443	12.0	55.1
						SB75-W3	F-04-13	441	12.0	52.3
						SB75-W3	F-04-14	442	12.0	52.2
						SB75-W3	F-04-12	440	12.0	51.1
						SB75-W3	F-04-11	439	12.0	49.5
						SB75-W3	F-04-10	438	12.0	46.9
						SB75-W3	F-04-09	437	12.0	46.7
						SB75-W3	F-03-02	416	16.0	46.5
						SB75-W3	F-03-06	420	16.0	46.1
F15501	174	70.6	3.1	7	-3.9	SB75-W3	F-04-16	444	12.0	53.3
						SB75-W3	F-04-15	443	12.0	50.6
						SB75-W3	F-04-13	441	12.0	50.3
						SB75-W3	F-04-14	442	12.0	49.9
						SB75-W3	F-04-11	439	12.0	49.6
						SB75-W3	F-04-09	437	12.0	48.1
						SB75-W3	F-04-12	440	12.0	47.8
						SB75-W3	F-04-10	438	12.0	47.8
						SB75-W3	F-04-08	436	12.0	46.6
						SB75-W3	F-03-02	416	16.0	46.3
F15606	175	68.7	3.5	7	-3.5	SB75-W3	F-04-15	443	12.0	49.5

						SB75-W3	F-04-16	444	12.0	49.3
						SB75-W3	F-04-02	430	12.0	48.4
						SB75-W3	F-04-06	434	12.0	48.1
						SB75-W3	F-04-10	438	12.0	47.8
						SB75-W3	F-04-13	441	12.0	47.5
						SB75-W3	F-04-07	435	12.0	47.5
						SB75-W3	F-03-13	427	16.0	47.4
						SB75-W3	F-04-09	437	12.0	47.4
						SB75-W3	F-04-08	436	12.0	47.2
F15701	176	67.1	3.5	7	-3.5	SB75-W3	F-04-15	443	12.0	47.2
						SB75-W3	F-04-02	430	12.0	46.4
						SB75-W3	F-04-10	438	12.0	46.0
						SB75-W3	F-01-03	392	16.0	45.9
						SB75-W3	F-04-03	431	12.0	45.9
						SB75-W3	F-04-08	436	12.0	45.7
						SB75-W3	F-04-06	434	12.0	45.7
						SB75-W3	F-04-13	441	12.0	45.7
						SB75-W3	F-04-07	435	12.0	45.6
						SB75-W3	F-04-05	433	12.0	45.6
F15801	177	68.0	2.9	7	-4.1	SB75-W3	F-04-15	443	12.0	47.3
						SB75-W3	F-04-16	444	12.0	46.1
						SB75-W3	F-04-02	430	12.0	45.8
						SB75-W3	F-04-10	438	12.0	45.4
						SB75-W3	F-01-04	393	16.0	45.4
						SB75-W3	F-04-13	441	12.0	45.4
						SB75-W3	F-04-07	435	12.0	45.3
						SB75-W3	F-04-06	434	12.0	45.2
						SB75-W3	F-04-08	436	12.0	45.2
						SB75-W3	F-04-14	442	12.0	45.1
F15904	178	65.6	4.0	7	-3.0	SB75-W3	F-04-03	431	12.0	45.2
						SB75-W3	F-04-04	432	12.0	45.0
						SB75-W3	F-04-02	430	12.0	44.9
						SB75-W3	F-04-10	438	12.0	44.8
						SB75-W3	F-04-05	433	12.0	44.8
						SB75-W3	F-04-07	435	12.0	44.8
						SB75-W3	F-04-08	436	12.0	44.7

						SB75-W3	F-04-16	444	12.0	44.7
						SB75-W3	F-04-15	443	12.0	44.7
						SB75-W3	F-04-06	434	12.0	44.7
F16001	179	66.4	3.5	7	-3.5	SB75-W3	F-04-15	443	12.0	46.2
						SB75-W3	F-04-03	431	12.0	45.1
						SB75-W3	F-04-02	430	12.0	45.0
						SB75-W3	F-01-11	400	0.0	45.0
						SB75-W3	F-04-10	438	12.0	44.9
						SB75-W3	F-04-04	432	12.0	44.8
						SB75-W3	F-04-05	433	12.0	44.7
						SB75-W3	F-04-07	435	12.0	44.6
						SB75-W3	F-04-13	441	12.0	44.6
						SB75-W3	F-04-08	436	12.0	44.6
F16101	180	65.2	4.0	7	-3.0	SB75-W3	F-04-03	431	12.0	45.5
						SB75-W3	F-04-04	432	12.0	44.7
						SB75-W3	F-04-05	433	12.0	44.5
						SB75-W3	F-04-07	435	12.0	44.4
						SB75-W3	F-04-10	438	12.0	44.3
						SB75-W3	F-04-06	434	12.0	44.3
						SB75-W3	F-01-11	400	0.0	44.3
						SB75-W3	F-04-08	436	12.0	44.2
						SB75-W3	F-04-02	430	12.0	44.2
						SB75-W3	F-04-16	444	12.0	44.2
F16202	181	66.0	3.6	7	-3.4	SB75-W3	F-04-15	443	12.0	46.1
						SB75-W3	F-04-03	431	12.0	45.1
						SB75-W3	F-01-11	400	0.0	44.9
						SB75-W3	F-04-04	432	12.0	44.6
						SB75-W3	F-04-10	438	12.0	44.5
						SB75-W3	F-04-05	433	12.0	44.5
						SB75-W3	F-04-06	434	12.0	44.4
						SB75-W3	F-04-07	435	12.0	44.3
						SB75-W3	F-04-08	436	12.0	44.3
						SB75-W3	F-04-13	441	12.0	44.2
F16301	182	65.3	3.8	7	-3.2	SB75-W3	F-04-15	443	12.0	45.5
						SB75-W3	F-04-03	431	12.0	44.6
						SB75-W3	F-04-02	430	12.0	44.4

						SB75-W3	F-01-11	400	0.0	44.3
						SB75-W3	F-04-04	432	12.0	44.2
						SB75-W3	F-04-05	433	12.0	44.1
						SB75-W3	F-04-07	435	12.0	44.1
						SB75-W3	F-04-10	438	12.0	44.0
						SB75-W3	F-04-06	434	12.0	44.0
						SB75-W3	F-04-08	436	12.0	43.9
F16405	183	65.2	3.6	7	-3.4	SB75-W3	F-04-15	443	12.0	45.3
						SB75-W3	F-04-03	431	12.0	44.1
						SB75-W3	F-04-04	432	12.0	43.8
						SB75-W3	F-04-16	444	12.0	43.8
						SB75-W3	F-01-11	400	0.0	43.7
						SB75-W3	F-04-05	433	12.0	43.7
						SB75-W3	F-04-02	430	12.0	43.7
						SB75-W3	F-04-10	438	12.0	43.6
						SB75-W3	F-04-07	435	12.0	43.6
						SB75-W3	F-04-08	436	12.0	43.6
F16502	184	64.9	3.8	7	-3.2	SB75-W3	F-04-03	431	12.0	44.5
						SB75-W3	F-04-15	443	12.0	44.2
						SB75-W3	F-04-04	432	12.0	44.0
						SB75-W3	F-04-02	430	12.0	43.8
						SB75-W3	F-04-05	433	12.0	43.8
						SB75-W3	F-01-11	400	0.0	43.8
						SB75-W3	F-04-07	435	12.0	43.8
						SB75-W3	F-04-10	438	12.0	43.7
						SB75-W3	F-05-23	470	16.0	43.7
						SB75-W3	F-04-08	436	12.0	43.7
F16601	185	70.5	3.4	7	-3.6	SB75-W3	F-04-15	443	12.0	51.7
						SB75-W3	F-04-16	444	12.0	51.2
						SB75-W3	F-04-10	438	12.0	50.6
						SB75-W3	F-04-09	437	12.0	50.0
						SB75-W3	F-04-13	441	12.0	50.0
						SB75-W3	F-04-11	439	12.0	49.8
						SB75-W3	F-04-08	436	12.0	49.4
						SB75-W3	F-04-14	442	12.0	49.0
						SB75-W3	F-04-06	434	12.0	48.4

						SB75-W3	F-04-07	435	12.0	47.8
F16701	186	71.8	2.9	7	-4.1	SB75-W3	F-04-10	438	12.0	51.7
						SB75-W3	F-04-16	444	12.0	51.1
						SB75-W3	F-04-11	439	12.0	51.1
						SB75-W3	F-04-13	441	12.0	50.9
						SB75-W3	F-04-09	437	12.0	50.9
						SB75-W3	F-04-08	436	12.0	50.2
						SB75-W3	F-04-15	443	12.0	50.1
						SB75-W3	F-04-14	442	12.0	49.7
						SB75-W3	F-04-06	434	12.0	48.5
						SB75-W3	F-04-02	430	12.0	46.7
F16802	187	73.5	1.8	7	-5.2	SB75-W3	F-04-11	439	12.0	52.4
						SB75-W3	F-04-13	441	12.0	51.8
						SB75-W3	F-04-10	438	12.0	51.3
						SB75-W3	F-04-09	437	12.0	51.2
						SB75-W3	F-04-14	442	12.0	49.4
						SB75-W3	F-04-08	436	12.0	48.2
						SB75-W3	F-04-06	434	12.0	46.0
						SB75-W3	F-03-04	418	16.0	45.5
						SB75-W3	F-04-07	435	12.0	45.3
						SB75-W3	F-03-03	417	16.0	45.3
F16901-F	188	73.5	0.9	7	-6.1	SB75-W3	F-04-11	439	12.0	51.8
						SB75-W3	F-04-10	438	12.0	50.7
						SB75-W3	F-04-09	437	12.0	50.3
						SB75-W3	F-04-13	441	12.0	50.2
						SB75-W3	F-04-16	444	12.0	48.6
						SB75-W3	F-04-08	436	12.0	47.2
						SB75-W3	F-04-14	442	12.0	47.0
						SB75-W3	F-04-06	434	12.0	45.1
						SB75-W3	F-03-02	416	16.0	44.8
						SB75-W3	F-03-03	417	16.0	44.0
F17001-F	189	71.7	2.0	7	-5.0	SB75-W3	F-04-02	430	12.0	53.0
						SB75-W3	F-04-03	431	12.0	52.1
						SB75-W3	F-04-05	433	12.0	52.0
						SB75-W3	F-04-04	432	12.0	51.2
						SB75-W3	F-04-07	435	12.0	50.7

						SB75-W3	F-04-06	434	12.0	50.2
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-04-08	436	12.0	46.3
						SB75-W3	F-05-22	469	20.0	43.5
						SB75-W3	F-03-03	417	16.0	42.9
F17101	190	71.5	2.4	7	-4.6	SB75-W3	F-04-02	430	12.0	55.8
						SB75-W3	F-04-03	431	12.0	51.5
						SB75-W3	F-04-05	433	12.0	50.7
						SB75-W3	F-04-07	435	12.0	50.3
						SB75-W3	F-04-04	432	12.0	50.2
						SB75-W3	F-04-06	434	12.0	49.7
						SB75-W3	F-05-23	470	16.0	46.8
						SB75-W3	F-04-08	436	12.0	46.6
						SB75-W3	F-05-22	469	20.0	43.8
						SB75-W3	F-04-10	438	12.0	43.5
F17201	191	71.6	2.4	7	-4.6	SB75-W3	F-04-02	430	12.0	52.9
						SB75-W3	F-04-03	431	12.0	51.7
						SB75-W3	F-04-05	433	12.0	50.3
						SB75-W3	F-04-04	432	12.0	50.1
						SB75-W3	F-04-07	435	12.0	49.8
						SB75-W3	F-04-06	434	12.0	49.0
						SB75-W3	F-05-23	470	16.0	47.2
						SB75-W3	F-04-08	436	12.0	46.0
						SB75-W3	F-04-16	444	12.0	44.9
						SB75-W3	F-04-01	428	12.0	44.4
F17301	192	70.4	2.8	7	-4.2	SB75-W3	F-04-02	430	12.0	54.9
						SB75-W3	F-04-03	431	12.0	51.3
						SB75-W3	F-04-04	432	12.0	49.2
						SB75-W3	F-04-05	433	12.0	48.9
						SB75-W3	F-04-07	435	12.0	48.5
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-06	434	12.0	47.0
						SB75-W3	F-04-01	428	12.0	45.7
						SB75-W3	F-04-08	436	12.0	44.6
						SB75-W3	F-05-22	469	20.0	44.5
F17401	193	70.1	3.2	7	-3.8	SB75-W3	F-04-02	430	12.0	52.3

						SB75-W3	F-04-05	433	12.0	49.1
						SB75-W3	F-04-04	432	12.0	49.1
						SB75-W3	F-04-07	435	12.0	49.0
						SB75-W3	F-04-06	434	12.0	48.5
						SB75-W3	F-04-03	431	12.0	48.4
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-08	436	12.0	47.1
						SB75-W3	F-04-01	428	12.0	45.2
						SB75-W3	F-04-13	441	12.0	44.9
F17501	194	69.4	3.4	7	-3.6	SB75-W3	F-04-02	430	12.0	52.0
						SB75-W3	F-04-03	431	12.0	50.0
						SB75-W3	F-04-04	432	12.0	48.7
						SB75-W3	F-04-05	433	12.0	48.5
						SB75-W3	F-04-07	435	12.0	48.2
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-06	434	12.0	47.1
						SB75-W3	F-04-08	436	12.0	45.7
						SB75-W3	F-04-01	428	12.0	45.5
						SB75-W3	F-04-16	444	12.0	44.6
F17601	195	68.6	3.6	7	-3.4	SB75-W3	F-04-02	430	12.0	52.0
						SB75-W3	F-04-03	431	12.0	48.8
						SB75-W3	F-04-04	432	12.0	47.9
						SB75-W3	F-04-05	433	12.0	47.6
						SB75-W3	F-04-07	435	12.0	47.3
						SB75-W3	F-05-23	470	16.0	46.6
						SB75-W3	F-04-06	434	12.0	46.3
						SB75-W3	F-04-08	436	12.0	45.3
						SB75-W3	F-04-16	444	12.0	45.0
						SB75-W3	F-04-01	428	12.0	44.8
F17701	196	68.2	3.6	7	-3.4	SB75-W3	F-04-02	430	12.0	49.7
						SB75-W3	F-04-03	431	12.0	49.2
						SB75-W3	F-04-04	432	12.0	47.2
						SB75-W3	F-04-05	433	12.0	46.8
						SB75-W3	F-04-07	435	12.0	46.6
						SB75-W3	F-05-23	470	16.0	46.4
						SB75-W3	F-04-06	434	12.0	45.1

						SB75-W3	F-04-01	428	12.0	44.5
						SB75-W3	F-04-16	444	12.0	44.2
						SB75-W3	F-04-08	436	12.0	44.2
F17801	197	67.8	3.7	7	-3.3	SB75-W3	F-04-03	431	12.0	48.9
						SB75-W3	F-04-02	430	12.0	48.4
						SB75-W3	F-04-04	432	12.0	46.9
						SB75-W3	F-04-05	433	12.0	46.5
						SB75-W3	F-04-07	435	12.0	46.2
						SB75-W3	F-05-23	470	16.0	46.2
						SB75-W3	F-04-16	444	12.0	45.0
						SB75-W3	F-04-06	434	12.0	45.0
						SB75-W3	F-04-15	443	12.0	44.6
						SB75-W3	F-04-08	436	12.0	44.2
F17901	198	67.0	3.9	7	-3.1	SB75-W3	F-04-02	430	12.0	48.7
						SB75-W3	F-04-03	431	12.0	46.8
						SB75-W3	F-04-04	432	12.0	46.1
						SB75-W3	F-05-23	470	16.0	45.6
						SB75-W3	F-04-05	433	12.0	45.4
						SB75-W3	F-04-07	435	12.0	45.3
						SB75-W3	F-04-15	443	12.0	44.8
						SB75-W3	F-04-16	444	12.0	44.3
						SB75-W3	F-04-06	434	12.0	43.6
						SB75-W3	F-04-01	428	12.0	43.5
F18001	199	66.5	3.9	7	-3.1	SB75-W3	F-04-02	430	12.0	48.3
						SB75-W3	F-04-03	431	12.0	45.9
						SB75-W3	F-04-04	432	12.0	45.5
						SB75-W3	F-05-23	470	16.0	45.0
						SB75-W3	F-04-15	443	12.0	45.0
						SB75-W3	F-04-05	433	12.0	44.9
						SB75-W3	F-04-07	435	12.0	44.7
						SB75-W3	F-04-06	434	12.0	43.2
						SB75-W3	F-04-01	428	12.0	42.9
						SB75-W3	F-04-08	436	12.0	42.7
F18101	200	66.4	4.0	7	-3.0	SB75-W3	F-04-02	430	12.0	48.4
						SB75-W3	F-04-03	431	12.0	46.6
						SB75-W3	F-04-04	432	12.0	46.5

						SB75-W3	F-04-05	433	12.0	46.1
						SB75-W3	F-04-07	435	12.0	46.0
						SB75-W3	F-05-23	470	16.0	45.2
						SB75-W3	F-04-15	443	12.0	45.2
						SB75-W3	F-04-06	434	12.0	44.9
						SB75-W3	F-04-16	444	12.0	43.6
						SB75-W3	F-04-08	436	12.0	43.5
F18201	201	66.0	4.1	7	-2.9	SB75-W3	F-04-02	430	12.0	48.3
						SB75-W3	F-04-04	432	12.0	46.1
						SB75-W3	F-04-03	431	12.0	46.0
						SB75-W3	F-04-05	433	12.0	45.8
						SB75-W3	F-04-07	435	12.0	45.7
						SB75-W3	F-05-23	470	16.0	45.2
						SB75-W3	F-04-15	443	12.0	44.6
						SB75-W3	F-04-06	434	12.0	44.4
						SB75-W3	F-04-16	444	12.0	43.5
						SB75-W3	F-04-08	436	12.0	43.3
F18301	202	65.5	4.2	7	-2.8	SB75-W3	F-04-02	430	12.0	47.8
						SB75-W3	F-04-04	432	12.0	45.6
						SB75-W3	F-04-03	431	12.0	45.5
						SB75-W3	F-04-05	433	12.0	45.2
						SB75-W3	F-04-07	435	12.0	45.2
						SB75-W3	F-05-23	470	16.0	45.0
						SB75-W3	F-04-15	443	12.0	44.3
						SB75-W3	F-04-06	434	12.0	44.0
						SB75-W3	F-04-08	436	12.0	43.6
						SB75-W3	F-04-13	441	12.0	43.6
F18405	203	64.6	4.2	7	-2.8	SB75-W3	F-04-02	430	12.0	46.8
						SB75-W3	F-04-04	432	12.0	44.7
						SB75-W3	F-04-03	431	12.0	44.5
						SB75-W3	F-05-23	470	16.0	44.5
						SB75-W3	F-04-05	433	12.0	44.4
						SB75-W3	F-04-15	443	12.0	44.3
						SB75-W3	F-04-07	435	12.0	44.2
						SB75-W3	F-04-06	434	12.0	43.7
						SB75-W3	F-04-08	436	12.0	43.6

						SB75-W3	F-04-10	438	12.0	43.2
F18501	204	64.1	4.6	7	-2.4	SB75-W3	F-04-02	430	12.0	45.0
						SB75-W3	F-04-03	431	12.0	44.9
						SB75-W3	F-05-23	470	16.0	44.9
						SB75-W3	F-04-04	432	12.0	44.5
						SB75-W3	F-04-01	428	12.0	44.0
						SB75-W3	F-04-05	433	12.0	43.8
						SB75-W3	F-04-07	435	12.0	43.7
						SB75-W3	F-04-15	443	12.0	42.7
						SB75-W3	F-01-04	393	16.0	42.2
						SB75-W3	F-04-13	441	12.0	42.0
F18601	205	64.5	4.5	7	-2.5	SB75-W3	F-04-02	430	12.0	45.5
						SB75-W3	F-04-03	431	12.0	45.4
						SB75-W3	F-05-23	470	16.0	45.1
						SB75-W3	F-04-04	432	12.0	44.8
						SB75-W3	F-04-01	428	12.0	44.3
						SB75-W3	F-04-05	433	12.0	44.2
						SB75-W3	F-04-07	435	12.0	44.1
						SB75-W3	F-04-15	443	12.0	43.3
						SB75-W3	F-04-13	441	12.0	42.3
						SB75-W3	F-01-03	392	16.0	42.1
F18701	206	65.1	4.5	7	-2.5	SB75-W3	F-04-03	431	12.0	45.9
						SB75-W3	F-04-02	430	12.0	45.5
						SB75-W3	F-04-04	432	12.0	45.3
						SB75-W3	F-05-23	470	16.0	45.3
						SB75-W3	F-04-05	433	12.0	44.8
						SB75-W3	F-04-07	435	12.0	44.6
						SB75-W3	F-04-01	428	12.0	44.3
						SB75-W3	F-04-15	443	12.0	44.0
						SB75-W3	F-04-13	441	12.0	42.9
						SB75-W3	F-01-02	391	16.0	42.4
F31301	207	64.8	4.5	7	-2.5	SB75-W3	F-04-02	430	12.0	45.7
						SB75-W3	F-04-03	431	12.0	45.5
						SB75-W3	F-05-23	470	16.0	45.1
						SB75-W3	F-04-04	432	12.0	45.0
						SB75-W3	F-04-05	433	12.0	44.5

						SB75-W3	F-04-07	435	12.0	44.4
						SB75-W3	F-04-01	428	12.0	44.1
						SB75-W3	F-04-15	443	12.0	43.7
						SB75-W3	F-04-13	441	12.0	42.6
						SB75-W3	F-01-03	392	16.0	42.2
F18801	208	65.5	4.4	7	-2.6	SB75-W3	F-04-03	431	12.0	46.3
						SB75-W3	F-04-04	432	12.0	45.8
						SB75-W3	F-04-02	430	12.0	45.7
						SB75-W3	F-05-23	470	16.0	45.6
						SB75-W3	F-04-05	433	12.0	45.2
						SB75-W3	F-04-07	435	12.0	45.0
						SB75-W3	F-04-01	428	12.0	44.5
						SB75-W3	F-04-15	443	12.0	43.8
						SB75-W3	F-04-13	441	12.0	42.4
						SB75-W3	F-04-16	444	12.0	42.2
F18901	209	65.8	4.3	7	-2.7	SB75-W3	F-04-02	430	12.0	46.9
						SB75-W3	F-04-03	431	12.0	46.8
						SB75-W3	F-04-04	432	12.0	46.1
						SB75-W3	F-05-23	470	16.0	45.4
						SB75-W3	F-04-05	433	12.0	45.4
						SB75-W3	F-04-07	435	12.0	45.4
						SB75-W3	F-04-01	428	12.0	44.7
						SB75-W3	F-04-15	443	12.0	43.8
						SB75-W3	F-05-21	468	20.0	42.3
						SB75-W3	F-05-22	469	20.0	42.3
F19001	210	66.1	4.2	7	-2.8	SB75-W3	F-04-03	431	12.0	46.9
						SB75-W3	F-04-02	430	12.0	46.7
						SB75-W3	F-04-04	432	12.0	46.1
						SB75-W3	F-05-23	470	16.0	45.5
						SB75-W3	F-04-07	435	12.0	45.1
						SB75-W3	F-04-01	428	12.0	45.0
						SB75-W3	F-04-05	433	12.0	44.9
						SB75-W3	F-04-15	443	12.0	43.5
						SB75-W3	F-04-16	444	12.0	43.3
						SB75-W3	F-05-21	468	20.0	42.5
F19101	211	66.4	4.2	7	-2.8	SB75-W3	F-04-02	430	12.0	48.1

						SB75-W3	F-04-03	431	12.0	47.1
						SB75-W3	F-04-04	432	12.0	45.7
						SB75-W3	F-05-23	470	16.0	45.5
						SB75-W3	F-04-05	433	12.0	44.6
						SB75-W3	F-04-01	428	12.0	44.6
						SB75-W3	F-04-07	435	12.0	44.5
						SB75-W3	F-04-16	444	12.0	43.2
						SB75-W3	F-04-15	443	12.0	42.8
						SB75-W3	F-05-22	469	20.0	42.7
F19201	212	66.8	4.0	7	-3.0	SB75-W3	F-04-02	430	12.0	46.7
						SB75-W3	F-04-03	431	12.0	46.4
						SB75-W3	F-05-23	470	16.0	45.8
						SB75-W3	F-04-04	432	12.0	45.7
						SB75-W3	F-04-05	433	12.0	44.8
						SB75-W3	F-04-07	435	12.0	44.6
						SB75-W3	F-04-01	428	12.0	44.5
						SB75-W3	F-05-22	469	20.0	43.0
						SB75-W3	F-05-21	468	20.0	42.9
						SB75-W3	F-05-19	466	20.0	42.6
F19301	213	67.2	3.9	7	-3.1	SB75-W3	F-04-02	430	12.0	47.5
						SB75-W3	F-04-03	431	12.0	47.0
						SB75-W3	F-05-23	470	16.0	46.1
						SB75-W3	F-04-04	432	12.0	46.0
						SB75-W3	F-04-05	433	12.0	45.0
						SB75-W3	F-04-01	428	12.0	44.8
						SB75-W3	F-04-07	435	12.0	44.8
						SB75-W3	F-05-22	469	20.0	43.4
						SB75-W3	F-05-21	468	20.0	43.2
						SB75-W3	F-03-13	427	16.0	43.2
F19401	214	67.7	3.7	7	-3.3	SB75-W3	F-04-02	430	12.0	50.1
						SB75-W3	F-04-03	431	12.0	47.0
						SB75-W3	F-04-04	432	12.0	46.4
						SB75-W3	F-05-23	470	16.0	46.2
						SB75-W3	F-04-05	433	12.0	45.5
						SB75-W3	F-04-07	435	12.0	44.8
						SB75-W3	F-04-01	428	12.0	44.5

						SB75-W3	F-05-22	469	20.0	43.6
						SB75-W3	F-03-12	426	16.0	43.4
						SB75-W3	F-05-21	468	20.0	43.4
F19501	215	68.1	3.5	7	-3.5	SB75-W3	F-04-02	430	12.0	51.2
						SB75-W3	F-04-03	431	12.0	47.2
						SB75-W3	F-04-04	432	12.0	46.7
						SB75-W3	F-05-23	470	16.0	46.3
						SB75-W3	F-04-05	433	12.0	45.9
						SB75-W3	F-04-07	435	12.0	45.6
						SB75-W3	F-04-01	428	12.0	44.5
						SB75-W3	F-05-22	469	20.0	43.9
						SB75-W3	F-05-21	468	20.0	43.5
						SB75-W3	F-04-16	444	12.0	43.2
F19601	216	68.5	3.4	7	-3.6	SB75-W3	F-04-02	430	12.0	51.9
						SB75-W3	F-04-03	431	12.0	47.8
						SB75-W3	F-04-04	432	12.0	47.1
						SB75-W3	F-05-23	470	16.0	46.6
						SB75-W3	F-04-05	433	12.0	46.1
						SB75-W3	F-04-07	435	12.0	45.5
						SB75-W3	F-04-01	428	12.0	44.9
						SB75-W3	F-05-22	469	20.0	44.3
						SB75-W3	F-05-21	468	20.0	43.8
						SB75-W3	F-05-20	467	20.0	43.3
F19701	217	68.9	3.2	7	-3.8	SB75-W3	F-04-02	430	12.0	52.0
						SB75-W3	F-04-03	431	12.0	48.4
						SB75-W3	F-04-04	432	12.0	47.4
						SB75-W3	F-05-23	470	16.0	46.7
						SB75-W3	F-04-05	433	12.0	46.5
						SB75-W3	F-04-07	435	12.0	45.9
						SB75-W3	F-04-01	428	12.0	45.1
						SB75-W3	F-05-22	469	20.0	44.3
						SB75-W3	F-05-21	468	20.0	43.9
						SB75-W3	F-05-20	467	20.0	43.4
F19801	218	69.3	3.0	7	-4.0	SB75-W3	F-04-02	430	12.0	51.3
						SB75-W3	F-04-03	431	12.0	49.5
						SB75-W3	F-04-04	432	12.0	47.8

						SB75-W3	F-04-05	433	12.0	46.9
						SB75-W3	F-05-23	470	16.0	46.9
						SB75-W3	F-04-07	435	12.0	46.0
						SB75-W3	F-04-01	428	12.0	45.4
						SB75-W3	F-05-22	469	20.0	44.6
						SB75-W3	F-05-21	468	20.0	44.2
						SB75-W3	F-05-20	467	20.0	43.6
F19901	219	70.0	2.8	7	-4.2	SB75-W3	F-04-02	430	12.0	52.1
						SB75-W3	F-04-03	431	12.0	51.9
						SB75-W3	F-04-04	432	12.0	48.6
						SB75-W3	F-04-05	433	12.0	47.7
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-07	435	12.0	46.5
						SB75-W3	F-04-01	428	12.0	46.0
						SB75-W3	F-05-22	469	20.0	44.9
						SB75-W3	F-05-21	468	20.0	44.3
						SB75-W3	F-04-06	434	12.0	43.9
F20001	220	70.3	2.7	7	-4.3	SB75-W3	F-04-03	431	12.0	52.5
						SB75-W3	F-04-02	430	12.0	52.3
						SB75-W3	F-04-04	432	12.0	49.1
						SB75-W3	F-04-05	433	12.0	48.1
						SB75-W3	F-05-23	470	16.0	47.5
						SB75-W3	F-04-07	435	12.0	46.4
						SB75-W3	F-04-01	428	12.0	46.3
						SB75-W3	F-05-22	469	20.0	45.0
						SB75-W3	F-05-21	468	20.0	44.4
						SB75-W3	F-04-16	444	12.0	43.9
F20101	221	69.4	3.3	7	-3.7	SB75-W3	F-04-02	430	12.0	53.8
						SB75-W3	F-04-03	431	12.0	50.8
						SB75-W3	F-04-04	432	12.0	49.3
						SB75-W3	F-05-23	470	16.0	48.6
						SB75-W3	F-04-01	428	12.0	48.1
						SB75-W3	F-05-22	469	20.0	46.4
						SB75-W3	F-04-05	433	12.0	46.1
						SB75-W3	F-05-21	468	20.0	45.6
						SB75-W3	F-05-20	467	20.0	44.8

						SB75-W3	F-05-19	466	20.0	44.1
F20201	222	70.2	2.6	7	-4.4	SB75-W3	F-04-02	430	12.0	55.6
						SB75-W3	F-04-03	431	12.0	52.5
						SB75-W3	F-04-04	432	12.0	50.9
						SB75-W3	F-04-05	433	12.0	49.7
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-04-01	428	12.0	46.4
						SB75-W3	F-04-07	435	12.0	46.4
						SB75-W3	F-05-22	469	20.0	44.8
						SB75-W3	F-04-06	434	12.0	44.7
						SB75-W3	F-05-21	468	20.0	44.1
F20301-F	223	71.0	2.1	7	-4.9	SB75-W3	F-04-02	430	12.0	54.6
						SB75-W3	F-04-03	431	12.0	53.5
						SB75-W3	F-04-04	432	12.0	52.1
						SB75-W3	F-04-05	433	12.0	50.5
						SB75-W3	F-05-23	470	16.0	47.7
						SB75-W3	F-04-07	435	12.0	46.5
						SB75-W3	F-04-01	428	12.0	46.0
						SB75-W3	F-04-06	434	12.0	44.8
						SB75-W3	F-05-22	469	20.0	44.8
						SB75-W3	F-05-21	468	20.0	43.9
F20402	224	63.4	4.6	7	-2.4	SB75-W3	F-05-23	470	16.0	44.6
						SB75-W3	F-04-01	428	12.0	44.4
						SB75-W3	F-04-03	431	12.0	44.2
						SB75-W3	F-04-02	430	12.0	44.1
						SB75-W3	F-04-04	432	12.0	43.5
						SB75-W3	F-04-05	433	12.0	42.9
						SB75-W3	F-04-07	435	12.0	42.8
						SB75-W3	F-01-11	400	0.0	41.8
						SB75-W3	F-04-15	443	12.0	41.5
						SB75-W3	F-05-15	462	20.0	41.5
F20501	225	63.2	4.7	7	-2.3	SB75-W3	F-05-23	470	16.0	44.5
						SB75-W3	F-04-01	428	12.0	44.3
						SB75-W3	F-04-03	431	12.0	44.1
						SB75-W3	F-04-02	430	12.0	44.0
						SB75-W3	F-04-04	432	12.0	43.4

						SB75-W3	F-04-05	433	12.0	42.7
						SB75-W3	F-04-07	435	12.0	42.7
						SB75-W3	F-01-11	400	0.0	41.8
						SB75-W3	F-04-15	443	12.0	41.4
						SB75-W3	F-05-15	462	20.0	41.3
F20601	226	63.0	4.7	7	-2.3	SB75-W3	F-05-23	470	16.0	44.3
						SB75-W3	F-04-03	431	12.0	44.0
						SB75-W3	F-04-02	430	12.0	43.7
						SB75-W3	F-04-01	428	12.0	43.7
						SB75-W3	F-04-04	432	12.0	43.3
						SB75-W3	F-04-05	433	12.0	42.7
						SB75-W3	F-04-07	435	12.0	42.7
						SB75-W3	F-04-15	443	12.0	41.2
						SB75-W3	F-04-13	441	12.0	41.1
						SB75-W3	F-05-19	466	20.0	41.0
F20701	227	62.9	4.7	7	-2.3	SB75-W3	F-05-23	470	16.0	44.1
						SB75-W3	F-04-03	431	12.0	43.9
						SB75-W3	F-04-02	430	12.0	43.7
						SB75-W3	F-04-01	428	12.0	43.3
						SB75-W3	F-04-04	432	12.0	43.2
						SB75-W3	F-04-05	433	12.0	42.6
						SB75-W3	F-04-07	435	12.0	42.6
						SB75-W3	F-04-13	441	12.0	41.1
						SB75-W3	F-01-08	397	16.0	41.1
						SB75-W3	F-05-18	465	20.0	41.0
F20802	228	62.7	4.5	7	-2.5	SB75-W3	F-05-23	470	16.0	43.6
						SB75-W3	F-04-03	431	12.0	43.4
						SB75-W3	F-04-02	430	12.0	43.2
						SB75-W3	F-04-04	432	12.0	42.9
						SB75-W3	F-04-01	428	12.0	42.3
						SB75-W3	F-04-05	433	12.0	42.3
						SB75-W3	F-04-07	435	12.0	42.3
						SB75-W3	F-04-15	443	12.0	42.0
						SB75-W3	F-01-09	398	16.0	41.3
						SB75-W3	F-01-10	399	16.0	41.3
F20904	229	62.5	4.4	7	-2.6	SB75-W3	F-05-23	470	16.0	43.3

						SB75-W3	F-01-11	400	0.0	43.2
						SB75-W3	F-04-03	431	12.0	42.9
						SB75-W3	F-04-04	432	12.0	42.6
						SB75-W3	F-04-02	430	12.0	42.6
						SB75-W3	F-04-05	433	12.0	42.1
						SB75-W3	F-04-07	435	12.0	42.0
						SB75-W3	F-01-10	399	16.0	41.8
						SB75-W3	F-01-12	401	0.0	41.7
						SB75-W3	F-04-15	443	12.0	41.6
F21001	230	62.9	4.3	7	-2.7	SB75-W3	F-01-11	400	0.0	43.5
						SB75-W3	F-05-23	470	16.0	43.4
						SB75-W3	F-04-03	431	12.0	42.8
						SB75-W3	F-01-12	401	0.0	42.8
						SB75-W3	F-04-04	432	12.0	42.7
						SB75-W3	F-04-02	430	12.0	42.4
						SB75-W3	F-04-05	433	12.0	42.3
						SB75-W3	F-01-13	402	0.0	42.3
						SB75-W3	F-04-07	435	12.0	42.2
						SB75-W3	F-01-10	399	16.0	42.0
F21106	231	63.8	3.9	7	-3.1	SB75-W3	F-01-11	400	0.0	44.0
						SB75-W3	F-04-15	443	12.0	43.9
						SB75-W3	F-01-12	401	0.0	43.6
						SB75-W3	F-01-13	402	0.0	43.3
						SB75-W3	F-04-03	431	12.0	43.2
						SB75-W3	F-04-16	444	12.0	43.2
						SB75-W3	F-05-23	470	16.0	43.0
						SB75-W3	F-04-04	432	12.0	42.9
						SB75-W3	F-04-05	433	12.0	42.7
						SB75-W3	F-01-14	403	0.0	42.6
F21205	232	63.3	4.1	7	-2.9	SB75-W3	F-04-16	444	12.0	44.1
						SB75-W3	F-01-13	402	0.0	43.8
						SB75-W3	F-01-14	403	0.0	43.6
						SB75-W3	F-01-12	401	0.0	43.6
						SB75-W3	F-04-15	443	12.0	43.4
						SB75-W3	F-01-11	400	0.0	43.3
						SB75-W3	F-01-15	404	0.0	43.1

						SB75-W3	F-04-03	431	12.0	43.0
						SB75-W3	F-05-23	470	16.0	42.9
						SB75-W3	F-04-02	430	12.0	42.6
F21301	233	63.6	4.3	7	-2.7	SB75-W3	F-04-01	428	12.0	46.8
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-04-03	431	12.0	45.1
						SB75-W3	F-05-09	456	20.0	44.8
						SB75-W3	F-05-08	455	20.0	44.7
						SB75-W3	F-04-02	430	12.0	44.7
						SB75-W3	F-05-10	457	20.0	44.3
						SB75-W3	F-04-04	432	12.0	44.2
						SB75-W3	F-05-07	454	20.0	43.8
						SB75-W3	F-05-11	458	20.0	43.8
F21401	234	63.5	4.8	7	-2.2	SB75-W3	F-04-01	428	12.0	45.9
						SB75-W3	F-05-23	470	16.0	45.7
						SB75-W3	F-05-08	455	20.0	44.0
						SB75-W3	F-05-09	456	20.0	43.9
						SB75-W3	F-04-04	432	12.0	43.6
						SB75-W3	F-04-03	431	12.0	43.3
						SB75-W3	F-05-15	462	20.0	43.3
						SB75-W3	F-01-05	394	16.0	43.3
						SB75-W3	F-05-07	454	20.0	43.1
						SB75-W3	F-05-14	461	20.0	43.0
F21501	235	63.6	4.8	7	-2.2	SB75-W3	F-05-23	470	16.0	45.4
						SB75-W3	F-04-01	428	12.0	45.0
						SB75-W3	F-04-04	432	12.0	43.6
						SB75-W3	F-05-08	455	20.0	43.4
						SB75-W3	F-04-03	431	12.0	43.3
						SB75-W3	F-05-09	456	20.0	43.2
						SB75-W3	F-05-15	462	20.0	43.0
						SB75-W3	F-01-04	393	16.0	42.8
						SB75-W3	F-04-02	430	12.0	42.7
						SB75-W3	F-01-05	394	16.0	42.7
F21601	236	63.5	5.0	7	-2.0	SB75-W3	F-05-23	470	16.0	45.3
						SB75-W3	F-04-01	428	12.0	45.0
						SB75-W3	F-04-04	432	12.0	43.6

						SB75-W3	F-04-03	431	12.0	43.3
						SB75-W3	F-05-08	455	20.0	43.0
						SB75-W3	F-05-15	462	20.0	42.8
						SB75-W3	F-04-02	430	12.0	42.7
						SB75-W3	F-05-09	456	20.0	42.6
						SB75-W3	F-05-14	461	20.0	42.6
						SB75-W3	F-05-16	463	20.0	42.5
F21701	237	63.7	5.0	7	-2.0	SB75-W3	F-05-23	470	16.0	45.4
						SB75-W3	F-04-01	428	12.0	45.1
						SB75-W3	F-04-04	432	12.0	43.7
						SB75-W3	F-04-03	431	12.0	43.4
						SB75-W3	F-04-02	430	12.0	43.2
						SB75-W3	F-05-15	462	20.0	42.8
						SB75-W3	F-05-08	455	20.0	42.6
						SB75-W3	F-05-14	461	20.0	42.6
						SB75-W3	F-05-16	463	20.0	42.6
						SB75-W3	F-05-18	465	20.0	42.5
F21804	238	65.0	4.6	7	-2.4	SB75-W3	F-04-01	428	12.0	45.9
						SB75-W3	F-05-23	470	16.0	45.8
						SB75-W3	F-04-04	432	12.0	44.5
						SB75-W3	F-04-03	431	12.0	44.3
						SB75-W3	F-04-02	430	12.0	43.6
						SB75-W3	F-05-15	462	20.0	43.1
						SB75-W3	F-05-16	463	20.0	43.0
						SB75-W3	F-05-14	461	20.0	42.9
						SB75-W3	F-05-17	464	20.0	42.8
						SB75-W3	F-01-02	391	16.0	42.7
F21902	239	65.2	5.1	7	-1.9	SB75-W3	F-05-23	470	16.0	46.8
						SB75-W3	F-04-01	428	12.0	46.5
						SB75-W3	F-04-03	431	12.0	46.1
						SB75-W3	F-04-02	430	12.0	45.1
						SB75-W3	F-04-04	432	12.0	44.8
						SB75-W3	F-05-14	461	20.0	43.9
						SB75-W3	F-05-16	463	20.0	43.9
						SB75-W3	F-05-15	462	20.0	43.6
						SB75-W3	F-05-18	465	20.0	43.6

						SB75-W3	F-05-13	460	20.0	43.5
F22001	240	65.5	5.0	7	-2.0	SB75-W3	F-04-01	428	12.0	46.7
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-04-03	431	12.0	46.5
						SB75-W3	F-04-02	430	12.0	45.8
						SB75-W3	F-04-04	432	12.0	45.0
						SB75-W3	F-05-15	462	20.0	44.1
						SB75-W3	F-05-16	463	20.0	43.8
						SB75-W3	F-05-18	465	20.0	43.7
						SB75-W3	F-05-14	461	20.0	43.7
						SB75-W3	F-05-17	464	20.0	43.6
F22101	241	65.8	5.0	7	-2.0	SB75-W3	F-04-01	428	12.0	47.0
						SB75-W3	F-04-03	431	12.0	46.7
						SB75-W3	F-05-23	470	16.0	46.6
						SB75-W3	F-04-02	430	12.0	46.0
						SB75-W3	F-04-04	432	12.0	45.2
						SB75-W3	F-05-15	462	20.0	44.0
						SB75-W3	F-05-14	461	20.0	43.9
						SB75-W3	F-05-16	463	20.0	43.8
						SB75-W3	F-05-18	465	20.0	43.8
						SB75-W3	F-05-19	466	20.0	43.7
F22201	242	66.0	5.0	7	-2.0	SB75-W3	F-04-01	428	12.0	47.5
						SB75-W3	F-04-03	431	12.0	47.1
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-04-02	430	12.0	46.1
						SB75-W3	F-04-04	432	12.0	45.6
						SB75-W3	F-05-15	462	20.0	43.9
						SB75-W3	F-05-18	465	20.0	43.9
						SB75-W3	F-05-19	466	20.0	43.8
						SB75-W3	F-05-16	463	20.0	43.8
						SB75-W3	F-05-22	469	20.0	43.8
F22302	243	66.3	5.3	7	-1.7	SB75-W3	F-04-01	428	12.0	47.6
						SB75-W3	F-04-02	430	12.0	47.4
						SB75-W3	F-04-03	431	12.0	47.1
						SB75-W3	F-05-23	470	16.0	46.7
						SB75-W3	F-05-19	466	20.0	44.4

						SB75-W3	F-05-18	465	20.0	44.4
						SB75-W3	F-05-22	469	20.0	44.4
						SB75-W3	F-05-15	462	20.0	44.3
						SB75-W3	F-05-21	468	20.0	44.3
						SB75-W3	F-05-16	463	20.0	44.3
F22408	244	67.2	5.1	7	-1.9	SB75-W3	F-04-03	431	12.0	48.5
						SB75-W3	F-04-02	430	12.0	47.9
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-04-01	428	12.0	47.5
						SB75-W3	F-05-22	469	20.0	45.3
						SB75-W3	F-05-21	468	20.0	45.2
						SB75-W3	F-05-19	466	20.0	45.1
						SB75-W3	F-05-18	465	20.0	45.0
						SB75-W3	F-05-20	467	20.0	45.0
						SB75-W3	F-04-04	432	12.0	44.8
F22501	245	67.3	5.4	7	-1.6	SB75-W3	F-04-02	430	12.0	50.0
						SB75-W3	F-04-03	431	12.0	48.8
						SB75-W3	F-05-23	470	16.0	48.1
						SB75-W3	F-04-01	428	12.0	48.0
						SB75-W3	F-05-22	469	20.0	46.0
						SB75-W3	F-05-21	468	20.0	45.9
						SB75-W3	F-05-19	466	20.0	45.7
						SB75-W3	F-05-20	467	20.0	45.6
						SB75-W3	F-05-18	465	20.0	45.6
						SB75-W3	F-05-17	464	20.0	45.2
F22601	246	68.0	5.3	7	-1.7	SB75-W3	F-04-02	430	12.0	51.6
						SB75-W3	F-04-03	431	12.0	50.2
						SB75-W3	F-05-23	470	16.0	49.1
						SB75-W3	F-04-01	428	12.0	48.8
						SB75-W3	F-05-22	469	20.0	46.9
						SB75-W3	F-05-21	468	20.0	46.7
						SB75-W3	F-05-20	467	20.0	46.4
						SB75-W3	F-05-19	466	20.0	46.4
						SB75-W3	F-05-18	465	20.0	46.2
						SB75-W3	F-05-17	464	20.0	45.7
F22701	247	68.4	5.2	7	-1.8	SB75-W3	F-04-02	430	12.0	52.5

						SB75-W3	F-04-03	431	12.0	50.9
						SB75-W3	F-05-23	470	16.0	49.7
						SB75-W3	F-04-01	428	12.0	49.1
						SB75-W3	F-05-22	469	20.0	47.6
						SB75-W3	F-05-21	468	20.0	47.5
						SB75-W3	F-05-20	467	20.0	47.1
						SB75-W3	F-05-19	466	20.0	47.0
						SB75-W3	F-05-18	465	20.0	46.6
						SB75-W3	F-05-17	464	20.0	45.7
F22801-F	248	68.6	5.3	7	-1.7	SB75-W3	F-04-02	430	12.0	52.5
						SB75-W3	F-05-23	470	16.0	50.3
						SB75-W3	F-04-01	428	12.0	49.7
						SB75-W3	F-05-22	469	20.0	48.5
						SB75-W3	F-05-21	468	20.0	48.4
						SB75-W3	F-04-03	431	12.0	47.7
						SB75-W3	F-05-20	467	20.0	47.7
						SB75-W3	F-05-19	466	20.0	47.4
						SB75-W3	F-05-18	465	20.0	46.8
						SB75-W3	F-05-17	464	20.0	45.9
F22901-F	249	68.1	6.9	7	-0.1	SB75-W3	F-05-23	470	16.0	50.0
						SB75-W3	F-05-19	466	20.0	49.5
						SB75-W3	F-04-02	430	12.0	49.3
						SB75-W3	F-05-20	467	20.0	49.2
						SB75-W3	F-05-18	465	20.0	49.1
						SB75-W3	F-05-21	468	20.0	49.1
						SB75-W3	F-04-01	428	12.0	48.8
						SB75-W3	F-05-17	464	20.0	48.6
						SB75-W3	F-05-22	469	20.0	48.6
						SB75-W3	F-05-16	463	20.0	48.1
F23001	250	67.6	7.0	7	0.0	SB75-W3	F-05-23	470	16.0	49.5
						SB75-W3	F-05-18	465	20.0	48.8
						SB75-W3	F-05-19	466	20.0	48.8
						SB75-W3	F-04-02	430	12.0	48.7
						SB75-W3	F-04-01	428	12.0	48.5
						SB75-W3	F-05-17	464	20.0	48.4
						SB75-W3	F-05-20	467	20.0	48.4

						SB75-W3	F-05-21	468	20.0	48.2
						SB75-W3	F-05-16	463	20.0	48.2
						SB75-W3	F-05-15	462	20.0	47.9
F23101	251	67.2	6.9	7	-0.1	SB75-W3	F-04-02	430	12.0	50.9
						SB75-W3	F-05-23	470	16.0	49.8
						SB75-W3	F-04-01	428	12.0	49.2
						SB75-W3	F-05-18	465	20.0	48.1
						SB75-W3	F-05-19	466	20.0	48.0
						SB75-W3	F-05-16	463	20.0	48.0
						SB75-W3	F-05-17	464	20.0	47.9
						SB75-W3	F-05-15	462	20.0	47.8
						SB75-W3	F-05-01	447	16.0	47.6
						SB75-W3	F-05-14	461	20.0	47.5
F23201	252	67.0	6.4	7	-0.6	SB75-W3	F-05-23	470	16.0	49.7
						SB75-W3	F-04-01	428	12.0	49.5
						SB75-W3	F-04-02	430	12.0	49.4
						SB75-W3	F-04-03	431	12.0	47.8
						SB75-W3	F-05-18	465	20.0	47.1
						SB75-W3	F-05-19	466	20.0	47.1
						SB75-W3	F-05-21	468	20.0	47.0
						SB75-W3	F-05-15	462	20.0	46.9
						SB75-W3	F-05-22	469	20.0	46.9
						SB75-W3	F-05-17	464	20.0	46.8
F23301	253	66.8	6.3	7	-0.7	SB75-W3	F-04-02	430	12.0	49.9
						SB75-W3	F-05-23	470	16.0	49.5
						SB75-W3	F-04-01	428	12.0	49.1
						SB75-W3	F-04-03	431	12.0	47.8
						SB75-W3	F-05-15	462	20.0	46.8
						SB75-W3	F-05-18	465	20.0	46.8
						SB75-W3	F-05-19	466	20.0	46.7
						SB75-W3	F-05-14	461	20.0	46.6
						SB75-W3	F-05-16	463	20.0	46.6
						SB75-W3	F-05-21	468	20.0	46.5
F23401	254	66.6	6.1	7	-0.9	SB75-W3	F-04-02	430	12.0	49.7
						SB75-W3	F-05-23	470	16.0	49.3
						SB75-W3	F-04-01	428	12.0	49.0

						SB75-W3	F-04-03	431	12.0	47.4
						SB75-W3	F-05-15	462	20.0	46.9
						SB75-W3	F-05-16	463	20.0	46.7
						SB75-W3	F-05-14	461	20.0	46.6
						SB75-W3	F-05-18	465	20.0	46.4
						SB75-W3	F-05-17	464	20.0	46.3
						SB75-W3	F-05-19	466	20.0	46.3
F23501	255	66.4	6.1	7	-0.9	SB75-W3	F-04-02	430	12.0	49.4
						SB75-W3	F-05-23	470	16.0	49.2
						SB75-W3	F-04-01	428	12.0	48.9
						SB75-W3	F-04-03	431	12.0	47.3
						SB75-W3	F-05-15	462	20.0	46.8
						SB75-W3	F-05-16	463	20.0	46.7
						SB75-W3	F-05-14	461	20.0	46.6
						SB75-W3	F-05-18	465	20.0	46.3
						SB75-W3	F-05-17	464	20.0	46.3
						SB75-W3	F-05-13	460	20.0	46.1
F23601	256	66.1	6.0	7	-1.0	SB75-W3	F-04-02	430	12.0	49.0
						SB75-W3	F-05-23	470	16.0	48.8
						SB75-W3	F-04-01	428	12.0	48.5
						SB75-W3	F-04-03	431	12.0	48.3
						SB75-W3	F-05-15	462	20.0	46.3
						SB75-W3	F-05-16	463	20.0	46.2
						SB75-W3	F-05-14	461	20.0	46.1
						SB75-W3	F-05-17	464	20.0	45.8
						SB75-W3	F-05-18	465	20.0	45.7
						SB75-W3	F-05-13	460	20.0	45.7
F23701	257	66.0	5.9	7	-1.1	SB75-W3	F-04-02	430	12.0	48.6
						SB75-W3	F-05-23	470	16.0	48.6
						SB75-W3	F-04-01	428	12.0	48.3
						SB75-W3	F-04-03	431	12.0	48.1
						SB75-W3	F-05-15	462	20.0	46.4
						SB75-W3	F-05-16	463	20.0	46.2
						SB75-W3	F-05-14	461	20.0	46.1
						SB75-W3	F-05-18	465	20.0	46.0
						SB75-W3	F-05-17	464	20.0	45.9

						SB75-W3	F-05-08	455	20.0	45.8
F23801	258	65.9	5.6	7	-1.4	SB75-W3	F-05-23	470	16.0	48.4
						SB75-W3	F-04-02	430	12.0	48.2
						SB75-W3	F-04-01	428	12.0	48.1
						SB75-W3	F-04-03	431	12.0	47.9
						SB75-W3	F-05-15	462	20.0	46.2
						SB75-W3	F-05-14	461	20.0	46.0
						SB75-W3	F-05-08	455	20.0	46.0
						SB75-W3	F-05-16	463	20.0	46.0
						SB75-W3	F-03-13	427	16.0	45.9
						SB75-W3	F-05-09	456	20.0	45.8
F23901	259	65.6	5.6	7	-1.4	SB75-W3	F-05-23	470	16.0	48.1
						SB75-W3	F-04-01	428	12.0	47.8
						SB75-W3	F-04-03	431	12.0	47.4
						SB75-W3	F-04-02	430	12.0	47.1
						SB75-W3	F-05-09	456	20.0	46.1
						SB75-W3	F-05-15	462	20.0	46.1
						SB75-W3	F-05-08	455	20.0	46.0
						SB75-W3	F-05-14	461	20.0	45.9
						SB75-W3	F-05-16	463	20.0	45.8
						SB75-W3	F-05-10	457	20.0	45.5
F24001	260	65.3	5.5	7	-1.5	SB75-W3	F-05-23	470	16.0	47.7
						SB75-W3	F-04-01	428	12.0	47.3
						SB75-W3	F-04-03	431	12.0	47.0
						SB75-W3	F-04-02	430	12.0	46.7
						SB75-W3	F-05-08	455	20.0	45.7
						SB75-W3	F-05-15	462	20.0	45.6
						SB75-W3	F-05-14	461	20.0	45.4
						SB75-W3	F-05-09	456	20.0	45.4
						SB75-W3	F-05-16	463	20.0	45.3
						SB75-W3	F-05-10	457	20.0	45.1
F24102	261	64.9	5.8	7	-1.2	SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-02	430	12.0	46.9
						SB75-W3	F-04-01	428	12.0	46.8
						SB75-W3	F-04-03	431	12.0	46.6
						SB75-W3	F-05-08	455	20.0	46.1

						SB75-W3	F-05-09	456	20.0	46.0
						SB75-W3	F-05-15	462	20.0	45.8
						SB75-W3	F-05-14	461	20.0	45.5
						SB75-W3	F-05-16	463	20.0	45.3
						SB75-W3	F-05-10	457	20.0	45.3
F24204	262	63.9	4.8	7	-2.2	SB75-W3	F-04-01	428	12.0	46.7
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-05-08	455	20.0	45.4
						SB75-W3	F-04-03	431	12.0	45.0
						SB75-W3	F-05-09	456	20.0	44.9
						SB75-W3	F-04-02	430	12.0	44.8
						SB75-W3	F-05-07	454	20.0	44.4
						SB75-W3	F-05-10	457	20.0	44.3
						SB75-W3	F-05-15	462	20.0	44.0
						SB75-W3	F-01-04	393	16.0	43.8
F24301	263	63.6	4.1	7	-2.9	SB75-W3	F-05-23	470	16.0	47.1
						SB75-W3	F-04-01	428	12.0	46.9
						SB75-W3	F-04-03	431	12.0	45.3
						SB75-W3	F-05-09	456	20.0	45.2
						SB75-W3	F-05-08	455	20.0	45.2
						SB75-W3	F-04-04	432	12.0	44.9
						SB75-W3	F-05-15	462	20.0	44.9
						SB75-W3	F-05-10	457	20.0	44.9
						SB75-W3	F-05-07	454	20.0	44.7
						SB75-W3	F-05-11	458	20.0	44.5
F24401	264	63.6	4.1	7	-2.9	SB75-W3	F-05-23	470	16.0	47.2
						SB75-W3	F-04-01	428	12.0	46.8
						SB75-W3	F-04-03	431	12.0	45.6
						SB75-W3	F-05-08	455	20.0	45.5
						SB75-W3	F-05-09	456	20.0	45.4
						SB75-W3	F-05-10	457	20.0	45.2
						SB75-W3	F-05-15	462	20.0	45.0
						SB75-W3	F-04-04	432	12.0	45.0
						SB75-W3	F-05-07	454	20.0	45.0
						SB75-W3	F-05-12	459	20.0	44.9
F24501	265	63.7	4.1	7	-2.9	SB75-W3	F-05-23	470	16.0	47.3

						SB75-W3	F-04-01	428	12.0	47.0
						SB75-W3	F-05-08	455	20.0	45.7
						SB75-W3	F-05-09	456	20.0	45.6
						SB75-W3	F-04-03	431	12.0	45.5
						SB75-W3	F-05-10	457	20.0	45.5
						SB75-W3	F-05-15	462	20.0	45.5
						SB75-W3	F-05-07	454	20.0	45.3
						SB75-W3	F-05-14	461	20.0	45.3
						SB75-W3	F-05-12	459	20.0	45.2
F24601	266	63.8	4.1	7	-2.9	SB75-W3	F-05-23	470	16.0	47.5
						SB75-W3	F-04-01	428	12.0	47.0
						SB75-W3	F-05-08	455	20.0	46.3
						SB75-W3	F-05-09	456	20.0	46.0
						SB75-W3	F-05-15	462	20.0	45.8
						SB75-W3	F-04-03	431	12.0	45.8
						SB75-W3	F-05-10	457	20.0	45.8
						SB75-W3	F-05-11	458	20.0	45.7
						SB75-W3	F-05-07	454	20.0	45.6
						SB75-W3	F-05-14	461	20.0	45.6
F24701	267	64.1	4.0	7	-3.0	SB75-W3	F-05-23	470	16.0	47.9
						SB75-W3	F-04-01	428	12.0	47.1
						SB75-W3	F-05-08	455	20.0	46.8
						SB75-W3	F-05-09	456	20.0	46.7
						SB75-W3	F-05-15	462	20.0	46.3
						SB75-W3	F-05-10	457	20.0	46.3
						SB75-W3	F-05-11	458	20.0	46.2
						SB75-W3	F-05-07	454	20.0	46.2
						SB75-W3	F-05-12	459	20.0	46.2
						SB75-W3	F-05-14	461	20.0	46.0
F24801	268	64.2	4.0	7	-3.0	SB75-W3	F-05-23	470	16.0	47.7
						SB75-W3	F-05-08	455	20.0	47.2
						SB75-W3	F-05-09	456	20.0	47.1
						SB75-W3	F-05-14	461	20.0	46.8
						SB75-W3	F-05-07	454	20.0	46.8
						SB75-W3	F-04-01	428	12.0	46.7
						SB75-W3	F-05-15	462	20.0	46.7

						SB75-W3	F-05-10	457	20.0	46.7
						SB75-W3	F-05-11	458	20.0	46.6
						SB75-W3	F-05-12	459	20.0	46.5
F24901	269	64.6	3.8	7	-3.2	SB75-W3	F-05-08	455	20.0	48.0
						SB75-W3	F-05-09	456	20.0	48.0
						SB75-W3	F-05-10	457	20.0	47.9
						SB75-W3	F-05-07	454	20.0	47.8
						SB75-W3	F-05-23	470	16.0	47.8
						SB75-W3	F-05-11	458	20.0	47.5
						SB75-W3	F-05-15	462	20.0	47.4
						SB75-W3	F-05-12	459	20.0	47.4
						SB75-W3	F-05-06	453	20.0	47.4
						SB75-W3	F-05-13	460	20.0	47.3
F25001	270	64.8	3.9	7	-3.1	SB75-W3	F-05-08	455	20.0	48.5
						SB75-W3	F-05-09	456	20.0	48.5
						SB75-W3	F-05-07	454	20.0	48.4
						SB75-W3	F-05-10	457	20.0	48.3
						SB75-W3	F-05-06	453	24.0	48.0
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-05	452	20.0	47.9
						SB75-W3	F-05-12	459	20.0	47.7
						SB75-W3	F-05-15	462	20.0	47.7
						SB75-W3	F-05-14	461	20.0	47.7
F25101	271	64.7	3.8	7	-3.2	SB75-W3	F-05-08	455	20.0	48.4
						SB75-W3	F-05-09	456	20.0	48.4
						SB75-W3	F-05-07	454	20.0	48.3
						SB75-W3	F-05-10	457	20.0	48.1
						Hermes Ave	F-06-26	317	20.0	48.0
						SB75-W3	F-05-06	453	24.0	47.9
						SB75-W3	F-05-11	458	20.0	47.7
						SB75-W3	F-05-05	452	24.0	47.6
						SB75-W3	F-05-12	459	20.0	47.6
						SB75-W3	F-05-23	470	16.0	47.5
F25201	272	66.7	2.8	7	-4.2	Hermes Ave	F-06-26	317	20.0	54.3
						Hermes Ave	F-06-27	318	20.0	53.5
						Hermes Ave	F-06-25	316	20.0	52.8

						Hermes Ave	F-06-20	311	20.0	52.0
						Hermes Ave	F-06-24	315	20.0	51.7
						Hermes Ave	F-06-19	310	20.0	51.6
						Hermes Ave	F-06-28	319	20.0	51.6
						Hermes Ave	F-06-17	308	8.0	51.6
						Hermes Ave	F-06-29	320	20.0	51.1
						Hermes Ave	F-06-16	307	0.0	50.9
F25301	273	66.3	1.8	7	-5.2	Hermes Ave	F-06-26	317	24.0	52.8
						Hermes Ave	F-06-25	316	20.0	52.0
						Hermes Ave	F-06-27	318	20.0	51.8
						Hermes Ave	F-06-17	308	8.0	51.3
						Hermes Ave	F-06-24	315	20.0	51.1
						Hermes Ave	F-06-19	310	20.0	51.0
						Hermes Ave	F-06-16	307	0.0	50.9
						SB75-W3	F-05-01	447	24.0	50.8
						Hermes Ave	F-06-20	311	20.0	50.7
						Hermes Ave	F-06-28	319	20.0	50.5
F25401	274	66.7	1.6	7	-5.4	Hermes Ave	F-06-26	317	24.0	53.3
						Hermes Ave	F-06-25	316	20.0	52.6
						Hermes Ave	F-06-17	308	8.0	52.2
						Hermes Ave	F-06-24	315	20.0	52.0
						Hermes Ave	F-06-19	310	20.0	51.9
						Hermes Ave	F-06-16	307	0.0	51.8
						Hermes Ave	F-06-27	318	20.0	51.8
						Hermes Ave	F-06-20	311	20.0	51.5
						SB75-W3	F-05-01	447	24.0	51.3
						Hermes Ave	F-06-28	319	20.0	51.2
F25501	275	66.7	1.7	7	-5.3	Hermes Ave	F-06-26	317	24.0	53.5
						Hermes Ave	F-06-25	316	20.0	53.1
						Hermes Ave	F-06-17	308	24.0	52.5
						Hermes Ave	F-06-24	315	20.0	52.4
						Hermes Ave	F-06-16	307	0.0	52.3
						Hermes Ave	F-06-20	311	20.0	51.8
						Hermes Ave	F-06-27	318	20.0	51.7
						Hermes Ave	F-06-19	310	20.0	51.5
						SB75-W3	F-05-01	447	24.0	51.3

						Hermes Ave	F-06-28	319	20.0	51.3
F25601	276	67.1	1.4	7	-5.6	Hermes Ave	F-06-25	316	20.0	53.4
						Hermes Ave	F-06-26	317	24.0	53.4
						Hermes Ave	F-06-17	308	8.0	53.1
						Hermes Ave	F-06-16	307	0.0	52.9
						Hermes Ave	F-06-24	315	20.0	52.8
						Hermes Ave	F-06-19	310	20.0	52.3
						Hermes Ave	F-06-15	306	0.0	52.2
						Hermes Ave	F-06-20	311	20.0	52.1
						Hermes Ave	F-06-18	309	20.0	51.9
						Hermes Ave	F-06-23	314	20.0	51.7
F25701	277	67.4	1.2	7	-5.8	Hermes Ave	F-06-25	316	20.0	53.7
						Hermes Ave	F-06-17	308	8.0	53.5
						Hermes Ave	F-06-16	307	0.0	53.4
						Hermes Ave	F-06-26	317	20.0	53.2
						Hermes Ave	F-06-24	315	20.0	53.0
						Hermes Ave	F-06-15	306	0.0	52.8
						Hermes Ave	F-06-19	310	20.0	52.7
						Hermes Ave	F-06-18	309	20.0	52.4
						Hermes Ave	F-06-20	311	20.0	52.3
						Hermes Ave	F-06-23	314	20.0	52.1
F25801-F	278	68.0	1.2	7	-5.8	Hermes Ave	F-06-17	308	8.0	55.3
						Hermes Ave	F-06-16	307	0.0	55.1
						Hermes Ave	F-06-25	316	24.0	54.9
						Hermes Ave	F-06-15	306	0.0	54.8
						Hermes Ave	F-06-24	315	20.0	54.7
						Hermes Ave	F-06-19	310	20.0	54.0
						Hermes Ave	F-06-23	314	20.0	53.8
						Hermes Ave	F-06-18	309	20.0	53.8
						Hermes Ave	F-06-14	305	0.0	53.4
						Hermes Ave	F-06-26	317	20.0	53.4
F25904-F	279	67.8	0.7	7	-6.3	Hermes Ave	F-06-08	299	0.0	54.2
						Hermes Ave	F-06-07	298	0.0	54.0
						Hermes Ave	F-06-06	297	0.0	53.9
						Hermes Ave	F-06-05	296	0.0	53.8
						Hermes Ave	F-06-09	300	0.0	53.8

						Hermes Ave	F-06-04	295	0.0	53.3
						Hermes Ave	F-06-16	307	0.0	52.9
						Hermes Ave	F-06-15	306	0.0	52.7
						Hermes Ave	F-06-10	301	0.0	52.6
						Hermes Ave	F-06-13	304	0.0	52.5
F26001-F	280	62.4	12.1	7	5.1	Hermes Ave	F-06-19	310	20.0	55.7
						Hermes Ave	F-06-20	311	20.0	52.9
						Hermes Ave	F-06-23	314	24.0	51.9
						Hermes Ave	F-06-24	315	20.0	49.3
						Hermes Ave	F-06-25	316	24.0	47.6
						Hermes Ave	F-06-22	313	20.0	47.5
						Hermes Ave	F-06-21	312	20.0	47.0
						SB75-W3	F-05-01	447	24.0	45.8
						SB75-W3	F-05-23	470	16.0	44.2
						Hermes Ave	F-06-32	323	24.0	43.5
F26101	281	invalid	invalid	7	invalid					
F26201	282	64.0	8.8	7	1.8	Hermes Ave	F-06-24	315	24.0	53.0
						Hermes Ave	F-06-20	311	20.0	52.7
						Hermes Ave	F-06-19	310	20.0	52.3
						Hermes Ave	F-06-23	314	20.0	51.6
						Hermes Ave	F-06-21	312	20.0	51.1
						Hermes Ave	F-06-25	316	20.0	50.8
						Hermes Ave	F-06-22	313	20.0	50.6
						Hermes Ave	F-06-17	308	8.0	50.4
						Hermes Ave	F-06-18	309	20.0	50.2
						Hermes Ave	F-06-26	317	20.0	48.7
F26301	283	66.0	6.0	7	-1.0	Hermes Ave	F-06-25	316	24.0	56.6
						Hermes Ave	F-06-24	315	20.0	54.3
						Hermes Ave	F-06-26	317	20.0	53.6
						Hermes Ave	F-06-20	311	20.0	52.8
						SB75-W3	F-05-01	447	24.0	52.6
						Hermes Ave	F-06-19	310	20.0	52.4
						Hermes Ave	F-06-17	308	8.0	52.1
						Hermes Ave	F-06-23	314	20.0	51.6
						Hermes Ave	F-06-21	312	20.0	51.2
						Hermes Ave	F-06-16	307	0.0	51.2

F26401	284	64.9	6.2	7	-0.8	Hermes Ave	F-06-26	317	24.0	51.8
						Hermes Ave	F-06-25	316	20.0	51.7
						Hermes Ave	F-06-24	315	20.0	50.3
						SB75-W3	F-05-09	456	20.0	50.1
						Hermes Ave	F-06-20	311	20.0	50.1
						SB75-W3	F-05-08	455	24.0	49.6
						Hermes Ave	F-06-19	310	20.0	49.6
						SB75-W3	F-05-10	457	20.0	49.5
						SB75-W3	F-05-11	458	20.0	49.0
						Hermes Ave	F-06-21	312	20.0	48.9
F26501	285	65.0	5.8	7	-1.2	Hermes Ave	F-06-26	317	20.0	51.7
						Hermes Ave	F-06-25	316	20.0	51.4
						SB75-W3	F-05-08	455	24.0	50.6
						SB75-W3	F-05-09	456	20.0	50.1
						Hermes Ave	F-06-24	315	20.0	49.8
						SB75-W3	F-05-10	457	20.0	49.7
						Hermes Ave	F-06-20	311	20.0	49.6
						SB75-W3	F-05-11	458	20.0	49.1
						Hermes Ave	F-06-19	310	20.0	49.0
						SB75-W3	F-05-12	459	20.0	48.7
F26601	286	64.9	5.3	7	-1.7	SB75-W3	F-05-08	455	20.0	50.5
						SB75-W3	F-05-07	454	20.0	50.4
						SB75-W3	F-05-09	456	20.0	50.3
						SB75-W3	F-05-10	457	20.0	49.8
						SB75-W3	F-05-11	458	20.0	49.2
						SB75-W3	F-05-06	453	24.0	49.1
						SB75-W3	F-05-12	459	20.0	48.7
						SB75-W3	F-05-14	461	20.0	48.5
						SB75-W3	F-05-13	460	20.0	48.4
						SB75-W3	F-05-15	462	20.0	48.4
F26701	287	64.8	5.1	7	-1.9	SB75-W3	F-05-08	455	20.0	50.1
						SB75-W3	F-05-07	454	20.0	50.1
						SB75-W3	F-05-09	456	20.0	50.0
						SB75-W3	F-05-10	457	20.0	49.3
						SB75-W3	F-05-06	453	24.0	49.3
						SB75-W3	F-05-11	458	20.0	49.0

						SB75-W3	F-05-12	459	20.0	48.5
						SB75-W3	F-05-14	461	20.0	48.3
						SB75-W3	F-05-15	462	20.0	48.1
						SB75-W3	F-05-13	460	20.0	48.0
F26801	288	64.4	5.5	7	-1.5	SB75-W3	F-05-08	455	20.0	49.5
						SB75-W3	F-05-09	456	20.0	49.4
						SB75-W3	F-05-07	454	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.1
						SB75-W3	F-05-11	458	20.0	48.5
						SB75-W3	F-05-06	453	24.0	48.1
						SB75-W3	F-05-12	459	20.0	48.1
						SB75-W3	F-05-23	470	16.0	47.5
						SB75-W3	F-05-15	462	20.0	47.5
						SB75-W3	F-05-14	461	20.0	47.5
F26901	289	64.1	5.6	7	-1.4	SB75-W3	F-05-08	455	20.0	49.2
						SB75-W3	F-05-09	456	20.0	48.8
						SB75-W3	F-05-07	454	20.0	48.7
						SB75-W3	F-05-10	457	20.0	48.6
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-05-12	459	20.0	47.1
						SB75-W3	F-05-06	453	24.0	47.1
						SB75-W3	F-04-01	428	12.0	46.9
						SB75-W3	F-05-15	462	20.0	46.5
F27001	290	64.3	5.4	7	-1.6	SB75-W3	F-05-08	455	20.0	49.1
						SB75-W3	F-05-09	456	20.0	48.8
						SB75-W3	F-05-07	454	20.0	48.8
						SB75-W3	F-05-10	457	20.0	48.6
						SB75-W3	F-05-11	458	20.0	48.1
						SB75-W3	F-05-06	453	24.0	47.7
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-05-12	459	20.0	47.2
						SB75-W3	F-04-01	428	12.0	47.1
						SB75-W3	F-05-15	462	20.0	47.0
F27101	291	64.3	5.3	7	-1.7	SB75-W3	F-05-08	455	20.0	49.0
						SB75-W3	F-05-09	456	20.0	48.6

						SB75-W3	F-05-10	457	20.0	48.4
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-01	428	12.0	47.2
						SB75-W3	F-05-06	453	20.0	47.0
						SB75-W3	F-05-12	459	20.0	46.9
						SB75-W3	F-04-02	430	12.0	46.6
F27201	292	64.2	5.3	7	-1.7	SB75-W3	F-05-08	455	20.0	48.6
						SB75-W3	F-05-09	456	20.0	48.2
						SB75-W3	F-05-07	454	20.0	48.0
						SB75-W3	F-05-10	457	20.0	48.0
						SB75-W3	F-05-23	470	16.0	47.7
						SB75-W3	F-05-11	458	20.0	47.6
						SB75-W3	F-04-01	428	12.0	47.4
						SB75-W3	F-04-02	430	12.0	47.0
						SB75-W3	F-05-12	459	20.0	46.7
						SB75-W3	F-05-06	453	20.0	46.5
F27301	293	64.3	5.0	7	-2.0	SB75-W3	F-04-01	428	12.0	48.0
						SB75-W3	F-05-08	455	20.0	47.6
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-04-02	430	12.0	47.6
						SB75-W3	F-05-09	456	20.0	47.4
						SB75-W3	F-05-10	457	20.0	47.0
						SB75-W3	F-05-07	454	20.0	46.9
						SB75-W3	F-04-03	431	12.0	46.5
						SB75-W3	F-05-11	458	20.0	46.4
						SB75-W3	F-05-15	462	20.0	45.6
F27301	294	64.7	4.8	7	-2.2	SB75-W3	F-05-08	455	20.0	48.7
						SB75-W3	F-05-09	456	20.0	48.5
						SB75-W3	F-05-07	454	20.0	48.4
						SB75-W3	F-05-10	457	20.0	48.3
						SB75-W3	F-05-23	470	16.0	48.2
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-12	459	20.0	47.7
						SB75-W3	F-04-01	428	12.0	47.7

						SB75-W3	F-05-15	462	20.0	47.4
						SB75-W3	F-05-14	461	20.0	47.3
F27401	295	64.5	4.9	7	-2.1	SB75-W3	F-05-23	470	16.0	48.2
						SB75-W3	F-05-08	455	20.0	48.2
						SB75-W3	F-04-01	428	12.0	48.0
						SB75-W3	F-05-09	456	20.0	47.7
						SB75-W3	F-04-02	430	12.0	47.6
						SB75-W3	F-05-07	454	20.0	47.5
						SB75-W3	F-05-10	457	20.0	47.4
						SB75-W3	F-05-11	458	20.0	46.9
						SB75-W3	F-04-03	431	12.0	46.7
						SB75-W3	F-05-12	459	20.0	46.5
F27503	296	63.9	5.0	7	-2.0	SB75-W3	F-04-01	428	12.0	47.0
						SB75-W3	F-05-23	470	16.0	46.3
						SB75-W3	F-04-02	430	12.0	46.3
						SB75-W3	F-05-08	455	20.0	46.1
						SB75-W3	F-05-09	456	20.0	45.5
						SB75-W3	F-04-03	431	12.0	45.4
						SB75-W3	F-05-07	454	20.0	45.1
						SB75-W3	F-05-10	457	20.0	45.0
						SB75-W3	F-01-02	391	16.0	44.5
						SB75-W3	F-05-15	462	20.0	44.5
F27602	297	64.0	4.9	7	-2.1	SB75-W3	F-04-01	428	12.0	47.1
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-05-08	455	20.0	46.1
						SB75-W3	F-04-02	430	12.0	46.0
						SB75-W3	F-04-03	431	12.0	45.6
						SB75-W3	F-05-09	456	20.0	45.4
						SB75-W3	F-05-07	454	20.0	45.1
						SB75-W3	F-05-10	457	20.0	44.9
						SB75-W3	F-01-03	392	16.0	44.5
						SB75-W3	F-05-15	462	20.0	44.5
F27702	298	64.7	6.0	7	-1.0	SB75-W3	F-05-08	455	20.0	47.9
						SB75-W3	F-05-09	456	20.0	47.3
						SB75-W3	F-05-23	470	16.0	47.0
						SB75-W3	F-05-07	454	20.0	46.8

						SB75-W3	F-05-10	457	20.0	46.8
						SB75-W3	F-04-01	428	12.0	46.7
						SB75-W3	F-04-02	430	12.0	46.6
						SB75-W3	F-05-11	458	20.0	46.5
						SB75-W3	F-05-15	462	20.0	46.4
						SB75-W3	F-05-12	459	20.0	46.3
F27801	299	65.1	6.2	7	-0.8	SB75-W3	F-05-08	455	20.0	48.7
						SB75-W3	F-04-01	428	12.0	48.6
						SB75-W3	F-05-09	456	20.0	48.4
						SB75-W3	F-05-07	454	20.0	48.0
						SB75-W3	F-05-23	470	16.0	47.8
						SB75-W3	F-04-02	430	12.0	47.7
						SB75-W3	F-05-10	457	20.0	47.5
						SB75-W3	F-05-11	458	20.0	47.3
						SB75-W3	F-05-15	462	20.0	47.2
						SB75-W3	F-05-12	459	20.0	47.1
F27901	300	65.4	6.3	7	-0.7	SB75-W3	F-05-08	455	20.0	49.5
						SB75-W3	F-05-09	456	20.0	49.0
						SB75-W3	F-04-01	428	12.0	48.8
						SB75-W3	F-05-07	454	20.0	48.5
						SB75-W3	F-05-10	457	20.0	48.2
						SB75-W3	F-05-23	470	16.0	48.2
						SB75-W3	F-04-02	430	12.0	47.9
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-15	462	20.0	47.7
						SB75-W3	F-05-12	459	20.0	47.7
F28001-F	301	65.7	6.3	7	-0.7	SB75-W3	F-05-08	455	20.0	50.1
						SB75-W3	F-05-09	456	20.0	49.5
						SB75-W3	F-04-01	428	12.0	49.1
						SB75-W3	F-05-07	454	20.0	49.0
						SB75-W3	F-05-10	457	20.0	48.9
						SB75-W3	F-05-23	470	16.0	48.4
						SB75-W3	F-05-11	458	20.0	48.4
						SB75-W3	F-05-15	462	20.0	48.2
						SB75-W3	F-05-12	459	20.0	48.2
						SB75-W3	F-05-14	461	20.0	48.1

F28101-F	302	65.9	6.5	7	-0.5	SB75-W3	F-05-08	455	20.0	50.3
						SB75-W3	F-05-09	456	20.0	49.8
						SB75-W3	F-04-01	428	12.0	49.4
						SB75-W3	F-05-07	454	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.2
						SB75-W3	F-05-23	470	16.0	48.8
						SB75-W3	F-05-11	458	20.0	48.7
						SB75-W3	F-05-15	462	20.0	48.7
						SB75-W3	F-05-14	461	20.0	48.6
						SB75-W3	F-05-12	459	20.0	48.6
F28201-F	303	66.2	6.6	7	-0.4	SB75-W3	F-05-08	455	20.0	49.9
						SB75-W3	F-05-09	456	20.0	49.7
						SB75-W3	F-05-10	457	20.0	49.1
						SB75-W3	F-05-15	462	20.0	48.9
						SB75-W3	F-05-07	454	20.0	48.9
						SB75-W3	F-05-11	458	20.0	48.8
						SB75-W3	F-05-14	461	20.0	48.8
						SB75-W3	F-05-23	470	16.0	48.7
						SB75-W3	F-04-01	428	12.0	48.7
						SB75-W3	F-05-13	460	20.0	48.5
F28301-F	304	66.1	7.2	7	0.2	SB75-W3	F-05-08	455	20.0	49.8
						SB75-W3	F-05-09	456	20.0	49.5
						SB75-W3	F-05-15	462	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.2
						SB75-W3	F-05-14	461	20.0	49.1
						SB75-W3	F-05-11	458	20.0	49.1
						SB75-W3	F-05-12	459	20.0	49.0
						SB75-W3	F-05-13	460	20.0	48.9
						SB75-W3	F-05-07	454	20.0	48.7
						SB75-W3	F-05-16	463	20.0	48.5
F28401-F	305	66.4	7.3	7	0.3	SB75-W3	F-05-08	455	20.0	49.9
						SB75-W3	F-05-15	462	20.0	49.7
						SB75-W3	F-05-09	456	20.0	49.5
						SB75-W3	F-05-14	461	20.0	49.5
						SB75-W3	F-05-10	457	20.0	49.4
						SB75-W3	F-05-13	460	20.0	49.3

						SB75-W3	F-05-11	458	20.0	49.3
						SB75-W3	F-05-12	459	20.0	49.3
						SB75-W3	F-05-16	463	20.0	49.0
						SB75-W3	F-05-07	454	20.0	48.7
F28501-F	306	66.5	7.6	7	0.6	SB75-W3	F-05-15	462	20.0	50.1
						SB75-W3	F-05-14	461	20.0	49.9
						SB75-W3	F-05-13	460	20.0	49.7
						SB75-W3	F-05-12	459	20.0	49.7
						SB75-W3	F-05-09	456	20.0	49.7
						SB75-W3	F-05-10	457	20.0	49.6
						SB75-W3	F-05-11	458	20.0	49.5
						SB75-W3	F-05-08	455	20.0	49.4
						SB75-W3	F-05-16	463	20.0	49.3
						Hermes Ave	F-06-32	323	20.0	48.7
F28601-F	307	66.8	7.7	7	0.7	SB75-W3	F-05-15	462	20.0	50.5
						SB75-W3	F-05-14	461	20.0	50.4
						SB75-W3	F-05-13	460	20.0	50.2
						SB75-W3	F-05-12	459	20.0	50.1
						SB75-W3	F-05-10	457	20.0	49.9
						SB75-W3	F-05-09	456	20.0	49.8
						SB75-W3	F-05-11	458	20.0	49.8
						SB75-W3	F-05-08	455	20.0	49.5
						SB75-W3	F-05-16	463	20.0	49.3
						Hermes Ave	F-06-32	323	20.0	48.8
F28701-F	308	66.7	8.3	7	1.3	SB75-W3	F-05-01	447	16.0	50.4
						SB75-W3	F-05-15	462	20.0	50.3
						SB75-W3	F-05-14	461	20.0	50.2
						SB75-W3	F-05-13	460	20.0	49.8
						SB75-W3	F-05-12	459	20.0	49.7
						SB75-W3	F-05-16	463	20.0	49.6
						SB75-W3	F-05-10	457	20.0	49.4
						SB75-W3	F-05-11	458	20.0	49.4
						SB75-W3	F-05-09	456	20.0	49.4
						SB75-W3	F-05-08	455	20.0	49.1
F28801-F	309	67.0	8.4	7	1.4	SB75-W3	F-05-15	462	20.0	50.6
						SB75-W3	F-05-14	461	20.0	50.4

						SB75-W3	F-05-13	460	20.0	50.1
						SB75-W3	F-05-16	463	20.0	50.0
						SB75-W3	F-05-01	447	16.0	49.9
						SB75-W3	F-05-12	459	20.0	49.7
						SB75-W3	F-05-11	458	20.0	49.4
						SB75-W3	F-05-17	464	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.2
						SB75-W3	F-05-09	456	20.0	48.9
F28901-F	310	67.3	8.6	7	1.6	SB75-W3	F-05-15	462	20.0	51.2
						SB75-W3	F-05-14	461	20.0	51.0
						SB75-W3	F-05-13	460	20.0	50.5
						SB75-W3	F-05-16	463	20.0	50.3
						SB75-W3	F-05-12	459	20.0	50.0
						SB75-W3	F-05-11	458	20.0	49.6
						SB75-W3	F-05-17	464	20.0	49.5
						SB75-W3	F-05-10	457	20.0	49.3
						SB75-W3	F-05-01	447	16.0	49.1
						SB75-W3	F-05-09	456	20.0	48.9
F29001-F	311	67.4	8.9	7	1.9	SB75-W3	F-05-15	462	20.0	51.8
						SB75-W3	F-05-14	461	20.0	51.3
						SB75-W3	F-05-16	463	20.0	51.1
						SB75-W3	F-05-13	460	20.0	50.7
						SB75-W3	F-05-17	464	20.0	50.2
						SB75-W3	F-05-12	459	20.0	50.0
						SB75-W3	F-05-11	458	20.0	49.5
						SB75-W3	F-05-18	465	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.1
						SB75-W3	F-05-09	456	20.0	48.6
F29101-F	312	67.9	8.9	7	1.9	SB75-W3	F-05-15	462	20.0	52.3
						SB75-W3	F-05-14	461	20.0	52.0
						SB75-W3	F-05-16	463	20.0	51.4
						SB75-W3	F-05-13	460	20.0	51.1
						SB75-W3	F-05-17	464	20.0	50.6
						SB75-W3	F-05-12	459	20.0	50.1
						SB75-W3	F-05-11	458	20.0	49.6
						SB75-W3	F-05-18	465	20.0	49.6

						SB75-W3	F-05-10	457	20.0	49.1
						SB75-W3	F-05-19	466	20.0	48.4
F29201	313	65.0	6.3	7	-0.7	SB75-W3	F-05-08	455	20.0	49.1
						SB75-W3	F-05-09	456	20.0	48.7
						SB75-W3	F-05-07	454	20.0	48.3
						SB75-W3	F-04-01	428	12.0	48.1
						SB75-W3	F-05-10	457	20.0	48.0
						SB75-W3	F-05-11	458	20.0	47.6
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-05-12	459	20.0	47.3
						SB75-W3	F-05-15	462	20.0	47.2
						SB75-W3	F-05-14	461	20.0	47.2
F29301-F	314	65.0	6.6	7	-0.4	SB75-W3	F-05-08	455	20.0	48.9
						SB75-W3	F-05-09	456	20.0	48.6
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-10	457	20.0	47.9
						SB75-W3	F-05-11	458	20.0	47.8
						SB75-W3	F-05-12	459	20.0	47.5
						SB75-W3	F-05-15	462	20.0	47.3
						SB75-W3	F-05-14	461	20.0	47.2
						SB75-W3	F-05-23	470	16.0	47.1
						SB75-W3	F-05-13	460	20.0	47.1
F29401-F	315	64.8	6.8	7	-0.2	SB75-W3	F-05-08	455	20.0	48.9
						SB75-W3	F-05-09	456	20.0	48.6
						SB75-W3	F-05-10	457	20.0	48.0
						SB75-W3	F-05-07	454	20.0	48.0
						SB75-W3	F-05-11	458	20.0	47.8
						SB75-W3	F-05-12	459	20.0	47.3
						SB75-W3	F-05-15	462	20.0	47.1
						SB75-W3	F-05-14	461	20.0	47.1
						SB75-W3	F-05-06	453	20.0	47.0
						SB75-W3	F-05-13	460	20.0	47.0
F29501-F	316	64.5	7.2	7	0.2	SB75-W3	F-05-08	455	20.0	49.1
						SB75-W3	F-05-09	456	20.0	48.4
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-10	457	20.0	48.1

						SB75-W3	F-05-11	458	20.0	47.7
						SB75-W3	F-05-06	453	20.0	47.3
						SB75-W3	F-05-12	459	20.0	47.2
						SB75-W3	F-05-14	461	20.0	46.9
						SB75-W3	F-05-15	462	20.0	46.9
						SB75-W3	F-05-13	460	20.0	46.9
F29501-F	317	64.6	7.1	7	0.1	SB75-W3	F-05-08	455	20.0	48.7
						SB75-W3	F-05-09	456	20.0	48.1
						SB75-W3	F-05-10	457	20.0	47.9
						SB75-W3	F-05-07	454	20.0	47.8
						SB75-W3	F-05-11	458	20.0	47.5
						SB75-W3	F-05-12	459	20.0	47.1
						SB75-W3	F-05-15	462	20.0	46.9
						SB75-W3	F-05-14	461	20.0	46.9
						SB75-W3	F-05-06	453	20.0	46.9
						SB75-W3	F-05-13	460	20.0	46.8
F29601-F	318	64.4	7.2	7	0.2	SB75-W3	F-05-08	455	20.0	48.5
						SB75-W3	F-05-09	456	20.0	48.2
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-10	457	20.0	47.9
						SB75-W3	F-05-11	458	20.0	47.5
						SB75-W3	F-05-06	453	20.0	47.3
						SB75-W3	F-05-12	459	20.0	46.9
						SB75-W3	F-05-14	461	20.0	46.7
						SB75-W3	F-05-13	460	20.0	46.7
						SB75-W3	F-05-15	462	20.0	46.5
F29701-F	319	64.1	7.3	7	0.3	SB75-W3	F-05-08	455	20.0	48.2
						SB75-W3	F-05-09	456	20.0	48.0
						SB75-W3	F-05-07	454	20.0	47.9
						SB75-W3	F-05-10	457	20.0	47.7
						SB75-W3	F-05-06	453	20.0	47.3
						SB75-W3	F-05-11	458	20.0	47.3
						SB75-W3	F-05-12	459	20.0	46.8
						SB75-W3	F-05-13	460	20.0	46.4
						SB75-W3	F-05-14	461	20.0	46.3
						SB75-W3	F-05-15	462	20.0	46.1

F29801-F	320	64.0	7.4	7	0.4	SB75-W3	F-05-08	455	20.0	48.4
						SB75-W3	F-05-09	456	20.0	48.1
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-10	457	20.0	47.8
						SB75-W3	F-05-06	453	24.0	47.4
						SB75-W3	F-05-11	458	20.0	47.3
						SB75-W3	F-05-12	459	20.0	46.8
						SB75-W3	F-05-13	460	20.0	46.5
						Hermes Ave	F-06-29	320	20.0	46.3
						SB75-W3	F-05-14	461	20.0	46.3
F29901-F	321	64.1	7.6	7	0.6	SB75-W3	F-05-08	455	20.0	49.0
						SB75-W3	F-05-09	456	20.0	48.7
						SB75-W3	F-05-07	454	20.0	48.7
						SB75-W3	F-05-10	457	20.0	48.2
						SB75-W3	F-05-11	458	20.0	47.6
						Hermes Ave	F-06-29	320	24.0	47.3
						SB75-W3	F-05-12	459	20.0	47.1
						SB75-W3	F-05-06	453	24.0	46.9
						SB75-W3	F-05-13	460	20.0	46.7
						SB75-W3	F-05-14	461	20.0	46.3
F30001-F	322	64.9	7.6	7	0.6	SB75-W3	F-05-08	455	20.0	51.3
						SB75-W3	F-05-09	456	20.0	50.8
						SB75-W3	F-05-07	454	20.0	50.6
						SB75-W3	F-05-10	457	20.0	49.9
						Hermes Ave	F-06-29	320	20.0	48.8
						SB75-W3	F-05-11	458	20.0	48.7
						SB75-W3	F-05-12	459	20.0	48.2
						SB75-W3	F-05-13	460	20.0	47.7
						Hermes Ave	F-06-20	311	20.0	47.6
						SB75-W3	F-05-06	453	24.0	47.4
F30101-F	323	64.9	7.7	7	0.7	SB75-W3	F-05-08	455	20.0	51.9
						SB75-W3	F-05-09	456	20.0	51.0
						SB75-W3	F-05-07	454	20.0	50.8
						SB75-W3	F-05-10	457	20.0	50.1
						Hermes Ave	F-06-29	320	20.0	49.0
						SB75-W3	F-05-11	458	20.0	48.8

						SB75-W3	F-05-12	459	20.0	48.2
						Hermes Ave	F-06-20	311	20.0	48.0
						Hermes Ave	F-06-28	319	20.0	47.7
						Hermes Ave	F-06-21	312	20.0	47.6
F30201-F	324	65.0	8.5	7	1.5	SB75-W3	F-05-08	455	20.0	52.8
						SB75-W3	F-05-09	456	20.0	52.4
						SB75-W3	F-05-10	457	20.0	51.0
						Hermes Ave	F-06-28	319	20.0	50.8
						Hermes Ave	F-06-29	320	20.0	50.6
						SB75-W3	F-05-11	458	20.0	49.8
						Hermes Ave	F-06-20	311	20.0	49.6
						Hermes Ave	F-06-21	312	20.0	49.4
						Hermes Ave	F-06-22	313	20.0	49.2
						Hermes Ave	F-06-27	318	20.0	49.1
F30301-F	325	65.1	8.6	7	1.6	Hermes Ave	F-06-28	319	20.0	52.6
						SB75-W3	F-05-09	456	20.0	52.2
						SB75-W3	F-05-10	457	20.0	51.4
						Hermes Ave	F-06-27	318	20.0	51.1
						SB75-W3	F-05-08	455	24.0	50.4
						Hermes Ave	F-06-20	311	20.0	50.3
						Hermes Ave	F-06-21	312	20.0	50.1
						Hermes Ave	F-06-22	313	20.0	50.0
						Hermes Ave	F-06-29	320	20.0	49.6
						SB75-W3	F-05-11	458	20.0	49.5
F30401-F	326	64.6	9.7	7	2.7	Hermes Ave	F-06-27	318	20.0	55.1
						Hermes Ave	F-06-28	319	24.0	53.0
						Hermes Ave	F-06-20	311	20.0	51.9
						Hermes Ave	F-06-21	312	20.0	51.7
						Hermes Ave	F-06-22	313	20.0	51.6
						Hermes Ave	F-06-26	317	20.0	51.2
						Hermes Ave	F-06-19	310	20.0	50.2
						SB75-W3	F-05-12	459	20.0	49.7
						SB75-W3	F-05-13	460	20.0	48.3
						SB75-W3	F-05-14	461	20.0	47.9
F30501-F	327	63.3	11.2	7	4.2	Hermes Ave	F-06-26	317	24.0	55.2
						Hermes Ave	F-06-22	313	20.0	51.9

						Hermes Ave	F-06-21	312	20.0	51.8
						Hermes Ave	F-06-20	311	20.0	51.5
						Hermes Ave	F-06-25	316	20.0	49.9
						Hermes Ave	F-06-27	318	24.0	49.9
						Hermes Ave	F-06-19	310	20.0	47.9
						Hermes Ave	F-06-24	315	20.0	47.0
						SB75-W3	F-05-23	470	16.0	45.1
						SB75-W3	F-05-01	447	24.0	43.7
F30601-F	328	61.6	13.0	7	6.0	Hermes Ave	F-06-26	317	24.0	53.4
						Hermes Ave	F-06-22	313	20.0	51.8
						Hermes Ave	F-06-21	312	20.0	51.6
						Hermes Ave	F-06-25	316	20.0	51.2
						Hermes Ave	F-06-20	311	20.0	50.3
						Hermes Ave	F-06-24	315	20.0	47.5
						Hermes Ave	F-06-23	314	20.0	43.6
						SB75-W3	F-05-01	447	24.0	42.4
						Hermes Ave	F-06-27	318	24.0	42.0
						Hermes Ave	F-06-19	310	20.0	41.9
F30701-F	329	61.2	13.6	7	6.6	Hermes Ave	F-06-25	316	24.0	54.8
						Hermes Ave	F-06-22	313	20.0	52.6
						Hermes Ave	F-06-21	312	20.0	52.2
						Hermes Ave	F-06-24	315	20.0	51.6
						Hermes Ave	F-06-20	311	20.0	49.9
						Hermes Ave	F-06-26	317	24.0	47.4
						Hermes Ave	F-06-23	314	20.0	47.1
						SB75-W3	F-05-01	447	24.0	43.6
						SB75-W3	F-03-05	419	16.0	41.0
						SB75-W3	F-03-04	418	16.0	40.7
F30801-F	330	60.6	14.5	7	7.5	Hermes Ave	F-06-24	315	20.0	54.7
						Hermes Ave	F-06-22	313	20.0	53.6
						Hermes Ave	F-06-25	316	24.0	52.9
						Hermes Ave	F-06-21	312	20.0	52.8
						Hermes Ave	F-06-23	314	20.0	49.7
						Hermes Ave	F-06-20	311	20.0	46.8
						SB75-W3	F-05-01	447	24.0	44.1
						SB75-W3	F-05-02	449	24.0	40.5

						SB75-W3	F-03-05	419	16.0	40.1
						SB75-W3	F-03-07	421	16.0	39.8
F30901-F	331	61.1	14.3	7	7.3	Hermes Ave	F-06-22	313	20.0	55.2
						Hermes Ave	F-06-24	315	24.0	55.0
						Hermes Ave	F-06-23	314	20.0	54.2
						Hermes Ave	F-06-21	312	20.0	53.7
						Hermes Ave	F-06-25	316	24.0	43.8
						SB75-W3	F-05-01	447	24.0	43.6
						Hermes Ave	F-06-32	323	24.0	43.0
						Hermes Ave	F-06-31	322	24.0	42.3
						Hermes Ave	F-06-33	324	24.0	41.4
						SB75-W3	F-05-15	462	24.0	40.7
F31001-F	332	60.5	15.9	7	8.9	Hermes Ave	F-06-22	313	20.0	57.0
						Hermes Ave	F-06-23	314	24.0	56.5
						Hermes Ave	F-06-21	312	20.0	46.9
						Hermes Ave	F-06-24	315	24.0	44.6
						SB75-W3	F-05-01	447	24.0	44.6
						Hermes Ave	F-06-33	324	24.0	43.8
						Hermes Ave	F-06-32	323	24.0	43.5
						Hermes Ave	F-06-29	320	24.0	43.1
						Hermes Ave	F-06-31	322	24.0	42.4
						SB75-W3	F-05-17	464	24.0	41.3
F31101	333	66.3	1.6	7	-5.4	Hermes Ave	F-06-26	317	24.0	52.3
						Hermes Ave	F-06-25	316	20.0	51.5
						Hermes Ave	F-06-27	318	20.0	51.3
						Hermes Ave	F-06-17	308	8.0	51.1
						Hermes Ave	F-06-24	315	20.0	50.9
						Hermes Ave	F-06-19	310	20.0	50.8
						Hermes Ave	F-06-16	307	0.0	50.8
						SB75-W3	F-05-01	447	24.0	50.6
						Hermes Ave	F-06-20	311	20.0	50.5
						Hermes Ave	F-06-28	319	20.0	50.4
F31617	336	69.6	3.3	8	-4.7	SB75-W3	F-04-16	444	12.0	51.8
						SB75-W3	F-04-15	443	12.0	50.7
						SB75-W3	F-04-13	441	12.0	49.1
						SB75-W3	F-04-11	439	12.0	49.0

						SB75-W3	F-04-10	438	12.0	48.7
						SB75-W3	F-04-14	442	12.0	48.4
						SB75-W3	F-04-09	437	12.0	48.1
						SB75-W3	F-04-02	430	12.0	47.4
						SB75-W3	F-04-08	436	12.0	47.4
						SB75-W3	F-04-06	434	12.0	46.8
Total Cost, All Barriers (including additional cost(s))					$1781861					

HMB Professional Engineers **20 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **Brent Spence Bridge Technical Memo**
RUN: **F2**
BARRIER DESIGN: **f2-ind-1**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
SB75-W3	W	12.00	15.93	20.00	2700	43006				1376187
Hermes Ave	W	8.00	19.27	20.00	658	12677				405675
									Total Cost:	1781861

HMB Professional Engineers 20 June 2023
Mark Gavula TNM 2.5

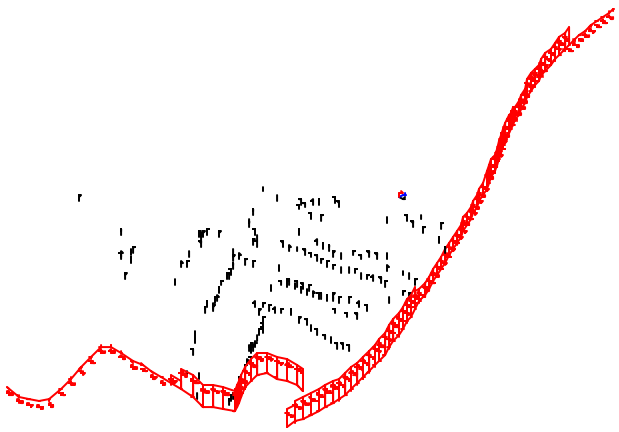
RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: F2
BARRIER DESIGN: f2-ind-1

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
SB75-W3	W	F-05-01	447	16.00	16.00	16.00	40	642				20558
		F-05-02	449	20.00	20.00	20.00	40	802				25650
		F-05-03	450	20.00	20.00	20.00	40	800				25608
		F-05-04	451	20.00	20.00	20.00	40	800				25600
		F-05-05	452	20.00	20.00	20.00	40	800				25608
		F-05-06	453	20.00	20.00	20.00	40	802				25650
		F-05-07	454	20.00	20.00	20.00	40	803				25698
		F-05-08	455	20.00	20.00	20.00	40	796				25482
		F-05-09	456	20.00	20.00	20.00	40	799				25570
		F-05-10	457	20.00	20.00	20.00	40	802				25674
		F-05-11	458	20.00	20.00	20.00	40	798				25546
		F-05-12	459	20.00	20.00	20.00	40	796				25458
		F-05-13	460	20.00	20.00	20.00	40	808				25849
		F-05-14	461	20.00	20.00	20.00	40	796				25458
		F-05-15	462	20.00	20.00	20.00	40	800				25602
		F-05-16	463	20.00	20.00	20.00	40	797				25504
		F-05-17	464	20.00	20.00	20.00	40	807				25809
		F-05-18	465	20.00	20.00	20.00	40	803				25704
		F-05-19	466	20.00	20.00	20.00	40	797				25508
		F-05-20	467	20.00	20.00	20.00	40	801				25618
		F-05-21	468	20.00	20.00	20.00	40	795				25433
		F-05-22	469	20.00	20.00	20.00	40	802				25674
		F-05-23	470	16.00	14.00	12.00	43	603				19300
		F-04-01	428	12.00	12.00	12.00	40	478	Y			15305
		F-04-02	430	12.00	12.00	12.00	40	480	Y			15371
		F-04-03	431	12.00	12.00	12.00	40	480	Y			15371

		F-04-04	432	12.00	12.00	12.00	40	480	Y			15371
		F-04-05	433	12.00	12.00	12.00	40	477	Y			15260
		F-04-06	434	12.00	12.00	12.00	40	481	Y			15404
		F-04-07	435	12.00	12.00	12.00	40	481	Y			15404
		F-04-08	436	12.00	12.00	12.00	40	478	Y			15303
		F-04-09	437	12.00	12.00	12.00	40	481	Y			15382
		F-04-10	438	12.00	12.00	12.00	40	481	Y			15382
		F-04-11	439	12.00	12.00	12.00	40	480	Y			15371
		F-04-12	440	12.00	12.00	12.00	40	480	Y			15371
		F-04-13	441	12.00	12.00	12.00	40	478	Y			15284
		F-04-14	442	12.00	12.00	12.00	40	480	Y			15372
		F-04-15	443	12.00	12.00	12.00	40	480	Y			15372
		F-04-16	444	12.00	12.00	12.00	40	481	Y			15385
		F-04-17	445	12.00	12.00	12.00	40	480	Y			15372
		F-04-18	446	12.00	14.00	16.00	55	768	Y			24589
		F-03-02	416	16.00	16.00	16.00	40	635				20327
		F-03-03	417	16.00	16.00	16.00	40	646				20679
		F-03-04	418	16.00	16.00	16.00	40	635				20327
		F-03-05	419	16.00	16.00	16.00	40	639				20461
		F-03-06	420	16.00	16.00	16.00	40	639				20461
		F-03-07	421	16.00	16.00	16.00	40	644				20596
		F-03-08	422	16.00	16.00	16.00	40	639				20461
		F-03-09	423	16.00	16.00	16.00	40	637				20381
		F-03-10	424	16.00	16.00	16.00	40	644				20596
		F-03-11	425	16.00	16.00	16.00	40	642				20547
		F-03-12	426	16.00	16.00	16.00	40	638				20418
		F-03-13	427	16.00	14.00	12.00	35	490				15674
		F-02-01	408	12.00	12.00	12.00	40	481	Y			15385
		F-02-02	409	12.00	12.00	12.00	40	481	Y			15385
		F-02-03	410	12.00	12.00	12.00	40	481	Y			15385
		F-02-04	411	12.00	14.00	16.00	47	658	Y			21061
		F-01-01	389	16.00	16.00	16.00	40	640				20496
		F-01-02	391	16.00	16.00	16.00	40	644				20616
		F-01-03	392	16.00	16.00	16.00	40	641				20509
		F-01-04	393	16.00	16.00	16.00	40	634				20303
		F-01-05	394	16.00	16.00	16.00	40	639				20442
		F-01-06	395	16.00	16.00	16.00	40	643				20585
		F-01-07	396	16.00	16.00	16.00	40	638				20406
		F-01-08	397	16.00	16.00	16.00	40	640				20482

		F-01-09	398	16.00	16.00	16.00	40	638				20403
		F-01-10	399	16.00	16.00	16.00	40	643				20573
		F-01-11	400	0.00	0.00	0.00	0	0				0
		F-01-12	401	0.00	0.00	0.00	0	0				0
		F-01-13	402	0.00	0.00	0.00	0	0				0
		F-01-14	403	0.00	0.00	0.00	0	0				0
		F-01-15	404	0.00	0.00	0.00	0	0				0
		F-01-16	405	0.00	0.00	0.00	0	0				0
		F-01-17	406	0.00	0.00	0.00	0	0				0
		F-01-18	407	0.00	0.00	0.00	0	0				0
Hermes Ave	W	F-06-01	291	0.00	0.00	0.00	0	0				0
		F-06-02	293	0.00	0.00	0.00	0	0				0
		F-06-03	294	0.00	0.00	0.00	0	0				0
		F-06-04	295	0.00	0.00	0.00	0	0				0
		F-06-05	296	0.00	0.00	0.00	0	0				0
		F-06-06	297	0.00	0.00	0.00	0	0				0
		F-06-07	298	0.00	0.00	0.00	0	0				0
		F-06-08	299	0.00	0.00	0.00	0	0				0
		F-06-09	300	0.00	0.00	0.00	0	0				0
		F-06-10	301	0.00	0.00	0.00	0	0				0
		F-06-11	302	0.00	0.00	0.00	0	0				0
		F-06-12	303	0.00	0.00	0.00	0	0				0
		F-06-13	304	0.00	0.00	0.00	0	0				0
		F-06-14	305	0.00	0.00	0.00	0	0				0
		F-06-15	306	0.00	0.00	0.00	0	0				0
		F-06-16	307	0.00	0.00	0.00	0	0				0
		F-06-17	308	8.00	8.00	8.00	40	319				10195
		F-06-18	309	20.00	20.00	20.00	40	799				25578
		F-06-19	310	20.00	20.00	20.00	40	807				25811
		F-06-20	311	20.00	20.00	20.00	40	792				25347
		F-06-21	312	20.00	20.00	20.00	40	803				25690
		F-06-22	313	20.00	20.00	20.00	40	801				25618
		F-06-23	314	20.00	20.00	20.00	40	796				25476
		F-06-24	315	20.00	20.00	20.00	40	805				25746
		F-06-25	316	20.00	20.00	20.00	40	799				25562
		F-06-26	317	20.00	20.00	20.00	40	797				25508
		F-06-27	318	20.00	20.00	20.00	40	798				25524
		F-06-28	319	20.00	20.00	20.00	40	806				25799

		F-06-29	320	20.00	20.00	20.00	40	796				25480
		F-06-30	321	20.00	20.00	20.00	40	800				25594
		F-06-31	322	20.00	20.00	20.00	40	800				25594
		F-06-32	323	20.00	20.00	20.00	40	800				25594
		F-06-33	324	20.00	20.00	20.00	18	361				11560



F2		Sheet 1 of 1	20 Jun 2023
		HMB Professional Engineers	
Barrier View-f2-ind-1		Project/Contract No. Brent Spence Bridge Technic	
Run name: NSA_F2_v1_backup		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: BARRIER SYSTEM C1/C2

HMB Professional Engineers
Mark Gavula

28 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C1V2
BARRIER DESIGN: c1-sys
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
C00101-F	1	1	72.2	72.8	66	0.6	10	Snd Lvl	68.4	4.4	7	-2.6
C00201	2	1	69.9	71.9	66	2.0	10	Snd Lvl	67.7	4.2	7	-2.8
C00302	3	2	69.4	70.9	66	1.5	10	Snd Lvl	67.4	3.5	7	-3.5
C00401	4	1	67.4	69.9	66	2.5	10	Snd Lvl	66.8	3.1	7	-3.9
C00501	5	1	67.2	68.6	66	1.4	10	Snd Lvl	65.6	3.0	7	-4.0
C00601-F	6	1	70.7	72.2	66	1.5	10	Snd Lvl	67.3	4.9	7	-2.1
C00701	7	1	67.6	70.4	66	2.8	10	Snd Lvl	65.9	4.5	7	-2.5
C00801	8	1	67.4	70.0	66	2.6	10	Snd Lvl	65.7	4.3	7	-2.7
C00901	9	1	66.2	69.1	66	2.9	10	Snd Lvl	65.1	4.0	7	-3.0
C01001	10	1	65.5	68.7	66	3.2	10	Snd Lvl	64.9	3.8	7	-3.2
C01201-F	11	1	73.7	75.2	66	1.5	10	Snd Lvl	66.6	8.6	7	1.6
C01301	12	1	73.1	74.7	66	1.6	10	Snd Lvl	67.5	7.2	7	0.2
C01401	13	1	72.2	74.2	66	2.0	10	Snd Lvl	67.7	6.5	7	-0.5
C01501	14	1	71.9	73.6	66	1.7	10	Snd Lvl	67.9	5.7	7	-1.3
C01601	15	1	71.0	72.8	66	1.8	10	Snd Lvl	67.6	5.2	7	-1.8
C01701	16	1	70.3	72.5	66	2.2	10	Snd Lvl	67.4	5.1	7	-1.9
C01801-F	17	1	71.4	73.8	66	2.4	10	Snd Lvl	66.3	7.5	7	0.5
C01901-V	18	1	70.7	73.1	66	2.4	10	Snd Lvl	63.8	9.3	7	2.3
C02001	19	1	70.2	72.5	66	2.3	10	Snd Lvl	64.6	7.9	7	0.9
C02101	20	1	69.7	72.1	66	2.4	10	Snd Lvl	65.1	7.0	7	0.0
C02201-F	21	1	70.7	73.0	66	2.3	10	Snd Lvl	64.3	8.7	7	1.7
C02302	22	2	70.1	72.9	66	2.8	10	Snd Lvl	64.5	8.4	7	1.4
C02402	23	2	68.5	72.0	66	3.5	10	Snd Lvl	65.1	6.9	7	-0.1
C02501-F	24	1	69.1	71.5	66	2.4	10	Snd Lvl	63.1	8.4	7	1.4

C02602/C02701	25	2	68.4	70.8	66	2.4	10	Snd Lvl	64.7	6.1	7	-0.9
C02801	27	1	68.7	70.7	66	2.0	10	Snd Lvl	64.2	6.5	7	-0.5
C02901	28	1	68.7	70.6	66	1.9	10	Snd Lvl	64.3	6.3	7	-0.7
C03001	29	1	68.7	70.6	66	1.9	10	Snd Lvl	64.5	6.1	7	-0.9
C03101	30	1	68.6	70.4	66	1.8	10	Snd Lvl	64.6	5.8	7	-1.2
C03201	31	1	68.4	70.3	66	1.9	10	Snd Lvl	64.5	5.8	7	-1.2
C03301	32	1	68.0	69.9	66	1.9	10	Snd Lvl	64.3	5.6	7	-1.4
C03401	33	1	66.8	68.8	66	2.0	10	Snd Lvl	64.1	4.7	7	-2.3
C03502	34	2	61.0	66.3	66	5.3	10	Snd Lvl	62.5	3.8	7	-3.2
C03602	35	2	60.8	66.2	66	5.4	10	Snd Lvl	62.4	3.8	7	-3.2
C03701	36	1	60.6	66.2	66	5.6	10	Snd Lvl	62.3	3.9	7	-3.1
C03802	37	2	61.7	66.1	66	4.4	10	Snd Lvl	62.3	3.8	7	-3.2
C03902	38	2	60.9	65.8	66	4.9	10	----	62.0	3.8	7	-3.2
C04001	39	1	62.2	65.7	66	3.5	10	----	61.9	3.8	7	-3.2
C04101	40	1	62.4	64.5	66	2.1	10	----	60.6	3.9	7	-3.1
C04201	41	1	62.1	63.1	66	1.0	10	----	59.6	3.5	7	-3.5
C04301	42	1	62.1	62.9	66	0.8	10	----	59.3	3.6	7	-3.4
C07701	76	1	63.6	65.9	66	2.3	10	----	64.3	1.6	7	-5.4
C07801	77	1	63.5	65.7	66	2.2	10	----	63.9	1.8	7	-5.2
C07901	78	1	63.0	65.3	66	2.3	10	----	63.5	1.8	7	-5.2
C08001	79	1	62.7	65.1	66	2.4	10	----	63.2	1.9	7	-5.1
C08101	80	1	62.6	64.9	66	2.3	10	----	63.1	1.8	7	-5.2
C08201	81	1	62.3	64.7	66	2.4	10	----	63.0	1.7	7	-5.3
C08301	82	1	61.6	64.8	66	3.2	10	----	62.2	2.6	7	-4.4
C08401	83	1	61.0	64.1	66	3.1	10	----	61.8	2.3	7	-4.7
C10004	99	1	65.9	69.3	66	3.4	10	Snd Lvl	64.4	4.9	7	-2.1
C10101	100	1	63.4	64.8	66	1.4	10	----	60.8	4.0	7	-3.0
C02701	102	1	0.0	70.6	66	70.6	10	Snd Lvl	65.0	5.6	8	-2.4

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	60	1.6	4.9	9.3
All Impacted	45	3.0	5.7	9.3
All that meet NR Goal	10	7.0	8.1	9.3

HMB Professional Engineers **28 June 2023**
Mark Gavula **TNM 2.5**
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C1V2
BARRIER DESIGN: c1-sys

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
C00101-F	1	68.4	4.4	7	-2.6	NB 12th Exit	point396	396	8.0	49.8
						NBCD-01	C-06-05	347	24.0	49.1
						75NB-01	C-03-17	275	20.0	48.9
						NBCD-01	C-06-06	348	20.0	48.5
						75NB-01	C-03-25	283	20.0	48.1
						NBCD-01	C-06-13	355	20.0	48.1
						NBCD-01	C-06-12	354	20.0	47.9
						NBCD-01	C-06-14	356	20.0	47.6
						NBCD-01	C-06-11	353	20.0	47.5
						NBCD-01	C-06-10	352	20.0	46.9
C00201	2	67.7	4.2	7	-2.8	NB 12th Exit	point395	395	12.0	52.7
						NBCD-01	C-06-01	342	24.0	49.7
						75NB-01	C-03-11	269	12.0	49.5
						NBCD-01	C-06-03	345	24.0	48.7
						75NB-01	C-03-10	268	12.0	48.5
						75NB-01	C-03-14	272	24.0	48.0
						75NB-01	C-03-12	270	20.0	47.4
						NBCD-01	C-06-02	344	24.0	47.4
						NB 12th Exit	point394	394	12.0	47.2
						75NB-01	C-03-15	273	24.0	46.5
C00302	3	67.4	3.5	7	-3.5	NB 12th Exit	point394	394	12.0	55.0

						NB 12th Exit	point393	393	12.0	54.7
						75NB-01	C-03-11	269	12.0	51.5
						75NB-01	C-03-12	270	12.0	51.3
						75NB-01	C-03-09	267	12.0	50.5
						75NB-01	C-03-08	266	12.0	50.2
						75NB-01	C-03-10	268	12.0	50.1
						NBCD-01	C-06-01	342	24.0	49.8
						75NB-01	C-03-07	265	12.0	49.6
						NB 12th Exit	point395	395	12.0	48.2
C00401	4	66.8	3.1	7	-3.9	NB 12th Exit	point393	393	12.0	54.5
						NB 12th Exit	point394	394	24.0	52.9
						75NB-01	C-03-11	269	12.0	52.2
						75NB-01	C-03-12	270	12.0	52.0
						NB 12th Exit	point392	392	20.0	51.4
						75NB-01	C-03-10	268	20.0	50.9
						75NB-01	C-03-09	267	20.0	49.1
						NB 12th Exit	point391	391	24.0	49.0
						75NB-01	C-03-08	266	24.0	47.7
						NB 12th Exit	point390	390	24.0	47.7
C00501	5	65.6	3.0	7	-4.0	James Simpson Jr Way	C-01-04	172	0.0	50.6
						NB 12th Exit	point393	393	24.0	49.4
						75NB-01	C-03-12	270	12.0	47.7
						NB 12th Exit	point388	388	24.0	47.0
						NB 12th Exit	point389	389	24.0	46.5
						NB 12th Exit	point387	387	24.0	46.3
						NB 12th Exit	point390	390	24.0	46.2
						NB 12th Exit	point386	386	24.0	46.2
						NB 12th Exit	point385	385	24.0	46.1
						James Simpson Jr Way	C-01-03	171	0.0	46.0
C00601-F	6	67.3	4.9	7	-2.1	NB 12th Exit	point394	394	12.0	57.2
						75NB-01	C-03-09	267	12.0	53.0
						NB 12th Exit	point393	393	12.0	52.8
						75NB-01	C-03-11	269	12.0	52.1
						75NB-01	C-03-10	268	12.0	51.8
						75NB-01	C-03-12	270	0.0	51.4
						NB 12th Exit	point395	395	12.0	50.9

						75NB-01	C-03-08	266	12.0	50.9
						NBCD-01	C-06-01	342	24.0	49.8
						75NB-01	C-03-13	271	0.0	47.7
C00701	7	65.9	4.5	7	-2.5	James Simpson Jr Way	C-01-04	172	24.0	52.2
						NB 12th Exit	point393	393	24.0	51.7
						75NB-01	C-03-13	271	12.0	49.4
						NB 12th Exit	point388	388	24.0	48.6
						75NB-01	C-03-12	270	20.0	48.2
						NB 12th Exit	point387	387	24.0	48.0
						NB 12th Exit	point385	385	24.0	48.0
						NB 12th Exit	point386	386	24.0	47.8
						NB 12th Exit	point389	389	24.0	47.4
						NB 12th Exit	point392	392	24.0	47.4
C00801	8	65.7	4.3	7	-2.7	James Simpson Jr Way	C-01-03	171	24.0	52.4
						NB 12th Exit	point393	393	24.0	50.0
						75NB-01	C-03-13	271	12.0	48.8
						James Simpson Jr Way	C-01-04	172	24.0	47.9
						NB 12th Exit	point386	386	24.0	47.6
						NB 12th Exit	point385	385	24.0	47.4
						NB 12th Exit	point384	384	24.0	47.3
						NB 12th Exit	point387	387	24.0	47.3
						NB 12th Exit	point382	382	24.0	47.1
						NB 12th Exit	point383	383	24.0	47.1
C00901	9	65.1	4.0	7	-3.0	James Simpson Jr Way	C-01-02	170	0.0	52.2
						James Simpson Jr Way	C-01-01	169	0.0	49.5
						James Simpson Jr Way	C-01-03	171	24.0	48.9
						NB 12th Exit	point393	393	24.0	47.6
						NB 12th Exit	point384	384	24.0	46.9
						75NB-01	C-03-13	271	20.0	46.7
						NB 12th Exit	point385	385	24.0	46.6
						NB 12th Exit	point383	383	24.0	46.4
						NB 12th Exit	point382	382	24.0	46.4
						NB 12th Exit	point380	380	24.0	46.2
C01001	10	64.9	3.8	7	-3.2	James Simpson Jr Way	C-01-01	169	0.0	52.1
						James Simpson Jr Way	C-01-02	170	24.0	51.5
						NB 12th Exit	point383	383	24.0	46.6

						NB 12th Exit	point393	393	24.0	46.3
						NB 12th Exit	point382	382	24.0	46.2
						NB 12th Exit	point381	381	24.0	46.1
						NB 12th Exit	point384	384	24.0	46.1
						NB 12th Exit	point380	380	24.0	46.1
						NB 12th Exit	point378	378	24.0	45.4
						NB 12th Exit	point385	385	24.0	45.2
C01201-F	11	66.6	8.6	7	1.6	NB 12th Exit	point395	395	12.0	59.1
						75NB-01	C-03-11	269	12.0	54.4
						75NB-01	C-03-10	268	12.0	54.0
						NB 12th Exit	point394	394	12.0	53.2
						NBCD-01	C-06-01	342	24.0	53.1
						NBCD-01	C-06-02	344	24.0	52.2
						NBCD-01	C-06-08	350	20.0	52.1
						NBCD-01	C-06-07	349	24.0	51.7
						NBCD-01	C-06-09	351	20.0	51.6
						NBCD-01	C-06-06	348	24.0	51.1
C01301	12	67.5	7.2	7	0.2	NB 12th Exit	point395	395	12.0	59.1
						NB 12th Exit	point394	394	12.0	58.8
						75NB-01	C-03-11	269	12.0	57.0
						75NB-01	C-03-10	268	0.0	56.6
						NBCD-01	C-06-01	342	24.0	54.7
						75NB-01	C-03-09	267	12.0	54.2
						75NB-01	C-03-12	270	12.0	53.2
						NB 12th Exit	point393	393	12.0	52.0
						NBCD-01	C-06-08	350	20.0	51.2
						75NB-01	C-03-13	271	24.0	51.2
C01401	13	67.7	6.5	7	-0.5	NB 12th Exit	point394	394	12.0	61.8
						NB 12th Exit	point393	393	12.0	58.6
						75NB-01	C-03-12	270	12.0	56.7
						75NB-01	C-03-11	269	12.0	56.5
						75NB-01	C-03-09	267	12.0	55.2
						75NB-01	C-03-10	268	12.0	55.2
						75NB-01	C-03-08	266	12.0	54.4
						NBCD-01	C-06-01	342	24.0	51.8
						75NB-01	C-03-07	265	12.0	51.1

						NBCD-01	C-06-08	350	20.0	50.2
C01501	14	67.9	5.7	7	-1.3	NB 12th Exit	point394	394	24.0	60.1
						NB 12th Exit	point393	393	12.0	59.6
						75NB-01	C-03-12	270	20.0	57.0
						75NB-01	C-03-11	269	12.0	56.3
						75NB-01	C-03-09	267	12.0	54.6
						75NB-01	C-03-10	268	12.0	54.6
						NB 12th Exit	point392	392	20.0	53.8
						75NB-01	C-03-08	266	12.0	53.7
						75NB-01	C-03-07	265	20.0	51.2
						75NB-01	C-03-06	264	20.0	50.5
C01601	15	67.6	5.2	7	-1.8	NB 12th Exit	point393	393	12.0	58.9
						NB 12th Exit	point394	394	12.0	57.4
						75NB-01	C-03-12	270	12.0	56.2
						75NB-01	C-03-11	269	12.0	55.8
						NB 12th Exit	point392	392	20.0	55.2
						75NB-01	C-03-10	268	12.0	54.5
						NB 12th Exit	point391	391	24.0	53.0
						75NB-01	C-03-09	267	12.0	52.3
						75NB-01	C-03-13	271	12.0	51.6
						75NB-01	C-03-08	266	20.0	50.9
C01701	16	67.4	5.1	7	-1.9	NB 12th Exit	point393	393	12.0	58.2
						NB 12th Exit	point392	392	24.0	56.0
						75NB-01	C-03-12	270	12.0	55.5
						75NB-01	C-03-11	269	20.0	55.1
						NB 12th Exit	point391	391	24.0	53.5
						NB 12th Exit	point394	394	12.0	53.3
						75NB-01	C-03-10	268	20.0	53.3
						75NB-01	C-03-13	271	12.0	53.3
						75NB-01	C-03-09	267	24.0	52.5
						NB 12th Exit	point390	390	24.0	52.2
C01801-F	17	66.3	7.5	7	0.5	James Simpson Jr Way	C-01-07	175	24.0	61.7
						75NB-01	C-03-14	272	20.0	60.1
						75NB-01	C-03-13	271	24.0	58.6
						James Simpson Jr Way	C-01-06	174	24.0	58.2
						75NB-01	C-03-15	273	0.0	56.4

						James Simpson Jr Way	C-01-03	171	0.0	55.7
						James Simpson Jr Way	C-01-11	179	0.0	54.9
						75NB-01	C-03-18	276	0.0	53.8
						James Simpson Jr Way	C-01-08	176	24.0	51.6
						James Simpson Jr Way	C-01-09	177	24.0	51.3
C01901-V	18	63.8	9.3	7	2.3	James Simpson Jr Way	C-01-03	171	0.0	55.3
						NB 12th Exit	point392	392	24.0	50.6
						James Simpson Jr Way	C-01-02	170	0.0	49.8
						NB 12th Exit	point382	382	24.0	49.6
						NB 12th Exit	point383	383	24.0	49.1
						NB 12th Exit	point381	381	24.0	49.1
						NB 12th Exit	point380	380	24.0	48.7
						75NB-01	C-03-14	272	20.0	48.7
						NB 12th Exit	point391	391	24.0	48.5
						NB 12th Exit	point384	384	24.0	48.4
C02001	19	64.6	7.9	7	0.9	James Simpson Jr Way	C-01-01	169	0.0	56.7
						James Simpson Jr Way	C-01-02	170	24.0	53.0
						NB 12th Exit	point381	381	24.0	49.6
						NB 12th Exit	point380	380	24.0	49.6
						75NB-01	C-03-11	269	24.0	49.5
						NB 12th Exit	point392	392	24.0	49.5
						NB 12th Exit	point382	382	24.0	49.5
						NB 12th Exit	point378	378	24.0	49.3
						75NB-01	C-03-14	272	24.0	48.6
						NB 12th Exit	point391	391	24.0	48.6
C02101	20	65.1	7.0	7	-0.0	James Simpson Jr Way	C-01-01	169	24.0	54.4
						NB 12th Exit	point378	378	16.0	50.7
						NB 12th Exit	point380	380	24.0	50.4
						NB 12th Exit	point381	381	24.0	49.8
						NB 12th Exit	point379	379	24.0	49.7
						Edge Cliff	C-02-74	255	24.0	49.5
						NB 12th Exit	point377	377	0.0	49.4
						NB 12th Exit	point382	382	24.0	49.2
						NB 12th Exit	point392	392	24.0	48.9
						NB 12th Exit	point391	391	24.0	48.8
C02201-F	21	64.3	8.7	7	1.7	Edge Cliff	C-02-74	255	24.0	53.7

						NB 12th Exit	point378	378	24.0	52.8
						Edge Cliff	C-02-73	254	24.0	52.3
						NB 12th Exit	point377	377	24.0	51.7
						Edge Cliff	C-02-72	253	24.0	51.3
						Edge Cliff	C-02-71	252	24.0	50.8
						NB 12th Exit	point376	376	24.0	50.8
						James Simpson Jr Way	C-01-10	178	0.0	50.3
						NB 12th Exit	point374	374	24.0	50.2
						Edge Cliff	C-02-70	251	24.0	49.7
C02302	22	64.5	8.4	7	1.4	James Simpson Jr Way	C-01-11	179	0.0	53.6
						Edge Cliff	C-02-74	255	24.0	52.3
						NB 12th Exit	point378	378	16.0	52.2
						NB 12th Exit	point377	377	0.0	52.0
						Edge Cliff	C-02-73	254	24.0	50.8
						NB 12th Exit	point376	376	24.0	50.8
						Edge Cliff	C-02-72	253	24.0	49.9
						NB 12th Exit	point374	374	24.0	49.7
						NB 12th Exit	point390	390	24.0	49.6
						NB 12th Exit	point391	391	24.0	49.5
C02402	23	65.1	6.9	7	-0.1	Edge Cliff	C-02-73	254	24.0	53.3
						Edge Cliff	C-02-72	253	24.0	52.9
						NB 12th Exit	point378	378	24.0	52.7
						Edge Cliff	C-02-71	252	24.0	52.5
						Edge Cliff	C-02-74	255	24.0	52.3
						NB 12th Exit	point377	377	24.0	52.1
						Edge Cliff	C-02-70	251	24.0	52.0
						James Simpson Jr Way	C-01-11	179	0.0	51.8
						NB 12th Exit	point376	376	24.0	51.5
						Edge Cliff	C-02-69	250	24.0	51.3
C02501-F	24	63.1	8.4	7	1.4	Edge Cliff	C-02-59	240	24.0	50.7
						Edge Cliff	C-02-68	249	24.0	49.7
						Edge Cliff	C-02-67	248	24.0	49.5
						Edge Cliff	C-02-66	247	24.0	49.4
						Edge Cliff	C-02-71	252	24.0	49.3
						Edge Cliff	C-02-70	251	24.0	49.2
						Edge Cliff	C-02-69	250	24.0	49.0

						Edge Cliff	C-02-65	246	24.0	49.0
						Edge Cliff	C-02-64	245	24.0	49.0
						Edge Cliff	C-02-60	241	24.0	48.8
C02602/C02701	25	64.7	6.1	7	-0.9	James Simpson Jr Way	C-01-11	179	24.0	52.9
						Edge Cliff	C-02-68	249	24.0	51.9
						Edge Cliff	C-02-67	248	24.0	51.8
						Edge Cliff	C-02-59	240	24.0	51.6
						Edge Cliff	C-02-69	250	24.0	51.5
						Edge Cliff	C-02-71	252	24.0	51.4
						Edge Cliff	C-02-70	251	24.0	51.3
						Edge Cliff	C-02-66	247	24.0	51.2
						Edge Cliff	C-02-60	241	24.0	50.6
						Edge Cliff	C-02-65	246	24.0	50.6
C02801	27	64.2	6.5	7	-0.5	Edge Cliff	C-02-59	240	24.0	52.9
						Edge Cliff	C-02-60	241	24.0	51.9
						Edge Cliff	C-02-64	245	24.0	51.0
						Edge Cliff	C-02-63	244	24.0	50.9
						Edge Cliff	C-02-68	249	24.0	50.8
						Edge Cliff	C-02-65	246	24.0	50.8
						Edge Cliff	C-02-58	239	24.0	50.7
						Edge Cliff	C-02-66	247	24.0	50.7
						Edge Cliff	C-02-67	248	24.0	50.6
						Edge Cliff	C-02-62	243	24.0	50.6
C02901	28	64.3	6.3	7	-0.7	Edge Cliff	C-02-59	240	24.0	53.4
						Edge Cliff	C-02-60	241	24.0	52.1
						Edge Cliff	C-02-58	239	24.0	51.7
						Edge Cliff	C-02-63	244	24.0	51.1
						Edge Cliff	C-02-64	245	24.0	51.0
						Edge Cliff	C-02-62	243	24.0	51.0
						Edge Cliff	C-02-67	248	24.0	50.8
						Edge Cliff	C-02-65	246	24.0	50.8
						Edge Cliff	C-02-68	249	24.0	50.8
						Edge Cliff	C-02-66	247	24.0	50.6
C03001	29	64.5	6.1	7	-0.9	Edge Cliff	C-02-59	240	24.0	53.8
						Edge Cliff	C-02-58	239	24.0	52.6
						Edge Cliff	C-02-60	241	24.0	52.3

						Edge Cliff	C-02-63	244	24.0	51.4
						Edge Cliff	C-02-62	243	24.0	51.3
						Edge Cliff	C-02-64	245	24.0	51.2
						Edge Cliff	C-02-67	248	24.0	51.0
						Edge Cliff	C-02-65	246	24.0	50.9
						Edge Cliff	C-02-68	249	24.0	50.8
						Edge Cliff	C-02-61	242	24.0	50.8
C03101	30	64.6	5.8	7	-1.2	Edge Cliff	C-02-59	240	24.0	53.9
						Edge Cliff	C-02-58	239	24.0	53.2
						Edge Cliff	C-02-60	241	24.0	52.3
						Edge Cliff	C-02-57	238	24.0	51.5
						Edge Cliff	C-02-63	244	24.0	51.4
						Edge Cliff	C-02-62	243	24.0	51.2
						Edge Cliff	C-02-64	245	24.0	51.0
						Edge Cliff	C-02-61	242	24.0	50.9
						Edge Cliff	C-02-67	248	24.0	50.7
						Edge Cliff	C-02-66	247	24.0	50.7
C03201	31	64.5	5.8	7	-1.2	Edge Cliff	C-02-59	240	24.0	54.0
						Edge Cliff	C-02-58	239	24.0	53.5
						Edge Cliff	C-02-60	241	24.0	52.2
						Edge Cliff	C-02-57	238	24.0	52.1
						Edge Cliff	C-02-62	243	24.0	51.3
						Edge Cliff	C-02-61	242	24.0	51.1
						Edge Cliff	C-02-63	244	24.0	51.1
						Edge Cliff	C-02-64	245	24.0	50.9
						Edge Cliff	C-02-66	247	24.0	50.6
						Edge Cliff	C-02-56	237	24.0	50.5
C03301	32	64.3	5.6	7	-1.4	Edge Cliff	C-02-59	240	24.0	53.9
						Edge Cliff	C-02-58	239	24.0	53.7
						Edge Cliff	C-02-57	238	24.0	53.1
						Edge Cliff	C-02-60	241	24.0	52.0
						NB 12th Exit	point377	377	24.0	51.5
						75NB-01	C-03-01	258	0.0	51.5
						Edge Cliff	C-02-56	237	24.0	51.0
						Edge Cliff	C-02-61	242	24.0	50.7
						Edge Cliff	C-02-63	244	24.0	50.7

						Edge Cliff	C-02-62	243	24.0	50.6
C03401	33	64.1	4.7	7	-2.3	Edge Cliff	C-02-57	238	24.0	54.3
						Edge Cliff	C-02-56	237	24.0	54.1
						Edge Cliff	C-02-58	239	24.0	53.9
						Edge Cliff	C-02-55	236	24.0	53.6
						NB 12th Exit	point377	377	24.0	53.2
						75NB-01	C-03-01	258	0.0	53.1
						Edge Cliff	C-02-54	235	24.0	52.3
						Edge Cliff	C-02-59	240	24.0	52.3
						Edge Cliff	C-02-60	241	24.0	50.8
						Edge Cliff	C-02-61	242	24.0	49.9
C03502	34	62.5	3.8	7	-3.2	Edge Cliff	C-02-57	238	24.0	51.4
						Edge Cliff	C-02-56	237	24.0	51.3
						Edge Cliff	C-02-58	239	24.0	51.2
						Edge Cliff	C-02-55	236	24.0	51.1
						Edge Cliff	C-02-54	235	24.0	51.0
						Edge Cliff	C-02-59	240	24.0	50.2
						Edge Cliff	C-02-60	241	24.0	48.1
						NB 12th Exit	point377	377	24.0	48.0
						Edge Cliff	C-02-48	229	24.0	48.0
						75NB-01	C-03-01	258	0.0	47.8
C03602	35	62.4	3.8	7	-3.2	Edge Cliff	C-02-57	238	24.0	51.4
						Edge Cliff	C-02-56	237	24.0	51.4
						Edge Cliff	C-02-55	236	24.0	51.2
						Edge Cliff	C-02-58	239	24.0	51.1
						Edge Cliff	C-02-54	235	24.0	51.1
						Edge Cliff	C-02-59	240	24.0	49.8
						NB 12th Exit	point377	377	24.0	48.4
						Edge Cliff	C-02-48	229	24.0	48.3
						75NB-01	C-03-01	258	0.0	48.3
						Edge Cliff	C-02-60	241	24.0	47.9
C03701	36	62.3	3.9	7	-3.1	Edge Cliff	C-02-57	238	24.0	51.5
						Edge Cliff	C-02-56	237	24.0	51.4
						Edge Cliff	C-02-55	236	24.0	51.3
						Edge Cliff	C-02-54	235	24.0	51.2
						Edge Cliff	C-02-58	239	24.0	51.0

						Edge Cliff	C-02-59	240	24.0	49.4
						NB 12th Exit	point377	377	0.0	48.7
						75NB-01	C-03-01	258	0.0	48.6
						Edge Cliff	C-02-48	229	24.0	48.2
						Edge Cliff	C-02-53	234	24.0	48.1
C03802	37	62.3	3.8	7	-3.2	Edge Cliff	C-02-57	238	24.0	51.6
						Edge Cliff	C-02-56	237	24.0	51.5
						Edge Cliff	C-02-55	236	24.0	51.4
						Edge Cliff	C-02-54	235	24.0	51.2
						Edge Cliff	C-02-58	239	24.0	51.0
						Edge Cliff	C-02-59	240	24.0	49.3
						NB 12th Exit	point377	377	24.0	48.9
						Edge Cliff	C-02-53	234	24.0	48.9
						75NB-01	C-03-01	258	0.0	48.8
						Edge Cliff	C-02-48	229	24.0	48.1
C03902	38	62.0	3.8	7	-3.2	Edge Cliff	C-02-57	238	24.0	51.6
						Edge Cliff	C-02-55	236	24.0	51.4
						Edge Cliff	C-02-56	237	24.0	51.4
						Edge Cliff	C-02-54	235	24.0	51.3
						Edge Cliff	C-02-58	239	24.0	50.4
						Edge Cliff	C-02-53	234	24.0	49.8
						NB 12th Exit	point377	377	24.0	49.1
						75NB-01	C-03-01	258	0.0	49.0
						Edge Cliff	C-02-59	240	24.0	48.6
						Edge Cliff	C-02-60	241	24.0	47.4
C04001	39	61.9	3.8	7	-3.2	Edge Cliff	C-02-57	238	24.0	51.6
						Edge Cliff	C-02-56	237	24.0	51.5
						Edge Cliff	C-02-55	236	24.0	51.5
						Edge Cliff	C-02-54	235	24.0	51.5
						Edge Cliff	C-02-53	234	24.0	50.3
						Edge Cliff	C-02-58	239	24.0	50.0
						NB 12th Exit	point377	377	24.0	49.3
						75NB-01	C-03-01	258	0.0	49.2
						Edge Cliff	C-02-59	240	24.0	48.4
						Edge Cliff	C-02-60	241	24.0	47.3
C04101	40	60.6	3.9	7	-3.1	Edge Cliff	C-02-54	235	24.0	51.3

						Edge Cliff	C-02-55	236	24.0	51.3
						Edge Cliff	C-02-53	234	24.0	50.9
						Edge Cliff	C-02-56	237	24.0	50.2
						Edge Cliff	C-02-57	238	24.0	48.9
						Edge Cliff	C-02-58	239	24.0	47.9
						Edge Cliff	C-02-59	240	24.0	46.1
						NB 12th Exit	point377	377	24.0	45.6
						75NB-01	C-03-01	258	0.0	45.4
						Edge Cliff	C-02-60	241	24.0	43.9
C04201	41	59.6	3.5	7	-3.5	Edge Cliff	C-02-54	235	24.0	49.9
						Edge Cliff	C-02-55	236	24.0	49.6
						Edge Cliff	C-02-53	234	24.0	49.4
						Edge Cliff	C-02-56	237	24.0	49.3
						Edge Cliff	C-02-57	238	24.0	48.6
						Edge Cliff	C-02-58	239	24.0	46.4
						NB 12th Exit	point377	377	24.0	46.1
						75NB-01	C-03-01	258	0.0	45.7
						Edge Cliff	C-02-59	240	24.0	44.7
						Edge Cliff	C-02-60	241	24.0	43.5
C04301	42	59.3	3.6	7	-3.4	Edge Cliff	C-02-53	234	24.0	49.4
						Edge Cliff	C-02-54	235	24.0	49.3
						Edge Cliff	C-02-55	236	24.0	48.7
						Edge Cliff	C-02-56	237	24.0	48.6
						Edge Cliff	C-02-57	238	24.0	47.7
						Edge Cliff	C-02-58	239	24.0	46.0
						NB 12th Exit	point377	377	24.0	45.8
						75NB-01	C-03-01	258	0.0	45.3
						Edge Cliff	C-02-59	240	24.0	44.7
						Edge Cliff	C-02-60	241	24.0	43.8
C07701	76	64.3	1.6	7	-5.4	James Simpson Jr Way	C-01-01	169	0.0	47.5
						NBCD-01	BC-02-02	361	0.0	44.6
						NBCD-01	BC-02-03	362	0.0	43.8
						NBCD-01	BC-02-04	363	0.0	43.7
						NBCD-01	BC-02-05	364	0.0	42.8
						NB 12th Exit	point377	377	0.0	42.6
						James Simpson Jr Way	C-01-02	170	24.0	42.5

						NB 12th Exit	point378	378	24.0	42.5
						NB 12th Exit	point380	380	24.0	42.5
						75NB-01	C-05-04	312	0.0	42.4
C07801	77	63.9	1.8	7	-5.2	James Simpson Jr Way	C-01-01	169	0.0	47.1
						NBCD-01	BC-02-02	361	0.0	45.1
						NBCD-01	BC-02-03	362	0.0	44.4
						NBCD-01	BC-02-04	363	0.0	44.3
						NB 12th Exit	point378	378	16.0	43.6
						NBCD-01	BC-02-05	364	0.0	43.6
						NB 12th Exit	point377	377	0.0	43.6
						75NB-01	C-05-01	308	0.0	43.3
						Edge Cliff	C-02-74	255	24.0	43.3
						NB 12th Exit	point380	380	24.0	43.1
C07901	78	63.5	1.8	7	-5.2	James Simpson Jr Way	C-01-01	169	24.0	45.1
						NBCD-01	BC-02-02	361	0.0	44.9
						NBCD-01	BC-02-03	362	0.0	44.3
						NBCD-01	BC-02-04	363	0.0	44.1
						NB 12th Exit	point377	377	0.0	43.9
						Edge Cliff	C-02-74	255	24.0	43.5
						NB 12th Exit	point378	378	16.0	43.5
						NBCD-01	BC-02-05	364	0.0	43.4
						75NB-01	C-05-01	308	0.0	43.2
						NB 12th Exit	point376	376	0.0	42.9
C08001	79	63.2	1.9	7	-5.1	NBCD-01	BC-02-02	361	0.0	44.8
						NBCD-01	BC-02-04	363	0.0	44.1
						NBCD-01	BC-02-03	362	0.0	43.9
						NB 12th Exit	point377	377	24.0	43.8
						Edge Cliff	C-02-74	255	24.0	43.8
						NBCD-01	BC-02-05	364	0.0	43.3
						Edge Cliff	C-02-73	254	24.0	43.3
						75NB-01	C-05-01	308	0.0	43.1
						James Simpson Jr Way	C-01-01	169	24.0	43.1
						NB 12th Exit	point378	378	16.0	43.0
C08101	80	63.1	1.8	7	-5.2	NBCD-01	BC-02-02	361	0.0	44.8
						NBCD-01	BC-02-04	363	0.0	44.6
						NBCD-01	BC-02-03	362	0.0	44.1

						NBCD-01	BC-02-05	364	0.0	43.6
						Edge Cliff	C-02-74	255	24.0	43.6
						NB 12th Exit	point377	377	0.0	43.4
						Edge Cliff	C-02-73	254	24.0	43.2
						Edge Cliff	C-02-72	253	24.0	43.2
						NB 12th Exit	point378	378	16.0	43.2
						Edge Cliff	C-02-71	252	24.0	43.2
C08201	81	63.0	1.7	7	-5.3	NBCD-01	BC-02-02	361	0.0	44.6
						NBCD-01	BC-02-04	363	0.0	44.5
						NBCD-01	BC-02-03	362	0.0	43.9
						NBCD-01	BC-02-05	364	0.0	43.9
						Edge Cliff	C-02-74	255	24.0	43.2
						Edge Cliff	C-02-72	253	24.0	43.2
						NB 12th Exit	point378	378	16.0	43.1
						Edge Cliff	C-02-70	251	24.0	43.0
						Edge Cliff	C-02-71	252	24.0	43.0
						NBCD-01	BC-02-06	365	0.0	43.0
C08301	82	62.2	2.6	7	-4.4	Edge Cliff	C-02-59	240	24.0	45.5
						Edge Cliff	C-02-72	253	24.0	44.6
						Edge Cliff	C-02-71	252	24.0	44.5
						Edge Cliff	C-02-73	254	24.0	44.2
						Edge Cliff	C-02-68	249	24.0	44.1
						Edge Cliff	C-02-70	251	24.0	44.0
						Edge Cliff	C-02-67	248	24.0	44.0
						NB 12th Exit	point378	378	24.0	44.0
						NB 12th Exit	point376	376	24.0	43.9
						NB 12th Exit	point377	377	24.0	43.8
C08401	83	61.8	2.3	7	-4.7	Edge Cliff	C-02-59	240	24.0	45.6
						Edge Cliff	C-02-60	241	24.0	44.1
						Edge Cliff	C-02-71	252	24.0	44.0
						Edge Cliff	C-02-58	239	24.0	43.9
						Edge Cliff	C-02-70	251	24.0	43.9
						Edge Cliff	C-02-72	253	24.0	43.6
						NBCD-01	BC-02-02	361	0.0	43.6
						Edge Cliff	C-02-67	248	24.0	43.5
						Edge Cliff	C-02-66	247	24.0	43.4

						NB 12th Exit	point374	374	24.0	43.4
C10004	99	64.4	4.9	7	-2.1	Edge Cliff	C-02-59	240	24.0	50.8
						Edge Cliff	C-02-70	251	24.0	50.4
						Edge Cliff	C-02-71	252	24.0	50.3
						Edge Cliff	C-02-69	250	24.0	50.1
						Edge Cliff	C-02-72	253	24.0	50.0
						Edge Cliff	C-02-68	249	24.0	50.0
						Edge Cliff	C-02-67	248	24.0	49.7
						NB 12th Exit	point376	376	24.0	49.7
						NB 12th Exit	point374	374	24.0	49.6
						Edge Cliff	C-02-58	239	24.0	49.6
C10101	100	60.8	4.0	7	-3.0	Edge Cliff	C-02-53	234	24.0	52.4
						Edge Cliff	C-02-54	235	24.0	51.7
						Edge Cliff	C-02-55	236	24.0	49.9
						Edge Cliff	C-02-52	233	24.0	49.7
						Edge Cliff	C-02-56	237	24.0	49.3
						Edge Cliff	C-02-57	238	24.0	48.9
						Edge Cliff	C-02-58	239	24.0	47.3
						NB 12th Exit	point377	377	24.0	44.8
						Edge Cliff	C-02-59	240	24.0	44.6
						75NB-01	C-03-01	258	0.0	44.5
C02701	102	65.0	5.6	8	-2.4	Edge Cliff	C-02-59	240	24.0	52.3
						Edge Cliff	C-02-68	249	24.0	52.2
						Edge Cliff	C-02-69	250	24.0	52.0
						Edge Cliff	C-02-67	248	24.0	52.0
						Edge Cliff	C-02-70	251	24.0	51.9
						Edge Cliff	C-02-71	252	24.0	51.6
						Edge Cliff	C-02-66	247	24.0	51.5
						NB 12th Exit	point374	374	24.0	51.3
						NB 12th Exit	point376	376	24.0	50.9
						Edge Cliff	C-02-60	241	24.0	50.9

Total Cost, All Barriers (including additional cost(s))	$3168130					

HMB Professional Engineers **28 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **Brent Spence Bridge 6-17.00/1415.04**
RUN: **ALT NSA C1V2**
BARRIER DESIGN: **c1-sys**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Edge Cliff	W	20.00	23.59	24.00	2708	63871				2043881
NB 12th Exit	W	8.00	20.63	24.00	760	15688				502016
75NB-01	W	0.00	2.00	4.00	43	87				0
James Simpson Jr Way	W	0.00	0.00	0.00	0	0				0
NBCD-01	W	8.00	14.67	24.00	1326	19445				622233
									Total Cost:	3168130

HMB Professional Engineers **28 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C1V2
BARRIER DESIGN: c1-sys

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Edge Cliff	W	point257	257	0.00	0.00	0.00	0	0				0
		C-02-04	185	0.00	0.00	0.00	0	0				0
		C-02-05	186	0.00	0.00	0.00	0	0				0
		C-02-06	187	0.00	0.00	0.00	0	0				0
		C-02-07	188	0.00	0.00	0.00	0	0				0
		C-02-08	189	20.00	20.00	20.00	40	796				25480
		C-02-09	190	20.00	20.00	20.00	40	798				25524
		C-02-10	191	20.00	20.00	20.00	40	808				25841
		C-02-11	192	24.00	24.00	24.00	40	956				30578
		C-02-12	193	24.00	24.00	24.00	40	957				30629
		C-02-13	194	24.00	24.00	24.00	40	969				31009
		C-02-14	195	24.00	24.00	24.00	40	950				30397
		C-02-15	196	24.00	24.00	24.00	40	962				30780
		C-02-16	197	24.00	24.00	24.00	40	963				30806
		C-02-17	198	24.00	24.00	24.00	40	962				30780
		C-02-18	199	24.00	24.00	24.00	40	962				30780
		C-02-19	200	24.00	24.00	24.00	40	951				30423
		C-02-20	201	24.00	24.00	24.00	40	964				30837
		C-02-21	202	24.00	24.00	24.00	40	963				30806
		C-02-22	203	24.00	24.00	24.00	40	963				30806
		C-02-23	204	24.00	24.00	24.00	40	964				30837
		C-02-24	205	24.00	24.00	24.00	40	956				30578
		C-02-25	206	24.00	24.00	24.00	40	952				30455
		C-02-26	207	24.00	24.00	24.00	40	963				30828
		C-02-27	208	24.00	24.00	24.00	40	966				30921
		C-02-28	209	24.00	24.00	24.00	40	955				30549

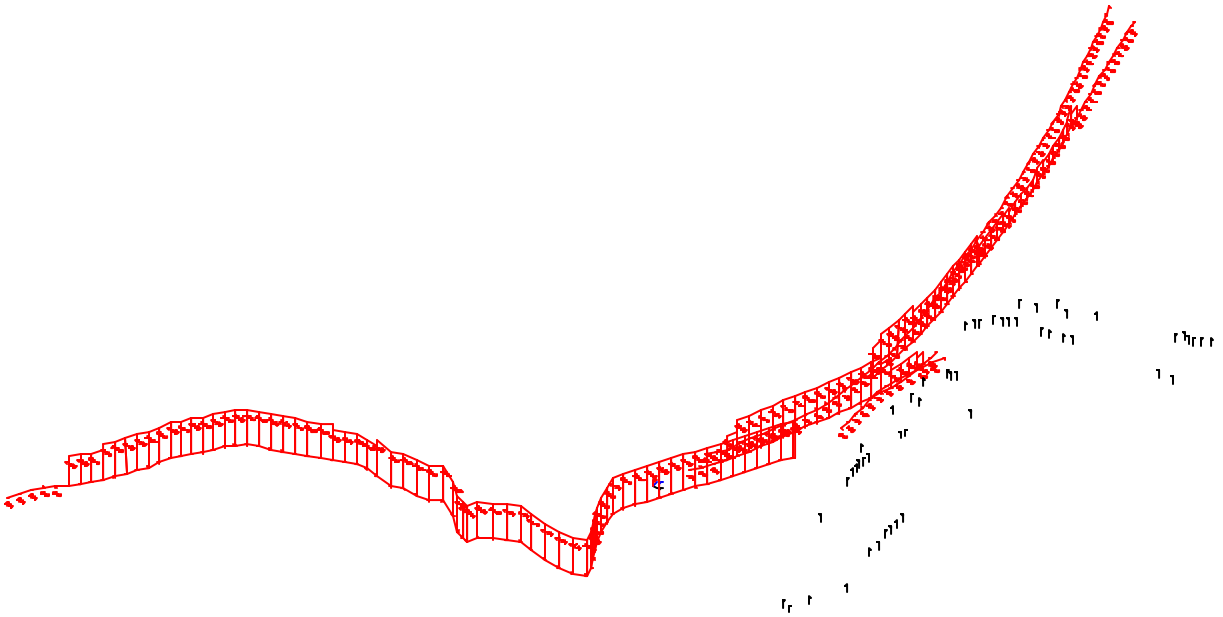
		C-02-29	210	24.00	24.00	24.00	40	966				30921
		C-02-30	211	24.00	24.00	24.00	40	955				30549
		C-02-31	212	20.00	20.00	20.00	40	805				25767
		C-02-32	213	20.00	20.00	20.00	40	800				25616
		C-02-33	214	20.00	20.00	20.00	40	792				25331
		C-02-34	215	20.00	20.00	20.00	40	801				25632
		C-02-35	216	24.00	24.00	24.00	62	1491				47715
		C-02-36	217	24.00	24.00	24.00	40	964				30859
		C-02-37	218	24.00	24.00	24.00	40	961				30751
		C-02-38	219	24.00	24.00	24.00	40	956				30605
		C-02-39	220	24.00	24.00	24.00	40	965				30892
		C-02-40	221	24.00	24.00	24.00	40	960				30720
		C-02-41	222	24.00	24.00	24.00	40	961				30744
		C-02-42	223	24.00	24.00	24.00	40	955				30568
		C-02-43	224	24.00	24.00	24.00	40	961				30744
		C-02-44	225	24.00	24.00	24.00	40	966				30914
		C-02-45	226	24.00	24.00	24.00	40	952				30455
		C-02-46	227	24.00	24.00	24.00	40	960				30713
		C-02-47	228	24.00	24.00	24.00	40	965				30892
		C-02-48	229	24.00	24.00	24.00	40	962				30780
		C-02-49	230	24.00	24.00	24.00	40	963				30828
		C-02-50	231	24.00	24.00	24.00	40	963				30821
		C-02-51	232	24.00	24.00	24.00	40	959				30691
		C-02-52	233	24.00	24.00	24.00	40	953				30491
		C-02-53	234	24.00	24.00	24.00	40	961				30763
		C-02-54	235	24.00	24.00	24.00	40	965				30885
		C-02-55	236	24.00	24.00	24.00	40	956				30585
		C-02-56	237	24.00	24.00	24.00	40	958				30648
		C-02-57	238	24.00	24.00	24.00	40	966				30911
		C-02-58	239	24.00	24.00	24.00	40	954				30520
		C-02-59	240	24.00	24.00	24.00	40	969				31019
		C-02-60	241	24.00	24.00	24.00	40	960				30730
		C-02-61	242	24.00	24.00	24.00	40	961				30739
		C-02-62	243	24.00	24.00	24.00	40	958				30655
		C-02-63	244	24.00	24.00	24.00	40	958				30655
		C-02-64	245	24.00	24.00	24.00	40	958				30655
		C-02-65	246	24.00	24.00	24.00	40	961				30739
		C-02-66	247	24.00	24.00	24.00	40	958				30655
		C-02-67	248	24.00	24.00	24.00	40	958				30655

		C-02-68	249	24.00	24.00	24.00	40	970				31030
		C-02-69	250	24.00	24.00	24.00	40	961				30739
		C-02-70	251	24.00	24.00	24.00	40	958				30655
		C-02-71	252	24.00	24.00	24.00	40	958				30655
		C-02-72	253	24.00	24.00	24.00	40	958				30655
		C-02-73	254	24.00	24.00	24.00	40	961				30739
		C-02-74	255	24.00	24.00	24.00	40	958				30655
		C-02-75	256	24.00	24.00	24.00	6	134				4293
NB 12th Exit	W	point374	374	0.00	0.00	0.00	0	0				0
		point376	376	0.00	0.00	0.00	0	0				0
		point377	377	0.00	0.00	0.00	0	0				0
		point378	378	16.00	16.00	16.00	40	642				20539
		point379	379	24.00	24.00	24.00	40	963				30809
		point380	380	24.00	24.00	24.00	40	954				30532
		point381	381	24.00	24.00	24.00	40	967				30959
		point382	382	24.00	24.00	24.00	40	954				30532
		point383	383	24.00	24.00	24.00	40	966				30914
		point384	384	24.00	24.00	24.00	40	953				30491
		point385	385	24.00	24.00	24.00	40	965				30873
		point386	386	24.00	24.00	24.00	40	965				30873
		point387	387	24.00	24.00	24.00	40	953				30491
		point388	388	24.00	24.00	24.00	40	963				30806
		point389	389	24.00	24.00	24.00	40	964				30837
		point390	390	24.00	24.00	24.00	40	960				30730
		point391	391	24.00	24.00	24.00	40	960				30720
		point392	392	20.00	20.00	20.00	40	801				25618
		point393	393	12.00	12.00	12.00	40	477				15266
		point394	394	12.00	12.00	12.00	40	481				15404
		point395	395	12.00	12.00	12.00	40	480				15370
		point396	396	8.00	8.00	8.00	40	320				10250
		point397	397	0.00	0.00	0.00	0	0				0
		point398	398	0.00	0.00	0.00	0	0				0
75NB-01	W	C-03-01	258	0.00	0.00	0.00	0	0				0
		C-03-02	260	0.00	0.00	0.00	0	0				0
		C-03-03	261	0.00	0.00	0.00	0	0				0
		C-03-04	262	0.00	0.00	0.00	0	0				0
		C-03-05	263	0.00	0.00	0.00	0	0				0

		C-03-06	264	0.00	0.00	0.00	0	0				0
		C-03-07	265	0.00	0.00	0.00	0	0				0
		C-03-08	266	0.00	0.00	0.00	0	0				0
		C-03-09	267	0.00	0.00	0.00	0	0				0
		C-03-10	268	0.00	0.00	0.00	0	0				0
		C-03-11	269	0.00	0.00	0.00	0	0				0
		C-03-12	270	0.00	0.00	0.00	0	0				0
		C-03-13	271	0.00	0.00	0.00	0	0				0
		C-03-14	272	0.00	0.00	0.00	0	0				0
		C-03-15	273	0.00	0.00	0.00	0	0				0
		C-03-16	274	0.00	0.00	0.00	0	0				0
		C-03-17	275	0.00	0.00	0.00	0	0				0
		C-03-18	276	0.00	0.00	0.00	0	0				0
		C-03-19	277	0.00	0.00	0.00	0	0				0
		C-03-20	278	0.00	0.00	0.00	0	0				0
		C-03-21	279	0.00	0.00	0.00	0	0				0
		C-03-22	280	0.00	0.00	0.00	0	0				0
		C-03-23	281	0.00	0.00	0.00	0	0				0
		C-03-24	282	0.00	0.00	0.00	0	0				0
		C-03-25	283	0.00	0.00	0.00	0	0				0
		C-03-26	284	0.00	0.00	0.00	0	0				0
		C-03-27	285	0.00	0.00	0.00	0	0				0
		C-03-28	286	0.00	0.00	0.00	0	0				0
		C-03-29	287	0.00	0.00	0.00	0	0				0
		C-03-30	288	0.00	0.00	-4.00	0	0				0
		C-04-01	289	0.00	0.00	0.00	0	0	Y			0
		C-04-02	291	0.00	0.00	0.00	0	0	Y			0
		C-04-03	292	0.00	0.00	0.00	0	0	Y			0
		C-04-04	293	0.00	0.00	0.00	0	0	Y			0
		C-04-05	294	0.00	0.00	0.00	0	0	Y			0
		C-04-06	295	0.00	0.00	0.00	0	0	Y			0
		C-04-07	296	0.00	0.00	0.00	0	0	Y			0
		C-04-08	297	0.00	0.00	0.00	0	0	Y			0
		C-04-09	298	0.00	0.00	0.00	0	0	Y			0
		C-04-10	299	0.00	0.00	0.00	0	0	Y			0
		C-04-11	300	0.00	0.00	0.00	0	0	Y			0
		C-04-12	301	0.00	0.00	0.00	0	0	Y			0
		C-04-13	302	0.00	0.00	0.00	0	0	Y			0
		C-04-14	303	0.00	0.00	0.00	0	0	Y			0

		C-04-15	304	0.00	0.00	0.00	0	0	Y			0
		C-04-16	305	0.00	0.00	0.00	0	0	Y			0
		C-04-17	306	0.00	2.00	4.00	43	87	Y			0
		C-05-01	308	0.00	0.00	0.00	0	0				0
		C-05-02	310	0.00	0.00	0.00	0	0				0
		C-05-03	311	0.00	0.00	0.00	0	0				0
		C-05-04	312	0.00	0.00	0.00	0	0				0
		C-05-05	313	0.00	0.00	0.00	0	0				0
		C-05-06	314	0.00	0.00	0.00	0	0				0
		C-05-07	315	0.00	0.00	0.00	0	0				0
		C-05-08	316	0.00	0.00	0.00	0	0				0
		C-05-09	317	0.00	0.00	0.00	0	0				0
		C-05-10	318	0.00	0.00	0.00	0	0				0
		C-05-11	319	0.00	0.00	0.00	0	0				0
		C-05-12	320	0.00	0.00	0.00	0	0				0
		C-05-13	321	0.00	0.00	0.00	0	0				0
		C-05-14	322	0.00	0.00	0.00	0	0				0
		C-05-15	323	0.00	0.00	0.00	0	0				0
James Simpson Jr Way	W	C-01-01	169	0.00	0.00	0.00	0	0				0
		C-01-02	170	0.00	0.00	0.00	0	0				0
		C-01-03	171	0.00	0.00	0.00	0	0				0
		C-01-04	172	0.00	0.00	0.00	0	0				0
		C-01-05	173	0.00	0.00	0.00	0	0				0
		C-01-06	174	0.00	0.00	0.00	0	0				0
		C-01-07	175	0.00	0.00	0.00	0	0				0
		C-01-08	176	0.00	0.00	0.00	0	0				0
		C-01-09	177	0.00	0.00	0.00	0	0				0
		C-01-10	178	0.00	0.00	0.00	0	0				0
		C-01-11	179	0.00	0.00	0.00	0	0				0
NBCD-01	W	C-06-01	342	20.00	20.00	20.00	40	798				25524
		C-06-02	344	24.00	24.00	24.00	40	959				30684
		C-06-03	345	24.00	24.00	24.00	40	965				30878
		C-06-04	346	24.00	24.00	24.00	40	955				30576
		C-06-05	347	24.00	24.00	24.00	40	961				30739
		C-06-06	348	20.00	20.00	20.00	40	805				25767
		C-06-07	349	20.00	20.00	20.00	40	798				25540
		C-06-08	350	20.00	20.00	20.00	40	804				25716

		C-06-09	351	20.00	20.00	20.00	40	800				25602
		C-06-10	352	20.00	20.00	20.00	40	797				25508
		C-06-11	353	20.00	20.00	20.00	40	797				25508
		C-06-12	354	20.00	20.00	20.00	40	807				25809
		C-06-13	355	20.00	20.00	20.00	40	797				25508
		C-06-14	356	20.00	20.00	20.00	40	801				25618
		C-06-15	357	20.00	20.00	20.00	40	797				25508
		C-06-16	358	16.00	14.00	12.00	9	126				4038
		BC-01-01	324	12.00	12.00	12.00	40	478	Y			15305
		BC-01-02	326	12.00	12.00	12.00	40	484	Y			15485
		BC-01-03	327	12.00	12.00	12.00	40	480	Y			15371
		BC-01-04	328	12.00	12.00	12.00	40	478	Y			15305
		BC-01-05	329	10.00	10.00	10.00	40	399	Y			12754
		BC-01-06	330	8.00	8.00	8.00	40	320	Y			10247
		BC-01-07	331	8.00	8.00	8.00	40	322	Y			10293
		BC-01-08	332	8.00	8.00	8.00	40	319	Y			10221
		BC-01-09	333	8.00	8.00	8.00	40	319	Y			10221
		BC-01-10	334	8.00	8.00	8.00	40	322	Y			10320
		BC-01-11	335	10.00	10.00	10.00	40	397	Y			12690
		BC-01-12	336	8.00	8.00	8.00	40	319	Y			10202
		BC-01-13	337	8.00	8.00	8.00	40	322	Y			10308
		BC-01-14	338	8.00	8.00	8.00	40	322	Y			10308
		BC-01-15	339	8.00	8.00	8.00	40	318	Y			10192
		BC-01-16	340	8.00	8.00	8.00	40	320	Y			10247
		BC-01-17	341	10.00	12.00	14.00	36	437	Y			13996
		BC-02-01	359	8.00	8.00	8.00	40	320				10247
		BC-02-02	361	0.00	0.00	0.00	0	0				0
		BC-02-03	362	0.00	0.00	0.00	0	0				0
		BC-02-04	363	0.00	0.00	0.00	0	0				0
		BC-02-05	364	0.00	0.00	0.00	0	0				0
		BC-02-06	365	0.00	0.00	0.00	0	0				0
		BC-02-07	366	0.00	0.00	0.00	0	0				0
		BC-02-08	367	0.00	0.00	0.00	0	0				0
		BC-02-09	368	0.00	0.00	0.00	0	0				0
		BC-02-10	369	0.00	0.00	0.00	0	0				0
		BC-02-11	370	0.00	0.00	0.00	0	0				0
		BC-02-12	371	0.00	0.00	0.00	0	0				0
		BC-02-13	372	0.00	0.00	0.00	0	0				0
		BC-02-14	373	0.00	0.00	0.00	0	0				0



ALT NSA C1V2		Sheet 1 of 1	28 Jun 2023
		HMB Professional Engineers	
Barrier View-c1-sys		Project/Contract No. Brent Spence Bridge 6-17.00	
Run name: NSA_C1_V1_backup		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

HMB Professional Engineers
Mark Gavula

28 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C 2
BARRIER DESIGN: c2-sys
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
C04401-F	43	1	65.7	66.4	66	0.7	10	Snd Lvl	61.2	5.2	7	-1.8
C04501-F	44	1	71.1	72.7	66	1.6	10	Snd Lvl	63.0	9.7	7	2.7
C04601-F	45	1	70.0	71.5	66	1.5	10	Snd Lvl	61.2	10.3	7	3.3
C04701-F	46	1	69.7	72.2	66	2.5	10	Snd Lvl	62.2	10.0	7	3.0
C04801-F	47	1	68.6	71.4	66	2.8	10	Snd Lvl	63.5	7.9	7	0.9
C04901	48	1	67.7	70.6	66	2.9	10	Snd Lvl	64.0	6.6	7	-0.4
C05001	49	1	67.0	69.3	66	2.3	10	Snd Lvl	64.1	5.2	7	-1.8
C05101	50	1	66.0	68.5	66	2.5	10	Snd Lvl	63.4	5.1	7	-1.9
C05201	51	1	65.2	67.8	66	2.6	10	Snd Lvl	63.0	4.8	7	-2.2
C05301	52	1	64.0	66.8	66	2.8	10	Snd Lvl	62.4	4.4	7	-2.6
C05401	53	1	62.6	66.0	66	3.4	10	Snd Lvl	61.7	4.3	7	-2.7
C05501	54	1	61.5	65.2	66	3.7	10	----	61.1	4.1	7	-2.9
C05601	55	1	61.5	64.6	66	3.1	10	----	60.9	3.7	7	-3.3
C05701	56	1	61.5	63.9	66	2.4	10	----	60.8	3.1	7	-3.9
C05801	57	1	60.9	63.3	66	2.4	10	----	60.4	2.9	7	-4.1
C05901	58	1	60.6	62.9	66	2.3	10	----	60.4	2.5	7	-4.5
C06001	59	1	59.8	62.1	66	2.3	10	----	59.7	2.4	7	-4.6
C06101	60	1	54.2	61.6	66	7.4	10	----	59.8	1.8	7	-5.2
C06201	61	1	54.5	62.1	66	7.6	10	----	60.7	1.4	7	-5.6
C06301	62	1	54.3	62.5	66	8.2	10	----	61.4	1.1	7	-5.9
C06401	63	1	54.0	63.0	66	9.0	10	----	62.0	1.0	7	-6.0
C06501	64	1	51.5	63.6	66	12.1	10	Sub'l Inc	62.9	0.7	7	-6.3
C06601	65	1	56.5	64.5	66	8.0	10	----	63.9	0.6	7	-6.4
C06701	66	1	57.2	65.8	66	8.6	10	----	64.2	1.6	7	-5.4

C06801	67	1	57.9	67.5	66	9.6	10	Snd Lvl	64.6	2.9	7	-4.1
C06901	68	1	59.3	69.2	66	9.9	10	Snd Lvl	65.0	4.2	7	-2.8
C07001-F	69	1	68.8	72.4	66	3.6	10	Snd Lvl	65.9	6.5	7	-0.5
C07101-F	70	1	71.2	72.1	66	0.9	10	Snd Lvl	66.5	5.6	7	-1.4
C07223-F	71	23	59.0	62.6	66	3.6	10	----	60.5	2.1	7	-4.9
C07324-F	72	24	60.1	63.6	66	3.5	10	----	57.3	6.3	7	-0.7
C07424-F	73	24	62.4	66.2	66	3.8	10	Snd Lvl	59.2	7.0	7	0.0
C07524	74	24	54.5	60.7	66	6.2	10	----	59.8	0.9	7	-6.1
C07624	75	24	53.6	60.5	66	6.9	10	----	60.0	0.5	7	-6.5
C08501-F	84	1	66.4	66.2	66	-0.2	10	Snd Lvl	60.2	6.0	7	-1.0
C08601	85	1	64.2	67.1	66	2.9	10	Snd Lvl	61.0	6.1	7	-0.9
C08701	86	1	62.9	65.8	66	2.9	10	----	60.3	5.5	7	-1.5
C08801	87	1	62.2	65.6	66	3.4	10	----	60.1	5.5	7	-1.5
C08901	88	1	63.5	64.6	66	1.1	10	----	59.5	5.1	7	-1.9
C09001	89	1	61.1	63.4	66	2.3	10	----	58.6	4.8	7	-2.2
C09102	90	2	61.0	64.1	66	3.1	10	----	59.2	4.9	7	-2.1
C09202	91	2	60.5	63.7	66	3.2	10	----	59.0	4.7	7	-2.3
C09302	92	2	60.0	63.1	66	3.1	10	----	58.6	4.5	7	-2.5
C09401	93	1	59.4	63.8	66	4.4	10	----	59.6	4.2	7	-2.8
C09501	94	1	59.8	61.7	66	1.9	10	----	57.8	3.9	7	-3.1
C09601	95	1	60.3	60.6	66	0.3	10	----	57.5	3.1	7	-3.9
C09701	96	1	61.4	60.5	66	-0.9	10	----	57.7	2.8	7	-4.2
C09801	97	1	59.4	63.1	66	3.7	10	----	59.3	3.8	7	-3.2
C09901	98	1	59.2	62.4	66	3.2	10	----	58.6	3.8	7	-3.2

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	165	0.5	4.3	10.3
All Impacted	42	0.7	5.9	10.3
All that meet NR Goal	4	7.9	9.5	10.3

HMB Professional Engineers
Mark Gavula

28 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C 2
BARRIER DESIGN: c2-sys

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
C04401-F	43	61.2	5.2	7	-1.8	Edge Cliff	C-02-53	234	24.0	52.0
						Edge Cliff	C-02-52	233	24.0	51.1
						Edge Cliff	C-02-54	235	24.0	50.0
						Edge Cliff	C-02-55	236	24.0	48.6
						Edge Cliff	C-02-57	238	24.0	47.8
						Edge Cliff	C-02-56	237	24.0	47.8
						Edge Cliff	C-02-48	229	24.0	46.7
						Edge Cliff	C-02-51	232	24.0	46.5
						Edge Cliff	C-02-49	230	24.0	46.4
						Edge Cliff	C-02-58	239	24.0	46.4
C04501-F	44	63.0	9.7	7	2.7	Edge Cliff	C-02-49	230	24.0	57.3
						Edge Cliff	C-02-50	231	24.0	56.4
						Edge Cliff	C-02-48	229	24.0	54.5
						Edge Cliff	C-02-61	242	24.0	49.8
						Edge Cliff	C-02-44	225	24.0	48.7
						Edge Cliff	C-02-43	224	24.0	48.6
						Edge Cliff	C-02-47	228	24.0	48.6
						Edge Cliff	C-02-57	238	24.0	48.0
						Edge Cliff	C-02-58	239	24.0	48.0
						Edge Cliff	C-02-62	243	24.0	47.2
C04601-F	45	61.2	10.3	7	3.3	Edge Cliff	C-02-49	230	24.0	54.5

						Edge Cliff	C-02-46	227	24.0	51.9
						Edge Cliff	C-02-47	228	24.0	51.7
						Edge Cliff	C-02-44	225	24.0	51.5
						Edge Cliff	C-02-43	224	24.0	50.9
						Edge Cliff	C-02-45	226	24.0	50.9
						Edge Cliff	C-02-42	223	24.0	48.5
						Edge Cliff	C-02-59	240	24.0	47.6
						Edge Cliff	C-02-48	229	24.0	47.6
						Edge Cliff	C-02-61	242	24.0	46.1
C04701-F	46	62.2	10.0	7	3.0	Edge Cliff	C-02-49	230	24.0	56.1
						Edge Cliff	C-02-44	225	24.0	51.8
						Edge Cliff	C-02-46	227	24.0	51.8
						Edge Cliff	C-02-45	226	24.0	51.3
						Edge Cliff	C-02-47	228	24.0	51.3
						Edge Cliff	C-02-43	224	24.0	51.0
						Edge Cliff	C-02-42	223	24.0	49.3
						Edge Cliff	C-02-61	242	24.0	49.2
						Edge Cliff	C-02-59	240	24.0	49.0
						Edge Cliff	C-02-50	231	24.0	48.4
C04801-F	47	63.5	7.9	7	0.9	Edge Cliff	C-02-50	231	24.0	57.3
						Edge Cliff	C-02-49	230	24.0	55.1
						Edge Cliff	C-02-61	242	24.0	51.6
						Edge Cliff	C-02-44	225	24.0	51.3
						Edge Cliff	C-02-57	238	24.0	51.1
						Edge Cliff	C-02-46	227	24.0	51.0
						Edge Cliff	C-02-45	226	24.0	50.8
						Edge Cliff	C-02-47	228	24.0	50.7
						Edge Cliff	C-02-43	224	24.0	50.2
						Edge Cliff	C-02-62	243	24.0	50.1
C04901	48	64.0	6.6	7	-0.4	Edge Cliff	C-02-50	231	24.0	58.5
						Edge Cliff	C-02-49	230	24.0	55.8
						Edge Cliff	C-02-56	237	24.0	52.9
						Edge Cliff	C-02-62	243	24.0	51.5
						Edge Cliff	C-02-61	242	24.0	51.1
						Edge Cliff	C-02-44	225	24.0	50.7
						Edge Cliff	C-02-46	227	24.0	50.4

						Edge Cliff	C-02-45	226	24.0	50.4
						Edge Cliff	C-02-47	228	24.0	50.2
						Edge Cliff	C-02-63	244	24.0	50.1
C05001	49	64.1	5.2	7	-1.8	Edge Cliff	C-02-50	231	24.0	58.5
						Edge Cliff	C-02-49	230	24.0	56.3
						Edge Cliff	C-02-56	237	24.0	51.8
						Edge Cliff	C-02-63	244	24.0	51.2
						Edge Cliff	C-02-62	243	24.0	51.1
						Edge Cliff	C-02-44	225	24.0	50.2
						Edge Cliff	C-02-55	236	24.0	50.1
						Edge Cliff	C-02-45	226	24.0	50.0
						Edge Cliff	C-02-61	242	24.0	49.9
						Edge Cliff	C-02-46	227	24.0	49.9
C05101	50	63.4	5.1	7	-1.9	Edge Cliff	C-02-50	231	24.0	57.5
						Edge Cliff	C-02-49	230	24.0	54.9
						Edge Cliff	C-02-55	236	24.0	51.5
						Edge Cliff	C-02-63	244	24.0	51.1
						Edge Cliff	C-02-56	237	24.0	50.1
						Edge Cliff	C-02-62	243	24.0	50.1
						Edge Cliff	C-02-51	232	24.0	49.8
						Edge Cliff	C-02-64	245	24.0	49.8
						Edge Cliff	C-02-44	225	24.0	49.3
						Edge Cliff	C-02-45	226	24.0	49.3
C05201	51	63.0	4.8	7	-2.2	Edge Cliff	C-02-50	231	24.0	56.7
						Edge Cliff	C-02-49	230	24.0	54.2
						Edge Cliff	C-02-51	232	24.0	51.5
						Edge Cliff	C-02-55	236	24.0	50.8
						Edge Cliff	C-02-63	244	24.0	50.5
						Edge Cliff	C-02-64	245	24.0	50.4
						75NB	C-03-01	258	24.0	49.2
						Edge Cliff	C-02-62	243	24.0	49.1
						Edge Cliff	C-02-45	226	24.0	48.7
						Edge Cliff	C-02-65	246	24.0	48.6
C05301	52	62.4	4.4	7	-2.6	Edge Cliff	C-02-50	231	24.0	55.6
						Edge Cliff	C-02-49	230	24.0	53.1
						Edge Cliff	C-02-51	232	24.0	52.5

						Edge Cliff	C-02-64	245	24.0	50.4
						Edge Cliff	C-02-54	235	24.0	49.9
						Edge Cliff	C-02-63	244	24.0	49.3
						75NB	C-03-01	258	24.0	49.1
						Edge Cliff	C-02-65	246	24.0	49.0
						Edge Cliff	C-02-55	236	24.0	48.5
						75NB	C-03-02	260	24.0	48.1
C05401	53	61.7	4.3	7	-2.7	Edge Cliff	C-02-50	231	24.0	54.4
						Edge Cliff	C-02-51	232	24.0	52.8
						Edge Cliff	C-02-49	230	24.0	52.0
						Edge Cliff	C-02-64	245	24.0	49.3
						Edge Cliff	C-02-65	246	24.0	49.0
						Edge Cliff	C-02-54	235	24.0	48.5
						Edge Cliff	C-02-63	244	24.0	48.2
						75NB	C-03-01	258	24.0	48.1
						75NB	C-03-02	260	24.0	47.7
						Edge Cliff	C-02-66	247	24.0	47.1
C05501	54	61.1	4.1	7	-2.9	Edge Cliff	C-02-50	231	24.0	53.3
						Edge Cliff	C-02-51	232	24.0	52.7
						Edge Cliff	C-02-49	230	24.0	50.9
						Edge Cliff	C-02-65	246	24.0	49.1
						Edge Cliff	C-02-66	247	24.0	48.0
						Edge Cliff	C-02-64	245	24.0	47.9
						75NB	C-03-02	260	0.0	47.7
						75NB	C-03-01	258	0.0	47.2
						Edge Cliff	C-02-63	244	24.0	46.7
						75NB	C-03-03	261	24.0	46.7
C05601	55	60.9	3.7	7	-3.3	Edge Cliff	C-02-50	231	24.0	53.3
						Edge Cliff	C-02-51	232	24.0	52.7
						Edge Cliff	C-02-49	230	24.0	50.7
						Edge Cliff	C-02-65	246	24.0	48.9
						Edge Cliff	C-02-66	247	24.0	48.7
						75NB	C-03-02	260	0.0	48.0
						75NB	C-03-03	261	0.0	47.2
						Edge Cliff	C-02-64	245	24.0	47.0
						Edge Cliff	C-02-67	248	24.0	46.7

						75NB	C-03-01	258	0.0	46.5
C05701	56	60.8	3.1	7	-3.9	Edge Cliff	C-02-50	231	24.0	53.0
						Edge Cliff	C-02-51	232	24.0	52.1
						Edge Cliff	C-02-49	230	24.0	50.6
						Edge Cliff	C-02-66	247	24.0	49.1
						Edge Cliff	C-02-65	246	24.0	48.3
						75NB	C-03-02	260	0.0	47.8
						Edge Cliff	C-02-67	248	24.0	47.7
						75NB	C-03-03	261	0.0	47.6
						75NB	C-03-04	262	24.0	46.5
						Edge Cliff	C-02-64	245	24.0	46.3
C05801	57	60.4	2.9	7	-4.1	Edge Cliff	C-02-50	231	24.0	52.2
						Edge Cliff	C-02-51	232	24.0	51.7
						Edge Cliff	C-02-49	230	24.0	50.2
						Edge Cliff	C-02-66	247	24.0	49.1
						Edge Cliff	C-02-67	248	24.0	48.1
						75NB	C-03-03	261	0.0	47.9
						Edge Cliff	C-02-65	246	24.0	47.0
						75NB	C-03-02	260	0.0	46.9
						75NB	C-03-04	262	0.0	46.8
						Edge Cliff	C-02-69	250	24.0	46.2
C05901	58	60.4	2.5	7	-4.5	Edge Cliff	C-02-50	231	24.0	51.8
						Edge Cliff	C-02-51	232	24.0	51.2
						Edge Cliff	C-02-49	230	24.0	50.3
						Edge Cliff	C-02-66	247	24.0	49.1
						Edge Cliff	C-02-67	248	24.0	48.2
						75NB	C-03-03	261	0.0	48.0
						75NB	C-03-04	262	0.0	47.0
						Edge Cliff	C-02-65	246	24.0	47.0
						75NB	C-03-02	260	0.0	46.8
						Edge Cliff	C-02-68	249	24.0	46.2
C06001	59	59.7	2.4	7	-4.6	Edge Cliff	C-02-50	231	24.0	50.8
						Edge Cliff	C-02-51	232	24.0	50.5
						Edge Cliff	C-02-49	230	24.0	49.2
						Edge Cliff	C-02-67	248	24.0	48.2
						Edge Cliff	C-02-66	247	24.0	48.1

						75NB	C-03-03	261	0.0	47.5
						75NB	C-03-04	262	0.0	46.9
						Edge Cliff	C-02-68	249	24.0	46.8
						75NB	C-03-02	260	0.0	45.8
						Edge Cliff	C-02-65	246	24.0	45.8
C06101	60	59.8	1.8	7	-5.2	Edge Cliff	C-02-50	231	24.0	50.4
						Edge Cliff	C-02-49	230	24.0	49.6
						Edge Cliff	C-02-65	246	24.0	48.8
						Edge Cliff	C-02-66	247	24.0	47.8
						75NB	C-03-02	260	0.0	47.8
						Edge Cliff	C-02-51	232	24.0	47.2
						75NB	C-03-03	261	0.0	46.8
						Edge Cliff	C-02-64	245	24.0	46.6
						Edge Cliff	C-02-63	244	24.0	46.4
						Edge Cliff	C-02-54	235	24.0	46.3
C06201	61	60.7	1.4	7	-5.6	Edge Cliff	C-02-50	231	24.0	51.2
						Edge Cliff	C-02-49	230	24.0	50.6
						Edge Cliff	C-02-64	245	24.0	49.5
						Edge Cliff	C-02-65	246	24.0	48.8
						Edge Cliff	C-02-54	235	24.0	48.5
						75NB	C-03-01	258	24.0	48.5
						Edge Cliff	C-02-63	244	24.0	48.3
						Edge Cliff	C-02-55	236	24.0	48.0
						Edge Cliff	C-02-45	226	24.0	48.0
						75NB	C-03-02	260	0.0	47.9
C06301	62	61.4	1.1	7	-5.9	Edge Cliff	C-02-50	231	24.0	52.5
						Edge Cliff	C-02-49	230	24.0	51.3
						Edge Cliff	C-02-55	236	24.0	50.3
						Edge Cliff	C-02-63	244	24.0	50.0
						Edge Cliff	C-02-64	245	24.0	49.6
						Edge Cliff	C-02-45	226	24.0	49.4
						Edge Cliff	C-02-46	227	24.0	49.3
						Edge Cliff	C-02-62	243	24.0	49.2
						Edge Cliff	C-02-56	237	24.0	49.0
						Edge Cliff	C-02-47	228	24.0	48.9
C06401	63	62.0	1.0	7	-6.0	Edge Cliff	C-02-50	231	24.0	53.0

						Edge Cliff	C-02-49	230	24.0	51.9
						Edge Cliff	C-02-45	226	24.0	50.5
						Edge Cliff	C-02-63	244	24.0	50.5
						Edge Cliff	C-02-47	228	24.0	50.5
						Edge Cliff	C-02-46	227	24.0	50.4
						Edge Cliff	C-02-56	237	24.0	50.2
						Edge Cliff	C-02-55	236	24.0	50.2
						Edge Cliff	C-02-62	243	24.0	49.7
						Edge Cliff	C-02-64	245	24.0	49.5
C06501	64	62.9	0.7	7	-6.3	Edge Cliff	C-02-49	230	24.0	53.6
						Edge Cliff	C-02-45	226	24.0	53.0
						Edge Cliff	C-02-46	227	24.0	52.9
						Edge Cliff	C-02-47	228	24.0	52.5
						Edge Cliff	C-02-50	231	24.0	52.5
						Edge Cliff	C-02-44	225	24.0	51.5
						Edge Cliff	C-02-56	237	24.0	51.2
						Edge Cliff	C-02-62	243	24.0	50.8
						Edge Cliff	C-02-61	242	24.0	50.8
						Edge Cliff	C-02-57	238	24.0	49.5
C06601	65	63.9	0.6	7	-6.4	Edge Cliff	C-02-45	226	24.0	55.1
						Edge Cliff	C-02-49	230	24.0	54.9
						Edge Cliff	C-02-46	227	24.0	54.8
						Edge Cliff	C-02-47	228	24.0	54.2
						Edge Cliff	C-02-44	225	24.0	53.3
						Edge Cliff	C-02-61	242	24.0	51.4
						Edge Cliff	C-02-50	231	24.0	51.4
						Edge Cliff	C-02-57	238	24.0	50.7
						Edge Cliff	C-02-62	243	24.0	50.3
						Edge Cliff	C-02-60	241	24.0	49.4
C06701	66	64.2	1.6	7	-5.4	Edge Cliff	C-02-49	230	24.0	56.4
						Edge Cliff	C-02-45	226	24.0	55.7
						Edge Cliff	C-02-46	227	24.0	55.4
						Edge Cliff	C-02-47	228	24.0	55.3
						Edge Cliff	C-02-44	225	24.0	53.6
						Edge Cliff	C-02-61	242	24.0	50.9
						Edge Cliff	C-02-59	240	24.0	49.8

						Edge Cliff	C-02-58	239	24.0	49.4
						Edge Cliff	C-02-63	244	24.0	48.8
						Edge Cliff	C-02-60	241	24.0	48.5
C06801	67	64.6	2.9	7	-4.1	Edge Cliff	C-02-46	227	24.0	56.7
						Edge Cliff	C-02-45	226	24.0	56.7
						Edge Cliff	C-02-47	228	24.0	56.6
						Edge Cliff	C-02-49	230	24.0	55.6
						Edge Cliff	C-02-44	225	24.0	54.4
						Edge Cliff	C-02-62	243	24.0	49.4
						Edge Cliff	C-02-59	240	24.0	49.3
						Edge Cliff	C-02-39	220	24.0	49.1
						Edge Cliff	C-02-61	242	24.0	48.9
						Edge Cliff	C-02-48	229	24.0	48.7
C06901	68	65.0	4.2	7	-2.8	Edge Cliff	C-02-47	228	24.0	58.0
						Edge Cliff	C-02-46	227	24.0	57.6
						Edge Cliff	C-02-45	226	24.0	57.4
						Edge Cliff	C-02-44	225	24.0	54.9
						Edge Cliff	C-02-39	220	24.0	51.8
						Edge Cliff	C-02-41	222	24.0	51.1
						Edge Cliff	C-02-42	223	24.0	50.5
						Edge Cliff	C-02-49	230	24.0	50.3
						Edge Cliff	C-02-43	224	24.0	49.9
						Edge Cliff	C-02-61	242	24.0	49.8
C07001-F	69	65.9	6.5	7	-0.5	Edge Cliff	C-02-45	226	24.0	59.1
						Edge Cliff	C-02-46	227	24.0	58.9
						Edge Cliff	C-02-41	222	24.0	57.9
						Edge Cliff	C-02-39	220	24.0	56.8
						Edge Cliff	C-02-42	223	24.0	55.8
						Edge Cliff	C-02-38	219	24.0	55.7
						Edge Cliff	C-02-44	225	24.0	55.3
						Edge Cliff	C-02-43	224	24.0	54.7
						Edge Cliff	C-02-37	218	24.0	53.6
						Edge Cliff	C-02-35	216	24.0	53.6
C07101-F	70	66.5	5.6	7	-1.4	Edge Cliff	C-02-32	213	20.0	57.0
						Edge Cliff	C-02-45	226	24.0	56.8
						Edge Cliff	C-02-31	212	20.0	56.4

						Edge Cliff	C-02-36	217	24.0	55.9
						Edge Cliff	C-02-37	218	24.0	55.3
						Edge Cliff	C-02-42	223	24.0	54.9
						Edge Cliff	C-02-38	219	24.0	54.7
						Edge Cliff	C-02-35	216	24.0	54.3
						Edge Cliff	C-02-33	214	20.0	54.1
						Edge Cliff	C-02-46	227	24.0	54.1
C07223-F	71	60.5	2.1	7	-4.9	Edge Cliff	C-02-45	226	24.0	53.4
						Edge Cliff	C-02-46	227	24.0	51.3
						Edge Cliff	C-02-42	223	24.0	51.1
						Edge Cliff	C-02-41	222	24.0	50.7
						Edge Cliff	C-02-43	224	24.0	50.1
						Edge Cliff	C-02-38	219	24.0	49.5
						Edge Cliff	C-02-37	218	24.0	49.2
						Edge Cliff	C-02-36	217	24.0	48.1
						Edge Cliff	C-02-47	228	24.0	47.8
						Edge Cliff	C-02-44	225	24.0	47.8
C07324-F	72	57.3	6.3	7	-0.7	Edge Cliff	C-02-11	192	24.0	48.2
						Edge Cliff	C-02-13	194	24.0	46.9
						Edge Cliff	C-02-14	195	24.0	46.7
						Edge Cliff	C-02-12	193	24.0	46.6
						Edge Cliff	C-02-15	196	24.0	46.1
						Edge Cliff	C-02-45	226	24.0	45.4
						Edge Cliff	C-02-16	197	24.0	44.6
						Edge Cliff	C-02-17	198	24.0	43.0
						Edge Cliff	C-02-36	217	24.0	42.9
						Edge Cliff	C-02-43	224	24.0	42.8
C07424-F	73	59.2	7.0	7	-0.0	Edge Cliff	C-02-07	188	0.0	54.3
						Edge Cliff	C-02-08	189	20.0	49.5
						Edge Cliff	C-02-10	191	24.0	48.0
						Edge Cliff	C-02-09	190	24.0	47.6
						Edge Cliff	C-02-11	192	24.0	47.4
						Edge Cliff	C-02-12	193	24.0	46.7
						Edge Cliff	C-02-13	194	24.0	45.4
						Edge Cliff	C-02-14	195	24.0	43.3
						Edge Cliff	C-02-45	226	24.0	42.1

						Edge Cliff	C-02-15	196	24.0	41.8
C07524	74	59.8	0.9	7	-6.1	Edge Cliff	C-02-47	228	24.0	51.6
						Edge Cliff	C-02-46	227	24.0	51.0
						Edge Cliff	C-02-45	226	24.0	50.8
						Edge Cliff	C-02-49	230	24.0	48.8
						Edge Cliff	C-02-41	222	24.0	46.9
						Edge Cliff	C-02-44	225	24.0	46.8
						Edge Cliff	C-02-42	223	24.0	46.2
						Edge Cliff	C-02-43	224	24.0	46.1
						Edge Cliff	C-02-63	244	24.0	45.1
						Edge Cliff	C-02-39	220	24.0	44.7
C07624	75	60.0	0.5	7	-6.5	Edge Cliff	C-02-47	228	24.0	49.8
						Edge Cliff	C-02-46	227	24.0	49.7
						Edge Cliff	C-02-49	230	24.0	49.5
						Edge Cliff	C-02-45	226	24.0	49.4
						Edge Cliff	C-02-44	225	24.0	45.4
						Edge Cliff	C-02-41	222	24.0	44.9
						Edge Cliff	C-02-42	223	24.0	44.8
						Edge Cliff	C-02-61	242	24.0	44.7
						Edge Cliff	C-02-43	224	24.0	44.3
						Edge Cliff	C-02-63	244	24.0	44.3
C08501-F	84	60.2	6.0	7	-1.0	Edge Cliff	C-02-52	233	24.0	51.9
						Edge Cliff	C-02-51	232	24.0	51.3
						Edge Cliff	C-02-50	231	24.0	49.9
						Edge Cliff	C-02-49	230	24.0	49.1
						Edge Cliff	C-02-48	229	24.0	47.8
						Edge Cliff	C-02-66	247	24.0	45.7
						Edge Cliff	C-02-43	224	24.0	45.6
						Edge Cliff	C-02-44	225	24.0	45.5
						Edge Cliff	C-02-47	228	24.0	44.9
						Edge Cliff	C-02-67	248	24.0	44.7
C08601	85	61.0	6.1	7	-0.9	Edge Cliff	C-02-52	233	24.0	52.9
						Edge Cliff	C-02-51	232	24.0	52.4
						Edge Cliff	C-02-50	231	24.0	51.3
						Edge Cliff	C-02-49	230	24.0	50.1
						Edge Cliff	C-02-48	229	24.0	48.2

						Edge Cliff	C-02-67	248	24.0	46.2
						Edge Cliff	C-02-44	225	24.0	46.2
						Edge Cliff	C-02-43	224	24.0	45.9
						Edge Cliff	C-02-47	228	24.0	45.8
						Edge Cliff	C-02-66	247	24.0	45.3
C08701	86	60.3	5.5	7	-1.5	Edge Cliff	C-02-52	233	24.0	51.6
						Edge Cliff	C-02-51	232	24.0	51.3
						Edge Cliff	C-02-50	231	24.0	50.4
						Edge Cliff	C-02-49	230	24.0	49.4
						Edge Cliff	C-02-48	229	24.0	47.2
						Edge Cliff	C-02-44	225	24.0	45.7
						Edge Cliff	C-02-67	248	24.0	45.7
						Edge Cliff	C-02-47	228	24.0	45.4
						Edge Cliff	C-02-43	224	24.0	45.3
						Edge Cliff	C-02-68	249	24.0	44.6
C08801	87	60.1	5.5	7	-1.5	Edge Cliff	C-02-52	233	24.0	51.4
						Edge Cliff	C-02-51	232	24.0	51.2
						Edge Cliff	C-02-50	231	24.0	50.3
						Edge Cliff	C-02-49	230	24.0	49.2
						Edge Cliff	C-02-48	229	24.0	46.4
						Edge Cliff	C-02-68	249	24.0	45.7
						Edge Cliff	C-02-44	225	24.0	45.5
						Edge Cliff	C-02-47	228	24.0	45.3
						Edge Cliff	C-02-43	224	24.0	44.7
						Edge Cliff	C-02-46	227	24.0	44.6
C08901	88	59.5	5.1	7	-1.9	Edge Cliff	C-02-52	233	24.0	50.3
						Edge Cliff	C-02-51	232	24.0	49.1
						Edge Cliff	C-02-50	231	24.0	48.0
						Edge Cliff	C-02-49	230	24.0	47.5
						Edge Cliff	C-02-53	234	24.0	46.6
						Edge Cliff	C-02-48	229	24.0	46.2
						Edge Cliff	C-02-69	250	24.0	44.8
						Edge Cliff	C-02-44	225	24.0	44.4
						Edge Cliff	C-02-43	224	24.0	44.3
						Edge Cliff	C-02-68	249	24.0	44.1
C09001	89	58.6	4.8	7	-2.2	Edge Cliff	C-02-52	233	24.0	49.0

						Edge Cliff	C-02-51	232	24.0	48.4
						Edge Cliff	C-02-50	231	24.0	47.7
						Edge Cliff	C-02-49	230	24.0	47.0
						Edge Cliff	C-02-48	229	24.0	44.9
						Edge Cliff	C-02-69	250	24.0	44.4
						Edge Cliff	C-02-53	234	24.0	44.2
						Edge Cliff	C-02-44	225	24.0	44.0
						Edge Cliff	C-02-47	228	24.0	43.6
						Edge Cliff	C-02-43	224	24.0	43.2
C09102	90	59.2	4.9	7	-2.1	Edge Cliff	C-02-52	233	24.0	50.2
						Edge Cliff	C-02-51	232	24.0	49.9
						Edge Cliff	C-02-50	231	24.0	49.1
						Edge Cliff	C-02-49	230	24.0	48.0
						Edge Cliff	C-02-48	229	24.0	45.2
						Edge Cliff	C-02-69	250	24.0	45.0
						Edge Cliff	C-02-44	225	24.0	44.5
						Edge Cliff	C-02-47	228	24.0	44.2
						Edge Cliff	C-02-53	234	24.0	43.9
						Edge Cliff	C-02-46	227	24.0	43.7
C09202	91	59.0	4.7	7	-2.3	Edge Cliff	C-02-52	233	24.0	49.9
						Edge Cliff	C-02-51	232	24.0	49.6
						Edge Cliff	C-02-50	231	24.0	48.7
						Edge Cliff	C-02-49	230	24.0	47.5
						Edge Cliff	C-02-69	250	24.0	44.7
						Edge Cliff	C-02-48	229	24.0	44.7
						Edge Cliff	C-02-44	225	24.0	44.1
						Edge Cliff	C-02-70	251	24.0	43.9
						Edge Cliff	C-02-47	228	24.0	43.8
						Edge Cliff	C-02-53	234	24.0	43.7
C09302	92	58.6	4.5	7	-2.5	Edge Cliff	C-02-52	233	24.0	49.4
						Edge Cliff	C-02-51	232	24.0	49.1
						Edge Cliff	C-02-50	231	24.0	48.2
						Edge Cliff	C-02-49	230	24.0	47.1
						Edge Cliff	C-02-48	229	24.0	44.3
						Edge Cliff	C-02-69	250	24.0	43.9
						Edge Cliff	C-02-70	251	24.0	43.9

						Edge Cliff	C-02-44	225	24.0	43.7
						Edge Cliff	C-02-47	228	24.0	43.4
						Edge Cliff	C-02-53	234	24.0	43.2
C09401	93	59.6	4.2	7	-2.8	Edge Cliff	C-02-51	232	24.0	51.3
						Edge Cliff	C-02-52	233	24.0	51.1
						Edge Cliff	C-02-50	231	24.0	50.1
						Edge Cliff	C-02-49	230	24.0	47.9
						Edge Cliff	C-02-69	250	24.0	46.4
						75NB	C-03-05	263	0.0	44.9
						Edge Cliff	C-02-68	249	24.0	44.6
						Edge Cliff	C-02-70	251	24.0	44.2
						Edge Cliff	C-02-48	229	24.0	44.2
						75NB	C-03-06	264	0.0	44.1
C09501	94	57.8	3.9	7	-3.1	Edge Cliff	C-02-52	233	24.0	48.4
						Edge Cliff	C-02-51	232	24.0	47.9
						Edge Cliff	C-02-50	231	24.0	46.9
						Edge Cliff	C-02-49	230	24.0	45.8
						Edge Cliff	C-02-53	234	24.0	43.4
						Edge Cliff	C-02-71	252	24.0	43.4
						Edge Cliff	C-02-48	229	24.0	43.0
						Edge Cliff	C-02-44	225	24.0	42.4
						Edge Cliff	C-02-47	228	24.0	42.2
						Edge Cliff	C-02-72	253	24.0	42.1
C09601	95	57.5	3.1	7	-3.9	Edge Cliff	C-02-52	233	24.0	46.6
						Edge Cliff	C-02-51	232	24.0	45.9
						Edge Cliff	C-02-50	231	24.0	45.2
						Edge Cliff	C-02-49	230	24.0	44.4
						Edge Cliff	C-02-53	234	24.0	43.5
						75NB	C-03-15	273	0.0	42.8
						Edge Cliff	C-02-48	229	24.0	42.1
						Edge Cliff	C-02-73	254	24.0	41.9
						Edge Cliff	C-02-74	255	24.0	41.7
						Edge Cliff	C-02-44	225	24.0	41.3
C09701	96	57.7	2.8	7	-4.2	Edge Cliff	C-02-52	233	24.0	46.5
						Edge Cliff	C-02-51	232	24.0	45.3
						Edge Cliff	C-02-50	231	24.0	44.4

						Edge Cliff	C-02-53	234	24.0	44.1
						75NB	C-03-13	271	0.0	43.9
						Edge Cliff	C-02-49	230	24.0	43.8
						75NB	C-03-14	272	0.0	42.7
						75NB	C-03-12	270	0.0	42.6
						Edge Cliff	C-02-48	229	24.0	42.1
						Edge Cliff	C-02-54	235	24.0	41.5
C09801	97	59.3	3.8	7	-3.2	Edge Cliff	C-02-51	232	24.0	50.5
						Edge Cliff	C-02-52	233	24.0	49.9
						Edge Cliff	C-02-50	231	24.0	49.8
						Edge Cliff	C-02-49	230	24.0	47.7
						Edge Cliff	C-02-69	250	24.0	47.4
						Edge Cliff	C-02-70	251	24.0	46.0
						75NB	C-03-05	263	24.0	45.7
						75NB	C-03-06	264	0.0	45.4
						Edge Cliff	C-02-68	249	24.0	44.8
						Edge Cliff	C-02-72	253	24.0	44.3
C09901	98	58.6	3.8	7	-3.2	Edge Cliff	C-02-51	232	24.0	49.5
						Edge Cliff	C-02-52	233	24.0	48.9
						Edge Cliff	C-02-50	231	24.0	48.5
						Edge Cliff	C-02-70	251	24.0	47.3
						Edge Cliff	C-02-49	230	24.0	46.8
						Edge Cliff	C-02-71	252	24.0	45.6
						75NB	C-03-06	264	24.0	45.3
						75NB	C-03-07	265	0.0	45.1
						Edge Cliff	C-02-69	250	24.0	44.5
						Edge Cliff	C-02-73	254	24.0	44.4
Total Cost, All Barriers (including additional cost(s))					$2054154					

HMB Professional Engineers **28 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **Brent Spence Bridge 6-17.00/1415.04**
RUN: **ALT NSA C 2**
BARRIER DESIGN: **c2-sys**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Edge Cliff	W	20.00	23.70	24.00	2708	64192				2054154
James Simpson Jr Way	W	0.00	0.00	0.00	0	0				0
75NB	W	0.00	2.00	4.00	43	87				0
NBCD	W	0.00	2.00	4.00	36	73				0
									Total Cost:	2054154

HMB Professional Engineers 28 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA C 2
BARRIER DESIGN: c2-sys

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
Edge Cliff	W	point257	257	0.00	0.00	0.00	0	0				0
		C-02-04	185	0.00	0.00	0.00	0	0				0
		C-02-05	186	0.00	0.00	0.00	0	0				0
		C-02-06	187	0.00	0.00	0.00	0	0				0
		C-02-07	188	0.00	0.00	0.00	0	0				0
		C-02-08	189	20.00	20.00	20.00	40	796				25480
		C-02-09	190	24.00	24.00	24.00	40	957				30629
		C-02-10	191	24.00	24.00	24.00	40	969				31009
		C-02-11	192	24.00	24.00	24.00	40	956				30578
		C-02-12	193	24.00	24.00	24.00	40	957				30629
		C-02-13	194	24.00	24.00	24.00	40	969				31009
		C-02-14	195	24.00	24.00	24.00	40	950				30397
		C-02-15	196	24.00	24.00	24.00	40	962				30780
		C-02-16	197	24.00	24.00	24.00	40	963				30806
		C-02-17	198	24.00	24.00	24.00	40	962				30780
		C-02-18	199	24.00	24.00	24.00	40	962				30780
		C-02-19	200	24.00	24.00	24.00	40	951				30423
		C-02-20	201	24.00	24.00	24.00	40	964				30837
		C-02-21	202	24.00	24.00	24.00	40	963				30806
		C-02-22	203	24.00	24.00	24.00	40	963				30806
		C-02-23	204	24.00	24.00	24.00	40	964				30837
		C-02-24	205	24.00	24.00	24.00	40	956				30578
		C-02-25	206	24.00	24.00	24.00	40	952				30455
		C-02-26	207	24.00	24.00	24.00	40	963				30828
		C-02-27	208	24.00	24.00	24.00	40	966				30921
		C-02-28	209	24.00	24.00	24.00	40	955				30549

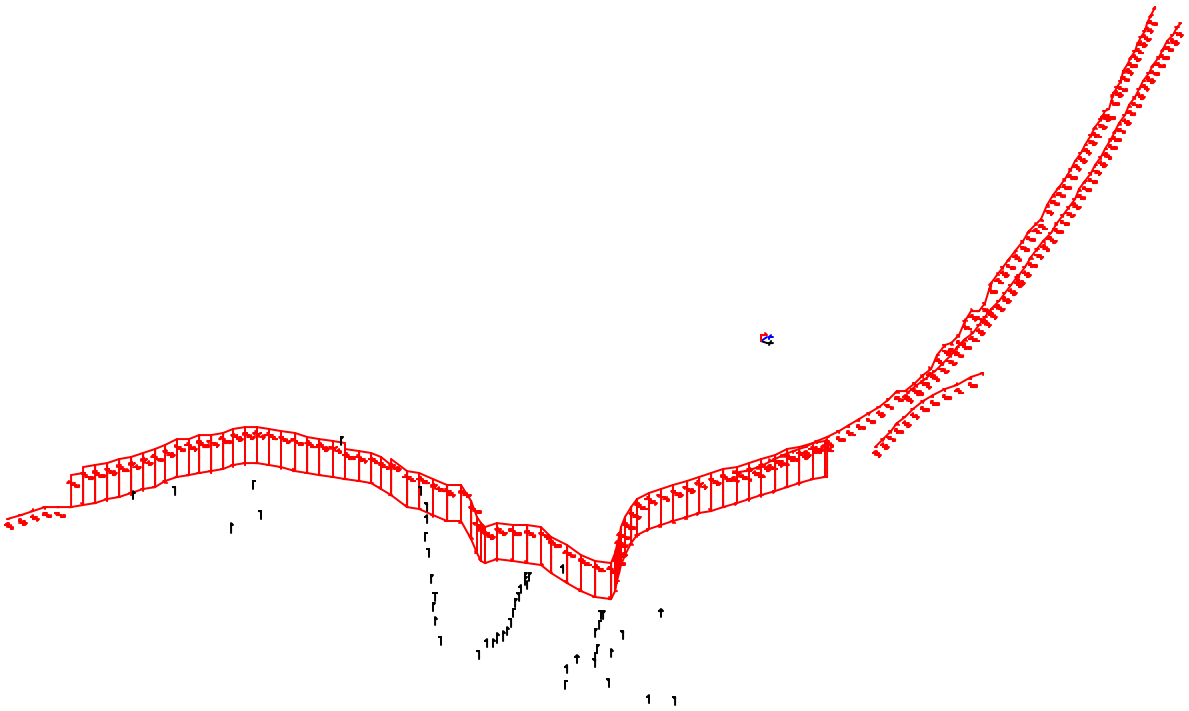
		C-02-29	210	24.00	24.00	24.00	40	966				30921
		C-02-30	211	24.00	24.00	24.00	40	955				30549
		C-02-31	212	20.00	20.00	20.00	40	805				25767
		C-02-32	213	20.00	20.00	20.00	40	800				25616
		C-02-33	214	20.00	20.00	20.00	40	792				25331
		C-02-34	215	20.00	20.00	20.00	40	801				25632
		C-02-35	216	24.00	24.00	24.00	62	1491				47715
		C-02-36	217	24.00	24.00	24.00	40	964				30859
		C-02-37	218	24.00	24.00	24.00	40	961				30751
		C-02-38	219	24.00	24.00	24.00	40	956				30605
		C-02-39	220	24.00	24.00	24.00	40	965				30892
		C-02-40	221	24.00	24.00	24.00	40	960				30720
		C-02-41	222	24.00	24.00	24.00	40	961				30744
		C-02-42	223	24.00	24.00	24.00	40	955				30568
		C-02-43	224	24.00	24.00	24.00	40	961				30744
		C-02-44	225	24.00	24.00	24.00	40	966				30914
		C-02-45	226	24.00	24.00	24.00	40	952				30455
		C-02-46	227	24.00	24.00	24.00	40	960				30713
		C-02-47	228	24.00	24.00	24.00	40	965				30892
		C-02-48	229	24.00	24.00	24.00	40	962				30780
		C-02-49	230	24.00	24.00	24.00	40	963				30828
		C-02-50	231	24.00	24.00	24.00	40	963				30821
		C-02-51	232	24.00	24.00	24.00	40	959				30691
		C-02-52	233	24.00	24.00	24.00	40	953				30491
		C-02-53	234	24.00	24.00	24.00	40	961				30763
		C-02-54	235	24.00	24.00	24.00	40	965				30885
		C-02-55	236	24.00	24.00	24.00	40	956				30585
		C-02-56	237	24.00	24.00	24.00	40	958				30648
		C-02-57	238	24.00	24.00	24.00	40	966				30911
		C-02-58	239	24.00	24.00	24.00	40	954				30520
		C-02-59	240	24.00	24.00	24.00	40	969				31019
		C-02-60	241	24.00	24.00	24.00	40	960				30730
		C-02-61	242	24.00	24.00	24.00	40	961				30739
		C-02-62	243	24.00	24.00	24.00	40	958				30655
		C-02-63	244	24.00	24.00	24.00	40	958				30655
		C-02-64	245	24.00	24.00	24.00	40	958				30655
		C-02-65	246	24.00	24.00	24.00	40	961				30739
		C-02-66	247	24.00	24.00	24.00	40	958				30655
		C-02-67	248	24.00	24.00	24.00	40	958				30655

		C-02-68	249	24.00	24.00	24.00	40	970				31030
		C-02-69	250	24.00	24.00	24.00	40	961				30739
		C-02-70	251	24.00	24.00	24.00	40	958				30655
		C-02-71	252	24.00	24.00	24.00	40	958				30655
		C-02-72	253	24.00	24.00	24.00	40	958				30655
		C-02-73	254	24.00	24.00	24.00	40	961				30739
		C-02-74	255	24.00	24.00	24.00	40	958				30655
		C-02-75	256	24.00	24.00	24.00	6	134				4293
James Simpson Jr Way	W	C-01-01	169	0.00	0.00	0.00	0	0				0
		C-01-02	170	0.00	0.00	0.00	0	0				0
		C-01-03	171	0.00	0.00	0.00	0	0				0
		C-01-04	172	0.00	0.00	0.00	0	0				0
		C-01-05	173	0.00	0.00	0.00	0	0				0
		C-01-06	174	0.00	0.00	0.00	0	0				0
		C-01-07	175	0.00	0.00	0.00	0	0				0
		C-01-08	176	0.00	0.00	0.00	0	0				0
		C-01-09	177	0.00	0.00	0.00	0	0				0
		C-01-10	178	0.00	0.00	0.00	0	0				0
		C-01-11	179	0.00	0.00	0.00	0	0				0
75NB	W	C-03-01	258	0.00	0.00	0.00	0	0				0
		C-03-02	260	0.00	0.00	0.00	0	0				0
		C-03-03	261	0.00	0.00	0.00	0	0				0
		C-03-04	262	0.00	0.00	0.00	0	0				0
		C-03-05	263	0.00	0.00	0.00	0	0				0
		C-03-06	264	0.00	0.00	0.00	0	0				0
		C-03-07	265	0.00	0.00	0.00	0	0				0
		C-03-08	266	0.00	0.00	0.00	0	0				0
		C-03-09	267	0.00	0.00	0.00	0	0				0
		C-03-10	268	0.00	0.00	0.00	0	0				0
		C-03-11	269	0.00	0.00	0.00	0	0				0
		C-03-12	270	0.00	0.00	0.00	0	0				0
		C-03-13	271	0.00	0.00	0.00	0	0				0
		C-03-14	272	0.00	0.00	0.00	0	0				0
		C-03-15	273	0.00	0.00	0.00	0	0				0
		C-03-16	274	0.00	0.00	0.00	0	0				0
		C-03-17	275	0.00	0.00	0.00	0	0				0
		C-03-18	276	0.00	0.00	0.00	0	0				0

		C-03-19	277	0.00	0.00	0.00	0	0			0
		C-03-20	278	0.00	0.00	0.00	0	0			0
		C-03-21	279	0.00	0.00	0.00	0	0			0
		C-03-22	280	0.00	0.00	0.00	0	0			0
		C-03-23	281	0.00	0.00	0.00	0	0			0
		C-03-24	282	0.00	0.00	0.00	0	0			0
		C-03-25	283	0.00	0.00	0.00	0	0			0
		C-03-26	284	0.00	0.00	0.00	0	0			0
		C-03-27	285	0.00	0.00	0.00	0	0			0
		C-03-28	286	0.00	0.00	0.00	0	0			0
		C-03-29	287	0.00	0.00	0.00	0	0			0
		C-03-30	288	0.00	0.00	-4.00	0	0			0
		C-04-01	289	0.00	0.00	0.00	0	0	Y		0
		C-04-02	291	0.00	0.00	0.00	0	0	Y		0
		C-04-03	292	0.00	0.00	0.00	0	0	Y		0
		C-04-04	293	0.00	0.00	0.00	0	0	Y		0
		C-04-05	294	0.00	0.00	0.00	0	0	Y		0
		C-04-06	295	0.00	0.00	0.00	0	0	Y		0
		C-04-07	296	0.00	0.00	0.00	0	0	Y		0
		C-04-08	297	0.00	0.00	0.00	0	0	Y		0
		C-04-09	298	0.00	0.00	0.00	0	0	Y		0
		C-04-10	299	0.00	0.00	0.00	0	0	Y		0
		C-04-11	300	0.00	0.00	0.00	0	0	Y		0
		C-04-12	301	0.00	0.00	0.00	0	0	Y		0
		C-04-13	302	0.00	0.00	0.00	0	0	Y		0
		C-04-14	303	0.00	0.00	0.00	0	0	Y		0
		C-04-15	304	0.00	0.00	0.00	0	0	Y		0
		C-04-16	305	0.00	0.00	0.00	0	0	Y		0
		C-04-17	306	0.00	2.00	4.00	43	87	Y		0
		C-05-01	308	0.00	0.00	0.00	0	0			0
		C-05-02	310	0.00	0.00	0.00	0	0			0
		C-05-03	311	0.00	0.00	0.00	0	0			0
		C-05-04	312	0.00	0.00	0.00	0	0			0
		C-05-05	313	0.00	0.00	0.00	0	0			0
		C-05-06	314	0.00	0.00	0.00	0	0			0
		C-05-07	315	0.00	0.00	0.00	0	0			0
		C-05-08	316	0.00	0.00	0.00	0	0			0
		C-05-09	317	0.00	0.00	0.00	0	0			0
		C-05-10	318	0.00	0.00	0.00	0	0			0

		C-05-11	319	0.00	0.00	0.00	0	0				0
		C-05-12	320	0.00	0.00	0.00	0	0				0
		C-05-13	321	0.00	0.00	0.00	0	0				0
		C-05-14	322	0.00	0.00	0.00	0	0				0
		C-05-15	323	0.00	0.00	0.00	0	0				0
NBCD	W	C-06-01	342	0.00	0.00	0.00	0	0				0
		C-06-02	344	0.00	0.00	0.00	0	0				0
		C-06-03	345	0.00	0.00	0.00	0	0				0
		C-06-04	346	0.00	0.00	0.00	0	0				0
		C-06-05	347	0.00	0.00	0.00	0	0				0
		C-06-06	348	0.00	0.00	0.00	0	0				0
		C-06-07	349	0.00	0.00	0.00	0	0				0
		C-06-08	350	0.00	0.00	0.00	0	0				0
		C-06-09	351	0.00	0.00	0.00	0	0				0
		C-06-10	352	0.00	0.00	0.00	0	0				0
		C-06-11	353	0.00	0.00	0.00	0	0				0
		C-06-12	354	0.00	0.00	0.00	0	0				0
		C-06-13	355	0.00	0.00	0.00	0	0				0
		C-06-14	356	0.00	0.00	0.00	0	0				0
		C-06-15	357	0.00	0.00	0.00	0	0				0
		C-06-16	358	0.00	0.00	-4.00	0	0				0
		BC-01-01	324	0.00	0.00	0.00	0	0	Y			0
		BC-01-02	326	0.00	0.00	0.00	0	0	Y			0
		BC-01-03	327	0.00	0.00	0.00	0	0	Y			0
		BC-01-04	328	0.00	0.00	0.00	0	0	Y			0
		BC-01-05	329	0.00	0.00	0.00	0	0	Y			0
		BC-01-06	330	0.00	0.00	0.00	0	0	Y			0
		BC-01-07	331	0.00	0.00	0.00	0	0	Y			0
		BC-01-08	332	0.00	0.00	0.00	0	0	Y			0
		BC-01-09	333	0.00	0.00	0.00	0	0	Y			0
		BC-01-10	334	0.00	0.00	0.00	0	0	Y			0
		BC-01-11	335	0.00	0.00	0.00	0	0	Y			0
		BC-01-12	336	0.00	0.00	0.00	0	0	Y			0
		BC-01-13	337	0.00	0.00	0.00	0	0	Y			0
		BC-01-14	338	0.00	0.00	0.00	0	0	Y			0
		BC-01-15	339	0.00	0.00	0.00	0	0	Y			0
		BC-01-16	340	0.00	0.00	0.00	0	0	Y			0
		BC-01-17	341	0.00	2.00	4.00	36	73	Y			0

		BC-02-01	359	0.00	0.00	0.00	0	0				0
		BC-02-02	361	0.00	0.00	0.00	0	0				0
		BC-02-03	362	0.00	0.00	0.00	0	0				0
		BC-02-04	363	0.00	0.00	0.00	0	0				0
		BC-02-05	364	0.00	0.00	0.00	0	0				0
		BC-02-06	365	0.00	0.00	0.00	0	0				0
		BC-02-07	366	0.00	0.00	0.00	0	0				0
		BC-02-08	367	0.00	0.00	0.00	0	0				0
		BC-02-09	368	0.00	0.00	0.00	0	0				0
		BC-02-10	369	0.00	0.00	0.00	0	0				0
		BC-02-11	370	0.00	0.00	0.00	0	0				0
		BC-02-12	371	0.00	0.00	0.00	0	0				0
		BC-02-13	372	0.00	0.00	0.00	0	0				0
		BC-02-14	373	0.00	0.00	0.00	0	0				0



ALT NSA C 2		Sheet 1 of 1	28 Jun 2023
		HMB Professional Engineers	
Barrier View-c2-sys		Project/Contract No. Brent Spence Bridge 6-17.00	
Run name: C2_V1_back		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: BARRIER SYSTEM E/F

HMB Professional Engineers
Mark Gavula

27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA E 2049 Certified
BARRIER DESIGN: efv2-sys
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E00101-F	18	1	67.7	71.1	66	3.4	10	Snd Lvl	70.1	1.0	7	-6.0
E00201	19	1	59.4	67.3	66	7.9	10	Snd Lvl	65.6	1.7	7	-5.3
E00301	20	1	61.8	67.2	66	5.4	10	Snd Lvl	65.5	1.7	7	-5.3
E00401	21	1	62.1	67.3	66	5.2	10	Snd Lvl	65.5	1.8	7	-5.2
E00501	22	1	62.0	67.4	66	5.4	10	Snd Lvl	65.5	1.9	7	-5.1
E00601	23	1	62.0	67.5	66	5.5	10	Snd Lvl	65.7	1.8	7	-5.2
E00701	24	1	62.8	68.0	66	5.2	10	Snd Lvl	65.9	2.1	7	-4.9
E00801	25	1	61.9	68.2	66	6.3	10	Snd Lvl	65.9	2.3	7	-4.7
E00901	26	1	59.1	68.3	66	9.2	10	Snd Lvl	65.9	2.4	7	-4.6
E01001	27	1	62.2	68.3	66	6.1	10	Snd Lvl	66.0	2.3	7	-4.7
E01101	28	1	57.9	68.4	66	10.5	10	Both	66.0	2.4	7	-4.6
E01201	29	1	57.9	68.5	66	10.6	10	Both	66.1	2.4	7	-4.6
E01301	30	1	57.6	68.6	66	11.0	10	Both	66.1	2.5	7	-4.5
E01401	31	1	57.8	68.7	66	10.9	10	Both	66.2	2.5	7	-4.5
E01501	32	1	57.8	68.7	66	10.9	10	Both	66.2	2.5	7	-4.5
E01601	33	1	58.4	68.8	66	10.4	10	Both	66.2	2.6	7	-4.4
E01701	34	1	63.0	68.8	66	5.8	10	Snd Lvl	66.3	2.5	7	-4.5
E01801	35	1	60.2	68.8	66	8.6	10	Snd Lvl	66.3	2.5	7	-4.5
E01901	36	1	57.9	68.9	66	11.0	10	Both	66.3	2.6	7	-4.4
E02001	37	1	60.7	68.9	66	8.2	10	Snd Lvl	66.4	2.5	7	-4.5
E02101	38	1	62.7	68.9	66	6.2	10	Snd Lvl	66.4	2.5	7	-4.5
E02201	39	1	61.2	68.9	66	7.7	10	Snd Lvl	66.4	2.5	7	-4.5
E02301	40	1	62.5	68.9	66	6.4	10	Snd Lvl	66.4	2.5	7	-4.5
E02401	41	1	64.3	69.1	66	4.8	10	Snd Lvl	66.5	2.6	7	-4.4

E02501	42	1	63.4	68.2	66	4.8	10	Snd Lvl	66.1	2.1	7	-4.9
E02601	43	1	63.6	68.2	66	4.6	10	Snd Lvl	66.0	2.2	7	-4.8
E02701	44	1	64.0	68.6	66	4.6	10	Snd Lvl	66.4	2.2	7	-4.8
E02801	45	1	65.1	69.3	66	4.2	10	Snd Lvl	66.7	2.6	7	-4.4
E02901	46	1	65.4	69.5	66	4.1	10	Snd Lvl	66.9	2.6	7	-4.4
E03001	47	1	65.5	69.7	66	4.2	10	Snd Lvl	67.0	2.7	7	-4.3
E03101	48	1	65.6	69.8	66	4.2	10	Snd Lvl	67.0	2.8	7	-4.2
E03201	49	1	65.8	69.9	66	4.1	10	Snd Lvl	67.2	2.7	7	-4.3
E03401	50	1	65.9	70.0	66	4.1	10	Snd Lvl	67.2	2.8	7	-4.2
E03501	51	1	66.0	70.1	66	4.1	10	Snd Lvl	67.3	2.8	7	-4.2
E03601	52	1	66.0	70.3	66	4.3	10	Snd Lvl	67.3	3.0	7	-4.0
E03701	53	1	66.8	70.9	66	4.1	10	Snd Lvl	68.1	2.8	7	-4.2
E03801	54	1	66.8	71.0	66	4.2	10	Snd Lvl	68.1	2.9	7	-4.1
E03901	55	1	67.0	70.9	66	3.9	10	Snd Lvl	68.2	2.7	7	-4.3
E04001	56	1	66.9	71.0	66	4.1	10	Snd Lvl	68.2	2.8	7	-4.2
E04101	57	1	66.7	70.8	66	4.1	10	Snd Lvl	68.0	2.8	7	-4.2
E04201	58	1	67.1	71.1	66	4.0	10	Snd Lvl	68.3	2.8	7	-4.2
E04301	59	1	67.7	72.0	66	4.3	10	Snd Lvl	69.1	2.9	7	-4.1
E04401	60	1	67.7	72.0	66	4.3	10	Snd Lvl	69.0	3.0	7	-4.0
E04501	61	1	66.8	71.5	66	4.7	10	Snd Lvl	68.2	3.3	7	-3.7
E04601	62	1	66.5	71.3	66	4.8	10	Snd Lvl	68.1	3.2	7	-3.8
E04701	63	1	66.1	71.5	66	5.4	10	Snd Lvl	68.0	3.5	7	-3.5
E07201	64	1	65.9	71.4	66	5.5	10	Snd Lvl	67.9	3.5	7	-3.5
E04801	65	1	65.7	71.1	66	5.4	10	Snd Lvl	67.8	3.3	7	-3.7
E04901	66	1	66.0	71.3	66	5.3	10	Snd Lvl	68.0	3.3	7	-3.7
E05002	67	2	69.2	72.9	66	3.7	10	Snd Lvl	69.9	3.0	7	-4.0
E05102	68	2	69.2	73.4	66	4.2	10	Snd Lvl	70.6	2.8	7	-4.2
E05202	69	2	68.6	73.6	66	5.0	10	Snd Lvl	70.7	2.9	7	-4.1
E05302	70	2	68.3	73.9	66	5.6	10	Snd Lvl	70.8	3.1	7	-3.9
E05402	71	2	68.7	74.2	66	5.5	10	Snd Lvl	70.9	3.3	7	-3.7
E05502	72	2	68.6	74.2	66	5.6	10	Snd Lvl	70.8	3.4	7	-3.6
E05602	73	2	67.7	74.0	66	6.3	10	Snd Lvl	69.9	4.1	7	-2.9
E05701	74	1	69.1	74.6	66	5.5	10	Snd Lvl	70.6	4.0	7	-3.0
E05801	75	1	69.9	74.6	66	4.7	10	Snd Lvl	70.8	3.8	7	-3.2
E05901	76	1	70.6	74.7	66	4.1	10	Snd Lvl	70.7	4.0	7	-3.0
E06001	77	1	70.5	74.8	66	4.3	10	Snd Lvl	70.3	4.5	7	-2.5
E06101	78	1	70.6	74.5	66	3.9	10	Snd Lvl	69.9	4.6	7	-2.4
E06201	79	1	70.5	74.5	66	4.0	10	Snd Lvl	69.7	4.8	7	-2.2
E06301	80	1	70.5	74.4	66	3.9	10	Snd Lvl	69.3	5.1	7	-1.9
E06401-F	81	1	65.4	75.7	66	10.3	10	Both	71.0	4.7	7	-2.3
E06501-F	82	1	66.7	74.8	66	8.1	10	Snd Lvl	70.0	4.8	7	-2.2

E06601-F	83	1	66.4	75.0	66	8.6	10	Snd Lvl	70.1	4.9	7	-2.1
E06701-F	84	1	66.5	75.4	66	8.9	10	Snd Lvl	70.3	5.1	7	-1.9
E06801-F	85	1	67.7	75.5	66	7.8	10	Snd Lvl	70.6	4.9	7	-2.1
E06901-F	86	1	69.0	75.4	66	6.4	10	Snd Lvl	70.3	5.1	7	-1.9
E07001-F	87	1	69.8	75.2	66	5.4	10	Snd Lvl	69.6	5.6	7	-1.4
E07101-F	88	1	69.5	75.5	66	6.0	10	Snd Lvl	69.3	6.2	7	-0.8

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	78	1.0	3.1	6.2
All Impacted	78	1.0	3.1	6.2
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

27 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA E 2049 Certified
BARRIER DESIGN: efv2-sys

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
E00101-F	18	70.1	1.0	7	-6.0	NB75-W	E-05-68	310	0.0	52.9
						NB75-W	E-05-67	309	0.0	52.9
						NB75-W	E-05-69	311	0.0	51.7
						NB75-W	E-05-72	314	0.0	51.1
						NB75-W	E-05-71	313	0.0	51.1
						NB75-W	E-05-73	315	0.0	50.9
						NB75-W	E-05-74	316	0.0	50.8
						SBCD-W	E-01-42	219	0.0	48.7
						SBCD-W	E-01-46	223	0.0	48.6
						SBCD-W	E-01-45	222	0.0	48.6
E00201	19	65.6	1.7	7	-5.3	NB75-W	E-05-67	309	0.0	48.7
						NB75-W	E-05-68	310	0.0	48.5
						NB75-W	E-05-69	311	0.0	47.1
						NB75-W	E-05-72	314	0.0	46.1
						NB75-W	E-05-71	313	0.0	46.0
						NB75-W	E-05-74	316	0.0	45.8
						NB75-W	E-05-73	315	0.0	45.5
						NB75-W	E-05-75	317	0.0	44.6
						SBCD-W	E-01-46	223	0.0	42.4
						SBCD-W	E-01-61	238	0.0	41.8
E00301	20	65.5	1.7	7	-5.3	NB75-W	E-05-67	309	0.0	48.7

						NB75-W	E-05-68	310	0.0	48.5
						NB75-W	E-05-69	311	0.0	46.5
						NB75-W	E-05-72	314	0.0	46.2
						NB75-W	E-05-71	313	0.0	45.9
						NB75-W	E-05-74	316	0.0	45.8
						NB75-W	E-05-73	315	0.0	45.6
						NB75-W	E-05-75	317	0.0	44.1
						NB75-W	E-05-66	308	10.0	42.9
						SBCD-W	E-01-47	224	0.0	42.1
E00401	21	65.5	1.8	7	-5.2	NB75-W	E-05-67	309	0.0	48.8
						NB75-W	E-05-68	310	0.0	48.6
						NB75-W	E-05-69	311	0.0	46.5
						NB75-W	E-05-71	313	0.0	46.1
						NB75-W	E-05-72	314	0.0	46.0
						NB75-W	E-05-74	316	0.0	45.9
						NB75-W	E-05-73	315	0.0	45.4
						NB75-W	E-05-75	317	0.0	44.4
						NB75-W	E-05-66	308	10.0	43.1
						SBCD-W	E-01-47	224	0.0	41.8
E00501	22	65.5	1.9	7	-5.1	NB75-W	E-05-67	309	0.0	48.8
						NB75-W	E-05-68	310	0.0	48.5
						NB75-W	E-05-69	311	0.0	46.5
						NB75-W	E-05-71	313	0.0	46.5
						NB75-W	E-05-72	314	0.0	46.1
						NB75-W	E-05-74	316	0.0	45.9
						NB75-W	E-05-73	315	0.0	45.5
						NB75-W	E-05-75	317	0.0	44.2
						NB75-W	E-05-66	308	10.0	43.1
						SBCD-W	E-01-47	224	0.0	41.6
E00601	23	65.7	1.8	7	-5.2	NB75-W	E-05-67	309	0.0	49.0
						NB75-W	E-05-68	310	0.0	48.8
						NB75-W	E-05-69	311	0.0	46.6
						NB75-W	E-05-71	313	0.0	46.6
						NB75-W	E-05-72	314	0.0	46.3
						NB75-W	E-05-74	316	0.0	45.9
						NB75-W	E-05-73	315	0.0	45.9

						NB75-W	E-05-75	317	0.0	43.9
						NB75-W	E-05-66	308	10.0	43.3
						SBCD-W	E-01-48	225	0.0	41.3
E00701	24	65.9	2.1	7	-4.9	NB75-W	E-05-67	309	0.0	49.4
						NB75-W	E-05-68	310	0.0	49.1
						NB75-W	E-05-69	311	0.0	47.1
						NB75-W	E-05-71	313	0.0	46.6
						NB75-W	E-05-72	314	0.0	46.4
						NB75-W	E-05-73	315	0.0	46.4
						NB75-W	E-05-74	316	0.0	46.3
						NB75-W	E-05-66	308	10.0	43.8
						SB75-W2	E-02/03-25	98	12.0	42.1
						NB75-W	E-05-75	317	0.0	41.8
E00801	25	65.9	2.3	7	-4.7	NB75-W	E-05-67	309	0.0	49.3
						NB75-W	E-05-68	310	0.0	48.9
						NB75-W	E-05-69	311	0.0	47.0
						NB75-W	E-05-71	313	0.0	46.4
						NB75-W	E-05-72	314	0.0	46.2
						NB75-W	E-05-73	315	0.0	45.9
						NB75-W	E-05-74	316	0.0	45.5
						NB75-W	E-05-66	308	10.0	43.8
						SB75-W2	E-02/03-25	98	12.0	42.5
						SB75-W2	E-02/03-24	97	12.0	42.2
E00901	26	65.9	2.4	7	-4.6	NB75-W	E-05-67	309	0.0	49.2
						NB75-W	E-05-68	310	0.0	49.1
						NB75-W	E-05-69	311	0.0	46.8
						NB75-W	E-05-71	313	0.0	46.3
						NB75-W	E-05-72	314	0.0	46.1
						NB75-W	E-05-73	315	0.0	45.8
						NB75-W	E-05-74	316	0.0	45.4
						NB75-W	E-05-66	308	10.0	43.7
						SB75-W2	E-02/03-25	98	12.0	42.7
						SB75-W2	E-02/03-24	97	12.0	42.5
E01001	27	66.0	2.3	7	-4.7	NB75-W	E-05-67	309	0.0	49.2
						NB75-W	E-05-68	310	0.0	48.9
						NB75-W	E-05-69	311	0.0	46.8

						NB75-W	E-05-71	313	0.0	46.2
						NB75-W	E-05-72	314	0.0	46.0
						NB75-W	E-05-73	315	0.0	45.8
						NB75-W	E-05-74	316	0.0	45.5
						NB75-W	E-05-66	308	10.0	43.7
						SB75-W2	E-02/03-25	98	12.0	42.8
						SB75-W2	E-02/03-24	97	12.0	42.6
E01101	28	66.0	2.4	7	-4.6	NB75-W	E-05-67	309	0.0	49.3
						NB75-W	E-05-68	310	0.0	48.8
						NB75-W	E-05-69	311	0.0	46.8
						NB75-W	E-05-71	313	0.0	46.2
						NB75-W	E-05-72	314	0.0	46.0
						NB75-W	E-05-73	315	0.0	45.6
						NB75-W	E-05-74	316	0.0	45.3
						NB75-W	E-05-66	308	10.0	42.9
						SB75-W2	E-02/03-25	98	12.0	42.9
						SB75-W2	E-02/03-24	97	12.0	42.7
E01201	29	66.1	2.4	7	-4.6	NB75-W	E-05-67	309	0.0	49.3
						NB75-W	E-05-68	310	0.0	48.8
						NB75-W	E-05-69	311	0.0	46.8
						NB75-W	E-05-71	313	0.0	46.1
						NB75-W	E-05-72	314	0.0	46.0
						NB75-W	E-05-73	315	0.0	45.4
						NB75-W	E-05-74	316	0.0	44.1
						NB75-W	E-05-66	308	10.0	43.7
						SB75-W2	E-02/03-25	98	12.0	43.2
						SB75-W2	E-02/03-24	97	12.0	43.0
E01301	30	66.1	2.5	7	-4.5	NB75-W	E-05-67	309	0.0	49.3
						NB75-W	E-05-68	310	0.0	48.8
						NB75-W	E-05-69	311	0.0	46.8
						NB75-W	E-05-71	313	0.0	46.1
						NB75-W	E-05-72	314	0.0	45.9
						NB75-W	E-05-73	315	0.0	45.3
						NB75-W	E-05-74	316	0.0	45.0
						NB75-W	E-05-66	308	10.0	43.8
						SB75-W2	E-02/03-25	98	12.0	43.4

						SB75-W2	E-02/03-24	97	12.0	43.1
E01401	31	66.2	2.5	7	-4.5	NB75-W	E-05-67	309	0.0	49.3
						NB75-W	E-05-68	310	0.0	48.9
						NB75-W	E-05-69	311	0.0	46.9
						NB75-W	E-05-71	313	0.0	46.0
						NB75-W	E-05-73	315	0.0	45.1
						NB75-W	E-05-74	316	0.0	44.8
						NB75-W	E-05-72	314	0.0	44.5
						NB75-W	E-05-66	308	10.0	43.8
						SB75-W2	E-02/03-25	98	12.0	43.6
						SB75-W2	E-02/03-24	97	12.0	43.3
E01501	32	66.2	2.5	7	-4.5	NB75-W	E-05-67	309	0.0	49.2
						NB75-W	E-05-68	310	0.0	48.8
						NB75-W	E-05-69	311	0.0	46.7
						NB75-W	E-05-71	313	0.0	45.9
						NB75-W	E-05-72	314	0.0	45.7
						NB75-W	E-05-73	315	0.0	44.9
						NB75-W	E-05-74	316	0.0	44.6
						SB75-W2	E-02/03-25	98	12.0	43.7
						NB75-W	E-05-66	308	10.0	43.7
						SB75-W2	E-02/03-24	97	12.0	43.4
E01601	33	66.2	2.6	7	-4.4	NB75-W	E-05-67	309	0.0	49.1
						NB75-W	E-05-68	310	0.0	48.8
						NB75-W	E-05-69	311	0.0	46.7
						NB75-W	E-05-71	313	0.0	45.7
						NB75-W	E-05-72	314	0.0	45.5
						NB75-W	E-05-73	315	0.0	44.5
						NB75-W	E-05-74	316	0.0	44.3
						SB75-W2	E-02/03-25	98	12.0	43.9
						NB75-W	E-05-66	308	10.0	43.7
						SB75-W2	E-02/03-24	97	12.0	43.6
E01701	34	66.3	2.5	7	-4.5	NB75-W	E-05-67	309	0.0	49.0
						NB75-W	E-05-68	310	0.0	48.7
						NB75-W	E-05-69	311	0.0	46.5
						NB75-W	E-05-71	313	0.0	45.6
						NB75-W	E-05-72	314	0.0	45.4

						NB75-W	E-05-73	315	0.0	44.2
						NB75-W	E-05-74	316	0.0	44.1
						SB75-W2	E-02/03-25	98	12.0	43.9
						SB75-W1	E-02/03-41	114	12.0	43.7
						SB75-W2	E-02/03-24	97	12.0	43.7
E01801	35	66.3	2.5	7	-4.5	NB75-W	E-05-67	309	0.0	49.0
						NB75-W	E-05-68	310	0.0	48.7
						NB75-W	E-05-69	311	0.0	46.4
						NB75-W	E-05-71	313	0.0	45.5
						NB75-W	E-05-72	314	0.0	45.2
						NB75-W	E-05-73	315	0.0	44.2
						SB75-W2	E-02/03-25	98	12.0	44.1
						SB75-W2	E-02/03-24	97	12.0	43.9
						NB75-W	E-05-74	316	0.0	43.8
						SB75-W2	E-02/03-23	96	12.0	43.7
E01901	36	66.3	2.6	7	-4.4	NB75-W	E-05-67	309	0.0	49.0
						NB75-W	E-05-68	310	0.0	48.4
						NB75-W	E-05-69	311	0.0	46.5
						NB75-W	E-05-71	313	0.0	45.4
						NB75-W	E-05-72	314	0.0	45.1
						SB75-W2	E-02/03-25	98	12.0	44.3
						SB75-W2	E-02/03-24	97	12.0	44.1
						SB75-W2	E-02/03-23	96	12.0	43.9
						NB75-W	E-05-73	315	0.0	43.7
						NB75-W	E-05-66	308	10.0	43.6
E02001	37	66.4	2.5	7	-4.5	NB75-W	E-05-67	309	0.0	48.8
						NB75-W	E-05-68	310	0.0	48.2
						NB75-W	E-05-69	311	0.0	46.3
						NB75-W	E-05-71	313	0.0	45.2
						NB75-W	E-05-72	314	0.0	44.9
						SB75-W2	E-02/03-25	98	12.0	44.4
						SB75-W2	E-02/03-24	97	12.0	44.2
						SB75-W1	E-02/03-42	115	12.0	44.0
						SB75-W1	E-02/03-41	114	12.0	43.9
						SB75-W2	E-02/03-23	96	12.0	43.9
E02101	38	66.4	2.5	7	-4.5	NB75-W	E-05-67	309	0.0	48.8

						NB75-W	E-05-68	310	0.0	47.9
						SB75-W1	E-02/03-41	114	12.0	46.5
						SB75-W1	E-02/03-40	113	12.0	46.4
						NB75-W	E-05-69	311	0.0	46.1
						SB75-W1	E-02/03-42	115	12.0	46.0
						SB75-W1	E-02/03-43	116	12.0	45.8
						NB75-W	E-05-71	313	0.0	45.1
						NB75-W	E-05-72	314	0.0	44.8
						SB75-W1	E-02/03-39	112	12.0	44.7
E02201	39	66.4	2.5	7	-4.5	NB75-W	E-05-67	309	0.0	48.7
						NB75-W	E-05-68	310	0.0	48.0
						NB75-W	E-05-69	311	0.0	46.0
						SB75-W1	E-02/03-43	116	12.0	45.8
						SB75-W1	E-02/03-42	115	12.0	45.2
						NB75-W	E-05-71	313	0.0	44.9
						SB75-W2	E-02/03-25	98	12.0	44.7
						NB75-W	E-05-72	314	0.0	44.7
						SB75-W1	E-02/03-41	114	12.0	44.6
						SB75-W2	E-02/03-24	97	12.0	44.5
E02301	40	66.4	2.5	7	-4.5	NB75-W	E-05-67	309	0.0	48.6
						NB75-W	E-05-68	310	0.0	48.1
						SB75-W1	E-02/03-41	114	12.0	46.6
						SB75-W1	E-02/03-42	115	12.0	45.9
						NB75-W	E-05-69	311	0.0	45.9
						SB75-W1	E-02/03-43	116	12.0	45.7
						SB75-W1	E-02/03-40	113	12.0	45.4
						SB75-W2	E-02/03-25	98	12.0	44.9
						NB75-W	E-05-71	313	0.0	44.7
						SB75-W2	E-02/03-24	97	12.0	44.6
E02401	41	66.5	2.6	7	-4.4	NB75-W	E-05-67	309	0.0	48.3
						NB75-W	E-05-68	310	0.0	47.6
						SB75-W1	E-02/03-37	110	12.0	46.4
						SB75-W1	E-02/03-40	113	12.0	46.4
						SB75-W1	E-02/03-41	114	12.0	46.3
						SB75-W1	E-02/03-39	112	12.0	45.8
						SB75-W2	E-02/03-25	98	12.0	45.8

						SB75-W1	E-02/03-42	115	12.0	45.6
						SB75-W2	E-02/03-24	97	12.0	45.6
						NB75-W	E-05-69	311	0.0	45.4
E02501	42	66.1	2.1	7	-4.9	NB75-W	E-05-67	309	0.0	47.8
						NB75-W	E-05-68	310	0.0	47.5
						NB75-W	E-05-69	311	0.0	46.2
						NB75-W	E-05-72	314	0.0	45.3
						NB75-W	E-05-71	313	0.0	45.2
						NB75-W	E-05-73	315	0.0	45.2
						SB75-W1	E-02/03-41	114	12.0	45.1
						SB75-W1	E-02/03-40	113	12.0	45.0
						NB75-W	E-05-74	316	0.0	45.0
						SB75-W1	E-02/03-37	110	12.0	44.9
E02601	43	66.0	2.2	7	-4.8	NB75-W	E-05-67	309	0.0	47.3
						NB75-W	E-05-68	310	0.0	47.1
						NB75-W	E-05-69	311	0.0	46.4
						SB75-W1	E-02/03-41	114	12.0	45.2
						NB75-W	E-05-71	313	0.0	45.1
						NB75-W	E-05-72	314	0.0	45.1
						NB75-W	E-05-74	316	0.0	45.0
						NB75-W	E-05-73	315	0.0	44.9
						SB75-W1	E-02/03-40	113	12.0	44.8
						SB75-W1	E-02/03-36	109	12.0	44.4
E02701	44	66.4	2.2	7	-4.8	NB75-W	E-05-67	309	0.0	47.8
						NB75-W	E-05-68	310	0.0	47.3
						NB75-W	E-05-69	311	0.0	46.3
						NB75-W	E-05-71	313	0.0	46.0
						NB75-W	E-05-72	314	0.0	45.9
						SB75-W1	E-02/03-32	105	12.0	45.1
						SB75-W1	E-02/03-41	114	12.0	45.1
						SB75-W1	point332	332	12.0	45.1
						SB75-W1	E-02/03-33	106	12.0	45.0
						NB75-W	E-05-74	316	0.0	44.9
E02801	45	66.7	2.6	7	-4.4	NB75-W	E-05-67	309	0.0	47.8
						NB75-W	E-05-68	310	0.0	47.2
						SB75-W1	point332	332	12.0	46.6

						SB75-W1	E-02/03-32	105	12.0	46.6
						SB75-W1	E-02/03-33	106	12.0	46.5
						SB75-W1	E-02/03-34	107	12.0	46.4
						SB75-W1	E-02/03-35	108	12.0	46.2
						SB75-W2	E-02/03-09	82	0.0	46.1
						SB75-W1	E-02/03-36	109	12.0	46.1
						SB75-W2	E-02/03-25	98	12.0	46.0
E02901	46	66.9	2.6	7	-4.4	NB75-W	E-05-67	309	0.0	47.6
						NB75-W	E-05-68	310	0.0	46.7
						SB75-W1	point332	332	12.0	46.7
						SB75-W1	E-02/03-32	105	12.0	46.6
						SB75-W2	E-02/03-09	82	0.0	46.6
						SB75-W1	E-02/03-33	106	12.0	46.5
						SB75-W2	E-02/03-25	98	12.0	46.4
						SB75-W1	E-02/03-34	107	12.0	46.3
						SB75-W2	E-02/03-24	97	12.0	46.2
						SB75-W2	E-02/03-08	81	0.0	46.2
E03001	47	67.0	2.7	7	-4.3	NB75-W	E-05-67	309	0.0	47.5
						SB75-W2	E-02/03-09	82	0.0	46.8
						SB75-W1	point332	332	12.0	46.7
						NB75-W	E-05-68	310	0.0	46.6
						SB75-W1	E-02/03-32	105	12.0	46.6
						SB75-W2	E-02/03-25	98	12.0	46.6
						SB75-W2	E-02/03-24	97	12.0	46.4
						SB75-W2	E-02/03-08	81	0.0	46.4
						SB75-W1	E-02/03-33	106	12.0	46.4
						SB75-W2	E-02/03-23	96	12.0	46.3
E03101	48	67.0	2.8	7	-4.2	NB75-W	E-05-67	309	0.0	47.4
						SB75-W2	E-02/03-09	82	0.0	47.1
						SB75-W2	E-02/03-25	98	12.0	46.7
						SB75-W2	E-02/03-08	81	0.0	46.7
						SB75-W2	E-02/03-24	97	12.0	46.7
						SB75-W1	point332	332	12.0	46.7
						SB75-W2	E-02/03-23	96	12.0	46.6
						SB75-W1	E-02/03-32	105	12.0	46.5
						SB75-W2	E-02/03-22	95	12.0	46.5

						SB75-W2	E-02/03-07	80	0.0	46.4
E03201	49	67.2	2.7	7	-4.3	SB75-W2	E-02/03-09	82	0.0	47.4
						NB75-W	E-05-67	309	0.0	47.3
						SB75-W2	E-02/03-08	81	0.0	47.0
						SB75-W2	E-02/03-24	97	12.0	47.0
						SB75-W2	E-02/03-22	95	12.0	47.0
						SB75-W2	E-02/03-25	98	12.0	47.0
						SB75-W2	E-02/03-23	96	12.0	46.9
						SB75-W2	E-02/03-07	80	0.0	46.7
						SB75-W2	E-02/03-21	94	12.0	46.7
						SB75-W1	point332	332	12.0	46.6
E03401	50	67.2	2.8	7	-4.2	SB75-W2	E-02/03-09	82	0.0	47.6
						SB75-W2	E-02/03-08	81	0.0	47.3
						NB75-W	E-05-67	309	0.0	47.2
						SB75-W2	E-02/03-24	97	12.0	47.1
						SB75-W2	E-02/03-25	98	12.0	47.1
						SB75-W2	E-02/03-23	96	12.0	47.1
						SB75-W2	E-02/03-22	95	12.0	47.1
						SB75-W2	E-02/03-21	94	12.0	46.9
						SB75-W2	E-02/03-19	92	12.0	46.8
						SB75-W2	E-02/03-20	93	12.0	46.7
E03501	51	67.3	2.8	7	-4.2	SB75-W2	E-02/03-09	82	0.0	47.9
						SB75-W2	E-02/03-08	81	0.0	47.6
						SB75-W2	E-02/03-22	95	12.0	47.4
						SB75-W2	E-02/03-23	96	12.0	47.3
						SB75-W2	E-02/03-25	98	12.0	47.3
						SB75-W2	E-02/03-24	97	12.0	47.3
						SB75-W2	E-02/03-07	80	0.0	47.3
						SB75-W2	E-02/03-20	93	12.0	47.0
						NB75-W	E-05-67	309	0.0	47.0
						SB75-W2	E-02/03-06	79	0.0	47.0
E03601	52	67.3	3.0	7	-4.0	SB75-W2	E-02/03-09	82	0.0	48.5
						SB75-W2	E-02/03-08	81	0.0	48.1
						SB75-W2	E-02/03-19	92	12.0	48.1
						SB75-W2	E-02/03-07	80	0.0	47.8
						SB75-W2	E-02/03-20	93	12.0	47.8

						SB75-W2	E-02/03-22	95	12.0	47.8
						SB75-W2	E-02/03-23	96	12.0	47.8
						SB75-W2	E-02/03-24	97	12.0	47.7
						SB75-W2	E-02/03-21	94	12.0	47.7
						SB75-W2	E-02/03-25	98	12.0	47.6
E03701	53	68.1	2.8	7	-4.2	SB75-W2	E-02/03-09	82	0.0	49.6
						SB75-W2	E-02/03-08	81	0.0	49.3
						Crescent Ave	point369	369	24.0	49.2
						SB75-W2	E-02/03-19	92	12.0	49.0
						SB75-W2	E-02/03-07	80	0.0	48.9
						SB75-W2	E-02/03-22	95	12.0	48.9
						SB75-W2	E-02/03-20	93	12.0	48.8
						SB75-W2	E-02/03-23	96	12.0	48.7
						SB75-W2	E-02/03-06	79	0.0	48.6
						SB75-W2	E-02/03-24	97	12.0	48.5
E03801	54	68.1	2.9	7	-4.1	Crescent Ave	point369	369	24.0	50.1
						SB75-W2	E-02/03-09	82	0.0	50.1
						SB75-W2	E-02/03-08	81	0.0	49.7
						SB75-W2	E-02/03-07	80	0.0	49.4
						SB75-W2	E-02/03-06	79	0.0	49.0
						SB75-W2	E-02/03-22	95	12.0	48.9
						SB75-W2	E-02/03-20	93	12.0	48.8
						SB75-W2	E-02/03-23	96	12.0	48.7
						SB75-W2	E-02/03-18	91	12.0	48.6
						SB75-W2	E-02/03-17	90	12.0	48.5
E03901	55	68.2	2.7	7	-4.3	Crescent Ave	point369	369	24.0	52.9
						SB75-W2	E-02/03-09	82	0.0	50.8
						SB75-W2	E-02/03-08	81	0.0	50.4
						SB75-W2	E-02/03-07	80	0.0	50.1
						SB75-W2	E-02/03-06	79	8.0	49.5
						SB75-W2	E-02/03-20	93	12.0	48.9
						Crescent Ave	point368	368	24.0	48.8
						SB75-W2	E-02/03-17	90	12.0	48.8
						SB75-W2	E-02/03-18	91	12.0	48.7
						SB75-W2	E-02/03-16	89	12.0	48.7
E04001	56	68.2	2.8	7	-4.2	Crescent Ave	point369	369	24.0	54.3

						SB75-W2	E-02/03-09	82	0.0	51.3
						SB75-W2	E-02/03-08	81	0.0	51.1
						SB75-W2	E-02/03-07	80	8.0	50.7
						Crescent Ave	point368	368	24.0	49.9
						SB75-W2	E-02/03-06	79	8.0	49.5
						Crescent Ave	point367	367	24.0	49.2
						SB75-W2	E-02/03-20	93	12.0	48.9
						SB75-W2	E-02/03-17	90	12.0	48.9
						SB75-W2	E-02/03-18	91	12.0	48.8
E04101	57	68.0	2.8	7	-4.2	Crescent Ave	point369	369	24.0	55.5
						SB75-W2	E-02/03-09	82	0.0	51.7
						Crescent Ave	point368	368	24.0	51.4
						SB75-W2	E-02/03-08	81	8.0	51.4
						SB75-W2	E-02/03-07	80	8.0	50.8
						Crescent Ave	point367	367	24.0	50.6
						Crescent Ave	point366	366	24.0	49.6
						SB75-W2	E-02/03-20	93	12.0	49.0
						SB75-W2	E-02/03-06	79	8.0	48.9
						Crescent Ave	point365	365	24.0	48.8
E04201	58	68.3	2.8	7	-4.2	Crescent Ave	point369	369	24.0	57.0
						Crescent Ave	point368	368	24.0	53.7
						Crescent Ave	point367	367	24.0	52.8
						SB75-W2	E-02/03-09	82	0.0	52.2
						SB75-W2	E-02/03-08	81	8.0	51.9
						SB75-W2	E-02/03-07	80	8.0	51.9
						Crescent Ave	point366	366	24.0	51.5
						SB75-W2	E-02/03-06	79	8.0	50.7
						Crescent Ave	point365	365	24.0	50.5
						Crescent Ave	point364	364	24.0	49.9
E04301	59	69.1	2.9	7	-4.1	Crescent Ave	point369	369	24.0	58.9
						Crescent Ave	point368	368	24.0	55.6
						Crescent Ave	point367	367	24.0	55.0
						SB75-W2	E-02/03-09	82	8.0	53.9
						SB75-W2	E-02/03-08	81	8.0	53.8
						Crescent Ave	point366	366	24.0	53.5
						SB75-W2	E-02/03-07	80	8.0	53.2

						Crescent Ave	point365	365	24.0	52.5
						SB75-W2	E-02/03-06	79	8.0	52.0
						Crescent Ave	point364	364	24.0	51.8
E04401	60	69.0	3.0	7	-4.0	Crescent Ave	point369	369	24.0	59.2
						Crescent Ave	point368	368	24.0	56.3
						Crescent Ave	point367	367	24.0	55.6
						Crescent Ave	point366	366	24.0	54.6
						SB75-W2	E-02/03-09	82	8.0	54.1
						SB75-W2	E-02/03-08	81	8.0	53.9
						SB75-W2	E-02/03-07	80	8.0	53.3
						Crescent Ave	point365	365	24.0	53.3
						Crescent Ave	point364	364	24.0	52.7
						SB75-W2	E-02/03-06	79	8.0	52.3
E04501	61	68.2	3.3	7	-3.7	Crescent Ave	point369	369	24.0	57.5
						Crescent Ave	point368	368	24.0	55.6
						Crescent Ave	point367	367	24.0	55.3
						Crescent Ave	point366	366	24.0	54.6
						Crescent Ave	point365	365	24.0	53.8
						Crescent Ave	point364	364	24.0	53.2
						SB75-W2	E-02/03-09	82	8.0	53.0
						SB75-W2	E-02/03-08	81	8.0	52.4
						Crescent Ave	point363	363	24.0	52.0
						SB75-W2	E-02/03-07	80	8.0	51.9
E04601	62	68.1	3.2	7	-3.8	Crescent Ave	point369	369	24.0	56.8
						Crescent Ave	point368	368	24.0	55.7
						Crescent Ave	point367	367	24.0	55.4
						Crescent Ave	point366	366	24.0	55.0
						Crescent Ave	point365	365	24.0	54.4
						Crescent Ave	point364	364	24.0	53.6
						SB75-W2	E-02/03-09	82	8.0	52.8
						Crescent Ave	point363	363	24.0	52.6
						SB75-W2	E-02/03-08	81	8.0	52.3
						SB75-W2	E-02/03-07	80	8.0	52.3
E04701	63	68.0	3.5	7	-3.5	Crescent Ave	point369	369	24.0	56.5
						Crescent Ave	point368	368	24.0	55.5
						Crescent Ave	point367	367	24.0	55.3

						Crescent Ave	point366	366	24.0	54.9
						Crescent Ave	point365	365	24.0	54.2
						Crescent Ave	point364	364	24.0	53.9
						Crescent Ave	point363	363	24.0	52.8
						SB75-W2	E-02/03-09	82	8.0	52.3
						SB75-W2	E-02/03-07	80	8.0	52.0
						SB75-W2	E-02/03-08	81	8.0	51.8
E07201	64	67.9	3.5	7	-3.5	Crescent Ave	point369	369	24.0	56.2
						Crescent Ave	point368	368	24.0	55.6
						Crescent Ave	point367	367	24.0	55.5
						Crescent Ave	point366	366	24.0	55.1
						Crescent Ave	point365	365	24.0	54.6
						Crescent Ave	point364	364	24.0	54.2
						Crescent Ave	point363	363	24.0	53.2
						SB75-W2	E-02/03-07	80	8.0	52.3
						SB75-W2	E-02/03-08	81	8.0	52.2
						SB75-W2	E-02/03-09	82	8.0	52.2
E04801	65	67.8	3.3	7	-3.7	Crescent Ave	point367	367	24.0	55.2
						Crescent Ave	point366	366	24.0	55.1
						Crescent Ave	point369	369	24.0	55.0
						Crescent Ave	point364	364	24.0	55.0
						Crescent Ave	point365	365	24.0	55.0
						Crescent Ave	point368	368	24.0	54.8
						Crescent Ave	point363	363	24.0	53.8
						Crescent Ave	point362	362	24.0	52.3
						SB75-W2	E-02/03-07	80	8.0	52.2
						SB75-W2	E-02/03-08	81	8.0	52.0
E04901	66	68.0	3.3	7	-3.7	Crescent Ave	point367	367	24.0	55.7
						Crescent Ave	point364	364	24.0	55.5
						Crescent Ave	point366	366	24.0	55.4
						Crescent Ave	point365	365	24.0	55.3
						Crescent Ave	point369	369	24.0	54.8
						Crescent Ave	point363	363	24.0	54.8
						Crescent Ave	point368	368	24.0	54.0
						Crescent Ave	point362	362	24.0	53.3
						Crescent Ave	point361	361	24.0	52.5

						SB75-W2	E-02/03-08	81	8.0	52.5
E05002	67	69.9	3.0	7	-4.0	SB75-W2	E-02/03-20	93	12.0	51.9
						SB75-W2	E-02/03-09	82	0.0	51.9
						SB75-W2	E-02/03-25	98	12.0	51.8
						SB75-W2	E-02/03-24	97	12.0	51.8
						SB75-W2	E-02/03-08	81	0.0	51.3
						SB75-W2	E-02/03-07	80	0.0	50.8
						SB75-W2	E-02/03-21	94	12.0	50.7
						SB75-W2	E-02/03-17	90	12.0	50.6
						SB75-W2	E-02/03-18	91	12.0	50.5
						SB75-W2	E-02/03-19	92	12.0	50.0
E05102	68	70.6	2.8	7	-4.2	SB75-W2	E-02/03-09	82	0.0	53.2
						SB75-W2	E-02/03-16	89	12.0	52.7
						SB75-W2	E-02/03-08	81	0.0	52.5
						SB75-W2	E-02/03-18	91	12.0	52.5
						SB75-W2	E-02/03-20	93	12.0	52.5
						SB75-W2	E-02/03-15	88	12.0	52.4
						SB75-W2	E-02/03-17	90	12.0	52.3
						SB75-W2	E-02/03-07	80	0.0	52.0
						SB75-W2	E-02/03-22	95	12.0	51.9
						SB75-W2	E-02/03-14	87	12.0	51.8
E05202	69	70.7	2.9	7	-4.1	SB75-W2	E-02/03-09	82	0.0	54.7
						SB75-W2	E-02/03-08	81	0.0	54.1
						SB75-W2	E-02/03-20	93	12.0	53.8
						SB75-W2	E-02/03-17	90	12.0	53.7
						SB75-W2	E-02/03-16	89	12.0	53.6
						SB75-W2	E-02/03-07	80	0.0	53.5
						SB75-W2	E-02/03-18	91	12.0	53.5
						SB75-W2	E-02/03-15	88	12.0	53.3
						SB75-W2	E-02/03-14	87	12.0	53.1
						SB75-W2	E-02/03-06	79	0.0	52.9
E05302	70	70.8	3.1	7	-3.9	SB75-W2	E-02/03-09	82	0.0	55.6
						SB75-W2	E-02/03-08	81	0.0	55.0
						SB75-W2	E-02/03-06	79	0.0	53.9
						SB75-W2	E-02/03-15	88	12.0	53.7
						SB75-W2	E-02/03-14	87	12.0	53.7

						SB75-W2	E-02/03-16	89	12.0	53.6
						SB75-W2	E-02/03-20	93	12.0	53.4
						SB75-W2	E-02/03-13	86	12.0	53.3
						SB75-W2	E-02/03-18	91	12.0	53.1
						SB75-W2	E-02/03-12	85	12.0	53.0
E05402	71	70.9	3.3	7	-3.7	SB75-W2	E-02/03-09	82	0.0	56.7
						Crescent Ave	point369	369	24.0	56.4
						SB75-W2	E-02/03-07	80	0.0	55.6
						SB75-W2	E-02/03-08	81	0.0	55.3
						SB75-W2	E-02/03-13	86	12.0	53.8
						SB75-W2	E-02/03-14	87	12.0	53.8
						SB75-W2	E-02/03-12	85	12.0	53.8
						SB75-W2	E-02/03-11	84	12.0	53.6
						SB75-W2	E-02/03-15	88	12.0	53.5
						SB75-W2	E-02/03-10	83	10.0	53.4
E05502	72	70.8	3.4	7	-3.6	Crescent Ave	point369	369	24.0	59.0
						SB75-W2	E-02/03-09	82	0.0	57.3
						SB75-W2	E-02/03-08	81	8.0	56.7
						SB75-W2	E-02/03-10	83	10.0	53.8
						SB75-W2	E-02/03-11	84	12.0	53.8
						SB75-W2	E-02/03-12	85	12.0	53.8
						SB75-W2	E-02/03-13	86	12.0	53.7
						SB75-W2	E-02/03-14	87	12.0	53.5
						SB75-W2	E-02/03-07	80	8.0	53.3
						SB75-W2	E-02/03-15	88	12.0	53.0
E05602	73	69.9	4.1	7	-2.9	Crescent Ave	point369	369	24.0	60.0
						Crescent Ave	point368	368	24.0	55.7
						SB75-W2	E-02/03-09	82	8.0	54.2
						Crescent Ave	point367	367	24.0	54.2
						SB75-W2	E-02/03-10	83	12.0	53.8
						SB75-W2	E-02/03-11	84	12.0	53.3
						Crescent Ave	point366	366	24.0	53.2
						SB75-W2	E-02/03-12	85	12.0	53.0
						SB75-W2	E-02/03-13	86	12.0	52.6
						SB75-W2	E-02/03-14	87	12.0	52.2
E05701	74	70.6	4.0	7	-3.0	Crescent Ave	point369	369	24.0	60.6

						Crescent Ave	point367	367	24.0	59.9
						Crescent Ave	point368	368	24.0	59.2
						Crescent Ave	point366	366	24.0	59.2
						Crescent Ave	point365	365	24.0	58.3
						Crescent Ave	point364	364	24.0	56.8
						SB75-W2	E-02/03-07	80	8.0	54.6
						Crescent Ave	point363	363	24.0	54.4
						SB75-W2	E-02/03-08	81	8.0	54.2
						SB75-W2	E-02/03-06	79	8.0	54.2
E05801	75	70.8	3.8	7	-3.2	Crescent Ave	point366	366	24.0	60.1
						Crescent Ave	point365	365	24.0	59.8
						Crescent Ave	point367	367	24.0	59.7
						Crescent Ave	point364	364	24.0	59.6
						Crescent Ave	point369	369	24.0	59.4
						Crescent Ave	point368	368	24.0	58.3
						Crescent Ave	point363	363	24.0	58.1
						SB75-W2	E-02/03-08	81	8.0	55.5
						Crescent Ave	point362	362	24.0	55.3
						SB75-W2	E-02/03-04	77	8.0	55.0
E05901	76	70.7	4.0	7	-3.0	Crescent Ave	point364	364	24.0	60.8
						Crescent Ave	point365	365	24.0	59.9
						Crescent Ave	point363	363	24.0	59.7
						Crescent Ave	point366	366	24.0	59.2
						Crescent Ave	point369	369	24.0	58.2
						Crescent Ave	point367	367	24.0	57.7
						Crescent Ave	point362	362	24.0	57.2
						Crescent Ave	point368	368	24.0	57.0
						Crescent Ave	point361	361	24.0	56.2
						SB75-W2	E-02/03-04	77	8.0	56.0
E06001	77	70.3	4.5	7	-2.5	Crescent Ave	point364	364	24.0	59.4
						Crescent Ave	point363	363	24.0	59.1
						Crescent Ave	point365	365	24.0	58.3
						Crescent Ave	point369	369	24.0	57.5
						Crescent Ave	point362	362	24.0	57.5
						Crescent Ave	point361	361	24.0	57.2
						Crescent Ave	point366	366	24.0	57.0

						Crescent Ave	point367	367	24.0	56.5
						Crescent Ave	point360	360	24.0	56.1
						Crescent Ave	point368	368	24.0	55.9
E06101	78	69.9	4.6	7	-2.4	Crescent Ave	point364	364	24.0	59.0
						Crescent Ave	point363	363	24.0	58.7
						Crescent Ave	point365	365	24.0	57.7
						Crescent Ave	point362	362	24.0	57.3
						Crescent Ave	point369	369	24.0	57.0
						Crescent Ave	point360	360	24.0	56.7
						Crescent Ave	point361	361	24.0	56.6
						Crescent Ave	point366	366	24.0	56.1
						Crescent Ave	point359	359	24.0	55.9
						Crescent Ave	point367	367	24.0	55.7
E06201	79	69.7	4.8	7	-2.2	Crescent Ave	point363	363	24.0	58.2
						Crescent Ave	point364	364	24.0	58.2
						Crescent Ave	point360	360	24.0	57.4
						Crescent Ave	point362	362	24.0	57.2
						Crescent Ave	point361	361	24.0	56.9
						Crescent Ave	point365	365	24.0	56.4
						Crescent Ave	point369	369	24.0	56.4
						Crescent Ave	point359	359	24.0	56.2
						Crescent Ave	point366	366	24.0	55.5
						Crescent Ave	point367	367	24.0	55.3
E06301	80	69.3	5.1	7	-1.9	Crescent Ave	point363	363	24.0	57.3
						Crescent Ave	point364	364	24.0	57.3
						Crescent Ave	point362	362	24.0	56.7
						Crescent Ave	point360	360	24.0	56.6
						Crescent Ave	point361	361	24.0	56.6
						Crescent Ave	point359	359	24.0	56.3
						Crescent Ave	point358	358	24.0	55.6
						Crescent Ave	point369	369	24.0	55.6
						Crescent Ave	point365	365	24.0	55.4
						Crescent Ave	point366	366	24.0	54.8
E06401-F	81	71.0	4.7	7	-2.3	Crescent Ave	point369	369	24.0	56.4
						SB75-W2	E-02/03-12	85	12.0	54.1
						SB75-W2	E-02/03-13	86	12.0	53.4

						Crescent Ave	point368	368	24.0	53.3
						SB75-W2	E-02/03-14	87	12.0	53.0
						Crescent Ave	point367	367	24.0	51.7
						SB75-W2	E-02/03-11	84	12.0	51.4
						SB75-W2	E-02/03-15	88	12.0	51.3
						SB75-W2	E-02/03-18	91	12.0	48.3
						SB75-W2	E-02/03-16	89	12.0	47.9
E06501-F	82	70.0	4.8	7	-2.2	Crescent Ave	point369	369	24.0	59.5
						Crescent Ave	point367	367	24.0	56.3
						Crescent Ave	point368	368	24.0	55.9
						Crescent Ave	point366	366	24.0	54.2
						Crescent Ave	point365	365	24.0	53.0
						SB75-W2	E-02/03-12	85	12.0	52.8
						SB75-W2	E-02/03-13	86	12.0	52.4
						SB75-W2	E-02/03-11	84	12.0	51.8
						SB75-W2	E-02/03-14	87	12.0	51.8
						Crescent Ave	point364	364	24.0	51.4
E06601-F	83	70.1	4.9	7	-2.1	Crescent Ave	point369	369	24.0	58.9
						Crescent Ave	point367	367	24.0	56.5
						Crescent Ave	point368	368	24.0	55.6
						Crescent Ave	point366	366	24.0	55.3
						Crescent Ave	point365	365	24.0	53.7
						SB75-W2	E-02/03-13	86	12.0	51.6
						Crescent Ave	point364	364	24.0	51.1
						NB75-W	E-05-27	269	12.0	51.1
						NB75-W	E-05-26	268	12.0	50.9
						SB75-W2	E-02/03-15	88	12.0	50.8
E06701-F	84	70.3	5.1	7	-1.9	Crescent Ave	point369	369	24.0	57.5
						Crescent Ave	point366	366	24.0	57.0
						Crescent Ave	point367	367	24.0	56.0
						Crescent Ave	point365	365	24.0	55.2
						Crescent Ave	point368	368	24.0	55.1
						Crescent Ave	point364	364	24.0	53.9
						NB75-W	E-05-26	268	12.0	51.3
						NB75-W	E-05-27	269	12.0	51.2
						NB75-W	E-05-25	267	12.0	50.8

						NB75-W	E-05-28	270	12.0	50.2
E06801-F	85	70.6	4.9	7	-2.1	Crescent Ave	point369	369	24.0	58.7
						Crescent Ave	point365	365	24.0	58.3
						Crescent Ave	point366	366	24.0	58.2
						Crescent Ave	point364	364	24.0	57.0
						Crescent Ave	point367	367	24.0	56.9
						Crescent Ave	point368	368	24.0	55.8
						Crescent Ave	point363	363	24.0	54.5
						NB75-W	E-05-27	269	12.0	52.7
						NB75-W	E-05-26	268	12.0	52.5
						NB75-W	E-05-25	267	12.0	52.5
E06901-F	86	70.3	5.1	7	-1.9	Crescent Ave	point364	364	24.0	58.6
						Crescent Ave	point365	365	24.0	57.8
						Crescent Ave	point363	363	24.0	57.7
						Crescent Ave	point369	369	24.0	57.5
						Crescent Ave	point366	366	24.0	57.0
						Crescent Ave	point367	367	24.0	55.8
						Crescent Ave	point368	368	24.0	54.7
						NB75-W	E-05-25	267	12.0	52.7
						NB75-W	E-05-26	268	12.0	52.7
						NB75-W	E-05-24	266	12.0	52.6
E07001-F	87	69.6	5.6	7	-1.4	Crescent Ave	point362	362	24.0	57.2
						Crescent Ave	point361	361	24.0	56.6
						Crescent Ave	point363	363	24.0	56.5
						Crescent Ave	point364	364	24.0	56.1
						Crescent Ave	point369	369	24.0	55.9
						Crescent Ave	point365	365	24.0	54.1
						Crescent Ave	point367	367	24.0	53.4
						Crescent Ave	point366	366	24.0	53.4
						Crescent Ave	point368	368	24.0	52.9
						Crescent Ave	point360	360	24.0	52.4
E07101-F	88	69.3	6.2	7	-0.8	Crescent Ave	point369	369	24.0	55.5
						Crescent Ave	point362	362	24.0	53.6
						Crescent Ave	point363	363	24.0	53.6
						Crescent Ave	point368	368	24.0	53.0
						Crescent Ave	point367	367	24.0	52.5

						Crescent Ave	point364	364	24.0	52.3
						Crescent Ave	point360	360	24.0	52.2
						Crescent Ave	point361	361	24.0	51.8
						Crescent Ave	point366	366	24.0	51.7
						Crescent Ave	point365	365	24.0	51.7
Total Cost, All Barriers (including additional cost(s))					$2862172					

HMB Professional Engineers **27 June 2023**
Mark Gavula **TNM 2.5**

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: **Brent Spence Bridge 6-17.00/1415.04**
RUN: **ALT NSA E 2049 Certified**
BARRIER DESIGN: **efv2-sys**

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
SB9thStExit-2	W	12.00	12.00	12.00	880	10557				337838
SB75-W1	W	12.00	12.00	12.00	680	8162				261194
SB75-W2	W	10.00	11.88	12.00	640	7605				243354
NB75-W	W	10.00	11.97	12.00	2360	28243				903761
Crescent Ave	W	24.00	24.00	24.00	1071	25695				822237
Crescent Ave - Additional Phase	W	20.00	23.59	24.00	389	9181				293786
SBCD-W	W	0.00	0.00	0.00	0	0				0
									Total Cost:	2862172

HMB Professional Engineers 27 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: ALT NSA E 2049 Certified
BARRIER DESIGN: efv2-sys

Barriers		Segments										
Name	Type	Name	No.	Heights First Point	Average	Second Point	Length	If Wall Area	On Struc?	Important Reflections?	If Berm Volume	Cost
				ft	ft	ft	ft	sq ft			cu yd	$
SB9thStExit-2	W	point370	370	12.00	12.00	12.00	40	481	Y			15390
		E-01-07	184	12.00	12.00	12.00	40	474	Y			15179
		E-01-08	185	12.00	12.00	12.00	40	480	Y			15361
		E-01-09	186	12.00	12.00	12.00	40	480	Y			15360
		E-01-10	187	12.00	12.00	12.00	40	480	Y			15361
		E-01-11	188	12.00	12.00	12.00	40	480	Y			15361
		E-01-12	189	12.00	12.00	12.00	40	480	Y			15360
		E-01-13	190	12.00	12.00	12.00	40	480	Y			15360
		E-01-14	191	12.00	12.00	12.00	40	480	Y			15361
		E-01-15	192	12.00	12.00	12.00	40	486	Y			15552
		E-01-16	193	12.00	12.00	12.00	40	480	Y			15361
		E-01-17	194	12.00	12.00	12.00	40	480	Y			15360
		E-01-18	195	12.00	12.00	12.00	40	480	Y			15360
		E-01-19	196	12.00	12.00	12.00	40	480	Y			15360
		E-01-20	197	12.00	12.00	12.00	40	480	Y			15361
		E-01-21	198	12.00	12.00	12.00	40	480	Y			15360
		E-01-22	199	12.00	12.00	12.00	40	480	Y			15360
		E-01-23	200	12.00	12.00	12.00	40	480	Y			15371
		E-01-24	201	12.00	12.00	12.00	40	475	Y			15212
		E-01-25	202	12.00	12.00	12.00	40	481	Y			15403
		E-01-26	203	12.00	12.00	12.00	40	479	Y			15342
		E-01-27	204	12.00	12.00	12.00	40	479	Y			15342
SB75-W1	W	point332	332	12.00	12.00	12.00	40	480	Y			15371
		E-02/03-32	105	12.00	12.00	12.00	40	480	Y			15371
		E-02/03-33	106	12.00	12.00	12.00	40	480	Y			15371

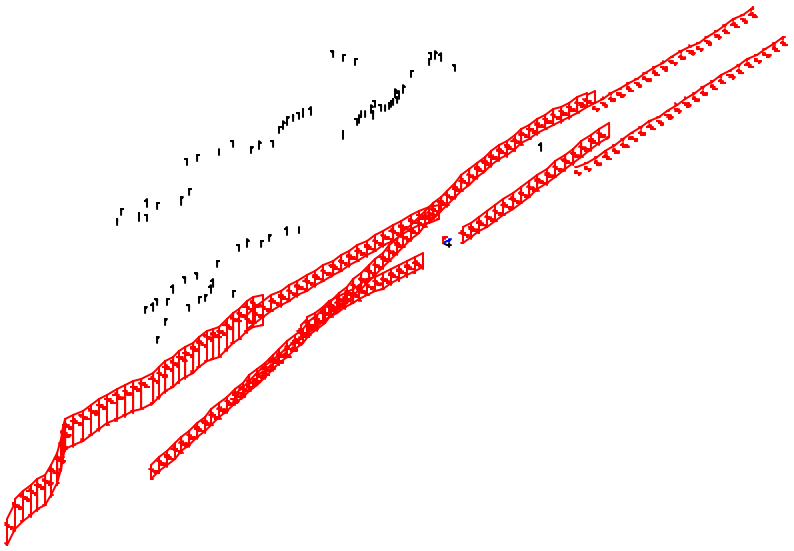
		E-02/03-34	107	12.00	12.00	12.00	40	480	Y			15365
		E-02/03-35	108	12.00	12.00	12.00	40	480	Y			15365
		E-02/03-36	109	12.00	12.00	12.00	40	480	Y			15365
		E-02/03-37	110	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-38	111	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-39	112	12.00	12.00	12.00	40	480	Y			15360
		E-02/03-40	113	12.00	12.00	12.00	40	480	Y			15360
		E-02/03-41	114	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-42	115	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-43	116	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-44	117	12.00	12.00	12.00	40	480	Y			15361
		E-02/03-45	118	12.00	12.00	12.00	40	480	Y			15371
		E-02/03-46	119	12.00	12.00	12.00	40	480	Y			15365
		E-02/03-47	120	12.00	12.00	12.00	40	480	Y			15365
SB75-W2	W	E-02/03-01	73	0.00	0.00	0.00	0	0	Y			0
		E-02/03-02	75	0.00	0.00	0.00	0	0	Y			0
		E-02/03-03	76	0.00	0.00	0.00	0	0	Y			0
		E-02/03-04	77	0.00	0.00	0.00	0	0	Y			0
		E-02/03-05	78	0.00	0.00	0.00	0	0	Y			0
		E-02/03-06	79	0.00	0.00	0.00	0	0	Y			0
		E-02/03-07	80	0.00	0.00	0.00	0	0	Y			0
		E-02/03-08	81	0.00	0.00	0.00	0	0	Y			0
		E-02/03-09	82	0.00	0.00	0.00	0	0	Y			0
		E-02/03-10	83	10.00	10.00	10.00	40	398	Y			12741
		E-02/03-11	84	12.00	12.00	12.00	40	485	Y			15505
		E-02/03-12	85	12.00	12.00	12.00	40	479	Y			15314
		E-02/03-13	86	12.00	12.00	12.00	40	479	Y			15314
		E-02/03-14	87	12.00	12.00	12.00	40	484	Y			15480
		E-02/03-15	88	12.00	12.00	12.00	40	478	Y			15289
		E-02/03-16	89	12.00	12.00	12.00	40	483	Y			15457
		E-02/03-17	90	12.00	12.00	12.00	40	477	Y			15266
		E-02/03-18	91	12.00	12.00	12.00	40	478	Y			15289
		E-02/03-19	92	12.00	12.00	12.00	40	483	Y			15457
		E-02/03-20	93	12.00	12.00	12.00	40	482	Y			15419
		E-02/03-21	94	12.00	12.00	12.00	40	475	Y			15212
		E-02/03-22	95	12.00	12.00	12.00	40	481	Y			15403
		E-02/03-23	96	12.00	12.00	12.00	40	481	Y			15403
		E-02/03-24	97	12.00	12.00	12.00	40	481	Y			15403

		E-02/03-25	98	12.00	12.00	12.00	40	481	Y			15403
NB75-W	W	point328	328	12.00	12.00	12.00	40	477	Y			15266
		E-05-09	251	12.00	12.00	12.00	40	484	Y			15480
		E-05-10	252	12.00	12.00	12.00	40	477	Y			15266
		E-05-11	253	12.00	12.00	12.00	40	478	Y			15289
		E-05-12	254	12.00	12.00	12.00	40	483	Y			15457
		E-05-13	255	12.00	12.00	12.00	40	478	Y			15289
		E-05-14	256	12.00	12.00	12.00	40	483	Y			15457
		E-05-15	257	12.00	12.00	12.00	40	477	Y			15266
		E-05-16	258	12.00	12.00	12.00	40	484	Y			15480
		E-05-17	259	12.00	12.00	12.00	40	477	Y			15266
		E-05-18	260	12.00	12.00	12.00	40	484	Y			15480
		E-05-19	261	12.00	12.00	12.00	40	477	Y			15266
		E-05-20	262	12.00	12.00	12.00	40	478	Y			15289
		E-05-21	263	12.00	12.00	12.00	40	484	Y			15480
		E-05-22	264	12.00	12.00	12.00	40	477	Y			15266
		E-05-23	265	12.00	12.00	12.00	40	484	Y			15480
		E-05-24	266	12.00	12.00	12.00	40	478	Y			15289
		E-05-25	267	12.00	12.00	12.00	40	478	Y			15289
		E-05-26	477	12.00	12.00	12.00	40	484	Y			15480
		E-05-27	269	12.00	12.00	12.00	40	478	Y			15289
		E-05-28	270	12.00	12.00	12.00	40	484	Y			15480
		E-05-29	271	12.00	12.00	12.00	40	478	Y			15289
		E-05-30	272	12.00	12.00	12.00	40	478	Y			15289
		E-05-31	273	12.00	12.00	12.00	40	485	Y			15505
		E-05-32	274	12.00	12.00	12.00	40	479	Y			15342
		E-05-33	275	12.00	12.00	12.00	40	479	Y			15342
		E-05-34	276	12.00	12.00	12.00	40	479	Y			15342
		E-05-35	277	12.00	12.00	12.00	40	479	Y			15342
		E-05-36	278	12.00	12.00	12.00	40	480	Y			15372
		E-05-37	279	12.00	12.00	12.00	40	480	Y			15372
		E-05-38	280	12.00	12.00	12.00	40	480	Y			15372
		E-05-39	281	12.00	12.00	12.00	40	480	Y			15372
		E-05-40	282	12.00	12.00	12.00	40	480	Y			15372
		E-05-41	283	12.00	12.00	12.00	40	479	Y			15342
		E-05-42	284	12.00	12.00	12.00	40	479	Y			15314
		E-05-43	285	12.00	12.00	12.00	40	479	Y			15342
		E-05-44	286	12.00	12.00	12.00	40	479	Y			15342

		E-05-45	287	12.00	12.00	12.00	40	485	Y			15505
		E-05-46	288	12.00	12.00	12.00	40	479	Y			15342
		E-05-47	289	12.00	12.00	12.00	40	479	Y			15342
		E-05-48	290	12.00	12.00	12.00	40	479	Y			15314
		E-05-49	291	12.00	12.00	12.00	40	479	Y			15342
		E-05-50	292	12.00	12.00	12.00	40	479	Y			15342
		E-05-51	293	12.00	12.00	12.00	40	485	Y			15505
		E-05-52	294	12.00	12.00	12.00	40	478	Y			15289
		E-05-53	295	12.00	12.00	12.00	40	479	Y			15314
		E-05-54	296	12.00	12.00	12.00	40	483	Y			15457
		E-05-55	297	12.00	12.00	12.00	40	477	Y			15266
		E-05-56	298	12.00	12.00	12.00	40	482	Y			15437
		E-05-57	299	12.00	12.00	12.00	40	476	Y			15246
		E-05-58	300	12.00	12.00	12.00	40	482	Y			15437
		E-05-59	301	12.00	12.00	12.00	40	481	Y			15403
		E-05-60	302	12.00	12.00	12.00	40	482	Y			15419
		E-05-61	303	12.00	12.00	12.00	40	475	Y			15212
		E-05-62	304	12.00	12.00	12.00	40	481	Y			15390
		E-05-63	305	12.00	12.00	12.00	40	481	Y			15379
		E-05-64	306	12.00	12.00	12.00	40	481	Y			15390
		E-05-65	307	12.00	12.00	12.00	40	480	Y			15371
		E-05-66	308	10.00	10.00	10.00	40	400	Y			12809
		E-05-67	309	0.00	0.00	0.00	0	0	Y			0
		E-05-68	310	0.00	0.00	0.00	0	0	Y			0
		E-05-69	311	0.00	0.00	0.00	0	0	Y			0
		E-05-70	312	0.00	0.00	0.00	0	0	Y			0
		E-05-71	313	0.00	0.00	0.00	0	0	Y			0
		E-05-72	314	0.00	0.00	0.00	0	0	Y			0
		E-05-73	315	0.00	0.00	0.00	0	0	Y			0
		E-05-74	316	0.00	0.00	0.00	0	0	Y			0
		E-05-75	317	0.00	0.00	0.00	0	0	Y			0
		E-05-76	318	0.00	0.00	0.00	0	0	Y			0
		E-05-77	319	0.00	0.00	0.00	0	0	Y			0
		E-05-78	320	0.00	0.00	0.00	0	0	Y			0
		E-05-79	321	0.00	0.00	0.00	0	0	Y			0
		E-05-80	322	0.00	0.00	0.00	0	0	Y			0
		E-05-81	323	0.00	0.00	0.00	0	0	Y			0
		E-05-82	324	0.00	0.00	0.00	0	0	Y			0
		E-05-83	325	0.00	0.00	0.00	0	0	Y			0

		E-05-84	326	0.00	0.00	0.00	0	0	Y			0
		E-05-85	327	0.00	0.00	0.00	0	0	Y			0
Crescent Ave	W	point343	343	24.00	24.00	24.00	40	960				30730
		point345	345	24.00	24.00	24.00	40	960				30722
		point346	346	24.00	24.00	24.00	40	960				30730
		point347	347	24.00	24.00	24.00	40	960				30722
		point348	348	24.00	24.00	24.00	40	960				30730
		point349	349	24.00	24.00	24.00	40	960				30722
		point350	350	24.00	24.00	24.00	40	960				30722
		point351	351	24.00	24.00	24.00	40	960				30730
		point352	352	24.00	24.00	24.00	40	960				30722
		point353	353	24.00	24.00	24.00	51	1212				38792
		point354	354	24.00	24.00	24.00	40	955				30576
		point355	355	24.00	24.00	24.00	40	955				30576
		point356	356	24.00	24.00	24.00	40	967				30952
		point357	357	24.00	24.00	24.00	40	958				30655
		point358	358	24.00	24.00	24.00	40	955				30576
		point359	359	24.00	24.00	24.00	40	967				30952
		point360	360	24.00	24.00	24.00	40	955				30576
		point361	361	24.00	24.00	24.00	40	967				30952
		point362	362	24.00	24.00	24.00	40	955				30576
		point363	363	24.00	24.00	24.00	40	955				30576
		point364	364	24.00	24.00	24.00	40	967				30952
		point365	365	24.00	24.00	24.00	40	955				30576
		point366	366	24.00	24.00	24.00	40	958				30655
		point367	367	24.00	24.00	24.00	40	967				30952
		point368	368	24.00	24.00	24.00	40	955				30576
		point369	369	24.00	24.00	24.00	60	1445				46240
Crescent Ave - Additional Phase	W	CAA-01	371	20.00	20.00	20.00	40	802				25672
		CAA-02	373	24.00	24.00	24.00	40	951				30423
		CAA-03	374	24.00	24.00	24.00	40	963				30806
		CAA-04	375	24.00	24.00	24.00	40	957				30629
		CAA-05	376	24.00	24.00	24.00	40	961				30744
		CAA-06	377	24.00	24.00	24.00	40	967				30952
		CAA-07	378	24.00	24.00	24.00	40	963				30828
		CAA-08	379	24.00	24.00	24.00	40	955				30571
		CAA-09	380	24.00	24.00	24.00	40	955				30571

		CAA-10	381	24.00	24.00	24.00	29	706				22591
SBCD-W	W	point329	329	0.00	0.00	0.00	0	0	Y			0
		E-01-42	219	0.00	0.00	0.00	0	0	Y			0
		E-01-43	220	0.00	0.00	0.00	0	0	Y			0
		E-01-44	221	0.00	0.00	0.00	0	0	Y			0
		E-01-45	222	0.00	0.00	0.00	0	0	Y			0
		E-01-46	223	0.00	0.00	0.00	0	0	Y			0
		E-01-47	224	0.00	0.00	0.00	0	0	Y			0
		E-01-48	225	0.00	0.00	0.00	0	0	Y			0
		E-01-49	226	0.00	0.00	0.00	0	0	Y			0
		E-01-50	227	0.00	0.00	0.00	0	0	Y			0
		E-01-51	228	0.00	0.00	0.00	0	0	Y			0
		E-01-52	229	0.00	0.00	0.00	0	0	Y			0
		E-01-53	230	0.00	0.00	0.00	0	0	Y			0
		E-01-54	231	0.00	0.00	0.00	0	0	Y			0
		E-01-55	232	0.00	0.00	0.00	0	0	Y			0
		E-01-56	233	0.00	0.00	0.00	0	0	Y			0
		E-01-57	234	0.00	0.00	0.00	0	0	Y			0
		E-01-58	235	0.00	0.00	0.00	0	0	Y			0
		E-01-59	236	0.00	0.00	0.00	0	0	Y			0
		E-01-60	237	0.00	0.00	0.00	0	0	Y			0
		E-01-61	238	0.00	0.00	0.00	0	0	Y			0
		E-01-62	239	0.00	0.00	0.00	0	0	Y			0
		E-01-63	240	0.00	0.00	0.00	0	0	Y			0
		E-01-64	241	0.00	0.00	0.00	0	0	Y			0



ALT NSA E 2049 Certified		Sheet 1 of 1	27 Jun 2023
		HMB Professional Engineers	
Barrier View-efv2-sys		Project/Contract No. Brent Spence Bridge 6-17.00	
Run name: nsa_e_v2		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

HMB Professional Engineers
Mark Gavula

26 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge
RUN: F1
BARRIER DESIGN: f1new-barsys-1
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	With Barrier Type Impact	Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F00102-F	18	1	71.7	74.0	66	2.3	10	Snd Lvl	69.0	5.0	7	-2.0
F00201-F	19	1	71.5	73.8	66	2.3	10	Snd Lvl	68.5	5.3	7	-1.7
F00301-F	20	1	71.7	73.7	66	2.0	10	Snd Lvl	69.1	4.6	7	-2.4
F00401-F	21	1	71.5	73.6	66	2.1	10	Snd Lvl	68.5	5.1	7	-1.9
F00501-F	22	1	71.6	73.6	66	2.0	10	Snd Lvl	68.8	4.8	7	-2.2
F00601-F	23	1	71.1	73.0	66	1.9	10	Snd Lvl	67.5	5.5	7	-1.5
F00701-F	24	1	71.1	73.4	66	2.3	10	Snd Lvl	68.7	4.7	7	-2.3
F00804-F	25	4	72.8	74.8	66	2.0	10	Snd Lvl	64.7	10.1	7	3.1
F00904	26	4	70.2	73.2	66	3.0	10	Snd Lvl	67.7	5.5	7	-1.5
F01002-F	27	1	75.6	79.0	66	3.4	10	Snd Lvl	57.5	21.5	7	14.5
F01101-F	28	1	74.7	78.1	66	3.4	10	Snd Lvl	61.0	17.1	7	10.1
F01201-F	29	1	74.7	77.6	66	2.9	10	Snd Lvl	61.5	16.1	7	9.1
F01302-F	30	2	74.4	78.1	66	3.7	10	Snd Lvl	60.6	17.5	7	10.5
F01501-F	32	1	73.6	77.3	66	3.7	10	Snd Lvl	63.6	13.7	7	6.7
F01601-F	33	1	73.4	77.2	66	3.8	10	Snd Lvl	64.6	12.6	7	5.6
F01701-F	34	1	73.1	77.1	66	4.0	10	Snd Lvl	65.9	11.2	7	4.2
F01801-F	35	1	70.7	75.5	66	4.8	10	Snd Lvl	65.8	9.7	7	2.7
F01901-F	36	1	70.8	75.6	66	4.8	10	Snd Lvl	66.3	9.3	7	2.3
F02001-F	37	1	70.7	75.4	66	4.7	10	Snd Lvl	66.2	9.2	7	2.2
F02101-F	38	1	68.6	73.4	66	4.8	10	Snd Lvl	66.3	7.1	7	0.1
F02201-F	39	1	68.6	73.6	66	5.0	10	Snd Lvl	66.6	7.0	7	0.0
F02301-F	40	1	69.6	74.2	66	4.6	10	Snd Lvl	67.3	6.9	7	-0.1
F02401-F	41	1	69.8	74.2	66	4.4	10	Snd Lvl	67.3	6.9	7	-0.1
F02502-F	42	2	70.4	74.4	66	4.0	10	Snd Lvl	67.6	6.8	7	-0.2

F02601-F	43	1	69.4	73.7	66	4.3	10	Snd Lvl	67.8	5.9	7	-1.1
F02701-F	44	1	68.9	73.2	66	4.3	10	Snd Lvl	67.7	5.5	7	-1.5
F02801-F	45	1	68.6	72.7	66	4.1	10	Snd Lvl	67.7	5.0	7	-2.0
F02901-F	46	1	68.8	71.9	66	3.1	10	Snd Lvl	67.7	4.2	7	-2.8
F03001-F	47	1	68.8	71.5	66	2.7	10	Snd Lvl	68.2	3.3	7	-3.7
F03101-F	48	1	67.9	70.5	66	2.6	10	Snd Lvl	67.5	3.0	7	-4.0
F03201-F	49	1	68.6	70.3	66	1.7	10	Snd Lvl	67.7	2.6	7	-4.4
F03301-F	50	1	69.6	70.4	66	0.8	10	Snd Lvl	67.8	2.6	7	-4.4
F03401	51	1	70.4	72.9	66	2.5	10	Snd Lvl	69.1	3.8	7	-3.2
F03501	52	1	70.3	72.8	66	2.5	10	Snd Lvl	69.2	3.6	7	-3.4
F03601	53	1	69.9	72.6	66	2.7	10	Snd Lvl	69.1	3.5	7	-3.5
F03701	54	1	69.2	72.5	66	3.3	10	Snd Lvl	68.7	3.8	7	-3.2
F03801	55	1	68.5	72.3	66	3.8	10	Snd Lvl	68.0	4.3	7	-2.7
F03901	56	1	68.3	72.1	66	3.8	10	Snd Lvl	67.8	4.3	7	-2.7
F04001	57	1	68.2	72.1	66	3.9	10	Snd Lvl	67.6	4.5	7	-2.5
F04102	58	2	67.8	71.9	66	4.1	10	Snd Lvl	67.1	4.8	7	-2.2
F04201	59	1	67.4	71.8	66	4.4	10	Snd Lvl	66.0	5.8	7	-1.2
F04301	60	1	68.0	73.9	66	5.9	10	Snd Lvl	67.9	6.0	7	-1.0
F04401	61	1	65.1	73.6	66	8.5	10	Snd Lvl	66.5	7.1	7	0.1
F04501	62	1	67.5	73.6	66	6.1	10	Snd Lvl	66.5	7.1	7	0.1
F04601	64	1	65.4	72.9	66	7.5	10	Snd Lvl	66.3	6.6	7	-0.4
F04701	65	1	65.4	72.6	66	7.2	10	Snd Lvl	65.2	7.4	7	0.4
F04801	66	1	65.0	72.6	66	7.6	10	Snd Lvl	64.9	7.7	7	0.7
F04901	67	1	66.7	72.6	66	5.9	10	Snd Lvl	64.8	7.8	7	0.8
F05001	68	1	65.8	71.3	66	5.5	10	Snd Lvl	64.3	7.0	7	0.0
F05101	69	1	65.6	71.3	66	5.7	10	Snd Lvl	64.7	6.6	7	-0.4
F05201	70	1	66.4	71.2	66	4.8	10	Snd Lvl	64.7	6.5	7	-0.5
F05301	71	1	63.9	70.1	66	6.2	10	Snd Lvl	64.3	5.8	7	-1.2
F05401	72	1	64.2	69.6	66	5.4	10	Snd Lvl	64.1	5.5	7	-1.5
F05501	73	1	64.6	69.6	66	5.0	10	Snd Lvl	64.3	5.3	7	-1.7
F05601	74	1	67.5	69.4	66	1.9	10	Snd Lvl	65.3	4.1	7	-2.9
F05801	75	1	66.4	68.8	66	2.4	10	Snd Lvl	64.6	4.2	7	-2.8
F05901	76	1	65.9	68.3	66	2.4	10	Snd Lvl	63.8	4.5	7	-2.5
F06001	77	1	66.4	68.5	66	2.1	10	Snd Lvl	63.5	5.0	7	-2.0
F06102	78	1	66.9	69.1	66	2.2	10	Snd Lvl	63.7	5.4	7	-1.6
F06201	79	1	66.8	69.5	66	2.7	10	Snd Lvl	63.7	5.8	7	-1.2
F06301	80	1	66.6	69.6	66	3.0	10	Snd Lvl	63.5	6.1	7	-0.9
F06401	81	1	66.4	69.5	66	3.1	10	Snd Lvl	63.4	6.1	7	-0.9
F06501	82	1	65.8	69.1	66	3.3	10	Snd Lvl	63.1	6.0	7	-1.0
F06601	83	1	66.8	70.1	66	3.3	10	Snd Lvl	63.8	6.3	7	-0.7
F06701	84	1	66.2	69.5	66	3.3	10	Snd Lvl	64.8	4.7	7	-2.3

F06801	85	1	66.3	69.5	66	3.2	10	Snd Lvl	64.9	4.6	7	-2.4
F06901	86	1	66.3	69.4	66	3.1	10	Snd Lvl	64.7	4.7	7	-2.3
F07001	87	1	66.2	69.3	66	3.1	10	Snd Lvl	64.4	4.9	7	-2.1
F07103-F	88	1	69.5	69.3	66	-0.2	10	Snd Lvl	65.5	3.8	7	-3.2
F07201	89	1	69.0	69.1	66	0.1	10	Snd Lvl	65.1	4.0	7	-3.0
F07301	90	1	68.2	68.3	66	0.1	10	Snd Lvl	64.3	4.0	7	-3.0
F07401	91	1	68.1	68.1	66	0.0	10	Snd Lvl	64.0	4.1	7	-2.9
F07501	92	1	68.1	68.0	66	-0.1	10	Snd Lvl	64.1	3.9	7	-3.1
F07602-F	93	2	68.8	68.5	66	-0.3	10	Snd Lvl	64.4	4.1	7	-2.9
F07701-F	94	1	68.7	68.4	66	-0.3	10	Snd Lvl	64.3	4.1	7	-2.9
F07801-F	95	1	68.8	68.3	66	-0.5	10	Snd Lvl	64.3	4.0	7	-3.0
F07904-F	96	1	68.3	67.3	66	-1.0	10	Snd Lvl	63.5	3.8	7	-3.2
F08001	97	1	67.5	67.2	66	-0.3	10	Snd Lvl	62.8	4.4	7	-2.6
F08101	98	1	67.5	67.2	66	-0.3	10	Snd Lvl	63.0	4.2	7	-2.8
F08201	99	1	67.8	67.3	66	-0.5	10	Snd Lvl	62.8	4.5	7	-2.5
F08301	100	1	68.8	68.3	66	-0.5	10	Snd Lvl	64.0	4.3	7	-2.7
F08401	101	1	69.5	68.6	66	-0.9	10	Snd Lvl	64.8	3.8	7	-3.2
F31501	102	1	69.1	68.4	66	-0.7	10	Snd Lvl	64.3	4.1	7	-2.9
F08501	103	1	69.8	68.7	66	-1.1	10	Snd Lvl	65.0	3.7	7	-3.3
F08601	104	1	70.2	68.8	66	-1.4	10	Snd Lvl	65.3	3.5	7	-3.5
F08702	105	1	66.0	68.6	66	2.6	10	Snd Lvl	63.0	5.6	7	-1.4
F08801	106	1	66.4	68.2	66	1.8	10	Snd Lvl	63.0	5.2	7	-1.8
F08901	107	1	66.6	68.0	66	1.4	10	Snd Lvl	63.1	4.9	7	-2.1
F09001	108	1	66.4	68.2	66	1.8	10	Snd Lvl	63.4	4.8	7	-2.2
F09102	109	2	64.3	67.9	66	3.6	10	Snd Lvl	63.2	4.7	7	-2.3
F09201	110	1	63.0	67.7	66	4.7	10	Snd Lvl	63.1	4.6	7	-2.4
F09301	111	1	63.2	67.7	66	4.5	10	Snd Lvl	63.1	4.6	7	-2.4
F09401	112	1	62.6	67.4	66	4.8	10	Snd Lvl	62.9	4.5	7	-2.5
F09501	113	1	64.5	67.3	66	2.8	10	Snd Lvl	62.8	4.5	7	-2.5
F09601	114	1	65.5	67.1	66	1.6	10	Snd Lvl	62.4	4.7	7	-2.3
F09701	115	1	66.5	66.7	66	0.2	10	Snd Lvl	62.0	4.7	7	-2.3
F09804	116	1	65.6	66.1	66	0.5	10	Snd Lvl	61.2	4.9	7	-2.1
F09901	117	1	64.8	65.6	66	0.8	10	----	60.7	4.9	7	-2.1
F10001	118	2	64.5	65.4	66	0.9	10	----	60.3	5.1	7	-1.9
F10101	119	1	64.7	65.5	66	0.8	10	----	60.4	5.1	7	-1.9
F10202	120	1	64.6	65.5	66	0.9	10	----	60.5	5.0	7	-2.0
F10301	121	1	64.3	65.1	66	0.8	10	----	60.0	5.1	7	-1.9
F10402	122	1	62.4	64.8	66	2.4	10	----	59.6	5.2	7	-1.8
F10512	123	12	65.8	66.7	66	0.9	10	Snd Lvl	61.7	5.0	7	-2.0
F10601	124	1	65.8	67.3	66	1.5	10	Snd Lvl	61.9	5.4	7	-1.6
F10701	125	1	65.9	67.5	66	1.6	10	Snd Lvl	62.1	5.4	7	-1.6

F10801	126	1	65.9	67.8	66	1.9	10	Snd Lvl	62.2	5.6	7	-1.4
F10901	127	1	66.0	68.2	66	2.2	10	Snd Lvl	62.6	5.6	7	-1.4
F11001	128	1	63.2	68.2	66	5.0	10	Snd Lvl	62.6	5.6	7	-1.4
F11101	129	1	64.4	68.1	66	3.7	10	Snd Lvl	62.7	5.4	7	-1.6
F11202	130	1	63.2	67.7	66	4.5	10	Snd Lvl	62.0	5.7	7	-1.3
F11301	131	1	65.1	67.5	66	2.4	10	Snd Lvl	62.3	5.2	7	-1.8
F11401	132	1	64.1	67.4	66	3.3	10	Snd Lvl	61.6	5.8	7	-1.2
F11501	133	1	60.6	66.7	66	6.1	10	Snd Lvl	60.9	5.8	7	-1.2
F11602	134	1	62.5	66.4	66	3.9	10	Snd Lvl	60.7	5.7	7	-1.3
F11701	135	1	64.1	66.5	66	2.4	10	Snd Lvl	60.8	5.7	7	-1.3
F11801	136	1	63.1	65.8	66	2.7	10	----	60.2	5.6	7	-1.4
F11901	137	1	64.6	65.7	66	1.1	10	----	60.5	5.2	7	-1.8
F12001	138	1	64.5	65.5	66	1.0	10	----	60.2	5.3	7	-1.7
F12101	139	1	64.3	65.2	66	0.9	10	----	59.9	5.3	7	-1.7
F12202	140	2	63.9	64.9	66	1.0	10	----	59.7	5.2	7	-1.8
F12301	141	1	62.3	64.0	66	1.7	10	----	58.5	5.5	7	-1.5
F12403	142	1	62.5	64.2	66	1.7	10	----	58.7	5.5	7	-1.5
F12501	143	1	61.8	64.1	66	2.3	10	----	58.9	5.2	7	-1.8
F12601	144	1	62.5	64.3	66	1.8	10	----	59.2	5.1	7	-1.9
F12701	145	1	62.8	64.6	66	1.8	10	----	59.5	5.1	7	-1.9
F12804	146	1	63.6	65.3	66	1.7	10	----	60.4	4.9	7	-2.1
F12901	147	1	62.9	64.8	66	1.9	10	----	59.8	5.0	7	-2.0
F13003	148	1	64.3	66.4	66	2.1	10	Snd Lvl	61.5	4.9	7	-2.1
F13105	149	5	62.9	66.4	66	3.5	10	Snd Lvl	61.5	4.9	7	-2.1
F13201	150	1	64.7	66.4	66	1.7	10	Snd Lvl	61.5	4.9	7	-2.1
F13303	151	3	66.2	67.1	66	0.9	10	Snd Lvl	62.8	4.3	7	-2.7
F13402	152	1	66.7	67.0	66	0.3	10	Snd Lvl	63.1	3.9	7	-3.1
F13502	153	1	66.4	66.7	66	0.3	10	Snd Lvl	63.0	3.7	7	-3.3
F13601	154	1	61.5	64.5	66	3.0	10	----	59.3	5.2	7	-1.8
F13701	155	1	61.8	64.4	66	2.6	10	----	59.0	5.4	7	-1.6
F31201	156	1	61.7	64.4	66	2.7	10	----	59.0	5.4	7	-1.6
F13801	157	1	61.9	64.2	66	2.3	10	----	59.0	5.2	7	-1.8
F13901	158	1	62.2	64.2	66	2.0	10	----	59.1	5.1	7	-1.9
F14001	159	1	62.5	64.2	66	1.7	10	----	59.0	5.2	7	-1.8
F14102	160	1	62.5	64.3	66	1.8	10	----	59.3	5.0	7	-2.0
F14201	161	1	61.6	64.3	66	2.7	10	----	59.3	5.0	7	-2.0
F14301	162	1	62.0	64.3	66	2.3	10	----	59.4	4.9	7	-2.1
F14402	163	1	62.4	64.5	66	2.1	10	----	59.7	4.8	7	-2.2
F14501	164	2	62.8	64.7	66	1.9	10	----	59.8	4.9	7	-2.1
F14601	165	1	62.9	64.8	66	1.9	10	----	60.0	4.8	7	-2.2
F14701	166	1	63.1	64.9	66	1.8	10	----	60.2	4.7	7	-2.3

F14801	167	1	63.2	65.0	66	1.8	10	----	60.3	4.7	7	-2.3
F14901	168	1	63.3	65.2	66	1.9	10	----	60.5	4.7	7	-2.3
F15001	169	1	63.7	65.4	66	1.7	10	----	60.8	4.6	7	-2.4
F15101	170	1	64.3	65.4	66	1.1	10	----	60.8	4.6	7	-2.4
F15201	171	1	64.4	65.5	66	1.1	10	----	61.0	4.5	7	-2.5
F15301-F	172	1	65.5	65.8	66	0.3	10	----	61.7	4.1	7	-2.9

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	184	2.6	5.6	21.5
All Impacted	144	2.6	5.8	21.5
All that meet NR Goal	23	7.0	10.9	21.5

HMB Professional Engineers
Mark Gavula

26 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge
RUN: F1
BARRIER DESIGN: f1new-barsys-1

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
F00102-F	18	69.0	5.0	7	-2.0	Crescent Ave	point482	482	24.0	56.5
						Crescent Ave	CA-04	488	24.0	56.5
						Crescent Ave	CA-05	489	24.0	56.3
						Crescent Ave	CA-03	487	24.0	56.2
						Crescent Ave	point474	474	24.0	56.1
						Crescent Ave	CA-02	486	24.0	55.8
						Crescent Ave	point484	484	24.0	55.7
						Crescent Ave	point483	483	24.0	55.7
						Crescent Ave	CA-01	485	24.0	55.6
						Crescent Ave	CA-06	490	24.0	55.5
F00201-F	19	68.5	5.3	7	-1.7	Crescent Ave	point482	482	24.0	56.5
						Crescent Ave	point472	472	24.0	55.6
						Crescent Ave	point483	483	24.0	55.3
						Crescent Ave	point481	481	24.0	55.2
						Crescent Ave	CA-04	488	24.0	55.0
						Crescent Ave	point484	484	24.0	55.0
						Crescent Ave	CA-05	489	24.0	54.9
						Crescent Ave	CA-03	487	24.0	54.8
						Crescent Ave	CA-01	485	24.0	54.8
						Crescent Ave - Additional Phase	CAA-06	505	24.0	54.7
F00301-F	20	69.1	4.6	7	-2.4	scent Ave - Additional Phase	CAA-05	504	24.0	55.9

						Crescent Ave	point482	482	24.0	55.7
						Crescent Ave	point480	480	24.0	55.6
						Crescent Ave	point478	478	24.0	55.3
						Crescent Ave	point481	481	24.0	55.3
					Crescent Ave - Additional Phase		CAA-07	506	24.0	55.3
						Crescent Ave	point479	479	24.0	55.3
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.1
						Crescent Ave	CA-04	488	24.0	54.9
						Crescent Ave	CA-03	487	24.0	54.9
F00401-F	21	68.5	5.1	7	-1.9	scent Ave - Additional Phase	CAA-06	505	24.0	55.9
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.8
						Crescent Ave	point480	480	24.0	55.0
						Crescent Ave	point482	482	24.0	54.9
					Crescent Ave - Additional Phase		CAA-05	504	24.0	54.9
						Crescent Ave	point479	479	24.0	54.9
					Crescent Ave - Additional Phase		CAA-03	502	24.0	54.7
						Crescent Ave	point481	481	24.0	54.6
						SB75-W3	F-01-13	402	24.0	54.3
						Crescent Ave	point478	478	24.0	54.2
F00501-F	22	68.8	4.8	7	-2.2	scent Ave - Additional Phase	CAA-05	504	24.0	56.5
					Crescent Ave - Additional Phase		CAA-03	502	24.0	56.3
						Crescent Ave	point477	477	24.0	55.5
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.2
						Crescent Ave	point476	476	24.0	55.1
						Crescent Ave	point479	479	24.0	55.1
						Crescent Ave	point478	478	24.0	55.0
					Crescent Ave - Additional Phase		CAA-06	505	24.0	54.9
						SB75-W3	F-01-12	401	24.0	54.6
						Crescent Ave	point480	480	24.0	54.5
F00601-F	23	67.5	5.5	7	-1.5	scent Ave - Additional Phase	CAA-02	501	24.0	55.8
					Crescent Ave - Additional Phase		CAA-03	502	24.0	55.8
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.3
					Crescent Ave - Additional Phase		CAA-01	499	24.0	54.8
					Crescent Ave - Additional Phase		CAA-05	504	24.0	54.2
					Crescent Ave - Additional Phase		CAA-06	505	24.0	53.9
						SB75-W3	F-01-11	400	20.0	53.4

						SB75-W3	F-01-10	399	24.0	52.9
						SB75-W3	F-01-12	401	20.0	52.7
						Crescent Ave	point480	480	24.0	52.7
F00701-F	24	68.7	4.7	7	-2.3	scent Ave - Additional Phase	CAA-03	502	24.0	57.1
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.5
						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.1
						Crescent Ave	point475	475	24.0	55.8
						Crescent Ave	point474	474	24.0	55.5
						Crescent Ave - Additional Phase	CAA-04	503	24.0	55.5
						Crescent Ave - Additional Phase	CAA-06	505	24.0	55.2
						Crescent Ave - Additional Phase	CAA-05	504	24.0	55.1
						Crescent Ave	point476	476	24.0	54.8
						Crescent Ave - Additional Phase	CAA-07	506	24.0	54.3
F00804-F	25	64.7	10.1	7	3.1	scent Ave - Additional Phase	CAA-05	504	24.0	57.6
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.4
						Crescent Ave - Additional Phase	CAA-03	502	24.0	55.8
						SB75-W3	F-01-12	401	24.0	55.2
						SB75-W3	F-01-13	402	20.0	53.9
						Crescent Ave - Additional Phase	CAA-06	505	24.0	53.6
						SB75-W3	F-01-09	398	24.0	52.7
						SB75-W3	F-01-10	399	24.0	52.7
						Crescent Ave	point472	472	24.0	52.5
						SB75-W3	F-01-11	400	24.0	52.2
F00904	26	67.7	5.5	7	-1.5	scent Ave - Additional Phase	CAA-02	501	24.0	56.9
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.6
						Crescent Ave - Additional Phase	CAA-03	502	24.0	55.7
						Crescent Ave - Additional Phase	CAA-06	505	24.0	55.4
						Crescent Ave - Additional Phase	CAA-05	504	24.0	55.4
						Crescent Ave - Additional Phase	CAA-04	503	24.0	55.2
						SB75-W3	F-01-15	404	24.0	54.4
						SB75-W3	F-01-14	403	24.0	54.0
						SB75-W3	F-01-09	398	24.0	53.7
						SB75-W3	F-01-16	405	24.0	53.7
F01002-F	27	57.5	21.5	7	14.5	scent Ave - Additional Phase	CAA-07	506	24.0	57.3
						SB75-W3	F-01-17	406	24.0	47.9
						SB75-W3	F-01-18	407	12.0	47.7

						SB75-W3	F-01-16	405	24.0	46.0
						SB75-W3	F-01-15	404	24.0	44.8
						SB75-W3	F-01-14	403	24.0	44.7
						SB75-W3	F-01-12	401	24.0	43.2
						SB75-W3	F-01-13	402	24.0	42.9
					Crescent Ave - Additional Phase		CAA-06	505	24.0	39.9
						SB75-W3	F-01-11	400	24.0	39.5
F01101-F	28	61.0	17.1	7	10.1	scent Ave - Additional Phase	CAA-06	505	24.0	56.4
					Crescent Ave - Additional Phase		CAA-05	504	24.0	54.9
					Crescent Ave - Additional Phase		CAA-07	506	24.0	53.3
					Crescent Ave - Additional Phase		CAA-04	503	24.0	52.0
						SB75-W3	F-01-17	406	24.0	51.0
					Crescent Ave - Additional Phase		CAA-08	507	24.0	50.4
						SB75-W3	F-01-16	405	24.0	50.4
						SB75-W3	F-01-18	407	12.0	49.3
						SB75-W3	F-01-15	404	24.0	49.1
						SB75-W3	F-01-14	403	24.0	48.8
F01201-F	29	61.5	16.1	7	9.1	scent Ave - Additional Phase	CAA-05	504	24.0	56.0
					Crescent Ave - Additional Phase		CAA-06	505	24.0	54.6
					Crescent Ave - Additional Phase		CAA-04	503	24.0	54.0
					Crescent Ave - Additional Phase		CAA-03	502	24.0	53.0
						SB75-W3	F-01-16	405	24.0	51.5
						SB75-W3	F-01-17	406	24.0	50.8
					Crescent Ave - Additional Phase		CAA-07	506	24.0	50.8
						SB75-W3	F-01-15	404	24.0	50.6
					Crescent Ave - Additional Phase		CAA-08	507	24.0	50.0
						SB75-W3	F-01-14	403	24.0	49.3
F01302-F	30	60.6	17.5	7	10.5	scent Ave - Additional Phase	CAA-03	502	24.0	55.3
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.1
					Crescent Ave - Additional Phase		CAA-05	504	24.0	52.0
					Crescent Ave - Additional Phase		CAA-02	501	24.0	51.8
						SB75-W3	F-01-15	404	24.0	50.5
					Crescent Ave - Additional Phase		CAA-06	505	24.0	49.6
						SB75-W3	F-01-14	403	24.0	49.4
						SB75-W3	F-01-16	405	24.0	49.3
						SB75-W3	F-01-17	406	24.0	48.2

						SB75-W3	F-01-13	402	24.0	47.8
F01501-F	32	63.6	13.7	7	6.7	scent Ave - Additional Phase	CAA-01	499	24.0	57.5
						Crescent Ave - Additional Phase	CAA-03	502	24.0	54.3
						Crescent Ave - Additional Phase	CAA-02	501	24.0	54.3
						Crescent Ave - Additional Phase	CAA-04	503	24.0	52.1
						SB75-W3	F-01-15	404	24.0	50.6
						SB75-W3	F-01-14	403	24.0	50.3
						SB75-W3	F-01-06	395	24.0	50.1
						Crescent Ave - Additional Phase	CAA-05	504	24.0	50.0
						SB75-W3	F-01-08	397	24.0	49.7
						SB75-W3	F-01-16	405	24.0	49.5
F01601-F	33	64.6	12.6	7	5.6	scent Ave - Additional Phase	CAA-01	499	24.0	56.3
						Crescent Ave - Additional Phase	CAA-02	501	24.0	54.5
						SB75-W3	F-01-07	396	20.0	53.1
						SB75-W3	F-01-08	397	20.0	52.9
						Crescent Ave - Additional Phase	CAA-03	502	24.0	52.5
						SB75-W3	F-01-06	395	20.0	51.2
						Crescent Ave - Additional Phase	CAA-04	503	24.0	50.6
						SB75-W3	F-01-14	403	24.0	50.4
						SB75-W3	F-01-05	394	20.0	50.1
						SB75-W3	F-01-15	404	24.0	50.1
F01701-F	34	65.9	11.2	7	4.2	scent Ave - Additional Phase	CAA-01	499	20.0	55.4
						Crescent Ave - Additional Phase	CAA-02	501	24.0	53.0
						SB75-W3	F-01-10	399	20.0	52.9
						SB75-W3	F-01-09	398	20.0	52.3
						SB75-W3	F-01-08	397	20.0	52.0
						SB75-W3	F-01-07	396	20.0	51.9
						SB75-W3	F-01-06	395	20.0	51.4
						SB75-W3	F-01-14	403	24.0	51.0
						SB75-W3	F-01-11	400	20.0	50.8
						SB75-W3	F-01-13	402	24.0	50.6
F01801-F	35	65.8	9.7	7	2.7	SB75-W3	F-01-12	401	20.0	51.7
						SB75-W3	F-01-10	399	20.0	51.5
						SB75-W3	F-01-11	400	20.0	51.4
						SB75-W3	F-01-13	402	24.0	51.2
						SB75-W3	F-01-09	398	20.0	51.0

					Crescent Ave - Additional Phase	CAA-01	499	20.0	50.6
					SB75-W3	F-01-08	397	20.0	50.4
					SB75-W3	F-01-07	396	20.0	49.9
					SB75-W3	F-01-06	395	20.0	49.3
					SB75-W3	F-01-04	393	20.0	48.9
F01901-F	36	66.3	9.3	7	2.3 SB75-W3	F-01-14	403	24.0	53.8
					SB75-W3	F-01-12	401	20.0	51.6
					SB75-W3	F-01-10	399	20.0	51.4
					SB75-W3	F-01-13	402	20.0	51.3
					SB75-W3	F-01-11	400	20.0	51.2
					SB75-W3	F-01-09	398	20.0	51.0
					SB75-W3	F-01-08	397	20.0	50.5
					SB75-W3	F-01-07	396	20.0	50.0
					SB75-W3	F-01-06	395	20.0	49.6
					Crescent Ave - Additional Phase	CAA-01	499	20.0	49.6
F02001-F	37	66.2	9.2	7	2.2 SB75-W3	F-01-14	403	16.0	52.5
					SB75-W3	F-01-15	404	24.0	52.1
					SB75-W3	F-01-10	399	20.0	50.5
					SB75-W3	F-01-09	398	20.0	50.3
					SB75-W3	F-01-12	401	20.0	50.3
					SB75-W3	F-01-11	400	20.0	50.3
					SB75-W3	F-01-08	397	20.0	50.1
					SB75-W3	F-01-13	402	20.0	50.0
					SB75-W3	F-01-07	396	20.0	49.7
					SB75-W3	F-01-06	395	20.0	49.1
F02101-F	38	66.3	7.1	7	0.1 SB75-W3	F-01-18	407	24.0	51.9
					SB75-W3	F-01-07	396	20.0	49.3
					SB75-W3	F-01-06	395	20.0	49.2
					SB75-W3	F-01-08	397	20.0	49.1
					SB75-W3	F-01-09	398	24.0	48.9
					SB75-W3	F-01-05	394	20.0	48.6
					SB75-W3	F-01-10	399	24.0	48.5
					SB75-W3	F-01-14	403	16.0	48.4
					SB75-W3	F-01-11	400	20.0	48.4
					SB75-W3	F-01-15	404	16.0	48.1
F02201-F	39	66.6	7.0	7	0.0 SB75-W3	F-01-18	407	24.0	50.9

						SB75-W3	F-01-08	397	20.0	49.3
						SB75-W3	F-01-07	396	20.0	49.3
						SB75-W3	F-01-09	398	20.0	48.8
						SB75-W3	F-01-06	395	20.0	48.7
						SB75-W3	F-01-05	394	20.0	48.5
						SB75-W3	F-01-10	399	20.0	48.5
						SB75-W3	F-01-04	393	20.0	48.3
						SB75-W3	F-01-11	400	20.0	48.3
						SB75-W3	F-01-14	403	16.0	48.1
F02301-F	40	67.3	6.9	7	-0.1	SB75-W3	F-01-18	407	24.0	50.6
						SB75-W3	F-01-06	395	20.0	49.5
						SB75-W3	F-01-08	397	20.0	49.3
						SB75-W3	F-01-05	394	20.0	49.2
						SB75-W3	F-01-07	396	20.0	49.1
						SB75-W3	F-01-04	393	20.0	49.0
						SB75-W3	F-01-09	398	20.0	48.8
						SB75-W3	F-01-10	399	20.0	48.8
						SB75-W3	F-01-03	392	20.0	48.3
						SB75-W3	F-01-11	400	20.0	48.2
F02401-F	41	67.3	6.9	7	-0.1	SB75-W3	F-01-18	407	0.0	50.1
						SB75-W3	F-01-06	395	20.0	49.3
						SB75-W3	F-01-05	394	20.0	49.1
						SB75-W3	F-01-08	397	20.0	49.0
						SB75-W3	F-01-07	396	20.0	49.0
						SB75-W3	F-01-04	393	20.0	48.9
						SB75-W3	F-01-09	398	20.0	48.5
						SB75-W3	F-01-03	392	20.0	48.4
						SB75-W3	F-01-10	399	20.0	48.4
						SB75-W3	F-01-11	400	20.0	47.9
F02502-F	42	67.6	6.8	7	-0.2	SB75-W3	F-01-04	393	20.0	49.2
						SB75-W3	F-01-05	394	20.0	49.1
						SB75-W3	F-01-06	395	20.0	49.0
						SB75-W3	F-01-07	396	20.0	48.8
						SB75-W3	F-01-03	392	20.0	48.5
						SB75-W3	F-01-18	407	24.0	48.5
						SB75-W3	F-01-08	397	20.0	48.4

						SB75-W3	F-01-09	398	20.0	48.4
						SB75-W3	F-01-10	399	20.0	48.1
						SB75-W3	F-01-01	389	20.0	47.7
F02601-F	43	67.8	5.9	7	-1.1	SB75-W3	F-02-04	411	12.0	48.2
						SB75-W3	F-01-05	394	20.0	48.2
						SB75-W3	F-01-06	395	20.0	48.1
						SB75-W3	F-01-04	393	20.0	47.8
						SB75-W3	F-01-07	396	20.0	47.8
						SB75-W3	F-01-08	397	20.0	47.6
						SB75-W3	F-01-03	392	20.0	47.6
						SB75-W3	F-01-02	391	20.0	47.3
						SB75-W3	F-01-09	398	20.0	47.1
						SB75-W3	F-01-01	389	20.0	47.1
F02701-F	44	67.7	5.5	7	-1.5	SB75-W3	F-01-04	393	20.0	48.5
						SB75-W3	F-01-05	394	24.0	48.2
						SB75-W3	F-02-04	411	12.0	48.0
						SB75-W3	F-01-06	395	24.0	47.8
						SB75-W3	F-01-03	392	20.0	47.6
						SB75-W3	F-02-03	410	12.0	47.5
						SB75-W3	F-01-07	396	20.0	47.3
						SB75-W3	F-01-02	391	20.0	47.1
						SB75-W3	F-01-08	397	20.0	47.0
						SB75-W3	F-01-01	389	20.0	47.0
F02801-F	45	67.7	5.0	7	-2.0	SB75-W3	F-01-04	393	20.0	48.2
						SB75-W3	F-02-03	410	12.0	48.1
						SB75-W3	F-01-03	392	20.0	47.6
						SB75-W3	F-02-04	411	12.0	47.5
						SB75-W3	F-01-05	394	20.0	47.5
						SB75-W3	F-01-01	389	20.0	47.2
						SB75-W3	F-01-06	395	20.0	47.2
						SB75-W3	F-01-02	391	20.0	47.1
						SB75-W3	F-01-07	396	20.0	47.0
						SB75-W3	F-02-02	409	12.0	46.5
F02901-F	46	67.7	4.2	7	-2.8	SB75-W3	F-02-03	410	12.0	49.0
						SB75-W3	F-01-01	389	20.0	48.4
						SB75-W3	F-01-02	391	20.0	48.3

						SB75-W3	F-01-03	392	20.0	47.8
						SB75-W3	F-01-04	393	20.0	47.6
						SB75-W3	F-02-02	409	12.0	47.3
						SB75-W3	F-01-05	394	20.0	46.9
						SB75-W3	F-01-06	395	20.0	46.4
						SB75-W3	F-01-07	396	20.0	46.3
						SB75-W3	F-01-08	397	20.0	45.8
F03001-F	47	68.2	3.3	7	-3.7	SB75-W3	F-02-03	410	12.0	50.4
						SB75-W3	F-02-02	409	12.0	48.9
						SB75-W3	F-01-01	389	20.0	48.4
						SB75-W3	F-01-02	391	20.0	47.7
						SB75-W3	F-01-03	392	20.0	47.3
						SB75-W3	F-01-04	393	20.0	46.6
						SB75-W3	F-03-13	427	16.0	46.2
						SB75-W3	F-01-05	394	20.0	46.1
						SB75-W3	F-01-06	395	20.0	46.1
						SB75-W3	F-02-01	408	12.0	45.9
F03101-F	48	67.5	3.0	7	-4.0	SB75-W3	F-02-02	409	12.0	49.1
						SB75-W3	F-02-03	410	12.0	48.7
						SB75-W3	F-01-01	389	20.0	47.6
						SB75-W3	F-01-02	391	20.0	47.3
						SB75-W3	F-01-03	392	20.0	46.5
						SB75-W3	F-03-13	427	16.0	46.1
						SB75-W3	F-02-01	408	12.0	46.0
						SB75-W3	F-01-04	393	20.0	45.7
						SB75-W3	F-01-06	395	20.0	45.3
						SB75-W3	F-01-05	394	20.0	45.1
F03201-F	49	67.7	2.6	7	-4.4	SB75-W3	F-02-03	410	12.0	51.2
						SB75-W3	F-02-02	409	12.0	49.6
						SB75-W3	F-02-01	408	18.0	47.5
						SB75-W3	F-01-01	389	20.0	47.1
						SB75-W3	F-03-13	427	24.0	46.7
						SB75-W3	F-01-02	391	20.0	46.4
						SB75-W3	F-01-03	392	20.0	45.8
						SB75-W3	F-01-06	395	24.0	45.0
						SB75-W3	F-01-04	393	20.0	45.0

						SB75-W3	F-01-05	394	24.0	44.8
F03301-F	50	67.8	2.6	7	-4.4	SB75-W3	F-02-02	409	12.0	49.6
						SB75-W3	F-02-01	408	12.0	48.9
						SB75-W3	F-03-13	427	16.0	47.5
						SB75-W3	F-01-01	389	20.0	46.5
						SB75-W3	F-01-02	391	20.0	45.7
						SB75-W3	F-03-12	426	20.0	45.1
						SB75-W3	F-01-03	392	20.0	45.1
						SB75-W3	F-01-06	395	20.0	44.8
						SB75-W3	F-01-05	394	20.0	44.7
						SB75-W3	F-01-04	393	20.0	44.6
F03401	51	69.1	3.8	7	-3.2	scent Ave - Additional Phase	CAA-06	505	24.0	57.4
						Crescent Ave - Additional Phase	CAA-07	506	24.0	57.0
						Crescent Ave - Additional Phase	CAA-05	504	24.0	56.8
						SB75-W3	F-01-17	406	16.0	56.4
						SB75-W3	F-01-16	405	24.0	56.3
						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.3
						Crescent Ave - Additional Phase	CAA-03	502	24.0	56.1
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.1
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.1
						SB75-W3	F-01-15	404	24.0	55.4
F03501	52	69.2	3.6	7	-3.4	scent Ave - Additional Phase	CAA-06	505	24.0	57.3
						Crescent Ave - Additional Phase	CAA-05	504	24.0	57.2
						Crescent Ave - Additional Phase	CAA-07	506	24.0	57.0
						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.5
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.4
						SB75-W3	F-01-16	405	24.0	56.4
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.3
						SB75-W3	F-01-17	406	24.0	56.3
						Crescent Ave - Additional Phase	CAA-03	502	24.0	56.2
						SB75-W3	F-01-15	404	24.0	55.8
F03601	53	69.1	3.5	7	-3.5	scent Ave - Additional Phase	CAA-05	504	24.0	57.1
						Crescent Ave - Additional Phase	CAA-06	505	24.0	57.1
						Crescent Ave - Additional Phase	CAA-01	499	20.0	56.6
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.6
						Crescent Ave - Additional Phase	CAA-07	506	24.0	56.5

						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.4
						SB75-W3	F-01-16	405	24.0	56.2
						Crescent Ave - Additional Phase	CAA-03	502	24.0	56.1
						SB75-W3	F-01-17	406	24.0	56.1
						SB75-W3	F-01-15	404	24.0	55.9
F03701	54	68.7	3.8	7	-3.2	scent Ave - Additional Phase	CAA-01	499	20.0	56.7
						Crescent Ave - Additional Phase	CAA-05	504	24.0	56.7
						Crescent Ave - Additional Phase	CAA-06	505	24.0	56.5
						Crescent Ave - Additional Phase	CAA-04	503	24.0	56.1
						Crescent Ave - Additional Phase	CAA-02	501	24.0	56.1
						SB75-W3	F-01-17	406	24.0	55.8
						SB75-W3	F-01-16	405	24.0	55.6
						Crescent Ave - Additional Phase	CAA-03	502	24.0	55.5
						SB75-W3	F-01-15	404	24.0	55.2
						SB75-W3	F-01-11	400	24.0	55.1
F03801	55	68.0	4.3	7	-2.7	scent Ave - Additional Phase	CAA-01	499	20.0	56.4
						Crescent Ave - Additional Phase	CAA-05	504	24.0	54.9
						SB75-W3	F-01-11	400	20.0	54.8
						Crescent Ave - Additional Phase	CAA-06	505	24.0	54.8
						SB75-W3	F-01-12	401	24.0	54.7
						SB75-W3	F-01-10	399	20.0	54.7
						SB75-W3	F-01-09	398	20.0	54.4
						SB75-W3	F-01-17	406	24.0	54.3
						SB75-W3	F-01-08	397	20.0	54.2
						Crescent Ave - Additional Phase	CAA-04	503	24.0	53.9
F03901	56	67.8	4.3	7	-2.7	scent Ave - Additional Phase	CAA-01	499	20.0	55.9
						SB75-W3	F-01-12	401	24.0	54.8
						SB75-W3	F-01-11	400	20.0	54.3
						SB75-W3	F-01-10	399	20.0	54.1
						Crescent Ave - Additional Phase	CAA-05	504	24.0	53.8
						SB75-W3	F-01-09	398	20.0	53.8
						SB75-W3	F-01-08	397	20.0	53.7
						Crescent Ave - Additional Phase	CAA-06	505	24.0	53.6
						SB75-W3	F-01-07	396	20.0	53.6
						SB75-W3	F-01-06	395	20.0	53.4
F04001	57	67.6	4.5	7	-2.5	scent Ave - Additional Phase	CAA-01	499	20.0	55.5

						SB75-W3	F-01-12	401	24.0	54.4
						SB75-W3	F-01-11	400	20.0	54.0
						SB75-W3	F-01-10	399	20.0	53.6
						SB75-W3	F-01-08	397	20.0	53.3
						SB75-W3	F-01-07	396	20.0	53.3
						SB75-W3	F-01-09	398	20.0	53.3
					Crescent Ave - Additional Phase		CAA-05	504	24.0	53.3
						SB75-W3	F-01-06	395	20.0	52.9
					Crescent Ave - Additional Phase		CAA-02	501	24.0	52.8
F04102	58	67.1	4.8	7	-2.2	scent Ave - Additional Phase	CAA-01	499	20.0	54.8
						SB75-W3	F-01-12	401	20.0	53.7
						SB75-W3	F-01-11	400	20.0	53.1
						SB75-W3	F-01-13	402	20.0	52.7
						SB75-W3	F-01-10	399	20.0	52.5
						SB75-W3	F-01-07	396	20.0	52.4
						SB75-W3	F-01-08	397	20.0	52.2
					Crescent Ave - Additional Phase		CAA-02	501	24.0	52.1
						SB75-W3	F-01-05	394	20.0	52.1
					Crescent Ave - Additional Phase		CAA-05	504	24.0	52.1
F04201	59	66.0	5.8	7	-1.2	scent Ave - Additional Phase	CAA-01	499	20.0	52.7
						SB75-W3	F-01-13	402	24.0	51.9
						SB75-W3	F-01-12	401	24.0	51.3
						SB75-W3	F-01-10	399	20.0	51.1
						SB75-W3	F-01-09	398	20.0	51.0
						SB75-W3	F-01-11	400	20.0	50.9
						SB75-W3	F-01-08	397	20.0	50.7
						SB75-W3	F-01-07	396	20.0	50.7
						SB75-W3	F-01-06	395	20.0	50.6
						SB75-W3	F-01-05	394	20.0	50.4
F04301	60	67.9	6.0	7	-1.0	scent Ave - Additional Phase	CAA-01	499	20.0	58.3
					Crescent Ave - Additional Phase		CAA-05	504	24.0	56.3
					Crescent Ave - Additional Phase		CAA-06	505	24.0	56.1
						SB75-W3	F-01-10	399	24.0	55.6
					Crescent Ave - Additional Phase		CAA-04	503	24.0	55.4
						SB75-W3	F-01-09	398	20.0	55.2
						SB75-W3	F-01-11	400	24.0	55.1

					Crescent Ave - Additional Phase	CAA-02	501	24.0	55.1
					SB75-W3	F-01-15	404	24.0	55.0
					SB75-W3	F-01-16	405	24.0	54.8
F04401	61	66.5	7.1	7	0.1 scent Ave - Additional Phase	CAA-01	499	20.0	56.2
					SB75-W3	F-01-10	399	20.0	53.8
					SB75-W3	F-01-05	394	20.0	53.7
					SB75-W3	F-01-11	400	24.0	53.7
					SB75-W3	F-01-06	395	20.0	53.7
					SB75-W3	F-01-07	396	20.0	53.4
					SB75-W3	F-01-08	397	20.0	53.4
					SB75-W3	F-01-09	398	20.0	53.3
					SB75-W3	F-01-04	393	20.0	52.9
					Crescent Ave - Additional Phase	CAA-05	504	24.0	52.2
F04501	62	66.5	7.1	7	0.1 scent Ave - Additional Phase	CAA-01	499	20.0	55.9
					SB75-W3	F-01-11	400	20.0	53.9
					SB75-W3	F-01-10	399	20.0	53.5
					SB75-W3	F-01-04	393	20.0	53.5
					SB75-W3	F-01-05	394	20.0	53.3
					SB75-W3	F-01-09	398	20.0	53.2
					SB75-W3	F-01-08	397	20.0	53.1
					SB75-W3	F-01-07	396	20.0	52.7
					SB75-W3	F-01-06	395	20.0	52.7
					SB75-W3	F-01-12	401	24.0	52.6
F04601	64	66.3	6.6	7	-0.4 scent Ave - Additional Phase	CAA-01	499	20.0	53.7
					SB75-W3	F-01-13	402	20.0	52.8
					SB75-W3	F-01-12	401	24.0	52.5
					SB75-W3	F-01-10	399	20.0	52.2
					SB75-W3	F-01-09	398	20.0	52.2
					SB75-W3	F-01-11	400	20.0	52.2
					SB75-W3	F-01-08	397	20.0	52.2
					SB75-W3	F-01-07	396	20.0	52.0
					SB75-W3	F-01-06	395	20.0	51.6
					SB75-W3	F-01-05	394	20.0	51.3
F04701	65	65.2	7.4	7	0.4 SB75-W3	F-01-12	401	20.0	52.0
					SB75-W3	F-01-13	402	20.0	51.7
					Crescent Ave - Additional Phase	CAA-01	499	20.0	51.6

						SB75-W3	F-01-11	400	20.0	50.2
						SB75-W3	F-01-10	399	20.0	49.0
						SB75-W3	F-01-09	398	20.0	48.7
						SB75-W3	F-01-07	396	20.0	48.7
						SB75-W3	F-01-08	397	20.0	48.6
						SB75-W3	F-01-06	395	20.0	48.5
						SB75-W3	F-01-05	394	20.0	48.5
F04801	66	64.9	7.7	7	0.7	SB75-W3	F-01-13	402	24.0	51.5
					Crescent Ave - Additional Phase		CAA-01	499	20.0	50.4
						SB75-W3	F-01-12	401	20.0	50.0
						SB75-W3	F-02-03	410	12.0	48.5
						SB75-W3	F-01-11	400	20.0	48.4
						SB75-W3	F-01-10	399	20.0	48.4
						SB75-W3	F-01-14	403	16.0	48.4
						SB75-W3	F-01-07	396	20.0	48.2
						SB75-W3	F-01-09	398	20.0	48.2
						SB75-W3	F-01-08	397	20.0	48.1
F04901	67	64.8	7.8	7	0.8	SB75-W3	F-02-04	411	12.0	49.5
						SB75-W3	F-01-13	402	20.0	49.2
						SB75-W3	F-01-14	403	16.0	48.7
					Crescent Ave - Additional Phase		CAA-01	499	20.0	48.4
						SB75-W3	F-01-12	401	20.0	48.1
						SB75-W3	F-01-11	400	20.0	47.5
						SB75-W3	F-01-06	395	20.0	47.4
						SB75-W3	F-02-03	410	12.0	47.4
						SB75-W3	F-01-10	399	20.0	47.3
						SB75-W3	F-01-07	396	20.0	47.3
F05001	68	64.3	7.0	7	-0.0	SB75-W3	F-01-14	403	16.0	49.0
						SB75-W3	F-02-03	410	12.0	47.5
						SB75-W3	F-01-15	404	24.0	46.9
						SB75-W3	F-02-04	411	12.0	45.7
						SB75-W3	F-01-12	401	20.0	45.7
						SB75-W3	F-01-04	393	20.0	45.6
						SB75-W3	F-01-11	400	20.0	45.6
						SB75-W3	F-01-13	402	20.0	45.6
						SB75-W3	F-01-03	392	20.0	45.6

						SB75-W3	F-01-05	394	20.0	45.5
F05101	69	64.7	6.6	7	-0.4	SB75-W3	F-01-14	403	16.0	48.7
						SB75-W3	F-01-15	404	16.0	48.1
						SB75-W3	F-02-03	410	12.0	47.4
						SB75-W3	F-01-16	405	16.0	47.0
						Crescent Ave - Additional Phase	CAA-01	499	20.0	46.8
						Crescent Ave - Additional Phase	CAA-07	506	24.0	46.2
						SB75-W3	F-01-03	392	20.0	45.6
						SB75-W3	F-01-04	393	20.0	45.6
						Crescent Ave - Additional Phase	CAA-05	504	24.0	45.6
						SB75-W3	F-02-02	409	12.0	45.6
F05201	70	64.7	6.5	7	-0.5	SB75-W3	F-01-14	403	16.0	48.1
						SB75-W3	F-01-15	404	16.0	47.6
						SB75-W3	F-02-03	410	12.0	47.6
						SB75-W3	F-02-02	409	12.0	46.8
						SB75-W3	F-01-16	405	16.0	46.5
						SB75-W3	F-01-03	392	20.0	45.7
						SB75-W3	F-01-04	393	20.0	45.6
						SB75-W3	F-01-02	391	20.0	45.3
						SB75-W3	F-01-05	394	20.0	45.3
						SB75-W3	F-01-06	395	20.0	45.1
F05301	71	64.3	5.8	7	-1.2	SB75-W3	F-02-03	410	12.0	46.3
						SB75-W3	F-02-02	409	12.0	46.2
						SB75-W3	F-01-03	392	20.0	44.8
						SB75-W3	F-01-04	393	20.0	44.8
						SB75-W3	F-01-02	391	20.0	44.7
						SB75-W3	F-01-14	403	16.0	44.6
						SB75-W3	F-01-05	394	20.0	44.5
						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-01-06	395	20.0	44.4
						SB75-W3	F-01-10	399	20.0	44.3
F05401	72	64.1	5.5	7	-1.5	SB75-W3	F-02-02	409	12.0	46.6
						SB75-W3	F-02-03	410	12.0	46.2
						SB75-W3	F-03-13	427	16.0	44.5
						SB75-W3	F-01-03	392	20.0	44.4
						SB75-W3	F-01-04	393	20.0	44.3

						SB75-W3	F-01-02	391	20.0	44.2
						SB75-W3	F-01-05	394	20.0	44.0
						SB75-W3	F-01-06	395	20.0	43.8
						SB75-W3	F-01-01	389	20.0	43.7
						SB75-W3	F-01-10	399	20.0	43.7
F05501	73	64.3	5.3	7	-1.7	SB75-W3	F-02-02	409	12.0	47.1
						SB75-W3	F-02-03	410	12.0	46.1
						SB75-W3	F-03-13	427	16.0	44.8
						SB75-W3	F-02-01	408	12.0	44.4
						SB75-W3	F-01-03	392	20.0	44.3
						SB75-W3	F-01-02	391	20.0	44.2
						SB75-W3	F-01-04	393	20.0	44.1
						SB75-W3	F-01-01	389	20.0	43.9
						SB75-W3	F-01-10	399	20.0	43.6
						SB75-W3	F-01-05	394	20.0	43.6
F05601	74	65.3	4.1	7	-2.9	SB75-W3	F-02-03	410	12.0	49.1
						SB75-W3	F-02-02	409	12.0	47.3
						SB75-W3	F-02-01	408	12.0	46.7
						SB75-W3	F-03-13	427	16.0	45.6
						SB75-W3	F-01-01	389	20.0	44.3
						SB75-W3	F-01-02	391	20.0	44.3
						SB75-W3	F-01-03	392	20.0	44.1
						SB75-W3	F-01-04	393	20.0	43.6
						SB75-W3	F-03-12	426	20.0	43.3
						SB75-W3	F-01-05	394	20.0	43.2
F05801	75	64.6	4.2	7	-2.8	SB75-W3	F-02-03	410	12.0	48.4
						SB75-W3	F-02-02	409	12.0	46.3
						SB75-W3	F-02-01	408	12.0	46.3
						SB75-W3	F-03-13	427	16.0	45.0
						SB75-W3	F-01-01	389	20.0	43.3
						SB75-W3	F-01-02	391	20.0	43.2
						SB75-W3	F-01-03	392	20.0	43.2
						SB75-W3	F-01-04	393	20.0	42.9
						SB75-W3	F-03-12	426	20.0	42.7
						SB75-W3	F-01-05	394	20.0	42.6
F05901	76	63.8	4.5	7	-2.5	SB75-W3	F-02-03	410	12.0	47.5

						SB75-W3	F-02-01	408	12.0	45.8
						SB75-W3	F-02-02	409	12.0	45.7
						SB75-W3	F-03-13	427	16.0	44.5
						SB75-W3	F-01-01	389	20.0	42.6
						SB75-W3	F-01-03	392	20.0	42.6
						SB75-W3	F-01-04	393	20.0	42.4
						SB75-W3	F-03-12	426	20.0	42.2
						SB75-W3	F-01-05	394	20.0	42.2
						SB75-W3	F-01-06	395	20.0	41.9
F06001	77	63.5	5.0	7	-2.0	SB75-W3	F-02-03	410	12.0	46.9
						SB75-W3	F-02-01	408	12.0	46.1
						SB75-W3	F-02-02	409	12.0	45.8
						SB75-W3	F-03-13	427	16.0	44.6
						SB75-W3	F-01-03	392	20.0	42.4
						SB75-W3	F-01-01	389	20.0	42.4
						SB75-W3	F-01-02	391	20.0	42.3
						SB75-W3	F-03-12	426	20.0	42.2
						SB75-W3	F-01-04	393	20.0	42.2
						SB75-W3	F-01-05	394	20.0	41.9
F06102	78	63.7	5.4	7	-1.6	SB75-W3	F-02-01	408	12.0	47.1
						SB75-W3	F-02-03	410	12.0	46.2
						SB75-W3	F-02-02	409	12.0	46.2
						SB75-W3	F-03-13	427	16.0	45.1
						SB75-W3	F-01-14	403	16.0	44.6
						SB75-W3	F-01-15	404	16.0	43.9
						SB75-W3	F-01-03	392	20.0	42.7
						SB75-W3	F-01-01	389	20.0	42.6
						SB75-W3	F-03-12	426	20.0	42.6
						SB75-W3	F-01-10	399	20.0	42.5
F06201	79	63.7	5.8	7	-1.2	SB75-W3	F-02-01	408	12.0	49.2
						SB75-W3	F-02-02	409	12.0	47.7
						SB75-W3	F-02-03	410	12.0	46.6
						SB75-W3	F-01-14	403	16.0	46.4
						SB75-W3	F-03-13	427	16.0	46.1
						SB75-W3	F-01-15	404	16.0	45.9
						SB75-W3	F-01-12	401	20.0	43.3

						SB75-W3	F-01-13	402	20.0	43.2
						SB75-W3	F-01-11	400	20.0	43.2
						SB75-W3	F-01-10	399	20.0	43.0
F06301	80	63.5	6.1	7	-0.9	SB75-W3	F-02-01	408	12.0	49.4
						SB75-W3	F-02-02	409	12.0	49.1
						SB75-W3	F-02-03	410	12.0	47.6
						SB75-W3	F-03-13	427	16.0	47.2
						SB75-W3	F-01-14	403	16.0	46.9
						SB75-W3	F-01-13	402	20.0	45.1
						SB75-W3	F-01-15	404	16.0	45.0
						SB75-W3	F-01-12	401	20.0	43.6
						SB75-W3	F-01-11	400	20.0	43.4
						SB75-W3	F-01-10	399	20.0	43.0
F06401	81	63.4	6.1	7	-0.9	SB75-W3	F-02-01	408	12.0	49.2
						SB75-W3	F-02-02	409	12.0	48.8
						SB75-W3	F-03-13	427	16.0	47.3
						SB75-W3	F-01-14	403	16.0	46.9
						SB75-W3	F-02-03	410	12.0	46.9
						SB75-W3	F-01-13	402	20.0	45.9
						SB75-W3	F-01-15	404	24.0	45.3
						SB75-W3	F-01-12	401	20.0	43.7
						SB75-W3	F-01-11	400	20.0	43.4
					Crescent Ave - Additional Phase		CAA-01	499	20.0	43.1
F06501	82	63.1	6.0	7	-1.0	SB75-W3	F-02-01	408	12.0	48.9
						SB75-W3	F-02-02	409	12.0	47.7
						SB75-W3	F-03-13	427	16.0	47.0
						SB75-W3	F-01-14	403	16.0	46.3
						SB75-W3	F-02-03	410	12.0	46.0
						SB75-W3	F-01-13	402	20.0	45.5
						SB75-W3	F-01-15	404	24.0	44.0
						SB75-W3	F-01-12	401	20.0	43.4
						SB75-W3	F-01-11	400	20.0	42.9
					Crescent Ave - Additional Phase		CAA-01	499	20.0	42.7
F06601	83	63.8	6.3	7	-0.7	SB75-W3	F-02-02	409	12.0	49.5
						SB75-W3	F-02-01	408	12.0	49.1
						SB75-W3	F-02-03	410	12.0	48.8

						SB75-W3	F-01-14	403	16.0	47.8
						SB75-W3	F-03-13	427	16.0	47.6
						SB75-W3	F-01-13	402	20.0	46.7
						SB75-W3	F-01-15	404	24.0	45.8
						SB75-W3	F-01-12	401	20.0	44.6
					Crescent Ave - Additional Phase		CAA-01	499	20.0	44.1
						SB75-W3	F-01-11	400	20.0	44.1
F06701	84	64.8	4.7	7	-2.3	SB75-W3	F-02-02	409	12.0	51.2
						SB75-W3	F-02-03	410	12.0	50.6
					Crescent Ave - Additional Phase		CAA-01	499	20.0	49.7
						SB75-W3	F-03-13	427	16.0	49.4
						SB75-W3	F-02-04	411	12.0	49.0
						SB75-W3	F-01-14	403	16.0	49.0
						SB75-W3	F-01-13	402	24.0	48.6
						SB75-W3	F-01-12	401	20.0	48.3
						SB75-W3	F-01-06	395	20.0	47.6
						SB75-W3	F-01-04	393	20.0	47.5
F06801	85	64.9	4.6	7	-2.4	SB75-W3	F-02-02	409	12.0	51.5
						SB75-W3	F-02-03	410	12.0	51.0
					Crescent Ave - Additional Phase		CAA-01	499	20.0	49.7
						SB75-W3	F-03-13	427	16.0	49.6
						SB75-W3	F-01-14	403	24.0	49.3
						SB75-W3	F-01-13	402	24.0	48.5
						SB75-W3	F-02-04	411	12.0	48.4
						SB75-W3	F-02-01	408	12.0	48.2
						SB75-W3	F-01-12	401	20.0	48.1
						SB75-W3	F-01-06	395	20.0	47.5
F06901	86	64.7	4.7	7	-2.3	SB75-W3	F-02-02	409	12.0	51.7
						SB75-W3	F-02-03	410	12.0	50.9
						SB75-W3	F-03-13	427	16.0	49.6
					Crescent Ave - Additional Phase		CAA-01	499	20.0	49.4
						SB75-W3	F-01-14	403	24.0	49.2
						SB75-W3	F-02-01	408	12.0	48.9
						SB75-W3	F-01-13	402	24.0	48.0
						SB75-W3	F-01-12	401	20.0	47.8
						SB75-W3	F-01-04	393	20.0	47.3

						SB75-W3	F-01-03	392	20.0	47.3
F07001	87	64.4	4.9	7	-2.1	SB75-W3	F-02-02	409	12.0	51.5
						SB75-W3	F-02-01	408	12.0	49.9
						SB75-W3	F-02-03	410	12.0	49.8
						SB75-W3	F-03-13	427	16.0	49.4
						SB75-W3	F-01-14	403	16.0	48.9
					Crescent Ave - Additional Phase		CAA-01	499	20.0	48.8
						SB75-W3	F-01-13	402	20.0	47.6
						SB75-W3	F-01-12	401	20.0	47.1
						SB75-W3	F-01-03	392	20.0	47.1
						SB75-W3	F-01-04	393	20.0	47.0
F07103-F	88	65.5	3.8	7	-3.2	SB75-W3	F-02-01	408	12.0	47.8
						SB75-W3	F-03-13	427	16.0	46.8
						SB75-W3	F-03-12	426	20.0	45.8
						SB75-W3	F-03-11	425	20.0	44.8
						SB75-W3	F-02-02	409	12.0	43.9
						SB75-W3	F-03-10	424	20.0	43.4
						SB75-W3	F-01-01	389	20.0	43.4
						SB75-W3	F-01-06	395	20.0	43.3
						SB75-W3	F-01-05	394	20.0	43.0
						SB75-W3	F-03-09	423	20.0	43.0
F07201	89	65.1	4.0	7	-3.0	SB75-W3	F-02-01	408	12.0	47.3
						SB75-W3	F-02-02	409	12.0	46.4
						SB75-W3	F-03-13	427	16.0	46.1
						SB75-W3	F-03-12	426	20.0	44.3
						SB75-W3	F-04-16	444	12.0	43.7
						SB75-W3	F-01-01	389	20.0	43.2
						SB75-W3	F-03-11	425	20.0	43.0
						SB75-W3	F-01-02	391	20.0	42.9
						SB75-W3	F-01-03	392	20.0	42.8
						SB75-W3	F-01-04	393	20.0	42.4
F07301	90	64.3	4.0	7	-3.0	SB75-W3	F-02-01	408	12.0	46.8
						SB75-W3	F-03-13	427	16.0	45.8
						SB75-W3	F-02-02	409	12.0	44.9
						SB75-W3	F-03-12	426	20.0	44.2
						SB75-W3	F-03-11	425	20.0	43.1

						SB75-W3	F-01-01	389	20.0	42.7
						SB75-W3	F-01-02	391	20.0	42.3
						SB75-W3	F-01-03	392	20.0	42.3
						SB75-W3	F-01-07	396	20.0	42.2
						SB75-W3	F-01-06	395	20.0	42.0
F07401	91	64.0	4.1	7	-2.9	SB75-W3	F-02-01	408	12.0	46.5
						SB75-W3	F-03-13	427	16.0	45.6
						SB75-W3	F-03-12	426	20.0	44.3
						SB75-W3	F-02-02	409	12.0	43.8
						SB75-W3	F-03-11	425	20.0	43.4
						SB75-W3	F-01-01	389	20.0	42.4
						SB75-W3	F-01-07	396	20.0	42.1
						SB75-W3	F-03-10	424	20.0	42.1
						SB75-W3	F-01-02	391	20.0	42.1
						SB75-W3	F-01-06	395	20.0	42.0
F07501	92	64.1	3.9	7	-3.1	SB75-W3	F-02-01	408	12.0	46.2
						SB75-W3	F-03-13	427	16.0	45.2
						SB75-W3	F-03-12	426	20.0	44.2
						SB75-W3	F-03-11	425	20.0	43.5
						SB75-W3	F-02-02	409	12.0	42.3
						SB75-W3	F-03-10	424	24.0	42.1
						SB75-W3	F-01-01	389	20.0	42.1
						SB75-W3	F-01-06	395	20.0	42.0
						SB75-W3	F-01-07	396	20.0	42.0
						SB75-W3	F-03-09	423	24.0	41.9
F07602-F	93	64.4	4.1	7	-2.9	SB75-W3	F-02-01	408	12.0	46.0
						SB75-W3	F-03-13	427	16.0	44.8
						SB75-W3	F-03-12	426	20.0	44.2
						SB75-W3	F-03-11	425	20.0	43.6
						SB75-W3	F-03-10	424	20.0	42.9
						SB75-W3	F-01-06	395	20.0	42.3
						SB75-W3	F-03-09	423	20.0	42.2
						SB75-W3	F-03-08	422	20.0	42.1
						SB75-W3	F-01-01	389	20.0	42.0
						SB75-W3	F-03-07	421	20.0	41.9
F07701-F	94	64.3	4.1	7	-2.9	SB75-W3	F-02-01	408	12.0	45.1

						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-03-12	426	20.0	44.0
						SB75-W3	F-03-11	425	20.0	43.8
						SB75-W3	F-03-10	424	20.0	43.2
						SB75-W3	F-04-16	444	12.0	42.5
						SB75-W3	F-03-09	423	20.0	42.3
						SB75-W3	F-03-08	422	20.0	42.2
						SB75-W3	F-01-06	395	20.0	42.2
						SB75-W3	F-03-07	421	20.0	42.2
F07801-F	95	64.3	4.0	7	-3.0	SB75-W3	F-03-13	427	16.0	44.1
						SB75-W3	F-02-01	408	12.0	44.0
						SB75-W3	F-04-16	444	12.0	44.0
						SB75-W3	F-03-11	425	20.0	43.7
						SB75-W3	F-03-12	426	20.0	43.5
						SB75-W3	F-03-10	424	20.0	43.3
						SB75-W3	F-03-09	423	20.0	42.5
						SB75-W3	F-03-07	421	20.0	42.4
						SB75-W3	F-03-08	422	20.0	42.3
						SB75-W3	F-03-06	420	20.0	42.2
F07904-F	96	63.5	3.8	7	-3.2	SB75-W3	F-03-09	423	20.0	45.0
						SB75-W3	F-03-07	421	20.0	44.7
						SB75-W3	F-03-06	420	20.0	44.6
						SB75-W3	F-03-10	424	20.0	44.5
						SB75-W3	F-03-08	422	20.0	44.4
						SB75-W3	F-01-01	389	20.0	44.4
						SB75-W3	F-03-05	419	20.0	44.2
						SB75-W3	F-03-04	418	20.0	43.5
						SB75-W3	F-03-11	425	20.0	43.4
						SB75-W3	F-01-03	392	20.0	43.2
F08001	97	62.8	4.4	7	-2.6	SB75-W3	F-03-13	427	16.0	42.6
						SB75-W3	F-03-11	425	20.0	42.6
						SB75-W3	F-03-10	424	20.0	42.6
						SB75-W3	F-03-09	423	20.0	42.3
						SB75-W3	F-03-06	420	20.0	42.0
						SB75-W3	F-03-07	421	20.0	42.0
						SB75-W3	F-03-08	422	20.0	41.8

						SB75-W3	F-03-05	419	20.0	41.8
						SB75-W3	F-03-12	426	20.0	41.8
						SB75-W3	F-04-18	446	16.0	41.5
F08101	98	63.0	4.2	7	-2.8	SB75-W3	F-04-16	444	12.0	42.7
						SB75-W3	F-03-09	423	20.0	42.4
						SB75-W3	F-03-10	424	20.0	42.3
						SB75-W3	F-04-18	446	16.0	42.2
						SB75-W3	F-03-13	427	16.0	42.1
						SB75-W3	F-03-05	419	20.0	42.1
						SB75-W3	F-03-07	421	20.0	42.0
						SB75-W3	F-03-11	425	20.0	42.0
						SB75-W3	F-03-08	422	20.0	41.9
						SB75-W3	F-03-04	418	20.0	41.8
F08201	99	62.8	4.5	7	-2.5	SB75-W3	F-04-16	444	12.0	45.6
						SB75-W3	F-04-15	443	12.0	44.8
						SB75-W3	F-04-18	446	16.0	43.9
						SB75-W3	F-03-05	419	20.0	43.4
						SB75-W3	F-03-04	418	20.0	43.3
						SB75-W3	F-03-06	420	20.0	43.2
						SB75-W3	F-01-02	391	20.0	43.2
						SB75-W3	F-04-17	445	12.0	43.1
						SB75-W3	F-03-03	417	20.0	43.1
						SB75-W3	F-03-08	422	20.0	43.1
F08301	100	64.0	4.3	7	-2.7	SB75-W3	F-04-16	444	12.0	47.3
						SB75-W3	F-04-15	443	12.0	46.5
						SB75-W3	F-04-18	446	16.0	45.2
						SB75-W3	F-04-17	445	12.0	44.6
						SB75-W3	F-03-04	418	20.0	44.5
						SB75-W3	F-03-05	419	20.0	44.4
						SB75-W3	F-03-03	417	20.0	44.4
						SB75-W3	F-03-06	420	20.0	44.1
						SB75-W3	F-03-07	421	20.0	43.9
						SB75-W3	F-03-02	416	20.0	43.7
F08401	101	64.8	3.8	7	-3.2	SB75-W3	F-04-16	444	12.0	48.1
						SB75-W3	F-04-18	446	16.0	46.2
						SB75-W3	F-03-04	418	20.0	45.7

						SB75-W3	F-03-03	417	20.0	45.6
						SB75-W3	F-04-15	443	12.0	45.5
						SB75-W3	F-03-05	419	20.0	45.5
						SB75-W3	F-04-17	445	12.0	45.4
						SB75-W3	F-03-06	420	20.0	44.9
						SB75-W3	F-03-02	416	20.0	44.9
						SB75-W3	F-03-07	421	20.0	44.8
F31501	102	64.3	4.1	7	-2.9	SB75-W3	F-04-16	444	12.0	47.6
						SB75-W3	F-04-15	443	12.0	46.4
						SB75-W3	F-04-18	446	16.0	45.6
						SB75-W3	F-03-04	418	20.0	45.0
						SB75-W3	F-03-03	417	20.0	44.9
						SB75-W3	F-04-17	445	12.0	44.9
						SB75-W3	F-03-05	419	20.0	44.8
						SB75-W3	F-03-06	420	20.0	44.4
						SB75-W3	F-03-07	421	20.0	44.3
						SB75-W3	F-03-02	416	20.0	44.2
F08501	103	65.0	3.7	7	-3.3	SB75-W3	F-04-16	444	12.0	47.7
						SB75-W3	F-04-18	446	16.0	46.8
						SB75-W3	F-03-03	417	20.0	46.3
						SB75-W3	F-03-04	418	20.0	46.2
						SB75-W3	F-03-05	419	20.0	45.8
						SB75-W3	F-04-17	445	12.0	45.8
						SB75-W3	F-03-02	416	20.0	45.6
						SB75-W3	F-03-06	420	20.0	45.4
						SB75-W3	F-03-07	421	20.0	45.1
						SB75-W3	F-04-15	443	12.0	44.3
F08601	104	65.3	3.5	7	-3.5	SB75-W3	F-04-18	446	16.0	47.5
						SB75-W3	F-04-16	444	12.0	47.5
						SB75-W3	F-03-03	417	20.0	47.3
						SB75-W3	F-03-04	418	20.0	47.2
						SB75-W3	F-03-05	419	20.0	46.5
						SB75-W3	F-03-02	416	20.0	46.4
						SB75-W3	F-04-17	445	12.0	46.1
						SB75-W3	F-03-06	420	20.0	45.8
						SB75-W3	F-04-15	443	12.0	45.5

						SB75-W3	F-03-07	421	20.0	45.3
F08702	105	63.0	5.6	7	-1.4	SB75-W3	F-02-01	408	12.0	47.8
						SB75-W3	F-02-02	409	12.0	46.2
						SB75-W3	F-03-13	427	16.0	45.6
						SB75-W3	F-01-14	403	16.0	45.2
						SB75-W3	F-01-15	404	16.0	44.9
						SB75-W3	F-01-13	402	20.0	43.4
						SB75-W3	F-03-12	426	20.0	42.3
						SB75-W3	F-01-16	405	16.0	42.3
						SB75-W3	F-01-12	401	20.0	42.2
						SB75-W3	F-01-11	400	20.0	42.0
F08801	106	63.0	5.2	7	-1.8	SB75-W3	F-02-01	408	12.0	45.3
						SB75-W3	F-02-02	409	12.0	44.8
						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-01-14	403	16.0	44.0
						SB75-W3	F-01-15	404	16.0	43.4
						SB75-W3	F-01-16	405	24.0	42.4
						SB75-W3	F-03-12	426	20.0	42.0
						SB75-W3	F-01-11	400	20.0	41.4
						SB75-W3	F-01-10	399	20.0	41.3
						SB75-W3	F-01-12	401	20.0	41.2
F08901	107	63.1	4.9	7	-2.1	SB75-W3	F-02-01	408	12.0	45.1
						SB75-W3	F-02-02	409	12.0	45.0
						SB75-W3	F-03-13	427	16.0	44.1
						SB75-W3	F-01-14	403	16.0	43.3
						SB75-W3	F-01-15	404	16.0	42.4
						SB75-W3	F-03-12	426	20.0	42.0
						SB75-W3	F-03-11	425	20.0	41.2
						SB75-W3	F-01-16	405	24.0	41.2
						SB75-W3	F-01-10	399	20.0	41.1
						SB75-W3	F-01-11	400	20.0	41.0
F09001	108	63.4	4.8	7	-2.2	SB75-W3	F-02-01	408	12.0	45.7
						SB75-W3	F-02-02	409	12.0	44.9
					Crescent Ave - Additional Phase		CAA-09	508	24.0	44.8
						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-03-12	426	20.0	42.2

						SB75-W3	F-01-01	389	20.0	41.4
						SB75-W3	F-01-10	399	20.0	41.3
						SB75-W3	F-01-02	391	20.0	41.3
						SB75-W3	F-03-11	425	20.0	41.2
						SB75-W3	F-01-03	392	20.0	41.2
F09102	109	63.2	4.7	7	-2.3	SB75-W3	F-02-02	409	12.0	45.1
						SB75-W3	F-02-01	408	12.0	45.0
						SB75-W3	F-03-13	427	16.0	44.1
						SB75-W3	F-03-12	426	20.0	42.1
						SB75-W3	F-03-11	425	20.0	41.3
						SB75-W3	F-01-10	399	20.0	40.9
						SB75-W3	F-01-09	398	20.0	40.9
					Crescent Ave - Additional Phase		CAA-07	506	24.0	40.9
						SB75-W3	F-01-01	389	20.0	40.9
						SB75-W3	F-01-02	391	20.0	40.8
F09201	110	63.1	4.6	7	-2.4	SB75-W3	F-02-01	408	12.0	44.7
						SB75-W3	F-03-13	427	16.0	43.7
						SB75-W3	F-02-02	409	12.0	42.9
						SB75-W3	F-03-12	426	20.0	42.0
						SB75-W3	F-03-11	425	20.0	41.2
						SB75-W3	F-01-09	398	20.0	40.7
					Crescent Ave - Additional Phase		CAA-08	507	24.0	40.7
						SB75-W3	F-01-01	389	20.0	40.6
						SB75-W3	F-01-10	399	20.0	40.6
						SB75-W3	F-01-02	391	20.0	40.5
F09301	111	63.1	4.6	7	-2.4	SB75-W3	F-02-01	408	12.0	44.7
						SB75-W3	F-03-13	427	16.0	43.6
						SB75-W3	F-02-02	409	12.0	42.6
						SB75-W3	F-03-12	426	20.0	41.9
						SB75-W3	F-03-11	425	20.0	41.3
						SB75-W3	F-01-09	398	20.0	40.7
						SB75-W3	F-01-10	399	20.0	40.6
						SB75-W3	F-01-01	389	20.0	40.5
						SB75-W3	F-01-02	391	20.0	40.4
						SB75-W3	F-01-08	397	20.0	40.4
F09401	112	62.9	4.5	7	-2.5	SB75-W3	F-02-01	408	12.0	44.3

						SB75-W3	F-03-13	427	16.0	43.1
						SB75-W3	F-03-12	426	20.0	41.7
						SB75-W3	F-03-11	425	20.0	41.3
						SB75-W3	F-02-02	409	12.0	41.2
						SB75-W3	F-03-10	424	20.0	40.5
						SB75-W3	F-01-09	398	20.0	40.4
						SB75-W3	F-01-10	399	20.0	40.4
						SB75-W3	F-01-08	397	20.0	40.3
						SB75-W3	F-01-01	389	20.0	40.2
F09501	113	62.8	4.5	7	-2.5	SB75-W3	F-02-01	408	12.0	44.1
						SB75-W3	F-03-13	427	16.0	42.8
						SB75-W3	F-03-12	426	20.0	41.5
						SB75-W3	F-04-16	444	12.0	41.1
						SB75-W3	F-03-11	425	20.0	41.1
						SB75-W3	F-02-02	409	12.0	40.5
						SB75-W3	F-03-10	424	20.0	40.3
						SB75-W3	F-01-09	398	20.0	40.2
						SB75-W3	F-01-08	397	20.0	40.2
						SB75-W3	F-03-07	421	20.0	40.1
F09601	114	62.4	4.7	7	-2.3	SB75-W3	F-02-01	408	12.0	43.7
						SB75-W3	F-03-13	427	16.0	42.3
						SB75-W3	F-04-16	444	12.0	41.5
						SB75-W3	F-03-12	426	20.0	41.2
						SB75-W3	F-03-11	425	20.0	40.8
						SB75-W3	F-04-15	443	12.0	40.8
						SB75-W3	F-03-10	424	20.0	40.3
						SB75-W3	F-03-06	420	20.0	40.0
						SB75-W3	F-03-07	421	20.0	40.0
						SB75-W3	F-01-10	399	20.0	39.9
F09701	115	62.0	4.7	7	-2.3	SB75-W3	F-04-16	444	12.0	44.8
						SB75-W3	F-04-15	443	12.0	42.2
						SB75-W3	F-04-17	445	12.0	41.3
						SB75-W3	F-03-13	427	16.0	41.2
						SB75-W3	F-04-18	446	16.0	41.1
						SB75-W3	F-03-09	423	20.0	40.5
						SB75-W3	F-03-05	419	20.0	40.5

						SB75-W3	F-03-11	425	20.0	40.4
						SB75-W3	F-03-06	420	20.0	40.4
						SB75-W3	F-03-10	424	20.0	40.4
F09804	116	61.2	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	43.6
						SB75-W3	F-04-17	445	12.0	40.9
						SB75-W3	F-03-13	427	16.0	40.6
						SB75-W3	F-04-18	446	16.0	40.4
						SB75-W3	F-02-01	408	12.0	40.1
						SB75-W3	F-04-14	442	12.0	40.0
						SB75-W3	F-03-05	419	20.0	39.7
						SB75-W3	F-04-13	441	12.0	39.7
						SB75-W3	F-04-15	443	12.0	39.7
						SB75-W3	F-03-06	420	20.0	39.6
F09901	117	60.7	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	40.9
						SB75-W3	F-04-17	445	12.0	40.5
						SB75-W3	F-02-01	408	12.0	40.2
						SB75-W3	F-03-13	427	16.0	40.2
						SB75-W3	F-04-14	442	12.0	39.6
						SB75-W3	F-04-18	446	16.0	39.4
						SB75-W3	F-04-13	441	12.0	39.3
						SB75-W3	F-04-15	443	12.0	39.2
						SB75-W3	F-03-11	425	20.0	39.1
						SB75-W3	F-03-05	419	20.0	39.1
F10001	118	60.3	5.1	7	-1.9	SB75-W3	F-04-16	444	12.0	40.6
						SB75-W3	F-02-01	408	12.0	40.4
						SB75-W3	F-04-17	445	12.0	40.3
						SB75-W3	F-03-13	427	16.0	40.0
						SB75-W3	F-01-14	403	16.0	39.9
						SB75-W3	F-04-18	446	16.0	39.5
						SB75-W3	F-04-15	443	12.0	39.4
						SB75-W3	F-04-14	442	12.0	39.4
						SB75-W3	F-04-13	441	12.0	39.1
						SB75-W3	F-01-15	404	24.0	38.9
F10101	119	60.4	5.1	7	-1.9	SB75-W3	F-04-17	445	12.0	41.3
						SB75-W3	F-04-16	444	12.0	41.1
						SB75-W3	F-02-01	408	12.0	40.7

						SB75-W3	F-04-14	442	12.0	40.4
						SB75-W3	F-01-14	403	16.0	40.3
						SB75-W3	F-03-13	427	16.0	40.1
						SB75-W3	F-04-15	443	12.0	40.0
						SB75-W3	F-04-13	441	12.0	39.9
						SB75-W3	F-04-12	440	12.0	39.7
						SB75-W3	F-04-11	439	12.0	39.5
F10202	120	60.5	5.0	7	-2.0	SB75-W3	F-04-17	445	12.0	41.1
						SB75-W3	F-02-01	408	12.0	41.0
						SB75-W3	F-04-16	444	12.0	41.0
						SB75-W3	F-01-14	403	16.0	40.2
						SB75-W3	F-03-13	427	16.0	40.1
						SB75-W3	F-04-14	442	12.0	40.0
						SB75-W3	F-04-15	443	12.0	39.8
						SB75-W3	F-04-12	440	12.0	39.7
						SB75-W3	F-04-11	439	12.0	39.4
						SB75-W3	F-01-15	404	16.0	39.4
F10301	121	60.0	5.1	7	-1.9	SB75-W3	F-04-17	445	12.0	40.8
						SB75-W3	F-02-01	408	12.0	40.6
						SB75-W3	F-04-16	444	12.0	40.5
						SB75-W3	F-04-14	442	12.0	39.8
						SB75-W3	F-03-13	427	16.0	39.7
						SB75-W3	F-04-15	443	12.0	39.7
						SB75-W3	F-01-14	403	16.0	39.6
						SB75-W3	F-04-12	440	12.0	39.5
						SB75-W3	F-04-13	441	12.0	39.4
						SB75-W3	F-04-11	439	12.0	39.3
F10402	122	59.6	5.2	7	-1.8	SB75-W3	F-04-16	444	12.0	40.9
						SB75-W3	F-04-17	445	12.0	40.8
						SB75-W3	F-04-14	442	12.0	40.0
						SB75-W3	F-04-13	441	12.0	39.9
						SB75-W3	F-02-01	408	12.0	39.7
						SB75-W3	F-04-15	443	12.0	39.6
						SB75-W3	F-04-12	440	12.0	39.5
						SB75-W3	F-04-11	439	12.0	39.3
						SB75-W3	F-03-13	427	16.0	39.3

						SB75-W3	F-01-14	403	16.0	39.2
F10512	123	61.7	5.0	7	-2.0	SB75-W3	F-02-01	408	12.0	43.3
						SB75-W3	F-04-16	444	12.0	42.7
						SB75-W3	F-03-13	427	16.0	42.0
						SB75-W3	F-01-14	403	16.0	41.6
						SB75-W3	F-04-15	443	12.0	41.2
						SB75-W3	F-04-17	445	12.0	41.0
						SB75-W3	F-01-15	404	16.0	40.8
						SB75-W3	F-03-12	426	20.0	40.5
						SB75-W3	F-03-11	425	20.0	40.2
						SB75-W3	F-01-10	399	20.0	39.7
F10601	124	61.9	5.4	7	-1.6	SB75-W3	F-02-01	408	12.0	44.0
						SB75-W3	F-03-13	427	16.0	43.0
						SB75-W3	F-01-14	403	16.0	42.9
						SB75-W3	F-01-15	404	16.0	42.3
						SB75-W3	F-02-02	409	12.0	41.6
						SB75-W3	F-01-16	405	16.0	41.3
						SB75-W3	F-04-16	444	12.0	41.1
						SB75-W3	F-03-12	426	20.0	40.9
						SB75-W3	F-04-17	445	12.0	40.8
						SB75-W3	F-04-15	443	12.0	40.4
F10701	125	62.1	5.4	7	-1.6	SB75-W3	F-02-01	408	12.0	44.4
						SB75-W3	F-03-13	427	16.0	43.5
						SB75-W3	F-01-14	403	16.0	43.2
						SB75-W3	F-01-15	404	16.0	42.7
						SB75-W3	F-02-02	409	12.0	42.5
						SB75-W3	F-04-15	443	12.0	41.5
						SB75-W3	F-04-16	444	12.0	41.5
						SB75-W3	F-01-16	405	16.0	41.4
						SB75-W3	F-03-12	426	20.0	41.2
						SB75-W3	F-01-11	400	20.0	40.6
F10801	126	62.2	5.6	7	-1.4	SB75-W3	F-02-01	408	12.0	45.2
						SB75-W3	F-02-02	409	12.0	44.6
						SB75-W3	F-03-13	427	16.0	44.3
						SB75-W3	F-01-14	403	16.0	43.9
						SB75-W3	F-01-15	404	16.0	43.4

						SB75-W3	F-03-12	426	20.0	41.6
						SB75-W3	F-01-16	405	16.0	41.5
						SB75-W3	F-01-13	402	20.0	41.3
						SB75-W3	F-01-11	400	20.0	41.2
						SB75-W3	F-01-12	401	20.0	41.1
F10901	127	62.6	5.6	7	-1.4	SB75-W3	F-02-01	408	12.0	46.2
						SB75-W3	F-02-02	409	12.0	44.9
						SB75-W3	F-03-13	427	16.0	44.7
						SB75-W3	F-01-14	403	16.0	44.5
						SB75-W3	F-01-15	404	16.0	44.0
						SB75-W3	F-01-16	405	16.0	42.5
						SB75-W3	F-03-12	426	20.0	42.0
						SB75-W3	F-01-13	402	20.0	41.9
						SB75-W3	F-01-12	401	20.0	41.6
						SB75-W3	F-01-10	399	20.0	41.4
F11001	128	62.6	5.6	7	-1.4	SB75-W3	F-02-01	408	12.0	49.1
						SB75-W3	F-02-02	409	12.0	47.9
						SB75-W3	F-03-13	427	16.0	47.4
						SB75-W3	F-01-14	403	24.0	46.9
						SB75-W3	F-01-13	402	20.0	44.9
						SB75-W3	F-01-11	400	20.0	44.9
						SB75-W3	F-01-12	401	20.0	44.9
					Crescent Ave - Additional Phase		CAA-01	499	20.0	44.4
						SB75-W3	F-01-10	399	20.0	44.0
						SB75-W3	F-01-15	404	24.0	43.7
F11101	129	62.7	5.4	7	-1.6	SB75-W3	F-02-01	408	12.0	49.0
						SB75-W3	F-02-02	409	12.0	48.0
						SB75-W3	F-03-13	427	16.0	47.3
						SB75-W3	F-01-14	403	16.0	46.9
						SB75-W3	F-01-13	402	20.0	44.8
						SB75-W3	F-01-11	400	20.0	44.7
						SB75-W3	F-01-12	401	20.0	44.7
						SB75-W3	F-01-15	404	24.0	44.6
					Crescent Ave - Additional Phase		CAA-01	499	20.0	44.5
						SB75-W3	F-01-10	399	20.0	44.4
F11202	130	62.0	5.7	7	-1.3	SB75-W3	F-02-01	408	12.0	47.6

						SB75-W3	F-03-13	427	16.0	46.5
						SB75-W3	F-02-02	409	12.0	46.3
						SB75-W3	F-01-14	403	16.0	45.7
						SB75-W3	F-01-12	401	20.0	44.0
						SB75-W3	F-01-13	402	20.0	43.9
						SB75-W3	F-01-11	400	20.0	43.9
						SB75-W3	F-01-15	404	24.0	43.7
					Crescent Ave - Additional Phase		CAA-01	499	20.0	42.6
						SB75-W3	F-03-12	426	20.0	41.9
F11301	131	62.3	5.2	7	-1.8	SB75-W3	F-02-01	408	12.0	48.2
						SB75-W3	F-02-02	409	12.0	47.5
						SB75-W3	F-03-13	427	16.0	46.6
						SB75-W3	F-01-14	403	24.0	46.0
						SB75-W3	F-01-13	402	20.0	44.2
						SB75-W3	F-01-15	404	24.0	44.1
						SB75-W3	F-01-12	401	20.0	44.0
					Crescent Ave - Additional Phase		CAA-01	499	20.0	43.9
						SB75-W3	F-01-11	400	20.0	43.9
						SB75-W3	F-01-10	399	20.0	43.9
F11401	132	61.6	5.8	7	-1.2	SB75-W3	F-02-01	408	12.0	45.8
						SB75-W3	F-03-13	427	16.0	45.6
						SB75-W3	F-02-02	409	12.0	45.1
						SB75-W3	F-01-14	403	16.0	44.9
						SB75-W3	F-01-15	404	24.0	43.6
						SB75-W3	F-01-12	401	20.0	43.5
						SB75-W3	F-01-13	402	20.0	43.3
						SB75-W3	F-01-11	400	20.0	42.3
					Crescent Ave - Additional Phase		CAA-01	499	20.0	41.5
						SB75-W3	F-04-16	444	12.0	41.2
F11501	133	60.9	5.8	7	-1.2	SB75-W3	F-02-01	408	12.0	45.3
						SB75-W3	F-03-13	427	16.0	44.5
						SB75-W3	F-02-02	409	12.0	44.1
						SB75-W3	F-01-14	403	16.0	42.9
						SB75-W3	F-01-15	404	24.0	42.2
						SB75-W3	F-01-13	402	20.0	42.2
						SB75-W3	F-01-12	401	20.0	41.9

						SB75-W3	F-04-17	445	12.0	40.5
						SB75-W3	F-04-18	446	16.0	40.3
						SB75-W3	F-03-12	426	20.0	40.3
F11602	134	60.7	5.7	7	-1.3	SB75-W3	F-02-01	408	12.0	44.9
						SB75-W3	F-03-13	427	16.0	43.6
						SB75-W3	F-02-02	409	12.0	42.7
						SB75-W3	F-01-14	403	16.0	42.3
						SB75-W3	F-01-15	404	24.0	42.2
						SB75-W3	F-01-13	402	20.0	41.9
						SB75-W3	F-01-12	401	20.0	41.6
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-04-18	446	16.0	40.2
F11701	135	60.8	5.7	7	-1.3	SB75-W3	F-02-01	408	12.0	44.8
						SB75-W3	F-03-13	427	16.0	44.4
						SB75-W3	F-01-14	403	16.0	43.7
						SB75-W3	F-02-02	409	12.0	43.0
						SB75-W3	F-01-12	401	20.0	42.5
						SB75-W3	F-01-13	402	20.0	42.2
						SB75-W3	F-01-15	404	24.0	42.2
						SB75-W3	F-01-11	400	20.0	41.1
						SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-03-06	420	20.0	40.4
F11801	136	60.2	5.6	7	-1.4	SB75-W3	F-02-01	408	12.0	44.1
						SB75-W3	F-03-13	427	16.0	42.2
						SB75-W3	F-01-14	403	16.0	41.1
						SB75-W3	F-01-13	402	20.0	40.9
						SB75-W3	F-01-15	404	16.0	40.9
						SB75-W3	F-02-02	409	12.0	40.7
						SB75-W3	F-04-16	444	12.0	40.5
						SB75-W3	F-04-17	445	12.0	40.5
						SB75-W3	F-04-18	446	16.0	39.6
						SB75-W3	F-01-12	401	20.0	39.4
F11901	137	60.5	5.2	7	-1.8	SB75-W3	F-02-01	408	12.0	42.1
						SB75-W3	F-04-16	444	12.0	41.3
						SB75-W3	F-03-13	427	16.0	40.8

						SB75-W3	F-04-17	445	12.0	40.4
						SB75-W3	F-01-14	403	16.0	40.4
						SB75-W3	F-01-15	404	16.0	39.7
						SB75-W3	F-04-18	446	16.0	39.2
						SB75-W3	F-03-12	426	20.0	39.2
						SB75-W3	F-03-11	425	20.0	38.8
						SB75-W3	F-01-10	399	20.0	38.5
F12001	138	60.2	5.3	7	-1.7	SB75-W3	F-02-01	408	12.0	41.7
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-17	445	12.0	40.4
						SB75-W3	F-03-13	427	16.0	40.3
						SB75-W3	F-01-14	403	16.0	40.0
						SB75-W3	F-01-15	404	16.0	39.4
						SB75-W3	F-03-12	426	20.0	39.0
						SB75-W3	F-04-15	443	12.0	38.8
						SB75-W3	F-04-18	446	16.0	38.8
						SB75-W3	F-03-11	425	20.0	38.6
F12101	139	59.9	5.3	7	-1.7	SB75-W3	F-02-01	408	12.0	41.3
						SB75-W3	F-04-16	444	12.0	40.4
						SB75-W3	F-04-17	445	12.0	40.1
						SB75-W3	F-03-13	427	16.0	39.9
						SB75-W3	F-01-14	403	16.0	39.4
						SB75-W3	F-04-15	443	12.0	39.0
						SB75-W3	F-04-14	442	12.0	38.8
						SB75-W3	F-04-11	439	12.0	38.8
						SB75-W3	F-01-15	404	16.0	38.7
						SB75-W3	F-03-12	426	20.0	38.6
F12202	140	59.7	5.2	7	-1.8	SB75-W3	F-02-01	408	12.0	40.9
						SB75-W3	F-04-17	445	12.0	40.2
						SB75-W3	F-04-16	444	12.0	40.1
						SB75-W3	F-03-13	427	16.0	39.6
						SB75-W3	F-04-14	442	12.0	38.8
						SB75-W3	F-01-14	403	16.0	38.8
						SB75-W3	F-04-15	443	12.0	38.8
						SB75-W3	F-04-11	439	12.0	38.7
						SB75-W3	F-04-12	440	12.0	38.7

					Crescent Ave - Additional Phase		CAA-07	506	24.0	38.5
F12301	141	58.5	5.5	7	-1.5	SB75-W3	F-04-17	445	12.0	39.7
						SB75-W3	F-04-14	442	12.0	39.2
						SB75-W3	F-04-13	441	12.0	38.9
						SB75-W3	F-04-15	443	12.0	38.8
						SB75-W3	F-04-16	444	12.0	38.8
						SB75-W3	F-04-11	439	12.0	38.4
						SB75-W3	F-04-10	438	12.0	38.3
						SB75-W3	F-04-12	440	12.0	38.2
						SB75-W3	F-02-01	408	12.0	37.9
						SB75-W3	F-04-18	446	16.0	37.9
F12403	142	58.7	5.5	7	-1.5	SB75-W3	F-04-17	445	12.0	39.8
						SB75-W3	F-04-14	442	12.0	39.3
						SB75-W3	F-04-13	441	12.0	39.1
						SB75-W3	F-04-15	443	12.0	39.0
						SB75-W3	F-04-16	444	12.0	38.9
						SB75-W3	F-04-11	439	12.0	38.6
						SB75-W3	F-04-10	438	12.0	38.5
						SB75-W3	F-04-12	440	12.0	38.4
						SB75-W3	F-01-14	403	16.0	38.2
						SB75-W3	F-04-09	437	12.0	38.1
F12501	143	58.9	5.2	7	-1.8	SB75-W3	F-01-16	405	24.0	38.9
						SB75-W3	F-04-13	441	12.0	38.6
						SB75-W3	F-04-14	442	12.0	38.6
						SB75-W3	F-05-23	470	16.0	38.5
						SB75-W3	F-04-17	445	12.0	38.5
						SB75-W3	F-04-04	432	12.0	38.4
						SB75-W3	F-04-05	433	12.0	38.4
						SB75-W3	F-04-11	439	12.0	38.3
						SB75-W3	F-04-16	444	12.0	38.3
						SB75-W3	F-01-15	404	16.0	38.3
F12601	144	59.2	5.1	7	-1.9	SB75-W3	F-04-16	444	12.0	39.9
						SB75-W3	F-01-15	404	16.0	39.9
						SB75-W3	F-01-14	403	16.0	39.1
						SB75-W3	F-05-23	470	16.0	39.1
						SB75-W3	F-04-13	441	12.0	38.8

						SB75-W3	F-04-14	442	12.0	38.8
						SB75-W3	F-01-16	405	24.0	38.8
						SB75-W3	F-04-04	432	12.0	38.7
						SB75-W3	F-04-05	433	12.0	38.7
						SB75-W3	F-04-06	434	12.0	38.6
F12701	145	59.5	5.1	7	-1.9	SB75-W3	F-01-15	404	16.0	40.6
						SB75-W3	F-04-16	444	12.0	40.3
						SB75-W3	F-01-14	403	16.0	40.1
						SB75-W3	F-05-23	470	16.0	39.6
						SB75-W3	F-04-13	441	12.0	39.1
						SB75-W3	F-04-05	433	12.0	39.1
						SB75-W3	F-01-12	401	20.0	39.1
						SB75-W3	F-04-14	442	12.0	39.1
						SB75-W3	F-04-04	432	12.0	39.1
						SB75-W3	F-04-06	434	12.0	39.0
F12804	146	60.4	4.9	7	-2.1	SB75-W3	F-05-23	470	16.0	41.6
						SB75-W3	F-01-14	403	16.0	41.2
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-03	431	12.0	40.3
						SB75-W3	F-04-04	432	12.0	40.2
						SB75-W3	F-01-10	399	20.0	40.1
						SB75-W3	F-04-02	430	12.0	40.1
						SB75-W3	F-01-11	400	20.0	40.1
						SB75-W3	F-04-05	433	12.0	40.1
						SB75-W3	F-01-13	402	20.0	40.0
F12901	147	59.8	5.0	7	-2.0	SB75-W3	F-01-14	403	16.0	41.0
						SB75-W3	F-01-15	404	16.0	40.6
						SB75-W3	F-05-23	470	16.0	40.3
						SB75-W3	F-04-16	444	12.0	39.9
						SB75-W3	F-04-04	432	12.0	39.6
						SB75-W3	F-04-05	433	12.0	39.5
						SB75-W3	F-01-11	400	20.0	39.4
						SB75-W3	F-04-02	430	12.0	39.4
						SB75-W3	F-04-03	431	12.0	39.4
						SB75-W3	F-04-11	439	12.0	39.4
F13003	148	61.5	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	42.2

						SB75-W3	F-05-23	470	16.0	41.5
						SB75-W3	F-01-13	402	20.0	41.3
						SB75-W3	F-01-10	399	20.0	41.3
						SB75-W3	F-01-11	400	20.0	41.2
						SB75-W3	F-01-12	401	20.0	41.1
						SB75-W3	F-01-14	403	24.0	41.1
						SB75-W3	F-04-04	432	12.0	41.0
						SB75-W3	F-04-05	433	12.0	40.9
						SB75-W3	F-04-06	434	12.0	40.9
F13105	149	61.5	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	42.6
						SB75-W3	F-01-11	400	20.0	41.2
						SB75-W3	F-01-13	402	20.0	41.0
						SB75-W3	F-05-23	470	16.0	40.9
						SB75-W3	F-01-10	399	20.0	40.8
						SB75-W3	F-04-05	433	12.0	40.8
						SB75-W3	F-04-11	439	12.0	40.8
						SB75-W3	F-01-18	407	24.0	40.8
						SB75-W3	F-04-04	432	12.0	40.7
						SB75-W3	F-01-14	403	24.0	40.7
F13201	150	61.5	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	42.3
						SB75-W3	F-04-14	442	12.0	41.4
						SB75-W3	F-04-13	441	12.0	41.3
						SB75-W3	F-04-11	439	12.0	41.2
						SB75-W3	F-01-12	401	20.0	41.1
						SB75-W3	F-04-10	438	12.0	41.1
						SB75-W3	F-01-11	400	20.0	41.0
						SB75-W3	F-04-17	445	12.0	41.0
						SB75-W3	F-01-18	407	24.0	40.8
						SB75-W3	F-04-09	437	12.0	40.7
F13303	151	62.8	4.3	7	-2.7	SB75-W3	F-04-16	444	12.0	44.3
						SB75-W3	F-01-14	403	24.0	42.3
						SB75-W3	F-04-11	439	12.0	41.9
						SB75-W3	F-01-11	400	20.0	41.9
						SB75-W3	F-01-15	404	24.0	41.9
						SB75-W3	F-04-10	438	12.0	41.9
						SB75-W3	F-04-13	441	12.0	41.7

						SB75-W3	F-01-10	399	20.0	41.7
						SB75-W3	F-04-17	445	12.0	41.7
						SB75-W3	F-04-02	430	12.0	41.6
F13402	152	63.1	3.9	7	-3.1	SB75-W3	F-04-16	444	12.0	45.0
						SB75-W3	F-04-14	442	12.0	42.7
						SB75-W3	F-04-17	445	12.0	42.7
						SB75-W3	F-04-13	441	12.0	42.6
						SB75-W3	F-04-11	439	12.0	42.3
						SB75-W3	F-04-10	438	12.0	42.3
						SB75-W3	F-04-09	437	12.0	42.0
						SB75-W3	F-04-15	443	12.0	42.0
						SB75-W3	F-01-14	403	16.0	41.9
						SB75-W3	F-04-08	436	12.0	41.9
F13502	153	63.0	3.7	7	-3.3	SB75-W3	F-04-16	444	12.0	45.1
						SB75-W3	F-04-17	445	12.0	43.2
						SB75-W3	F-04-15	443	12.0	43.0
						SB75-W3	F-04-14	442	12.0	42.9
						SB75-W3	F-04-13	441	12.0	42.8
						SB75-W3	F-04-11	439	12.0	42.6
						SB75-W3	F-04-10	438	12.0	42.6
						SB75-W3	F-04-09	437	12.0	42.2
						SB75-W3	F-04-08	436	12.0	42.2
						SB75-W3	F-04-07	435	12.0	42.1
F13601	154	59.3	5.2	7	-1.8	SB75-W3	F-04-17	445	12.0	40.3
						SB75-W3	F-04-16	444	12.0	40.2
						SB75-W3	F-04-14	442	12.0	39.6
						SB75-W3	F-04-13	441	12.0	39.5
						SB75-W3	F-04-15	443	12.0	39.1
						SB75-W3	F-04-11	439	12.0	39.0
						SB75-W3	F-01-14	403	16.0	38.9
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-05-23	470	16.0	38.6
						SB75-W3	F-01-18	407	24.0	38.5
F13701	155	59.0	5.4	7	-1.6	SB75-W3	F-04-17	445	12.0	40.4
						SB75-W3	F-04-14	442	12.0	39.8
						SB75-W3	F-04-15	443	12.0	39.6

						SB75-W3	F-04-13	441	12.0	39.6
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-01-14	403	16.0	38.8
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-01-18	407	24.0	38.6
						SB75-W3	F-04-16	444	12.0	38.6
						SB75-W3	F-04-09	437	12.0	38.4
F31201	156	59.0	5.4	7	-1.6	SB75-W3	F-04-17	445	12.0	40.4
						SB75-W3	F-04-14	442	12.0	39.7
						SB75-W3	F-04-13	441	12.0	39.6
						SB75-W3	F-04-16	444	12.0	39.2
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-04-15	443	12.0	39.0
						SB75-W3	F-01-14	403	16.0	38.8
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-01-18	407	24.0	38.8
						SB75-W3	F-04-09	437	12.0	38.3
F13801	157	59.0	5.2	7	-1.8	SB75-W3	F-04-17	445	12.0	40.5
						SB75-W3	F-04-14	442	12.0	39.9
						SB75-W3	F-04-15	443	12.0	39.9
						SB75-W3	F-04-13	441	12.0	39.6
						SB75-W3	F-04-16	444	12.0	39.4
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-01-14	403	16.0	38.6
						SB75-W3	F-04-12	440	12.0	38.4
						SB75-W3	F-04-09	437	12.0	38.3
F13901	158	59.1	5.1	7	-1.9	SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-04-15	443	12.0	40.0
						SB75-W3	F-04-14	442	12.0	39.9
						SB75-W3	F-04-16	444	12.0	39.8
						SB75-W3	F-04-13	441	12.0	39.7
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-04-10	438	12.0	38.9
						SB75-W3	F-04-12	440	12.0	38.8
						SB75-W3	F-01-14	403	16.0	38.8

						SB75-W3	F-04-18	446	16.0	38.5
F14001	159	59.0	5.2	7	-1.8	SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-04-15	443	12.0	40.2
						SB75-W3	F-04-14	442	12.0	39.9
						SB75-W3	F-04-16	444	12.0	39.8
						SB75-W3	F-04-13	441	12.0	39.7
						SB75-W3	F-04-11	439	12.0	39.1
						SB75-W3	F-04-12	440	12.0	39.0
						SB75-W3	F-04-10	438	12.0	38.8
						SB75-W3	F-01-14	403	16.0	38.7
						SB75-W3	F-04-18	446	16.0	38.7
F14102	160	59.3	5.0	7	-2.0	SB75-W3	F-04-17	445	12.0	41.0
						SB75-W3	F-04-16	444	12.0	40.4
						SB75-W3	F-04-14	442	12.0	40.3
						SB75-W3	F-04-15	443	12.0	40.2
						SB75-W3	F-04-13	441	12.0	40.1
						SB75-W3	F-04-11	439	12.0	39.4
						SB75-W3	F-04-12	440	12.0	39.2
						SB75-W3	F-04-10	438	12.0	39.1
						SB75-W3	F-01-14	403	24.0	38.9
						SB75-W3	F-04-18	446	16.0	38.8
F14201	161	59.3	5.0	7	-2.0	SB75-W3	F-04-17	445	12.0	39.9
						SB75-W3	F-04-15	443	12.0	39.6
						SB75-W3	F-04-14	442	12.0	39.4
						SB75-W3	F-04-16	444	12.0	39.3
						SB75-W3	F-04-13	441	12.0	39.2
						SB75-W3	F-01-14	403	24.0	38.9
						SB75-W3	F-04-11	439	12.0	38.8
						SB75-W3	F-04-18	446	16.0	38.8
						SB75-W3	F-04-10	438	12.0	38.6
						SB75-W3	F-04-12	440	12.0	38.5
F14301	162	59.4	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	40.3
						SB75-W3	F-04-17	445	12.0	40.1
						SB75-W3	F-04-14	442	12.0	39.6
						SB75-W3	F-04-15	443	12.0	39.6
						SB75-W3	F-04-13	441	12.0	39.4

						SB75-W3	F-04-18	446	16.0	39.2
						SB75-W3	F-04-11	439	12.0	39.0
						SB75-W3	F-01-14	403	24.0	39.0
						SB75-W3	F-04-12	440	12.0	38.7
						SB75-W3	F-03-13	427	16.0	38.5
F14402	163	59.7	4.8	7	-2.2	SB75-W3	F-04-16	444	12.0	40.4
						SB75-W3	F-04-17	445	12.0	40.3
						SB75-W3	F-04-14	442	12.0	39.9
						SB75-W3	F-04-15	443	12.0	39.8
						SB75-W3	F-04-13	441	12.0	39.7
						SB75-W3	F-04-18	446	16.0	39.4
						SB75-W3	F-01-14	403	24.0	39.4
						SB75-W3	F-04-12	440	12.0	38.9
						SB75-W3	F-01-15	404	24.0	38.7
						SB75-W3	F-03-13	427	16.0	38.6
F14501	164	59.8	4.9	7	-2.1	SB75-W3	F-04-16	444	12.0	40.9
						SB75-W3	F-04-17	445	12.0	40.6
						SB75-W3	F-04-15	443	12.0	40.2
						SB75-W3	F-04-14	442	12.0	40.2
						SB75-W3	F-04-13	441	12.0	39.9
						SB75-W3	F-04-18	446	16.0	39.7
						SB75-W3	F-01-14	403	24.0	39.7
						SB75-W3	F-04-12	440	12.0	39.2
						SB75-W3	F-03-13	427	16.0	38.7
						SB75-W3	F-01-15	404	24.0	38.7
F14601	165	60.0	4.8	7	-2.2	SB75-W3	F-04-17	445	12.0	40.9
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-14	442	12.0	40.4
						SB75-W3	F-04-15	443	12.0	40.4
						SB75-W3	F-04-13	441	12.0	40.1
						SB75-W3	F-04-18	446	16.0	40.0
						SB75-W3	F-01-14	403	24.0	39.1
						SB75-W3	F-03-03	417	20.0	39.1
						SB75-W3	F-03-04	418	20.0	39.0
						SB75-W3	F-03-02	416	20.0	38.9
F14701	166	60.2	4.7	7	-2.3	SB75-W3	F-04-17	445	12.0	41.2

						SB75-W3	F-04-14	442	12.0	40.7
						SB75-W3	F-04-15	443	12.0	40.6
						SB75-W3	F-04-16	444	12.0	40.5
						SB75-W3	F-04-18	446	16.0	40.3
						SB75-W3	F-03-03	417	20.0	39.3
						SB75-W3	F-03-04	418	20.0	39.2
						SB75-W3	F-03-02	416	20.0	39.2
						SB75-W3	F-03-05	419	20.0	39.1
						SB75-W3	F-03-13	427	16.0	38.9
F14801	167	60.3	4.7	7	-2.3	SB75-W3	F-04-17	445	12.0	41.4
						SB75-W3	F-04-16	444	12.0	40.6
						SB75-W3	F-04-15	443	12.0	40.4
						SB75-W3	F-04-18	446	16.0	40.4
						SB75-W3	F-03-03	417	20.0	39.5
						SB75-W3	F-03-04	418	20.0	39.4
						SB75-W3	F-03-02	416	20.0	39.4
						SB75-W3	F-03-05	419	20.0	39.3
						SB75-W3	F-03-08	422	20.0	39.0
						SB75-W3	F-03-06	420	20.0	39.0
F14901	168	60.5	4.7	7	-2.3	SB75-W3	F-04-17	445	12.0	41.6
						SB75-W3	F-04-15	443	12.0	41.0
						SB75-W3	F-04-16	444	12.0	40.8
						SB75-W3	F-04-18	446	16.0	40.7
						SB75-W3	F-03-03	417	20.0	39.8
						SB75-W3	F-03-04	418	20.0	39.7
						SB75-W3	F-03-02	416	20.0	39.7
						SB75-W3	F-03-05	419	20.0	39.6
						SB75-W3	F-03-08	422	20.0	39.3
						SB75-W3	F-03-06	420	20.0	39.3
F15001	169	60.8	4.6	7	-2.4	SB75-W3	F-04-17	445	12.0	41.9
						SB75-W3	F-04-16	444	12.0	41.0
						SB75-W3	F-04-18	446	16.0	41.0
						SB75-W3	F-04-15	443	12.0	40.6
						SB75-W3	F-03-03	417	20.0	40.1
						SB75-W3	F-03-02	416	20.0	40.0
						SB75-W3	F-03-04	418	20.0	40.0

						SB75-W3	F-03-05	419	20.0	39.8
						SB75-W3	F-03-08	422	20.0	39.5
						SB75-W3	F-01-06	395	20.0	39.5
F15101	170	60.8	4.6	7	-2.4	SB75-W3	F-04-17	445	12.0	42.1
						SB75-W3	F-04-16	444	12.0	41.1
						SB75-W3	F-04-18	446	16.0	41.1
						SB75-W3	F-03-03	417	20.0	40.3
						SB75-W3	F-03-02	416	20.0	40.2
						SB75-W3	F-03-04	418	20.0	40.2
						SB75-W3	F-03-05	419	20.0	39.9
						SB75-W3	F-01-06	395	20.0	39.8
						SB75-W3	F-03-08	422	20.0	39.7
						SB75-W3	F-01-07	396	20.0	39.7
F15201	171	61.0	4.5	7	-2.5	SB75-W3	F-04-17	445	12.0	42.3
						SB75-W3	F-04-18	446	16.0	41.2
						SB75-W3	F-04-16	444	12.0	40.7
						SB75-W3	F-03-03	417	20.0	40.5
						SB75-W3	F-03-02	416	20.0	40.4
						SB75-W3	F-03-04	418	20.0	40.3
						SB75-W3	F-03-05	419	20.0	40.1
						SB75-W3	F-01-06	395	20.0	40.0
						SB75-W3	F-01-05	394	24.0	40.0
						SB75-W3	F-01-07	396	20.0	39.9
F15301-F	172	61.7	4.1	7	-2.9	SB75-W3	F-04-17	445	12.0	42.8
						SB75-W3	F-04-18	446	16.0	41.6
						SB75-W3	F-03-03	417	20.0	41.0
						SB75-W3	F-03-02	416	20.0	40.9
						SB75-W3	F-03-04	418	20.0	40.8
						SB75-W3	F-01-06	395	20.0	40.7
						SB75-W3	F-01-05	394	20.0	40.6
						SB75-W3	F-04-16	444	12.0	40.6
						SB75-W3	F-01-04	393	20.0	40.6
						SB75-W3	F-03-08	422	20.0	40.2

Total Cost, All Barriers (including additional cost(s))					$3939208					

HMB Professional Engineers 26 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge
RUN: F1
BARRIER DESIGN: f1new-barsys-1

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
NB75-W	W	12.00	12.00	12.00	1600	19201				614441
Crescent Ave	W	24.00	24.00	24.00	1071	25695				822237
SB75-W3	W	12.00	17.30	20.00	2980	51547				1649512
Crescent Ave - Additional Phase	W	20.00	23.59	24.00	389	9181				293786
Hermes Ave	W	12.00	18.64	20.00	938	17476				559232
									Total Cost:	3939208

HMB Professional Engineers 26 June 2023
Mark Gavula TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge
RUN: F1
BARRIER DESIGN: f1new-barsys-1

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
NB75-W	W	point328	250	12.00	12.00	12.00	40	477	Y			15266
		E-05-09	252	12.00	12.00	12.00	40	484	Y			15480
		E-05-10	253	12.00	12.00	12.00	40	477	Y			15266
		E-05-11	254	12.00	12.00	12.00	40	478	Y			15289
		E-05-12	255	12.00	12.00	12.00	40	483	Y			15457
		E-05-13	256	12.00	12.00	12.00	40	478	Y			15289
		E-05-14	257	12.00	12.00	12.00	40	483	Y			15457
		E-05-15	258	12.00	12.00	12.00	40	477	Y			15266
		E-05-16	259	12.00	12.00	12.00	40	484	Y			15480
		E-05-17	260	12.00	12.00	12.00	40	477	Y			15266
		E-05-18	261	12.00	12.00	12.00	40	484	Y			15480
		E-05-19	262	12.00	12.00	12.00	40	477	Y			15266
		E-05-20	263	12.00	12.00	12.00	40	478	Y			15289
		E-05-21	264	12.00	12.00	12.00	40	484	Y			15480
		E-05-22	265	12.00	12.00	12.00	40	477	Y			15266
		E-05-23	266	12.00	12.00	12.00	40	484	Y			15480
		E-05-24	267	12.00	12.00	12.00	40	478	Y			15289
		E-05-25	268	12.00	12.00	12.00	40	478	Y			15289
		E-05-26	269	12.00	12.00	12.00	40	484	Y			15480
		E-05-27	270	12.00	12.00	12.00	40	478	Y			15289
		E-05-28	271	12.00	12.00	12.00	40	484	Y			15480
		E-05-29	272	12.00	12.00	12.00	40	478	Y			15289
		E-05-30	273	12.00	12.00	12.00	40	478	Y			15289
		E-05-31	274	12.00	12.00	12.00	40	485	Y			15505
		E-05-32	275	12.00	12.00	12.00	40	479	Y			15342
		E-05-33	276	12.00	12.00	12.00	40	479	Y			15342

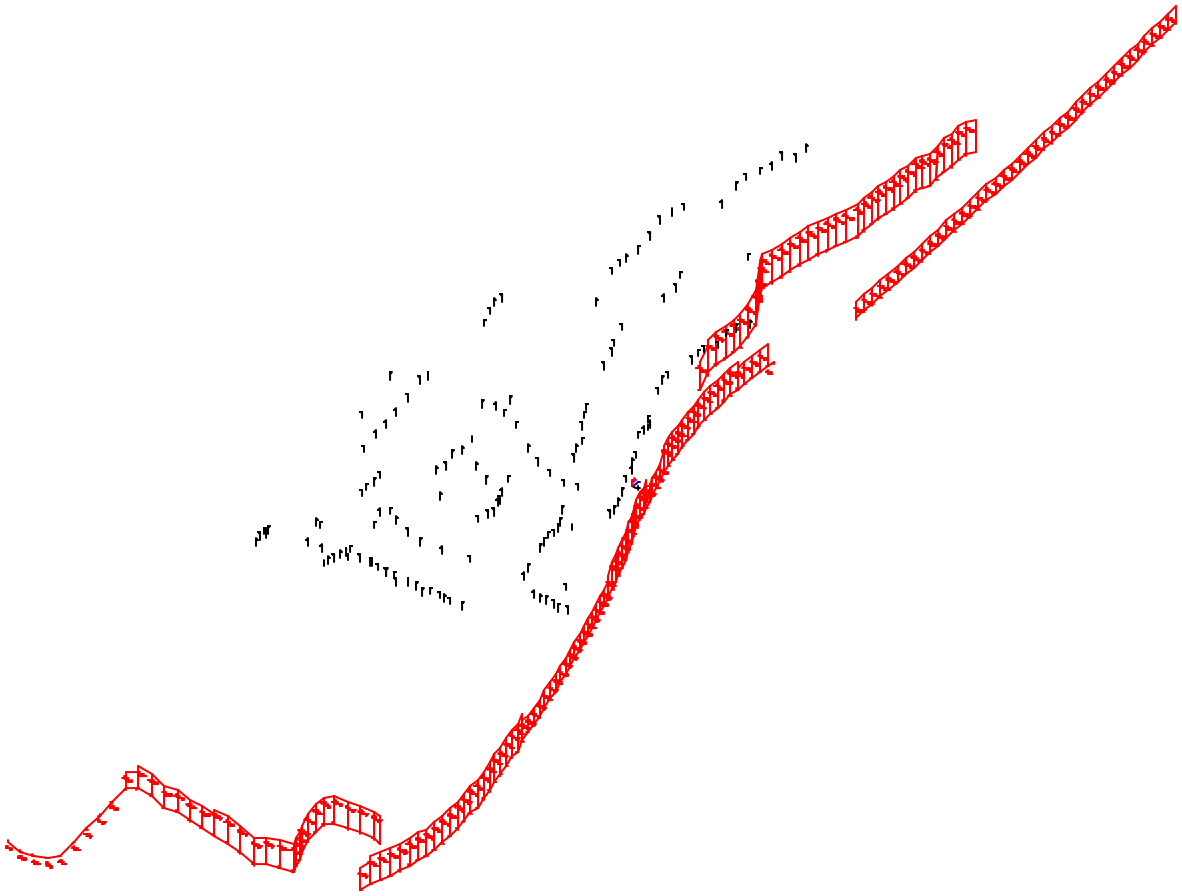
		E-05-34	277	12.00	12.00	12.00	40	479	Y			15342
		E-05-35	278	12.00	12.00	12.00	40	479	Y			15342
		E-05-36	279	12.00	12.00	12.00	40	480	Y			15372
		E-05-37	280	12.00	12.00	12.00	40	480	Y			15372
		E-05-38	281	12.00	12.00	12.00	40	480	Y			15372
		E-05-39	282	12.00	12.00	12.00	40	480	Y			15372
		E-05-40	283	12.00	12.00	12.00	40	480	Y			15372
		E-05-41	284	12.00	12.00	12.00	40	479	Y			15342
		E-05-42	285	12.00	12.00	12.00	40	479	Y			15314
		E-05-43	286	12.00	12.00	12.00	40	479	Y			15342
		E-05-44	287	12.00	12.00	12.00	40	479	Y			15342
		E-05-45	288	12.00	12.00	12.00	40	485	Y			15505
		E-05-46	289	12.00	12.00	12.00	40	479	Y			15342
		E-05-47	290	12.00	12.00	12.00	40	479	Y			15342
Crescent Ave	W	point472	472	24.00	24.00	24.00	40	960				30730
		point474	474	24.00	24.00	24.00	40	960				30722
		point475	475	24.00	24.00	24.00	40	960				30730
		point476	476	24.00	24.00	24.00	40	960				30722
		point477	477	24.00	24.00	24.00	40	960				30730
		point478	478	24.00	24.00	24.00	40	960				30722
		point479	479	24.00	24.00	24.00	40	960				30722
		point480	480	24.00	24.00	24.00	40	960				30730
		point481	481	24.00	24.00	24.00	40	960				30722
		point482	482	24.00	24.00	24.00	51	1212				38792
		point483	483	24.00	24.00	24.00	40	955				30576
		point484	484	24.00	24.00	24.00	40	955				30576
		CA-01	485	24.00	24.00	24.00	40	967				30952
		CA-02	486	24.00	24.00	24.00	40	958				30655
		CA-03	487	24.00	24.00	24.00	40	955				30576
		CA-04	488	24.00	24.00	24.00	40	967				30952
		CA-05	489	24.00	24.00	24.00	40	955				30576
		CA-06	490	24.00	24.00	24.00	40	967				30952
		CA-07	491	24.00	24.00	24.00	40	955				30576
		CA-08	492	24.00	24.00	24.00	40	955				30576
		CA-09	493	24.00	24.00	24.00	40	967				30952
		CA-10	494	24.00	24.00	24.00	40	955				30576
		CA-11	495	24.00	24.00	24.00	40	958				30655
		CA-12	496	24.00	24.00	24.00	40	967				30952

		CA-13	497	24.00	24.00	24.00	40	955				30576
		CA-14	498	24.00	24.00	24.00	60	1445				46240
SB75-W3	W	F-05-01	447	16.00	16.00	16.00	40	642				20558
		F-05-02	449	20.00	20.00	20.00	40	802				25650
		F-05-03	450	20.00	20.00	20.00	40	800				25608
		F-05-04	451	20.00	20.00	20.00	40	800				25600
		F-05-05	452	20.00	20.00	20.00	40	800				25608
		F-05-06	453	20.00	20.00	20.00	40	802				25650
		F-05-07	454	20.00	20.00	20.00	40	803				25698
		F-05-08	455	20.00	20.00	20.00	40	796				25482
		F-05-09	456	20.00	20.00	20.00	40	799				25570
		F-05-10	457	20.00	20.00	20.00	40	802				25674
		F-05-11	458	20.00	20.00	20.00	40	798				25546
		F-05-12	459	20.00	20.00	20.00	40	796				25458
		F-05-13	460	20.00	20.00	20.00	40	808				25849
		F-05-14	461	20.00	20.00	20.00	40	796				25458
		F-05-15	462	20.00	20.00	20.00	40	800				25602
		F-05-16	463	20.00	20.00	20.00	40	797				25504
		F-05-17	464	20.00	20.00	20.00	40	807				25809
		F-05-18	465	20.00	20.00	20.00	40	803				25704
		F-05-19	466	20.00	20.00	20.00	40	797				25508
		F-05-20	467	20.00	20.00	20.00	40	801				25618
		F-05-21	468	20.00	20.00	20.00	40	795				25433
		F-05-22	469	20.00	20.00	20.00	40	802				25674
		F-05-23	470	16.00	14.00	12.00	43	603				19300
		F-04-01	428	12.00	12.00	12.00	40	478	Y			15305
		F-04-02	430	12.00	12.00	12.00	40	480	Y			15371
		F-04-03	431	12.00	12.00	12.00	40	480	Y			15371
		F-04-04	432	12.00	12.00	12.00	40	480	Y			15371
		F-04-05	433	12.00	12.00	12.00	40	477	Y			15260
		F-04-06	434	12.00	12.00	12.00	40	481	Y			15404
		F-04-07	435	12.00	12.00	12.00	40	481	Y			15404
		F-04-08	436	12.00	12.00	12.00	40	478	Y			15303
		F-04-09	437	12.00	12.00	12.00	40	481	Y			15382
		F-04-10	438	12.00	12.00	12.00	40	481	Y			15382
		F-04-11	439	12.00	12.00	12.00	40	480	Y			15371
		F-04-12	440	12.00	12.00	12.00	40	480	Y			15371
		F-04-13	441	12.00	12.00	12.00	40	478	Y			15284

		F-04-14	442	12.00	12.00	12.00	40	480	Y			15372
		F-04-15	443	12.00	12.00	12.00	40	480	Y			15372
		F-04-16	444	12.00	12.00	12.00	40	481	Y			15385
		F-04-17	445	12.00	12.00	12.00	40	480	Y			15372
		F-04-18	446	16.00	18.00	20.00	55	988	Y			31614
		F-03-02	416	20.00	20.00	20.00	40	794				25409
		F-03-03	417	20.00	20.00	20.00	40	808				25849
		F-03-04	418	20.00	20.00	20.00	40	794				25409
		F-03-05	419	20.00	20.00	20.00	40	799				25576
		F-03-06	420	20.00	20.00	20.00	40	799				25576
		F-03-07	421	20.00	20.00	20.00	40	805				25746
		F-03-08	422	20.00	20.00	20.00	40	799				25576
		F-03-09	423	20.00	20.00	20.00	40	796				25476
		F-03-10	424	20.00	20.00	20.00	40	805				25746
		F-03-11	425	20.00	20.00	20.00	40	803				25684
		F-03-12	426	20.00	20.00	20.00	40	798				25522
		F-03-13	427	16.00	14.00	12.00	35	490				15674
		F-02-01	408	12.00	12.00	12.00	40	481	Y			15385
		F-02-02	409	12.00	12.00	12.00	40	481	Y			15385
		F-02-03	410	12.00	12.00	12.00	40	481	Y			15385
		F-02-04	411	12.00	14.00	16.00	47	658	Y			21061
		F-01-01	389	20.00	20.00	20.00	40	801				25620
		F-01-02	391	20.00	20.00	20.00	40	805				25769
		F-01-03	392	20.00	20.00	20.00	40	801				25636
		F-01-04	393	20.00	20.00	20.00	40	793				25379
		F-01-05	394	20.00	20.00	20.00	40	798				25552
		F-01-06	395	20.00	20.00	20.00	40	804				25732
		F-01-07	396	20.00	20.00	20.00	40	797				25508
		F-01-08	397	20.00	20.00	20.00	40	800				25602
		F-01-09	398	20.00	20.00	20.00	40	797				25504
		F-01-10	399	20.00	20.00	20.00	40	804				25716
		F-01-11	400	20.00	20.00	20.00	40	798				25540
		F-01-12	401	20.00	20.00	20.00	40	803				25690
		F-01-13	402	20.00	20.00	20.00	40	800				25616
		F-01-14	403	16.00	16.00	16.00	40	639				20437
		F-01-15	404	16.00	16.00	16.00	40	643				20585
		F-01-16	405	16.00	16.00	16.00	40	640				20496
		F-01-17	406	16.00	16.00	16.00	40	638				20419
		F-01-18	407	0.00	0.00	0.00	0	0				0

Crescent Ave - Additional Phase	W	CAA-01	499	20.00	20.00	20.00	40	802				25672
		CAA-02	501	24.00	24.00	24.00	40	951				30423
		CAA-03	502	24.00	24.00	24.00	40	963				30806
		CAA-04	503	24.00	24.00	24.00	40	957				30629
		CAA-05	504	24.00	24.00	24.00	40	961				30744
		CAA-06	505	24.00	24.00	24.00	40	967				30952
		CAA-07	506	24.00	24.00	24.00	40	963				30828
		CAA-08	507	24.00	24.00	24.00	40	955				30571
		CAA-09	508	24.00	24.00	24.00	40	955				30571
		CAA-10	509	24.00	24.00	24.00	29	706				22591
Hermes Ave	W	F-06-01	291	0.00	0.00	0.00	0	0				0
		F-06-02	293	0.00	0.00	0.00	0	0				0
		F-06-03	294	0.00	0.00	0.00	0	0				0
		F-06-04	295	0.00	0.00	0.00	0	0				0
		F-06-05	296	0.00	0.00	0.00	0	0				0
		F-06-06	297	0.00	0.00	0.00	0	0				0
		F-06-07	298	0.00	0.00	0.00	0	0				0
		F-06-08	299	0.00	0.00	0.00	0	0				0
		F-06-09	300	0.00	0.00	0.00	0	0				0
		F-06-10	301	12.00	12.00	12.00	40	476				15230
		F-06-11	302	16.00	16.00	16.00	40	641				20514
		F-06-12	303	16.00	16.00	16.00	40	644				20595
		F-06-13	304	16.00	16.00	16.00	40	641				20514
		F-06-14	305	16.00	16.00	16.00	40	633				20264
		F-06-15	306	16.00	16.00	16.00	40	641				20509
		F-06-16	307	16.00	16.00	16.00	40	645				20639
		F-06-17	308	20.00	20.00	20.00	40	796				25488
		F-06-18	309	20.00	20.00	20.00	40	799				25578
		F-06-19	310	20.00	20.00	20.00	40	807				25811
		F-06-20	311	20.00	20.00	20.00	40	792				25347
		F-06-21	312	20.00	20.00	20.00	40	803				25690
		F-06-22	313	20.00	20.00	20.00	40	801				25618
		F-06-23	314	20.00	20.00	20.00	40	796				25476
		F-06-24	315	20.00	20.00	20.00	40	805				25746
		F-06-25	316	20.00	20.00	20.00	40	799				25562
		F-06-26	317	20.00	20.00	20.00	40	797				25508
		F-06-27	318	20.00	20.00	20.00	40	798				25524

		F-06-28	319	20.00	20.00	20.00	40	806				25799
		F-06-29	320	20.00	20.00	20.00	40	796				25480
		F-06-30	321	20.00	20.00	20.00	40	800				25594
		F-06-31	322	20.00	20.00	20.00	40	800				25594
		F-06-32	323	20.00	20.00	20.00	40	800				25594
		F-06-33	324	20.00	20.00	20.00	18	361				11560



F1		Sheet 1 of 1	26 Jun 2023
		HMB Professional Engineers	
Barrier View-f1new-barsys-1		Project/Contract No. Brent Spence Bridge	
Run name: f1_v4_ca_backup		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

HMB Professional Engineers
20 June 2023
Mark Gavula
TNM 2.5
Calculated with TNM 2.5
RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: F2
BARRIER DESIGN: f2f1-sys-1
Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.
ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
F15401-FV	173	1	76.3	74.7	66	-1.6	10	Snd Lvl	72.7	2.0	7	-5.0
F15501	174	1	74.2	73.7	66	-0.5	10	Snd Lvl	70.6	3.1	7	-3.9
F15606	175	1	72.0	72.2	66	0.2	10	Snd Lvl	68.6	3.6	7	-3.4
F15701	176	1	70.5	70.6	66	0.1	10	Snd Lvl	66.9	3.7	7	-3.3
F15801	177	1	71.1	70.9	66	-0.2	10	Snd Lvl	67.9	3.0	7	-4.0
F15904	178	1	66.8	69.6	66	2.8	10	Snd Lvl	65.5	4.1	7	-2.9
F16001	179	1	67.9	69.9	66	2.0	10	Snd Lvl	66.2	3.7	7	-3.3
F16101	180	1	66.7	69.2	66	2.5	10	Snd Lvl	65.0	4.2	7	-2.8
F16202	181	1	67.2	69.6	66	2.4	10	Snd Lvl	65.8	3.8	7	-3.2
F16301	182	1	66.2	69.1	66	2.9	10	Snd Lvl	65.2	3.9	7	-3.1
F16405	183	5	65.8	68.8	66	3.0	10	Snd Lvl	65.0	3.8	7	-3.2
F16502	184	1	65.5	68.7	66	3.2	10	Snd Lvl	64.7	4.0	7	-3.0
F16601	185	1	74.4	73.9	66	-0.5	10	Snd Lvl	70.4	3.5	7	-3.5
F16701	186	1	75.6	74.7	66	-0.9	10	Snd Lvl	71.8	2.9	7	-4.1
F16802	187	1	77.0	75.3	66	-1.7	10	Snd Lvl	73.5	1.8	7	-5.2
F16901-F	188	1	76.5	74.4	66	-2.1	10	Snd Lvl	73.5	0.9	7	-6.1
F17001-F	189	1	75.3	73.7	66	-1.6	10	Snd Lvl	71.7	2.0	7	-5.0
F17101	190	1	75.3	73.9	66	-1.4	10	Snd Lvl	71.4	2.5	7	-4.5
F17201	191	1	74.6	74.0	66	-0.6	10	Snd Lvl	71.6	2.4	7	-4.6
F17301	192	1	73.6	73.2	66	-0.4	10	Snd Lvl	70.4	2.8	7	-4.2
F17401	193	1	73.5	73.3	66	-0.2	10	Snd Lvl	70.0	3.3	7	-3.7
F17501	194	1	72.8	72.8	66	0.0	10	Snd Lvl	69.4	3.4	7	-3.6
F17601	195	1	71.5	72.2	66	0.7	10	Snd Lvl	68.6	3.6	7	-3.4
F17701	196	1	70.9	71.8	66	0.9	10	Snd Lvl	68.2	3.6	7	-3.4

F17801	197	1	70.2	71.5	66	1.3	10	Snd Lvl	67.8	3.7	7	-3.3
F17901	198	1	69.3	70.9	66	1.6	10	Snd Lvl	67.0	3.9	7	-3.1
F18001	199	1	68.3	70.4	66	2.1	10	Snd Lvl	66.5	3.9	7	-3.1
F18101	200	1	68.3	70.4	66	2.1	10	Snd Lvl	66.3	4.1	7	-2.9
F18201	201	1	67.9	70.1	66	2.2	10	Snd Lvl	65.9	4.2	7	-2.8
F18301	202	1	67.4	69.7	66	2.3	10	Snd Lvl	65.5	4.2	7	-2.8
F18405	203	1	67.3	68.8	66	1.5	10	Snd Lvl	64.5	4.3	7	-2.7
F18501	204	1	66.7	68.7	66	2.0	10	Snd Lvl	64.0	4.7	7	-2.3
F18601	205	1	67.0	69.0	66	2.0	10	Snd Lvl	64.4	4.6	7	-2.4
F18701	206	1	67.4	69.6	66	2.2	10	Snd Lvl	65.0	4.6	7	-2.4
F31301	207	1	67.1	69.3	66	2.2	10	Snd Lvl	64.7	4.6	7	-2.4
F18801	208	1	67.8	69.9	66	2.1	10	Snd Lvl	65.4	4.5	7	-2.5
F18901	209	1	68.1	70.1	66	2.0	10	Snd Lvl	65.7	4.4	7	-2.6
F19001	210	1	68.3	70.3	66	2.0	10	Snd Lvl	66.0	4.3	7	-2.7
F19101	211	1	68.6	70.6	66	2.0	10	Snd Lvl	66.3	4.3	7	-2.7
F19201	212	1	69.0	70.8	66	1.8	10	Snd Lvl	66.8	4.0	7	-3.0
F19301	213	1	69.6	71.1	66	1.5	10	Snd Lvl	67.2	3.9	7	-3.1
F19401	214	1	70.4	71.4	66	1.0	10	Snd Lvl	67.6	3.8	7	-3.2
F19501	215	1	71.0	71.6	66	0.6	10	Snd Lvl	68.1	3.5	7	-3.5
F19601	216	1	71.3	71.9	66	0.6	10	Snd Lvl	68.5	3.4	7	-3.6
F19701	217	1	71.8	72.1	66	0.3	10	Snd Lvl	68.9	3.2	7	-3.8
F19801	218	1	72.1	72.3	66	0.2	10	Snd Lvl	69.3	3.0	7	-4.0
F19901	219	1	72.9	72.8	66	-0.1	10	Snd Lvl	69.9	2.9	7	-4.1
F20001	220	1	73.3	73.0	66	-0.3	10	Snd Lvl	70.3	2.7	7	-4.3
F20101	221	1	73.8	72.7	66	-1.1	10	Snd Lvl	69.4	3.3	7	-3.7
F20201	222	1	72.9	72.8	66	-0.1	10	Snd Lvl	70.2	2.6	7	-4.4
F20301-F	223	1	73.6	73.1	66	-0.5	10	Snd Lvl	71.0	2.1	7	-4.9
F20402	224	1	62.5	68.0	66	5.5	10	Snd Lvl	63.2	4.8	7	-2.2
F20501	225	2	62.4	67.9	66	5.5	10	Snd Lvl	63.1	4.8	7	-2.2
F20601	226	1	62.0	67.7	66	5.7	10	Snd Lvl	62.9	4.8	7	-2.2
F20701	227	1	62.0	67.6	66	5.6	10	Snd Lvl	62.8	4.8	7	-2.2
F20802	228	1	62.5	67.2	66	4.7	10	Snd Lvl	62.5	4.7	7	-2.3
F20904	229	1	61.8	66.9	66	5.1	10	Snd Lvl	62.3	4.6	7	-2.4
F21001	230	1	63.7	67.2	66	3.5	10	Snd Lvl	62.7	4.5	7	-2.5
F21106	231	1	65.8	67.7	66	1.9	10	Snd Lvl	63.6	4.1	7	-2.9
F21205	232	1	65.5	67.4	66	1.9	10	Snd Lvl	63.0	4.4	7	-2.6
F21301	233	1	65.9	67.9	66	2.0	10	Snd Lvl	63.4	4.5	7	-2.5
F21401	234	1	65.8	68.3	66	2.5	10	Snd Lvl	63.4	4.9	7	-2.1
F21501	235	1	65.4	68.4	66	3.0	10	Snd Lvl	63.5	4.9	7	-2.1
F21601	236	1	65.1	68.5	66	3.4	10	Snd Lvl	63.4	5.1	7	-1.9
F21701	237	1	63.3	68.7	66	5.4	10	Snd Lvl	63.6	5.1	7	-1.9

F21804	238	4	69.8	69.6	66	-0.2	10	Snd Lvl	64.9	4.7	7	-2.3
F21902	239	1	67.7	70.3	66	2.6	10	Snd Lvl	65.2	5.1	7	-1.9
F22001	240	1	67.9	70.5	66	2.6	10	Snd Lvl	65.4	5.1	7	-1.9
F22101	241	1	68.2	70.8	66	2.6	10	Snd Lvl	65.7	5.1	7	-1.9
F22201	242	1	68.3	71.0	66	2.7	10	Snd Lvl	66.0	5.0	7	-2.0
F22302	243	2	69.1	71.6	66	2.5	10	Snd Lvl	66.3	5.3	7	-1.7
F22408	244	1	69.9	72.3	66	2.4	10	Snd Lvl	67.1	5.2	7	-1.8
F22501	245	1	70.9	72.7	66	1.8	10	Snd Lvl	67.3	5.4	7	-1.6
F22601	246	1	71.9	73.3	66	1.4	10	Snd Lvl	68.0	5.3	7	-1.7
F22701	247	1	72.8	73.6	66	0.8	10	Snd Lvl	68.4	5.2	7	-1.8
F22801-F	248	1	73.8	73.9	66	0.1	10	Snd Lvl	68.6	5.3	7	-1.7
F22901-F	249	1	73.6	75.0	66	1.4	10	Snd Lvl	68.1	6.9	7	-0.1
F23001	250	1	72.1	74.6	66	2.5	10	Snd Lvl	67.5	7.1	7	0.1
F23101	251	1	70.8	74.1	66	3.3	10	Snd Lvl	67.2	6.9	7	-0.1
F23201	252	1	71.4	73.4	66	2.0	10	Snd Lvl	67.0	6.4	7	-0.6
F23301	253	1	70.9	73.1	66	2.2	10	Snd Lvl	66.8	6.3	7	-0.7
F23401	254	1	70.3	72.7	66	2.4	10	Snd Lvl	66.5	6.2	7	-0.8
F23501	255	1	70.0	72.5	66	2.5	10	Snd Lvl	66.3	6.2	7	-0.8
F23601	256	1	69.5	72.1	66	2.6	10	Snd Lvl	66.1	6.0	7	-1.0
F23701	257	1	69.2	71.9	66	2.7	10	Snd Lvl	66.0	5.9	7	-1.1
F23801	258	1	69.1	71.5	66	2.4	10	Snd Lvl	65.9	5.6	7	-1.4
F23901	259	1	68.6	71.2	66	2.6	10	Snd Lvl	65.6	5.6	7	-1.4
F24001	260	1	68.0	70.8	66	2.8	10	Snd Lvl	65.2	5.6	7	-1.4
F24102	261	2	67.8	70.7	66	2.9	10	Snd Lvl	64.9	5.8	7	-1.2
F24204	262	4	66.5	68.7	66	2.2	10	Snd Lvl	63.8	4.9	7	-2.1
F24301	263	1	66.0	67.7	66	1.7	10	Snd Lvl	63.4	4.3	7	-2.7
F24401	264	1	66.0	67.7	66	1.7	10	Snd Lvl	63.4	4.3	7	-2.7
F24501	265	1	66.1	67.8	66	1.7	10	Snd Lvl	63.5	4.3	7	-2.7
F24601	266	1	66.3	67.9	66	1.6	10	Snd Lvl	63.7	4.2	7	-2.8
F24701	267	1	66.6	68.1	66	1.5	10	Snd Lvl	64.0	4.1	7	-2.9
F24801	268	1	66.6	68.2	66	1.6	10	Snd Lvl	64.1	4.1	7	-2.9
F24901	269	1	66.8	68.4	66	1.6	10	Snd Lvl	64.4	4.0	7	-3.0
F25001	270	1	67.1	68.7	66	1.6	10	Snd Lvl	64.7	4.0	7	-3.0
F25101	271	1	66.6	68.5	66	1.9	10	Snd Lvl	64.5	4.0	7	-3.0
F25201	272	1	67.1	69.5	66	2.4	10	Snd Lvl	66.4	3.1	7	-3.9
F25301	273	1	63.2	68.1	66	4.9	10	Snd Lvl	65.9	2.2	7	-4.8
F25401	274	1	62.8	68.3	66	5.5	10	Snd Lvl	66.3	2.0	7	-5.0
F25501	275	1	63.0	68.4	66	5.4	10	Snd Lvl	66.3	2.1	7	-4.9
F25601	276	1	61.4	68.5	66	7.1	10	Snd Lvl	66.6	1.9	1	-5.1
F25701	277	1	60.9	68.6	66	7.7	10	Snd Lvl	66.8	1.8	7	-5.2
F25801-F	278	1	62.1	69.2	66	7.1	10	Snd Lvl	67.3	1.9	7	-5.1

F25904-F	279	1	65.5	68.5	66	3.0	10	Snd Lvl	67.7	0.8	7	-6.2
F26001-F	280	1	72.8	74.5	66	1.7	10	Snd Lvl	62.4	12.1	7	5.1
F26101	281	1	68.4	0.0	66	0.0	10	invalid	0.0	0.0	7	0.0
F26201	282	1	70.7	72.8	66	2.1	10	Snd Lvl	63.9	8.9	7	1.9
F26301	283	1	68.0	72.0	66	4.0	10	Snd Lvl	65.7	6.3	7	-0.7
F26401	284	1	66.8	71.1	66	4.3	10	Snd Lvl	64.8	6.3	7	-0.7
F26501	285	1	67.8	70.8	66	3.0	10	Snd Lvl	64.9	5.9	7	-1.1
F26601	286	1	66.5	70.2	66	3.7	10	Snd Lvl	64.9	5.3	7	-1.7
F26701	287	1	65.1	69.9	66	4.8	10	Snd Lvl	64.7	5.2	7	-1.8
F26801	288	1	62.4	69.9	66	7.5	10	Snd Lvl	64.4	5.5	7	-1.5
F26901	289	1	61.6	69.7	66	8.1	10	Snd Lvl	64.1	5.6	7	-1.4
F27001	290	1	61.9	69.7	66	7.8	10	Snd Lvl	64.2	5.5	7	-1.5
F27101	291	1	61.5	69.6	66	8.1	10	Snd Lvl	64.2	5.4	7	-1.6
F27201	292	1	61.9	69.5	66	7.6	10	Snd Lvl	64.2	5.3	7	-1.7
F27301	293	1	62.5	69.3	66	6.8	10	Snd Lvl	64.2	5.1	7	-1.9
F27301	294	1	63.8	69.5	66	5.7	10	Snd Lvl	64.6	4.9	7	-2.1
F27401	295	1	63.1	69.4	66	6.3	10	Snd Lvl	64.4	5.0	7	-2.0
F27503	296	1	64.2	68.9	66	4.7	10	Snd Lvl	63.8	5.1	7	-1.9
F27602	297	1	66.0	68.9	66	2.9	10	Snd Lvl	63.8	5.1	7	-1.9
F27702	298	2	66.2	70.7	66	4.5	10	Snd Lvl	64.7	6.0	7	-1.0
F27801	299	1	68.3	71.3	66	3.0	10	Snd Lvl	65.1	6.2	7	-0.8
F27901	300	1	69.0	71.7	66	2.7	10	Snd Lvl	65.4	6.3	7	-0.7
F28001-F	301	1	69.8	72.0	66	2.2	10	Snd Lvl	65.6	6.4	7	-0.6
F28101-F	302	1	70.1	72.4	66	2.3	10	Snd Lvl	65.9	6.5	7	-0.5
F28201-F	303	1	70.2	72.8	66	2.6	10	Snd Lvl	66.1	6.7	7	-0.3
F28301-F	304	1	71.1	73.3	66	2.2	10	Snd Lvl	66.1	7.2	7	0.2
F28401-F	305	1	71.4	73.7	66	2.3	10	Snd Lvl	66.4	7.3	7	0.3
F28501-F	306	1	72.1	74.1	66	2.0	10	Snd Lvl	66.5	7.6	7	0.6
F28601-F	307	1	72.7	74.5	66	1.8	10	Snd Lvl	66.8	7.7	7	0.7
F28701-F	308	1	72.9	75.0	66	2.1	10	Snd Lvl	66.7	8.3	7	1.3
F28801-F	309	1	73.2	75.4	66	2.2	10	Snd Lvl	67.0	8.4	7	1.4
F28901-F	310	1	73.9	75.9	66	2.0	10	Snd Lvl	67.3	8.6	7	1.6
F29001-F	311	1	74.4	76.3	66	1.9	10	Snd Lvl	67.4	8.9	7	1.9
F29101-F	312	1	75.2	76.8	66	1.6	10	Snd Lvl	67.9	8.9	7	1.9
F29201	313	1	68.9	71.3	66	2.4	10	Snd Lvl	65.0	6.3	7	-0.7
F29301-F	314	1	69.4	71.6	66	2.2	10	Snd Lvl	64.9	6.7	7	-0.3
F29401-F	315	1	69.6	71.6	66	2.0	10	Snd Lvl	64.7	6.9	7	-0.1
F29501-F	316	1	69.9	71.7	66	1.8	10	Snd Lvl	64.5	7.2	7	0.2
F29501-F	317	1	69.7	71.7	66	2.0	10	Snd Lvl	64.6	7.1	7	0.1
F29601-F	318	1	70.0	71.6	66	1.6	10	Snd Lvl	64.3	7.3	7	0.3
F29701-F	319	1	70.1	71.4	66	1.3	10	Snd Lvl	64.1	7.3	7	0.3

F29801-F	320	1	70.3	71.4	66	1.1	10	Snd Lvl	64.0	7.4	7	0.4
F29901-F	321	1	70.5	71.7	66	1.2	10	Snd Lvl	64.1	7.6	7	0.6
F30001-F	322	1	70.9	72.5	66	1.6	10	Snd Lvl	64.8	7.7	7	0.7
F30101-F	323	1	71.0	72.6	66	1.6	10	Snd Lvl	64.8	7.8	7	0.8
F30201-F	324	1	72.0	73.5	66	1.5	10	Snd Lvl	64.9	8.6	7	1.6
F30301-F	325	1	72.2	73.7	66	1.5	10	Snd Lvl	65.0	8.7	7	1.7
F30401-F	326	1	72.8	74.3	66	1.5	10	Snd Lvl	64.6	9.7	7	2.7
F30501-F	327	1	73.0	74.5	66	1.5	10	Snd Lvl	63.2	11.3	7	4.3
F30601-F	328	1	73.2	74.6	66	1.4	10	Snd Lvl	61.5	13.1	7	6.1
F30701-F	329	1	73.4	74.8	66	1.4	10	Snd Lvl	61.2	13.6	7	6.6
F30801-F	330	1	73.7	75.1	66	1.4	10	Snd Lvl	60.6	14.5	7	7.5
F30901-F	331	1	74.1	75.4	66	1.3	10	Snd Lvl	61.1	14.3	7	7.3
F31001-F	332	1	74.9	76.4	66	1.5	10	Snd Lvl	60.5	15.9	7	8.9
F31101	333	1	62.0	67.9	66	5.9	10	Snd Lvl	65.9	2.0	7	-5.0
F31617	336	1	0.0	72.9	66	72.9	10	Snd Lvl	69.5	3.4	8	-4.6

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	176	0.0	5.2	15.9
All Impacted	175	0.8	5.3	15.9
All that meet NR Goal	29	7.1	9.3	15.9

HMB Professional Engineers
Mark Gavula

20 June 2023
TNM 2.5
Calculated with TNM 2.5

RESULTS: BARRIER DESIGN

PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: F2
BARRIER DESIGN: f2f1-sys-1

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
F15401-FV	173	72.7	2.0	7	-5.0	SB75-W3	F-04-16	444	12.0	55.4
						SB75-W3	F-04-15	443	12.0	55.1
						SB75-W3	F-04-13	441	12.0	52.3
						SB75-W3	F-04-14	442	12.0	52.2
						SB75-W3	F-04-12	440	12.0	51.1
						SB75-W3	F-04-11	439	12.0	49.5
						SB75-W3	F-04-10	438	12.0	46.9
						SB75-W3	F-04-09	437	12.0	46.7
						SB75-W3	F-04-17	445	12.0	45.8
						SB75-W3	F-03-02	416	20.0	45.4
F15501	174	70.6	3.1	7	-3.9	SB75-W3	F-04-16	444	12.0	53.3
						SB75-W3	F-04-15	443	12.0	50.6
						SB75-W3	F-04-13	441	12.0	50.3
						SB75-W3	F-04-14	442	12.0	49.9
						SB75-W3	F-04-11	439	12.0	49.6
						SB75-W3	F-04-09	437	12.0	48.1
						SB75-W3	F-04-12	440	12.0	47.8
						SB75-W3	F-04-10	438	12.0	47.8
						SB75-W3	F-04-08	436	12.0	46.6
						SB75-W3	F-04-06	434	12.0	45.8
F15606	175	68.6	3.6	7	-3.4	SB75-W3	F-04-15	443	12.0	49.5

						SB75-W3	F-04-16	444	12.0	49.3
						SB75-W3	F-04-02	430	12.0	48.4
						SB75-W3	F-04-06	434	12.0	48.1
						SB75-W3	F-04-10	438	12.0	47.8
						SB75-W3	F-04-13	441	12.0	47.5
						SB75-W3	F-04-07	435	12.0	47.5
						SB75-W3	F-03-13	427	16.0	47.4
						SB75-W3	F-04-09	437	12.0	47.4
						SB75-W3	F-04-08	436	12.0	47.2
F15701	176	66.9	3.7	7	-3.3	SB75-W3	F-04-15	443	12.0	47.2
						SB75-W3	F-04-02	430	12.0	46.4
						SB75-W3	F-04-10	438	12.0	46.0
						SB75-W3	F-04-03	431	12.0	45.9
						SB75-W3	F-04-08	436	12.0	45.7
						SB75-W3	F-04-06	434	12.0	45.7
						SB75-W3	F-04-13	441	12.0	45.7
						SB75-W3	F-04-07	435	12.0	45.6
						SB75-W3	F-04-05	433	12.0	45.6
						SB75-W3	F-04-04	432	12.0	45.6
F15801	177	67.9	3.0	7	-4.0	SB75-W3	F-04-15	443	12.0	47.3
						SB75-W3	F-04-16	444	12.0	46.1
						SB75-W3	F-04-02	430	12.0	45.8
						SB75-W3	F-04-10	438	12.0	45.4
						SB75-W3	F-04-13	441	12.0	45.4
						SB75-W3	F-04-07	435	12.0	45.3
						SB75-W3	F-04-06	434	12.0	45.2
						SB75-W3	F-04-08	436	12.0	45.2
						SB75-W3	F-04-14	442	12.0	45.1
						SB75-W3	F-04-05	433	12.0	45.1
F15904	178	65.5	4.1	7	-2.9	SB75-W3	F-04-03	431	12.0	45.2
						SB75-W3	F-04-04	432	12.0	45.0
						SB75-W3	F-04-02	430	12.0	44.9
						SB75-W3	F-04-10	438	12.0	44.8
						SB75-W3	F-04-05	433	12.0	44.8
						SB75-W3	F-04-07	435	12.0	44.8
						SB75-W3	F-04-08	436	12.0	44.7

						SB75-W3	F-04-16	444	12.0	44.7
						SB75-W3	F-04-15	443	12.0	44.7
						SB75-W3	F-04-06	434	12.0	44.7
F16001	179	66.2	3.7	7	-3.3	SB75-W3	F-04-15	443	12.0	46.2
						SB75-W3	F-04-03	431	12.0	45.1
						SB75-W3	F-04-02	430	12.0	45.0
						SB75-W3	F-04-10	438	12.0	44.9
						SB75-W3	F-04-04	432	12.0	44.8
						SB75-W3	F-04-05	433	12.0	44.7
						SB75-W3	F-04-07	435	12.0	44.6
						SB75-W3	F-04-13	441	12.0	44.6
						SB75-W3	F-04-08	436	12.0	44.6
						SB75-W3	F-04-06	434	12.0	44.6
F16101	180	65.0	4.2	7	-2.8	SB75-W3	F-04-03	431	12.0	45.5
						SB75-W3	F-04-04	432	12.0	44.7
						SB75-W3	F-04-05	433	12.0	44.5
						SB75-W3	F-04-07	435	12.0	44.4
						SB75-W3	F-04-10	438	12.0	44.3
						SB75-W3	F-04-06	434	12.0	44.3
						SB75-W3	F-04-08	436	12.0	44.2
						SB75-W3	F-04-02	430	12.0	44.2
						SB75-W3	F-04-16	444	12.0	44.2
						SB75-W3	F-05-23	470	16.0	44.1
F16202	181	65.8	3.8	7	-3.2	SB75-W3	F-04-15	443	12.0	46.1
						SB75-W3	F-04-03	431	12.0	45.1
						SB75-W3	F-04-04	432	12.0	44.6
						SB75-W3	F-04-10	438	12.0	44.5
						SB75-W3	F-04-05	433	12.0	44.5
						SB75-W3	F-04-06	434	12.0	44.4
						SB75-W3	F-04-07	435	12.0	44.3
						SB75-W3	F-04-08	436	12.0	44.3
						SB75-W3	F-04-13	441	12.0	44.2
						SB75-W3	F-04-02	430	12.0	44.1
F16301	182	65.2	3.9	7	-3.1	SB75-W3	F-04-15	443	12.0	45.5
						SB75-W3	F-04-03	431	12.0	44.6
						SB75-W3	F-04-02	430	12.0	44.4

						SB75-W3	F-04-04	432	12.0	44.2
						SB75-W3	F-04-05	433	12.0	44.1
						SB75-W3	F-04-07	435	12.0	44.1
						SB75-W3	F-04-10	438	12.0	44.0
						SB75-W3	F-04-06	434	12.0	44.0
						SB75-W3	F-04-08	436	12.0	43.9
						SB75-W3	F-05-23	470	16.0	43.7
F16405	183	65.0	3.8	7	-3.2	SB75-W3	F-04-15	443	12.0	45.3
						SB75-W3	F-04-03	431	12.0	44.1
						SB75-W3	F-04-04	432	12.0	43.8
						SB75-W3	F-04-16	444	12.0	43.8
						SB75-W3	F-04-05	433	12.0	43.7
						SB75-W3	F-04-02	430	12.0	43.7
						SB75-W3	F-04-10	438	12.0	43.6
						SB75-W3	F-04-07	435	12.0	43.6
						SB75-W3	F-04-08	436	12.0	43.6
						SB75-W3	F-04-06	434	12.0	43.6
F16502	184	64.7	4.0	7	-3.0	SB75-W3	F-04-03	431	12.0	44.5
						SB75-W3	F-04-15	443	12.0	44.2
						SB75-W3	F-04-04	432	12.0	44.0
						SB75-W3	F-04-02	430	12.0	43.8
						SB75-W3	F-04-05	433	12.0	43.8
						SB75-W3	F-04-07	435	12.0	43.8
						SB75-W3	F-04-10	438	12.0	43.7
						SB75-W3	F-05-23	470	16.0	43.7
						SB75-W3	F-04-08	436	12.0	43.7
						SB75-W3	F-04-06	434	12.0	43.6
F16601	185	70.4	3.5	7	-3.5	SB75-W3	F-04-15	443	12.0	51.7
						SB75-W3	F-04-16	444	12.0	51.2
						SB75-W3	F-04-10	438	12.0	50.6
						SB75-W3	F-04-09	437	12.0	50.0
						SB75-W3	F-04-13	441	12.0	50.0
						SB75-W3	F-04-11	439	12.0	49.8
						SB75-W3	F-04-08	436	12.0	49.4
						SB75-W3	F-04-14	442	12.0	49.0
						SB75-W3	F-04-06	434	12.0	48.4

						SB75-W3	F-04-07	435	12.0	47.8
F16701	186	71.8	2.9	7	-4.1	SB75-W3	F-04-10	438	12.0	51.7
						SB75-W3	F-04-16	444	12.0	51.1
						SB75-W3	F-04-11	439	12.0	51.1
						SB75-W3	F-04-13	441	12.0	50.9
						SB75-W3	F-04-09	437	12.0	50.9
						SB75-W3	F-04-08	436	12.0	50.2
						SB75-W3	F-04-15	443	12.0	50.1
						SB75-W3	F-04-14	442	12.0	49.7
						SB75-W3	F-04-06	434	12.0	48.5
						SB75-W3	F-04-02	430	12.0	46.7
F16802	187	73.5	1.8	7	-5.2	SB75-W3	F-04-11	439	12.0	52.4
						SB75-W3	F-04-13	441	12.0	51.8
						SB75-W3	F-04-10	438	12.0	51.3
						SB75-W3	F-04-09	437	12.0	51.2
						SB75-W3	F-04-14	442	12.0	49.4
						SB75-W3	F-04-08	436	12.0	48.2
						SB75-W3	F-04-06	434	12.0	46.0
						SB75-W3	F-04-07	435	12.0	45.3
						SB75-W3	F-04-16	444	12.0	44.9
						SB75-W3	F-04-12	440	12.0	44.7
F16901-F	188	73.5	0.9	7	-6.1	SB75-W3	F-04-11	439	12.0	51.8
						SB75-W3	F-04-10	438	12.0	50.7
						SB75-W3	F-04-09	437	12.0	50.3
						SB75-W3	F-04-13	441	12.0	50.2
						SB75-W3	F-04-16	444	12.0	48.6
						SB75-W3	F-04-08	436	12.0	47.2
						SB75-W3	F-04-14	442	12.0	47.0
						SB75-W3	F-04-06	434	12.0	45.1
						SB75-W3	F-03-02	416	20.0	44.0
						SB75-W3	F-04-12	440	12.0	43.5
F17001-F	189	71.7	2.0	7	-5.0	SB75-W3	F-04-02	430	12.0	53.0
						SB75-W3	F-04-03	431	12.0	52.1
						SB75-W3	F-04-05	433	12.0	52.0
						SB75-W3	F-04-04	432	12.0	51.2
						SB75-W3	F-04-07	435	12.0	50.7

						SB75-W3	F-04-06	434	12.0	50.2
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-04-08	436	12.0	46.3
						SB75-W3	F-05-22	469	20.0	43.5
						SB75-W3	F-05-01	447	16.0	42.6
F17101	190	71.4	2.5	7	-4.5	SB75-W3	F-04-02	430	12.0	55.8
						SB75-W3	F-04-03	431	12.0	51.5
						SB75-W3	F-04-05	433	12.0	50.7
						SB75-W3	F-04-07	435	12.0	50.3
						SB75-W3	F-04-04	432	12.0	50.2
						SB75-W3	F-04-06	434	12.0	49.7
						SB75-W3	F-05-23	470	16.0	46.8
						SB75-W3	F-04-08	436	12.0	46.6
						SB75-W3	F-05-22	469	20.0	43.8
						SB75-W3	F-04-10	438	12.0	43.5
F17201	191	71.6	2.4	7	-4.6	SB75-W3	F-04-02	430	12.0	52.9
						SB75-W3	F-04-03	431	12.0	51.7
						SB75-W3	F-04-05	433	12.0	50.3
						SB75-W3	F-04-04	432	12.0	50.1
						SB75-W3	F-04-07	435	12.0	49.8
						SB75-W3	F-04-06	434	12.0	49.0
						SB75-W3	F-05-23	470	16.0	47.2
						SB75-W3	F-04-08	436	12.0	46.0
						SB75-W3	F-04-16	444	12.0	44.9
						SB75-W3	F-04-01	428	12.0	44.4
F17301	192	70.4	2.8	7	-4.2	SB75-W3	F-04-02	430	12.0	54.9
						SB75-W3	F-04-03	431	12.0	51.3
						SB75-W3	F-04-04	432	12.0	49.2
						SB75-W3	F-04-05	433	12.0	48.9
						SB75-W3	F-04-07	435	12.0	48.5
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-06	434	12.0	47.0
						SB75-W3	F-04-01	428	12.0	45.7
						SB75-W3	F-04-08	436	12.0	44.6
						SB75-W3	F-05-22	469	20.0	44.5
F17401	193	70.0	3.3	7	-3.7	SB75-W3	F-04-02	430	12.0	52.3

						SB75-W3	F-04-05	433	12.0	49.1
						SB75-W3	F-04-04	432	12.0	49.1
						SB75-W3	F-04-07	435	12.0	49.0
						SB75-W3	F-04-06	434	12.0	48.5
						SB75-W3	F-04-03	431	12.0	48.4
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-08	436	12.0	47.1
						SB75-W3	F-04-01	428	12.0	45.2
						SB75-W3	F-04-13	441	12.0	44.9
F17501	194	69.4	3.4	7	-3.6	SB75-W3	F-04-02	430	12.0	52.0
						SB75-W3	F-04-03	431	12.0	50.0
						SB75-W3	F-04-04	432	12.0	48.7
						SB75-W3	F-04-05	433	12.0	48.5
						SB75-W3	F-04-07	435	12.0	48.2
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-06	434	12.0	47.1
						SB75-W3	F-04-08	436	12.0	45.7
						SB75-W3	F-04-01	428	12.0	45.5
						SB75-W3	F-04-16	444	12.0	44.6
F17601	195	68.6	3.6	7	-3.4	SB75-W3	F-04-02	430	12.0	52.0
						SB75-W3	F-04-03	431	12.0	48.8
						SB75-W3	F-04-04	432	12.0	47.9
						SB75-W3	F-04-05	433	12.0	47.6
						SB75-W3	F-04-07	435	12.0	47.3
						SB75-W3	F-05-23	470	16.0	46.6
						SB75-W3	F-04-06	434	12.0	46.3
						SB75-W3	F-04-08	436	12.0	45.3
						SB75-W3	F-04-16	444	12.0	45.0
						SB75-W3	F-04-01	428	12.0	44.8
F17701	196	68.2	3.6	7	-3.4	SB75-W3	F-04-02	430	12.0	49.7
						SB75-W3	F-04-03	431	12.0	49.2
						SB75-W3	F-04-04	432	12.0	47.2
						SB75-W3	F-04-05	433	12.0	46.8
						SB75-W3	F-04-07	435	12.0	46.6
						SB75-W3	F-05-23	470	16.0	46.4
						SB75-W3	F-04-06	434	12.0	45.1

						SB75-W3	F-04-01	428	12.0	44.5
						SB75-W3	F-04-16	444	12.0	44.2
						SB75-W3	F-04-08	436	12.0	44.2
F17801	197	67.8	3.7	7	-3.3	SB75-W3	F-04-03	431	12.0	48.9
						SB75-W3	F-04-02	430	12.0	48.4
						SB75-W3	F-04-04	432	12.0	46.9
						SB75-W3	F-04-05	433	12.0	46.5
						SB75-W3	F-04-07	435	12.0	46.2
						SB75-W3	F-05-23	470	16.0	46.2
						SB75-W3	F-04-16	444	12.0	45.0
						SB75-W3	F-04-06	434	12.0	45.0
						SB75-W3	F-04-15	443	12.0	44.6
						SB75-W3	F-04-08	436	12.0	44.2
F17901	198	67.0	3.9	7	-3.1	SB75-W3	F-04-02	430	12.0	48.7
						SB75-W3	F-04-03	431	12.0	46.8
						SB75-W3	F-04-04	432	12.0	46.1
						SB75-W3	F-05-23	470	16.0	45.6
						SB75-W3	F-04-05	433	12.0	45.4
						SB75-W3	F-04-07	435	12.0	45.3
						SB75-W3	F-04-15	443	12.0	44.8
						SB75-W3	F-04-16	444	12.0	44.3
						SB75-W3	F-04-06	434	12.0	43.6
						SB75-W3	F-04-01	428	12.0	43.5
F18001	199	66.5	3.9	7	-3.1	SB75-W3	F-04-02	430	12.0	48.3
						SB75-W3	F-04-03	431	12.0	45.9
						SB75-W3	F-04-04	432	12.0	45.5
						SB75-W3	F-05-23	470	16.0	45.0
						SB75-W3	F-04-15	443	12.0	45.0
						SB75-W3	F-04-05	433	12.0	44.9
						SB75-W3	F-04-07	435	12.0	44.7
						SB75-W3	F-04-06	434	12.0	43.2
						SB75-W3	F-04-01	428	12.0	42.9
						SB75-W3	F-04-08	436	12.0	42.7
F18101	200	66.3	4.1	7	-2.9	SB75-W3	F-04-02	430	12.0	48.4
						SB75-W3	F-04-03	431	12.0	46.6
						SB75-W3	F-04-04	432	12.0	46.5

						SB75-W3	F-04-05	433	12.0	46.1
						SB75-W3	F-04-07	435	12.0	46.0
						SB75-W3	F-05-23	470	16.0	45.2
						SB75-W3	F-04-15	443	12.0	45.2
						SB75-W3	F-04-06	434	12.0	44.9
						SB75-W3	F-04-16	444	12.0	43.6
						SB75-W3	F-04-08	436	12.0	43.5
F18201	201	65.9	4.2	7	-2.8	SB75-W3	F-04-02	430	12.0	48.3
						SB75-W3	F-04-04	432	12.0	46.1
						SB75-W3	F-04-03	431	12.0	46.0
						SB75-W3	F-04-05	433	12.0	45.8
						SB75-W3	F-04-07	435	12.0	45.7
						SB75-W3	F-05-23	470	16.0	45.2
						SB75-W3	F-04-15	443	12.0	44.6
						SB75-W3	F-04-06	434	12.0	44.4
						SB75-W3	F-04-16	444	12.0	43.5
						SB75-W3	F-04-08	436	12.0	43.3
F18301	202	65.5	4.2	7	-2.8	SB75-W3	F-04-02	430	12.0	47.8
						SB75-W3	F-04-04	432	12.0	45.6
						SB75-W3	F-04-03	431	12.0	45.5
						SB75-W3	F-04-05	433	12.0	45.2
						SB75-W3	F-04-07	435	12.0	45.2
						SB75-W3	F-05-23	470	16.0	45.0
						SB75-W3	F-04-15	443	12.0	44.3
						SB75-W3	F-04-06	434	12.0	44.0
						SB75-W3	F-04-08	436	12.0	43.6
						SB75-W3	F-04-13	441	12.0	43.6
F18405	203	64.5	4.3	7	-2.7	SB75-W3	F-04-02	430	12.0	46.8
						SB75-W3	F-04-04	432	12.0	44.7
						SB75-W3	F-04-03	431	12.0	44.5
						SB75-W3	F-05-23	470	16.0	44.5
						SB75-W3	F-04-05	433	12.0	44.4
						SB75-W3	F-04-15	443	12.0	44.3
						SB75-W3	F-04-07	435	12.0	44.2
						SB75-W3	F-04-06	434	12.0	43.7
						SB75-W3	F-04-08	436	12.0	43.6

						SB75-W3	F-04-10	438	12.0	43.2
F18501	204	64.0	4.7	7	-2.3	SB75-W3	F-04-02	430	12.0	45.0
						SB75-W3	F-04-03	431	12.0	44.9
						SB75-W3	F-05-23	470	16.0	44.9
						SB75-W3	F-04-04	432	12.0	44.5
						SB75-W3	F-04-01	428	12.0	44.0
						SB75-W3	F-04-05	433	12.0	43.8
						SB75-W3	F-04-07	435	12.0	43.7
						SB75-W3	F-04-15	443	12.0	42.7
						SB75-W3	F-04-13	441	12.0	42.0
						SB75-W3	F-04-14	442	12.0	41.7
F18601	205	64.4	4.6	7	-2.4	SB75-W3	F-04-02	430	12.0	45.5
						SB75-W3	F-04-03	431	12.0	45.4
						SB75-W3	F-05-23	470	16.0	45.1
						SB75-W3	F-04-04	432	12.0	44.8
						SB75-W3	F-04-01	428	12.0	44.3
						SB75-W3	F-04-05	433	12.0	44.2
						SB75-W3	F-04-07	435	12.0	44.1
						SB75-W3	F-04-15	443	12.0	43.3
						SB75-W3	F-04-13	441	12.0	42.3
						SB75-W3	F-04-14	442	12.0	41.9
F18701	206	65.0	4.6	7	-2.4	SB75-W3	F-04-03	431	12.0	45.9
						SB75-W3	F-04-02	430	12.0	45.5
						SB75-W3	F-04-04	432	12.0	45.3
						SB75-W3	F-05-23	470	16.0	45.3
						SB75-W3	F-04-05	433	12.0	44.8
						SB75-W3	F-04-07	435	12.0	44.6
						SB75-W3	F-04-01	428	12.0	44.3
						SB75-W3	F-04-15	443	12.0	44.0
						SB75-W3	F-04-13	441	12.0	42.9
						SB75-W3	F-04-14	442	12.0	42.3
F31301	207	64.7	4.6	7	-2.4	SB75-W3	F-04-02	430	12.0	45.7
						SB75-W3	F-04-03	431	12.0	45.5
						SB75-W3	F-05-23	470	16.0	45.1
						SB75-W3	F-04-04	432	12.0	45.0
						SB75-W3	F-04-05	433	12.0	44.5

						SB75-W3	F-04-07	435	12.0	44.4
						SB75-W3	F-04-01	428	12.0	44.1
						SB75-W3	F-04-15	443	12.0	43.7
						SB75-W3	F-04-13	441	12.0	42.6
						SB75-W3	F-04-14	442	12.0	42.1
F18801	208	65.4	4.5	7	-2.5	SB75-W3	F-04-03	431	12.0	46.3
						SB75-W3	F-04-04	432	12.0	45.8
						SB75-W3	F-04-02	430	12.0	45.7
						SB75-W3	F-05-23	470	16.0	45.6
						SB75-W3	F-04-05	433	12.0	45.2
						SB75-W3	F-04-07	435	12.0	45.0
						SB75-W3	F-04-01	428	12.0	44.5
						SB75-W3	F-04-15	443	12.0	43.8
						SB75-W3	F-04-13	441	12.0	42.4
						SB75-W3	F-04-16	444	12.0	42.2
F18901	209	65.7	4.4	7	-2.6	SB75-W3	F-04-02	430	12.0	46.9
						SB75-W3	F-04-03	431	12.0	46.8
						SB75-W3	F-04-04	432	12.0	46.1
						SB75-W3	F-05-23	470	16.0	45.4
						SB75-W3	F-04-05	433	12.0	45.4
						SB75-W3	F-04-07	435	12.0	45.4
						SB75-W3	F-04-01	428	12.0	44.7
						SB75-W3	F-04-15	443	12.0	43.8
						SB75-W3	F-05-21	468	20.0	42.3
						SB75-W3	F-05-22	469	20.0	42.3
F19001	210	66.0	4.3	7	-2.7	SB75-W3	F-04-03	431	12.0	46.9
						SB75-W3	F-04-02	430	12.0	46.7
						SB75-W3	F-04-04	432	12.0	46.1
						SB75-W3	F-05-23	470	16.0	45.5
						SB75-W3	F-04-07	435	12.0	45.1
						SB75-W3	F-04-01	428	12.0	45.0
						SB75-W3	F-04-05	433	12.0	44.9
						SB75-W3	F-04-15	443	12.0	43.5
						SB75-W3	F-04-16	444	12.0	43.3
						SB75-W3	F-05-21	468	20.0	42.5
F19101	211	66.3	4.3	7	-2.7	SB75-W3	F-04-02	430	12.0	48.1

						SB75-W3	F-04-03	431	12.0	47.1
						SB75-W3	F-04-04	432	12.0	45.7
						SB75-W3	F-05-23	470	16.0	45.5
						SB75-W3	F-04-05	433	12.0	44.6
						SB75-W3	F-04-01	428	12.0	44.6
						SB75-W3	F-04-07	435	12.0	44.5
						SB75-W3	F-04-16	444	12.0	43.2
						SB75-W3	F-04-15	443	12.0	42.8
						SB75-W3	F-05-22	469	20.0	42.7
F19201	212	66.8	4.0	7	-3.0	SB75-W3	F-04-02	430	12.0	46.7
						SB75-W3	F-04-03	431	12.0	46.4
						SB75-W3	F-05-23	470	16.0	45.8
						SB75-W3	F-04-04	432	12.0	45.7
						SB75-W3	F-04-05	433	12.0	44.8
						SB75-W3	F-04-07	435	12.0	44.6
						SB75-W3	F-04-01	428	12.0	44.5
						SB75-W3	F-05-22	469	20.0	43.0
						SB75-W3	F-05-21	468	20.0	42.9
						SB75-W3	F-05-19	466	20.0	42.6
F19301	213	67.2	3.9	7	-3.1	SB75-W3	F-04-02	430	12.0	47.5
						SB75-W3	F-04-03	431	12.0	47.0
						SB75-W3	F-05-23	470	16.0	46.1
						SB75-W3	F-04-04	432	12.0	46.0
						SB75-W3	F-04-05	433	12.0	45.0
						SB75-W3	F-04-01	428	12.0	44.8
						SB75-W3	F-04-07	435	12.0	44.8
						SB75-W3	F-05-22	469	20.0	43.4
						SB75-W3	F-05-21	468	20.0	43.2
						SB75-W3	F-03-13	427	16.0	43.2
F19401	214	67.6	3.8	7	-3.2	SB75-W3	F-04-02	430	12.0	50.1
						SB75-W3	F-04-03	431	12.0	47.0
						SB75-W3	F-04-04	432	12.0	46.4
						SB75-W3	F-05-23	470	16.0	46.2
						SB75-W3	F-04-05	433	12.0	45.5
						SB75-W3	F-04-07	435	12.0	44.8
						SB75-W3	F-04-01	428	12.0	44.5

						SB75-W3	F-05-22	469	20.0	43.6
						SB75-W3	F-05-21	468	20.0	43.4
						SB75-W3	F-04-16	444	12.0	43.2
F19501	215	68.1	3.5	7	-3.5	SB75-W3	F-04-02	430	12.0	51.2
						SB75-W3	F-04-03	431	12.0	47.2
						SB75-W3	F-04-04	432	12.0	46.7
						SB75-W3	F-05-23	470	16.0	46.3
						SB75-W3	F-04-05	433	12.0	45.9
						SB75-W3	F-04-07	435	12.0	45.6
						SB75-W3	F-04-01	428	12.0	44.5
						SB75-W3	F-05-22	469	20.0	43.9
						SB75-W3	F-05-21	468	20.0	43.5
						SB75-W3	F-04-16	444	12.0	43.2
F19601	216	68.5	3.4	7	-3.6	SB75-W3	F-04-02	430	12.0	51.9
						SB75-W3	F-04-03	431	12.0	47.8
						SB75-W3	F-04-04	432	12.0	47.1
						SB75-W3	F-05-23	470	16.0	46.6
						SB75-W3	F-04-05	433	12.0	46.1
						SB75-W3	F-04-07	435	12.0	45.5
						SB75-W3	F-04-01	428	12.0	44.9
						SB75-W3	F-05-22	469	20.0	44.3
						SB75-W3	F-05-21	468	20.0	43.8
						SB75-W3	F-05-20	467	20.0	43.3
F19701	217	68.9	3.2	7	-3.8	SB75-W3	F-04-02	430	12.0	52.0
						SB75-W3	F-04-03	431	12.0	48.4
						SB75-W3	F-04-04	432	12.0	47.4
						SB75-W3	F-05-23	470	16.0	46.7
						SB75-W3	F-04-05	433	12.0	46.5
						SB75-W3	F-04-07	435	12.0	45.9
						SB75-W3	F-04-01	428	12.0	45.1
						SB75-W3	F-05-22	469	20.0	44.3
						SB75-W3	F-05-21	468	20.0	43.9
						SB75-W3	F-05-20	467	20.0	43.4
F19801	218	69.3	3.0	7	-4.0	SB75-W3	F-04-02	430	12.0	51.3
						SB75-W3	F-04-03	431	12.0	49.5
						SB75-W3	F-04-04	432	12.0	47.8

						SB75-W3	F-04-05	433	12.0	46.9
						SB75-W3	F-05-23	470	16.0	46.9
						SB75-W3	F-04-07	435	12.0	46.0
						SB75-W3	F-04-01	428	12.0	45.4
						SB75-W3	F-05-22	469	20.0	44.6
						SB75-W3	F-05-21	468	20.0	44.2
						SB75-W3	F-05-20	467	20.0	43.6
F19901	219	69.9	2.9	7	-4.1	SB75-W3	F-04-02	430	12.0	52.1
						SB75-W3	F-04-03	431	12.0	51.9
						SB75-W3	F-04-04	432	12.0	48.6
						SB75-W3	F-04-05	433	12.0	47.7
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-07	435	12.0	46.5
						SB75-W3	F-04-01	428	12.0	46.0
						SB75-W3	F-05-22	469	20.0	44.9
						SB75-W3	F-05-21	468	20.0	44.3
						SB75-W3	F-04-06	434	12.0	43.9
F20001	220	70.3	2.7	7	-4.3	SB75-W3	F-04-03	431	12.0	52.5
						SB75-W3	F-04-02	430	12.0	52.3
						SB75-W3	F-04-04	432	12.0	49.1
						SB75-W3	F-04-05	433	12.0	48.1
						SB75-W3	F-05-23	470	16.0	47.5
						SB75-W3	F-04-07	435	12.0	46.4
						SB75-W3	F-04-01	428	12.0	46.3
						SB75-W3	F-05-22	469	20.0	45.0
						SB75-W3	F-05-21	468	20.0	44.4
						SB75-W3	F-04-16	444	12.0	43.9
F20101	221	69.4	3.3	7	-3.7	SB75-W3	F-04-02	430	12.0	53.8
						SB75-W3	F-04-03	431	12.0	50.8
						SB75-W3	F-04-04	432	12.0	49.3
						SB75-W3	F-05-23	470	16.0	48.6
						SB75-W3	F-04-01	428	12.0	48.1
						SB75-W3	F-05-22	469	20.0	46.4
						SB75-W3	F-04-05	433	12.0	46.1
						SB75-W3	F-05-21	468	20.0	45.6
						SB75-W3	F-05-20	467	20.0	44.8

						SB75-W3	F-05-19	466	20.0	44.1
F20201	222	70.2	2.6	7	-4.4	SB75-W3	F-04-02	430	12.0	55.6
						SB75-W3	F-04-03	431	12.0	52.5
						SB75-W3	F-04-04	432	12.0	50.9
						SB75-W3	F-04-05	433	12.0	49.7
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-04-01	428	12.0	46.4
						SB75-W3	F-04-07	435	12.0	46.4
						SB75-W3	F-05-22	469	20.0	44.8
						SB75-W3	F-04-06	434	12.0	44.7
						SB75-W3	F-05-21	468	20.0	44.1
F20301-F	223	71.0	2.1	7	-4.9	SB75-W3	F-04-02	430	12.0	54.6
						SB75-W3	F-04-03	431	12.0	53.5
						SB75-W3	F-04-04	432	12.0	52.1
						SB75-W3	F-04-05	433	12.0	50.5
						SB75-W3	F-05-23	470	16.0	47.7
						SB75-W3	F-04-07	435	12.0	46.5
						SB75-W3	F-04-01	428	12.0	46.0
						SB75-W3	F-04-06	434	12.0	44.8
						SB75-W3	F-05-22	469	20.0	44.8
						SB75-W3	F-05-21	468	20.0	43.9
F20402	224	63.2	4.8	7	-2.2	SB75-W3	F-05-23	470	16.0	44.6
						SB75-W3	F-04-01	428	12.0	44.4
						SB75-W3	F-04-03	431	12.0	44.2
						SB75-W3	F-04-02	430	12.0	44.1
						SB75-W3	F-04-04	432	12.0	43.5
						SB75-W3	F-04-05	433	12.0	42.9
						SB75-W3	F-04-07	435	12.0	42.8
						SB75-W3	F-04-15	443	12.0	41.5
						SB75-W3	F-05-15	462	20.0	41.5
						SB75-W3	F-05-16	463	20.0	41.4
F20501	225	63.1	4.8	7	-2.2	SB75-W3	F-05-23	470	16.0	44.5
						SB75-W3	F-04-01	428	12.0	44.3
						SB75-W3	F-04-03	431	12.0	44.1
						SB75-W3	F-04-02	430	12.0	44.0
						SB75-W3	F-04-04	432	12.0	43.4

						SB75-W3	F-04-05	433	12.0	42.7
						SB75-W3	F-04-07	435	12.0	42.7
						SB75-W3	F-04-15	443	12.0	41.4
						SB75-W3	F-05-15	462	20.0	41.3
						SB75-W3	F-05-16	463	20.0	41.3
F20601	226	62.9	4.8	7	-2.2	SB75-W3	F-05-23	470	16.0	44.3
						SB75-W3	F-04-03	431	12.0	44.0
						SB75-W3	F-04-02	430	12.0	43.7
						SB75-W3	F-04-01	428	12.0	43.7
						SB75-W3	F-04-04	432	12.0	43.3
						SB75-W3	F-04-05	433	12.0	42.7
						SB75-W3	F-04-07	435	12.0	42.7
						SB75-W3	F-04-15	443	12.0	41.2
						SB75-W3	F-04-13	441	12.0	41.1
						SB75-W3	F-05-19	466	20.0	41.0
F20701	227	62.8	4.8	7	-2.2	SB75-W3	F-05-23	470	16.0	44.1
						SB75-W3	F-04-03	431	12.0	43.9
						SB75-W3	F-04-02	430	12.0	43.7
						SB75-W3	F-04-01	428	12.0	43.3
						SB75-W3	F-04-04	432	12.0	43.2
						SB75-W3	F-04-05	433	12.0	42.6
						SB75-W3	F-04-07	435	12.0	42.6
						SB75-W3	F-04-13	441	12.0	41.1
						SB75-W3	F-05-18	465	20.0	41.0
						SB75-W3	F-05-19	466	20.0	41.0
F20802	228	62.5	4.7	7	-2.3	SB75-W3	F-05-23	470	16.0	43.6
						SB75-W3	F-04-03	431	12.0	43.4
						SB75-W3	F-04-02	430	12.0	43.2
						SB75-W3	F-04-04	432	12.0	42.9
						SB75-W3	F-04-01	428	12.0	42.3
						SB75-W3	F-04-05	433	12.0	42.3
						SB75-W3	F-04-07	435	12.0	42.3
						SB75-W3	F-04-15	443	12.0	42.0
						SB75-W3	F-04-10	438	12.0	40.8
						SB75-W3	F-04-13	441	12.0	40.8
F20904	229	62.3	4.6	7	-2.4	SB75-W3	F-05-23	470	16.0	43.3

						SB75-W3	F-04-03	431	12.0	42.9
						SB75-W3	F-04-04	432	12.0	42.6
						SB75-W3	F-04-02	430	12.0	42.6
						SB75-W3	F-04-05	433	12.0	42.1
						SB75-W3	F-04-07	435	12.0	42.0
						SB75-W3	F-04-15	443	12.0	41.6
						SB75-W3	F-04-01	428	12.0	41.4
						SB75-W3	F-04-10	438	12.0	41.1
						SB75-W3	F-04-08	436	12.0	41.1
F21001	230	62.7	4.5	7	-2.5	SB75-W3	F-05-23	470	16.0	43.4
						SB75-W3	F-04-03	431	12.0	42.8
						SB75-W3	F-04-04	432	12.0	42.7
						SB75-W3	F-04-02	430	12.0	42.4
						SB75-W3	F-04-05	433	12.0	42.3
						SB75-W3	F-04-07	435	12.0	42.2
						SB75-W3	F-04-10	438	12.0	41.8
						SB75-W3	F-04-08	436	12.0	41.8
						SB75-W3	F-04-06	434	12.0	41.6
						SB75-W3	F-04-13	441	12.0	41.3
F21106	231	63.6	4.1	7	-2.9	SB75-W3	F-04-15	443	12.0	43.9
						SB75-W3	F-04-03	431	12.0	43.2
						SB75-W3	F-04-16	444	12.0	43.2
						SB75-W3	F-05-23	470	16.0	43.0
						SB75-W3	F-04-04	432	12.0	42.9
						SB75-W3	F-04-05	433	12.0	42.7
						SB75-W3	F-04-07	435	12.0	42.6
						SB75-W3	F-04-10	438	12.0	42.6
						SB75-W3	F-04-02	430	12.0	42.6
						SB75-W3	F-04-08	436	12.0	42.5
F21205	232	63.0	4.4	7	-2.6	SB75-W3	F-04-16	444	12.0	44.1
						SB75-W3	F-04-15	443	12.0	43.4
						SB75-W3	F-04-03	431	12.0	43.0
						SB75-W3	F-05-23	470	16.0	42.9
						SB75-W3	F-04-02	430	12.0	42.6
						SB75-W3	F-04-04	432	12.0	42.5
						SB75-W3	F-04-05	433	12.0	42.3

						SB75-W3	F-04-10	438	12.0	42.1
						SB75-W3	F-04-07	435	12.0	42.0
						SB75-W3	F-04-08	436	12.0	42.0
F21301	233	63.4	4.5	7	-2.5	SB75-W3	F-04-01	428	12.0	46.8
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-04-03	431	12.0	45.1
						SB75-W3	F-05-09	456	20.0	44.8
						SB75-W3	F-05-08	455	20.0	44.7
						SB75-W3	F-04-02	430	12.0	44.7
						SB75-W3	F-05-10	457	20.0	44.3
						SB75-W3	F-04-04	432	12.0	44.2
						SB75-W3	F-05-07	454	20.0	43.8
						SB75-W3	F-05-11	458	20.0	43.8
F21401	234	63.4	4.9	7	-2.1	SB75-W3	F-04-01	428	12.0	45.9
						SB75-W3	F-05-23	470	16.0	45.7
						SB75-W3	F-05-08	455	20.0	44.0
						SB75-W3	F-05-09	456	20.0	43.9
						SB75-W3	F-04-04	432	12.0	43.6
						SB75-W3	F-04-03	431	12.0	43.3
						SB75-W3	F-05-15	462	20.0	43.3
						SB75-W3	F-05-07	454	20.0	43.1
						SB75-W3	F-05-14	461	20.0	43.0
						SB75-W3	F-04-02	430	12.0	43.0
F21501	235	63.5	4.9	7	-2.1	SB75-W3	F-05-23	470	16.0	45.4
						SB75-W3	F-04-01	428	12.0	45.0
						SB75-W3	F-04-04	432	12.0	43.6
						SB75-W3	F-05-08	455	20.0	43.4
						SB75-W3	F-04-03	431	12.0	43.3
						SB75-W3	F-05-09	456	20.0	43.2
						SB75-W3	F-05-15	462	20.0	43.0
						SB75-W3	F-04-02	430	12.0	42.7
						SB75-W3	F-05-21	468	20.0	42.7
						SB75-W3	F-05-16	463	20.0	42.5
F21601	236	63.4	5.1	7	-1.9	SB75-W3	F-05-23	470	16.0	45.3
						SB75-W3	F-04-01	428	12.0	45.0
						SB75-W3	F-04-04	432	12.0	43.6

						SB75-W3	F-04-03	431	12.0	43.3
						SB75-W3	F-05-08	455	20.0	43.0
						SB75-W3	F-05-15	462	20.0	42.8
						SB75-W3	F-04-02	430	12.0	42.7
						SB75-W3	F-05-09	456	20.0	42.6
						SB75-W3	F-05-14	461	20.0	42.6
						SB75-W3	F-05-16	463	20.0	42.5
F21701	237	63.6	5.1	7	-1.9	SB75-W3	F-05-23	470	16.0	45.4
						SB75-W3	F-04-01	428	12.0	45.1
						SB75-W3	F-04-04	432	12.0	43.7
						SB75-W3	F-04-03	431	12.0	43.4
						SB75-W3	F-04-02	430	12.0	43.2
						SB75-W3	F-05-15	462	20.0	42.8
						SB75-W3	F-05-08	455	20.0	42.6
						SB75-W3	F-05-14	461	20.0	42.6
						SB75-W3	F-05-16	463	20.0	42.6
						SB75-W3	F-05-18	465	20.0	42.5
F21804	238	64.9	4.7	7	-2.3	SB75-W3	F-04-01	428	12.0	45.9
						SB75-W3	F-05-23	470	16.0	45.8
						SB75-W3	F-04-04	432	12.0	44.5
						SB75-W3	F-04-03	431	12.0	44.3
						SB75-W3	F-04-02	430	12.0	43.6
						SB75-W3	F-05-15	462	20.0	43.1
						SB75-W3	F-05-16	463	20.0	43.0
						SB75-W3	F-05-14	461	20.0	42.9
						SB75-W3	F-05-17	464	20.0	42.8
						SB75-W3	F-05-18	465	20.0	42.7
F21902	239	65.2	5.1	7	-1.9	SB75-W3	F-05-23	470	16.0	46.8
						SB75-W3	F-04-01	428	12.0	46.5
						SB75-W3	F-04-03	431	12.0	46.1
						SB75-W3	F-04-02	430	12.0	45.1
						SB75-W3	F-04-04	432	12.0	44.8
						SB75-W3	F-05-14	461	20.0	43.9
						SB75-W3	F-05-16	463	20.0	43.9
						SB75-W3	F-05-15	462	20.0	43.6
						SB75-W3	F-05-18	465	20.0	43.6

						SB75-W3	F-05-13	460	20.0	43.5
F22001	240	65.4	5.1	7	-1.9	SB75-W3	F-04-01	428	12.0	46.7
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-04-03	431	12.0	46.5
						SB75-W3	F-04-02	430	12.0	45.8
						SB75-W3	F-04-04	432	12.0	45.0
						SB75-W3	F-05-15	462	20.0	44.1
						SB75-W3	F-05-16	463	20.0	43.8
						SB75-W3	F-05-18	465	20.0	43.7
						SB75-W3	F-05-14	461	20.0	43.7
						SB75-W3	F-05-17	464	20.0	43.6
F22101	241	65.7	5.1	7	-1.9	SB75-W3	F-04-01	428	12.0	47.0
						SB75-W3	F-04-03	431	12.0	46.7
						SB75-W3	F-05-23	470	16.0	46.6
						SB75-W3	F-04-02	430	12.0	46.0
						SB75-W3	F-04-04	432	12.0	45.2
						SB75-W3	F-05-15	462	20.0	44.0
						SB75-W3	F-05-14	461	20.0	43.9
						SB75-W3	F-05-16	463	20.0	43.8
						SB75-W3	F-05-18	465	20.0	43.8
						SB75-W3	F-05-19	466	20.0	43.7
F22201	242	66.0	5.0	7	-2.0	SB75-W3	F-04-01	428	12.0	47.5
						SB75-W3	F-04-03	431	12.0	47.1
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-04-02	430	12.0	46.1
						SB75-W3	F-04-04	432	12.0	45.6
						SB75-W3	F-05-15	462	20.0	43.9
						SB75-W3	F-05-18	465	20.0	43.9
						SB75-W3	F-05-19	466	20.0	43.8
						SB75-W3	F-05-16	463	20.0	43.8
						SB75-W3	F-05-22	469	20.0	43.8
F22302	243	66.3	5.3	7	-1.7	SB75-W3	F-04-01	428	12.0	47.6
						SB75-W3	F-04-02	430	12.0	47.4
						SB75-W3	F-04-03	431	12.0	47.1
						SB75-W3	F-05-23	470	16.0	46.7
						SB75-W3	F-05-19	466	20.0	44.4

						SB75-W3	F-05-18	465	20.0	44.4
						SB75-W3	F-05-22	469	20.0	44.4
						SB75-W3	F-05-15	462	20.0	44.3
						SB75-W3	F-05-21	468	20.0	44.3
						SB75-W3	F-05-16	463	20.0	44.3
F22408	244	67.1	5.2	7	-1.8	SB75-W3	F-04-03	431	12.0	48.5
						SB75-W3	F-04-02	430	12.0	47.9
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-04-01	428	12.0	47.5
						SB75-W3	F-05-22	469	20.0	45.3
						SB75-W3	F-05-21	468	20.0	45.2
						SB75-W3	F-05-19	466	20.0	45.1
						SB75-W3	F-05-18	465	20.0	45.0
						SB75-W3	F-05-20	467	20.0	45.0
						SB75-W3	F-04-04	432	12.0	44.8
F22501	245	67.3	5.4	7	-1.6	SB75-W3	F-04-02	430	12.0	50.0
						SB75-W3	F-04-03	431	12.0	48.8
						SB75-W3	F-05-23	470	16.0	48.1
						SB75-W3	F-04-01	428	12.0	48.0
						SB75-W3	F-05-22	469	20.0	46.0
						SB75-W3	F-05-21	468	20.0	45.9
						SB75-W3	F-05-19	466	20.0	45.7
						SB75-W3	F-05-20	467	20.0	45.6
						SB75-W3	F-05-18	465	20.0	45.6
						SB75-W3	F-05-17	464	20.0	45.2
F22601	246	68.0	5.3	7	-1.7	SB75-W3	F-04-02	430	12.0	51.6
						SB75-W3	F-04-03	431	12.0	50.2
						SB75-W3	F-05-23	470	16.0	49.1
						SB75-W3	F-04-01	428	12.0	48.8
						SB75-W3	F-05-22	469	20.0	46.9
						SB75-W3	F-05-21	468	20.0	46.7
						SB75-W3	F-05-20	467	20.0	46.4
						SB75-W3	F-05-19	466	20.0	46.4
						SB75-W3	F-05-18	465	20.0	46.2
						SB75-W3	F-05-17	464	20.0	45.7
F22701	247	68.4	5.2	7	-1.8	SB75-W3	F-04-02	430	12.0	52.5

						SB75-W3	F-04-03	431	12.0	50.9
						SB75-W3	F-05-23	470	16.0	49.7
						SB75-W3	F-04-01	428	12.0	49.1
						SB75-W3	F-05-22	469	20.0	47.6
						SB75-W3	F-05-21	468	20.0	47.5
						SB75-W3	F-05-20	467	20.0	47.1
						SB75-W3	F-05-19	466	20.0	47.0
						SB75-W3	F-05-18	465	20.0	46.6
						SB75-W3	F-05-17	464	20.0	45.7
F22801-F	248	68.6	5.3	7	-1.7	SB75-W3	F-04-02	430	12.0	52.5
						SB75-W3	F-05-23	470	16.0	50.3
						SB75-W3	F-04-01	428	12.0	49.7
						SB75-W3	F-05-22	469	20.0	48.5
						SB75-W3	F-05-21	468	20.0	48.4
						SB75-W3	F-04-03	431	12.0	47.7
						SB75-W3	F-05-20	467	20.0	47.7
						SB75-W3	F-05-19	466	20.0	47.4
						SB75-W3	F-05-18	465	20.0	46.8
						SB75-W3	F-05-17	464	20.0	45.9
F22901-F	249	68.1	6.9	7	-0.1	SB75-W3	F-05-23	470	16.0	50.0
						SB75-W3	F-05-19	466	20.0	49.5
						SB75-W3	F-04-02	430	12.0	49.3
						SB75-W3	F-05-20	467	20.0	49.2
						SB75-W3	F-05-18	465	20.0	49.1
						SB75-W3	F-05-21	468	20.0	49.1
						SB75-W3	F-04-01	428	12.0	48.8
						SB75-W3	F-05-17	464	20.0	48.6
						SB75-W3	F-05-22	469	20.0	48.6
						SB75-W3	F-05-16	463	20.0	48.1
F23001	250	67.5	7.1	7	0.1	SB75-W3	F-05-23	470	16.0	49.5
						SB75-W3	F-05-18	465	20.0	48.8
						SB75-W3	F-05-19	466	20.0	48.8
						SB75-W3	F-04-02	430	12.0	48.7
						SB75-W3	F-04-01	428	12.0	48.5
						SB75-W3	F-05-17	464	20.0	48.4
						SB75-W3	F-05-20	467	20.0	48.4

						SB75-W3	F-05-21	468	20.0	48.2
						SB75-W3	F-05-16	463	20.0	48.2
						SB75-W3	F-05-15	462	20.0	47.9
F23101	251	67.2	6.9	7	-0.1	SB75-W3	F-04-02	430	12.0	50.9
						SB75-W3	F-05-23	470	16.0	49.8
						SB75-W3	F-04-01	428	12.0	49.2
						SB75-W3	F-05-18	465	20.0	48.1
						SB75-W3	F-05-19	466	20.0	48.0
						SB75-W3	F-05-16	463	20.0	48.0
						SB75-W3	F-05-17	464	20.0	47.9
						SB75-W3	F-05-15	462	20.0	47.8
						SB75-W3	F-05-01	447	16.0	47.6
						SB75-W3	F-05-14	461	20.0	47.5
F23201	252	67.0	6.4	7	-0.6	SB75-W3	F-05-23	470	16.0	49.7
						SB75-W3	F-04-01	428	12.0	49.5
						SB75-W3	F-04-02	430	12.0	49.4
						SB75-W3	F-04-03	431	12.0	47.8
						SB75-W3	F-05-18	465	20.0	47.1
						SB75-W3	F-05-19	466	20.0	47.1
						SB75-W3	F-05-21	468	20.0	47.0
						SB75-W3	F-05-15	462	20.0	46.9
						SB75-W3	F-05-22	469	20.0	46.9
						SB75-W3	F-05-17	464	20.0	46.8
F23301	253	66.8	6.3	7	-0.7	SB75-W3	F-04-02	430	12.0	49.9
						SB75-W3	F-05-23	470	16.0	49.5
						SB75-W3	F-04-01	428	12.0	49.1
						SB75-W3	F-04-03	431	12.0	47.8
						SB75-W3	F-05-15	462	20.0	46.8
						SB75-W3	F-05-18	465	20.0	46.8
						SB75-W3	F-05-19	466	20.0	46.7
						SB75-W3	F-05-14	461	20.0	46.6
						SB75-W3	F-05-16	463	20.0	46.6
						SB75-W3	F-05-21	468	20.0	46.5
F23401	254	66.5	6.2	7	-0.8	SB75-W3	F-04-02	430	12.0	49.7
						SB75-W3	F-05-23	470	16.0	49.3
						SB75-W3	F-04-01	428	12.0	49.0

						SB75-W3	F-04-03	431	12.0	47.4
						SB75-W3	F-05-15	462	20.0	46.9
						SB75-W3	F-05-16	463	20.0	46.7
						SB75-W3	F-05-14	461	20.0	46.6
						SB75-W3	F-05-18	465	20.0	46.4
						SB75-W3	F-05-17	464	20.0	46.3
						SB75-W3	F-05-19	466	20.0	46.3
F23501	255	66.3	6.2	7	-0.8	SB75-W3	F-04-02	430	12.0	49.4
						SB75-W3	F-05-23	470	16.0	49.2
						SB75-W3	F-04-01	428	12.0	48.9
						SB75-W3	F-04-03	431	12.0	47.3
						SB75-W3	F-05-15	462	20.0	46.8
						SB75-W3	F-05-16	463	20.0	46.7
						SB75-W3	F-05-14	461	20.0	46.6
						SB75-W3	F-05-18	465	20.0	46.3
						SB75-W3	F-05-17	464	20.0	46.3
						SB75-W3	F-05-13	460	20.0	46.1
F23601	256	66.1	6.0	7	-1.0	SB75-W3	F-04-02	430	12.0	49.0
						SB75-W3	F-05-23	470	16.0	48.8
						SB75-W3	F-04-01	428	12.0	48.5
						SB75-W3	F-04-03	431	12.0	48.3
						SB75-W3	F-05-15	462	20.0	46.3
						SB75-W3	F-05-16	463	20.0	46.2
						SB75-W3	F-05-14	461	20.0	46.1
						SB75-W3	F-05-17	464	20.0	45.8
						SB75-W3	F-05-18	465	20.0	45.7
						SB75-W3	F-05-13	460	20.0	45.7
F23701	257	66.0	5.9	7	-1.1	SB75-W3	F-04-02	430	12.0	48.6
						SB75-W3	F-05-23	470	16.0	48.6
						SB75-W3	F-04-01	428	12.0	48.3
						SB75-W3	F-04-03	431	12.0	48.1
						SB75-W3	F-05-15	462	20.0	46.4
						SB75-W3	F-05-16	463	20.0	46.2
						SB75-W3	F-05-14	461	20.0	46.1
						SB75-W3	F-05-18	465	20.0	46.0
						SB75-W3	F-05-17	464	20.0	45.9

						SB75-W3	F-05-08	455	20.0	45.8
F23801	258	65.9	5.6	7	-1.4	SB75-W3	F-05-23	470	16.0	48.4
						SB75-W3	F-04-02	430	12.0	48.2
						SB75-W3	F-04-01	428	12.0	48.1
						SB75-W3	F-04-03	431	12.0	47.9
						SB75-W3	F-05-15	462	20.0	46.2
						SB75-W3	F-05-14	461	20.0	46.0
						SB75-W3	F-05-08	455	20.0	46.0
						SB75-W3	F-05-16	463	20.0	46.0
						SB75-W3	F-03-13	427	16.0	45.9
						SB75-W3	F-05-09	456	20.0	45.8
F23901	259	65.6	5.6	7	-1.4	SB75-W3	F-05-23	470	16.0	48.1
						SB75-W3	F-04-01	428	12.0	47.8
						SB75-W3	F-04-03	431	12.0	47.4
						SB75-W3	F-04-02	430	12.0	47.1
						SB75-W3	F-05-09	456	20.0	46.1
						SB75-W3	F-05-15	462	20.0	46.1
						SB75-W3	F-05-08	455	20.0	46.0
						SB75-W3	F-05-14	461	20.0	45.9
						SB75-W3	F-05-16	463	20.0	45.8
						SB75-W3	F-05-10	457	20.0	45.5
F24001	260	65.2	5.6	7	-1.4	SB75-W3	F-05-23	470	16.0	47.7
						SB75-W3	F-04-01	428	12.0	47.3
						SB75-W3	F-04-03	431	12.0	47.0
						SB75-W3	F-04-02	430	12.0	46.7
						SB75-W3	F-05-08	455	20.0	45.7
						SB75-W3	F-05-15	462	20.0	45.6
						SB75-W3	F-05-14	461	20.0	45.4
						SB75-W3	F-05-09	456	20.0	45.4
						SB75-W3	F-05-16	463	20.0	45.3
						SB75-W3	F-05-10	457	20.0	45.1
F24102	261	64.9	5.8	7	-1.2	SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-02	430	12.0	46.9
						SB75-W3	F-04-01	428	12.0	46.8
						SB75-W3	F-04-03	431	12.0	46.6
						SB75-W3	F-05-08	455	20.0	46.1

						SB75-W3	F-05-09	456	20.0	46.0
						SB75-W3	F-05-15	462	20.0	45.8
						SB75-W3	F-05-14	461	20.0	45.5
						SB75-W3	F-05-16	463	20.0	45.3
						SB75-W3	F-05-10	457	20.0	45.3
F24204	262	63.8	4.9	7	-2.1	SB75-W3	F-04-01	428	12.0	46.7
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-05-08	455	20.0	45.4
						SB75-W3	F-04-03	431	12.0	45.0
						SB75-W3	F-05-09	456	20.0	44.9
						SB75-W3	F-04-02	430	12.0	44.8
						SB75-W3	F-05-07	454	20.0	44.4
						SB75-W3	F-05-10	457	20.0	44.3
						SB75-W3	F-05-15	462	20.0	44.0
						SB75-W3	F-04-04	432	12.0	43.8
F24301	263	63.4	4.3	7	-2.7	SB75-W3	F-05-23	470	16.0	47.1
						SB75-W3	F-04-01	428	12.0	46.9
						SB75-W3	F-04-03	431	12.0	45.3
						SB75-W3	F-05-09	456	20.0	45.2
						SB75-W3	F-05-08	455	20.0	45.2
						SB75-W3	F-04-04	432	12.0	44.9
						SB75-W3	F-05-15	462	20.0	44.9
						SB75-W3	F-05-10	457	20.0	44.9
						SB75-W3	F-05-07	454	20.0	44.7
						SB75-W3	F-05-11	458	20.0	44.5
F24401	264	63.4	4.3	7	-2.7	SB75-W3	F-05-23	470	16.0	47.2
						SB75-W3	F-04-01	428	12.0	46.8
						SB75-W3	F-04-03	431	12.0	45.6
						SB75-W3	F-05-08	455	20.0	45.5
						SB75-W3	F-05-09	456	20.0	45.4
						SB75-W3	F-05-10	457	20.0	45.2
						SB75-W3	F-05-15	462	20.0	45.0
						SB75-W3	F-04-04	432	12.0	45.0
						SB75-W3	F-05-07	454	20.0	45.0
						SB75-W3	F-05-12	459	20.0	44.9
F24501	265	63.5	4.3	7	-2.7	SB75-W3	F-05-23	470	16.0	47.3

						SB75-W3	F-04-01	428	12.0	47.0
						SB75-W3	F-05-08	455	20.0	45.7
						SB75-W3	F-05-09	456	20.0	45.6
						SB75-W3	F-04-03	431	12.0	45.5
						SB75-W3	F-05-10	457	20.0	45.5
						SB75-W3	F-05-15	462	20.0	45.5
						SB75-W3	F-05-07	454	20.0	45.3
						SB75-W3	F-05-14	461	20.0	45.3
						SB75-W3	F-05-12	459	20.0	45.2
F24601	266	63.7	4.2	7	-2.8	SB75-W3	F-05-23	470	16.0	47.5
						SB75-W3	F-04-01	428	12.0	47.0
						SB75-W3	F-05-08	455	20.0	46.3
						SB75-W3	F-05-09	456	20.0	46.0
						SB75-W3	F-05-15	462	20.0	45.8
						SB75-W3	F-04-03	431	12.0	45.8
						SB75-W3	F-05-10	457	20.0	45.8
						SB75-W3	F-05-11	458	20.0	45.7
						SB75-W3	F-05-07	454	20.0	45.6
						SB75-W3	F-05-14	461	20.0	45.6
F24701	267	64.0	4.1	7	-2.9	SB75-W3	F-05-23	470	16.0	47.9
						SB75-W3	F-04-01	428	12.0	47.1
						SB75-W3	F-05-08	455	20.0	46.8
						SB75-W3	F-05-09	456	20.0	46.7
						SB75-W3	F-05-15	462	20.0	46.3
						SB75-W3	F-05-10	457	20.0	46.3
						SB75-W3	F-05-11	458	20.0	46.2
						SB75-W3	F-05-07	454	20.0	46.2
						SB75-W3	F-05-12	459	20.0	46.2
						SB75-W3	F-05-14	461	20.0	46.0
F24801	268	64.1	4.1	7	-2.9	SB75-W3	F-05-23	470	16.0	47.7
						SB75-W3	F-05-08	455	20.0	47.2
						SB75-W3	F-05-09	456	20.0	47.1
						SB75-W3	F-05-14	461	20.0	46.8
						SB75-W3	F-05-07	454	20.0	46.8
						SB75-W3	F-04-01	428	12.0	46.7
						SB75-W3	F-05-15	462	20.0	46.7

						SB75-W3	F-05-10	457	20.0	46.7
						SB75-W3	F-05-11	458	20.0	46.6
						SB75-W3	F-05-12	459	20.0	46.5
F24901	269	64.4	4.0	7	-3.0	SB75-W3	F-05-08	455	20.0	48.0
						SB75-W3	F-05-09	456	20.0	48.0
						SB75-W3	F-05-10	457	20.0	47.9
						SB75-W3	F-05-07	454	20.0	47.8
						SB75-W3	F-05-23	470	16.0	47.8
						SB75-W3	F-05-11	458	20.0	47.5
						SB75-W3	F-05-15	462	20.0	47.4
						SB75-W3	F-05-12	459	20.0	47.4
						SB75-W3	F-05-06	453	20.0	47.4
						SB75-W3	F-05-13	460	20.0	47.3
F25001	270	64.7	4.0	7	-3.0	SB75-W3	F-05-08	455	20.0	48.5
						SB75-W3	F-05-09	456	20.0	48.5
						SB75-W3	F-05-07	454	20.0	48.4
						SB75-W3	F-05-10	457	20.0	48.3
						SB75-W3	F-05-06	453	24.0	48.0
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-05	452	20.0	47.9
						SB75-W3	F-05-12	459	20.0	47.7
						SB75-W3	F-05-15	462	20.0	47.7
						SB75-W3	F-05-14	461	20.0	47.7
F25101	271	64.5	4.0	7	-3.0	SB75-W3	F-05-08	455	20.0	48.4
						SB75-W3	F-05-09	456	20.0	48.4
						SB75-W3	F-05-07	454	20.0	48.3
						SB75-W3	F-05-10	457	20.0	48.1
						Hermes Ave	F-06-26	317	20.0	48.0
						SB75-W3	F-05-06	453	24.0	47.9
						SB75-W3	F-05-11	458	20.0	47.7
						SB75-W3	F-05-05	452	24.0	47.6
						SB75-W3	F-05-12	459	20.0	47.6
						SB75-W3	F-05-23	470	16.0	47.5
F25201	272	66.4	3.1	7	-3.9	Hermes Ave	F-06-26	317	20.0	54.3
						Hermes Ave	F-06-27	318	20.0	53.5
						Hermes Ave	F-06-25	316	20.0	52.8

						Hermes Ave	F-06-20	311	20.0	52.0
						Hermes Ave	F-06-24	315	20.0	51.7
						Hermes Ave	F-06-19	310	20.0	51.6
						Hermes Ave	F-06-28	319	20.0	51.6
						Hermes Ave	F-06-29	320	20.0	51.1
						SB75-W3	F-05-01	447	24.0	50.7
						Hermes Ave	F-06-21	312	20.0	50.5
F25301	273	65.9	2.2	7	-4.8	Hermes Ave	F-06-26	317	24.0	52.8
						Hermes Ave	F-06-25	316	20.0	52.0
						Hermes Ave	F-06-27	318	20.0	51.8
						Hermes Ave	F-06-24	315	20.0	51.1
						Hermes Ave	F-06-19	310	20.0	51.0
						SB75-W3	F-05-01	447	24.0	50.8
						Hermes Ave	F-06-20	311	20.0	50.7
						Hermes Ave	F-06-28	319	20.0	50.5
						Hermes Ave	F-06-29	320	20.0	50.0
						Hermes Ave	F-06-23	314	20.0	49.9
F25401	274	66.3	2.0	7	-5.0	Hermes Ave	F-06-26	317	24.0	53.3
						Hermes Ave	F-06-25	316	20.0	52.6
						Hermes Ave	F-06-24	315	20.0	52.0
						Hermes Ave	F-06-19	310	20.0	51.9
						Hermes Ave	F-06-27	318	20.0	51.8
						Hermes Ave	F-06-20	311	20.0	51.5
						SB75-W3	F-05-01	447	24.0	51.3
						Hermes Ave	F-06-28	319	20.0	51.2
						Hermes Ave	F-06-23	314	20.0	50.8
						Hermes Ave	F-06-18	309	20.0	50.7
F25501	275	66.3	2.1	7	-4.9	Hermes Ave	F-06-26	317	24.0	53.5
						Hermes Ave	F-06-25	316	20.0	53.1
						Hermes Ave	F-06-24	315	20.0	52.4
						Hermes Ave	F-06-20	311	20.0	51.8
						Hermes Ave	F-06-27	318	20.0	51.7
						Hermes Ave	F-06-19	310	20.0	51.5
						SB75-W3	F-05-01	447	24.0	51.3
						Hermes Ave	F-06-28	319	20.0	51.3
						Hermes Ave	F-06-23	314	20.0	51.2

						Hermes Ave	F-06-21	312	20.0	50.7
F25601	276	66.6	1.9	7	-5.1	Hermes Ave	F-06-25	316	20.0	53.4
						Hermes Ave	F-06-26	317	24.0	53.4
						Hermes Ave	F-06-24	315	20.0	52.8
						Hermes Ave	F-06-19	310	20.0	52.3
						Hermes Ave	F-06-20	311	20.0	52.1
						Hermes Ave	F-06-18	309	20.0	51.9
						Hermes Ave	F-06-23	314	20.0	51.7
						Hermes Ave	F-06-27	318	20.0	51.7
						SB75-W3	F-05-01	447	24.0	51.7
						Hermes Ave	F-06-07	298	0.0	51.5
F25701	277	66.8	1.8	7	-5.2	Hermes Ave	F-06-25	316	20.0	53.7
						Hermes Ave	F-06-26	317	20.0	53.2
						Hermes Ave	F-06-24	315	20.0	53.0
						Hermes Ave	F-06-19	310	20.0	52.7
						Hermes Ave	F-06-18	309	20.0	52.4
						Hermes Ave	F-06-20	311	20.0	52.3
						Hermes Ave	F-06-23	314	20.0	52.1
						Hermes Ave	F-06-08	299	0.0	52.0
						Hermes Ave	F-06-07	298	0.0	52.0
						Hermes Ave	F-06-27	318	20.0	51.8
F25801-F	278	67.3	1.9	7	-5.1	Hermes Ave	F-06-25	316	24.0	54.9
						Hermes Ave	F-06-24	315	20.0	54.7
						Hermes Ave	F-06-19	310	20.0	54.0
						Hermes Ave	F-06-23	314	20.0	53.8
						Hermes Ave	F-06-18	309	20.0	53.8
						Hermes Ave	F-06-26	317	20.0	53.4
						Hermes Ave	F-06-20	311	20.0	53.3
						Hermes Ave	F-06-17	308	20.0	53.1
						Hermes Ave	F-06-08	299	0.0	52.7
						Hermes Ave	F-06-16	307	16.0	52.7
F25904-F	279	67.7	0.8	7	-6.2	Hermes Ave	F-06-08	299	0.0	54.2
						Hermes Ave	F-06-07	298	0.0	54.0
						Hermes Ave	F-06-06	297	0.0	53.9
						Hermes Ave	F-06-05	296	0.0	53.8
						Hermes Ave	F-06-09	300	0.0	53.8

						Hermes Ave	F-06-04	295	0.0	53.3
						Hermes Ave	F-06-16	307	16.0	52.9
						Hermes Ave	F-06-15	306	16.0	52.5
						Hermes Ave	F-06-10	301	12.0	52.5
						Hermes Ave	F-06-17	308	20.0	52.5
F26001-F	280	62.4	12.1	7	5.1	Hermes Ave	F-06-19	310	20.0	55.7
						Hermes Ave	F-06-20	311	20.0	52.9
						Hermes Ave	F-06-23	314	24.0	51.9
						Hermes Ave	F-06-24	315	20.0	49.3
						Hermes Ave	F-06-25	316	24.0	47.6
						Hermes Ave	F-06-22	313	20.0	47.5
						Hermes Ave	F-06-21	312	20.0	47.0
						SB75-W3	F-05-01	447	24.0	45.8
						SB75-W3	F-05-23	470	16.0	44.2
						Hermes Ave	F-06-32	323	24.0	43.5
F26101	281	invalid	invalid	7	invalid					
F26201	282	63.9	8.9	7	1.9	Hermes Ave	F-06-24	315	24.0	53.0
						Hermes Ave	F-06-20	311	20.0	52.7
						Hermes Ave	F-06-19	310	20.0	52.3
						Hermes Ave	F-06-23	314	20.0	51.6
						Hermes Ave	F-06-21	312	20.0	51.1
						Hermes Ave	F-06-25	316	20.0	50.8
						Hermes Ave	F-06-22	313	20.0	50.6
						Hermes Ave	F-06-18	309	20.0	50.2
						Hermes Ave	F-06-26	317	20.0	48.7
						SB75-W3	F-05-01	447	24.0	47.5
F26301	283	65.7	6.3	7	-0.7	Hermes Ave	F-06-25	316	24.0	56.6
						Hermes Ave	F-06-24	315	20.0	54.3
						Hermes Ave	F-06-26	317	20.0	53.6
						Hermes Ave	F-06-20	311	20.0	52.8
						SB75-W3	F-05-01	447	24.0	52.6
						Hermes Ave	F-06-19	310	20.0	52.4
						Hermes Ave	F-06-23	314	20.0	51.6
						Hermes Ave	F-06-21	312	20.0	51.2
						Hermes Ave	F-06-22	313	20.0	50.9
						Hermes Ave	F-06-18	309	20.0	50.1

F26401	284	64.8	6.3	7	-0.7	Hermes Ave	F-06-26	317	24.0	51.8
						Hermes Ave	F-06-25	316	20.0	51.7
						Hermes Ave	F-06-24	315	20.0	50.3
						SB75-W3	F-05-09	456	20.0	50.1
						Hermes Ave	F-06-20	311	20.0	50.1
						SB75-W3	F-05-08	455	24.0	49.6
						Hermes Ave	F-06-19	310	20.0	49.6
						SB75-W3	F-05-10	457	20.0	49.5
						SB75-W3	F-05-11	458	20.0	49.0
						Hermes Ave	F-06-21	312	20.0	48.9
F26501	285	64.9	5.9	7	-1.1	Hermes Ave	F-06-26	317	20.0	51.7
						Hermes Ave	F-06-25	316	20.0	51.4
						SB75-W3	F-05-08	455	24.0	50.6
						SB75-W3	F-05-09	456	20.0	50.1
						Hermes Ave	F-06-24	315	20.0	49.8
						SB75-W3	F-05-10	457	20.0	49.7
						Hermes Ave	F-06-20	311	20.0	49.6
						SB75-W3	F-05-11	458	20.0	49.1
						Hermes Ave	F-06-19	310	20.0	49.0
						SB75-W3	F-05-12	459	20.0	48.7
F26601	286	64.9	5.3	7	-1.7	SB75-W3	F-05-08	455	20.0	50.5
						SB75-W3	F-05-07	454	20.0	50.4
						SB75-W3	F-05-09	456	20.0	50.3
						SB75-W3	F-05-10	457	20.0	49.8
						SB75-W3	F-05-11	458	20.0	49.2
						SB75-W3	F-05-06	453	24.0	49.1
						SB75-W3	F-05-12	459	20.0	48.7
						SB75-W3	F-05-14	461	20.0	48.5
						SB75-W3	F-05-13	460	20.0	48.4
						SB75-W3	F-05-15	462	20.0	48.4
F26701	287	64.7	5.2	7	-1.8	SB75-W3	F-05-08	455	20.0	50.1
						SB75-W3	F-05-07	454	20.0	50.1
						SB75-W3	F-05-09	456	20.0	50.0
						SB75-W3	F-05-10	457	20.0	49.3
						SB75-W3	F-05-06	453	24.0	49.3
						SB75-W3	F-05-11	458	20.0	49.0

						SB75-W3	F-05-12	459	20.0	48.5
						SB75-W3	F-05-14	461	20.0	48.3
						SB75-W3	F-05-15	462	20.0	48.1
						SB75-W3	F-05-13	460	20.0	48.0
F26801	288	64.4	5.5	7	-1.5	SB75-W3	F-05-08	455	20.0	49.5
						SB75-W3	F-05-09	456	20.0	49.4
						SB75-W3	F-05-07	454	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.1
						SB75-W3	F-05-11	458	20.0	48.5
						SB75-W3	F-05-06	453	24.0	48.1
						SB75-W3	F-05-12	459	20.0	48.1
						SB75-W3	F-05-23	470	16.0	47.5
						SB75-W3	F-05-15	462	20.0	47.5
						SB75-W3	F-05-14	461	20.0	47.5
F26901	289	64.1	5.6	7	-1.4	SB75-W3	F-05-08	455	20.0	49.2
						SB75-W3	F-05-09	456	20.0	48.8
						SB75-W3	F-05-07	454	20.0	48.7
						SB75-W3	F-05-10	457	20.0	48.6
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-05-12	459	20.0	47.1
						SB75-W3	F-05-06	453	24.0	47.1
						SB75-W3	F-04-01	428	12.0	46.9
						SB75-W3	F-05-15	462	20.0	46.5
F27001	290	64.2	5.5	7	-1.5	SB75-W3	F-05-08	455	20.0	49.1
						SB75-W3	F-05-09	456	20.0	48.8
						SB75-W3	F-05-07	454	20.0	48.8
						SB75-W3	F-05-10	457	20.0	48.6
						SB75-W3	F-05-11	458	20.0	48.1
						SB75-W3	F-05-06	453	24.0	47.7
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-05-12	459	20.0	47.2
						SB75-W3	F-04-01	428	12.0	47.1
						SB75-W3	F-05-15	462	20.0	47.0
F27101	291	64.2	5.4	7	-1.6	SB75-W3	F-05-08	455	20.0	49.0
						SB75-W3	F-05-09	456	20.0	48.6

						SB75-W3	F-05-10	457	20.0	48.4
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-23	470	16.0	47.3
						SB75-W3	F-04-01	428	12.0	47.2
						SB75-W3	F-05-06	453	20.0	47.0
						SB75-W3	F-05-12	459	20.0	46.9
						SB75-W3	F-04-02	430	12.0	46.6
F27201	292	64.2	5.3	7	-1.7	SB75-W3	F-05-08	455	20.0	48.6
						SB75-W3	F-05-09	456	20.0	48.2
						SB75-W3	F-05-07	454	20.0	48.0
						SB75-W3	F-05-10	457	20.0	48.0
						SB75-W3	F-05-23	470	16.0	47.7
						SB75-W3	F-05-11	458	20.0	47.6
						SB75-W3	F-04-01	428	12.0	47.4
						SB75-W3	F-04-02	430	12.0	47.0
						SB75-W3	F-05-12	459	20.0	46.7
						SB75-W3	F-05-06	453	20.0	46.5
F27301	293	64.2	5.1	7	-1.9	SB75-W3	F-04-01	428	12.0	48.0
						SB75-W3	F-05-08	455	20.0	47.6
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-04-02	430	12.0	47.6
						SB75-W3	F-05-09	456	20.0	47.4
						SB75-W3	F-05-10	457	20.0	47.0
						SB75-W3	F-05-07	454	20.0	46.9
						SB75-W3	F-04-03	431	12.0	46.5
						SB75-W3	F-05-11	458	20.0	46.4
						SB75-W3	F-05-15	462	20.0	45.6
F27301	294	64.6	4.9	7	-2.1	SB75-W3	F-05-08	455	20.0	48.7
						SB75-W3	F-05-09	456	20.0	48.5
						SB75-W3	F-05-07	454	20.0	48.4
						SB75-W3	F-05-10	457	20.0	48.3
						SB75-W3	F-05-23	470	16.0	48.2
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-12	459	20.0	47.7
						SB75-W3	F-04-01	428	12.0	47.7

						SB75-W3	F-05-15	462	20.0	47.4
						SB75-W3	F-05-14	461	20.0	47.3
F27401	295	64.4	5.0	7	-2.0	SB75-W3	F-05-23	470	16.0	48.2
						SB75-W3	F-05-08	455	20.0	48.2
						SB75-W3	F-04-01	428	12.0	48.0
						SB75-W3	F-05-09	456	20.0	47.7
						SB75-W3	F-04-02	430	12.0	47.6
						SB75-W3	F-05-07	454	20.0	47.5
						SB75-W3	F-05-10	457	20.0	47.4
						SB75-W3	F-05-11	458	20.0	46.9
						SB75-W3	F-04-03	431	12.0	46.7
						SB75-W3	F-05-12	459	20.0	46.5
F27503	296	63.8	5.1	7	-1.9	SB75-W3	F-04-01	428	12.0	47.0
						SB75-W3	F-05-23	470	16.0	46.3
						SB75-W3	F-04-02	430	12.0	46.3
						SB75-W3	F-05-08	455	20.0	46.1
						SB75-W3	F-05-09	456	20.0	45.5
						SB75-W3	F-04-03	431	12.0	45.4
						SB75-W3	F-05-07	454	20.0	45.1
						SB75-W3	F-05-10	457	20.0	45.0
						SB75-W3	F-05-15	462	20.0	44.5
						SB75-W3	F-05-14	461	20.0	44.3
F27602	297	63.8	5.1	7	-1.9	SB75-W3	F-04-01	428	12.0	47.1
						SB75-W3	F-05-23	470	16.0	46.5
						SB75-W3	F-05-08	455	20.0	46.1
						SB75-W3	F-04-02	430	12.0	46.0
						SB75-W3	F-04-03	431	12.0	45.6
						SB75-W3	F-05-09	456	20.0	45.4
						SB75-W3	F-05-07	454	20.0	45.1
						SB75-W3	F-05-10	457	20.0	44.9
						SB75-W3	F-05-15	462	20.0	44.5
						SB75-W3	F-05-14	461	20.0	44.3
F27702	298	64.7	6.0	7	-1.0	SB75-W3	F-05-08	455	20.0	47.9
						SB75-W3	F-05-09	456	20.0	47.3
						SB75-W3	F-05-23	470	16.0	47.0
						SB75-W3	F-05-07	454	20.0	46.8

						SB75-W3	F-05-10	457	20.0	46.8
						SB75-W3	F-04-01	428	12.0	46.7
						SB75-W3	F-04-02	430	12.0	46.6
						SB75-W3	F-05-11	458	20.0	46.5
						SB75-W3	F-05-15	462	20.0	46.4
						SB75-W3	F-05-12	459	20.0	46.3
F27801	299	65.1	6.2	7	-0.8	SB75-W3	F-05-08	455	20.0	48.7
						SB75-W3	F-04-01	428	12.0	48.6
						SB75-W3	F-05-09	456	20.0	48.4
						SB75-W3	F-05-07	454	20.0	48.0
						SB75-W3	F-05-23	470	16.0	47.8
						SB75-W3	F-04-02	430	12.0	47.7
						SB75-W3	F-05-10	457	20.0	47.5
						SB75-W3	F-05-11	458	20.0	47.3
						SB75-W3	F-05-15	462	20.0	47.2
						SB75-W3	F-05-12	459	20.0	47.1
F27901	300	65.4	6.3	7	-0.7	SB75-W3	F-05-08	455	20.0	49.5
						SB75-W3	F-05-09	456	20.0	49.0
						SB75-W3	F-04-01	428	12.0	48.8
						SB75-W3	F-05-07	454	20.0	48.5
						SB75-W3	F-05-10	457	20.0	48.2
						SB75-W3	F-05-23	470	16.0	48.2
						SB75-W3	F-04-02	430	12.0	47.9
						SB75-W3	F-05-11	458	20.0	47.9
						SB75-W3	F-05-15	462	20.0	47.7
						SB75-W3	F-05-12	459	20.0	47.7
F28001-F	301	65.6	6.4	7	-0.6	SB75-W3	F-05-08	455	20.0	50.1
						SB75-W3	F-05-09	456	20.0	49.5
						SB75-W3	F-04-01	428	12.0	49.1
						SB75-W3	F-05-07	454	20.0	49.0
						SB75-W3	F-05-10	457	20.0	48.9
						SB75-W3	F-05-23	470	16.0	48.4
						SB75-W3	F-05-11	458	20.0	48.4
						SB75-W3	F-05-15	462	20.0	48.2
						SB75-W3	F-05-12	459	20.0	48.2
						SB75-W3	F-05-14	461	20.0	48.1

F28101-F	302	65.9	6.5	7	-0.5	SB75-W3	F-05-08	455	20.0	50.3
						SB75-W3	F-05-09	456	20.0	49.8
						SB75-W3	F-04-01	428	12.0	49.4
						SB75-W3	F-05-07	454	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.2
						SB75-W3	F-05-23	470	16.0	48.8
						SB75-W3	F-05-11	458	20.0	48.7
						SB75-W3	F-05-15	462	20.0	48.7
						SB75-W3	F-05-14	461	20.0	48.6
						SB75-W3	F-05-12	459	20.0	48.6
F28201-F	303	66.1	6.7	7	-0.3	SB75-W3	F-05-08	455	20.0	49.9
						SB75-W3	F-05-09	456	20.0	49.7
						SB75-W3	F-05-10	457	20.0	49.1
						SB75-W3	F-05-15	462	20.0	48.9
						SB75-W3	F-05-07	454	20.0	48.9
						SB75-W3	F-05-11	458	20.0	48.8
						SB75-W3	F-05-14	461	20.0	48.8
						SB75-W3	F-05-23	470	16.0	48.7
						SB75-W3	F-04-01	428	12.0	48.7
						SB75-W3	F-05-13	460	20.0	48.5
F28301-F	304	66.1	7.2	7	0.2	SB75-W3	F-05-08	455	20.0	49.8
						SB75-W3	F-05-09	456	20.0	49.5
						SB75-W3	F-05-15	462	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.2
						SB75-W3	F-05-14	461	20.0	49.1
						SB75-W3	F-05-11	458	20.0	49.1
						SB75-W3	F-05-12	459	20.0	49.0
						SB75-W3	F-05-13	460	20.0	48.9
						SB75-W3	F-05-07	454	20.0	48.7
						SB75-W3	F-05-16	463	20.0	48.5
F28401-F	305	66.4	7.3	7	0.3	SB75-W3	F-05-08	455	20.0	49.9
						SB75-W3	F-05-15	462	20.0	49.7
						SB75-W3	F-05-09	456	20.0	49.5
						SB75-W3	F-05-14	461	20.0	49.5
						SB75-W3	F-05-10	457	20.0	49.4
						SB75-W3	F-05-13	460	20.0	49.3

						SB75-W3	F-05-11	458	20.0	49.3
						SB75-W3	F-05-12	459	20.0	49.3
						SB75-W3	F-05-16	463	20.0	49.0
						SB75-W3	F-05-07	454	20.0	48.7
F28501-F	306	66.5	7.6	7	0.6	SB75-W3	F-05-15	462	20.0	50.1
						SB75-W3	F-05-14	461	20.0	49.9
						SB75-W3	F-05-13	460	20.0	49.7
						SB75-W3	F-05-12	459	20.0	49.7
						SB75-W3	F-05-09	456	20.0	49.7
						SB75-W3	F-05-10	457	20.0	49.6
						SB75-W3	F-05-11	458	20.0	49.5
						SB75-W3	F-05-08	455	20.0	49.4
						SB75-W3	F-05-16	463	20.0	49.3
						Hermes Ave	F-06-32	323	20.0	48.7
F28601-F	307	66.8	7.7	7	0.7	SB75-W3	F-05-15	462	20.0	50.5
						SB75-W3	F-05-14	461	20.0	50.4
						SB75-W3	F-05-13	460	20.0	50.2
						SB75-W3	F-05-12	459	20.0	50.1
						SB75-W3	F-05-10	457	20.0	49.9
						SB75-W3	F-05-09	456	20.0	49.8
						SB75-W3	F-05-11	458	20.0	49.8
						SB75-W3	F-05-08	455	20.0	49.5
						SB75-W3	F-05-16	463	20.0	49.3
						Hermes Ave	F-06-32	323	20.0	48.8
F28701-F	308	66.7	8.3	7	1.3	SB75-W3	F-05-01	447	16.0	50.4
						SB75-W3	F-05-15	462	20.0	50.3
						SB75-W3	F-05-14	461	20.0	50.2
						SB75-W3	F-05-13	460	20.0	49.8
						SB75-W3	F-05-12	459	20.0	49.7
						SB75-W3	F-05-16	463	20.0	49.6
						SB75-W3	F-05-10	457	20.0	49.4
						SB75-W3	F-05-11	458	20.0	49.4
						SB75-W3	F-05-09	456	20.0	49.4
						SB75-W3	F-05-08	455	20.0	49.1
F28801-F	309	67.0	8.4	7	1.4	SB75-W3	F-05-15	462	20.0	50.6
						SB75-W3	F-05-14	461	20.0	50.4

						SB75-W3	F-05-13	460	20.0	50.1
						SB75-W3	F-05-16	463	20.0	50.0
						SB75-W3	F-05-01	447	16.0	49.9
						SB75-W3	F-05-12	459	20.0	49.7
						SB75-W3	F-05-11	458	20.0	49.4
						SB75-W3	F-05-17	464	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.2
						SB75-W3	F-05-09	456	20.0	48.9
F28901-F	310	67.3	8.6	7	1.6	SB75-W3	F-05-15	462	20.0	51.2
						SB75-W3	F-05-14	461	20.0	51.0
						SB75-W3	F-05-13	460	20.0	50.5
						SB75-W3	F-05-16	463	20.0	50.3
						SB75-W3	F-05-12	459	20.0	50.0
						SB75-W3	F-05-11	458	20.0	49.6
						SB75-W3	F-05-17	464	20.0	49.5
						SB75-W3	F-05-10	457	20.0	49.3
						SB75-W3	F-05-01	447	16.0	49.1
						SB75-W3	F-05-09	456	20.0	48.9
F29001-F	311	67.4	8.9	7	1.9	SB75-W3	F-05-15	462	20.0	51.8
						SB75-W3	F-05-14	461	20.0	51.3
						SB75-W3	F-05-16	463	20.0	51.1
						SB75-W3	F-05-13	460	20.0	50.7
						SB75-W3	F-05-17	464	20.0	50.2
						SB75-W3	F-05-12	459	20.0	50.0
						SB75-W3	F-05-11	458	20.0	49.5
						SB75-W3	F-05-18	465	20.0	49.3
						SB75-W3	F-05-10	457	20.0	49.1
						SB75-W3	F-05-09	456	20.0	48.6
F29101-F	312	67.9	8.9	7	1.9	SB75-W3	F-05-15	462	20.0	52.3
						SB75-W3	F-05-14	461	20.0	52.0
						SB75-W3	F-05-16	463	20.0	51.4
						SB75-W3	F-05-13	460	20.0	51.1
						SB75-W3	F-05-17	464	20.0	50.6
						SB75-W3	F-05-12	459	20.0	50.1
						SB75-W3	F-05-11	458	20.0	49.6
						SB75-W3	F-05-18	465	20.0	49.6

						SB75-W3	F-05-10	457	20.0	49.1
						SB75-W3	F-05-19	466	20.0	48.4
F29201	313	65.0	6.3	7	-0.7	SB75-W3	F-05-08	455	20.0	49.1
						SB75-W3	F-05-09	456	20.0	48.7
						SB75-W3	F-05-07	454	20.0	48.3
						SB75-W3	F-04-01	428	12.0	48.1
						SB75-W3	F-05-10	457	20.0	48.0
						SB75-W3	F-05-11	458	20.0	47.6
						SB75-W3	F-05-23	470	16.0	47.6
						SB75-W3	F-05-12	459	20.0	47.3
						SB75-W3	F-05-15	462	20.0	47.2
						SB75-W3	F-05-14	461	20.0	47.2
F29301-F	314	64.9	6.7	7	-0.3	SB75-W3	F-05-08	455	20.0	48.9
						SB75-W3	F-05-09	456	20.0	48.6
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-10	457	20.0	47.9
						SB75-W3	F-05-11	458	20.0	47.8
						SB75-W3	F-05-12	459	20.0	47.5
						SB75-W3	F-05-15	462	20.0	47.3
						SB75-W3	F-05-14	461	20.0	47.2
						SB75-W3	F-05-23	470	16.0	47.1
						SB75-W3	F-05-13	460	20.0	47.1
F29401-F	315	64.7	6.9	7	-0.1	SB75-W3	F-05-08	455	20.0	48.9
						SB75-W3	F-05-09	456	20.0	48.6
						SB75-W3	F-05-10	457	20.0	48.0
						SB75-W3	F-05-07	454	20.0	48.0
						SB75-W3	F-05-11	458	20.0	47.8
						SB75-W3	F-05-12	459	20.0	47.3
						SB75-W3	F-05-15	462	20.0	47.1
						SB75-W3	F-05-14	461	20.0	47.1
						SB75-W3	F-05-06	453	20.0	47.0
						SB75-W3	F-05-13	460	20.0	47.0
F29501-F	316	64.5	7.2	7	0.2	SB75-W3	F-05-08	455	20.0	49.1
						SB75-W3	F-05-09	456	20.0	48.4
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-10	457	20.0	48.1

						SB75-W3	F-05-11	458	20.0	47.7
						SB75-W3	F-05-06	453	20.0	47.3
						SB75-W3	F-05-12	459	20.0	47.2
						SB75-W3	F-05-14	461	20.0	46.9
						SB75-W3	F-05-15	462	20.0	46.9
						SB75-W3	F-05-13	460	20.0	46.9
F29501-F	317	64.6	7.1	7	0.1	SB75-W3	F-05-08	455	20.0	48.7
						SB75-W3	F-05-09	456	20.0	48.1
						SB75-W3	F-05-10	457	20.0	47.9
						SB75-W3	F-05-07	454	20.0	47.8
						SB75-W3	F-05-11	458	20.0	47.5
						SB75-W3	F-05-12	459	20.0	47.1
						SB75-W3	F-05-15	462	20.0	46.9
						SB75-W3	F-05-14	461	20.0	46.9
						SB75-W3	F-05-06	453	20.0	46.9
						SB75-W3	F-05-13	460	20.0	46.8
F29601-F	318	64.3	7.3	7	0.3	SB75-W3	F-05-08	455	20.0	48.5
						SB75-W3	F-05-09	456	20.0	48.2
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-10	457	20.0	47.9
						SB75-W3	F-05-11	458	20.0	47.5
						SB75-W3	F-05-06	453	20.0	47.3
						SB75-W3	F-05-12	459	20.0	46.9
						SB75-W3	F-05-14	461	20.0	46.7
						SB75-W3	F-05-13	460	20.0	46.7
						SB75-W3	F-05-15	462	20.0	46.5
F29701-F	319	64.1	7.3	7	0.3	SB75-W3	F-05-08	455	20.0	48.2
						SB75-W3	F-05-09	456	20.0	48.0
						SB75-W3	F-05-07	454	20.0	47.9
						SB75-W3	F-05-10	457	20.0	47.7
						SB75-W3	F-05-06	453	20.0	47.3
						SB75-W3	F-05-11	458	20.0	47.3
						SB75-W3	F-05-12	459	20.0	46.8
						SB75-W3	F-05-13	460	20.0	46.4
						SB75-W3	F-05-14	461	20.0	46.3
						SB75-W3	F-05-15	462	20.0	46.1

F29801-F	320	64.0	7.4	7	0.4	SB75-W3	F-05-08	455	20.0	48.4
						SB75-W3	F-05-09	456	20.0	48.1
						SB75-W3	F-05-07	454	20.0	48.1
						SB75-W3	F-05-10	457	20.0	47.8
						SB75-W3	F-05-06	453	24.0	47.4
						SB75-W3	F-05-11	458	20.0	47.3
						SB75-W3	F-05-12	459	20.0	46.8
						SB75-W3	F-05-13	460	20.0	46.5
						Hermes Ave	F-06-29	320	20.0	46.3
						SB75-W3	F-05-14	461	20.0	46.3
F29901-F	321	64.1	7.6	7	0.6	SB75-W3	F-05-08	455	20.0	49.0
						SB75-W3	F-05-09	456	20.0	48.7
						SB75-W3	F-05-07	454	20.0	48.7
						SB75-W3	F-05-10	457	20.0	48.2
						SB75-W3	F-05-11	458	20.0	47.6
						Hermes Ave	F-06-29	320	24.0	47.3
						SB75-W3	F-05-12	459	20.0	47.1
						SB75-W3	F-05-06	453	24.0	46.9
						SB75-W3	F-05-13	460	20.0	46.7
						SB75-W3	F-05-14	461	20.0	46.3
F30001-F	322	64.8	7.7	7	0.7	SB75-W3	F-05-08	455	20.0	51.3
						SB75-W3	F-05-09	456	20.0	50.8
						SB75-W3	F-05-07	454	20.0	50.6
						SB75-W3	F-05-10	457	20.0	49.9
						Hermes Ave	F-06-29	320	20.0	48.8
						SB75-W3	F-05-11	458	20.0	48.7
						SB75-W3	F-05-12	459	20.0	48.2
						SB75-W3	F-05-13	460	20.0	47.7
						Hermes Ave	F-06-20	311	20.0	47.6
						SB75-W3	F-05-06	453	24.0	47.4
F30101-F	323	64.8	7.8	7	0.8	SB75-W3	F-05-08	455	20.0	51.9
						SB75-W3	F-05-09	456	20.0	51.0
						SB75-W3	F-05-07	454	20.0	50.8
						SB75-W3	F-05-10	457	20.0	50.1
						Hermes Ave	F-06-29	320	20.0	49.0
						SB75-W3	F-05-11	458	20.0	48.8

						SB75-W3	F-05-12	459	20.0	48.2
						Hermes Ave	F-06-20	311	20.0	48.0
						Hermes Ave	F-06-28	319	20.0	47.7
						Hermes Ave	F-06-21	312	20.0	47.6
F30201-F	324	64.9	8.6	7	1.6	SB75-W3	F-05-08	455	20.0	52.8
						SB75-W3	F-05-09	456	20.0	52.4
						SB75-W3	F-05-10	457	20.0	51.0
						Hermes Ave	F-06-28	319	20.0	50.8
						Hermes Ave	F-06-29	320	20.0	50.6
						SB75-W3	F-05-11	458	20.0	49.8
						Hermes Ave	F-06-20	311	20.0	49.6
						Hermes Ave	F-06-21	312	20.0	49.4
						Hermes Ave	F-06-22	313	20.0	49.2
						Hermes Ave	F-06-27	318	20.0	49.1
F30301-F	325	65.0	8.7	7	1.7	Hermes Ave	F-06-28	319	20.0	52.6
						SB75-W3	F-05-09	456	20.0	52.2
						SB75-W3	F-05-10	457	20.0	51.4
						Hermes Ave	F-06-27	318	20.0	51.1
						SB75-W3	F-05-08	455	24.0	50.4
						Hermes Ave	F-06-20	311	20.0	50.3
						Hermes Ave	F-06-21	312	20.0	50.1
						Hermes Ave	F-06-22	313	20.0	50.0
						Hermes Ave	F-06-29	320	20.0	49.6
						SB75-W3	F-05-11	458	20.0	49.5
F30401-F	326	64.6	9.7	7	2.7	Hermes Ave	F-06-27	318	20.0	55.1
						Hermes Ave	F-06-28	319	24.0	53.0
						Hermes Ave	F-06-20	311	20.0	51.9
						Hermes Ave	F-06-21	312	20.0	51.7
						Hermes Ave	F-06-22	313	20.0	51.6
						Hermes Ave	F-06-26	317	20.0	51.2
						Hermes Ave	F-06-19	310	20.0	50.2
						SB75-W3	F-05-12	459	20.0	49.7
						SB75-W3	F-05-13	460	20.0	48.3
						SB75-W3	F-05-14	461	20.0	47.9
F30501-F	327	63.2	11.3	7	4.3	Hermes Ave	F-06-26	317	24.0	55.2
						Hermes Ave	F-06-22	313	20.0	51.9

						Hermes Ave	F-06-21	312	20.0	51.8
						Hermes Ave	F-06-20	311	20.0	51.5
						Hermes Ave	F-06-25	316	20.0	49.9
						Hermes Ave	F-06-27	318	24.0	49.9
						Hermes Ave	F-06-19	310	20.0	47.9
						Hermes Ave	F-06-24	315	20.0	47.0
						SB75-W3	F-05-23	470	16.0	45.1
						SB75-W3	F-05-01	447	24.0	43.7
F30601-F	328	61.5	13.1	7	6.1	Hermes Ave	F-06-26	317	24.0	53.4
						Hermes Ave	F-06-22	313	20.0	51.8
						Hermes Ave	F-06-21	312	20.0	51.6
						Hermes Ave	F-06-25	316	20.0	51.2
						Hermes Ave	F-06-20	311	20.0	50.3
						Hermes Ave	F-06-24	315	20.0	47.5
						Hermes Ave	F-06-23	314	20.0	43.6
						SB75-W3	F-05-01	447	24.0	42.4
						Hermes Ave	F-06-27	318	24.0	42.0
						Hermes Ave	F-06-19	310	20.0	41.9
F30701-F	329	61.2	13.6	7	6.6	Hermes Ave	F-06-25	316	24.0	54.8
						Hermes Ave	F-06-22	313	20.0	52.6
						Hermes Ave	F-06-21	312	20.0	52.2
						Hermes Ave	F-06-24	315	20.0	51.6
						Hermes Ave	F-06-20	311	20.0	49.9
						Hermes Ave	F-06-26	317	24.0	47.4
						Hermes Ave	F-06-23	314	20.0	47.1
						SB75-W3	F-05-01	447	24.0	43.6
						SB75-W3	F-05-02	449	24.0	39.8
						SB75-W3	F-03-05	419	20.0	39.8
F30801-F	330	60.6	14.5	7	7.5	Hermes Ave	F-06-24	315	20.0	54.7
						Hermes Ave	F-06-22	313	20.0	53.6
						Hermes Ave	F-06-25	316	24.0	52.9
						Hermes Ave	F-06-21	312	20.0	52.8
						Hermes Ave	F-06-23	314	20.0	49.7
						Hermes Ave	F-06-20	311	20.0	46.8
						SB75-W3	F-05-01	447	24.0	44.1
						SB75-W3	F-05-02	449	24.0	40.5

						SB75-W3	F-05-03	450	24.0	39.6
						SB75-W3	F-03-07	421	20.0	39.0
F30901-F	331	61.1	14.3	7	7.3	Hermes Ave	F-06-22	313	20.0	55.2
						Hermes Ave	F-06-24	315	24.0	55.0
						Hermes Ave	F-06-23	314	20.0	54.2
						Hermes Ave	F-06-21	312	20.0	53.7
						Hermes Ave	F-06-25	316	24.0	43.8
						SB75-W3	F-05-01	447	24.0	43.6
						Hermes Ave	F-06-32	323	24.0	43.0
						Hermes Ave	F-06-31	322	24.0	42.3
						Hermes Ave	F-06-33	324	24.0	41.4
						SB75-W3	F-05-15	462	24.0	40.7
F31001-F	332	60.5	15.9	7	8.9	Hermes Ave	F-06-22	313	20.0	57.0
						Hermes Ave	F-06-23	314	24.0	56.5
						Hermes Ave	F-06-21	312	20.0	46.9
						Hermes Ave	F-06-24	315	24.0	44.6
						SB75-W3	F-05-01	447	24.0	44.6
						Hermes Ave	F-06-33	324	24.0	43.8
						Hermes Ave	F-06-32	323	24.0	43.5
						Hermes Ave	F-06-31	322	24.0	42.4
						Hermes Ave	F-06-29	320	24.0	42.3
						SB75-W3	F-05-17	464	24.0	41.3
F31101	333	65.9	2.0	7	-5.0	Hermes Ave	F-06-26	317	24.0	52.3
						Hermes Ave	F-06-25	316	20.0	51.5
						Hermes Ave	F-06-27	318	20.0	51.3
						Hermes Ave	F-06-24	315	20.0	50.9
						Hermes Ave	F-06-19	310	20.0	50.8
						SB75-W3	F-05-01	447	24.0	50.6
						Hermes Ave	F-06-20	311	20.0	50.5
						Hermes Ave	F-06-28	319	20.0	50.4
						Hermes Ave	F-06-06	297	0.0	50.3
						Hermes Ave	F-06-29	320	20.0	49.9
F31617	336	69.5	3.4	8	-4.6	SB75-W3	F-04-16	444	12.0	51.8
						SB75-W3	F-04-15	443	12.0	50.7
						SB75-W3	F-04-13	441	12.0	49.1
						SB75-W3	F-04-11	439	12.0	49.0

						SB75-W3	F-04-10	438	12.0	48.7
						SB75-W3	F-04-14	442	12.0	48.4
						SB75-W3	F-04-09	437	12.0	48.1
						SB75-W3	F-04-02	430	12.0	47.4
						SB75-W3	F-04-08	436	12.0	47.4
						SB75-W3	F-04-06	434	12.0	46.8
Total Cost, All Barriers (including additional cost(s))					$2201718					

HMB Professional Engineers				**20 June 2023**						
Mark Gavula				**TNM 2.5**						
RESULTS: BARRIER DESCRIPTIONS										
PROJECT/CONTRACT:	**Brent Spence Bridge Technical Memo**									
RUN:	**F2**									
BARRIER DESIGN:	**f2f1-sys-1**									
Barriers										
Name	**Type**	**Heights along Barrier**			**Length**	**If Wall**	**If Berm**			**Cost**
		Min	**Avg**	**Max**		**Area**	**Volume**	**Top Width**	**Run:Rise**	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
SB75-W3	W	12.00	17.22	20.00	2980	51328				1642487
Hermes Ave	W	12.00	18.64	20.00	938	17476				559232
									Total Cost:	2201718

HMB Professional Engineers 20 June 2023
Mark Gavula TNM 2.5

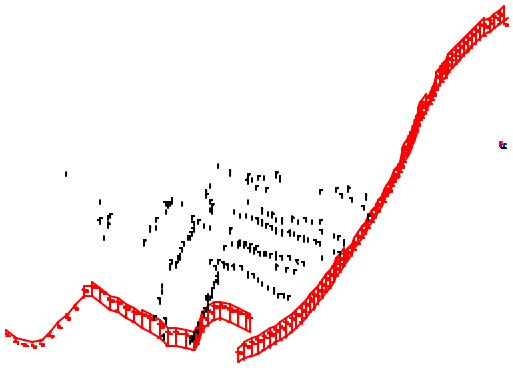
RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Brent Spence Bridge Technical Memo
RUN: F2
BARRIER DESIGN: f2f1-sys-1

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First Point	Average	Second Point		Area	On Struc?	Important Reflections?	Volume	
				ft	ft	ft	ft	sq ft			cu yd	$
SB75-W3	W	F-05-01	447	16.00	16.00	16.00	40	642				20558
		F-05-02	449	20.00	20.00	20.00	40	802				25650
		F-05-03	450	20.00	20.00	20.00	40	800				25608
		F-05-04	451	20.00	20.00	20.00	40	800				25600
		F-05-05	452	20.00	20.00	20.00	40	800				25608
		F-05-06	453	20.00	20.00	20.00	40	802				25650
		F-05-07	454	20.00	20.00	20.00	40	803				25698
		F-05-08	455	20.00	20.00	20.00	40	796				25482
		F-05-09	456	20.00	20.00	20.00	40	799				25570
		F-05-10	457	20.00	20.00	20.00	40	802				25674
		F-05-11	458	20.00	20.00	20.00	40	798				25546
		F-05-12	459	20.00	20.00	20.00	40	796				25458
		F-05-13	460	20.00	20.00	20.00	40	808				25849
		F-05-14	461	20.00	20.00	20.00	40	796				25458
		F-05-15	462	20.00	20.00	20.00	40	800				25602
		F-05-16	463	20.00	20.00	20.00	40	797				25504
		F-05-17	464	20.00	20.00	20.00	40	807				25809
		F-05-18	465	20.00	20.00	20.00	40	803				25704
		F-05-19	466	20.00	20.00	20.00	40	797				25508
		F-05-20	467	20.00	20.00	20.00	40	801				25618
		F-05-21	468	20.00	20.00	20.00	40	795				25433
		F-05-22	469	20.00	20.00	20.00	40	802				25674
		F-05-23	470	16.00	14.00	12.00	43	603				19300
		F-04-01	428	12.00	12.00	12.00	40	478	Y			15305
		F-04-02	430	12.00	12.00	12.00	40	480	Y			15371
		F-04-03	431	12.00	12.00	12.00	40	480	Y			15371

		F-04-04	432	12.00	12.00	12.00	40	480	Y			15371
		F-04-05	433	12.00	12.00	12.00	40	477	Y			15260
		F-04-06	434	12.00	12.00	12.00	40	481	Y			15404
		F-04-07	435	12.00	12.00	12.00	40	481	Y			15404
		F-04-08	436	12.00	12.00	12.00	40	478	Y			15303
		F-04-09	437	12.00	12.00	12.00	40	481	Y			15382
		F-04-10	438	12.00	12.00	12.00	40	481	Y			15382
		F-04-11	439	12.00	12.00	12.00	40	480	Y			15371
		F-04-12	440	12.00	12.00	12.00	40	480	Y			15371
		F-04-13	441	12.00	12.00	12.00	40	478	Y			15284
		F-04-14	442	12.00	12.00	12.00	40	480	Y			15372
		F-04-15	443	12.00	12.00	12.00	40	480	Y			15372
		F-04-16	444	12.00	12.00	12.00	40	481	Y			15385
		F-04-17	445	12.00	12.00	12.00	40	480	Y			15372
		F-04-18	446	12.00	14.00	16.00	55	768	Y			24589
		F-03-02	416	20.00	20.00	20.00	40	794				25409
		F-03-03	417	20.00	20.00	20.00	40	808				25849
		F-03-04	418	20.00	20.00	20.00	40	794				25409
		F-03-05	419	20.00	20.00	20.00	40	799				25576
		F-03-06	420	20.00	20.00	20.00	40	799				25576
		F-03-07	421	20.00	20.00	20.00	40	805				25746
		F-03-08	422	20.00	20.00	20.00	40	799				25576
		F-03-09	423	20.00	20.00	20.00	40	796				25476
		F-03-10	424	20.00	20.00	20.00	40	805				25746
		F-03-11	425	20.00	20.00	20.00	40	803				25684
		F-03-12	426	20.00	20.00	20.00	40	798				25522
		F-03-13	427	16.00	14.00	12.00	35	490				15674
		F-02-01	408	12.00	12.00	12.00	40	481	Y			15385
		F-02-02	409	12.00	12.00	12.00	40	481	Y			15385
		F-02-03	410	12.00	12.00	12.00	40	481	Y			15385
		F-02-04	411	12.00	14.00	16.00	47	658	Y			21061
		F-01-01	389	20.00	20.00	20.00	40	801				25620
		F-01-02	391	20.00	20.00	20.00	40	805				25769
		F-01-03	392	20.00	20.00	20.00	40	801				25636
		F-01-04	393	20.00	20.00	20.00	40	793				25379
		F-01-05	394	20.00	20.00	20.00	40	798				25552
		F-01-06	395	20.00	20.00	20.00	40	804				25732
		F-01-07	396	20.00	20.00	20.00	40	797				25508
		F-01-08	397	20.00	20.00	20.00	40	800				25602

		F-01-09	398	20.00	20.00	20.00	40	797				25504
		F-01-10	399	20.00	20.00	20.00	40	804				25716
		F-01-11	400	20.00	20.00	20.00	40	798				25540
		F-01-12	401	20.00	20.00	20.00	40	803				25690
		F-01-13	402	20.00	20.00	20.00	40	800				25616
		F-01-14	403	16.00	16.00	16.00	40	639				20437
		F-01-15	404	16.00	16.00	16.00	40	643				20585
		F-01-16	405	16.00	16.00	16.00	40	640				20496
		F-01-17	406	16.00	16.00	16.00	40	638				20419
		F-01-18	407	0.00	0.00	0.00	0	0				0
Hermes Ave	W	F-06-01	291	0.00	0.00	0.00	0	0				0
		F-06-02	293	0.00	0.00	0.00	0	0				0
		F-06-03	294	0.00	0.00	0.00	0	0				0
		F-06-04	295	0.00	0.00	0.00	0	0				0
		F-06-05	296	0.00	0.00	0.00	0	0				0
		F-06-06	297	0.00	0.00	0.00	0	0				0
		F-06-07	298	0.00	0.00	0.00	0	0				0
		F-06-08	299	0.00	0.00	0.00	0	0				0
		F-06-09	300	0.00	0.00	0.00	0	0				0
		F-06-10	301	12.00	12.00	12.00	40	476				15230
		F-06-11	302	16.00	16.00	16.00	40	641				20514
		F-06-12	303	16.00	16.00	16.00	40	644				20595
		F-06-13	304	16.00	16.00	16.00	40	641				20514
		F-06-14	305	16.00	16.00	16.00	40	633				20264
		F-06-15	306	16.00	16.00	16.00	40	641				20509
		F-06-16	307	16.00	16.00	16.00	40	645				20639
		F-06-17	308	20.00	20.00	20.00	40	796				25488
		F-06-18	309	20.00	20.00	20.00	40	799				25578
		F-06-19	310	20.00	20.00	20.00	40	807				25811
		F-06-20	311	20.00	20.00	20.00	40	792				25347
		F-06-21	312	20.00	20.00	20.00	40	803				25690
		F-06-22	313	20.00	20.00	20.00	40	801				25618
		F-06-23	314	20.00	20.00	20.00	40	796				25476
		F-06-24	315	20.00	20.00	20.00	40	805				25746
		F-06-25	316	20.00	20.00	20.00	40	799				25562
		F-06-26	317	20.00	20.00	20.00	40	797				25508
		F-06-27	318	20.00	20.00	20.00	40	798				25524
		F-06-28	319	20.00	20.00	20.00	40	806				25799

		F-06-29	320	20.00	20.00	20.00	40	796				25480
		F-06-30	321	20.00	20.00	20.00	40	800				25594
		F-06-31	322	20.00	20.00	20.00	40	800				25594
		F-06-32	323	20.00	20.00	20.00	40	800				25594
		F-06-33	324	20.00	20.00	20.00	18	361				11560



F2		Sheet 1 of 1	20 Jun 2023
		HMB Professional Engineers	
Barrier View-f2f1-sys-1		Project/Contract No. Brent Spence Bridge Technic	
Run name: NSA_F2_v1_backup		TNM Version 2.5, Feb 2004	
Scale: <DNA - due to perspective>		Analysis By: Mark Gavula	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

TNM RESULTS: VALIDATION TABLE

HMB Professional Engineers
Mark Gavula

1 July 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: V1
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc					
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
V1	1	1	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

12 July 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: V2
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc					
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
V2	1	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

12 July 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: V3
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
V3	1	1	0.0	68.5	66	68.5	10	Snd Lvl	68.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

14 July 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: V4
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
V4	1	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

12 July 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: V5
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
V5	1	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

HMB Professional Engineers
Mark Gavula

12 July 2022
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: Brent Spence Bridge 6-17.00/1415.04
RUN: V6
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
V6	1	1	0.0	74.7	66	74.7	10	Snd Lvl	74.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

APPENDIX G – EQUIVALENT RECEPTOR CALCULATIONS

APPENDIX G – EQUIVALENT RECEPTOR CALCULATIONS

A00104 Holiday Inn Pool

- 54 chairs
- 12 hours a day during the pool season (39% of the year)
- ER = (54/2.5)(84/168) = (21.6)(0.5) = (10.8)(0.39) = 4.2 = 4

B00117-F Goebel Park

- 75 people use the park a day
- Park open for 12 hours
- Two large events (Oktoberfest and Pride)
    - 3,000 people over the weekend for Oktoberfest
    - 1,500 people over the weekend for Pride
- Average, including the large events, 87 people/day
- ER = (87/2.5)(12/24) = (34.8)(0.5) = 17.4 = 17

B00204 Piper's Ice Cream Shop

- 26 seats outside
- Open 6 days a week
- Open 9 hours for 5 days, 11 hours on the sixth day
- ER = (26/2.5)(56/168) = (10.4)(0.333) = 3.5 = 4

B00305 Mexican Restaurante y Taquería El Valle Verde

- 24 outdoor seats
- Open 7 days/week
- Open 12 hours/day for 6 days, 11 hours on the seventh day
- ER = (24/2.5)(83/168) = (9.6)(0.494) = 4.7 = 5

B001301-F Goebel Pool

- Average 53 people/day for summer months
- Open 8 weeks/year ~15% of the year
- Open 12 Noon-6pm
- ER = (53/2.5)(42/168) = (21.2)(0.25) = (5.3)(0.15) = 1

B04225-F Kenney Shields Park

- Being Converted to a dog park
- Estimated 125 people/day
- 12 hours/day use
- ER = (125/2.5)(12/24) = (50)(0.5) = 25

B22605 Larry's Bar

- 30 seats outside
- Open 7 days a week, total of 67 hours
- ER = (30/2.5)(67/168) = (12)(0.399) = 4.8 = 5

B10405 Rosie's Bar

- Open 84.5 hours/week
- 24 outdoor seats
- ER = (24/2.5)(84.5/168) = (9.6)(0.503) = 4.8 = 5

B10701 Bar 32

- Open 76 hours a week
- 8 seats outside
- ER = (8/2.5)(76/168) = (3.2)(0.452) = 1.4 = 1

B18402 Around the Clock Childcare

- 127 child capacity
- Infant to school age (pre-K)
- Playground outside
- Assume 30 child capacity
- 4 hours a day max for recess/physical activities etc
- ER =(30/2.5)(4/24) = (12)(0.167) = 2

B20104 Mr. T's Tavern on Main

- 16 outdoor seats
- Open 14 hours a day, 7 days a week for a total of 98 hours
- No residential access outside
- ER = (16/2.5)(98/168) = (6.4)(0.583) = 3.7 = 4

C04401-F Hospital Benches

- Outpatient facility, no overnight stays
- Smoke breaks etc
- 4 people can use the benches
- Total use of 9 hours
- ER = (4/2.5)(9/24) = (1.6)(0.375) = 0.6 = 1

C07101-F Garden of Hope/Immanuel Baptist Church

- About 30 cars could be parked in the gravel lot
- Assuming 4 hours of service a week
- ER = (30/2.5)(4/168) = (12)(0.02381) = 0.29 = 1

C10004 Linden Grove Cemetery & Arboretum

- Hours: 9am-5pm (8 hours); 9am-8pm (11 hours) summer months—average of 9.25 hours a day
- No response from their office, using 24 people a day (estimate same from Father Hanses park since it isn't used much) for people from nearby neighborhoods walking/walking dogs
- ER = (24/2.5)(9.25/24) = (9.6)(0.39) = 4

D01110-F Retirement Community Gazebo

- 100 residents average use of six hours a day for the whole year considering winter time
- ER=(100/2.5)(6/24) = (40)(0.25)= 10

D05002 Apartment Gazebo

- 36 units
- Generously estimating 3 hours a weeknight and 12 hours a weekend (27 hours a week)
- ER = (36/2.5)(27/168) = (14.4)(0.161) = 2.3 = 2

F07103-F Kiddie City Daycare

- Max capacity 38 kids
- Recess + afterschool playtime ~4 hrs/day
- ER = (38/2.5)(4/24) = (15.2)(0.167) = 2.53 = 3

E00101-F Hotel outdoor bench

- Assuming 10 people over the course of the day
- Assuming 6 hours since most people won't just be sitting around at the back of a hotel
- ER = (4/2.5)(12/24) = (1.6)(0.5) = 0.8 = 1

F07904-F Covington Standard Club

- 99 members
- 4 meetings a month
- 2 hours/meeting
- Have had events for opening day etc
- Assuming 2 hours/week average, 16 hours for miscellaneous activities (cookouts, tailgates etc) = 18 hours a week
- ER = (99/2.5)(18/168) = (39.6)(0.107) = 4

F15606 St. Johns Church / Prince of Peace Catholic School

- 112 kids
- PK through 8th grade
- Recess + afterschool activities (4 hours a day)
- 4 additional hours to cover additional misc outdoor activities around Mass
- ER = (112/2.5)(24/168) = (44.8)(0.143) = 6

F31617 Prince of Peace Catholic School (interior)

- 112 kids
- ER = (112/2.5)(9/24) = (44.8)(0.375) = 16.8 = 17

F18405 Father Hanses Park

- Based on information from the city of Covington Parks and Rec:

- 24 people a day
- Open 12 hours a day
- ER = (24/2.5)(12/24) = (9.6)(0.5) = 4.8 = 5

F25904 Grays Peak Pool

- 50 chairs at the pool
- 12 hours/day in the summertime ~84 hours/week
- Used 39% of the year (pool season)
- ER = (50/2.5)(84/168) = (20)(0.5) = (10)(0.39) = 3.9 = 4