

VIRGINIA DEPARTMENT OF TRANSPORTATION
ROUTE 29 BYPASS PROJECT

STATE PROJECT: 0029-002-844, P101; UPC 102419

**PRELIMINARY NOISE
ANALYSIS DRAFT REPORT**

From: Route 250 Bypass

To: U.S. Route 29 North of South Fork Rivanna River
Albemarle County and City of Charlottesville, Virginia

Prepared for:



Virginia Department of Transportation
Environmental Division
1401 East Broad Street
Richmond, VA 23219

AUGUST 2012

Virginia Department of Transportation Route 29 Bypass Project

State Project No.: 0029-002-844, P101; UPC 102419
From: Route 250 Bypass
To: U.S. Route 29 North of South Fork Rivanna River
Albemarle County and City of Charlottesville, Virginia

PRELIMINARY NOISE ANALYSIS DRAFT REPORT

Submitted to:



Virginia Department of Transportation
Environmental Division
1401 East Broad Street
Richmond, VA 23219

Submitted by:



4951 Lake Brook Drive, Suite 275
Glen Allen, VA 23060

August 2012

TABLE OF CONTENTS

I.	Executive Summary	1
II.	Introduction.....	2
III.	Noise Analysis Methodology, Terminology and Criteria.....	2
IV.	Validation and Existing Conditions	5
V.	Evaluation of Design Year Noise Levels & Noise Impact Assessment	6
VI.	Noise Abatement Evaluation	12
VII.	Construction Noise.....	17
VIII.	Public Involvement/Local Officials Coordination.....	18
IX.	Noise Contours.....	19
X.	Conclusion	20

TABLES

Table 1 – Hourly Weighted Sound Levels db(A) for Various Land Use Activity Categories
Table 2 – Route 29 Bypass Project - (2012) Noise Monitoring and Validation Results
Table 3A – Route 29 Bypass Project – Sound Level Summary
Table 3B – Route 29 Bypass Project – Sound Level Summary
Table 4 – Route 29 Bypass Project – Optimized Barrier Analysis – CNE B
Table 5 – Route 29 Bypass Project – Optimized Barrier Analysis – CNE C
Table 6 – Route 29 Bypass Project – Optimized Barrier Analysis – CNE D
Table 7 – Route 29 Bypass Project – Optimized Barrier Analysis – CNE F
Table 8 – Route 29 Bypass Project – Optimized Barrier Analysis – CNE G
Table 9 – Route 29 Bypass Project – Optimized Barrier Analysis – CNE H
Table 10 – Route 29 Bypass Project – Optimized Barrier Analysis – CNE J
Table 11 – Route 29 Bypass Project – Optimized Barrier Analysis – CNE K
Table 12 – Route 29 Bypass Project – Optimized Barrier Analysis – CNE P
Table 13 – Route 29 Bypass Project – CNE Noise Barrier Summary
Table 14 – Route 29 Bypass Project – CNE Specific Noise Contours

FIGURES

Figure 1 – Regional Location Map
Figure 2– Project Specific Index Map
Figures 3-9 – Project Specific CNE Mapping

APPENDICES

Appendix A – Noise Meter Calibration Certificates
Appendix B – Noise Monitoring Data Forms
Appendix C – Metrosonics Printouts
Appendix D – Traffic Data Summary
Appendix E – HB 2577 Documentation
Appendix F – Warranted, Feasible, & Reasonable Worksheets
Appendix G – References
Appendix H – List of Preparers & Reviewers

I. Executive Summary

The proposed project would provide a new four-lane divided, limited access highway to the west of existing Route 29. The proposed project is approximately 6.24 miles long, and would extend from the Route 250 Bypass and the North Grounds of the University of Virginia on the south end to existing Route 29 north of the South Fork Rivanna River on the north end. A connector road into the North Grounds of the University of Virginia, located on the south side of the Route 250 Bypass, which was previously a part of the project, has already been constructed (Leonard Sandridge Road). Access to the new highway would be via interchanges at both ends, with no intermediate access points to crossroads or adjacent properties. The typical cross section would include 12-foot-wide lanes, with shoulders and a variable-width graded median. *Figure 1* shows the location of the project. This report documents the Existing and Design Year Build noise levels associated with the Route 29 Bypass Project.

Noise monitoring for the project was performed at eighteen (18) locations during typical, weekday conditions. The monitoring in Common Noise Environments (CNEs) B, C, D, F, G, H, J, K, M and N was performed throughout the day to accurately determine ambient, non-roadway conditions, since no roads in the general vicinity contribute to the overall ambient noise level. Noise modeling was conducted for these and numerous additional sites to gain a thorough understanding of the existing noise environment and to determine how the proposed improvements would affect the noise levels throughout the project area. Project field views were performed to examine the project area, as well as to document major sources of acoustic shielding (e.g., terrain lines, and building rows, etc.) adjacent to the project corridor. Coordination was performed with Albemarle County in June 2012 to determine if any areas of development are occurring that may not show in project mapping. For reporting purposes, the project was divided into areas of common noise environment, referred to as CNEs. Noise modeling was completed for Existing (2012) and Design Year Build (2040) conditions.

Design Year Build (2040) noise levels were predicted at each monitored and modeled receptor site under the proposed improvements. As identified in *Tables 3A* and *3B*, by the sound level ranges listed in *Column 7*, Design Year Build (2040) noise levels are projected to approach or exceed the FHWA/VDOT NAC within nine CNEs. In total, 56 residential land uses and athletic fields associated with the Agnor Hurt Elementary School and the Jack Jouett Middle School would be impacted and warrant noise abatement consideration as part of this analysis. Noise abatement evaluations conclude that noise abatement is not recommended for any CNEs within the project area.

The noise evaluation is preliminary and a more detailed review will be completed during the final design stage. As such, noise barriers that are found to be feasible and reasonable during the preliminary noise analysis may not be found to be feasible and reasonable during the final design noise analysis. Conversely, noise barriers that were not considered feasible and reasonable may meet the established criteria and be recommended for construction. Conceptual roadway design and topography were used for this analysis, whereas the final design noise analysis will use specific, detailed information corresponding to the refined alignment.

II. Introduction

Impacts associated with noise are often a prime concern when evaluating roadway improvement projects. Roadway construction at a new location or improvements to the existing transportation network may cause impacts to the noise-sensitive environment located adjacent to the project corridor. For this reason, FHWA and VDOT have established a noise analysis methodology and associated noise level criteria to assess the potential noise impacts associated with the construction and use of transportation projects.

The Route 29 Bypass, project study area begins at the Route 250 Bypass and the North Grounds of the University of Virginia on the south end to existing Route 29 north of the South Fork Rivanna River on the north end

This draft report details the steps involved in the preliminary noise analysis for the Route 29 Bypass, including noise monitoring/modeling methodologies, results, impact evaluation, and noise abatement optimization.

Any determinations made in this report should be considered preliminary in nature. This analysis was based on conceptual, design and topographic information. Commitments on noise impacts and abatement will not be finalized until the final design noise analysis has been completed. The purpose of the preliminary noise analysis is to identify areas of potential abatement that will require further study in final design, not to make firm noise abatement commitments. Commitments on noise abatement will only be made during the final design phase of the project.

The findings of the Preliminary Noise Analysis are based on preliminary engineering information that was available at the time of this study. Efforts were made to accurately portray the design components in the computer model. To account for unavailable data, professional judgment was used where necessary. The proposed engineering designs and profiles were referenced and utilized to build the computer noise model. Additional plan sheets were referenced to account for proposed cut and fill areas along the proposed alignment. Base mapping and field views were used to further identify noise-sensitive land use areas and terrain features that could affect noise levels within the project corridor. The Design Year Build (2040) conditions model was created by adding the proposed roadway improvements to the existing computer model and accounting for proposed roadway changes in vertical and horizontal alignment. Design and topographic features contained in the noise model are considered preliminary, thus additional analyses will be conducted in final design with more detailed information.

III. Noise Analysis Methodology, Terminology and Criteria

To determine the degree of highway noise impact, NAC have been established for a number of different land use categories, as shown in *Table 1*. The majority of the land use areas within the project corridor are considered Category B; however, several Category C land use areas are also present. Category B receptors are comprised of and limited to residential areas. Coordination occurred with Albemarle County in June 2012 to confirm that no new areas of residential

development are programmed within 500 feet of the project corridor. Category C land use areas represent the following: active sport areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings. Category D addresses interior noise levels associated with hospitals, libraries, schools, medical facilities, places of worship, public or nonprofit institutions, etc. While there are several schools located within the project corridor, they were not assessed for interior noise levels. The associated athletic fields were evaluated for potential noise impacts, since they represent the absolute worst-case use area on the property. The only location that was assessed for interior noise level impacts was in the southern portion of the project area on the University of Virginia Campus. To assess potential interior noise impacts, modeling sites are placed in close proximity to the existing structure. The standard noise reduction for masonry construction with modern windows is 25 dBA when comparing exterior versus interior sound levels. Both exterior and interior sound levels will be quoted in **Table 3A** and **3B** for Category D land uses.

Category F land uses area also present in the project area and include activities such as agriculture, airports, bus yards, industrial, maintenance facilities, utilities, etc. These areas are considered less sensitive to noise, due to the nature of the activity that takes place there and have a much higher NAC associated with them.

The findings in this preliminary noise analysis report are based on conceptual engineering information. Professional judgment may have been used in certain areas where gaps in engineering have occurred or proposed future terrain was not readily available. This corridor will be re-analyzed in the final design phase of the project with detailed, specific engineering information related to the proposed project alternative and the supporting data.

The NAC are given in terms of an hourly, A-weighted, equivalent sound level. The A-weighted sound level frequency is used for human use areas because it is comprised of the sound level frequencies that are most easily distinguished by the human ear, out of the entire sound level spectrum. Highway traffic noise is categorized as a linear noise source, where varying noise levels occur at a fixed point during a single vehicle pass by. It is acceptable to characterize these fluctuating noise levels with a single number known as the equivalent noise level (L_{eq}). The L_{eq} is the value of a steady sound level that would represent the same sound energy as the actual time-varying sound evaluated over the same time period. For highway noise assessments, L_{eq} is typically evaluated over a one-hour period.

Noise abatement determination is based on VDOT's three-phased approach. The first phase (**Phase 1**) distinguishes if a sensitive receptor, within a project corridor, warrants highway traffic noise abatement. The following describes the **Phase 1** warranted criterion, as discussed in VDOT policy. Receptors that satisfy either condition warrant consideration of highway traffic noise abatement.

- Predicted highway traffic noise levels (for the design year) approach or exceed the

highway traffic noise abatement criteria in *Table 1*. “Approach” has been defined by VDOT as 1 dB(A) below the noise abatement criteria.

~or~

- A substantial noise increase has been defined by VDOT as a 10 dB(A) increase above existing noise levels for all noise-sensitive exterior activity categories. A 10 dB(A) increase in noise reflects the generally accepted range of a perceived doubling of the loudness.

Phase 2 and *Phase 3* of the three-phased approach will be discussed in the noise abatement evaluation, located in *Section VI* of this report.

The identification of noise-sensitive land use areas and the location of the proposed project guided the selection of noise monitoring locations along the project corridor. In order to determine the existing noise conditions within the project area, noise monitoring was conducted at eighteen (18) representative noise sensitive receptor sites (A1 through P1). *Figures 3-9* identify the limits of proposed project area and the locations of the noise monitoring sites.

Monitoring was performed at each of the selected noise sensitive receptors using Metrosonics dB-3080 dosimeters. Readings were taken on the A-weighted scale and reported in decibels (dB(A)). Prior to noise monitoring, noise meters were calibrated using a Metrosonics cl-304 acoustical calibrator. The noise monitoring equipment meets all requirements of the American National Standard Specifications for Type 2 Sound Level Meters, ANSI S1.4-1983 (R1991), as defined by FHWA. Noise monitoring was conducted in accordance with the methodologies contained in FHWA-PD-96-046, *Measurement of Highway-Related Noise* (FHWA, May 1996).

Noise monitoring was conducted on June 29, 2012. The data collected was used to evaluate the fluctuation of traffic noise during the loudest hours of a typical weekday. The receptor sites were selected based on their proximity to the existing roadway network and the proposed project alternative. Existing, ambient noise levels are variable and can change over time, therefore re-monitoring of the corridor will occur in the final design phase as well.

Short-term noise monitoring was conducted at each receptor site for at least ten-minutes and longer when practical. Short-term noise monitoring is not a process to determine design year noise impacts or barrier locations. Short-term noise monitoring provides a level of consistency between what is present in real-world situations and how that is represented in the computer noise model. Short-term monitoring does not need to occur within every CNE to validate the computer noise model. Several CNEs (B, C, D, F, G, H, I, J, K, M and N) had very little, if any roadway noise influence. Therefore, the monitored noise levels at these sites represent a typical ambient noise level for existing conditions.

During the short-term monitoring phase, noise levels were recorded at 10-second intervals for the duration of each test. Data collected by the sound analyzers included time, average noise level (L_{av}), maximum noise level (L_{max}), and instantaneous peak noise level (L_{pk}) for each recorded interval. Additional data collected at each monitoring location included atmospheric conditions, wind speed, background noise sources, and unusual/atypical noise events. Traffic data (vehicle volume and speed) were also recorded on all roadways visible from the monitoring sites and

substantially contributed to the overall noise levels. Traffic was grouped into one of three categories: cars, medium trucks, and heavy trucks, per VDOT procedures. Combined, all of these data were used during the noise model validation process for these receptor sites.

The methodologies applied to the noise analysis for the Route 29 Bypass Project are in accordance with VDOT's "*Highway Traffic Noise Impact Analysis Guidance Manual*", effective July 13, 2011, updated September 2011. VDOT guidelines are based on Title 23 of the Code of Federal Regulations, Part 772 and the Federal Highway Administration's Procedures for Abatement of Highway Traffic Noise and Construction Noise, (23 CFR 772).

IV. Validation and Existing Conditions

Computer modeling is the accepted technique for predicting Existing and Design Year noise levels associated with traffic-induced noise. Currently, the FHWA Traffic Noise Model (TNM) 2.5 computer-modeling program is the approved highway noise prediction model. The TNM has been established as a reliable tool for representing noise generated by highway traffic. The information applied to the modeling effort includes the following: highway design files (existing and proposed design), traffic data, roadway cross-sections, and surveying of terrain. Base mapping, aerial photography, and field views were used to identify noise-sensitive land use areas within the corridor and any terrain features that may shield roadway noise. The majorities of the land use areas in the project area are residential are categorized as Category B land use areas.

The modeling process begins with model validation, per VDOT requirements. For the purposes of this analysis, CNEs A, E, L, O and P contained monitoring sites that require noise model validation. All the remaining sites have little, to no existing roadway influence and represent ambient conditions for their respective CNE. Noise model validation in CNEs A, E, L, O and P was accomplished by comparing the monitored noise levels with noise levels generated by the computer model, using the traffic volume, speeds and composition that were witnessed during the monitoring effort. This comparison ensures that reported changes in noise levels between Existing and Design Year conditions are due to changes in traffic conditions and not to discrepancies between monitoring and modeling techniques. A difference of three decibels (3 dB(A)) or less between the monitored and modeled level is considered acceptable, since this is the limit of change detectable by the typical human ear. **Table 2** provides a summary of the model validation for the Existing (2012) monitored conditions. **Column 6** represents the difference between the monitored level (**Column 4**) and the level produced by the noise model (**Column 5**). Since all of the analyzed receptors show less, or equal to, a 3 dB(A) difference between the monitored and modeled noise levels, the model is considered an accurate representation of existing conditions throughout the Route 29 Bypass project area.

The validated noise model was the base noise model used for portions of the preliminary noise analysis. The majority of the Route 29 project proposed alignment is on new location. Therefore, the monitored sites along this proposed project are representative of existing conditions for the area. Additional modeling sites were added to the validated and build conditions computer model to more thoroughly predict impacts throughout the project area. In total, an additional 71 modeling sites were added to both models to predict existing and future noise levels throughout the project corridor. Additional noise modeling was performed for

existing conditions using traffic data derived by traffic engineers in the preliminary analysis (*Appendix D*). This modeling step was performed to evaluate existing “worst-case” conditions associated with existing worst-case traffic volumes and composition. *Column 5* of *Tables 3A* and *3B* provides a summary of worst-case existing noise levels, based on supplied worst-case existing traffic volumes and/or monitored, ambient conditions. Using these existing noise levels, the noise impact criterion was determined at each receptor site, based on either the “absolute” criteria shown in *Table 1* or VDOT’s “substantial increase” above existing conditions criterion. For ease of review, the impact criterion for each receptor site can be seen in *Column 6* of *Tables 3A* and *3B*.

Traffic noise levels were predicted at all noise-sensitive land use areas along existing Route 29, the Route 250 Bypass and along the proposed project, using the latest version of the FHWA TNM 2.5. Existing worst-case (2012) noise levels were determined by incorporating field reconnaissance of the existing transportation network into the noise model. For the purposes of this noise analysis, it was determined through field verification that the majority of the project area is dominated by ambient, background noise.

The traffic data supplied by traffic engineers, including volumes, speeds and composition, were added to the noise model to predict existing, worst-case noise levels throughout the project corridor. The traffic data used in the preliminary noise analysis has been determined to be valid for the final design noise analysis. Posted and free-flow roadway speeds were identified during the field view and were also incorporated into the noise model.

Analysis locations were grouped into Common Noise Environments (CNEs), which are groupings of receptor sites that, by location, form distinct communities within the project area and have a common noise environment. These areas were used to evaluate traffic noise impacts and potential noise abatement options to residential developments or communities as a whole, and to assess the feasibility and reasonableness of potential noise abatement measures for specific communities. Where residential communities or groupings of noise-sensitive land use areas exist, both noise monitoring and noise modeling-only sites were grouped into a CNE. A detailed discussion of each CNE and its respective, predicted sound levels is contained in *Section V* of this report.

V. Evaluation of Design Year Noise Levels & Noise Impact Assessment

Following the development of the existing conditions model and the prediction of Existing (worst-case) noise levels, the assessment continued with the projection of Design Year Build (2040) noise levels. This task was accomplished by accounting for the proposed project improvements and applying Design Year (2040) traffic volumes and composition to the validated computer model. Design Year Build (2040) noise levels were predicted with the improvements in place and in use. Design and topographic features contained in the noise model are considered conceptual, thus additional analyses will be conducted in final design with more detailed information.

The next step in the noise analysis was to project Design Year Build (2040) noise levels and to determine if receptors approach or exceed the NAC. If the criteria are approached or exceeded at

any receptor, noise abatement will be considered and evaluated in an attempt to reduce Design Year noise levels. The noise levels associated with the Design Year Build (2040) modeling analysis are summarized in *Column 7* of *Tables 3A* and *3B*. Several receptor sites within the project area represent residential land uses that have been acquired or will be acquired as part of this project. Those land uses have not been included in the impact totals or the abatement evaluations. As shown, Design Year Build (2040) noise levels are projected to approach or exceed the NAC within nine CNEs, representing 56 residential land use areas and two athletic fields associated with the Agnor Hurt Elementary School and the Jack Jouett Middle School.

The information applied to the Design Year modeling effort included the following: proposed roadway improvements and traffic data derived from modeling efforts for Design Year Build (2040) conditions. Base mapping and field views were used to further identify noise-sensitive land use areas and terrain that shields noise levels considerably within the project corridor. The Design Year Build (2040) conditions model was created by adding the proposed roadway improvements to the existing computer model and accounting for proposed roadway changes in vertical and horizontal alignment.

Design Year (2040) traffic volumes, vehicle composition, and speeds were assigned to all existing and proposed roadways. All traffic data used in the noise analyses were derived from traffic engineering studies for the project (*Appendix D*).

Due to the nature of the proposed improvements, Design Year Build (2040) noise levels are anticipated to increase from the Existing Year (2012) noise levels. The addition of the proposed project to an area that is currently lacking highway traffic noise is the reason for this increase in noise levels. The following paragraphs discuss the predicted sound levels for each of the CNEs within the Route 29 Bypass project area.

CNE A

CNE A is located in the northern portion of the project area, along the northbound travel lanes of Route 29 (Seminole Trail). CNE A contains three monitoring sites (A1-A3) and four “modeling-only” receptor sites (MA1-MA4), as shown in *Figure 3*, which represent the noise-sensitive land use areas along Ashwood Boulevard, Ridgewood Circle and Rubin Lane. Existing worst-case noise levels range from 49-63 dB(A), as shown in *Column 5* of *Table 3A*. The dominant noise source within CNE A is Route 29 and all receptors have existing worst-case noise levels that are currently below the NAC. Design Year Build (2040) sound levels were predicted to remain relatively consistent are predicted to range from 51-64 dB(A), with no noise impacts predicted within CNE A. Since sound levels do not exceed the NAC, noise abatement is not warranted and will not be discussed further.

CNE B

CNE B is located in the northern portion of the project area, east of the Rivanna River and west of Woodburn Road. CNE B contains one monitoring site (B1) and four “modeling-only” receptor sites (MB1-MB4), as shown in *Figures 4* and *5*, which represent most of the noise-sensitive land use areas along Woodburn Road and Woodburn Court. CNE B is comprised of

mostly single-family (Category B) residential and land use areas. Existing, worst-case noise levels within CNE B are approximately 51 dB(A), as shown in **Column 5** of **Table 3A**. The dominant noise source within CNE B is ambient and background noise sources. Very few vehicles were witnessed on Woodburn Road during the monitoring effort and therefore it was determined that Woodburn Road does not contribute to the overall noise level in a major capacity. Design Year Build (2040) sound levels were predicted to range from 56-63 dB(A), with noise impacts predicted at seven residences within CNE B. Since sound levels exceed the NAC, consideration of noise abatement is warranted and will be discussed in the following section of this report.

CNE C

CNE C is located in the northern portion of the project area, immediately north of Berkman Drive and east of the proposed project alternative. CNE C contains one monitoring site (C1) and 13 “modeling-only” receptor sites (MC1-MC13), as shown in **Figure 5**, that represent noise-sensitive land use areas along Woodburn Road, Berkman Drive and athletic fields associated with the Agnor Hurt Elementary School. Existing worst-case noise levels are approximately 44 dB(A), as shown in **Column 5** of **Table 3A**. There are three multi-story, multi-family housing units represented by receptor sites MC3, MC4 and MC5. For the building closest to the proposed project alternative, the first-story, second-story and third-story balconies were evaluated for potential noise impacts, per VDOT procedures. Design Year Build (2040) sound levels were predicted to range from 53-64 dB(A), with noise impacts predicted at four residential units within CNE C and the athletic fields associated with the Agnor Hurt Elementary School. Since sound levels exceed the NAC, consideration of noise abatement is warranted and will be discussed in the following section of this report.

CNE D

CNE D is located in the northern portion of the project area, immediately along Squirrel Path. CNE D contains one monitoring site (D1) and two “modeling-only” receptor sites (MD1-MD2), as shown in **Figure 5**, that represent noise-sensitive land use areas along Squirrel Path and Earlysville Road. Receptor site D1 represents two acquired properties as part of the project; therefore it will not be utilized for predicting future sound levels. Existing worst-case noise levels are approximately 48 dB(A), as shown in **Column 5** of **Table 3A**. CNE D has minimal influence from noise sources other than ambient background sources. Design Year Build (2040) sound levels were predicted to range from 55-61 dB(A), with noise impacts predicted at four residences within CNE D. Since sound levels exceed the NAC, consideration of noise abatement is warranted and will be discussed in the following section of this report.

CNE E

CNE E is located in the northern portion of the project area, immediately east of CNE D. CNE E contains one monitoring site (E1) and two “modeling-only” receptor sites (ME1-ME2), as shown in **Figure 5**, that represent noise-sensitive land use areas along Triangle Court and Rio Road West. Existing worst-case noise levels range from 54-58 dB(A), as shown in **Column 5** of **Table 3A**. CNE E does receive some moderate influence from Rio Road; therefore it was added to the

noise model. Design Year Build (2040) sound levels were predicted to range from 55-57 dB(A), with no noise impacts predicted within CNE E. As part of the project, traffic is being funneled onto the proposed alignment and is being shifted from the local roadway network, thus the design year noise levels are comparable to existing sound levels. Since sound levels do not exceed the NAC, noise abatement is not warranted and will not be discussed further.

CNE F

CNE F is located in the portion of the project area between Hydraulic Road and Lambs Road. CNE F contains three “modeling-only” receptor sites (MF1-MF3), as shown in **Figure 6**, which represent noise-sensitive land use areas along Roslyn Heights Road. Existing worst-case noise levels are approximately 44 dB(A), as shown in **Column 5 of Table 3A**. This noise level was determined by the closest monitoring receptor with similar characteristics. Monitoring site (G2) is situated closely to CNE F and shares most of the same acoustic traits. CNE F has minimal influence from noise sources other than ambient background sources. Design Year Build (2040) sound levels were predicted to range from 50-58 dB(A), with noise impacts predicted at two residences within CNE F. Since sound levels exceed the NAC, consideration of noise abatement is warranted and will be discussed in the following section of this report.

CNE G

CNE G is located in the portion of the project area between Lambs Road and Roslyn Ridge Road. CNE G contains two monitoring sites (G1-G2) and three “modeling-only” receptor sites (MG1-MG3), as shown in **Figure 6**, which represent noise-sensitive land use areas along Roslyn Ridge Road, Roslyn Forest Lane and Lambs Road. Existing worst-case noise levels range from 44-47 dB(A), as shown in **Column 5 of Table 3A**. CNE G has minimal influence from nearby roadways and is considered typical of ambient conditions. Design Year Build (2040) sound levels were predicted to range from 50-58 dB(A), with noise impacts predicted at one residence within CNE G. Since sound levels exceed the NAC, consideration of noise abatement is warranted and will be discussed in the following section of this report.

CNE H

CNE H is located in the central portion of the project area west of Lambs Road. CNE H contains one monitoring site (H1) and ten “modeling-only” receptor sites (MH1-MH10), as shown in **Figure 6**, which represent lands associated with the Jack Jouett Middle School and the Mary Greer Elementary School. Existing worst-case noise levels are approximately 43 dB(A), as shown in **Column 5 of Table 3A**. CNE H also has minimal influence from nearby roadways and is considered typical of ambient conditions. Design Year Build (2040) sound levels were predicted to range from 51-63 dB(A), with noise impacts predicted at the athletic field associated with the Jack Jouett Middle School. Additional modeling sites were added in a grid pattern, per VDOT procedures, to determine depth of impact and to aid in calculating reasonableness for the consideration of noise abatement. The resulting abatement analysis will be discussed in the following section of this report.

CNE I

CNE I is located in the central portion of the project area along Ingleridge Farm Road. CNE I contains one “modeling-only” receptor sites (MI1), as shown in **Figure 7**, which represent one residential land use. Existing worst-case noise levels are approximately 45 dB(A), as shown in **Column 5** of **Table 3A**. CNE I also has minimal influence from nearby roadways and is considered typical of ambient conditions. Design Year Build (2040) sound levels were predicted to be 54 dB(A), with no noise impacts predicted. Since sound levels do not exceed the NAC within CNE I, noise abatement is not warranted and will not be discussed further.

CNE J

CNE J is located in the portion of the project area, north of Barracks Road and just east of the proposed project alternative. CNE J contains two monitoring sites (J1-J2) and three “modeling-only” receptor sites (MJ1-MJ3), as shown in **Figure 7**, which represent noise-sensitive land use areas along Magnolia Drive and Montvue Drive. Receptor sites J1 and MJ2 represent four acquired properties as part of the project; therefore they will not be utilized for predicting future sound levels. Existing worst-case noise levels range from 44-45 dB(A), as shown in **Column 5** of **Table 3A**. CNE J has minimal influence from Barracks Road and is considered typical of ambient conditions. Design Year Build (2040) sound levels were predicted to range from 55-61 dB(A), with noise impacts predicted at 10 residences within CNE J. Since sound levels exceed the NAC, consideration of noise abatement is warranted and will be discussed in the following section of this report.

CNE K

CNE K is located in the central portion of the project area in the vicinity of Falcon Drive. CNE K contains one monitoring site (K1) and three “modeling-only” receptor sites (MK1-MK3), as shown in **Figures 7** and **8**, which represent noise-sensitive land use areas along Falcon Drive, Roslyn Forest Lane and Lambs Road. CNE K is bisected by the proposed project alternative, but has similar exposure to existing and proposed traffic noise. Therefore, CNE K is being discussed as one common noise environment. Existing worst-case noise levels within CNE K are approximately 45 dB(A), as shown in **Column 5** of **Table 3A**. Design Year Build (2040) sound levels were predicted to range from 52-58 dB(A), with noise impacts predicted at seven residences within CNE K. Since sound levels exceed the NAC, consideration of noise abatement is warranted and will be discussed in the following section of this report.

CNE L

CNE L is located in the portion of the project area north of Ivy Road and west of the existing Route 250 Bypass. CNE L contains two monitoring sites (L1-L2) and two “modeling-only” receptor sites (ML1-ML2), as shown in **Figure 8**, which represent noise-sensitive land use areas associated with the Saint Anne’s Belfield School. Existing worst-case noise levels range from 46-70 dB(A), as shown in **Column 5** of **Table 3B**. Two receptor sites (L2 and ML2) currently exceed the NAC. Existing noise levels are highest at the athletic fields in closest proximity to the Route 250 Bypass. Design Year Build (2040) sound levels were predicted to range from 53-

64 dB(A), with no noise impacts predicted within CNE L. The main reason for the decrease in sound levels is the southern shift of the Route 250 Bypass travel lanes. In this area, the lanes that carry the majority of the traffic are being shifted approximately 300 feet further away from the school. The grid system was not used in CNE L since the worst-case outdoor use areas were not impacted. Since sound levels do not exceed the NAC, noise abatement is not warranted and will be not discussed further.

CNE M

CNE M is located in the southern portion of the project area, along Harvest Drive and the University Village Condominiums. CNE M contains one monitoring site (M1) and six “modeling-only” receptor sites (MM1-MM6), as shown in **Figure 8**, which represent eighteen residential land uses and balconies for the condominiums’ first through fifth floors. Existing worst-case noise levels range from 52-53 dB(A), as shown in **Column 5** of **Table 3B**. CNE M has minimal influence from nearby roadways and is considered typical of ambient conditions. Design Year Build (2040) sound levels were predicted to range from 55-61 dB(A), with no noise impacts predicted. Since sound levels do not exceed the NAC within CNE M, noise abatement is not warranted and will not be discussed further.

CNE N

CNE N is located in the southern portion of the project area, south of Ivy Road. CNE N contains three “modeling-only” receptor sites (MN1-MN3), as shown in **Figure 8**, which represent seven residential land uses along Old Farm Road. Existing worst-case noise levels range from 57-61 dB(A), as shown in **Column 5** of **Table 3B**. The dominant noise source within CNE N is Ivy Road. Design Year Build (2040) sound levels were predicted to range from 58-63 dB(A), with no noise impacts predicted. Since sound levels do not exceed the NAC within CNE N, noise abatement is not warranted and will not be discussed further.

CNE O

CNE O is located in the southern portion of the project area, south of the Route 250 Bypass and east of the newly constructed Leonard Sandridge Road. CNE O contains one monitoring site (O1) and two “modeling-only” receptor sites (MO1-MO2), as shown in **Figure 9**, which represent various institutional buildings associated with the Darden School at the University of Virginia. Existing worst-case noise levels range from 54-56 dB(A), as shown in **Column 5** of **Table 3B**. Design Year Build (2040) exterior sound levels were predicted to range from 56-62 dB(A). CNE O is comprised of category Since sound levels do not exceed the NAC within CNE O, noise abatement is not warranted and will not be discussed further.

CNE P

CNE P is located in the southern portion of the project area, north of the Route 250 Bypass. CNE P contains one monitoring site (P1) and ten “modeling-only” receptor sites (MP1-MP10), as shown in **Figures 8** and **9**, which represent noise-sensitive land use areas along Woodhurst Road, Westminster Road, Chaucer Road and Surrey Road. The Route 250 Bypass is in cut in this

vicinity, therefore the noise levels experienced are lower. Existing worst-case noise levels within CNE P range from 52-69 dB(A), as shown in *Column 5* of *Table 3B*. Two receptor sites (MP3 and MP5) currently exceed the NAC. Design Year Build (2040) sound levels were predicted to range from 55-67 dB(A), with noise impacts predicted at three residences within CNE P. The slight reduction in design year noise levels is due to the alignment of the Route 250 Bypass being moved further away from the residences within CNE P. Since sound levels exceed the NAC, consideration of noise abatement is warranted and will be discussed in the following section.

VI. Noise Abatement Evaluation

Design Year Build (2040) noise levels are projected to approach or exceed the NAC within nine CNEs, representing 59 residential land uses and lands associated with the Jack Jouett Middle School. Therefore, per FHWA/VDOT procedures, noise abatement considerations are warranted, as discussed above for *Phase 1* of VDOT's three-phased approach, for the impacted properties within CNEs B, C, D, F, G, H, J, K and P.

Phase 2 and *Phase 3* of VDOT's three-phased approach to considering noise abatement and determining the feasibility and reasonableness of noise barriers are discussed below in detail.

Phase 2: Feasibility Criteria for Noise Barriers

- *At least a 5 dB(A) highway traffic noise reduction at impacted receptors. Per 23 CFR 772, FHWA requires the highway agency to determine the number of impacted receptors required to achieve at least 5 dB(A) of reduction. VDOT requires that fifty percent (50%) or more of the impacted receptors experience 5 dB(A) or more of insertion loss to be feasible; and*
- *The determination that it is possible to design and construct the noise abatement measure. The factors related to the design and construction include: safety, barrier height, topography, drainage, utilities, and maintenance of the abatement measure, maintenance access to adjacent properties, and general access to adjacent properties (i.e., arterial widening projects).*

FHWA and VDOT guidelines recommend a variety of abatement measures that should be considered in response to transportation-related noise impacts. While noise barriers and/or earth berms are generally the most effective form of noise abatement, additional abatement measures exist that have the potential to provide considerable noise reductions, under certain circumstances. A brief depiction of VDOT-approved noise abatement is below:

- Construction of noise barriers, including acquisition of property rights, either within or outside the highway right-of-way. In this location, landscaping is not a viable noise abatement measure.

- Traffic management measures including, but not limited to, traffic control devices and signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive lane designations.
- Alteration of horizontal and vertical alignments.
- Acquisition of real property or interests therein (predominantly unimproved property) to serve as a buffer zone to preempt development that would be adversely impacted by traffic noise. This measure may be included in Type I projects only.
- Noise insulation of Activity Category D land use facilities listed in **Table 1**. Post-installation maintenance and operational costs for noise insulation are not eligible for Federal-aid funding.

Additionally, the Noise Policy Code of Virginia (HB 2577, as amended by HB 2025) requires that whenever the Commonwealth Transportation Board or VDOT plan for or undertake any highway construction or improvement project and such project includes or may include the requirement for the mitigation of traffic noise impacts, first consideration should be given to the use of noise reducing design and low noise pavement materials and techniques in lieu of construction of noise walls or sound barriers. However, low noise pavement materials and techniques can only be considered if VDOT participates in a federally approved Quiet Pavement Pilot Program. Vegetative screening, such as the planting of appropriate conifers, in such a design would be utilized to act as a visual screen if visual screening is required. Correspondence related to HB 2577 is contained in **Appendix E**.

Noise walls and earth berms are often included in the highway design in response to identified noise impacts. The effectiveness of a free-standing (post and panel) noise barrier and an earth berm of equivalent height are relatively consistent; however, an earth berm is often perceived as a more aesthetically pleasing option. Therefore, where possible, earth berms are typically the preferred form of noise abatement. The use of earth berms is not always an option, however, due to the excessive space they require adjacent to the roadway corridor. At a standard slope of 2:1, every one foot of berm height would require approximately four feet of horizontal width. This requirement becomes more complex on roadway improvement projects where residential properties often abut the proposed roadway corridor. In these situations, implementation of earth berms can require considerable property acquisition to accommodate noise abatement. Due to limited right-of-way throughout the proposed roadway corridor and the potential impact to (and acquisition of) adjacent residential properties and local roadways that would be required to provide berms, earth berms were not considered a viable abatement option for this project. Therefore, noise barriers were evaluated in an attempt to reduce Design Year Build (2040) noise levels below criteria, however, other options may be deemed appropriate in the final design phase of the project.

Phase 3: Reasonableness Criteria for Noise Barriers

A determination of noise barrier reasonableness includes the consideration of the parameters listed below. All of the reasonableness factors must collectively be achieved in order for a noise abatement measure to be deemed reasonable.

- **Viewpoints of the benefited receptors**

VDOT shall solicit the viewpoints of all benefited receptors through certified mailings and obtain enough responses to document a decision as to whether or not there is a desire for the proposed noise abatement measure. Fifty percent (50%) or more of the respondents shall be required to favor the noise abatement measure in determining reasonableness.

- **Cost-effectiveness**

VDOT's noise barrier cost effectiveness value is based upon a Maximum Square Footage of Abatement per Benefited Receptor (MaxSF/BR) value of 1,600. This MaxSF/BR criterion shall be applied as part of the noise barrier reasonableness determination. It replaces the previously used "Cost per Benefited Receptor" criteria.

- **Noise Reduction Design Goals**

The design goal is a reasonableness factor indicating a specific reduction in noise levels that VDOT uses to identify that a noise abatement measure effectively reduces noise. The design goal establishes a criterion selected by VDOT that noise abatement must achieve. The design goal is not the same as acoustic feasibility, which is the minimum level of effectiveness of a noise abatement measure. Acoustic feasibility indicates that the noise abatement measure can, at a minimum, achieve a discernible reduction in noise levels.

The effectiveness of a noise barrier is measured by examining the barrier's capability to reduce Design Year noise levels. Noise reduction is measured by comparing Design Year pre-and post-barrier noise levels. This difference between unabated and abated noise levels is known as "insertion loss" (IL). It is important to optimize the noise barrier design to achieve the most effective noise barrier in terms of both noise reduction (insertion losses) and cost. Although at least a 5 dB(A) reduction is required to meet the feasibility criteria, the following tiered noise barrier abatement goals should be used to govern barrier design and optimization.

- Reduction of future highway traffic noise by 7 dB(A) at one (1) or more of the impacted receptor sites (required criterion).
- Reduction of future highway traffic noise levels to the low-60-decibel range when practical (desirable).
- Reduction of future highway traffic noise levels to existing noise levels when practical (desirable).

The following discussion presents potential abatement evaluation for CNEs B, C, D, F, G, H, J, K and P within Route 29 Bypass project study area. Where a noise barrier was evaluated, the effectiveness was measured in terms of achievable IL. All barriers in the project area were evaluated at heights ranging from 12-28 feet, at four-foot increments. **Tables 4-12** show the Design Year Build (2040) sound levels (**Column 4**), the abated sound levels (**Column 5**), and the

net insertion losses (*Column 6*) for the minimum height barrier that was determined to be feasible, if at all, for each CNE. Additionally, barrier summary information, such as average height, length, barrier square footage and the number of benefitted residences are shown on *Table 13*. The purpose of this preliminary noise analysis is to identify areas of potential abatement that will require further study in final design, not to make firm noise abatement commitments. Commitments on noise abatement will only be made during the final design phase of the project.

CNE B

A post-and-panel sound barrier system was evaluated to mitigate predicted impacts with CNE B. As shown in *Figures 4* and *5*, a conceptual barrier was evaluated along the proposed Route 29 Bypass southbound edge-of-shoulder. The evaluated barrier for CNE B totals 3,575 feet in length and achieves feasible (>5dB(A)) reductions at an average height of approximately 16 feet, as shown in *Table 4*. This barrier effectively benefits five residences, thus its MaxSF/BR is 11,502, which exceeds VDOT's allowable criteria. Considering all factors, the conceptual barrier for CNE B is feasible, but not reasonable per VDOT criteria.

CNE C

A post-and-panel sound barrier system was evaluated to mitigate predicted impacts with CNE C. As shown in *Figure 5*, a conceptual barrier was evaluated along the proposed Route 29 Bypass northbound edge-of-shoulder. Considering the multi-story balconies, and using the "grid system" for the school property, the evaluated barrier for CNE C totals 1,929 feet in length and was evaluated up to 28 feet, in height, as shown in *Table 5*. This barrier does not achieve feasible reductions, therefore is it not recommended for further considerations at this time. Reevaluation of this area will be performed during the final design phase with more detailed information. Considering all factors, the conceptual barrier for CNE C is not feasible, per VDOT criteria.

CNE D

A post-and-panel sound barrier system was evaluated to mitigate predicted impacts with CNE D. As shown in *Figure 5*, a conceptual barrier was evaluated along the proposed Route 29 Bypass southbound edge-of-shoulder. The evaluated barrier for CNE D totals 1,178 feet in length and achieves feasible (>5dB(A)) reductions at an average height of approximately 12 feet, as shown in *Table 6*. This barrier effectively benefits four residential units, thus its MaxSF/BR is 3,523, which exceeds VDOT's allowable criteria. Considering all factors, the conceptual barrier for CNE D is feasible, but not reasonable per VDOT criteria.

CNE F

A post-and-panel sound barrier system was evaluated to mitigate predicted impacts with CNE F. As shown in *Figure 6*, a conceptual barrier was evaluated along the proposed Route 29 Bypass northbound edge-of-shoulder. The evaluated barrier for CNE F totals 1,387 feet in length and achieves feasible (>5dB(A)) reductions at an average height of approximately 16 feet, as shown in *Table 7*. This barrier effectively benefits two residential units, thus its MaxSF/BR is 11,162,

which exceeds VDOT's allowable criteria. Considering all factors, the conceptual barrier for CNE F is feasible, but not reasonable per VDOT criteria.

CNE G

A post-and-panel sound barrier system was evaluated to mitigate predicted impacts within CNE G. As shown in **Figure 6**, a conceptual barrier was evaluated along the proposed Route 29 Bypass southbound edge-of-shoulder from Roslyn Ridge Road to Lambs Road. The evaluated barrier for CNE G totals 1,053 feet in length and achieves feasible (>5dB(A)) reductions at an average height of approximately 16 feet, as shown in **Table 8**. This barrier effectively benefits four residential units, thus its MaxSF/BR is 4,233, which exceeds VDOT's allowable criteria. Considering all factors, the conceptual barrier for CNE G is feasible, but not reasonable per VDOT criteria.

CNE H

A post-and-panel sound barrier system was evaluated to mitigate predicted impacts within CNE H. The impacts within CNE H are associated with Jack Jouett Middle School; therefore the "grid" system has been used for the noise abatement evaluation, per VDOT guidance. As shown in **Figure 6**, a conceptual barrier was evaluated along the southbound shoulder or the proposed alignment. The evaluated barrier for CNE H totals 1,112 feet in length and achieves feasible (>5dB(A)) reductions at an average height of approximately 16 feet, as shown in **Table 9**. This barrier effectively benefits the school and eight grid units, thus its MaxSF/BR is 1,988, which exceeds VDOT's allowable criteria. Considering all factors, the conceptual barrier for CNE H is feasible, but not reasonable per VDOT criteria.

CNE J

A post-and-panel sound barrier system was evaluated to mitigate predicted impacts within CNE J. As shown in **Figure 7**, a conceptual barrier was evaluated along the southbound edge-of-shoulder of the proposed alignment. The evaluated barrier for CNE J totals 2,162 feet in length and achieves feasible (>5dB(A)) reductions at an average height of approximately 16 feet, as shown in **Table 10**. This barrier effectively benefits three residential units, thus its MaxSF/BR is 11,593, which exceeds VDOT's allowable criteria. Considering all factors, the conceptual barrier for CNE J is feasible, but not reasonable per VDOT criteria.

CNE K

A two-barrier post-and-panel sound barrier system was evaluated to mitigate predicted impacts within CNE K. The residences within CNE K have similar exposure to existing and future predicted sound levels. Therefore, CNE K was not divided into separate CNEs even though it is bisected by the proposed alignment. Two barriers were evaluated for CNE K; one on each side of the proposed project alignment. As shown in **Figures 7 and 8**, the conceptual barriers were evaluated along the northbound and southbound edge-of-shoulders. The southbound barrier for CNE K totals 1,630 feet in length and achieves feasible (>5dB(A)) reductions at an average height of approximately 20 feet, as shown in **Table 11**. This barrier effectively benefits six

residential units, thus its MaxSF/BR is 5,488, which exceeds VDOT's allowable criteria. Considering all factors, this conceptual barrier for CNE K is feasible, but not reasonable per VDOT criteria.

The northbound barrier for CNE K is designed to protect the impacted residence represented by receptor site MK3. This conceptual barrier for CNE K totals 856 feet in length and does not achieve feasible (>5dB(A)) reductions up to 28 feet in height, as shown in **Table 11**. Considering all factors, this conceptual barrier for CNE K is not feasible, and will not be discussed further.

CNE P

A post-and-panel sound barrier system was evaluated to mitigate predicted impacts within CNE P. As shown in **Figures 8 and 9**, a conceptual barrier was evaluated along the Route 250 Bypass westbound lanes and transitions on to the off ramp edge-of-shoulder. The evaluated barrier for CNE P totals 1,755 feet in length and achieves feasible (>5dB(A)) reductions at an average height of approximately 12 feet, as shown in **Table 12**. This barrier effectively benefits eight residential units, thus its MaxSF/BR is 2,625, which exceeds VDOT's allowable criteria. Considering all factors, the conceptual barrier for CNE P is feasible, but not reasonable per VDOT criteria.

All of the evaluated noise barriers for this project are shown on **Figures 3-9**. These noise barriers or barrier systems have been evaluated in accordance with VDOT's three-phased approach on noise abatement. A summary of the evaluated barriers for the project can be seen in **Table 13**. The number of benefited units, evaluated noise barrier length, average height, area and estimated costs are summarized in the table. None of the conceptual barriers are considered feasible and reasonable at this time. The conclusions found in this report regarding noise abatement are preliminary. The project corridor will be evaluated with final roadway geometry in the final design phase and final commitments on noise abatement will not be made until that time.

VII. Construction Noise

VDOT is also concerned with noise generated during the construction phase of the proposed project. The degree of noise impact will vary, as it is directly related to the number and types of equipment used and the proximity to the noise-sensitive land use areas within the project corridor.

Based on a review of the project area, no considerable, long-term construction-related noise impacts are anticipated. Any noise impacts that do occur as a result of roadway construction measures are anticipated to be temporary in nature and will cease upon completion of the project construction phase.

The following will be utilized to help minimize potential construction-related noise impacts. A detailed discussion of VDOT's construction noise policy can be viewed in Section 107.16(b) 3 Noise, VDOT's Road and Bridge Specifications (VDOT, 2007).

- The Contractor's operations shall be performed so that exterior noise levels measured during a noise-sensitive activity shall not exceed 80 decibels. Such noise level measurements shall be taken at a point on the perimeter of the construction limit that is closest to the adjoining property on which a noise-sensitive activity is occurring. A *noise-sensitive activity* is any activity for which lowered noise levels are essential if the activity is to serve its intended purpose and not present an unreasonable public nuisance. Such activities include, but are not limited to, those associated with residences, hospitals, nursing homes, churches, schools, libraries, parks, and recreational areas.
- VDOT may monitor construction-related noise. If construction noise levels exceed 80 decibels during noise sensitive activities, the Contractor shall take corrective action before proceeding with operations. The Contractor shall be responsible for costs associated with the abatement of construction noise and the delay of operations attributable to noncompliance with these requirements.
- VDOT may prohibit or restrict to certain portions of the project any work that produces objectionable noise between 10 P.M. and 6 A.M. If other hours are established by local ordinance, the local ordinance shall govern.
- Equipment shall in no way be altered so as to result in noise levels that are greater than those produced by the original equipment.
- When feasible, the Contractor shall establish haul routes that direct his vehicles away from developed areas and ensure that noise from hauling operations is kept to a minimum.
- These requirements shall not be applicable if the noise produced by sources other than the Contractor's operation at the point of reception is greater than the noise from the Contractor's operation at the same point.

VIII. Public Involvement/Local Officials Coordination

FHWA and VDOT policies require that VDOT provide certain information to local officials within whose jurisdiction the highway project is located in order to minimize future traffic noise impacts of Type I projects on currently undeveloped lands. Type I projects involve highway improvements with noise analysis. This must include information on noise-compatible land-use planning, noise impact zones in undeveloped land in the highway project corridor and federal participation in Type II projects (noise abatement only). This section of the report provides that information, as well as information about VDOT's noise abatement program.

VDOT's current noise policy outlines VDOT's approach to communication with local officials and provides information and resources on highway noise and noise-compatible land-use planning. VDOT's intention is to assist local officials in planning the uses of undeveloped land adjacent to highways to minimize the potential impacts of highway traffic noise.

Entering the Quiet Zone is a brochure that provides general information and examples to elected officials, planners, developers, and the general public about the problem of traffic noise and effective responses to it. A link to this brochure on FHWA's website is provided: http://www.fhwa.dot.gov/environment/noise/noise_compatible_planning/federal_approach/land_use/qz00.cfm

A wide variety of administrative strategies may be used to minimize or eliminate potential highway noise impacts, thereby preventing the need or desire for costly noise abatement structures such as noise barriers in future years. There are five broad categories of such strategies:

- Zoning,
- Other legal restrictions (subdivision control, building codes, health codes),
- Municipal ownership or control of the land,
- Financial incentives for compatible development, and
- Educational and advisory services.

The Audible Landscape: A Manual for Highway and Land Use is a well-written and comprehensive guide addressing these noise-compatible land-use planning strategies, with significant detailed information. This document is available through FHWA's Website, at http://www.fhwa.dot.gov/environment/noise/noise_compatible_planning/federal_approach/audible_landscape/al00.cfm

IX. Noise Contours

Noise level contours are lines of equal noise exposure that typically parallel roadway alignments and are often times useful to local officials in undeveloped corridors. Highway traffic noise is considered a linear noise source and sound levels can drop considerably over distance. The degree that sound levels decrease can vary based on a number of different factors including objects that shield the roadway noise, terrain features and ground cover type (e.g., pavement, grass or snow). The use of noise level contours have become increasingly popular over the last several years, as they have been implemented in planning programs for undeveloped areas with roadway noise influence. Through conscious planning efforts and noise contour generation, municipal officials can restrict future development inside the noise impact zone (i.e., the area within the 66-dB(A) noise contour). The only area where the 66-dB(A) line is predicted is in CNE P. **Figure 9**, shows the approximate 66-dB(A) noise level contours for the Design Year (2040) build scenario, for CNE P, when considering the proposed project alternative and the Design Year (2040) traffic volumes, speeds and composition. **Table 14** shows the approximate distance of the 66a-dB(A) contour line from the center line of the proposed conceptual design for CNE P.

Also required under the revised 2011 FHWA and VDOT noise policies is information on the noise impact zones adjacent to project roadways in undeveloped lands. To determine these zones, noise levels are computed at various distances from the edge of the project roadways in each of the undeveloped areas of the project study area. Then, the distances from the edge of the roadway to the NAC sound levels are determined through interpolation. Distances vary in the project corridor due to changes in traffic volumes or terrain features. Any noise sensitive sites

within the zones shown in **Figures 3-9**, should be considered noise impacted if no barrier is present to reduce sound levels.

X. Conclusion

In summary, the results of the noise analysis for the Route 29 Bypass Project indicate that Design Year Build (2040) noise levels exceed the NAC within nine of the evaluated CNEs for the project area. As identified in **Tables 3A** and **3B**, by the sound level ranges listed in Column 7, Design Year Build (2040) noise levels are projected to approach or exceed the FHWA/VDOT NAC at approximately 56 residential land use areas and the lands associated with the Agnor Hurt Elementary and Jack Jouett Middle School and thus warrant noise abatement consideration. Noise abatement evaluations conclude that noise abatement is warranted, feasible but not reasonable for CNEs B, D, F, G, H, J, K and P as shown on **Figures 3-9**. The findings in this report are based on conceptual information. Firm commitments on noise abatement will not be made until the final design phase of the project.

TABLES

**Table 1
Hourly Weighted Sound Levels db(A) for Various Land Use
Activity Categories***

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

Table 2
Route 29 Bypass Project - (2012) Noise Monitoring and Validation Results

1	2	3	4	5	6	7
CNE Designation	Receptor Site Number	Site Representation	Existing, Monitored Noise Level	TNM Modeled Noise Level	Difference (Mod.-Mon.)	Validates?
CNE A	A1	6 Residences	56.1	58.5	2.4	Yes
	A2	3 Residences	48.6	50.5	1.9	Yes
	A3	3 Residences	55.1	52.8	-2.3	Yes
CNE E	E1	4 Residences	58.1	59.5	1.4	Yes
CNE L	L2	Ste. Anne's Belfield School	61.6	63.6	2	Yes
CNE O	O1	UVA Darden School	50.7	50.3	-0.4	Yes
CNE P	P1	4 Residences	63.7	61.1	-2.6	Yes

Table 3A
Route 29 Bypass Project
Sound Level Summary

1	2	3	4	5	6	7
CNE Descriptor	Site Descriptor	Site Representation	Existing (2012) Monitored Noise Level	Existing (2012) Worst-case Noise Level	Noise Abatement Criteria	Build (2040) Noise Level
CNE A	A1	6 Residences	56	63	66	64
	A2	3 Residences	49	58	66	60
	A3	3 Residences	55	51	61	56
	MA1	6 Residences	--	55	65	57
	MA2	4 Residences	--	49	59	51
	MA3	2 Residences	--	57	66	60
	MA4	2 Residences	--	53	63	56
CNE B	B1	3 Residences	51	51	61	58
	MB1	4 Residences	--	51	61	63
	MB2	2 Residences	--	51	61	58
	MB3	5 Residences	--	51	61	56
	MB4	3 Residences	--	51	61	63
CNE C	C1	Agnor Hurt Elementary	44	44	54	57
	MC1	2 Residences	--	44	54	64
	MC2	2 Residences	--	44	54	62
	MC3	6 Residences (1st Story)	--	44	54	55
	MC4	6 Residences (2nd Story)	--	44	54	57
	MC5	6 Residences (3rd Story)	--	44	54	55
	MC6	Agnor Hurt Elementary	--	44	54	56
	MC7	Agnor Hurt Elementary	--	44	54	55
	MC8	Agnor Hurt Elementary	--	44	54	55
	MC9	Agnor Hurt Elementary	--	44	54	55
	MC10	Agnor Hurt Elementary	--	44	54	54
	MC11	Agnor Hurt Elementary	--	44	54	54
	MC12	Agnor Hurt Elementary	--	44	54	54
MC13	Agnor Hurt Elementary	--	44	54	53	
CNE D	D1	2 Residences	48	48	58	Acquired Property
	MD1	4 Residences	--	48	58	55
	MD2	4 Residences	--	48	58	61
CNE E	E1	4 Residences	58	54	64	55
	ME1	5 Residences	--	55	65	57
	ME2	4 Residences	--	58	66	57
CNE F	MF1	1 Residence	--	44	54	54
	MF2	1 Residence	--	44	54	58
	MF3	1 Residence	--	44	54	50
CNE G	G1	2 Residences	47	47	57	51
	G2	1 Residence	44	44	54	58
	MG1	1 Residence	--	44	54	53
	MG2	2 Residences	--	47	57	50
	MG3	3 Residences	--	47	57	55
CNE H	H1	Jack Jouett Middle School	43	43	53	60
	MH1	Mary Greer Elementary School	--	43	53	51
	MH2	1 Unit	--	43	53	59
	MH3	1 Unit	--	43	53	62
	MH4	1 Unit	--	43	53	63
	MH5	1 Unit	--	43	53	62
	MH6	1 Unit	--	43	53	55
	MH7	1 Unit	--	43	53	57
	MH8	1 Unit	--	43	53	58
	MH9	1 Unit	--	43	53	58
MH10	1 Unit	--	43	53	59	
CNE I	MI1	1 Residence	--	45	55	54
CNE J	J1	3 Residences	45	45	55	Acquired Property
	J2	3 Residences	44	44	54	58
	MJ1	3 Residences	--	45	55	61
	MJ2	1 Residence	--	45	55	Acquired Property
	MJ3	4 Residences	--	44	54	55
CNE K	K1	3 Residences	45	45	55	56
	MK1	3 Residences	--	45	55	52
	MK2	3 Residences	--	45	55	56
	MK3	1 Residence	--	45	55	58

Noise Levels approach or exceed the "absolute" FHWA/VDOT Noise Abatement Criteria (67 dBA)

Noise Levels approach or exceed the "substantial increase" FHWA/VDOT Noise Abatement Criteria (+10 dBA over existing)

Table 3B
Route 29 Bypass Project
Sound Level Summary continued

1	2	3	4	5	6	7
CNE Descriptor	Site Descriptor	Site Representation	Existing (2012) Monitored Noise Level	Existing (2012) Worst-case Noise Level	Noise Abatement Criteria	Build (2040) Noise Level
CNE L	L1	Ste. Anne's Belfield School	46	46	56	53
	L2	Ste. Anne's Belfield School	62	70	66	64
	ML1	Ste. Anne's Belfield School	--	64	66	57
	ML2	Ste. Anne's Belfield School	--	69	66	57
CNE M	M1	6 Residences	48	52	62	55
	MM1	12 Residences	--	53	63	55
	MM2	University Village Condos 1st Story	--	53	63	60
	MM3	University Village Condos 2nd Story	--	53	63	60
	MM4	University Village Condos 3rd Story	--	53	63	61
	MM5	University Village Condos 4th Story	--	53	63	61
	MM6	University Village Condos 5th Story	--	53	63	61
CNE N	MN1	2 Residences	--	57	66	58
	MN2	3 Residences	--	58	66	60
	MN3	2 Residences	--	61	66	63
CNE O	O1	U. of Virginia Darden	51	56 (31)*	52 Interior	62 (37)*
	MO1	U. of Virginia Darden	--	55 (30)*	52 Interior	56 (31)*
	MO2	U. of Virginia Darden	--	54 (29)*	52 Interior	56 (31)*
CNE P	P1	3 Residences	64	65	66	60
	MP1	2 Residences	--	52	62	55
	MP2	3 Residences	--	59	66	57
	MP3	3 Residences	--	66	66	62
	MP4	3 Residences	--	63	66	62
	MP5	3 Residences	--	69	66	67
	MP6	4 Residences	--	65	66	65
	MP7	5 Residences	--	58	66	58
	MP8	2 Residences	--	63	66	63
	MP9	3 Residences	--	57	66	57
	MP10	2 Residences	--	57	66	58

* () Designates predicted interior sound levels for Category D land uses based on 25 dBA insertion losses for modern construction materials.

 Noise Levels approach or exceed the "absolute" FHWA/VDOT Noise Abatement Criteria (67 dBA)

 Noise Levels approach or exceed the "substantial increase" FHWA/VDOT Noise Abatement Criteria (+10 dBA over existing)

Table 4
Route 29 Bypass Project
Optimized Barrier Analysis - CNE B

1	2	3	4	5	6
CNE Descriptor	Site Descriptor	Site Representation	Build (2040) Noise Level	Abated (2040) Noise Level	Net Insertion Loss
CNE B	B1	3 Residences	58	57	1
	MB1	4 Residences	63	62	1
	MB2	2 Residences	58	51	7
	MB3	5 Residences	56	54	2
	MB4	3 Residences	63	54	9

Noise Levels approach or exceed FHWA/VDOT Noise Abatement Criteria

Insertion Losses are considered "feasible".

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
3575	16	57512	5	11502	YES	NO

Table 5
Route 29 Bypass Project
Optimized Barrier Analysis - CNE C

1	2	3	5	5	5
CNE Descriptor	Site Descriptor	Site Representation	Build (2040) Noise Level	Abated (2040) Noise Level	Net Insertion Loss
CNE C	C1	Agnor Hurt Elementary	57	52	5
	MC1	2 Residences	64	58	6
	MC2	2 Residences	62	59	3
	MC3	6 Residences (1st Story)	55	51	4
	MC4	6 Residences (2nd Story)	57	54	3
	MC5	6 Residences (3rd Story)	55	54	1
	MC6	Agnor Hurt Elementary	56	52	4
	MC7	Agnor Hurt Elementary	55	51	4
	MC8	Agnor Hurt Elementary	55	51	4
	MC9	Agnor Hurt Elementary	55	51	4
	MC10	Agnor Hurt Elementary	54	50	4
	MC11	Agnor Hurt Elementary	54	50	4
	MC12	Agnor Hurt Elementary	54	50	4
MC13	Agnor Hurt Elementary	53	50	3	

Noise Levels approach or exceed FHWA/VDOT Noise Abatement Criteria

Insertion Losses are considered "feasible".

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
1929	28	54713	3	18238	NO	N/A

Table 6
Route 29 Bypass Project
Optimized Barrier Analysis - CNE D

1	2	3	5	5	5
CNE Descriptor	Site Descriptor	Site Representation	Build (2040) Noise Level	Abated (2040) Noise Level	Net Insertion Loss
CNE D	D1	Acquired Property	N/A	N/A	N/A
	MD1	4 Residences	55	51	4
	MD2	4 Residences	61	52	9

Noise Levels approach or exceed FHWA/VDOT Noise Abatement Criteria

Insertion Losses are considered "feasible".

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
1178	12	14090	4	3523	YES	NO

Table 7
Route 29 Bypass
Optimized Barrier Analysis - CNE F

1	2	3	5	5	5
CNE Descriptor	Site Descriptor	Site Representation	Build (2040) Noise Level	Abated (2040) Noise Level	Net Insertion Loss
CNE F	MF1	1 Residence	54	48	6
	MF2	1 Residence	58	49	9
	MF3	1 Residence	50	50	0

Noise Levels approach or exceed FHWA/VDOT Noise Abatement Criteria

Insertion Losses are considered "feasible".

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
1387	16	22324	2	11162	YES	NO

Table 8
Route 29 Bypass Project
Optimized Barrier Analysis - CNE G

1	2	3	5	5	5
CNE Descriptor	Site Descriptor	Site Representation	Build (2040) Noise Level	Abated (2040) Noise Level	Net Insertion Loss
CNE G	G1	2 Residences	51	51	0
	G2	1 Residence	58	51	7
	MG1	1 Residence	53	53	0
	MG2	2 Residences	50	50	0
	MG3	3 Residences	55	50	5

Noise Levels approach or exceed FHWA/VDOT Noise Abatement Criteria

Insertion Losses are considered "feasible".

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
1053	16	16932	4	4233	YES	NO

Table 9
Route 29 Bypass Project
Optimized Barrier Analysis - CNE H

1	2	3	5	5	5
CNE Descriptor	Site Descriptor	Site Representation	Build (2040) Noise Level	Abated (2040) Noise Level	Net Insertion Loss
CNE H	H1	Jack Jouett Middle School	60	53	7
	MH10	Mary Greer Elementary School	51	51	0
	MH2	1 Unit	59	53	6
	MH3	1 Unit	62	53	9
	MH4	1 Unit	63	54	9
	MH5	1 Unit	62	54	8
	MH6	1 Unit	55	51	4
	MH7	1 Unit	57	51	6
	MH8	1 Unit	58	51	7
	MH9	1 Unit	58	52	6
MH10	1 Unit	59	53	6	

Noise Levels approach or exceed FHWA/VDOT Noise Abatement Criteria

Insertion Losses are considered "feasible".

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
1112	16	17890	9	1988	YES	NO

Table 10
Route 29 Bypass Project
Optimized Barrier Analysis - CNE J

1	2	3	5	5	5
CNE Descriptor	Site Descriptor	Site Representation	Build (2040) Noise Level	Abated (2040) Noise Level	Net Insertion Loss
CNE J	J1	Acquired Property	N/A	N/A	N/A
	J2	3 Residences	58	55	3
	MJ1	3 Residences	61	54	7
	MJ2	Acquired Property	N/A	N/A	N/A
	MJ3	4 Residences	55	53	2

Noise Levels approach or exceed FHWA/VDOT Noise Abatement Criteria

Insertion Losses are considered "feasible".

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
2162	16	34778	3	11593	YES	NO

**Table 11
Route 29 Bypass Project
Optimized Barrier Analysis - CNE K**

1 CNE Descriptor	2 Site Descriptor	3 Site Representation	5 Build (2040) Noise Level	5 Abated (2040) Noise Level	5 Net Insertion Loss
CNE K-1	K1	3 Residences	56	51	5
	MK1	3 Residences	52	50	2
	MK2	3 Residences	56	51	5

1 CNE Descriptor	2 Site Descriptor	3 Site Representation	5 Build (2040) Noise Level	5 Abated (2040) Noise Level	5 Net Insertion Loss
CNE K-2	MK3	1 Residence	58	57	1

 Noise Levels approach or exceed FHWA/VDOT Noise Abatement Criteria

 Insertion Losses are considered "feasible".

CNE K-1

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
1630	20	32927	6	5488	YES	NO

CNE K-2

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
856	28	24262	0	N/A	NO	NO

Table 12
Route 29 Bypass Project
Optimized Barrier Analysis - CNE P

1	2	3	5	5	5
CNE Descriptor	Site Descriptor	Site Representation	Build (2040) Noise Level	Abated (2040) Noise Level	Net Insertion Loss
CNE P	P1	3 Residences	60	59	1
	MP1	2 Residences	55	55	0
	MP2	3 Residences	57	56	1
	MP3	3 Residences	62	61	1
	MP4	3 Residences	62	60	2
	MP5	3 Residences	67	56	11
	MP6	4 Residences	65	64	1
	MP7	5 Residences	58	53	5
	MP8	2 Residences	63	60	3
	MP9	3 Residences	57	56	1
MP10	2 Residences	58	56	2	

Noise Levels approach or exceed FHWA/VDOT Noise Abatement Criteria

Insertion Losses are considered "feasible".

Barrier Length (feet)	Optimized Barrier (feet)	Total Area (square feet)	Number of Benefits	Max/SF/Benefit	Feasible?	Reasonable?
1755	12	21000	8	2625	YES	NO

Table 13
Route 29 Bypass Project - CNE Noise Barrier Summary

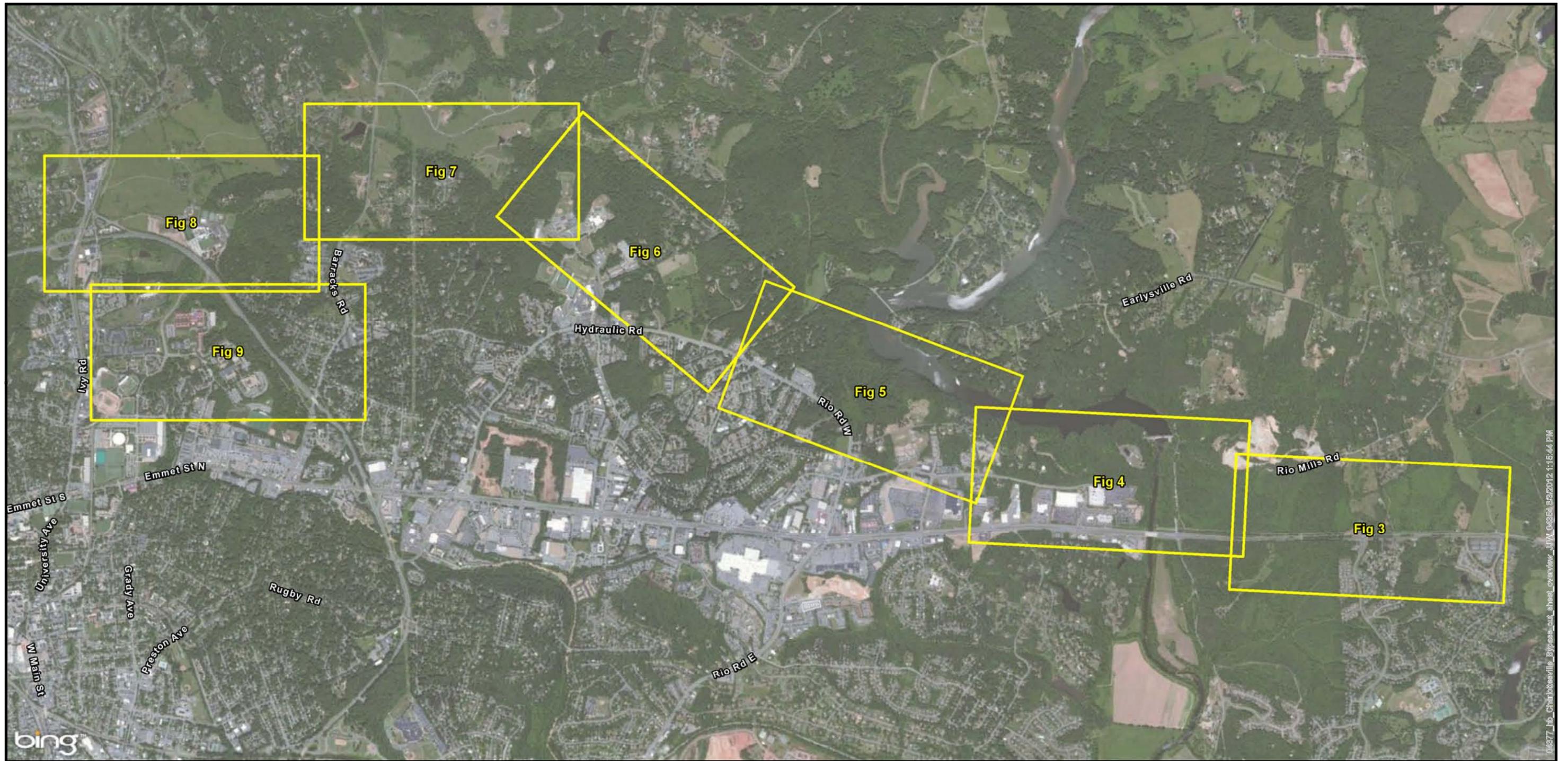
1	2	3	4	5	6	7	8	9
CNE Descriptor	Number of Benefited Land Uses	Noise Barrier Length (ft.)	Average Noise Barrier Height (ft.)	Total Barrier Area (ft ²)	MaxSF per Benefited Residence (MaxSF)	Preliminary Barrier Cost*	Feasible?	Reasonable?
CNE B	5	3575	16	57512	11502	\$ 2,760,576	YES	NO
CNE C	3	1929	28	54713	N/A	N/A	NO	NO
CNE D	4	1178	12	14090	3522	\$ 521,330	YES	NO
CNE F	2	1387	16	22324	11162	\$ 825,988	YES	NO
CNE G	4	1053	16	16932	4233	\$ 626,484	YES	NO
CNE H	9	1112	16	17890	1988	\$ 661,930	YES	NO
CNE J	3	2162	16	34778	11593	\$ 1,286,786	YES	NO
CNE K1	6	1630	20	32927	5488	\$ 1,218,299	YES	NO
CNE K2	0	856	28	N/A	N/A	N/A	NO	NO
CNE P	8	1755	12	21000	2625	\$ 777,000	YES	NO

* Barrier costs are based on \$37/ft² if project barrier totals more than 50,000ft², \$48/ft² if less than 50,000 ft² of barrier.

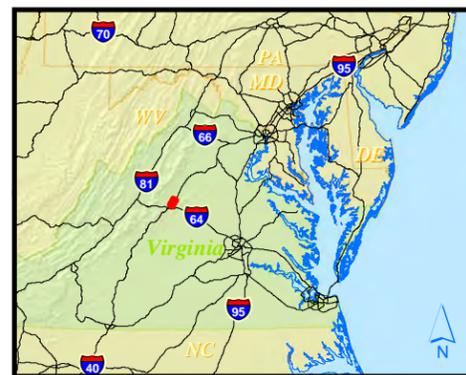
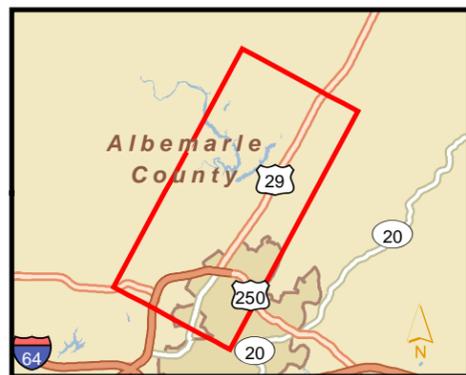
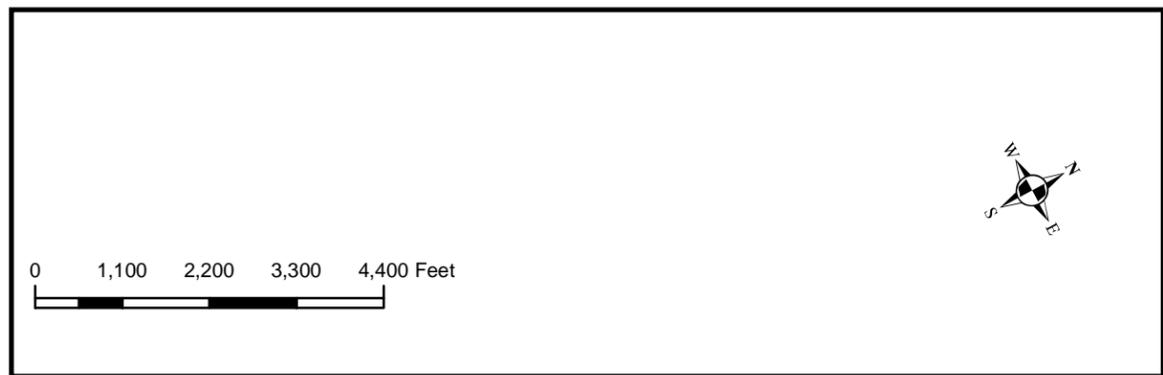
TABLE 14
Route 29 Bypass Project
Distance from Centerline of Proposed Design to
CNE Specific Noise Contours

Design Year (2040) Noise Level Contours	
66 dB(A)	
CNE	Distance (feet)
CNE P	145

FIGURES

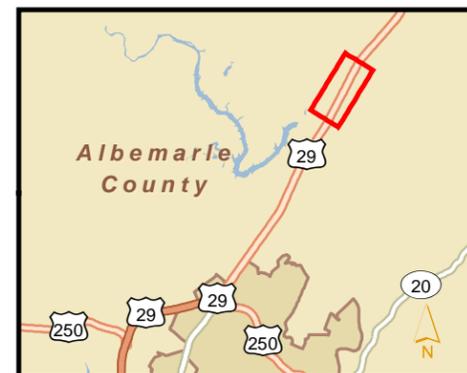
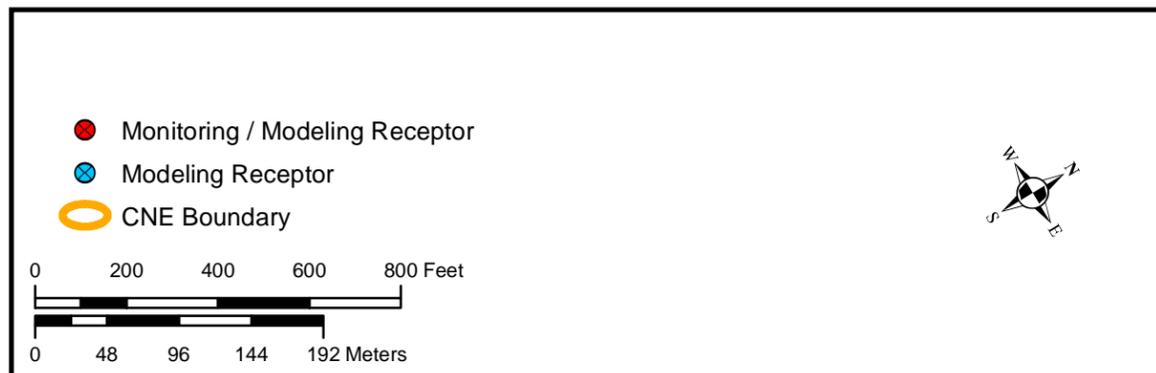
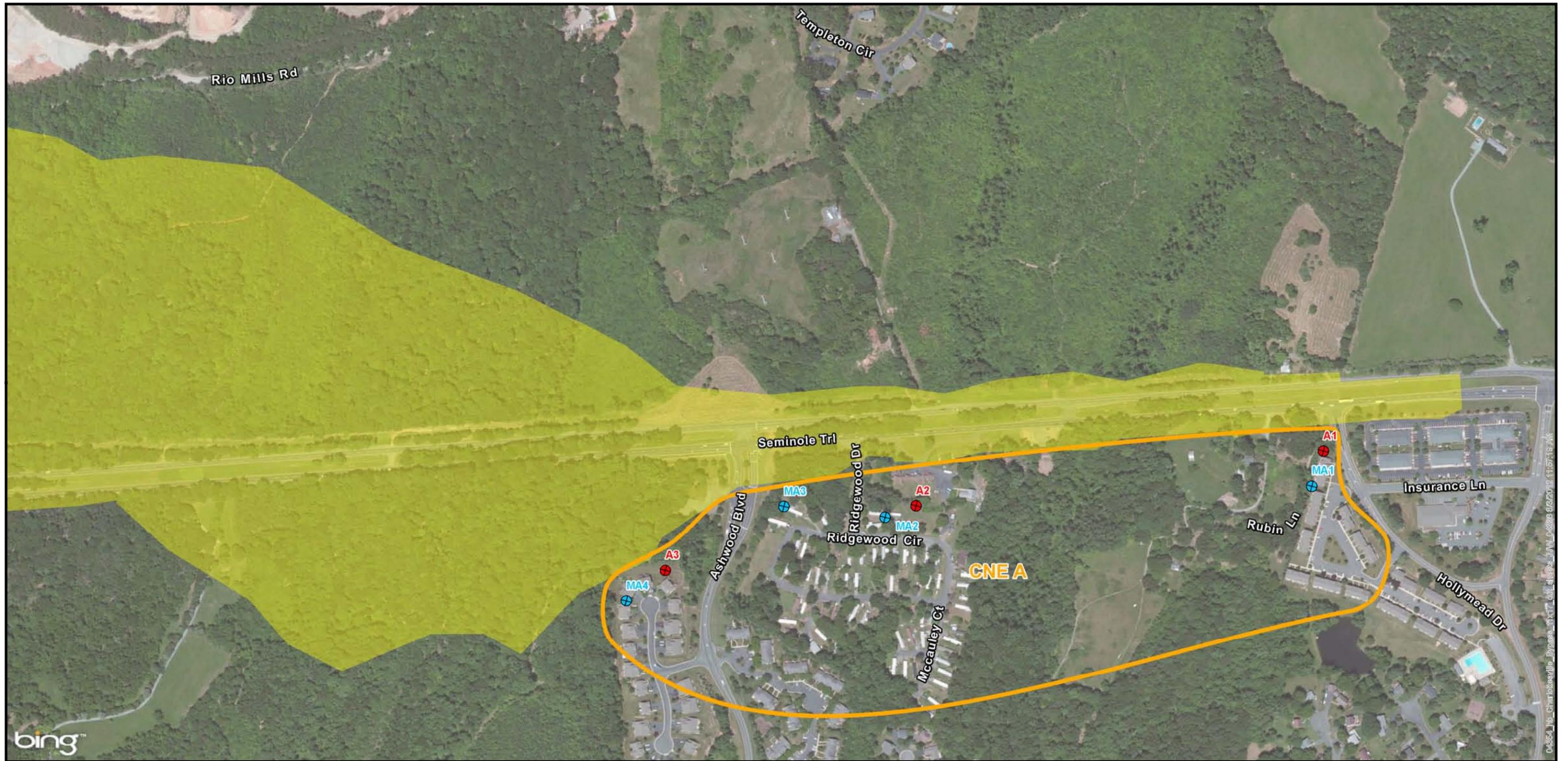


00377_hb_Charlottesville_Bypass_cut_sheet_overview_JULY_06366_03/2012 1:15:44 PM



Charlottesville Bypass Project
 State Project #0029-002-844, P101;
 UPC 102419
Figure 2

 Virginia Department of Transportation
 Albemarle County and
 City of Charlottesville, Virginia



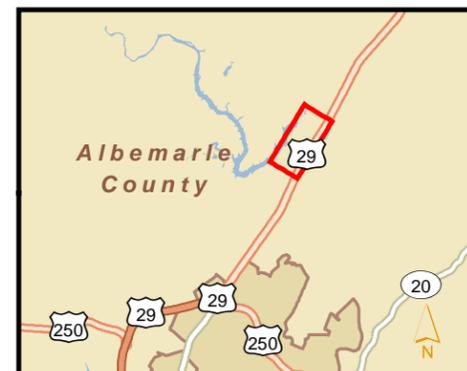
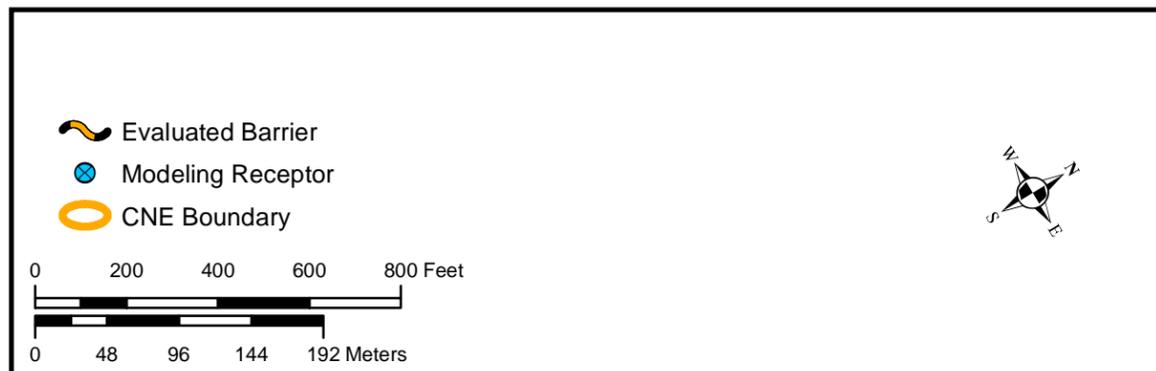
Charlottesville Bypass Project
 State Project #0029-002-844, P101;
 UPC 102419
Figure 3

 Virginia Department of Transportation

Albemarle County and
 City of Charlottesville, Virginia



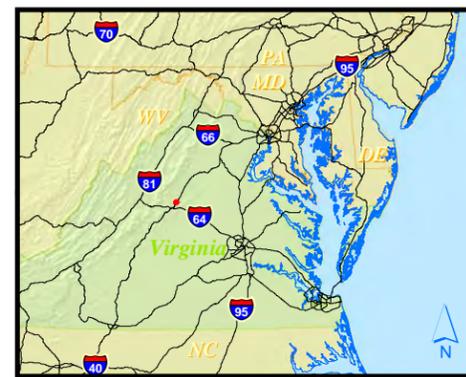
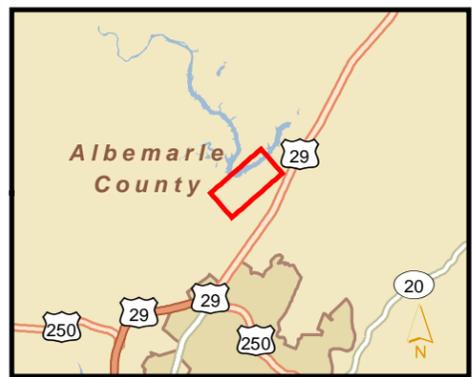
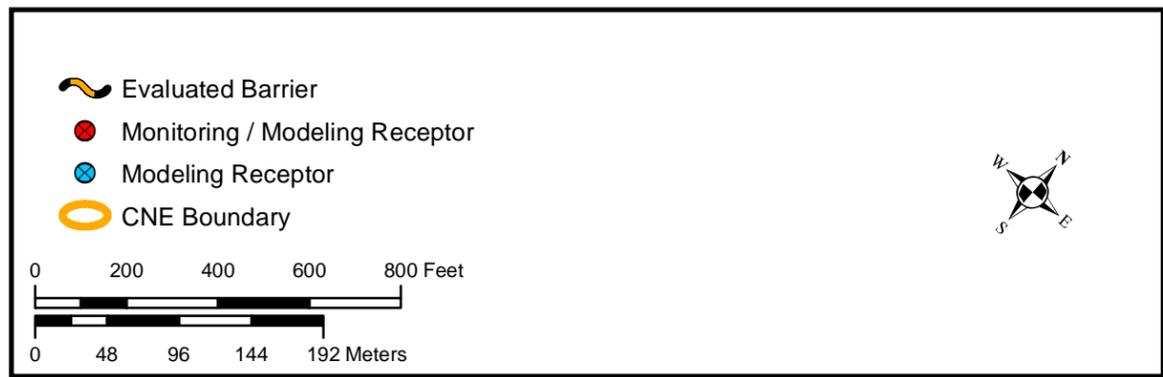
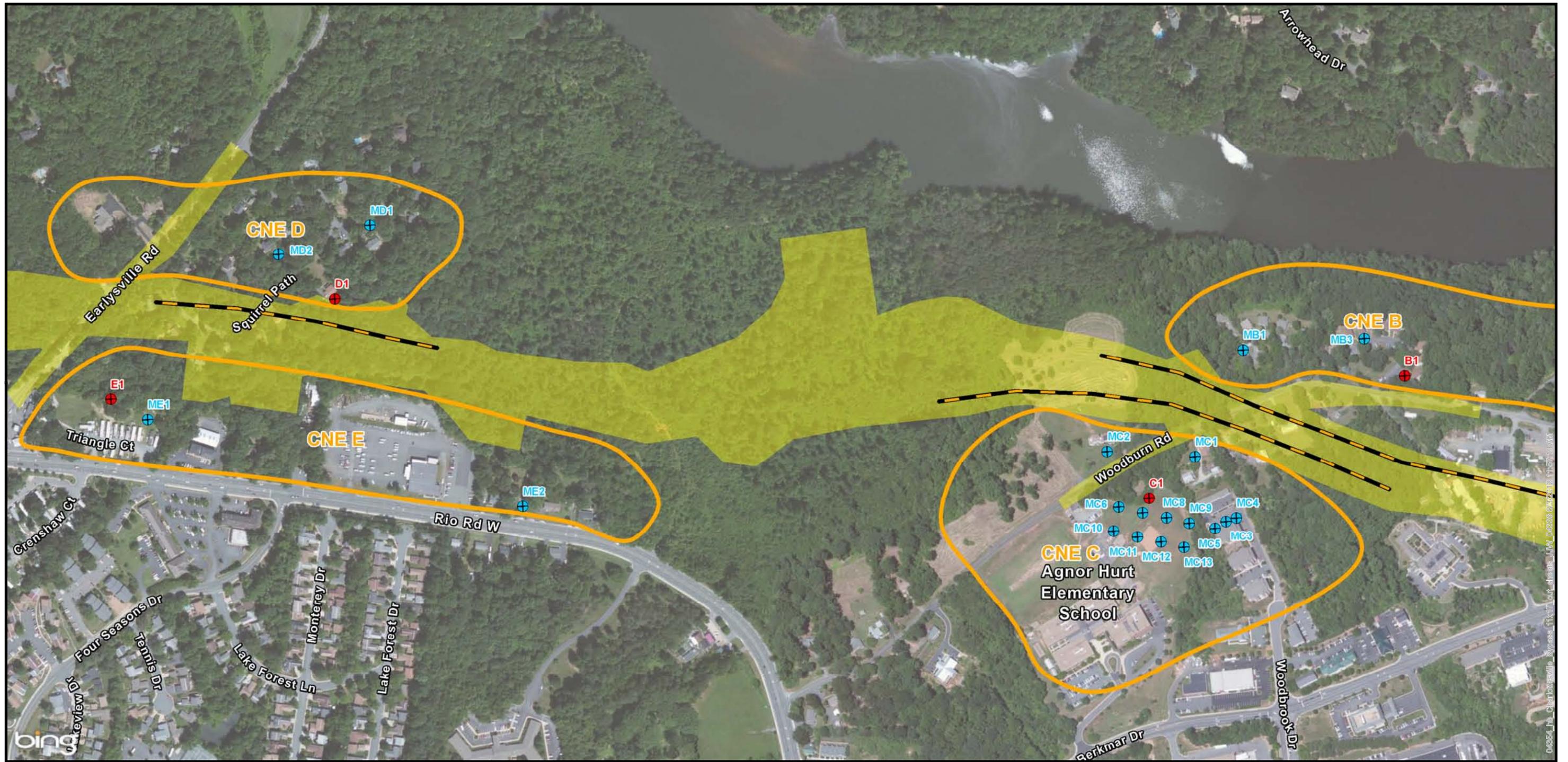
06264_hb_Charlottesville_Bypass_11x17_out_streets_JUV_04336 8/2/2012 11:57:19 AM



Charlottesville Bypass Project
 State Project #0029-002-844, P101;
 UPC 102419
Figure 4

 Virginia Department of Transportation

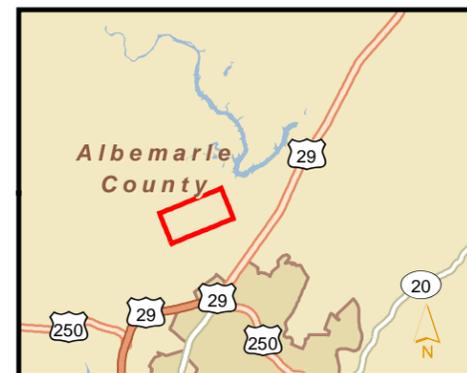
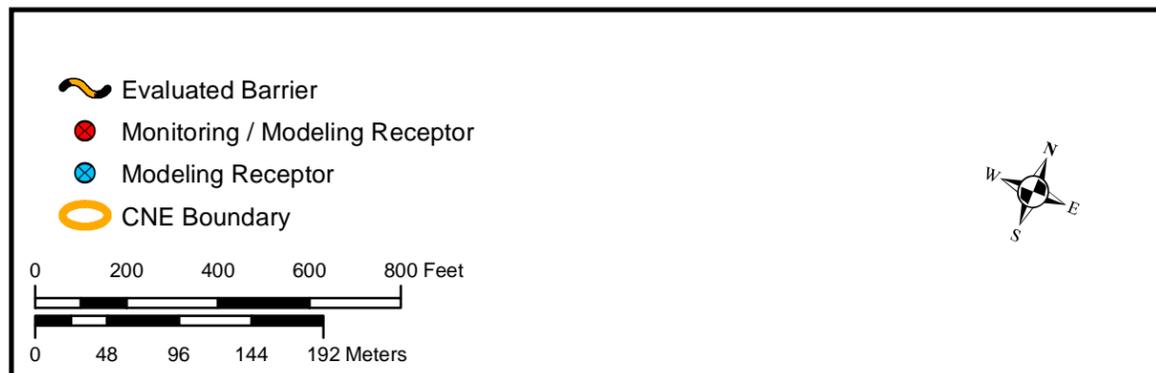
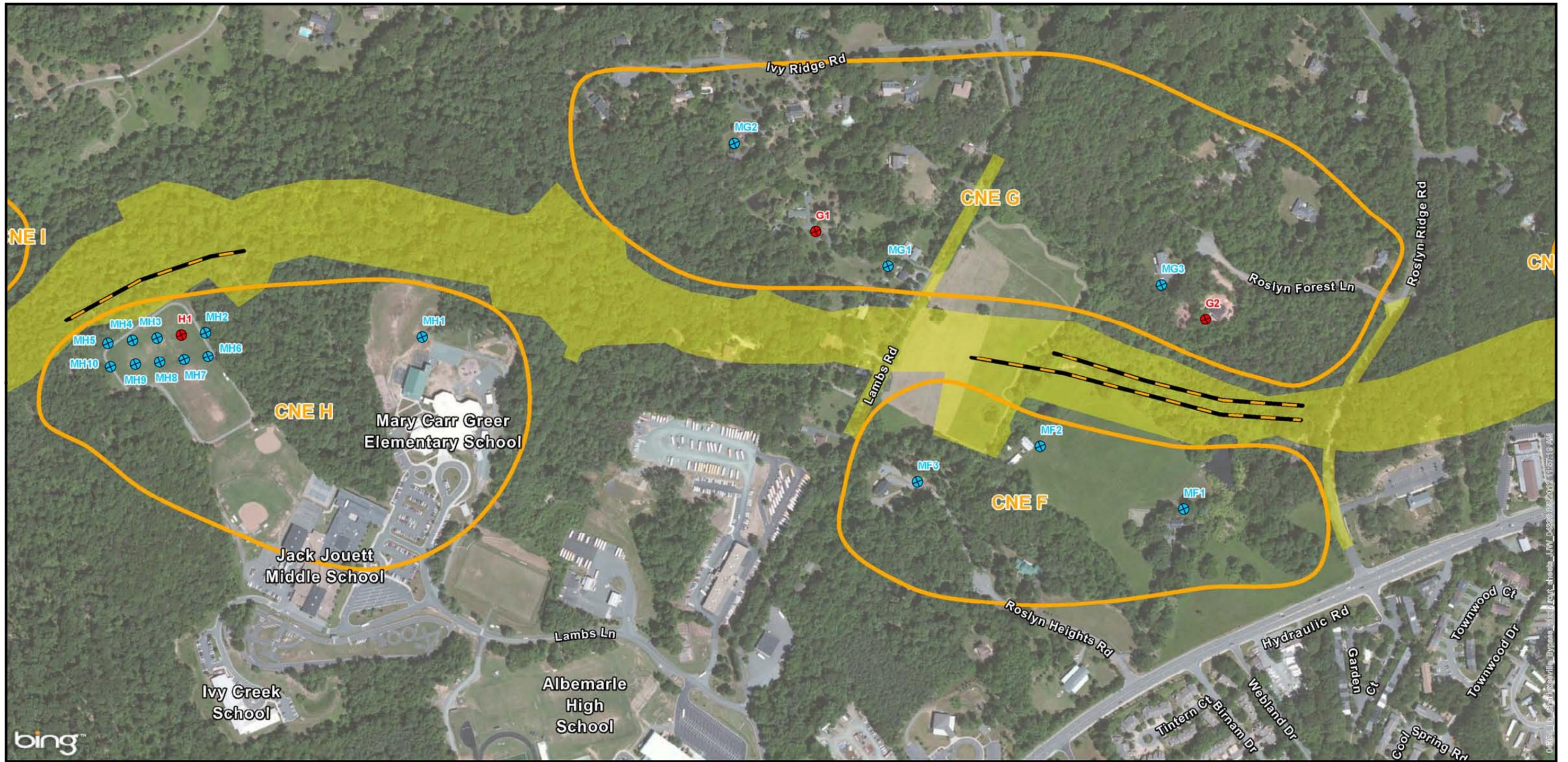
Albemarle County and
 City of Charlottesville, Virginia



Charlottesville Bypass Project
 State Project #0029-002-844, P101;
 UPC 102419
Figure 5

 Virginia Department of Transportation

**Albemarle County and
 City of Charlottesville, Virginia**

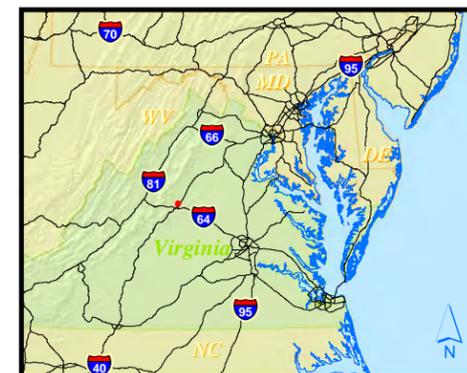
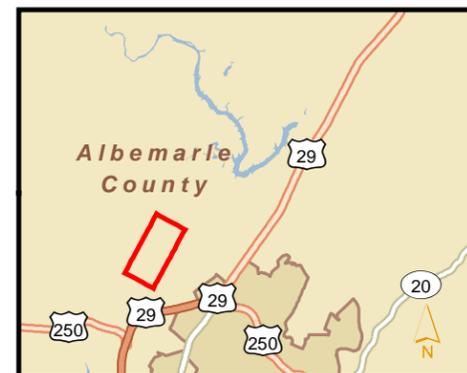
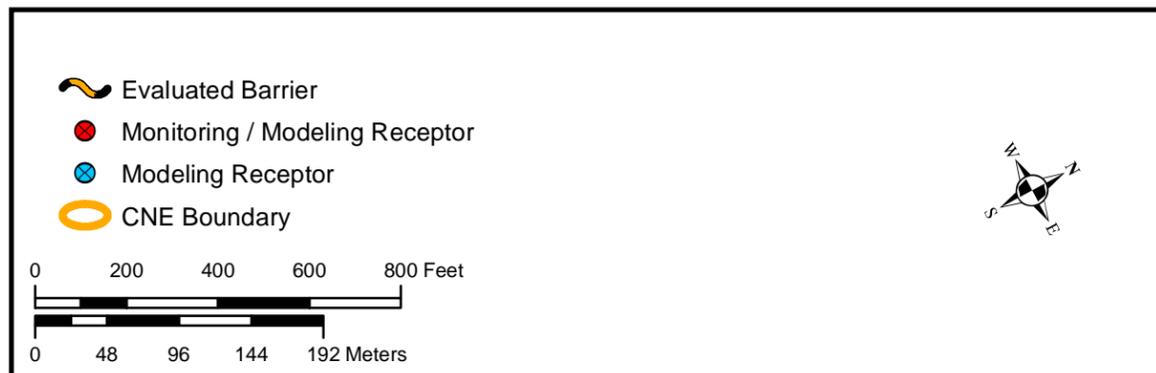
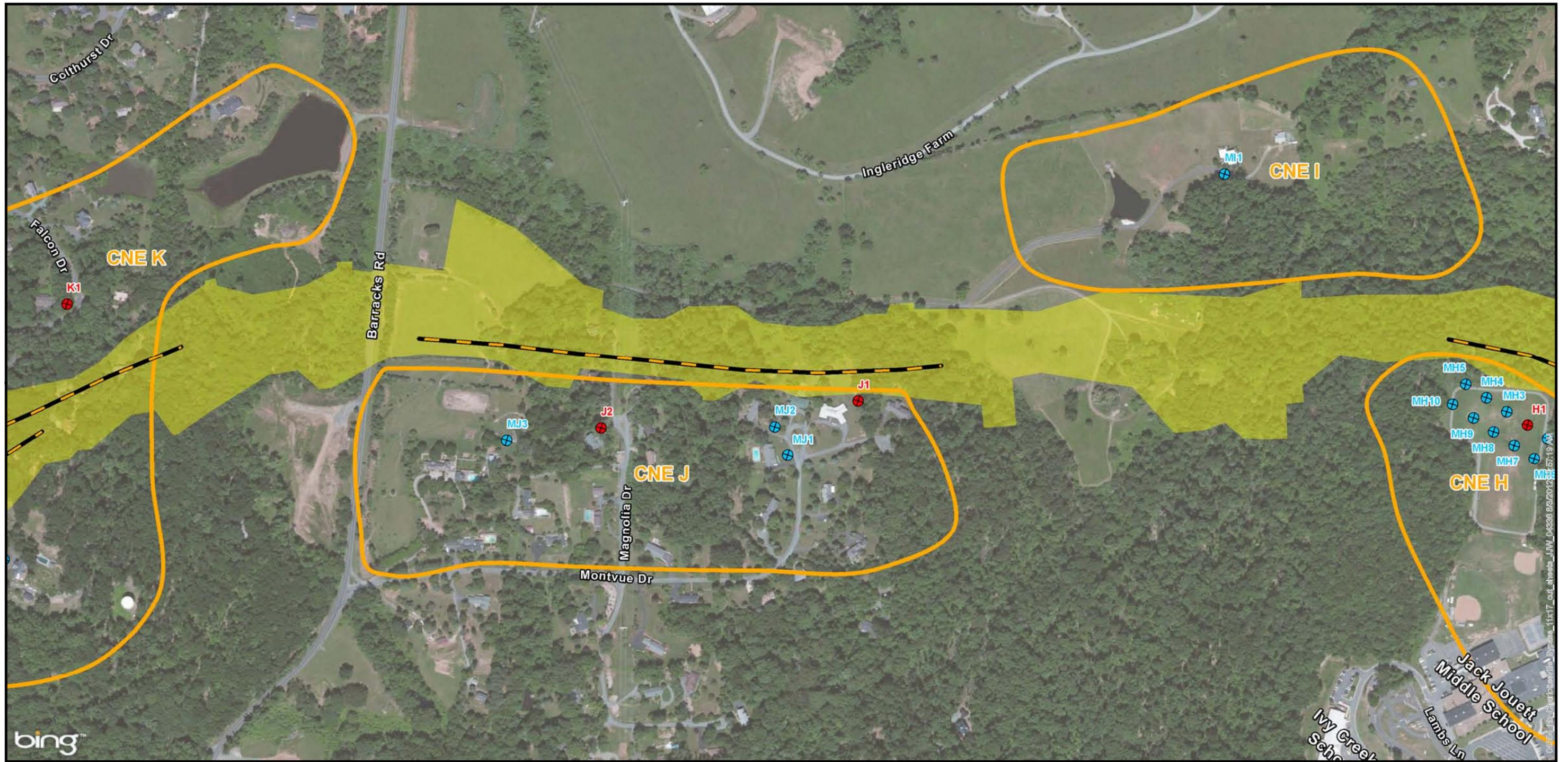


Charlottesville Bypass Project
 State Project #0029-002-844, P101;
 UPC 102419

Figure 6

Virginia Department of Transportation

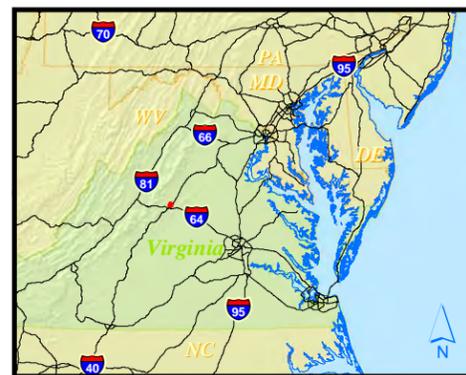
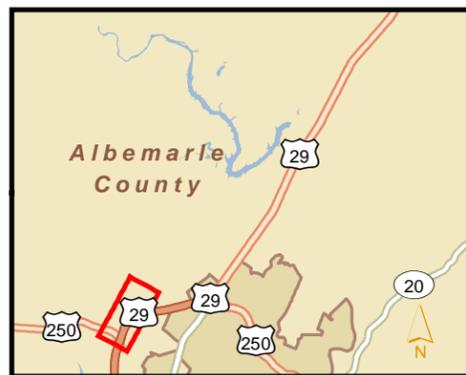
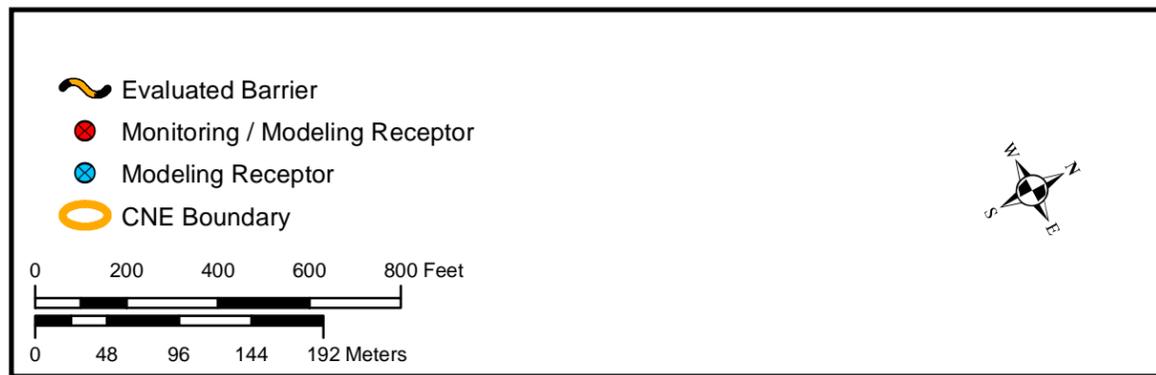
**Albemarle County and
 City of Charlottesville, Virginia**



Charlottesville Bypass Project
 State Project #0029-002-844, P101;
 UPC 102419
Figure 7

 Virginia Department of Transportation

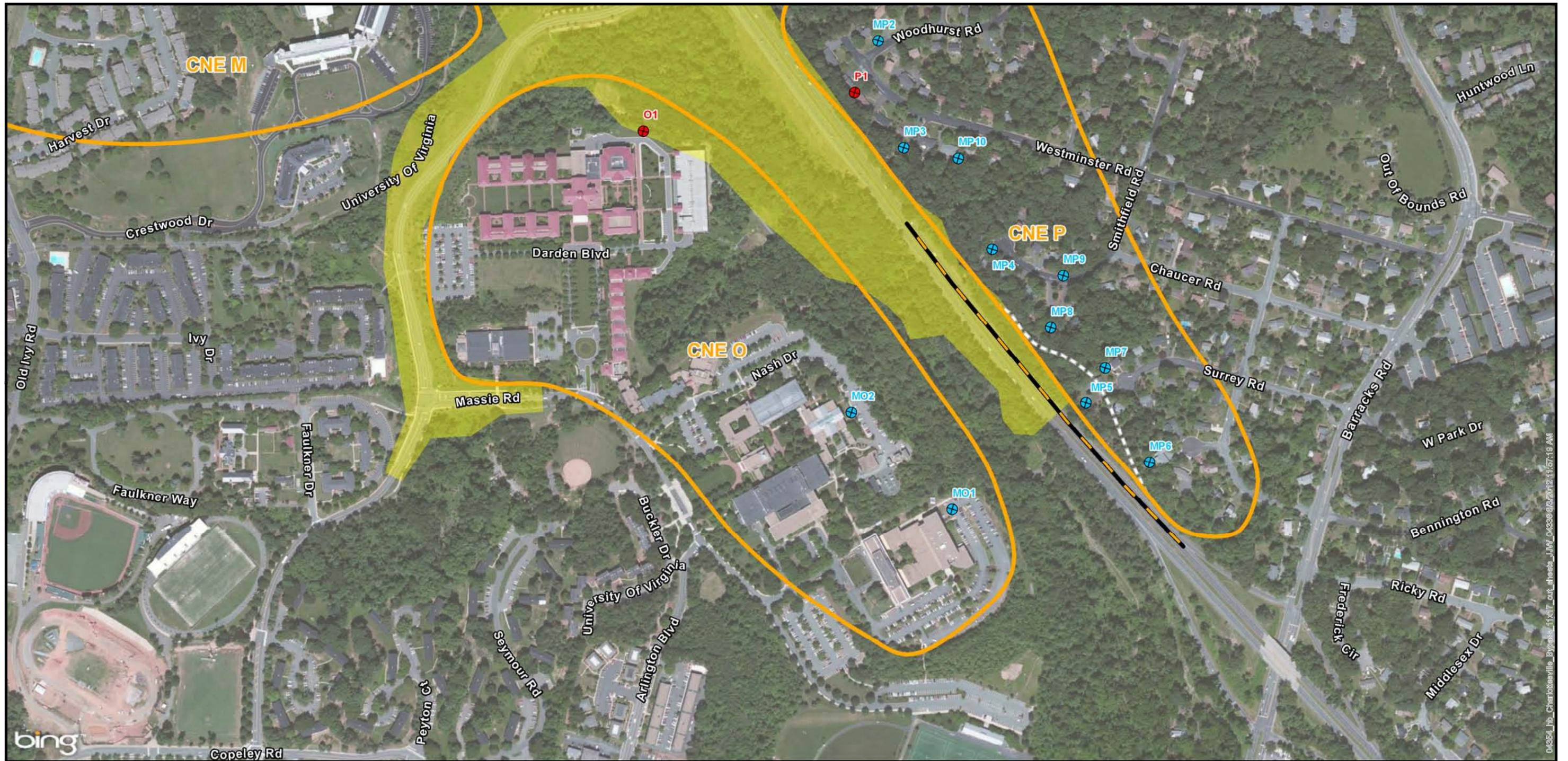
Albemarle County and
 City of Charlottesville, Virginia



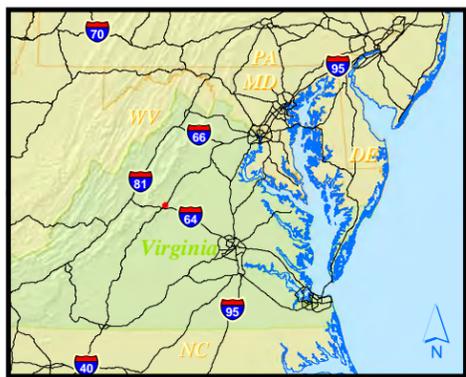
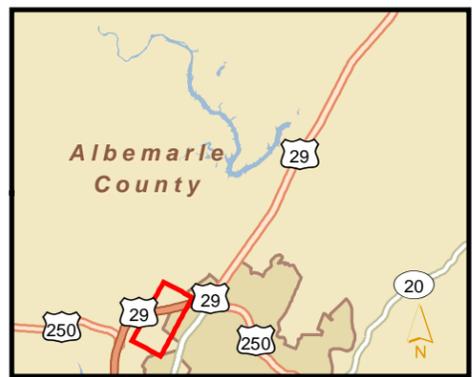
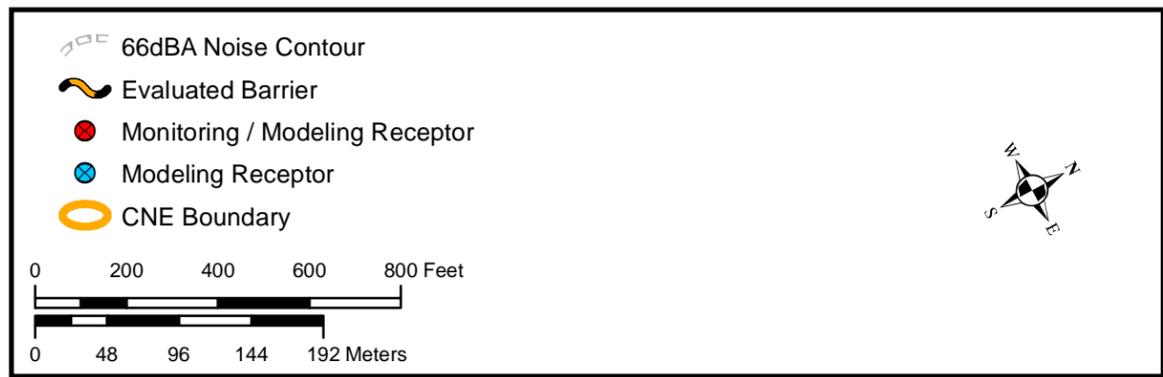
Charlottesville Bypass Project
 State Project #0029-002-844, P101;
 UPC 102419
Figure 8

 Virginia Department of Transportation

Albemarle County and
 City of Charlottesville, Virginia



04324_ib_Charlottesville_Bypass_11x17_out_sheets_LW_043366/2012.11.07.19 AM



Charlottesville Bypass Project
 State Project #0029-002-844, P101;
 UPC 102419
Figure 9

 Virginia Department of Transportation
 Albemarle County and
 City of Charlottesville, Virginia

Appendix A

NOISE METER CALIBRATION CERTIFICATES

West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

PERMISSIBLE SOUND LEVEL METER

Manufactured by: METROSONICS
Model No: db-3080
Serial No: 3903
Calibration Recall No: 20813

Submitted By:

Customer: JACK CRAMER
Company: McCORMICK TAYLOR, INC.
Address: 5 CAPITAL DRIVE
HARRISBURG PA 17110

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

West Caldwell Calibration Laboratories Procedure No. db-3080 METR

Upon receipt for Calibration, the instrument was found to be:

Outside (X) see attached Report of Calibration.

the tolerance of the indicated specification.

West Caldwell Calibration Laboratories' calibration control system meets the requirements, ISO 10012-1 MIL-STD-45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2008 and ISO 17025.

Note: With this Certificate, Report of Calibration is included.

Approved by:

Calibration Date: 20-May-11

Certificate No: 20813 - 1

QA Doc. #1051 Rev. 2.0 10/1/01

Certificate Page 1 of 1


Felix Christopher
Quality Manager

West Caldwell Calibration Laboratories, Inc.
uncompromised calibration
1575 State Route 96, Victor, NY 14564, U.S.A.

Calibration Traceable
To N. I. S. T.

Phone: (585) 586-3900 Fax.: (585) 586-4327



West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

PERMISSIBLE SOUND LEVEL METER

Manufactured by: **METROSONICS**
Model No: **db-3080**
Serial No: **3905**
Calibration Recall No: **20813**

Submitted By:

Customer: **JACK CRAMER**
Company: **McCORMICK TAYLOR, INC.**
Address: **5 CAPITAL DRIVE**
HARRISBURG PA 17110

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

West Caldwell Calibration Laboratories Procedure No. **db-3080 METR**

Upon receipt for Calibration, the instrument was found to be:

Within (X) see attached Report of Calibration.

the tolerance of the indicated specification.

West Caldwell Calibration Laboratories' calibration control system meets the requirements, ISO 10012-1 MIL-STD-45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2008 and ISO 17025.

Note: With this Certificate, Report of Calibration is included.

Approved by:

Calibration Date: **20-May-11**

Certificate No: **20813 - 3**



Felix Christopher
Quality Manager

QA Doc. #1051 Rev. 2.0 10/1/01

Certificate Page 1 of 1

West Caldwell Calibration Laboratories, Inc.
uncompromised calibration
1575 State Route 96, Victor, NY 14564, U.S.A.

Calibration Traceable
To N. I. S. T.

Phone: (585) 586-3900 Fax.: (585) 586-4327



West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

PERMISSIBLE SOUND LEVEL METER

Manufactured by: **METROSONICS**
Model No: **db-3080**
Serial No: **3907**
Calibration Recall No: **20813**

Submitted By:

Customer: **JACK CRAMER**
Company: **McCORMICK TAYLOR, INC.**
Address: **5 CAPITAL DRIVE**
HARRISBURG PA 17110

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

West Caldwell Calibration Laboratories Procedure No. db-3080 METR

Upon receipt for Calibration, the instrument was found to be:

Outside (X) see attached Report of Calibration.

the tolerance of the indicated specification.

West Caldwell Calibration Laboratories' calibration control system meets the requirements, ISO 10012-1 MIL-STD-45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2008 and ISO 17025.

Note: With this Certificate, Report of Calibration is included.

Approved by:

Calibration Date: 01-Jun-11

Certificate No: 20813 - 4

QA Doc. #1051 Rev. 2.0 10/1/01

Certificate Page 1 of 1


Felix Christopher
Quality Manager

West Caldwell Calibration Laboratories, Inc.
uncompromised calibration
1575 State Route 96, Victor, NY 14564, U.S.A.

Calibration Traceable
To N. I. S. T.

Phone: (585) 586-3900 Fax.: (585) 586-4327



West Caldwell Calibration Laboratories Inc.

Certificate of Calibration

for

PERMISSIBLE SOUND LEVEL METER

Manufactured by: **METROSONICS**
Model No: **db-3080**
Serial No: **3908**
Calibration Recall No: **20813**

Submitted By:

Customer: **JACK CRAMER**
Company: **McCORMICK TAYLOR, INC.**
Address: **5 CAPITAL DRIVE**
HARRISBURG PA 17110

The subject instrument was calibrated to the indicated specification using standards traceable to the National Institute of Standards and Technology or to accepted values of natural physical constants. This document certifies that the instrument met the following specification upon its return to the submitter.

West Caldwell Calibration Laboratories Procedure No. **db-3080 METR**

Upon receipt for Calibration, the instrument was found to be:

Within **(X)** see attached Report of Calibration.

the tolerance of the indicated specification.

West Caldwell Calibration Laboratories' calibration control system meets the requirements, ISO 10012-1 MIL-STD-45662A, ANSI/NCSL Z540-1, IEC Guide 25, ISO 9001:2008 and ISO 17025.

Note: With this Certificate, Report of Calibration is included.

Approved by:

Calibration Date: **20-May-11**

_____ *Kc*

Certificate No: **20813 - 5**

Felix Christopher
Quality Manager

QA Doc. #1051 Rev. 2.0 10/1/01

Certificate Page 1 of 1

 **West Caldwell
Calibration
Laboratories, Inc.**
uncompromised calibration
1575 State Route 96, Victor, NY 14564, U.S.A.

Calibration Traceable
To N. I. S. T.

Phone: (585) 586-3900 Fax.: (585) 586-4327



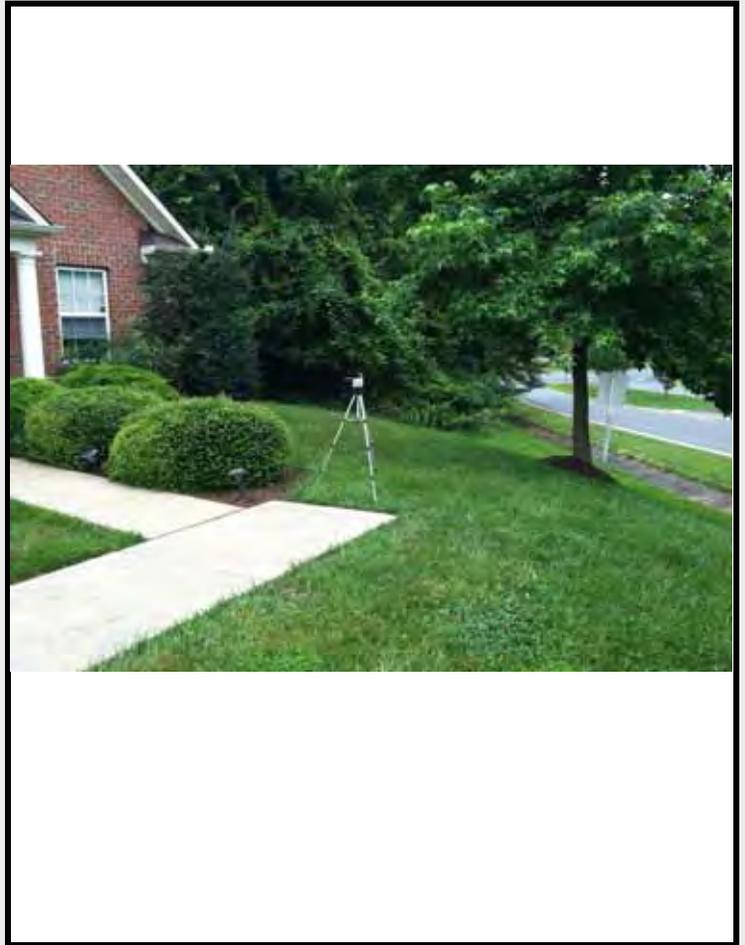
Appendix B

NOISE MONITORING DATA FORMS

Charlottesville Bypass Project

Site # A1
Done By: TRH
Meter: 3908

Description : Somer Chase Apartments - End unit



	Start	End
Date	6/28/2012	6/28/2012
Time	5:15 PM	5:30 PM
	NB/EB	SB/WB
Traffic		
Cars	563	407
MT	7	10
HT	8	6
Buses		
Motorcycles		
Total		
Notes:		

Approximately 200 feet from corridor.

Wind Speed (mph) _____ **Temp. (°F)** _____ **Humidity (%)** _____

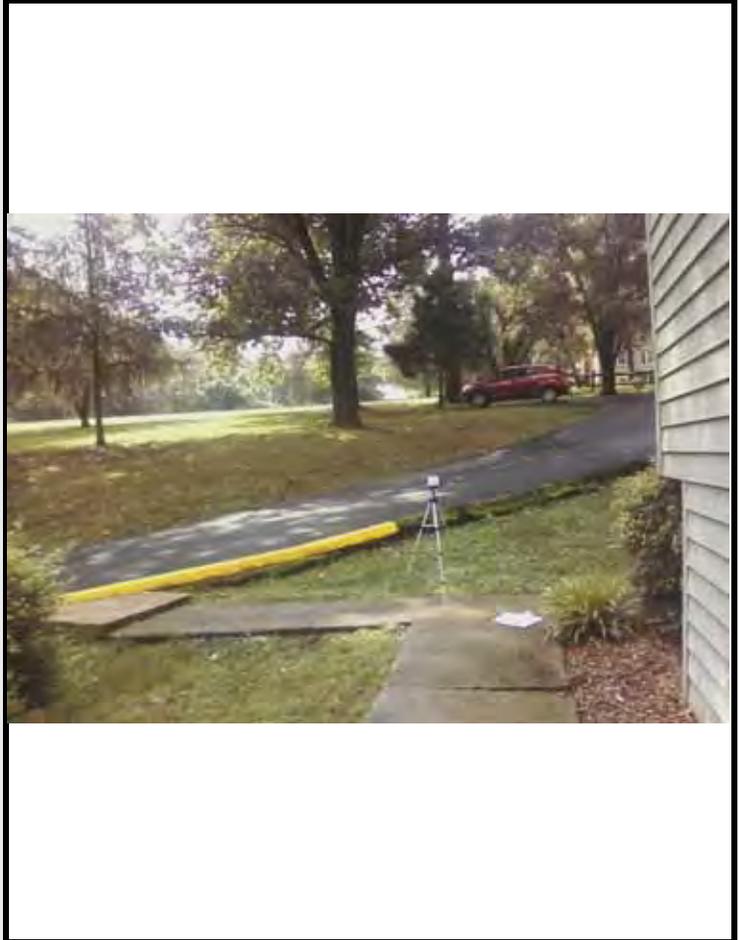


Charlottesville Bypass Project

Site # B1
Done By: AJN
Meter: 3907

Description : 644 Woodburn Court

	Start	End
Date	6/28/2012	6/28/2012
Time	2:50 PM	3:05 PM
	NB/EB	SB/WB
Traffic		
Cars		
MT		
HT		
Buses		
Motorcycles		
Total		
Notes:		



Approximately 400 feet from corridor.

Wind Speed (mph) _____ **Temp. (°F)** _____

Humidity (%) _____



Charlottesville Bypass Project

Site # D1
Done By: 3908
Meter: TRH

Description : 312 Squirrel Path



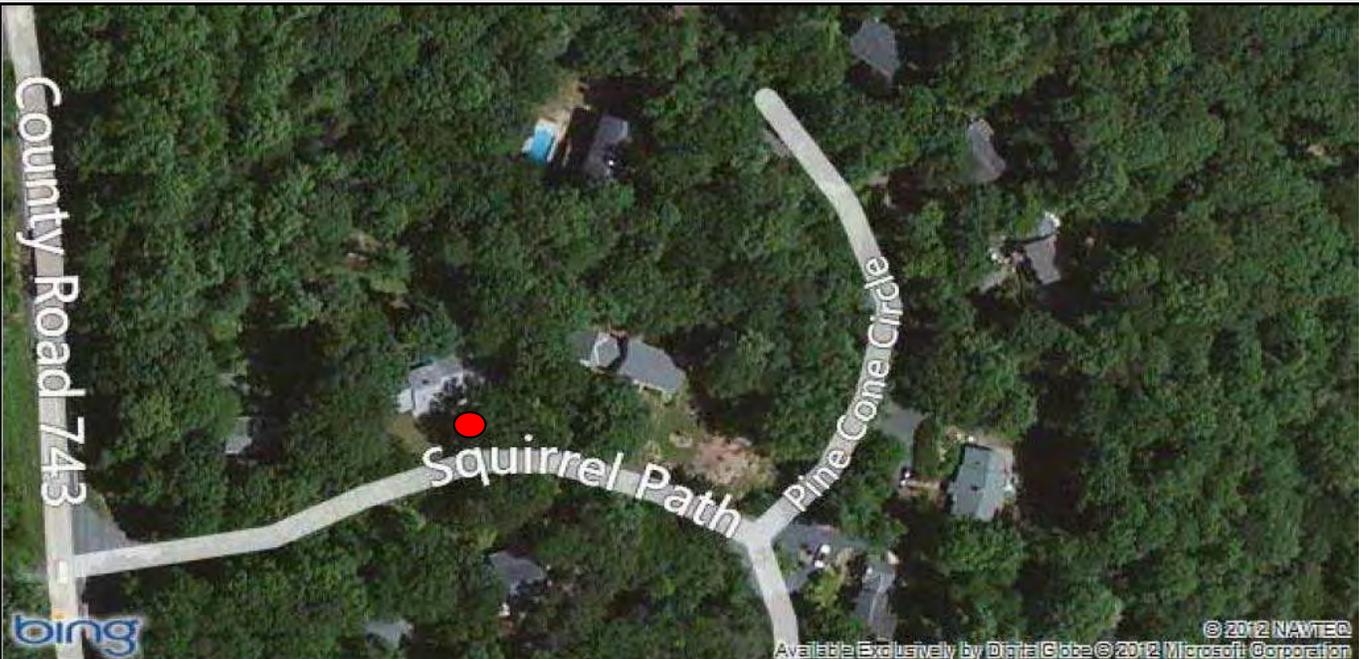
	Start	End
Date	6/28/2012	6/28/2012
Time	2:50 PM	3:05 PM
	NB/EB	SB/WB
Traffic		
Cars		
MT		
HT		
Buses		
Motorcycles		
Total		
Notes:		

Moped: 2:51; 2:53; 2:54

Approximately 100 feet from corridor.

Wind Speed (mph) _____ **Temp. (°F)** _____

Humidity (%) _____



Charlottesville Bypass Project

Site # E1
Done By: DAH
Meter: 3905

Description : Triangle Court Trailer Park



	Start	End
Date	6/28/2012	6/28/2012
Time	4:55 PM	5:10 AM
	NB/EB	SB/WB
Traffic		
Cars	232	232
MT	2	2
HT		
Buses		
Motorcycles		
Total		

Notes: Second trailer from the west on the north
side.

Approximately 350 feet from corridor.

Wind Speed (mph) _____ **Temp. (°F)** _____

Humidity _____
(%) _____



Charlottesville Bypass Project

Site # H1
Done By: DAH
Meter: 3905

Description : Jack Jouett Middle School



	Start	End
Date	6/28/2012	6/28/2012
Time	3:55 PM	4:10 PM
	NB/EB	SB/WB
Traffic		
Cars		
MT		
HT		
Buses		
Motorcycles		
Total		

Notes: School located off of Lambs Lane.

Approximately 250 feet from corridor.

Wind Speed (mph) _____ **Temp. (°F)** _____ **Humidity (%)** _____



bing

Available Exclusively by DigitalGlobe © 2012 Microsoft Corporation

Charlottesville Bypass Project

Site # J1
Done By: TRH
Meter: 3908

Description : 219 Montvue Drive



	Start	End
Date	6/28/2012	6/28/2012
Time	3:55 PM	4:10 PM
	NB/EB	SB/WB
Traffic		
Cars		
MT		
HT		
Buses		
Motorcycles		
Total		
Notes:		

Low Prop Plane: 4:11 PM

Approximately 100 feet from corridor.

Wind Speed (mph) _____ **Temp. (°F)** _____ **Humidity (%)** _____



Charlottesville Bypass Project

Site # L1
Done By: AJN
Meter: 3907

Description : St. Anne's Belfield School

	Start	End
Date	6/28/2012	6/28/2012
Time	6:23 PM	6:38 PM
Traffic	NB/EB	SB/WB
Cars		
MT		
HT		
Buses		
Motorcycles		
Total		

Notes: _____

Softball practice nearby, shouting adds ~1-2 dB(A)

Plane: 6:32 PM

Approximately 600 feet from corridor.



Wind Speed (mph) _____ **Temp. (°F)** _____

Humidity (%) _____



North



Charlottesville Bypass Project

Site # L2
Done By: DAH
Meter: 3905

Description : St. Anne's Belfield School



	Start	End
Date	6/28/2012	6/28/2012
Time	6:23 PM	6:38 PM

	NB/EB	SB/WB
Traffic		
Cars		
MT		
HT		
Buses		
Motorcycles		
Total		

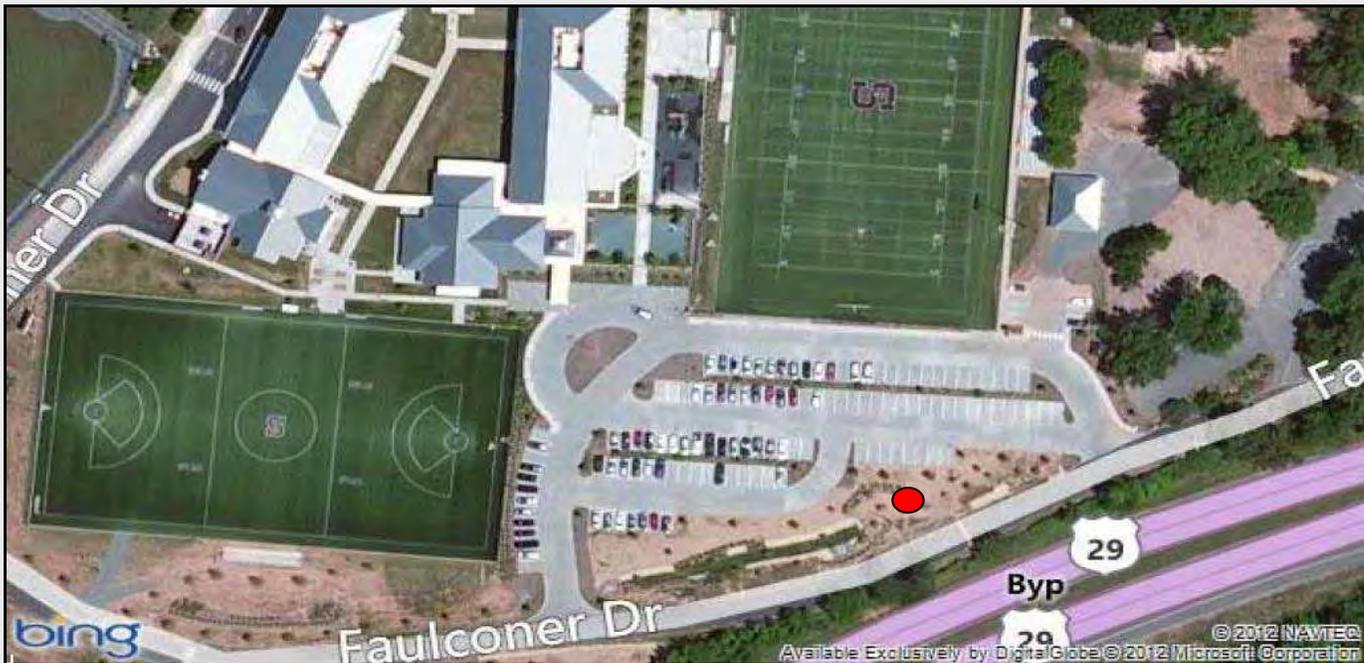
Notes: _____

Cars: 6:24, 6:26, 6:27, 6:32, 6:33, 6:38

Approximately 200 feet from corridor.

Wind Speed (mph) _____ **Temp. (°F)** _____

Humidity (%) _____



Appendix C

METROSONICS PRINTOUTS
NOISE MONITORING DATA

```

*****
Filename.....3908
Test Location.....
Employee Name.....
Employee Number.....
Department.....

```

```

Calibrator Type.....
Calibrator Cal. Date...
*****

```

METROSONICS db-3080 V1.12 SERIAL # 3908
 REPORT PRINTED ON 06/29/12 at 13:22:57

User ID: _____

```

LOGGING STARTED.....06/28/12 at 17:06:40
TOTAL LOGGING TIME...0 DAYS 00:16:55
LOGGING STOPPED.....06/28/12 at 17:23:35
TOTAL INTERVALS.....102
INTERVAL LENGTH.....00:00:10

```

```

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

```

```

PRE-TEST CALIBRATION TIME....06/28/12 AT 13:59:41
PRE-TEST CALIBRATION RANGE...38.9 TO 138.9 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

```

<<< SUMMARY REPORT FOR TEST NUMBER 4 OF 5 >>>

```

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

```

```

Lav..... 56.1dB
Lav ( 80)..... 38.9dB
Lav ( 90)..... 38.9dB
SEL..... 86.0dB

```

```

TWA..... 41.6dB
TWA ( 80)..... 38.9dB
TWA ( 90)..... 38.9dB

```

```

Lmax..... 70.0dB 06/28/12 at 17:13:07
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

```

DOSE (80)..... 0.00%
 PROJ. DOSE (80).. 0.00%
 DOSE (90)..... 0.00%
 PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 4 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
17:06:40	56.4	60.0	UNDER	59.9	50.9
17:06:50	50.0	51.7	UNDER	51.9	48.9
17:07:00	52.7	55.1	UNDER	54.9	49.9
17:07:10	56.0	60.6	UNDER	59.9	52.9
17:07:20	56.4	59.9	UNDER	58.9	53.9
17:07:30	54.5	55.1	UNDER	55.9	53.9
17:07:40	54.5	56.1	UNDER	55.9	53.9
17:07:50	59.6	62.6	UNDER	62.9	55.9
17:08:00	57.6	60.9	UNDER	59.9	53.9
17:08:10	52.9	54.3	UNDER	54.9	50.9
17:08:20	57.3	61.4	UNDER	61.9	49.9
17:08:30	51.9	53.8	UNDER	53.9	49.9
17:08:40	56.0	61.4	UNDER	61.9	49.9
17:08:50	54.7	60.8	UNDER	59.9	47.9
17:09:00	46.7	47.9	UNDER	47.9	45.9
17:09:10	54.0	56.8	UNDER	56.9	48.9
17:09:20	56.4	58.9	UNDER	58.9	54.9
17:09:30	55.2	56.9	UNDER	56.9	53.9
17:09:40	55.3	57.2	UNDER	56.9	53.9
17:09:50	54.8	56.1	UNDER	55.9	53.9
17:10:00	55.2	55.8	UNDER	55.9	54.9
17:10:10	53.1	55.5	UNDER	55.9	48.9
17:10:20	49.0	54.6	UNDER	51.9	46.9
17:10:30	62.7	65.3	UNDER	65.9	54.9
17:10:40	55.7	62.2	UNDER	59.9	51.9
17:10:50	48.8	51.7	UNDER	50.9	46.9
17:11:00	58.7	62.2	UNDER	61.9	49.9
17:11:10	54.5	57.3	UNDER	55.9	53.9
17:11:20	57.4	60.5	UNDER	59.9	53.9
17:11:30	56.8	59.0	UNDER	58.9	55.9
17:11:40	57.5	59.7	UNDER	59.9	55.9
17:11:50	57.3	59.4	UNDER	59.9	54.9
17:12:00	55.6	57.4	UNDER	57.9	53.9
17:12:10	53.2	55.0	UNDER	54.9	52.9
17:12:20	55.1	58.6	UNDER	58.9	48.9
17:12:30	49.2	52.9	UNDER	51.9	47.9
17:12:40	59.7	65.1	UNDER	64.9	51.9
17:12:50	52.8	53.9	UNDER	53.9	51.9
17:13:00	63.8	70.0	UNDER	69.9	53.9
17:13:10	55.9	62.2	UNDER	59.9	50.9
17:13:20	57.0	59.5	UNDER	59.9	50.9
17:13:30	57.7	59.8	UNDER	59.9	55.9
17:13:40	54.0	55.4	UNDER	54.9	53.9
17:13:50	52.1	54.3	UNDER	54.9	49.9
17:14:00	50.7	54.3	UNDER	54.9	47.9
17:14:10	50.0	53.0	UNDER	52.9	48.9
17:14:20	53.2	57.0	UNDER	56.9	48.9
17:14:30	54.6	57.5	UNDER	57.9	49.9
17:14:40	57.4	63.4	UNDER	62.9	50.9
17:14:50	57.8	62.6	UNDER	61.9	51.9
17:15:00	57.7	61.8	UNDER	60.9	52.9
17:15:10	55.2	57.0	UNDER	56.9	53.9

			A1		
17:15:20	54.8	56.4	UNDER	56.9	53.9
17:15:30	56.2	57.0	UNDER	56.9	55.9
17:15:40	55.8	56.6	UNDER	56.9	53.9
17:15:50	54.5	55.5	UNDER	55.9	52.9
17:16:00	53.5	56.5	UNDER	54.9	51.9
17:16:10	55.9	58.2	UNDER	57.9	52.9
17:16:20	54.2	56.9	UNDER	56.9	50.9
17:16:30	49.0	50.6	UNDER	49.9	47.9
17:16:40	54.8	61.0	UNDER	59.9	49.9
17:16:50	58.9	61.5	UNDER	61.9	53.9
17:17:00	54.7	56.6	UNDER	55.9	53.9
17:17:10	59.0	61.8	UNDER	61.9	55.9
17:17:20	55.6	56.3	UNDER	56.9	54.9
17:17:30	56.7	58.7	UNDER	58.9	54.9
17:17:40	55.7	56.7	UNDER	56.9	54.9
17:17:50	53.7	55.0	UNDER	54.9	52.9
17:18:00	51.3	52.8	UNDER	52.9	49.9
17:18:10	53.1	55.2	UNDER	54.9	51.9
17:18:20	52.4	54.3	UNDER	54.9	50.9
17:18:30	53.1	54.3	UNDER	54.9	50.9
17:18:40	57.7	66.3	UNDER	61.9	53.9
17:18:50	61.7	66.5	UNDER	66.9	55.9
17:19:00	55.2	56.6	UNDER	56.9	53.9
17:19:10	53.6	55.4	UNDER	54.9	52.9
17:19:20	56.6	58.9	UNDER	58.9	52.9
17:19:30	51.7	54.2	UNDER	53.9	50.9
17:19:40	54.7	57.4	UNDER	57.9	51.9
17:19:50	56.6	58.6	UNDER	57.9	54.9
17:20:00	56.7	59.6	UNDER	58.9	55.9
17:20:10	55.6	56.6	UNDER	56.9	53.9
17:20:20	54.1	55.7	UNDER	54.9	53.9
17:20:30	57.6	62.1	UNDER	61.9	53.9
17:20:40	54.7	58.6	UNDER	56.9	53.9
17:20:50	53.3	55.8	UNDER	55.9	51.9
17:21:00	59.3	63.2	UNDER	62.9	53.9
17:21:10	55.4	58.6	UNDER	56.9	54.9
17:21:20	54.6	56.2	UNDER	56.9	52.9
17:21:30	54.6	57.9	UNDER	55.9	53.9
17:21:40	54.4	57.9	UNDER	57.9	49.9
17:21:50	52.2	54.5	UNDER	54.9	49.9
17:22:00	48.7	51.6	UNDER	50.9	47.9
17:22:10	52.5	54.2	UNDER	53.9	47.9
17:22:20	52.8	55.8	UNDER	55.9	49.9
17:22:30	55.4	57.5	UNDER	57.9	54.9
17:22:40	56.8	60.7	UNDER	59.9	52.9
17:22:50	56.1	60.8	UNDER	60.9	51.9
17:23:00	54.4	56.0	UNDER	55.9	51.9
17:23:10	59.4	63.4	UNDER	62.9	54.9
17:23:20	59.3	62.1	UNDER	60.9	57.9
17:23:30	54.5	57.5	UNDER	57.9	51.9

```

*****
Filename.....3907
Test Location.....
Employee Name.....
Employee Number.....
Department.....

```

```

Calibrator Type.....
Calibrator Cal. Date...
*****

```

METROSONICS db-3080 V1.12 SERIAL # 3907
 REPORT PRINTED ON 06/29/12 at 13:23:56

User ID: _____

```

LOGGING STARTED.....06/28/12 at 17:02:40
TOTAL LOGGING TIME...0 DAYS 00:26:35
LOGGING STOPPED.....06/28/12 at 17:29:15
TOTAL INTERVALS.....160
INTERVAL LENGTH.....00:00:10

```

```

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

```

```

PRE-TEST CALIBRATION TIME....06/28/12 AT 14:02:55
PRE-TEST CALIBRATION RANGE...38.8 TO 138.8 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

```

<<< SUMMARY REPORT FOR TEST NUMBER 3 OF 5 >>>

```

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

```

```

Lav..... 49.9dB
Lav ( 80)..... 38.8dB
Lav ( 90)..... 38.8dB
SEL..... 81.8dB

```

```

TWA..... 38.8dB
TWA ( 80)..... 38.8dB
TWA ( 90)..... 38.8dB

```

```

Lmax..... 61.2dB 06/28/12 at 17:27:56
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

```

DOSE (80)..... 0.00%
 PROJ. DOSE (80).. 0.00%
 DOSE (90)..... 0.00%
 PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 3 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
17:02:40	48.6	50.6	UNDER	50.8	46.8
17:02:50	49.2	50.5	UNDER	50.8	48.8
17:03:00	51.6	52.5	UNDER	52.8	50.8
17:03:10	50.6	51.0	UNDER	50.8	50.8
17:03:20	50.8	52.9	UNDER	52.8	49.8
17:03:30	50.7	52.5	UNDER	52.8	48.8
17:03:40	48.0	48.6	UNDER	48.8	47.8
17:03:50	50.8	53.8	UNDER	52.8	47.8
17:04:00	53.6	55.9	UNDER	55.8	51.8
17:04:10	51.8	54.9	UNDER	54.8	47.8
17:04:20	48.1	49.7	UNDER	49.8	47.8
17:04:30	48.4	50.1	UNDER	49.8	46.8
17:04:40	48.8	49.7	UNDER	49.8	47.8
17:04:50	49.4	49.7	UNDER	49.8	48.8
17:05:00	49.3	49.7	UNDER	49.8	48.8
17:05:10	49.6	49.8	UNDER	49.8	49.8
17:05:20	48.5	49.3	UNDER	49.8	47.8
17:05:30	47.1	47.5	UNDER	47.8	46.8
17:05:40	47.1	47.7	UNDER	47.8	46.8
17:05:50	46.9	47.7	UNDER	47.8	45.8
17:06:00	44.9	45.7	UNDER	45.8	44.8
17:06:10	44.1	44.9	UNDER	44.8	43.8
17:06:20	46.6	48.3	UNDER	48.8	44.8
17:06:30	48.6	48.9	UNDER	48.8	48.8
17:06:40	48.8	49.6	UNDER	49.8	48.8
17:06:50	50.2	50.5	UNDER	50.8	49.8
17:07:00	50.0	50.2	UNDER	50.8	49.8
17:07:10	49.9	51.3	UNDER	50.8	49.8
17:07:20	49.1	49.7	UNDER	49.8	48.8
17:07:30	49.4	50.6	UNDER	50.8	48.8
17:07:40	49.6	50.5	UNDER	50.8	48.8
17:07:50	48.4	49.7	UNDER	49.8	46.8
17:08:00	45.7	46.9	UNDER	46.8	45.8
17:08:10	46.3	46.9	UNDER	46.8	45.8
17:08:20	47.1	47.7	UNDER	47.8	46.8
17:08:30	47.9	48.9	UNDER	48.8	47.8
17:08:40	48.7	49.9	UNDER	49.8	48.8
17:08:50	50.4	51.1	UNDER	50.8	49.8
17:09:00	51.0	51.6	UNDER	51.8	49.8
17:09:10	49.1	49.7	UNDER	49.8	48.8
17:09:20	48.9	49.5	UNDER	49.8	48.8
17:09:30	48.5	49.3	UNDER	49.8	47.8
17:09:40	49.2	50.6	UNDER	50.8	48.8
17:09:50	47.8	50.0	UNDER	49.8	45.8
17:10:00	45.4	45.7	UNDER	45.8	45.8
17:10:10	46.6	48.0	UNDER	47.8	45.8
17:10:20	48.8	50.5	UNDER	49.8	47.8
17:10:30	49.9	51.3	UNDER	51.8	48.8
17:10:40	48.7	49.0	UNDER	48.8	48.8
17:10:50	49.0	49.7	UNDER	49.8	48.8
17:11:00	50.2	50.5	UNDER	50.8	49.8
17:11:10	49.4	50.1	UNDER	49.8	48.8

17:11:20	48.0	48.9	UNDER	48.8	47.8
17:11:30	47.5	47.8	UNDER	47.8	46.8
17:11:40	46.8	47.3	UNDER	47.8	46.8
17:11:50	47.1	47.6	UNDER	47.8	46.8
17:12:00	45.5	46.5	UNDER	46.8	44.8
17:12:10	47.7	48.9	UNDER	48.8	45.8
17:12:20	48.9	49.3	UNDER	49.8	48.8
17:12:30	48.8	49.0	UNDER	48.8	48.8
17:12:40	49.3	49.7	UNDER	49.8	48.8
17:12:50	49.2	49.4	UNDER	49.8	48.8
17:13:00	49.2	49.7	UNDER	49.8	48.8
17:13:10	48.8	49.3	UNDER	49.8	48.8
17:13:20	47.7	48.4	UNDER	48.8	47.8
17:13:30	47.4	47.8	UNDER	47.8	47.8
17:13:40	47.4	47.7	UNDER	47.8	46.8
17:13:50	46.9	47.3	UNDER	47.8	46.8
17:14:00	45.6	46.6	UNDER	46.8	44.8
17:14:10	46.2	47.3	UNDER	46.8	45.8
17:14:20	49.4	50.2	UNDER	50.8	47.8
17:14:30	49.7	50.0	UNDER	50.8	49.8
17:14:40	49.7	50.1	UNDER	49.8	49.8
17:14:50	50.5	50.8	UNDER	50.8	50.8
17:15:00	50.7	52.0	UNDER	51.8	50.8
17:15:10	52.9	57.3	UNDER	55.8	49.8
17:15:20	48.5	49.5	UNDER	49.8	48.8
17:15:30	48.4	48.9	UNDER	48.8	48.8
17:15:40	47.7	48.5	UNDER	48.8	46.8
17:15:50	46.5	47.3	UNDER	46.8	45.8
17:16:00	46.8	47.3	UNDER	47.8	46.8
17:16:10	47.1	48.1	UNDER	47.8	46.8
17:16:20	49.9	50.9	UNDER	50.8	48.8
17:16:30	50.8	51.8	UNDER	51.8	49.8
17:16:40	50.4	50.9	UNDER	50.8	49.8
17:16:50	49.2	50.0	UNDER	49.8	48.8
17:17:00	48.2	48.7	UNDER	48.8	47.8
17:17:10	48.6	49.2	UNDER	49.8	48.8
17:17:20	49.1	49.7	UNDER	49.8	48.8
17:17:30	47.8	49.6	UNDER	49.8	46.8
17:17:40	46.4	46.9	UNDER	46.8	45.8
17:17:50	45.0	45.4	UNDER	45.8	44.8
17:18:00	44.4	45.1	UNDER	44.8	43.8
17:18:10	45.9	48.1	UNDER	47.8	43.8
17:18:20	48.6	49.7	UNDER	49.8	48.8
17:18:30	50.6	51.6	UNDER	51.8	49.8
17:18:40	51.6	52.4	UNDER	52.8	51.8
17:18:50	54.2	55.4	UNDER	55.8	52.8
17:19:00	52.6	54.8	UNDER	54.8	50.8
17:19:10	49.8	50.8	UNDER	50.8	48.8
17:19:20	48.3	49.0	UNDER	48.8	47.8
17:19:30	48.0	48.5	UNDER	48.8	47.8
17:19:40	46.1	47.3	UNDER	46.8	44.8
17:19:50	44.6	45.7	UNDER	45.8	44.8
17:20:00	45.9	46.9	UNDER	46.8	44.8
17:20:10	47.2	47.7	UNDER	47.8	46.8
17:20:20	48.4	49.5	UNDER	49.8	47.8
17:20:30	49.7	50.0	UNDER	49.8	49.8
17:20:40	49.8	50.1	UNDER	50.8	49.8
17:20:50	50.0	50.5	UNDER	50.8	49.8
17:21:00	49.3	50.2	UNDER	50.8	48.8
17:21:10	48.1	48.4	UNDER	48.8	47.8
17:21:20	48.1	48.5	UNDER	48.8	47.8
17:21:30	48.2	49.3	UNDER	48.8	47.8
17:21:40	46.8	47.7	UNDER	47.8	44.8

			A2		
17:21:50	45.0	46.1	UNDER	46.8	44.8
17:22:00	46.3	46.9	UNDER	46.8	45.8
17:22:10	46.5	48.9	UNDER	47.8	45.8
17:22:20	50.0	51.1	UNDER	50.8	48.8
17:22:30	51.4	52.9	UNDER	52.8	50.8
17:22:40	55.2	58.5	UNDER	57.8	52.8
17:22:50	54.6	57.6	UNDER	56.8	52.8
17:23:00	52.7	54.5	UNDER	54.8	50.8
17:23:10	50.9	52.0	UNDER	51.8	49.8
17:23:20	49.5	50.8	UNDER	50.8	48.8
17:23:30	47.7	50.2	UNDER	49.8	46.8
17:23:40	46.5	48.0	UNDER	47.8	45.8
17:23:50	45.8	47.0	UNDER	46.8	44.8
17:24:00	46.6	47.6	UNDER	47.8	45.8
17:24:10	47.9	48.7	UNDER	48.8	47.8
17:24:20	48.4	48.9	UNDER	48.8	48.8
17:24:30	49.3	50.5	UNDER	50.8	48.8
17:24:40	49.9	51.0	UNDER	50.8	48.8
17:24:50	53.9	56.1	UNDER	55.8	50.8
17:25:00	52.1	54.1	UNDER	53.8	49.8
17:25:10	49.1	49.7	UNDER	49.8	48.8
17:25:20	49.7	50.3	UNDER	50.8	48.8
17:25:30	55.7	58.3	UNDER	57.8	50.8
17:25:40	50.6	54.0	UNDER	53.8	45.8
17:25:50	46.5	48.3	UNDER	47.8	45.8
17:26:00	48.7	49.7	UNDER	49.8	47.8
17:26:10	50.3	51.2	UNDER	50.8	49.8
17:26:20	51.3	52.1	UNDER	51.8	50.8
17:26:30	50.7	51.3	UNDER	51.8	50.8
17:26:40	51.2	51.6	UNDER	51.8	50.8
17:26:50	50.6	51.1	UNDER	50.8	50.8
17:27:00	50.3	50.7	UNDER	50.8	50.8
17:27:10	52.4	54.9	UNDER	54.8	49.8
17:27:20	49.7	50.8	UNDER	50.8	48.8
17:27:30	50.2	51.4	UNDER	50.8	49.8
17:27:40	56.5	60.7	UNDER	59.8	49.8
17:27:50	58.0	61.2	UNDER	59.8	55.8
17:28:00	56.2	60.5	UNDER	58.8	50.8
17:28:10	50.6	51.4	UNDER	51.8	49.8
17:28:20	51.6	52.5	UNDER	52.8	51.8
17:28:30	51.4	52.1	UNDER	51.8	50.8
17:28:40	51.0	51.5	UNDER	51.8	50.8
17:28:50	50.7	52.6	UNDER	52.8	48.8
17:29:00	48.5	50.0	UNDER	49.8	48.8
17:29:10	49.7	54.1	UNDER	51.8	48.8

```

*****
Filename.....3903
Test Location.....
Employee Name.....
Employee Number.....
Department.....

```

```

Calibrator Type.....
Calibrator Cal. Date...
*****

```

METROSONICS db-3080 V1.12 SERIAL # 3903
 REPORT PRINTED ON 06/29/12 at 13:26:55

User ID: _____

```

LOGGING STARTED.....06/28/12 at 16:55:30
TOTAL LOGGING TIME...0 DAYS 00:27:52
LOGGING STOPPED.....06/28/12 at 17:23:22
TOTAL INTERVALS.....168
INTERVAL LENGTH.....00:00:10

```

```

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

```

```

PRE-TEST CALIBRATION TIME....06/28/12 AT 13:58:19
PRE-TEST CALIBRATION RANGE...39.5 TO 139.5 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

```

<<< SUMMARY REPORT FOR TEST NUMBER 3 OF 5 >>>

```

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

```

```

Lav..... 55.3dB
Lav ( 80)..... 39.5dB
Lav ( 90)..... 39.5dB
SEL..... 87.4dB

```

```

TWA..... 42.9dB
TWA ( 80)..... 39.5dB
TWA ( 90)..... 39.5dB

```

```

Lmax..... 64.0dB 06/28/12 at 16:58:11
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

```

DOSE (80)..... 0.00%
 PROJ. DOSE (80).. 0.00%
 DOSE (90)..... 0.00%
 PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 3 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
16:55:30	53.9	54.4	UNDER	54.5	52.5
16:55:40	53.9	54.4	UNDER	54.5	53.5
16:55:50	54.2	54.8	UNDER	54.5	53.5
16:56:00	56.2	61.6	UNDER	58.5	54.5
16:56:10	57.1	61.4	UNDER	58.5	55.5
16:56:20	55.9	56.9	UNDER	56.5	55.5
16:56:30	55.7	56.8	UNDER	56.5	55.5
16:56:40	56.7	57.7	UNDER	57.5	55.5
16:56:50	56.1	57.6	UNDER	56.5	54.5
16:57:00	54.6	56.4	UNDER	55.5	53.5
16:57:10	53.8	54.3	UNDER	54.5	53.5
16:57:20	54.5	55.1	UNDER	54.5	53.5
16:57:30	55.1	55.3	UNDER	55.5	54.5
16:57:40	55.2	55.5	UNDER	55.5	54.5
16:57:50	57.1	58.4	UNDER	58.5	55.5
16:58:00	59.5	61.6	UNDER	60.5	57.5
16:58:10	59.9	64.0	UNDER	62.5	57.5
16:58:20	59.0	62.3	UNDER	61.5	56.5
16:58:30	55.2	56.0	UNDER	55.5	54.5
16:58:40	58.0	59.6	UNDER	59.5	55.5
16:58:50	55.5	56.8	UNDER	56.5	54.5
16:59:00	54.6	55.2	UNDER	55.5	53.5
16:59:10	53.9	54.4	UNDER	54.5	53.5
16:59:20	54.7	55.1	UNDER	54.5	54.5
16:59:30	54.9	55.5	UNDER	55.5	54.5
16:59:40	56.8	58.4	UNDER	58.5	55.5
16:59:50	55.7	56.4	UNDER	56.5	55.5
17:00:00	55.2	55.7	UNDER	55.5	54.5
17:00:10	55.2	55.6	UNDER	55.5	55.5
17:00:20	55.1	55.2	UNDER	55.5	54.5
17:00:30	55.3	55.6	UNDER	55.5	54.5
17:00:40	55.6	56.0	UNDER	56.5	55.5
17:00:50	54.7	55.5	UNDER	55.5	54.5
17:01:00	53.8	54.5	UNDER	54.5	53.5
17:01:10	55.2	57.2	UNDER	56.5	54.5
17:01:20	56.7	58.4	UNDER	58.5	55.5
17:01:30	55.1	55.6	UNDER	55.5	54.5
17:01:40	54.1	54.4	UNDER	54.5	53.5
17:01:50	54.4	54.8	UNDER	54.5	54.5
17:02:00	54.7	55.6	UNDER	55.5	53.5
17:02:10	53.3	54.0	UNDER	54.5	52.5
17:02:20	54.0	54.5	UNDER	54.5	53.5
17:02:30	55.4	55.6	UNDER	55.5	54.5
17:02:40	55.9	56.4	UNDER	56.5	55.5
17:02:50	55.0	56.4	UNDER	56.5	54.5
17:03:00	53.8	54.8	UNDER	54.5	53.5
17:03:10	54.2	54.8	UNDER	54.5	53.5
17:03:20	54.2	54.4	UNDER	54.5	54.5
17:03:30	53.9	54.4	UNDER	54.5	53.5
17:03:40	53.6	53.9	UNDER	53.5	53.5
17:03:50	54.4	54.8	UNDER	54.5	53.5
17:04:00	54.7	54.8	UNDER	54.5	54.5

17:04:10	55.1	55.6	UNDER	55.5	54.5
17:04:20	56.7	57.6	UNDER	57.5	55.5
17:04:30	57.0	57.8	UNDER	57.5	55.5
17:04:40	55.8	56.3	UNDER	56.5	55.5
17:04:50	55.2	56.0	UNDER	56.5	54.5
17:05:00	53.8	54.4	UNDER	54.5	53.5
17:05:10	54.0	54.4	UNDER	54.5	53.5
17:05:20	54.3	54.8	UNDER	54.5	53.5
17:05:30	54.5	54.8	UNDER	54.5	54.5
17:05:40	55.6	59.7	UNDER	58.5	54.5
17:05:50	54.9	55.6	UNDER	55.5	54.5
17:06:00	54.8	56.0	UNDER	55.5	53.5
17:06:10	53.6	54.7	UNDER	54.5	53.5
17:06:20	56.5	57.2	UNDER	57.5	54.5
17:06:30	57.2	58.3	UNDER	58.5	56.5
17:06:40	55.2	57.0	UNDER	56.5	54.5
17:06:50	54.7	55.2	UNDER	55.5	54.5
17:07:00	54.1	54.6	UNDER	54.5	53.5
17:07:10	54.3	54.7	UNDER	54.5	54.5
17:07:20	54.1	54.4	UNDER	54.5	54.5
17:07:30	54.0	54.4	UNDER	54.5	53.5
17:07:40	53.8	54.0	UNDER	54.5	53.5
17:07:50	55.2	57.6	UNDER	57.5	53.5
17:08:00	55.6	56.8	UNDER	56.5	55.5
17:08:10	54.8	55.9	UNDER	55.5	54.5
17:08:20	54.8	55.6	UNDER	55.5	54.5
17:08:30	56.0	56.8	UNDER	56.5	55.5
17:08:40	55.7	56.8	UNDER	56.5	54.5
17:08:50	54.2	54.8	UNDER	54.5	53.5
17:09:00	53.9	54.8	UNDER	54.5	53.5
17:09:10	54.5	55.4	UNDER	55.5	53.5
17:09:20	54.3	55.2	UNDER	54.5	53.5
17:09:30	54.2	55.2	UNDER	54.5	53.5
17:09:40	54.6	56.0	UNDER	55.5	53.5
17:09:50	55.5	56.4	UNDER	56.5	54.5
17:10:00	55.6	58.4	UNDER	56.5	54.5
17:10:10	54.5	55.2	UNDER	55.5	53.5
17:10:20	54.9	55.6	UNDER	55.5	54.5
17:10:30	56.7	60.4	UNDER	58.5	55.5
17:10:40	55.7	56.9	UNDER	56.5	55.5
17:10:50	54.7	55.4	UNDER	55.5	54.5
17:11:00	54.5	54.8	UNDER	54.5	54.5
17:11:10	54.1	54.4	UNDER	54.5	54.5
17:11:20	54.3	54.5	UNDER	54.5	53.5
17:11:30	53.9	54.0	UNDER	54.5	53.5
17:11:40	53.8	54.0	UNDER	54.5	53.5
17:11:50	54.3	54.8	UNDER	54.5	54.5
17:12:00	55.6	56.4	UNDER	56.5	54.5
17:12:10	55.4	55.6	UNDER	55.5	54.5
17:12:20	55.9	56.5	UNDER	56.5	55.5
17:12:30	56.1	56.7	UNDER	56.5	55.5
17:12:40	55.4	56.7	UNDER	56.5	54.5
17:12:50	54.1	54.4	UNDER	54.5	54.5
17:13:00	54.4	54.8	UNDER	54.5	54.5
17:13:10	54.3	54.5	UNDER	54.5	54.5
17:13:20	54.8	55.2	UNDER	55.5	54.5
17:13:30	54.8	55.2	UNDER	55.5	54.5
17:13:40	55.6	56.4	UNDER	56.5	54.5
17:13:50	57.0	58.0	UNDER	57.5	56.5
17:14:00	55.4	56.3	UNDER	56.5	55.5
17:14:10	55.0	55.2	UNDER	55.5	54.5
17:14:20	54.9	55.2	UNDER	55.5	54.5
17:14:30	56.8	58.8	UNDER	58.5	55.5

A3

17:14:40	55.4	56.4	UNDER	55.5	54.5
17:14:50	56.1	57.2	UNDER	57.5	55.5
17:15:00	55.9	57.2	UNDER	57.5	54.5
17:15:10	54.7	56.0	UNDER	55.5	54.5
17:15:20	55.0	56.4	UNDER	56.5	54.5
17:15:30	55.0	56.1	UNDER	56.5	53.5
17:15:40	54.6	57.6	UNDER	55.5	54.5
17:15:50	55.6	56.8	UNDER	56.5	55.5
17:16:00	55.3	55.6	UNDER	55.5	55.5
17:16:10	56.0	57.2	UNDER	56.5	55.5
17:16:20	55.9	57.2	UNDER	56.5	55.5
17:16:30	55.6	56.3	UNDER	56.5	54.5
17:16:40	54.0	54.8	UNDER	54.5	53.5
17:16:50	53.7	54.0	UNDER	53.5	53.5
17:17:00	54.5	54.8	UNDER	54.5	54.5
17:17:10	54.9	55.2	UNDER	55.5	54.5
17:17:20	54.7	54.8	UNDER	54.5	54.5
17:17:30	54.3	54.8	UNDER	54.5	54.5
17:17:40	54.9	55.2	UNDER	55.5	54.5
17:17:50	55.0	55.2	UNDER	55.5	54.5
17:18:00	55.7	56.0	UNDER	56.5	55.5
17:18:10	55.0	55.6	UNDER	55.5	54.5
17:18:20	55.5	56.0	UNDER	55.5	55.5
17:18:30	55.0	55.6	UNDER	55.5	54.5
17:18:40	54.1	54.4	UNDER	54.5	53.5
17:18:50	54.0	54.4	UNDER	54.5	53.5
17:19:00	54.1	54.4	UNDER	54.5	53.5
17:19:10	54.1	54.4	UNDER	54.5	54.5
17:19:20	53.8	54.4	UNDER	54.5	53.5
17:19:30	54.4	55.6	UNDER	55.5	53.5
17:19:40	55.4	56.0	UNDER	55.5	54.5
17:19:50	57.0	58.4	UNDER	58.5	55.5
17:20:00	56.8	58.8	UNDER	58.5	54.5
17:20:10	55.7	56.7	UNDER	56.5	55.5
17:20:20	56.9	57.6	UNDER	57.5	55.5
17:20:30	55.7	57.2	UNDER	57.5	54.5
17:20:40	54.4	54.8	UNDER	54.5	53.5
17:20:50	54.3	54.8	UNDER	54.5	53.5
17:21:00	54.7	56.0	UNDER	55.5	53.5
17:21:10	53.7	54.8	UNDER	54.5	53.5
17:21:20	53.2	54.0	UNDER	54.5	52.5
17:21:30	53.8	54.0	UNDER	54.5	53.5
17:21:40	53.9	54.8	UNDER	54.5	53.5
17:21:50	54.9	55.3	UNDER	55.5	54.5
17:22:00	54.9	56.3	UNDER	55.5	54.5
17:22:10	59.3	63.6	UNDER	62.5	56.5
17:22:20	57.1	59.2	UNDER	58.5	54.5
17:22:30	56.0	58.0	UNDER	57.5	52.5
17:22:40	53.8	58.0	UNDER	55.5	52.5
17:22:50	52.4	53.2	UNDER	52.5	51.5
17:23:00	53.0	53.9	UNDER	53.5	52.5
17:23:10	52.2	52.8	UNDER	52.5	51.5
17:23:20	52.2	52.4	UNDER	52.5	52.5

B1

Filename.....3907
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.12 SERIAL # 3907
REPORT PRINTED ON 06/29/12 at 13:28:14

User ID: _____

LOGGING STARTED.....06/28/12 at 14:44:10
TOTAL LOGGING TIME...0 DAYS 00:15:33
LOGGING STOPPED.....06/28/12 at 14:59:43
TOTAL INTERVALS.....94
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 14:02:55
PRE-TEST CALIBRATION RANGE...38.8 TO 138.8 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 51.0dB
Lav (80)..... 38.8dB
Lav (90)..... 38.8dB
SEL..... 80.6dB

TWA..... 38.8dB
TWA (80)..... 38.8dB
TWA (90)..... 38.8dB

Lmax..... 67.3dB 06/28/12 at 14:47:18
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

B1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
14:44:10	42.9	43.7	UNDER	43.8	42.8
14:44:20	43.7	45.2	UNDER	44.8	42.8
14:44:30	43.0	44.5	UNDER	43.8	42.8
14:44:40	43.7	46.4	UNDER	44.8	42.8
14:44:50	44.5	47.1	UNDER	46.8	42.8
14:45:00	43.0	45.0	UNDER	44.8	42.8
14:45:10	44.5	48.9	UNDER	46.8	42.8
14:45:20	42.7	44.9	UNDER	44.8	41.8
14:45:30	44.8	46.9	UNDER	46.8	42.8
14:45:40	49.5	55.3	UNDER	52.8	45.8
14:45:50	54.2	57.6	UNDER	57.8	45.8
14:46:00	44.0	45.7	UNDER	45.8	42.8
14:46:10	45.4	48.5	UNDER	48.8	43.8
14:46:20	45.2	48.1	UNDER	47.8	42.8
14:46:30	41.9	42.5	UNDER	42.8	41.8
14:46:40	42.4	42.9	UNDER	42.8	42.8
14:46:50	46.4	50.5	UNDER	49.8	42.8
14:47:00	55.7	61.3	UNDER	60.8	50.8
14:47:10	65.2	67.3	UNDER	66.8	61.8
14:47:20	59.0	65.3	UNDER	63.8	51.8
14:47:30	47.9	51.7	UNDER	50.8	44.8
14:47:40	42.4	45.3	UNDER	43.8	41.8
14:47:50	42.1	43.6	UNDER	42.8	41.8
14:48:00	41.0	41.8	UNDER	41.8	40.8
14:48:10	41.5	42.6	UNDER	42.8	40.8
14:48:20	44.2	44.9	UNDER	44.8	42.8
14:48:30	44.7	46.3	UNDER	45.8	43.8
14:48:40	43.1	45.8	UNDER	45.8	40.8
14:48:50	41.2	42.5	UNDER	41.8	40.8
14:49:00	41.4	43.1	UNDER	42.8	40.8
14:49:10	45.5	48.8	UNDER	48.8	40.8
14:49:20	56.0	62.5	UNDER	61.8	46.8
14:49:30	50.3	58.5	UNDER	55.8	42.8
14:49:40	42.6	43.3	UNDER	43.8	42.8
14:49:50	43.6	44.6	UNDER	44.8	42.8
14:50:00	42.5	44.5	UNDER	43.8	40.8
14:50:10	42.0	43.3	UNDER	42.8	41.8
14:50:20	41.0	41.7	UNDER	41.8	40.8
14:50:30	41.8	42.5	UNDER	42.8	40.8
14:50:40	51.5	58.1	UNDER	56.8	41.8
14:50:50	55.5	60.6	UNDER	60.8	46.8
14:51:00	43.8	46.1	UNDER	45.8	42.8
14:51:10	43.8	47.5	UNDER	46.8	42.8
14:51:20	50.3	56.0	UNDER	53.8	44.8
14:51:30	60.8	63.5	UNDER	62.8	56.8
14:51:40	56.2	62.7	UNDER	61.8	47.8
14:51:50	47.8	52.5	UNDER	50.8	43.8
14:52:00	42.6	43.3	UNDER	43.8	40.8
14:52:10	40.7	41.3	UNDER	41.8	40.8
14:52:20	40.5	41.2	UNDER	40.8	40.8
14:52:30	41.6	47.2	UNDER	44.8	39.8
14:52:40	40.7	42.6	UNDER	42.8	40.8

			B1		
14:52:50	41.1	44.0	UNDER	43.8	40.8
14:53:00	47.9	52.1	UNDER	51.8	43.8
14:53:10	59.6	64.1	UNDER	63.8	51.8
14:53:20	45.1	51.3	UNDER	48.8	40.8
14:53:30	40.0	42.5	UNDER	40.8	39.8
14:53:40	39.3	39.7	UNDER	39.8	39.8
14:53:50	39.2	39.4	UNDER	39.8	39.8
14:54:00	39.3	39.4	UNDER	39.8	38.8
14:54:10	39.6	39.9	UNDER	39.8	39.8
14:54:20	40.5	41.7	UNDER	41.8	39.8
14:54:30	47.6	52.5	UNDER	51.8	41.8
14:54:40	45.2	50.1	UNDER	49.8	40.8
14:54:50	40.0	43.3	UNDER	40.8	39.8
14:55:00	40.5	42.3	UNDER	40.8	39.8
14:55:10	40.7	42.9	UNDER	42.8	39.8
14:55:20	40.2	40.9	UNDER	40.8	39.8
14:55:30	39.7	40.8	UNDER	40.8	39.8
14:55:40	39.3	39.7	UNDER	39.8	39.8
14:55:50	39.2	39.3	UNDER	39.8	38.8
14:56:00	39.2	39.7	UNDER	39.8	38.8
14:56:10	40.3	41.3	UNDER	41.8	39.8
14:56:20	40.2	42.0	UNDER	40.8	39.8
14:56:30	42.4	46.9	UNDER	45.8	39.8
14:56:40	51.2	58.5	UNDER	56.8	44.8
14:56:50	61.6	66.3	UNDER	65.8	51.8
14:57:00	48.1	50.9	UNDER	50.8	44.8
14:57:10	43.5	44.1	UNDER	44.8	41.8
14:57:20	42.6	44.1	UNDER	43.8	41.8
14:57:30	41.9	42.7	UNDER	42.8	41.8
14:57:40	41.2	42.3	UNDER	41.8	40.8
14:57:50	43.6	45.7	UNDER	44.8	41.8
14:58:00	42.3	44.1	UNDER	43.8	41.8
14:58:10	42.3	43.7	UNDER	43.8	41.8
14:58:20	43.9	46.1	UNDER	45.8	42.8
14:58:30	47.1	49.7	UNDER	49.8	43.8
14:58:40	43.8	45.0	UNDER	44.8	41.8
14:58:50	43.3	45.0	UNDER	44.8	41.8
14:59:00	41.8	44.0	UNDER	43.8	40.8
14:59:10	42.0	42.5	UNDER	42.8	41.8
14:59:20	44.6	49.7	UNDER	46.8	42.8
14:59:30	41.5	42.2	UNDER	42.8	40.8
14:59:40	43.9	47.3	UNDER	46.8	41.8

```

*****
Filename.....3905
Test Location.....
Employee Name.....
Employee Number.....
Department.....

```

```

Calibrator Type.....
Calibrator Cal. Date...
*****

```

```

METROSONICS db-3080 V1.20 SERIAL # 3905
REPORT PRINTED ON 06/29/12 at 13:35:42

```

User ID: _____

```

LOGGING STARTED.....06/28/12 at 14:43:40
TOTAL LOGGING TIME...0 DAYS 00:16:44
LOGGING STOPPED.....06/28/12 at 15:00:24
TOTAL INTERVALS.....101
INTERVAL LENGTH.....00:00:10

```

```

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

```

```

PRE-TEST CALIBRATION TIME...06/28/12 AT 14:02:42
PRE-TEST CALIBRATION RANGE...40.3 TO 140.3 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

```

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 5 >>>

```

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

```

```

Lav..... 44.3dB
Lav ( 80)..... 40.3dB
Lav ( 90)..... 40.3dB
SEL..... 74.2dB

```

```

TWA..... 40.3dB
TWA ( 80)..... 40.3dB
TWA ( 90)..... 40.3dB

```

```

Lmax..... 57.6dB 06/28/12 at 14:46:13
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

```

c1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
14:43:40	43.7	45.6	UNDER	45.3	42.3
14:43:50	42.4	43.2	UNDER	42.3	42.3
14:44:00	42.0	42.2	UNDER	42.3	41.3
14:44:10	43.9	45.6	UNDER	44.3	42.3
14:44:20	42.2	42.7	UNDER	42.3	41.3
14:44:30	43.4	44.4	UNDER	44.3	42.3
14:44:40	43.6	44.6	UNDER	44.3	42.3
14:44:50	42.6	43.5	UNDER	43.3	42.3
14:45:00	43.3	44.8	UNDER	44.3	42.3
14:45:10	43.1	43.6	UNDER	43.3	42.3
14:45:20	44.0	45.2	UNDER	44.3	43.3
14:45:30	44.8	47.4	UNDER	46.3	43.3
14:45:40	47.3	48.8	UNDER	48.3	45.3
14:45:50	48.6	49.5	UNDER	49.3	45.3
14:46:00	52.2	54.2	UNDER	53.3	49.3
14:46:10	54.2	57.6	UNDER	56.3	48.3
14:46:20	45.6	48.0	UNDER	46.3	44.3
14:46:30	43.1	44.6	UNDER	44.3	42.3
14:46:40	42.2	42.7	UNDER	42.3	41.3
14:46:50	42.0	42.5	UNDER	42.3	41.3
14:47:00	42.0	42.4	UNDER	42.3	41.3
14:47:10	41.6	42.1	UNDER	42.3	41.3
14:47:20	41.7	42.0	UNDER	42.3	41.3
14:47:30	42.3	42.7	UNDER	42.3	41.3
14:47:40	42.3	42.9	UNDER	42.3	41.3
14:47:50	41.7	42.1	UNDER	42.3	41.3
14:48:00	42.8	44.0	UNDER	43.3	42.3
14:48:10	43.2	43.7	UNDER	43.3	42.3
14:48:20	43.9	45.4	UNDER	45.3	42.3
14:48:30	42.6	44.0	UNDER	43.3	42.3
14:48:40	41.9	42.2	UNDER	42.3	41.3
14:48:50	41.2	41.5	UNDER	41.3	41.3
14:49:00	41.2	41.6	UNDER	41.3	40.3
14:49:10	41.2	41.5	UNDER	41.3	41.3
14:49:20	41.1	41.3	UNDER	41.3	40.3
14:49:30	41.0	41.2	UNDER	41.3	40.3
14:49:40	41.4	42.0	UNDER	41.3	40.3
14:49:50	41.9	42.1	UNDER	42.3	41.3
14:50:00	42.0	44.4	UNDER	43.3	41.3
14:50:10	41.4	42.1	UNDER	41.3	41.3
14:50:20	42.9	44.8	UNDER	44.3	40.3
14:50:30	43.3	44.8	UNDER	44.3	42.3
14:50:40	42.3	43.0	UNDER	42.3	41.3
14:50:50	42.7	45.5	UNDER	43.3	42.3
14:51:00	48.2	52.0	UNDER	51.3	44.3
14:51:10	49.4	51.4	UNDER	51.3	46.3
14:51:20	45.0	46.6	UNDER	46.3	43.3
14:51:30	45.2	46.8	UNDER	46.3	43.3
14:51:40	43.1	44.0	UNDER	43.3	42.3
14:51:50	44.7	46.0	UNDER	45.3	42.3
14:52:00	46.5	48.8	UNDER	48.3	42.3
14:52:10	48.3	51.6	UNDER	51.3	44.3

			c1		
14:52:20	42.3	43.7	UNDER	43.3	41.3
14:52:30	42.2	42.9	UNDER	42.3	41.3
14:52:40	41.9	43.2	UNDER	42.3	41.3
14:52:50	41.2	41.7	UNDER	41.3	40.3
14:53:00	41.1	42.0	UNDER	41.3	40.3
14:53:10	41.2	42.0	UNDER	41.3	40.3
14:53:20	41.4	42.4	UNDER	42.3	40.3
14:53:30	43.5	44.4	UNDER	44.3	42.3
14:53:40	42.6	43.6	UNDER	43.3	42.3
14:53:50	41.5	42.4	UNDER	42.3	41.3
14:54:00	41.3	42.4	UNDER	42.3	40.3
14:54:10	41.3	42.4	UNDER	42.3	40.3
14:54:20	41.3	41.9	UNDER	41.3	41.3
14:54:30	41.8	42.6	UNDER	42.3	41.3
14:54:40	41.4	42.4	UNDER	42.3	40.3
14:54:50	41.4	43.1	UNDER	42.3	41.3
14:55:00	41.9	42.7	UNDER	42.3	41.3
14:55:10	41.9	43.1	UNDER	42.3	41.3
14:55:20	41.3	41.6	UNDER	41.3	41.3
14:55:30	41.5	42.4	UNDER	42.3	40.3
14:55:40	41.5	42.0	UNDER	41.3	41.3
14:55:50	41.3	41.8	UNDER	41.3	41.3
14:56:00	42.5	43.7	UNDER	43.3	41.3
14:56:10	42.6	44.0	UNDER	43.3	41.3
14:56:20	46.6	48.2	UNDER	47.3	43.3
14:56:30	43.3	46.0	UNDER	45.3	41.3
14:56:40	41.9	43.0	UNDER	42.3	41.3
14:56:50	41.7	42.4	UNDER	42.3	41.3
14:57:00	41.2	41.6	UNDER	41.3	40.3
14:57:10	41.2	41.6	UNDER	41.3	40.3
14:57:20	42.2	43.6	UNDER	43.3	41.3
14:57:30	42.1	43.0	UNDER	42.3	41.3
14:57:40	42.3	43.2	UNDER	43.3	41.3
14:57:50	42.2	43.4	UNDER	43.3	41.3
14:58:00	42.2	42.8	UNDER	42.3	41.3
14:58:10	42.3	42.8	UNDER	42.3	42.3
14:58:20	42.4	43.2	UNDER	43.3	42.3
14:58:30	42.3	42.7	UNDER	42.3	42.3
14:58:40	43.1	45.3	UNDER	44.3	42.3
14:58:50	45.1	47.6	UNDER	46.3	43.3
14:59:00	43.3	44.1	UNDER	44.3	42.3
14:59:10	43.2	44.0	UNDER	43.3	42.3
14:59:20	43.1	43.4	UNDER	43.3	42.3
14:59:30	43.9	46.0	UNDER	45.3	42.3
14:59:40	45.9	47.3	UNDER	47.3	43.3
14:59:50	47.3	50.0	UNDER	49.3	44.3
15:00:00	49.5	52.5	UNDER	52.3	46.3
15:00:10	47.0	48.5	UNDER	48.3	44.3
15:00:20	45.4	53.2	UNDER	46.3	43.3

D1

```

*****
Filename.....3908
Test Location.....
Employee Name.....
Employee Number.....
Department.....

```

```

Calibrator Type.....
Calibrator Cal. Date...
*****

```

```

METROSONICS db-3080 V1.12 SERIAL # 3908
REPORT PRINTED ON 06/29/12 at 13:42:42

```

User ID: _____

```

LOGGING STARTED.....06/28/12 at 14:41:50
TOTAL LOGGING TIME...0 DAYS 00:19:31
LOGGING STOPPED.....06/28/12 at 15:01:21
TOTAL INTERVALS.....118
INTERVAL LENGTH.....00:00:10

```

```

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

```

```

PRE-TEST CALIBRATION TIME....06/28/12 AT 13:59:41
PRE-TEST CALIBRATION RANGE...38.9 TO 138.9 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

```

<<< SUMMARY REPORT FOR TEST NUMBER 2 OF 5 >>>

```

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

```

```

Lav..... 48.3dB
Lav ( 80)..... 38.9dB
Lav ( 90)..... 38.9dB
SEL..... 78.9dB

```

```

TWA..... 38.9dB
TWA ( 80)..... 38.9dB
TWA ( 90)..... 38.9dB

```

```

Lmax..... 74.1dB 06/28/12 at 14:45:42
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

```

D1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 2 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
14:41:50	49.8	50.6	UNDER	50.9	49.9
14:42:00	50.3	51.0	UNDER	50.9	49.9
14:42:10	50.9	55.9	UNDER	53.9	48.9
14:42:20	55.1	61.3	UNDER	58.9	48.9
14:42:30	49.1	51.0	UNDER	50.9	45.9
14:42:40	43.4	45.5	UNDER	44.9	42.9
14:42:50	44.0	45.9	UNDER	45.9	42.9
14:43:00	46.7	47.5	UNDER	47.9	45.9
14:43:10	43.4	45.3	UNDER	45.9	41.9
14:43:20	42.1	43.8	UNDER	43.9	41.9
14:43:30	44.3	46.5	UNDER	45.9	43.9
14:43:40	43.5	44.6	UNDER	44.9	42.9
14:43:50	42.7	43.4	UNDER	43.9	41.9
14:44:00	43.4	45.0	UNDER	44.9	42.9
14:44:10	43.6	44.4	UNDER	44.9	43.9
14:44:20	43.9	45.1	UNDER	45.9	43.9
14:44:30	45.1	46.9	UNDER	46.9	43.9
14:44:40	47.9	49.3	UNDER	48.9	46.9
14:44:50	47.0	48.2	UNDER	47.9	46.9
14:45:00	46.0	47.0	UNDER	46.9	43.9
14:45:10	43.3	45.0	UNDER	44.9	42.9
14:45:20	46.2	47.4	UNDER	47.9	44.9
14:45:30	48.7	52.2	UNDER	50.9	47.9
14:45:40	65.1	74.1	UNDER	71.9	45.9
14:45:50	44.1	49.0	UNDER	46.9	42.9
14:46:00	45.6	50.1	UNDER	47.9	43.9
14:46:10	43.7	47.5	UNDER	45.9	42.9
14:46:20	46.9	48.2	UNDER	47.9	45.9
14:46:30	46.0	48.2	UNDER	48.9	43.9
14:46:40	45.0	47.0	UNDER	46.9	43.9
14:46:50	43.8	45.0	UNDER	44.9	43.9
14:47:00	44.9	46.2	UNDER	45.9	42.9
14:47:10	46.3	49.0	UNDER	48.9	43.9
14:47:20	45.0	46.5	UNDER	46.9	42.9
14:47:30	42.4	43.8	UNDER	43.9	41.9
14:47:40	45.5	46.2	UNDER	46.9	44.9
14:47:50	46.7	48.0	UNDER	47.9	45.9
14:48:00	45.8	48.2	UNDER	47.9	42.9
14:48:10	43.4	44.6	UNDER	44.9	42.9
14:48:20	45.7	46.5	UNDER	46.9	44.9
14:48:30	45.1	46.5	UNDER	46.9	44.9
14:48:40	44.2	45.4	UNDER	44.9	43.9
14:48:50	43.7	45.0	UNDER	44.9	42.9
14:49:00	44.2	45.3	UNDER	45.9	42.9
14:49:10	43.5	45.3	UNDER	45.9	42.9
14:49:20	44.6	45.8	UNDER	45.9	43.9
14:49:30	43.0	45.0	UNDER	44.9	41.9
14:49:40	42.9	43.8	UNDER	43.9	41.9
14:49:50	41.3	42.2	UNDER	41.9	40.9
14:50:00	41.6	42.6	UNDER	42.9	40.9
14:50:10	46.2	47.8	UNDER	47.9	42.9
14:50:20	46.4	47.5	UNDER	47.9	45.9

14:50:30	46.4	47.7	UNDER	47.9	45.9
14:50:40	46.2	46.9	UNDER	46.9	44.9
14:50:50	45.3	46.2	UNDER	45.9	44.9
14:51:00	44.2	45.1	UNDER	44.9	43.9
14:51:10	42.1	43.0	UNDER	42.9	41.9
14:51:20	42.6	43.4	UNDER	43.9	42.9
14:51:30	45.7	47.2	UNDER	47.9	42.9
14:51:40	46.3	47.5	UNDER	47.9	44.9
14:51:50	43.4	44.1	UNDER	43.9	42.9
14:52:00	43.8	44.9	UNDER	44.9	43.9
14:52:10	41.4	42.7	UNDER	42.9	41.9
14:52:20	44.9	46.3	UNDER	46.9	42.9
14:52:30	44.0	45.4	UNDER	45.9	42.9
14:52:40	45.6	46.9	UNDER	46.9	44.9
14:52:50	46.7	48.5	UNDER	47.9	45.9
14:53:00	45.3	48.3	UNDER	47.9	42.9
14:53:10	41.3	42.4	UNDER	42.9	40.9
14:53:20	43.1	45.7	UNDER	44.9	41.9
14:53:30	44.0	45.9	UNDER	45.9	42.9
14:53:40	44.2	45.0	UNDER	45.9	43.9
14:53:50	44.7	46.4	UNDER	45.9	43.9
14:54:00	47.2	48.1	UNDER	47.9	46.9
14:54:10	47.1	48.1	UNDER	47.9	45.9
14:54:20	49.4	51.7	UNDER	51.9	45.9
14:54:30	44.9	47.4	UNDER	46.9	43.9
14:54:40	46.2	49.3	UNDER	48.9	44.9
14:54:50	46.3	48.6	UNDER	47.9	45.9
14:55:00	46.8	48.1	UNDER	47.9	44.9
14:55:10	46.7	47.4	UNDER	47.9	45.9
14:55:20	45.3	46.7	UNDER	46.9	43.9
14:55:30	43.6	45.3	UNDER	44.9	42.9
14:55:40	45.4	46.2	UNDER	46.9	44.9
14:55:50	46.2	47.3	UNDER	47.9	44.9
14:56:00	44.0	46.3	UNDER	45.9	42.9
14:56:10	42.0	43.3	UNDER	42.9	41.9
14:56:20	42.3	43.1	UNDER	43.9	41.9
14:56:30	53.7	58.5	UNDER	58.9	42.9
14:56:40	50.2	55.0	UNDER	53.9	47.9
14:56:50	46.2	48.5	UNDER	48.9	43.9
14:57:00	43.6	44.5	UNDER	43.9	43.9
14:57:10	48.3	50.2	UNDER	50.9	44.9
14:57:20	46.0	47.8	UNDER	47.9	44.9
14:57:30	44.5	45.2	UNDER	45.9	43.9
14:57:40	45.6	47.1	UNDER	46.9	44.9
14:57:50	45.1	45.9	UNDER	45.9	44.9
14:58:00	44.2	45.0	UNDER	44.9	43.9
14:58:10	41.9	43.9	UNDER	43.9	40.9
14:58:20	41.2	42.7	UNDER	42.9	40.9
14:58:30	43.6	44.7	UNDER	44.9	42.9
14:58:40	43.7	44.5	UNDER	44.9	43.9
14:58:50	47.3	48.7	UNDER	48.9	44.9
14:59:00	46.9	48.2	UNDER	47.9	45.9
14:59:10	45.5	46.5	UNDER	46.9	44.9
14:59:20	47.4	49.3	UNDER	49.9	45.9
14:59:30	49.9	52.5	UNDER	52.9	47.9
14:59:40	46.6	47.4	UNDER	47.9	46.9
14:59:50	45.7	46.5	UNDER	46.9	44.9
15:00:00	44.8	45.8	UNDER	45.9	42.9
15:00:10	44.0	45.4	UNDER	45.9	42.9
15:00:20	43.7	45.4	UNDER	45.9	41.9
15:00:30	41.2	41.9	UNDER	41.9	40.9
15:00:40	44.6	46.5	UNDER	46.9	41.9
15:00:50	48.3	51.4	UNDER	49.9	46.9

D1

15:01:00	48.0	51.4	UNDER	51.9	45.9
15:01:10	45.9	48.9	UNDER	47.9	44.9
15:01:20	46.7	46.9	UNDER	46.9	46.9

E1

Filename.....3905
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.20 SERIAL # 3905
REPORT PRINTED ON 06/29/12 at 13:44:21

User ID: _____

LOGGING STARTED.....06/28/12 at 16:47:30
TOTAL LOGGING TIME...0 DAYS 00:17:15
LOGGING STOPPED.....06/28/12 at 17:04:45
TOTAL INTERVALS.....104
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 14:02:42
PRE-TEST CALIBRATION RANGE...40.3 TO 140.3 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 3 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 58.1dB
Lav (80)..... 40.3dB
Lav (90)..... 40.3dB
SEL..... 88.2dB

TWA..... 43.7dB
TWA (80)..... 40.3dB
TWA (90)..... 40.3dB

Lmax..... 72.4dB 06/28/12 at 17:00:19
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

E1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 3 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
16:47:30	54.0	58.1	UNDER	56.3	52.3
16:47:40	56.0	61.6	UNDER	58.3	53.3
16:47:50	53.8	57.2	UNDER	56.3	52.3
16:48:00	52.3	55.1	UNDER	53.3	51.3
16:48:10	56.2	60.8	UNDER	59.3	52.3
16:48:20	55.2	58.8	UNDER	57.3	52.3
16:48:30	63.2	67.6	UNDER	67.3	57.3
16:48:40	59.8	64.7	UNDER	62.3	57.3
16:48:50	56.5	59.6	UNDER	58.3	54.3
16:49:00	55.5	59.0	UNDER	57.3	53.3
16:49:10	56.3	59.6	UNDER	58.3	53.3
16:49:20	55.6	57.8	UNDER	57.3	53.3
16:49:30	55.5	58.8	UNDER	58.3	51.3
16:49:40	52.6	55.2	UNDER	54.3	51.3
16:49:50	56.9	59.6	UNDER	58.3	53.3
16:50:00	55.3	59.5	UNDER	58.3	51.3
16:50:10	54.6	57.6	UNDER	56.3	51.3
16:50:20	54.0	56.5	UNDER	56.3	52.3
16:50:30	56.2	61.5	UNDER	59.3	52.3
16:50:40	59.4	61.7	UNDER	60.3	57.3
16:50:50	56.7	58.9	UNDER	57.3	54.3
16:51:00	56.9	59.6	UNDER	58.3	53.3
16:51:10	59.9	66.0	UNDER	65.3	54.3
16:51:20	59.0	63.3	UNDER	62.3	54.3
16:51:30	57.8	62.5	UNDER	61.3	54.3
16:51:40	55.5	57.1	UNDER	56.3	52.3
16:51:50	53.5	57.6	UNDER	56.3	50.3
16:52:00	55.1	56.9	UNDER	56.3	51.3
16:52:10	56.8	59.7	UNDER	59.3	53.3
16:52:20	53.8	56.4	UNDER	54.3	52.3
16:52:30	59.8	61.6	UNDER	61.3	55.3
16:52:40	61.2	62.8	UNDER	62.3	59.3
16:52:50	58.0	60.8	UNDER	60.3	54.3
16:53:00	60.8	66.0	UNDER	64.3	54.3
16:53:10	56.2	58.4	UNDER	58.3	53.3
16:53:20	56.2	57.8	UNDER	57.3	53.3
16:53:30	56.4	57.6	UNDER	57.3	53.3
16:53:40	54.9	58.0	UNDER	57.3	52.3
16:53:50	53.6	56.0	UNDER	55.3	52.3
16:54:00	55.1	57.3	UNDER	56.3	53.3
16:54:10	57.2	58.4	UNDER	58.3	55.3
16:54:20	58.7	61.0	UNDER	60.3	56.3
16:54:30	59.0	61.1	UNDER	60.3	56.3
16:54:40	55.6	58.0	UNDER	57.3	51.3
16:54:50	53.9	58.0	UNDER	57.3	51.3
16:55:00	54.4	56.8	UNDER	56.3	51.3
16:55:10	62.5	68.9	UNDER	67.3	53.3
16:55:20	54.3	58.1	UNDER	56.3	51.3
16:55:30	53.6	55.8	UNDER	55.3	51.3
16:55:40	54.1	56.6	UNDER	55.3	51.3
16:55:50	55.5	58.0	UNDER	57.3	52.3
16:56:00	57.1	58.4	UNDER	58.3	55.3

			E1		
16:56:10	59.5	62.3	UNDER	61.3	57.3
16:56:20	60.3	63.2	UNDER	62.3	53.3
16:56:30	54.9	58.9	UNDER	58.3	52.3
16:56:40	54.4	58.0	UNDER	57.3	51.3
16:56:50	57.7	59.1	UNDER	58.3	52.3
16:57:00	60.4	64.4	UNDER	63.3	55.3
16:57:10	53.9	56.9	UNDER	56.3	52.3
16:57:20	53.4	55.7	UNDER	55.3	51.3
16:57:30	56.0	58.8	UNDER	58.3	54.3
16:57:40	58.2	60.5	UNDER	60.3	55.3
16:57:50	58.9	60.4	UNDER	60.3	57.3
16:58:00	59.1	60.8	UNDER	60.3	57.3
16:58:10	55.0	58.7	UNDER	58.3	51.3
16:58:20	51.4	52.8	UNDER	52.3	50.3
16:58:30	54.1	56.8	UNDER	56.3	51.3
16:58:40	56.9	59.0	UNDER	58.3	53.3
16:58:50	56.7	60.0	UNDER	59.3	53.3
16:59:00	56.6	58.8	UNDER	58.3	52.3
16:59:10	55.6	58.0	UNDER	57.3	53.3
16:59:20	58.3	61.8	UNDER	61.3	55.3
16:59:30	58.3	60.8	UNDER	60.3	56.3
16:59:40	63.6	67.4	UNDER	66.3	55.3
16:59:50	59.4	61.6	UNDER	60.3	55.3
17:00:00	58.5	60.3	UNDER	59.3	56.3
17:00:10	67.9	72.4	UNDER	71.3	59.3
17:00:20	66.9	71.4	UNDER	70.3	59.3
17:00:30	59.4	63.6	UNDER	62.3	56.3
17:00:40	54.6	56.4	UNDER	56.3	52.3
17:00:50	55.9	58.7	UNDER	57.3	54.3
17:01:00	58.5	60.8	UNDER	60.3	56.3
17:01:10	55.2	56.6	UNDER	56.3	54.3
17:01:20	56.4	58.8	UNDER	58.3	54.3
17:01:30	58.2	60.1	UNDER	59.3	56.3
17:01:40	57.2	59.2	UNDER	58.3	55.3
17:01:50	56.9	58.8	UNDER	58.3	52.3
17:02:00	53.0	55.2	UNDER	54.3	51.3
17:02:10	52.4	53.6	UNDER	52.3	51.3
17:02:20	57.4	59.2	UNDER	58.3	53.3
17:02:30	55.2	57.6	UNDER	56.3	52.3
17:02:40	53.1	54.0	UNDER	53.3	52.3
17:02:50	54.7	58.4	UNDER	58.3	52.3
17:03:00	56.1	57.2	UNDER	56.3	54.3
17:03:10	56.3	57.9	UNDER	57.3	55.3
17:03:20	57.9	60.8	UNDER	60.3	54.3
17:03:30	57.8	59.6	UNDER	58.3	55.3
17:03:40	58.9	63.0	UNDER	62.3	55.3
17:03:50	54.4	57.2	UNDER	56.3	52.3
17:04:00	61.9	64.0	UNDER	63.3	57.3
17:04:10	60.4	63.2	UNDER	62.3	57.3
17:04:20	56.8	62.4	UNDER	59.3	54.3
17:04:30	59.6	64.0	UNDER	63.3	55.3
17:04:40	56.2	58.8	UNDER	57.3	54.3

F1

Filename.....3903
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.12 SERIAL # 3903
REPORT PRINTED ON 06/29/12 at 13:58:20

User ID: _____

LOGGING STARTED.....06/28/12 at 14:40:10
TOTAL LOGGING TIME...0 DAYS 00:18:44
LOGGING STOPPED.....06/28/12 at 14:58:54
TOTAL INTERVALS.....113
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 13:58:19
PRE-TEST CALIBRATION RANGE...39.5 TO 139.5 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 1 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 43.4dB
Lav (80)..... 39.5dB
Lav (90)..... 39.5dB
SEL..... 73.8dB

TWA..... 39.5dB
TWA (80)..... 39.5dB
TWA (90)..... 39.5dB

Lmax..... 66.2dB 06/28/12 at 14:58:34
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

F1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 1 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
14:40:10	46.0	50.0	UNDER	48.5	41.5
14:40:20	40.9	41.2	UNDER	41.5	40.5
14:40:30	40.9	41.2	UNDER	41.5	40.5
14:40:40	41.1	41.6	UNDER	41.5	40.5
14:40:50	42.3	43.2	UNDER	42.5	41.5
14:41:00	43.0	43.6	UNDER	43.5	42.5
14:41:10	44.0	45.6	UNDER	45.5	42.5
14:41:20	45.6	47.6	UNDER	47.5	43.5
14:41:30	43.0	44.3	UNDER	44.5	42.5
14:41:40	42.0	42.4	UNDER	42.5	41.5
14:41:50	40.9	41.6	UNDER	41.5	40.5
14:42:00	40.6	41.2	UNDER	40.5	40.5
14:42:10	41.1	42.0	UNDER	41.5	40.5
14:42:20	40.9	42.2	UNDER	42.5	40.5
14:42:30	40.6	40.8	UNDER	40.5	40.5
14:42:40	40.7	41.0	UNDER	40.5	40.5
14:42:50	40.7	41.2	UNDER	40.5	40.5
14:43:00	40.5	40.8	UNDER	40.5	40.5
14:43:10	40.3	40.4	UNDER	40.5	40.5
14:43:20	40.2	40.4	UNDER	40.5	40.5
14:43:30	40.2	40.4	UNDER	40.5	40.5
14:43:40	40.7	41.2	UNDER	41.5	40.5
14:43:50	40.7	41.1	UNDER	40.5	40.5
14:44:00	41.0	42.0	UNDER	41.5	40.5
14:44:10	41.2	42.4	UNDER	41.5	40.5
14:44:20	40.9	41.7	UNDER	41.5	40.5
14:44:30	40.7	41.6	UNDER	41.5	40.5
14:44:40	41.3	42.1	UNDER	42.5	40.5
14:44:50	40.9	42.0	UNDER	41.5	40.5
14:45:00	40.6	41.0	UNDER	40.5	40.5
14:45:10	40.4	41.0	UNDER	40.5	40.5
14:45:20	40.5	40.8	UNDER	40.5	40.5
14:45:30	40.7	41.5	UNDER	41.5	40.5
14:45:40	40.6	41.6	UNDER	41.5	40.5
14:45:50	41.0	41.6	UNDER	41.5	40.5
14:46:00	42.2	43.6	UNDER	43.5	40.5
14:46:10	43.4	44.0	UNDER	43.5	43.5
14:46:20	42.8	43.2	UNDER	42.5	42.5
14:46:30	42.5	43.2	UNDER	42.5	42.5
14:46:40	42.5	44.0	UNDER	43.5	41.5
14:46:50	42.5	43.6	UNDER	43.5	41.5
14:47:00	41.6	42.4	UNDER	42.5	41.5
14:47:10	41.6	42.0	UNDER	41.5	41.5
14:47:20	41.6	42.0	UNDER	41.5	41.5
14:47:30	41.7	42.4	UNDER	42.5	41.5
14:47:40	40.8	41.2	UNDER	41.5	40.5
14:47:50	40.7	41.1	UNDER	40.5	40.5
14:48:00	41.2	41.6	UNDER	41.5	40.5
14:48:10	41.4	41.6	UNDER	41.5	41.5
14:48:20	41.7	43.2	UNDER	42.5	41.5
14:48:30	42.2	45.3	UNDER	43.5	40.5
14:48:40	43.8	46.0	UNDER	45.5	41.5

			F1		
14:48:50	41.9	42.6	UNDER	42.5	41.5
14:49:00	41.5	42.0	UNDER	42.5	41.5
14:49:10	40.6	41.2	UNDER	40.5	40.5
14:49:20	40.5	41.6	UNDER	41.5	40.5
14:49:30	41.0	41.6	UNDER	41.5	40.5
14:49:40	40.6	41.2	UNDER	40.5	40.5
14:49:50	40.3	40.4	UNDER	40.5	40.5
14:50:00	40.1	40.3	UNDER	40.5	40.5
14:50:10	40.2	40.4	UNDER	40.5	39.5
14:50:20	40.0	40.1	UNDER	40.5	39.5
14:50:30	40.1	40.4	UNDER	40.5	39.5
14:50:40	40.2	40.4	UNDER	40.5	40.5
14:50:50	40.5	40.8	UNDER	40.5	40.5
14:51:00	40.4	40.7	UNDER	40.5	40.5
14:51:10	40.4	40.6	UNDER	40.5	40.5
14:51:20	40.3	40.4	UNDER	40.5	40.5
14:51:30	40.6	40.8	UNDER	40.5	40.5
14:51:40	41.2	45.3	UNDER	42.5	40.5
14:51:50	43.0	46.7	UNDER	46.5	40.5
14:52:00	41.6	42.4	UNDER	42.5	40.5
14:52:10	41.4	41.7	UNDER	41.5	40.5
14:52:20	40.7	41.2	UNDER	41.5	40.5
14:52:30	40.6	40.9	UNDER	40.5	40.5
14:52:40	40.4	40.7	UNDER	40.5	40.5
14:52:50	40.4	40.8	UNDER	40.5	40.5
14:53:00	40.5	40.9	UNDER	40.5	40.5
14:53:10	41.7	42.1	UNDER	42.5	40.5
14:53:20	42.2	42.5	UNDER	42.5	41.5
14:53:30	42.1	42.4	UNDER	42.5	41.5
14:53:40	42.3	43.2	UNDER	42.5	42.5
14:53:50	46.1	51.2	UNDER	49.5	42.5
14:54:00	44.2	48.7	UNDER	46.5	41.5
14:54:10	41.1	42.8	UNDER	42.5	40.5
14:54:20	41.0	41.8	UNDER	41.5	40.5
14:54:30	40.6	40.8	UNDER	40.5	40.5
14:54:40	40.1	40.4	UNDER	40.5	39.5
14:54:50	40.0	40.2	UNDER	40.5	39.5
14:55:00	40.0	40.3	UNDER	40.5	40.5
14:55:10	40.0	40.1	UNDER	40.5	39.5
14:55:20	39.9	40.0	UNDER	40.5	39.5
14:55:30	39.9	40.0	UNDER	40.5	39.5
14:55:40	39.7	40.0	UNDER	40.5	39.5
14:55:50	39.9	40.4	UNDER	40.5	39.5
14:56:00	39.6	39.8	UNDER	39.5	39.5
14:56:10	39.6	39.8	UNDER	39.5	39.5
14:56:20	39.6	40.0	UNDER	39.5	39.5
14:56:30	39.9	40.1	UNDER	40.5	39.5
14:56:40	39.8	40.0	UNDER	40.5	39.5
14:56:50	40.1	40.4	UNDER	40.5	39.5
14:57:00	39.9	40.0	UNDER	40.5	39.5
14:57:10	40.0	40.2	UNDER	40.5	39.5
14:57:20	39.9	40.0	UNDER	40.5	39.5
14:57:30	39.9	40.0	UNDER	40.5	39.5
14:57:40	39.9	40.2	UNDER	40.5	39.5
14:57:50	40.5	41.2	UNDER	40.5	40.5
14:58:00	40.0	40.3	UNDER	40.5	39.5
14:58:10	39.8	40.0	UNDER	40.5	39.5
14:58:20	42.5	47.5	UNDER	46.5	39.5
14:58:30	57.0	66.2	UNDER	62.5	40.5
14:58:40	56.0	62.0	UNDER	60.5	42.5
14:58:50	52.1	54.8	UNDER	54.5	43.5

G1

Filename.....3907
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.12 SERIAL # 3907
REPORT PRINTED ON 06/29/12 at 13:59:00

User ID: _____

LOGGING STARTED.....06/28/12 at 15:49:20
TOTAL LOGGING TIME...0 DAYS 00:15:16
LOGGING STOPPED.....06/28/12 at 16:04:36
TOTAL INTERVALS.....92
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 14:02:55
PRE-TEST CALIBRATION RANGE...38.8 TO 138.8 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 2 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 47.4dB
Lav (80)..... 38.8dB
Lav (90)..... 38.8dB
SEL..... 76.9dB

TWA..... 38.8dB
TWA (80)..... 38.8dB
TWA (90)..... 38.8dB

Lmax..... 62.3dB 06/28/12 at 15:56:19
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

G1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 2 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
15:49:20	44.2	47.3	UNDER	45.8	42.8
15:49:30	42.2	42.9	UNDER	42.8	42.8
15:49:40	42.2	42.6	UNDER	42.8	41.8
15:49:50	42.9	43.7	UNDER	43.8	42.8
15:50:00	42.5	42.8	UNDER	42.8	42.8
15:50:10	43.0	43.7	UNDER	43.8	42.8
15:50:20	42.3	42.8	UNDER	42.8	42.8
15:50:30	42.7	43.0	UNDER	42.8	42.8
15:50:40	43.0	43.4	UNDER	43.8	42.8
15:50:50	43.1	43.6	UNDER	43.8	42.8
15:51:00	42.8	43.6	UNDER	43.8	42.8
15:51:10	42.4	42.9	UNDER	42.8	42.8
15:51:20	42.9	43.3	UNDER	43.8	42.8
15:51:30	42.2	42.8	UNDER	42.8	41.8
15:51:40	42.4	43.4	UNDER	43.8	41.8
15:51:50	42.4	43.1	UNDER	42.8	41.8
15:52:00	42.3	42.9	UNDER	42.8	41.8
15:52:10	42.2	42.5	UNDER	42.8	41.8
15:52:20	41.8	42.2	UNDER	42.8	41.8
15:52:30	41.8	42.4	UNDER	42.8	41.8
15:52:40	42.5	43.6	UNDER	43.8	42.8
15:52:50	43.4	43.9	UNDER	43.8	43.8
15:53:00	42.6	43.5	UNDER	43.8	41.8
15:53:10	42.1	42.3	UNDER	42.8	41.8
15:53:20	42.0	42.2	UNDER	42.8	41.8
15:53:30	41.6	42.2	UNDER	42.8	41.8
15:53:40	40.9	41.3	UNDER	41.8	40.8
15:53:50	41.0	41.6	UNDER	41.8	40.8
15:54:00	41.3	41.7	UNDER	41.8	40.8
15:54:10	42.1	43.3	UNDER	42.8	41.8
15:54:20	43.7	44.2	UNDER	44.8	43.8
15:54:30	43.6	44.5	UNDER	44.8	42.8
15:54:40	43.6	44.9	UNDER	44.8	42.8
15:54:50	44.0	45.6	UNDER	45.8	42.8
15:55:00	43.8	45.0	UNDER	44.8	43.8
15:55:10	42.5	43.2	UNDER	42.8	42.8
15:55:20	43.2	44.9	UNDER	44.8	42.8
15:55:30	47.5	50.6	UNDER	49.8	43.8
15:55:40	51.9	54.1	UNDER	53.8	48.8
15:55:50	54.6	57.7	UNDER	55.8	52.8
15:56:00	54.3	57.7	UNDER	57.8	48.8
15:56:10	57.8	62.3	UNDER	61.8	48.8
15:56:20	56.3	62.2	UNDER	61.8	45.8
15:56:30	44.3	45.5	UNDER	44.8	43.8
15:56:40	44.4	46.5	UNDER	45.8	43.8
15:56:50	53.9	59.5	UNDER	58.8	44.8
15:57:00	43.8	44.9	UNDER	44.8	42.8
15:57:10	43.2	44.1	UNDER	43.8	42.8
15:57:20	42.1	43.4	UNDER	42.8	41.8
15:57:30	42.0	42.9	UNDER	42.8	41.8
15:57:40	41.8	42.5	UNDER	42.8	41.8
15:57:50	42.2	42.9	UNDER	42.8	41.8

			G1		
15:58:00	42.8	44.2	UNDER	43.8	41.8
15:58:10	42.0	43.2	UNDER	42.8	41.8
15:58:20	41.5	42.1	UNDER	41.8	40.8
15:58:30	41.7	42.5	UNDER	42.8	40.8
15:58:40	42.2	42.9	UNDER	42.8	41.8
15:58:50	42.3	44.5	UNDER	43.8	41.8
15:59:00	42.1	43.2	UNDER	42.8	41.8
15:59:10	42.4	44.2	UNDER	43.8	41.8
15:59:20	42.1	43.1	UNDER	42.8	41.8
15:59:30	42.0	42.5	UNDER	42.8	41.8
15:59:40	42.5	43.3	UNDER	42.8	42.8
15:59:50	42.2	42.9	UNDER	42.8	41.8
16:00:00	42.5	42.8	UNDER	42.8	42.8
16:00:10	41.8	42.1	UNDER	42.8	41.8
16:00:20	41.9	42.2	UNDER	42.8	41.8
16:00:30	42.0	42.3	UNDER	42.8	41.8
16:00:40	42.0	42.5	UNDER	42.8	41.8
16:00:50	41.9	42.1	UNDER	42.8	41.8
16:01:00	44.1	49.2	UNDER	47.8	41.8
16:01:10	49.5	54.0	UNDER	53.8	42.8
16:01:20	42.5	43.3	UNDER	42.8	42.8
16:01:30	52.6	57.3	UNDER	56.8	43.8
16:01:40	44.5	48.9	UNDER	47.8	42.8
16:01:50	41.8	42.1	UNDER	42.8	41.8
16:02:00	41.7	41.9	UNDER	41.8	41.8
16:02:10	41.9	42.5	UNDER	42.8	41.8
16:02:20	47.8	54.5	UNDER	51.8	42.8
16:02:30	55.6	58.4	UNDER	57.8	51.8
16:02:40	49.0	55.7	UNDER	53.8	43.8
16:02:50	42.8	43.3	UNDER	43.8	42.8
16:03:00	52.9	61.7	UNDER	58.8	42.8
16:03:10	54.0	61.5	UNDER	59.8	42.8
16:03:20	42.0	42.6	UNDER	42.8	41.8
16:03:30	42.0	42.7	UNDER	42.8	41.8
16:03:40	41.3	42.1	UNDER	41.8	40.8
16:03:50	44.4	48.9	UNDER	46.8	41.8
16:04:00	55.4	60.9	UNDER	59.8	44.8
16:04:10	42.5	44.0	UNDER	43.8	41.8
16:04:20	41.7	42.5	UNDER	42.8	40.8
16:04:30	46.4	53.7	UNDER	51.8	41.8

G1

Filename.....3907
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.12 SERIAL # 3907
REPORT PRINTED ON 06/29/12 at 13:59:00

User ID: _____

LOGGING STARTED.....06/28/12 at 15:49:20
TOTAL LOGGING TIME...0 DAYS 00:15:16
LOGGING STOPPED.....06/28/12 at 16:04:36
TOTAL INTERVALS.....92
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 14:02:55
PRE-TEST CALIBRATION RANGE...38.8 TO 138.8 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 2 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 47.4dB
Lav (80)..... 38.8dB
Lav (90)..... 38.8dB
SEL..... 76.9dB

TWA..... 38.8dB
TWA (80)..... 38.8dB
TWA (90)..... 38.8dB

Lmax..... 62.3dB 06/28/12 at 15:56:19
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

G1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 2 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
15:49:20	44.2	47.3	UNDER	45.8	42.8
15:49:30	42.2	42.9	UNDER	42.8	42.8
15:49:40	42.2	42.6	UNDER	42.8	41.8
15:49:50	42.9	43.7	UNDER	43.8	42.8
15:50:00	42.5	42.8	UNDER	42.8	42.8
15:50:10	43.0	43.7	UNDER	43.8	42.8
15:50:20	42.3	42.8	UNDER	42.8	42.8
15:50:30	42.7	43.0	UNDER	42.8	42.8
15:50:40	43.0	43.4	UNDER	43.8	42.8
15:50:50	43.1	43.6	UNDER	43.8	42.8
15:51:00	42.8	43.6	UNDER	43.8	42.8
15:51:10	42.4	42.9	UNDER	42.8	42.8
15:51:20	42.9	43.3	UNDER	43.8	42.8
15:51:30	42.2	42.8	UNDER	42.8	41.8
15:51:40	42.4	43.4	UNDER	43.8	41.8
15:51:50	42.4	43.1	UNDER	42.8	41.8
15:52:00	42.3	42.9	UNDER	42.8	41.8
15:52:10	42.2	42.5	UNDER	42.8	41.8
15:52:20	41.8	42.2	UNDER	42.8	41.8
15:52:30	41.8	42.4	UNDER	42.8	41.8
15:52:40	42.5	43.6	UNDER	43.8	42.8
15:52:50	43.4	43.9	UNDER	43.8	43.8
15:53:00	42.6	43.5	UNDER	43.8	41.8
15:53:10	42.1	42.3	UNDER	42.8	41.8
15:53:20	42.0	42.2	UNDER	42.8	41.8
15:53:30	41.6	42.2	UNDER	42.8	41.8
15:53:40	40.9	41.3	UNDER	41.8	40.8
15:53:50	41.0	41.6	UNDER	41.8	40.8
15:54:00	41.3	41.7	UNDER	41.8	40.8
15:54:10	42.1	43.3	UNDER	42.8	41.8
15:54:20	43.7	44.2	UNDER	44.8	43.8
15:54:30	43.6	44.5	UNDER	44.8	42.8
15:54:40	43.6	44.9	UNDER	44.8	42.8
15:54:50	44.0	45.6	UNDER	45.8	42.8
15:55:00	43.8	45.0	UNDER	44.8	43.8
15:55:10	42.5	43.2	UNDER	42.8	42.8
15:55:20	43.2	44.9	UNDER	44.8	42.8
15:55:30	47.5	50.6	UNDER	49.8	43.8
15:55:40	51.9	54.1	UNDER	53.8	48.8
15:55:50	54.6	57.7	UNDER	55.8	52.8
15:56:00	54.3	57.7	UNDER	57.8	48.8
15:56:10	57.8	62.3	UNDER	61.8	48.8
15:56:20	56.3	62.2	UNDER	61.8	45.8
15:56:30	44.3	45.5	UNDER	44.8	43.8
15:56:40	44.4	46.5	UNDER	45.8	43.8
15:56:50	53.9	59.5	UNDER	58.8	44.8
15:57:00	43.8	44.9	UNDER	44.8	42.8
15:57:10	43.2	44.1	UNDER	43.8	42.8
15:57:20	42.1	43.4	UNDER	42.8	41.8
15:57:30	42.0	42.9	UNDER	42.8	41.8
15:57:40	41.8	42.5	UNDER	42.8	41.8
15:57:50	42.2	42.9	UNDER	42.8	41.8

			G1		
15:58:00	42.8	44.2	UNDER	43.8	41.8
15:58:10	42.0	43.2	UNDER	42.8	41.8
15:58:20	41.5	42.1	UNDER	41.8	40.8
15:58:30	41.7	42.5	UNDER	42.8	40.8
15:58:40	42.2	42.9	UNDER	42.8	41.8
15:58:50	42.3	44.5	UNDER	43.8	41.8
15:59:00	42.1	43.2	UNDER	42.8	41.8
15:59:10	42.4	44.2	UNDER	43.8	41.8
15:59:20	42.1	43.1	UNDER	42.8	41.8
15:59:30	42.0	42.5	UNDER	42.8	41.8
15:59:40	42.5	43.3	UNDER	42.8	42.8
15:59:50	42.2	42.9	UNDER	42.8	41.8
16:00:00	42.5	42.8	UNDER	42.8	42.8
16:00:10	41.8	42.1	UNDER	42.8	41.8
16:00:20	41.9	42.2	UNDER	42.8	41.8
16:00:30	42.0	42.3	UNDER	42.8	41.8
16:00:40	42.0	42.5	UNDER	42.8	41.8
16:00:50	41.9	42.1	UNDER	42.8	41.8
16:01:00	44.1	49.2	UNDER	47.8	41.8
16:01:10	49.5	54.0	UNDER	53.8	42.8
16:01:20	42.5	43.3	UNDER	42.8	42.8
16:01:30	52.6	57.3	UNDER	56.8	43.8
16:01:40	44.5	48.9	UNDER	47.8	42.8
16:01:50	41.8	42.1	UNDER	42.8	41.8
16:02:00	41.7	41.9	UNDER	41.8	41.8
16:02:10	41.9	42.5	UNDER	42.8	41.8
16:02:20	47.8	54.5	UNDER	51.8	42.8
16:02:30	55.6	58.4	UNDER	57.8	51.8
16:02:40	49.0	55.7	UNDER	53.8	43.8
16:02:50	42.8	43.3	UNDER	43.8	42.8
16:03:00	52.9	61.7	UNDER	58.8	42.8
16:03:10	54.0	61.5	UNDER	59.8	42.8
16:03:20	42.0	42.6	UNDER	42.8	41.8
16:03:30	42.0	42.7	UNDER	42.8	41.8
16:03:40	41.3	42.1	UNDER	41.8	40.8
16:03:50	44.4	48.9	UNDER	46.8	41.8
16:04:00	55.4	60.9	UNDER	59.8	44.8
16:04:10	42.5	44.0	UNDER	43.8	41.8
16:04:20	41.7	42.5	UNDER	42.8	40.8
16:04:30	46.4	53.7	UNDER	51.8	41.8

H1

Filename.....3905
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.20 SERIAL # 3905
REPORT PRINTED ON 06/29/12 at 14:00:30

User ID: _____

LOGGING STARTED.....06/28/12 at 15:49:00
TOTAL LOGGING TIME...0 DAYS 00:16:33
LOGGING STOPPED.....06/28/12 at 16:05:33
TOTAL INTERVALS.....100
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 14:02:42
PRE-TEST CALIBRATION RANGE...40.3 TO 140.3 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 2 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 42.7dB
Lav (80)..... 40.3dB
Lav (90)..... 40.3dB
SEL..... 72.5dB

TWA..... 40.3dB
TWA (80)..... 40.3dB
TWA (90)..... 40.3dB

Lmax..... 54.0dB 06/28/12 at 15:55:12
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

H1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 2 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
15:49:00	41.1	42.0	UNDER	41.3	40.3
15:49:10	40.7	41.0	UNDER	40.3	40.3
15:49:20	40.7	41.2	UNDER	40.3	40.3
15:49:30	40.7	41.0	UNDER	40.3	40.3
15:49:40	40.7	40.9	UNDER	40.3	40.3
15:49:50	40.7	41.1	UNDER	40.3	40.3
15:50:00	40.7	41.1	UNDER	40.3	40.3
15:50:10	40.6	40.8	UNDER	40.3	40.3
15:50:20	40.5	40.8	UNDER	40.3	40.3
15:50:30	40.7	40.8	UNDER	40.3	40.3
15:50:40	40.8	41.2	UNDER	41.3	40.3
15:50:50	40.7	41.1	UNDER	40.3	40.3
15:51:00	40.7	40.8	UNDER	40.3	40.3
15:51:10	40.8	40.9	UNDER	40.3	40.3
15:51:20	41.1	41.6	UNDER	41.3	40.3
15:51:30	41.2	41.6	UNDER	41.3	40.3
15:51:40	41.4	41.6	UNDER	41.3	41.3
15:51:50	41.2	42.0	UNDER	41.3	41.3
15:52:00	41.2	41.9	UNDER	41.3	40.3
15:52:10	40.8	41.1	UNDER	40.3	40.3
15:52:20	40.8	41.2	UNDER	41.3	40.3
15:52:30	40.8	41.0	UNDER	40.3	40.3
15:52:40	41.0	41.2	UNDER	41.3	40.3
15:52:50	40.9	41.2	UNDER	41.3	40.3
15:53:00	40.8	41.2	UNDER	41.3	40.3
15:53:10	41.3	42.0	UNDER	41.3	40.3
15:53:20	41.3	41.6	UNDER	41.3	40.3
15:53:30	41.5	42.1	UNDER	42.3	41.3
15:53:40	41.5	42.3	UNDER	42.3	41.3
15:53:50	43.5	44.7	UNDER	44.3	42.3
15:54:00	44.4	45.6	UNDER	45.3	43.3
15:54:10	43.7	45.2	UNDER	44.3	42.3
15:54:20	42.2	43.2	UNDER	42.3	41.3
15:54:30	42.1	42.6	UNDER	42.3	41.3
15:54:40	42.5	43.6	UNDER	43.3	41.3
15:54:50	43.7	44.8	UNDER	44.3	42.3
15:55:00	48.3	52.8	UNDER	51.3	43.3
15:55:10	51.0	54.0	UNDER	53.3	48.3
15:55:20	50.4	53.6	UNDER	52.3	48.3
15:55:30	47.4	52.0	UNDER	50.3	44.3
15:55:40	43.1	46.0	UNDER	44.3	41.3
15:55:50	41.6	42.8	UNDER	42.3	40.3
15:56:00	41.4	42.4	UNDER	41.3	40.3
15:56:10	41.5	42.5	UNDER	42.3	40.3
15:56:20	41.5	42.4	UNDER	42.3	40.3
15:56:30	43.4	45.2	UNDER	44.3	41.3
15:56:40	44.5	47.6	UNDER	46.3	41.3
15:56:50	44.8	47.6	UNDER	47.3	41.3
15:57:00	41.6	42.3	UNDER	42.3	41.3
15:57:10	42.0	43.3	UNDER	42.3	41.3
15:57:20	41.2	42.8	UNDER	42.3	40.3
15:57:30	41.4	43.2	UNDER	42.3	40.3

			H1		
15:57:40	43.4	45.7	UNDER	45.3	41.3
15:57:50	41.9	43.1	UNDER	42.3	41.3
15:58:00	42.5	43.6	UNDER	43.3	41.3
15:58:10	42.7	43.2	UNDER	42.3	42.3
15:58:20	42.8	43.8	UNDER	43.3	42.3
15:58:30	42.7	43.8	UNDER	43.3	42.3
15:58:40	45.1	50.0	UNDER	47.3	42.3
15:58:50	46.8	50.4	UNDER	49.3	43.3
15:59:00	42.3	43.2	UNDER	42.3	41.3
15:59:10	41.4	41.6	UNDER	41.3	41.3
15:59:20	42.8	46.0	UNDER	44.3	41.3
15:59:30	41.0	41.8	UNDER	41.3	40.3
15:59:40	41.3	42.4	UNDER	41.3	40.3
15:59:50	40.8	41.2	UNDER	41.3	40.3
16:00:00	41.2	41.6	UNDER	41.3	40.3
16:00:10	40.9	41.2	UNDER	41.3	40.3
16:00:20	40.8	41.0	UNDER	40.3	40.3
16:00:30	41.1	41.6	UNDER	41.3	40.3
16:00:40	41.2	42.1	UNDER	41.3	40.3
16:00:50	40.9	41.2	UNDER	41.3	40.3
16:01:00	41.1	41.4	UNDER	41.3	40.3
16:01:10	41.1	41.3	UNDER	41.3	40.3
16:01:20	40.9	41.1	UNDER	41.3	40.3
16:01:30	40.9	41.2	UNDER	41.3	40.3
16:01:40	41.3	41.6	UNDER	41.3	40.3
16:01:50	41.8	42.0	UNDER	42.3	41.3
16:02:00	43.5	49.0	UNDER	48.3	41.3
16:02:10	45.2	47.8	UNDER	47.3	42.3
16:02:20	42.3	43.6	UNDER	43.3	41.3
16:02:30	41.9	42.8	UNDER	42.3	41.3
16:02:40	41.3	41.9	UNDER	41.3	41.3
16:02:50	40.7	41.1	UNDER	40.3	40.3
16:03:00	40.4	40.7	UNDER	40.3	40.3
16:03:10	40.6	41.1	UNDER	40.3	40.3
16:03:20	40.8	41.1	UNDER	41.3	40.3
16:03:30	40.8	41.1	UNDER	40.3	40.3
16:03:40	40.6	40.8	UNDER	40.3	40.3
16:03:50	40.7	41.0	UNDER	40.3	40.3
16:04:00	40.7	41.0	UNDER	40.3	40.3
16:04:10	40.9	42.0	UNDER	41.3	40.3
16:04:20	44.5	48.0	UNDER	46.3	41.3
16:04:30	41.1	41.6	UNDER	41.3	40.3
16:04:40	41.9	43.2	UNDER	42.3	41.3
16:04:50	41.5	42.0	UNDER	41.3	41.3
16:05:00	41.7	43.6	UNDER	42.3	41.3
16:05:10	41.1	42.2	UNDER	41.3	40.3
16:05:20	41.5	42.7	UNDER	42.3	40.3
16:05:30	42.0	42.4	UNDER	42.3	41.3

Filename.....3908
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.12 SERIAL # 3908
REPORT PRINTED ON 06/29/12 at 14:01:47

User ID: _____

LOGGING STARTED.....06/28/12 at 15:47:00
TOTAL LOGGING TIME...0 DAYS 00:20:06
LOGGING STOPPED.....06/28/12 at 16:07:06
TOTAL INTERVALS.....121
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 13:59:41
PRE-TEST CALIBRATION RANGE...38.9 TO 138.9 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 3 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 45.1dB
Lav (80)..... 38.9dB
Lav (90)..... 38.9dB
SEL..... 75.8dB

TWA..... 38.9dB
TWA (80)..... 38.9dB
TWA (90)..... 38.9dB

Lmax..... 61.4dB 06/28/12 at 16:05:26
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

DOSE (80)..... 0.00%
 PROJ. DOSE (80).. 0.00%
 DOSE (90)..... 0.00%
 PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 3 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
15:47:00	42.9	47.3	UNDER	45.9	41.9
15:47:10	41.2	43.0	UNDER	42.9	40.9
15:47:20	41.8	42.8	UNDER	42.9	41.9
15:47:30	42.1	44.2	UNDER	43.9	40.9
15:47:40	41.1	42.6	UNDER	42.9	40.9
15:47:50	41.5	42.9	UNDER	42.9	40.9
15:48:00	41.5	42.9	UNDER	42.9	41.9
15:48:10	46.7	53.4	UNDER	51.9	40.9
15:48:20	45.9	50.2	UNDER	49.9	41.9
15:48:30	44.1	47.8	UNDER	46.9	41.9
15:48:40	43.4	45.3	UNDER	44.9	40.9
15:48:50	41.4	43.4	UNDER	42.9	40.9
15:49:00	40.9	42.1	UNDER	41.9	40.9
15:49:10	43.1	48.2	UNDER	46.9	40.9
15:49:20	41.6	43.0	UNDER	42.9	40.9
15:49:30	43.0	45.8	UNDER	44.9	41.9
15:49:40	41.0	42.1	UNDER	41.9	40.9
15:49:50	42.0	44.3	UNDER	43.9	40.9
15:50:00	42.0	44.8	UNDER	43.9	40.9
15:50:10	42.6	45.4	UNDER	44.9	40.9
15:50:20	41.6	42.9	UNDER	42.9	40.9
15:50:30	41.3	43.0	UNDER	42.9	40.9
15:50:40	40.9	42.6	UNDER	42.9	40.9
15:50:50	42.0	43.7	UNDER	43.9	40.9
15:51:00	42.9	46.2	UNDER	45.9	40.9
15:51:10	44.6	48.2	UNDER	46.9	41.9
15:51:20	45.0	47.3	UNDER	46.9	41.9
15:51:30	47.4	49.8	UNDER	49.9	44.9
15:51:40	42.5	45.4	UNDER	44.9	40.9
15:51:50	41.7	43.3	UNDER	42.9	40.9
15:52:00	43.9	45.4	UNDER	44.9	42.9
15:52:10	50.9	56.3	UNDER	55.9	44.9
15:52:20	52.6	56.2	UNDER	55.9	43.9
15:52:30	42.6	44.1	UNDER	43.9	41.9
15:52:40	41.5	42.0	UNDER	41.9	41.9
15:52:50	41.4	42.2	UNDER	42.9	40.9
15:53:00	43.0	46.2	UNDER	45.9	40.9
15:53:10	48.2	53.2	UNDER	49.9	44.9
15:53:20	52.0	55.0	UNDER	54.9	49.9
15:53:30	50.4	53.5	UNDER	52.9	46.9
15:53:40	48.7	51.5	UNDER	50.9	45.9
15:53:50	45.0	47.8	UNDER	46.9	43.9
15:54:00	42.8	45.5	UNDER	43.9	41.9
15:54:10	44.3	49.6	UNDER	46.9	41.9
15:54:20	41.5	43.4	UNDER	42.9	40.9
15:54:30	42.4	44.2	UNDER	43.9	41.9
15:54:40	42.0	44.2	UNDER	43.9	40.9
15:54:50	42.0	43.0	UNDER	42.9	40.9
15:55:00	42.3	43.2	UNDER	42.9	41.9
15:55:10	42.2	43.2	UNDER	43.9	41.9
15:55:20	42.0	43.0	UNDER	42.9	40.9
15:55:30	41.6	43.4	UNDER	42.9	40.9

15:55:40	42.3	44.8	UNDER	43.9	41.9
15:55:50	42.5	45.4	UNDER	44.9	40.9
15:56:00	42.4	44.6	UNDER	43.9	40.9
15:56:10	43.4	47.0	UNDER	45.9	41.9
15:56:20	42.2	43.4	UNDER	42.9	41.9
15:56:30	42.1	43.0	UNDER	42.9	41.9
15:56:40	41.9	42.6	UNDER	42.9	41.9
15:56:50	42.0	44.6	UNDER	43.9	41.9
15:57:00	42.7	44.6	UNDER	43.9	41.9
15:57:10	42.8	44.7	UNDER	44.9	41.9
15:57:20	42.1	43.7	UNDER	43.9	41.9
15:57:30	41.8	43.1	UNDER	42.9	40.9
15:57:40	41.2	42.2	UNDER	41.9	40.9
15:57:50	41.0	42.2	UNDER	41.9	40.9
15:58:00	41.7	42.9	UNDER	42.9	40.9
15:58:10	41.0	42.2	UNDER	41.9	40.9
15:58:20	40.8	41.7	UNDER	41.9	40.9
15:58:30	41.1	42.7	UNDER	41.9	40.9
15:58:40	41.5	43.3	UNDER	42.9	40.9
15:58:50	42.4	44.4	UNDER	43.9	41.9
15:59:00	42.7	46.6	UNDER	44.9	40.9
15:59:10	41.9	44.1	UNDER	43.9	40.9
15:59:20	41.5	42.6	UNDER	42.9	40.9
15:59:30	42.5	46.1	UNDER	44.9	40.9
15:59:40	42.0	45.4	UNDER	44.9	40.9
15:59:50	41.6	44.9	UNDER	43.9	40.9
16:00:00	40.9	41.8	UNDER	41.9	40.9
16:00:10	42.2	46.5	UNDER	45.9	40.9
16:00:20	42.1	43.0	UNDER	42.9	41.9
16:00:30	42.1	43.8	UNDER	42.9	41.9
16:00:40	42.4	44.2	UNDER	43.9	41.9
16:00:50	42.3	44.6	UNDER	43.9	40.9
16:01:00	40.3	41.0	UNDER	40.9	39.9
16:01:10	40.5	42.2	UNDER	41.9	39.9
16:01:20	40.3	41.3	UNDER	41.9	39.9
16:01:30	40.2	40.6	UNDER	40.9	39.9
16:01:40	41.9	44.2	UNDER	43.9	40.9
16:01:50	41.6	43.0	UNDER	42.9	40.9
16:02:00	40.7	43.8	UNDER	41.9	39.9
16:02:10	40.5	41.8	UNDER	41.9	39.9
16:02:20	40.9	42.1	UNDER	41.9	40.9
16:02:30	42.2	44.6	UNDER	43.9	41.9
16:02:40	41.6	42.2	UNDER	42.9	41.9
16:02:50	41.8	42.8	UNDER	42.9	41.9
16:03:00	40.8	41.9	UNDER	41.9	40.9
16:03:10	40.9	41.2	UNDER	41.9	40.9
16:03:20	41.9	43.0	UNDER	42.9	40.9
16:03:30	41.9	43.0	UNDER	42.9	41.9
16:03:40	41.4	42.3	UNDER	41.9	40.9
16:03:50	42.1	43.3	UNDER	42.9	41.9
16:04:00	42.7	43.8	UNDER	43.9	41.9
16:04:10	42.2	43.8	UNDER	43.9	41.9
16:04:20	42.5	43.6	UNDER	43.9	41.9
16:04:30	41.9	43.7	UNDER	43.9	41.9
16:04:40	41.9	44.1	UNDER	42.9	41.9
16:04:50	47.5	50.1	UNDER	49.9	44.9
16:05:00	48.1	50.7	UNDER	50.9	44.9
16:05:10	54.5	58.1	UNDER	57.9	48.9
16:05:20	57.1	61.4	UNDER	59.9	51.9
16:05:30	54.2	60.3	UNDER	58.9	47.9
16:05:40	48.8	50.9	UNDER	50.9	47.9
16:05:50	47.5	51.8	UNDER	50.9	43.9
16:06:00	47.3	55.4	UNDER	52.9	42.9

16:06:10	43.6	49.4	UNDER	46.9	41.9
16:06:20	41.1	41.8	UNDER	41.9	40.9
16:06:30	41.0	41.3	UNDER	41.9	40.9
16:06:40	40.9	41.5	UNDER	41.9	40.9
16:06:50	42.4	46.2	UNDER	44.9	40.9
16:07:00	46.6	49.3	UNDER	48.9	44.9

J1

```

*****
Filename.....3903
Test Location.....
Employee Name.....
Employee Number.....
Department.....

```

```

Calibrator Type.....
Calibrator Cal. Date...
*****

```

METROSONICS db-3080 V1.12 SERIAL # 3903
 REPORT PRINTED ON 06/29/12 at 14:02:53

User ID: _____

```

LOGGING STARTED.....06/28/12 at 15:45:20
TOTAL LOGGING TIME...0 DAYS 00:18:18
LOGGING STOPPED.....06/28/12 at 16:03:38
TOTAL INTERVALS.....110
INTERVAL LENGTH.....00:00:10

```

```

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

```

```

PRE-TEST CALIBRATION TIME....06/28/12 AT 13:58:19
PRE-TEST CALIBRATION RANGE...39.5 TO 139.5 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

```

<<< SUMMARY REPORT FOR TEST NUMBER 2 OF 5 >>>

```

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

```

```

Lav..... 43.9dB
Lav ( 80)..... 39.5dB
Lav ( 90)..... 39.5dB
SEL..... 74.3dB

```

```

TWA..... 39.5dB
TWA ( 80)..... 39.5dB
TWA ( 90)..... 39.5dB

```

```

Lmax..... 55.2dB 06/28/12 at 15:53:23
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

```

DOSE (80)..... 0.00%
 PROJ. DOSE (80).. 0.00%
 DOSE (90)..... 0.00%
 PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 2 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
15:45:20	47.9	51.9	UNDER	50.5	43.5
15:45:30	46.1	53.7	UNDER	50.5	41.5
15:45:40	41.6	42.0	UNDER	41.5	41.5
15:45:50	42.1	42.4	UNDER	42.5	41.5
15:46:00	42.9	45.6	UNDER	44.5	41.5
15:46:10	44.2	46.4	UNDER	45.5	43.5
15:46:20	43.6	44.8	UNDER	44.5	42.5
15:46:30	43.3	44.4	UNDER	44.5	42.5
15:46:40	41.7	43.2	UNDER	42.5	41.5
15:46:50	43.8	47.0	UNDER	45.5	41.5
15:47:00	47.7	49.3	UNDER	48.5	45.5
15:47:10	47.8	49.5	UNDER	48.5	46.5
15:47:20	47.5	49.2	UNDER	48.5	46.5
15:47:30	48.1	49.7	UNDER	48.5	46.5
15:47:40	46.5	49.1	UNDER	48.5	41.5
15:47:50	41.6	42.0	UNDER	42.5	41.5
15:48:00	42.0	42.6	UNDER	42.5	41.5
15:48:10	41.8	42.0	UNDER	42.5	41.5
15:48:20	41.7	42.0	UNDER	42.5	41.5
15:48:30	41.7	42.0	UNDER	41.5	41.5
15:48:40	41.6	41.9	UNDER	41.5	41.5
15:48:50	42.0	42.3	UNDER	42.5	41.5
15:49:00	42.0	42.4	UNDER	42.5	41.5
15:49:10	41.9	42.4	UNDER	42.5	41.5
15:49:20	41.8	42.0	UNDER	42.5	41.5
15:49:30	41.8	42.0	UNDER	42.5	41.5
15:49:40	42.1	42.4	UNDER	42.5	41.5
15:49:50	42.1	42.4	UNDER	42.5	42.5
15:50:00	42.2	42.4	UNDER	42.5	42.5
15:50:10	42.4	42.8	UNDER	42.5	42.5
15:50:20	41.9	42.3	UNDER	42.5	41.5
15:50:30	41.6	41.8	UNDER	41.5	41.5
15:50:40	41.8	42.0	UNDER	42.5	41.5
15:50:50	41.7	42.0	UNDER	41.5	41.5
15:51:00	41.8	42.0	UNDER	42.5	41.5
15:51:10	41.9	42.0	UNDER	42.5	41.5
15:51:20	41.9	42.0	UNDER	42.5	41.5
15:51:30	41.9	42.2	UNDER	42.5	41.5
15:51:40	42.2	43.6	UNDER	42.5	41.5
15:51:50	42.8	43.6	UNDER	43.5	42.5
15:52:00	44.3	47.2	UNDER	45.5	42.5
15:52:10	43.6	46.0	UNDER	44.5	42.5
15:52:20	43.7	47.2	UNDER	45.5	42.5
15:52:30	42.1	42.8	UNDER	42.5	41.5
15:52:40	41.7	42.0	UNDER	42.5	41.5
15:52:50	42.1	43.6	UNDER	42.5	41.5
15:53:00	46.5	50.0	UNDER	49.5	43.5
15:53:10	50.1	52.4	UNDER	51.5	48.5
15:53:20	51.2	55.2	UNDER	52.5	49.5
15:53:30	49.2	52.8	UNDER	50.5	48.5
15:53:40	46.6	49.2	UNDER	48.5	44.5
15:53:50	43.3	45.6	UNDER	44.5	41.5

15:54:00	43.4	46.1	UNDER	45.5	41.5
15:54:10	42.9	45.6	UNDER	44.5	42.5
15:54:20	44.1	47.2	UNDER	46.5	41.5
15:54:30	43.1	45.2	UNDER	44.5	41.5
15:54:40	43.6	46.4	UNDER	45.5	41.5
15:54:50	43.6	46.8	UNDER	45.5	42.5
15:55:00	42.2	43.5	UNDER	42.5	41.5
15:55:10	42.8	43.7	UNDER	43.5	42.5
15:55:20	45.2	48.0	UNDER	47.5	42.5
15:55:30	44.6	48.0	UNDER	46.5	42.5
15:55:40	45.3	48.4	UNDER	47.5	42.5
15:55:50	44.7	48.0	UNDER	46.5	42.5
15:56:00	44.9	47.6	UNDER	47.5	43.5
15:56:10	44.0	47.0	UNDER	46.5	42.5
15:56:20	45.3	49.2	UNDER	47.5	42.5
15:56:30	44.5	48.4	UNDER	46.5	42.5
15:56:40	44.5	47.8	UNDER	46.5	43.5
15:56:50	44.6	47.3	UNDER	46.5	42.5
15:57:00	44.5	47.8	UNDER	47.5	42.5
15:57:10	43.5	46.1	UNDER	45.5	42.5
15:57:20	44.1	46.3	UNDER	45.5	43.5
15:57:30	43.1	44.8	UNDER	43.5	42.5
15:57:40	42.5	43.6	UNDER	43.5	41.5
15:57:50	42.8	45.6	UNDER	44.5	41.5
15:58:00	42.0	43.6	UNDER	42.5	41.5
15:58:10	44.0	46.4	UNDER	45.5	42.5
15:58:20	42.5	45.5	UNDER	44.5	40.5
15:58:30	42.4	45.3	UNDER	43.5	41.5
15:58:40	43.7	46.9	UNDER	46.5	41.5
15:58:50	44.3	47.1	UNDER	45.5	41.5
15:59:00	42.7	44.9	UNDER	43.5	41.5
15:59:10	43.0	44.4	UNDER	44.5	41.5
15:59:20	42.0	44.2	UNDER	43.5	40.5
15:59:30	42.5	45.2	UNDER	44.5	40.5
15:59:40	42.1	44.0	UNDER	42.5	41.5
15:59:50	42.7	46.0	UNDER	45.5	40.5
16:00:00	43.2	46.8	UNDER	45.5	40.5
16:00:10	43.0	46.3	UNDER	44.5	41.5
16:00:20	43.9	48.1	UNDER	47.5	41.5
16:00:30	42.7	45.5	UNDER	44.5	41.5
16:00:40	42.3	44.4	UNDER	43.5	41.5
16:00:50	42.6	44.4	UNDER	43.5	41.5
16:01:00	42.0	43.8	UNDER	43.5	41.5
16:01:10	43.0	45.6	UNDER	44.5	41.5
16:01:20	42.6	46.0	UNDER	44.5	41.5
16:01:30	41.3	43.0	UNDER	42.5	40.5
16:01:40	42.5	45.6	UNDER	44.5	41.5
16:01:50	41.4	42.8	UNDER	41.5	41.5
16:02:00	42.9	45.4	UNDER	44.5	41.5
16:02:10	41.9	43.2	UNDER	42.5	41.5
16:02:20	42.4	46.0	UNDER	43.5	41.5
16:02:30	43.1	46.8	UNDER	45.5	41.5
16:02:40	41.4	42.0	UNDER	42.5	41.5
16:02:50	42.1	44.8	UNDER	43.5	41.5
16:03:00	43.0	45.6	UNDER	44.5	41.5
16:03:10	42.8	45.7	UNDER	44.5	41.5
16:03:20	44.4	48.8	UNDER	47.5	41.5
16:03:30	43.0	47.1	UNDER	44.5	40.5

K1

Filename.....3903
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.12 SERIAL # 3903
REPORT PRINTED ON 06/29/12 at 14:05:06

User ID: _____

LOGGING STARTED.....06/28/12 at 19:55:20
TOTAL LOGGING TIME...0 DAYS 00:16:51
LOGGING STOPPED.....06/28/12 at 20:12:11
TOTAL INTERVALS.....102
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 13:58:19
PRE-TEST CALIBRATION RANGE...39.5 TO 139.5 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 5 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 44.9dB
Lav (80)..... 39.5dB
Lav (90)..... 39.5dB
SEL..... 74.8dB

TWA..... 39.5dB
TWA (80)..... 39.5dB
TWA (90)..... 39.5dB

Lmax..... 62.8dB 06/28/12 at 20:09:48
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

K1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 5 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
19:55:20	45.8	49.2	UNDER	48.5	41.5
19:55:30	41.9	43.6	UNDER	42.5	41.5
19:55:40	42.1	43.8	UNDER	43.5	40.5
19:55:50	41.3	42.8	UNDER	42.5	40.5
19:56:00	40.8	41.6	UNDER	41.5	40.5
19:56:10	40.5	40.8	UNDER	40.5	40.5
19:56:20	40.5	40.8	UNDER	40.5	40.5
19:56:30	40.4	40.8	UNDER	40.5	40.5
19:56:40	41.2	44.0	UNDER	43.5	40.5
19:56:50	40.5	41.9	UNDER	41.5	40.5
19:57:00	41.5	43.6	UNDER	42.5	40.5
19:57:10	40.6	40.8	UNDER	40.5	40.5
19:57:20	40.6	41.6	UNDER	41.5	40.5
19:57:30	40.0	40.4	UNDER	40.5	40.5
19:57:40	40.3	40.8	UNDER	40.5	40.5
19:57:50	40.7	41.0	UNDER	40.5	40.5
19:58:00	40.6	41.2	UNDER	40.5	40.5
19:58:10	40.2	41.2	UNDER	40.5	40.5
19:58:20	40.3	41.2	UNDER	40.5	40.5
19:58:30	40.5	41.2	UNDER	40.5	40.5
19:58:40	41.7	42.0	UNDER	42.5	41.5
19:58:50	42.0	43.4	UNDER	43.5	40.5
19:59:00	40.8	41.4	UNDER	41.5	40.5
19:59:10	41.3	42.8	UNDER	42.5	40.5
19:59:20	41.8	42.3	UNDER	42.5	41.5
19:59:30	41.2	41.5	UNDER	41.5	40.5
19:59:40	41.5	41.7	UNDER	41.5	41.5
19:59:50	41.0	41.2	UNDER	41.5	40.5
20:00:00	41.0	41.3	UNDER	41.5	40.5
20:00:10	40.9	41.2	UNDER	41.5	40.5
20:00:20	41.0	41.2	UNDER	41.5	40.5
20:00:30	40.9	41.2	UNDER	41.5	40.5
20:00:40	41.3	42.3	UNDER	41.5	40.5
20:00:50	41.0	41.6	UNDER	41.5	40.5
20:01:00	41.0	41.6	UNDER	41.5	40.5
20:01:10	41.3	41.6	UNDER	41.5	40.5
20:01:20	40.8	41.2	UNDER	40.5	40.5
20:01:30	40.7	40.8	UNDER	40.5	40.5
20:01:40	40.7	41.2	UNDER	40.5	40.5
20:01:50	41.0	43.2	UNDER	41.5	40.5
20:02:00	42.7	48.1	UNDER	45.5	40.5
20:02:10	42.3	48.0	UNDER	45.5	40.5
20:02:20	40.7	40.8	UNDER	40.5	40.5
20:02:30	40.7	40.9	UNDER	40.5	40.5
20:02:40	41.1	41.6	UNDER	41.5	40.5
20:02:50	41.1	41.6	UNDER	41.5	40.5
20:03:00	41.0	41.8	UNDER	41.5	40.5
20:03:10	41.1	41.8	UNDER	41.5	40.5
20:03:20	41.2	41.9	UNDER	41.5	40.5
20:03:30	42.1	45.2	UNDER	44.5	41.5
20:03:40	41.7	43.2	UNDER	42.5	40.5
20:03:50	40.7	40.8	UNDER	40.5	40.5

			K1		
20:04:00	40.9	41.6	UNDER	41.5	40.5
20:04:10	40.7	40.9	UNDER	40.5	40.5
20:04:20	40.8	41.1	UNDER	40.5	40.5
20:04:30	41.3	43.7	UNDER	42.5	40.5
20:04:40	40.9	41.6	UNDER	41.5	40.5
20:04:50	40.4	40.9	UNDER	40.5	40.5
20:05:00	40.1	40.4	UNDER	40.5	39.5
20:05:10	40.0	40.0	UNDER	40.5	39.5
20:05:20	39.9	40.1	UNDER	40.5	39.5
20:05:30	40.0	40.3	UNDER	40.5	39.5
20:05:40	40.4	40.7	UNDER	40.5	40.5
20:05:50	40.8	41.2	UNDER	41.5	40.5
20:06:00	41.1	41.7	UNDER	41.5	40.5
20:06:10	40.5	42.0	UNDER	40.5	40.5
20:06:20	40.3	41.2	UNDER	40.5	40.5
20:06:30	40.0	40.2	UNDER	40.5	40.5
20:06:40	40.0	40.4	UNDER	40.5	39.5
20:06:50	40.0	40.1	UNDER	40.5	39.5
20:07:00	40.6	43.4	UNDER	41.5	39.5
20:07:10	40.4	40.8	UNDER	40.5	40.5
20:07:20	41.0	42.8	UNDER	42.5	40.5
20:07:30	40.7	41.2	UNDER	40.5	40.5
20:07:40	40.4	40.8	UNDER	40.5	40.5
20:07:50	40.3	40.5	UNDER	40.5	40.5
20:08:00	40.8	43.6	UNDER	42.5	39.5
20:08:10	43.4	47.6	UNDER	46.5	40.5
20:08:20	44.1	48.8	UNDER	47.5	40.5
20:08:30	45.5	49.2	UNDER	48.5	40.5
20:08:40	44.9	48.8	UNDER	48.5	40.5
20:08:50	44.9	50.0	UNDER	48.5	40.5
20:09:00	45.1	49.2	UNDER	48.5	40.5
20:09:10	45.2	50.8	UNDER	49.5	40.5
20:09:20	47.5	51.6	UNDER	50.5	43.5
20:09:30	50.2	54.0	UNDER	52.5	44.5
20:09:40	59.6	62.8	UNDER	61.5	51.5
20:09:50	57.4	60.4	UNDER	60.5	51.5
20:10:00	50.0	53.2	UNDER	52.5	47.5
20:10:10	45.9	52.7	UNDER	49.5	42.5
20:10:20	42.5	44.4	UNDER	43.5	41.5
20:10:30	41.8	43.2	UNDER	42.5	40.5
20:10:40	40.7	43.9	UNDER	41.5	40.5
20:10:50	40.6	42.8	UNDER	41.5	40.5
20:11:00	40.6	43.1	UNDER	41.5	39.5
20:11:10	40.1	40.8	UNDER	40.5	39.5
20:11:20	40.3	40.8	UNDER	40.5	40.5
20:11:30	40.1	40.7	UNDER	40.5	39.5
20:11:40	40.0	41.6	UNDER	40.5	39.5
20:11:50	39.7	40.0	UNDER	40.5	39.5
20:12:00	40.1	41.4	UNDER	40.5	39.5
20:12:10	40.4	40.8	UNDER	40.5	39.5

L1

Filename.....3907
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.12 SERIAL # 3907
REPORT PRINTED ON 06/29/12 at 14:05:34

User ID: _____

LOGGING STARTED.....06/28/12 at 18:17:50
TOTAL LOGGING TIME...0 DAYS 00:15:11
LOGGING STOPPED.....06/28/12 at 18:33:01
TOTAL INTERVALS.....92
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 14:02:55
PRE-TEST CALIBRATION RANGE...38.8 TO 138.8 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 4 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 46.1dB
Lav (80)..... 38.8dB
Lav (90)..... 38.8dB
SEL..... 75.6dB

TWA..... 38.8dB
TWA (80)..... 38.8dB
TWA (90)..... 38.8dB

Lmax..... 60.1dB 06/28/12 at 18:27:12
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

L1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 4 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
18:17:50	44.8	45.7	UNDER	45.8	44.8
18:18:00	43.8	45.7	UNDER	44.8	42.8
18:18:10	44.5	49.0	UNDER	46.8	42.8
18:18:20	43.9	46.3	UNDER	45.8	42.8
18:18:30	42.9	44.6	UNDER	43.8	42.8
18:18:40	44.6	45.7	UNDER	45.8	43.8
18:18:50	44.3	47.0	UNDER	46.8	43.8
18:19:00	42.6	43.2	UNDER	42.8	42.8
18:19:10	43.9	46.3	UNDER	45.8	42.8
18:19:20	43.3	44.8	UNDER	44.8	42.8
18:19:30	43.2	44.3	UNDER	44.8	42.8
18:19:40	43.5	44.3	UNDER	44.8	42.8
18:19:50	44.0	44.5	UNDER	44.8	43.8
18:20:00	45.5	48.1	UNDER	47.8	44.8
18:20:10	44.8	47.7	UNDER	46.8	43.8
18:20:20	43.7	45.0	UNDER	44.8	42.8
18:20:30	42.9	43.3	UNDER	43.8	42.8
18:20:40	43.0	43.7	UNDER	43.8	42.8
18:20:50	43.1	43.7	UNDER	43.8	42.8
18:21:00	43.4	44.2	UNDER	44.8	42.8
18:21:10	43.4	44.3	UNDER	44.8	42.8
18:21:20	43.7	44.3	UNDER	44.8	43.8
18:21:30	43.8	44.9	UNDER	44.8	42.8
18:21:40	43.9	45.1	UNDER	44.8	42.8
18:21:50	43.8	45.3	UNDER	44.8	42.8
18:22:00	46.4	51.7	UNDER	48.8	43.8
18:22:10	44.0	46.1	UNDER	44.8	42.8
18:22:20	44.4	46.8	UNDER	46.8	42.8
18:22:30	43.9	46.1	UNDER	45.8	42.8
18:22:40	44.4	47.5	UNDER	46.8	42.8
18:22:50	43.3	44.5	UNDER	43.8	42.8
18:23:00	42.7	43.3	UNDER	43.8	42.8
18:23:10	44.0	49.6	UNDER	46.8	42.8
18:23:20	42.7	44.1	UNDER	43.8	41.8
18:23:30	42.6	43.2	UNDER	42.8	42.8
18:23:40	42.6	43.7	UNDER	42.8	42.8
18:23:50	43.1	44.1	UNDER	43.8	42.8
18:24:00	45.4	48.7	UNDER	47.8	43.8
18:24:10	47.4	51.7	UNDER	51.8	44.8
18:24:20	44.1	45.3	UNDER	44.8	42.8
18:24:30	43.0	44.5	UNDER	43.8	42.8
18:24:40	42.8	44.9	UNDER	44.8	41.8
18:24:50	43.1	44.2	UNDER	43.8	42.8
18:25:00	42.8	43.7	UNDER	43.8	42.8
18:25:10	42.8	44.9	UNDER	43.8	42.8
18:25:20	42.4	42.9	UNDER	42.8	41.8
18:25:30	43.2	45.3	UNDER	44.8	41.8
18:25:40	42.3	44.4	UNDER	43.8	41.8
18:25:50	43.4	46.2	UNDER	45.8	41.8
18:26:00	43.1	44.0	UNDER	43.8	42.8
18:26:10	45.5	51.7	UNDER	48.8	42.8
18:26:20	44.7	48.1	UNDER	46.8	42.8

			L1		
18:26:30	47.1	52.2	UNDER	49.8	42.8
18:26:40	48.5	53.2	UNDER	51.8	43.8
18:26:50	51.5	54.1	UNDER	53.8	48.8
18:27:00	53.8	57.1	UNDER	55.8	49.8
18:27:10	56.7	60.1	UNDER	58.8	53.8
18:27:20	55.0	57.8	UNDER	57.8	50.8
18:27:30	52.5	58.1	UNDER	55.8	48.8
18:27:40	48.0	49.8	UNDER	49.8	45.8
18:27:50	46.7	48.9	UNDER	48.8	44.8
18:28:00	50.2	56.7	UNDER	55.8	44.8
18:28:10	46.5	52.6	UNDER	49.8	43.8
18:28:20	43.1	43.7	UNDER	43.8	42.8
18:28:30	44.0	46.9	UNDER	45.8	42.8
18:28:40	47.7	54.2	UNDER	50.8	42.8
18:28:50	44.2	45.3	UNDER	44.8	43.8
18:29:00	45.5	47.8	UNDER	47.8	43.8
18:29:10	45.5	46.7	UNDER	46.8	44.8
18:29:20	45.4	49.3	UNDER	48.8	42.8
18:29:30	42.8	43.3	UNDER	43.8	42.8
18:29:40	42.3	43.5	UNDER	42.8	41.8
18:29:50	42.2	43.3	UNDER	42.8	41.8
18:30:00	44.8	48.9	UNDER	47.8	42.8
18:30:10	42.6	43.6	UNDER	43.8	42.8
18:30:20	42.7	43.5	UNDER	43.8	42.8
18:30:30	42.6	43.1	UNDER	42.8	42.8
18:30:40	43.4	46.5	UNDER	45.8	42.8
18:30:50	42.6	43.3	UNDER	43.8	42.8
18:31:00	42.6	43.6	UNDER	42.8	42.8
18:31:10	44.2	48.1	UNDER	46.8	42.8
18:31:20	43.3	44.5	UNDER	44.8	42.8
18:31:30	43.0	44.7	UNDER	43.8	42.8
18:31:40	42.9	43.7	UNDER	43.8	42.8
18:31:50	43.0	43.7	UNDER	43.8	42.8
18:32:00	43.7	45.4	UNDER	44.8	42.8
18:32:10	44.2	46.9	UNDER	45.8	43.8
18:32:20	43.7	44.2	UNDER	44.8	43.8
18:32:30	47.3	54.1	UNDER	51.8	43.8
18:32:40	46.0	48.8	UNDER	47.8	44.8
18:32:50	46.4	50.5	UNDER	48.8	44.8
18:33:00	47.0	47.8	UNDER	47.8	46.8

L2

Filename.....3905
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.20 SERIAL # 3905
REPORT PRINTED ON 06/29/12 at 14:08:13

User ID: _____

LOGGING STARTED.....06/28/12 at 18:17:20
TOTAL LOGGING TIME...0 DAYS 00:16:13
LOGGING STOPPED.....06/28/12 at 18:33:33
TOTAL INTERVALS.....98
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME...06/28/12 AT 14:02:42
PRE-TEST CALIBRATION RANGE...40.3 TO 140.3 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 4 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 61.6dB
Lav (80)..... 40.3dB
Lav (90)..... 40.3dB
SEL..... 91.4dB

TWA..... 46.9dB
TWA (80)..... 40.3dB
TWA (90)..... 40.3dB

Lmax..... 68.9dB 06/28/12 at 18:19:19
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

L2

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 4 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
18:17:20	61.4	62.4	UNDER	62.3	60.3
18:17:30	62.4	64.0	UNDER	63.3	60.3
18:17:40	61.2	62.4	UNDER	62.3	59.3
18:17:50	57.2	59.7	UNDER	59.3	54.3
18:18:00	57.3	59.2	UNDER	58.3	56.3
18:18:10	57.9	58.8	UNDER	58.3	56.3
18:18:20	58.8	60.7	UNDER	60.3	56.3
18:18:30	58.2	61.9	UNDER	60.3	54.3
18:18:40	61.8	62.8	UNDER	62.3	60.3
18:18:50	59.6	60.8	UNDER	60.3	58.3
18:19:00	61.8	62.8	UNDER	62.3	59.3
18:19:10	65.5	68.9	UNDER	68.3	61.3
18:19:20	64.8	68.6	UNDER	67.3	61.3
18:19:30	61.0	62.8	UNDER	62.3	59.3
18:19:40	61.8	62.9	UNDER	62.3	60.3
18:19:50	63.2	66.0	UNDER	65.3	61.3
18:20:00	63.7	65.6	UNDER	65.3	61.3
18:20:10	61.6	64.1	UNDER	63.3	59.3
18:20:20	61.3	62.0	UNDER	61.3	60.3
18:20:30	63.1	66.8	UNDER	65.3	61.3
18:20:40	65.3	67.2	UNDER	67.3	62.3
18:20:50	62.0	64.9	UNDER	64.3	60.3
18:21:00	62.9	64.5	UNDER	63.3	62.3
18:21:10	63.4	64.8	UNDER	64.3	62.3
18:21:20	62.6	64.0	UNDER	63.3	61.3
18:21:30	61.6	63.2	UNDER	63.3	59.3
18:21:40	57.7	59.2	UNDER	58.3	56.3
18:21:50	59.8	61.2	UNDER	61.3	57.3
18:22:00	58.6	60.4	UNDER	60.3	54.3
18:22:10	58.7	61.0	UNDER	60.3	54.3
18:22:20	60.5	62.0	UNDER	62.3	58.3
18:22:30	58.3	58.9	UNDER	58.3	57.3
18:22:40	61.3	66.2	UNDER	65.3	57.3
18:22:50	63.2	66.2	UNDER	65.3	61.3
18:23:00	61.4	62.8	UNDER	62.3	59.3
18:23:10	59.0	60.6	UNDER	60.3	57.3
18:23:20	63.7	65.9	UNDER	65.3	58.3
18:23:30	62.9	64.3	UNDER	64.3	60.3
18:23:40	62.3	63.8	UNDER	63.3	59.3
18:23:50	62.2	64.0	UNDER	63.3	60.3
18:24:00	61.8	62.5	UNDER	62.3	61.3
18:24:10	59.7	62.0	UNDER	61.3	57.3
18:24:20	58.9	60.3	UNDER	60.3	56.3
18:24:30	59.2	60.2	UNDER	60.3	57.3
18:24:40	58.8	61.2	UNDER	60.3	57.3
18:24:50	60.7	62.8	UNDER	62.3	58.3
18:25:00	60.0	62.8	UNDER	61.3	57.3
18:25:10	61.7	64.0	UNDER	63.3	55.3
18:25:20	58.9	61.0	UNDER	60.3	54.3
18:25:30	62.0	62.7	UNDER	62.3	60.3
18:25:40	61.7	63.5	UNDER	63.3	59.3
18:25:50	62.2	63.2	UNDER	62.3	60.3

			L2		
18:26:00	62.8	64.8	UNDER	64.3	60.3
18:26:10	62.1	63.2	UNDER	63.3	59.3
18:26:20	60.1	62.9	UNDER	62.3	58.3
18:26:30	64.7	67.0	UNDER	66.3	62.3
18:26:40	62.2	64.8	UNDER	63.3	60.3
18:26:50	61.1	62.8	UNDER	62.3	59.3
18:27:00	60.6	61.7	UNDER	61.3	59.3
18:27:10	59.8	61.2	UNDER	61.3	58.3
18:27:20	58.5	60.4	UNDER	60.3	57.3
18:27:30	61.9	63.2	UNDER	62.3	58.3
18:27:40	61.9	62.9	UNDER	62.3	60.3
18:27:50	64.4	67.6	UNDER	67.3	59.3
18:28:00	59.2	60.9	UNDER	60.3	56.3
18:28:10	58.6	60.8	UNDER	60.3	56.3
18:28:20	62.6	64.9	UNDER	64.3	59.3
18:28:30	61.1	61.6	UNDER	61.3	60.3
18:28:40	62.3	64.9	UNDER	64.3	60.3
18:28:50	60.3	64.1	UNDER	63.3	56.3
18:29:00	59.4	61.2	UNDER	60.3	57.3
18:29:10	63.4	65.2	UNDER	64.3	61.3
18:29:20	63.3	65.2	UNDER	65.3	61.3
18:29:30	62.1	64.5	UNDER	64.3	59.3
18:29:40	60.2	62.0	UNDER	62.3	57.3
18:29:50	57.8	58.8	UNDER	58.3	56.3
18:30:00	58.5	60.0	UNDER	59.3	56.3
18:30:10	59.2	61.1	UNDER	60.3	58.3
18:30:20	61.0	62.3	UNDER	62.3	58.3
18:30:30	58.2	60.8	UNDER	60.3	55.3
18:30:40	62.3	63.2	UNDER	63.3	60.3
18:30:50	61.6	62.5	UNDER	62.3	60.3
18:31:00	62.4	63.0	UNDER	62.3	61.3
18:31:10	62.2	63.7	UNDER	63.3	61.3
18:31:20	65.0	66.8	UNDER	66.3	61.3
18:31:30	63.2	64.8	UNDER	64.3	57.3
18:31:40	56.7	57.7	UNDER	57.3	55.3
18:31:50	57.7	60.0	UNDER	59.3	56.3
18:32:00	59.4	63.2	UNDER	62.3	55.3
18:32:10	62.4	64.4	UNDER	63.3	60.3
18:32:20	61.9	64.8	UNDER	63.3	60.3
18:32:30	63.6	65.2	UNDER	65.3	61.3
18:32:40	60.9	63.2	UNDER	62.3	58.3
18:32:50	63.4	65.2	UNDER	64.3	60.3
18:33:00	62.3	63.5	UNDER	63.3	59.3
18:33:10	60.8	62.3	UNDER	62.3	59.3
18:33:20	61.5	63.8	UNDER	63.3	58.3
18:33:30	60.5	61.9	UNDER	61.3	59.3

M1

Filename.....3908
Test Location.....
Employee Name.....
Employee Number.....
Department.....

Calibrator Type.....
Calibrator Cal. Date...

METROSONICS db-3080 V1.12 SERIAL # 3908
REPORT PRINTED ON 06/29/12 at 14:09:29

User ID: _____

LOGGING STARTED.....06/28/12 at 18:56:30
TOTAL LOGGING TIME...0 DAYS 00:17:54
LOGGING STOPPED.....06/28/12 at 19:14:24
TOTAL INTERVALS.....108
INTERVAL LENGTH.....00:00:10

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

PRE-TEST CALIBRATION TIME....06/28/12 AT 13:59:41
PRE-TEST CALIBRATION RANGE...38.9 TO 138.9 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

<<< SUMMARY REPORT FOR TEST NUMBER 5 OF 5 >>>

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

Lav..... 47.8dB
Lav (80)..... 38.9dB
Lav (90)..... 38.9dB
SEL..... 78.0dB

TWA..... 38.9dB
TWA (80)..... 38.9dB
TWA (90)..... 38.9dB

Lmax..... 60.1dB 06/28/12 at 19:10:34
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

M1

DOSE (80)..... 0.00%
PROJ. DOSE (80).. 0.00%
DOSE (90)..... 0.00%
PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 5 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
18:56:30	51.5	59.0	UNDER	55.9	47.9
18:56:40	48.9	49.0	UNDER	49.9	48.9
18:56:50	48.7	49.0	UNDER	49.9	48.9
18:57:00	48.7	49.0	UNDER	48.9	48.9
18:57:10	49.0	49.7	UNDER	49.9	48.9
18:57:20	49.4	50.5	UNDER	49.9	48.9
18:57:30	48.9	49.0	UNDER	49.9	48.9
18:57:40	49.1	49.4	UNDER	49.9	48.9
18:57:50	49.1	49.6	UNDER	49.9	48.9
18:58:00	49.8	53.7	UNDER	51.9	48.9
18:58:10	49.2	49.4	UNDER	49.9	49.9
18:58:20	47.2	50.2	UNDER	49.9	45.9
18:58:30	46.1	47.7	UNDER	47.9	45.9
18:58:40	45.4	46.0	UNDER	45.9	45.9
18:58:50	45.1	45.4	UNDER	45.9	44.9
18:59:00	44.9	45.4	UNDER	45.9	44.9
18:59:10	44.8	45.4	UNDER	45.9	44.9
18:59:20	44.9	45.2	UNDER	45.9	44.9
18:59:30	44.7	45.4	UNDER	45.9	43.9
18:59:40	44.8	45.4	UNDER	45.9	43.9
18:59:50	45.0	45.4	UNDER	45.9	44.9
19:00:00	44.9	45.8	UNDER	45.9	44.9
19:00:10	44.6	45.2	UNDER	45.9	44.9
19:00:20	44.9	45.3	UNDER	45.9	44.9
19:00:30	45.3	47.0	UNDER	46.9	44.9
19:00:40	45.3	46.6	UNDER	46.9	44.9
19:00:50	45.1	47.0	UNDER	46.9	43.9
19:01:00	45.2	46.5	UNDER	46.9	43.9
19:01:10	45.5	46.2	UNDER	46.9	44.9
19:01:20	46.5	47.0	UNDER	47.9	46.9
19:01:30	48.3	50.1	UNDER	49.9	45.9
19:01:40	49.7	50.2	UNDER	50.9	49.9
19:01:50	49.9	50.3	UNDER	50.9	49.9
19:02:00	49.4	49.8	UNDER	49.9	49.9
19:02:10	49.4	49.7	UNDER	49.9	49.9
19:02:20	49.2	49.4	UNDER	49.9	49.9
19:02:30	49.4	49.8	UNDER	49.9	49.9
19:02:40	49.5	49.8	UNDER	49.9	49.9
19:02:50	49.9	50.2	UNDER	50.9	49.9
19:03:00	49.8	50.2	UNDER	50.9	49.9
19:03:10	49.6	50.1	UNDER	49.9	49.9
19:03:20	49.8	50.4	UNDER	50.9	49.9
19:03:30	49.5	50.0	UNDER	49.9	49.9
19:03:40	50.0	50.6	UNDER	50.9	49.9
19:03:50	49.6	49.8	UNDER	49.9	49.9
19:04:00	49.4	49.7	UNDER	49.9	49.9
19:04:10	49.4	49.8	UNDER	49.9	49.9
19:04:20	49.5	50.3	UNDER	50.9	49.9
19:04:30	49.7	50.1	UNDER	49.9	49.9
19:04:40	48.6	50.2	UNDER	49.9	45.9
19:04:50	46.0	47.3	UNDER	47.9	45.9
19:05:00	46.5	47.0	UNDER	46.9	45.9

			M1		
19:05:10	45.9	46.6	UNDER	46.9	45.9
19:05:20	46.1	47.0	UNDER	46.9	45.9
19:05:30	45.1	45.7	UNDER	45.9	44.9
19:05:40	44.7	45.0	UNDER	44.9	44.9
19:05:50	44.9	45.4	UNDER	45.9	44.9
19:06:00	45.2	45.6	UNDER	45.9	45.9
19:06:10	46.1	46.8	UNDER	46.9	45.9
19:06:20	46.4	47.4	UNDER	47.9	45.9
19:06:30	49.5	51.4	UNDER	50.9	47.9
19:06:40	46.2	48.1	UNDER	47.9	45.9
19:06:50	45.3	45.8	UNDER	45.9	44.9
19:07:00	45.9	46.2	UNDER	46.9	45.9
19:07:10	45.4	46.0	UNDER	45.9	45.9
19:07:20	44.9	46.5	UNDER	45.9	44.9
19:07:30	45.1	47.2	UNDER	46.9	44.9
19:07:40	44.9	45.9	UNDER	45.9	44.9
19:07:50	44.5	45.2	UNDER	44.9	44.9
19:08:00	45.2	45.8	UNDER	45.9	44.9
19:08:10	48.4	51.4	UNDER	50.9	45.9
19:08:20	49.3	50.2	UNDER	50.9	47.9
19:08:30	49.6	50.2	UNDER	49.9	49.9
19:08:40	49.3	50.1	UNDER	49.9	49.9
19:08:50	49.0	49.4	UNDER	49.9	48.9
19:09:00	49.1	49.4	UNDER	49.9	48.9
19:09:10	49.2	49.4	UNDER	49.9	48.9
19:09:20	49.4	49.7	UNDER	49.9	49.9
19:09:30	49.3	49.6	UNDER	49.9	49.9
19:09:40	49.3	49.7	UNDER	49.9	49.9
19:09:50	49.4	50.2	UNDER	49.9	48.9
19:10:00	49.0	51.0	UNDER	49.9	48.9
19:10:10	49.1	50.2	UNDER	49.9	48.9
19:10:20	49.1	50.6	UNDER	50.9	48.9
19:10:30	52.5	60.1	UNDER	56.9	48.9
19:10:40	49.6	50.2	UNDER	50.9	49.9
19:10:50	49.4	49.8	UNDER	49.9	49.9
19:11:00	49.2	50.5	UNDER	49.9	48.9
19:11:10	46.5	49.4	UNDER	47.9	45.9
19:11:20	45.7	46.6	UNDER	46.9	45.9
19:11:30	45.2	45.7	UNDER	45.9	44.9
19:11:40	45.6	45.8	UNDER	45.9	45.9
19:11:50	45.3	45.9	UNDER	45.9	45.9
19:12:00	45.8	46.2	UNDER	46.9	45.9
19:12:10	45.4	46.1	UNDER	45.9	44.9
19:12:20	46.5	48.1	UNDER	47.9	45.9
19:12:30	45.6	45.8	UNDER	45.9	45.9
19:12:40	46.1	46.6	UNDER	46.9	45.9
19:12:50	46.0	47.0	UNDER	46.9	45.9
19:13:00	45.3	46.1	UNDER	45.9	44.9
19:13:10	45.8	46.6	UNDER	46.9	45.9
19:13:20	45.7	46.1	UNDER	46.9	45.9
19:13:30	45.1	45.4	UNDER	45.9	44.9
19:13:40	44.9	45.3	UNDER	45.9	44.9
19:13:50	44.7	45.0	UNDER	45.9	44.9
19:14:00	45.6	50.9	UNDER	48.9	43.9
19:14:10	44.4	45.4	UNDER	45.9	43.9
19:14:20	45.9	47.7	UNDER	47.9	44.9

```

*****
Filename.....3907
Test Location.....
Employee Name.....
Employee Number.....
Department.....

```

```

Calibrator Type.....
Calibrator Cal. Date...
*****

```

METROSONICS db-3080 V1.12 SERIAL # 3907
 REPORT PRINTED ON 06/29/12 at 14:12:18

User ID: _____

```

LOGGING STARTED.....06/28/12 at 19:05:40
TOTAL LOGGING TIME...0 DAYS 00:15:33
LOGGING STOPPED.....06/28/12 at 19:21:13
TOTAL INTERVALS.....94
INTERVAL LENGTH.....00:00:10

```

```

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

```

```

PRE-TEST CALIBRATION TIME....06/28/12 AT 14:02:55
PRE-TEST CALIBRATION RANGE...38.8 TO 138.8 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

```

<<< SUMMARY REPORT FOR TEST NUMBER 5 OF 5 >>>

```

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

```

```

Lav..... 50.7dB
Lav ( 80)..... 38.8dB
Lav ( 90)..... 38.8dB
SEL..... 80.3dB

```

```

TWA..... 38.8dB
TWA ( 80)..... 38.8dB
TWA ( 90)..... 38.8dB

```

```

Lmax..... 56.7dB 06/28/12 at 19:18:44
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

```

DOSE (80)..... 0.00%
 PROJ. DOSE (80).. 0.00%
 DOSE (90)..... 0.00%
 PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 5 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
19:05:40	49.7	51.3	UNDER	50.8	48.8
19:05:50	48.4	49.2	UNDER	49.8	47.8
19:06:00	49.3	50.1	UNDER	50.8	48.8
19:06:10	52.0	53.7	UNDER	53.8	50.8
19:06:20	50.6	52.5	UNDER	52.8	49.8
19:06:30	50.6	51.2	UNDER	51.8	49.8
19:06:40	49.4	50.9	UNDER	50.8	48.8
19:06:50	50.9	52.1	UNDER	51.8	50.8
19:07:00	51.7	52.9	UNDER	52.8	49.8
19:07:10	47.7	49.1	UNDER	48.8	47.8
19:07:20	48.5	49.7	UNDER	49.8	47.8
19:07:30	49.2	50.0	UNDER	49.8	48.8
19:07:40	49.9	50.5	UNDER	50.8	49.8
19:07:50	50.3	50.9	UNDER	50.8	49.8
19:08:00	51.3	53.4	UNDER	52.8	50.8
19:08:10	53.6	54.8	UNDER	54.8	52.8
19:08:20	52.3	52.9	UNDER	52.8	51.8
19:08:30	50.7	51.7	UNDER	51.8	49.8
19:08:40	49.4	50.1	UNDER	49.8	48.8
19:08:50	48.6	49.7	UNDER	49.8	48.8
19:09:00	48.9	49.6	UNDER	49.8	48.8
19:09:10	48.8	49.5	UNDER	49.8	47.8
19:09:20	49.0	49.3	UNDER	49.8	48.8
19:09:30	51.4	53.3	UNDER	53.8	49.8
19:09:40	51.0	53.3	UNDER	52.8	50.8
19:09:50	51.8	54.7	UNDER	53.8	50.8
19:10:00	50.9	54.8	UNDER	52.8	49.8
19:10:10	51.4	52.0	UNDER	51.8	50.8
19:10:20	50.2	51.3	UNDER	51.8	49.8
19:10:30	50.0	50.4	UNDER	50.8	49.8
19:10:40	50.7	51.2	UNDER	51.8	50.8
19:10:50	49.2	50.1	UNDER	49.8	48.8
19:11:00	48.7	49.6	UNDER	49.8	48.8
19:11:10	49.3	50.1	UNDER	50.8	48.8
19:11:20	50.8	51.4	UNDER	51.8	50.8
19:11:30	51.3	52.1	UNDER	51.8	50.8
19:11:40	49.9	50.4	UNDER	50.8	49.8
19:11:50	50.3	50.9	UNDER	50.8	50.8
19:12:00	51.2	51.6	UNDER	51.8	50.8
19:12:10	51.0	51.3	UNDER	51.8	50.8
19:12:20	50.0	51.2	UNDER	50.8	48.8
19:12:30	48.9	49.5	UNDER	49.8	48.8
19:12:40	49.6	50.4	UNDER	50.8	48.8
19:12:50	49.7	50.1	UNDER	50.8	48.8
19:13:00	50.1	50.6	UNDER	50.8	49.8
19:13:10	50.4	51.2	UNDER	50.8	49.8
19:13:20	50.3	50.9	UNDER	50.8	49.8
19:13:30	51.5	52.3	UNDER	52.8	50.8
19:13:40	52.0	52.8	UNDER	52.8	51.8
19:13:50	50.7	51.2	UNDER	50.8	50.8
19:14:00	50.9	52.8	UNDER	52.8	50.8
19:14:10	52.0	52.9	UNDER	52.8	50.8

			01		
19:14:20	49.7	50.4	UNDER	50.8	49.8
19:14:30	51.0	52.0	UNDER	51.8	50.8
19:14:40	50.2	51.7	UNDER	51.8	48.8
19:14:50	50.1	50.9	UNDER	50.8	48.8
19:15:00	50.8	51.2	UNDER	51.8	50.8
19:15:10	50.8	51.3	UNDER	51.8	50.8
19:15:20	50.9	51.7	UNDER	51.8	50.8
19:15:30	51.0	51.9	UNDER	51.8	50.8
19:15:40	51.2	52.1	UNDER	52.8	50.8
19:15:50	51.0	51.6	UNDER	51.8	50.8
19:16:00	54.4	56.1	UNDER	55.8	51.8
19:16:10	50.9	51.7	UNDER	51.8	50.8
19:16:20	50.4	51.2	UNDER	50.8	49.8
19:16:30	51.1	53.0	UNDER	52.8	49.8
19:16:40	50.8	52.9	UNDER	52.8	48.8
19:16:50	48.7	50.4	UNDER	50.8	47.8
19:17:00	48.6	49.6	UNDER	48.8	48.8
19:17:10	48.7	50.0	UNDER	48.8	48.8
19:17:20	51.5	54.1	UNDER	52.8	49.8
19:17:30	51.5	54.1	UNDER	53.8	49.8
19:17:40	50.3	51.3	UNDER	51.8	49.8
19:17:50	52.3	54.9	UNDER	54.8	48.8
19:18:00	52.8	55.4	UNDER	55.8	47.8
19:18:10	48.7	49.3	UNDER	49.8	47.8
19:18:20	51.9	52.6	UNDER	52.8	49.8
19:18:30	52.7	54.5	UNDER	53.8	51.8
19:18:40	55.5	56.7	UNDER	56.8	53.8
19:18:50	51.6	53.2	UNDER	52.8	50.8
19:19:00	49.9	51.3	UNDER	50.8	48.8
19:19:10	49.6	50.5	UNDER	50.8	48.8
19:19:20	49.8	50.6	UNDER	50.8	48.8
19:19:30	50.5	51.7	UNDER	51.8	49.8
19:19:40	54.3	55.4	UNDER	55.8	51.8
19:19:50	48.2	51.3	UNDER	50.8	46.8
19:20:00	48.2	48.9	UNDER	48.8	47.8
19:20:10	47.1	48.7	UNDER	48.8	46.8
19:20:20	49.0	49.7	UNDER	49.8	48.8
19:20:30	49.2	50.5	UNDER	50.8	48.8
19:20:40	49.2	50.3	UNDER	49.8	48.8
19:20:50	49.5	50.5	UNDER	50.8	48.8
19:21:00	47.7	49.3	UNDER	48.8	46.8
19:21:10	49.3	50.1	UNDER	49.8	48.8

```

*****
Filename.....3905
Test Location.....
Employee Name.....
Employee Number.....
Department.....

```

```

Calibrator Type.....
Calibrator Cal. Date...
*****

```

```

METROSONICS db-3080 V1.20 SERIAL # 3905
REPORT PRINTED ON 06/29/12 at 14:12:50

```

User ID: _____

```

LOGGING STARTED.....06/28/12 at 19:05:40
TOTAL LOGGING TIME...0 DAYS 00:15:46
LOGGING STOPPED.....06/28/12 at 19:21:26
TOTAL INTERVALS.....95
INTERVAL LENGTH.....00:00:10

```

```

AUTO STOP.....NO
CLOCK SYNCH.....YES
RESPONSE RATE.....SLOW
FILTER.....A WT.

```

```

PRE-TEST CALIBRATION TIME....06/28/12 AT 14:02:42
PRE-TEST CALIBRATION RANGE...40.3 TO 140.3 dB
POST-TEST CALIBRATION NOT DONE
CUTOFF USED FOR TIME HISTORY Lav...NONE

```

<<< SUMMARY REPORT FOR TEST NUMBER 5 OF 5 >>>

```

EXCHANGE RATE.....3dB
CUTOFFS..... 80dB 90dB
CEILING.....115dB
DOSE CRITERION LEVEL... 90dB
DOSE CRITERION LENGTH.. 8 HOURS

```

```

Lav..... 64.5dB
Lav ( 80)..... 40.3dB
Lav ( 90)..... 40.3dB
SEL..... 94.2dB

```

```

TWA..... 49.7dB
TWA ( 80)..... 40.3dB
TWA ( 90)..... 40.3dB

```

```

Lmax..... 73.5dB 06/28/12 at 19:06:15
Lpk.....UNDER RANGE
TIME OVER 115dB...00:00:00.00

```

DOSE (80)..... 0.00%
 PROJ. DOSE (80).. 0.00%
 DOSE (90)..... 0.00%
 PROJ. DOSE (90).. 0.00%

<<< TIME HISTORY REPORT FOR TEST NUMBER 5 OF 5 >>>

TIME	Lav dBA	Lmax dBA	Lpk dBC	L(10.0) dBA	L(99.9) dBA
06/28/12					
19:05:40	66.5	69.1	UNDER	68.3	64.3
19:05:50	64.6	67.2	UNDER	66.3	61.3
19:06:00	67.2	69.0	UNDER	68.3	63.3
19:06:10	69.3	73.5	UNDER	72.3	65.3
19:06:20	61.7	66.0	UNDER	65.3	55.3
19:06:30	58.8	62.3	UNDER	62.3	55.3
19:06:40	60.9	64.7	UNDER	64.3	55.3
19:06:50	64.4	66.8	UNDER	66.3	62.3
19:07:00	64.7	66.4	UNDER	66.3	62.3
19:07:10	67.5	70.2	UNDER	69.3	63.3
19:07:20	69.1	71.6	UNDER	71.3	63.3
19:07:30	67.1	68.7	UNDER	68.3	64.3
19:07:40	62.4	64.4	UNDER	64.3	60.3
19:07:50	61.4	64.0	UNDER	63.3	59.3
19:08:00	54.5	60.0	UNDER	58.3	49.3
19:08:10	56.1	58.8	UNDER	58.3	50.3
19:08:20	59.8	63.4	UNDER	62.3	54.3
19:08:30	54.4	57.2	UNDER	56.3	50.3
19:08:40	62.9	66.5	UNDER	66.3	56.3
19:08:50	66.3	68.1	UNDER	68.3	62.3
19:09:00	66.6	68.4	UNDER	68.3	63.3
19:09:10	63.5	67.5	UNDER	66.3	57.3
19:09:20	65.5	68.0	UNDER	67.3	58.3
19:09:30	63.6	68.0	UNDER	67.3	55.3
19:09:40	57.0	60.8	UNDER	59.3	54.3
19:09:50	63.5	66.0	UNDER	65.3	59.3
19:10:00	58.5	60.6	UNDER	60.3	52.3
19:10:10	56.7	60.5	UNDER	60.3	52.3
19:10:20	62.4	66.0	UNDER	65.3	56.3
19:10:30	67.0	68.6	UNDER	68.3	65.3
19:10:40	66.7	68.4	UNDER	68.3	64.3
19:10:50	65.1	66.4	UNDER	66.3	62.3
19:11:00	65.5	68.3	UNDER	68.3	63.3
19:11:10	65.0	68.0	UNDER	67.3	60.3
19:11:20	65.8	67.2	UNDER	66.3	63.3
19:11:30	64.9	67.1	UNDER	66.3	57.3
19:11:40	54.4	56.9	UNDER	56.3	52.3
19:11:50	55.3	58.5	UNDER	57.3	52.3
19:12:00	60.6	62.0	UNDER	61.3	58.3
19:12:10	61.4	63.6	UNDER	63.3	58.3
19:12:20	64.6	67.0	UNDER	66.3	61.3
19:12:30	64.1	66.0	UNDER	65.3	62.3
19:12:40	64.8	66.5	UNDER	66.3	62.3
19:12:50	67.9	69.1	UNDER	68.3	65.3
19:13:00	64.4	66.4	UNDER	65.3	62.3
19:13:10	64.6	66.4	UNDER	66.3	63.3
19:13:20	64.2	66.4	UNDER	66.3	61.3
19:13:30	62.9	64.7	UNDER	64.3	55.3
19:13:40	57.1	58.4	UNDER	58.3	53.3
19:13:50	60.3	62.3	UNDER	62.3	57.3
19:14:00	64.3	67.2	UNDER	66.3	57.3
19:14:10	66.2	68.6	UNDER	68.3	62.3

			P1		
19:14:20	64.6	66.8	UNDER	65.3	62.3
19:14:30	66.2	68.0	UNDER	67.3	63.3
19:14:40	66.3	68.8	UNDER	68.3	63.3
19:14:50	64.4	66.4	UNDER	65.3	62.3
19:15:00	65.8	66.8	UNDER	66.3	64.3
19:15:10	65.9	68.8	UNDER	68.3	63.3
19:15:20	65.5	68.8	UNDER	67.3	63.3
19:15:30	64.0	66.8	UNDER	66.3	60.3
19:15:40	65.2	68.8	UNDER	68.3	61.3
19:15:50	65.9	69.2	UNDER	69.3	62.3
19:16:00	60.9	65.6	UNDER	63.3	56.3
19:16:10	59.3	62.0	UNDER	61.3	57.3
19:16:20	62.7	64.5	UNDER	64.3	58.3
19:16:30	64.2	66.2	UNDER	66.3	60.3
19:16:40	63.7	65.6	UNDER	64.3	61.3
19:16:50	63.4	65.2	UNDER	65.3	60.3
19:17:00	59.6	62.4	UNDER	62.3	56.3
19:17:10	57.0	59.6	UNDER	59.3	53.3
19:17:20	62.3	65.2	UNDER	64.3	57.3
19:17:30	66.9	69.9	UNDER	69.3	62.3
19:17:40	66.4	68.2	UNDER	67.3	63.3
19:17:50	69.6	71.1	UNDER	70.3	67.3
19:18:00	66.9	70.0	UNDER	69.3	63.3
19:18:10	66.4	67.8	UNDER	67.3	63.3
19:18:20	63.9	67.6	UNDER	66.3	62.3
19:18:30	65.2	67.8	UNDER	67.3	62.3
19:18:40	61.6	64.4	UNDER	64.3	58.3
19:18:50	63.8	67.6	UNDER	66.3	60.3
19:19:00	63.2	68.1	UNDER	67.3	54.3
19:19:10	58.8	62.0	UNDER	61.3	53.3
19:19:20	59.4	61.7	UNDER	61.3	56.3
19:19:30	64.7	67.2	UNDER	67.3	60.3
19:19:40	64.6	67.4	UNDER	67.3	61.3
19:19:50	64.3	65.8	UNDER	65.3	62.3
19:20:00	65.9	68.2	UNDER	68.3	62.3
19:20:10	60.8	64.8	UNDER	64.3	55.3
19:20:20	65.2	67.2	UNDER	66.3	61.3
19:20:30	63.3	67.2	UNDER	67.3	54.3
19:20:40	56.6	58.5	UNDER	58.3	55.3
19:20:50	58.2	59.6	UNDER	59.3	56.3
19:21:00	67.6	72.3	UNDER	72.3	57.3
19:21:10	68.3	72.0	UNDER	71.3	64.3
19:21:20	67.3	68.0	UNDER	68.3	66.3

Appendix D

TRAFFIC DATA SUMMARY

Table 2 - Route 29 Bypass - Average Daily Traffic (ADT) Summary

Segment	Link Description	2011 Existing		2015 No-Build		2015 Build		2040 No-Build		2040 Build		
		ADT	% Trucks	ADT	% Trucks	ADT	% Trucks	ADT	% Trucks	ADT	% Trucks	
Route 29 Bypass Corridor	67	Route 250 Bypass WB (btwn Hydraulic Rd & Emmet St)	11,500	2.0%	12,314	0.02	11,927	2.0%	16,364	0.02	15,977	0.02
	68	Route 250 Bypass EB (btwn Hydraulic Rd & Emmet St)	11,500	2.0%	12,314	0.02	11,927	2.0%	16,364	0.02	15,977	0.02
	69	Route 250 Bypass WB (btwn Emmet St & Barracks Rd)	19,000	3.0%	20,717	0.03	13,026	3.0%	29,329	0.03	20,315	0.03
	70	Route 250 Bypass EB (btwn Emmet St & Barracks Rd)	19,000	3.0%	20,717	0.03	13,026	3.0%	29,329	0.03	20,315	0.03
	77	L. Sandbridge Rd NB, south of 29	500	3.0%	503	3.0%	1,236	3.0%	3,028	3.0%	3,761	3.0%
	78	L. Sandbridge Rd SB, south of 29	500	3.0%	503	3.0%	1,236	3.0%	3,028	3.0%	3,761	3.0%
	109	Route 250 Bypass WB (btwn Barracks Rd & Prop Route 29 Bypass)	24,000	3.0%	25,888	3.0%	17,122	3.0%	35,325	3.0%	26,559	3.0%
	110	Route 250 Bypass EB (btwn Bararcks Rd & Prop Route 29 Bypass)	24,000	3.0%	25,888	3.0%	17,122	3.0%	35,325	3.0%	26,559	3.0%
	111	29 NB south of the Bypass (between Fontaine and Ivy)	21,000	7.0%	23,115	7.0%	24,162	7.0%	33,702	7.0%	34,750	7.0%
	112	29 SB south of the Bypass (between Fontaine and Ivy)	21,000	7.0%	23,115	7.0%	24,162	7.0%	33,702	7.0%	34,750	7.0%
	113	Ivy Rd EB (btwn Rt 250 Bypass & Alderman Rd)	8,000	1.0%	7,711	1.0%	7,171	1.0%	6,261	1.0%	5,721	1.0%
	114	Ivy Rd WB (btwn Rt 250 Bypass & Alderman Rd)	8,000	1.0%	7,711	1.0%	7,171	1.0%	6,261	1.0%	5,721	1.0%
	115	Ivy Rd WB (btwn Rt 846 & Golf Course Dr)	7,000	2.0%	7,518	2.0%	7,638	2.0%	10,118	2.0%	10,238	2.0%
	116	Ivy Rd EB (btwn Rt 846 & Golf Course Dr)	7,000	2.0%	7,518	2.0%	7,638	2.0%	10,118	2.0%	10,238	2.0%
	117	Old Ivy Rd EB (btwn Crestwood Rd & Harvest Dr)	2,750	1.0%	2,773	1.0%	2,703	1.0%	2,860	1.0%	2,790	1.0%
	118	Old Ivy Rd WB (btwn Crestwood Rd & Harvest Dr)	2,750	1.0%	2,773	1.0%	2,703	1.0%	2,860	1.0%	2,790	1.0%
	119	Proposed Bypass NB (South Terminus to North Terminus)					8,900	3.0%			13,899	3.0%
	120	Proposed Bypass SB (North Terminus to South Terminus)					8,900	3.0%			13,899	3.0%
	152	AB-AC: Off-Ramp from 29 NB to L. Sandridge Rd (diamond)					557	3.0%			762	3.0%
	163	AB-AJ: 29 NB to Proposed Bypass NB (flyover)					8,144	3.0%			10,135	3.0%
	153	AC-AD: On-Ramp from L. Sandridge Rd to 250 NB (diamond)					394	3.0%			1,930	3.0%
	154	AA-AD: 250 Bypass NB (thru lanes) from 29 NB Bypass diverge to On-Ramp from L. Sandridge Rd					16,920	3.0%			24,537	3.0%
	157	AE-AH: 250 Bypass SB (thru lanes) from Off-Ramp to L. Sandridge Rd to 29 SB Bypass merge					16,498	3.0%			23,047	3.0%
	158	AH-AG: 250 Bypass SB (thru lanes) from 29 SB Bypass merge to On-Ramp from L. Sandridge Rd					24,901	3.0%			34,301	3.0%
	155	AE-AF: Off-Ramp from 250 SB to L. Sandridge Rd (diamond)					799	3.0%			3,435	3.0%
	156	AF-AG: On-Ramp from L. Sandridge Rd to 29 SB (diamond)					708	3.0%			1,144	3.0%
	164	AI-AH: Proposed Bypass SB to 29 SB (flyover)					8,403	3.0%			11,254	3.0%
	151	AA-AB: 250 NB to Split					8,701	3.0%			10,897	3.0%
	159	AC-AF: L. Sandridge Rd NB, between Ramps					1,112	3.0%			3,066	3.0%
	160	AF-AC: L. Sandridge Rd SB, between Ramps					946	3.0%			4,238	3.0%
	161	AF-AJ: L. Sandridge Rd NB ramp to Proposed Bypass NB					843	3.0%			3,728	3.0%
	162	AI-AF: Proposed Bypass SB ramp to L. Sandridge Rd SB					586	3.0%			2,609	3.0%
	109	Route 250 SB/WB Mainline (btwn Ivy Rd & Barracks Rd) - Ex & NB	24,000	3.0%	25,888	3.0%			35,325	3.0%		
	151	Route 250 SB/WB Mainline (btwn Ivy Rd & 29 Bypass) - Build					25,609	3.0%			35,445	3.0%
	110	Route 250 NB/EB Mainline (btwn Ivy Rd & L. Sandridge Rd) - Ex & NB	24,000	3.0%	25,888	3.0%			35,325	3.0%		
	110	Route 250 NB/EB Mainline (btwn L. Sandridge Rd & Barracks Rd) - Ex & NB	24,000	3.0%	25,888	3.0%			35,325	3.0%		
	158	Route 250 NB/EB Mainline (btwn Ivy Rd & 29 Bypass) - Build					25,621	3.0%			35,434	3.0%
	191	Route 250 SB Off-Ramp (loop) to Ivy Rd	6,315	1.0%	6,341	1.0%	5,706	1.0%	6,631	1.0%	6,073	1.0%
	192	Route 250 SB On-Ramp from Ivy Rd	3,353	1.0%	3,612	1.0%	4,011	1.0%	5,058	1.0%	5,516	1.0%
	193	Route 250 NB Off-Ramp to Ivy Rd	3,353	1.0%	3,612	1.0%	4,010	1.0%	5,057	1.0%	5,516	1.0%
	194	Route 250 NB On-Ramp (loop) from Ivy Rd	6,314	1.0%	6,341	1.0%	5,706	1.0%	6,631	1.0%	6,073	1.0%
	119	Proposed Bypass NB (South Terminus to North Terminus)					8,900	3.0%			13,899	3.0%
	120	Proposed Bypass SB (North Terminus to South Terminus)					8,900	3.0%			13,899	3.0%
	136	Ramp 136: Prop Bypass NB to US 29 SB					972	3.0%			4,464	3.0%
	135	Ramp 135: Prop Bypass NB to US 29 NB					7,993	3.0%			9,424	3.0%
133	Ramp 133: US 29 SB to Prop Bypass SB					7,965	3.0%			9,321	3.0%	
134	Ramp 134: US 29 NB to Prop Bypass SB (left-exit ramp)					1,003	3.0%			4,565	3.0%	
2	29 NB, north of Prop Bypass (south of Hollymead)	24,000	3.0%	25,547	3.0%	29,704	3.0%	33,272	3.0%	37,429	3.0%	
1	29 SB, north of Prop Bypass (south of Hollymead)	24,000	3.0%	25,547	3.0%	29,704	3.0%	33,272	3.0%	37,429	3.0%	
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	24,000	3.0%	26,089	3.0%	22,255	3.0%	36,539	3.0%	32,705	3.0%	
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	24,000	3.0%	26,089	3.0%	22,255	3.0%	36,539	3.0%	32,705	3.0%	
130	29 Seminole Tr between ramps (NB)					8,900	3.0%			13,899	3.0%	
131	29 Seminole Tr between ramps (SB)					21,441	3.0%			28,085	3.0%	
Existing Route 29	109	29/250: Prop Bypass to Barracks Road (SB)	24,000	3.0%	25,888	3.0%	17,122	3.0%	35,325	3.0%	26,559	3.0%
	70	29/250: Barracks Road to Emmet Street (NB)	19,000	3.0%	20,717	3.0%	13,026	3.0%	29,329	3.0%	20,315	3.0%
	69	29/250: Barracks Road to Emmet Street (SB)	19,000	3.0%	20,717	3.0%	13,026	3.0%	29,329	3.0%	20,315	3.0%
	21	29 Seminole Tr: US 250 to Angus Rd (NB)	26,000	3.0%	28,827	3.0%	18,671	3.0%	42,939	3.0%	32,783	3.0%
	22	29 Seminole Tr: US 250 to Angus Rd (SB)	26,000	3.0%	28,827	3.0%	18,671	3.0%	42,939	3.0%	32,783	3.0%
	19	29 Seminole Tr: Angus Rd to Hydraulic Rd (NB)	26,000	3.0%	28,609	3.0%	18,506	3.0%	41,646	3.0%	31,544	3.0%
	20	29 Seminole Tr: Angus Rd to Hydraulic Rd (SB)	26,000	3.0%	28,609	3.0%	18,506	3.0%	41,646	3.0%	31,544	3.0%
	17	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (NB)	28,500	3.0%	30,692	3.0%	22,902	3.0%	41,642	3.0%	33,852	3.0%
	18	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (SB)	28,500	3.0%	30,692	3.0%	22,902	3.0%	41,642	3.0%	33,852	3.0%
	15	29 Seminole Tr: Greenbrier Dr to Dominion Dr (NB)	28,500	3.0%	30,780	3.0%	20,063	3.0%	42,180	3.0%	31,463	3.0%
	16	29 Seminole Tr: Greenbrier Dr to Dominion Dr (SB)	28,500	3.0%	30,780	3.0%	20,063	3.0%	42,180	3.0%	31,463	3.0%
	13	29 Seminole Tr: Dominion Dr to Berkmar Dr (NB)	28,500	3.0%	30,446	3.0%	19,519	3.0%	40,158	3.0%	29,231	3.0%
	14	29 Seminole Tr: Dominion Dr to Berkmar Dr (SB)	28,500	3.0%	30,446	3.0%	19,519	3.0%	40,158	3.0%	29,231	3.0%
	11	29 Seminole Tr: Berkmar Dr to Rio Rd (NB)	24,000	3.0%	25,498	3.0%	18,108	3.0%	32,973	3.0%	25,583	3.0%
	12	29 Seminole Tr: Berkmar Dr to Rio Rd (SB)	24,000	3.0%	25,498	3.0%	18,108	3.0%	32,973	3.0%	25,583	3.0%
	9	29 Seminole Tr: Rio Rd to Woodbrook Dr (NB)	24,000	3.0%	26,753	3.0%	20,522	3.0%	40,528	3.0%	34,297	3.0%
	10	29 Seminole Tr: Rio Rd to Woodbrook Dr (SB)	24,000	3.0%	26,753	3.0%	20,522	3.0%	40,528	3.0%	34,297	3.0%
	7	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hghts (NB)	24,000	3.0%	26,389	3.0%	20,267	3.0%	38,339	3.0%	32,217	3.0%
	8	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hghts (SB)	24,000	3.0%	26,389	3.0%	20,267	3.0%	38,339	3.0%	32,217	3.0%
	5	29 Seminole Tr: Carrsbrook/Hilton Hghts to Polo Grounds (NB)	24,000	3.0%	26,307	3.0%	20,230	3.0%	37,832	3.0%	31,755	3.0%
6	29 Seminole Tr: Carrsbrook/Hilton Hghts to Polo Grounds (SB)	24,000	3.0%	26,307	3.0%	20,230	3.0%	37,832	3.0%	31,755	3.0%	
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	24,000	3.0%	26,089	3.0%	22,255	3.0%	36,539	3.0%	32,705	3.0%	
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	24,000	3.0%	26,089	3.0%	22,255	3.0%	36,539	3.0%	32,705	3.0%	

Charlottesville Bypass Traffic - Cross Streets

Segment	Link Description	Diurnal Curve	2011 Existing		AM Peak Hour					PM Peak Hour						
			ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
84	Barracks Road EB (Btwn Garth Rd & Georgetown Rd)	K5	3,200	1.0%	10.1%	324	3	321	1	2	9.6%	306	3	303	1	2
83	Barracks Road WB (Btwn Garth Rd & Georgetown Rd)	K6	3,200	1.0%	7.5%	239	2	237	1	1	11.0%	350	4	347	1	3
99	Lambs Road NB (Btwn Hydraulic Rd & Ivy Ridge Rd)	K10	2,450	1.0%	5.1%	126	1	125	0	1	11.5%	282	3	279	1	2
100	Lambs Road SB (Btwn Hydraulic Rd & Ivy Ridge Rd)	K9	2,450	1.0%	12.9%	316	3	313	1	2	6.0%	146	1	145	0	1
	Roslyn Ridge Rd [NOT IN MODEL]		160	1.0%	10.0%	16	0	16	0	0	10.0%	16	0	16	0	0
105	Earlysville Rd NB (Btwn Hydraulic Rd & Woodland Rd)	K10	6,000	1.0%	5.1%	308	3	305	1	2	11.5%	690	7	683	2	5
106	Earlysville Rd SB (Btwn Hydraulic Rd & Woodland Rd)	K9	6,000	1.0%	12.9%	775	8	767	2	6	6.0%	358	4	354	1	3
	Woodburn Road [NOT IN MODEL]		840	1.0%	10.0%	84	1	83	0	1	10.0%	84	1	83	0	1
Parallel Routes																
41	Berkmar Drive NB (Btwn Woodbrook Dr & Hilton Heights Rd)	K10	4,550	3.0%	5.1%	233	7	226	2	5	11.5%	523	16	507	4	12
42	Berkmar Drive SB (Btwn Woodbrook Dr & Hilton Heights Rd)	K9	4,550	3.0%	12.9%	588	18	570	4	14	6.0%	271	8	263	2	6
45	Berkmar Drive SB (btwn Woodbrook Dr & Rio Road)	K9	9,500	3.0%	12.9%	1,227	37	1,190	9	28	6.0%	567	17	550	4	13
46	Berkmar Drive NB (btwn Woodbrook Dr & Rio Road)	K10	9,500	1.0%	5.1%	487	5	482	1	4	11.5%	1,092	11	1,081	3	8
51	Rio Road EB (btwn 4 Seasons Dr & Berkmar Dr)	K5	8,500	1.0%	10.1%	860	9	851	2	7	9.6%	813	8	805	2	6
52	Rio Road WB (btwn 4 Seasons Dr & Berkmar Dr)	K6	8,500	1.0%	7.5%	635	6	629	2	4	11.0%	931	9	922	2	7
101	Hydraulic Road SB (Btwn Earlysville Rd & Lambs Rd)	K5	10,500	1.0%	10.1%	1,063	11	1,052	3	8	9.6%	1,005	10	995	3	7
102	Hydraulic Road NB (Btwn Earlysville Rd & Lambs Rd)	K6	10,500	1.0%	7.5%	784	8	776	2	6	11.0%	1,150	12	1,139	3	9
103	Rio Rd EB (Btwn Earlysville Rd & 4 Seasons Dr)	K5	8,500	1.0%	10.1%	860	9	851	2	7	9.6%	813	8	805	2	6
104	Rio Rd WB (Btwn Earlysville Rd & 4 Seasons Dr)	K6	8,500	1.0%	7.5%	635	6	629	2	4	11.0%	931	9	922	2	7

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Charlottesville Bypass Traffic - Cross Streets

Segment	Link Description	2015 No-Build		AM Peak Hour					PM Peak Hour						
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
84	Barracks Road EB (Btwn Garth Rd & Georgetown Rd)	4,005	1.0%	10.1%	405	4	401	1	3	9.6%	383	4	379	1	3
83	Barracks Road WB (Btwn Garth Rd & Georgetown Rd)	4,005	1.0%	7.5%	299	3	296	1	2	11.0%	439	4	435	1	3
99	Lambs Road NB (Btwn Hydraulic Rd & Ivy Ridge Rd)	2,903	1.0%	5.1%	149	1	148	0	1	11.5%	334	3	331	1	2
100	Lambs Road SB (Btwn Hydraulic Rd & Ivy Ridge Rd)	2,903	1.0%	12.9%	375	4	371	1	3	6.0%	173	2	171	0	2
	Roslyn Ridge Rd [NOT IN MODEL]	160	1.0%	10.0%	16	0	16	0	0	10.0%	16	0	16	0	0
105	Earlysville Rd NB (Btwn Hydraulic Rd & Woodland Rd)	6,063	1.0%	5.1%	311	3	308	1	2	11.5%	697	7	690	2	5
106	Earlysville Rd SB (Btwn Hydraulic Rd & Woodland Rd)	6,063	1.0%	12.9%	783	8	775	2	6	6.0%	362	4	358	1	3
	Woodburn Road [NOT IN MODEL]	840	1.0%	10.0%	84	1	83	0	1	10.0%	84	1	83	0	1
	Parallel Routes														
41	Berkmar Drive NB (Btwn Woodbrook Dr & Hilton Heights Rd)	5,583	3.0%	5.1%	286	9	277	2	7	11.5%	642	19	623	5	14
42	Berkmar Drive SB (Btwn Woodbrook Dr & Hilton Heights Rd)	5,583	3.0%	12.9%	721	22	699	5	17	6.0%	333	10	323	2	8
45	Berkmar Drive SB (btwn Woodbrook Dr & Rio Road)	9,726	3.0%	12.9%	1,256	38	1,218	9	29	6.0%	580	17	563	4	13
46	Berkmar Drive NB (btwn Woodbrook Dr & Rio Road)	9,726	1.0%	5.1%	499	5	494	1	4	11.5%	1,118	11	1,107	3	8
51	Rio Road EB (btwn 4 Seasons Dr & Berkmar Dr)	8,184	1.0%	10.1%	828	8	820	2	6	9.6%	783	8	775	2	6
52	Rio Road WB (btwn 4 Seasons Dr & Berkmar Dr)	8,184	1.0%	7.5%	611	6	605	2	4	11.0%	896	9	887	2	7
101	Hydraulic Road SB (Btwn Earlysville Rd & Lambs Rd)	10,652	1.0%	10.1%	1,078	11	1,067	3	8	9.6%	1,019	10	1,009	3	7
102	Hydraulic Road NB (Btwn Earlysville Rd & Lambs Rd)	10,652	1.0%	7.5%	796	8	788	2	6	11.0%	1,167	12	1,155	3	9
103	Rio Rd EB (Btwn Earlysville Rd & 4 Seasons Dr)	8,191	1.0%	10.1%	829	8	821	2	6	9.6%	784	8	776	2	6
104	Rio Rd WB (Btwn Earlysville Rd & 4 Seasons Dr)	8,191	1.0%	7.5%	612	6	606	2	4	11.0%	897	9	888	2	7

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Charlottesville Bypass Traffic - Cross Streets

Segment	Link Description	2015 Build		AM Peak Hour					PM Peak Hour						
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
84	Barracks Road EB (Btwn Garth Rd & Georgetown Rd)	4,114	1.0%	10.1%	416	4	412	1	3	9.6%	394	4	390	1	3
83	Barracks Road WB (Btwn Garth Rd & Georgetown Rd)	4,114	1.0%	7.5%	307	3	304	1	2	11.0%	451	5	446	1	4
99	Lambs Road NB (Btwn Hydraulic Rd & Ivy Ridge Rd)	2,670	1.0%	5.1%	137	1	136	0	1	11.5%	307	3	304	1	2
100	Lambs Road SB (Btwn Hydraulic Rd & Ivy Ridge Rd)	2,670	1.0%	12.9%	345	3	342	1	2	6.0%	159	2	157	0	2
	Roslyn Ridge Rd [NOT IN MODEL]	160	1.0%	10.0%	16	0	16	0	0	10.0%	16	0	16	0	0
105	Earlysville Rd NB (Btwn Hydraulic Rd & Woodland Rd)	5,158	1.0%	5.1%	264	3	261	1	2	11.5%	593	6	587	1	5
106	Earlysville Rd SB (Btwn Hydraulic Rd & Woodland Rd)	5,158	1.0%	12.9%	666	7	659	2	5	6.0%	308	3	305	1	2
	Woodburn Road [NOT IN MODEL]	840	1.0%	10.0%	84	1	83	0	1	10.0%	84	1	83	0	1
	Parallel Routes														
41	Berkmar Drive NB (Btwn Woodbrook Dr & Hilton Heights Rd)	2,395	3.0%	5.1%	123	4	119	1	3	11.5%	275	8	267	2	6
42	Berkmar Drive SB (Btwn Woodbrook Dr & Hilton Heights Rd)	2,395	3.0%	12.9%	309	9	300	2	7	6.0%	143	4	139	1	3
45	Berkmar Drive SB (btwn Woodbrook Dr & Rio Road)	3,718	3.0%	12.9%	480	14	466	4	10	6.0%	222	7	215	2	5
46	Berkmar Drive NB (btwn Woodbrook Dr & Rio Road)	3,718	3.0%	5.1%	191	6	185	1	5	11.5%	427	13	414	3	10
51	Rio Road EB (btwn 4 Seasons Dr & Berkmar Dr)	7,431	1.0%	10.1%	752	8	744	2	6	9.6%	711	7	704	2	5
52	Rio Road WB (btwn 4 Seasons Dr & Berkmar Dr)	7,431	1.0%	7.5%	555	6	549	1	5	11.0%	814	8	806	2	6
101	Hydraulic Road SB (Btwn Earlysville Rd & Lambs Rd)	9,132	1.0%	10.1%	924	9	915	2	7	9.6%	874	9	865	2	7
102	Hydraulic Road NB (Btwn Earlysville Rd & Lambs Rd)	9,132	1.0%	7.5%	682	7	675	2	5	11.0%	1,000	10	990	3	7
103	Rio Rd EB (Btwn Earlysville Rd & 4 Seasons Dr)	7,442	1.0%	10.1%	753	8	745	2	6	9.6%	712	7	705	2	5
104	Rio Rd WB (Btwn Earlysville Rd & 4 Seasons Dr)	7,442	1.0%	7.5%	556	6	550	1	5	11.0%	815	8	807	2	6

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Charlottesville Bypass Traffic - Cross Streets

Segment	Link Description	2040 No-Build		AM Peak Hour					PM Peak Hour						
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
84	Barracks Road EB (Btwn Garth Rd & Georgetown Rd)	8,055	1.0%	10.1%	815	8	807	2	6	9.6%	771	8	763	2	6
83	Barracks Road WB (Btwn Garth Rd & Georgetown Rd)	8,055	1.0%	7.5%	602	6	596	2	4	11.0%	882	9	873	2	7
99	Lambs Road NB (Btwn Hydraulic Rd & Ivy Ridge Rd)	5,153	1.0%	5.1%	264	3	261	1	2	11.5%	592	6	586	1	5
100	Lambs Road SB (Btwn Hydraulic Rd & Ivy Ridge Rd)	5,153	1.0%	12.9%	666	7	659	2	5	6.0%	307	3	304	1	2
	Roslyn Ridge Rd [NOT IN MODEL]	160	1.0%	10.0%	16	0	16	0	0	10.0%	16	0	16	0	0
105	Earlsville Rd NB (Btwn Hydraulic Rd & Woodland Rd)	6,375	1.0%	5.1%	327	3	324	1	2	11.5%	733	7	726	2	5
106	Earlsville Rd SB (Btwn Hydraulic Rd & Woodland Rd)	6,375	1.0%	12.9%	823	8	815	2	6	6.0%	380	4	376	1	3
	Woodburn Road [NOT IN MODEL]	840	1.0%	10.0%	84	1	83	0	1	10.0%	84	1	83	0	1
	Parallel Routes														
41	Berkmar Drive NB (Btwn Woodbrook Dr & Hilton Heights Rd)	10,745	3.0%	5.1%	551	17	534	4	13	11.5%	1,235	37	1,198	9	28
42	Berkmar Drive SB (Btwn Woodbrook Dr & Hilton Heights Rd)	10,745	3.0%	12.9%	1,388	42	1,346	10	32	6.0%	641	19	622	5	14
45	Berkmar Drive SB (btwn Woodbrook Dr & Rio Road)	10,839	3.0%	12.9%	1,400	42	1,358	11	31	6.0%	646	19	627	5	14
46	Berkmar Drive NB (btwn Woodbrook Dr & Rio Road)	10,839	1.0%	5.1%	556	6	550	1	5	11.5%	1,246	12	1,234	3	9
51	Rio Road EB (btwn 4 Seasons Dr & Berkmar Dr)	6,571	1.0%	10.1%	665	7	658	2	5	9.6%	629	6	623	2	4
52	Rio Road WB (btwn 4 Seasons Dr & Berkmar Dr)	6,571	1.0%	7.5%	491	5	486	1	4	11.0%	720	7	713	2	5
101	Hydraulic Road SB (Btwn Earlsville Rd & Lambs Rd)	11,415	1.0%	10.1%	1,155	12	1,143	3	9	9.6%	1,092	11	1,081	3	8
102	Hydraulic Road NB (Btwn Earlsville Rd & Lambs Rd)	11,415	1.0%	7.5%	853	9	844	2	7	11.0%	1,250	13	1,238	3	10
103	Rio Rd EB (Btwn Earlsville Rd & 4 Seasons Dr)	6,616	1.0%	10.1%	670	7	663	2	5	9.6%	633	6	627	2	4
104	Rio Rd WB (Btwn Earlsville Rd & 4 Seasons Dr)	6,616	1.0%	7.5%	494	5	489	1	4	11.0%	725	7	718	2	5

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Charlottesville Bypass Traffic - Cross Streets

Segment	Link Description	2040 Build		AM Peak Hour					PM Peak Hour						
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
84	Barracks Road EB (Btwn Garth Rd & Georgetown Rd)	8,164	1.0%	10.1%	826	8	818	2	6	9.6%	781	8	773	2	6
83	Barracks Road WB (Btwn Garth Rd & Georgetown Rd)	8,164	1.0%	7.5%	610	6	604	2	4	11.0%	894	9	885	2	7
99	Lambs Road NB (Btwn Hydraulic Rd & Ivy Ridge Rd)	4,920	1.0%	5.1%	252	3	249	1	2	11.5%	566	6	560	1	5
100	Lambs Road SB (Btwn Hydraulic Rd & Ivy Ridge Rd)	4,920	1.0%	12.9%	636	6	630	2	4	6.0%	293	3	290	1	2
	Roslyn Ridge Rd [NOT IN MODEL]	160	1.0%	10.0%	16	0	16	0	0	10.0%	16	0	16	0	0
105	Earlysville Rd NB (Btwn Hydraulic Rd & Woodland Rd)	5,471	1.0%	5.1%	281	3	278	1	2	11.5%	629	6	623	2	4
106	Earlysville Rd SB (Btwn Hydraulic Rd & Woodland Rd)	5,471	1.0%	12.9%	707	7	700	2	5	6.0%	326	3	323	1	2
	Woodburn Road [NOT IN MODEL]	840	1.0%	10.0%	84	1	83	0	1	10.0%	84	1	83	0	1
	Parallel Routes														
41	Berkmar Drive NB (Btwn Woodbrook Dr & Hilton Heights Rd)	4,610	3.0%	5.1%	236	7	229	2	5	11.5%	530	16	514	4	12
42	Berkmar Drive SB (Btwn Woodbrook Dr & Hilton Heights Rd)	4,610	3.0%	12.9%	595	18	577	4	14	6.0%	275	8	267	2	6
45	Berkmar Drive SB (btwn Woodbrook Dr & Rio Road)	4,830	3.0%	12.9%	624	19	605	5	14	6.0%	288	9	279	2	7
46	Berkmar Drive NB (btwn Woodbrook Dr & Rio Road)	4,830	3.0%	5.1%	248	7	241	2	5	11.5%	555	17	538	4	13
51	Rio Road EB (btwn 4 Seasons Dr & Berkmar Dr)	5,819	1.0%	10.1%	589	6	583	1	5	9.6%	557	6	551	1	5
52	Rio Road WB (btwn 4 Seasons Dr & Berkmar Dr)	5,819	1.0%	7.5%	435	4	431	1	3	11.0%	637	6	631	2	4
101	Hydraulic Road SB (Btwn Earlysville Rd & Lambs Rd)	9,895	1.0%	10.1%	1,002	10	992	3	7	9.6%	947	9	938	2	7
102	Hydraulic Road NB (Btwn Earlysville Rd & Lambs Rd)	9,895	1.0%	7.5%	739	7	732	2	5	11.0%	1,084	11	1,073	3	8
103	Rio Rd EB (Btwn Earlysville Rd & 4 Seasons Dr)	5,867	1.0%	10.1%	594	6	588	1	5	9.6%	561	6	555	1	5
104	Rio Rd WB (Btwn Earlysville Rd & 4 Seasons Dr)	5,867	1.0%	7.5%	438	4	434	1	3	11.0%	643	6	637	2	4

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Charlottesville Bypass Traffic - Northern Terminus Area

Segment	Link Description	Diurnal Curve	2011 Existing		AM Peak Hour					PM Peak Hour						
			ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
119	Proposed Bypass NB (South Terminus to North Terminus)	K2														
120	Proposed Bypass SB (North Terminus to South Terminus)	K1														
136	Ramp 136: Prop Bypass NB to US 29 SB	K2														
135	Ramp 135: Prop Bypass NB to US 29 NB	K2														
133	Ramp 133: US 29 SB to Prop Bypass SB	K1														
134	Ramp 134: US 29 NB to Prop Bypass SB (left-exit ramp)	K1														
2	29 NB, north of Prop Bypass (south of Hollymead)	K1	24,000	3.0%	6.2%	1,480	44	1,436	11	33	9.3%	2,228	67	2,161	17	50
1	29 SB, north of Prop Bypass (south of Hollymead)	K2	24,000	3.0%	7.2%	1,728	52	1,676	13	39	7.8%	1,865	56	1,809	14	42
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	K2	24,000	3.0%	7.2%	1,728	52	1,676	13	39	7.8%	1,865	56	1,809	14	42
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	K1	24,000	3.0%	6.2%	1,480	44	1,436	11	33	9.3%	2,228	67	2,161	17	50
130	29 Seminole Tr between ramps (NB)	K1														
131	29 Seminole Tr between ramps (SB)	K2														

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Northern Terminus Area

Segment	Link Description	2015 No-Build		AM Peak Hour					PM Peak Hour						
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
119	Proposed Bypass NB (South Terminus to North Terminus)														
120	Proposed Bypass SB (North Terminus to South Terminus)														
136	Ramp 136: Prop Bypass NB to US 29 SB														
135	Ramp 135: Prop Bypass NB to US 29 NB														
133	Ramp 133: US 29 SB to Prop Bypass SB														
134	Ramp 134: US 29 NB to Prop Bypass SB (left-exit ramp)														
2	29 NB, north of Prop Bypass (south of Hollymead)	25,547	3.0%	6.2%	1,576	47	1,529	12	35	9.3%	2,371	71	2,300	18	53
1	29 SB, north of Prop Bypass (south of Hollymead)	25,547	3.0%	7.2%	1,840	55	1,785	14	41	7.8%	1,986	60	1,926	15	45
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	26,089	3.0%	7.2%	1,879	56	1,823	14	42	7.8%	2,028	61	1,967	15	46
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	26,089	3.0%	6.2%	1,609	48	1,561	12	36	9.3%	2,422	73	2,349	18	55
130	29 Seminole Tr between ramps (NB)														
131	29 Seminole Tr between ramps (SB)														

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Northern Terminus Area

Segment	Link Description	2015 Build		AM Peak Hour					PM Peak Hour						
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
119	Proposed Bypass NB (South Terminus to North Terminus)	8,900	3.0%	7.2%	641	19	622	5	14	7.8%	692	21	671	5	16
120	Proposed Bypass SB (North Terminus to South Terminus)	8,900	3.0%	6.2%	549	16	533	4	12	9.3%	826	25	801	6	19
136	Ramp 136: Prop Bypass NB to US 29 SB	972	3.0%	7.2%	70	2	68	1	1	7.8%	76	2	74	1	1
135	Ramp 135: Prop Bypass NB to US 29 NB	7,993	3.0%	7.2%	576	17	559	4	13	7.8%	621	19	602	5	14
133	Ramp 133: US 29 SB to Prop Bypass SB	7,965	3.0%	6.2%	491	15	476	4	11	9.3%	739	22	717	6	16
134	Ramp 134: US 29 NB to Prop Bypass SB (left-exit ramp)	1,003	3.0%	6.2%	62	2	60	0	2	9.3%	93	3	90	1	2
2	29 NB, north of Prop Bypass (south of Hollymead)	29,704	3.0%	6.2%	1,832	55	1,777	14	41	9.3%	2,757	83	2,674	21	62
1	29 SB, north of Prop Bypass (south of Hollymead)	29,704	3.0%	7.2%	2,139	64	2,075	16	48	7.8%	2,309	69	2,240	17	52
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	22,255	3.0%	7.2%	1,603	48	1,555	12	36	7.8%	1,730	52	1,678	13	39
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	22,255	3.0%	6.2%	1,373	41	1,332	10	31	9.3%	2,066	62	2,004	15	47
130	29 Seminole Tr between ramps (NB)	8,900	3.0%	6.2%	549	16	533	4	12	9.3%	826	25	801	6	19
131	29 Seminole Tr between ramps (SB)	21,441	3.0%	7.2%	1,544	46	1,498	12	34	7.8%	1,667	50	1,617	13	37

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Northern Terminus Area

Segment	Link Description	2040 No-Build		AM Peak Hour						PM Peak Hour					
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
119	Proposed Bypass NB (South Terminus to North Terminus)														
120	Proposed Bypass SB (North Terminus to South Terminus)														
136	Ramp 136: Prop Bypass NB to US 29 SB														
135	Ramp 135: Prop Bypass NB to US 29 NB														
133	Ramp 133: US 29 SB to Prop Bypass SB														
134	Ramp 134: US 29 NB to Prop Bypass SB (left-exit ramp)														
2	29 NB, north of Prop Bypass (south of Hollymead)	33,272	3.0%	6.2%	2,052	62	1,990	15	47	9.3%	3,088	93	2,995	23	70
1	29 SB, north of Prop Bypass (south of Hollymead)	33,272	3.0%	7.2%	2,396	72	2,324	18	54	7.8%	2,586	78	2,508	19	59
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	36,539	3.0%	7.2%	2,631	79	2,552	20	59	7.8%	2,840	85	2,755	21	64
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	36,539	3.0%	6.2%	2,254	68	2,186	17	51	9.3%	3,392	102	3,290	25	77
130	29 Seminole Tr between ramps (NB)														
131	29 Seminole Tr between ramps (SB)														

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Northern Terminus Area

Segment	Link Description	2040 Build		AM Peak Hour					PM Peak Hour						
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
119	Proposed Bypass NB (South Terminus to North Terminus)	13,899	3.0%	7.2%	1,001	30	971	8	22	7.8%	1,080	32	1,048	8	24
120	Proposed Bypass SB (North Terminus to South Terminus)	13,899	3.0%	6.2%	857	26	831	6	20	9.3%	1,290	39	1,251	10	29
136	Ramp 136: Prop Bypass NB to US 29 SB	4,464	3.0%	7.2%	321	10	311	2	8	7.8%	347	10	337	3	7
135	Ramp 135: Prop Bypass NB to US 29 NB	9,424	3.0%	7.2%	679	20	659	5	15	7.8%	732	22	710	5	17
133	Ramp 133: US 29 SB to Prop Bypass SB	9,321	3.0%	6.2%	575	17	558	4	13	9.3%	865	26	839	6	20
134	Ramp 134: US 29 NB to Prop Bypass SB (left-exit ramp)	4,565	3.0%	6.2%	282	8	274	2	6	9.3%	424	13	411	3	10
2	29 NB, north of Prop Bypass (south of Hollymead)	37,429	3.0%	6.2%	2,309	69	2,240	17	52	9.3%	3,474	104	3,370	26	78
1	29 SB, north of Prop Bypass (south of Hollymead)	37,429	3.0%	7.2%	2,696	81	2,615	20	61	7.8%	2,909	87	2,822	22	65
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	32,705	3.0%	7.2%	2,355	71	2,284	18	53	7.8%	2,542	76	2,466	19	57
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	32,705	3.0%	6.2%	2,017	61	1,956	15	46	9.3%	3,036	91	2,945	23	68
130	29 Seminole Tr between ramps (NB)	13,899	3.0%	6.2%	857	26	831	6	20	9.3%	1,290	39	1,251	10	29
131	29 Seminole Tr between ramps (SB)	28,085	3.0%	7.2%	2,023	61	1,962	15	46	7.8%	2,183	65	2,118	16	49

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Existing Route

29

Segment	Link Description	Diurnal Curve	2011 Existing								
			AM Peak Hour					PM Peak Hour			
			ADT	Total Vol	cars	MT	HT	Total Vol	cars	MT	HT
110	29/250: Prop Bypass to Barracks Road (NB)	K5	24,000	2,429	2,356	18	55	2,296	2,227	17	52
109	29/250: Prop Bypass to Barracks Road (SB)	K6	24,000	1,793	1,739	13	41	2,629	2,550	20	59
70	29/250: Barracks Road to Emmet Street (NB)	K5	19,000	1,923	1,865	14	44	1,818	1,763	14	41
69	29/250: Barracks Road to Emmet Street (SB)	K6	19,000	1,419	1,376	11	32	2,081	2,019	16	46
21	29 Seminole Tr: US 250 to Angus Rd (NB)	K2	26,000	1,872	1,816	14	42	2,021	1,960	15	46
22	29 Seminole Tr: US 250 to Angus Rd (SB)	K1	26,000	1,604	1,556	12	36	2,413	2,341	18	54
19	29 Seminole Tr: Angus Rd to Hydraulic Rd (NB)	K2	26,000	1,872	1,816	14	42	2,021	1,960	15	46
20	29 Seminole Tr: Angus Rd to Hydraulic Rd (SB)	K1	26,000	1,604	1,556	12	36	2,413	2,341	18	54
17	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (NB)	K2	28,500	2,052	1,990	15	47	2,215	2,149	17	49
18	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (SB)	K1	28,500	1,758	1,705	13	40	2,645	2,566	20	59
15	29 Seminole Tr: Greenbrier Dr to Dominion Dr (NB)	K2	28,500	2,052	1,990	15	47	2,215	2,149	17	49
16	29 Seminole Tr: Greenbrier Dr to Dominion Dr (SB)	K1	28,500	1,758	1,705	13	40	2,645	2,566	20	59
13	29 Seminole Tr: Dominion Dr to Berkmar Dr (NB)	K2	28,500	2,052	1,990	15	47	2,215	2,149	17	49
14	29 Seminole Tr: Dominion Dr to Berkmar Dr (SB)	K1	28,500	1,758	1,705	13	40	2,645	2,566	20	59
11	29 Seminole Tr: Berkmar Dr to Rio Rd (NB)	K2	24,000	1,728	1,676	13	39	1,865	1,809	14	42
12	29 Seminole Tr: Berkmar Dr to Rio Rd (SB)	K1	24,000	1,480	1,436	11	33	2,228	2,161	17	50
9	29 Seminole Tr: Rio Rd to Woodbrook Dr (NB)	K2	24,000	1,728	1,676	13	39	1,865	1,809	14	42
10	29 Seminole Tr: Rio Rd to Woodbrook Dr (SB)	K1	24,000	1,480	1,436	11	33	2,228	2,161	17	50
7	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (NB)	K2	24,000	1,728	1,676	13	39	1,865	1,809	14	42
8	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (SB)	K1	24,000	1,480	1,436	11	33	2,228	2,161	17	50
5	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (NB)	K2	24,000	1,728	1,676	13	39	1,865	1,809	14	42
6	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (SB)	K1	24,000	1,480	1,436	11	33	2,228	2,161	17	50
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	K2	24,000	1,728	1,676	13	39	1,865	1,809	14	42
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	K1	24,000	1,480	1,436	11	33	2,228	2,161	17	50

MT = Medium Truck (2 axles with 6 wheels)

HT = Heavy Truck (3 or more axles)

Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM

PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Existing Route

29

		2015 No-Build								
Segment	Link Description	AM Peak Hour					PM Peak Hour			
		ADT	Total Vol	cars	MT	HT	Total Vol	cars	MT	HT
110	29/250: Prop Bypass to Barracks Road (NB)	25,888	2,620	2,541	20	59	2,477	2,403	19	55
109	29/250: Prop Bypass to Barracks Road (SB)	25,888	1,934	1,876	15	43	2,835	2,750	21	64
70	29/250: Barracks Road to Emmet Street (NB)	20,717	2,097	2,034	16	47	1,982	1,923	15	44
69	29/250: Barracks Road to Emmet Street (SB)	20,717	1,547	1,501	12	34	2,269	2,201	17	51
21	29 Seminole Tr: US 250 to Angus Rd (NB)	28,827	2,076	2,014	16	46	2,241	2,174	17	50
22	29 Seminole Tr: US 250 to Angus Rd (SB)	28,827	1,778	1,725	13	40	2,676	2,596	20	60
19	29 Seminole Tr: Angus Rd to Hydraulic Rd (NB)	28,609	2,060	1,998	15	47	2,224	2,157	17	50
20	29 Seminole Tr: Angus Rd to Hydraulic Rd (SB)	28,609	1,765	1,712	13	40	2,655	2,575	20	60
17	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (NB)	30,692	2,210	2,144	17	49	2,386	2,314	18	54
18	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (SB)	30,692	1,893	1,836	14	43	2,849	2,764	21	64
15	29 Seminole Tr: Greenbrier Dr to Dominion Dr (NB)	30,780	2,217	2,150	17	50	2,392	2,320	18	54
16	29 Seminole Tr: Greenbrier Dr to Dominion Dr (SB)	30,780	1,899	1,842	14	43	2,857	2,771	21	65
13	29 Seminole Tr: Dominion Dr to Berkmar Dr (NB)	30,446	2,193	2,127	16	50	2,366	2,295	18	53
14	29 Seminole Tr: Dominion Dr to Berkmar Dr (SB)	30,446	1,878	1,822	14	42	2,826	2,741	21	64
11	29 Seminole Tr: Berkmar Dr to Rio Rd (NB)	25,498	1,836	1,781	14	41	1,982	1,923	15	44
12	29 Seminole Tr: Berkmar Dr to Rio Rd (SB)	25,498	1,573	1,526	12	35	2,367	2,296	18	53
9	29 Seminole Tr: Rio Rd to Woodbrook Dr (NB)	26,753	1,927	1,869	14	44	2,079	2,017	16	46
10	29 Seminole Tr: Rio Rd to Woodbrook Dr (SB)	26,753	1,650	1,601	12	38	2,483	2,409	19	55
7	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (NB)	26,389	1,900	1,843	14	43	2,051	1,989	15	47
8	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (SB)	26,389	1,628	1,579	12	37	2,449	2,376	18	55
5	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (NB)	26,307	1,895	1,838	14	43	2,045	1,984	15	46
6	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (SB)	26,307	1,623	1,574	12	37	2,442	2,369	18	55
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	26,089	1,879	1,823	14	42	2,028	1,967	15	46
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	26,089	1,609	1,561	12	36	2,422	2,349	18	55

MT = Medium Truck (2 axles with 6 wheels)

HT = Heavy Truck (3 or more axles)

Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM

PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Existing Route

29

Segment	Link Description	2015 Build								
		AM Peak Hour					PM Peak Hour			
		ADT	Total Vol	cars	MT	HT	Total Vol	cars	MT	HT
110	29/250: Prop Bypass to Barracks Road (NB)	17,122	1,733	1,681	13	39	1,638	1,589	12	37
109	29/250: Prop Bypass to Barracks Road (SB)	17,122	1,279	1,241	10	28	1,875	1,819	14	42
70	29/250: Barracks Road to Emmet Street (NB)	13,026	1,318	1,278	10	30	1,246	1,209	9	28
69	29/250: Barracks Road to Emmet Street (SB)	13,026	973	944	7	22	1,427	1,384	11	32
21	29 Seminole Tr: US 250 to Angus Rd (NB)	18,671	1,345	1,305	10	30	1,451	1,407	11	33
22	29 Seminole Tr: US 250 to Angus Rd (SB)	18,671	1,152	1,117	9	26	1,733	1,681	13	39
19	29 Seminole Tr: Angus Rd to Hydraulic Rd (NB)	18,506	1,333	1,293	10	30	1,438	1,395	11	32
20	29 Seminole Tr: Angus Rd to Hydraulic Rd (SB)	18,506	1,142	1,108	9	25	1,718	1,666	13	39
17	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (NB)	22,902	1,649	1,600	12	37	1,780	1,727	13	40
18	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (SB)	22,902	1,413	1,371	11	31	2,126	2,062	16	48
15	29 Seminole Tr: Greenbrier Dr to Dominion Dr (NB)	20,063	1,445	1,402	11	32	1,559	1,512	12	35
16	29 Seminole Tr: Greenbrier Dr to Dominion Dr (SB)	20,063	1,238	1,201	9	28	1,862	1,806	14	42
13	29 Seminole Tr: Dominion Dr to Berkmar Dr (NB)	19,519	1,406	1,364	11	31	1,517	1,471	11	35
14	29 Seminole Tr: Dominion Dr to Berkmar Dr (SB)	19,519	1,204	1,168	9	27	1,812	1,758	14	40
11	29 Seminole Tr: Berkmar Dr to Rio Rd (NB)	18,108	1,304	1,265	10	29	1,407	1,365	11	31
12	29 Seminole Tr: Berkmar Dr to Rio Rd (SB)	18,108	1,117	1,083	8	26	1,681	1,631	13	37
9	29 Seminole Tr: Rio Rd to Woodbrook Dr (NB)	20,522	1,478	1,434	11	33	1,595	1,547	12	36
10	29 Seminole Tr: Rio Rd to Woodbrook Dr (SB)	20,522	1,266	1,228	9	29	1,905	1,848	14	43
7	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (NB)	20,267	1,460	1,416	11	33	1,575	1,528	12	35
8	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (SB)	20,267	1,250	1,213	9	29	1,881	1,825	14	42
5	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (NB)	20,230	1,457	1,413	11	33	1,572	1,525	12	35
6	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (SB)	20,230	1,248	1,211	9	28	1,878	1,822	14	42
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	22,255	1,603	1,555	12	36	1,730	1,678	13	39
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	22,255	1,373	1,332	10	31	2,066	2,004	15	47

MT = Medium Truck (2 axles with 6 wheels)

HT = Heavy Truck (3 or more axles)

Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM

PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Existing Route

29

Segment	Link Description	2040 No-Build								
		AM Peak Hour					PM Peak Hour			
		ADT	Total Vol	cars	MT	HT	Total Vol	cars	MT	HT
110	29/250: Prop Bypass to Barracks Road (NB)	35,325	3,576	3,469	27	80	3,380	3,279	25	76
109	29/250: Prop Bypass to Barracks Road (SB)	35,325	2,639	2,560	20	59	3,869	3,753	29	87
70	29/250: Barracks Road to Emmet Street (NB)	29,329	2,969	2,880	22	67	2,806	2,722	21	63
69	29/250: Barracks Road to Emmet Street (SB)	29,329	2,191	2,125	16	50	3,212	3,116	24	72
21	29 Seminole Tr: US 250 to Angus Rd (NB)	42,939	3,092	2,999	23	70	3,337	3,237	25	75
22	29 Seminole Tr: US 250 to Angus Rd (SB)	42,939	2,649	2,570	20	59	3,986	3,866	30	90
19	29 Seminole Tr: Angus Rd to Hydraulic Rd (NB)	41,646	2,999	2,909	22	68	3,237	3,140	24	73
20	29 Seminole Tr: Angus Rd to Hydraulic Rd (SB)	41,646	2,569	2,492	19	58	3,866	3,750	29	87
17	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (NB)	41,642	2,999	2,909	22	68	3,237	3,140	24	73
18	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (SB)	41,642	2,569	2,492	19	58	3,865	3,749	29	87
15	29 Seminole Tr: Greenbrier Dr to Dominion Dr (NB)	42,180	3,038	2,947	23	68	3,278	3,180	25	73
16	29 Seminole Tr: Greenbrier Dr to Dominion Dr (SB)	42,180	2,602	2,524	20	58	3,915	3,798	29	88
13	29 Seminole Tr: Dominion Dr to Berkmar Dr (NB)	40,158	2,892	2,805	22	65	3,121	3,027	23	71
14	29 Seminole Tr: Dominion Dr to Berkmar Dr (SB)	40,158	2,477	2,403	19	55	3,727	3,615	28	84
11	29 Seminole Tr: Berkmar Dr to Rio Rd (NB)	32,973	2,375	2,304	18	53	2,563	2,486	19	58
12	29 Seminole Tr: Berkmar Dr to Rio Rd (SB)	32,973	2,034	1,973	15	46	3,061	2,969	23	69
9	29 Seminole Tr: Rio Rd to Woodbrook Dr (NB)	40,528	2,919	2,831	22	66	3,150	3,056	24	71
10	29 Seminole Tr: Rio Rd to Woodbrook Dr (SB)	40,528	2,500	2,425	19	56	3,762	3,649	28	85
7	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (NB)	38,339	2,761	2,678	21	62	2,980	2,891	22	67
8	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (SB)	38,339	2,365	2,294	18	53	3,559	3,452	27	80
5	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (NB)	37,832	2,725	2,643	20	62	2,941	2,853	22	66
6	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (SB)	37,832	2,334	2,264	18	52	3,512	3,407	26	79
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	36,539	2,631	2,552	20	59	2,840	2,755	21	64
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	36,539	2,254	2,186	17	51	3,392	3,290	25	77

MT = Medium Truck (2 axles with 6 wheels)

HT = Heavy Truck (3 or more axles)

Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM

PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Existing Route

29

Segment	Link Description	2040 Build								
		AM Peak Hour					PM Peak Hour			
		ADT	Total Vol	cars	MT	HT	Total Vol	cars	MT	HT
110	29/250: Prop Bypass to Barracks Road (NB)	26,559	2,688	2,607	20	61	2,541	2,465	19	57
109	29/250: Prop Bypass to Barracks Road (SB)	26,559	1,984	1,924	15	45	2,909	2,822	22	65
70	29/250: Barracks Road to Emmet Street (NB)	20,315	2,056	1,994	15	47	1,944	1,886	15	43
69	29/250: Barracks Road to Emmet Street (SB)	20,315	1,517	1,471	11	35	2,225	2,158	17	50
21	29 Seminole Tr: US 250 to Angus Rd (NB)	32,783	2,361	2,290	18	53	2,548	2,472	19	57
22	29 Seminole Tr: US 250 to Angus Rd (SB)	32,783	2,022	1,961	15	46	3,043	2,952	23	68
19	29 Seminole Tr: Angus Rd to Hydraulic Rd (NB)	31,544	2,272	2,204	17	51	2,452	2,378	18	56
20	29 Seminole Tr: Angus Rd to Hydraulic Rd (SB)	31,544	1,946	1,888	15	43	2,928	2,840	22	66
17	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (NB)	33,852	2,438	2,365	18	55	2,631	2,552	20	59
18	29 Seminole Tr: Hydraulic Rd to Greenbrier Dr (SB)	33,852	2,088	2,025	16	47	3,142	3,048	24	70
15	29 Seminole Tr: Greenbrier Dr to Dominion Dr (NB)	31,463	2,266	2,198	17	51	2,445	2,372	18	55
16	29 Seminole Tr: Greenbrier Dr to Dominion Dr (SB)	31,463	1,941	1,883	15	43	2,920	2,832	22	66
13	29 Seminole Tr: Dominion Dr to Berkmar Dr (NB)	29,231	2,105	2,042	16	47	2,272	2,204	17	51
14	29 Seminole Tr: Dominion Dr to Berkmar Dr (SB)	29,231	1,803	1,749	14	40	2,713	2,632	20	61
11	29 Seminole Tr: Berkmar Dr to Rio Rd (NB)	25,583	1,842	1,787	14	41	1,988	1,928	15	45
12	29 Seminole Tr: Berkmar Dr to Rio Rd (SB)	25,583	1,578	1,531	12	35	2,375	2,304	18	53
9	29 Seminole Tr: Rio Rd to Woodbrook Dr (NB)	34,297	2,470	2,396	19	55	2,666	2,586	20	60
10	29 Seminole Tr: Rio Rd to Woodbrook Dr (SB)	34,297	2,116	2,053	16	47	3,183	3,088	24	71
7	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (NB)	32,217	2,320	2,250	17	53	2,504	2,429	19	56
8	29 Seminole Tr: Woodbrook to Carrsbrook/Hilton Hgts (SB)	32,217	1,987	1,927	15	45	2,990	2,900	22	68
5	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (NB)	31,755	2,287	2,218	17	52	2,468	2,394	19	55
6	29 Seminole Tr: Carrsbrook/Hilton Hgts to Polo Grounds (SB)	31,755	1,959	1,900	15	44	2,948	2,860	22	66
3	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (NB)	32,705	2,355	2,284	18	53	2,542	2,466	19	57
4	29 Seminole Tr: Polo Grounds Rd to Prop. Bypass (SB)	32,705	2,017	1,956	15	46	3,036	2,945	23	68

MT = Medium Truck (2 axles with 6 wheels)

HT = Heavy Truck (3 or more axles)

Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM

PM Peak Hour is 5:00 PM to 6:00 PM

Charlottesville Bypass Traffic - Southern Terminus Area

Segment	Link Description	Diurnal Curve	2011 Existing		AM Peak Hour						PM Peak Hour					
			ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
67	Route 250 Bypass WB (btwn Hydraulic Rd & Emmet St)	K8	11,500	0.02	0	857	17	840	4	13	0	1,030	21	1,009	5	16
68	Route 250 Bypass EB (btwn Hydraulic Rd & Emmet St)	K7	11,500	0.02	0	1,028	21	1,007	5	16	0	957	19	938	5	14
69	Route 250 Bypass WB (btwn Emmet St & Barracks Rd)	K6	19,000	0.03	0	1,419	43	1,376	11	32	0	2,081	62	2,019	16	46
70	Route 250 Bypass EB (btwn Emmet St & Barracks Rd)	K5	19,000	0.03	0	1,923	58	1,865	14	44	0	1,818	55	1,763	14	41
77	L. Sandbridge Rd NB, south of 29	K9	500	3.0%	12.9%	65	2	63	0	2	6.0%	30	1	29	0	1
78	L. Sandbridge Rd SB, south of 29	K10	500	3.0%	5.1%	26	1	25	0	1	11.5%	57	2	55	0	2
109	Route 250 Bypass WB (btwn Barracks Rd & Prop Route 29 Bypass)	K6	24,000	3.0%	7.5%	1,793	54	1,739	13	41	11.0%	2,629	79	2,550	20	59
110	Route 250 Bypass EB (btwn Bararcks Rd & Prop Route 29 Bypass)	K5	24,000	3.0%	10.1%	2,429	73	2,356	18	55	9.6%	2,296	69	2,227	17	52
111	29 NB south of the Bypass (between Fontaine and Ivy)	K5	21,000	7.0%	10.1%	2,126	149	1,977	37	112	9.6%	2,009	141	1,868	35	106
112	29 SB south of the Bypass (between Fontaine and Ivy)	K6	21,000	7.0%	7.5%	1,569	110	1,459	27	83	11.0%	2,300	161	2,139	40	121
113	Ivy Rd EB (btwn Rt 250 Bypass & Alderman Rd)	K5	8,000	1.0%	10.1%	810	8	802	2	6	9.6%	765	8	757	2	6
114	Ivy Rd WB (btwn Rt 250 Bypass & Alderman Rd)	K6	8,000	1.0%	7.5%	598	6	592	1	5	11.0%	876	9	867	2	7
115	Ivy Rd WB (btwn Rt 846 & Golf Course Dr)	K6	7,000	2.0%	7.5%	523	10	513	3	7	11.0%	767	15	752	4	11
116	Ivy Rd EB (btwn Rt 846 & Golf Course Dr)	K5	7,000	2.0%	10.1%	709	14	695	4	10	9.6%	670	13	657	3	10
117	Old Ivy Rd EB (btwn Crestwood Rd & Harvest Dr)	K5	2,750	1.0%	10.1%	278	3	275	1	2	9.6%	263	3	260	1	2
118	Old Ivy Rd WB (btwn Crestwood Rd & Harvest Dr)	K6	2,750	1.0%	7.5%	205	2	203	1	1	11.0%	301	3	298	1	2
119	Proposed Bypass NB (South Terminus to North Terminus)	K2														
120	Proposed Bypass SB (North Terminus to South Terminus)	K1														
152	AB-AC: Off-Ramp from 29 NB to L. Sandridge Rd (diamond)	K2														
163	AB-AJ: 29 NB to Proposed Bypass NB (flyover)	K2														
153	AC-AD: On-Ramp from L. Sandridge Rd to 250 NB (diamond)	K2														
154	AA-AD: 250 Bypass NB (thru lanes) from 29 NB Bypass diverge to On-Ramp from L. S	K5														
157	AE-AH: 250 Bypass SB (thru lanes) from Off-Ramp to L. Sandridge Rd to 29 SB Bypas	K6														
158	AH-AG: 250 Bypass SB (thru lanes) from 29 SB Bypass merge to On-Ramp from L. Sa	K6														
155	AE-AF: Off-Ramp from 250 SB to L. Sandridge Rd (diamond)	K1														
156	AF-AG: On-Ramp from L. Sandridge Rd to 29 SB (diamond)	K1														
164	AI-AH: Proposed Bypass SB to 29 SB (flyover)	K1														
151	AA-AB: 250 NB to Split	K2														
159	AC-AF: L. Sandridge Rd NB, between Ramps	K2														
160	AF-AC: L. Sandridge Rd SB, between Ramps	K1														
161	AF-AJ: L. Sandridge Rd NB ramp to Proposed Bypass NB	K2														
162	AI-AF: Proposed Bypass SB ramp to L. Sandridge Rd SB	K1														
109	Route 250 SB/WB Mainline (btwn Ivy Rd & Barracks Rd) - Ex & NB	K6	24,000	3.0%	7.5%	1,793	54	1,739	13	41	11.0%	2,629	79	2,550	20	59
	Route 250 SB/WB Mainline (btwn Ivy Rd & 29 Bypass) - Build	K2														
110	Route 250 NB/EB Mainline (btwn Ivy Rd & L. Sandridge Rd) - Ex & NB	K5	24,000	3.0%	10.1%	2,429	73	2,356	18	55	9.6%	2,296	69	2,227	17	52
110	Route 250 NB/EB Mainline (btwn L. Sandridge Rd & Barracks Rd) - Ex & NB	K5	24,000	3.0%	10.1%	2,429	73	2,356	18	55	9.6%	2,296	69	2,227	17	52
	Route 250 NB/EB Mainline (btwn Ivy Rd & 29 Bypass) - Build	K6														
191	Route 250 SB Off-Ramp (loop) to Ivy Rd	K6	6,315	1.0%	7.5%	472	5	467	1	4	11.0%	692	7	685	2	5
192	Route 250 SB On-Ramp from Ivy Rd	K6	3,353	1.0%	7.5%	250	3	248	1	2	11.0%	367	4	363	1	3
193	Route 250 NB Off-Ramp to Ivy Rd	K5	3,353	1.0%	10.1%	339	3	336	1	2	9.6%	321	3	318	1	2
194	Route 250 NB On-Ramp (loop) from Ivy Rd	K5	6,314	1.0%	10.1%	639	6	633	2	4	9.6%	604	6	598	2	4

MT = Medium Truck (2 axles with 6 wheels)
HT = Heavy Truck (3 or more axles)
Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Charlottesville Bypass Traffic - Southern Terminus Area

Segment	Link Description	2015 No-Build		AM Peak Hour						PM Peak Hour					
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
67	Route 250 Bypass WB (btwn Hydraulic Rd & Emmet St)	12,314	0.02	0	918	18	900	5	13	0	1,103	22	1,081	6	16
68	Route 250 Bypass EB (btwn Hydraulic Rd & Emmet St)	12,314	0.02	0	1,101	22	1,079	6	16	0	1,024	20	1,004	5	15
69	Route 250 Bypass WB (btwn Emmet St & Barracks Rd)	20,717	0.03	0	1,547	46	1,501	12	34	0	2,269	68	2,201	17	51
70	Route 250 Bypass EB (btwn Emmet St & Barracks Rd)	20,717	0.03	0	2,097	63	2,034	16	47	0	1,982	59	1,923	15	44
77	L. Sandbridge Rd NB, south of 29	503	3.0%	12.9%	65	2	63	0	2	6.0%	30	1	29	0	1
78	L. Sandbridge Rd SB, south of 29	503	3.0%	5.1%	26	1	25	0	1	11.5%	58	2	56	0	2
109	Route 250 Bypass WB (btwn Barracks Rd & Prop Route 29 Bypass)	25,888	3.0%	7.5%	1,934	58	1,876	15	43	11.0%	2,835	85	2,750	21	64
110	Route 250 Bypass EB (btwn Bararcks Rd & Prop Route 29 Bypass)	25,888	3.0%	10.1%	2,620	79	2,541	20	59	9.6%	2,477	74	2,403	19	55
111	29 NB south of the Bypass (between Fontaine and Ivy)	23,115	7.0%	10.1%	2,340	164	2,176	41	123	9.6%	2,212	155	2,057	39	116
112	29 SB south of the Bypass (between Fontaine and Ivy)	23,115	7.0%	7.5%	1,727	121	1,606	30	91	11.0%	2,532	177	2,355	44	133
113	Ivy Rd EB (btwn Rt 250 Bypass & Alderman Rd)	7,711	1.0%	10.1%	780	8	772	2	6	9.6%	738	7	731	2	5
114	Ivy Rd WB (btwn Rt 250 Bypass & Alderman Rd)	7,711	1.0%	7.5%	576	6	570	1	5	11.0%	845	8	837	2	6
115	Ivy Rd WB (btwn Rt 846 & Golf Course Dr)	7,518	2.0%	7.5%	562	11	551	3	8	11.0%	823	16	807	4	12
116	Ivy Rd EB (btwn Rt 846 & Golf Course Dr)	7,518	2.0%	10.1%	761	15	746	4	11	9.6%	719	14	705	4	10
117	Old Ivy Rd EB (btwn Crestwood Rd & Harvest Dr)	2,773	1.0%	10.1%	281	3	278	1	2	9.6%	265	3	262	1	2
118	Old Ivy Rd WB (btwn Crestwood Rd & Harvest Dr)	2,773	1.0%	7.5%	207	2	205	1	1	11.0%	304	3	301	1	2
119	Proposed Bypass NB (South Terminus to North Terminus)														
120	Proposed Bypass SB (North Terminus to South Terminus)														
152	AB-AC: Off-Ramp from 29 NB to L. Sandridge Rd (diamond)														
163	AB-AJ: 29 NB to Proposed Bypass NB (flyover)														
153	AC-AD: On-Ramp from L. Sandridge Rd to 250 NB (diamond)														
154	AA-AD: 250 Bypass NB (thru lanes) from 29 NB Bypass diverge to On-Ramp from L. S														
157	AE-AH: 250 Bypass SB (thru lanes) from Off-Ramp to L. Sandridge Rd to 29 SB Bypas														
158	AH-AG: 250 Bypass SB (thru lanes) from 29 SB Bypass merge to On-Ramp from L. Sa														
155	AE-AF: Off-Ramp from 250 SB to L. Sandridge Rd (diamond)														
156	AF-AG: On-Ramp from L. Sandridge Rd to 29 SB (diamond)														
164	AI-AH: Proposed Bypass SB to 29 SB (flyover)														
151	AA-AB: 250 NB to Split														
159	AC-AF: L. Sandridge Rd NB, between Ramps														
160	AF-AC: L. Sandridge Rd SB, between Ramps														
161	AF-AJ: L. Sandridge Rd NB ramp to Proposed Bypass NB														
162	AI-AF: Proposed Bypass SB ramp to L. Sandridge Rd SB														
109	Route 250 SB/WB Mainline (btwn Ivy Rd & Barracks Rd) - Ex & NB	25,888	3.0%	7.5%	1,934	58	1,876	15	43	11.0%	2,835	85	2,750	21	64
	Route 250 SB/WB Mainline (btwn Ivy Rd & 29 Bypass) - Build														
110	Route 250 NB/EB Mainline (btwn Ivy Rd & L. Sandridge Rd) - Ex & NB	25,888	3.0%	10.1%	2,620	79	2,541	20	59	9.6%	2,477	74	2,403	19	55
110	Route 250 NB/EB Mainline (btwn L. Sandridge Rd & Barracks Rd) - Ex & NB	25,888	3.0%	10.1%	2,620	79	2,541	20	59	9.6%	2,477	74	2,403	19	55
	Route 250 NB/EB Mainline (btwn Ivy Rd & 29 Bypass) - Build														
191	Route 250 SB Off-Ramp (loop) to Ivy Rd	6,341	1.0%	7.5%	474	5	469	1	4	11.0%	695	7	688	2	5
192	Route 250 SB On-Ramp from Ivy Rd	3,612	1.0%	7.5%	270	3	267	1	2	11.0%	396	4	392	1	3
193	Route 250 NB Off-Ramp to Ivy Rd	3,612	1.0%	10.1%	366	4	362	1	3	9.6%	346	3	343	1	2
194	Route 250 NB On-Ramp (loop) from Ivy Rd	6,341	1.0%	10.1%	642	6	636	2	4	9.6%	607	6	601	2	4

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Charlottesville Bypass Traffic - Southern Terminus Area

Segment	Link Description	2015 Build		AM Peak Hour					PM Peak Hour						
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
67	Route 250 Bypass WB (btwn Hydraulic Rd & Emmet St)	11,927	0.02	0	889	18	871	4	14	0	1,069	21	1,048	5	16
68	Route 250 Bypass EB (btwn Hydraulic Rd & Emmet St)	11,927	0.02	0	1,066	21	1,045	5	16	0	992	20	972	5	15
69	Route 250 Bypass WB (btwn Emmet St & Barracks Rd)	13,026	0.03	0	973	29	944	7	22	0	1,427	43	1,384	11	32
70	Route 250 Bypass EB (btwn Emmet St & Barracks Rd)	13,026	0.03	0	1,318	40	1,278	10	30	0	1,246	37	1,209	9	28
77	L. Sandbridge Rd NB, south of 29	1,236	3.0%	12.9%	160	5	155	1	4	6.0%	74	2	72	1	1
78	L. Sandbridge Rd SB, south of 29	1,236	3.0%	5.1%	63	2	61	0	2	11.5%	142	4	138	1	3
109	Route 250 Bypass WB (btwn Barracks Rd & Prop Route 29 Bypass)	17,122	3.0%	7.5%	1,279	38	1,241	10	28	11.0%	1,875	56	1,819	14	42
110	Route 250 Bypass EB (btwn Bararcks Rd & Prop Route 29 Bypass)	17,122	3.0%	10.1%	1,733	52	1,681	13	39	9.6%	1,638	49	1,589	12	37
111	29 NB south of the Bypass (between Fontaine and Ivy)	24,162	7.0%	10.1%	2,446	171	2,275	43	128	9.6%	2,312	162	2,150	40	122
112	29 SB south of the Bypass (between Fontaine and Ivy)	24,162	7.0%	7.5%	1,805	126	1,679	32	94	11.0%	2,646	185	2,461	46	139
113	Ivy Rd EB (btwn Rt 250 Bypass & Alderman Rd)	7,171	1.0%	10.1%	726	7	719	2	5	9.6%	686	7	679	2	5
114	Ivy Rd WB (btwn Rt 250 Bypass & Alderman Rd)	7,171	1.0%	7.5%	536	5	531	1	4	11.0%	785	8	777	2	6
115	Ivy Rd WB (btwn Rt 846 & Golf Course Dr)	7,638	2.0%	7.5%	571	11	560	3	8	11.0%	837	17	820	4	13
116	Ivy Rd EB (btwn Rt 846 & Golf Course Dr)	7,638	2.0%	10.1%	773	15	758	4	11	9.6%	731	15	716	4	11
117	Old Ivy Rd EB (btwn Crestwood Rd & Harvest Dr)	2,703	1.0%	10.1%	274	3	271	1	2	9.6%	259	3	256	1	2
118	Old Ivy Rd WB (btwn Crestwood Rd & Harvest Dr)	2,703	1.0%	7.5%	202	2	200	1	1	11.0%	296	3	293	1	2
119	Proposed Bypass NB (South Terminus to North Terminus)	8,900	3.0%	7.2%	641	19	622	5	14	7.8%	692	21	671	5	16
120	Proposed Bypass SB (North Terminus to South Terminus)	8,900	3.0%	6.2%	549	16	533	4	12	9.3%	826	25	801	6	19
152	AB-AC: Off-Ramp from 29 NB to L. Sandridge Rd (diamond)	557	3.0%	7.2%	40	1	39	0	1	7.8%	43	1	42	0	1
163	AB-AJ: 29 NB to Proposed Bypass NB (flyover)	8,144	3.0%	7.2%	587	18	569	4	14	7.8%	633	19	614	5	14
153	AC-AD: On-Ramp from L. Sandridge Rd to 250 NB (diamond)	394	3.0%	7.2%	28	1	27	0	1	7.8%	31	1	30	0	1
154	AA-AD: 250 Bypass NB (thru lanes) from 29 NB Bypass diverge to On-Ramp from L. S	16,920	3.0%	10.1%	1,713	51	1,662	13	38	9.6%	1,619	49	1,570	12	37
157	AE-AH: 250 Bypass SB (thru lanes) from Off-Ramp to L. Sandridge Rd to 29 SB Bypas	16,498	3.0%	7.5%	1,232	37	1,195	9	28	11.0%	1,807	54	1,753	14	40
158	AH-AG: 250 Bypass SB (thru lanes) from 29 SB Bypass merge to On-Ramp from L. Sa	24,901	3.0%	7.5%	1,860	56	1,804	14	42	11.0%	2,727	82	2,645	20	62
155	AE-AF: Off-Ramp from 250 SB to L. Sandridge Rd (diamond)	799	3.0%	6.2%	49	1	48	0	1	9.3%	74	2	72	1	1
156	AF-AG: On-Ramp from L. Sandridge Rd to 29 SB (diamond)	708	3.0%	6.2%	44	1	43	0	1	9.3%	66	2	64	0	2
164	AI-AH: Proposed Bypass SB to 29 SB (flyover)	8,403	3.0%	6.2%	518	16	502	4	12	9.3%	780	23	757	6	17
151	AA-AB: 250 NB to Split	8,701	3.0%	7.2%	627	19	608	5	14	7.8%	676	20	656	5	15
159	AC-AF: L. Sandridge Rd NB, between Ramps	1,112	3.0%	7.2%	80	2	78	1	1	7.8%	86	3	83	1	2
160	AF-AC: L. Sandridge Rd SB, between Ramps	946	3.0%	6.2%	58	2	56	0	2	9.3%	88	3	85	1	2
161	AF-AJ: L. Sandridge Rd NB ramp to Proposed Bypass NB	843	3.0%	7.2%	61	2	59	0	2	7.8%	66	2	64	0	2
162	AI-AF: Proposed Bypass SB ramp to L. Sandridge Rd SB	586	3.0%	6.2%	36	1	35	0	1	9.3%	54	2	52	0	2
109	Route 250 SB/WB Mainline (btwn Ivy Rd & Barracks Rd) - Ex & NB														
	Route 250 SB/WB Mainline (btwn Ivy Rd & 29 Bypass) - Build	25,609	3.0%	7.2%	1,844	55	1,789	14	41	7.8%	1,990	60	1,930	15	45
110	Route 250 NB/EB Mainline (btwn Ivy Rd & L. Sandridge Rd) - Ex & NB														
110	Route 250 NB/EB Mainline (btwn L. Sandridge Rd & Barracks Rd) - Ex & NB														
	Route 250 NB/EB Mainline (btwn Ivy Rd & 29 Bypass) - Build	25,621	3.0%	7.5%	1,914	57	1,857	14	43	11.0%	2,806	84	2,722	21	63
191	Route 250 SB Off-Ramp (loop) to Ivy Rd	5,706	1.0%	7.5%	426	4	422	1	3	11.0%	625	6	619	2	4
192	Route 250 SB On-Ramp from Ivy Rd	4,011	1.0%	7.5%	300	3	297	1	2	11.0%	439	4	435	1	3
193	Route 250 NB Off-Ramp to Ivy Rd	4,010	1.0%	10.1%	406	4	402	1	3	9.6%	384	4	380	1	3
194	Route 250 NB On-Ramp (loop) from Ivy Rd	5,706	1.0%	10.1%	578	6	572	1	5	9.6%	546	5	541	1	4

MT = Medium Truck (2 axles with 6 wheels)
HT = Heavy Truck (3 or more axles)
Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Charlottesville Bypass Traffic - Southern Terminus Area

Segment	Link Description	2040 No-Build		AM Peak Hour						PM Peak Hour					
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	Total Truck	cars	MT	HT
67	Route 250 Bypass WB (btwn Hydraulic Rd & Emmet St)	16,364	0.02	0	1,220	24	1,196	6	18	0	1,466	29	1,437	7	22
68	Route 250 Bypass EB (btwn Hydraulic Rd & Emmet St)	16,364	0.02	0	1,463	29	1,434	7	22	0	1,361	27	1,334	7	20
69	Route 250 Bypass WB (btwn Emmet St & Barracks Rd)	29,329	0.03	0	2,191	66	2,125	16	50	0	3,212	96	3,116	24	72
70	Route 250 Bypass EB (btwn Emmet St & Barracks Rd)	29,329	0.03	0	2,969	89	2,880	22	67	0	2,806	84	2,722	21	63
77	L. Sandbridge Rd NB, south of 29	3,028	3.0%	12.9%	391	12	379	3	9	6.0%	181	5	176	1	4
78	L. Sandbridge Rd SB, south of 29	3,028	3.0%	5.1%	155	5	150	1	4	11.5%	348	10	338	3	7
109	Route 250 Bypass WB (btwn Barracks Rd & Prop Route 29 Bypass)	35,325	3.0%	7.5%	2,639	79	2,560	20	59	11.0%	3,869	116	3,753	29	87
110	Route 250 Bypass EB (btwn Bararcks Rd & Prop Route 29 Bypass)	35,325	3.0%	10.1%	3,576	107	3,469	27	80	9.6%	3,380	101	3,279	25	76
111	29 NB south of the Bypass (between Fontaine and Ivy)	33,702	7.0%	10.1%	3,411	239	3,172	60	179	9.6%	3,225	226	2,999	56	170
112	29 SB south of the Bypass (between Fontaine and Ivy)	33,702	7.0%	7.5%	2,517	176	2,341	44	132	11.0%	3,691	258	3,433	65	193
113	Ivy Rd EB (btwn Rt 250 Bypass & Alderman Rd)	6,261	1.0%	10.1%	634	6	628	2	4	9.6%	599	6	593	1	5
114	Ivy Rd WB (btwn Rt 250 Bypass & Alderman Rd)	6,261	1.0%	7.5%	468	5	463	1	4	11.0%	686	7	679	2	5
115	Ivy Rd WB (btwn Rt 846 & Golf Course Dr)	10,118	2.0%	7.5%	756	15	741	4	11	11.0%	1,108	22	1,086	6	16
116	Ivy Rd EB (btwn Rt 846 & Golf Course Dr)	10,118	2.0%	10.1%	1,024	20	1,004	5	15	9.6%	968	19	949	5	14
117	Old Ivy Rd EB (btwn Crestwood Rd & Harvest Dr)	2,860	1.0%	10.1%	289	3	286	1	2	9.6%	274	3	271	1	2
118	Old Ivy Rd WB (btwn Crestwood Rd & Harvest Dr)	2,860	1.0%	7.5%	214	2	212	1	1	11.0%	313	3	310	1	2
119	Proposed Bypass NB (South Terminus to North Terminus)														
120	Proposed Bypass SB (North Terminus to South Terminus)														
152	AB-AC: Off-Ramp from 29 NB to L. Sandridge Rd (diamond)														
163	AB-AJ: 29 NB to Proposed Bypass NB (flyover)														
153	AC-AD: On-Ramp from L. Sandridge Rd to 250 NB (diamond)														
154	AA-AD: 250 Bypass NB (thru lanes) from 29 NB Bypass diverge to On-Ramp from L. S														
157	AE-AH: 250 Bypass SB (thru lanes) from Off-Ramp to L. Sandridge Rd to 29 SB Bypas														
158	AH-AG: 250 Bypass SB (thru lanes) from 29 SB Bypass merge to On-Ramp from L. Sa														
155	AE-AF: Off-Ramp from 250 SB to L. Sandridge Rd (diamond)														
156	AF-AG: On-Ramp from L. Sandridge Rd to 29 SB (diamond)														
164	AI-AH: Proposed Bypass SB to 29 SB (flyover)														
151	AA-AB: 250 NB to Split														
159	AC-AF: L. Sandridge Rd NB, between Ramps														
160	AF-AC: L. Sandridge Rd SB, between Ramps														
161	AF-AJ: L. Sandridge Rd NB ramp to Proposed Bypass NB														
162	AI-AF: Proposed Bypass SB ramp to L. Sandridge Rd SB														
109	Route 250 SB/WB Mainline (btwn Ivy Rd & Barracks Rd) - Ex & NB	35,325	3.0%	7.5%	2,639	79	2,560	20	59	11.0%	3,869	116	3,753	29	87
	Route 250 SB/WB Mainline (btwn Ivy Rd & 29 Bypass) - Build														
110	Route 250 NB/EB Mainline (btwn Ivy Rd & L. Sandridge Rd) - Ex & NB	35,325	3.0%	10.1%	3,576	107	3,469	27	80	9.6%	3,380	101	3,279	25	76
110	Route 250 NB/EB Mainline (btwn L. Sandridge Rd & Barracks Rd) - Ex & NB	35,325	3.0%	10.1%	3,576	107	3,469	27	80	9.6%	3,380	101	3,279	25	76
	Route 250 NB/EB Mainline (btwn Ivy Rd & 29 Bypass) - Build														
191	Route 250 SB Off-Ramp (loop) to Ivy Rd	6,631	1.0%	7.5%	495	5	490	1	4	11.0%	726	7	719	2	5
192	Route 250 SB On-Ramp from Ivy Rd	5,058	1.0%	7.5%	378	4	374	1	3	11.0%	554	6	548	1	5
193	Route 250 NB Off-Ramp to Ivy Rd	5,057	1.0%	10.1%	512	5	507	1	4	9.6%	484	5	479	1	4
194	Route 250 NB On-Ramp (loop) from Ivy Rd	6,631	1.0%	10.1%	671	7	664	2	5	9.6%	634	6	628	2	4

MT = Medium Truck (2 axles with 6 wheels)
HT = Heavy Truck (3 or more axles)
Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Charlottesville Bypass Traffic - Southern Terminus Area

Segment	Link Description	2040 Build		AM Peak Hour						PM Peak Hour				
		ADT	% T	% of ADT	Total Vol	Total Truck	cars	MT	HT	% of ADT	Total Vol	cars	MT	HT
67	Route 250 Bypass WB (btwn Hydraulic Rd & Emmet St)	15,977	0.02	0	1,191	24	1,167	6	18	0	1,431	1,402	7	22
68	Route 250 Bypass EB (btwn Hydraulic Rd & Emmet St)	15,977	0.02	0	1,428	29	1,399	7	22	0	1,329	1,302	7	20
69	Route 250 Bypass WB (btwn Emmet St & Barracks Rd)	20,315	0.03	0	1,517	46	1,471	11	35	0	2,225	2,158	17	50
70	Route 250 Bypass EB (btwn Emmet St & Barracks Rd)	20,315	0.03	0	2,056	62	1,994	15	47	0	1,944	1,886	15	43
77	L. Sandbridge Rd NB, south of 29	3,761	3.0%	12.9%	486	15	471	4	11	6.0%	224	217	2	5
78	L. Sandbridge Rd SB, south of 29	3,761	3.0%	5.1%	193	6	187	1	5	11.5%	432	419	3	10
109	Route 250 Bypass WB (btwn Barracks Rd & Prop Route 29 Bypass)	26,559	3.0%	7.5%	1,984	60	1,924	15	45	11.0%	2,909	2,822	22	65
110	Route 250 Bypass EB (btwn Bararcks Rd & Prop Route 29 Bypass)	26,559	3.0%	10.1%	2,688	81	2,607	20	61	9.6%	2,541	2,465	19	57
111	29 NB south of the Bypass (between Fontaine and Ivy)	34,750	7.0%	10.1%	3,517	246	3,271	62	184	9.6%	3,325	3,092	58	175
112	29 SB south of the Bypass (between Fontaine and Ivy)	34,750	7.0%	7.5%	2,596	182	2,414	45	137	11.0%	3,806	3,540	67	199
113	Ivy Rd EB (btwn Rt 250 Bypass & Alderman Rd)	5,721	1.0%	10.1%	579	6	573	1	5	9.6%	547	542	1	4
114	Ivy Rd WB (btwn Rt 250 Bypass & Alderman Rd)	5,721	1.0%	7.5%	427	4	423	1	3	11.0%	627	621	2	4
115	Ivy Rd WB (btwn Rt 846 & Golf Course Dr)	10,238	2.0%	7.5%	765	15	750	4	11	11.0%	1,121	1,099	6	16
116	Ivy Rd EB (btwn Rt 846 & Golf Course Dr)	10,238	2.0%	10.1%	1,036	21	1,015	5	16	9.6%	980	960	5	15
117	Old Ivy Rd EB (btwn Crestwood Rd & Harvest Dr)	2,790	1.0%	10.1%	282	3	279	1	2	9.6%	267	264	1	2
118	Old Ivy Rd WB (btwn Crestwood Rd & Harvest Dr)	2,790	1.0%	7.5%	208	2	206	1	1	11.0%	306	303	1	2
119	Proposed Bypass NB (South Terminus to North Terminus)	13,899	3.0%	7.2%	1,001	30	971	8	22	7.8%	1,080	1,048	8	24
120	Proposed Bypass SB (North Terminus to South Terminus)	13,899	3.0%	6.2%	857	26	831	6	20	9.3%	1,290	1,251	10	29
152	AB-AC: Off-Ramp from 29 NB to L. Sandridge Rd (diamond)	762	3.0%	7.2%	55	2	53	0	2	7.8%	59	57	0	2
163	AB-AJ: 29 NB to Proposed Bypass NB (flyover)	10,135	3.0%	7.2%	730	22	708	5	17	7.8%	788	764	6	18
153	AC-AD: On-Ramp from L. Sandridge Rd to 250 NB (diamond)	1,930	3.0%	7.2%	139	4	135	1	3	7.8%	150	146	1	4
154	AA-AD: 250 Bypass NB (thru lanes) from 29 NB Bypass diverge to On-Ramp from L. S	24,537	3.0%	10.1%	2,484	75	2,409	19	56	9.6%	2,348	2,278	18	52
157	AE-AH: 250 Bypass SB (thru lanes) from Off-Ramp to L. Sandridge Rd to 29 SB Bypas	23,047	3.0%	7.5%	1,721	52	1,669	13	39	11.0%	2,524	2,448	19	57
158	AH-AG: 250 Bypass SB (thru lanes) from 29 SB Bypass merge to On-Ramp from L. Sa	34,301	3.0%	7.5%	2,562	77	2,485	19	58	11.0%	3,757	3,644	28	85
155	AE-AF: Off-Ramp from 250 SB to L. Sandridge Rd (diamond)	3,435	3.0%	6.2%	212	6	206	2	4	9.3%	319	309	2	8
156	AF-AG: On-Ramp from L. Sandridge Rd to 29 SB (diamond)	1,144	3.0%	6.2%	71	2	69	1	1	9.3%	106	103	1	2
164	AI-AH: Proposed Bypass SB to 29 SB (flyover)	11,254	3.0%	6.2%	694	21	673	5	16	9.3%	1,045	1,014	8	23
151	AA-AB: 250 NB to Split	10,897	3.0%	7.2%	785	24	761	6	18	7.8%	847	822	6	19
159	AC-AF: L. Sandridge Rd NB, between Ramps	3,066	3.0%	7.2%	221	7	214	2	5	7.8%	238	231	2	5
160	AF-AC: L. Sandridge Rd SB, between Ramps	4,238	3.0%	6.2%	261	8	253	2	6	9.3%	393	381	3	9
161	AF-AJ: L. Sandridge Rd NB ramp to Proposed Bypass NB	3,728	3.0%	7.2%	268	8	260	2	6	7.8%	290	281	2	7
162	AI-AF: Proposed Bypass SB ramp to L. Sandridge Rd SB	2,609	3.0%	6.2%	161	5	156	1	4	9.3%	242	235	2	5
109	Route 250 SB/WB Mainline (btwn Ivy Rd & Barracks Rd) - Ex & NB													
	Route 250 SB/WB Mainline (btwn Ivy Rd & 29 Bypass) - Build	35,445	3.0%	7.2%	2,553	77	2,476	19	58	7.8%	2,755	2,672	21	62
110	Route 250 NB/EB Mainline (btwn Ivy Rd & L. Sandridge Rd) - Ex & NB													
110	Route 250 NB/EB Mainline (btwn L. Sandridge Rd & Barracks Rd) - Ex & NB													
	Route 250 NB/EB Mainline (btwn Ivy Rd & 29 Bypass) - Build	35,434	3.0%	7.5%	2,647	79	2,568	20	59	11.0%	3,881	3,765	29	87
191	Route 250 SB Off-Ramp (loop) to Ivy Rd	6,073	1.0%	7.5%	454	5	449	1	4	11.0%	665	658	2	5
192	Route 250 SB On-Ramp from Ivy Rd	5,516	1.0%	7.5%	412	4	408	1	3	11.0%	604	598	2	4
193	Route 250 NB Off-Ramp to Ivy Rd	5,516	1.0%	10.1%	558	6	552	1	5	9.6%	528	523	1	4
194	Route 250 NB On-Ramp (loop) from Ivy Rd	6,073	1.0%	10.1%	615	6	609	2	4	9.6%	581	575	1	5

MT = Medium Truck (2 axles with 6 wheels)
 HT = Heavy Truck (3 or more axles)
 Assume 25% of trucks are MT, and the rest are HT

AM Peak Hour is 8:00 AM to 9:00 AM
 PM Peak Hour is 5:00 PM to 6:00 PM

Blue Text indicates segments added (2012-07-11)

Appendix E

HB 2577 DOCUMENTATION



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

1401 EAST BROAD STREET
RICHMOND, VIRGINIA 23219-2000

Gregory A. Whirley
Acting Commissioner

August 1, 2012

MEMORANDUM

TO: Harold Jones, Design Manager

FROM: Angel Deem, Location Studies Program Manager

SUBJECT: Route 29 Bypass; Albemarle County; UPC 102419

The 2009 General Assembly passed Chapter 120 (HB 2577), which amends the Code of Virginia by adding in Article 15 of Chapter 1 of Title 33.1 a section numbered 33.1-223.2:21, relating to highway noise abatement.

House Bill 2577 States: Requires that whenever the CTB or the Department plan for or undertake any highway construction or improvement project and such project includes or may include the requirement for the mitigation of traffic noise impacts, consideration *should* be given to the use of noise reducing design and low noise pavement materials and techniques in lieu of construction of noise walls or sound barriers. Landscaping in such a design would be utilized to act as a visual screen if visual screening is required.

In an effort to honor the intent of HB 2577 we are asking for your input (per [Chapter VI of Materials Division's Manual of Instruction](#) and [Section 2B-3 Determination of Roadway Design](#) of the VDOT Road Design manual (pages 2B-5 and 2B-6)). As part of the Noise Technical Report and technical files, we are seeking your professional opinion by providing comments for the project noted above. Please distribute this memorandum to the appropriate District staff and combine all responses into one response.

Should you have any questions, please contact me at (804) 371-6768. Thank you for your time and consideration regarding this request.

Comment: Is noise reducing design feasible in lieu of construction of noise walls or sound barriers? For example, the roadway alignment can be shifted away from noise sensitive receptors or the roadway can be placed in deep cut (Location & Design to address)

Response: Noise reducing design was utilized. The road way was planned as a depressed roadway in many areas, including the location of 4 cross roads, where the new roadway will be constructed below existing roads to minimize noise impacts. Additionally, the use of earthen berms to reduce noise impacts will be considered where feasible. The R/W limits do not allow for significant roadway alignment shifting.

Comment: Can the project support the use of low noise pavement in lieu of construction of noise walls or sound barriers? (Materials Division to address)

Response: The Virginia Department of Transportation is not authorized by the Federal Highway Administration to use “quiet pavement” at this time as a form of noise mitigation. Upon completion of the Quiet Pavement Pilot Program and approval from FHWA, the use of “quiet pavement” will be given additional consideration.

Comment: Can landscaping be utilized to act as a visual screen if visual screening is required? (Location & Design to address)

Response: Landscaping will be utilized to act as a visual screen.

Note: Please provide the name of each responder.

Appendix F

WARRANTED, FEASIBLE & REASONABLE WORKSHEETS

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE B
Community Name and/or CNE#	CNE B
Noise Abatement Category(s)	B
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	7
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	3
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	43%
d.	Is the percentage 50 or greater?	No
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness

1 Surface Area (Square foot)-Benefit Factors

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	57,512 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	3
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	2
d. Total number of benefited receptors.	5
e. Surface Area per benefited receptor unit. (ft ² /BR)	11,502 SF/BR
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	No
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	Yes

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	3,575 ft
b. Height range of the proposed noise barrier. (ft)	14-18
c. Average height of the proposed noise barrier. (ft)	16 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$2,127,944
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	Yes
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE C
Community Name and/or CNE#	CNE C
Noise Abatement Category(s)	B and C
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	30
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	3
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	10%
d.	Is the percentage 50 or greater?	No
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness

1 Surface Area (Square foot)-Benefit Factors

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	54,713 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	3
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	0
d. Total number of benefited receptors.	3
e. Surface Area per benefited receptor unit. (ft ² /BR)	18,238 SF/BR
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	No
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	No

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	1,929 ft
b. Height range of the proposed noise barrier. (ft)	26-28
c. Average height of the proposed noise barrier. (ft)	28 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$2,024,381
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	No
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE D
Community Name and/or CNE#	CNE D
Noise Abatement Category(s)	B
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	4
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	4
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	100%
d.	Is the percentage 50 or greater?	Yes
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness

1 Surface Area (Square foot)-Benefit Factors

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	14,090 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	4
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	0
d. Total number of benefited receptors.	4
e. Surface Area per benefited receptor unit. (ft ² /BR)	3,523 SF/BR
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	No
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	Yes

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	1,178 ft
b. Height range of the proposed noise barrier. (ft)	10-14
c. Average height of the proposed noise barrier. (ft)	12 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$521,330
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	Yes
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE F
Community Name and/or CNE#	CNE F
Noise Abatement Category(s)	B
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	2
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	2
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	100%
d.	Is the percentage 50 or greater?	Yes
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness

1 Surface Area (Square foot)-Benefit Factors

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	22,324 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	2
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	0
d. Total number of benefited receptors.	2
e. Surface Area per benefited receptor unit. (ft ² /BR)	11,162 SF/BR
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	No
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	Yes

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	1,387 ft
b. Height range of the proposed noise barrier. (ft)	-16 ft
c. Average height of the proposed noise barrier. (ft)	16 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$825,988
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	Yes
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE G
Community Name and/or CNE#	CNE G
Noise Abatement Category(s)	B
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	1
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	1
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	100%
d.	Is the percentage 50 or greater?	Yes
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness

1 Surface Area (Square foot)-Benefit Factors

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	16,932 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	1
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	3
d. Total number of benefited receptors.	4
e. Surface Area per benefited receptor unit. (ft ² /BR)	4,233 SF/BR
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	No
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	Yes

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	1,053 ft
b. Height range of the proposed noise barrier. (ft)	-16 ft
c. Average height of the proposed noise barrier. (ft)	16 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$626,484
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	Yes
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE H
Community Name and/or CNE#	CNE H
Noise Abatement Category(s)	C
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	10
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	9
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	90%
d.	Is the percentage 50 or greater?	Yes
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness

1 Surface Area (Square foot)-Benefit Factors

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	17,890 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	9
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	0
d. Total number of benefited receptors.	9
e. Surface Area per benefited receptor unit. (ft ² /BR)	1,988 SF/BR
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	No
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	Yes

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	1,112 ft
b. Height range of the proposed noise barrier. (ft)	-16 ft
c. Average height of the proposed noise barrier. (ft)	16 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$661,930
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	Yes
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE J
Community Name and/or CNE#	CNE J
Noise Abatement Category(s)	B
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	3
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	3
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	100%
d.	Is the percentage 50 or greater?	Yes
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness

1 Surface Area (Square foot)-Benefit Factors

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	34,778 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	3
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	0
d. Total number of benefited receptors.	3
e. Surface Area per benefited receptor unit. (ft ² /BR)	11,593 SF/BR
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	No
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	Yes

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	2,162 ft
b. Height range of the proposed noise barrier. (ft)	-16 ft
c. Average height of the proposed noise barrier. (ft)	16 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$1,286,786
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	Yes
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE K1
Community Name and/or CNE#	CNE K1
Noise Abatement Category(s)	B
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	6
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	6
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	100%
d.	Is the percentage 50 or greater?	Yes
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness

1 Surface Area (Square foot)-Benefit Factors

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	32,927 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	6
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	0
d. Total number of benefited receptors.	6
e. Surface Area per benefited receptor unit. (ft ² /BR)	5,488 SF/BR
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	No
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	No

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	1,630 ft
b. Height range of the proposed noise barrier. (ft)	-20 ft
c. Average height of the proposed noise barrier. (ft)	20 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$1,218,299
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	Yes
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE K2
Community Name and/or CNE#	CNE K2
Noise Abatement Category(s)	B
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	1
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	0
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	0%
d.	Is the percentage 50 or greater?	No
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness**1 Surface Area (Square foot)-Benefit Factors**

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	24,262 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	0
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	0
d. Total number of benefited receptors.	0
e. Surface Area per benefited receptor unit. (ft ² /BR)	#DIV/0!
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	#DIV/0!
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	No

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	856 ft
b. Height range of the proposed noise barrier. (ft)	-28 ft
c. Average height of the proposed noise barrier. (ft)	28 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$897,694
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	No
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

**VDOT Highway Traffic Noise Abatement
Warranted, Feasible, and Reasonable Worksheet**

Note: Not all questions apply depending on the design phase which may cause differing answers between preliminary and final design phase. Answers to the questions may change depending on the design phase of the project.

Date:	6-Aug-12
Project No. and UPC:	0029-002-844, P101; UPC 102419
County:	Albemarle
District:	
Barrier System ID:	CNE P
Community Name and/or CNE#	CNE P
Noise Abatement Category(s)	B
Design phase:	Preliminary design

Warranted

1	Community Documentation (if applicable)	
a.	Date community was permitted. (Per 23CFR 772 this is the date the building permit was issued).	NA
b.	Date of approval for the Categorical Exclusion (CE), Record of Decision (ROD), or Finding of No Significant Impact (FONSI):	NA
c.	Does the date in 1.a precede the date in 1.b? If yes, proceed to Warranted Item 2. If no, consideration of noise abatement is not warranted. Proceed to "Decision" block and answer "no" to warranted question. As the reason for this decision, state that "Community was permitted after the date of approval of CE, ROD, or FONSI, as appropriate."	NA
2	Criteria requiring consideration of noise abatement	
a.	Project causes design year noise levels to approach or exceed the Noise Abatement Criteria?	Yes
b.	Project causes a substantial noise increase of 10 dB(A) or more?	Yes

Feasibility

1	Impacted receptor units	
a.	Number of impacted receptor units:	3
b.	Number of impacted receptor units receiving 5 dB(A) or more insertion loss (IL):	3
c.	Percentage of impacted receptor units receiving 5 dB(A) or more IL	100%
d.	Is the percentage 50 or greater?	Yes
2	Will placement of the noise barrier cause engineering or safety conflicts, e.g drainage issues or site distance issues?	No
3	Will placement of the noise barrier restrict access to vehicular or pedestrian travel?	No
4	Will placement of the noise barrier conflict with existing utility locations?	No

Reasonableness

1 Surface Area (Square foot)-Benefit Factors

a. Surface Area (Total square foot) of the proposed noise barrier. (ft ²)	21,000 SF
b. Impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	3
c. Non-impacted noise sensitive receptor(s) receiving 5 dB(A) IL or more.	5
d. Total number of benefited receptors.	8
e. Surface Area per benefited receptor unit. (ft ² /BR)	2,625 SF/BR
f. Is (1e) less than or equal to the maximum square feet per benefited receptor (MaxSF/BR) value of 1600?	No
g. Does the barrier provide an IL of at least 7 dB(A) for at least one impacted receptor in the design year?	Yes

2 Additional Noise Barrier Details

a. Length of the proposed noise barrier. (ft)	1,755 ft
b. Height range of the proposed noise barrier. (ft)	-12 ft
c. Average height of the proposed noise barrier. (ft)	12 ft
d. Cost per square foot. (\$/ft ²)	\$37/SF
e. Total Barrier Cost (\$)	\$777,000
f. Barrier Material	Absorptive

3 Community Desires Related to the Barrier

Do at least 50 percent of the benefited receptor unit owner(s) and renters desire the noise barrier? If yes, continue to "decision" block. If no, the barrier can be considered not to be reasonable. Proceed to "decision" block and answer "no" to reasonableness question. As the reason for this decision, state that "The majority of the impacted receptor unit owners do not desire the barrier."

Decision

Is the Noise Barrier(s) WARRANTED?	Yes
Is the Noise Barrier(s) FEASIBLE?	Yes
Is the Noise Barrier(s) REASONABLE?	No

Additional Reasons for Decision:

Community Solicitation to be completed upon FHWA/VDOT concurrence.

Appendix G

REFERENCES

References

- Virginia Department of Transportation, *Highway Traffic Noise Impact Analysis Guidance Manual*, approved March 15, 2011, effective July 13, 2011, updated September 16, 2011.
- Virginia Department of Transportation, Section 107.14(b) 3 Noise (VDOT, 2002).
- Virginia State Noise Abatement Policy.
- Federal Highway Administration, Federal Aid Policy Guide 23 CFR 772, U.S. Government Printing Office, updated December 9, 1991.
- U.S. Department of Transportation, Federal Highway Administration, “*FHWA Traffic Noise Model User’s Guide*,” FHWA Report No. FHWA-PD-96-009, January 1998.
- U.S. Department of Transportation, Federal Highway Administration, “*Highway Traffic Noise Analysis and Abatement Policy and Guidance*,” June 1995.
- U.S. Department of Transportation, Federal Highway Administration, “*Measurement of Highway-Related Noise*,” FHWA Report No. FHWA-PD-96-046, May 1996.

Appendix H

LIST OF PREPARERS & REVIEWERS

List of Preparers / Reviewers

McCormick Taylor, Inc.

Josh J. Wilson

Senior Acoustical Scientist

Education: *B.S., Geo-Environmental Studies*

M.S., Geo-Environmental Studies

Professional Experience: 11.3 Years

Role: Project Coordination, Noise Modeling, and Report Preparation

Rich A. Butala

Contract Manager

Education: *B.S., Environmental Resource Management*

Professional Experience: 24.5 Years

Role: QA/QC

Jack A. Cramer

Air Quality and Acoustical Scientist

Education: *B.S., Geo-Environmental Studies*

Professional Experience: 12.2 Years

Role: Report Preparation

Brennan Snyder Collier

Senior Environmental Planner, Associate.

Education: *B.A., Interdisciplinary Studies – Environmental Science*

B.A., Geology

Professional Experience: 15.3 Years

Role: QA/QC

Virginia Department of Transportation

Paul Kohler

VDOT Noise Abatement Section Manager

Education: *B.S. Terrestrial Ecology*

Professional Experience: 19.5 Years

Role: Technical Analysis Reviewer

LJ Muchenje, P.E.

VDOT Noise Abatement Engineer

Education: *B.S. Mechanical Engineering*

Professional Experience: 5 Years

Role: Technical Analysis Reviewer