

SR 400 (I-4) Project Development and Environment (PD&E) Study FM No.: 432100-1-22-01



Noise Study Report

Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92

Seminole County (77160), Florida

July 2016



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1.0 Summary of Project

The Florida Department of Transportation (FDOT) is conducting an update/reevaluation of the Project Development and Environment (PD&E) studies for the extension of proposed express lanes for State Road 400 (SR 400)/Interstate 4 (I-4). The project limits in the original PD&E studies were:

- West of Memorial Boulevard (SR 546) to the Polk/Osceola County Line, (29.5 miles)
- CR 532 (Polk/Osceola County Line) to West of SR 528 Beachline Expressway (13.7 miles), and
- West of SR 528 Beachline Expressway to SR 472 (43 miles).

The corresponding environmental documents associated with these PD&E studies include: Environmental Assessment/Finding of No Significant Impact (EA/FONSI) for SR 400 (I-4) from West of Memorial Boulevard (SR 546) to the Polk/Osceola County Line [Financial Project Number (FPN) 201210 (December 1998)] and from CR 532 (Polk/Osceola County Line) to West of SR 528 (Beachline Expressway) [FPN 242526 and 242483 (December 1999)] and Final Environmental Impact Statement (FEIS) for I-4 from SR 528 (Beachline Expressway) to SR 472 [FPN 242486, 242592 and 242703 (August 2002,Record of Decision Pending)].

The project limits of the current SR 400 (I-4) PD&E reevaluation, herein referred to as I-4 Beyond the Ultimate (BtU) PD&E Reevaluation Study, include a total of approximately 43 miles of roadway sections east and west of the 21-mile, I-4 Ultimate project. The I-4 Ultimate project, which began construction in early 2015, is reconstruction to include new express lanes, of the section of I-4 that extends from west of SR 435 (Kirkman Road) to east of SR 434. For analysis purposes, the current I-4 BtU PD&E study has been divided into the following five segments:

- Segment 1: SR 400 (I-4) from West of CR 532 (Polk/Osceola County Line) to West of SR 528 (Beachline Expressway) Osceola County (92130) and Orange County (75280)
- Segment 2: SR 400 (I-4) from West of SR 528 (Beachline Expressway) to West of SR 435 (Kirkman Road) Orange County (75280)
- Segment 3: SR 400 (I-4) from 1 Mile East of SR 434 to East of SR 15-600/US 17-92 (Seminole/Volusia County Line) Seminole County (77160)
- Segment 4: SR 400 (I-4) from East of SR 15-600/US 17-92 (Seminole/Volusia County Line) to ½ Mile East of SR 472 Volusia County (79110)
- Segment 5: SR 400 (I-4) from West of SR 25/US 27 to West of CR 532 (Polk/Osceola County Line) Polk County (16320)

Since no Record of Decision has been issued by the Federal Highway Administration (FHWA) for Segments 2, 3 and 4, the current PD&E BtU study for these three segments will update the original PD&E study. This noise traffic report was prepared for Segment 3 of the I-4 BtU PD&E study and contains detailed information that fulfills the purpose and need for SR 400 (I-4) Segment 3, from one mile East of SR 434 to East of SR 15-600/US 17-92, Project Development and Environment (PD&E) study.

The purpose of this report is to document changes in support of the PD&E update for the I-4 BtU Segment 3 portion of the FEIS for I-4 from SR 528 (Beachline Expressway) to SR 472 (FPN 242486-1, 242592-1 and 242703-1, August 2002, Record of Decision Pending). This update includes environmental analysis of the original design concept, which showed six general use lanes (GULs) and two high occupancy vehicle (HOV) lanes (6+2), to the current proposed design, which includes six GULs and four express lanes (EL) operating under a variable price toll plan (6+4). Other changes being reanalyzed include stormwater management, access plan and interchange configurations.

1.1 Description of Proposed Action

FDOT is proposing to reconstruct and widen I-4 as part of the I-4 BtU concept. This involves the build-out of I-4 to its ultimate condition through Central Florida, including segments in Polk, Osceola, Orange, Seminole and Volusia Counties. The project limits for the segment analyzed in this report are within an approximate 10-mile segment of I-4 which extends from east of SR 434 (Milepost 4.050) to east of US 17-92 (Milepost 14.135) in Seminole County (herein referred to as I-4 Segment 3), as shown in **Figure 1.1**.

The concept design proposes the addition of two new express lanes in each direction, resulting in a total of ten dedicated lanes for the majority of the I-4 Segment 3 corridor [6 general use lanes (GUL) + 4 express lanes (EL)]. The section of I-4 from the begin project limits to just south of Lake Mary Boulevard will have three GUL and one auxiliary (aux) lane in each direction, resulting in a 12-lane section (6 GUL + 2 Aux + 4 EL) through this portion of the corridor. Although, the interstate is a designated east-west corridor, the alignment follows a southwest to northeast orientation through the limits of Segment 3. The study area in this section from east of SR 434 to east of US 17-92 includes the interchanges at Lake Mary Boulevard, CR 46A, SR 417 (Seminole Expressway)/SR 429 (future Wekiva Parkway), SR 46 and US 17-92. **Figure 1.2** illustrates the proposed mainline typical sections for I-4 Segment 3.

1.2 Purpose and Need

The proposed improvements to I-4 include widening the existing six-lane divided urban interstate to a 10- or 12-lane divided highway in order to improve traffic operations, enhance connectivity and improve mobility by providing travel choices to the motoring public. I-4 is an east-west limited access freeway which links the west and east coasts of Florida, from I-275 in Tampa to I-95 in Daytona Beach. I-4 spans across six counties in Central Florida, traversing through many cities including Lakeland, Celebration, Orlando, Altamonte Springs, Sanford and DeLand. I-4 is a critical component of Florida's Strategic Intermodal System (SIS) which links seaports, rail, airports and other intermodal facilities. This aspect of I-4's significance is evidenced through connectivity provided by major junctions with I-275, I-75, SR 429 (Daniel Webster Western Beltway), SR 417 (Southern Connector/Central Florida Greenway/Seminole Expressway), SR 528 (Martin Andersen Beachline Expressway), SR 91 (Florida's Turnpike), SR 408 (Spessard Lindsay Holland East-West Expressway) and I-95 on the east coast.

I-4 serves as the primary corridor for the movement of people and freight between major population, employment and activity centers in the Central Florida region. When the entire Interstate was fully opened in the early 1960's, it was designed to serve intrastate and interstate travel by providing a critical link between the east and west coasts of Central Florida. Although this role continues to be a crucial transportation function of I-4, the highway also serves large volumes of local and commuter traffic with shorter trip distances. Today, the highway serves as the primary link between hotel/resort complexes and tourist attractions such as Walt Disney World, Universal Studios, Sea World, the International Drive Resort Area and downtown Orlando. Since I-4 is the only north-south limited access facility that is centrally located between the predominant employment centers and the major suburbs to the north, it has become the primary commuting corridor in the Central Florida metropolitan area.

Growth in Central Florida over the past decades has made it difficult for the transportation system to accommodate travel demand. Additionally, traffic congestion and crash incidents have resulted in major delays on the Interstate as well as other arterials surrounding the corridor. Increased congestion levels are experienced outside of the typical morning and afternoon rush-hour periods, affecting mobility levels for more hours of the day and impacting other non-commuter/non-weekday travel. The congestion on I-4 is further evidenced by the less than desirable levels of service on the Interstate as well as well as the crossroads.



Figure 1.1 – Project Location Map

Projections of future population and employment in the region indicate that travel demand will continue to increase well into the future. The ability to accommodate the new travel patterns resulting from growth must be provided to sustain the region's economy. Without the improvements, extremely congested conditions are expected to occur for extended periods of time in both the morning and evening peak periods. Due to these congested conditions, user travel times will continue to increase, the movement of goods through the urban area will be slower, and the deliveries of goods within the urban area will be forced to other times throughout the day. The need for improvements to I-4 is illustrated by the important transportation roles I-4 serves to the Central Florida region and the State of Florida. If no improvements are made to the Interstate, a loss in mobility for the area's residents, visitors and commuters can be expected, resulting in a severe threat to the continued viability of the economy and the quality of life.

This PD&E update involves revising the original design concept showing 6 GULs + 2 HOV lanes, as recommended in the FEIS for I-4 from SR 528 to SR 472 (FPN No. 242486, 242592 and 242703, August 2002, Record of Decision Pending), to the current proposed design of 6 GUL + 4 EL. . The express lanes are tolled lanes and will extend the full length of the project. The access to/from the tolled lanes will be evaluated as part of this effort to determine if changes are needed from the previously approved concept for access to/from the HOV Lanes. The original I-4 PD&E Studies involved physical separation between the general use lanes and the HOV lanes on I -4, with demand management in the HOV lanes. The original demand management strategy was to control the use of the lanes by requiring a minimum number of occupants per vehicle to maintain an acceptable level of service (Level of Service D).

This update also addresses revising the demand management tool to convert the HOV lanes to tolled express lanes. The express lanes will be separated from the general use travel lanes by two shoulders with a barrier wall between the shoulders. A variable pricing tolling plan is proposed for the express lanes. The tolls will vary by time of day and day of week to maintain acceptable levels of service in the express lanes. The tolls will be collected electronically through existing E-Pass, SunPass and other systems currently in place in the Central Florida area. The conversion to express lanes will maintain the same right of way limits as documented previously and will not change the impacts to the social, natural or physical environment.

An update to the Systems Access Modification Report (SAMR), prepared in January 2013 is being completed in conjunction with this effort.

The purpose of this traffic noise study is to determine if noise levels will be likely to increase, if noise-sensitive receptors are (or will be) within the project area, and if noise impacts will occur. If future design-year noise levels at noise sensitive sites approach, meet, or exceed the Noise Abatement Criteria established by FHWA in 23 CFR 772 or increase 15 dB(A) over existing noise levels as a direct result of the transportation improvement project, noise abatement must be considered. The format and content of this report are based on the procedures established in Part 2, Chapter 17 "Noise", of the FDOT PD&E Manual.

The noise analysis guidance provided is based on the regulatory material found in 23 Code of Federal Regulations (CFR), Part 772, and entitled "Procedures for Abatement of Highway Traffic Noise and Construction Noise" for FDOT noise assessments, regardless of funding. This regulation, pursuant to Rule Chapter 335.17, Florida Statutes (F.S.), is available from the FHWA and FDOT.







Typical Section SR 400 (Interstate 4) MP 7.843 to MP 14.178 (Seminole County) Station 2244+00.00 to Station 2578+48.33 Design Speed = 70 MPH

Figure 1.2 – I-4 Segment 3 Proposed Typical Sections

1.3 Existing Facility

The project corridor is located within an urban area of Seminole County, north of the city limits of Orlando. The corridor traverses Longwood, Lake Mary, and Sanford which are smaller cities located outside Orlando. A number of residential communities are located along both sides of the corridor, with a mix of business and professional developments, retail establishments such as hotels, shops, restaurants, churches, and the Seminole Town Center Mall (See Land Use and Habitat Coverage Maps in **Appendix I**). Categorization of land uses under the Florida Land Use Cover Forms and Classification System (FLUCFCS) include the following:

<u>Residential</u> (1000-1300) – This range of land use codes consists of areas containing low, medium, and high density residential housing. These areas are found on both sides of the right-of-way primarily from SR 434 to Lake Mary Boulevard, with a couple of smaller communities between SR 46 and US 17/92. The most densely populated areas are in the Huntington Pointe Subdivision south of Emma Oaks Trail on the eastbound side of I-4 north of the rest area, and the Notting Hill Condominiums south and west of Lake Mary Boulevard.

<u>Commercial and Services (1400)</u> – This land use was observed over a large portion of the project corridor along SR 434, West Lake Mary Boulevard, CR 46A, and SR 46. It includes numerous types of businesses in malls, strip malls and as standalone establishments along the corridor. Numerous automobile dealerships are located between CR 46A and just north of SR 46.

<u>Retail Sales and Services (1410)</u> – This land use was observed over a large portion of the project corridor which consisted of office complexes, shopping centers, and other service/retail oriented businesses along the adjacent roadways. Big-box stores like Gander Mountain, Home Depot, Target and Sam's Club are located along the corridor, and numerous other stores and restaurants can be found from Lake Mary Boulevard to SR 46.

Professional Services (1430) – Medical offices, dental offices, veterinary offices, banks, and other professional offices are located throughout the corridor, primarily at the SR 434 interchange and between Lake Mary Boulevard and SR 46.

<u>Tourist Services (1450)</u> – There are a number of hotels located along the corridor, especially along Greenwood Boulevard to the east of I-4, at Lake Mary Boulevard, and at the CR 46a and SR 46 Interchanges.

Institutional (1700) – This land use consists of schools and institutions such as ITT Technical Institute, Wekiva Christian School, and The Remington College of Nursing.

<u>Religious (1720)</u> – This land use consists of places of worship including churches such as the One Church of Markham Woods and Wekiva Prayer Walk, Neighborhood Alliance Church, and Church of the Living Edge.

<u>Improved Pasture (2110)</u> – This category of land use consists of land which has been cleared, tilled, reseeded with specific grass types and periodically improved with brush control and fertilizer application. A large swath of land on the western side of I-4 between the SR 417 interchange and SR 46 has been converted to improved pasture.

<u>Herbaceous- Dry Prairie (3100)</u> – This land use consists of open, dry treeless areas containing grasses, forbs, sedges, rushes and other herbaceous vegetation. This habitat was observed within several areas between SR 434 and EE Williamson Blvd.

<u>Pine Flatwoods (4110)</u> – This land use consists of natural pine flatwoods, and is located along I-4 between SR 46 and US 17/92.

Hardwood-Conifer Mixed (4340) – Vegetation within this land use consisted of oaks, pine, and other species with no clear canopy dominance between hardwoods and conifers. Several patches were observed between SR 434 and Lake Mary Boulevard.

<u>Reservoirs</u> (5300) – This land use designates all retention ponds and other artificial impoundments used for irrigation and flood control along the project corridor and within residential developments.

Cypress (6210) – Dominant vegetation consisted of cypress and was observed at US 17/92 along Lake Monroe and the St. Johns River.

Freshwater Marsh (6410) – Vegetated non-forested wetlands usually defined to low-lying areas or depressions in the landscape can be found adjacent to the roadway in several places between SR 434 and Lake Mary Blvd. and within the interchanges at Lake Mary Boulevard and US 17/92.

Roads and Highways (8140) – This land use designates all major and minor roads throughout the project corridor.

<u>Water Supply Plants (8330)</u> – There is a water supply plant west of the westbound lanes of I-4 north of Lake Mary Boulevard off of International Parkway.

<u>Sewage Treatment Facilities (8340)</u> – There is a sewage treatment facility east of I-4 between SR 434 and EE Williamson Boulevard.

2.0 Methodology

2.1 Noise Metrics

The noise levels documented in this report are based upon the hourly equivalent sound level [Leq(h)]. The Leq(h) represents the steady-state sound level, which contains the same amount of acoustic energy as the actual time-varying sound level over a one hour period. Sound levels are measured and calculated in decibels (dB), which is a unit of measure used to determine sound intensities. Leq(h) is measured on an A-weighted decibel scale (dBA), which is the frequency of sound that is heard by the human ear.

2.2 Traffic Noise Modeling

The Federal Highway Administration's (FHWA) Traffic Noise Modeling (TNM) Version 2.5 computer program was used to determine if noise abatement was warranted, and, if so, considered reasonable and feasible for any noise-sensitive sites. This model is the latest version of TNM and was used as required by 23 CFR 772. The model estimates the acoustic intensity at noise receptor sites based upon the roadway design and is influenced by vehicle speed and type. TNM 2.5 predicted noise levels are reported in dB(A) Leq(h). To validate TNM, potential noise receptor sites were identified throughout the project corridor. Information that was loaded into the noise model to predict existing and projected noise levels includes: roadway geometry; vehicle types, volumes, and speeds; existing barrier and buffer information, propagation path; and, climatic conditions. The results of the validation are shown in Section 4.1.

2.3 Existing Noise Levels

In order to collect data on existing noise levels within the project area, field monitoring was conducted by four noise monitoring specialists in accordance with the FHWA's guidance document "Measurement of Highway-Related Noise." on

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July 25, 2013. QuestTM Model M-28 Noise Logging Dosimeters were used to collect sound levels at the location. The dosimeter was calibrated at the site just prior to the onset of sampling to ensure accuracy and mounted on a tripod at a height of approximately 5 feet which is standard and equivalent to the average height of the human ear. Noise readings were taken 3 separate times at 15-minute intervals during both the morning (10:00 - 11:00) and afternoon (1:00 - 2:00), periods of non-peak traffic activity along the project corridor.

The noise validation location was on the east side of I-4 at the right-of-way line adjacent to the power sub-station approximately 1 mile south of the Lake Mary Boulevard Interchange. The location provided clear site lines to observe traffic on both sides of I-4. The right-of-way adjacent to I-4 is mowed grass, with some planting and landscape vegetation in areas with slopes leading up to the chain link fence.

In order to gauge traffic volumes during the monitoring periods, traffic counts of the number and type of vehicles traveling in each direction at the monitoring station were recorded. Traffic counts were taken simultaneously during each of the 3 noise recording events. Vehicles were categorized as either 1) passenger cars or light trucks, 2) medium trucks (box or panel trucks of one double-axle) or 3) heavy trucks (two or more double-axles) and motorcycles. Field notes were collected to record general weather and environmental conditions, and all unusual or otherwise noteworthy sound events. Traffic speeds for passing vehicles were determined by the use of a daily calibrated radar gun and recording the resulting speeds during timed monitoring runs.

Peak hourly traffic volumes were used in the modeling effort and were based on the design traffic analysis conducted for this project. The speeds used in the TNM modeling program for the model validation were based on the average observed speeds of 65 mph for cars and trucks during the data collection.

Design files supplied by HNTB were used to establish the input parameters for modeling the roadway, including vertical and horizontal geometry and ground elevations.

2.4 Noise Abatement Criteria

The FHWA established Noise Abatement Criteria (NAC) for seven land use categories. If predicted noise levels approach or exceed the NAC levels, or a substantial noise increase is predicted, noise abatement must be considered. A substantial noise increase occurs when the existing noise level is predicted to be exceeded by 15 dB(A) or more by the project. FDOT defines 'approach' as within 1.0 dB(A) of the FHWA criteria.

Noise sensitive receptor sites include areas where frequent exterior human use occurs and where a reduced noise level would be beneficial. Included are lands which require quiet (Activity Category A), residential areas (Activity Category B), a variety of non-residential land uses such as parks, schools, places of worship, and medical facilities (Activity Category C), and commercial properties with areas of exterior use such as restaurants, hotels, and other places of business (Activity Category E). Activity Category D includes noise sensitive sites that have interior uses but no exterior activities such as hospitals, libraries, recording studios, television studios, and public meeting rooms. Activity Categories F (industrial and retail facilities) and G (undeveloped lands) have no exterior uses and are not considered noise sensitive and thus do not have any noise abatement criteria (see Table 1 - Noise Abatement Criteria [NAC]). The land uses occurring within the project study area were described previously in Section 1.3.

TABLE 1 – NOISE ABATEMENT CRITERIA

| | NOIS | Ε ΑΒΑΤΕΜ | ENT CRITERIA | [Hourly A-Weighted Sound Level-decibels (dB(A))] |
|--|---|---|---|---|
| A ativity | A ativity | $ aa(h)^1$ | Fuchantian | |
| Category | FHWA | EEQ(N) FDOT | - location | Description of activity category |
| A | 57 | 56 | 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 ² | 67 | 66 | Exterior | Residential |
| C ² | 67 | 66 | Exterior | Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings. |
| D | 52 | 51 | Interior | Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios. |
| E ² | 72 | 71 | Exterior | Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F. |
| F | - | - | - | Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing. |
| G | - | - | - | Undeveloped lands that are not permitted. |
| Part 2, Chapter 1 The Leq(h) Ac 2 Includes unde Note: FDOT def result of the tra | 17 of PD&E N tivity Criteria veloped lands ines that a su insportation in | 1anual (5/24/ values are for s permitted fo bstantial nois mprovement | (2011) (Based on 7 r impact determin or this activity cate e increase occurs project. When this | Table 1 of 23 CFR Part 772) ation only, and are not design standards for noise abatement measures. egory. when the existing noise level is predicted to be exceeded by 15 decibels or more as a s occurs, the requirement for abatement consideration will be followed. |

For reference, the relationship between typical noise levels and common indoor/outdoor activities is provided in **Table 2**.

| COMMON OUTDOOR ACTIVITIES | NOISE LEVEL dB(A) | COMMON INDOOR ACTIVITIES |
|--|----------------------|---|
| let Elv-over at 1000 ft | 110 | Rock Band |
| | 100 | |
| Gas Lawn Mower at 3 ft | | |
| Diesel Truck at 50 ft at 50 mnh | 90 | Food Blender at 1 m (3 ft) |
| | 80 | Garbage Disposal at 1 m (3 ft) |
| Noise Urban Area (Daytime) | | |
| Gas Lawn Mower at 100 ft | 70 | Vacuum Cleaner at 10 ft |
| Commercial Area | C0 | Normal Speech at 3 ft |
| Heavy Traffic at 300 ft | 60 | Larga Rusinass Offica |
| Quiet Urban Davtime | 50 | Dishwasher Next Room |
| | | |
| Quiet Urban Nighttime | 40 | Theater, Large Conference Room (Background) |
| Quiet Suburban Nighttime | | Library |
| | 30 | Bedroom at Night, Concert Hall (Background) |
| Quiet Rural Nighttime | 20 | |
| | 20 | |
| | 10 | |
| Lowest Threshold of Human Hearing | 0 | Lowest Threshold of Human Hearing |
| Source: California Dept. of Transporta | tion Technical N | oise Supplement, Oct. 1998, Page 18. |

Table 2 – Typical Noise Levels

3.0 Noise-Sensitive Sites

A noise-sensitive receptor is defined as "any property (owner occupied, rented, or leased) where frequent exterior human use occurs". The project was broken up into geographic noise sensitive areas to facilitate the analysis of traffic related noise impacts. Fifteen (15) noise sensitive areas that have the potential to be impacted by the project were identified (**Figure 3.1**). The potentially impacted noise-sensitive sites identified for this segment consist of single family residences, hotels, multi-family residences, churches, television broadcast studios, medical offices, recreation areas, and county trails. The Seminole County Building Department was contacted for all approved building permits within the developments along the project corridor. The properties identified during this search were all modeled as existing receptors in the TNM runs. The noise sensitive areas within the study area present several different types of sites to model within TNM: multi-family buildings with external balconies were modeled using several points to represent similar receptors at different locations in the building, while single family residences were modeled using a point to represent each site. Hotels with no external balconies were modeled using a point to represent each site. Hotels with no external balconies were modeled using representative points on the ground floor, first floor, and second floor where appropriate. First floor receptor sites were modeled 5 feet above ground level, while second and third story receptors were modeled at 15 and 25 feet above ground level. There are no additional noise-sensitive sites such as golf courses, libraries, or other areas that require quiet conditions within the study area. Following is a description of each Noise Sensitive Area:



Figure 3.1 – Noise Sensitive Areas

Noise Sensitive Area A

This area is located west of I-4 between SR 434 and E.E. Williamson Road. This noise sensitive area includes the Seminole Wekiva Trail, single family homes, the Neighborhood Alliance Church, Markham Woods Church, and Church on the Living Edge. Although portions of this area are within the limits of the project area, this area was included in the noise study conducted for the I-4 Ultimate project (Draft Noise Study Report Addendum for SR 400 (I-4) Ultimate, July 2013) and therefore not re-analyzed in this study.

Noise Sensitive Area B

This area is located east of I-4 between SR 434 and E.E. Williamson Road. This noise sensitive area includes the Springwood Village Condominiums, single family homes, and a private park. Although portions of this area are within the limits of the project area, this area was included in the noise study conducted for the I-4 Ultimate project (Draft Noise Study Report Addendum for SR 400 (I-4) Ultimate, July 2013) and therefore not re-analyzed in this study. This area also includes two noise barriers recommended in the original PD&E study that were subsequently constructed under a separate project. The analysis conducted for the I-4 Ultimate addressed potential noise impacts in this area resulting in the addition of a 14-foot barrier mounted sound wall to replace the 60 foot section of existing sound wall being impacted by the project.

Noise Sensitive Area C

This area is located west of I-4 and north of E.E. Williamson Road to Dixon Road. This noise sensitive area includes single family homes in Markham Meadows, One Church Markham Woods Christian Academy, and the Wekiva Prayer Walk.

Noise Sensitive Area D

This area is located east of I-4 between E.E. Williamson and Emma Oaks Trail. This noise sensitive area includes single family homes in the North Cove, Northridge Point, Bolling Farms, and two private parks.

Noise Sensitive Area E

This area is located west of I-4 from Dixon Road to south of Long Pond Road. This noise sensitive area is comprised of single family homes in Mandarin Estates.

Noise Sensitive Area F

This area is located east of I-4 along Skyline Drive. This noise sensitive area is comprised of FOX 35 and the Good Life television broadcasting companies.

Noise Sensitive Area G

This area is located west of I-4 between Long Pond Road and Lake Mary Boulevard. This noise sensitive area includes single family homes in Robinwood, Oakmonte Village senior living facility, ITT Technical Institute, Notting Hill Apartments, Hyatt Place hotel, and various commercial and medical offices.

Noise Sensitive Area H

This area is located east of I-4 north of Sand Pond Road. This noise sensitive area includes commercial office buildings, Filutowski Cataract and Lasik Institute, Candlewood Suites, La Quinta Inn, and two Extended Stay America hotels.

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This area is located east of I-4 north of Lake Mary Boulevard along Currency Circle. This noise sensitive area is comprised of the Homewood Suites and Hilton Garden Inn hotels.

Noise Sensitive Area K

This area is located west of I-4 south of CR 46A (H.E. Thomas Jr. Parkway). This noise sensitive area is comprised of the Residence Inn by Marriott and Orlando Marriott Lake Mary hotels.

Noise Sensitive Area L

This area is located east of I-4 to the north and south of SR 46. This noise sensitive area includes Springhill Suites, restaurants and gasoline service stations, the Royal Inn, and the Comfort Inn.

Noise Sensitive Area M

This area is located west of I-4 north of SR 46 along North Oregon Street. This noise sensitive area is Silverleaf, a single family home residential neighborhood.

Noise Sensitive Area N

This area is located west of I-4 to the south of Orange Boulevard. This noise sensitive area is comprised of single family homes.

Noise Sensitive Area O

This area is located east of I-4 along North Elder Road and School Street. This noise sensitive area is comprised of single family homes.

4.0 Predicted Noise Levels

4.1 Model Validation and Background Noise Levels

The TNM model was validated at the field sampling location along eastbound I-4 near the power sub-station. Field recorded noise levels varied slightly from TNM predictions. Contributing noise levels from sources other than roadway-generated noise along I-4 were not input into the TNM. Other noise sources include aircraft approaching/departing Sanford-Orlando International Airport, lawn equipment, and traffic-generated noise on adjacent surface roads. As seen in **Table 3**, TNM Version 2.5 predictions were within 3 decibels (dBA) of the field recorded noise levels. Therefore, the model was validated.

| Field Recording Station | Field Recorded | TNM Predicted | Δ | Threshold | Validate |
|-------------------------|----------------|---------------|-----|-----------|----------|
| Location 1 AM | 70.5 | 73.5 | 3 | 3 | YES |
| Location 1 PM | 70.8 | 73.5 | 2.7 | 3 | YES |

Table 3. TNM Validation Results (dBA)

4.2 Future Noise Impact Analysis

Future noise was modeled for the proposed project at potential noise receptor areas for the future build conditions in the design year 2040 (TNM results are included in **Appendix III**). Traffic data utilized was based upon Level of Service C as obtained from the generalized tables of FDOT's Level of Service Handbook (December 2012) and shown in Table 4. Based upon the design traffic models for the design year, I-4 is expected to operate at a low level of service (D or E), which precipitated the use of LOS C for the TNM model.

Note: trucks will not be permitted in the Express Lanes, and for the purpose of the TNM model, trucks were only spread into the outside middle and auxiliary outside lanes for General Use.

| Roadway Segment | Level of Service "C" Volume | Cars | Medium Trucks | Heavy Trucks | Speed |
|----------------------------|-----------------------------|------|---------------|--------------|-------|
| Auxiliary Outside | | 1429 | 49 | 98 | 65 |
| General Use Outside Middle | C 000 | 1429 | 49 | 97 | 65 |
| General Use Inside Middle | 6,009 | 1429 | 0 | 0 | 65 |
| General Use Inside | | 1429 | 0 | 0 | 65 |
| Express Outside | 2 220 | 1660 | 0 | 0 | 65 |
| Express Inside | 5,320 | 1660 | 0 | 0 | 65 |

Table 4. Traffic Data for TNM Modeling

Noise Sensitive Area A

This area consists of Activity Categories B and C and was included in the I-4 Ultimate Noise Study conducted for the project to the west of this study and therefore was not re-analyzed in this study. This analysis identified 3 sites that would be impacted by the project.

Noise Sensitive Area B

This area is comprised of Activity Categories B, C, and D. This area was included in the I-4 Ultimate Noise Study and therefore was not re-analyzed in this study. This area includes two existing noise barriers. 12 sites were predicted to be impacted by the project and the removal of 60 feet of the existing 18 foot ground mounted barrier along the right-of-way. The results of that noise study indicate that a new 14-foot barrier mounted sound wall will be constructed along the outside shoulder of I-4 eastbound from Station 734+35 to Station 738+85. This 450 foot long barrier was recommended due to the project's need to remove 60 feet of the existing 18-foot sound barrier located near the right-of-way. No additional noise impacts for this area were identified in the report.

Noise Sensitive Area C

This area is representative of Activity Categories B, C, and D and has 10 sites predicted to be impacted.

Noise Sensitive Area D

This area is representative of Activity Categories B and C and has 51 sites predicted to be impacted.

Noise Sensitive Area E

This area is representative of Activity Category B and has 40 sites predicted to be impacted.

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Noise Sensitive Area F

This area is representative of Activity Categories C and D and has 2 sites predicted to be impacted.

Noise Sensitive Area G

This area is representative of Activity Categories B, C, D, and E and has 12 sites predicted to be impacted.

<u>Noise Sensitive Area H</u> This area is representative of Activity Categories C, D, and E and has 5 sites predicted to be impacted.

<u>Noise Sensitive Area I</u> This area is representative of Activity Categories C and E with no sites predicted to be impacted.

Noise Sensitive Area J

This area is representative of Activity Category E with no sites predicted to be impacted.

Noise Sensitive Area K

This area is representative of Activity Category E with no sites predicted to be impacted

Noise Sensitive Area L

This area is representative of Activity Category E and has 2 sites predicted to be impacted.

Noise Sensitive Area M

This area is representative of Activity Category C with no sites predicted to be impacted.

Noise Sensitive Area N

This area is representative of Activity Category B and has 1 site predicted to be impacted.

Noise Sensitive Area O

This area is representative of Activity Category B and has 2 sites predicted to be impacted.

Table 5 shows the results of the TNM analysis of noise sensitive sites in locations most likely to be impacted and those predicted to exceed the 66 dBA threshold in the future build scenarios.

| Noise Sensitive Area | Activity Category | Number of Impacted Sites |
|----------------------|-------------------|--------------------------|
| А | В, С | 3 |
| В | B, C, D | 12 |
| С | B, C, D | 10 |
| D | В, С | 51 |
| E | В | 40 |
| F | C, D | 2 |
| G | B, C, D, E | 12 |
| Н | C, D, E | 5 |
| I | С, Е | 0 |
| J | E | 0 |
| К | E | 0 |
| L | E | 2 |
| М | С | 0 |
| N | В | 1 |
| 0 | В | 2 |

Table 5 Noise Sensitive Areas

5.0 Noise Abatement

The FHWA requires that various noise abatement measures be considered for a proposed project when the predicted noise levels exceed noise abatement criteria, or, will increase substantially over existing levels. If none of the potential receptors exceed the abatement criteria or show a substantial increase over existing levels, noise abatement will not be required for the project. The most common and effective noise abatement measure is the construction of a noise barrier. As noted in 23 CFR 772.13(c)(1), the FHWA requires that, at a minimum, FDOT shall consider noise abatement in the form of a noise barrier. FHWA also considers the following activities as acceptable noise abatement measures.

5.1 Alignment Selection

Alignment selection involves the orientation of the project location in such a way as to minimize impacts and costs. For noise abatement, alignment selection is primarily a matter of (a) positioning the roadway at a sufficient distance from the noise-sensitive sites, and, (b) positioning the roadway at a location where other noise abatement techniques such as a noise abatement wall could be implemented. This project is constrained due to it being a widening of an existing roadway and cannot truly alter the existing alignment without substantial changes to the surrounding land uses.

5.2 Property Acquisition

Property acquisition for buffer zones alone is considered to be costly. Buffer zones can provide relief from noise impacts by creating added distance between the noise generator and the noise receptor. Methods of applying land use controls to maintain and establish buffered areas through zoning may be established by local jurisdiction. No property acquisition for noise abatement is proposed for this project.

5.3 Land Use Controls

One of the most effective noise abatement measures is the proper implementation of land use controls to minimize future noise impacts. Local jurisdictions with zoning control can implement policies to limit the growth on noise-sensitive land

uses adjacent to the roadway. Development planned for the study area includes additional residential and commercial areas in this heavily developed urban area. Therefore, no potential land use controls are available to assist in noise abatement in this corridor.

5.4 Traffic Management

Traffic management measures that limit vehicle type, speed, volume, and time of operations can be effective noise abatement measures. Such measures may be considered in the future if noise levels resulting from the proposed project approach or exceed the abatement criteria. No traffic management measures will be utilized as I-4 is a heavily traveled interstate highway and the only direct north-south interstate highway through the greater Orlando area.

5.5 Noise Barriers

Noise barriers reduce noise levels by blocking the sound path between a roadway and noise-sensitive sites. To be effective, barriers have to be continuous, sufficiently long and tall, shield a reasonably sized impacted area or a number of people, and provide appreciable noise level reduction. Noise barriers are to be modeled at locations where noise increases exceeded abatement criteria during the design year, and evaluated for feasibility and reasonableness. A wide range of factors are used to evaluate noise abatement measures as reasonable and feasible. Feasibility deals with engineering considerations such as the ability to construct a barrier using standard construction techniques and methods to provide a reduction of at least 5 dBA to an impacted receptor site. Additionally, in order for a noise barrier to be considered acoustically feasible, at least two impacted receptor sites must achieve a 5dBA reduction or greater.

When a noise abatement measure such as a sound barrier is determined to be feasible, the reasonableness is then evaluated. This implies 'common sense' and 'good judgment' were applied in a decision related to noise abatement. Three reasonableness factors must be collectively achieved in order for the noise abatement measure to be deemed reasonable: the achievement of the noise reduction design goal (7dBA per FDOT criteria), the cost effectiveness of the noise abatement measure, and the consideration of the viewpoints of the benefited property owners and residents. When examining the cost reasonableness of a modeled noise barrier design for a residential area, the upper limit of \$42,000 per benefited receptor has been set by FDOT using the standard construction cost of \$30.00 per square foot where approximately 1,400 square feet of noise barrier is provided per benefited receptor. A benefited receptor is defined as a noise sensitive site that will obtain a minimum of 5 dBA of noise reduction as a result of a specific noise abatement measure whether or not they are predicted as having a noise impact. Only benefited receptor sites can be included in the calculation of a barrier being cost reasonable.

Several Noise Barriers were deemed reasonable and feasible during the initial PD&E study for this segment. Barriers were constructed under a separate project at two locations within Noise Sensitive Area B, with an additional area of barrier deemed reasonable and feasible during the Noise Study for the I-4 Ultimate within Area B. Additional noise barriers were modeled for Noise Sensitive Areas with multiple impacted sites along the corridor during this analysis as described in the following section of the report. For each area, barriers were modeled as ground-mounted at the edge of the right-of-way, and as barrier-mounted along the edge of the roadway shoulder. For the ground-mounted barriers, barrier heights were analyzed from 16 feet to 22 feet tall, while the heights of the shoulder mounted barriers varied from 8 feet to 14 feet. The optimal barrier design for each analysis (**See Barrier Analysis Maps in Appendix II, TNM Barrier Analysis Runs in Appendix III)** is described in the following section of the report and detailed in **Table 6**.

Noise Sensitive Area A

No noise barriers were analyzed for this area during this study as it was analyzed in the I-4 Ultimate Noise Study in 2013 and had no barriers recommended as reasonable and feasible.

Noise Sensitive Area B

No noise barriers were analyzed for this area during this study as it was analyzed in the I-4 Ultimate Noise Study in 2013 which resulted in the removal of 60 feet of an existing ground mounted barrier and the construction of a 14 foot tall 450-foot long barrier mounted wall between stations 734+35 and 738+85. No additional barriers were recommended as reasonable and feasible, and the remaining existing ground-mounted walls will stay in place.

Noise Sensitive Area C

Noise barriers were analyzed for the impacted sites within this area. Both ground-mounted walls located adjacent to the right-of-way and barrier-mounted walls located at the edge of the shoulder were modeled. The best-case outcome for the ground-mounted wall was barrier BW - C1, with a 22-foot high, 2,559 foot long wall beginning just north of EE Williamson and continuing until Dixon Street just beyond the One Church of Markham Woods Christian Academy. This barrier resulted in 13 receptors receiving at least a 5d(B) reduction (with at least one receiving greater than 7d(B) to meet the design goal) at a total cost of \$1,757,593 (using the unit cost of \$30.00 per square foot), for an average cost of \$135,199 per benefited receptor. The best-case outcome for the barrier-mounted wall was barrier BW - C2, with a 14-foot tall, 2,559 foot long wall with the same starting and ending locations as the ground-mounted wall. This barrier results in 9 receptors receiving at least a 5 d(B) reduction (with at least one receiving greater than 7d(B) to meet the design goal) at least a 5 d(B) reduction (with at least one receiving greater than 7d(B) to meet the design goal) at a total cost of \$1,116,866, for an average cost of \$124,096 per benefited receptor. Both of these wall options are above the \$42,000 cost per benefited receptor and are therefore not cost reasonable.

Noise Sensitive Area D

Noise barriers were analyzed for the impacted sites within this area. Both ground-mounted and barrier-mounted walls were modeled. Two distinct areas were modeled for this area: Area 1 is the residential subdivisions from north of EE Williamson Road to just south of the eastbound rest area, and Area 2 is the residential subdivision from north of the rest area to Emma Oaks Drive.

For Area 1, the best-case outcome for the ground-mounted walls was barrier BW – D3, with a 22-foot high, 1,767 foot long wall beginning just north of EE Williamson. This barrier resulted in 11 receptors receiving at least a 5d(B) reduction (with at least one receiving greater than 7d(B) to meet the design goal) at a total cost of \$1,166,114, for an average cost of \$106,010 per benefited receptor. The best-case outcome for the barrier-mounted wall was barrier BW – D5, with a 14-foot tall, 3,231 foot long wall beginning just north of EE Williamson and ending at Northridge Drive. This barrier resulted in 18 receptors receiving at least a 5 d(B) reduction (with at least one receiving greater than 7d(B) to meet the design goal) at a total cost of \$1,357,061, for an average cost of \$75,392 per benefited receptor. Both of these wall options exceed the \$42,000 cost per benefited receptor threshold and are therefore not cost reasonable.

For Area 2, the best-case outcome for the ground-mounted walls was barrier BW – D6, with a 12-foot high, 1,802 foot long wall beginning just north of the eastbound rest area on ramp continuing to just past Pine Bay Drive. This barrier resulted in 25 receptors with at least a 5d(B) reduction (with at least one receiving greater than 7d(B) to meet the design goal) at a total cost of \$648,709, for an average cost of \$25,948 per benefited receptor. The best-case outcome for the barrier-mounted wall was barrier BW – D7, with a 10-foot tall, 1,746 long wall beginning north of the eastbound rest area on-ramp

continuing to just past Pine Bay Drive. This barrier resulted in 24 receptors receiving at least a 5d(B) reduction (with at least one receiving greater than 7d(B) to meet the design goal) at a total cost \$523,857, for an average cost of \$21,827 per benefited receptor. Because this residential area is located at a lower elevation than the adjacent roadway, the 10-foot wall passes the Line-of-Sight test on TNM 2.5. Both of these wall options are below the \$42,000 cost per benefited receptor threshold and are therefore cost reasonable.

Noise Sensitive Area E

Noise barriers were analyzed for impacted sites within this area. Both ground-mounted and barrier-mounted walls were modeled. The best-case outcome for the ground-mounted barrier was barrier BW – E2, with a 16-foot high, 5,617 foot long wall beginning south of East Crowley Circle and continuing to Long Pond Road. This barrier resulted in 45 receptors receiving at least a 5d(B) reduction (with at least one receiving greater than 7d(B) to meet the design goal) at a total cost of \$2,696,124, for an average cost of \$59,914 per benefited receptor. The best-case outcome for the barrier-mounted wall was barrier BW – E4, with a 14-foot tall, 5,871 foot long wall beginning south of East Crowley Circle and continuing to Long Pond Road. This barrier resulted in 32 receptors with at least a 5 d(B) reduction (with at least one receiving greater than 7d(B) to meet the design goal) at a total cost of \$2,465,953, for an average cost of \$77,061 per benefited receptor. Both of these wall options exceed the \$42,000 cost per benefited receptor threshold and are therefore not cost reasonable.

Noise Sensitive Area F

This noise sensitive area has two sites: FOX 35 and Good Life Television that are impacted. Noise barriers were modeled for this area with both the ground-mounted and barrier-mounted walls being analyzed. Barrier BW – F2, the 14-foot tall 1,243 foot long barrier-mounted wall provided a reduction of at least 7d(B) at one receptor and a 5 d(B) reduction at both receptors. The total cost was \$522,091 with an average cost of \$261,045 per benefited receptor. The best-case outcome for ground mounted barriers was for barrier BW – F1, a 16 foot tall, 1,240 foot long barrier that begins south of the FOX 35 property line and continues to the end of the Good Life Television property line. This barrier would cost \$595,074 for an average cost of \$297,537 per benefited receptor, which is well above the \$42,000 threshold and therefore not cost reasonable.

Noise Sensitive Area G

Noise barriers were analyzed for the impacted sites within this area. An existing 14-foot barrier located along the property line of the residential subdivision north of Long Pond Road to just north of Fentonshire Place is currently providing noise abatement to the residences located here. It is anticipated that the roadway design and right-of-way requirements would not impact this wall. When the analysis of the future design and traffic is performed, this barrier would provide a 5d(B) reduction to 8 receptors, although no receptor achieves a reduction of at least 7 d(B), and four receptors would receive a noise impact. In order to achieve the design goal of at least one receptor at greater than 7d(B), the barrier (shown as barrier BW – G1 in **Table 6**) would need to be 18-feet tall and would then provide at least a 5 d(B) reduction to 11 receptors. This 1,842 foot long wall would cost \$994,611 at an average cost of \$90,419 per benefited receptor (not including the demolition of the existing barrier). This exceeds the \$42,000 threshold per benefited receptor, and also would not be cost reasonable in order to provide a benefit to only 3 more receptors than the existing wall. An additional barrier was modeled adjacent to the Oakmonte Village of Lake Mary. This senior living facility has an existing berm constructed between the facility and I-4 currently providing some noise abatement. A 14-foot tall, 1,216 foot long barriermounted wall (BW – G2) was modeled and provided a 5 d(B) reduction to three receptors. This wall would cost a total of \$510,873, for an average of \$170,291 per benefited receptor which is above the \$42,000 threshold and is not cost reasonable.

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Noise Sensitive Area H

Noise barriers were modeled for this area that has two impacted receptors; the Candlewood Suites Hotel pool and the Filutowski Cataract and Laser Institute. Ground-mounted barriers were analyzed along the right-of-way, with the best-case result being barrier BW – H1, with a 12-foot tall, 1,751 foot long barrier beginning to the south of the Candlewood Suites property line and continuing until just north of the Filutowski Institute property line. This barrier results in both receptors receiving a 5 d(B) reduction with at least one receiving a 7d(B) reduction at a total cost of \$630,231 dollars for an average cost of \$315,115 per benefited receptor. Barrier BW – H2, a 1,751 foot long shoulder-mounted barrier was also modeled, with a 14-foot tall wall reaching the similar results. The total cost of the barrier was \$735,270 for an average cost of \$367,635 per benefited receptor. As the cost for these barriers is above the \$42,000 threshold, neither option is cost reasonable.

Noise Sensitive Area I

No noise barriers were modeled for this area as no receptors were predicted to be impacted by the project.

Noise Sensitive Area J

No noise barriers were modeled for this area as no receptors were predicted to be impacted by the project.

Noise Sensitive Area K

No noise barriers were modeled for this area as no receptors were predicted to be impacted by the project.

Noise Sensitive Area L

As these properties are located below the roadway adjacent to the on-ramp for I-4 eastbound at SR 46, a ground-mounted barrier is not feasible at this location. A shoulder-mounted barrier was modeled along the on-ramp from just north of SR 46 to just north of the Comfort Inn property line. Barrier BW – L1, with a 12-foot tall, 1,372 foot long barrier results in a 5 d(B) reduction at 3 receptors, with at least one receptor receiving at least a 7d(B) reduction. This barrier has a total cost of \$493,781 for an average of \$164,593 per benefited receptor. As the cost exceeds the \$42,000 threshold, this barrier is not cost reasonable.

Noise Sensitive Area M

This noise sensitive area contains the currently under construction residential neighborhood called Silverleaf. This development has privacy wall constructed along the southern side and the eastern side (which is adjacent to I-4) that varies from 6 feet tall at the ends to being 14 feet tall along the portions closest to I-4 (except a small window where a billboard exists which remains 6 feet). This wall is currently providing noise abatement to the receptors within the subdivision. The design plans and right-of-way needs for this area do not appear to impact this wall. When the proposed design is modeled with this wall, no noise related impacts are predicted, so there is no need to analyze additional barriers at this location.

Noise Sensitive Area N

This noise sensitive area contains a residential area with single family homes, though only a single residence is expected to receive a noise impact. Noise barriers were modeled for this area, but no design achieved a reduction of at least 5 d(B) at any one receptor, nor did any design achieve at least a 7 d(B) reduction at one receptor. Therefore, barriers are not feasible at this location.

Noise Sensitive Area O

Sound barriers were analyzed for this noise sensitive area with predicted impacts. Barrier BW – O1, with a 20-foot tall, 1,202 foot long ground-mounted wall was modeled along the edge of the right-of-way resulting in 3 receptors receiving at least a 5d(B) reduction with at least one receptor gaining at least 7 d(B) in reduction. This barrier had a total cost of \$721,460 for an average cost of \$240,487 per benefited receptor, which exceeds the \$42,000 threshold and therefore this barrier is not cost reasonable. Barrier BW – O2, with a 14-foot tall, 1,194 foot long barrier-mounted wall was modeled but did not result in at least one receptors with a 7 d(B) reduction, though at least 1 received a 5 d(B) reduction.

6.0 Conclusions

Based upon the analysis conducted, one noise barrier is recommended for further consideration and public input for the project: For the Pine Bay Drive Subdivision within Noise Sensitive Area D, either a 12-foot tall, 1,802 foot long ground-mounted wall (Barrier BW – D6), or a 10-foot tall, 1,746 foot long barrier-mounted wall (Barrier BW – D7) provide the appropriate noise abatement and meet FDOT requirements.

| | | | | | | Та | ble 6 – Barrie | er Analysis | | | | | |
|------------------------------|---------------------|--------------|---|------------------|------------------|-------------------------------|--|---|--------------------------------------|----------------------------------|--------------------------------------|--|------------------------------|
| Noise Sensitive Locations | Barrier Type | Barrier Name | Barrier Location | Height (feet) | Length (feet) | # of Impacted Receptors | # of Impacted Benefited Receptors | # of Non- Impacted Benefited Receptors | Total # of Benefited Receptors | Avg. Noise Reduction (dBA) | Cost (\$30.00 per square foot) | Average Cost per Benefited Receptor | Comment |
| Area A | none | | | | | | | | | | | | analyzed in I-4 Ultimate NSR |
| Area B | none | | | | | | | | | | | | analyzed in I-4 Ultimate NSR |
| | ground | BW – C1 | I-4 WB ROW | 22 | 2,559 | 10 | 7 | 6 | 13 | 8.1 | \$1,757,593 | \$135,199 | not cost reasonable |
| | ground | BW - C1 | I-4 WB ROW | 20 | 2,559 | 10 | 7 | 3 | 10 | 8.4 | \$1,597,812 | \$177,667 | not cost reasonable |
| Area C | ground | BW – C1 | I-4 WB ROW | 18 | 2,559 | 10 | 6 | 3 | 9 | 8.0 | \$1,438,030 | \$159,781 | not cost reasonable |
| | barrier- mounted | BW – C2 | I-4 WB on barrier (typical) wall | 14 | 2,559 | 10 | 7 | 2 | 9 | 6.6 | \$1,116,866 | \$124,096 | not cost reasonable |
| | ground | BW – D1 | Area 1 - I-4 EB ROW | 22 | 3,370 | 12 | 10 | 9 | 19 | 7.0 | \$2,223,800 | \$117,042 | not cost reasonable |
| | ground | BW – D1 | Area 1 – I-4 EB ROW | 20 | 3,370 | 12 | 10 | 7 | 17 | 6.8 | \$2,021,637 | \$118,919 | not cost reasonable |
| | ground | BW – D1 | Area 1 – I-4 EB ROW | 18 | 3,370 | 12 | 10 | 5 | 15 | 6.6 | \$1,819,473 | \$121,298 | not cost reasonable |
| | ground | BW – D2 | Area 1 – I-4 EB ROW 2 Barriers with gap at Lake Grace | 22 | 1,552 962 | 12 | 10 | 4 | 14 | 7.3 | \$1,658,697 | \$118,478 | not cost reasonable |
| | ground | BW – D3 | Area 1 – I-4 EB ROW | 22 | 1,767 | 12 | 7 | 4 | 11 | 6.8 | \$1,166,114 | \$106,010 | not cost reasonable |
| | ground | BW – D4 | Area 1 – I-4 EB ROW | 22 | 1,603 | 12 | 4 | 4 | 8 | 6.4 | \$1,057,687 | \$132,210 | not cost reasonable |
| Area D | barrier- mounted | BW – D5 | Area 1 - I-4 EB on barrier (typical) wall | 14 | 3,231 | 15 | 8 | 10 | 18 | 6.5 | \$1,357,061 | \$75,392 | not cost reasonable |
| | ground | BW – D6 | Area 2 – I-4 EB ROW | 22 | 1,802 | 27 | 27 | 0 | 27 | 8.8 | \$1,189,300 | \$44,098 | not cost reasonable |
| | ground | BW – D6 | Area 2 – I-4 EB ROW | 20 | 1,802 | 36 | 27 | 0 | 27 | 8.5 | \$1,081,182 | \$40,044 | Cost reasonable |
| | ground | BW – D6 | Area 2 – I-4 EB ROW | 18 | 1,802 | 36 | 26 | 0 | 26 | 8.3 | \$973,064 | \$37,425 | Cost reasonable |
| | ground | BW – D6 | Area 2 – I-4 EB ROW | 16 | 1,802 | 36 | 26 | 0 | 26 | 7.9 | \$864,945 | \$33,267 | Cost reasonable |
| | ground | BW – D6 | Area 2 – I-4 EB ROW | 14 | 1,802 | 36 | 25 | 0 | 25 | 7.6 | \$756,827 | \$30,273 | Cost reasonable |
| | ground | BW – D6 | Area 2 - I-4 EB ROW | 12 | 1,802 | 36 | 25 | 0 | 25 | 7.2 | \$648,709 | \$25,948 | Cost Reasonable |

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| Noise Sensitive Locations | Barrier Type | Barrier Name | Barrier Location | Height (feet) | Length (Feet) | # of Impacted Receptors | # of Impacted Benefited Receptors | # of Non- Impacted Benefited Receptors | Total # of Benefited Receptors | Avg. Noise Reduction (dBA) | Cost (\$30.00 per square foot) | Average Cost per Benefited Receptor | Comment |
|------------------------------|---------------------|--------------|---|------------------|------------------|-------------------------------|--|---|--------------------------------------|----------------------------------|---|--|---------------------|
| | barrier- mounted | BW – D7 | Area 2 – I-4 EB on barrier (typical) wall | 14 | 1,746 | 36 | 25 | 0 | 25 | 8.1 | \$733,400 | \$29,336 | Cost Reasonable |
| Area D | barrier- mounted | BW – D7 | Area 2 – I-4 EB on barrier (typical) wall | 12 | 1,746 | 36 | 25 | 0 | 25 | 7.5 | \$628,628 | \$25,145 | Cost Reasonable |
| | barrier- mounted | BW – D7 | Area 2 – I-4 EB on barrier (typical) wall | 10 | 1,746 | 36 | 24 | 0 | 24 | 6.6 | \$523,857 | \$21,827 | Cost Reasonable |
| | ground | BW-E1 | I-4 WB ROW | 22 | 8,024 | 40 | 35 | 26 | 61 | 8.9 | \$5,295,824 | \$86,817 | not cost reasonable |
| | ground | BW – E1 | I-4 WB ROW | 20 | 8,024 | 40 | 35 | 23 | 58 | 8.8 | \$4,814,386 | \$83,006 | not cost reasonable |
| | ground | BW – E1 | I-4 WB ROW | 18 | 8,024 | 40 | 35 | 17 | 52 | 8.7 | \$4,332,947 | \$83,326 | not cost reasonable |
| | ground | BW – E1 | I-4 WB ROW | 16 | 8,024 | 40 | 34 | 13 | 47 | 8.6 | \$3,851,508 | \$81,947 | not cost reasonable |
| | ground | BW – E2 | I-4 WB ROW | 22 | 5,617 | 40 | 35 | 21 | 56 | 9.1 | \$3,707,171 | \$66,199 | not cost reasonable |
| | ground | BW – E2 | I-4 WB ROW | 20 | 5,617 | 40 | 34 | 19 | 53 | 8.9 | \$3,370,156 | \$63,588 | not cost reasonable |
| Area E | ground | BW – E2 | I-4 WB ROW | 18 | 5,617 | 40 | 34 | 14 | 48 | 8.8 | \$3,033,140 | \$63,190 | not cost reasonable |
| | ground | BW – E2 | I-4 WB ROW | 16 | 5,617 | 40 | 34 | 11 | 45 | 8.5 | \$2,696,124 | \$59,914 | not cost reasonable |
| | barrier- mounted | BW – E3 | l-4 WB on barrier (typical) wall | 14 | 5,872 | 40 | 16 | 1 | 17 | 6.3 | \$2,466,394 | \$145,082 | not cost reasonable |
| | barrier- mounted | BW – E4 | I-4 WB on barrier (typical) wall | 14 | 5,871 | 40 | 29 | 3 | 32 | 7.2 | \$2,465,953 | \$77,061 | not cost reasonable |
| | barrier- mounted | BW – E5 | I-4 WB on barrier (typical) wall | 14 | 7,828 | 40 | 29 | 3 | 32 | 7.2 | \$3,287,729 | \$102,741 | not cost reasonable |
| | barrier- mounted | BW – E6 | I-4 WB on barrier (typical) wall | 14 | 4,696 | 40 | 9 | 0 | 9 | 6.7 | \$1,972,281 | \$219,142 | not cost reasonable |
| | ground | BW – F1 | I-4 EB ROW | 16 | 1,240 | 7 | 2 | 0 | 2 | 7.2 | \$595,074 | \$297,537 | not cost reasonable |
| Area F | barrier- mounted | BW – F2 | I-4 EB on barrier (typical) wall | 14 | 1,243 | 7 | 2 | 0 | 2 | 7.0 | \$522,091 | \$261,045 | not cost reasonable |
| Area G | ground | BW – G1 | I-4 WB ROW | 22 | 1,842 | 11 | 1 | 10 | 11 | 7.1 | \$1,215,636 | \$110,512 | not cost reasonable |
| Ared U | ground | BW – G1 | I-4 WB ROW | 20 | 1,842 | 11 | 1 | 10 | 11 | 6.2 | \$1,105,123 | \$100,465 | not cost reasonable |

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| Noise Sensitive Locations | Barrier Type | | Barrier Location | Height (feet) | Length (feet) | # of Impacted Receptors | # of Impacted Benefited Receptors | # of Non- Impacted Benefited Receptors | Total # of Benefited Receptors | Avg. Noise Reduction (dBA) | Cost (\$30.00 per square foot) | Average Cost per Benefited Receptor | Comment |
|------------------------------|---------------------|---------|--|------------------|------------------|-------------------------------|--|---|--------------------------------------|----------------------------------|---|--|---|
| | ground | BW – G1 | I-4 WB ROW | 18 | 1,842 | 11 | 1 | 10 | 11 | 5.9 | \$944,611 | \$90,419 | not cost reasonable |
| Area G | barrier- mounted | BW – G2 | I-4 WB on barrier (typical) wall | 14 | 1,216 | 11 | 3 | 0 | 3 | 6.0 | \$510,873 | \$170,291 | not cost reasonable |
| | ground | BW – G3 | I-4 WB ROW | 22 | 1,216 | 11 | 4 | 0 | 4 | 6.5 | \$802,800 | \$200,700 | not cost reasonable |
| Arres II | ground | BW – H1 | I-4 EB ROW | 12 | 1,751 | 5 | 2 | 0 | 2 | 7.9 | \$630,231 | \$315,115 | not cost reasonable |
| Area n | barrier- mounted | BW – H2 | I-4 EB on barrier (typical) wall | 14 | 1,751 | 5 | 2 | 0 | 2 | 8.7 | \$735,270 | \$367,635 | not cost reasonable |
| Area I | none | | | | | 0 | | | | | | | no impacted receptors |
| Area J | none | | | | | 0 | | | | | | | no impacted receptors |
| Area K | none | | | | | 0 | | | | | | | no impacted receptors |
| Area I | barrier- mounted | BW – L1 | I-4 EB on barrier (typical) wall | 14 | 1,372 | 3 | 2 | 1 | 3 | 7.4 | \$576,078 | \$192,026 | not cost reasonable |
| | barrier- mounted | BW – L1 | I-4 on barrier (typical) wall | 12 | 1,372 | 3 | 2 | 1 | 3 | 6.5 | \$493,781 | \$164,593 | not cost reasonable |
| Area M | none | | | | | 0 | | | | | | | no impacted receptors |
| Area N | none | | | | | 1 | | | | | | | Only 1 receptor impacted |
| | ground | BW-01 | I-4 EB ROW | 22 | 1,202 | 2 | 2 | 1 | 3 | 9.1 | \$793,606 | \$264,535 | not cost reasonable |
| | ground | BW – 01 | I-4 EB ROW | 20 | 1,202 | 2 | 2 | 1 | 3 | 8.4 | \$721,460 | \$240,487 | not cost reasonable |
| Area O | ground | BW - 01 | I-4 EB ROW | 18 | 1,202 | 2 | 2 | 0 | 2 | 9.1 | \$649,314 | \$324,657 | not cost reasonable |
| | barrier- mounted | BW – 02 | I-4 EB on barrier (typical) wall | 14 | 1,194 | 2 | 1 | 0 | 1 | 6.3 | \$501,512 | \$501,512 | did not meet design goal of at least 1 benefited receptor > 7dBA; not cost reasonable |

7.0 Commitments

FDOT is committed to the construction of feasible and reasonable noise abatement measures at the noise impacted location described in the conclusion in Section 6.0 and shown in Table 6 and on the Noise Study Maps in Figure B contingent upon the following conditions:

- Cost analysis indicates that the cost of the noise barriers will not exceed the cost-reasonable criterion.
- Community input regarding supporting types, heights, and locations of the noise barriers is provided to the District Office.
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.

8.0 Construction Noise and Vibration

Construction activities for any of the proposed improvements will have temporary noise impacts for those residents and travelers within the immediate vicinity of the project. Noise and vibration impacts will be caused by heavy equipment movement and construction activities such as pile driving and vibratory compaction. Noise control measures should be implemented according to the FDOT's <u>Standard Specifications for Road and Bridge Construction</u> to minimize or eliminate some potential construction noise and vibration impacts. Section 335, F.S., exempts FDOT from compliance with local ordinances. FDOT policy is to follow the requirement of local ordinances to the extent that is reasonable. However, should unanticipated noise or vibration issues arise during the construction process, the Project Engineer, in coordination with the District Noise Specialist will investigate additional methods of controlling these impacts.

9.0 Public Involvement

As this project will have significant public involvement, the Final NSR will be made available in multiple forms (Public Meetings, Web Site, Circulated to the appropriate local planning/zoning officials) in order to eliminate or minimize noise impacts at future development sites that are incompatible with traffic noise. The public will have opportunities for input during the public meetings and via the web site while the planning and design of the project are ongoing.

10.0 References

- Draft Noise Study Report Addendum for SR 400 / Interstate 4 Ultimate from East of Kirkman Road (SR 435) to east of SR 434 in Orange and Seminole Counties, July 2013
- FDOT's PD&E Manual Part 2, Chapter 17 "Noise" (dated 05/24/2011))
- FDOT's Standard Specifications for Road and Bridge Construction
- FHWA's guidance document "Measurement of Highway-Related Noise."
- Final Environmental Impact Statement (FEIS) for I-4 from SR 528 Beachline Expressway to SR 472 (FPN 242486, 242592 and 242703, 2002)
- Noise Impact Report for SR 400 (I-4) Project Development and Environmental Study, Section 2, prepared by URS and CH2MHill, August 2002.

APPENDICES



STN No. 2024230168





APPENDIX I

Land Use and Habitat Coverage Maps



Figure A - Land Use and Habitat Coverage Map: Sheet 1 of 7

| 1100 | Map Key |
|---|---|
| 3100 | SR 400 (I-4) PD&E- Segment 3 Limits |
| | SR 400 Beyond the Ultimate- Segment 3 Study Area |
| | SR 400 Segment 3 R/W (12/11/2015) |
| | Pond Sites (12/10/2015) |
| A REAL PROPERTY | Land Use and Habitat Coverage |
| | 1100: Residential,LD |
| | 1200: Residential, MD |
| 4170 | 1300: Residential, HD |
| | 1400: Commercial and Services |
| | 1550: Other Light Industrial |
| | 1700: Institutional |
| | 1840: Marinas & Fish Camps |
| | 1850: Parks & Zoos |
| | 1860: Recreational |
| 1100 | 1900: Open land |
| | 2100: Cropland & Pastureland |
| 1700 | 3100: Herbaceous |
| | 3300: Mixed Rangeland |
| | 4110: Pine flatwoods |
| 1700 1100 | 4300: Upland Hardwood Forests |
| | 5100: Streams & Waterways |
| 8370 4300 3104 | 5200: Lakes |
| PONDI | 5300: Reservoirs |
| | 6170: Mixed Wetland Hardwoods |
| | 6210: Cypress |
| 8343 | 6300: Wetland Forested Mixed |
| 8342 8340 | 6400: Vegetated Non-Forested Wetlands |
| | 8120: Railroads |
| | 8140: Roads and Highways |
| ALL COLOR AND A MARK | 8310: Power Facilities |
| | 8320: Power Transmission Lines |
| | 8330: Water supply plants |
| | 8340: Sewage treatment |
| and the set | B370: Surface water collection basins |
| | Cover |
| | |
| | Title: NOISE STUDY REPORT: Segment 3 - Land Use and Habitat Coverage Map |
| | Client/Droip at |
| | Florida Department of Transportation- D5 SR 400 (I-4) Beyond the Ultimate PD&E Study Segment 3: SR 400/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 |
| X, Getmapping, Aerogrid, IGN, IGP, | Project Location: 77110 Volusia County 79110 Volusia County 79110 Volusia County Begin: STA 2043+71.32 - MP 4.05 STA 2578+48.33 - MP 0.0 End: STA 2578.48.33 - MP 14.135 STA 2683+0.00 - MP 0.086 |
| stem: NAD 1983 StatePlane Florida East FIPS 0901 Feet | Prepared by: mLeonard 12/21/2015 Technical Review by: mDrauer 12/21/2015 Independent Review by: jMoore 12/21/2015 |
| 325 650 1,300 | <i>►</i> |
| onment (PD&E) Study FM No. 432100 | 0-1-22-01 |
| | 2024230168 |





Figure A - Land Use and Habitat Coverage Map: Sheet 3 of 7

| 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | Map Key |
|---|---|
| | SR 400 (I-4) PD&E- Segment 3 Limits |
| 1 | SR 400 Beyond the Ultimate- Segment 3 Study Area |
| 2110 | SR 400 Segment 3 R/W (12/11/2015) |
| | Pond Sites (12/10/2015) |
| | Land Use and Habitat Coverage |
| A ANY STATISTICAL | 1100: Residential,LD |
| A PARTY CONTRACTOR | 1200: Residential, MD |
| The state of the second second | 1300: Residential, HD |
| 2130 | 1400: Commercial and Services |
| JEL CA MAR AS. COMMAN | 1,550: Other Light Industrial |
| Hank the state of the | 1700: Institutional |
| a gran to the second | 1840: Marinas & Fish Camps |
| | 1850: Parks & 700s |
| | |
| | |
| 1300 | 2100: Cropland & Pastureland |
| | 3100: Herbaceous |
| | 3300: Mixed Rangeland |
| | 4110: Pine flatwoods |
| 17008370 | 4300: Upland Hardwood Forests |
| 1700 | 5100: Streams & Waterways |
| 8370 | 5200: Lakes |
| | 5300: Reservoirs |
| 8140 | 6170: Mixed Wetland Hardwoods |
| 8140 | |
| The second second | 6300: Wetland Forested Mixed |
| DES DES STR | 6400: Vegetated Non-Forested |
| 7 Lo La Part | Wetlands |
| THE BEAR AND THE | 8120: Railroads |
| | 8140: Roads and Highways |
| See Sugarding and the second | 8310: Power Facilities |
| | 8320: Power Transmission Lines |
| A Stand of the stand of the | 8330: Water supply plants |
| | 8340: Sewage treatment |
| | 8370: Surface water collection |
| | basins |
| | Extented Land Use and Habitat |
| | |
| | |
| 5300 | Title: |
| and the set of | NOISE STUDY REPORT: Segment 3 - |
| | Land Use and Habitat Coverage Map |
| Ante Internet | Client/Project: |
| 8370 | Florida Department of Transportation- D5 SR 400 (I-4) Beyond the Ultimate PD&E Study |
| 8370 | Segment 3: SR 400/Interstate 4 (I-4) from One Mile |
| 5300 | Project Location: |
| 8370 | 7160 Seminole County 79110 Volusia County Regin: STA 2043+71 32 - MP 4 05 STA 2578-48 33 MP 0 0 |
| x, Getmapping, Aerogrid, IGN, IGP, 1400 | End: STA 2578.48.33 - MP 14.135 STA 2583+0.00 - MP 0.086 |
| stem: NAD 1983 StatePlane Florida East FIPS 0901 Feet | Prepared by: mLeonard 12/21/2015 Technical Review by: mDrauer 12/21/2015 Independent Periaw by: MLeonard 12/21/2015 |
| 325 650 1.300 | |
| | |
| | |
| onment (PD&E) Study FM No. 432100 | 0-1-22-01 |



Figure A - Land Use and Habitat Coverage Map: Sheet 4 of 7

SR 400 (I-4) Project Development and Envir

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| 8370 | Map Key |
|--|--|
| 1300 | SR 400 (I-4) PD&E- Segment 3 Limits |
| 8370 490 | SR 400 Beyond the Ultimate- Segment 3 Study Area |
| 5300 | SR 400 Segment 3 R/W (12/11/2015) |
| - Anther - | Pond Sites (12/10/2015) |
| A MALANA | Land Use and Habitat Coverage |
| | 1100: Residential,LD |
| 1700 | 1200: Residential, MD |
| | 1300: Residential, HD |
| | 1400: Commercial and Services |
| | 1550: Other Light Industrial |
| 1400 | 1700: Institutional |
| 5300 | 1840: Marinas & Fish Camps |
| | 1850: Parks & Zoos |
| 5300 | 1860: Recreational |
| | 1900: Open land |
| | 2100: Cropland & Pastureland |
| 8140 8370 | 3100: Herbaceous |
| 5500 | 3300: Mixed Rangeland |
| 5300 | |
| 8370 | 4300: Uplana Harawood Forests |
| A CONTRACTOR OF A CONTRACTOR O | |
| and a called | 5200. Edites |
| | 6170: Mixed Wetland Hardwoods |
| | 6210: Cypress |
| | 6300: Wetland Forested Mixed |
| A MARRIE MAY AND | 6400: Vegetated Non-Forested |
| | Wetlands |
| CALLERS TO MER | 8120: Railroads |
| | 8140: Roads and Highways |
| | 8310: Power Facilities |
| | 8320: Power Transmission Lines |
| No. 1 In In | 8330: Water supply plants |
| | 8340: Sewage treatment |
| | 8370: Surface water collection basins |
| 1 | Extented Land Use and Habitat |
| 8 | Cover |
| 16.0 | |
| a set and a set of the | Title: |
| 1200 | NOISE STUDY REPORT: Segment 3 - |
| Little Contraction | Land Use and Habitat Coverage Map |
| in the second | Client/Project: |
| | Florida Department of Transportation-D5 SR 400 (I-4) Beyond the Ultimate PD&E Study |
| 5300 4340 | Segment 3: SR 400/Interstate 4 (I-4) from One Mile |
| | Project Location: |
| 8370 | 79110 Volusia County Regin: STA 2043+71 32 - MP 4 05 STA 2578+48 33 - MP 0 0 |
| A, Germapping, Aerogrid, IGN, IGP, | End: STA 2578.48.33 - MP 14.135 STA 2578.40.00 - MP 0.086 |
| stem: NAD 1983 StatePlane Florida East FIPS 0901 Feet | repared by: mLeonard 12/21/2015 Technical Review by: mDrauer 12/21/2015 Independent Review by: jMoore 12/21/2015 |
| 325 650 1,300 | |
| | |
| onment (PD&E) Study FM No. 432100 | -1-22-01 |



Figure A - Land Use and Habitat Coverage Map: Sheet 5 of 7

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NOISE STUDY REPORT: Segment 3 - Land Use and Habitat Coverage Map State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 - Seminole County (77160)

erberde.





NOISE STUDY REPORT: Segment 3 - Land Use and Habitat Coverage Map State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 - Seminole County (77160)

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APPENDIX II

Noise Barrier Analysis Maps





Figure B - Noise Barrier Analysis Map: Sheet 1 of 15

SR 400 (I-4) Project Development and Envir

NOISE STUDY REPORT: Segment 3 - Noise Barrier Analysis Map State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 - Seminole County (77160)

| | Map Key |
|---|--|
| | SR 400 (I-4) PD&E- Segment 3 Limits |
| | SR 400 Beyond the Ultimate- Segment 3 Study Area |
| | SR 400 Segment 3 R/W (12/11/2015) |
| S RD | Pond Sites (12/10/2015) |
| | Barrier Walls |
| NSA-A | Modeled Walls C (Not Cost Reasonable) |
| | Proposed Walls (Cost Reasonable) |
| | A Existing Walls |
| NO ROZER | Noise Sensitive Areas (NSA) |
| | NSA-A |
| A CONTRACTOR OF THE OWNER | NSA-B |
| - Contraction of the | NSA-C |
| | NSA-D |
| ALL LAND | NSA-E |
| | NSA-F |
| A House | NSA-G |
| | NSA-H |
| Market Carlo | NSA-I |
| Millings In | NSA-J |
| | NSA-K |
| | NSA-L |
| ··· A damada | NSA-M |
| | NSA-N |
| NSA-B | NSA-O |
| B B B B B B B B B B B B B B B B B B B | Benifited Receiver Areas |
| RINGWO | |
| 15 | |
| | Title: |
| SPRINGWOOD CIR | NOISE STUDY REPORT: Segment 3 - Noise Barrier Analysis Map |
| EDR C | Client/Project: Florida Department of Transportation- D5 SR 400 (I-4) Beyond the Ultimate PD&E Study Segment 3: SR 400/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 |
| K, Getnäpping, Aerogrid, IGN, IGP, | Project Location: 77110 Volusia County 786 Seminole County 79110 Volusia County Begin: STA 2043+71.32 - MP 4.05 STA 2578+48.33 - MP 0.06 End: STA 257848.33 - MP 14.135 STA 2583+0.00 - MP 0.066 |
| stem: NAD 1983 StatePlane Florida East FIPS 0901 Feet | Prepared by: mLeonard 12/21/2015 Technical Review by: mDrauer 12/21/2015 |
| 150 300 600 + + + + + + + + + + + + + + + + + + + | independent keview by: jmoore 12/21/2015 |
| onment (PD&E) Study FM No. 432100 | 0-1-22-01 |



Figure B - Noise Barrier Analysis Map: Sheet 2 of 15

SR 400 (I-4) Project Development and Envir

| Severe States | Map Key |
|---|---|
| | SR 400 (I-4) PD&E- Segment 3 Limits |
| | SR 400 Beyond the Ultimate- Segment 3 Study Area |
| | SR 400 Segment 3 R/W (12/11/2015) |
| | Pond Sites (12/10/2015) |
| | Barrier Walls |
| | Modeled Walls C (Not Cost Reasonable) |
| | Proposed Walls (Cost Reasonable) |
| | A Existing Walls |
| | Noise Sensitive Areas (NSA) |
| | NSA-A |
| | NSA-B |
| PONDU | NSA-C |
| POND | NSA-D |
| POND II | NSA-E |
| AREA WB | NSA-F |
| | NSA-G |
| | NSA-H |
| | NSA-I |
| and the second second | NSA-J |
| and a state of the state of the second state of the | NSA-K |
| | NSA-L |
| | NSA-M |
| A SALE A SALES | NSA-N |
| | NSA-O |
| | Benifited Receiver Areas |
| | |
| P. C. Share 102 | |
| | |
| | |
| 41 × 2 | NOISE STUDY REPORT: Segment 3 - Noise Barrier Analysis Map |
| RI TOWN TRU | Client/Project: Florida Department of Transportation- D5 SR 400 (I-4) Beyond the Ultimate PD&E Study Segment 3: SR 400/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 |
| X, Getmapping, Aerogrid, IGN, IGP, | Project Location: 77100 Seminole County 77100 Seminole County 79110 Volusia County Begin: STA 2043+71.32 - MP 4.05 STA 2578+48.33 - MP 0.05 End: STA 257848.33 - MP 14.135 STA 2583+0.00 - MP 0.086 |
| stem: NAD 1983 StatePlane Florida East FIPS 0901 Feet | Prepared by: mLeonard 12/21/2015 Technical Review by: mDrauer 12/21/2015 |
| 150 300 600 | |
| | |
| onment (PD&E) Study FM No. 432100 | D-1-22-01 |





Figure B - Noise Barrier Analysis Map: Sheet 4 of 15

SR 400 (I-4) Project Development and Envir

| ALL THE BURGER | Map Key |
|--|---|
| | SR 400 (I-4) PD&E- Segment 3 Limits |
| 1810 1924 | SR 400 Beyond the Ultimate- Segment 3 Study Area |
| | SR 400 Segment 3 R/W (12/11/2015) |
| | Pond Sites (12/10/2015) |
| | Barrier Walls |
| E00 | Modeled Walls C (Not Cost Reasonable) |
| | Proposed Walls (Cost Reasonable) |
| | A Existing Walls |
| BRA-E | Noise Sensitive Areas (NSA) |
| | NSA-A |
| | NSA-B |
| | NSA-C |
| | NSA-D |
| | NSA-E |
| | NSA-F |
| | NSA-G |
| | NSA-H |
| | NSA-I |
| B | NSA-J |
| 12 Particular Transfer | NSA-K |
| 1-3 REE | NSA-L |
| AREA EB | NSA-M |
| AREA ER | NSA-N |
| | NSA-O |
| | Benifited Receiver Areas |
| AREA | |
| | Title: |
| | NOISE STUDY REPORT: Segment 3 - Noise Barrier Analysis Map |
| WINDY BUIFF PI | Client/Project: Florida Department of Transportation- D5 SR 400 (I-4) Beyond the Ultimate PD&E Study Segment 3: SR 400/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 |
| X, Getmapping, Aerogrid, IGN, IGP, | Project Location: 77160 Seminole County 79110 Volusia County Begin: STA 2043+71.32 · MP 4.05 STA 2578+48.33 · MP 0.0 End: STA 2578.48.33 - MP 14.135 STA 2583+0.00 - MP 0.086 |
| stem: NAD 1983 StatePlane Florida East FIPS 0901 Feet 150 300 600 Feet | Prepared by: mLeonard 1221/2015 Technical Review by: mDucent 1221/2015 Independent Review by: jMoore 12/21/2015 |
| onment (PD&E) Study _FM No. 43210(|)-1-22-01 |
| | 2024230168 |







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Figure B - Noise Barrier Analysis Map: Sheet 10 of 15

SR 400 (I-4) Project Development and Envir

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NOISE STUDY REPORT: Segment 3 - Noise Barrier Analysis Map State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 - Seminole County (77160)

| | Map Key |
|---|--|
| AL CANT | SR 400 (I-4) PD&E- Segment 3 Limits |
| ERPKWY | SR 400 Beyond the Ultimate- Segment 3 Study Area |
| | SR 400 Segment 3 R/W (12/11/2015) |
| | Pond Sites (12/10/2015) |
| Star & Star | Barrier Walls |
| | Modeled Walls C (Not Cost Reasonable) |
| EXISTING POND EXISTING | Proposed Walls (Cost Reasonable) |
| LOCH | Existing Walls |
| | Noise Sensitive Areas (NSA) |
| MARCE AND | NSA-A |
| and and | NSA-B |
| | NSA-C |
| | NSA-D |
| | NSA-E |
| and the second of the | NSA-F |
| | NSA-G |
| and plant in the second second second | NSA-H |
| RAMP | NSA-I |
| and the second se | NSA-J |
| RAMP | NSA-K |
| | NSA-L |
| | NSA-M |
| and the second | NSA-N |
| POND 311 | NSA-O |
| | Benifited Receiver Areas |
| | |
| | |
| | |
| it. Juli | |
| RD | NOISE STUDY REPORT: Segment 3 - Noise Barrier Analysis Map |
| CR ASA | Client/Project: Florida Department of Transportation- D5 SR 400 (I-4) Beyond the Ultimate PD&E Study Segment 3: SR 400/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 |
| X, Getmapping, Aerogrid, IGN, IGP, | Triject Lucchion. 7910 Volusia County 77160 Seminole County 7910 Volusia County Begin: STA 2043+71.32 - MP 4.05 STA 2578+48.33 - MP 0.0 End: STA 2578-48.33 - MP 14.135 STA 2583+0.00 - MP 0.086 |
| stem: NAD 1983 StatePlane Florida East FIPS 0901 Feet | Prepared by: mLeonard 12/21/2015 Technical Review by: mDrauer 12/21/2015 Independent Review by: jMoore 12/21/2015 |
| 150 300 600 | |
| | |
| onment (PD&E) Study FM No. 432100 |)-1-22-01 |













APPENDIX III

TNM Results

TNM Sound Levels

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | | |
|--|---------|------------------|-----------------------|---------|---------|-------|--------------|----------------------|-------------------------|----------------------|----------------|-----------|----------------------------|------|
| Stantec M. Drauer | | 2 | | | | | | 3 June 20 TNM 2.5 | 15 | | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: | | I-4 BtU | I PD&E | | | | | Calculate | d with TNN | 12.5 | | | | |
| RUN: BARRIER DESIGN: | | I-4 Seg INPUT | gment 3 N F HEIGHT | SAC | | | | | Average a State hi | bavement type | e shall be use | ed unless | | |
| ATMOSPHERICS: | | 68 de | g F, 50% F | ЯH | | | | | of a diffe | ent type with | approval of I | EHWA. | b | |
| Receiver | CN 2 | #Dis | Evicting | No Bar | riar | | | | | With Barriar | | | | |
| | | | | I And I | | | Increase ove | r existing | Twee | Calculated | Noise Redu | ction | | |
| | | | | Calcula | ated Cr | rit'n | Calculated | Crit'n Sub'l Inc | Impact | Calculated LAeq1h | Calculated | Goal | Calculate minus Goal | pe |
| | | | dBA | dBA | đ | 3A | dB | Вb | | dBA | đB | đB | B | |
| Church of Higher Call | | | - | 0.0 | 60.1 | 99 | .09 | 1 | | 60.1 | 0.0 | 0 | 8 | -8.0 |
| Pool | ~ | | 1 | 0.0 | 69.1 | 66 | 69 | 1 | Snd Lvl | 68.9 | 0.2 | 0 | 80 | -7.8 |
| Markham Meadows 28 | en | | 1 | 0.0 | 72.4 | 99 | 72. | .4 |) Snd Lvl | 66.4 | 6.0 | 0 | 80 | -2.0 |
| Markham Meadows 24 | ч | | - | 0.0 | 66.4 | 99 | 66. | 4 1(|) Snd Lvl | 63.0 | 3.4 | + | 8 | 4.6 |
| Markham Meadows 21 | LC) | | 1 | 0.0 | 71.0 | 66 | 71. | .0 |) Snd Lvl | 64.8 | 6.2 | 0 | 8 | -1.8 |
| Play Field | G | | 1 | 0.0 | 7.1.7 | 66 | 71. | .7 1(|) Snd Lvl | 66.0 | 5.1 | 2 | 80 | -2.3 |
| Neighborhood Alliance Church | 2 | | 1 | 0.0 | 61.7 | 66 | 61. | .7 10 | 1 | 61.7 | 0.0 | 0 | 80 | -8.0 |
| Church | ω | | 1 | 0.0 | 61.1 | 66 | 61. | 1 10 | 1 | 61.1 | 0.0 | 0 | 80 | -8.0 |
| Ferne 1 | 0, | | 1 | 0.0 | 65.0 | 99 | 65. | .0 | | 65.0 | 0.0 | 0 | 80 | -8.0 |
| Ferne 2 | 10 | | 1 | 0.0 | 65.7 | 66 | 65. | .7 1(| | 65.7 | 0.0 | 0 | 80 | -8.0 |
| Ferne 3 | 1 | | 1 | 0.0 | 66.2 | 99 | 66 | .2 1(| Snd Lvl | 66.1 | Ö | _ | 80 | -7.9 |
| Trail 1 | 12 | | 1 | 0.0 | 72.9 | 66 | 72. | .9 1(|) Snd Lvl | 72.9 | 0.0 | 0 | 80 | -8.0 |
| Markham Meadows 20 | 13 | | 1 | 0.0 | 71.0 | 66 | 71. | .0 10 | Snd Lvl | 65.3 | 5.7 | 2 | 80 | -2.3 |
| Markham Meadows 19 | 14 | | - | 0.0 | 68.1 | 66 | 68. | .1 | Snd Lvl | 64.3 | 3.6 | | 80 | 4.2 |
| Markham Meadows 16 | 15 | | 1 | 0.0 | 65.9 | 99 | 65 | -9 | 1 | 63.2 | 2.1 | 2 | 8 | -5.3 |
| Markham Meadows 13 | 16 | | 1 | 0.0 | 64.9 | 99 | 64. | 9.10 | 1 | 62.4 | 1 2.1 | 10 | 80 | -5.5 |
| Markham Meadows 6 | 17 | | 1 | 0.0 | 64.2 | 66 | 64 | 10 | | 61.5 | 2.1 | ~ | 8 | -5.3 |
| Markham Meadows 2 | 18 | | 1 | 0.0 | 61.1 | 66 | 61. | 1 | | 58.2 | 2.5 | 0 | 8 | -5.1 |
| Markham Meadows 28 | 19 | | 1 | 0.0 | 65.2 | 99 | 65 | 10 | | 63.0 | 2.2 | 0 | 80 | -5.8 |
| Markham Meadows 27 | 20 | | 1 | 0.0 | 61.7 | 66 | 61 | .7 1(| | 60.4 | 1.5 | ~ | 8 | -6.7 |
| Markham Meadows 26 | 21 | | 1 | 0.0 | 61.2 | 66 | 61 | 11 | 1 | 59.6 | 1.6 | (0 | 80 | -6.4 |
| Markham Meadows 25 | 22 | | 1 | 0.0 | 63.2 | 66 | 63. | 11 | | 61.1 | | - | 8 | -5.9 |
| Markham Meadows 24 | 23 | | - | 0.0 | 60.5 | 66 | 60 | .5 | | 58.6 | 1.1 | 2 | 8 | -6.3 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA A | A GM | | | | | | ÷ | | | | 3 Ju | ne 2015 | | |

| RESULTS: SOUND LEVELS | | | | | 4 | BtU PD | а Ш | | | | |
|------------------------------|-------|-----------|---------|--------|------|--------|---------|------|------|----|------|
| Markham Meadows 23 | 24 | 0.0 | 62.6 | 99 | 62.6 | 10 | I | 60.3 | 2.3 | 80 | -5.7 |
| Markham Meadows 18 | 25 | 0.0 | 61.9 | 99 66 | 61.9 | 10 | 1 | 60.0 | 1.9 | œ | -6.1 |
| Markham Meadows 17 | 26 | 0.0 | 59.6 | 99 | 59.6 | 10 | 1 | 57.8 | 1.8 | 80 | -6.2 |
| Markham Meadows 15 | 27 | 0.0 | 60.1 | 99 | 60.1 | 10 | 1 | 57.9 | 2.2 | 80 | -5.8 |
| Markham Meadows 14 | 28 | 0.0 | 212 | 66 | 57.2 | 10 | ĺ | 55.5 | 1.7 | 80 | -6.3 |
| Markham Meadows 12 | 29 | 1 0.0 | 60.0 | 66 | 60.3 | 10 | Î | 57.9 | 2.4 | 80 | -5.6 |
| Markham Meadows 11 | 30 | 1 0.0 | 58.1 | 99 | 58.1 | 10 | Î | 56.0 | 2.1 | œ | -5.9 |
| Markham Meadows 10 | 31 | 1 0.0 | 56.8 | 3 66 | 56.8 | 10 | 1 | 55.0 | 1.8 | 80 | -6.2 |
| Markham Meadows 7 | 32 | 1 0.0 | 56.1 | 99 | 56.1 | 10 | 1 | 54.3 | 1.8 | œ | -6.2 |
| Markham Meadows 8 | 33 | 0.0 | 57.7 | 66 | 57.7 | 10 | 1 | 55.3 | 2.4 | ω | -5.6 |
| Markham Meadows 9 | 34 | 0.0 | 60.0 | 3 66 | 60.3 | 10 | 1 | 57.6 | 2.7 | 80 | -5.3 |
| Markham Meadows 5 | 35 | I 0.0 | 29.6 | 99 66 | 59.9 | 10 | Ĩ | 57.0 | 2.9 | 80 | -5.1 |
| Markham Meadows 4 | 36 | 0.0 | 57.8 | 3 66 | 57.8 | 10 | 1 | 55.2 | 2.6 | 80 | -5.4 |
| Markham Meadows 3 | 37 | 0.0 | 56.6 | 99 | 56.6 | 10 | ĵ | 54.2 | 2.4 | 80 | -5.6 |
| Markham Meadows 1 | 38 | 0.0 | 58.1 | 99 | 58.1 | 10 | I | 55.3 | 2.8 | 80 | -5.2 |
| play ground | 39 | 0.0 | 80.0 | 99 00 | 80.0 | 10 | Snd Lvl | 69.1 | 10.9 | 80 | 2.9 |
| Dwelling Units | # DUs | Noise Rec | luction | | | | | 2 | 2 | | |
| | | Min | Avg | Max | | | | | | | |
| | | B | дB | æ | | | | | | | |
| All Selected | e | 0.0 | 2.4 | 10.9 | | | | | | | |
| All Impacted | ÷ | 0.0 | 4.2 | 2 10.9 | | | | | | | |
| All that meet NR Goal | | 1 10.9 | 10.9 | 10.9 | | | | | | | |
| | | | | | | | | | | | |

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3 June 2015

| RESULIS: SOUND LEVELS | | | | | | | 1-4 BTU F | U&E | | | | |
|--|----------|----------------|-----------------------|-------------|----------|------------|---------------------|------------------------------------|--|--|---------------------------------|-----------------------------|
| Stantec | | | | | | | 3 June 2 | 015 | | | | |
| M. Drauer | | | | | | | TNM 2.5 | : | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: | 1 1 | 4 BtU 4 Seg | PD&E ment 3 N | orth Cove B | × | | Calculat | | C.7 M | | | |
| BARRIER DESIGN: ATMOSPHERICS: | . = 0 | NPUT 8 deg | HEIGHTS I.F. 50% R | | E | | | Average a State I of a diffe | pavement typ ighway agenc rent type with | e shall be use y substantiat approval of f | ed unless es the us FHWA. | e e |
| Receiver | | | | | | | | | | | | |
| Name | No. | DUs | Existing | No Barrie | Ŀ | | | | With Barrier | | | |
| | - | | LAeq1h | LAeq1h | | Increase o | ver existing | Type | Calculated | Noise Reduc | ction | - |
| | | | | Calculate | d Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | dBA | 뜅 | dВ | | dBA | dВ | đB | æ |
| Woodlands 1 | - | 5 | 0 | 0 | 34.7 | 66 | 34.7 | | 64.6 | 0.1 | | 8 |
| North Cove 1 | 2 | | 0 | 0 | 71.9 | 66 | 1.9 1 | 0 Snd Lv | 66.7 | 5.2 | 01 | 80 |
| North Cove 2 | e | Ē | 0 | 0 | 75.7 | 66 | 5.7 1 | 0 Snd Lv | 66.3 | 3.9.2 | | 8 |
| North Cove Park | 4 | Ē | 0 | 0 | 15.7 | 66 7 | 5.7 1 | 0 Snd Lv | 65.5 | 10.2 | 0 | 00 |
| North Cove 3 | 5 | Ē | 0 | 0 | 74.8 | 66 7 | 4.8 | 0 Snd Lv | 64.7 | 7 10.1 | | 8 |
| North Cove 77 | 9 | - | 0 | 9 | 36.6 | 66 6 | 6.6 | 0 Snd Lv | 62.1 | 4.5 | 10 | 0 |
| North Cove 76 | 7 | - | 0 | 0 | 35.6 | 66 6 | 5.6 1 | | 60.7 | 4.9 | • | 0 |
| North Cove 75 | ø | - | 0 | 0 | 35.2 | 66 6 | 5.2 | 0 | 60.1 | 5.1 | | 8 |
| North Cove 74 | б | - | 0 | 0 | 34.1 | 66 6 | 1 1 | 0 | 59.(| 5.1 | | 8 |
| North Cove 73 | 10 | - | 0 | 9 | 33.6 | 66 6 | 33.6 | 0 | 29.2 | 4.4 | + | œ |
| North Cove 72 | 1 | - | 0 | 9 | 51.9 | 66 6 | 1.9 1 | | 57.9 | 4.0 | 0 | 7 00 |
| North Cove 69 | 12 | - | 0 | 0 | 59.8 | 66 5 | 9.8 | | 55.9 | 3.6 | • | 8 |
| North Cove 70 | 13 | - | 0 | 9 | 30.5 | 66 6 | 0.5 | | 56.5 | 5 4.0 | 0 | r 00 |
| North Cove 71 | 14 | | 0 | 0 | 31.2 | 66 6 | 1.2 | | 56.7 | 4.5 | 10 | œ |
| North Cove 65 | 15 | - | 0 | 0 | 59.7 | 66 5 | 9.7 | | 55.6 | 3 4.1 | | 8 |
| North Cove 66 | 16 | - | 0 | 0 | 59.7 | 66 | 9.7 | | 55.1 | 4.6 | 6 | ω |
| North Cove 67 | 17 | - | 0 | 0 | 59.2 | 66 55 | 9.2 | | 54.9 | 9 4.0 | ~ | 0 |
| North Cove 68 | 18 | - | 0 | 0 | 58.5 | 66 | 6.5 | | 54.3 | 3 4.2 | | σ |
| North Cove 4 | 19 | | 0 | 0 | 39.9 | 66 6 | 9.9 | 0 Snd Lv | 62.1 | 1.5 | ~ | 8 |
| North Cove 5 | 20 | - | 0 | 0 | 37.0 | 66 6 | 57.0 | 0 Snd Lv | 1 60.4 | 1 6.6 | 6 | °i Ø |
| North Cove 6 | 21 | - | 0 | 0 | 34.5 | 66 6 | 34.5 | | 58.6 | 3 5.7 | • | 80 |
| North Cove 7 | 22 | | 0 | 0 | 32.5 | 66 6 | 32.5 | | 57.3 | 3 5.2 | 0 | 80 |
| North Cove 8 | 23 | - | 0 | 0 | 51.3 | 66 6 | 31.3 | 0 | 56.2 | 5.1 | | 80 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D NC BM | | | | | | ÷ | | | | л С | une 2015 |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD | ßЕ | | | | |
|-----------------------------------|-------|---|-----|-------|----|------|--------|---------|------|-----|------------|------|
| North Cove 9 | 24 | - | 0.0 | 60.1 | 66 | 60.1 | 10 | Ĩ | 55.0 | 5.1 | 80 | -2.9 |
| North Cove 10 | 25 | - | 0.0 | 59.4 | 66 | 59.4 | 10 | I | 53.9 | 5.5 | œ | -2.5 |
| North Cove 11 | 26 | - | 0.0 | 59.0 | 66 | 59.0 | 10 | 1 | 53.4 | 5.6 | 80 | -2.4 |
| North Cove 12 | 27 | - | 0.0 | 57.7 | 66 | 57.7 | 10 | - | 52.6 | 5.1 | 80 | -2.9 |
| North Cove 13 | 28 | - | 0.0 | 57.5 | 66 | 57.5 | 10 | 1 | 52.2 | 5.3 | 80 | -2.7 |
| North Cove 14 | 29 | - | 0.0 | 55.0 | 66 | 55.0 | 10 | 1 | 52.2 | 2.8 | 80 | -5.2 |
| North Cove 15 | 30 | - | 0.0 | 55.9 | 66 | 55.9 | 10 | l | 52.3 | 3.6 | 80 | -4.4 |
| North Cove 16 | 31 | 1 | 0.0 | 54.9 | 66 | 54.9 | 10 | Ĩ | 52.2 | 2.7 | 00 | -5.3 |
| North Cove 17 | 32 | - | 0.0 | 58.0 | 66 | 58.0 | 10 | Í | 53.8 | 4.2 | œ | -3.8 |
| North Cove 18 | 33 | - | 0.0 | 57.2 | 66 | 57.2 | 10 | | 53.1 | 4.1 | 80 | -3.9 |
| North Cove 19 | 59 | - | 0.0 | 56.8 | 66 | 56.8 | 10 | 1 | 52.7 | 4.1 | 80 | -3.9 |
| North Cove 20 | 35 | - | 0.0 | 56.2 | 66 | 56.2 | 10 | 1 | 52.5 | 3.7 | 80 | -4.3 |
| North Cove 21 | 36 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | Ĩ | 52.0 | 4.4 | 80 | -3.6 |
| North Cove 22 | 37 | - | 0.0 | 55.9 | 66 | 55.9 | 10 | 1 | 52.3 | 3.6 | 80 | -4.4 |
| North Cove 23 | 38 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | Ĭ | 52.2 | 2.9 | 80 | -5.1 |
| Woodlands 2 | 39 | - | 0.0 | 62.4 | 66 | 62.4 | 10 | Ĩ | 59.3 | 3.1 | 80 | -4.9 |
| Woodlands 3 | 40 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | I | 57.8 | 3.0 | 80 | -5.0 |
| Woodlands 5 | 41 | - | 0.0 | 59.1 | 66 | 59.1 | 10 | 1 | 56.1 | 3.0 | 80 | -5.0 |
| Woodlands 4 | 42 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | I | 56.9 | 3.1 | ω | -4.9 |
| North Cove 24 | 43 | - | 0.0 | 58.0 | 66 | 58.0 | 10 | 1 | 54.0 | 4.0 | 8 | -4.0 |
| North Cove 25 | 44 | - | 0.0 | 57.5 | 66 | 57.5 | 10 | Ĩ | 53.9 | 3.6 | 80 | -4.4 |
| North Cove 26 | 45 | - | 0.0 | 57.1 | 66 | 57.1 | 10 | | 53.6 | 3.5 | 80 | -4.5 |
| North Cove 27 | 46 | ~ | 0.0 | 56.3 | 66 | 56.3 | 10 | l | 53.2 | 3.1 | 80 | -4.9 |
| North Cove 28 | 47 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | I | 53.1 | 3.3 | 80 | -4.7 |
| North Cove 29 | 48 | - | 0.0 | 55.9 | 66 | 55.9 | 10 | I | 52.9 | 3.0 | ø | -5.0 |
| North Cove 30 | 49 | - | 0.0 | 55.5 | 66 | 55.5 | 10 | 1 | 52.7 | 2.8 | ω | -5.2 |
| North Cove 31 | 50 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | Ì | 52.4 | 2.5 | œ | -5.5 |
| North Cove 32 | 51 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | Ĩ | 53.2 | 3.2 | æ | -4.8 |
| North Cove 33 | 52 | - | 0.0 | 56.8 | 66 | 56.8 | 10 | Ì | 53.3 | 3.5 | ω | 4.5 |
| North Cove 34 | 53 | ÷ | 0.0 | 56.4 | 66 | 56.4 | 10 | Î | 52.9 | 3.5 | 80 | -4.5 |
| North Cove 35 | 54 | - | 0.0 | 55.3 | 66 | 55.3 | 10 | Ĩ | 52.4 | 2.9 | 80 | -5.1 |
| North Cove 36 | 55 | ~ | 0.0 | 55.5 | 66 | 55.5 | 10 | | 52.5 | 3.0 | 80 | -5.0 |
| North Cove 37 | 56 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | I | 52.4 | 2.8 | œ | -5.2 |
| North Cove 38 | 57 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | | 52.4 | 2.5 | ω | -5.5 |
| North Cove 39 | 58 | ÷ | 0.0 | 55.2 | 66 | 55.2 | 10 | | 52.6 | 2.6 | 80 | -5.4 |
| Northridge 12 | 60 | - | 0.0 | 76.7 | 66 | 76.7 | 10 | Snd Lvl | 73.2 | 3.5 | 80 | -4.5 |
| Northridge 11 | 61 | - | 0.0 | 65.0 | 66 | 65.0 | 10 | Ĩ | 60.9 | 4.1 | 8 | -3.9 |
| Northridge 10 | 62 | - | 0.0 | 65.0 | 66 | 65.0 | 10 | Î | 61.0 | 4.0 | 80 | -4.0 |
| Northridge 9 | 63 | ÷ | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 61.9 | 4.1 | 80 | -3.9 |
| Northridge 8 | 64 | - | 0.0 | 68.1 | 66 | 68.1 | 10 | Snd Lvl | 63.8 | 4.3 | œ | -3.7 |
| Northridge 7 | 65 | ~ | 0.0 | 6.9.9 | 66 | 69.9 | 10 | Snd Lvl | 65.5 | 4.4 | 8 | -3.6 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | NC BM | | | | | 2 | | | | | 3 June 20' | 5 |

| RESULIS: SOUND LEVELS | | | | | | 1 | | | | | | |
|-----------------------------------|---------|---|-----|-------|----|------|-----|---------|------|-----|-----------|------|
| Northridge b | 00 | - | 0.0 | 01.10 | 90 | 01.1 | 10 | Snd Lvi | 63.7 | 4.0 | ø | 4.0 |
| Northridge 5 | 67 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | 1 | 61.8 | 3.5 | 80 | -4.5 |
| Northridge 3 | 68 | - | 0.0 | 62.2 | 66 | 62.2 | 10 | 1 | 58.7 | 3.5 | œ | -4.5 |
| Northridge 2 | 69 | - | 0.0 | 60.4 | 99 | 60.4 | 10 | 1 | 56.9 | 3.5 | 80 | -4.5 |
| Northridge 1 | 20 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | I | 56.7 | 3.2 | æ | -4.8 |
| Bay Poiint 12 | 71 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | l | 55.7 | 2.7 | œ | -5.3 |
| Bay Point 11 | 72 | - | 0.0 | 57.8 | 66 | 57.8 | 10 | Į | 55.1 | 2.7 | 80 | -5.3 |
| Bay Point 10 | 73 | - | 0.0 | 57.2 | 66 | 57.2 | 10 | l | 54.6 | 2.6 | 80 | -5.4 |
| Bay Point 9 | 74 | - | 0.0 | 56.7 | 66 | 56.7 | 10 | 1 | 54.1 | 2.6 | 80 | -5.4 |
| bay Point 8 | 75 | - | 0.0 | 56.2 | 66 | 56.2 | 10 | 1 | 53.7 | 2.5 | 80 | -5.5 |
| Bay Point 7 | 76 | ۲ | 0.0 | 55.6 | 66 | 55.6 | 10 | | 53.2 | 2.4 | 8 | -5.6 |
| Bay Point 6 | 17 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | 1 | 52.8 | 2.1 | 80 | -5.9 |
| Bay Point 5 | 78 | - | 0.0 | 56.8 | 66 | 56.8 | 10 | 1 | 53.6 | 3.2 | 8 | -4.8 |
| Bay Point 4 | 79 | - | 0.0 | 56.7 | 66 | 56.7 | 10 | l | 53.5 | 3.2 | 8 | -4.8 |
| Bay Point 3 | 80 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | ļ | 53.3 | 3.0 | 8 | -5.0 |
| Bay Point 2 | 81 | ۲ | 0.0 | 56.0 | 66 | 56.0 | 10: | I | 53.0 | 3.0 | ω | -5.0 |
| North Cove 62 | 82 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | l | 53.2 | 2.4 | œ | -5.6 |
| North Cove 63 | 83 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | ļ | 53.5 | 2.8 | 8 | -5.2 |
| North Cove 64 | 84 | - | 0.0 | 55.9 | 66 | 55.9 | 10 | 1 | 53.3 | 2.6 | 8 | -5.4 |
| North Cove 65 | 85 | ~ | 0.0 | 55.4 | 66 | 55.4 | 10 | 1 | 52.9 | 2.5 | 80 | -5.5 |
| Bay Point 1 | 86 | - | 0.0 | 55.5 | 66 | 55.5 | 10 | ſ | 52.7 | 2.8 | 80 | -5.2 |
| Tennis Ct. | 87 | - | 0.0 | 75.0 | 66 | 75.0 | 10 | Snd Lvl | 66.2 | 8.8 | 80 | 0.8 |
| Northridge 13 | 91 | - | 0.0 | 70.3 | 66 | 70.3 | 10 | Snd Lvl | 65.1 | 5.2 | 80 | -2.8 |
| Northridge 14 | 92 | - | 0.0 | 67.3 | 66 | 67.3 | 10 | Snd Lvl | 63.1 | 4.2 | 80 | -3.8 |
| Receiver93 | 93 | - | 0.0 | 65.1 | 66 | 65.1 | 10 | ł | 61.6 | 3.5 | 8 | -4.5 |
| Northridge 4 | 94 | - | 0.0 | 63.4 | 66 | 63.4 | 10 | 1 | 59.0 | 4.4 | 80 | -3.6 |
| Bolling 1 | 95 | - | 0.0 | 56.1 | 66 | 56.1 | 10 | | 55.2 | 0.9 | 8 | -7.1 |
| Bolling 2 | 96 | - | 0.0 | 59.7 | 66 | 59.7 | 10 | 1 | 58.7 | 1.0 | œ | -7.0 |
| Bolling 3 | 97 | - | 0.0 | 60.1 | 66 | 60.1 | 10 | ļ | 59.3 | 0.8 | æ | -7.2 |
| Bolling 4 | 98 | - | 0.0 | 60.5 | 66 | 60.5 | 10 | I | 59.8 | 0.7 | 80 | -7.3 |
| Bolling 5 | 66 | | 0.0 | 60.8 | 66 | 60.8 | 10 | ļ | 60.3 | 0.5 | æ | -7.5 |
| Bolling 6 | 100 | - | 0.0 | 61.2 | 66 | 61.2 | 10 | l | 60.7 | 0.5 | 80 | -7.5 |
| Bolling 7 | 101 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | - | 61.0 | 0.4 | 8 | -7.6 |
| Bolling 8 | 102 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | j | 61.7 | 0.3 | 80 | -7.7 |
| Bolling 9 | 103 | - | 0.0 | 61.2 | 66 | 61.2 | 10 | | 61.0 | 0.2 | 80 | -7.8 |
| Bolling 10 | 104 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | I | 59.7 | 0.3 | 8 | 1.7- |
| Bolling 11 | 105 | - | 0.0 | 60.7 | 99 | 60.7 | 10 | 1 | 60.5 | 0.2 | 80 | -7.8 |
| Bolling 12 | 106 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | | 61.8 | 0.2 | 8 | -7.8 |
| Bolling 13 | 107 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | | 62.9 | 0.1 | 80 | -7.9 |
| Bolling 14 | 108 | - | 0.0 | 63.4 | 66 | 63.4 | 10 | I | 63.2 | 0.2 | œ | -7.8 |
| Bolling 15 | 109 | - | 0.0 | 63.9 | 66 | 63.9 | 10 | 1 | 63.8 | 0.1 | 80 | -7.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | D NC BM | | | | | e | | | | | 3 June 20 | 15 |

C:\TNM25\230168\Seg 3\8 + 4\NSA D NC BM

3 June 2015

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU P | D&E | | | | |
|---|------------|---------------------------|---------------------------------|--------------|----------------|----------|-------------|---------------------|------------------------------------|---------------------------------------|---------------------------------|------------|-----------------------------|
| Stantec M. Drauer | | | | | | | | 3 June 2 TNM 2.5 | 015 | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 Btl I-4 Se INPU | J PD&E gment 3 P T HEIGHT | ine Bay S | / BM | | | Calculat | ed with TN Average a State F | M 2.5 pavement typ ichwav ageno | e shall be use v substantiat | ed unless | |
| ATMOSPHERICS: | | 68 de | g F, 50% | RH | | | | | of a diffe | rent type with | approval of I | EHWA. | U |
| Receiver | | | | - L | | | | | | | | | |
| Name | No. | #DUs | Existin | B No E | 3arrier | | | 1 | | With Barrier | | | |
| | | | LAeq1h | I LAe | q1h | | Increase ov | /er existing | Type | Calculated | Noise Redu | ction | |
| _ | | | | Calc | sulated | Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | | dBA | đB | đB | | dBA | đB | æ | 留 |
| Pine Bay 1 | | _ | - | 0.0 | 72.0 | | 96 7: | 2.0 | 0 Snd Lv | 67.2 | 4.8 | 8 | ω |
| Pine Bay 2 | | 5 | - | 0.0 | 72.3 | Ű | 36 72 | 2.3 1 | 0 Snd Lv | 67.1 | 5.2 | N | 8 |
| Pine Bay 3 | | 0 | 1 | 0.0 | 72.1 | | 36 72 | 2.1 | 0 Snd Lv | 67.4 | 4 | 2 | 8 |
| Pine Bay 4 | | 4 | 1 | 0.0 | 72.4 | | 36 72 | 2.4 1 | 0 Snd Lv | 67.1 | 5.3 | 6 | 8 -2. |
| Pine Bay 5 | | 2 | 1 | 0.0 | 72.4 | • | 36 72 | 2.4 1 | 0 Snd Lv | 1 67.1 | 5.3 | 8 | 8 -2. |
| Pine Bay 6 | | 9 | 1 | 0.0 | 72.3 | • | 36 72 | 2.3 | 0 Snd Lv | 67.1 | 1 5.2 | 2 | 8 -2. |
| Pine Bay 7 | | 7 | - | 0.0 | 72.5 | • | 36 72 | 2.5 1 | 0 Snd Lv | 66.9 | 9 5.6 | 6 | 8 |
| Pine Bay 8 | | 80 | 1 | 0.0 | 72.4 | • | 36 72 | 2.4 1 | 0 Snd Lv | 66.8 | 3 5.6 | 6 | 8 -2. |
| Pine Bay 9 | | 0 | 1 | 0.0 | 72.4 | • | 36 72 | 2.4 1 | 0 Snd Lv | 66.7 | 5.1 | 2 | 8 |
| Pine Bay 10 | - | 0 | 1 | 0.0 | 72.2 | • | 36 72 | 2.2 | 0 Snd Lv | 66.6 | 5.6 | 6 | 8 -2. |
| Pine Bay 11 | ~ | - | 1 | 0.0 | 72.4 | Ű | 36 72 | 2.4 1 | 0 Snd Lv | 66.5 | 5.6 | 6 | 8 |
| Pine Bay 12 | - | 2 | 1 | 0.0 | 72.3 | Ť | 36 72 | 2.3 | 0 Snd Lv | 66.3 | 3 6.0 | 0 | 8 -2. |
| Pine Bay 13 | - | e | 1 | 0.0 | 72.3 | • | 36 72 | 2.3 1 | 0 Snd Lv | .99 | 6.9 | 6 | 8 -1. |
| Pine Bay 14 | ÷. | 4 | 1 | 0.0 | 72.2 | | 36 72 | 2.2 | 0 Snd Lv | 65.9 | 9 6.3 | | 8 -1. |
| Pine Bay 15 | - | 5 | 1 | 0.0 | 71.5 | U | 36 7 | 1.5 1 | 0 Snd Lv | 65.5 | 6.0 | 0 | 8 -2. |
| Pine Bay 16 | - | 9 | 1 | 0.0 | 71.3 | • | 36 7 | 1.3 | 0 Snd Lv | 65.5 | 5.5 | 0 | 8 |
| Pine Bay 17 | ~ | 2 | - | 0.0 | 71.2 | Ť | 36 7 | 1.2 | 0 Snd Lv | 65.4 | t 5.8 | 0 | 8 -2. |
| Pine Bay 18 | - | ω | 1 | 0.0 | 71.2 | • | 36 7 | 1.2 1 | 0 Snd Lv | 65.3 | 5.6 | 6 | 8 -2. |
| Pine Bay 19 | - | 6 | 1 | 0.0 | 70.8 | Ű | 36 7(| 0.8 | 0 Snd Lv | 65.0 | 5.6 | 8 | 8 -2. |
| Pine Bay 20 | 2 | 0 | 1 | 0.0 | 70.6 | | 36 7(| 0.6 | 0: Snd Lv | 65.(| 5.6 | 6 | 8 -2. |
| Pine Bay 21 | 7 | _ | 1 | 0.0 | 70.7 | Ű | 96 7(| 0.7 1 | 0 Snd Lv | 65.1 | 5.6 | 6 | 8 -2. |
| Pine Bay 22 | 0 | 2 | - | 0.0 | 70.7 | Ū | 6 7(| 0.7 1 | 0 Snd Lv | 65.2 | 5.5 | 10 | 8 -2. |
| Pine Bay 23 | 7 | 5 | - | 0.0 | 70.6 | | 36 7(| 0.6 1 | 0 Snd Lv | 65.3 | 5.5 | 8 | 8 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D Pine Bay | BM | | | | | | ٣ | | | | ц б 3 J | une 2015 |

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| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | Ш | | | | |
|-----------------------------------|---------------|---|-----|------|----|------|---------|---------|------|-----|------------|-------|
| Pine Bay 24 | 24 | - | 0.0 | 70.2 | 66 | 70.2 | 10 | Snd Lvl | 65.4 | 4.8 | æ | -3.2 |
| Pine Bay 25 | 25 | - | 0.0 | 70.1 | 66 | 70.1 | 10 | Snd Lvl | 65.7 | 4.4 | œ | -3.6 |
| Pine Bay 26 | 26 | - | 0.0 | 69.9 | 66 | 69.9 | 10 | Snd Lvl | 66.0 | 3.9 | 80 | -4.1 |
| Pine Bay 27 | 27 | - | 0.0 | 70.0 | 66 | 70.0 | 10 | Snd Lvl | 66.6 | 3.4 | 00 | -4.6 |
| Pine Bay 28 | 28 | - | 0.0 | 70.7 | 66 | 70.7 | 10 | Snd Lvl | 68.1 | 2.6 | 8 | -5.4 |
| Pine Bay 29 | 29 | - | 0.0 | 70.8 | 66 | 70.8 | 10 | Snd Lvi | 69.2 | 1.6 | Ø | -6.4 |
| Pine Bay 30 | 30 | - | 0.0 | 69.1 | 66 | 69.1 | 10 | Snd Lvi | 68.0 | 1.1 | œ | -6.9 |
| Pine Bay 31 | 31 | - | 0.0 | 67.8 | 66 | 67.8 | 10 | Snd Lvt | 67.1 | 0.7 | 80 | -7.3 |
| Pine Bay 32 | 32 | - | 0.0 | 66.6 | 66 | 66.6 | 10 | Snd Lvl | 66.0 | 0.6 | ω | -7.4 |
| Pine Bay 33 | 33 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | 1 | 64.9 | 0.7 | 8 | -7.3 |
| Pine Bay 34 | 34 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 64.0 | 0.7 | 80 | -7.3 |
| Pine Bay 35 | 35 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.6 | 0.6 | 8 | -7.4 |
| Pine Bay 36 | 36 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 62.9 | 0.6 | 80 | -7.4 |
| Pine Bay 37 | 37 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | l | 62.5 | 0.5 | 8 | -7.5 |
| Pine Bay 38 | 38 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | Ī | 62.0 | 0.5 | 8 | -7.5 |
| Pine Bay 39 | 39 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | ł | 61.5 | 0.5 | 8 | -7.5 |
| Pine Bay 40 | 40 | - | 0.0 | 61.5 | 66 | 61.5 | 10 | I | 61.0 | 0.5 | 80 | -7.5 |
| Pine Bay 41 | 41 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | 1 | 60.9 | 0.4 | 8 | -7.6 |
| Pine Bay 42 | 42 | Ŧ | 0.0 | 60.8 | 66 | 60.8 | 10 | 1 | 60.4 | 0.4 | ω | -7.6 |
| Pine Bay 43 | 43 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | I | 59.7 | 0.3 | 80 | -7.7 |
| Pine Bay 44 | 44 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 60.1 | 0.5 | œ | -7.5 |
| Pine Bay 45 | 45 | - | 0.0 | 60.9 | 66 | 60.9 | 10 | l | 60.4 | 0.5 | 80 | -7.5 |
| Pine Bay 46 | 46 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | I | 60.8 | 0.5 | 80 | -7.5 |
| Pine Bay 47 | 47 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 61.4 | 0.6 | 80 | -7.4 |
| Pine Bay 48 | 48 | ÷ | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 61.8 | 0.7 | 8 | -7.3 |
| Pine Bay 49 | 49 | ~ | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 62.4 | 0.7 | õ | -7.3 |
| Pine Bay 50 | 50 | - | 0.0 | 63.7 | 66 | 63.7 | 10 | 1 | 62.9 | 0.8 | 80 | -7.2 |
| Pine Bay 51 | 51 | ~ | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 63.5 | 0.8 | 80 | -7.2 |
| Pine Bay 52 | 52 | - | 0.0 | 65.2 | 66 | 65.2 | 10 | 1 | 64.4 | 0.8 | ω | -7.2 |
| Pine Bay 53 | 53 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 65.1 | 1.1 | ω | -6.9 |
| Pine Bay 54 | 54 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 64.9 | 1.2 | 80 | -6.8 |
| Pine Bay 55 | 55 | - | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 64.7 | 1.3 | ω | -6.7 |
| Pine Bay 56 | 56 | - | 0.0 | 65.9 | 66 | 62.9 | 10 | 1 | 64.5 | 1.4 | 8 | -6.6 |
| Pine Bay 57 | 57 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | 1 | 63.3 | 1.1 | 8 | -6.9 |
| Pine Bay 58 | 58 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | | 62.5 | 1.0 | 8 | -7.0 |
| Pine Bay 59 | 59 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1000 | 61.7 | 0.8 | 8 | -7.2 |
| Pine Bay 60 | 60 | - | 0.0 | 61.6 | 66 | 61.6 | 10 | ł | 60.9 | 0.7 | 80 | -7.3 |
| Pine Bay 61 | 61 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | I | 60.5 | 0.6 | 80 | -7.4 |
| Pine Bay 62 | 62 | 4 | 0.0 | 60.4 | 99 | 60.4 | 10 | | 60.0 | 0.4 | Ø | -7.6 |
| Pine Bay 63 | 63 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 59.6 | 0.4 | 80 | -7.6 |
| Pine Bay 64 | 64 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 64.3 | 1.8 | 80 | -6.2 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D |) Pine Bay BM | | | | | 0 | | | | | 3 June 201 | LC LC |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | щ | | | | |
|-----------------------|----|-------|------------|------|-----|------|---------|------|------|-----|----|------|
| Pine Bay 65 | 65 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | Ì | 64.1 | 1.7 | ω | -6.3 |
| Pine Bay 66 | 66 | - | 0.0 | 64.8 | 99 | 64.8 | 10 | Î | 63.0 | 1.8 | œ | -6.2 |
| Pine Bay 67 | 67 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 62.9 | 1.8 | œ | -6.2 |
| Pine Bay 68 | 68 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | I | 62.8 | 1.8 | œ | -6.2 |
| Pine Bay 69 | 69 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | Ĭ | 62.9 | 1.7 | œ | -6.3 |
| Pine Bay 70 | 70 | - | 0.0 | 64.8 | 66 | 64.8 | 10 | Ĩ | 62.9 | 1.9 | 80 | -6.1 |
| Pine Bay 71 | 71 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | Í | 63.0 | 1.6 | 80 | -6.4 |
| Pine Bay 72 | 72 | Ţ | 0.0 | 64.4 | 66 | 64.4 | 10 | 1 | 62.8 | 1.6 | 00 | -6.4 |
| Pine Bay 73 | 73 | ÷ | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 62.8 | 1.5 | 00 | -6.5 |
| Pine Bay 74 | 74 | - | 0.0 | 64.0 | 66 | 64.0 | 10 | ā | 62.6 | 1.4 | 00 | -6.6 |
| Pine Bay 75 | 75 | F | 0.0 | 60.4 | 66 | 60.4 | 10 | 1 | 59.7 | 0.7 | 80 | -7.3 |
| Pine Bay 76 | 76 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | Ĩ | 59.2 | 0.6 | œ | -7.4 |
| Bolling 1 | 77 | - | 0.0 | 59.5 | 66 | 59.5 | 10 | Ī | 59.4 | 0.1 | 80 | -7.9 |
| Bolling 2 | 78 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | | 59.9 | 0.1 | 80 | -7.9 |
| Bolling 3 | 62 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | I | 60.2 | 0.2 | œ | -7.8 |
| Bolling 4 | 80 | F | 0.0 | 60.6 | 66 | 60.6 | 10 | Ì | 60.5 | 0.1 | œ | -7.9 |
| Bolling 5 | 81 | - | 0.0 | 60.9 | 66 | 60.9 | 10 | 1 | 60.8 | 0.1 | œ | -7.9 |
| Bolling 6 | 82 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | 1 | 61.2 | 0.2 | ω | -7.8 |
| Bolling 7 | 83 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | 1 | 61.7 | 0.2 | 80 | -7.8 |
| Bolling 8 | 84 | + | 0.0 | 61.1 | 66 | 61.1 | 10 | Ì | 60.8 | 0.3 | 8 | -7.7 |
| Bolling 9 | 85 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | (IL) | 61.6 | 0.3 | 80 | -7.7 |
| Bolling 10 | 86 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | Ì | 62.7 | 0.2 | œ | -7.8 |
| Bolling 11 | 87 | - | 0.0 | 63.2 | 66 | 63.2 | 10 | ł | 62.9 | 0.3 | œ | -7.7 |
| Bolling 12 | 88 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | Ì | 63.3 | 0.3 | 80 | -7.7 |
| Bolling 13 | 89 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.9 | 0.3 | 80 | 7.7- |
| Bolling 14 | 96 | - | 0.0 | 62.6 | 66 | 62.6 | 10 | / | 62.0 | 0.6 | 80 | -7.4 |
| Bolling 15 | 91 | - | 0.0 | 60.7 | 99 | 60.7 | 10 | I | 59.6 | 1.1 | 80 | -6.9 |
| Dwelling Units | * | DUS N | oise Reduc | tion | | | | | | | | |
| | | Σ | in A | ß | Max | | | | | | | |
| | | đ | 8 dl | m | dB | | | | | | | |
| All Selected | | 91 | 0.1 | 2.2 | 6.3 | | | | | | | |
| All Impacted | | 36 | 0.6 | 4.4 | 6.3 | | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0.0 | | | | | | | |
| | | | | | | | | | | | | |

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3 June 2015

e

| State State <th< th=""><th>RESULTS: SOUND LEVELS</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>14 14 14 14 14 14 14 14 14 14 14 14 14 1</th><th>tU PD&</th><th>щ</th><th></th><th></th><th></th><th></th></th<> | RESULTS: SOUND LEVELS | | | | | | | | 14 14 14 14 14 14 14 14 14 14 14 14 14 1 | tU PD& | щ | | | | |
|---|--|-----|------------------|--------------------|---------------|----------------|--------|--------------------------|---|---------|--------------|------------------------------|--------------------------------|--------------------|---------------|
| matcall Galadiate with TMA2 Calculated with TMA2 FEO.CIC: ONCURACT: INS. ENV. EXEM American with TMA2 RESULT: SOND LEVELS HEU POXE RESULT: SOND LEVELS JEONE JEONE JEONE AMOS PROPERICS. American state and more and m | Stantec | | | | | | | | 3 Ju TAIM | ne 2015 | | | | | |
| In the section of the section o | m. Drauer | | | | | | | | Calc | ulated | vith TNM | 2.5 | | | |
| Image: Interest of the control of the contr | RESULTS: SOUND LEVELS PROJECT/CONTRACT: | | I-4 BtU | PD&E | | | | | | | | | | | |
| A State Influence and Approval of FHWA agency sublamaticate the Lase A state in the constant of the constan | RUN: BARRIER DESIGN: | | I-4 Seg INPUT | ment 3 N HEIGHT | SA E BN S | = | | | | ٩ | werage p | avement type | e shall be use | ed unless | |
| Receiver No. MOI Model Description Model | ATMOSPHERICS: | | 68 deç | g F, 50% | ЯH | | | | | ю О | State hig | hway agency int type with | y substantiat approval of I | es the us FHWA. | Ð |
| Matrix No. #0.< | Receiver | | | | : | - | | | | | | | | | |
| Length Length Length LengthLength Length CalculatedNoise Reduction Length CalculatedNoise Reduction CalculatedNoise Reduction CalculatedNoise Reduction CalculatedNoise Reduction CalculatedRuthedge 111063.164.164.164.164.164.164.164.1Ruthedge 111063.36663.31054.124.2866Ruthedge 221063.36666.31054.124.36664.3Ruthedge 221063.36666.31054.124.36664.3Ruthedge 31061.10.063.36666.31056.123.3866Ruthedge 410061.366.31056.123.386656.324.3Ruthedge 511061.366.361.31056.731.7844.3Ruthedge 6661.366.361.366.361.366.731.7844.3Ruthedge 711061.366.361.366.76 | Name | No. | #DUs | Existinç | NO B | arrier | | | | 0.5 | | With Barrier | | | |
| Number of the second | | | | LAeq1h | LAeq Calcu | 1h Ilated (| Crit'n | Increase o Calculated | over exist | | ype npact | Calculated LAeq1h | Noise Redu Calculated | ction Goal | Calculated |
| Image Image <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Sub</td><td>l Inc</td><td></td><td></td><td></td><td></td><td>minus Goal</td></t<> | | | | | | | | | Sub | l Inc | | | | | minus Goal |
| Rutledge1 1 1 0 633 66 633 10 62 12 8 -68 Rutledge2 2 1 0.0 68.3 66 68.3 10 50.1 22 3 5 68 Rutledge3 5 1 0.0 68.3 66 68.3 10 57 4.0 7 8 -4.0 Rutledge 6 6 61.7 10 57 14.0 7 8 -4.0 Rutledge 7 1 0.0 61.7 66 61.7 10 -5 5 4.0 Rutledge 8 1 0.0 60.7 66 60.7 10 56.7 4.1 8 -3.3 Rutledge 1 1 0.0 60.7 66 60.7 10 56.7 4.1 8 -3.3 Rutledge 1 1 0.0 60.7 | | | | dBA | dBA | Ū | dBA | đb | æ | | | dBA | dВ | dВ | đB |
| Rutledge 2 2 1 0.0 68.3 66 68.3 10 Sind Lvi 68.1 22 8 5.5 Rutledge 3 5 1 0.0 66.0 66.0 66.0 66.0 66.0 67.0 67.0 37 8 -4.7 Rutledge 4 5 1 0.0 66.0 66.0 66.0 66.0 67.0 37 8 -4.7 Rutledge 7 7 1 0.0 61.7 66 61.7 10 -57.6 4.1 8 -3.3 Rutledge 10 11 1 0.0 60.7 66 60.7 10 -57.6 4.1 8 -3.3 Rutledge 10 11 1 0.0 60.7 66 60.7 10 -57.6 4.1 8 -3.3 Rutledge 11 11 1 0.0 60.7 66 60.7 10 -57.6 4.1 8 -3.3 Rutledge 11 | Rutledge 1 | - | | | 0.0 | 63.8 | 9 | 9 | 63.8 | 10 | 1 | 62.6 | | 0 | 8 |
| Rutledge3 3 1 0.0 66.0 66.0 66.0 66.0 66.0 67.0 67.6 33.7 83. 43.7 Rutledge4 5 7 1 0.0 64.3 66 61.7 10 557.6 41 8 -4.3 Rutledge 6 1 0.0 61.7 66 61.3 10 557.6 41 8 -43.3 Rutledge 6 61.3 66 61.3 10 557.1 42.2 8 -33.6 Rutledge 10 10 10 66.3 66.6 60.3 31 43 36.7 44.0 8 -33.6 Rutledge 10 10 10 0.0 60.7 66 60.3 31 66.6 36.7 44.0 8 34.4 Rutledge 10 10 0.0 60.7 66.6 50.3 10 <td>Rutledge 2</td> <td>5</td> <td></td> <td>0</td> <td>0.0</td> <td>68.3</td> <td>9</td> <td>9</td> <td>68.3</td> <td>10</td> <td>Snd Lvi</td> <td>66.1</td> <td>2</td> <td>01</td> <td>-5 -5</td> | Rutledge 2 | 5 | | 0 | 0.0 | 68.3 | 9 | 9 | 68.3 | 10 | Snd Lvi | 66.1 | 2 | 01 | -5 -5 |
| Ruledge 4 4 1 0.0 64.3 66 64.3 10 60.6 3.7 8 4.3 Ruledge 5 5 7 1 0.0 61.7 10 58.7 4.0 8 -4.0 Ruledge 6 7 1 0.0 61.7 66 61.7 10 58.7 4.0 8 3.0 Ruledge 7 7 1 0.0 61.7 66 61.7 10 58.7 4.1 8 -3.0 Ruledge 10 11 1 0.0 60.7 66 60.2 10 56.6 4.1 8 -3.0 Ruledge 11 11 1 0.0 59.9 66 59.9 10 56.6 4.1 8 -3.0 Ruledge 11 11 1 0.0 59.9 66 59.9 10 56.0 31 8 -4. | Rutledge 3 | m | | - | 0.0 | 66.0 | 9 | 9 | 66.0 | 10 | Snd Lvl | 62.7 | 3. | | 8 |
| Rutledge 5 5 1 0.0 6.2.7 6.6 6.2.7 10 | Rutledge 4 | 4 | Ì | - | 0.0 | 64.3 | 9 | 9 | 64.3 | 10 | Ī | 60.6 | 3.7 | ~ | 8 |
| Rutledge 6 6 7 10 57.6 4.1 8 -3.3 Rutledge 7 7 7 1 0.0 61.3 66.3 61.3 70 57.1 4.2 8 3.3 Rutledge 7 9 1 0.0 61.3 66.3 66.3 10 56.7 4.2 8 3.3 Rutledge 10 10 10 10 60.3 66.6 60.7 10 56.4 3.1 8 3.3 Rutledge 11 11 1 0.0 60.7 66 59.9 10 56.6 3.1 8 -4.4 Rutledge 12 11 1 0.0 59.1 66 59.1 0 56.3 3.1 8 -4.4 Rutledge 12 11 11 0.0 58.3 66 58.1 0 56.3 3.1 8 -4.4 Rutledge | Rutledge 5 | 2 | Ì | - | 0.0 | 62.7 | 9 | 9 | 62.7 | 10 | Ì | 58.7 | 4.(| 0 | 8 |
| Rutledge 7 7 1 0.0 61.3 66 61.3 10 57.1 4.2 8 -3.3 Rutledge 8 8 1 0.0 60.3 66 60.3 10 56.4 38 36 36 36 36 36 36 36 38 36 36 36 36 36 36 38 36 66 36 36 | Rutledge 6 | 9 | | _ | 0.0 | 61.7 | 9 | 9 | 61.7 | 10 | I | 57.6 | 4. | | 8 6 |
| Rutledge 8 0 1 0.0 60.9 66 60.0 10 56.7 4.2 8 -3.3 Rutledge 9 1 0.0 60.2 66 60.0 10 56.6 3.3 8 3.3 Rutledge 10 11 1 0.0 59.9 66 59.9 10 56.6 3.1 8 4.3 Rutledge 11 11 1 0.0 59.9 66 59.9 10 56.6 3.1 8 -4.3 Rutledge 12 13 1 0.0 59.9 66 59.9 10 56.0 3.1 8 -4.3 Rutledge 12 13 1 0.0 58.8 66 58.8 10 56.0 3.1 8 -50.0 Cowley 3 1 10 0 57.8 10 56.1 3.1 8 -4.0 Cowley 3 </td <td>Rutledge 7</td> <td>2</td> <td></td> <td>-</td> <td>0.0</td> <td>61.3</td> <td>9</td> <td>9</td> <td>61.3</td> <td>10</td> <td>1</td> <td>57.1</td> <td>4.2</td> <td>0</td> <td>8</td> | Rutledge 7 | 2 | | - | 0.0 | 61.3 | 9 | 9 | 61.3 | 10 | 1 | 57.1 | 4.2 | 0 | 8 |
| Rutledge 1 9 1 0.0 60.2 66 60.2 10 56.4 3.8 8 -4.2 Rutledge 10 10 1 0.0 60.7 10 56.6 4.1 8 -3.9 Rutledge 11 1 1 0.0 60.7 66 59.9 10 56.6 4.1 8 -4.3 Rutledge 12 11 1 0.0 59.9 66 59.9 10 56.0 3.1 8 -4.3 Rutledge 12 13 1 0.0 59.1 66 59.1 10 55.8 3.0 8 -5.0 Crowley 3 15 1 0.0 51.2 66 55.2 10 50.1 8 -4.3 Crowley 4 16 1 0.0 72.2 10 56.1 3.1 8 -7.1 Crowley 5 1 1 1 0.0 | Rutledge 8 | œ | | - | 0.0 | 60.9 | 9 | 9 | 60.9 | 10 | 1 | 56.7 | 4.2 | 0 | 80 87 |
| Rutledge 10 10 1 0.0 60.7 66 60.7 10 56.6 1 8 -3.3 Rutledge 11 11 1 0.0 59.9 66 59.9 10 56.3 3.6 8 4 Rutledge 12 12 1 0.0 59.9 66 59.9 10 56.3 3.6 8 4 Rutledge 12 13 1 0.0 59.9 66 59.1 10 56.0 3.1 8 4 Crowley 1 13 1 0.0 51.2 66 53.1 10 55.8 3.0 8 56.0 3.1 8 4.3 Crowley 3 16 1 0.0 51.2 66 52.1 10 56.1 3.1 8 5.0 Crowley 3 1 1 1 1 1 1 1 <td>Rutledge 9</td> <td>6</td> <td>Ì</td> <td>-</td> <td>0.0</td> <td>60.2</td> <td>9</td> <td>9</td> <td>60.2</td> <td>10</td> <td>1</td> <td>56.4</td> <td>3.6</td> <td>~</td> <td>8</td> | Rutledge 9 | 6 | Ì | - | 0.0 | 60.2 | 9 | 9 | 60.2 | 10 | 1 | 56.4 | 3.6 | ~ | 8 |
| Rutledge 11 11 1 0.0 59.3 66 59.9 10 56.3 3.6 8 -4.4 Rutledge 12 12 1 0.0 59.1 66 59.1 10 56.0 3.1 8 -4.3 Crowley 1 13 1 0.0 58.8 66 58.1 10 56.0 3.1 8 -4.3 Crowley 1 13 1 0.0 58.8 66 58.1 10 55.6 3.1 8 -4.3 Crowley 2 14 1 0.0 61.2 66 67.2 10 58.1 3.1 8 -4.3 Crowley 4 17 1 0.0 72.2 66 72.2 10 8 14.4 8 -4.5 Crowley 4 1 1 1 0.0 75.2 66 72.1 8 14.4 8 -4.5 C | Rutledge 10 | 10 | | - | 0.0 | 60.7 | 9 | 9 | 60.7 | 10 | 1 | 56.6 | 4. | | 80 ເບັ |
| Rutledge 12 12 1 0.0 59.1 66 59.1 10 56.0 3.1 8 -4.3 Crowley 1 13 1 0.0 58.8 66 58.8 10 56.7 3.0 8 -5.0 Crowley 2 14 1 0.0 61.2 66 58.8 10 58.1 3.1 8 -5.0 Crowley 2 15 1 0.0 61.2 66 7.1 10 58.1 3.1 8 -5.0 Crowley 3 15 1 0.0 72.2 66 72.2 10 87.1 4.5 8 -5.5 Crowley 5 1 1 0.0 76.2 66 76.2 10 8 14.5 8 -5.5 Crowley 6 1 1 8 72.1 8 72.1 3.5 8 -7.1 Crowley 7 1 1 0.0 </td <td>Rutledge 11</td> <td>11</td> <td></td> <td></td> <td>0.0</td> <td>59.9</td> <td>9</td> <td>9</td> <td>59.9</td> <td>10</td> <td>Ì</td> <td>56.3</td> <td>3.6</td> <td>(0)</td> <td>8</td> | Rutledge 11 | 11 | | | 0.0 | 59.9 | 9 | 9 | 59.9 | 10 | Ì | 56.3 | 3.6 | (0) | 8 |
| Crowley 1 13 1 0.0 58.8 66 58.8 10 55.8 3.0 8 -5.0 Crowley 2 14 1 0.0 61.2 66 61.2 10 58.1 3.1 8 -4.9 Crowley 3 15 1 0.0 61.2 66 65.2 10 62.1 3.1 8 -4.9 Crowley 3 17 1 0.0 65.2 66 65.2 10 62.1 3.1 8 -4.9 Crowley 5 17 1 0.0 72.2 66 72.2 10 72.1 3.1 8 -4.5 Crowley 5 18 1 0.0 76.2 66 75.6 10 72.1 3.5 8 -4.5 Crowley 6 18 76.2 10 SndLvl 72.1 3.5 8 -7.5 Crowley 7 19 10 56.2 | Rutledge 12 | 12 | Ì | - | 0.0 | 59.1 | 9 | 9 | 59.1 | 10 | I | 56.0 | , , | _ | 8 |
| Crowley 2 14 1 0.0 61.2 66 61.2 10 58.1 3.1 8 -4.9 Crowley 3 15 1 0.0 65.2 66 65.2 10 62.1 3.1 8 -4.9 Crowley 3 16 1 0.0 65.2 66 65.2 10 62.1 3.1 8 -4.9 Crowley 4 16 1 0.0 72.6 66 75.6 10 SndLvl 72.1 3.5 8 -4.5 Crowley 6 18 1 0.0 76.2 66 76.3 10 SndLvl 72.1 3.5 8 -7.3 Crowley 6 1 0.0 76.3 66 76.3 10 SndLvl 72.4 0.9 8 -7.1 Crowley 7 2 1 0.0 76.3 66 76.3 10 75.4 0.9 8 -7.1 | Crowley 1 | 13 | | 0 | 0.0 | 58.8 | 9 | 9 | 58.8 | 10 | I | 55.8 | 3.(| 0 | 8 |
| Crowley 3 15 1 0.0 65.2 66 65.2 10 — 62.1 3.1 8 -4.3 Crowley 4 16 1 0.0 72.2 66 72.2 10 model 4.5 8 -4.5 Crowley 5 17 1 0.0 72.2 66 75.6 10 Snd Lvl 72.1 3.5 8 -4.5 Crowley 5 18 1 0.0 75.6 66 76.2 10 Snd Lvl 72.1 3.5 8 -4.5 Crowley 6 18 1 0.0 76.2 66 76.2 10 Snd Lvl 72.1 3.5 8 -7.1 Crowley 7 19 1 0.0 76.3 66 76.3 70 76.4 0.9 8 -7.1 Crowley 8 20 1 0.0 76.6 66 76.6 10 76.4 0.9 8 -7.2 Crowley 9< | Crowley 2 | 14 | | 1 | 0.0 | 61.2 | 9 | 9 | 61.2 | 10 | 1 | 58.1 | 'n | _ | 8 |
| Crowley 4 16 1 0.0 72.2 66 72.2 10 Snd Lvl 67.7 4.5 8 -3.5 Crowley 5 17 1 0.0 75.6 66 75.6 10 Snd Lvl 72.1 3.5 8 -4.5 Crowley 5 18 1 0.0 75.6 66 76.2 10 Snd Lvl 72.1 3.5 8 -4.5 Crowley 6 18 1 0.0 76.2 66 76.2 10 Snd Lvl 72.4 0.9 8 -7.1 Crowley 7 19 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.9 8 -7.1 Crowley 8 21 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.9 8 -7.2 Crowley 9 21 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.9 | Crowley 3 | 15 | | 1 | 0.0 | 65.2 | 9 | 9 | 65.2 | 10 | 1 | 62.1 | 3. | - | 8 -4 |
| Crowley 5 17 1 0.0 75.6 66 75.6 10 Snd Lvl 72.1 3.5 8 -4.5 Crowley 6 18 1 0.0 76.2 66 76.2 10 Snd Lvl 72.4 3.5 8 -4.5 Crowley 6 18 1 0.0 76.2 66 76.3 10 Snd Lvl 74.8 1.4 8 -6.6 Crowley 7 19 1 0.0 76.3 66 76.3 10 Snd Lvl 75.8 0.9 8 -7.1 Crowley 8 20 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.9 8 -7.1 Crowley 9 21 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.8 -7.2 Crowley 9 22 1 0.0 76.6 76.6 10 Snd Lvl 76.7 0.7 8 -7.2 | Crowley 4 | 16 | Ì | - | 0.0 | 72.2 | 9 | 9 | 72.2 | 10 | Snd Lvl | 67.7 | 4.5 | 10 | 8 2 |
| Crowley 6 18 1 0.0 76.2 66 76.2 10 Snd Lvl 74.8 1.4 8 -6.6 Crowley 7 19 1 0.0 76.3 66 76.3 10 Snd Lvl 75.4 0.9 8 -7.1 Crowley 8 20 1 0.0 76.5 66 76.6 10 Snd Lvl 75.8 0.9 8 -7.1 Crowley 8 21 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.8 8 -7.2 Crowley 9 21 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.8 8 -7.2 Crowley 10 22 1 0.0 76.8 66 76.8 10 Snd Lvl 76.1 0.7 8 -7.2 Crowley 10 22 1 0.0 76.8 66 76.8 10 76.1 0.7 8 | Crowley 5 | 17 | · · | - | 0.0 | 75.6 | 9 | 9 | 75.6 | 10 | Snd Lvl | 72.1 | 3.5 | 10 | 8 |
| Crowley 7 19 1 0.0 76.3 66 76.3 10 Snd Lvl 75.4 0.9 8 -7.1 Crowley 8 20 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.9 8 -7.2 Crowley 9 21 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.8 8 -7.2 Crowley 9 22 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.8 8 -7.2 Crowley 10 22 1 0.0 76.8 66 76.8 10 Snd Lvl 76.1 0.7 8 -7.3 Crowley 10 23 1 0.0 76.8 66 76.8 10 76.1 76.1 0.7 8 -7.3 Crowley 11 23 1 0.0 76.8 66 76.8 10 76.4 0.1 8 | Crowley 6 | 18 | • | 1 | 0.0 | 76.2 | 9 | 9 | 76.2 | 10 | Snd Lvl | 74.8 | 1.4 | 5 | 8-6 |
| Crowley 8 20 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.8 8 -7.2 Crowley 9 21 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.8 8 -7.2 Crowley 9 21 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.8 8 -7.2 Crowley 10 22 1 0.0 76.8 66 76.8 10 Snd Lvl 76.1 0.7 8 -7.3 Crowley 11 23 1 0.0 76.8 66 76.8 10 Snd Lvl 76.4 0.7 8 -7.3 | Crowley 7 | 19 | ` | 1 | 0.0 | 76.3 | 9 | 9 | 76.3 | 10 | Snd Lvl | 75.4 | 0.0 | 0 | 8 -7 |
| Crowley 9 21 1 0.0 76.6 66 76.6 10 Snd Lvl 75.8 0.8 8 -7.2 Crowley 10 22 1 0.0 76.8 66 76.6 10 Snd Lvl 75.8 0.8 8 -7.2 Crowley 10 22 1 0.0 76.8 66 76.8 10 Snd Lvl 76.1 0.7 8 -7.3 Crowley 11 23 1 0.0 76.8 66 76.8 10 Snd Lvl 76.4 0.7 8 -7.3 | Crowley 8 | 20 | Ì | - | 0.0 | 76.6 | 9 | 9 | 76.6 | 10 | Snd Lvl | 75.8 | 0.8 | 8 | 8 -7 |
| Crowley 10 22 1 0.0 76.8 66 76.8 10 Snd Lvl 76.1 0.7 8 -7.3 Crowley 11 23 1 0.0 76.8 66 76.8 10 Snd Lvl 76.1 0.7 8 -7.3 | Crowley 9 | 21 | | - | 0.0 | 76.6 | 9 | 9 | 76.6 | 10 | Snd Lvl | 75.8 | 0.0 | m | 8 -7 |
| Crowley 11 23 1 0.0 76.8 66 76.8 10 Snd Lvl 76.4 0.4 8 -7.6 | Crowley 10 | 22 | | - | 0.0 | 76.8 | 9 | 9 | 76.8 | 10 | Snd Lvl | 76.1 | 0.7 | 2 | 8 -7 |
| | Crowley 11 | 23 | Ì | _ | 0.0 | 76.8 | 9 | 9 | 76.8 | 10 | Snd Lvl | 76.4 | .0. | 5 | 8 -7 |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD | SE SE | | | | |
|-----------------------------------|----|---|-----|------|----|------|--------|------------------|------|-----------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.7 | 99 | 76.7 | 10 | Snd Lvl | 76.0 | 0.7 | 80 | -7.3 |
| Crowley 13 | 25 | Ļ | 0.0 | 75.7 | 66 | 75.7 | 10 | Snd Lvi | 73.4 | 2.3 | 8 | -5.7 |
| Crowley 14 | 26 | - | 0.0 | 74.9 | 66 | 74.9 | 10 | Snd Lvl | 70.8 | 4.1 | 00 | -3.9 |
| Crowley 15 | 27 | - | 0.0 | 73.3 | 66 | 73.3 | 10 | Snd Lvl | 68.4 | 4.9 | 00 | -3.1 |
| Crowley 16 | 28 | ٢ | 0.0 | 61.0 | 66 | 61.0 | 10 | 1 | 58.7 | 2.3 | 00 | -5.7 |
| Crowley 17 | 29 | ۱ | 0.0 | 63.1 | 66 | 63.1 | 10 | | 60.4 | 2.7 | 80 | -5.3 |
| Crowley 18 | 30 | ٢ | 0.0 | 65.6 | 66 | 65.6 | 10 | I | 63.2 | 2.4 | 80 | -5.6 |
| Crowley 19 | 31 | - | 0.0 | 67.1 | 66 | 67.1 | 10 | Snd Lvl | 65.7 | 1.4 | 8 | -9.9 |
| Crowley 37 | 32 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | Ĩ | 62.5 | 1.8 | 00 | -6.2 |
| Crowley 38 | 33 | - | 0.0 | 61.8 | 66 | 61.8 | 10 | Ì | 59.9 | 1.9 | 00 | -6.1 |
| Crowley 39 | 34 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | Ĭ | 58.8 | 1.9 | 8 | -6.1 |
| Crowley 40 | 35 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | Í | 58.4 | 1.8 | 80 | -6.2 |
| Crowley 20 | 36 | - | 0.0 | 67.2 | 66 | 67.2 | 10 | Snd Lvl | 66.2 | 1.0 | 80 | -7.0 |
| Crowley 21 | 37 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvi | 64.9 | 1.2 | 80 | -6.8 |
| Crowley 41 | 38 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | Ĩ | 63.3 | 1.3 | 80 | -6.7 |
| Crowley 42 | 39 | - | 0.0 | 63.8 | 66 | 63.8 | 10 | Ĩ | 62.6 | 1.2 | 80 | -6.8 |
| Crowley 22 | 40 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | t | 63.4 | 1.5 | 80 | -6.5 |
| Crowley 23 | 41 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | Ì | 59.6 | 1.8 | 8 | -6.2 |
| Crowley 24 | 42 | - | 0.0 | 60.3 | 66 | 60.3 | 10 | 1 | 58.5 | 1.8 | 80 | -6.2 |
| Crowley 25 | 43 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | j | 57.8 | 2.0 | 00 | -6.0 |
| Crowley 26 | 44 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 61.6 | 1.9 | 00 | -6.1 |
| Crowley 27 | 45 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | | 59.6 | 2.4 | 80 | -5.6 |
| Crowley 28 | 46 | - | 0.0 | 60.6 | 66 | 9.09 | 10 | Ì | 58.1 | 2.5 | 80 | -5.5 |
| Crowley 29 | 47 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | Ì | 55.9 | 2.3 | 8 | -5.7 |
| Crowley 30 | 48 | - | 0.0 | 72.1 | 66 | 72.1 | 10 | Snd Lvl | 66.8 | 5.3 | 00 | -2.7 |
| Crowley 31 | 49 | - | 0.0 | 69.1 | 66 | 69.1 | 10 | Snd Lvl | 64.8 | 4.3 | 00 | -3.7 |
| Crowley 32 | 50 | - | 0.0 | 67.4 | 66 | 67.4 | 10 | Snd Lvl | 63.2 | 4.2 | 80 | -3.8 |
| Crowley 33 | 51 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | 1 | 61.4 | 4.2 | 80 | -3.8 |
| Crowley 34 | 52 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | | 58.4 | 3.0 | œ | -5.0 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 A manual state | 56.4 | 2.9 | 8 | -5.1 |
| Crowley 36 | 54 | - | 0.0 | 58.0 | 66 | 58.0 | 10 | 1 | 55.4 | 2.6 | 00 | -5.4 |
| Long Pond 1 | 55 | - | 0.0 | 56.7 | 66 | 56.7 | 10 | | 54.0 | 2.7 | 80 | -5.3 |
| Long Pond 2 | 56 | - | 0.0 | 57.9 | 66 | 57.9 | 10 | | 55.1 | 2.8 | 00 | -5.2 |
| Long Pond 3 | 57 | - | 0.0 | 59.7 | 66 | 59.7 | 10 | | 56.5 | 3.2 | 80 | -4.8 |
| Long Pond 4 | 58 | - | 0.0 | 62.4 | 66 | 62.4 | 10 | 1 | 58.8 | 3.6 | 8 | -4.4 |
| Long Pond 5 | 59 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 61.6 | 4.6 | 00 | -3.4 |
| Long Pond 6 | 60 | - | 0.0 | 71.9 | 66 | 71.9 | 10 | Snd Lvl | 65.3 | 6.6 | 80 | -1.4 |
| Long Pond 7 | 61 | - | 0.0 | 73.5 | 66 | 73.5 | 10 | Snd Lvl | 67.7 | 5.8 | 8 | -2.2 |
| Long Pond 8 | 62 | ۲ | 0.0 | 74.0 | 66 | 74.0 | 10 | Snd Lvl | 69.7 | 4.3 | 00 | -3.7 |
| Long Pond 9 | 63 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 71.1 | 3.2 | 80 | -4.8 |
| Long Pond 10 | 64 | - | 0.0 | 73.7 | 66 | 73.7 | 10 | Snd Lvl | 71.1 | 2.6 | 80 | -5.4 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA E | BM | | | | | | | | | 3 June 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | | -4 | BtU PD8 | ÅE E | | | | |
|------------------------------|------|-----------|-----------|------|-----|------|---------|---------|------|-----|----|------|
| Long Pond 11 | 65 | 1 | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 70.6 | 2.8 | 80 | -5.2 |
| Long Pond 12 | 66 | 1 | 0.0 | 73.9 | 66 | 73.9 | 10 | Snd Lvl | 69.5 | 4.4 | œ | -3.6 |
| Long Pond 13 | 67 | 1 | 0.0 | 73.5 | 66 | 73.5 | 10 | Snd Lvl | 68.5 | 5.0 | œ | -3.0 |
| Long Pond 14 | 68 | 1 | 0.0 | 73.0 | 66 | 73.0 | 10 | Snd Lvi | 68.3 | 4.7 | 80 | -3.3 |
| Long Pond 15 | 69 | 1 | 0.0 | 73.2 | 66 | 73.2 | 10 | Snd Lvl | 68,4 | 4.8 | 8 | -3.2 |
| Long Pond 16 | 70 | 1 | 0.0 | 73.0 | 66 | 73.0 | 10 | Snd Lvl | 68.5 | 4.5 | 8 | -3.5 |
| Long Pond 17 | 71 | 1 | 0.0 | 73.7 | 66 | 73.7 | 10 | Snd Lvl | 69.2 | 4.5 | 8 | -3.5 |
| Long Pond 18 | 72 | 1 | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvi | 69.4 | 4.9 | œ | -3.1 |
| Long Pond 19 | 73 | 1 | 0.0 | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 69.1 | 4.5 | ω | -3.5 |
| Long Pond 20 | 74 | 1 | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 68.5 | 4.4 | 8 | -3.6 |
| Long Pond 21 | 75 | - | 0.0 | 72.4 | 66 | 72.4 | 10 | Snd Lvl | 68.3 | 4.1 | 8 | -3.9 |
| Long Pond 22 | 76 | - | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 68.8 | 4.0 | œ | -4.0 |
| Chardonnay 1 | 77 | - | 0.0 | 62.1 | 66 | 62.1 | 10 | 1 | 58.8 | 3.3 | œ | -4.7 |
| Chardonnay 2 | 78 | 1 | 0.0 | 64.0 | 66 | 64.0 | 10 | ĺ | 60.4 | 3.6 | ω | 4.4- |
| Chardonnay 3 | 79 | 1 | 0.0 | 67.1 | 66 | 67.1 | 10 | Snd Lvl | 63.4 | 3.7 | œ | -4.3 |
| Chardonnay 4 | 80 | - | 0.0 | 68.1 | 66 | 68.1 | 10 | Snd Lvl | 60.7 | 7.4 | œ | -0.6 |
| Chardonnay 5 | 81 | 1 | 0.0 | 65.7 | 66 | 65.7 | 10 | I | 59.9 | 5.8 | ω | -2.2 |
| Chardonnay 6 | 82 | + | 0.0 | 62.9 | 99 | 62.9 | 10 | 1000 | 59.0 | 3.9 | ω | -4.1 |
| Chardonnay 7 | 83 | 1 | 0.0 | 61.1 | 99 | 61.1 | 10 | 1 | 57.5 | 3.6 | œ | -4.4 |
| Dunbrooke | 84 | 1 | 0.0 | 64.6 | 66 | 64.6 | 10 | 1 | 58.9 | 5.7 | œ | -2.3 |
| Long Pond 23 | 85 | 1 | 0.0 | 61.9 | 66 | 61.9 | 10 | 1 | 59.4 | 2.5 | ω | -5.5 |
| Long Pond 24 | 86 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | | 59.9 | 2.1 | 8 | -5.9 |
| Long Pond 25 | 87 | 4 | 0.0 | 60.3 | 99 | 60.3 | 10 | I | 59.6 | 0.7 | 8 | -7.3 |
| Long Pond 26 | 88 | - | 0.0 | 60.1 | 99 | 60.1 | 10 | Ĭ | 59.8 | 0.3 | ω | -7.7 |
| Long Pond 27 | 89 | 1 | 0.0 | 58.7 | 66 | 58.7 | 10 | | 58.1 | 0.6 | 8 | -7.4 |
| Dwelling Units | ng # | s Noise F | Reduction | | | | | | | | | |
| | | Min | Avg | Ma | × | | | | | | | |
| | | đB | | đB | | | | | | | | |
| All Selected | ~ | 39 (| .3 | 3.1 | 7.4 | | | | | | | |
| All Impacted | , | 0 0t | 0.4 | 3.5 | 7.4 | | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0.0 | | | | | | | |

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3 June 2015

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| RESULTS: SOUND LEVELS | | | | 2 | | | I-4 BtU PI |)&E | | | | |
|------------------------------|-----|---------|------------|------------|--------|-------------|---------------------|-------------|---------------|--------------------|-----------|-----------------------------|
| Stantec | | | | | | | 3 June 20 | 15 | | | | |
| M. Drauer | | | | | | | TNM 2.5 | | | | | |
| | | | | | | | Calculate | d with TNN | 2.5 | | | |
| RESULTS: SOUND LEVELS | | | | | | | | | | | | |
| PROJECT/CONTRACT: | | I-4 BtU | PD&E | | | | | | | | | |
| RUN: | | I-4 Seg | mnet 3 NS. | A F BM | | | | | | | | |
| BARRIER DESIGN: | | INPUT | HEIGHTS | | | | | Average p | avement type | shall be use | d unless | |
| | | | | | | | | a State hi | jhway agency | ∕ substantiate | s the use | |
| ATMOSPHERICS: | | 68 deg | F, 50% RH | - | | | | of a differ | ent type with | approval of F | HWA. | |
| Receiver | | | | | | | | | | | | |
| Name | No. | #DUs | Existing | No Barrier | | 0 | | | With Barrier | | 0 | |
| | | | LAeq1h | LAeq1h | | Increase ov | ver existing | Type | Calculated | Noise Reduc | tion | |
| | | | | Calculated | Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | dBA | dB | đB | | dBA | dB | đВ | B |
| Fox 35 | - | - | 0.0 | 713 | 2 | 36 7 | 1.5 1(| Snd Lvl | 63.9 | 7.6 | | 8 -0.4 |
| Good Life 45 | 2 | - | 0.0 | 76. | 1 | 36 7 | 6.1 1(| Snd Lvl | 68.9 | 7.2 | 2007 | -0.8 |
| Candlewood Pool | m | | 0.0 | 73. | 8 | 36 7 | 3.8 1(| Snd Lvl | 73.8 | 0.0 | | 8 -8.0 |
| Filutowski | 4 | | 0.0 | 73. | 3 | 36 7 | 3.3 1(| Snd Lvl | 73.3 | 0.0 | | 8 -8.0 |
| La Quinta pool | Ω | - | 0.0 | 68. | 7 6 | 36 6 | 8.7 1(| Snd Lvl | 68.7 | 0.0 | | 8 -8.0 |
| Homestead pool | 9 | - | 0.0 | 68. | 3 | 36 6 | 8.3 1(| Snd Lvl | 68.3 | 0.0 | | 8 -8.0 |
| Extended Stay America | 2 | - | 0.0 | 68. | 9 | 36 6 | 8.9 1(|) Snd Lvl | 68.9 | 0.0 | | 8 -8.0 |
| Dwelling Units | | # DUs | Noise Re | duction | | | | | | | | |
| | | | Min | Avg | Мах | | | | | | | |
| | | | ąp | æ | qв | | | | | | | |
| All Selected | | - | 0.0 | 2. | 1 7 | 9. | | | | | | |
| All Impacted | | - | 0.0 | 2. | 1 7 | 9. | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0 | 0. | | | | | | |
| | | | | | | | | | | | | |

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3 June 2015

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| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | | Ī |
|-----------------------------------|------------|----------------|-----------------------|-------------|----------|--------|--------------|---------------------|-------------------------|--------------------------------|--------------------------------|--------------------|-----------------------------|-----|
| Stantec | | | | | | | | 3 June 20 | 15 | | | | | |
| M. Drauer | | | | | | | | TNM 2.5 | | | | | - | |
| RESULTS: SOUND LEVELS | | | | | | | | Calculate | d with TN | M 2.5 | | | | |
| PROJECT/CONTRACT: | | I-4 Btl | J PD&E | | | | | | | | | | | |
| RUN: BARRIER DESIGN: | | I-4 Se INPU | gment 3 T HEIGH' | NSA G FS | GM | | | | Average | pavement typ | e shall be us | ed unles | Ø | |
| ATMOSPHERICS: | | 68 de | g F, 50% | RH | | | | | a State h of a diffe | ighway agenc rent type with | sy substantiat ⊨approval of | tes the u FHWA. | se | |
| Receiver | | | | | | | | | | | | | | |
| Name | No. | #DUs | Existin | g No | Barrier | | | | | With Barrie | | | | |
| | | | LAeq1 | ۲ ۲ | eq1h | | Increase ove | er existing | Type | Calculated | Noise Redu | Iction | | |
| | | | | Ca | Iculated | Crit'n | Calculated | Crit'n Sub'l Inc | Impact | L A eq1h | Calculated | Goal | Calculated minus Goal | σ |
| | | | dBA | đþ | đ | dBA | đB | đВ | | dBA | đB | đB | 명 | |
| Rutledge 1 | | | - | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 2 | •• | 01 | - | 0.0 | 0.0 | J | 36 0. | .0 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 3 | | ~ | - | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | ö | 8 | 0.0 |
| Rutledge 4 | 2 | | - | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 5 | | 10 | - | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 10 | 0 0.0 | 0 | 8 | 0.0 |
| Rutledge 6 | | | - | 0.0 | 0'0 | 9 | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 7 | | | - | 0.0 | 0.0 | , U | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 8 | w | ~ | - | 0.0 | 0.0 | 9 | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 9 | | ~ | - | 0.0 | 0.0 | 9 | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 10 | 1(| 0 | ~ | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 11 | ÷ | | - | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 12 | 4 | | - | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 1 | ÷ | ~ | 1 | 0.0 | 0.0 | 9 | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 2 | 7 | - | 4 | 0.0 | 0.0 | 9 | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 3 | 1 | 10 | + | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 4 | 16 | 6 | 1 | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 5 | 17 | | - | 0.0 | 0.0 | J | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 6 | 18 | | 1 | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 7 | 4 | | - | 0.0 | 0.0 | ÷ | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 8 | 5(| 0 | Ţ | 0.0 | 0.0 | ÷ | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 9 | 2, | | - | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 10 | 22 | | - | 0.0 | 0.0 | | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 11 | 23 | | | 0.0 | 0.0 | J. | 36 0. | .0 10 |) inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| C-\TNM25\230168\Sec 3\8 + 4\NSA (| G Oakmonte | | | | | | | Ŧ | | | | 3. | une 2015 | |

| RESULTS: SOUND LEVELS | | | | | | 1-4-I | BtU PD8 | ÅE | | | | |
|-----------------------------------|------------|---|-----|-----|-----|-------|---------|----------|-----|-----|------------|-----|
| Crowley 12 | 24 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 13 | 25 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Crowley 14 | 26 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 15 | 27 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Crowley 16 | 28 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 17 | 29 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 18 | 30 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 19 | 31 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 37 | 32 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Crowley 38 | 33 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 39 | 34 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 40 | 35 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 20 | 36 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 21 | 37 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 41 | 38 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 42 | 39 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 22 | 40 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 23 | 41 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 24 | 42 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 25 | 43 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 26 | 44 | F | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 27 | 45 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 28 | 46 | ÷ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 29 | 47 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 30 | 48 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 31 | 49 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 32 | 50 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 33 | 51 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 34 | 52 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 35 | 53 | ٢ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 36 | 54 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 1 | 55 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 2 | 56 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 3 | 57 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 4 | 58 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 5 | 59 | | 0.0 | 0.0 | .99 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 6 | 60 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 7 | 61 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 8 | 62 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 9 | 63 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 10 | 64 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| C:\TNM25\230168\Seq 3\8 + 4\NSA G | 3 Oakmonte | | | | | 2 | | | | | 3 June 201 | 10 |

| RESULTS: SOUND LEVELS | | | | | | -4- | Btu PD | Ř | | | | |
|-----------------------------------|------------|--------------|-----|------|----|------|--------|----------|------|-----|------------|------|
| Long Pond 11 | 65 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 12 | 66 | | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 13 | 67 | ۰. | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 14 | 68 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 15 | 69 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ω | 0.0 |
| Long Pond 16 | 70 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ω | 0.0 |
| Long Pond 17 | 71 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | Ø | 0.0 |
| Long Pond 18 | 72 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 19 out | 73 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Long Pond 20 | 74 | | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 72.8 | 0.0 | œ | -8.0 |
| Long Pond 21 | 75 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 72.5 | 0.0 | œ | -8.0 |
| Long Pond 22 | 76 | - | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 72.8 | 0.0 | ω | -8.0 |
| Chardonnay 1 | 17 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | I | 60.5 | 1.5 | ω | -6.5 |
| Chardonnay 2 | 78 | - | 0.0 | 63.9 | 66 | 63.9 | 10 | 1 | 62.4 | 1.5 | 80 | -6.5 |
| Chardonnay 3 | 62 | - | 0.0 | 67.1 | 66 | 67.1 | 10 | Snd Lvl | 65.6 | 1.5 | 80 | -6.5 |
| Chardonnay 4 | 80 | - | 0.0 | 68.0 | 66 | 68.0 | 10 | Snd Lvl | 62.1 | 5.9 | œ | -2.1 |
| Chardonnay 5 | 81 | + | 0.0 | 65.6 | 66 | 65.6 | 10 | I | 60.8 | 4.8 | 80 | -3.2 |
| Chardonnay 6 | 82 | - | 0.0 | 62.8 | 66 | 62.8 | 10 | Ĭ | 60.3 | 2.5 | 8 | -5.5 |
| Chardonnay 7 | 83 | ٢ | 0.0 | 61.1 | 66 | 61.1 | 10 | 1 | 58.5 | 2.6 | 80 | -5.4 |
| Dunbrooke | 84 | - | 0.0 | 64.5 | 66 | 64.5 | 10 | 1 | 59.7 | 4.8 | 80 | -3.2 |
| Long Pond 23 | 85 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | 1 | 61.0 | 0.9 | 80 | -7.1 |
| Long Pond 24 | 86 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | I | 61.7 | 0.2 | 8 | -7.8 |
| Long Pond 25 | 87 | ۲ | 0.0 | 60.2 | 66 | 60.2 | 10 | 1 | 60.1 | 0.1 | 80 | -7.9 |
| Long Pond 26 | 88 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | ĺ | 59.8 | 0.0 | 8 | -8.0 |
| Long Pond 27 | 89 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | Î | 58.7 | 0.0 | 80 | -8.0 |
| Dunbrooke 1 | 06 | - | 0.0 | 62.3 | 66 | 62.3 | 10 | Ĭ | 59.0 | 3.3 | 80 | -4.7 |
| Dunbrooke 2 | 91 | + | 0.0 | 64.6 | 66 | 64.6 | 10 | 1 | 58.6 | 6.0 | ø | -2.0 |
| Dunbrooke 3 | 92 | + | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 58.3 | 6.4 | 80 | -1.6 |
| Dunbrooke 4 | 93 | F | 0.0 | 64.4 | 66 | 64.4 | 10 | I | 58.1 | 6.3 | 80 | -1.7 |
| Dunbrooke 5 | 94 | - | 0.0 | 63.6 | 8 | 63.6 | 10 | 1 | 58.1 | 5.5 | 80 | -2.5 |
| Dunbrooke 6 | 95 | F | 0.0 | 62.9 | 66 | 62.9 | 10 | ľ | 57.7 | 5.2 | 80 | -2.8 |
| Dunbrooke 7 | 96 | F | 0.0 | 60.4 | 66 | 60.4 | 10 | I | 57.1 | 3.3 | 80 | -4.7 |
| Dunbrooke 8 | 97 | ÷ | 0.0 | 59.5 | 66 | 59.5 | 10 | Ĩ | 56.2 | 3.3 | 80 | -4.7 |
| Dunbrooke 9 | 98 | F | 0.0 | 61.3 | 66 | 61.3 | 10 | ł | 57.3 | 4.0 | ø | -4.0 |
| Dunbrooke 10 | 66 | ۲ | 0.0 | 63.7 | 66 | 63.7 | 10 | 1 | 57.3 | 6.4 | Ø | -1.6 |
| Dunbrooke 11 | 100 | F | 0.0 | 63.5 | 66 | 63.5 | 10 |] | 56.7 | 6.8 | 80 | -1.2 |
| Tennis Ct. | 101 | ۲ | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 56.7 | 6.9 | œ | -1.1 |
| Dunbrooke 12 | 102 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | | 56.8 | 4.6 | õ | -3.4 |
| Dunbrooke 13 | 103 | ÷ | 0.0 | 59.4 | 66 | 59.4 | 10 | 1 | 56.0 | 3.4 | œ | 4.6 |
| Oakmonte g | 104 | - | 0.0 | 70.0 | 66 | 70.0 | 10 | Snd Lvl | 63.0 | 7.0 | Ø | -1.0 |
| Oakmonte f | 105 | . | 0.0 | 69.7 | 66 | 69.7 | 10 | Snd Lvl | 63.5 | 6.2 | 80 | -1.8 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA G | 3 Oakmonte | | | | | e | | | | | 3 June 201 | ŝ |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | Щ | | | | |
|-----------------------------------|------------|---|-----|------|----|------|---------|----------|------|-----|------------|------|
| Oakmonte e | 106 | - | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 63.6 | 5.7 | 8 | -2.3 |
| Oakmonte d | 107 | - | 0.0 | 68.9 | 66 | 68.9 | 10 | Snd Lvl | 63.9 | 5.0 | 8 | -3.0 |
| Oakmonte c | 108 | - | 0.0 | 67.2 | 66 | 67.2 | 10 | Snd Lvl | 63.4 | 3.8 | 8 | -4.2 |
| Oakmonte b | 109 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | 1 | 61.5 | 4.3 | 8 | -3.7 |
| Oakmonte a | 110 | - | 0.0 | 64.8 | 66 | 64.8 | 10 | ſ | 60.8 | 4.0 | 8 | -4.0 |
| Oakmonte 1 | 111 | - | 0.0 | 63.8 | 66 | 63.8 | 10 | 1 | 60.2 | 3.6 | 8 | -4.4 |
| Oakmonte 2 | 112 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte 3 | 113 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte 4 | 114 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Oakmonte 5 | 115 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte 6 | 116 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 7 | 117 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte 8 | 118 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte 9 | 119 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte 10 | 120 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| ITT | 121 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 73.9 | 0.4 | 8 | -7.6 |
| Dunbrooke 13 | 103 | - | 0.0 | 58.8 | 99 | 58.8 | 10 | 1 | 57.9 | 0.9 | 8 | -7.1 |
| Notting Hill 1 | 122 | - | 0.0 | 59.6 | 99 | 59.6 | 10 | | 58.6 | 1.0 | 8 | -7.0 |
| Notting Hill 2 | 123 | - | 0.0 | 59.8 | 99 | 59.8 | 10 | | 58.9 | 0.9 | 8 | -7.1 |
| Notting Hill 3 | 124 | - | 0.0 | 62.7 | 99 | 62.7 | 10 | I | 61.9 | 0.8 | 8 | -7.2 |
| Notting Hill 4 | 125 | - | 0.0 | 62.4 | 66 | 62.4 | 10 | | 61.6 | 0.8 | 00 | -7.2 |
| Notting Hill 5 | 126 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 63.7 | 0.6 | 80 | -7.4 |
| Notting Hill 6 | 127 | - | 0.0 | 64.5 | 66 | 64.5 | 10 | 1 | 64.1 | 0.4 | 80 | -7.6 |
| Notting Hill 7 | 128 | - | 0.0 | 64.9 | 99 | 64.9 | 10 | | 64.5 | 0.4 | 8 | -7.6 |
| Notting Hill 8 | 129 | - | 0.0 | 65.4 | 66 | 65.4 | 10 | 1 | 65.1 | 0.3 | 8 | 1.7- |
| Notting Hill 9 | 130 | - | 0.0 | 65.3 | 99 | 65.3 | 10 | 1 | 65.1 | 0.2 | 80 | -7.8 |
| Notting Hill 10 | 131 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | 1 | 65.1 | 0.2 | 8 | -7.8 |
| Notting Hill 11 | 132 | - | 0.0 | 65.1 | 66 | 65.1 | 10 | I | 65.0 | 0.1 | 8 | -7.9 |
| Notting Hill 12 | 133 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | ł | 64.2 | 0.1 | 80 | -7.9 |
| Notting Hill 13 | 134 | - | 0.0 | 64.1 | 99 | 64.1 | 10 | 1 | 64.0 | 0.1 | 80 | -7.9 |
| Notting Hill 14 | 135 | - | 0.0 | 63.9 | 99 | 63.9 | 10 | 1 | 63.8 | 0.1 | 8 | -7.9 |
| Notting Hill 15 | 136 | - | 0.0 | 64.4 | 99 | 64.4 | 10 | | 64.3 | 0.1 | 8 | -7.9 |
| Notting Hill 16 | 137 | ~ | 0.0 | 64.1 | 66 | 64.1 | 10 | 1 | 64.0 | 0.1 | 80 | -7.9 |
| Notting Hill 17 | 138 | - | 0.0 | 63.6 | 99 | 63.6 | 10 | 1 | 63.5 | 0.1 | 80 | -7.9 |
| Notting Hill 18 | 139 | - | 0.0 | 63.2 | 99 | 63.2 | 10 | I | 63.1 | 0.1 | 8 | -7.9 |
| Notting Hill 19 | 140 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | <u> </u> | 65.2 | 0.1 | 80 | -7.9 |
| Notting Hill 20 | 141 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | I | 64.5 | 0.1 | 80 | -7.9 |
| Notting Hill 21 | 142 | - | 0.0 | 65.5 | 66 | 65.5 | 10 | I | 65.4 | 0.1 | 8 | -7.9 |
| Notting Hill 22 | 143 | ۴ | 0.0 | 64.4 | 66 | 64.4 | 10 | I | 64.4 | 0.0 | 8 | -8.0 |
| Notting Hill 23 | 144 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | - | 64.6 | 0.1 | 8 | -7.9 |
| Notting Hill 24 | 145 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | 1 | 64.5 | 0.1 | 8 | -7.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA G | 3 Oakmonte | | | | | 4 | | | | | 3 June 201 | 5 |
| RESULTS: SOUND LEVELS | | | | | | | -4 | BtU PD | Ш | | | | |
|------------------------------|-----|-------|----------|---------|-----|--------|------|--------|----------|------|-----|----|------|
| Notting Hill 25 | 146 | - | 0.0 | 6 | 2.8 | 66 | 62.8 | 10 | 1 | 62.8 | 0.0 | 80 | -8.0 |
| Notting Hill 26 | 147 | - | 0.0 | 6 | 2.8 | 66 | 62.8 | 10 | Ï | 62.7 | 0.1 | ø | -7.9 |
| Notting Hill 27 | 148 | - | 0.0 | Ö | 1.1 | 66 | 61.1 | 10 | 1 | 61.0 | 0.1 | ø | -7.9 |
| Notting Hill 28 | 149 | - | 0.0 | 9 | 1.2 | 66 | 61.2 | 10 | 1 | 61.2 | 0.0 | ø | -8.0 |
| Notting Hill 29 | 150 | - | 0.0 | 90 | 0.1 | 66 | 60.1 | 10 | 1 | 60.0 | 0.1 | 80 | -7.9 |
| Notting Hill 30 | 151 | - | 0.0 | 2 | 3.9 | 66 | 58.9 | 10 | 1 | 58.8 | 0.1 | 80 | -7.9 |
| Notting Hill 31 | 152 | - | 0.0 | 6 | 0.4 | 66 | 60.4 | 10 | ſ | 60.4 | 0.0 | 80 | -8.0 |
| Courtyard Pool | 153 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte A | 154 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte B | 155 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte C | 156 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte D | 157 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte E | 158 | ~ | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte F | 159 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte G | 160 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Dwelling Units | Ŧ | : DUs | Noise Re | duction | |) ==== | | | | | | | |
| | | | Min | Avg | Max | | | | | | | | |
| | | | đB | đb | ₿ | | | | | | | | |
| All Selected | | 161 | 0.0 | | 0.9 | 7.0 | | | | | | | |
| All Impacted | | 5 | 0.0 | | 3.2 | 7.0 | | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | | 0.0 | 0.0 | | | | | | | |
| | | | | | | | | | | | | | |

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3 June 2015

C:\TNM25\230168\Seg 3\8 + 4\NSA G Oakmonte

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU PC | &E | | | | |
|------------------------------|-----|---------|----------------|------------|--------|--------------|-------------|-------------|---------------|----------------|-----------|---------------|
| Stantec | | | | | | | 3 June 20 | ų | | | | |
| M. Drauer | | | | | | | TNM 2.5 | 2 | | | | |
| | | | | | | | Calculate | d with TNN | 2.5 | | | |
| RESULTS: SOUND LEVELS | | | | | | | | | | | | |
| PROJECT/CONTRACT: | | I-4 BtU | I PD&E | | | | | | | | | |
| RUN: | | I-4 Seg | jmnet 3 NS | AH&I | | | | | | | | |
| BARRIER DESIGN: | | INPUT | HEIGHTS | | | | | Average p | avement type | e shall be use | d unless | |
| | | | | | | | | a State hi | phway agenc | y substantiat | es the us | 0 |
| ATMOSPHERICS: | | 68 de | g F, 50% RI | | | | | of a differ | ent type with | approval of F | HWA. | |
| Receiver | | | | | | | | | | | | |
| Name | No. | \$NQ# | Existing | No Barrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | Increase ove | er existing | Type | Calculated | Noise Reduc | ction | |
| | | | | Calculated | Crit'n | Calculated | Crit'n | Impact | LAeq1h | Calculated | Goal | Calculated |
| | | | | | | | Sub'l Inc | | | | | minus Goal |
| | | | dBA | dBA | dBA | В | đB | | dBA | đB | đB | dB |
| Fox 35 | | _ | 1 0.0 | 0.0 | 9 | 0 | 0 10 | inactive | 0.0 | 0.0 | | 8 0.0 |
| Good Life 45 | | 0 | 1 0.0 | 0.0 | 9 | 0 | 10 | inactive | 0.0 | 0.0 | | 8 0.0 |
| Candlewood Pool | | ~ | 1 0.0 | 73. | 9 | 6 73. | 8 10 | Snd Lvl | 66.2 | 7.6 | 10 | 8 -0.4 |
| Filutowski | | + | 1 0.0 | 73. | 4 | 6 73 | 10 | Snd Lvl | 65.2 | 8.2 | | 8 0.2 |
| La Quinta pool | | 10 | 1 0.0 | 68. | 7 6 | 68 | 7 10 | Snd Lvl | 68.7 | 0.0 | | 8-8.0 |
| Homestead pool | | 0 | 1 0.0 | 68. | 3 6 | 68 | 3 10 | Snd Lvl | 68.3 | 0.0 | | 8 -8.0 |
| Extended Stay America | | ~ | 1 0.0 | 68. | 9 | 68 | 9 10 | Snd Lvl | 68.9 | 0.0 | | 8 -8.0 |
| Dwelling Units | | \$NQ # | Noise Re | duction | | | | | | | | |
| | | | Min | Avg | Max | | | | | | | |
| | | | đB | æ | đB | | | | | | | |
| All Selected | | | 7 0.0 | 2 | 3 8. | N | | | | | | |
| All Impacted | | | 5 0.(| 3.0 | 2 8. | N | | | | | | |
| All that meet NR Goal | | | 1 8.5 | 8 | 8. | S | | | | | | |
| | | | | | | | | | | | | |

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3 June 2015

| RESULTS: SOUND LEVELS | | | | | | | | 4 PD&E | | | | | | |
|--|---------|-----------------|----------------|------------|--------|----------|----------|---------------------|---------------------------|------------------------------|---------------------------|-----------|-----|--------------------------|
| Stantec | | | | | | | | 3 June 20 | 15 | | | | | |
| M. Drauer | | | | | | | | TNM 2.5 | MINT Athen 1 | 20 | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: | 141 | D&E | | | | | | calculated | | 6.7 | | | - | |
| RUN: BARRIER DESIGN: | Seg | ment 3 UT HE | NSA J IGHTS | | | | | | Average p | avement type | shall be u | ised unle | SS | |
| ATMOSPHERICS: | 68 | deg F, | 50% RH | | | | | | a State hi of a differ | ghway agenc ent type with | / substanti approval o | f FHWA. | use | |
| Receiver | | | | | | | | | | | | | | |
| Name | No. #DL | Js Ex | isting | No Barrier | | - | | | | With Barrier | | | | |
| | | L | eq1h | LAeq1h | | Increase | e over e | existing | Type | Calculated | Noise Red | luction | - | |
| | | | | Calculated | Crit'n | Calcula | ted | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | d Goal | ΰΞŏ | alculated inus oal |
| | | æ | A | dBA | dBA | dВ | | B | | dBA | вb | æ | 뜅 | ~ |
| Receiver1 | ~ | - | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 80 | 0.0 |
| Receiver3 | e | - | 0.0 | 0.0 | 0 | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 8 | 0.0 |
| Receiver4 | 4 | - | 0.0 | 0.0 | 0 | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | œ | 0.0 |
| Receiver5 | 5 | - | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 80 | 0.0 |
| North Cove Park | 9 | - | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0.0 | ø | 0.0 |
| Receiver7 | 7 | - | 0.0 | 0.0 | 0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0.0 | 80 | 0.0 |
| Receiver8 | 80 | - | 0.0 | 0.0 | 0 | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 80 | 0.0 |
| Receiver9 | 0 | - | 0.0 | 0.0 | 0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0.0 | 80 | 0.0 |
| Receiver10 | 10 | | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0.0 | œ | 0.0 |
| Receiver11 | 11 | - | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | ø | 0.0 |
| Receiver12 | 12 | - | 0.0 | 0.0 | 0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0.0 | œ | 0.0 |
| Receiver13 | 13 | - | 0.0 | 0.0 | 0 | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 80 | 0.0 |
| Receiver14 | 14 | - | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 80 | 0.0 |
| Receiver 15 | 15 | - | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | œ | 0.0 |
| Receiver 16 | 16 | - | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0.0 | ω | 0.0 |
| Receiver17 | 17 | - | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | U | 0.0 | ω | 0.0 |
| Receiver18 | 18 | | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0.0 | 80 | 0.0 |
| Receiver19 | 19 | | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 80 | 0.0 |
| Receiver21 | 21 | ۳ | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | U | 0.0 | ø | 0.0 |
| Receiver22 | 22 | ۴- | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 8 | 0.0 |
| Receiver23 | 23 | ٢ | 0.0 | 0.0 | - | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 8 | 0.0 |
| Receiver24 | 24 | - | 0.0 | 0.0 | 0 | 66 | 0.0 | 10 | inactive | 0.0 | U | 0.0 | ∞ | 0.0 |
| Receiver25 | 25 | - | 0.0 | 0.0 | | 66 | 0.0 | 10 | inactive | 0.0 | | 0.0 | 8 | 0.0 |
| | | | | | | | | | | | | | | |

3 June 2015

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| AESULIS. SUUND LEVELS | | | | | | Ē | LGL | | | | | |
|-----------------------------------|----|---|-----|-----|----|-----|-----|----------|-----|-----------|----|-----|
| Receiver26 | 26 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ω | 0.0 |
| Receiver27 | 27 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver28 | 28 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver29 | 29 | 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver30 | 30 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver31 | 31 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver32 | 32 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver33 | 33 | Ţ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver34 | 34 | + | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 35 | 35 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 36 | 36 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver37 | 37 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 38 | 38 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver39 | 39 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver41 | 41 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver42 | 42 | F | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver43 | 43 | ٣ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 44 | 44 | Ŧ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver45 | 45 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 46 | 46 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver47 | 47 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 48 | 48 | • | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver49 | 49 | Ŧ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver 50 | 50 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver51 | 51 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver52 | 52 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 53 | 53 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver54 | 54 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver1 | - | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 55 | 55 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 56 | 56 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver 57 | 57 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver58 | 58 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver59 | 59 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver61 | 61 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver63 | 63 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver65 | 65 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver66 | 66 | 5 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver67 | 67 | F | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver68 | 68 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver69 | 69 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
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14 PD&E

RESULTS: SOUND LEVELS

| RESULTS: SOUND LEVELS | | | | | | 14 F | °D&E | | | | | |
|-----------------------------------|-----|---|-----|-----|-----|------|------|----------|-----|-----------|----|-----|
| Receiver 70 | 20 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver71 | 71 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver73 | 73 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | æ | 0.0 |
| Receiver74 | 74 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ω | 0.0 |
| Receiver 75 | 75 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver 76 | 76 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver77 | 17 | - | 0.0 | 0.0 | .99 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 78 | 78 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 79 | 6/ | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver80 | 80 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver81 | 81 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver82 | 82 | ۲ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver83 | 83 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver84 | 84 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver85 | 85 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver86 | 86 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver87 | 87 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver88 | 88 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 89 | 89 | ۲ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver90 | 06 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver91 | 91 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Tennis ct. | 93 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| church of higher call | 95 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| pool | 97 | t | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver99 | 66 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver101 | 101 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 102 | 102 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| play field | 104 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | æ | 0.0 |
| play ground | 106 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 108 | 108 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver109 | 109 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver110 | 110 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver111 | 111 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver112 | 112 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Fox 35 | 114 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Good Life 45 | 118 | ۲ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Candlewood Pool | 120 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Filutowski | 122 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| La Quinta pool | 124 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Homestead pool | 126 | ٦ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Extended Stay America | 128 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
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| RESULTS: SOUND LEVELS | | | | | | | 14 | PD&E | | | | | |
|------------------------------|-----|-------|-----------|---------|-----|-----|------|------|----------|------|-----|----|------|
| Homewood Suites | 131 | - | 0.0 | 63 | 1 | 66 | 63.1 | 10 | 1 | 63.1 | 0.0 | ø | -8.0 |
| Hilton Garden | 133 | - | 0.0 | 60 | 9.6 | 66 | 63.6 | 10 | 1 | 63.6 | 0.0 | œ | -8.0 |
| Trail 1 | 135 | - | 0.0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Trail 2 | 136 | - | 0.0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail 3 | 137 | - | 0.0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail 4 | 138 | - | 0.0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail 5 | 139 | ٢ | 0.0 | U | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail 6 | 140 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail | 142 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail | 143 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail | 144 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Trail | 145 | - | 0.0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail | 146 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| courtyard pool | 148 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Hyatt Place | 150 | - | 0.0 | | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ω | 0.0 |
| Receiver152 | 152 | - | 0.0 | U | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | Ø | 0.0 |
| Dwelling Units | - | ¢ DUs | Noise Red | luction | | | | | | | | | |
| | | | Min | Avg | Мах | | | | | | | | |
| | | | dB | dB | ą | | | | | | | | |
| All Selected | | 121 | 0.0 | | 0.0 | 0.0 | | | | | | | |
| All Impacted | | 0 | 0.0 | U | 0.0 | 0.0 | | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | | 0.0 | 0.0 | | | | | | | |
| | | | | | | | | | | | | | |

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3 June 2015

| RESULTS: SOUND LEVELS | | | | | | | | 4 PD&E | | | | | | |
|--|----------------|--------------|----------------------------|------------|----------|---------|------|-----------------------|---------------------------|-----------------------------|---|------------|----------------------------|-----|
| Stantec M Drauer | | | | | | | | 3 June 20' TNM 2 5 | 15 | | | | | |
| DESIII TS: SOLIND LEVEL S | | | | | | | • | Calculated | l with TNN | 12.5 | | | | |
| PROJECT/CONTRACT: RUN: RABPIED DESIGN: | LA Se IN | PD&E gmen | E t 3 NSA I delighTS | ý | | | | | | and the money | an ed liede oc | solan bo | 4 | |
| ATMOSPHERICS: | 89 | deg l | F, 50% R | т | | | | | a State hi of a differ | ghway agen ent type with | cy substantia cy substantia h approval of | tes the us | e e | |
| Receiver | | - | Evicting | No Rarrier | | | | | | With Barrio | L | | | |
| | | 3 | Aed1h | April 1 | | Increa | | visting | TVDP | Calculated | Noise Redi | Iction | | |
| | | | | Calculated | l Crit'n | Calcula | ated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculate minus Goal | ed |
| | | Ţ | dBA | dBA | dBA | дB | | B | | dBA | B | æ | 뗭 | |
| Receiver1 | Ŧ | ~ | 0. | 0 | 0.0 | 66 | 0.0 | 10 | inactive | Ő | 0 | 0. | 8 | 0.0 |
| Receiver3 | m | • | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 8 | 0.0 |
| Receiver4 | 4 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | Ó | 0 | 0. | 80 | 0.0 |
| Receiver5 | 5 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 80 | 0.0 |
| North Cove Park | 9 | - | 0. | 0 | 0.0 | 66 | 0.0 | 10 | inactive | Ö | 0 | 0. | 80 | 0.0 |
| Receiver7 | 7 | - | o. | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 80 | 0.0 |
| Receiver8 | 8 | - | Ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 8 | 0.0 |
| Receiver9 | თ | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 8 | 0.0 |
| Receiver10 | 10 | - | ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 80 | 0.0 |
| Receiver11 | 11 | - | ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | Ö | 0 | 0. | 80 | 0.0 |
| Receiver12 | 12 | - | ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | Ö | 0 | 0. | 8 | 0.0 |
| Receiver13 | 13 | • | Ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | Ó | 0 0 | 0. | 8 | 0.0 |
| Receiver14 | 14 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | Ö | 0 | 0. | 80 | 0.0 |
| Receiver15 | 15 | - | O | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 80 | 0.0 |
| Receiver16 | 16 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 8 | 0.0 |
| Receiver17 | 17 | - | ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 8 | 0.0 |
| Receiver18 | 18 | - | Ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | Ö | 0 | 0. | 8 | 0.0 |
| Receiver19 | 19 | - | ō | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 8 | 0.0 |
| Receiver21 | 21 | - | ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | o | 0 | 0. | 8 | 0.0 |
| Receiver22 | 22 | <u>т</u> | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 80 | 0.0 |
| Receiver23 | 23 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 80 | 0.0 |
| Receiver24 | 24 | - | 0. | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0 | 0 | 0. | 8 | 0.0 |
| Receiver25 | 25 | - | ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | Ö | 0 | 0. | 8 | 0.0 |
| C:\TNM25\230168\Seg 3\Seg 3\NSA | K | | | | | - | | | | | 3 JL | une 2015 | | |

| RESULTS: SOUND LEVELS | | | | | | 141 | PD&E | | | | | |
|-----------------------------------|----|---|-----|-----|----|-----|------|----------|-----|-----------|----|-----|
| Receiver26 | 26 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Receiver27 | 27 | ÷ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver28 | 28 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver29 | 29 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver 30 | 30 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver31 | 31 | • | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver32 | 32 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver33 | 33 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver34 | 34 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 35 | 35 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 36 | 36 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver37 | 37 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver38 | 38 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver39 | 39 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver41 | 41 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver42 | 42 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Receiver43 | 43 | | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver44 | 44 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver45 | 45 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver46 | 46 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver47 | 47 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Receiver48 | 48 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver49 | 49 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 50 | 50 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver51 | 51 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver52 | 52 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver53 | 53 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver54 | 54 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver1 | - | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver 55 | 55 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver 56 | 56 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver57 | 57 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver58 | 58 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver59 | 59 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver61 | 61 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver63 | 63 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver65 | 65 | • | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver66 | 66 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver67 | 67 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | Ø | 0.0 |
| Receiver68 | 68 | F | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver69 | 69 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| C-\TNM25\230168\Seg 3\Seg 3\NSA K | | | | | | 2 | | | | 3 June 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | | 14 | PD&E | | | | | |
|-----------------------------------|-----|---|-----|-----|----|-----|------|----------|-----|------------|----|-----|
| Receiver70 | 70 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 71 | 71 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver73 | 73 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver74 | 74 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 75 | 75 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver 76 | 76 | ۲ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver77 | 77 | | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 78 | 78 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 79 | 19 | 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver80 | 80 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver81 | 81 | ٢ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver82 | 82 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver83 | 83 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver84 | 84 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 85 | 85 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver86 | 86 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver87 | 87 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver88 | 88 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver89 | 89 | ۲ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver90 | 06 | 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver91 | 91 | 4 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Tennis ct. | 93 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| church of higher call | 95 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| pool | 97 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver99 | 66 | - | 0°0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver101 | 101 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver102 | 102 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| play field | 104 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| play ground | 106 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver108 | 108 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver109 | 109 | ٣ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver110 | 110 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver111 | 111 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver112 | 112 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | æ | 0.0 |
| Fox 35 | 114 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Good Life 45 | 118 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Candlewood Pool | 120 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Filutowski | 122 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| La Quinta pool | 124 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Homestead pool | 126 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Extended Stay America | 128 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| C:\TNM25\230168\Seg 3\Seg 3\NSA K | ~ | | | | | | | | | 3 June 201 | 15 | |

| RESULTS: SOUND LEVELS | | | | | | 141 | PD&E | | | | | |
|------------------------------|-----|-------|------------|-------|-----|------|------|----------|------|-----|----|------|
| Homewood Suites | 131 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | ω | 0.0 |
| Hilton Garden | 133 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Trail 1 | 135 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Trail 2 | 136 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail 3 | 137 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail 4 | 138 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Trail 5 | 139 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail 6 | 140 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Trail | 142 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | Ø | 0.0 |
| Trail | 143 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | æ | 0.0 |
| Trail | 144 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Trail | 145 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Trail | 146 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| courtyard pool | 148 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Hyatt Place | 150 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Residence Inn | 152 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | Ī | 60.8 | 0.0 | 80 | -8.0 |
| Marriott Lake Mary | 154 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | Ì | 54.2 | 0.0 | 8 | -8.0 |
| Dwelling Units |]# | DUs N | loise Redu | ction | | | | | | | | |
| | | - | Ain A | ßv | Max | | | | | | | |
| | | J | B | в | đB | | | | | | | |
| All Selected | | 122 | 0.0 | 0.0 | 0.0 | | | | | | | |
| All Impacted | | 0 | 0.0 | 0.0 | 0.0 | | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0.0 | | | | | | | |
| | | | | | | | | | | | | |

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3 June 2015

| Sumations A light colspan="6">June 2015 INUL PLEIS PREMIL NUL SCOND LEVELS Colspan="6">June 2015 NUL SCOND LEVELS Colspan="6">June 2015 Colspan="6">June 2015 A light colspan="6">June 2015 Colspan="6">June 2015 Colspan="6">A light colspan="6">June 2015 A light colspan="6">June 2015 A light colspan="6">June 2015 A light colspan="6">June 2015 A light colspan="6">A light colspan= "6" | RESULTS: SOUND LEVELS | | | | | | | | I 4 PD& | ш | | | | | |
|---|--|-----|---------------------------|--------------------------|------------|---------|-----------|------------|--------------------|-------------------------|------------------------------|----------------------------|---------------------|--------------------------|------|
| REDUTES CONTINUE. Calculated with TMM 2.5 REVENCENTEACT: EQUINE SOUND LEVELS If DBE Intolectricontract: Segment 31.8.1. ALL DBE ALL DBE IN ALL ALL ALL DBE IN ALL ALL ALL ALL ALL ALL ALL ALL ALL AL | Stantec M. Drauer | | | | | | | | 3 June TNM 2. | 2015 j | | | | | |
| International Barrier Status Arease prevenent type shall be used unless soment status BARRIER DESION: BARRIER DESION: MINT HEIGHTS Numerical Annosphetacional Segment status Arease a status physical behaves dunless a status Annosphetacis: Annosphetaci | RESULTS: SOUND LEVELS | | | | | | | | Calcula | ted with TN | M 2.5 | | | | |
| A State Numer and provide subprovide subprovide state the use a state Numer and subprovide sta | PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I 4 PD8 Segme INPUT | LE nt 3 NSA HEIGHT | <u>م ۲</u> | | | | | Average | pavement ty | /pe shall be | used unle | SS | |
| Receiver No. Fields Net. Fields Net. Met. | ATMOSPHERICS: | | 68 deç | F, 50% | ЧH | | | | | a State h of a diffe | iighway agei rent type wi | ncy substan th approval | tiates the of FHWA. | use | |
| NameNo.FDUSExaminationNo.FDUSExaminationNo.Mith BarrierMith BarrierMit | Receiver | | | | | | | | | | | | | | |
| | Name | No. | #DUs | Existinç | i No Bá | arrier | | | | | With Barri | er | | | |
| Calculated Acconvertisity Ca | | | | LAeq1h | LAeq | £ | | Increase o | ver existing | Type | Calculated | I Noise Re | duction | | |
| dBA dBA <th></th> <th></th> <th></th> <th></th> <th>Calcu</th> <th>lated (</th> <th>Crit'n</th> <th>Calculated</th> <th>Crit'n Sub'l In</th> <th>c Impact</th> <th>LAeq1h</th> <th>Calculate</th> <th>ed Goal</th> <th>Calcula minus Goal</th> <th>ated</th> | | | | | Calcu | lated (| Crit'n | Calculated | Crit'n Sub'l In | c Impact | LAeq1h | Calculate | ed Goal | Calcula minus Goal | ated |
| Receiver152 152 1 0.0 0.0 0.0 10 mactive 0.0 <t< td=""><td></td><td></td><td></td><td>dBA</td><td>dBA</td><td></td><td>BA</td><td>dB</td><td>段</td><td></td><td>dBA</td><td>В</td><td>đb</td><td>в В</td><td></td></t<> | | | | dBA | dBA | | BA | dB | 段 | | dBA | В | đb | в В | |
| Receiver 153 153 1 0.0 0.0 66 0.0 10 mactive 0.0 <t< td=""><td>Receiver152</td><td>152</td><td></td><td></td><td>0.0</td><td>0.0</td><td>9</td><td>9</td><td>0.0</td><td>10 inactive</td><td></td><td>0.0</td><td>0.0</td><td>8</td><td>0.0</td></t<> | Receiver152 | 152 | | | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 8 | 0.0 |
| Raceiver154 154 1 0.0 0.0 66 0.0 10 10.0 0. | Receiver153 | 153 | | | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | - | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 155 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver 155 15 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver 157 15 1 0.0 0.0 66 0.0 10 10 10 0.0 8 0.0 Receiver 159 159 1 0.0 0.0 66 0.0 10 10 10 10 10 10 0.0 8 0.0 Receiver 150 161 1 0.0 0.0 66 0.0 10 | Receiver154 | 154 | F | Ŭ | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 156 156 1 0.0 0.0 6 0.0 10 inactive 0.0 <t< td=""><td>Receiver155</td><td>155</td><td>-</td><td>0</td><td>0.0</td><td>0.0</td><td>9</td><td>6</td><td>0.0</td><td>10 inactive</td><td></td><td>0.0</td><td>0.0</td><td>œ</td><td>0.0</td></t<> | Receiver155 | 155 | - | 0 | 0.0 | 0.0 | 9 | 6 | 0.0 | 10 inactive | | 0.0 | 0.0 | œ | 0.0 |
| Receiver157 157 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver158 158 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver158 165 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver161 161 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver163 165 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver163 165 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver163 166 1 0.0 0.0 10 inactive 0.0 0.0 10 10 | Receiver156 | 156 | F | 0 | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | ø | 0.0 |
| Receiver158 158 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver159 159 1 0.0 0.0 10 inactive 0.0 0.0 8 0.0 Receiver160 159 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver161 1 0.0 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver163 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver163 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver164 1 0.0 0.0 0.0 10 inactive 0.0 0.0 8 0.0 Receiver164 16 1 0.0 0.0 <td>Receiver157</td> <td>157</td> <td>F</td> <td></td> <td>0.0</td> <td>0.0</td> <td>9</td> <td>9</td> <td>0.0</td> <td>10 inactive</td> <td></td> <td>0.0</td> <td>0.0</td> <td>80</td> <td>0.0</td> | Receiver157 | 157 | F | | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 80 | 0.0 |
| Receiver15915910.00.0660.010inactive0.00.060.0Receiver16016010.00.00.00.00.00.00.00.00.00.00.0Receiver16116110.00.00.00.00.00.00.00.00.00.00.00.0Receiver16316110.00.00.00.00.00.00.00.00.00.00.0Receiver16316310.00.00.00.00.00.00.00.00.00.00.0Receiver16316310.00.00.00.00.00.00.00.00.00.00.0Receiver16316510.00.00.00.00.00.00.00.00.00.00.0Receiver16316510.00.00.00.00.00.00.00.00.00.00.0Receiver16410.00.00.00.00.00.00.00.00.00.00.00.0Receiver16410.00.00.00.00.00.00.00.00.00.00.00.0Receiver16410.00.00.00.00.00.00.00.00.00.00.00.0Receiver164 <td>Receiver158</td> <td>158</td> <td>-</td> <td>U</td> <td>0.0</td> <td>0.0</td> <td>9</td> <td>9</td> <td>0.0</td> <td>10 inactive</td> <td></td> <td>0.0</td> <td>0.0</td> <td>8</td> <td>0.0</td> | Receiver158 | 158 | - | U | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 8 | 0.0 |
| Receiver 160 160 1 0.0 0.0 66 0.0 10 10 0.0 8 0.0 Receiver 161 161 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver 161 161 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver 162 163 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver 163 164 1 0.0 0.0 66 0.0 10 < | Receiver159 | 159 | - | U | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 8 | 0.0 |
| Receiver16116110.00.0660.010inactive0.00.080.0Receiver16216210.00.0660.010inactive0.00.080.0Receiver16316310.00.0660.010inactive0.00.080.0Receiver16316310.00.0660.010inactive0.00.080.0Receiver16416510.00.0660.010inactive0.080.0Receiver16516610.00.0660.010inactive0.080.0Receiver16616610.00.010inactive0.00.080.0Receiver1661680.00.010inactive0.00.080.0Receiver16716810.00.0660.010inactive0.080.0Receiver16810.00.0660.010inactive0.00.080.0Receiver168110.00.0660.010inactive0.080.0Receiver178110.00.0660.010inactive0.080.0Receiver20720810.00.010inactive0.0 | Receiver160 | 160 | - | | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 8 | 0.0 |
| Receiver16216210.00.0660.010inactive0.00.080.0Receiver16316310.00.0660.00.0160.00.080.0Receiver16416410.00.0660.00.0160.080.0Receiver16416510.00.00.0660.00.016101080.0Receiver16516510.00.00.0660.00.010inactive0.080.0Receiver166110.00.00.0660.00.010inactive0.080.0Receiver167110.00.00.0660.00.010inactive0.080.0Receiver167110.00.00.0660.00.01010101010Receiver167110.00.00.0660.00.01010101010Receiver167110.00.00.01010101010101010Receiver167110.00.00.00.010101010101010Receiver168110.00.00.010101010 </td <td>Receiver161</td> <td>161</td> <td>1</td> <td></td> <td>0.0</td> <td>0.0</td> <td>9</td> <td>9</td> <td>0.0</td> <td>10 inactiv€</td> <td></td> <td>0.0</td> <td>0.0</td> <td>8</td> <td>0.0</td> | Receiver161 | 161 | 1 | | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactiv€ | | 0.0 | 0.0 | 8 | 0.0 |
| Receiver16316310.00.0660.010inactive0.00.080.0Receiver16416410.00.0660.010inactive0.00.080.0Receiver16516510.00.0660.010inactive0.00.080.0Receiver16516510.00.0660.010inactive0.00.080.0Receiver16516710.00.00.0660.010inactive0.00.080.0Receiver16716710.00.00.0660.010inactive0.00.080.0Receiver16716810.00.00.0660.010inactive0.00.080.0Receiver16810.00.00.00.01010inactive0.00.080.0Receiver16810.00.00.00.01010inactive0.00.080.0Receiver16810.00.00.00.00.010inactive0.00.080.0Receiver16910.00.00.00.010inactive0.00.080.0Receiver20720710.00.00.0101010 | Receiver162 | 162 | - | U | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 8 | 0.0 |
| Receiver 16416410.00.0660.010inactive0.00.080.0Receiver 16516510.00.0660.010inactive0.00.080.0Receiver 16516610.00.0660.010inactive0.00.080.0Receiver 16716710.00.00.0660.010inactive0.00.080.0Receiver 16716810.00.0660.010inactive0.00.080.0Receiver 16316810.00.0660.010inactive0.00.080.0Receiver 16316810.00.0660.010inactive0.00.080.0Receiver 16310.00.00.0660.010inactive0.00.080.0Receiver 16310.00.00.0660.010inactive0.00.080.0Receiver 20320310.00.0660.010inactive0.00.080.0Receiver 20320310.00.00.010inactive0.00.080.0Receiver 20320310.00.0660.010100.00 | Receiver163 | 163 | - | U | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 8 | 0.0 |
| Receiver 165 1 0.0 0.0 66 0.0 10 Inactive 0.0 | Receiver164 | 164 | - | U | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 80 | 0.0 |
| Receiver166 166 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver167 167 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver167 167 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver163 168 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver163 169 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver207 207 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver207 208 1 0.0 0.0 66 0.0 10 inactive 0.0 10 10 10 10 10 10 | Receiver 165 | 165 | T | | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 80 | 0.0 |
| Receiver 167 167 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver 168 168 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 168 168 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 169 169 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 207 207 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 208 208 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 208 209 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 208 209 <t< td=""><td>Receiver166</td><td>166</td><td>-</td><td></td><td>0.0</td><td>0.0</td><td>9</td><td>9</td><td>0.0</td><td>10 inactive</td><td></td><td>0.0</td><td>0.0</td><td>ø</td><td>0.0</td></t<> | Receiver166 | 166 | - | | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | ø | 0.0 |
| Receiver 168 1 0.0 0.0 0.0 10 0.0 0.0 8 0.0 Receiver 169 169 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver 169 169 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 207 207 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 208 208 1 0.0 0.0 66 0.0 10 10 8 0.0 Receiver 208 209 1 0.0 0.0 66 0.0 10 10 8 0.0 Receiver 209 209 1 0.0 0.0 66 0.0 10 10 10 10 10 10 10 10 10 10 10 10 10 10 | Receiver167 | 167 | - | U | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | ø | 0.0 |
| Receiver 169 1 0.0 0.0 66 0.0 10 inactive 0.0 80 0.0 Receiver 207 207 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 207 207 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 208 208 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 209 209 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 209 210 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver 210 210 1 0.0 0.0 66 0.0 10 10 10 10 10 10 10 10 10 10 10 | Receiver168 | 168 | - | 0 | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 8 | 0.0 |
| Receiver207 207 1 0.0 0.0 66 0.0 10 inactive 0.0 0.0 8 0.0 Receiver208 208 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver208 208 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver209 210 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver210 210 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver210 211 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver211 211 1 0.0 0.0 66 0.0 10 10 0.0 8 0.0 | Receiver 169 | 169 | - | | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactiv€ | | 0.0 | 0.0 | ø | 0.0 |
| Receiver208 208 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver208 209 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver209 210 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver210 210 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver211 211 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 | Receiver207 | 207 | - | | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactiv€ | | 0.0 | 0.0 | ø | 0.0 |
| Receiver209 209 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver210 210 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver210 210 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver211 211 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 | Receiver208 | 208 | *- | U | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactiv€ | | 0.0 | 0.0 | œ | 0.0 |
| Receiver210 210 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 Receiver211 211 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 | Receiver209 | 209 | 4 | U | 0'0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | 0 | 0.0 | 0.0 | 80 | 0.0 |
| Receiver211 211 1 0.0 0.0 66 0.0 10 inactive 0.0 8 0.0 | Receiver210 | 210 | - | 0 | 0.0 | 0.0 | 9 | 9 | 0.0 | 10 inactive | | 0.0 | 0.0 | 8 | 0.0 |
| | Receiver211 | 211 | | | 0.0 | 0.0 | 9 | Q | 0.0 | 10 inactive | | 0.0 | 0.0 | œ | 0.0 |

| RESULTS: SOUND LEVELS | | | | | | 14 F | D&E | | | | | |
|-----------------------------------|-----|----------|-----|-----|----|------|-----|----------|-----|------------|----|-----|
| Receiver212 | 212 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver213 | 213 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver214 | 214 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ∞ | 0.0 |
| Receiver215 | 215 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver216 | 216 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver217 | 217 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver218 | 218 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver219 | 219 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver220 | 220 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver221 | 221 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver222 | 222 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Receiver223 | 223 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver224 | 224 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver225 | 225 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Receiver226 | 226 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver227 | 227 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver228 | 228 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver229 | 229 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver230 | 230 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver231 | 231 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver232 | 232 | * | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver233 | 233 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver234 | 234 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver235 | 235 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Receiver236 | 236 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Receiver237 | 237 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | Ø | 0.0 |
| Receiver238 | 238 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Receiver239 | 239 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Receiver240 | 240 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| playground | 241 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver242 | 242 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver243 | 243 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver244 | 244 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Receiver245 | 245 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Receiver246 | 246 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver247 | 247 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver248 | 248 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver249 | 249 | - | 0.0 | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver250 | 250 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver251 | 251 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver252 | 252 | ۴. | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
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| RESULTS: SOUND LEVELS | | | | | | 141 | PD&E | | | | | |
|------------------------------|-----|-------|------------------|--------|------|------|------|----------|------|-----|----|------|
| Receiver253 | 253 | - | 0.0 | 0.0 | 99 0 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver254 | 254 | - | 0.0 | 0.0 | 99 (| 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver255 | 255 | - | 0.0 | 0.0 | 99 (| 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver 256 | 256 | - | 0.0 | 0.0 | 99 (| 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver257 | 257 | - | 0.0 | 0.0 | 99 (| 0.0 | 10 | inactive | 0.0 | 0.0 | 60 | 0.0 |
| Receiver258 | 258 | ٢ | 0.0 | 0.0 | 99 (| 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Receiver259 | 259 | - | 0.0 | 0.0 | 99 (| 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Receiver260 | 260 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Receiver261 | 261 | ٢ | 0.0 | 55.4 | 99 | 55.4 | 10 | 1 | 55.4 | 0.0 | œ | -8.0 |
| Receiver262 | 262 | - | 0.0 | 55.3 | 66 | 55.3 | 10 | 1 | 55.3 | 0.0 | œ | -8.0 |
| Comfort pool | 264 | - | 0.0 | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 66.6 | 7.0 | 80 | -1.0 |
| Super 8 pool | 266 | - | 0.0 | 72.1 | 99 | 72.1 | 10 | Snd Lvl | 67.2 | 4.9 | 80 | -3.1 |
| Spring Hill Pool | 268 | - | 0.0 | 60.4 | 99 1 | 60.4 | 10 | I | 60.3 | 0.1 | 80 | -7.9 |
| Cracker Barrel | 270 | - | 0.0 | 68.7 | 66 | 68.7 | 10 | Snd Lvl | 64.9 | 3.8 | œ | -4.2 |
| Dwelling Units | | # DUs | Noise Red | uction | | | | | | 110 | | |
| | | | Min | Avg | Max | | | | | | | |
| | | 8 | Вb | đđ | đB | | | | | | | |
| All Selected | | 78 | 0.0 | 0.2 | 7.0 | | | | | | | |
| All Impacted | | e | 3.8 | 5.2 | 2.0 | | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0.0 | | | | | | | |
| | | | | | | | | | | | | |

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| RESULTS: SOUND LEVELS | | | | | | | I 4 PD&E | | | | | |
|----------------------------------|----------|---------------------|-----------|---------|--------|-------------|---------------------|-------------------------|--------------------------------|--------------------------------|--------------------|-----------------------------|
| Stantec | | | | | | | 3 June 2 | 015 | | | | |
| M. Drauer | | | | | | | Calculate | M TAIL | 3 C W | | | |
| RESULTS: SOUND LEVELS | | | | | | | Calculat | | C'7 M | | | |
| PROJECT/CONTRACT: | I 4 PC | åE | | | | | | | | | | |
| RUN: BARRIER DESIGN: | Segr | ent 3 NS T HEIGH | A M TS | | | | | Average | pavement type | e shall be use | ed unless | |
| ATMOSPHERICS: | 68 de | eg F, 50% | RH | | | | | a State h of a diffe | ighway agenc rent type with | y substantiat approval of F | es the us FHWA. | ۵ ۵ |
| Receiver | | | | | | | | | | | | |
| Name | No. #DUs | Existir | oN Br | Barrier | | | | | With Barrier | | | |
| | | LAeq1 | Р | sq1h | | Increase ov | rer existing | Type | Calculated | Noise Reduc | ction | |
| | | | Cal | culated | Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | dBA | dB/ | - | dBA | dB | æ | | dBA | dВ | dB | dB |
| Receiver152 | 152 | - | 0.0 | 55.2 | 9 | 5 | 5.2 1 | | 55.2 | 0.0 | | -8.0 |
| Receiver153 | 153 | - | 0.0 | 55.7 | 9 | 6 5! | 5.7 1 | | 55.7 | 0.0 | 0 | 8 -8.0 |
| Receiver154 | 154 | . | 0.0 | 56.0 | 9 | 6 5(| 3.0 1 | | 56.0 | 0.0 | 0 | 8-8.0 |
| Receiver 155 | 155 | . | 0.0 | 56.4 | Θ | 6 5(| 5.4 1 | | 56.4 | 0.0 | 0 | -8.0 |
| Receiver156 | 156 | - | 0.0 | 56.8 | 9 | 6 5(| 5.8 1 | | 56.8 | 0.0 | 0 | 8 -8.0 |
| Receiver157 | 157 | - | 0.0 | 57.4 | 9 | 6 5 | 7.4 1 | | 57.4 | 0.0 | 0 | 8 -8.0 |
| Receiver 158 | 158 | - | 0.0 | 57.9 | 9 | 6 51 | 1.9 1 | | 57.9 | 0.0 | 0 | 8 -8.0 |
| Receiver159 | 159 | - | 0.0 | 58.4 | 9 | 6 5 | 3.4 1 | | 58.4 | 0.0 | 0 | 8 -8.0 |
| Receiver160 | 160 | + | 0.0 | 58.8 | 9 | 6 58 | 3.8 1 | | 58.8 | 0.0 | 0 | 8 -8.0 |
| Receiver161 | 161 | *- | 0.0 | 59.3 | 9 | 6 59 | 9.3 1 | | 59.3 | 0.0 | 0 | 8 -8.0 |
| Receiver162 | 162 | - | 0.0 | 59.5 | 9 | 6 59 | 9.5 1 | | 59.5 | 0.0 | 0 | 8 -8.0 |
| Receiver163 | 163 | - | 0.0 | 59.8 | θ | 6 59 | 9.8 1 | | 59.8 | 0.0 | 0 | 8 -8.0 |
| Receiver164 | 164 | t. | 0.0 | 59.8 | 9 | 6 59 | 9.8 1 | | 59.8 | 0.0 | 0 | 8 -8.0 |
| Receiver165 | 165 | . | 0.0 | 60.0 | 9 | 6 6(| 0.0 | 1 | 60.09 | 0.0 | 0 | 8 -8.0 |
| Receiver 166 | 166 | - | 0.0 | 60.3 | 9 | 6 6(| 0.3 1 | | 60.3 | 0.0 | 0 | 8 -8.0 |
| Receiver167 | 167 | 1 | 0.0 | 60.9 | 9 | 6 6(| 1.9 | | 609 | 0.0 | 0 | 8 -8.0 |
| Receiver 168 | 168 | 1 | 0.0 | 61.5 | G | 6 | 1.5 1 | | 61.5 | 0.0 | 0 | 8 -8.0 |
| Receiver 169 | 169 | + | 0.0 | 55.0 | 9 | 6 55 | 5.0 1 | | 55.0 | 0.0 | 0 | 8 -8.0 |
| Receiver207 | 207 | - | 0.0 | 62.0 | 9 | 6 | 2.0 | | 62.0 | 0.0 | | 8 -8.0 |
| Receiver208 | 208 | - | 0.0 | 63.7 | G | 6 60 | 3.7 1 | | 63.7 | 0.0 | 0 | 8 -8.0 |
| Receiver209 | 209 | - | 0.0 | 62.5 | G | 6 62 | 2.5 1 | 1 | 62.5 | 0.0 | 0 | 8 -8.0 |
| Receiver210 | 210 | - | 0.0 | 61.1 | G | 6 6 | 1.1 | | 61.1 | 0.0 | 0 | 8 -8.0 |
| Receiver211 | 211 | - | 0.0 | 60.3 | G | 66 |).3 | | 60.3 | 0.0 | 0 | 8 -8.0 |
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| RESULTS: SOUND LEVELS | | | | | | 4 | PD&E | | | | | |
|-----------------------------------|--------|---------------|-----|------|----|------|------|---|------|-----------|----|------|
| Receiver212 | 212 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | 1 | 61.4 | 0.0 | 80 | -8.0 |
| Receiver213 | 213 | - | 0.0 | 60.4 | 66 | 60.4 | 9 | 1 | 60.4 | 0.0 | 80 | -8.0 |
| Receiver214 | 214 | + | 0.0 | 59.4 | 66 | 59.4 | 10 | 1 | 59.4 | 0.0 | œ | -8.0 |
| Receiver215 | 215 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 59.8 | 0.0 | œ | -8.0 |
| Receiver216 | 216 | - | 0.0 | 60.9 | 66 | 60.9 | 10 | ļ | 60.9 | 0.0 | 80 | -8.0 |
| Receiver217 | 217 | - | 0.0 | 59.7 | 66 | 59.7 | 10 | I | 59.7 | 0.0 | 60 | -8.0 |
| Receiver218 | 218 | - | 0.0 | 58.9 | 66 | 58.9 | 10 | 1 | 58.9 | 0.0 | 80 | -8.0 |
| Receiver219 | 219 | ~ | 0.0 | 58.2 | 66 | 58.2 | 10 | I | 58.2 | 0.0 | 80 | -8.0 |
| Receiver220 | 220 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 59.3 | 0.0 | 80 | -8.0 |
| Receiver221 | 221 | 1 | 0.0 | 58.9 | 66 | 58.9 | 10 | | 58.9 | 0.0 | 80 | -8.0 |
| Receiver222 | 222 | - | 0.0 | 57.9 | 66 | 57.9 | 10 | 1 | 57.9 | 0.0 | 80 | -8.0 |
| Receiver223 | 223 | - | 0.0 | 57.4 | 66 | 57.4 | 10 | 1 | 57.4 | 0.0 | 80 | -8.0 |
| Receiver224 | 224 | - | 0.0 | 58.5 | 66 | 58.5 | 10 | I | 58.5 | 0.0 | 80 | -8.0 |
| Receiver225 | 225 | - | 0.0 | 58.1 | 66 | 58.1 | 10 | I | 58.1 | 0.0 | œ | -8.0 |
| Receiver226 | 226 | - | 0.0 | 57.0 | 66 | 57.0 | 10 | I | 57.0 | 0.0 | 80 | -8.0 |
| Receiver227 | 227 | - | 0.0 | 56.6 | 66 | 56.6 | 10 | I | 56.6 | 0.0 | 80 | -8.0 |
| Receiver228 | 228 | | 0.0 | 57.6 | 66 | 57.6 | 10 | 1 | 57.6 | 0.0 | 80 | -8.0 |
| Receiver229 | 229 | ÷ | 0.0 | 57.1 | 66 | 57.1 | 10 | | 57.1 | 0.0 | œ | -8.0 |
| Receiver230 | 230 | • | 0.0 | 56.2 | 66 | 56.2 | 10 | 1 | 56.2 | 0.0 | œ | -8.0 |
| Receiver231 | 231 | ~ | 0.0 | 56.8 | 66 | 56.8 | 10 | 1 | 56.8 | 0.0 | 80 | -8.0 |
| Receiver232 | 232 | - | 0.0 | 55.8 | 66 | 55.8 | 10 | I | 55.8 | 0.0 | 80 | -8.0 |
| Receiver233 | 233 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | I | 56.4 | 0.0 | œ | -8.0 |
| Receiver234 | 234 | - | 0.0 | 55.5 | 66 | 55.5 | 10 | 1 | 55.5 | 0.0 | 80 | -8.0 |
| Receiver235 | 235 | - | 0.0 | 56.1 | 66 | 56.1 | 10 | 1 | 56.1 | 0.0 | œ | -8.0 |
| Receiver236 | 236 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | 1 | 55.2 | 0.0 | 80 | -8.0 |
| Receiver237 | 237 | - | 0.0 | 55.8 | 66 | 55.8 | 10 | | 55.8 | 0.0 | 80 | -8.0 |
| Receiver238 | 238 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | 1 | 54.9 | 0.0 | 8 | -8.0 |
| Receiver239 | 239 | - | 0.0 | 55.3 | 66 | 55.3 | 10 | I | 55.3 | 0.0 | 80 | -8.0 |
| Receiver240 | 240 | - | 0.0 | 54.4 | 66 | 54.4 | 10 | I | 54.4 | 0.0 | 80 | -8.0 |
| playground | 241 | - | 0.0 | 61.6 | 66 | 61.6 | 10 | Ĩ | 61.6 | 0.0 | æ | -8.0 |
| Receiver242 | 242 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 60.0 | 0.0 | 80 | -8.0 |
| Receiver243 | 243 | - | 0.0 | 59.2 | 66 | 59.2 | 10 | I | 59.2 | 0.0 | 80 | -8.0 |
| Receiver244 | 244 | - | 0.0 | 58.3 | 66 | 58.3 | 10 | 1 | 58.3 | 0.0 | 80 | -8.0 |
| Receiver245 | 245 | - | 0.0 | 57.6 | 66 | 57.6 | 10 | 1 | 57.6 | 0.0 | 8 | -8.0 |
| Receiver246 | 246 | 4- | 0.0 | 56.9 | 66 | 56.9 | 10 | Ĩ | 56.9 | 0.0 | 80 | -8.0 |
| Receiver247 | 247 | - | 0.0 | 56.1 | 66 | 56.1 | 10 | Ē | 56.1 | 0.0 | 8 | -8.0 |
| Receiver248 | 248 | - | 0.0 | 55.5 | 66 | 55.5 | 10 | l | 55.5 | 0.0 | 80 | -8.0 |
| Receiver249 | 249 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | | 55.2 | 0.0 | 80 | -8.0 |
| Receiver250 | 250 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | I | 54.8 | 0.0 | 80 | -8.0 |
| Receiver251 | 251 | - | 0.0 | 54.3 | 66 | 54.3 | 10 | I | 54.3 | 0.0 | ø | -8.0 |
| Receiver252 | 252 | - | 0.0 | 53.9 | 99 | 53.9 | 10 | | 53.9 | 0.0 | æ | -8.0 |
| C:\TNM25\230168\Seg 3\Seg 3\Silve | erleaf | | | | | | | | | 3 June 20 | 5 | |

| RESULTS: SOUND LEVELS | | | | | | 14 | PD&E | | | |
|-----------------------|-----|-----|----------|---------|------|------|------|---|------|-----|
| Receiver253 | 253 | - | 0.0 | 53.7 | 66 | 53.7 | 10 | 1 | 53.7 | 0.0 |
| Receiver254 | 254 | - | 0.0 | 56. | 66 | 56.5 | 10 | ł | 56.5 | 0.0 |
| Receiver 255 | 255 | - | 0.0 | 57.3 | 66 | 57.3 | 10 | 1 | 57.3 | 0.0 |
| Receiver 256 | 256 | ~ | 0.0 | 58.(| 99 0 | 58.0 | 10 | 1 | 58.0 | 0.0 |
| Receiver257 | 257 | - | 0.0 | 58. | 66 | 58.7 | 10 | 1 | 58.7 | 0.0 |
| Receiver258 | 258 | - | 0.0 | 55.8 | 66 | 55.8 | 10 | | 55.8 | 0.0 |
| Receiver259 | 259 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | Ę | 55.6 | 0.0 |
| Receiver 260 | 260 | - | 0.0 | 55.4 | 99 t | 55.4 | 10 | ł | 55.4 | 0.0 |
| Receiver261 | 261 | - | 0.0 | 55. | 99 | 55.1 | 10 | I | 55.1 | 0.0 |
| Receiver262 | 262 | - | 0.0 | 55.(| 99 (| 55.0 | 10 | 1 | 55.0 | 0.0 |
| Dwelling Units | # | DUs | Noise Re | duction | | | | | | |
| | | | Min | Avg | Max | | | | | |
| | | | Вb | đB | ą | | | | | |
| All Selected | | 74 | 0.0 | 0.0 | 0.0 | | | | | |
| All Impacted | | 0 | 0.0 | 0.0 | 0.0 | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0.0 | | | | | |

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3 June 2015

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| RESULTS: SOUND LEVELS | | | | | | | I 4 PD&E | | | | | | |
|--|-------|------------------------|------------------------|------------|---------|---------------------------|------------------------------------|-------------------------|---------------------------------|--------------------------------|--------------------|--------------------------|------|
| Stantec M Drauer | | | | | | | 3 June 2(TNM 2 5 | 015 | | | | | |
| m. Diduct DEGUI TE. EQUIND LEVEL C | | | | | | | Calculate | ed with TN | M 2.5 | | | - | |
| PROJECT/CONTRACT: RUN: BARRIER DESIGN: | Se T | PD&E gment PUT H | 3 NSA N EIGHTS | ې ۵ | | | | Average | pavement type | e shall be use | ed unless | (0) | |
| ATMOSPHERICS: | 68 | deg F | , 50% RH | _ | | | | a State h of a diffe | ighway agency rent type with | y substantiat approval of F | es the us FHWA. | ě | |
| Receiver | | 4 | a citerio a citerio | No Devior | | | had a | | With Danie | | | | |
| | | 3 | Accela | NO DAILIEI | | In access of | anitalization | T.mo | Color-Jotod | Notice Bad | | | |
| | | | Aeq1n | Calculated | Crit'n | Increase ov Calculated | er existing Crit'n Sub'l Inc | Impact | calculated LAeq1h | Noise Keduo Calculated | Goal | Calcula minus Goal | ated |
| | | 0 | BA | dBA | dBA | đB | dВ | | dBA | dB | Вb | đВ | |
| Receiver152 | 152 | - | 0.0 | 55 | 0. | 36 5! | 5.0 1 | | 55.0 | 0.0 | 0 | 80 | -8.0 |
| Receiver153 | 153 | ~ | 0.0 | 55 | .5 | 56 54 | 5.5 | | 52.5 | 0.0 | 0 | 80 | -8.0 |
| Receiver154 | 154 | - | 0.0 | 55 | œ. | 56 55 | 5.8 1 | | 55.8 | 0.0 | 0 | 8 | -8.0 |
| Receiver 155 | 155 | ٣ | 0.0 | 56 | 2 | 36 56 | 6.2 1 | | 56.2 | 0.0 | 0 | 80 | -8.0 |
| Receiver 156 | 156 | - | 0.0 | 56 | 9. | 36 56 | 3.6 1 | | 56.6 | 0.0 | 0 | 80 | -8.0 |
| Receiver157 | 157 | - | 0.0 | 57 | 2 | 36 57 | 7.2 1 | | 57.2 | 0.0 | 0 | 80 | -8.0 |
| Receiver158 | 158 | - | 0.0 | 22 | .7 | 36 51 | 7.7 | | 57.7 | 0.0 | 0 | 80 | -8.0 |
| Receiver 159 | 159 | 1 | 0.0 | 58 | e. | 56 58 | 3.3 1 | 1 | 58.3 | 0.0 | 0 | 8 | -8.0 |
| Receiver 160 | 160 | - | 0.0 | 58 | .7 | 56 58 | 8.7 1 | 1 | 58.7 | 0.0 | 0 | 80 | -8.0 |
| Receiver161 | 161 | - | 0.0 | 29 | e. | 36 59 | 9.3 1 | | 59.3 | 0.0 | 0 | 80 | -8.0 |
| Receiver162 | 162 | - | 0.0 | 29 | .5 | 36 59 | 9.5 1 | | 59.5 | 0.0 | 0 | 80 | -8.0 |
| Receiver163 | 163 | - | 0.0 | 29 | 00 | 36 59 | 9.8 | | 59.8 | 0.0 | 0 | 80 | -8.0 |
| Receiver164 | 164 | - | 0.0 | 59 | 00 | 36 59 | 9.8 | | 59.8 | 0.0 | 0 | 80 | -8.0 |
| Receiver 165 | 165 | - | 0.0 | 09 | - - | 36 6(| 0.1 1 | | 60.1 | 0.0 | 0 | 80 | -8.0 |
| Receiver166 | 166 | - | 0.0 | 60 | с. - | 36 6(| 0.3 1 | | 60.3 | 0.0 | 0 | 8 | -8.0 |
| Receiver 167 | 167 | - | 0.0 | 09 | 0, | 36 6(| 0.9 1 | | 60.9 | 0.0 | 0 | 80 | -8.0 |
| Receiver168 | 168 | - | 0.0 | 61 | 9 | 36 6 | 1.6 1 | | 61.6 | 0.0 | 0 | 8 | -8.0 |
| Receiver169 | 169 | - | 0.0 | 54 | .7 | 36 54 | 4.7 1 | | 54.7 | 0.0 | 0 | 8 | -8.0 |
| Receiver207 | 207 | - | 0.0 | 62 | 0 | 36 62 | 2.0 1 | | 62.0 | 0.0 | 0 | 80 | -8.0 |
| Receiver208 | 208 | - | 0.0 | 63 | .7 | 36 6: | 3.7 1 | | 63.7 | 0.0 | 0 | 80 | -8.0 |
| Receiver209 | 209 | - | 0.0 | 62 | 9. | 36 62 | 2.6 1 | | 62.6 | 0.0 | 0 | 80 | -8.0 |
| Receiver210 | 210 | - | 0.0 | 61 | F. | 36 6 | 1.1 | | 61.1 | 0.0 | 0 | 00 | -8.0 |
| Receiver211 | 211 | - | 0.0 | 60 | 2 | 36 6(| 0.2 | | 60.2 | 0.0 | 0 | 8 | -8.0 |
| C:\TNM25\230168\Seg 3\Seg 3\Ches | stnut | | | | | Ŧ | | | | 3 Jur | 1e 2015 | | |

| RESULTS: SOUND LEVELS | | | | | | 14 | PD&E | | | | | |
|---------------------------------|-------|----------|-----|------|-----|------|------|--|------|-----------|----|------|
| Receiver212 | 212 | - | 0.0 | 61.5 | 66 | 61.5 | 10 | I | 61.5 | 0.0 | œ | -8.0 |
| Receiver213 | 213 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | 1 | 60.4 | 0.0 | 80 | -8.0 |
| Receiver214 | 214 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 59.3 | 0.0 | 80 | -8.0 |
| Receiver215 | 215 | - | 0.0 | 59.7 | 99 | 59.7 | 10 | - Andrewski (* 1997) Andrewski (* 1997) | 59.7 | 0.0 | 80 | -8.0 |
| Receiver216 | 216 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | Ę | 61.0 | 0.0 | 80 | -8.0 |
| Receiver217 | 217 | - | 0.0 | 59.7 | 99 | 59.7 | 10 | I | 59.7 | 0.0 | 80 | -8.0 |
| Receiver218 | 218 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | 1 | 58.7 | 0.0 | 8 | -8.0 |
| Receiver219 | 219 | - | 0.0 | 57.9 | 66 | 57.9 | 10 | 1 | 57.9 | 0.0 | 80 | -8.0 |
| Receiver220 | 220 | - | 0.0 | 59.2 | 66 | 59.2 | 10 | 1 | 59.2 | 0.0 | 8 | -8.0 |
| Receiver221 | 221 | - | 0.0 | 58.8 | 66 | 58.8 | 10 | 1 | 58.8 | 0.0 | 80 | -8.0 |
| Receiver222 | 222 | - | 0.0 | 57.6 | 66 | 57.6 | 10 | 1 | 57.6 | 0.0 | 80 | -8.0 |
| Receiver223 | 223 | - | 0.0 | 57.1 | .99 | 57.1 | 10 | | 57.1 | 0.0 | 80 | -8.0 |
| Receiver224 | 224 | - | 0.0 | 58.3 | 99 | 58.3 | 10 | Į | 58.3 | 0.0 | 80 | -8.0 |
| Receiver225 | 225 | - | 0.0 | 57.9 | 66 | 57.9 | 10 | Į | 57.9 | 0.0 | 80 | -8.0 |
| Receiver226 | 226 | - | 0.0 | 56.7 | 66 | 56.7 | 10 | 1 | 56.7 | 0.0 | 80 | -8.0 |
| Receiver227 | 227 | | 0.0 | 56.2 | 66 | 56.2 | 10 | 1 | 56.2 | 0.0 | 80 | -8.0 |
| Receiver228 | 228 | * | 0.0 | 57.5 | 66 | 57.5 | 10 | 1 | 57.5 | 0.0 | 80 | -8.0 |
| Receiver229 | 229 | ~ | 0.0 | 56.9 | 66 | 56.9 | 10 | 1 | 56.9 | 0.0 | 80 | -8.0 |
| Receiver230 | 230 | - | 0.0 | 55.8 | 66 | 55.8 | 10 | | 55.8 | 0.0 | 80 | -8.0 |
| Receiver231 | 231 | - | 0.0 | 56.6 | 66 | 56.6 | 10 | j. | 56.6 | 0.0 | 80 | -8.0 |
| Receiver232 | 232 | - | 0.0 | 55.4 | 66 | 55.4 | 10 | Į | 55.4 | 0.0 | 80 | -8.0 |
| Receiver233 | 233 | - | 0.0 | 56.1 | 66 | 56.1 | 10 | ļ | 56.1 | 0.0 | 80 | -8.0 |
| Receiver234 | 234 | Ŧ | 0.0 | 55.1 | 66 | 55.1 | 10 | Ì | 55.1 | 0.0 | 80 | -8.0 |
| Receiver235 | 235 | - | 0.0 | 55.8 | 66 | 55.8 | 10 | | 55.8 | 0.0 | 8 | -8.0 |
| Receiver236 | 236 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | (Territory) | 54.7 | 0.0 | 80 | -8.0 |
| Receiver237 | 237 | ~ | 0.0 | 55.5 | 66 | 55.5 | 10 | 1 | 55.5 | 0.0 | 80 | -8.0 |
| Receiver238 | 238 | - | 0.0 | 54.4 | 66 | 54.4 | 10 | I | 54.4 | 0.0 | 80 | -8.0 |
| Receiver239 | 239 | - | 0.0 | 55.0 | 66 | 55.0 | 10 | I | 55.0 | 0.0 | œ | -8.0 |
| Receiver240 | 240 | - | 0.0 | 54.0 | 66 | 54.0 | 10 | ł | 54.0 | 0.0 | œ | -8.0 |
| playground | 241 | - | 0.0 | 61.5 | 66 | 61.5 | 10 | I | 61.5 | 0.0 | œ | -8.0 |
| Receiver242 | 242 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | I | 59.8 | 0.0 | ø | -8.0 |
| Receiver243 | 243 | - | 0.0 | 58.9 | 66 | 58.9 | 10 | | 58.9 | 0.0 | 80 | -8.0 |
| Receiver244 | 244 | <u>ب</u> | 0.0 | 58.0 | 66 | 58.0 | 10 | Ţ | 58.0 | 0.0 | 80 | -8.0 |
| Receiver245 | 245 | + | 0.0 | 57.2 | 66 | 57.2 | 10 | 1 | 57.2 | 0.0 | 8 | -8.0 |
| Receiver246 | 246 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | I | 56.4 | 0.0 | 80 | -8.0 |
| Receiver247 | 247 | | 0.0 | 55.6 | 99 | 55.6 | 10 | I | 55.6 | 0.0 | 80 | -8.0 |
| Receiver248 | 248 | | 0.0 | 54.9 | 66 | 54.9 | 10 | I | 54.9 | 0.0 | 8 | -8.0 |
| Receiver249 | 249 | - | 0.0 | 54.6 | 66 | 54.6 | 10 | 1 | 54.6 | 0.0 | 8 | -8.0 |
| Receiver250 | 250 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | 1 | 54.2 | 0.0 | 80 | -8.0 |
| Receiver251 | 251 | - | 0.0 | 53.7 | 66 | 53.7 | 10 | I | 53.7 | 0.0 | 8 | -8.0 |
| Receiver252 | 252 | - | 0.0 | 53.3 | 66 | 53.3 | 10 | | 53.3 | 0.0 | 8 | -8.0 |
| C:\TNM25\230168\Seg 3\Seg 3\Che | stnut | | | | | 5 | | | | 3 June 20 | 15 | |
| | | | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | 14 | PD&E | | | | | |
|-----------------------|-------|-----------|---------|-------|------|------|--|------|-----|----|------|
| Receiver 253 25 | 5 | 0.0 | 53.(| 66 | 53.0 | 10 | 1 | 53.0 | 0.0 | œ | -8.0 |
| Receiver254 25 | 4 | 0.0 | 55.9 | 99 66 | 55.9 | 10 | 1 | 55.9 | 0.0 | œ | -8.0 |
| Receiver255 25 | 5 | 0.0 | 56.8 | 66 | 56.8 | 10 | a state of the second s | 56.8 | 0.0 | 8 | -8.0 |
| Receiver256 25 | 6 1 | 0.0 | 57.6 | 66 | 57.6 | 10 | 1 | 57.6 | 0.0 | 80 | -8.0 |
| Receiver257 25 | 1 | 0.0 | 58.4 | 99 1 | 58.4 | 10 | l | 58.4 | 0.0 | œ | -8.0 |
| Receiver 258 25 | 8 | 0.0 | 55. | 66 | 55.1 | 10 | ľ | 55.1 | 0.0 | 80 | -8.0 |
| Receiver259 25 | 1 | 0.0 | 54.9 | 99 66 | 54.9 | 10 | I | 54.9 | 0.0 | 80 | -8.0 |
| Receiver 260 26 | 0 | 0.0 | 54.5 | 66 | 54.5 | 10 | 1 | 54.5 | 0.0 | œ | -8.0 |
| Receiver 261 26 | 2 | 0.0 | 54. | 66 | 54.1 | 10 | 1 | 54.1 | 0.0 | 8 | -8.0 |
| Receiver 262 26 | 1 | 0.0 | 53.9 | 99 66 | 53.9 | 10 | 1 | 53.8 | 0.1 | 80 | -7.9 |
| Chestnut 1 26 | 5 | 0.0 | .19 | 66 | 67.1 | 10 | Snd Lvi | 63.8 | 3.3 | 80 | -4.7 |
| Chestnut 2 26 | 6 | 0.0 | 64. | 66 | 64.3 | 10 | 1 | 61.3 | 3.0 | 80 | -5.0 |
| Chestnut 3 26 | 1 1 | 0.0 | 63.2 | 66 | 63.2 | 10 | ł. | 60.3 | 2.9 | 8 | -5.1 |
| Chestnut 4 26 | 88 | 0.0 | 62.(| 66 | 62.6 | 10 | ţ | 59.9 | 2.7 | 8 | -5.3 |
| Chestnut 5 27 | 5 | 0.0 | 61. | 66 | 61.5 | 10 | l | 59.2 | 2.3 | 80 | -5.7 |
| Chestnut 6 27 | 5 | 0.0 | 65.9 | 99 66 | 62.9 | 10 | | 62.7 | 3.2 | 80 | -4.8 |
| Chestnut 7 27 | 5 1 | 0.0 | 60. | 66 | 60.7 | 10 | 1 | 58.5 | 2.2 | 80 | -5.8 |
| Chestnut 8 27 | 6 | 0.0 | 60.(| 99 00 | 60.0 | 10 | 1 | 58.1 | 1.9 | œ | -6.1 |
| Chestnut 9 27 | 7 | 0.0 | 58. | 66 | 58.8 | 10 | 1 | 57.0 | 1.8 | 80 | -6.2 |
| Chestnut 10 27 | 8 | 0.0 | 61. | 66 | 61.3 | 10 | | 59.1 | 2.2 | 80 | -5.8 |
| Chestnut 11 27 | 6 | 0.0 | 62. | 66 | 62.7 | 10 | l. | 60.7 | 2.0 | 80 | -6.0 |
| Chestnut 12 28 | 00 | 0.0 | 63. | 66 | 63.2 | 10 | ł | 61.3 | 1.9 | 80 | -6.1 |
| Receiver282 28 | 22 | 0.0 | 71.9 | 99 66 | 71.9 | 10 | Snd Lvl | 71.9 | 0.0 | 80 | -8.0 |
| Receiver283 28 | 33 | 0.0 | 71.(| 66 | 71.6 | 10 | Snd Lvl | 71.6 | 0.0 | 80 | -8.0 |
| Receiver284 28 | 34 | 0.0 | 66.(| 09 00 | 66.0 | 10 | Snd Lvl | 66.0 | 0.0 | 80 | -8.0 |
| Receiver285 28 | 35 3 | 0.0 | 62.1 | 66 | 62.2 | 10 | 1 | 62.2 | 0.0 | œ | -8.0 |
| Dwelling Units | # DUs | Noise Red | duction | | | | | | | | |
| | | Min | Avg | Мах | | | | | | | |
| | | ß | dB | ę | | | | | | | |
| All Selected | 6 | 0.0 | 0 | 3.3 | | | | | | | |
| All Impacted | 7 | 0.0 | 0. | 3.3 | | | | | | | |
| All that meet NR Goal | U | 0.0 | 0.0 | 0.0 | | | | | | | |

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3 June 2015

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Barrier Analysis

NSA C

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD8 | щ | | | |
|---|--------------------------|----------------------------|-----------|----------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 3 June 2(TNM 2.5 | 015 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | I-4 Bt I-4 Se GM-2 | U PD&E gment 3 N\$ 2 | SA C | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barri | er | Length | If Wall | If Berm | | | Cost |
| | 5 | Min | Avg | Max | 1 | Area | Volume | Top Width | Run:Rise | 1 |
| | | Ħ | ft | Ĥ | Ħ | sq ft | cu yd | ft | ft:ft | \$ |
| WB NSA A GM | 3 | 22.00 | 22.0 | 0 22.0 | 0 266; | 3 58586 | 0 | | | 1757593 |
| 17' Wall B | 3 | 17.00 | 17.0 | 0 17.0 | 0 155⁄ | 4 26422 | 01 | | | 0 |
| 17" existing | 3 | 17.00 | 17.0 | 0 17.0 | 0 1318 | 8 22411 | | | | 0 |
| | | | | | | | | | Total Cost: | 1757593 |
| | | | | | | | | | | |

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3 June 2015

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PD | ¢Е | | | | |
|---|------|-----------------------------|-------------------|-----------|----------|------|--------------------|---------------------------------|---------------------------------------|------------------------|--------------------------------|-----------|-----------------------------|
| Stantec M. Drauer | | | | | | | | 3 June 20 TNM 2.5 | 15 | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seg GM-22 | PD&E ment 3 NS | A C | | | | Calculate | l with TNN Average I a State hi | 1 2.5 Javement type | e shall be use | ed unless | |
| ATMOSPHERICS: | | 68 deç | I F, 50% R | н | | | | | of a differ | ent type with | y substantiat approval of I | EHWA. | U |
| Receiver | | | Eviation | No Dorrio | | | | | | Mith Dorrior | | | |
| | Z | 2004 | | | | | 1000 000L | avieting | Twee | | Noice Pedu | otion | |
| | | | LAeq1n | Calculate | d Crit'n | Calc | ase over ulated | existing Crit'n Sub'l Inc | I ype Impact | calculated LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | dBA | đВ | | đB | | dBA | đB | Bb | đB |
| Church of Higher Call | - | | 0 | 0 6 | 0.1 | 66 | 60.1 | 10 | 1 | 60.1 | 0.0 | 0 | φ φ |
| Pool | N | | .0 | 9 | 9.1 | 66 | 69.1 | 10 | Snd Lvl | 68.9 | 0.2 | 2 | 8 -7. |
| Markham Meadows 28 | m | | Ö | 0 7 | 2.4 | 66 | 72.4 | 10 | Snd Lvl | 63.3 | б | - | 8 |
| Markham Meadows 24 | 4 | | ō | 0 6 | 6.4 | 66 | 66.4 | 10 | Snd Lvl | 60.8 | 5.6 | 6 | 8 -2. |
| Markham Meadows 21 | 5 | | Ö | 0 7 | 1.0 | 66 | 71.0 | 10 | Snd Lvl | 61.5 | 9.6 | 2 | 8 1. |
| Play Field | 9 | | Ö | 0 7 | 1.7 | 66 | 7.1.7 | 10 | Snd Lvl | 61.0 | 10.7 | 2 | 8 2. |
| Church | 80 | | 0 | 9 | 1.1 | 66 | 61.1 | 10 | 1 | 61.1 | 0.0 | C | 8 - 8 . |
| Ferne 1 | σ | | Ö | 0 | 5.0 | 66 | 65.0 | 10 | 1 | 65.0 | 0.0 | C | 8. |
| Ferne 2 | 10 | | 0 | 0 | 5.7 | 66 | 65.7 | 10 | I | 65.7 | 0.0 | C | 8.08 |
| Ferne 3 | 11 | | Ö | 0 | 6.2 | 66 | 66.2 | 10 | Snd Lvl | 66.1 | ° | ~ | 8 -7. |
| Trail 1 | 12 | | Ö | 0 7 | 2.9 | 66 | 72.9 | 10 | Snd Lvl | 72.9 | 0.0 | 0 | 8. 8. |
| Markham Meadows 20 | 13 | | Ö | 0 7 | 1.0 | 66 | 71.0 | 10 | Snd Lvl | 61.2 | 9.6 | 8 | 8 1. |
| Markham Meadows 19 | 14 | | Ö | 0 | 8.1 | 66 | 68.1 | 10 | Snd Lvl | 60.0 | .8 | - | 8 0. |
| Markham Meadows 16 | 15 | | 0 | 0 | 5.9 | 66 | 62.9 | 10 | 1 | 58.8 | 3 7. | - | 8 |
| Markham Meadows 13 | 16 | | 0 | 0 | 4.9 | 66 | 64.9 | 10 | 1.000 | 58.0 | 6.6 | 6 | 8 -1. |
| Markham Meadows 6 | 17 | | Ö | 0 | 4.2 | 66 | 64.2 | 10 | 1 | 57.9 | 9 6.3 | 8 | -1. |
| Markham Meadows 2 | 18 | | Ö | 9 | 1.1 | 66 | 61.1 | 10 | ł | 56.0 | 5. | - | 8 -2. |
| Markham Meadows 28 | 19 | Ì | Ö | 9 | 5.2 | 66 | 65.2 | 10 | I | 61.5 | 3.7 | 1 | 8 |
| Markham Meadows 27 | 20 | Ì | Ö | 0 | 1.7 | 66 | 61.7 | 10 | Î | 59.7 | 2.0 | 0 | 8 .6. |
| Markham Meadows 26 | 21 | | Ö | 9 | 1.2 | 66 | 61.2 | 10 | Î | 58.7 | 2.5 | 2 | 8 |
| Markham Meadows 25 | 22 | | Ö | 0 | 3.2 | 66 | 63.2 | 10 | ł | 59.7 | 3.6 | 2 | 8 4. |
| Markham Meadows 24 | 23 | · | Ö | 0 6 | 0.5 | 66 | 60.5 | 10 | Ì | 57.6 | 3 2.9 | 6 | 8 -5. |
| Markham Meadows 23 | 24 | Ì | Ö | 9 | 2.6 | 66 | 62.6 | 10 | 1 | 58.6 | 3 4.(| 0 | 8 |
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| Markham Meadows 18 25 1 0.0 61.9 Markham Meadows 17 26 1 0.0 59.6 Markham Meadows 15 27 1 0.0 59.6 Markham Meadows 15 27 1 0.0 57.2 Markham Meadows 14 28 1 0.0 57.2 Markham Meadows 12 29 1 0.0 57.2 Markham Meadows 12 29 1 0.0 57.2 Markham Meadows 12 29 1 0.0 56.8 Markham Meadows 10 31 1 0.0 56.8 | 61.9 | 61.9 | 10 | 1 | 57.8 | 4 4 | C | |
|--|---------|---------|-------|--------|------|------|----|---------|
| Markham Meadows 17 26 1 0.0 59.6 Markham Meadows 15 27 1 0.0 60.1 Markham Meadows 15 28 1 0.0 67.2 Markham Meadows 14 28 1 0.0 67.2 Markham Meadows 12 29 1 0.0 60.3 Markham Meadows 11 30 1 0.0 58.1 Markham Meadows 10 31 1 0.0 56.8 | | | | | 2 | ÷ | ø | 6. - |
| Markham Meadows 15 27 1 0.0 60.1 Markham Meadows 14 28 1 0.0 57.2 Markham Meadows 12 28 1 0.0 60.3 Markham Meadows 12 29 1 0.0 60.3 Markham Meadows 11 30 1 0.0 58.1 Markham Meadows 10 31 1 0.0 56.8 | 59.6 | 56 59.6 | 10 | 1 | 56.5 | 3.1 | 80 | -4.9 |
| Markham Meadows 14 28 1 0.0 57.2 Markham Meadows 12 29 1 0.0 60.3 Markham Meadows 11 30 1 0.0 58.1 Markham Meadows 10 31 1 0.0 56.8 Markham Meadows 10 31 1 0.0 56.8 | 60.1 | 60.1 | 10 | 1 | 55.9 | 4.2 | œ | -3.8 |
| Markham Meadows 12 29 1 0.0 60.3 Markham Meadows 11 30 1 0.0 58.1 Markham Meadows 10 31 1 0.0 56.8 | 57.2 | 66 57.2 | 10 | 1 | 54.4 | 2.8 | ω | -5.2 |
| Markham Meadows 11 30 1 0.0 58.1 Markham Meadows 10 31 1 0.0 56.8 Markham Meadows 10 31 1 0.0 56.8 | 60.3 | 60.3 | 10 | | 55.5 | 4.8 | œ | -3.2 |
| Markham Meadows 10 31 1 0.0 56.8 | 58.1 | 56 58.1 | 10 | | 54.4 | 3.7 | 80 | -4.3 |
| Modification 7 20 4 0.0 55 1 | 56.8 | 56.8 | 10 | | 53.7 | 3.1 | 80 | -4.9 |
| | 56.1 | 56.1 | 10 | E | 52.9 | 3.2 | 80 | 4.8 |
| Markham Meadows 8 33 1 0.0 57.7 | 57.7 | 56 57.7 | 10 | 1 | 53.6 | 4.1 | 80 | -3.9 |
| Markham Meadows 9 34 1 0.0 60.3 | 60.3 | 60.3 | 10 | 1 | 55.0 | 5.3 | 8 | -2.7 |
| Markham Meadows 5 35 1 0.0 59.9 | 59.9 | 56.9 | 10 | 1 | 54.6 | 5.3 | 80 | -2.7 |
| Markham Meadows 4 36 1 0.0 57.8 | 57.8 | 56 57.8 | 10 | 1 | 53.4 | 4.4 | 80 | -3.6 |
| Markham Meadows 3 37 1 0.0 56.6 | 56.6 | 56 56.6 | 10 | 1 | 52.8 | 3.8 | 80 | -4.2 |
| Markham Meadows 1 38 1 0.0 58.1 | 58.1 | 56 58.1 | 10 | 1 | 53.6 | 4.5 | 80 | -3.5 |
| play ground 39 1 0.0 80.0 | 80.0 | 66 80.0 | 10 SI | nd Lvl | 63.7 | 16.3 | 80 | 8.3 |
| Dwelling Units # DUs Noise Reduction | ion | | | | | | | |
| Min Avg Max | g Max | | | | | | | |
| dB dB dB | æ | | | | | | | |
| All Selected 38 0.0 4.5 | 4.5 16 | 1.3 | | | | | | |
| All Impacted 6.9 6.9 | 6.9 16 | .3 | | | | | | |
| All that meet NR Goal 6 8.1 10.6 | 10.6 16 | 0.3 | | | | | | |

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3 June 2015

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I-4 BtU PD&E

3 June 2015 TNM 2.5

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M. Drauer

TS. BABBIED DESCRIPTIONS

| RESULTS: BARRIER DESCRIPTIONS | |
|--------------------------------------|-------------------------------|
| PROJECT/CONTRACT: | I-4 BtU PD&E |
| RUN: | I-4 Segment 3 NSA C |
| BARRIER DESIGN: | GM-20 |
| Barriers | |
| Name | Type Heights along Barrier Le |

| Name | Type | Heights al | ong Barrie | | Length | If Wall | If Berm | | | Cost |
|--------------|------|------------|------------|-------|--------|---------|---------|--------------|-------------|---------|
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | - |
| | | ft | ff | ft | ft | sq ft | cu yd | ft | ft:ft | φ |
| WB NSA A GM | 8 | 20.00 | 20.00 | 20.00 | 266 | 53260 | | | | 1597812 |
| 17' Wall B | 8 | 17.00 | 17.00 | 17.00 | 155 | 4 26422 | - | | | 0 |
| 17" existing | N | 17.00 | 17.00 | 17.00 | 131 | 3 22411 | | | | 0 |
| | 2 | | | | | | | | Total Cost: | 1597812 |
| | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU F | D&E | | | | |
|---------------------------------|--------|-------|----------|------------|------------|------------|---------------------|----------------------|-------------------------------|---------------------------------|-------------------------|---------------------|
| Stantec | | | | | | | 3 June 2 | 015 | | | | |
| M. Drauer | | | | | | | TNM 2.5 | | | | | |
| DESLIFTS: SOLIND FEVELS | | | | | | | Calculat | ed with TN | M 2.5 | | | |
| PROJECT/CONTRACT: | 11 | BtU | PD&E | | | | | | | | | |
| BARRIER DESIGN: | 0 | M-20 | | 5 | | | | Average a State I | pavement typ lichwav agenc | ie shali be us sv substantia | ed unless tes the us | đ |
| ATMOSPHERICS: | 9 | 8 deg | F, 50% R | т | | | | of a diff | erent type with | approval of | FHWA. | 2 |
| Receiver | | | | | | | | | | | | 0 |
| Name | No. #[| SUS | Existing | No Barriel | | | | | With Barrie | | | |
| | | | LAeq1h | LAeq1h | - | Increase o | ver existing | Type | Calculated | Noise Redu | ction | - |
| | | | | Calculate | l Crit'n | Calculated | Crit'n Sub'l Ine | Impact | LAeq1h | Calculated | Goal | Calculated minus |
| | | | dBA | dBA | dBA | gp | æ | | dBA | đB | qB | dB dB |
| Church of Higher Call | - | - | Ö | 9 | 1.0 | 66 | 0.1 | | .09 | 1 | 0 | -8. |
| Pool | 2 | - | Ö | 9 | 9.1 | 66 6 | 9.1 | 10 Snd Lv | 68. | 9 | 5 | 8 -7. |
| Markham Meadows 28 | e | 1 | Ö | 2 0 | 2.4 | 66 7 | 2.4 | IO Snd Lv | 63. | 7 8. | 7 | 8 |
| Markham Meadows 24 | 4 | - | ö | 9 | 3.4 | 66 6 | 6.4 | IO Snd Lv | I 61. | 2 5. | 2 | 8 -2. |
| Markham Meadows 21 | ъ | - | Ö | 2 0 | 0.1 | 66 7 | 1.0 | IO Snd Lv | I 62. | 0 | 0 | 8 1.1 |
| Play Field | g | - | 0 | 2 0 | 1.7 | 66 7 | 1.7 | IO Snd Lv | l 61. | 6 10. | - | 8 |
| Church | ∞ | 1 | 0. | 9 | - . | 66 6 | 1.1 | | 61. | 1 0. | 0 | 8 -8. |
| Ferne 1 | 0 | 1 | O | 0 | 5.0 | 66 6 | 5.0 | | 65.1 | 0 | 0 | 8 |
| Ferne 2 | 10 | - | Ö | 0 | 5.7 | 66 6 | 5.7 | | 65. | 7 0. | 0 | -8. |
| Ferne 3 | 11 | 1 | ō | 0 | 5.2 | 66 6 | 6.2 | IO Snd Lv | I 66. | 1 | | 8 -7. |
| Trail 1 | 12 | 1 | 0 | 0 | 6.9 | 66 7 | 2.9 | IO Snd Lv | I 72.9 | 9 0. | 0 | 8 -8. |
| Markham Meadows 20 | 13 | - | ö | 2 0 | 0.1 | 66 7 | 1.0 | 0 Snd Lv | I 61. | 9. | 2 | 8 |
| Markham Meadows 19 | 14 | - | ō | 0 | 3.1 | 66 6 | 8.1 | IO Snd Lv | I 60. | 6 7. | 5 | 8 |
| Markham Meadows 16 | 15 | - | O | 0 | 6.9 | 66 6 | 5.9 | | 59. | 5 6. | 4 | -1. |
| Markham Meadows 13 | 16 | 1 | ō | ů 0 | 6.1 | 66 6 | 4.9 | 0 | 58. | 6 6. | 3 | -1. |
| Markham Meadows 6 | 17 | - | ō | Ö | 1,2 | 66 6 | 4.2 | | 58. | 4 5. | 8 | 8 |
| Markham Meadows 2 | 18 | - | ō | 9 | F . | 66 6 | 1.1 | | 56. | 4 4. | 7 | 8 |
| Markham Meadows 28 | 19 | - | ō | 9 | 5.2 | 66 6 | 5.2 | | 61. | 7 3. | 5 | 8 |
| Markham Meadows 27 | 20 | - | O | 0 6 | 1.7 | 66 6 | 1.7 | | 59. | 1. | 0 | .9 .9 |
| Markham Meadows 26 | 21 | - | 0 | 0 6 | 2 | 66 6 | 1.2 | | 58. | 8 2. | 4 | 8 -5. |
| Markham Meadows 25 | 22 | - | Ö | 0 | 3.2 | 66 6 | 3.2 | | 59. | 9 | 0 | 8 |
| Markham Meadows 24 | 23 | - | ō | 9 |).5 | 66 6 | 0.5 | | 57.3 | 8 | 7 | 8 -5. |
| Markham Meadows 23 | 24 | - | 0. | 0 | 2.6 | 66 6 | 2.6 | - 0 | 58. | 9 3. | 7 | 8 -4. |
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| RESULTS: SOUND LEVELS | | | | | 1-4 | BtU PD8 | щ | | | | |
|------------------------------|-------|-----------|---------|--------|------------|---------|---------|------|------|----|------|
| Markham Meadows 18 | 25 | 1 0.0 | 61.9 | 99 66 | 61.9 | 10 | 1 | 58.2 | 3.7 | 8 | -4.3 |
| Markham Meadows 17 | 26 | 1 0.0 | 59.(| 66 | 59.6 | 10 | I | 56.8 | 2.8 | 8 | -5.2 |
| Markham Meadows 15 | 27 | 1 0.0 | .09 | 1 66 | 60.1 | 10 | 1 | 56.2 | 3.9 | 8 | -4.1 |
| Markham Meadows 14 | 28 | 1 0.0 | 57. | 2 66 | 57.2 | 10 | 1 | 54.5 | 2.7 | 80 | -5.3 |
| Markham Meadows 12 | 29 | 1 0.0 | 60. | 66 | 60.3 | 10 | 1 | 55.9 | 4.4 | 8 | -3.6 |
| Markham Meadows 11 | 30 | 1 0.0 | 58. | 1 66 | 58.1 | 10 | 1 | 54.6 | 3.5 | 00 | -4.5 |
| Markham Meadows 10 | 31 | 1 0.0 | 56. | 66 | 56.8 | 10 | I | 53.9 | 2.9 | 8 | -5.1 |
| Markham Meadows 7 | 32 | 1 0.0 | 56. | 1 66 | 56.1 | 10 | Ĩ | 53.1 | 3.0 | 00 | -5.0 |
| Markham Meadows 8 | 33 | 1 0.0 | 57. | 7 66 | 57.7 | 10 | E. | 53.8 | 3.9 | 8 | -4.1 |
| Markham Meadows 9 | 34 | 1 0.0 | 60. | 66 | 60.3 | 10 | l | 55.4 | 4.9 | 8 | -3.1 |
| Markham Meadows 5 | 35 | 1 0.0 | 59. | 99 66 | 59.9 | 10 | 1 | 55.0 | 4.9 | 00 | -3.1 |
| Markham Meadows 4 | 36 | 1 0.0 | 57. | 66 | 57.8 | 10 | j | 53.6 | 4.2 | 00 | -3.8 |
| Markham Meadows 3 | 37 | 1 0.0 | 56. | 66 | 56.6 | 10 | 1 | 53.0 | 3.6 | 00 | -4.4 |
| Markham Meadows 1 | 38 | 1 0.0 | 58. | 1 66 | 58.1 | 10 | 1 | 53.8 | 4.3 | 00 | -3.7 |
| play ground | 39 | 1 0.0 | 80. | 0 66 | 80.0 | 10 | Snd Lvl | 64.4 | 15.6 | 00 | 7.6 |
| Dwelling Units | # DUs | Noise Red | luction | | | | | | | | |
| | | Min | Avg | Max | | | | | | | |
| | | đB | dB | ąp | | | | | | | |
| All Selected | ° | 8 0.0 | 4. | 2 15.6 | | | | | | | |
| All Impacted | ÷ | 0.0 | 6. | 5 15.6 | | | | | | | |
| All that meet NR Goal | | 5 8.7 | 10. | 5 15.6 | | | | | | | |
| | | | | | | | | | | | |

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3 June 2015

| RESULTS: BARRIER DESCRIPTIONS | | | | | - | -4 BtU PD& | щ | | | |
|--------------------------------------|--------|------------|-------------|-----------|--------|------------|---------|--------------|-------------|---------|
| Stantec | | | | 3 June 20 | 15 | | | | | |
| M. Drauer | | | | TNM 2.5 | | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Bt | U PD&E | | | | | | | | |
| RUN: | I-4 Se | gment 3 NS | SA C | | | | | | | |
| BARRIER DESIGN: | GM-1 | 8 | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | long Barrie | ير ۲ | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | Ĥ | ft | ft | ft | sq ft | cu yd | ft | ft:ft | \$ |
| WB NSA A GM | 8 | 18.00 | 18.00 | 18.00 | 2663 | 47934 | | - | | 1438030 |
| 17' Wall B | > | 17.00 | 17.00 | 17.00 | 1554 | 26422 | | | | 0 |
| 17" existing | 3 | 17.00 | 17.00 | 17.00 | 1318 | 3 22411 | | | | 0 |
| | | | | | | | | | Total Cost: | 1438030 |

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3 June 2015

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU PC | ßE | | | | | ſ |
|---|------|-----------------------------|-------------------|-----------|----------|--------------|----------------------|--------------------------|------------------------------|--------------------------------|--------------------|----------------------------|------|
| Stantec M. Drauer | | | | | | | 3 June 20 TNM 2.5 | 15 | u C | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seg GM-18 | PD&E ment 3 NS | SA C | | | Calculate | a with link Average I | 1 2.3 Javement typ | e shall be use | ed unless | | |
| ATMOSPHERICS: | | 68 deç | J F, 50% R | н | | | | a State hi of a diffe | ghway agenc ent type with | y substantiat approval of I | es the us FHWA. | es | |
| Receiver | Ŋ | vii0# | Existing | No Barrie | | | | | With Barrier | | | | |
| | 2 | | I Aen1h | Aed th | | Increase ove | er existing | Tvbe | Calculated | Noise Redu | ction | _ | |
| | | | | Calculate | d Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculate minus Goal | g |
| | | | dBA | dBA | dBA | đb | đB | | dBA | dB | đB | dB | |
| Church of Higher Call | | | Ö | 9 | 0.1 | 66 60 | 1 10 | l | 60.1 | 0.0 | 0 | 00 | -8.0 |
| Pool | | | 0 | 9 | 9.1 | 69 69 | 1. | Snd Lvl | 68.9 | 0.2 | N | 80 | -7.8 |
| Markham Meadows 28 | | | 0 | 2 0 | 2.4 | 66 72 | 4 10 | Snd Lvl | 64.2 | 8.5 | 2 | œ | 0.2 |
| Markham Meadows 24 | 4 | | 0 | 0 6 | 6.4 | 66 66 | .4 | Snd Lvl | 61.6 | 3 4.8 | 8 | 80 | -3.2 |
| Markham Meadows 21 | | ` IO | 0 | 0 7 | 1.0 | 66 71 | .0 | Snd Lvi | 62.6 | 3 8.4 | 4 | 8 | 0.4 |
| Play Field | | ` ´ | 0 | 0 7 | 1.7 | 66 71 | .7 10 | Snd Lvl | 62.3 | 3 9.4 | 4 | 8 | 1.4 |
| Church | | ` ~ | 0 | 0 6 | 1.1 | 66 61 | .1 | | 61.1 | 0.0 | 0 | 8 | -8.0 |
| Ferne 1 | | ` | 0 | 0 | 5.0 | 66 65 | .0 | 1 | 65.(| 0.0 | 0 | 00 | -8.0 |
| Ferne 2 | 1 | Ì | 0 | 9 | 5.7 | 66 65 | .7 1(| 1 | 65.7 | 0.0 | 0 | 80 | -8.0 |
| Ferne 3 | ÷ | | Ö | 0 | 6.2 | 66 66 | .2 1(| Snd Lvl | 66.1 | .0 | - | 80 | -7.9 |
| Trail 1 | 7 | | 0 | 0 7 | 2.9 | 66 72 | .9 | Snd Lvl | 72.9 | 0.0 | 0 | 80 | -8.0 |
| Markham Meadows 20 | ÷ | | 0 | 0 7 | 1.0 | 66 71 | .0 | Snd Lvl | 62.4 | 4 8.6 | 0 | 8 | 0.6 |
| Markham Meadows 19 | 1 | | 1 | 0 6 | 8.1 | 66 68 | .1 | Snd Lvl | 61.2 | 6.9 | 0 | œ | |
| Markham Meadows 16 | 1 | | 0 | 0 6 | 5.9 | 66 65 | .9 | 1 | 60.2 | 2 5.1 | 2 | 8 | -2.3 |
| Markham Meadows 13 | ÷ | | 0 | 0 | 4.9 | 66 64 | .9 1(| 1 | 59.3 | 3 5.6 | 0 | 00 | -2.4 |
| Markham Meadows 6 | 1 | | 1 | 0 | 4.2 | 66 64 | .2 1(| 1 | 59.(| 0 5.1 | N | 8 | -2.8 |
| Markham Meadows 2 | 4 | | 0 | 0 | 1.1 | 66 61 | .1 | | 56.7 | 7 4. | 4 | 8 | -3.6 |
| Markham Meadows 28 | 4 | | 0 | 0 | 5.2 | 66 65 | .2 | | 61.9 | 9.3. | e | 80 | -4.7 |
| Markham Meadows 27 | 3 | 0 | 0 | 0 0 | 1.7 | 66 61 | .7 1(| I | 59.6 | 1.1 | 80 | Ø | -6.2 |
| Markham Meadows 26 | 5. | | 0 | 0 0 | 1.2 | 66 61 | .2 | | 29.(| 2.2 | 2 | 8 | -5.8 |
| Markham Meadows 25 | 5 | | 0 | 0 0 | 3.2 | 66 63 | .2 1(| 1 | 60. | 3. | ~ | 8 | -4.9 |
| Markham Meadows 24 | 3 | | 0 | 9 | 0.5 | 66 60 | .5 1(| 1 | 58.(| 2.1 | ß | 80 | -5.5 |
| Markham Meadows 23 | 2 | • | 1 | 9 | 2.6 | 66 62 | .6 | 1 | 59.3 | ö. | 4 | 8 | -4.6 |
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| RESULTS: SOUND LEVELS | | | | | | 1-4 E | 3tU PD | <u>к</u> Е | | | | |
|------------------------------|----|-------|------------|--------|------|-------|---------------|------------|------|------|----|------|
| Markham Meadows 18 | 25 | - | 0.0 | 61.9 | 99 | 61.9 | 10 | I | 58.6 | 3.3 | œ | -4.7 |
| Markham Meadows 17 | 26 | - | 0.0 | 59.6 | 99 | 59.6 | 10 | I | 57.0 | 2.6 | ω | -5.4 |
| Markham Meadows 15 | 27 | ٢ | 0.0 | 60.1 | 66 | 60.1 | 10 | 1 | 56.6 | 3.5 | ω | -4.5 |
| Markham Meadows 14 | 28 | ٢ | 0.0 | 57.2 | 99 | 57.2 | 10 | l | 54.7 | 2.5 | œ | -5.5 |
| Markham Meadows 12 | 29 | - | 0.0 | 60.3 | 66 | 60.3 | 10 | 1 | 56.4 | 3.9 | œ | 4.1 |
| Markham Meadows 11 | 30 | - | 0.0 | 58.1 | 99 | 58.1 | 10 | I | 54.9 | 3.2 | œ | -4.8 |
| Markharn Meadows 10 | 31 | - | 0.0 | 56.8 | 99 | 56.8 | 10 | ľ | 54.1 | 2.7 | 8 | -5.3 |
| Markham Meadows 7 | 32 | - | 0.0 | 56.1 | 99 | 56.1 | 10 | Ĩ | 53.3 | 2.8 | 80 | -5.2 |
| Markham Meadows 8 | 33 | - | 0.0 | 57.7 | 99 | 57.7 | 10 | I | 54.1 | 3.6 | ø | -4.4 |
| Markham Meadows 9 | 34 | - | 0.0 | 60.3 | 66 | 60.3 | 10 | ļ | 55.9 | 4.4 | 80 | -3.6 |
| Markham Meadows 5 | 35 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 55.4 | 4.5 | œ | -3.5 |
| Markham Meadows 4 | 36 | ~ | 0.0 | 57.8 | 66 | 57.8 | 10 | | 54.0 | 3.8 | œ | -4.2 |
| Markham Meadows 3 | 37 | - | 0.0 | 56.6 | 66 | 56.6 | 10 | I | 53.2 | 3.4 | ω | -4.6 |
| Markham Meadows 1 | 38 | - | 0.0 | 58.1 | 66 | 58.1 | 10 | Í | 54.1 | 4.0 | ω | -4.0 |
| play ground | 39 | - | 0.0 | 80.0 | 66 | 80.0 | 10 | Snd Lvl | 65.5 | 14.5 | 80 | 6.5 |
| Dwelling Units | +6 | ¢ DUs | Noise Redu | iction | | | | | | | ÷ | |
| | | | Min 4 | Avg | Max | | | | | | | |
| | | | dB | 8 | đB | | | | | | | |
| All Selected | | 38 | 0.0 | 3.9 | 14.5 | | | | | | | |
| All Impacted | | 10 | 0.0 | 6.1 | 14.5 | | | | | | | |
| All that meet NR Goal | | S | 8.2 | 9.8 | 14.5 | | | | | | | |
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3 June 2015

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I-4 BtU PD&E

| Stantec | |
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| M. Drauer | |
| | |

3 June 2015 TNM 2.5

| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
|--------------------------------------|---------|------------|------------|-------|--------|---------|---------|--------------|----------|----|
| PROJECT/CONTRACT: | I-4 Btl | J PD&E | | | | | | | | |
| RUN: | I-4 Se | gment 3 NS | SA C BM | | | | | | | |
| BARRIER DESIGN: | BM 14 | | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | | Length | If Wall | If Berm | | | |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ff | ft | Ĥ | ft | sq ft | cu yd | Ĥ | ft:ft | i |
| NSA A BM | 8 | 14.00 | 14.00 | 14.00 | 2659 | 37229 | | | | 11 |
| 17' Wall B | 8 | 17.00 | 17.00 | 17.00 | 1554 | 26422 | | | | |

00

1116866

ω

Cost

1116866

Total Cost:

22411

1318

17.00

17.00

17.00

≥

17" existing

C:\TNM25\230168\Seg 3\8 + 4\NSA A

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI | O&E | | | | | |
|---|-----|--------|------------|-------------------|--------|------|----------------------------|---------------------------------|-------------------------|-------------------------------|--------------------------------|--------------------|-----------|------|
| Stantec M. Drauer | | | | | | | | 3 June 20 TNM 2.5 | 15 | | | | | |
| | | | | | | | | Calculate | d with TNN | 1 2.5 | | | | |
| RESULIS: SOUND LEVELS PROJECT/CONTRACT: PIIN. | | -4 BtU | PD&E | | | | | | | | | | | |
| BARRIER DESIGN: | | BM 14 | | | | | | | Average | bavement type | e shall be use | ed unless | (0) | |
| ATMOSPHERICS: | | 68 dei | g F, 50% I | H | | | | | a state n of a diffe | griway agenc ent type with | y substantiation approval of F | es the us FHWA. | e | |
| Receiver | | | | | | | | | | | | | | |
| Name | No. | #DUs | Existing | No Bari | rier | | | | | With Barrier | | | | |
| | | | LAeq1h | LAeq1h Calcula | ted Cr | it'n | Increase ove Calculated | existing Crit'n Sub'l Inc | Type Impact | Calculated LAeq1h | Noise Reduc Calculated | ction Goal | Calculate | ted |
| | | | | | | | | | | | | | Goal | |
| | | | dBA | dBA | đĐ | 3A | đB | dВ | | dBA | đB | đb | æ | |
| Church of Higher Call | - | 10 | 0 | 0. | 60.1 | 99 | 60 | 1 | | 60.1 | 0.0 | 0 | 8 | -8.0 |
| Pool | 2 | | 1 | 0. | 69.2 | 99 | 69 | .2 |) Snd Lvl | 68.9 | 0.3 | ~ | 8 | -7.7 |
| Play Field | 9 | | - | 0. | 66.1 | 99 | 99 | .1 | Snd Lvl | 60.7 | 5.4 | - | 80 | -2.6 |
| Church | 8 | | 1 | 0. | 61.1 | 66 | 61 | .1 | 1 | 61.1 | 0.0 | 0 | 80 | -8.0 |
| Ferne 1 | 0 | | 0 | 0. | 65.0 | 99 | 65 | 0.10 | 1 | 65.0 | 0.0 | 0 | 80 | -8.0 |
| Ferne 2 | 10 | | - | 0. | 65.7 | 66 | 65 | .7 1(| | 65.7 | 0.0 | 0 | 8 | -8.0 |
| Ferne 3 | 1 | | - | 0. | 66.2 | 66 | 99 | .2 | Snd Lvl | 66.1 | 0.1 | | 8 | -7.9 |
| Trail 1 | 12 | | - | 0. | 72.9 | 66 | 72 | .9 |) Snd Lvl | 72.9 | 0.0 | 0 | 8 | -8.0 |
| Markham Meadows 1 | 38 | | - | 0. | 57.0 | 66 | 57 | .0 | | 53.2 | 3.8 | ~ | ø | -4.2 |
| Markham Meadows 2 | 18 | · | - | 0. | 60.0 | 66 | 60 | .0 | | 55.6 | 4.4 | _ | 80 | -3.6 |
| Markham Meadows 3 | 37 | | - | 0, | 55.8 | 66 | 55 | .8 | | 52.5 | 3.3 | ~ | 80 | -4.7 |
| Markham Meadows 4 | 36 | | - | 0. | 56.7 | 66 | 56 | .7 1(| | 53.1 | 3.6 | 0 | 8 | -4.4 |
| Markham Meadows 6 | 17 | | - | 0. | 62.1 | 66 | 62 | .1 | 1 | 57.1 | 5.0 | 0 | 80 | -3.0 |
| Markham Meadows 5 | 35 | Ì | - | 0. | 58.3 | 66 | 58 | .3 1(| 1 | 54.1 | 4.2 | 01 | 80 | -3.8 |
| Markham Meadows 7 | 32 | | - | 0. | 55.7 | 66 | 55 | .7 1(| | 52.8 | 2.9 | æ | 8 | -5.1 |
| Markham Meadows 8 | 33 | | - | 0. | 56.7 | 66 | 56 | .7 | Ĩ | 53.3 | 3.4 | | 80 | -4.6 |
| Markham Meadows 9 | 34 | | 0 | 0. | 58.5 | 99 | 58 | .5 | | 54.5 | 4.0 | 0 | 80 | -4.0 |
| Markham Meadows 11 | 30 | | 0 | 0. | 57.5 | 99 | 21 | .5 1(| | 54.3 | 3.2 | 0 | 8 | -4.8 |
| Markham Meadows 10 | 31 | 0 | 0 | 0. | 56.5 | 99 | 56 | .5 1(| | 53.8 | 2.7 | | 8 | -5.3 |
| Markham Meadows 12 | 29 | | 0 | 0. | 58.9 | 66 | 58 | .9 1(| | 55.4 | 3.5 | 10 | 8 | -4.5 |
| Markham Meadows 13 | 16 | | - | 0. | 62.5 | 66 | 62 | .5 1(| 1 | 58.1 | 4.4 | - | 8 | -3.6 |
| Markham Meadows 14 | 28 | | 5 | 0. | 57.2 | 66 | 57 | 1(| | 54.5 | 2.7 | • | 8 | -5.3 |
| Markham Meadows 15 | 27 | | 0 | 0. | 59.3 | 99 | 20 | .3 1(| | 55.9 | 3.4 | - | 8 | -4.6 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA A | 7 | | | | | | ÷ | | | | 3 Jur | ne 2015 | | |

| RESULTS: SOUND LEVELS | | | | | | I-4 E | stU PD | &E | | | | |
|------------------------------|----|------|-------------|------|------|-------|--------|---------|------|------|----|------|
| Markham Meadows 16 | 15 | - | 0.0 | 64.3 | 99 | 64.3 | 10 | - | 59.2 | 5.1 | 80 | -2.9 |
| Markham Meadows 17 | 26 | - | 0.0 | 60.0 | 99 | 60.0 | 10 | 1 | 56.8 | 3.2 | 80 | -4.8 |
| Markham Meadows 18 | 25 | - | 0.0 | 62.2 | 99 | 62.2 | 10 | 1 | 58.3 | 3.9 | æ | 4.1 |
| Markham Meadows 19 | 14 | - | 0.0 | 67.1 | 99 | 67.1 | 10 | Snd Lvl | 60.9 | 6.2 | ω | -1.8 |
| Markham Meadows 20 | 13 | - | 0.0 | 70.9 | 66 | 70.9 | 10 | Snd Lvl | 63.2 | 7.7 | 80 | -0.3 |
| Markham Meadows 21 | 5 | - | 0.0 | 72.3 | 99 | 72.3 | 10 | Snd Lvl | 64.6 | 7.7 | ø | -0.3 |
| Markham Meadows 23 | 24 | - | 0.0 | 63.7 | 99 | 63.7 | 10 | l | 59.5 | 4.2 | 80 | -3.8 |
| Markham Meadows 24 | 23 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | Į. | 58.1 | 3.2 | 80 | -4.8 |
| Markham Meadows 24 | 4 | - | 0.0 | 68.4 | 99 | 68.4 | 10 | Snd Lvl | 62.9 | 5.5 | 80 | -2.5 |
| Markham Meadows 25 | 22 | - | 0.0 | 64.4 | 99 | 64.4 | 10 | 1 | 60.6 | 3.8 | œ | -4.2 |
| Markham Meadows 26 | 21 | - | 0.0 | 62.1 | 66 | 62.1 | 10 | | 59.3 | 2.8 | 80 | -5.2 |
| Markham Meadows 27 | 20 | - | 0.0 | 62.5 | 99 | 62.5 | 10 | J | 60.1 | 2.4 | 80 | -5.6 |
| Markham Meadows 28 | 19 | - | 0.0 | 66.4 | 66 | 66.4 | 10 | Snd Lvl | 62.5 | 3.9 | œ | -4.1 |
| Markham Meadows 28 | n | - | 0.0 | 73.1 | 66 | 73.1 | 10 | Snd Lvl | 66.3 | 6.8 | 80 | -1.2 |
| play ground | 39 | - | 0.0 | 79.5 | 66 | 79.5 | 10 | Snd Lvl | 69.5 | 10.0 | œ | 2.0 |
| Dwelling Units | # | Us I | Voise Reduc | tion | | | | | | | | |
| | | 1 | Win A | Ď, | Max | | | | | | | |
| | | | 1B dt | ~ | dB | | | | | | | |
| All Selected | | 38 | 0.0 | 3.6 | 10.0 | | | | | | | |
| All Impacted | | 1 | 0.0 | 4.9 | 10.0 | | | | | | | |
| All that meet NR Goal | | - | 10.0 | 10.0 | 10.0 | | | | | | | |
| | | | | | | | | | | | | |

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3 June 2015

Barrier Analysis

NSA D – North Cove

| Table Statted N. Drauer TNM 2.5 TNM 2.5 R. Drauer N. Drauer TNM 2.5 RESULTS: BARRIER DESCRIPTIONS RESULTS: BARRIER DESCRIPTIONS Anoth 2015 RESULTS: BARRIER DESCRIPTIONS I.4 Statter Descriptions Anoth 2015 RESULTS: BARRIER DESCRIPTIONS I.4 Statter Descriptions I.4 Statter Descriptions RUN: GM 22 I.4 Statter Descriptions I.4 Statter Descriptions Barriers I.4 Statter Descriptions I.4 Statter Descriptions I.4 Statter Descriptions Barriers I.4 Statter Descriptions I.4 Statter Descriptions I.4 Statter Descriptions Manuel I.4 Statter Descriptions I.4 Statter Descriptions I.4 Statter Descriptions Manuel I.4 Statter Descriptions I.4 Statter Descriptions I.4 Statter Descriptions Manuel I.4 Statter Descriptions I.4 Statter Descriptions I.4 Statter Descriptions Manuel I.4 Statter Descriptions I.4 Statter Descriptions I.4 Statter Descriptions Manuel I.4 Statter Descriptions I.4 Statter Descriptions I.4 Statter Descriptions Manue | RESULTS: BARRIER DESCRIPTIONS | | | | | - | -4 BtU PD8 | ų | | | |
|---|--|-----------------|-----------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| RESULTS: BARIER DESCRIPTIONS I-4 B4U PD& PROJECT/CONTRACT: I-4 B4U PD& RUN: I-4 B4U PD& BARRIER DESIGN: I-4 B4U PD& BARRIER DESIGN: I-4 B4U PD& BARRIER DESIGN: I-4 B4U PD& Barrier I-4 Begment 3 North Cove Mame I-4 Begment 3 North Cove <td>Stantec M. Drauer</td> <td></td> <td></td> <td></td> <td>7 May 201 TNM 2.5</td> <td>S</td> <td></td> <td></td> <td></td> <td></td> <td></td> | Stantec M. Drauer | | | | 7 May 201 TNM 2.5 | S | | | | | |
| I-I Segment 3 North Cove I-I Segment 3 North Cove BARIER DESIGN: I-I Segment 3 North Cove Barriers IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: | I-4 Bt | U PD&E | | | | | | | | |
| Barrier Length If Wall If Rerm. Cost Name Type Heights along Barrier Length If Wall If Rerm. Cost Name Min Avg Max Area Volume Top Nucltiv If If If If If If If If If NC GM 1 V 22:00 22:00 22:00 22:00 1603 35256 If If If NC GM 2 V 22:00 22:00 22:00 1603 35256 If If If | RUN: BARRIER DESIGN: | I-4 Se GM 2: | gment 3 Nc 2 | orth Cove | | | | | | | |
| NameTypeHeights along BarrierLengthIf WallIf BermNameMinAvgMaxLengthTopRun:RiseAreaVolumeVolumeVolumeVolumeVolumeVolumeAreaAreaVolumeVolumeVolumeVolumeVolumeAreaAvgMaxAreaVolumeVolumeVolumeVolumeAreaAvgMaxAreaVolumeVolumeVolumeVolumeAreaAvgMaxAreaVolumeVolumeVolumeVolumeAreaAvgAreaVolumeVolumeVolumeVolumeVolumeAreaAvgAreaAvgAreaVolumeVolumeVolumeAreaAvgAreaAvgAreaVolumeVolumeVolumeAreaAvgAreaAreaVolumeTopVolumeAreaVolumeAreaAreaVolumeVolumeVolumeAreaVolumeAreaAreaVolumeVolumeVolumeAreaVolumeAreaAreaAreaVolumeVolumeAreaVolumeAreaAreaAreaAreaVolumeAreaVolumeAreaAreaAreaAreaAreaAreaVolumeAreaAreaAreaAreaAreaAreaVolumeAreaAreaAreaAreaAreaAreaAreaAreaArea <td>Barriers</td> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | Barriers | 10 | | | | | | | | | |
| Minimum Aug Max Area Volume Top Run: Rise NC GM 1 1 ft ft ft sq ft cu yd ft | Name | Type | Heights al | ong Barrid | er. | Length | If Wall | If Berm | | | Cost |
| ft ft ft ft sq ft cu yd ft ft:ft \$ NC GM 1 W 22.00 22.00 1603 35256 1603 35256 1603 <td></td> <td></td> <td>Min</td> <td>Avg</td> <td>Мах</td> <td></td> <td>Area</td> <td>Volume</td> <td>Top Width</td> <td>Run:Rise</td> <td></td> | | | Min | Avg | Мах | | Area | Volume | Top Width | Run:Rise | |
| NC GM 1 W 22.00 22.00 22.00 1603 35256 NC GM 2 W 22.00 22.00 22.00 1767 38870 1761 | | | ft | Ĥ | ft | Ħ | sq ft | cu yd | £ | ft:ft | Ф |
| NC GM 2 3870 V 22.00 22.00 22.00 1767 38870 Total Cost. | NC GM 1 | 3 | 22.00 | 22.0(| 22.00 | 1603 | 35256 | | | | 1057687 |
| Total Cost. | NC GM 2 | > | 22.00 | 22.00 | 22.00 | 1767 | 7 38870 | | | | 1166114 |
| I OLAI DOSI. | | | | | | | | | | Total Cost: | 2223800 |

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7 May 2015

| Sume T May 2015 IN A 12 S TO A 12 S Colspan="6">Colspan="6" Colspan="6">Colspan="6"Colspan=""6">Colspan="6">Colspan="6">Colspan="6">Co | RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI | 0&E | | | | |
|--|------------------------------|-----|------------------|--------------|-----------|---------|--------|-------------|------------------------------------|------------|--------------------------------|----------------|--------------------|-----------------------------|
| Calculated with TMM 23 RENU. Sciulto LEVELS A BRU PAGE RANGE A BRU PAGE A MAGE A BRU PAGE A MAGE A State Plane Nume Not a provide the page of the plane Nume Nume Nume Nume Nume Nume A BRU PAGE Nume Nume Nume A BRU PAGE Nume Nume Nume A BRU PAGE Nume Nume A BRU PAGE Nume Nume A BRU PAGE Nume Nume Num | Stantec M. Drauer | | | | | | | | 7 May 20 [.] TNM 2.5 | 5 | | | | |
| KUR: Leage parent shall be used miles KUR: Leage parent shall be used miles ARREE DESIGN: Marree State highway ageny substanties for uses AMODENERCICS: Marree State highway ageny substanties for uses AMODENERCICS: Marree State highway ageny substanties for uses AMODENERCICS: Marree State highway ageny substanties for uses Amodeners No. FDU Marree Marree Reserver Marree Marree Marree Marree Non- FDU Lead C Marree Marree Non- FDU Lead Marree Marree Marree Non- FDU Lead C Marree Marree Non- FDU Lead FDU Calculated Marree Mondeners Marree Marree Marree Marree Marree Mondeners Marree Marree Marree Marree Marree Mondeners Marree Marree Marree | RESULTS: SOUND LEVELS | | 1-4 BtL | I PD&E | | | | | Calculate | d with TNN | 12.5 | | | |
| Amospheretcs:state if finite interval sector with approximate and interval sector and interval sector with approximate and interval sector with approximate and interval sector and interv | RUN: BARRIER DESIGN: | | I-4 Seç GM 22 | jment 3 N | lorth Cov | ð | | | | Average | bavement type | e shall be use | ed unless | |
| Receiver Name No. MOI Month Learth Interase over stating Type Calculated Noise Reduction Name No Month Learth Learth Interase over stating Type Calculated Noise Reduction Calculated Calculated Noise Reduction Calculated Calculated Noise Reduction Calculated Calculated Noise Reduction Calculated Calculat | ATMOSPHERICS: | | 68 de | g F, 50% | RH | | | | | of a diffe | griway agency ent type with | approval of F | es uie us FHWA. | Đ |
| Matrix Matrix Type Currente Applie Currente Curre | Receiver | | | - Cuintin | No P | - | | | | | With Barrier | | | |
| Matrix Matrix< | Name | .01 | \$00# | | | 1911 | | Increase ov | or ovicting | Tvne | Calculated | Noise Redu | rtion | |
| Modiands 1 dBA | | | | LAeg1r | Calcu | lated 0 | Crit'n | Calculated | er existing Crit'n Sub'l Inc | Impact | Calculated LAeq1h | Calculated | Goal | Calculated minus Goal |
| Woodlands 1110.0 64.7 66 64.7 66 64.7 66 64.5 10 $$ 64.5 0.2 8 -7.3 Woodlands 23910.0 60.1 60.1 61.5 10 $$ 55.7 2.6 8 -5.6 Woodlands 44110.0 60.1 66.5 61.5 10 $$ 55.7 2.4 8 -5.6 Woodlands 44210.0 58.1 66 59.2 10 $$ 56.7 2.6 8 -5.6 Woodlands 4210.0 70.2 66 59.2 10 50.2 30 8 -5.6 Woodlands 4210.0 70.1 66 70.2 10 50.7 2.6 8 -5.6 Woodlands 4210.0 70.1 66 70.2 10 50.7 2.6 8 -5.6 Woodlands 421 0.0 70.1 66 70.2 10 50.7 2.6 8 -5.6 Wohl Cove 721 50.1 10 50.1 66.7 50.2 66.7 20.2 8 -2.3 Wohl Cove 721 50.1 10 50.1 60.7 60.7 60.7 10 50.1 10 10 10 Wohl Cove 721 50.1 10 50.1 10 50.1 10 10 10 < | | | | dBA | dBA | 0 | IBA | ₽ | Вb | | dBA | dB | 晤 | 留 |
| Woodlands 23910.061.56661.510 \dots 56.92.685.4Woodlands 54010.060.16660.110 \dots 55.72.685.6Woodlands 54110.059.26659.110 \dots 55.72.485.6Woodlands 5110.059.26659.210 \dots 55.72.485.6Woodlands 5310.059.26659.210 \dots 56.72.485.7Woodlands 5310.059.26659.210 \dots 56.72.485.7Woodlands 5310.071.26670.210 ∞ 56.77.28 -0.2 Woodlands 63110.071.26670.210 ∞ 56.77.58 -0.2 Noth Cove 2310.071.26670.210 ∞ 50.77.58 -0.2 Noth Cove 3210.064.46664.41066.962.77.88 -0.2 Noth Cove 5210.064.46664.410 ∞ 56.767.28 -2.3 Noth Cove 5210.064.46664.410 ∞ 57.48 -2.3 < | Woodlands 1 | | | - | 0.0 | 64.7 | Ö | 64 | 1 2 | 1 | 64.5 | 0.2 | 01 | 8 -7 |
| Woodlands 3 40 1 0.0 60.1 66 60.1 10 57.5 2.6 8 -5.4 Woodlands 5 41 1 0.0 58.1 66 58.1 10 55.7 2.4 8 -5.6 Woodlands 4 2 1 0.0 58.1 66 58.1 10 55.7 2.4 8 -5.6 Noodlands 4 2 1 0.0 70.2 66 70.2 10 56.7 2.4 8 -5.7 Noth Cove 2 3 1 0.0 71.2 66 70.1 10 50.1 8 -1.2 Noth Cove 2 2 1 0.0 61.1 66 70.1 66.2 70.2 66 8 -1.2 8 -1.2 8 -1.2 8 -1.2 8 -1.2 8 -1.2 8 -1.2 8 -1.2 8 -1.2 | Woodlands 2 | ж | | - | 0.0 | 61.5 | Ö | 61 | .5 | | 58.9 | 2.6 | (0 | 8 |
| Woodlands 5 41 1 0.0 58.1 66 58.1 61 56.2 24 8 56.3 Woodlands 4 42 1 0.0 59.2 66 58.2 10 56.2 30 8 55.0 Woodlands 4 42 1 0.0 70.2 66 59.2 10 Sind Ivi 65.3 7.0 8 -50 North Cove 7 3 1 0.0 70.1 66 70.1 10 Sind Ivi 65.3 7.0 8 -50 North Cove 3 5 1 0.0 69.1 66 68.1 10 Sind Ivi 67.3 7.0 8 -50 North Cove 3 21 1 0.0 66.1 66 66.1 66.1 66 66.1 66.1 66.1 66.1 66.1 66.1 66.1 66.1 66.1 66.1 66.1 66.1 66.1 66.1 66.1 66.1 | Woodlands 3 | 4 | | - | 0.0 | 60.1 | Ö | 60 | 1 | | 57.5 | 2.6 | (0) | 8 |
| Woodlands 4 42 1 0.0 59.2 66 59.2 10 $m-1$ 56.2 3.0 8 -5.0 North Cove1210070.26670.210Snd Lvl 65.9 4.38 -3.7 North Cove1210070.16670.110Snd Lvl 65.3 7.88 -0.1 North Cove23510070.16670.110Snd Lvl 65.3 7.88 -0.1 North Cove3510069.166.110Snd Lvl 65.3 7.88 -0.1 North Cove3210069.16669.210Snd Lvl 62.3 7.88 -0.1 North Cove3210069.16669.210Snd Lvl 62.3 7.88 -0.1 North Cove3210069.16669.210Snd Lvl 62.3 7.88 -2.3 North Cove32210069.16669.210 56.2 6652.28 -2.3 North Cove3210069.16669.210 50.2 668 -2.3 North Cove12210069.26666.210 -0.2 -2.3 North Cove1210069.26666.210 -0.2 -0 | Woodlands 5 | 4 | | - | 0.0 | 58.1 | Ö | 58 | 1 | | 55.7 | 2.4 | - | - 5 |
| North Cove 1 2 1 0.0 70.2 66 70.2 10 Sind Lvi 65.9 4.3 8 -3.7 North Cove 2 3 1 0.0 71.2 66 71.2 10 Sind Lvi 65.3 7.3 7.5 8 -0.5 North Cove 2 5 1 0.0 69.1 66 7.1 10 Sind Lvi 65.3 7.8 8 -0.1 North Cove 3 20 1 0.0 69.1 66 64.4 10 Sind Lvi 65.3 68 8 -1.2 North Cove 3 21 1 0.0 64.4 66 64.4 10 -1.6 57.1 8 -2.3 North Cove 3 21 1 0.0 64.4 66 64.4 10 -1.6 57.1 8 -1.8 North Cove 13 22 1 0.0 67.1 66 67.1 10 -1.6 57.1 8 - | Woodlands 4 | 42 | | - | 0.0 | 59.2 | Ö | 59 | 1 | | 56.2 | 3.0 | 0 | 8 |
| North Cove 2 3 1 0.0 71.2 66 71.2 10 Sind Lvi 63.7 7.5 8 -0.5 North Cove Park 4 1 0.0 70.1 66 70.1 10 Sind Lvi 62.3 7.8 8 -0.2 North Cove Park 1 0.0 70.1 66 70.1 10 Sind Lvi 62.3 7.8 8 -0.2 North Cove 3 19 1 0.0 66.1 66 64.4 10 Sind Lvi 67.3 7.8 8 -0.1 North Cove 5 21 0.0 68.1 66 64.1 10 -0 66 8 -1.2 North Cove 6 21 0.0 61.1 66 64.1 10 -0 57.1 8 -2.8 North Cove 8 23 1 0.0 61.1 10 -0 55.3 62 8 -2.8 North Cove 8 23 1 | North Cove 1 | | | - | 0.0 | 70.2 | Ö | 6 70 | 1 | D Snd Lvl | 65.9 | 4.5 | m | 8 |
| North Cove Park 4 1 0.0 70.1 66 70.1 10 MndLvi 62.3 7.8 8 -0.2 North Cove 3 5 1 0.0 69.2 66 69.2 10 Sind Lvi 61.3 7.9 8 -0.1 North Cove 3 5 1 0.0 69.1 66 69.1 10 Sind Lvi 59.3 6.8 8 -0.1 North Cove 5 20 1 0.0 69.1 66 61.1 10 Sind Lvi 55.3 5.8 -1.2 North Cove 5 21 1 0.0 61.1 66 61.1 10 Sind Lvi 55.7 8 -2.1 North Cove 9 23 1 0.0 61.1 10 55.9 55.2 8 -2.3 North Cove 1 23 1 0.0 55.2 10 55.0 55.2 8 -3.6 North Cove 1 26 <td>North Cove 2</td> <td></td> <td></td> <td>-</td> <td>0.0</td> <td>71.2</td> <td>Ö</td> <td>6 71</td> <td>1</td> <td>D Snd Lvl</td> <td>63.7</td> <td>1.7</td> <td>10</td> <td>8</td> | North Cove 2 | | | - | 0.0 | 71.2 | Ö | 6 71 | 1 | D Snd Lvl | 63.7 | 1.7 | 10 | 8 |
| North Cove 3 5 1 0.0 69.2 66 69.2 10 Snd Lvi 61.3 7.9 8 -0.1 North Cove 4 19 1 0.0 66.1 66 66.1 10 Snd Lvi 59.3 6.8 8 -12 North Cove 5 20 1 0.0 66.1 66 64.4 10 59.3 6.8 8 -13 North Cove 5 20 1 0.0 64.4 66 64.1 10 59.3 6.8 8 -13 North Cove 7 22 1 0.0 61.1 66 61.1 10 57 8 -23 North Cove 8 23 1 0.0 61.1 66 61.1 10 57 8 -23 North Cove 1 23 1 0.0 57.5 66 57.5 10 57.6 8 -36 North Cove 1 26 1 0.0 57.5 | North Cove Park | v | | - | 0.0 | 70.1 | Ō | 6 70 | 1 | D Snd Lvi | 62.3 | 3.7 2.8 | | 8 |
| North Cove 4 19 1 0.0 66.1 66 66.1 10 Smd Lvi 59.3 6.8 8 -1.2 North Cove 5 20 1 0.0 64.4 66 64.4 10 58.2 6.5 8 -1.3 North Cove 5 21 1 0.0 64.4 66 64.4 10 58.2 6.5 8 -1.3 North Cove 5 21 1 0.0 61.1 66 61.1 10 57.1 57.2 8 -2.3 North Cove 3 23 1 0.0 61.1 10 55.3 6 8 -2.3 North Cove 1 23 1 0.0 58.3 66 56.7 10 55.3 6 8 -2.3 North Cove 13 26 1 0.0 56.7 10 55.3 6.4 8 -3.4 North Cove 13 | North Cove 3 | | | + | 0.0 | 69.2 | Ö | 69 | 1 | D Snd Lvl | 61.3 | 3.7.9 | 0 | °- |
| North Cove5 20 1 0.0 64.4 66 64.4 10 | North Cove 4 | 51 | | , | 0.0 | 66.1 | Ō | 66 | 1 | 0 Snd Lvl | 59.3 | 6.6 | 8 | 8 |
| North Cove 6 21 1 0.0 62.8 66 62.8 10 57.1 5.7 8 -2.3 North Cove 7 22 1 0.0 61.1 66 61.1 10 55.0 5.2 8 -2.8 North Cove 8 23 1 0.0 60.2 66 60.2 10 55.0 5.2 8 -2.8 North Cove 8 23 1 0.0 50.2 66 57.5 10 53.0 4.5 8 -3.6 North Cove 10 25 1 0.0 57.5 66 57.5 10 53.0 4.5 8 -3.6 North Cove 11 26 1 0.0 56.2 66 56.2 10 51.6 8 -3.6 North Cove 12 28 1 0 55.2 10 51.6 8 -3.6 Nor | North Cove 5 | 5(| | - | 0.0 | 64.4 | ø | 64 | 1 | | 58.2 | 6.2 | 2 | ∞ |
| North Cove 7 22 1 0.0 61.1 66 61.1 10 55.9 5.2 8 -2.8 North Cove 8 23 1 0.0 60.2 66 60.2 10 55.0 5.2 8 -2.8 North Cove 8 24 1 0.0 60.2 66 58.9 10 55.0 5.2 8 -2.8 North Cove 9 25 1 0.0 58.9 66 57.5 10 53.0 4.5 8 -3.5 North Cove 10 26 1 0.0 56.7 66 56.7 10 53.0 4.5 8 -3.6 North Cove 11 27 1 0.0 56.2 66 56.2 10 51.6 67.6 66 57.6 10 51.6 67.6 67.6 57.6 66 56.2 10 51.6 57.6 <td< td=""><td>North Cove 6</td><td>2,</td><td></td><td>-</td><td>0.0</td><td>62.8</td><td>0</td><td>6 62</td><td>1</td><td> </td><td>57.1</td><td>1 5.1</td><td>2</td><td>8 -2</td></td<> | North Cove 6 | 2, | | - | 0.0 | 62.8 | 0 | 6 62 | 1 | | 57.1 | 1 5.1 | 2 | 8 -2 |
| North Cove 8 23 1 0.0 60.2 66 60.2 10 55.0 5.2 8 -2.8 North Cove 9 24 1 0.0 58.9 66 58.9 10 53.9 5.0 8 -3.0 North Cove 9 25 1 0.0 57.5 66 57.5 10 53.0 4.5 8 -3.0 North Cove 11 26 1 0.0 56.7 66 56.7 10 53.0 4.5 8 -3.6 North Cove 11 27 1 0.0 56.2 66 56.7 10 52.3 4.4 8 -3.6 North Cove 12 27 1 0.0 55.2 66 56.7 10 51.6 8 -3.6 North Cove 13 28 1 0.0 55.2 10 51.6 8 -5.7 North Cove 14 | North Cove 7 | 2 | 0.1 | - | 0.0 | 61.1 | 9 | 6 61 | .1 | | 52.6 | 9 27 | ~ | 8 |
| North Cove 9 24 1 0.0 58.9 66 58.9 10 53.9 5.0 8 -3.0 North Cove 10 25 1 0.0 57.5 66 57.5 10 53.0 4.5 8 -3.5 North Cove 11 26 1 0.0 56.7 66 56.7 10 52.3 4.4 8 -3.6 North Cove 11 26 1 0.0 56.7 66 56.7 10 51.6 8 -3.6 North Cove 12 27 1 0.0 56.2 66 55.2 10 51.6 8 -3.4 North Cove 13 28 1 0.0 55.2 66 54.4 10 51.7 2.1 8 -5.3 North Cove 14 20 30 54.5 10 51.7 2.1 8 -5.1 North Cove 15 31 </td <td>North Cove 8</td> <td>N</td> <td>~</td> <td>-</td> <td>0.0</td> <td>60.2</td> <td>9</td> <td>9 90</td> <td>1.2</td> <td> </td> <td>55.0</td> <td>5.2</td> <td>2</td> <td>8</td> | North Cove 8 | N | ~ | - | 0.0 | 60.2 | 9 | 9 90 | 1.2 | | 55.0 | 5.2 | 2 | 8 |
| North Cove 10 25 1 0.0 57.5 66 57.5 10 53.0 4.5 8 -3.5 North Cove 11 26 1 0.0 56.7 66 56.7 10 53.0 4.5 8 -3.6 North Cove 11 26 1 0.0 56.7 66 56.2 10 51.6 4.6 8 -3.6 North Cove 12 27 1 0.0 55.2 66 56.2 10 51.6 4.6 8 -3.4 North Cove 13 28 1 0.0 55.2 66 55.2 10 51.7 2.7 8 -3.4 North Cove 14 29 1 0.0 54.4 66 54.4 10 51.7 2.7 8 -5.3 North Cove 14 30 1 0.0 54.5 66 54.5 10 51.7 2.7 | North Cove 9 | 2 | _ | - | 0.0 | 58.9 | ø | 6 58 | 1.9 | | 53.6 | 9 5.(| 0 | 8 |
| North Cove 11 26 1 0.0 56.7 66 56.7 10 $$ 52.3 4.4 8 -3.6 North Cove 12 27 1 0.0 56.2 66 56.2 10 $$ 51.6 4.6 8 -3.4 North Cove 13 28 1 0.0 55.2 66 55.2 10 $$ 51.6 4.6 8 -3.4 North Cove 13 28 1 0.0 55.2 66 55.2 10 $$ 51.7 4.1 8 -5.3 North Cove 14 29 1 0.0 54.4 66 54.7 10 $$ 51.7 2 8 -5.3 North Cove 15 31 1 0.0 54.5 66 54.5 10 $$ 51.7 2 8 -5.0 North Cove 15 31 1 0.0 54.5 | North Cove 10 | 52 | 10 | - | 0.0 | 57.5 | 9 | 6 57 | .5 | 1 | 53.0 | 4.4 | 10 | 8 6 |
| North Cove 12 27 1 0.0 56.2 66 56.2 10 51.6 4.6 8 -3.4 North Cove 13 28 1 0.0 55.2 66 55.2 10 51.1 4.1 8 -3.9 North Cove 13 29 1 0.0 54.4 66 54.4 10 51.7 2.7 8 -5.3 North Cove 15 30 1 0.0 54.7 66 54.7 10 51.7 2.7 8 -5.0 North Cove 15 31 1 0.0 54.5 66 54.5 10 51.7 3.0 8 -5.0 North Cove 16 31 1 0.0 54.5 66 54.5 10 51.7 3.0 8 -5.0 North Cove 16 31 1 0.0 54.5 66 54.5 10 51.7 2.8 | North Cove 11 | 5(| (0 | ~ | 0.0 | 56.7 | 9 | 6 56 | 1.7 1 | | 52.3 | 3 4.4 | 4 | 8 9 |
| North Cove 13 28 1 0.0 55.2 66 55.2 10 51.1 4.1 8 -3.9 North Cove 14 29 1 0.0 54.4 66 54.4 10 51.7 2.7 8 -5.3 North Cove 15 30 1 0.0 54.4 66 54.7 10 51.7 2.7 8 -5.0 North Cove 15 31 1 0.0 54.5 66 54.5 10 51.7 3.0 8 -5.0 North Cove 16 31 1 0.0 54.5 66 54.5 10 51.7 2.8 8 -5.0 North Cove 16 32 1 0.0 57.3 66 57.3 10 51.7 2.8 8 -5.2 North Cove 17 32 1 0.0 57.3 10 53.0 4.3 8 -5.1 | North Cove 12 | 21 | | - | 0.0 | 56.2 | 9 | 6 56 | 1.2 | | 51.6 | 3 4.6 | 6 | 8 6 |
| North Cove 14 29 1 0.0 54.4 10 51.7 2.7 8 -5.3 North Cove 15 30 1 0.0 54.7 66 54.4 10 51.7 2.7 8 -5.0 North Cove 15 30 1 0.0 54.7 66 54.5 10 51.7 3.0 8 -5.0 North Cove 16 31 1 0.0 54.5 66 54.5 10 51.7 2.8 8 -5.2 North Cove 16 32 1 0.0 57.3 66 57.3 10 53.0 4.3 8 -5.2 North Cove 17 32 1 0.0 57.3 66 57.3 10 53.0 4.3 8 -5.2 | North Cove 13 | 5 | ~ | 1 | 0.0 | 55.2 | 9 | 6 55 | 1 | | 51.1 | 4. | | 8 |
| North Cove 15 30 1 0.0 54.7 66 54.7 10 51.7 3.0 8 -5.0 North Cove 16 31 1 0.0 54.5 66 54.5 10 51.7 3.0 8 -5.0 North Cove 16 31 1 0.0 54.5 66 54.5 10 51.7 2.8 8 -5.2 North Cove 16 32 1 0.0 57.3 66 57.3 10 53.0 4.3 8 -5.2 North Cove 17 32 1 0.0 57.3 66 57.3 10 53.0 4.3 8 -3.7 | North Cove 14 | ÿ | • | - | 0.0 | 54.4 | 9 | 6 54 | 1 | | 51.7 | 2.2 | 7 | 8 |
| North Cove 16 31 1 0.0 54.5 66 54.5 10 51.7 2.8 8 -5.2 North Cove 17 32 1 0.0 57.3 66 57.3 10 53.0 4.3 8 -5.2 | North Cove 15 | ĕ | 0 | 1 | 0.0 | 54.7 | 9 | 6 54 | .7 1 | | 51.7 | 3.(| 0 | 8 |
| North Cove 17 32 1 0.0 57.3 66 57.3 10 53.0 4.3 8 -3.7 | North Cove 16 | ŝ | | - | 0.0 | 54.5 | 9 | 6 54 | .5 | | 51.7 | 2.8 | 8 | 8 |
| | North Cove 17 | 3 | 0 | - | 0.0 | 57.3 | 9 | 6 57 | 1 | | 53.0 | 9.4 | e | α |

| RESULTS: SOUND LEVELS | | | | | | F4 E | StU PD& | щ | | | | |
|-----------------------------------|----|---|-----|-------|----|------|---------|---------|------|-----------|----|------|
| North Cove 18 | 33 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | I | 52.5 | 3.8 | œ | -4.2 |
| North Cove 19 | 59 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | I | 52.0 | 3.6 | 80 | 4.4 |
| North Cove 20 | 35 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | 21 | 51.8 | 3.4 | 80 | -4.6 |
| North Cove 21 | 36 | - | 0.0 | 55.0 | 66 | 55.0 | 10 | 1 | 51.3 | 3.7 | œ | -4.3 |
| North Cove 22 | 37 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | T | 51.7 | 3.0 | 80 | -5.0 |
| North Cove 23 | 38 | - | 0.0 | 54.1 | 66 | 54.1 | 10 | | 51.6 | 2.5 | 80 | -5.5 |
| North Cove 24 | 43 | - | 0.0 | 57.5 | 66 | 57.5 | 10 | 1 | 53.3 | 4.2 | 80 | -3.8 |
| North Cove 25 | 44 | - | 0.0 | 56.9 | 66 | 56.9 | 10 | 1 | 53.2 | 3.7 | 80 | -4.3 |
| North Cove 26 | 45 | - | 0.0 | 56.5 | 66 | 56.5 | 10 | 1 | 53.1 | 3.4 | œ | -4.6 |
| North Cove 27 | 46 | - | 0.0 | 55.9 | 66 | 55.9 | 10 | 1 | 52.8 | 3.1 | 80 | -4.9 |
| North Cove 28 | 47 | - | 0.0 | 55.8 | 66 | 55.8 | 10 | | 52.6 | 3.2 | 80 | -4.8 |
| North Cove 29 | 48 | + | 0.0 | 55.4 | 66 | 55.4 | 10 | 1 | 52.5 | 2.9 | 80 | -5.1 |
| North Cove 30 | 49 | - | 0.0 | 55.3 | 66 | 55.3 | 10 | | 52.3 | 3.0 | 80 | -5.0 |
| North Cove 31 | 50 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | | 52.1 | 2.7 | 80 | -5.3 |
| North Cove 32 | 51 | ~ | 0.0 | 56.3 | 66 | 56.3 | 10 | 1 | 52.7 | 3.6 | 00 | -4.4 |
| North Cove 33 | 52 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | 1 | 52.7 | 3.7 | 80 | -4.3 |
| North Cove 34 | 53 | ~ | 0.0 | 56.1 | 66 | 56.1 | 10 | 1 | 52.3 | 3.8 | 80 | -4.2 |
| North Cove 35 | 54 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | 1 | 51.8 | 3.1 | 80 | -4.9 |
| North Cove 36 | 55 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 52.0 | 2.7 | 80 | -5.3 |
| North Cove 37 | 56 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | 1 | 51.9 | 3.2 | 8 | -4.8 |
| North Cove 38 | 57 | - | 0.0 | 54.4 | 66 | 54.4 | 10 | l | 51.9 | 2.5 | 80 | -5.5 |
| North Cove 39 | 58 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | Î | 52.2 | 2.9 | 80 | -5.1 |
| North Cove 62 | 82 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | Ī | 52.7 | 1.8 | 80 | -6.2 |
| North Cove 63 | 83 | ÷ | 0.0 | 54.5 | 99 | 54.5 | 10 | Ì | 53.0 | 1.5 | 80 | -6.5 |
| North Cove 64 | 84 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | | 52.8 | 1.4 | œ | -6.6 |
| North Cove 65 | 85 | - | 0.0 | 53.9 | 66 | 53.9 | 10 | 1.500 B | 52.5 | 1.4 | œ | -6.6 |
| Northridge 12 | 60 | - | 0.0 | 76.6 | 66 | 76.6 | 10. | Snd Lvl | 65.5 | 11.1 | 80 | 3.1 |
| Northridge 11 | 61 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | | 58.2 | 6.7 | 80 | -1.3 |
| Northridge 10 | 62 | - | 0.0 | 65.0 | 66 | 65.0 | 10 | | 58.4 | 6.6 | 80 | -1.4 |
| Northridge 9 | 63 | - | 0.0 | 65.9 | 66 | 62.9 | 10 | Ĩ | 59.3 | 6.6 | ω | -1.4 |
| Northridge 8 | 64 | - | 0.0 | 68.0 | 66 | 68.0 | 10 | Snd Lvl | 60.7 | 7.3 | 8 | -0.7 |
| Northridge 7 | 65 | F | 0.0 | 66.69 | 66 | 69.9 | 10 | Snd Lvl | 62.1 | 7.8 | 80 | -0.2 |
| Northridge 6 | 99 | - | 0.0 | 67.6 | 66 | 67.6 | 10 | Snd Lvl | 60.9 | 6.7 | 8 | -1.3 |
| Northridge 5 | 67 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | I | 59.8 | 5.5 | ω | -2.5 |
| Northridge 3 | 68 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | Ĩ | 57.1 | 4.9 | œ | -3.1 |
| Northridge 2 | 69 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | Ĩ | 56.0 | 3.9 | œ | -4.1 |
| Northridge 1 | 70 | F | 0.0 | 59.3 | 66 | 59.3 | 10 | Ī | 56.0 | 3.3 | 8 | -4.7 |
| Bay Polint 12 | 71 | - | 0.0 | 56.9 | 66 | 56.9 | 10 | - | 55.2 | 1.7 | ω | -6.3 |
| Bay Point 11 | 72 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | Ì | 54.7 | 1.7 | Ø | -6.3 |
| Bay Point 10 | 73 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | I | 54.2 | 1.8 | 8 | -6.2 |
| Bay Point 9 | 74 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 53.7 | 1.9 | 8 | -6.1 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | NC | | | | | | | | | 7 May 201 | 5 | |
| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | щ | | | | |
|-----------------------------------|-----|---|-----|------|----|------|---------|-----------------|------|-----------|----|------|
| bay Point 8 | 75 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | 1 | 53.3 | 1.9 | 80 | -6.1 |
| Bay Point 7 | 92 | 1 | 0.0 | 54.8 | 66 | 54.8 | 10 | 1 | 52.8 | 2.0 | 8 | -6.0 |
| Bay Point 6 | 27 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | - | 52.4 | 1.8 | 80 | -6.2 |
| Bay Point 5 | 78 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 53.3 | 1.4 | œ | -6.6 |
| Bay Point 4 | -10 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | 1 | 53.2 | 1.3 | 80 | -6.7 |
| Bay Point 3 | 80 | - | 0.0 | 54.1 | 66 | 54.1 | 10 | - | 53.0 | 1.1 | 8 | -6.9 |
| Bay Point 2 | 81 | - | 0.0 | 53.7 | 66 | 53.7 | 10 | | 52.6 | 1.1 | 80 | -6.9 |
| Bay Point 1 | 86 | - | 0.0 | 53.5 | 66 | 53.5 | 10 | 1 | 52.4 | 1.1 | œ | -6.9 |
| Tennis Ct. | 87 | - | 0.0 | 74.5 | 66 | 74.5 | 10 | Snd Lv1 | 62.8 | 11.7 | 80 | 3.7 |
| Northridge 13 | 91 | - | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 63.3 | 6.0 | 8 | -2.0 |
| Northridge 14 | 92 | 1 | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 61.8 | 4.3 | 8 | -3.7 |
| Northridge 15 | 93 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 60.9 | 2.7 | 8 | -5.3 |
| Northridge 4 | 94 | 1 | 0.0 | 60.9 | 66 | 60.9 | 10 | E. | 57.9 | 3.0 | 8 | -5.0 |
| North Cove 77 | 9 | 1 | 0.0 | 64.9 | 66 | 64.9 | 10 | | 61.6 | 3.3 | 80 | -4.7 |
| North Cove 76 | 2 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 59.7 | 3.9 | 8 | -4.1 |
| North Cove 75 | ω | - | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 58.6 | 4.5 | 8 | -3.5 |
| North Cove 74 | 6 | 1 | 0.0 | 62.2 | 66 | 62.2 | 10 | 1 | 57.8 | 4.4 | 8 | -3.6 |
| North Cove 73 | 10 | 1 | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 58.4 | 3.6 | 8 | -4.4 |
| North Cove 72 | 1 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | N THE R | 57.3 | 3.3 | 80 | -4.7 |
| North Cove 69 | 12 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | Ì | 55.5 | 3.2 | 8 | -4.8 |
| North Cove 70 | 13 | 1 | 0.0 | 59.4 | 66 | 59.4 | 10 | | 55.8 | 3.6 | 80 | 4.4 |
| North Cove 71 | 4 | - | 0.0 | 60.0 | 99 | 60.0 | 10 | Ĭ | 55.8 | 4.2 | æ | -3.8 |
| North Cove 65 | 15 | 1 | 0.0 | 58.8 | 99 | 58.8 | 10 | / **** | 54.7 | 4.1 | 80 | -3.9 |
| North Cove 66 | 16 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | - | 54.4 | 3.8 | æ | -4.2 |
| North Cove 67 | 17 | - | 0.0 | 57.8 | 66 | 57.8 | 10 | (1997) | 54.4 | 3.4 | œ | -4.6 |
| North Cove 68 | 18 | + | 0.0 | 57.3 | 99 | 57.3 | 10 | | 53.8 | 3.5 | 8 | -4.5 |
| Bolling 1 | 95 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | | 55.1 | 0.5 | 80 | -7.5 |
| Bolling 2 | 96 | 1 | 0.0 | 59.3 | 99 | 59.3 | 10 | | 58.6 | 0.7 | 80 | -7.3 |
| Bolling 3 | 67 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | Ĩ | 59.3 | 0.5 | œ | -7.5 |
| Bolling 4 | 86 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | Î | 59.8 | 0.4 | œ | -7.6 |
| Bolling 5 | 66 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | - | 60.3 | 0.3 | œ | -7.7 |
| Bolling 6 | 100 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | Ì | 60.7 | 0.3 | ø | -7.7 |
| Bolling 7 | 101 | + | 0.0 | 61.2 | 66 | 61.2 | 10 | Ì | 61.0 | 0.2 | 80 | -7.8 |
| Bolling 8 | 102 | 1 | 0.0 | 61.9 | 66 | 61.9 | 10 | | 61.7 | 0.2 | 8 | -7.8 |
| Bolling 9 | 103 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | Î | 61.0 | 0.1 | 80 | -7.9 |
| Bolling 10 | 104 | 1 | 0.0 | 59.9 | 66 | 59.9 | 10 | - | 59.7 | 0.2 | æ | -7.8 |
| Bolling 11 | 105 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | | 60.5 | 0.1 | 80 | -7.9 |
| Bolling 12 | 106 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | 1 | 61.8 | 0.1 | œ | -7.9 |
| Bolling 13 | 107 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | ł | 62.9 | 0.1 | 80 | -7.9 |
| Bolling 14 | 108 | - | 0.0 | 63.3 | 66 | 63.3 | 10 | Î | 63.2 | 0.1 | œ | -7.9 |
| Bolling 15 | 109 | - | 0.0 | 63.9 | 66 | 63.9 | 10 | 1 | 63.8 | 0.1 | œ | -7.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | NC | | | | | 3 | | | | 7 May 201 | 5 | |

| RESULTS: SOUND LEVELS | | | | | | | -4 6 | StU PD&I | ш | | | | |
|-----------------------|-----|-------|-----------|---------|------|----|------|----------|---|------|-----|----|------|
| Bolling 16 | 110 | - | 0.0 | 64. | 4 | 66 | 64.4 | 10 | 1 | 64.3 | 0.1 | 80 | -7.9 |
| Bolling 17 | 111 | - | 0.0 | 61. | 2 | 66 | 61.2 | 10 | ł | 61.1 | 0.1 | œ | -7.9 |
| Dwelling Units | | # DUs | Noise Rec | luction | | | | | | | | | |
| | | | Min | Avg | Max | | | | | | | | |
| | | | dB | ąp | 뗭 | | | | | | | | |
| All Selected | | 107 | 0.1 | 3. | 3 11 | 2. | | | | | | | |
| All Impacted | | 12 | 4.3 | .7 | 11 | 2. | | | | | | | |
| All that meet NR Goal | | 2 | 11.1 | 11. | 11 | .7 | | | | | | | |

| Stantec M. Drauer M. Drauer M. Drauer M. Drauer RESULTS: BARIER DESCRIPTIONS PROJECT/CONTRACT: PROJECT/CONTRACT: PROJECT/CONTRACT: 1-4 B4U PD&E I-4 | RESULTS: BARRIER DESCRIPTIONS | | | | | - | -4 BtU PD8 | щ | | | |
|---|--------------------------------------|---------|------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: 1-4 BtU PD&E RUN: 1-4 Segment 3 North Cove BARRIER DESIGN: GM 20 Barriers Name Name Name Name Name Name Name Name | Stantec M. Drauer | | | | 7 May 201 TNM 2.5 | 5 | | | | | |
| RUN: BARRIER DESIGN: Barriers Name Name Name Name Name Name Name Name | RESULTS: BARRIER DESCRIPTIONS | 1-4 R+I | I PD&F | | | | | | | | |
| BARRIER DESIGN: GM 20 Barriers Name Type Heights along Barrier Length If Wall If Berm Min Avg Max Area Volume Top Width | RUN: | 1-4 Se | gment 3 No | orth Cove | | | | | | | |
| Barriers Name Type Heights along Barrier Min Avg Max Area Volume Volume Width | BARRIER DESIGN: | GM 2(| | | | | | | | | |
| Name Type Heights along Barrier Length If Wall If Berm Min Avg Max Area Volume Top | Barriers | | | | | | | | | | |
| Min Avg Max Area Volume Top Width | Name | Type | Heights al | ong Barrie | Ĩ | Length | If Wall | If Berm | | | Cost |
| | | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| ft ft ft ft sqft cuyd ft | | | ft | ft | ft | Ĥ | sq ft | cu yd | ft | ft:ft | Ф |
| NC GM 1 VV 20.00 20.00 1603 32051 | NC GM 1 | 3 | 20.00 | 20.00 | 20.00 | 1603 | 32051 | | | | 961533 |
| NC GM 2 20.00 20.00 20.00 1767 35337 | NC GM 2 | 3 | 20.00 | 20.00 | 20.00 | 1767 | 35337 | | | | 1060104 |
| | | | | | | | | | | Total Cost: | 2021637 |

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | | ſ |
|---|--------------|-----------------------|-------------------|-----------|---------|------|--------------|----------------------------------|--------------------|------------------------|----------------|-----------|-----------------------------|-----|
| Stantec M. Drauer | | | | | | | | 7 May 20 ⁴ TNM 2.5 | 15 4 | u c | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | 4 <u>4</u> 8 | BtU Segr A 20 | PD&E nent 3 No | orth Cove | | | | Calculate | Average State h | 1 2.3 Davement type | e shall be use | ed unless | | |
| ATMOSPHERICS: | 68 | s deg | F, 50% R | Ŧ | | | | | of a diffe | ent type with | approval of I | EHWA. | Ų | |
| Receiver Name | No. #D | Ns | Existing | No Bar | rier | | | | | With Barrier | | | | |
| | | | LAeq1h | LAeq1 | _ | | Increase ove | r existing | Type | Calculated | Noise Redu | ction | | |
| | | | - | Calcula | ated Cr | it'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal | - |
| | | | dBA | dBA | Ð | A8 | dB | đB | | dBA | dB | dB | đB | |
| Woodlands 1 | - | - | 0 | 0 | 64.7 | 66 | 64. | 7 1(| | 64.5 | 0.1 | 2 | 8 | 7.8 |
| Woodlands 2 | 39 | t | 0 | 0 | 61.5 | 99 | 61. | 5 1(| | 59.0 | 2.1 | 2 | م | 5.5 |
| Woodlands 3 | 40 | - | 0 | 0 | 60.1 | 99 | .09 | 10 | 1 | 57.6 | 2.1 | 0 | 8 | 5.5 |
| Woodlands 5 | 41 | - | 0 | 0 | 58.1 | 99 | 58. | 1 | | 55.8 | 2.5 | 3 | 9 8 | 5.7 |
| Woodlands 4 | 42 | - | 0 | 0 | 59.2 | 99 | 59. | 2 1(| 1 | 56.3 | 2.9 | 6 | ¥ ¥ | 5 |
| North Cove 1 | 2 | - | 0 | 0 | 70.2 | 99 | .07 | 2 10 |) Snd Lvl | 66.0 | 4. | 2 | ۹ ۵ | 3.8 |
| North Cove 2 | n | | 0 | 0 | 71.2 | 99 | 71. | 2 1(|) Snd Lvl | 64.0 | .7. | 2 | 9 | 9.8 |
| North Cove Park | 4 | - | 0 | 0 | 70.1 | 66 | 70. | 1 10 |) Snd Lvl | 62.7 | .7. | 4 | 9 | 0.6 |
| North Cove 3 | 5 | - | 0 | 0 | 69.2 | 99 | 69. | 2 1(| Snd Lvi | 61.7 | 1.7 | 2 | 9 | 0.5 |
| North Cove 4 | 19 | - | 0 | 0 | 66.1 | 66 | 66. | 1 | Snd Lvl | 59.7 | .9 | 4 | 8 | 1.6 |
| North Cove 5 | 20 | - | 0 | 0 | 64.4 | 99 | 64. | 4 1(| I | 58.5 | 5.5 | 6 | 00 | 5 |
| North Cove 6 | 21 | - | 0 | 0 | 62.8 | 99 | 62. | 8 | | 57.4 | т О. | 4 | 00 | 2.6 |
| North Cove 7 | 22 | ٢ | 0 | 0 | 61.1 | 99 | 61. | 1 | | 56.2 | 4.9 | 6 | 8 | 3.1 |
| North Cove 8 | 23 | - | 0 | 0 | 60.2 | 99 | .09 | 2 10 | 1 | 55.2 | 5.0 | 0 | ø | 3.0 |
| North Cove 9 | 24 | ٢ | 0 | 0 | 58.9 | 66 | 58. | 9 1(| | 54.1 | 4.4 | 80 | 8 | 3.2 |
| North Cove 10 | 25 | ٢ | 0 | 0 | 57.5 | 99 | 57. | 5 10 | | 53.2 | 4.5 | e | ې 8 | 3.7 |
| North Cove 11 | 26 | - | 0 | 0 | 56.7 | 66 | 56. | 7 1(| | 52.5 | .4 | N | φ ø | 3.8 |
| North Cove 12 | 27 | - | 0 | 0 | 56.2 | 99 | 56. | 2 1(| 1 | 51.8 | 4. | 4 | φ ∞ | 3.6 |
| North Cove 13 | 28 | - | 0 | 0 | 55.2 | 99 | 55. | 2 1(| | 51.3 | 3.9 | 6 | 8 | 4.1 |
| North Cove 14 | 29 | - | 0 | 0 | 54.4 | 66 | 54. | 4 1(| | 51.8 | 2.0 | 6 | 8 | 5.4 |
| North Cove 15 | 30 | - | 0 | 0 | 54.7 | 99 | 54. | .7 1(| | 51.8 | 2.5 | 0 | 8 | 5 |
| North Cove 16 | 31 | 1 | 0 | 0 | 54.5 | 66 | 54. | 5 1(| | 51.8 | 2. | 7 | 8 | 5.3 |
| North Cove 17 | 32 | ٢ | 0 | 0 | 57.3 | 66 | 57. | 3 1(| | 53.1 | 4. | 2 | 8 | 3.8 |
| C:\TNM25\230168\Seg 3\8 + 4\NS4 | A D NC | | | | | | ÷ | | | | 7 Ma | iy 2015 | | |
| | | | | | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | Ш | | | | |
|-----------------------------------|----|----|-----|------|-----|------|---------|---------|------|------------|----|------|
| North Cove 18 | 33 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | I | 52.6 | 3.7 | 80 | -4.3 |
| North Cove 19 | 59 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 52.1 | 3.5 | œ | -4.5 |
| North Cove 20 | 35 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | | 52.0 | 3.2 | 80 | -4.8 |
| North Cove 21 | 36 | ۲ | 0.0 | 55.0 | 66 | 55.0 | 10 | 1 | 51.4 | 3.6 | 80 | -4.4 |
| North Cove 22 | 37 | 1 | 0.0 | 54.7 | 66 | 54.7 | 10 | Ĩ | 51.8 | 2.9 | 8 | -5.1 |
| North Cove 23 | 38 | + | 0.0 | 54.1 | 66 | 54.1 | 10 | ľ | 51.7 | 2.4 | 80 | -5.6 |
| North Cove 24 | 43 | - | 0.0 | 57.5 | 66 | 57.5 | 10 | Ĩ | 53.5 | 4.0 | 8 | -4.0 |
| North Cove 25 | 44 | - | 0.0 | 56.9 | 66 | 56.9 | 10 | I | 53.3 | 3.6 | 80 | -4.4 |
| North Cove 26 | 45 | ۲ | 0.0 | 56.5 | 66 | 56.5 | 10 | 1 | 53.2 | 3.3 | 80 | -4.7 |
| North Cove 27 | 46 | ۲ | 0.0 | 55.9 | 66 | 55.9 | 10 | 1 | 52.9 | 3.0 | 80 | -5.0 |
| North Cove 28 | 47 | - | 0.0 | 55.8 | 99 | 55.8 | 10 | 1 | 52.7 | 3.1 | 80 | -4.9 |
| North Cove 29 | 48 | 1 | 0.0 | 55.4 | 66 | 55.4 | 10 | 1 | 52.6 | 2.8 | 80 | -5.2 |
| North Cove 30 | 49 | - | 0.0 | 55.3 | 66 | 55.3 | 10 | Ĩ | 52.4 | 2.9 | 80 | -5.1 |
| North Cove 31 | 50 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | I | 52.1 | 2.7 | 80 | -5.3 |
| North Cove 32 | 51 | t- | 0.0 | 56.3 | 66 | 56.3 | 10 | I | 52.8 | 3.5 | Ø | -4.5 |
| North Cove 33 | 52 | ٢ | 0.0 | 56.4 | 66 | 56.4 | 10 | 1 | 52.8 | 3.6 | œ | -4.4 |
| North Cove 34 | 53 | - | 0.0 | 56.1 | 66 | 56.1 | 10 | 1 | 52.4 | 3.7 | 80 | -4.3 |
| North Cove 35 | 54 | ۲ | 0.0 | 54.9 | 66 | 54.9 | 10 | 1 | 51.9 | 3.0 | 80 | -5.0 |
| North Cove 36 | 55 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 52.0 | 2.7 | 80 | -5.3 |
| North Cove 37 | 56 | - | 0.0 | 55.1 | 66 | 55.1 | 10. | | 52.0 | 3.1 | 80 | -4.9 |
| North Cove 38 | 57 | - | 0.0 | 54.4 | 66 | 54.4 | 10 | Î | 52.0 | 2.4 | 80 | -5.6 |
| North Cove 39 | 58 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | | 52.3 | 2.8 | 80 | -5.2 |
| North Cove 62 | 82 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | - | 52.8 | 1.7 | 80 | -6.3 |
| North Cove 63 | 83 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | I | 53.1 | 1.4 | 80 | -6.6 |
| North Cove 64 | 84 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | 1 | 52.9 | 1.3 | 80 | -6.7 |
| North Cove 65 | 85 | - | 0.0 | 53.9 | 66 | 53.9 | 10 |] | 52.6 | 1.3 | 80 | -6.7 |
| Northridge 12 | 60 | - | 0.0 | 76.6 | 66 | 76.6 | 10 | Snd Lvl | 66.7 | 9.9 | œ | 1.9 |
| Northridge 11 | 61 | - | 0.0 | 64.9 | 66: | 64.9 | 10 | I | 58.6 | 6.3 | 80 | -1.7 |
| Northridge 10 | 62 | - | 0.0 | 65.0 | 66 | 65.0 | 10 | 2000 | 58.8 | 6.2 | 80 | -1.8 |
| Northridge 9 | 63 | - | 0.0 | 65.9 | 66 | 65.9 | 10 | - | 59.6 | 6.3 | æ | -1.7 |
| Northridge 8 | 64 | 1 | 0.0 | 68.0 | 66 | 68.0 | 10 | Snd Lvl | 61.1 | 6.9 | 8 | -1.1 |
| Northridge 7 | 65 | - | 0.0 | 6.69 | 66 | 63.9 | 10 | Snd Lvl | 62.7 | 7.2 | 8 | -0.8 |
| Northridge 6 | 99 | - | 0.0 | 67.6 | 66 | 67.6 | 10 | Snd Lvl | 61.3 | 6.3 | 8 | -1.7 |
| Northridge 5 | 67 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | - | 60.1 | 5.2 | 80 | -2.8 |
| Northridge 3 | 68 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | I | 57.3 | 4.7 | 8 | -3.3 |
| Northridge 2 | 69 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | - | 56.2 | 3.7 | 8 | -4.3 |
| Northridge 1 | 70 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | | 56.1 | 3.2 | 8 | -4.8 |
| Bay Polint 12 | 71 | 1 | 0.0 | 56.9 | 66 | 56.9 | 10 | - | 55.3 | 1.6 | 80 | -6.4 |
| Bay Point 11 | 72 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | i. | 54.8 | 1.6 | 8 | -6.4 |
| Bay Point 10 | 73 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | - | 54.2 | 1.8 | œ | -6.2 |
| Bay Point 9 | 74 | 1 | 0.0 | 55.6 | 66 | 55.6 | 10 | 10000 | 53.7 | 1.9 | 80 | -6.1 |
| C:\TNM25\230168\Seq 3\8 + 4\NSA D | NC | | | | | 0 | | | | 7 May 2015 | | Ë. |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD& | ų | | | | |
|--------------------------------------|-----|--------|-----|------|-----|------|---------|---------|------|-----------|----|-----------|
| bay Point 8 | 75 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | 1 | 53.3 | 1.9 | 80 | -6.1 |
| Bay Point 7 | 76 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | | 52.9 | 1.9 | 00 | -6.1 |
| Bay Point 6 | 77 | 1 | 0.0 | 54.2 | 66 | 54.2 | 10 | 1 | 52.5 | 1.7 | œ | -6.3 |
| Bay Point 5 | 78 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 53.3 | 1.4 | 80 | 9.9- |
| Bay Point 4 | 62 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | 1 | 53.3 | 1.2 | 80 | -9.8 - |
| Bay Point 3 | 80 | | 0.0 | 54.1 | 66 | 54.1 | 10 | l | 53.1 | 1.0 | 80 | -7.0 |
| Bay Point 2 | 81 | 1 | 0.0 | 53.7 | 66 | 53.7 | 10 | 1 | 52.7 | 1.0 | 80 | -7.0 |
| Bay Point 1 | 86 | 1 | 0.0 | 53.5 | 66 | 53.5 | 10 | | 52.4 | 1.1 | œ | -6.9 |
| Tennis Ct. | 87 | 1 | 0.0 | 74.5 | 66 | 74.5 | 10 | Snd Lvl | 63.2 | 11.3 | 00 | 3.3 |
| Northridge 13 | 91 | 1 | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 63.6 | 5.7 | ω | -2.3 |
| Northridge 14 | 92 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.0 | 4.1 | æ | -3.9 |
| Northridge 15 | 93 | 1 | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 61.0 | 2.6 | 80 | -5.4 |
| Northridge 4 | 94 | 1 | 0.0 | 60.9 | 66 | 60.9 | 10 | Ĩ | 58.0 | 2.9 | 80 | -5.1 |
| North Cove 77 | 9 | 1 | 0.0 | 64.9 | 66 | 64.9 | 10 | ľ | 61.7 | 3.2 | 8 | -4.8 |
| North Cove 76 | 7 | 1 | 0.0 | 63.6 | 66 | 63.6 | 10 | Ĩ | 59.8 | 3.8 | 00 | -4.2 |
| North Cove 75 | 80 | 1 | 0.0 | 63.1 | 66 | 63.1 | 10 | I | 58.8 | 4.3 | 80 | -3.7 |
| North Cove 74 | 6 | 1 | 0.0 | 62.2 | 66 | 62.2 | 10 | 1 | 58.0 | 4.2 | œ | -3.8 |
| North Cove 73 | 10 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | | 58.5 | 3.5 | 80 | -4.5 |
| North Cove 72 | 11 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 57.4 | 3.2 | 80 | -4.8 |
| North Cove 69 | 12 | 1 | 0.0 | 58.7 | 66 | 58.7 | 10 | 1 | 55.6 | 3.1 | 8 | -4.9 |
| North Cove 70 | 13 | 1 | 0.0 | 59.4 | 66 | 59.4 | 10 | Ē | 55.9 | 3.5 | œ | -4.5 |
| North Cove 71 | 14 | 1 | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 55.9 | 4.1 | 80 | -3.9 |
| North Cove 65 | 15 | | 0.0 | 58.8 | 66 | 58.8 | 10 | 1 | 54.8 | 4.0 | 8 | -4.0 |
| North Cove 66 | 16 | 1 | 0.0 | 58.2 | 66 | 58.2 | 10 | I | 54.5 | 3.7 | ω | -4.3 |
| North Cove 67 | 17 | 1 | 0.0 | 57.8 | 66 | 57.8 | 10 | 1 | 54.5 | 3.3 | œ | -4.7 |
| North Cove 68 | 18 | 1 | 0.0 | 57.3 | 66 | 57.3 | 10 |) | 53.9 | 3.4 | œ | -4.6 |
| Bolling 1 | 95 | 1 | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 55.1 | 0.5 | æ | -7.5 |
| Bolling 2 | 96 | 1 | 0.0 | 59.3 | 99 | 59.3 | 10 | 1 | 58.6 | 0.7 | 8 | -7.3 |
| Bolling 3 | 97 | 1 | 0.0 | 59.8 | 66 | 59.8 | 10 | | 59.3 | 0.5 | 80 | -7.5 |
| Bolling 4 | 98 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | I | 59.8 | 0.4 | 80 | -7.6 |
| Bolling 5 | 66 | + | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 60.3 | 0.3 | 80 | -7.7- |
| Bolling 6 | 100 | 1 | 0.0 | 61.0 | 66 | 61.0 | 10 | - | 60.7 | 0.3 | ω | -7.7 |
| Bolling 7 | 101 | 1 | 0.0 | 61.2 | 66 | 61.2 | 10 | | 61.0 | 0.2 | ø | -7.8 |
| Bolling 8 | 102 | 1 | 0.0 | 61.9 | 66 | 61.9 | 10 | | 61.7 | 0.2 | 80 | -7.8 |
| Bolling 9 | 103 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | 1 | 61.0 | 0.1 | 80 | -7.9 |
| Bolling 10 | 104 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 59.7 | 0.2 | œ | -7.8 |
| Bolling 11 | 105 | - - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 60.5 | 0.1 | 80 | -7.9 |
| Bolling 12 | 106 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | Ì | 61.8 | 0.1 | 80 | -7.9 |
| Bolling 13 | 107 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | | 62.9 | 0.1 | ø | -7.9 |
| Bolling 14 | 108 | - | 0.0 | 63.3 | 66 | 63.3 | 10 | Í | 63.2 | 0.1 | 80 | -7.9 |
| Bolling 15 | 109 | 1 | 0.0 | 63.9 | 66 | 63.9 | 10 | Ĩ | 63.8 | 0.1 | 80 | -7.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D NC | | | | | (7) | | | | | 7 May 201 | 6 | |

7 May 2015

4

| RESULTS: BARRIER DESCRIPTIONS | | | | | _ | -4 BtU PD& | щ | | | |
|--------------------------------------|---------|------------|------------|---------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 7 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Btl | U PD&E | | | | | | | | |
| RUN: | I-4 Se | gment 3 No | orth Cove | | | | | | | |
| BARRIER DESIGN: | GM 18 | ~ | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights a | long Barri | er | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | Ĥ | ft | ŧ | Ħ | sq ft | cu yd | Ħ | ft:ft | ÷ |
| NC GM 1 | 3 | 18.00 | 18.0 | 0 18.0 | 0 1603 | 3 28846 | | | | 865380 |
| NC GM 2 | 3 | 18.00 | 18.0 | 0 18.0 | 0 1767 | 7 31803 | | | | 954093 |
| | | | | | | | | | Total Cost: | 1819473 |
| | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | |
|---|--------|-----------------------------|---------------------|-----------|--------|------|--------------|----------------------|--------------------------|--------------------------------|--------------------------------|--------------------|-----------------------------|
| Stantec M. Drauer | | | | | | | | 7 May 201 TNM 2.5 | 2 | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Sec GM 18 | l PD&E jment 3 N | orth Cove | | | | Calculate | d with TNN Average | A 2.5 pavement type | e shall be use | ed unless | _ |
| ATMOSPHERICS: | | 68 de | g F, 50% F | KH | | | | | a State hi of a diffe | ghway agency rent type with | y substantiat approval of I | es the us FHWA. | e |
| Receiver Name | QN | al la | Existing | No Bar | ier | | | | | With Barrier | | | |
| | | | L Aed 1h | L Aed 1 | i _ | | Increase ove | existing | Tvpe | Calculated | Noise Redu | ction | |
| | | | | Calcula | ted Cr | it'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | B | A | dB | Вb | | dBA | дB | ф | đB |
| Woodlands 1 | | | 0 | 0.0 | 64.7 | 66 | 64. | 7 10 | | 64.5 | 0.2 | 01 | 8 -7 |
| Woodlands 2 | 36 | | 5 | 0.0 | 61.5 | 66 | 61. | 5 1(| | 59.1 | 5.4 | - | 8 |
| Woodlands 3 | 40 | | 5 | 0.0 | 60.1 | 66 | .09 | 1 1(| 1 | 57.7 | 2.4 | 4 | 8 |
| Woodlands 5 | 41 | | - | 0.0 | 58.1 | 66 | 58 | 1 | 1 | 55.9 | 2.2 | 0 | 8 |
| Woodlands 4 | 42 | | - | 0.0 | 59.2 | 99 | 29 | 2 1(| | 56.4 | 1 2.8 | | -5 |
| North Cove 1 | N | | - | 0.0 | 70.2 | 99 | 20 | 2 1(|) Snd Lvl | 66.1 | 4 | - | 8 |
| North Cove 2 | e. | | - | 0.0 | 71.2 | 66 | 71. | 10 | Snd Lvl | 64.3 | 6.9 | 0 | 8 |
| North Cove Park | 4 | | - | 0.0 | 70.1 | 99 | 02 | 11 | Snd Lvl | 63.1 | 7.(| 0 | ∞ - |
| North Cove 3 | 6.7 | | - | 0.0 | 69.2 | 99 | 69 | 2 1(| Snd Lvl | 62.2 | 7.(| 0 | ∞ - |
| North Cove 4 | 19 | | - | 0.0 | 66.1 | 99 | 99 | 1 | Snd Lvl | 60.1 | 6.0 | 0 | 8 |
| North Cove 5 | 20 | | 1 | 0.0 | 64.4 | 66 | 64 | 4 1(| 1 | 58.9 | 9 5.1 | 9 | 8 |
| North Cove 6 | 21 | | 5 | 0.0 | 62.8 | 99 | 62 | .8 1(| | 57.7 | | _ | 8 |
| North Cove 7 | 22 | | 1 | 0.0 | 61.1 | 66 | 61 | 1 | | 56.4 | 4 | 2 | 8 5 |
| North Cove 8 | 23 | | 1 | 0.0 | 60.2 | 66 | 60 | 11 | 1 | 55.4 | 4.8 | | 8 |
| North Cove 9 | 24 | | - | 0.0 | 58.9 | 99 | 58 | 9 10 | | 54.4 | 4.4 | 2 | 8 |
| North Cove 10 | 25 | | 1 | 0.0 | 57.5 | 99 | 57 | .5 | | 53.4 | 4.4 | - | 8 8 |
| North Cove 11 | 26 | - | - | 0.0 | 56.7 | 99 | 56 | .7 1(| | 52.7 | 4.(| 0 | 8 |
| North Cove 12 | 27 | | - | 0.0 | 56.2 | 66 | 56 | 11 | | 52.0 | .4. | 2 | 8 |
| North Cove 13 | 28 | ~ | - | 0.0 | 55.2 | 66 | 55 | 11 | | 51.5 | 3. | 2 | 8 |
| North Cove 14 | 26 | • | - | 0.0 | 54.4 | 66 | 54 | .4 | 1 | 51.9 | 9 2.4 | 10 | 9 9 |
| North Cove 15 | ы В | 0 | - | 0.0 | 54.7 | 66 | 54 | .7 1(| 1 | 51.9 | 9 2.4 | 8 | 8 |
| North Cove 16 | 31 | | 1 | 0.0 | 54.5 | 66 | 54 | .5 | 1 | 51.9 | 2.(| 0 | -5 -5 |
| North Cove 17 | 32 | 01 | 1 | 0.0 | 57.3 | 99 | 57 | .3 | | 53.3 | 4.(| 0 | 80 4 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D NC | | | | | | F | | | | 7 Ma | ıy 2015 | |

| RESULTS: SOUND LEVELS | | | | | | 14 | BtU PD8 | ЯE | | | | |
|-------------------------------------|----|--------------|-----|------|-----|------|---------|---------|------|-----------|----|------|
| North Cove 18 | 33 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | ł | 52.8 | 3.5 | 80 | -4.5 |
| North Cove 19 | 59 | . | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 52.3 | 3.3 | 80 | -4.7 |
| North Cove 20 | 35 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | 1 | 52.1 | 3.1 | 80 | -4.9 |
| North Cove 21 | 36 | - | 0.0 | 55.0 | 66 | 55.0 | 10 | 1 | 51.6 | 3.4 | 00 | -4.6 |
| North Cove 22 | 37 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | I | 52.0 | 2.7 | 80 | -5.3 |
| North Cove 23 | 38 | ٣ | 0.0 | 54.1 | 66 | 54.1 | 10 | l | 51.8 | 2.3 | 80 | -5.7 |
| North Cove 24 | 43 | - | 0.0 | 57.5 | 66 | 57.5 | 10 | ł | 53.6 | 3.9 | 8 | -4.1 |
| North Cove 25 | 44 | - | 0.0 | 56.9 | -66 | 56.9 | 10 | 1 | 53.5 | 3.4 | 8 | -4.6 |
| North Cove 26 | 45 | - | 0.0 | 56.5 | 66 | 56.5 | 10 | 1 | 53.3 | 3.2 | 80 | -4.8 |
| North Cove 27 | 46 | - | 0.0 | 55.9 | 66 | 55.9 | 10 | ł | 53.0 | 2.9 | 80 | -5.1 |
| North Cove 28 | 47 | - | 0.0 | 55.8 | 99 | 55.8 | 10 | | 52.8 | 3.0 | 80 | -5.0 |
| North Cove 29 | 48 | - | 0.0 | 55.4 | 66 | 55.4 | 10 | ł | 52.7 | 2.7 | 80 | -5.3 |
| North Cove 30 | 49 | - | 0.0 | 55.3 | 66 | 55.3 | 10 | I | 52.5 | 2.8 | 80 | -5.2 |
| North Cove 31 | 50 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | ŀ | 52.2 | 2.6 | 80 | -5.4 |
| North Cove 32 | 51 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | ł | 53.0 | 3.3 | 80 | -4.7 |
| North Cove 33 | 52 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | ł | 53.0 | 3.4 | 80 | -4.6 |
| North Cove 34 | 53 | - | 0.0 | 56.1 | 66 | 56.1 | 10 | 1 | 52.5 | 3.6 | 80 | -4.4 |
| North Cove 35 | 54 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | 1 | 52.1 | 2.8 | œ | -5.2 |
| North Cove 36 | 55 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | | 52.1 | 2.6 | 80 | -5.4 |
| North Cove 37 | 56 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | 1 | 52.1 | 3.0 | 80 | -5.0 |
| North Cove 38 | 57 | ~ | 0.0 | 54.4 | 66 | 54.4 | 10 | l | 52.1 | 2.3 | 80 | -5.7 |
| North Cove 39 | 58 | ÷ | 0.0 | 55.1 | 66 | 55.1 | 10 | I | 52.4 | 2.7 | 80 | -5.3 |
| North Cove 62 | 82 | ٣ | 0.0 | 54.5 | 66 | 54.5 | 10 | ł | 52.9 | 1.6 | 80 | -6.4 |
| North Cove 63 | 83 | ÷ | 0.0 | 54.5 | 99 | 54.5 | 10 | 1 | 53.1 | 1.4 | œ | -6.6 |
| North Cove 64 | 84 | Ŧ | 0.0 | 54.2 | 66 | 54.2 | 10 | 1 | 52.9 | 1.3 | œ | -6.7 |
| North Cove 65 | 85 | τ. | 0.0 | 53.9 | 66 | 53.9 | 10 | 1 | 52.6 | 1.3 | 8 | -6.7 |
| Northridge 12 | 60 | ۰. | 0.0 | 76.6 | 66 | 76.6 | 10 | Snd Lvl | 68.2 | 8.4 | 80 | 0.4 |
| Northridge 11 | 61 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | 1 | 59.1 | 5.8 | 80 | -2.2 |
| Northridge 10 | 62 | | 0.0 | 65.0 | 66 | 65.0 | 10 | L | 59.2 | 5.8 | 80 | -2.2 |
| Northridge 9 | 63 | ~ | 0.0 | 62.9 | 66 | 65.9 | 10 | ł | 60.0 | 5.9 | 80 | -2.1 |
| Northridge 8 | 64 | ÷ | 0.0 | 68.0 | 66 | 68.0 | 10 | Snd Lvl | 61.6 | 6.4 | 80 | -1.6 |
| Northridge 7 | 65 | T | 0.0 | 69.9 | 66 | 69.9 | 10 | Snd Lvl | 63.2 | 6.7 | 80 | -1.3 |
| Northridge 6 | 99 | - | 0.0 | 67.6 | 66 | 67.6 | 10 | Snd Lvl | 61.7 | 5.9 | 80 | -2.1 |
| Northridge 5 | 67 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | 1 | 60.4 | 4.9 | 80 | -3.1 |
| Northridge 3 | 68 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 57.6 | 4.4 | 80 | -3.6 |
| Northridge 2 | 69 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 56.4 | 3.5 | 80 | -4.5 |
| Northridge 1 | 70 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | | 56.2 | 3.1 | 80 | -4.9 |
| Bay Poiint 12 | 71 | - | 0.0 | 56.9 | 66 | 56.9 | 10 | E | 55.4 | 1.5 | 80 | -6.5 |
| Bay Point 11 | 72 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | H. | 54.8 | 1.6 | œ | -6.4 |
| Bay Point 10 | 73 | | 0.0 | 56.0 | 66 | 56.0 | 10 | ***** | 54.3 | 1.7 | ω | -6.3 |
| Bay Point 9 | 74 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | | 53.8 | 1.8 | 80 | -6.2 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D h | NC | | | | | 5 | | | | 7 May 201 | 2 | |

| RESULTS: SOUND LEVELS | | | | | | 1-41 | BtU PD8 | ЯĒ | | | | |
|-----------------------------------|-----|----|-----|------|----|------|---------|----------|------|-----------|----|------|
| bay Point 8 | 75 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | 1 | 53.4 | 1.8 | 8 | -6.2 |
| Bay Point 7 | 76 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | 1 | 53.0 | 1.8 | ω | -6.2 |
| Bay Point 6 | 77 | ۲ | 0.0 | 54.2 | 66 | 54.2 | 10 | i. | 52.5 | 1.7 | ω | -6.3 |
| Bay Point 5 | 78 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | | 53.4 | 1.3 | 8 | -6.7 |
| Bay Point 4 | 62 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | 1 | 53.3 | 1.2 | 8 | -6.8 |
| Bay Point 3 | 80 | - | 0.0 | 54.1 | 66 | 54.1 | 10 | l | 53.1 | 1.0 | 8 | -7.0 |
| Bay Point 2 | 81 | - | 0.0 | 53.7 | 66 | 53.7 | 10 | ľ | 52.7 | 1.0 | 8 | -7.0 |
| Bay Point 1 | 86 | - | 0.0 | 53.5 | 66 | 53.5 | 10 | ł | 52.5 | 1.0 | œ | -7.0 |
| Tennis Ct. | 87 | - | 0.0 | 74.5 | 66 | 74.5 | 10 | Snd Lvl | 63.7 | 10.8 | 8 | 2.8 |
| Northridge 13 | 91 | - | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 63.8 | 5.5 | œ | -2.5 |
| Northridge 14 | 92 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.2 | 3.9 | 80 | -4.1 |
| Northridge 15 | 93 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 61.1 | 2.5 | 8 | -5.5 |
| Northridge 4 | 94 | ٢ | 0.0 | 60.9 | 66 | 60.9 | 10 | Ţ | 58.2 | 2.7 | 8 | -5.3 |
| North Cove 77 | 9 | ۴- | 0.0 | 64.9 | 66 | 64.9 | 10 | 5-111-S7 | 61.8 | 3.1 | œ | 4.9 |
| North Cove 76 | 7 | 4 | 0.0 | 63.6 | 66 | 63.6 | 10 | Ĩ | 60.0 | 3.6 | æ | -4.4 |
| North Cove 75 | ω | - | 0.0 | 63.1 | 66 | 63.1 | 10 | I | 59.1 | 4.0 | œ | -4.0 |
| North Cove 74 | 6 | ٢ | 0.0 | 62.2 | 66 | 62.2 | 10 | 1 | 58.2 | 4.0 | ω | -4.0 |
| North Cove 73 | 10 | ۲ | 0.0 | 62.0 | 66 | 62.0 | 10 | | 58.6 | 3.4 | ω | -4.6 |
| North Cove 72 | 11 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 57.5 | 3.1 | 80 | -4.9 |
| North Cove 69 | 12 | - | 0.0 | 58.7 | 99 | 58.7 | 10 | I | 55.7 | 3.0 | 80 | -5.0 |
| North Cove 70 | 13 | - | 0.0 | 59.4 | 66 | 59.4 | 10 | | 56.1 | 3.3 | 8 | -4.7 |
| North Cove 71 | 14 | 4 | 0.0 | 60.0 | 66 | 60.0 | 10 | I | 56.1 | 3.9 | 8 | -4.1 |
| North Cove 65 | 15 | - | 0.0 | 58.8 | 99 | 58.8 | 10 | Ĩ | 55.0 | 3.8 | ω | -4.2 |
| North Cove 66 | 16 | - | 0.0 | 58.2 | 99 | 58.2 | 10 | | 54.6 | 3.6 | 80 | -4.4 |
| North Cove 67 | 17 | - | 0.0 | 57.8 | 66 | 57.8 | 10 | | 54.6 | 3.2 | ö | -4.8 |
| North Cove 68 | 18 | - | 0.0 | 57.3 | 66 | 57.3 | 10 | 1 | 54.0 | 3.3 | 80 | -4.7 |
| Bolling 1 | 95 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 55.2 | 0.4 | ω | -7.6 |
| Bolling 2 | 96 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 58.6 | 0.7 | œ | -7.3 |
| Bolling 3 | 97 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | 1000 | 59.3 | 0.5 | 80 | -7.5 |
| Bolling 4 | 98 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | I | 59.8 | 0.4 | ω | -7.6 |
| Bolling 5 | 66 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | Ĩ | 60.3 | 0.3 | æ | -7.7 |
| Bolling 6 | 100 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | I | 60.7 | 0.3 | 80 | -7.7 |
| Bolling 7 | 101 | - | 0.0 | 61.2 | 66 | 61.2 | 10 | 1 | 61.0 | 0.2 | 8 | -7.8 |
| Bolling 8 | 102 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | I | 61.7 | 0.2 | 80 | -7.8 |
| Bolling 9 | 103 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | 1 | 61.0 | 0.1 | 80 | -7.9 |
| Bolling 10 | 104 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 59.7 | 0.2 | 80 | -7.8 |
| Bolling 11 | 105 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | I | 60.5 | 0.1 | 80 | -7.9 |
| Bolling 12 | 106 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | ŀ | 61.8 | 0.1 | 80 | -7.9 |
| Bolling 13 | 107 | Ţ | 0.0 | 63.0 | 66 | 63.0 | 10 | I | 62.9 | 0.1 | œ | -7.9 |
| Bolling 14 | 108 | - | 0.0 | 63.3 | 66 | 63.3 | 10 | Î | 63.2 | 0.1 | 00 | -7.9 |
| Bolling 15 | 109 | - | 0.0 | 63.9 | 66 | 63.9 | 10 | 1 | 63.8 | 0.1 | 80 | -7.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | NC | | | | | ~ | | | | 7 May 201 | 10 | |

| SNC |
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| IPTIC |
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| R DE |
| RRIE |
| BA |
| JLTS |
| RESI |

I-4 BtU PD&E

| Stantec M. Drauer | | | | 26 May 20 TNM 2.5 | 15 | | | | | |
|---|--------------------------|--------------------------------|-------------|----------------------|--------|---------|---------|--------------|-------------|---------|
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | I-4 Bt I-4 Se GM 2 | U PD&E igment 3 Nc 2 gap | orth Cove | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | long Barrie | er | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | Ħ | ft | ft | sq ft | cu yd | Ŧ | ft:ft | Ş |
| NC GM 1 | 3 | 22.00 | 22.00 | 0 22.00 | .96 | 21153 | | | | 634591 |
| NC GM 2 | 3 | 22.00 | 22.00 | 0 22.00 | 1552 | 2 34137 | | | | 1024106 |
| | | | | | | | | | Total Cost: | 1658697 |

C:\TNM25\230168\Seg 3\8 + 4\NSA D NC

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU P | D&E | | | | | |
|---|--------|-----------------------------|----------------------------|---------|----------|--------|-------------|---------------------|------------------------------------|--------------------------------|---------------------------------|------------------------|---------------------------|------|
| Stantec M. Drauer | | | | | | | | 26 May 2 TNM 2.5 | 015 Jtt TNI | | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seç GM 22 | l PD&E jment 3 N gap | orth Co | é | | | Calculate | a with INI Average a State b | n 2.3 pavement typ | e shall be use v substantiat | ed unless es the us | | |
| ATMOSPHERICS: | | 68 de | g F, 50% I | ЯH | | | | | of a diffe | griway agenc rent type with | approval of | EHWA. | b | |
| Receiver Name | Ňo | #DUs | Existing | NoB | arrier | | | | | With Barrier | | | | |
| | | | LAeq1h | LAec | 1h | | Increase ov | er existing | Type | Calculated | Noise Redu | ction | | |
| | | | - | Calci | ulated (| Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculat minus Goal | ited |
| | | | dBA | dBA | | 1BA | đB | dB | | dBA | dB | đB | đB | |
| Woodlands 1 | | | - | 0.0 | 64.7 | Ö | 64 | .7 1 | | 64.5 | 0.2 | 01 | 8 | -7.8 |
| Woodlands 2 | 36 | | - | 0.0 | 61.5 | Ö | 61 | .5 | | 263 | 2.3 | ~ | 8 | -5.7 |
| Woodlands 3 | 40 | | - | 0.0 | 60.1 | Ö | 60 | 1 | | 57.8 | 2.2 | ~ | 8 | -5.7 |
| Woodlands 5 | 41 | | - | 0.0 | 58.1 | Ö | 5 58 | 11 | | 56.1 | 2.0 | 0 | 80 | -6.0 |
| Woodlands 4 | 42 | | 1 | 0.0 | 59.2 | Ö | 59 | 1 | l | 56.7 | 2.1 | 10 | 80 | -5.5 |
| North Cove 1 | N | | - | 0.0 | 70.2 | Ö | 9 70 | 1 | D Snd Lvl | 65.9 | 9 4.0 | ~ | 80 | -3.7 |
| North Cove 2 | | | - | 0.0 | 71.2 | Ö | 5 71 | 1 | 0 Snd Lvl | 63.6 | 3 7. | ** | 80 | -0.6 |
| North Cove Park | 4 | | 1 | 0.0 | 70.1 | Ö | 5 70 | 1 | 0 Snd Lvl | 62.5 | 5 7.(| (0) | 80 | -0.4 |
| North Cove 3 | 4 | | 1 | 0.0 | 69.2 | Ö | 69 69 | 1 | D Snd Lvl | 61.8 | 3 7.4 | 4 | 8 | -0.6 |
| North Cove 4 | 19 | | 1 | 0.0 | 66.1 | Ö | 66 | 1 | 0 Snd Lvl | 60.3 | 3 5.8 | ŝ | 8 | -2.2 |
| North Cove 5 | 20 | | - | 0.0 | 64.4 | Ö | 64 | 1 | | 59.6 | 3.4.8 | ~ | 80 | -3.2 |
| North Cove 6 | 21 | | | 0.0 | 62.8 | Ö | 62 | 1 | | 58.9 | 3.9 | | 8 | -4.1 |
| North Cove 7 | 22 | | - | 0.0 | 61.1 | Ö | 61 | ۲. | | 57.9 | 3.5 | 0 | 80 | -4.8 |
| North Cove 8 | 23 | | - | 0.0 | 60.2 | Ö | 60 | 1.2 | | 21.2 | 3.0 | 0 | 80 | -5.0 |
| North Cove 9 | 24 | | - | 0.0 | 58.9 | Ö | 5 58 | 1.9 | | 56.6 | 3 2.5 | | 80 | -5.7 |
| North Cove 10 | 26 | | 1 | 0.0 | 57.5 | Ö | 6 57 | .5 1 | 1 | 55.4 | | | 80 | -5.9 |
| North Cove 11 | 26 | | 1 | 0.0 | 56.7 | Ģ | 6 56 | 1.7 | | 54.7 | 2.(| 0 | 00 | -6.0 |
| North Cove 12 | 27 | | - | 0.0 | 56.2 | Ģ | 56 | 1 | | 54.3 | 1.5 | • | 8 | -6.1 |
| North Cove 13 | 28 | | - | 0.0 | 55.2 | Ö | 55 | 1 | | 53.7 | 1.1 | 10 | 00 | -6.5 |
| North Cove 14 | 26 | | 1 | 0.0 | 54.4 | Ō | 54 | 1.4 | | 52.6 | 1.6 | 6 | 00 | -6.4 |
| North Cove 15 | 9 S | | - | 0.0 | 54.7 | Ō | 54 | 1.7 | | 53.1 | 1.6 | (0 | 00 | -6.4 |
| North Cove 16 | 31 | | 1 | 0.0 | 54.5 | Ō | 6 54 | .5 | | 52.8 | .1. | 2 | 80 | -6.3 |
| North Cove 17 | 32 | | 1 | 0.0 | 57.3 | ē | 6 57 | .3 | - | 54.7 | 2.6 | 6 | 8 | -5.4 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D NC | | | | | | 5 | | | | 26 M | ay 2015 | | |

| North Cove 18 | | | | | | | | ì | | | | |
|--------------------------------------|----|---|-----|------|----|------|----|-----------|------|-----------|----|------|
| | 33 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | ľ | 54.2 | 2.1 | 80 | -5.9 |
| North Cove 19 | 59 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 53.7 | 1.9 | ω | -6.1 |
| North Cove 20 | 35 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | I | 53.4 | 1.8 | ω | -6.2 |
| North Cove 21 | 36 | - | 0.0 | 55.0 | 66 | 55.0 | 10 | 1 | 53.4 | 1.6 | ω | -6.4 |
| North Cove 22 | 37 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 53.1 | 1.6 | 80 | -6.4 |
| North Cove 23 | 38 | - | 0.0 | 54.1 | 66 | 54.1 | 10 | I | 52.7 | 1.4 | œ | -6.6 |
| North Cove 24 | 43 | ~ | 0.0 | 57.5 | 66 | 57.5 | 10 |) and the | 54.9 | 2.6 | æ | -5.4 |
| North Cove 25 | 44 | ↽ | 0.0 | 56.9 | 66 | 56.9 | 10 | j. | 54.6 | 2.3 | œ | -5.7 |
| North Cove 26 | 45 | - | 0.0 | 56.5 | 66 | 56.5 | 10 | | 54.2 | 2.3 | 80 | -5.7 |
| North Cove 27 | 46 | - | 0.0 | 55.9 | 66 | 55.9 | 10 | ļ | 53.6 | 2.3 | 8 | -5.7 |
| North Cove 28 | 47 | - | 0.0 | 55.8 | 66 | 55.8 | 10 | I | 53.7 | 2.1 | œ | -5.9 |
| North Cove 29 | 48 | - | 0.0 | 55.4 | 66 | 55.4 | 10 | 1 | 53.5 | 1.9 | 80 | -6.1 |
| North Cove 30 | 49 | - | 0.0 | 55.3 | 66 | 55.3 | 10 | 1 | 53.1 | 2.2 | œ | -5.8 |
| North Cove 31 | 50 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | 1 | 52.9 | 1.9 | 80 | -6.1 |
| North Cove 32 | 51 | | 0.0 | 56.3 | 66 | 56.3 | 10 | Constant. | 54.1 | 2.2 | 80 | -5.8 |
| North Cove 33 | 52 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | I | 54.2 | 2.2 | œ | -5.8 |
| North Cove 34 | 53 | - | 0.0 | 56.1 | 66 | 56.1 | 10 | l | 54.1 | 2.0 | 80 | -6.0 |
| North Cove 35 | 54 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | I | 53.1 | 1.8 | œ | -6.2 |
| North Cove 36 | 55 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | ļ | 52.8 | 1.9 | 80 | -6.1 |
| North Cove 37 | 56 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | I | 53.4 | 1.7 | 80 | -6.3 |
| North Cove 38 | 57 | - | 0.0 | 54.4 | 66 | 54.4 | 10 | I | 52.6 | 1.8 | 8 | -6.2 |
| North Cove 39 | 58 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | 1 | 53.2 | 1.9 | 80 | -6.1 |
| North Cove 62 | 82 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | | 53.4 | 1.1 | 80 | -6.9 |
| North Cove 63 | 83 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | | 53.5 | 1.0 | 8 | -7.0 |
| North Cove 64 | 84 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | I | 53.2 | 1.0 | 80 | -7.0 |
| North Cove 65 | 85 | - | 0.0 | 53.9 | 66 | 53.9 | 10 | I | 52.9 | 1.0 | 80 | -7.0 |
| Northridge 12 | 99 | - | 0.0 | 76.6 | 66 | 76.6 | 10 | Snd Lvl | 65.5 | 11.1 | 80 | 3.1 |
| Northridge 11 | 61 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | 1 | 58.9 | 6.0 | 80 | -2.0 |
| Northridge 10 | 62 | - | 0.0 | 65.0 | 66 | 65.0 | 10 | 1 | 58.9 | 6.1 | 80 | -1.9 |
| Northridge 9 | 63 | - | 0.0 | 62.9 | 66 | 65.9 | 10 | I | 59.5 | 6.4 | 8 | -1.6 |
| Northridge 8 | 64 | - | 0.0 | 68.0 | 66 | 68.0 | 10 | Snd Lví | 60.8 | 7.2 | 80 | -0.8 |
| Northridge 7 | 65 | ~ | 0.0 | 63.9 | 66 | 69.9 | 10 | Snd Lv! | 62.2 | 7.7 | 80 | -0.3 |
| Northridge 6 | 99 | ÷ | 0.0 | 67.6 | 66 | 67.6 | 10 | Snd Lvl | 61.0 | 6.6 | 8 | -1.4 |
| Northridge 5 | 67 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | | 59.9 | 5.4 | 8 | -2.6 |
| Northridge 3 | 68 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | I | 57.7 | 4.3 | 80 | -3.7 |
| Northridge 2 | 69 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | I | 56.7 | 3.2 | 8 | -4.8 |
| Northridge 1 | 20 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | | 56.5 | 2.8 | 8 | -5.2 |
| Bay Poiint 12 | 71 | - | 0.0 | 56.9 | 66 | 56.9 | 10 | 1 | 55.7 | 1.2 | 80 | -6.8 |
| Bay Point 11 | 72 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | | 55.3 | 1.1 | 80 | -6.9 |
| Bay Point 10 | 73 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | Ĩ | 54.8 | 1.2 | 80 | -6.8 |
| Bay Point 9 | 74 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | | 54.4 | 1.2 | 8 | -6.8 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D NC | 0 | | | | 7 | | | | | 26 May 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | | <u>4</u> | BtU PD8 | ßE | | | | |
|-----------------------------------|--------------|---|-----|------|----|----------|---------|---------|------|-----------|----|------|
| bay Point 8 | 75 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | | 54.0 | 1.2 | 80 | -6.8 |
| Bay Point 7 | 76 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | 1 | 53.5 | 1.3 | œ | -6.7 |
| Bay Point 6 | 77 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | 1 | 53.1 | 1.1 | 80 | -6.9 |
| Bay Point 5 | 78 | ÷ | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 53.7 | 1.0 | 80 | -7.0 |
| Bay Point 4 | 62 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | I | 53.7 | 0.8 | 80 | -7.2 |
| Bay Point 3 | 80 | - | 0.0 | 54.1 | 66 | 54.1 | 10 | Ĵ | 53.4 | 0.7 | 80 | -7.3 |
| Bay Point 2 | 81 | - | 0.0 | 53.7 | 66 | 53.7 | 10 | Ĭ | 53.0 | 0.7 | œ | -7.3 |
| Bay Point 1 | 86 | - | 0.0 | 53.5 | 66 | 53.5 | 10 | ł | 52.8 | 0.7 | œ | -7.3 |
| Tennis Ct. | 87 | - | 0.0 | 74.5 | 66 | 74.5 | 10 | Snd Lvl | 62.8 | 11.7 | œ | 3.7 |
| Northridge 13 | 91 | ~ | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 63.4 | 5.9 | ø | -2.1 |
| Northridge 14 | 92 | ٣ | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 61.9 | 4.2 | ø | -3.8 |
| Northridge 15 | 93 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | ļ | 60.9 | 2.7 | 80 | -5.3 |
| Northridge 4 | 94 | ۳ | 0.0 | 60.9 | 66 | 60.9 | 10 | l | 57.9 | 3.0 | 8 | -5.0 |
| North Cove 77 | 9 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | Ĩ | 61.8 | 3.1 | 80 | -4.9 |
| North Cove 76 | 7 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | I | 60.1 | 3.5 | œ | -4.5 |
| North Cove 75 | ω | - | 0.0 | 63.1 | 66 | 63.1 | 10 | Į | 59.2 | 3.9 | ω | -4.1 |
| North Cove 74 | ດ | ÷ | 0.0 | 62.2 | 99 | 62.2 | 10 | 1 | 58.6 | 3.6 | 8 | -4.4 |
| North Cove 73 | 10 | F | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 58.9 | 3.1 | 80 | -4.9 |
| North Cove 72 | , | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 57.8 | 2.8 | 80 | -5.2 |
| North Cove 69 | 12 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | l | 56.1 | 2.6 | 80 | -5.4 |
| North Cove 70 | 13 | ÷ | 0.0 | 59.4 | 66 | 59.4 | 10 | k | 56.6 | 2.8 | 80 | -5.2 |
| North Cove 71 | 14 | ~ | 0.0 | 60.0 | 66 | 60.0 | 10 | I | 56.8 | 3.2 | 80 | -4.8 |
| North Cove 65 | 15 | - | 0.0 | 58.8 | 66 | 58.8 | 10 | | 56.0 | 2.8 | 80 | -5.2 |
| North Cove 66 | 16 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | | 55.5 | 2.7 | 8 | -5.3 |
| North Cove 67 | 17 | - | 0.0 | 57.8 | 66 | 57.8 | 10 | 1 | 55.3 | 2.5 | 8 | -5.5 |
| North Cove 68 | 18 | - | 0.0 | 57.3 | 66 | 57.3 | 10 | I | 54.6 | 2.7 | 8 | -5.3 |
| Bolling 1 | 95 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | l | 55.2 | 0.4 | œ | -7.6 |
| Bolling 2 | 96 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | I | 58.6 | 0.7 | 00 | -7.3 |
| Bolling 3 | 97 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | Į | 59.3 | 0.5 | 80 | -7.5 |
| Bolling 4 | 98 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | | 59.8 | 0.4 | ø | -7.6 |
| Bolling 5 | 66 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | - | 60.3 | 0.3 | 8 | -7.7 |
| Bolling 6 | 100 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | 1 | 60.7 | 0.3 | 80 | -7.7 |
| Bolling 7 | 101 | - | 0.0 | 61.2 | 66 | 61.2 | 10 | | 61.0 | 0.2 | 80 | -7.8 |
| Bolling 8 | 102 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | I | 61.7 | 0.2 | ω | -7.8 |
| Bolling 9 | 103 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | 1 | 61.0 | 0.1 | 80 | -7.9 |
| Bolling 10 | 104 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | Ĩ | 59.7 | 0.2 | 8 | -7.8 |
| Bolling 11 | 105 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | ľ | 60.5 | 0.1 | ø | -7.9 |
| Bolling 12 | 106 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | ļ | 61.8 | 0.1 | 80 | -7.9 |
| Bolling 13 | 107 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | ł | 62.9 | 0.1 | 80 | -7.9 |
| Bolling 14 | 108 | - | 0.0 | 63.3 | 66 | 63.3 | 10 | 1 | 63.2 | 0.1 | 80 | -7.9 |
| Bolling 15 | 109 | ٢ | 0.0 | 63.9 | 66 | 63.9 | 10 | 1 | 63.8 | 0.1 | æ | -7.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | NC | | | | | 3 | | | | 26 May 20 | 15 | |

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD(| Ш | | | |
|--|-----------------|-----------------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 26 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: | I-4 Bt | U PD&E | | | | | | | | |
| RUN: BARRIER DESIGN: | I-4 Se GM 2: | gment 3 No 2 right | rth Cove | | | | | , Ng | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | _ | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | Ĥ | ft | Ĥ | ff | sq ft | cu yd | ft | ft:ft | s |
| NC GM 1 | 8 | 0.00 | 0.0 | 00.0 | 0 | | 0 | | | 0 |
| NC GM 2 | 8 | 22.00 | 22.00 | 22.00 | 1767 | 7 3887 | 0 | | | 1166114 |
| | | | | | | | | | Total Cost: | 1166114 |
| | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PC | ₿. B. B. B. B. B. B. B. B. B. B. B. B. B. | | | | | |
|---|------|-----------------------------|----------------------------|-----------|---------|----------|-------------|----------------------|--|------------------------------|--------------------------------|---|---------------------------|------|
| Stantec M. Drauer | | | | | | | | 26 May 20 TNM 2.5 | 15 1 | u C | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seg GM 22 | PD&E ment 3 No riaht | orth Cove | | | | Calculate | | 1 2.3 Davement tvo | e shall be use | be be be be be be be be be be be be be b | | |
| ATMOSPHERICS: | | 68 deç | , 50% F | Ŧ | | | | | a State hi of a diffe | ghway agenc ent type with | y substantiat approval of I | es the u: FHWA. | es. | |
| Receiver Name | No. | #DUs | Existing | No Barri | Ŀ | | | | | With Barrier | | | | |
| | | | LAeq1h | LAeq1h | | - | ICLEASE OVE | r existing | Type | Calculated | Noise Redu | ction | | |
| | | | | Calculat | ed Crit | <u> </u> | alculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculat minus Goal | ited |
| | | | dBA | dBA | dBA | σ | 8 | đB | | dBA | dB | В | Вb | |
| Woodlands 1 | - | | 0 | 0 | 64.7 | 99 | 64.7 | 7 10 | l | 64.7 | 0.0 | _ | 80 | -8.0 |
| Woodlands 2 | 39 | Ì | - | 0 | 61.5 | 99 | 61. | 10 | I | 61.5 | 0.0 | _ | 80 | -8.0 |
| Woodlands 3 | 40 | | 0 | 0 | 60.1 | 99 | .09 | 1 10 | 1 | 60.1 | 0.0 | 0 | 80 | -8.0 |
| Woodlands 5 | 41 | | 0 | 0 | 58.1 | 99 | 58. | 101 | I | 58.0 | .0 | _ | 8 | -7.9 |
| Woodlands 4 | 42 | | 0 | 0 | 59.2 | 66 | 263 | 10 | 1 | 59.2 | 0.0 | 0 | 8 | -8.0 |
| North Cove 1 | 0 | • | 0 | 0 | 70.2 | 99 | 202 | 2 | Snd Lvl | 70.1 | 0 | | 8 | -7.9 |
| North Cove 2 | e | | 0 | 0 | 71.2 | 99 | 71.2 | 10 | Snd Lvl | 71.2 | 0.0 | 0 | 8 | -8.0 |
| North Cove Park | 4 | | 0 | 0 | 70.1 | 99 | .02 | 10 | Snd Lvl | 70.1 | 0.0 | 0 | 8 | -8.0 |
| North Cove 3 | 5 | Ì | 0 | 0 | 69.2 | 99 | :69 | 2 10 | Snd Lvl | 69.2 | 0.0 | 0 | 80 | -8.0 |
| North Cove 4 | 19 | | 0 | 0 | 66.1 | 66 | .99 | 10 | Snd Lvl | 66.1 | 0.0 | 0 | 8 | -8.0 |
| North Cove 5 | 20 | Ì | 0 | 0 | 64.4 | 99 | 64.4 | 10 | 1 | 64.3 | 0.1 | | 80 | -7.9 |
| North Cove 6 | 21 | | 0 | 0 | 62.8 | 99 | 62.8 | 10 | i | 62.7 | 0.1 | _ | 8 | -7.9 |
| North Cove 7 | 22 | Ì | - | 0 | 61.1 | 66 | 61. | 1 | 1 | 61.1 | 0.0 | _ | 8 | -8.0 |
| North Cove 8 | 23 | | 0 | 0 | 60.2 | 99 | 60.3 | 10 | I | 60.1 | 0.1 | _ | 8 | -7.9 |
| North Cove 9 | 24 | | 0 | 0 | 58.9 | 66 | 58. | 10 | 1 | 58.8 | 0.1 | _ | 8 | -7.9 |
| North Cove 10 | 25 | | 0 | 0 | 57.5 | 66 | 57.5 | 10 | I | 57.3 | 0.0 | 01 | ø | -7.8 |
| North Cove 11 | 26 | | 0 | 0 | 56.7 | 66 | 56.7 | 7 10 | Ĩ | 56.4 | 0.0 | ~ | 8 | -7.7 |
| North Cove 12 | 27 | | 0 | 0 | 56.2 | 99 | 56.2 | 10 | 1 | 55.8 | 0.2 | | ø | -7.6 |
| North Cove 13 | 28 | | 0 | 0 | 55.2 | 99 | 55.2 | 2 10 | I | 54.7 | 0.5 | 10 | 80 | -7.5 |
| North Cove 14 | 29 | • | 0 | 0 | 54.4 | 66 | 54.4 | 10 | 1 | 54.0 | 0.2 | + | 80 | -7.6 |
| North Cove 15 | 30 | | 0 | 0 | 54.7 | 66 | 54.7 | 7 10 | | 54.4 | 0.0 | m | 80 | -7.7 |
| North Cove 16 | 31 | Ì | 0 | 0 | 54.5 | 99 | 54.5 | 10 | 1 | 54.2 | 0.0 | ~ | 80 | -7.7 |
| North Cove 17 | 32 | Ì | 0 | 0 | 57.3 | 66 | 57.3 | 3 10 | 1 | 57.1 | 0.2 | 0 | 8 | -7.8 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D NC | | | | | | ٣ | | | | 26 M | ay 2015 | | |

| RESULTS: SOUND LEVELS | | | | | | -4 | BtU PD8 | ų | | | | |
|-------------------------------------|----------|---|-----|------|----|------|---------|--|------|-----------|----|------|
| North Cove 18 | 33 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | Ĩ | 56.1 | 0.2 | 80 | -7.8 |
| North Cove 19 | 59 | ~ | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 55.3 | 0.3 | 8 | -7.7 |
| North Cove 20 | 35 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | 1 | 54.9 | 0.3 | œ | -7.7 |
| North Cove 21 | 36 | - | 0.0 | 55.0 | 66 | 55.0 | 10 | 1 | 54.5 | 0.5 | æ | -7.5 |
| North Cove 22 | 37 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | () 1115) | 54.1 | 0.6 | œ | -7.4 |
| North Cove 23 | 38 | - | 0.0 | 54.1 | 66 | 54.1 | 10 | 1 | 53.6 | 0.5 | œ | -7.5 |
| North Cove 24 | 43 | - | 0.0 | 57.5 | 66 | 57.5 | 10 | I | 57.4 | 0.1 | æ | -7.9 |
| North Cove 25 | 44 | - | 0.0 | 56.9 | 66 | 56.9 | 10 | Î | 56.8 | 0.1 | ω | -7.9 |
| North Cove 26 | 45 | - | 0.0 | 56.5 | 66 | 56.5 | 10 | 9 | 56.3 | 0.2 | ω | -7.8 |
| North Cove 27 | 46 | ~ | 0.0 | 55.9 | 66 | 55.9 | 10 | 1. | 55.8 | 0.1 | 8 | -7.9 |
| North Cove 28 | 47 | - | 0.0 | 55.8 | 66 | 55.8 | 10 | I | 55.6 | 0.2 | 80 | -7.8 |
| North Cove 29 | 48 | - | 0.0 | 55.4 | 66 | 55.4 | 10 | a mark | 55.2 | 0.2 | œ | -7.8 |
| North Cove 30 | 49 | - | 0.0 | 55.3 | 66 | 55.3 | 10 | 1000 | 55.1 | 0.2 | 8 | -7.8 |
| North Cove 31 | 50 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | Ĩ | 54.7 | 0.1 | 8 | -7.9 |
| North Cove 32 | 51 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | I | 56.1 | 0.2 | œ | -7.8 |
| North Cove 33 | 52 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | Ĩ | 56.2 | 0.2 | 8 | -7.8 |
| North Cove 34 | 53 | - | 0.0 | 56.1 | 66 | 56.1 | 10 | 8 | 55.9 | 0.2 | 80 | -7.8 |
| North Cove 35 | 54 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | (antio | 54.6 | 0.3 | 80 | -7.7 |
| North Cove 36 | 55 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 54.5 | 0.2 | 80 | -7.8 |
| North Cove 37 | 56 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | Ì | 54.8 | 0.3 | 80 | -7.7 |
| North Cove 38 | 57 | - | 0.0 | 54.4 | 66 | 54.4 | 10 | Ĩ | 54.2 | 0.2 | 8 | -7.8 |
| North Cove 39 | 58 | F | 0.0 | 55.1 | 66 | 55.1 | 10 | 1 | 54.9 | 0.2 | 80 | -7.8 |
| North Cove 62 | 82 | ٢ | 0.0 | 54.5 | 66 | 54.5 | 10 | Ĩ | 54.0 | 0.5 | 80 | -7.5 |
| North Cove 63 | 83 | + | 0.0 | 54.5 | 66 | 54.5 | 10 | | 54.0 | 0.5 | 8 | -7.5 |
| North Cove 64 | 84 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | Sector Sector | 53.7 | 0.5 | 8 | -7.5 |
| North Cove 65 | 85 | - | 0.0 | 53.9 | 66 | 53.9 | 10 | I | 53.3 | 0.6 | 8 | -7.4 |
| Northridge 12 | 60 | ۲ | 0.0 | 76.6 | 66 | 76.6 | 10 | Snd Lvl | 65.5 | 11.1 | 80 | 3.1 |
| Northridge 11 | 61 | ٢ | 0.0 | 64.9 | 66 | 64.9 | 10 | Ì | 58.6 | 6.3 | 80 | -1.7 |
| Northridge 10 | 62 | - | 0.0 | 65.0 | 66 | 65.0 | 10 | l | 58.7 | 6.3 | 80 | -1.7 |
| Northridge 9 | 63 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | Ĩ | 59.4 | 6.5 | 80 | -1.5 |
| Northridge 8 | 64 | - | 0.0 | 68.0 | 66 | 68.0 | 10 | Snd Lvl | 60.7 | 7.3 | œ | -0.7 |
| Northridge 7 | 65 | - | 0.0 | 6.69 | 66 | 69.9 | 10 | Snd Lvl | 62.2 | 7.7 | 80 | -0.3 |
| Northridge 6 | 66 | - | 0.0 | 67.6 | 66 | 67.6 | 10 | Snd Lvl | 61.0 | 6.6 | 80 | -1.4 |
| Northridge 5 | 67 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | 1 | 59.9 | 5.4 | 80 | -2.6 |
| Northridge 3 | 68 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 57.7 | 4.3 | 80 | -3.7 |
| Northridge 2 | 69 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | i) | 56.7 | 3.2 | 80 | -4.8 |
| Northridge 1 | 70 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | | 56.5 | 2.8 | 80 | -5.2 |
| Bay Poiint 12 | 71 | - | 0.0 | 56.9 | 66 | 56.9 | 10 | ĺ | 55.7 | 1.2 | 8 | -6.8 |
| Bay Point 11 | 72 | + | 0.0 | 56.4 | 66 | 56.4 | 10 | | 55.2 | 1.2 | 80 | -6.8 |
| Bay Point 10 | 73 | 1 | 0.0 | 56.0 | 66 | 56.0 | 10 | Ì | 54.8 | 1.2 | 80 | -6.8 |
| Bay Point 9 | 74 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 54.4 | 1.2 | 8 | -6.8 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D N | <u>ں</u> | | | | | 0 | | | | 26 May 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | | 14 | BtU PD8 | щ | | | | |
|-------------------------------------|-----|-------|-----|------|-----|------|---------|------------|------|-----------|----|------|
| bay Point 8 | 75 | - | 0.0 | 55.2 | 99 | 55.2 | 10 | I | 54.1 | 1,1 | 80 | -6.9 |
| Bay Point 7 | 76 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | 1 | 53.7 | 1.1 | ø | -6.9 |
| Bay Point 6 | 77 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | Ĩ | 53.3 | 0.9 | ω | -7.1 |
| Bay Point 5 | 78 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 53.9 | 0.8 | œ | -7.2 |
| Bay Point 4 | 79 | ~ | 0.0 | 54.5 | 66 | 54.5 | 10 | 1 | 53.8 | 0.7 | 80 | -7.3 |
| Bay Point 3 | 80 | ~ | 0.0 | 54.1 | 66 | 54.1 | 10 | ĺ | 53.6 | 0.5 | 80 | -7.5 |
| Bay Point 2 | 81 | ~ | 0.0 | 53.7 | 66 | 53.7 | 10 | Ĩ | 53.2 | 0.5 | 80 | -7.5 |
| Bay Point 1 | 86 | - | 0.0 | 53.5 | 66 | 53.5 | 10 | Ī | 53.0 | 0.5 | 80 | -7.5 |
| Tennis Ct. | 87 | - | 0.0 | 74.5 | 66 | 74.5 | 10 | Snd Lvl | 62.8 | 11.7 | œ | 3.7 |
| Northridge 13 | 91 | 5 | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 63.4 | 5.9 | ø | -2.1 |
| Northridge 14 | 92 | ÷ | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 61.9 | 4.2 | 8 | -3.8 |
| Northridge 15 | 93 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 60.9 | 2.7 | ω | -5.3 |
| Northridge 4 | 94 | - | 0.0 | 60.9 | 66 | 60.9 | 10 | 1 | 58.0 | 2.9 | 80 | -5.1 |
| North Cove 77 | 9 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | Î | 64.9 | 0.0 | 80 | -8.0 |
| North Cove 76 | 7 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | I | 63.6 | 0.0 | 00 | -8.0 |
| North Cove 75 | ω | - | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 63.1 | 0.0 | 00 | -8.0 |
| North Cove 74 | 0 | - | 0.0 | 62.2 | 66 | 62.2 | 10 | Ĩ | 62.1 | 0.1 | 80 | -7.9 |
| North Cove 73 | 10 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 62.0 | 0.0 | 8 | -8.0 |
| North Cove 72 | 11 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 60.6 | 0.0 | 80 | -8.0 |
| North Cove 69 | 12 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | 1 | 58.7 | 0.0 | ω | -8.0 |
| North Cove 70 | 13 | - | 0.0 | 59.4 | 66 | 59.4 | 10 | 1 | 59.4 | 0.0 | 8 | -8.0 |
| North Cove 71 | 14 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | I | 59.9 | 0.1 | œ | -7.9 |
| North Cove 65 | 15 | - | 0.0 | 58.8 | 66 | 58.8 | 10 | Ĩ | 58.8 | 0.0 | 80 | -8.0 |
| North Cove 66 | 16 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | Ĩ | 58.2 | 0.0 | œ | -8.0 |
| North Cove 67 | 17 | - | 0.0 | 57.8 | 66 | 57.8 | 10 | - | 57.8 | 0.0 | 8 | -8.0 |
| North Cove 68 | 18 | - | 0.0 | 57.3 | 66 | 57.3 | 10 | | 57.2 | 0.1 | 8 | -7.9 |
| Bolling 1 | 95 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 55.2 | 0.4 | 8 | -7.6 |
| Bolling 2 | 96 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 58.6 | 0.7 | 80 | -7.3 |
| Bolling 3 | 97 | - | 0.0 | 59.8 | 99 | 59.8 | 10 | I. | 59.3 | 0.5 | 80 | -7.5 |
| Bolling 4 | 98 | • | 0.0 | 60.2 | 66 | 60.2 | 10 | I | 59.8 | 0.4 | 80 | -7.6 |
| Bolling 5 | 66 | - | 0.0 | 60.6 | 99 | 60.6 | 10 | | 60.3 | 0.3 | 80 | -7.7 |
| Bolling 6 | 100 | ÷ | 0.0 | 61.0 | 66 | 61.0 | 10 | I | 60.7 | 0.3 | 8 | -7.7 |
| Bolling 7 | 101 | - | 0.0 | 61.2 | 66 | 61.2 | 10 | 1 | 61.0 | 0.2 | œ | -7.8 |
| Bolling 8 | 102 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | - | 61.7 | 0.2 | 8 | -7.8 |
| Bolling 9 | 103 | - | 0.0 | 61.1 | 99 | 61.1 | 10 | | 61.0 | 0.1 | 8 | -7.9 |
| Bolling 10 | 104 | - | 0.0 | 59.9 | 99 | 59.9 | 10 | 1 | 59.7 | 0.2 | 80 | -7.8 |
| Bolling 11 | 105 | + | 0.0 | 60.6 | 99 | 60.6 | 10 | I | 60.5 | 0.1 | 8 | -7.9 |
| Bolling 12 | 106 | - | 0.0 | 61.9 | 99 | 61.9 | 10 | Ì | 61.8 | 0.1 | 80 | -7.9 |
| Bolling 13 | 107 | - | 0.0 | 63.0 | .99 | 63.0 | 10 | | 62.9 | 0.1 | 80 | -7.9 |
| Bolling 14 | 108 | - | 0.0 | 63.3 | 66 | 63.3 | 10 | 2 1 | 63.2 | 0.1 | 8 | -7.9 |
| Bolling 15 | 109 | - | 0.0 | 63.9 | 66 | 63.9 | 10 | 1 | 63.8 | 0.1 | 80 | -7.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D I | NC | | | | | | | | | 26 May 20 | 15 | |

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD8 | Щ | | | |
|-------------------------------|---------|------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 26 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Btl | U PD&E | | | | | | | | |
| RUN: | I-4 Se | gment 3 No | orth Cove | | | | | | | |
| BARRIER DESIGN: | GM 2: | 2 left | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights a | long Barri | er | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | Ĥ | ĥ | ĥ | ft | sq ft | cu yd | ft | ft:ft | \$ |
| NC GM 1 | 8 | 22.00 | 22.0 | 0 22.00 | 1603 | 35256 | 0 | | | 1057687 |
| NC GM 2 | > | 0.0 | 0.0 | 0.00 | | 0 | 0 | | | 0 |
| | | | | | | | | | Total Cost: | 1057687 |
| | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU P | D&E | | | | |
|---|------|-----------------------------|-----------------------------|----------|---------|--------|------------------|---------------------|-------------------------------------|--------------------------------------|---------------------------------|------------------------|-----------------------------|
| Stantec M. Drauer | | | | | | | | 26 May 2 TNM 2.5 | 015 | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seç GM 22 | l PD&E jment 3 N left | orth Cov | ę | | | Calculate | ed with INI Average a State h | l 2.5 avement typo ghway agenc | e shall be use v substantiat | ed unless es the us | Ű |
| ATMOSPHERICS: | | 68 de | g F, 50% I | ЯH | | | | | of a diffe | ent type with | approval of | FHWA. | |
| Receiver Name | No. | #DUs | Existing | NoB | arrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAed | ŧ | | Increase ov | er existing | Type | Calculated | Noise Redu | ction | |
| | | | | Calcu | lated 0 | Crit'n | Całculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | 0 | IBA | 留 | Вb | | dBA | đB | đB | ß |
| Woodlands 1 | | | - | 0.0 | 64.7 | Ö | 9 | i.7 1 | | 64.5 | 0. | C | 8 -7 |
| Woodlands 2 | Ř | 0 | 1 | 0.0 | 61.5 | 9 | 6 | .5 | | 29.0 | 2.2 | 2 | 8 |
| Woodlands 3 | 4 | 0 | 1 | 0.0 | 60.1 | Ö | 66 | .1 | | 57.5 | 2.0 | 6 | 8 |
| Woodlands 5 | 4 | - | 1 | 0.0 | 58.1 | Ö | 5 | 3.1 1 | | 55.7 | 7 2. | 4 | 8 |
| Woodlands 4 | 4 | N | - | 0.0 | 59.2 | Ö | 5 | 9.2 | | 56.2 | 3.0 | 0 | 8 |
| North Cove 1 | | 2 | 1 | 0.0 | 70.2 | Ö | 6 70 | 1.2 | 0 Snd Lvl | 65.9 | .4 | 8 | 8 6 |
| North Cove 2 | | e | + | 0.0 | 71.2 | Ö | 6 7 | 1 | 0 Snd Lvl | 63.7 | 7 7. | 2 | 9 8 |
| North Cove Park | | 4 | 1 | 0.0 | 70.1 | Ö | 6 7(| 1 1.0 | 0 Snd Lvl | 62.3 | 3 7. | 80 | 8 |
| North Cove 3 | | 5 | - | 0.0 | 69.2 | Ö | 99 | 9.2 1 | 0 Snd Lvl | 61.4 | 4 | 80 | 8 |
| North Cove 4 | ÷ | 0 | 1 | 0.0 | 66.1 | Ō | 66 | 3.1 1 | 0 Snd Lvl | 59.5 | 9 | 9 | 8 |
| North Cove 5 | 5 | 0 | - | 0.0 | 64.4 | Ö | 0 | 1.4 | | 58.3 | 9.0 | ~ | 8 |
| North Cove 6 | 0 | - | - | 0.0 | 62.8 | Ō | 62 | 1.8 | | 21.2 | 2.0 | g | 8 |
| North Cove 7 | 2 | 2 | 1 | 0.0 | 61.1 | Ģ | 9.9 | L. | | 56.1 | 1 5. | 0 | 8 |
| North Cove 8 | 3 | 3 | 1 | 0.0 | 60.2 | Ō | 6 6(| 1.2 1 | | 55.1 | 1 5. | - | 8 |
| North Cove 9 | Ň | 4 | 1 | 0.0 | 58.9 | Ō | 5 | 3.9 | | 54.3 | 3 4. | 9 | ې ۵ |
| North Cove 10 | Ď | 5 | 1 | 0.0 | 57.5 | Ö | 6 5 | .5 1 | | 53.5 | 5 4. | 0 | 8 -4 |
| North Cove 11 | Ō | 9 | - | 0.0 | 56.7 | ġ | 5 | 3.7 1 | | 52.9 | ю́ О | 80 | 8 |
| North Cove 12 | 5 | 2 | - | 0.0 | 56.2 | Ō | 5 | 3.2 1 | | 52.4 | 4 | 80 | 8 |
| North Cove 13 | Ñ | 8 | 1 | 0.0 | 55.2 | Ō | 5 | 5.2 1 | | 52.(| 3. | 2 | 8 |
| North Cove 14 | Ñ | 0 | 1 | 0.0 | 54.4 | ġ | 6 5 | 1.4 1 | | 52.3 | 2 | 2 | 8 |
| North Cove 15 | ñ | 0 | 1 | 0.0 | 54.7 | ø | 6 5 [,] | 1.7 1 | | 52.3 | 2.2 | 5 | 8 |
| North Cove 16 | ŝ | + | 1 | 0.0 | 54.5 | 9 | 5 | 1.5 1 | | 52. | 1 2. | 4 | ο Ω |
| North Cove 17 | Ϋ́. | 2 | 1 | 0.0 | 57.3 | 9 | 6 | 7.3 | | 53.2 | 3 4. | 0 | 00 4 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D NC | | | | | | ۴ | | | | 26 N | lay 2015 | |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | Ë | | | | |
|-----------------------------------|----|----|-----|------|----|------|---------|---------|------|------------|----|------|
| North Cove 18 | 33 | 1 | 0.0 | 56.3 | 66 | 56.3 | 10 | ľ | 52.8 | 3.5 | ω | -4.5 |
| North Cove 19 | 59 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | I | 52.5 | 3.1 | 80 | -4.9 |
| North Cove 20 | 35 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | 1 | 52.3 | 2.9 | œ | -5.1 |
| North Cove 21 | 36 | - | 0.0 | 55.0 | 66 | 55.0 | 10 | 1 | 52.2 | 2.8 | 80 | -5.2 |
| North Cove 22 | 37 | t | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 52.4 | 2.3 | ω | -5.7 |
| North Cove 23 | 38 | - | 0.0 | 54.1 | 66 | 54.1 | 10 | 1 | 52.2 | 1.9 | œ | -6.1 |
| North Cove 24 | 43 | - | 0.0 | 57.5 | 66 | 57.5 | 10 | I | 53.6 | 3.9 | ω | -4.1 |
| North Cove 25 | 44 | - | 0.0 | 56.9 | 66 | 56.9 | 10 | ľ | 53.5 | 3.4 | ∞ | -4.6 |
| North Cove 26 | 45 | 4 | 0.0 | 56.5 | 66 | 56.5 | 10 | Ĩ | 53.3 | 3.2 | œ | -4.8 |
| North Cove 27 | 46 | - | 0.0 | 55.9 | 66 | 55.9 | 10 | Ĩ | 53.0 | 2.9 | 80 | -5.1 |
| North Cove 28 | 47 | - | 0.0 | 55.8 | 66 | 55.8 | 10 | 1 | 52.9 | 2.9 | œ | -5.1 |
| North Cove 29 | 48 | - | 0.0 | 55.4 | 99 | 55.4 | 10 | 1 | 52.8 | 2.6 | 8 | -5.4 |
| North Cove 30 | 49 | - | 0.0 | 55.3 | 66 | 55.3 | 10 | 1 | 52.5 | 2.8 | œ | -5.2 |
| North Cove 31 | 50 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | I | 52.3 | 2.5 | 80 | -5.5 |
| North Cove 32 | 51 | ~ | 0.0 | 56.3 | 66 | 56.3 | 10 | ĺ | 53.0 | 3.3 | ω | -4.7 |
| North Cove 33 | 52 | - | 0.0 | 56.4 | 66 | 56.4 | 10 | Ĩ | 53.0 | 3.4 | œ | -4.6 |
| North Cove 34 | 53 | - | 0.0 | 56.1 | 66 | 56.1 | 10 | Ĩ | 52.7 | 3.4 | 80 | -4.6 |
| North Cove 35 | 54 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | I | 52.2 | 2.7 | õ | -5.3 |
| North Cove 36 | 55 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 52.3 | 2.4 | 8 | -5.6 |
| North Cove 37 | 56 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | l | 52.3 | 2.8 | 80 | -5.2 |
| North Cove 38 | 57 | - | 0.0 | 54.4 | 66 | 54.4 | 10 | 1 | 52.2 | 2.2 | 80 | -5.8 |
| North Cove 39 | 58 | - | 0.0 | 55.1 | 66 | 55.1 | 10 | 1 | 52.5 | 2.6 | 8 | -5.4 |
| North Cove 62 | 82 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | I | 53.2 | 1.3 | 80 | -6.7 |
| North Cove 63 | 83 | ۳ | 0.0 | 54.5 | 66 | 54.5 | 10 | 1 | 53.5 | 1.0 | 8 | -7.0 |
| North Cove 64 | 84 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | 1 | 53.4 | 0.8 | 8 | -7.2 |
| North Cove 65 | 85 | - | 0.0 | 53.9 | 66 | 53.9 | 10 | 1 | 53.1 | 0.8 | 80 | -7.2 |
| Northridge 12 | 60 | | 0.0 | 76.6 | 66 | 76.6 | 10 | Snd Lvl | 76.6 | 0.0 | 80 | -8.0 |
| Northridge 11 | 61 | ~ | 0.0 | 64.9 | 66 | 64.9 | 10 | 1 | 64.7 | 0.2 | 80 | -7.8 |
| Northridge 10 | 62 | - | 0.0 | 65.0 | 66 | 65.0 | 10 | 1 | 64.9 | 0.1 | 80 | -7.9 |
| Northridge 9 | 63 | | 0.0 | 65.9 | 66 | 65.9 | 10 | ĺ | 65.9 | 0.0 | 8 | -8.0 |
| Northridge 8 | 64 | - | 0.0 | 68.0 | 66 | 68.0 | 10 | Snd Lvl | 68.0 | 0.0 | 80 | -8.0 |
| Northridge 7 | 65 | - | 0.0 | 69.9 | 66 | 69.9 | 10 | Snd Lvl | 66.9 | 0.0 | 8 | -8.0 |
| Northridge 6 | 99 | - | 0.0 | 67.6 | 66 | 67.6 | 10 | Snd Lvl | 67.6 | 0.0 | 8 | -8.0 |
| Northridge 5 | 67 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | 1 | 65.3 | 0.0 | 80 | -8.0 |
| Northridge 3 | 68 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 61.7 | 0.3 | 80 | -7.7 |
| Northridge 2 | 69 | 57 | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 59.5 | 0.4 | 80 | -7.6 |
| Northridge 1 | 70 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 59.0 | 0.3 | 80 | -7.7 |
| Bay Poiint 12 | 71 | - | 0.0 | 56.9 | 66 | 56.9 | 10 | 1 | 56.4 | 0.5 | 80 | -7.5 |
| Bay Point 11 | 72 | ~ | 0.0 | 56.4 | 66 | 56.4 | 10 | I | 55.9 | 0.5 | 80 | -7.5 |
| Bay Point 10 | 73 | | 0.0 | 56.0 | 66 | 56.0 | 10 | | 55.4 | 0.6 | 80 | -7.4 |
| Bay Point 9 | 74 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | - | 55.0 | 0.6 | 8 | -7.4 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | NC | | | | | ~ | | | | 26 May 20' | 15 | |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | Ë | | | | |
|--------------------------------------|-----|---|-----|------|----|------|---------|--|------|-----------|----|------|
| bay Point 8 | 75 | - | 0.0 | 55.2 | 66 | 55.2 | 10 | 1 | 54.6 | 0.6 | œ | -7.4 |
| Bay Point 7 | 76 | - | 0.0 | 54.8 | 66 | 54.8 | 10 | 1 | 54.0 | 0.8 | 80 | -7.2 |
| Bay Point 6 | 77 | - | 0.0 | 54.2 | 66 | 54.2 | 10 | 1 | 53.5 | 0.7 | 80 | -7.3 |
| Bay Point 5 | 78 | - | 0.0 | 54.7 | 66 | 54.7 | 10 | 1 | 54.2 | 0.5 | 8 | -7.5 |
| Bay Point 4 | 62 | - | 0.0 | 54.5 | 66 | 54.5 | 10 | 1.4488 | 53.9 | 0.6 | œ | -7.4 |
| Bay Point 3 | 80 | - | 0.0 | 54.1 | 66 | 54.1 | 10 | 1 | 53.6 | 0.5 | 80 | -7.5 |
| Bay Point 2 | 81 | + | 0.0 | 53.7 | 66 | 53.7 | 10 | I | 53.2 | 0.5 | œ | -7.5 |
| Bay Point 1 | 86 | ٣ | 0.0 | 53.5 | 66 | 53.5 | 10 | 1 | 52.9 | 9.0 | 80 | -7.4 |
| Tennis Ct. | 87 | - | 0.0 | 74.5 | 66 | 74.5 | 10 | Snd Lvl | 74.5 | 0.0 | 80 | -8.0 |
| Northridge 13 | 91 | - | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 69.3 | 0.0 | 80 | -8.0 |
| Northridge 14 | 92 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 66.1 | 0.0 | 80 | -8.0 |
| Northridge 15 | 93 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 63.6 | 0.0 | 80 | -8.0 |
| Northridge 4 | 94 | - | 0.0 | 60.9 | 66 | 60.9 | 10 | 1 | 60.8 | 0.1 | œ | -7.9 |
| North Cove 77 | 9 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | 1 | 61.6 | 3.3 | 80 | -4.7 |
| North Cove 76 | 7 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | Ĩ | 59.8 | 3.8 | 8 | -4.2 |
| North Cove 75 | œ | - | 0.0 | 63.1 | 66 | 63.1 | 10 | Ĩ | 58.7 | 4.4 | 8 | -3.6 |
| North Cove 74 | ດ | - | 0.0 | 62.2 | 66 | 62.2 | 10 | I | 57.8 | 4.4 | 80 | -3.6 |
| North Cove 73 | 10 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | I | 58.4 | 3.6 | 80 | -4.4 |
| North Cove 72 | 11 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 57.4 | 3.2 | 8 | -4.8 |
| North Cove 69 | 12 | Ļ | 0.0 | 58.7 | 66 | 58.7 | 10 | 1 | 55.6 | 3.1 | 80 | -4.9 |
| North Cove 70 | 13 | 4 | 0.0 | 59.4 | 66 | 59.4 | 10 | 1 | 55.9 | 3.5 | 80 | -4.5 |
| North Cove 71 | 14 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | l | 55.9 | 4.1 | œ | -3.9 |
| North Cove 65 | 15 | - | 0.0 | 58.8 | 66 | 58.8 | 10 | I | 54.8 | 4.0 | 80 | -4.0 |
| North Cove 66 | 16 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | į | 54.5 | 3.7 | 8 | -4.3 |
| North Cove 67 | 17 | ٢ | 0.0 | 57.8 | 66 | 57.8 | 10 | l | 54.5 | 3.3 | 8 | -4.7 |
| North Cove 68 | 18 | + | 0.0 | 57.3 | 66 | 57.3 | 10 | | 53.9 | 3.4 | 80 | -4.6 |
| Bolling 1 | 95 | - | 0.0 | 55.6 | 66 | 55.6 | 10 |] | 55.5 | 0.1 | 80 | -7.9 |
| Bolling 2 | 96 | 1 | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 59.3 | 0.0 | ω | -8.0 |
| Bolling 3 | 97 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 59.8 | 0.0 | 80 | -8.0 |
| Bolling 4 | 98 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | | 60.2 | 0.0 | 80 | -8.0 |
| Bolling 5 | 66 | | 0.0 | 60.6 | 66 | 60.6 | 10 | l | 60.6 | 0.0 | 80 | -8.0 |
| Bolling 6 | 100 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | l | 61.0 | 0.0 | 80 | -8.0 |
| Bolling 7 | 101 | - | 0.0 | 61.2 | 66 | 61.2 | 10 | | 61.2 | 0.0 | 80 | -8.0 |
| Bolling 8 | 102 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | 1 | 61.9 | 0.0 | 80 | -8.0 |
| Bolling 9 | 103 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | 1 | 61.1 | 0.0 | œ | -8.0 |
| Bolling 10 | 104 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | The second s | 59.9 | 0.0 | 80 | -8.0 |
| Bolling 11 | 105 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | | 60.6 | 0.0 | 80 | -8.0 |
| Bolling 12 | 106 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | | 61.9 | 0.0 | 80 | -8.0 |
| Bolling 13 | 107 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | | 63.0 | 0.0 | 80 | -8.0 |
| Bolling 14 | 108 | - | 0.0 | 63.3 | 66 | 63.3 | 10 | | 63.3 | 0.0 | 8 | -8.0 |
| Bolling 15 | 109 | ۲ | 0.0 | 63.9 | 66 | 63.9 | 10 | - | 63.9 | 0.0 | 8 | -8.0 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D N0 | 0 | | | | | | | | | 26 May 20 | 15 | |

| Dolling to | 17 July 17 | ling Units | | | elected | npacted | of moot ND Cool |
|------------|------------|-------------|-----|---|---------|---------|-----------------|
| 111 | | 745 | | | | | |
| # DUs Nois | # DUs Nois | | Min | æ | 107 | 12 | 1 |
| | 0.0 | se Reductic | Avg | æ | 0.0 | 00 | 2 |
| | 61.2 | u | M | đ | 2.1 | 2.8 | |
| 3 | 66 | | ax | - | 7.8 | 7.8 | |
| | 61.2 | | | | | | |
| 0 | 10 | | | | | | |
| 1 | 1 | | | | | | |
| 04.4 | 61.2 | | | | | | |
| 0.0 | 0.0 | | | | | | |
| œ | ø | | | | | | |
| 9. 9 | -8.0 | | | | | | |

| RESULTS: BARRIER DESCRIPTIONS | | | | | | I-4 BtU PD8 | Ш | | | |
|--------------------------------------|---------|------------|-----------|---------------------|--------|-------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 7 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Bt(| J PD&E | | | | | | | | |
| RUN: | I-4 Se | gment 3 No | orth Cove | BM | | | | | | |
| BARRIER DESIGN: | BM 14 | _ | | | | | | | | |
| Barriers | | | | | | 9 | | | | |
| Name | Type | Heights a | long Barr | ier | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | 1 | Area | Volume | Top Width | Run:Rise | 1 |
| | | ŧ | ft | ft | Ĥ | sq ft | cu yd | Ĥ | ft:ff | Ş |
| NC BM | 3 | 14.00 | 14.(| 14.0 | 0 323 | 31 45235 | 10 | | | 1357061 |
| 17' Wall B | > | 17.00 | 17.0 | 00 17.0 | 155 | 54 26422 | 0 | | | 0 |
| | | | | | | | | | Total Cost: | 1357061 |
| | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI | 0&E | | | | | |
|---|---------|-----------------------------|---------------------|-----------|-------|-------|--------------|----------------------|----------------------|--------------------------------|------------------------------|-------------------|----------------------------|------|
| Stantec M. Drauer | | | | | | | | 7 May 20' TNM 2.5 | - <u>2</u> | | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seg BM 14 | I PD&E jment 3 N | lorth Cov | e BM | | | Calculate | d with TM Average | 1 2.5 aavement typ | e shall be use | ed unless | | |
| ATMOSPHERICS: | | 68 deç | g F, 50% | RH | | | | | of a diffe | griway ageric ent type with | substantiat approval of l | es me u: FHWA. | a | |
| Receiver | | | | | | | | | | | | | | |
| Name | No. | \$NQ# | Existing | y No Ba | rrier | | | | | With Barrier | | | | |
| | | | LAeq1h | LAeq1 | £ | | Increase ove | er existing | Type | Calculated | Noise Redu | ction | | |
| | | | | Calcul | ated | rit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculate minus Goal | D |
| | | | dBA | dBA | q | BA | đB | đB | | dBA | dB | dB | æ | |
| Woodlands 1 | - | | - | 0.0 | 64.7 | 99 | 64. | 7 10 | 1 | 64.6 | 0. | _ | 8 | -7.9 |
| North Cove 1 | 2 | | | 0.0 | 71.9 | 96 | 71. | 9 10 | Snd Lvl | 66.7 | 5.5 | 0 | 8 | -2.8 |
| North Cove 2 | m | | - | 0.0 | 75.7 | 96 | 75. | 7 10 | Snd Lvl | 6.3 | 9.4 | | 80 | 4.1 |
| North Cove Park | 4 | | - | 0.0 | 75.7 | 96 | 75. | 7 10 | Snd Lvl | 65.5 | 10.2 | O. | 8 | 2.2 |
| North Cove 3 | 2 | | - | 0.0 | 74.8 | 90 | 74. | 8 10 | Snd Lvl | 64.7 | 7 10. | _ | œ | 2.1 |
| North Cove 77 | 9 | | - | 0.0 | 66.6 | 96 | 66. | 6 10 | Snd Lvl | 62.1 | 4.5 | 10 | 8 | 3.5 |
| North Cove 76 | ~ | 16 | | 0.0 | 65.6 | 96 | 65. | .6 10 | 1 | 60.7 | 4.9 | 0 | 80 | -3.1 |
| North Cove 75 | 8 | | • | 0.0 | 65.2 | 96 | 65. | 2 10 | 1 | 60.1 | 5. | _ | 8 | -2.9 |
| North Cove 74 | 6 | • | - | 0.0 | 64.1 | 99 | 64. | 1 | Ĭ. | 59.0 | 5. | | 8 | -2.9 |
| North Cove 73 | 10 | • | - | 0.0 | 63.6 | 99 | 63. | .6 10 | l | 59.2 | 4.4 | | 8 | -3.6 |
| North Cove 72 | 11 | Ì | - | 0.0 | 61.9 | 96 | 61. | 9 10 | Ĩ | 57.9 | 4.(| 0 | 80 | 4.0 |
| North Cove 69 | 12 | | | 0.0 | 59.8 | 96 | 59. | 8 10 | | 55.9 | 3.9 | | 8 | 4.1 |
| North Cove 70 | 13 | | - | 0.0 | 60.5 | 90 | 60. | 5 10 | 1 | 56.5 | 5 4.0 | 0 | 80 | -4.0 |
| North Cove 71 | 14 | 11 | - | 0.0 | 61.2 | 90 | 61. | 2 10 | 1 | 56.7 | 4.5 | 10 | 8 | 3.5 |
| North Cove 65 | 15 | | | 0.0 | 59.7 | 96 | 59. | 7 10 | 1 | 55.6 | .4. | | 80 | -3.9 |
| North Cove 66 | 16 | • | - | 0.0 | 59.7 | 90 | 59. | 7 10 | 1 | 55.1 | 4.6 | (0) | 00 | -3.4 |
| North Cove 67 | 17 | | - | 0.0 | 59.2 | 96 | 59. | 2 10 | ĺ | 54.9 | 4.2 | ~ | 8 | -3.7 |
| North Cove 68 | 18 | | - | 0.0 | 58.5 | 96 | 58. | 5 10 | I | 54.3 | 4.2 | 0 | 8 | -3.8 |
| North Cove 4 | 19 | | - | 0.0 | 69.9 | 96 | 69. | 9 10 | Snd Lvl | 62.1 | 7.8 | ~ | 8 | -0.2 |
| North Cove 5 | 20 | Ì | - | 0.0 | 67.0 | 96 | 67. | 0 10 | Snd Lvl | 60.4 | 6.6 | (0 | 0 | 1.4 |
| North Cove 6 | 21 | | _ | 0.0 | 64.5 | 99 | 64. | 5 10 | Ì | 58.8 | 5.1 | • | 8 | -2.3 |
| North Cove 7 | 22 | • | - | 0.0 | 62.5 | 96 | 62. | 5 10 | j | 57.3 | 5.2 | 01 | ~ | -2.8 |
| North Cove 8 | 23 | Ì | - | 0.0 | 61.3 | 99 | 61. | 3 10 | 1 | 56.2 | 5. | | 8 | -2.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D NC BM | | | | | | | | | | | 7 N | lay 2015 | |

| RESULTS: SOUND LEVELS | | | | | 4 | 4 BtU PI | J&E | | | | |
|-----------------------------------|--------|-------|-------|-------|-------|----------|---------|------|-----|-----------|------|
| North Cove 9 | 24 | 1 0.0 | 90 | .1 66 | 60.1 | 10 | 1 | 55.0 | 5.1 | ø | -2.9 |
| North Cove 10 | 25 | 1 0.0 |) 26 | .4 66 | 59.4 | 10 | 1 | 53.9 | 5.5 | 8 | -2.5 |
| North Cove 11 | 26 | 1 0.0 | 99 26 | .0 66 | 59.0 | 10 | 1 | 53.4 | 5.6 | 8 | -2.4 |
| North Cove 12 | 27 | 1 0.0 |) 57 | .7 66 | 57.7 | 10 | | 52.6 | 5.1 | 80 | -2.9 |
| North Cove 13 | 28 | 1 0.0 | 9 57 | .5 66 | 57.5 | 10 | | 52.2 | 5.3 | œ | -2.7 |
| North Cove 14 | 29 | 1 0.0 | 55 | .0 66 | 55.0 | 10 | Ĩ | 52.2 | 2.8 | ω | -5.2 |
| North Cove 15 | 30 | 1 0.0 | 55 | .9 66 | 55.9 | 10 | | 52.3 | 3.6 | ω | -4.4 |
| North Cove 16 | 31 | 1 0.0 | 54 | .9 66 | 54.9 | 10 | | 52.2 | 2.7 | œ | -5.3 |
| North Cove 17 | 32 | 1 0.0 | 58 | .0 66 | 58.0 | 10 | | 53.8 | 4.2 | œ | -3.8 |
| North Cove 18 | 33 | 1 0.0 |) 57 | .2 66 | 57.2 | 10 | | 53.1 | 4.1 | œ | -3.9 |
| North Cove 19 | 59 | 1 0.0 | 56 | .8 66 | 56.8 | 10 | 1 | 52.7 | 4.1 | 80 | -3.9 |
| North Cove 20 | 35 | 1 0.0 | 56 | .2 66 | 56.2 | 10 | | 52.5 | 3.7 | 80 | -4.3 |
| North Cove 21 | 36 | 1 0.0 | 56 | .4 66 | 56.4 | 10 | Ì | 52.0 | 4.4 | 80 | -3.6 |
| North Cove 22 | 37 | 1 0.0 | 55 | .9 66 | 55.9 | 10 | | 52.3 | 3.6 | 00 | -4.4 |
| North Cove 23 | 38 | 1 0.0 | 55 | .1 66 | 55.1 | 10 | Ì | 52.2 | 2.9 | 80 | -5.1 |
| Woodlands 2 | 39 | 1 0.0 | 62 | .4 66 | 62.4 | 10 | | 59.3 | 3.1 | ω | -4.9 |
| Woodlands 3 | 40 | 1 0.0 | 9 60 | .8 66 | 60.8 | 10 | ĺ | 57.8 | 3.0 | œ | -5.0 |
| Woodlands 5 | 41 | 1 0.0 | 56 | .1 66 | 59.1 | 10 | 1 | 56.1 | 3.0 | 80 | -5.0 |
| Woodlands 4 | 42 | 1 0.0 | 9 60 | .0 66 | 60.09 | 10 | Ĩ | 56.9 | 3.1 | 80 | -4.9 |
| North Cove 24 | 43 | 1 0.0 | 58 | .0 66 | 58.0 | 10 | Ĩ | 54.0 | 4.0 | 80 | -4.0 |
| North Cove 25 | 44 | 1 0.0 |) 57 | .5 66 | 57.5 | 10 | Ĩ | 53.9 | 3.6 | 80 | -4.4 |
| North Cove 26 | 45 | 1 0.0 | 9 27 | .1 66 | 57.1 | 10 | I | 53.6 | 3.5 | 80 | -4.5 |
| North Cove 27 | 46 | 1 0.0 | 56 | .3 66 | 56.3 | 10 | Ĭ | 53.2 | 3.1 | 80 | -4.9 |
| North Cove 28 | 47 | 1 0.0 | 56 | .4 66 | 56.4 | 10 | - | 53.1 | 3.3 | 80 | -4.7 |
| North Cove 29 | 48 | 1 0.0 | 55 | .9 66 | 55.9 | 10 | Ĩ | 52.9 | 3.0 | 8 | -5.0 |
| North Cove 30 | 49 | 1 0.0 | 55 | .5 66 | 55.5 | 10 | 1 | 52.7 | 2.8 | 80 | -5.2 |
| North Cove 31 | 50 | 1 0.0 | 54 | .9 66 | 54.9 | 10 | I | 52.4 | 2.5 | 80 | -5.5 |
| North Cove 32 | 51 | 1 0.0 | 56 | .4 66 | 56.4 | 10 | I | 53.2 | 3.2 | 80 | -4.8 |
| North Cove 33 | 52 | 1 0.0 | 56 | .8 66 | 56.8 | 10 | 1 | 53.3 | 3.5 | 80 | -4.5 |
| North Cove 34 | 53 | 1 0.0 | 56 | .4 66 | 56.4 | 10 | 1 | 52.9 | 3.5 | 8 | -4.5 |
| North Cove 35 | 54 | 1 0.0 | 9 22 | .3 66 | 55.3 | 10 | 1 | 52.4 | 2.9 | 80 | -5.1 |
| North Cove 36 | 55 | 1 0.0 | 55 | .5 66 | 55.5 | 10 | 1 | 52.5 | 3.0 | 80 | -5.0 |
| North Cove 37 | 56 | 1 0.0 | 55 | .2 66 | 55.2 | 10 | | 52.4 | 2.8 | 00 | -5.2 |
| North Cove 38 | 57 | 1 0.0 | 54 | .9 66 | 54.9 | 10 | I | 52.4 | 2.5 | 80 | -5.5 |
| North Cove 39 | 58 | 1 0.0 | 55 | .2 66 | 55.2 | 10 | 1 | 52.6 | 2.6 | 80 | -5.4 |
| Northridge 12 | 60 | 1 0.0 | 76 | .7 66 | 76.7 | 10 | Snd Lvl | 73.2 | 3.5 | 80 | -4.5 |
| Northridge 11 | 61 | 1 0.0 | 65 | .0 66 | 65.0 | 10 | 1 | 60.9 | 4.1 | 80 | -3.9 |
| Northridge 10 | 62 | 1 0.0 | 65 | .0 66 | 65.0 | 10 | 1 | 61.0 | 4.0 | 8 | -4.0 |
| Northridge 9 | 63 | 1 0.0 | 66 | .0 66 | 66.0 | 10 | Snd Lvl | 61.9 | 4.1 | 80 | -3.9 |
| Northridge 8 | 64 | 1 0.0 | 68 | .1 66 | 68.1 | 10 | Snd Lvl | 63.8 | 4.3 | 8 | -3.7 |
| Northridge 7 | 65 | 1 0.0 | 69 | .9 66 | 69.9 | 10 | Snd Lvl | 65.5 | 4.4 | 00 | -3.6 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | ONC BM | | | | | 0 | | | | 7 May 201 | 10 |

| RESULTS: SOUND LEVELS | | | | | | 141 | BtU PD8 | ШX | | | | |
|-----------------------------------|-------|----|-----|------|----|------|---------|---------|------|-----|-----------|------|
| Northridge 6 | 66 | - | 0.0 | 67.7 | 66 | 67.7 | 10 | Snd Lvl | 63.7 | 4.0 | 80 | -4.0 |
| Northridge 5 | 67 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | 1 | 61.8 | 3.5 | 80 | -4.5 |
| Northridge 3 | 68 | - | 0.0 | 62.2 | 66 | 62.2 | 10 | 1 | 58.7 | 3.5 | 80 | -4.5 |
| Northridge 2 | 69 | +- | 0.0 | 60.4 | 66 | 60.4 | 10 | 1 | 56.9 | 3.5 | 80 | -4.5 |
| Northridge 1 | 20 | 80 | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 56.7 | 3.2 | 80 | -4.8 |
| Bay Poiint 12 | 71 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | ľ | 55.7 | 2.7 | 80 | -5.3 |
| Bay Point 11 | 72 | - | 0.0 | 57.8 | 66 | 57.8 | 10 | ĺ | 55.1 | 2.7 | 80 | -5.3 |
| Bay Point 10 | 73 | - | 0.0 | 57.2 | 66 | 57.2 | 10 | I | 54.6 | 2.6 | 80 | -5.4 |
| Bay Point 9 | 74 | - | 0.0 | 56.7 | 66 | 56.7 | 10 | 1 | 54.1 | 2.6 | 00 | -5.4 |
| bay Point 8 | 75 | - | 0.0 | 56.2 | 66 | 56.2 | 10 | ļ | 53.7 | 2.5 | 80 | -5.5 |
| Bay Point 7 | 76 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 53.2 | 2.4 | 00 | -5.6 |
| Bay Point 6 | 77 | - | 0.0 | 54.9 | 66 | 54.9 | 10 | 1 | 52.8 | 2.1 | 80 | -5.9 |
| Bay Point 5 | 78 | - | 0.0 | 56.8 | 66 | 56.8 | 10 | I | 53.6 | 3.2 | 80 | -4.8 |
| Bay Point 4 | 79 | - | 0.0 | 56.7 | 66 | 56.7 | 10 | ľ | 53.5 | 3.2 | 80 | -4.8 |
| Bay Point 3 | 80 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | I | 53.3 | 3.0 | 80 | -5.0 |
| Bay Point 2 | 81 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | I | 53.0 | 3.0 | 80 | -5.0 |
| North Cove 62 | 82 | - | 0.0 | 55.6 | 66 | 55.6 | 10 | 1 | 53.2 | 2.4 | 8 | -5.6 |
| North Cove 63 | 83 | - | 0.0 | 56.3 | 66 | 56.3 | 10 | 1 | 53.5 | 2.8 | 80 | -5.2 |
| North Cove 64 | 84 | - | 0.0 | 55.9 | 66 | 55.9 | 10 | | 53.3 | 2.6 | 8 | -5.4 |
| North Cove 65 | 85 | - | 0.0 | 55.4 | 66 | 55.4 | 10 | 1 | 52.9 | 2.5 | 80 | -5.5 |
| Bay Point 1 | 86 | - | 0.0 | 55.5 | 66 | 55.5 | 10 | I | 52.7 | 2.8 | 80 | -5.2 |
| Tennis Ct. | 87 | - | 0.0 | 75.0 | 66 | 75.0 | 10 | Snd Lvl | 66.2 | 8.8 | ω | 0.8 |
| Northridge 13 | 91 | - | 0.0 | 70.3 | 66 | 70.3 | 10 | Snd Lvl | 65.1 | 5.2 | 80 | -2.8 |
| Northridge 14 | 92 | 1 | 0.0 | 67.3 | 66 | 67.3 | 10 | Snd Lvl | 63.1 | 4.2 | 80 | -3.8 |
| Receiver93 | 93 | 1 | 0.0 | 65.1 | 66 | 65.1 | 10 | - | 61.6 | 3.5 | œ | 4.5 |
| Northridge 4 | 94 | - | 0.0 | 63.4 | 66 | 63.4 | 10 | 1 | 59.0 | 4.4 | œ | -3.6 |
| Bolling 2 | 96 | - | 0.0 | 59.7 | 66 | 59.7 | 10 | J | 58.7 | 1.0 | 8 | -7.0 |
| Bolling 3 | 97 | - | 0.0 | 60.1 | 66 | 60.1 | 10 | 1 | 59.3 | 0.8 | 80 | -7.2 |
| Bolling 4 | 86 | - | 0.0 | 60.5 | 66 | 60.5 | 10 | I | 59.8 | 0.7 | 80 | -7.3 |
| Bolling 5 | 66 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | I | 60.3 | 0.5 | œ | -7.5 |
| Bolling 6 | 100 | - | 0.0 | 61.2 | 66 | 61.2 | 10 | 1 | 60.7 | 0.5 | 80 | -7.5 |
| Bolling 7 | 101 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | 1 | 61.0 | 0.4 | 80 | -7.6 |
| Bolling 8 | 102 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 61.7 | 0.3 | 80 | -7.7 |
| Bolling 9 | 103 | - | 0.0 | 61.2 | 66 | 61.2 | 10 | 1 | 61.0 | 0.2 | 80 | -7.8 |
| Bolling 10 | 104 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 59.7 | 0.3 | œ | -7.7 |
| Bolling 11 | 105 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | 1 | 60.5 | 0.2 | 8 | -7.8 |
| Bolling 12 | 106 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 61.8 | 0.2 | 8 | -7.8 |
| Bolling 13 | 107 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | | 62.9 | 0.1 | 80 | -7.9 |
| Bolling 14 | 108 | - | 0.0 | 63.4 | 66 | 63.4 | 10 | Ĩ | 63.2 | 0.2 | 80 | -7.8 |
| Bolling 15 | 109 | - | 0.0 | 63.9 | 66 | 63.9 | 10 | | 63.8 | 0.1 | 80 | -7.9 |
| Bolling 16 | 110 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | - | 64.3 | 0.1 | 8 | -7.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | NC BM | | | | | m | | | | | 7 May 201 | |

7 May 2015

4

Barrier Analysis

NSA D - Pine Bay

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 Btu PD& | щ | | | |
|---|---------------------------|----------------------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 8 May 201 TNM 2.5 | CI | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | I-4 Bt I-4 Se GM 2: | U PD&E gment 3 Pir 2 | le Bay GM | | | | | | | |
| Barriers Name | Type | Heights al | ong Barrie | - | Length | If Wall | lf Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | I |
| | | Ħ | ft | Ŧ | Ŧ | sq ft | cu yd | Ŧ | ft:ft | в |
| Pine Bay | > | 22.00 | 22.00 | 22.00 | 1802 | 2 39643 | | | | 1189300 |
| | | | | | | | | | Total Cost: | 1189300 |

C:\TNM25\230168\Seg 3\8 + 4\NSA D Pine Bay

8 May ;

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU | PD&E | | | | | | |
|---|--------------------------|------------------------|-------------|----------------------|--------|--------------------------|----------------------------------|-----------|---------------------------------|----------------------|--------------------------|-----------|----------------------------|------|
| Stantec M. Drauer | | | | | | | 8 May TNM 2 | 2015 5 | l l | L | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | I-4 B(I-4 Sc GM 2 | tU PD&I egment 2 | E 3 Pine | Bay GM | | | Calcul | | th INM erage po trate him | 2.5 avement type | e shall be use | ed unless | | |
| ATMOSPHERICS: | 68 d | eg F, 5(| % RH | | | | | o jo | a differe | int type with | approval of I | EHWA. | 5 | |
| Receiver | | L C C | tine . | No Barrior | | | | | | Mith Darrier | | | | |
| | | | 2 | | | | alitative set | Ē | | | Notos Dad | | | 1 |
| | | LAe | E E | LAeq1n Calculated | Crit'n | Calculated Calculated | ver existin Crit'n Sub'l I | | pact | Calculated LAeq1h | Noise Kedu Calculated | Goal | Calculate minus Goal | pe |
| | | dBA | | dBA | dBA | Вb | Вþ | | | dBA | dB | đB | Bb | |
| Pine Bay 1 | - | - | 0.0 | 71.: | ~ | 66 7 | 1.3 | 10 | ind Lvi | 63.8 | 7.5 | 10 | 80 | -0.5 |
| Pine Bay 2 | 2 | - | 0.0 | 71.4 | _ | 66 7 | 1.4 | 10 \$ | ind LvI | 62.9 | 8.5 | 10 | 8 | 0.5 |
| Pine Bay 3 | r | - | 0.0 | 71.4 | | 66 7 | 1.4 | 10 | ind Lvl | 62.6 | 8.8 | ~ | 80 | 0.8 |
| Pine Bay 4 | 4 | - | 0.0 | 71.(| 6 | 66 7 | 1.6 | 10 | ind Lvl | 62.3 | 6 | ~ | 8 | 1.3 |
| Pine Bay 5 | 5 | - | 0.0 | 71.(| | 66 7 | 1.6 | 10 S | ind Lvl | 62.1 | 3.6 | 10 | 8 | 1.5 |
| Pine Bay 6 | 9 | - | 0.0 | 71.5 | 10 | 66 7 | 1.5 | 10 | ind Lvl | 61.9 | 9.6 | (0) | 80 | 1.6 |
| Pine Bay 7 | 2 | - | 0.0 | 71.(| 6 | 66 7 | 1.6 | 10 | ind Lvl | 61.9 | 6 | • | 80 | 1.7 |
| Pine Bay 8 | œ | - | 0.0 | 71.1 | 10 | 66 7 | 1.5 | 10 \$ | ind Lvl | 61.8 | 6 | • | 80 | 1.7 |
| Pine Bay 9 | 6 | - | 0.0 | 71.5 | 10 | 66 7 | 1.5 | 10 | ind Lvl | 61.5 | 10.0 | 0 | 8 | 2.0 |
| Pine Bay 10 | 10 | - | 0.0 | 71. | _ | 66 7 | 1.4 | 10 | ind Lvl | 61.5 | 6 | ~ | 80 | 1.9 |
| Pine Bay 11 | 11 | - | 0.0 | 71.(| | 66 7 | 1.6 | 10 | ind Lvl | 61.4 | 10.2 | 01 | 8 | 2.2 |
| Pine Bay 12 | 12 | ۴ | 0.0 | 71.(| 6 | 66 7 | 1.6 | 10 \$ | ind Lvl | 61.3 | 10.3 | ~ | 8 | 2.3 |
| Pine Bay 13 | 13 | - | 0.0 | 71.(| 6 | 66 7 | 1.6 | 10 \$ | ind Lvl | 61.3 | 10.3 | ~ | 8 | 2.3 |
| Pine Bay 14 | 14 | - | 0.0 | 71.5 | 10 | 66 7 | 1.5 | 10 | ind Lvl | 61.4 | 10.1 | | 80 | 2.1 |
| Pine Bay 15 | 15 | - | 0.0 | 71.(| 0 | 66 7 | 1.0 | 10 | ind Lvl | 61.3 | 6 | • | 80 | 1.7 |
| Pine Bay 16 | 16 | 1 | 0.0 | 70. | ~ | 66 7 | 0.8 | 10 | ind Lvl | 61.5 | 6 | ~ | 8 | 1.3 |
| Pine Bay 17 | 17 | - | 0.0 | .02 | • | 66 7 | 0.7 | 10 | ind Lvl | 61.5 | 6 | 01 | 80 | 1.2 |
| Pine Bay 18 | 18 | ۲ | 0.0 | .02 | • | 66 7 | 0.7 | 10 | ind Lvl | 61.6 | 6 | | 80 | 1.1 |
| Pine Bay 19 | 19 | - | 0.0 | -02 | | 66 7 | 0.4 | 10 | ind Lvl | 61.5 | 8.9 | • | 80 | 0.9 |
| Pine Bay 20 | 20 | - | 0.0 | 20. | ~ | 66 7 | 0.3 | 10 | ind Lvl | 61.8 | .8 | 10 | 80 | 0.5 |
| Pine Bay 21 | 21 | - | 0.0 | 20: | ~ | 66 7 | 0.3 | 10 | ind Lvl | 62.0 | 8.5 | ~ | 8 | 0.3 |
| Pine Bay 22 | 22 | - | 0.0 | 70. | ~ | 66 7 | 0.3 | 10 | ind Lvl | 62.2 | ö | | 8 | 0.1 |
| Pine Bay 23 | 23 | 1 | 0.0 | 70: | ~ | 66 7 | 0.3 | 10 | ind Lvl | 62.5 | 7.8 | ~ | 80 | -0.2 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D Pine Bay | | | | | | Ŧ | | | | | 8 1 | fay 2015 | |

| Presiby 24 Dec (b) 24 D (c) | RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | ЯЕ | | | | |
|---|------------------------------|----|---|-----|-------|----|------|---------|---------|------|-----|----|------|
| Processor 25 1 0.0 669 669 105 614 655 6 63 | Pine Bay 24 | 24 | - | 0.0 | 60.9 | 99 | 6.69 | 10 | Snd Lvl | 62.9 | 7.0 | 80 | -1.0 |
| Presbarzát Dia de la como | Pine Bay 25 | 25 | - | 0.0 | 66.69 | 66 | 6.69 | 10 | Snd Lvl | 63.4 | 6.5 | 00 | -1.5 |
| Prine Bay 37 27 1 0.00 69.7 69.7 10 64.6 51.6 63.7 64 51.1 63.1 64.6 51.7 6 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51.7 64.7 51. | Pine Bay 26 | 26 | - | 0.0 | 69.69 | 66 | 69.6 | 10 | Snd Lvl | 64.0 | 5.6 | ω | -2.4 |
| Prime Bay 38 Dec Name | Pine Bay 27 | 27 | - | 0.0 | 69.7 | 66 | 69.7 | 10 | Snd Lvl | 64.6 | 5.1 | œ | -2.9 |
| Pine Bay 20 23 1 0.0 50.0 60 71.0 61.1 21.7 81 21.7 81 51.1 | Pine Bay 28 | 28 | - | 0.0 | 70.3 | 66 | 70.3 | 10 | Snd Lvl | 66.4 | 3.9 | ω | -4.1 |
| Prime Bay 31 30 1 0.0 99.0 69.0 60.1 61.1 19.0 60.0 Prime Bay 31 31 1 0.0 97.8 66.0 60.1 66.1 19.0 66.0 <t< td=""><td>Pine Bay 29</td><td>29</td><td>-</td><td>0.0</td><td>70.8</td><td>66</td><td>70.8</td><td>10</td><td>Snd Lvl</td><td>68.1</td><td>2.7</td><td>œ</td><td>-5.3</td></t<> | Pine Bay 29 | 29 | - | 0.0 | 70.8 | 66 | 70.8 | 10 | Snd Lvl | 68.1 | 2.7 | œ | -5.3 |
| Preselbergit Dial Dial <thdial< th=""> Dial Dial</thdial<> | Pine Bay 30 | 30 | - | 0.0 | 69.0 | 66 | 69.0 | 10 | Snd Lvl | 67.1 | 1.9 | œ | -6.1 |
| Pine Bay 2 Dia Mal Lu Solution | Pine Bay 31 | 31 | - | 0.0 | 67.8 | 66 | 67.8 | 10 | Snd Lvl | 66.2 | 1.6 | 80 | -6.4 |
| Pree Bay 33 Pree Bay 34 S3 1 0.0 65.5 66 64.2 1.4 6 66.2 1.4 8 6.6 Pree Bay 36 33 1 0.00 64.2 66 64.2 1.1 0.0 64.3 66 64.2 1.1 8 7.1 Pree Bay 36 33 1 0.00 62.3 66 62.5 1.0 62.4 1.1 8 7.1 Pree Bay 37 33 1 0.00 62.3 66 62.5 1.0 62.6 1.1 8 7.1 Pree Bay 41 41 1 0.00 62.3 66 61.3 1.0 60.3 1.1 8 7.1 Pree Bay 42 44 1 0.00 61.3 66 61.3 1.0 60.3 1.1 8 7.1 Pree Bay 43 44 1 0.00 61.3 66 61.3 1.0 | Pine Bay 32 | 32 | - | 0.0 | 66.6 | 66 | 66.6 | 10 | Snd Lvl | 65.1 | 1.5 | œ | -6.5 |
| Prine Bay 34 Pair | Pine Bay 33 | 33 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | 1 | 64.2 | 1.4 | 8 | -6.6 |
| Pine Bay 3 33 1 0.0 64.2 66 64.2 10 46.3 10 46.3 47.3 46.3 47.3 47.3 47.3 Pine Bay 3 37 1 0.0 62.3 66 62.5 10 67.3 10 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3 | Pine Bay 34 | 34 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 63.3 | 1.4 | Ø | -6.6 |
| Pine Bay 3f 3f 1 0.0 63.5 66 62.5 10 mc 62.4 11 9 7.1 Pine Bay 3f 38 1 0.0 62.5 66 62.5 10 mc 61.5 10.0 8 7.1 Pine Bay 3f 38 1 0.0 62.5 66 62.5 10 mc 61.5 10.0 8 7.1 Pine Bay 41 41 1 0.0 62.5 66 62.5 10 mc 61.5 10.0 8 7.1 Pine Bay 42 41 1 0.0 61.3 66 61.3 10 mc 61.5 10.0 8 7.1 Pine Bay 42 44 1 0.0 61.3 66 61.3 10 mc 61.5 10.0 61.5 10.0 61.5 10.0 61.5 10.0 61.5 10.0 10.0 10.0 10.0 10.0 10.0 10.0 | Pine Bay 35 | 35 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | I | 63.0 | 1.2 | 80 | -6.8 |
| Prine Bay 37 37 1 0.0 62.9 66 62.5 10 62.0 0.9 8 7.1 Prine Bay 33 38 1 0.00 62.5 66 82.5 10 61.5 10 8 7.1 Prine Bay 43 38 1 0.00 61.5 66 81.3 10 61.5 10 8 7.1 Prine Bay 43 44 1 0.00 61.3 66 81.3 10 60.5 11 0.3 8 7.1 Prine Bay 43 44 1 0.00 61.3 66 81.3 10 60.5 11 0.3 66 67.3 10 10 | Pine Bay 36 | 36 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 62.4 | 1.1 | 80 | -6.9 |
| Prine Bay 38 T 0.0 02.5 66 02.5 10 61.5 10 8 7.1 Prine Bay 41 40 1 0.0 61.5 66 61.5 66 61.5 71 0.0 8 7.1 Prine Bay 41 41 1 0.0 61.5 66 61.5 10 61.1 0.0 8 7.1 Prine Bay 42 43 1 0.0 61.1 66 61.1 10 60.0 0.0 8 7.1 Prine Bay 42 44 1 0.0 61.1 66 61.1 10 60.0 0.0 8 7.1 Prine Bay 42 44 1 0.0 61.1 66 61.1 61.0 61.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 60.0 | Pine Bay 37 | 37 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | I | 62.0 | 0.9 | 80 | -7.1 |
| Prine Bay 36 36 1 0.0 62.0 66 62.0 61.5 10 61.1 0.0 8 7.71 Prine Bay 41 44 1 0.0 61.5 66 61.3 10 60.0 0.8 7.71 Prine Bay 42 44 1 0.0 61.3 66 61.3 10 60.0 0.8 7.71 Prine Bay 43 44 1 0.0 60.1 66 61.3 10 69.3 11 8 7.71 Prine Bay 45 45 1 0.0 61.3 66 61.3 10 69.3 11 8 7.73 Prine Bay 45 47 1 0.0 61.3 61.3 60.3 68 7.13 8 7.73 Prine Bay 47 47 1 0.0 62.3 66 62.3 10 60.3 68 7.13 8 | Pine Bay 38 | 38 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | ŀ | 61.5 | 1.0 | 8 | -7.0 |
| Prime Bay 41 40 1 0.0 61.5 66 61.5 10 60.6 0.3 8 7.7 Prime Bay 41 41 1 0.0 61.3 66 61.3 10 60.5 0.3 8 7.7 Prime Bay 42 42 1 0.0 60.3 66 60.3 10 60.5 11 8 7.7 Prime Bay 42 43 1 0.0 61.3 66 60.1 59.7 11 8 -7.0 Prime Bay 42 45 1 0.0 61.3 66 61.3 10 59.7 11 8 -7.0 Prime Bay 43 44 1 0.0 65.3 66 65.3 10 60.5 11 8 -7.0 Prime Bay 43 44 1 0.0 65.3 10 60.5 11 8 -5.7 Prim | Pine Bay 39 | 39 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | ļ | 61.1 | 0.9 | 80 | -7.1 |
| Pine Bay 41 41 1 0.0 61.3 66 61.3 10 60.5 0.8 7.2 Pine Bay 42 43 1 0.0 60.1 60.1 10 55.1 11.1 8 7.7 Pine Bay 43 43 1 0.0 60.1 66.1 10.1 55.1 11.1 8 7.7 Pine Bay 45 44 1 0.0 60.1 66.1 10.1 55.1 11.1 8 7.1 Pine Bay 47 47 1 0.0 60.1 61.3 10.1 55.1 11.1 8 7.1 Pine Bay 47 47 1 0.0 62.3 66 62.3 10.1 56.3 11.1 8 7.1 8 7.3 Pine Bay 57 57 66 63.3 10 60.3 11.3 8 7.3 Pine Bay 51 10 10 | Pine Bay 40 | 40 | - | 0.0 | 61.5 | 66 | 61.5 | 10 | 1 | 60.6 | 0.9 | 8 | -7.1 |
| Prine Bay 42 42 1 0.0 60.0 < | Pine Bay 41 | 41 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | ļ | 60.5 | 0.8 | 80 | -7.2 |
| Prine Bay 43 H3 1 0.0 60.1 60 60.1 10 med 53.5 11 10 8 -7.0 Prine Bay 43 H4 1 0.0 60.6 66 61.0 10 med 53.5 11 18 -6.6 Prine Bay 45 H4 1 0.0 61.3 66 61.3 10 med 53.7 11.3 18 66 Prine Bay 45 H4 1 0.0 61.3 66 61.3 10 med 66 66.5 67.1 13 14 18 66 67.5 10 | Pine Bay 42 | 42 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | 1 | 60.0 | 0.8 | 00 | -7.2 |
| Pine Bay 44 44 1 0.0 6.06 6.06 6.0 | Pine Bay 43 | 43 | - | 0.0 | 60.1 | 66 | 60.1 | 10 | 1 | 59.1 | 1.0 | ω | -7.0 |
| Pine Bay 45 1 0.0 61.0 61.0 61.0 61.0 61.0 61.3 63.7 1.3 8 66.0 Pine Bay 45 1 0.0 61.3 66 61.3 10 63.9 11.4 8 66.6 Pine Bay 47 48 1 0.0 62.3 66 63.1 10 60.8 17.5 8 -6.5 Pine Bay 43 43 1 0.0 62.3 66 63.1 10 61.3 1.8 6.5 Pine Bay 51 51 1 0.0 63.3 66 63.3 10 61.3 1.8 6.5 Pine Bay 51 51 1 0.0 65.3 66 65.3 10 60.3 11.7 8 -6.5 Pine Bay 51 51 1 0.0 66.3 66.3 10 61.3 20 8 -5.3 Pine Bay 51 </td <td>Pine Bay 44</td> <td>44</td> <td>-</td> <td>0.0</td> <td>60.6</td> <td>66</td> <td>60.6</td> <td>10</td> <td>1</td> <td>59.5</td> <td>1.1</td> <td>æ</td> <td>-6.9</td> | Pine Bay 44 | 44 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 59.5 | 1.1 | æ | -6.9 |
| Pine Bay 46 64 61.3 66 61.3 66 63.3 66 63.3 66 65.3 66 65.3 66 65.3 66 65.3 66 65.3 66 65.3 66 65.3 66 65.3 66 65.3 66 65.3 7 10 -0.3 66 65.3 7 10 -0.3 66 65.3 66 65.3 7 10 -0.3 61.3 7 10 -0.3 66 65.3 66 65.3 10 -0.3 66 65.3 66 65.3 10 -0.3 66 65.3 66 65.3 10 -0.3 66 70 10 -0.3 66 70 10 20.3 8 -5.3 Pine Bay 5 7 1 0.0 65.3 66 65.3 10 -0.3 10 -0.3 20 8 -5.3 Pine Bay 5 7 1 0.0 66.3 | Pine Bay 45 | 45 | - | 0.0 | 61.0 | 99 | 61.0 | 10 | I | 59.7 | 1.3 | 80 | -6.7 |
| Pine Bay 47 47 1 0.0 62.0 66 62.0 10 60.5 15 15 8 6.5 Pine Bay 48 48 1 0.0 62.5 66 62.5 10 60.8 17 8 6.5 Pine Bay 48 50 1 0.0 62.3 66 63.3 10 61.7 20 8 6.5 Pine Bay 51 51 1 0.0 63.3 66 64.3 10 61.7 22.0 8 -5.7 Pine Bay 51 53 1 0.0 65.2 66 65.3 10 62.3 23 8 -5.7 Pine Bay 51 53 1 0.0 65.2 66 65.2 10 5.4 14 43 14 43 14 43 14 14 14 14 14 14 14 14 14 14 14 | Pine Bay 46 | 46 | - | 0.0 | 61.3 | 99 | 61.3 | 10 | Ĩ | 59.9 | 1.4 | 8 | -6.6 |
| Pine Bay 48 48 1 0.0 62.5 66 62.5 10 60.8 1.7 8 -6.3 Pine Bay 49 49 1 0.0 63.1 66 63.1 10 61.3 1.8 6 63.3 Pine Bay 50 51 1 0.0 63.1 66 63.1 10 61.3 18 -6.3 Pine Bay 51 52 1 0.0 65.2 66 65.3 10 61.1 2.2 8 -5.7 Pine Bay 52 53 1 0.0 65.2 66 65.3 10 62.9 2.3 8 -5.7 Pine Bay 53 53 1 0.0 66.0 66.0 66.3 10 62.9 2.3 8 -5.7 Pine Bay 53 56 66 66.0 10 54.4 8 -5.4 Pine Bay 54 57 1 <t< td=""><td>Pine Bay 47</td><td>47</td><td>-</td><td>0.0</td><td>62.0</td><td>99</td><td>62.0</td><td>10</td><td>I</td><td>60.5</td><td>1.5</td><td>8</td><td>-6.5</td></t<> | Pine Bay 47 | 47 | - | 0.0 | 62.0 | 99 | 62.0 | 10 | I | 60.5 | 1.5 | 8 | -6.5 |
| Pine Bay 49 44 1 0.0 63.1 66 63.1 10 61.3 1.8 6.0 Pine Bay 50 55 1 0.0 63.7 66 63.7 10 61.7 2.0 8 -6.0 Pine Bay 51 51 1 0.0 63.7 66 63.7 10 61.7 2.0 8 -5.1 Pine Bay 51 53 1 0.0 65.2 66 65.2 10 5.1 2.2 8 -5.1 Pine Bay 52 55 1 0.0 65.2 66 65.2 10 5.4 2.3 8 -5.1 Pine Bay 55 55 1 0.0 65.3 66 65.4 10 5.3 8 -5.1 Pine Bay 55 56 6 66.0 65.0 10 5.4 10 2.3 8 -5.1 Pine Bay 55 57 10 57 10 <td>Pine Bay 48</td> <td>48</td> <td>-</td> <td>0.0</td> <td>62.5</td> <td>66</td> <td>62.5</td> <td>10</td> <td></td> <td>60.8</td> <td>1.7</td> <td>œ</td> <td>-6.3</td> | Pine Bay 48 | 48 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | | 60.8 | 1.7 | œ | -6.3 |
| Pine Bay 50 50 1 0.0 6.3.7 66 61.7 2.0 8 6.0 Pine Bay 51 51 1 0.0 64.3 66 64.3 10 61.7 2.0 8 -5.1 Pine Bay 51 52 1 0.0 64.3 66 64.3 10 62.1 2.2 8 -5.1 Pine Bay 52 53 1 0.0 65.2 66 65.3 10 62.1 2.2 8 -5.1 Pine Bay 53 53 1 0.0 66.2 66.0 66.3 10 62.3 3.1 8 -5.1 Pine Bay 54 56 1 0.0 66.3 66.6 66.3 10 61.3 4.3 6.3 4.3 Pine Bay 54 56 66 66.3 10 61.4 2.3 8 -5.1 Pine Bay 54 57 1 | Pine Bay 49 | 49 | | 0.0 | 63.1 | 99 | 63.1 | 10 | 1 | 61.3 | 1.8 | õ | -6.2 |
| Pine Bay 51 51 1 0.0 64.3 66 64.3 10 62.1 2.2 8 -5.3 Pine Bay 52 52 1 0.0 65.2 66 65.2 10 62.9 23 8 -5.1 Pine Bay 53 53 1 0.0 66.3 66 66.3 10 mode 63.9 31 8 -5.1 Pine Bay 54 55 1 0.0 66.3 66 66.3 10 mode 8 -5.1 Pine Bay 54 55 1 0.0 66.0 66.3 10 mode 61.9 37 8 -5.1 Pine Bay 55 56 1 0.0 65.3 66 65.3 10 mode 10 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 -6.1 | Pine Bay 50 | 50 | - | 0.0 | 63.7 | 99 | 63.7 | 10 | 1 | 61.7 | 2.0 | ø | -6.0 |
| Pine Bay 52 52 1 0.0 65.2 66 65.2 10 62.9 2.3 8 -5.1 Pine Bay 53 53 1 0.0 66.3 66 66.3 10 54.4 2.9 8 -5.1 Pine Bay 53 54 1 0.0 66.3 66 66.3 10 54.4 2.9 8 -5.4 Pine Bay 55 55 1 0.0 66.0 66.3 66 66.0 10 54.4 8 -5.4 Pine Bay 56 55 1 0.0 66.0 66.3 66 66.1 61.4 8 -5.4 Pine Bay 57 57 1 0.0 64.4 66 65.3 10 -61.4 9 -5.4 Pine Bay 57 58 1 0.0 64.4 66 65.3 10 -61.4 9 -5.4 Pine Bay 57 59 1 0 -6 66.4 <td< td=""><td>Pine Bay 51</td><td>51</td><td>-</td><td>0.0</td><td>64.3</td><td>99</td><td>64.3</td><td>10</td><td>1</td><td>62.1</td><td>2.2</td><td>80</td><td>-5.8</td></td<> | Pine Bay 51 | 51 | - | 0.0 | 64.3 | 99 | 64.3 | 10 | 1 | 62.1 | 2.2 | 80 | -5.8 |
| Pine Bay 53 53 1 0.0 66.3 66 66.3 10 Snd Lvi 63.4 2.9 8 -5.1 Pine Bay 54 54 1 0.0 66.3 66 66.3 10 Snd Lvi 62.8 3.4 8 -4.3 Pine Bay 55 55 1 0.0 66.0 66.3 10 Snd Lvi 62.8 3.7 8 -4.3 Pine Bay 55 55 1 0.0 66.0 66.3 10 Snd Lvi 62.3 3.7 8 -4.3 Pine Bay 57 57 1 0.0 65.9 66 65.4 10 Snd Lvi 62.3 3.7 8 -5.4 Pine Bay 57 57 1 0.0 64.4 66 64.4 10 -6.1 10 2.1 8 -5.4 Pine Bay 57 58 10 64.4 10 -6.1 10 -6.1 10 -6.1 10 -5.4 10< | Pine Bay 52 | 52 | - | 0.0 | 65.2 | 99 | 65.2 | 10 | | 62.9 | 2.3 | 80 | -5.7 |
| Pine Bay 54 54 1 0.0 66.2 66 66.2 10 Snd Lvl 62.8 3.4 8 -4.6 Pine Bay 55 55 1 0.0 66.0 66.0 10 Snd Lvl 62.3 3.7 8 -4.3 Pine Bay 55 55 1 0.0 66.0 66.0 67.9 10 Snd Lvl 62.3 3.7 8 -4.0 Pine Bay 57 57 1 0.0 65.9 66 65.9 10 Snd Lvl 62.3 3.0 8 -4.0 Pine Bay 57 57 1 0.0 64.4 66 64.4 10 -6 65.4 -5.4 -5.4 Pine Bay 58 58 1 0.0 63.5 66 63.5 10 -6 -6 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 -5.4 | Pine Bay 53 | 53 | - | 0.0 | 66.3 | 99 | 66.3 | 10 | Snd Lvl | 63.4 | 2.9 | 8 | -5.1 |
| Pine Bay 55 55 1 0.0 66.0 66.0 10 Snd Lvl 62.3 3.7 8 -4.3 Pine Bay 56 56 1 0.0 65.9 66 65.9 10 61.9 4.0 8 -4.0 Pine Bay 57 57 1 0.0 65.9 66 65.9 10 61.4 3.0 8 -5.0 Pine Bay 58 58 1 0.0 63.5 66 63.5 10 61.4 3.0 8 -5.0 Pine Bay 59 59 1 0.0 63.5 66 63.5 10 60.9 2.1 8 -5.4 Pine Bay 60 60 61.6 61.6 10 60.9 2.1 8 -6.2 Pine Bay 61 61 61 61.6 61.6 10 60.4 10 -6.2 -6.2 Pine Bay 61 61 61.6 | Pine Bay 54 | 54 | - | 0.0 | 66.2 | 99 | 66.2 | 10 | Snd Lvl | 62.8 | 3.4 | 80 | -4.6 |
| Pine Bay 56 56 1 0.0 65.9 66 65.9 10 61.9 4.0 8 5.0 Pine Bay 57 57 1 0.0 64.4 66 64.4 10 61.9 3.0 8 -5.0 Pine Bay 57 57 1 0.0 64.4 66 64.4 10 61.4 3.0 8 -5.0 Pine Bay 58 58 1 0.0 63.5 66 63.5 10 60.9 2.1 8 -5.4 Pine Bay 59 59 1 0.0 61.1 66 61.5 10 59.5 1.6 6.2 Pine Bay 61 61 1 0.0 61.1 66 61.1 10 59.5 1.6 8 -6.2 Pine Bay 62 62 1 10 59.5 1.6 8 -6.1 Pine Bay 62 63 <td< td=""><td>Pine Bay 55</td><td>55</td><td>~</td><td>0.0</td><td>66.0</td><td>66</td><td>66.0</td><td>10</td><td>Snd Lvl</td><td>62.3</td><td>3.7</td><td>80</td><td>-4.3</td></td<> | Pine Bay 55 | 55 | ~ | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 62.3 | 3.7 | 80 | -4.3 |
| Pine Bay 57 57 1 0.0 64.4 66 64.4 10 61.4 3.0 8 -5.4 Pine Bay 58 58 1 0.0 63.5 66 63.5 10 60.9 2.6 8 -5.4 Pine Bay 58 58 1 0.0 63.5 66 63.5 10 60.9 2.1 8 -5.4 Pine Bay 59 59 1 0.0 61.1 66 61.6 10 60.4 8 -5.4 Pine Bay 61 61 1 0.0 61.1 66 61.6 10 59.8 1.6 6.4 Pine Bay 61 61 1 0.0 60.4 66 60.4 10 59.6 6.4 -6.2 Pine Bay 62 62 1 10 59.9 1.6 8 -6.2 Pine Bay 63 63 60.4 10 <t< td=""><td>Pine Bay 56</td><td>56</td><td>-</td><td>0.0</td><td>65.9</td><td>66</td><td>65.9</td><td>10</td><td>1</td><td>61.9</td><td>4.0</td><td>80</td><td>-4.0</td></t<> | Pine Bay 56 | 56 | - | 0.0 | 65.9 | 66 | 65.9 | 10 | 1 | 61.9 | 4.0 | 80 | -4.0 |
| Pine Bay 58 58 1 0.0 63.5 66 63.5 10 60.9 2.6 8 5.9 Pine Bay 59 59 1 0.0 62.5 66 61.6 10 60.4 2.1 8 -5.9 Pine Bay 60 60 1 0.0 61.6 66 61.6 10 59.8 1.8 8 -6.2 Pine Bay 60 61 1 10 59.8 1.8 8 -6.2 Pine Bay 61 61 1 0.0 61.1 66 61.1 10 59.8 1.6 8 -6.2 Pine Bay 62 63 1 0.0 60.4 66 60.4 10 59.8 1.6 8 -6.1 Pine Bay 62 63 1 66 60.1 10 59.8 1.1 8 -6.1 Pine Bay 63 63 66.1 66 | Pine Bay 57 | 57 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | 1 | 61.4 | 3.0 | 80 | -5.0 |
| Pine Bay 59 59 1 0.0 62.5 66 62.5 10 60.4 2.1 8 -5.9 Pine Bay 60 60 1 0.0 61.6 66.6 61.6 10 59.8 1.8 8 -6.2 Pine Bay 60 61 1 0.0 61.1 66 61.1 10 59.8 1.8 8 -6.3 Pine Bay 61 61 1 0.0 61.1 66 61.1 10 59.5 1.6 8 -6.3 Pine Bay 62 62 1 0.0 60.4 10 59.5 1.6 8 -6.7 Pine Bay 63 63 1 0.0 60.0 66 60.0 1 10 1 13 8 -6.7 Pine Bay 63 64 1 0 58.9 1.1 8 -6.1 Pine Bay 64 64 10 10 | Pine Bay 58 | 58 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 60.9 | 2.6 | 80 | -5.4 |
| Pine Bay 60 60 1 0.0 61.6 66 61.6 10 59.8 1.8 8 -6.3 Pine Bay 61 61 1 0.0 61.1 66 61.1 10 59.8 1.6 8 -6.4 Pine Bay 61 61 1 0.0 61.1 66 61.1 10 59.5 1.6 8 -6.7 Pine Bay 62 63 1 0.0 60.4 66 60.4 10 58.9 1.1 8 -6.7 Pine Bay 63 63 10 -6 60.0 10 58.9 1.1 8 -6.7 Pine Bay 64 64 1 0.0 66.1 66 60.1 10 58.9 1.1 8 -6.7 Pine Bay 64 64 1 66 66.1 10 58.9 1.1 8 -6.3 Pine Bay 64 | Pine Bay 59 | 59 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 60.4 | 2.1 | 80 | -5.9 |
| Pine Bay 61 61 1 0.0 61.1 66 61.1 10 59.5 1.6 8 -6.4 Pine Bay 62 62 1 0.0 60.4 66 60.4 10 59.5 1.6 8 -6.7 Pine Bay 62 63 1 0.0 60.4 66 60.0 10 58.9 1.3 8 -6.7 Pine Bay 63 63 1 0.0 60.0 66 60.0 10 58.9 1.1 8 -6.3 Pine Bay 64 64 1 0.0 66.1 66 66.1 10 58.9 1.1 8 -6.3 | Pine Bay 60 | 60 | - | 0.0 | 61.6 | 66 | 61.6 | 10 | I | 59.8 | 1.8 | 80 | -6.2 |
| Pine Bay 62 62 1 0.0 60.4 66 60.4 10 59.1 1.3 8 -6.7 Pine Bay 63 63 1 0.0 60.0 66 60.0 10 59.1 1.3 8 -6.9 Pine Bay 63 63 1 0.0 60.0 66 66.1 10 58.9 1.1 8 -6.9 Pine Bay 64 64 1 0.0 66.1 66 66.1 10 Snd Lvl 61.2 4.9 8 -5.9 | Pine Bay 61 | 61 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | Ī | 59.5 | 1.6 | 80 | -6.4 |
| Pine Bay 63 63 1 0.0 60.0 66 60.0 10 58.9 1.1 8 -6.9 Pine Bay 64 64 1 0.0 66.1 66 66.1 10 51.2 4.9 8 -6.3 | Pine Bay 62 | 62 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | I | 59.1 | 1.3 | 80 | -6.7 |
| Pine Bay 64 64 1 0.0 66.1 66 66.1 10 Snd Lvl 61.2 4.9 8 -3.1 | Pine Bay 63 | 63 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | I | 58.9 | 1.1 | 80 | -6.9 |
| | Pine Bay 64 | 64 | - | 0.0 | 66.1 | 99 | 66.1 | 10 | Snd Lvl | 61.2 | 4.9 | 80 | -3.1 |
| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | щ | | | | |
|------------------------------|---------------|---------|---------|-------|------|------|---------|---|------|-----|----|------|
| Pine Bay 65 | 65 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | 1 | 60.9 | 4.9 | 80 | -3.1 |
| Pine Bay 66 | 66 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 59.5 | 5.2 | 80 | -2.8 |
| Pine Bay 67 | 67 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | 1 | 59.5 | 5.1 | 8 | -2.9 |
| Pine Bay 68 | 68 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | 1 | 59.5 | 4.9 | 80 | -3.1 |
| Pine Bay 69 | 69 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | 1 | 59.6 | 4.8 | 80 | -3.2 |
| Pine Bay 70 | 20 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | I | 59.6 | 5.0 | 80 | -3.0 |
| Pine Bay 71 | 71 | - | 0.0 | 64.6 | 99 | 64.6 | 10 | I | 59.9 | 4.7 | 80 | -3.3 |
| Pine Bay 72 | 72 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | 1 | 59.9 | 4.5 | œ | -3.5 |
| Pine Bay 73 | 73 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 60.2 | 4.1 | 80 | -3.9 |
| Pine Bay 74 | 74 | - | 0.0 | 64.0 | 66 | 64.0 | 9 | | 60.4 | 3.6 | 80 | -4.4 |
| Pine Bay 75 | 75 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | | 58.4 | 2.0 | 80 | -6.0 |
| Pine Bay 76 | 76 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | T | 58.1 | 1.7 | œ | -6.3 |
| Dwelling Units | □ # | Us Nois | e Reduc | stion | | r | | Ĩ | | | | |
| | | Min | Ā | бл | Max | | | | | | | |
| | 0 | æ | ₽ | | dB | | | | | | | |
| All Selected | | 76 | 0.8 | 4.7 | 10.3 | | | | | | | |
| All Impacted | | 36 | 1.5 | 7.3 | 10.3 | | | | | | | |
| All that meet NR Goal | | 21 | 8.1 | 9.4 | 10.3 | | | | | | | |
| | | | | | | | | | | | | |

8 May 2015

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD8 | Ш | | | |
|---|----------------------------|----------------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 8 May 201 TNM 2.5 | Ŋ | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | I-4 Bti I-4 Se GM 2(| U PD&E gment 3 Pi | ne Bay GM | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | - | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ¥ | ft | ŧ | Ĥ | sq ft | cu yd | ft | ft:ft | ¢ |
| Pine Bay | 8 | 20.00 | 20.00 | 20.00 | 1802 | 2 36035 | | | | 1081182 |
| | | | | | | | | | Total Cost: | 1081182 |

C:\TNM25\230168\Seg 3\8 + 4\NSA D Pine Bay

8 May :

| RESULTS: SOUND LEVELS | | | | | | | | I-4 Btl | I PD&I | | | | | | |
|---------------------------------|-------------|------------------|----------|----------|--------|----------|-------------|-------------------|------------|-----------------------|------------------------------|-----------------------------|--------------------|------------------------|-------------|
| Stantec M. Drauer | | | | | | | | 8 May TNM 2 | 2015 .5 | | | | | - | |
| RESULTS: SOUND LEVELS | | | | | | | | Calcu | ated v | /ith TNM | 2.5 | | | | |
| PROJECT/CONTRACT: | | I-4 BtU | I PD&E | | | | | | | | | | | | |
| RUN: BARRIER DESIGN: | | I-4 Seç GM 20 | gment 3 | Pine Bay | GM | | | | Ä | verage p | avement typ | e shall be us | ed unles | ş | |
| ATMOSPHERICS: | | 68 de | g F, 50% | RH | | | | | <u>o</u> p | State hiç a differ | Jhway agenc ant type with | y substantia approval of | tes the u FHWA. | Ise | |
| Receiver | | | | | | | | | | | | | | | |
| Name | No. | #DUs | Existin | g No B | arrier | | | | | | With Barrier | | | | |
| | | | LAeq1 | h LAed | 4F | | Increase ov | ver existin | D T | /pe | Calculated | Noise Redu | Iction | | |
| | | | | Calc | ulated | Crit'n | Calculated | Crit'n Sub'l I | 드 | ipact | LAeq1h | Calculated | Goal | Calcu minus Goal | ulated s |
| | | | dBA | dBA | | dBA | В | æ | | | dBA | 岛 | æ | В Ф | |
| Pine Bay 1 | - | | | 0.0 | 71.3 | | 6 7 | 1.3 | 10 | Snd Lvl | 64.0 | 7. | 0 | 8 | -0.7 |
| Pine Bay 2 | | 0 | | 0.0 | 71.4 | Ű | 6 7 | 1.4 | 10 | Snd Lvl | 63.1 | œ | e | ø | 0.3 |
| Pine Bay 3 | | | - | 0.0 | 71.4 | <i>w</i> | 6 7 | 1.4 | 10 | Snd Lvl | 62.9 | 8 | 5 | 8 | 0.5 |
| Pine Bay 4 | 7 | | - | 0.0 | 71.6 | J | 6 7 | 1.6 | 10 | Snd Lvl | 62.6 | .9 | 0 | 8 | 1.0 |
| Pine Bay 5 | | | - | 0.0 | 71.6 | u | 6 7 | 1.6 | 10 | Snd Lvl | 62.4 | 6 | 2 | œ | 1.2 |
| Pine Bay 6 | J | | - | 0.0 | 71.5 | Ű | 6 7 | 1.5 | 10 | Snd Lvl | 62.5 | 6 | 2 | œ | 1.2 |
| Pine Bay 7 | | | | 0.0 | 71.6 | U | 6 7 | 1.6 | 10 | Snd Lvl | 62.2 | 6 | 4 | 8 | 1.4 |
| Pine Bay 8 | ~ | | | 0.0 | 71.5 | U U | 6 7 | 1.5 | 10 | Snd Lvl | 62.1 | 9. | 4 | ø | 1.4 |
| Pine Bay 9 | 0, | • | - | 0.0 | 71.5 | U | 6 7 | 1.5 | 6 | Snd Lvl | 61.8 | .6 | 7 | œ | 1.7 |
| Pine Bay 10 | 5 | | - | 0.0 | 71.4 | Ű | 6 7 | 1.4 | 10 | Snd Lvl | 61.9 | 6 | 5 | æ | 1.5 |
| Pine Bay 11 | ÷ | | - | 0.0 | 71.6 | Ű | 6 7 | 1.6 | 9 | Snd Lvl | 61.7 | 6 | 6 | 80 | 1.9 |
| Pine Bay 12 | 4 | | - | 0.0 | 71.6 | J | 6 7 | 1.6 | 9 | Snd Lvl | 61.7 | ດ | 0 | ø | 1.9 |
| Pine Bay 13 | | ~ | - | 0.0 | 71.6 | U | 6 7 | 1.6 | 10 | Snd Lvl | 61.7 | 6 | 6 | 8 | 1.9 |
| Pine Bay 14 | 7 | r.t. | | 0.0 | 71.5 | w. | 6 7 | 1.5 | 10 | Snd Lvl | 61.7 | б | 80 | 8 | 1.8 |
| Pine Bay 15 | # | | | 0.0 | 71.0 | Ű | 6 7 | 1.0 | 10 | Snd Lvl | 61.6 | Ö | 4 | 80 | 1.4 |
| Pine Bay 16 | 16 | | - | 0.0 | 70.8 | Ű | 90 71 | 0.8 | 10 | Snd Lvl | 61.8 | ő | 0 | 8 | 1.0 |
| Pine Bay 17 | 1 | | - | 0.0 | 70.7 | Ű | 90 70 | 0.7 | 10 | Snd Lvi | 61.8 | σ | 0 | 80 | 0.0 |
| Pine Bay 18 | # | | F | 0.0 | 70.7 | e | 6 7(| 0.7 | 10 | Snd Lvl | 62.0 | ο ω | 7 | 80 | 0.7 |
| Pine Bay 19 | 10 | ` | | 0.0 | 70.4 | e | 6 70 | 0.4 | 10 | Snd Lvl | 61.9 | σ | 5 | 8 | 0.5 |
| Pine Bay 20 | 50 | ` O | | 0.0 | 70.3 | 9 | 6 70 | 0.3 | 10 | Snd Lvl | 62.1 | œ | 2 | 80 | 0.2 |
| Pine Bay 21 | 2 | | | 0.0 | 70.3 | U | 6 70 | 0.3 | 10 | Snd Lvl | 62.3 | œ | 0 | æ | 0.0 |
| Pine Bay 22 | 22 | ` Ol | | 0.0 | 70.3 | Ű | 10 70 | 0.3 | 10 | Snd Lvl | 62.5 | 7. | 8 | æ | -0.2 |
| Pine Bay 23 | 23 | Č | + | 0.0 | 70.3 | U | 9 | 0.3 | 10 | Snd Lvl | 62.8 | 7. | 5 | ω | -0.5 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D Pine Bay | | | | | | | ÷ | | | | | 8 | May 2015 | |

| RESULTS: SOUND LEVELS | | | | | | 1-4 | BtU PD8 | щ | | | | |
|-----------------------------------|------------|---|-----|------|----|------|---------|---|------|-----|------------|------|
| Pine Bay 24 | 24 | - | 0.0 | 6.9 | 99 | 69.9 | 10 | Snd Lvl | 63.1 | 6.8 | 80 | -1.2 |
| Pine Bay 25 | 25 | - | 0.0 | 6.69 | 66 | 6.69 | 10 | Snd Lvl | 63.5 | 6.4 | 80 | -1.6 |
| Pine Bay 26 | 26 | - | 0.0 | 69.6 | 99 | 69.6 | 10 | Snd Lvl | 64.1 | 5.5 | 00 | -2.5 |
| Pine Bay 27 | 27 | - | 0.0 | 69.7 | 66 | 69.7 | 10 | Snd Lvl | 64.7 | 5.0 | 80 | -3.0 |
| Pine Bay 28 | 28 | - | 0.0 | 70.3 | 66 | 70.3 | 10 | Snd Lvl | 66.5 | 3.8 | œ | -4.2 |
| Pine Bay 29 | 29 | - | 0.0 | 70.8 | 66 | 70.8 | 10 | Snd Lvl | 68.1 | 2.7 | 80 | -5.3 |
| Pine Bay 30 | 30 | - | 0.0 | 69.0 | 99 | 69.0 | 10 | Snd Lvl | 67.1 | 1.9 | 80 | -6.1 |
| Pine Bay 31 | 31 | - | 0.0 | 67.8 | 66 | 67.8 | 10 | Snd Lvl | 66.3 | 1.5 | 80 | -6.5 |
| Pine Bay 32 | 32 | - | 0.0 | 66.6 | 99 | 66.6 | 10 | Snd Lvl | 65.2 | 1.4 | 80 | -6.6 |
| Pine Bay 33 | 33 | - | 0.0 | 65.6 | 99 | 65.6 | 10 | 1 | 64.2 | 1.4 | 80 | -6.6 |
| Pine Bay 34 | 34 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 63.4 | 1.3 | 80 | -6.7 |
| Pine Bay 35 | 35 | | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.1 | 1.1 | 80 | -6.9 |
| Pine Bay 36 | 36 | ~ | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 62.4 | 1.1 | 80 | -6.9 |
| Pine Bay 37 | 37 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | 1 | 62.0 | 0.9 | 80 | -7.1 |
| Pine Bay 38 | 38 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | I | 61.6 | 0.9 | 80 | -7.1 |
| Pine Bay 39 | 39 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 61.1 | 0.9 | 80 | -7.1 |
| Pine Bay 40 | 40 | - | 0.0 | 61.5 | 99 | 61.5 | 10 | I | 60.6 | 0.9 | 80 | -7.1 |
| Pine Bay 41 | 41 | - | 0.0 | 61.3 | 99 | 61.3 | 10 | 1 | 60.6 | 0.7 | Ø | -7.3 |
| Pine Bay 42 | 42 | - | 0.0 | 60.8 | 99 | 60.8 | 10 | ļ | 60.1 | 0.7 | ω | -7.3 |
| Pine Bay 43 | 43 | - | 0.0 | 60.1 | 99 | 60.1 | 10 | 1 | 59.1 | 1.0 | Ø | -7.0 |
| Pine Bay 44 | 44 | - | 0.0 | 60.6 | 99 | 60.6 | 10 | | 59.5 | 1.1 | Ø | -6.9 |
| Pine Bay 45 | 45 | - | 0.0 | 61.0 | 99 | 61.0 | 10 | 1 | 59.7 | 1.3 | œ | -6.7 |
| Pine Bay 46 | 46 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | Control of | 60.0 | 1.3 | 80 | -6.7 |
| Pine Bay 47 | 47 | - | 0.0 | 62.0 | 99 | 62.0 | 10 | E | 60.6 | 1.4 | Ø | -6.6 |
| Pine Bay 48 | 48 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 60.9 | 1.6 | 80 | -6.4 |
| Pine Bay 49 | 49 | - | 0.0 | 63.1 | 66 | 63.1 | 10 | | 61.3 | 1.8 | 80 | -6.2 |
| Pine Bay 50 | 50 | - | 0.0 | 63.7 | 66 | 63.7 | 10 | 1 | 61.8 | 1.9 | 80 | -6.1 |
| Pine Bay 51 | 51 | - | 0.0 | 64.3 | 99 | 64.3 | 10 | and the second se | 62.2 | 2.1 | œ | -5.9 |
| Pine Bay 52 | 52 | - | 0.0 | 65.2 | 99 | 65.2 | 10 | 1 | 62.9 | 2.3 | 80 | -5.7 |
| Pine Bay 53 | 53 | - | 0.0 | 66.3 | 99 | 66.3 | 10 | Snd Lvl | 63.4 | 2.9 | 80 | -5.1 |
| Pine Bay 54 | 54 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvi | 62.9 | 3.3 | 80 | -4.7 |
| Pine Bay 55 | 55 | ~ | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 62.5 | 3.5 | 00 | -4.5 |
| Pine Bay 56 | 56 | - | 0.0 | 62.9 | 66 | 65.9 | 10 | ł | 62.0 | 3.9 | ø | 4.1 |
| Pine Bay 57 | 57 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | 1 | 61.5 | 2.9 | 80 | -5.1 |
| Pine Bay 58 | 58 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | I | 60.9 | 2.6 | 80 | -5.4 |
| Pine Bay 59 | 59 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | | 60.5 | 2.0 | 80 | -6.0 |
| Pine Bay 60 | 60 | - | 0.0 | 61.6 | 66 | 61.6 | 10 | | 59.9 | 1.7 | 80 | -6.3 |
| Pine Bay 61 | 61 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | a a di ta a | 59.6 | 1.5 | 80 | -6.5 |
| Pine Bay 62 | 62 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | | 59.2 | 1.2 | 80 | -6.8 |
| Pine Bay 63 | 63 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | | 58.9 | 1.1 | 8 | -6.9 |
| Pine Bay 64 | 64 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 61.4 | 4.7 | 8 | -3.3 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | O Pine Bay | | | | | 0 | | | | | 8 May 2015 | 10 |

| 0.0 | 65.8 | 99 | 65.8 | 10 | 1 | 61.1 | 4.7 | ø | -3.3 |
|-----------|--|---|---|---|---|---|-----|----|--|
| 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 59.8 | 4.9 | ω | -3.1 |
| 0.0 | 64.6 | 66 | 64.6 | 10 | 1 | 59.7 | 4.9 | œ | -3.1 |
| 0.0 | 64.4 | 66 | 64.4 | 10 | | 59.7 | 4.7 | 80 | -3.3 |
| 0.0 | 64.4 | 66 | 64.4 | 10 | 1 | 59.8 | 4.6 | 80 | -3.4 |
| 0.0 | 64.6 | 66 | 64.6 | 10 | | 59.9 | 4.7 | 80 | -3.3 |
| 0.0 | 64.6 | 66 | 64.6 | 10 | 1 | 60.1 | 4.5 | 80 | -3.5 |
| 0.0 | 64.4 | 66 | 64.4 | 10 | ł | 60.1 | 4.3 | 80 | -3.7 |
| 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 60.4 | 3.9 | œ | -4.1 |
| 0.0 | 64.0 | 66 | 64.0 | 10 | 1 | 60.5 | 3.5 | œ | -4.5 |
| 0.0 | 60.4 | 66 | 60.4 | 10 | 1 | 58.5 | 1.9 | ø | -6.1 |
| 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 58.2 | 1.6 | 80 | -6.4 |
| Noise Rec | duction | | | | | | | | |
| Min | Avg | Max | | | | | | | |
| 80 | dB | dB | | | | | | | |
| 0.7 | 4.5 | 9.9 | | | | | | | |
| 1.4 | 7.1 | 9.9 | | | | | | | |
| 8.0 | 9.1 | 9.9 | | | | | | | |
| All Min | 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 | 0.0 64.6 04.4 04.4 0.0 64.6 04.0 64.4 00.0 64.4 04.0 64.4 00.0 64.4 00.0 64.4 00.0 64.4 00.0 64.0 00.0 60.0 6 | 0.0 0.4.1. 0.0 0.0 64.6 66 0.0 64.4 66 0.0 64.6 66 0.0 64.6 66 0.0 64.6 66 0.0 64.6 66 0.0 64.6 66 0.0 64.4 66 0.0 64.3 66 0.0 64.3 66 0.0 64.3 66 0.0 64.3 66 0.0 64.3 66 0.0 59.8 66 0.0 59.8 66 0.0 59.8 66 0.0 59.8 66 0.1 40 68 0.1 41.5 9.9 1.4 7.1 9.9 0.1 9.1 9.9 | $ \begin{array}{c c c c c c c c c c c c c c c c c c c $ | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | | | 0.0 $0.4.1$ 0.0 $0.4.1$ 10 0.0 $0.4.1$ 0.0 $0.4.1$ 0.0 $0.4.1$ 0.0 $0.4.1$ 0.0 $0.4.1$ 0.0 $0.4.1$ 0.0 $0.4.1$ 0.0 $0.4.1$ 0.0 $0.4.1$ 0.0 $0.4.1$ 0.0 0.0 $0.4.1$ 0.0 |

8 May 2015

| RESULIS: BARKIEK DESCRIPTIONS | | | | | | 1-4 BTU PUS | IJ | | | |
|---|---------|-----------------------|------------|---------------------|--------|-------------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 8 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RIIN [.] | I-4 Btl | J PD&E ament 3 Pin | e Bav GM | | | | | | | |
| BARRIER DESIGN: | GM 18 | | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights ald | ong Barrie | ŗ | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | Ĥ | ft | ft | Ħ | sq ft | cu yd | Ĥ | ft:ft | S |
| Pine Bay | 3 | 18.00 | 18.00 | 18.0 | J 180 | 2 32435 | 10 | | | 973064 |
| | | | | | | | | | Total Cost: | 973064 |

8 May :

-

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | | |
|---|--------------|-----------------------------|-------------------|----------|------|------|--------------|----------------------|---------------------------------------|-----------------------|---------------------------------|-----------|----------------------------|--------|
| Stantec M. Drauer | | | | | | | | 8 May 201 TNM 2.5 | - 2 | | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seg GM 18 | PD&E ment 3 Pi | ne Bay G | Σ | | | Calculate | d with INN Average I a State hi | 1 2.5 Davement typ | e shall be use v substantiat | ed unless | | |
| ATMOSPHERICS: | | 68 deç | J F, 50% F | H | | | | | of a diffe | ent type with | approval of I | HWA. | 2 | |
| Receiver Name | No. | #DUs | Existina | No Bar | rier | | | | | With Barrier | | | | |
| | | | LAeq1h | LAeq1 | | | Increase ove | er existing | Type | Calculated | Noise Redu | ction | | |
| | | | 7 | Calcuta | C | it'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculate minus Goal | eq |
| | | | dBA | dBA | Ψ | 3A | đB | dB | | dBA | dB | đB | đB | |
| Pine Bay 1 | | | 0 | 0 | 71.3 | 99 | 71. | 3 10 | Snd Lvl | 64.2 | 7.1 | | 80 | -0.9 |
| Pine Bay 2 | | | 0 | 0. | 71.4 | 99 | 71. | 4 1(| Snd Lvl | 63.4 | 1 8.0 | 0 | 8 | 0.0 |
| Pine Bay 3 | ., | | 0 | 0 | 71.4 | 66 | 71. | 4 1(| Snd Lvl | 63.2 | 8.5 | 01 | 80 | 0.2 |
| Pine Bay 4 | • | | 0 | 0 | 71.6 | 66 | 71. | 6 1(| Snd Lvl | 62.9 | 8.7 | • | 8 | 0.7 |
| Pine Bay 5 | | | 0 | o. | 71.6 | 66 | 71. | 6 1(| Snd Lvl | 62.8 | 8.8 | ~ | 8 | 0.8 |
| Pine Bay 6 | | | 0 | 0 | 71.5 | 66 | 71. | 5 1(| Snd Lvl | 62.6 | 8.6 | ~ | 8 | 0.9 |
| Pine Bay 7 | | | 0 | 0 | 71.6 | 66 | 71. | 6 1(| Snd Lvl | 62.6 | 9.6 | 0 | 8 | 1.0 |
| Pine Bay 8 | | m | 0 | 0. | 71.5 | 66 | 71. | 5 1(| Snd Lvl | 62.5 | 9.6 | 0 | 8 | 1.0 |
| Pine Bay 9 | | 0 | 0 | 0 | 71.5 | 66 | 71. | 5 1(| Snd Lvl | 62.3 | 6.9 | 01 | 8 | 1.2 |
| Pine Bay 10 | 7 | | 0 | 0. | 71.4 | 99 | 71. | 4 10 | Snd Lvl | 62.3 | 9.1 | | 8 | 1.1 |
| Pine Bay 11 | - | | 0 | 0 | 71.6 | 66 | 71. | 6 1(|) Snd Lvl | 62.2 | 6.2 | - | 8 | 1.4 |
| Pine Bay 12 | 1 | ~ | 0 | 0 | 71.6 | 99 | 71. | 6 1(|) Snd Lvl | 62.1 | 9.6 | 10 | 8 | 1.5 |
| Pine Bay 13 | ¥ | | 0 | 0. | 71.6 | 66 | 71. | 6 10 | Snd Lvl | 62.7 | 3.6 | 10 | 8 | 1.5 |
| Pine Bay 14 | 1 | र | 0 | 0 | 71.5 | 66 | 71. | 5 1(| Snd Lvl | 62.7 | 9.4 | | 8 | 1.4 |
| Pine Bay 15 | 1 | | 0 | 0 | 71.0 | 66 | 71. | 1(| Snd Lvl | 62.(| 9.0 | 0 | 8 | 1.0 |
| Pine Bay 16 | Ŧ | | 0 | o. | 70.8 | 99 | 20. | 8 10 |) Snd Lvl | 62.2 | 8.6 | 6 | 8 | 0.6 |
| Pine Bay 17 | ÷ | . 2 | 0 | 0 | 70.7 | 99 | 70. | 7 10 | Snd Lvl | 62.2 | 8.5 | 10 | 80 | 0.5 |
| Pine Bay 18 | 1 | | 0 | 0 | 70.7 | 99 | 20. | 7 10 |) Snd Lvl | 62.0 | 3 8.4 | - | 80 | 0.4 |
| Pine Bay 19 | , | | 0 | 0 | 70.4 | 99 | 70. | 4 1(| Snd Lvi | 62.2 | 8.2 | 0 | 8 | 0.2 |
| Pine Bay 20 | 5(| | 0 | 0 | 70.3 | 99 | 70. | 3 1(| Snd Lvl | 62.4 | 5°Z 1 | • | 8 | - 1 |
| Pine Bay 21 | ο, | | 0 | 0 | 70.3 | 99 | 70. | 3 1(| Snd Lvl | 62.6 | 2.7 | • | 80 | -0.3 |
| Pine Bay 22 | 2 | | 0 | 0. | 70.3 | 66 | 70. | 3 10 | Snd Lvl | 62.8 | 3.7.5 | 10 | 8 | -0.5 |
| Pine Bay 23 | 5 | | 0 | 0 | 70.3 | 66 | 70. | 3 1(| Snd Lvl | 63.(| 7.3 | ~ | 8 | -0.7 |
| C:\TNM25\230168\Sea 3\8 + 4\NSA | D Pine Bav | | | | | | | Ŧ | | | | 2 | av 2015 | |

| RESULTS: SOUND LEVELS | | | | | -4 | BtU PD | &E | | | | |
|-----------------------------------|----------|-------|----------|-------|-------|--------|---------|------|-----|------------|------|
| Pine Bay 24 | 24 | 1 0.0 | 9.69 | 99 | 6.69 | 10 | Snd Lvl | 63.3 | 6.6 | œ | -1.4 |
| Pine Bay 25 | 25 | 1 0.0 | 0 69.9 | 99 66 | 69.9 | 10 | Snd Lvl | 63.8 | 6.1 | œ | -1.9 |
| Pine Bay 26 | 26 | 1 0.0 | 69.6 | 66 | 69.69 | 10 | Snd Lvl | 64.3 | 5.3 | 80 | -2.7 |
| Pine Bay 27 | 27 | 1 0.0 | 69.1 | 66 | 69.7 | 10 | Snd Lvl | 64.9 | 4.8 | œ | -3.2 |
| Pine Bay 28 | 28 | 1 0.0 | 0.07 0.0 | 66 | 70.3 | 10 | Snd Lvi | 66.6 | 3.7 | 80 | -4.3 |
| Pine Bay 29 | 29 | 1 0.0 | 70.5 | 66 | 70.8 | 10 | Snd Lvl | 68.2 | 2.6 | 8 | -5.4 |
| Pine Bay 30 | 30 | 1 0.0 | 0.69.(| 66 | 69.0 | 10 | Snd Lvl | 67.2 | 1.8 | 8 | -6.2 |
| Pine Bay 31 | 31 | 1 0.0 | 0 67.8 | 66 | 67.8 | 10 | Snd Lvl | 66.3 | 1.5 | 8 | -6.5 |
| Pine Bay 32 | 32 | 1 0.0 | 0.66.6 | 99 99 | 66.6 | 10 | Snd Lvl | 65.2 | 1.4 | 80 | -6.6 |
| Pine Bay 33 | 33 | 1 0.0 | 0 65.6 | 66 | 65.6 | 10 | - | 64.3 | 1.3 | 80 | -6.7 |
| Pine Bay 34 | 34 | 1 0.0 | 64.7 | 66 | 64.7 | 10 | | 63.4 | 1.3 | 80 | -6.7 |
| Pine Bay 35 | 35 | 1 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.1 | 1.1 | 80 | -6.9 |
| Pine Bay 36 | 36 | 1 0.0 | 63.5 | 66 | 63.5 | 10 | Ę | 62.4 | 1.1 | 80 | -6.9 |
| Pine Bay 37 | 37 | 1 0.0 | 0 62.9 | 99 66 | 62.9 | 10 | I | 62.0 | 0.9 | 80 | -7.1 |
| Pine Bay 38 | 38 | 1 0.0 | 62.5 | 66 | 62.5 | 10 | ł | 61.6 | 0.9 | 80 | -7.1 |
| Pine Bay 39 | 39 | 1 0.0 | 62.(| 99 0 | 62.0 | 10 | I | 61.1 | 0.9 | œ | -7.1 |
| Pine Bay 40 | 40 | 1 0.0 | 61.5 | 66 | 61.5 | 10 | 1 | 9.09 | 0.9 | œ | -7.1 |
| Pine Bay 41 | 41 | 1 0.0 | 0 61.0 | 66 | 61.3 | 10 | 1 | 60.6 | 0.7 | 8 | -7.3 |
| Pine Bay 42 | 42 | 1 0.0 | 0 60.8 | 66 | 60.8 | 10 | 1 | 60.1 | 0.7 | 80 | -7.3 |
| Pine Bay 43 | 43 | 1 0.0 | .09 | 99 | 60.1 | 10 | 1 | 59.2 | 0.9 | 80 | -7.1 |
| Pine Bay 44 | 44 | 1 0.0 | 0.09 | 66 | 60.6 | 10 | ľ | 59.6 | 1.0 | œ | -7.0 |
| Pine Bay 45 | 45 | 1 0.0 | 0 61.(| 99 (| 61.0 | 10 | 1 | 59.8 | 1.2 | 8 | -6.8 |
| Pine Bay 46 | 46 | 1 0.(| 0 61.3 | 66 | 61.3 | 10 | l | 60.1 | 1.2 | 8 | -6.8 |
| Pine Bay 47 | 47 | 1 0.(| 0 62.0 | 99 (| 62.0 | 10 | 1 | 60.7 | 1.3 | 80 | -6.7 |
| Pine Bay 48 | 48 | 1 0.0 | 0 62.5 | 66 | 62.5 | 10 | 1 | 60.9 | 1.6 | œ | -6.4 |
| Pine Bay 49 | 49 | 1 0.0 | 63. | 66 | 63.1 | 10 | 1 | 61.4 | 1.7 | 80 | -6.3 |
| Pine Bay 50 | 50 | 1 0.0 | 63.7 | 66 | 63.7 | 10 | 1 | 61.8 | 1.9 | 80 | -6.1 |
| Pine Bay 51 | 51 | 1 0.0 | 64.3 | 66 | 64.3 | 10 | ļ | 62.3 | 2.0 | 80 | -6.0 |
| Pine Bay 52 | 52 | 1 0.0 | 0 65.2 | 66 | 65.2 | 10 | ľ | 63.0 | 2.2 | œ | -5.8 |
| Pine Bay 53 | 53 | 1 0.0 | 06.3 | 66 | 66.3 | 10 | Snd Lvl | 63.6 | 2.7 | 80 | -5.3 |
| Pine Bay 54 | 54 | 1 0.(| 06.2 | 66 | 66.2 | 10 | Snd Lvl | 63.0 | 3.2 | œ | -4.8 |
| Pine Bay 55 | 55 | 1 0.(| 0.66.(| 99 (| 66.0 | 10 | Snd Lvl | 62.6 | 3.4 | 80 | -4.6 |
| Pine Bay 56 | 56 | 1 0.0 | 0 65.9 | 99 66 | 62.9 | 10 | 1 | 62.2 | 3.7 | 80 | 4.0 |
| Pine Bay 57 | 57 | 1 0.0 | 64.4 | 99 1 | 64.4 | 10 | I | 61.6 | 2.8 | 80 | -5.2 |
| Pine Bay 58 | 58 | 1 0.0 | 0 63.5 | 99 | 63.5 | 10 | 1 | 61.0 | 2.5 | œ | -5.5 |
| Pine Bay 59 | 59 | 1 0.0 | 0 62.5 | 66 | 62.5 | 10 | I | 60.6 | 1.9 | 80 | -6.1 |
| Pine Bay 60 | 60 | 1 0.0 | 0 61.6 | 66 | 61.6 | 10 | ĺ | 59.9 | 1.7 | 80 | -6.3 |
| Pine Bay 61 | 61 | 1 0.0 | 0 61.1 | 99 | 61.1 | 10 | I | 59.6 | 1.5 | 80 | -6.5 |
| Pine Bay 62 | 62 | 1 0.0 | 09 007 | 99 t | 60.4 | 10 | I | 59.3 | 1.1 | 80 | -6.9 |
| Pine Bay 63 | 63 | 1 0.0 | 0.09 | 99 00 | 60.0 | 10 | - | 59.0 | 1.0 | 80 | -7.0 |
| Pine Bay 64 | 64 | 1 0.(| 0 66.1 | 66 | 66.1 | 10 | Snd Lvl | 61.6 | 4.5 | 8 | -3.5 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | Pine Bay | | | | 2 | | | | | 8 May 2015 | |

| RESULTS: SOUND LEVELS | | | | | | 141 | BtU PD8 | щ | | | | |
|------------------------------|------|-----------|-----------|------|-----|------|---------|---|------|-----|----|------|
| Pine Bay 65 | 65 | 1 | 0. | 65.8 | 99 | 65.8 | 10 | 1 | 61.3 | 4.5 | 80 | -3.5 |
| Pine Bay 66 | 66 | 1 0 | 0. | 64.7 | 66 | 64.7 | 10 | I | 60.0 | 4.7 | 80 | -3.3 |
| Pine Bay 67 | 67 | 1 | 0. | 64.6 | 66 | 64.6 | 10 | 1 | 60.0 | 4.6 | 8 | -3.4 |
| Pine Bay 68 | 68 | 1 0 | 0. | 64.4 | 66 | 64.4 | 10 | 1 | 60.0 | 4.4 | 8 | -3.6 |
| Pine Bay 69 | 69 | 1 0 | 0. | 64.4 | 66 | 64.4 | 10 | 1 | 60.1 | 4.3 | 80 | -3.7 |
| Pine Bay 70 | 70 | 1 0 | 0. | 64.6 | 99 | 64.6 | 9 | I | 60.2 | 4.4 | 80 | -3.6 |
| Pine Bay 71 | 71 | 1 | 0. | 64.6 | 66 | 64.6 | 10 | I | 60.4 | 4.2 | œ | -3.8 |
| Pine Bay 72 | 72 | 1 0 | 0. | 64.4 | 66 | 64.4 | 10 | I | 60.4 | 4.0 | 80 | -4.0 |
| Pine Bay 73 | 73 | 1 | 0. | 64.3 | 66 | 64.3 | 10 | 1 | 60.6 | 3.7 | ω | -4.3 |
| Pine Bay 74 | 74 | 1 | O. | 64.0 | 99 | 64.0 | 10 | 1 | 60.7 | 3.3 | œ | -4.7 |
| Pine Bay 75 | 75 | 1 | 0. | 60.4 | 66 | 60.4 | 10 | 1 | 58.6 | 1.8 | 80 | -6.2 |
| Pine Bay 76 | 76 | 1 0 | 0. | 59.8 | 99 | 59.8 | 10 | Į | 58.3 | 1.5 | 80 | -6.5 |
| Dwelling Units | ng # | S Noise R | teduction | | | | | | | | | |
| | | Min | Avg | Ma | X | | | | | | | |
| | | ąp | ę | Ð | | | | | | | | |
| All Selected | 2 | 9 | .7 | 4.4 | 9.5 | | | | | | | |
| All Impacted | e | 6 1 | 4. | 6.8 | 9.5 | | | | | | | |
| All that meet NR Goal | - | 8 | 0. | 8.9 | 9.5 | | | | | | | |
| | | | | | | | | | | | | |

C:\TNM25\230168\Seg 3\8 + 4\NSA D Pine Bay

8 May 2015

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| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 Btu PD& | щ | | | |
|---|----------------------------|-----------------------|-------------------|----------------------|-------|------------|--------|-------------|-------------|--------|
| Stantec M. Drauer | | | | 8 May 201 TNM 2.5 | Ŋ | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | I-4 Btl I-4 Se GM 10 | U PD&E gment 3 Pin | e Bay GM | | | | 1 | | | |
| Barriers | - | ele etdetett | | | | ie Mich | | | | 100 |
| Name | Iype | Min A | ang barrie Avg | Max | Lengu | Area | Volume | Top | Run:Rise | COST |
| | | Ĥ | æ | Ŧ | - H | sq ft | cu yd | Width ft | ft:ft | \$ |
| Pine Bay | 3 | 16.00 | 16.00 | 16.00 | 1802 | 28832 | | | | 864945 |
| | | | | | | | | | Total Cost: | 864945 |

8 May :

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| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU F | D&E | | | | | |
|---|-------------------------|------------------|----------------|----------------------|--------|---------------------------|-------------------------------------|------------------------|-------------------------------|--------------------------------|---------------------|---------------------------|------|
| Stantec M. Drauer | | | | | | | 8 May 20 TNM 2.5 | 15 | | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | GM 45 GM 45 GM 45 | itU PD8 egmen | .Е t 3 Pine | Bay GM | | | Calculat | ed with the Average | M 2.3 pavement tyj | pe shall be us | sed unles | ري ا | |
| ATMOSPHERICS: | 68 0 | deg F, 5 | 0% RH | | | | | a State of a diff | ighway agen erent type wit | cy substantia h approval of | ites the u FHWA. | se | |
| Receiver | | Ľ | | | | | | 100 200 | | | | | |
| Name | NO. #UU | s S | sting | No Barrier | | | | ŀ | With Barrie | | | - | |
| | | LA | d t | LAeq1h Calculated | Crit'n | Increase ov Calculated | rer existing Crit'n Sub'l Inc | Type Impact | Calculated LAeq1h | Noise Redu Calculated | Goal | Calculat minus Goal | ted |
| | | dB/ | | dBA | dBA | В | æ | | dBA | Вb | 段 | 昭 | |
| Pine Bay 1 | - | F | 0.0 | 71. | 0 | 66 7 | 1.3 | 0 Snd Lv | 64 | .5 | 8 | œ | -1.2 |
| Pine Bay 2 | 2 | - | 0.0 | 71. | 4 | 66 7 | 1.4 | 0 Snd Lv | 63 | .8 | 9 | 80 | -0.4 |
| Pine Bay 3 | m | - | 0.0 | 71. | 4 | 66 7 | 1.4 | 0 Snd L | 63 | .5 7 | 6. | 80 | -0.1 |
| Pine Bay 4 | 4 | - | 0.0 | 71. | 9 | 66 7 | 1.6 | 0 Snd Lv | 1 63 | .3 | с; | 80 | 0.3 |
| Pine Bay 5 | 5 | - | 0.0 | 71. | 9 | .2 99 | 1.6 | 0 Snd Lv | 1 63 | .2 | 4. | 8 | 0.4 |
| Pine Bay 6 | 9 | - | 0.0 | 71. | 5 | 66 7 | 1.5 | 0 Snd Lv | 1 63 | 0.08 | .5 | 80 | 0.5 |
| Pine Bay 7 | 7 | - | 0.0 | 71. | 9 | 66 7 | 1.6 | 0 Snd Lv | 1 63 | 0. | 9. | 8 | 0.6 |
| Pine Bay 8 | 80 | - | 0.0 | 71. | 5 | 66 7 | 1.5 | 0 Snd Lv | 1 62 | 8 6. | 9. | 80 | 0.6 |
| Pine Bay 9 | 0 | - | 0.0 | 71. | 5 | 66 7 | 1.5 | 0 Snd Lv | 62 | .7 8 | 89. | 8 | 0.8 |
| Pine Bay 10 | 10 | - | 0.0 | 71. | 4 | 66 7 | 1.4 | 0 Snd Lv | 1 62 | .7 8 | .7 | 80 | 0.7 |
| Pine Bay 11 | 11 | - | 0.0 | 71. | 9 | 66 7 | 1.6 | 0 Snd Lv | 1 62 | 9. | 0. | 80 | 1.0 |
| Pine Bay 12 | 12 | - | 0.0 | 71. | 9 | 66 7 | 1.6 | 0 Snd Lv | i 62 | 9. | 0. | 80 | 1.0 |
| Pine Bay 13 | 13 | - | 0.0 | 71. | 9 | 66 7 | 1.6 | 0 Snd Lv | 1 62 | .5 9 | F. | 80 | 1.1 |
| Pine Bay 14 | 14 | ب | 0.0 | 71. | 5 | 66 7 | 1.5 | 0 Snd Lv | 1 62 | .6 | 6. | ω | 0.9 |
| Pine Bay 15 | 15 | ٣ | 0.0 | 71. | 0 | 66 7 | 1.0 | 0 Snd Ly | 1 62 | 4. | 9. | æ | 0.6 |
| Pine Bay 16 | 16 | ٢ | 0.0 | 70. | 8 | 66 7(| . 8.0 | 0 Snd Lv | 1 62 | .5 | ¢. | 80 | 0.3 |
| Pine Bay 17 | 17 | - | 0.0 | 70. | 7 | 66 70 | . 2.0 | 0 Snd Ly | 1 62 | .6 | F. | 8 | 0.1 |
| Pine Bay 18 | 18 | - | 0.0 | 20. | 7 | 66 70 | | 0 Snd Lv | 1 62 | .7 8 | 0. | 80 | 0.0 |
| Pine Bay 19 | 19 | - | 0.0 | 70. | 4 | 66 7(| 0.4 | 0 Snd Ly | 1 62 | .5 7 | 6. | 8 | -0.1 |
| Pine Bay 20 | 20 | - | 0.0 | 70. | e | 66 70 | 0.3 | 0 Snd Lv | 1 62 | 7 7. | 9. | 80 | -0.4 |
| Pine Bay 21 | 21 | - | 0.0 | 70. | 8 | 66 70 | 0.3 | 0 Snd Ly | ri 62 | .9 7 | 4 | 8 | -0.6 |
| Pine Bay 22 | 22 | - | 0.0 | 70. | 3 | 66 7(| 0.3 | 0 Snd Ly | 1 63 | .1 7 | Ņ | 8 | -0.8 |
| Pine Bay 23 | 23 | - | 0.0 | 70. | 3 | 66 7(| 0.3 | 0 Snd Ly | 1 63 | .3 7 | 0. | 8 | -1.0 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D Pine Bay | | | | | | ÷ | | | | 8 | May 2015 | |

| RESULTS: SOUND LEVELS | | | | | | I-4 E | stU PD8 | щ | | | | |
|----------------------------------|------------|----------|-----|------|----|-------|---------|--|------|-----|-----------|------|
| Pine Bay 24 | 24 | - | 0.0 | 69.9 | 66 | 69.9 | 10 | Snd Lvl | 63.6 | 6.3 | 80 | -1.7 |
| Pine Bay 25 | 25 | 1 | 0.0 | 6.9 | 66 | 69.9 | 10 | Snd Lvl | 64.0 | 5.9 | 80 | -2.1 |
| Pine Bay 26 | 26 | 1 | 0.0 | 69.6 | 66 | 69.6 | 10 | Snd Lvl | 64.5 | 5.1 | 80 | -2.9 |
| Pine Bay 27 | 27 | - | 0.0 | 69.7 | 66 | 69.7 | 10 | Snd Lvl | 65.0 | 4.7 | 80 | -3.3 |
| Pine Bay 28 | 28 | | 0.0 | 70.3 | 66 | 70.3 | 10 | Snd Lvl | 66.7 | 3.6 | 80 | -4.4 |
| Pine Bay 29 | 29 | ** | 0.0 | 70.8 | 66 | 70.8 | 10 | Snd Lvl | 68.2 | 2.6 | 80 | -5.4 |
| Pine Bay 30 | 30 | - | 0.0 | 69.0 | 66 | 69.0 | 10 | Snd Lvl | 67.2 | 1.8 | 80 | -6.2 |
| Pine Bay 31 | 31 | - | 0.0 | 67.8 | 66 | 67.8 | 10 | Snd Lvl | 66.4 | 1.4 | 80 | -6.6 |
| Pine Bay 32 | 32 | - | 0.0 | 66.6 | 66 | 66.6 | 10 | Snd Lvl | 65.3 | 1.3 | œ | -6.7 |
| Pine Bay 33 | 33 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | 1 | 64.3 | 1.3 | 80 | -6.7 |
| Pine Bay 34 | 34 | ** | 0.0 | 64.7 | 66 | 64.7 | 10 | | 63.5 | 1.2 | 8 | -6.8 |
| Pine Bay 35 | 35 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.1 | 1.1 | 80 | -6.9 |
| Pine Bay 36 | 36 | 4 | 0.0 | 63.5 | 66 | 63.5 | 10 | | 62.5 | 1.0 | œ | -7.0 |
| Pine Bay 37 | 37 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | I | 62.0 | 0.9 | 80 | -7.1 |
| Pine Bay 38 | 38 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | ļ | 61.6 | 0.9 | 80 | -7.1 |
| Pine Bay 39 | 39 | ~ | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 61.2 | 0.8 | 80 | -7.2 |
| Pine Bay 40 | 40 | * | 0.0 | 61.5 | 66 | 61.5 | 10 | 1 | 60.7 | 0.8 | 80 | -7.2 |
| Pine Bay 41 | 41 | * | 0.0 | 61.3 | 66 | 61.3 | 10 | 1 | 60.6 | 0.7 | 80 | -7.3 |
| Pine Bay 42 | 42 | | 0.0 | 60.8 | 66 | 60.8 | 10 | 1 | 60.1 | 0.7 | 8 | -7.3 |
| Pine Bay 43 | 43 | - | 0.0 | 60.1 | 66 | 60.1 | 10 | 1 | 59.3 | 0.8 | ø | -7.2 |
| Pine Bay 44 | 44 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | la l | 59.7 | 0.9 | 80 | -7.1 |
| Pine Bay 45 | 45 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | - | 59.9 | 1.1 | 80 | -6.9 |
| Pine Bay 46 | 46 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | | 60.1 | 1.2 | 80 | -6.8 |
| Pine Bay 47 | 47 | *- | 0.0 | 62.0 | 66 | 62.0 | 10 | | 60.7 | 1.3 | 80 | -6.7 |
| Pine Bay 48 | 48 | * | 0.0 | 62.5 | 66 | 62.5 | 10 | | 61.0 | 1.5 | 80 | -6.5 |
| Pine Bay 49 | 49 | - | 0.0 | 63.1 | 66 | 63.1 | 10 | | 61.5 | 1.6 | 80 | -6.4 |
| Pine Bay 50 | 50 | ~ | 0.0 | 63.7 | 66 | 63.7 | 10 | 1 | 61.9 | 1.8 | 00 | -6.2 |
| Pine Bay 51 | 51 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | l | 62.4 | 1.9 | 80 | -6.1 |
| Pine Bay 52 | 52 | - | 0.0 | 65.2 | 66 | 65.2 | 10 | | 63.1 | 2.1 | ø | -5.9 |
| Pine Bay 53 | 53 | 1 | 0.0 | 66.3 | 66 | 66.3 | 10 | Snd Lvl | 63.7 | 2.6 | 80 | -5.4 |
| Pine Bay 54 | 54 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 63.2 | 3.0 | 8 | -5.0 |
| Pine Bay 55 | 55 | - | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 62.8 | 3.2 | 80 | -4.8 |
| Pine Bay 56 | 56 | - | 0.0 | 65.9 | 66 | 62.9 | 10 | | 62.4 | 3.5 | 80 | -4.5 |
| Pine Bay 57 | 57 | - | 0.0 | 64.4 | 99 | 64.4 | 10 | 1 | 61.8 | 2.6 | 80 | -5.4 |
| Pine Bay 58 | 58 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | <u> </u> | 61.2 | 2.3 | 80 | -5.7 |
| Pine Bay 59 | 59 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | | 60.7 | 1.8 | 80 | -6.2 |
| Pine Bay 60 | 60 | - | 0.0 | 61.6 | 66 | 61.6 | 10 | | 60.0 | 1.6 | 8 | -6.4 |
| Pine Bay 61 | 61 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | | 59.7 | 1.4 | 8 | -6.6 |
| Pine Bay 62 | 62 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | l | 59.4 | 1.0 | ö | -7.0 |
| Pine Bay 63 | 63 | ~ | 0.0 | 60.0 | 66 | 60.0 | 10 | | 59.1 | 0.9 | 8 | -7.1 |
| Pine Bay 64 | 64 | 1- | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 61.8 | 4.3 | 8 | -3.7 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA1 | D Pine Bay | | | | | 7 | | | | | 8 May 201 | |

| RESULTS: SOUND LEVELS | | | | | | 1-4 B | tU PD&I | | | | | |
|------------------------------|--------|---------|----------|-----|-----|-------|---------|---|------|-----|----|------|
| Pine Bay 65 | 65 1 | Ö | 0 | 5.8 | 66 | 65.8 | 10 | I | 61.6 | 4.2 | 8 | -3.8 |
| Pine Bay 66 | 66 | Ö | 0 | 4.7 | 66 | 64.7 | 10 | I | 60.4 | 4.3 | 8 | -3.7 |
| Pine Bay 67 | 67 1 | Ö | 0 | 4.6 | 66 | 64.6 | 10 | 1 | 60.3 | 4.3 | 8 | -3.7 |
| Pine Bay 68 | 68 | Ö | 9 | 4.4 | 66 | 64.4 | 10 | 1 | 60.3 | 4.1 | œ | -3.9 |
| Pine Bay 69 | 69 | Ö | 0 | 4.4 | 66 | 64.4 | 10 | 1 | 60.4 | 4.0 | 8 | -4.0 |
| Pine Bay 70 | 70 | Ö | 0 | 4.6 | 66 | 64.6 | 10 | 1 | 60.5 | 4.1 | 8 | -3.9 |
| Pine Bay 71 | 71 1 | Ö | 0 | 4.6 | 66 | 64.6 | 10 | ſ | 60.6 | 4.0 | 00 | -4.0 |
| Pine Bay 72 | 72 1 | Ö | 0 | 4.4 | 66 | 64.4 | 10 | Ĩ | 60.6 | 3.8 | 8 | -4.2 |
| Pine Bay 73 | 73 1 | Ö | 0 | 4.3 | 66 | 64.3 | 10 | 1 | 60.8 | 3.5 | 00 | -4.5 |
| Pine Bay 74 | 74 1 | Ö | 0 | 4.0 | 66 | 64.0 | 10 | 1 | 60.9 | 3.1 | 00 | -4.9 |
| Pine Bay 75 | 75 1 | Ö | 0 | 0.4 | 66 | 60.4 | 10 | 1 | 58.7 | 1.7 | 00 | -6.3 |
| Pine Bay 76 | 76 1 | Ó | 0 5 | 9.8 | 66 | 59.8 | 10 | 1 | 58.4 | 1.4 | 8 | -6.6 |
| Dwelling Units | \$ND # | Noise R | eduction | | - | | | | | | | |
| | | Min | Avg | Мах | | | | | | | | |
| | | 段 | ąþ | ą | | | | | | | | |
| All Selected | 76 | Ö | 7 | 4.1 | 9.1 | | | | | | | |
| All Impacted | 36 | - | e | 6.5 | 9.1 | | | | | | | |
| All that meet NR Goal | 14 | œ | - | 8.6 | 9.1 | | | | | | | |
| | | | | | | | | | | | | |

I-4 BtU PD&E

C:\TNM25\230168\Seg 3\8 + 4\NSA D Pine Bay

8 May 2015

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD8 | щ | | | |
|---|----------------------------|---------------------------|------------|----------------------|--------|------------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 8 May 201 TNM 2.5 | 5 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | I-4 Btl I-4 Se GM 14 | J PD&E gment 3 Pi t | ne Bay GM | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | J. | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | T | Area | Volume | Top Width | Run:Rise | |
| | | ft | ft | ft | ft | sq ft | cu yd | Ĥ | ft:ft | \$ |
| Pine Bay | 3 | 14.00 | 14.00 | 14.00 | 1802 | 25228 | | | | 756827 |
| | 1 m | | | | | | | | Total Cost: | 756827 |

| Simplicity Simplicity M Date: M Date: M Date: M Date: M Date: FERUIT Source LEFELS FERUIT Source LEFELS M Date: M Date: </th <th>RESULTS: SOUND LEVELS</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>4</th> <th>BtU PD</th> <th>Ш</th> <th></th> <th></th> <th></th> <th></th> <th></th> | RESULTS: SOUND LEVELS | | | | | | | 4 | BtU PD | Ш | | | | | |
|---|---|-------------|-----------------------|------------------|------------|----------|-----------|--------|--------------------|------------------------------------|-----------------------|---------------------------------|-----------|-------------------------|-------|
| REBULTOR: REPOLICTIONTEACT: INIT INITIAL INITIALIA INITIALIA INITIALIA INITIALIA INITIALIA INITIALIA INITIALIA INIT | Stantec M. Drauer | | | | | | | ωĔά | May 2015 IM 2.5 | | L. C | | | _ | |
| ATMOSPHERICS: Geng F, SOV, RM Control of Contro contro of Control of Contro control of Control of | RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | 1-4-1 GM | BtU P Segm I 14 | D&E ent 3 Pin | e Bay GM | | | Š | liculated | wuu uwu Average I a State hi | 1 2.3 Davement typ | e shall be use v substantiat | ed unles: | | |
| Receiver No. Filting Filting Mith | ATMOSPHERICS: | 68 | deg F | :, 50% RH | | | | | | a Juaice III of a diffei | ent type with | approval of I | EHWA. | 0 | |
| Matrix Matrix< | Receiver | | 4 | | No Barrier | | | | | | With Barrior | | | | |
| Image: contract of the barding of the bardi | | | ^^ | Annull Annth | | | Increase | Ver ex | icting | Tvne | Calculated | Noise Redu | rtion | - | |
| | | | - | -Aeq In | Calculated | l Crit'n | Calculate | | it'n b'l Inc | Impact | calculated LAeq1h | Calculated | Goal | Calcul minus Goal | lated |
| Prine Bay 1 1 1 0.0 71.3 0.6 71.4 0.6 | | | | IBA | dBA | dBA | Вb | Ð | | | dBA | đB | В | æ | |
| Prine Bay 2 2 1 0.0 714 66 714 10 Snd Lvi 63.1 7.3 8 -0.7 Prine Bay 3 3 1 0.0 714 66 714 10 Snd Lvi 63.1 7.3 8 -0.7 Prine Bay 4 5 1 0.0 71.6 66 71.6 10 Snd Lvi 63.1 7.3 8 -0.1 Prine Bay 6 6 71.6 66 71.6 10 Snd Lvi 63.6 80.0 8 0.0 Prine Bay 6 71.1 0.0 71.5 66 71.5 10 Snd Lvi 63.5 80.0 8 0.0 Prine Bay 10 11 1 0.0 71.4 66 71.5 10 Snd Lvi 63.5 80.0 8 0.0 8 0.0 8 0.0 8 0.0 8 0.0 8 0.0 8 0.0 8 0.0 8 0 | Pine Bay 1 | - | - | 0.0 | -2 | с. | 66 | 71.3 | 10 | Snd Lvl | 64.8 | 6.5 | 10 | 8 | -1.5 |
| Pine Bay 3 1 0.0 71.4 66 71.4 10 63.7 7.5 8 -0.1 Pine Bay 4 5 1 0.0 71.6 66 71.5 10 56d.10 63.7 7.9 8 -0.1 Pine Bay 5 5 6 71.5 66 71.5 10 56d.10 63.5 8.0 8 0 0 Pine Bay 7 7 1 0.0 71.5 66 71.5 10 56d.10 63.3 8 0 0 0 0 0 10 11 10 0 71.5 10 56d.10 63.1 8.1 8 0 | Pine Bay 2 | 2 | - | 0.0 | .2 | 4.1 | 66 | 71.4 | 10 | Snd Lvl | 64.1 | 7.5 | ~ | 80 | -0.7 |
| Pine Bay4 4 1 0.0 71.6 66 71.6 10 83.7 7.9 8 -0.0 Pine Bay5 5 1 0.0 71.6 66 71.6 10 86.4 80 8 0 0 Pine Bay5 7 1 0.0 71.6 66 71.6 10 86.4 80 8 0 0 Pine Bay5 7 7 10 71.5 66 71.5 10 86.4 82 8 0 0 Pine Bay1 11 1 0.0 71.5 66 71.6 10 86.1 8 0 0 Pine Bay1 12 1 0.0 71.4 66 71.6 10 86.1 8 0 0 Pine Bay1 11 1 0.0 71.6 66 71.6 10 86.1 8 9 0 0 Pine Bay13 1 1 | Pine Bay 3 | n | - | 0.0 | 7 | 4. | 66 | 71.4 | 10 | Snd Lvl | 63.9 | 7.5 | 10 | 80 | -0.5 |
| Pine Bay 5 5 1 0.0 71.6 66 71.6 10 Snd LM 63.5 8.0 8 0 Pine Bay 5 7 7 10 71.5 10 Snd LM 63.5 8.0 8 0 Pine Bay 7 7 7 0 71.5 66 71.5 10 Snd LM 63.3 8.2 8 0 Pine Bay 9 9 1 0.0 71.5 66 71.5 10 Snd LM 63.3 8.2 8 0 Pine Bay 10 11 1 0.0 71.6 66 71.5 10 Snd LM 63.1 8.3 8 9 0 Pine Bay 11 11 1 0.0 71.6 66 71.5 10 Snd LM 63.1 8.3 8 9 0 Pine Bay 13 11 1 0.0 71.6 66 71.5 10 Snd LM 63.1 8 9 <td< td=""><td>Pine Bay 4</td><td>4</td><td>-</td><td>0.0</td><td>-2-</td><td>9.1</td><td>66</td><td>71.6</td><td>10</td><td>Snd Lvl</td><td>63.7</td><td>7.5</td><td>•</td><td>00</td><td>-0.1</td></td<> | Pine Bay 4 | 4 | - | 0.0 | -2- | 9.1 | 66 | 71.6 | 10 | Snd Lvl | 63.7 | 7.5 | • | 00 | -0.1 |
| Pine Bay 6 1 0.0 71.5 66 71.5 10 Smd LM 63.3 8.0 8 9 0 Pine Bay 7 7 7 1 0.0 71.5 66 71.5 10 Smd LM 63.3 8.2 8 0 Pine Bay 7 8 7 0 71.5 66 71.5 10 Smd LM 63.3 8.4 8 0 Pine Bay 1 11 10 11 1 0.0 71.6 66 71.4 10 Smd LM 63.1 8.3 8 0 Pine Bay 1 11 1 0.0 71.6 66 71.6 10 Smd LM 63.1 8.5 8 0 Pine Bay 12 11 1 0.0 71.6 66 71.6 10 Smd LM 63.1 8.5 8 0 Pine Bay 12 11 10 0.1 71.6 66 71.6 10 Smd LM </td <td>Pine Bay 5</td> <td>S</td> <td>~</td> <td>0.0</td> <td>-2</td> <td>9.</td> <td>66</td> <td>71.6</td> <td>10</td> <td>Snd Lvl</td> <td>63.6</td> <td>8.0</td> <td>0</td> <td>80</td> <td>0.0</td> | Pine Bay 5 | S | ~ | 0.0 | -2 | 9. | 66 | 71.6 | 10 | Snd Lvl | 63.6 | 8.0 | 0 | 80 | 0.0 |
| Pine Bay 7 7 1 0.0 71.6 66 71.5 10 Snd Lvl 63.3 8.2 8 0 Pine Bay 8 8 1 0.0 71.5 66 71.5 10 Snd Lvl 63.3 8.2 8 0.2 Pine Bay 8 11 1 0.0 71.5 66 71.5 10 Snd Lvl 63.3 8.2 8 0.2 Pine Bay 10 11 1 0.0 71.6 66 71.6 10 Snd Lvl 63.3 8.5 8 0.5 Pine Bay 12 12 1 0.0 71.6 66 71.6 10 Snd Lvl 63.3 8.5 8 0.5 Pine Bay 14 17 1 0.0 71.6 66 71.5 10 Snd Lvl 63.3 8.5 8 0.5 Pine Bay 14 17 1 0.0 71.6 66 71.5 10 Snd Lvl 67.3 8 | Pine Bay 6 | 9 | - | 0.0 | -2 | .5 | 66 | 71.5 | 10 | Snd Lvl | 63.5 | 8.0 | 0 | 80 | 0.0 |
| Pine Bay 8 1 0.0 71.5 66 71.5 10 Snd Lvi 63.3 8.2 8 0.2 Pine Bay 10 11 1 0.0 71.5 66 71.5 10 Snd Lvi 63.1 8.4 8 0.3 Pine Bay 10 11 1 0.0 71.6 66 71.6 10 Snd Lvi 63.1 8.4 8 0.3 Pine Bay 11 11 1 0.0 71.6 66 71.6 10 Snd Lvi 63.1 8.4 8 0.3 Pine Bay 12 13 1 0.0 71.6 66 71.6 10 Snd Lvi 63.0 8.5 8 0.3 Pine Bay 13 13 1 0.0 71.6 66 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6 | Pine Bay 7 | 7 | - | 0.0 | -2 | 9.1 | 66 | 71.6 | 10 | Snd Lvl | 63.4 | 1 8.5 | 01 | 80 | 0.2 |
| Pine Bay 0 71.5 66 71.5 10 8.1 8.4 8 0.4 Pine Bay 10 10 1 0.0 71.4 66 71.4 10 8.1 8.3 8 0.3 Pine Bay 11 11 1 0.0 71.4 66 71.4 10 5nd Lvi 63.1 8.3 8 0.3 Pine Bay 12 11 1 0.0 71.6 66 71.6 10 Snd Lvi 63.1 8.3 8 0.3 Pine Bay 13 13 1 0.0 71.6 66 71.5 10 Snd Lvi 63.1 8.5 8 0.3 Pine Bay 14 14 1 0.0 71.6 66 71.5 10 Snd Lvi 63.0 8.7 8 0.5 Pine Bay 14 1 1 0.0 71.6 66 71.5 10 Snd Lvi 63.0 73 8 0.5 Pine Bay 15 | Pine Bay 8 | œ | - | 0.0 | -2 | .5 | 66 | 71.5 | 10 | Snd Lvl | 63.0 | 8.2 | 0 | 80 | 0.2 |
| Pine Bay 10 10 1 0.0 71.4 66 71.4 10 63.1 8.3 8 0.3 Pine Bay 11 11 1 0.0 71.6 66 71.5 10 Sind Lvi 63.1 8.5 8 0.3 Pine Bay 12 11 1 0.0 71.6 66 71.6 10 Sind Lvi 63.0 8.5 8 0.3 Pine Bay 13 13 1 0.0 71.6 66 71.5 10 Sind Lvi 63.0 8.5 8 0.3 Pine Bay 14 13 1 0.0 71.5 66 71.5 10 Sind Lvi 63.0 8.5 8 0.5 Pine Bay 15 16 70.1 10 Sind Lvi 63.0 7.7 8 0.1 Pine Bay 13 1 10 0.0 70.1 10 Sind Lvi 63.0 7.7 8 0.1 Pine Bay 13 1 1 <th< td=""><td>Pine Bay 9</td><td>6</td><td>-</td><td>0.0</td><td>-2</td><td>.5</td><td>66</td><td>71.5</td><td>10</td><td>Snd Lvl</td><td>63.</td><td>8.4</td><td>#</td><td>8</td><td>0.4</td></th<> | Pine Bay 9 | 6 | - | 0.0 | -2 | .5 | 66 | 71.5 | 10 | Snd Lvl | 63. | 8.4 | # | 8 | 0.4 |
| Pine Bay 11 11 1 0.0 71.6 66 71.6 10 Sind Lvi 63.1 8.5 8 0.0 Pine Bay 12 12 1 0.0 71.6 66 71.6 10 Sind Lvi 63.0 8.6 8 0.0 Pine Bay 13 13 1 0.0 71.6 66 71.6 10 Sind Lvi 63.0 8.6 8 0.0 Pine Bay 13 13 1 0.0 71.5 66 71.5 10 Sind Lvi 63.0 8.6 8 0 6 Pine Bay 14 16 1 0.0 71.5 66 70.7 10 Sind Lvi 62.0 7.7 8 0.0 Pine Bay 13 1 1 0.0 70.7 66 70.7 10 Sind Lvi 62.0 7.7 8 0.0 Pine Bay 13 1 1 0.0 70.7 66 70.7 10 Sind Lvi 62. | Pine Bay 10 | 10 | - | 0.0 | -2 | .4 | 66 | 71.4 | 10 | Snd Lvl | 63.1 | 8.0 | m | 8 | 0.3 |
| Pine Bay 12 12 1 0.0 71.6 66 71.6 10 63.0 8.6 8 0 Pine Bay 13 13 1 0.0 71.6 66 71.6 10 63.0 8.6 8 0 6 Pine Bay 13 13 1 0.0 71.6 66 71.6 10 63.0 8.6 8 0 8 0 0 Pine Bay 15 15 1 0.0 71.7 66 71.0 10 67.0 8.1 8 0 8 0 0 Pine Bay 15 17 1 0.0 70.7 66 70.7 10 67.0 70.7 8 0.0 70.7 8 0.0 Pine Bay 16 1 0.0 70.7 66 70.7 10 67.0 70.7 8 0.0 Pine Bay 16 1 0.0 70.7 10 60.1 60.1 60.1 60.1 60.1< | Pine Bay 11 | ÷ | - | 0.0 | | 9. | 66 | 71.6 | 10 | Snd Lvl | 63. | 8.5 | 10 | 80 | 0.5 |
| Pine Bay 131310.071.66671.610Nd Lvl63.08.6890.0Pine Bay 141410.071.56671.510Nd Lvl63.08.5800.1Pine Bay 151510.071.56671.010Nd Lvl63.08.580.1Pine Bay 151610.071.56671.010Sind Lvl62.98.180.1Pine Bay 161710.070.76670.710Sind Lvl62.98.180.1Pine Bay 161810.070.76670.710Sind Lvl62.97.78-0.3Pine Bay 161810.070.76670.710Sind Lvl63.07.78-0.3Pine Bay 191919100.070.76670.710Sind Lvl63.07.78-0.3Pine Bay 202010.070.36670.310Sind Lvl63.07.78-0.3Pine Bay 212110.070.36670.310Sind Lvl67.37.78-0.3Pine Bay 212110.070.36670.310Sind Lvl63.17.78-0.3Pine Bay 222110.070.36670.3 </td <td>Pine Bay 12</td> <td>12</td> <td>-</td> <td>0.0</td> <td>~</td> <td>9.1</td> <td>66</td> <td>71.6</td> <td>10</td> <td>Snd Lvl</td> <td>63.(</td> <td>8.6</td> <td>6</td> <td>80</td> <td>0.6</td> | Pine Bay 12 | 12 | - | 0.0 | ~ | 9.1 | 66 | 71.6 | 10 | Snd Lvl | 63.(| 8.6 | 6 | 80 | 0.6 |
| Pine Bay 14 14 1 0.0 71.5 66 71.5 10 Sind Lyl 63.0 8.5 8 0.0 Pine Bay 15 15 1 0.0 71.0 66 71.0 10 Sind Lyl 62.9 8.1 8 0.0 Pine Bay 15 16 1 0.0 71.0 66 70.1 10 Sind Lyl 62.9 8.1 8 -0.1 Pine Bay 17 17 1 0.0 70.8 66 70.7 10 Sind Lyl 62.9 7.7 8 -0.1 Pine Bay 18 1 0.0 70.7 66 70.7 10 Sind Lyl 63.0 7.7 8 -0.3 Pine Bay 19 19 1 0.0 70.7 66 70.7 10 Sind Lyl 63.0 7.7 8 -0.3 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Sind Lyl 67.3 8 | Pine Bay 13 | 13 | - | 0.0 | -2 | i.6 | 66 | 71.6 | 10 | Snd Lvi | 63.(| 8.6 | (0 | 80 | 0.6 |
| Pine Bay 15 1 0.0 71.0 66 71.0 10 Sind Lvi 62.9 8.1 8 0.1 9.0 Pine Bay 16 16 1 0.0 70.8 66 70.8 10 Sind Lvi 62.9 7.9 8 -0.1 Pine Bay 17 17 1 0.0 70.7 66 70.7 10 Sind Lvi 63.0 7.7 8 -0.1 Pine Bay 18 18 1 0.0 70.7 66 70.7 10 Sind Lvi 63.0 7.7 8 -0.3 Pine Bay 19 19 1 0.0 70.3 66 70.3 10 Sind Lvi 63.0 7.7 8 -0.3 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Sind Lvi 63.0 7.7 8 -0.3 Pine Bay 21 2 1 0.0 70.3 66 70.3 10 Sind Lvi 65.3 | Pine Bay 14 | 14 | - | 0.0 | -2 | 1.5 | 66 | 71.5 | 10 | Snd Lvl | 63.(| .8. | 10 | 8 | 0.5 |
| Pine Bay 16 1 0.0 70.8 66 70.8 10 model 7.9 8 -0.1 Pine Bay 17 1 1 0.0 70.7 66 70.7 10 63.0 7.7 8 -0.3 Pine Bay 17 1 1 0.0 70.7 66 70.7 10 63.0 7.7 8 -0.3 Pine Bay 18 18 1 0.0 70.7 66 70.7 10 61.0 63.0 7.7 8 -0.3 Pine Bay 19 1 0.0 70.3 66 70.3 10 60.1 67.3 8 -0.3 Pine Bay 20 21 1 0.0 70.3 66 70.3 10 63.1 7.2 8 -0.3 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 61.4 63.1 7.1 8 -0.3 Pine Bay 22 1 0.0 70.3 | Pine Bay 15 | 15 | - | 0.0 | 7 | 0.1 | 66 | 71.0 | 10 | Snd Lvl | 62.9 | 8. | | 80 | 0.1 |
| Pine Bay 17 1 1 0.0 70.7 66 70.7 10 63.0 7.7 8 -0.3 Pine Bay 18 18 1 0.0 70.7 66 70.7 10 Snd Lvi 63.0 7.7 8 -0.3 Pine Bay 18 18 1 0.0 70.4 66 70.4 10 Snd Lvi 63.0 7.7 8 -0.3 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Snd Lvi 63.1 7.2 8 -0.5 Pine Bay 20 21 1 0.0 70.3 66 70.3 10 Snd Lvi 63.1 7.2 8 -0.5 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvi 63.1 7.1 8 -0.5 Pine Bay 22 2 1 0.0 70.3 66 70.3 10 Snd Lvi 63.4 6.9 7.1 | Pine Bay 16 | 16 | - | 0.0 | 20 | 9.8 | 66 | 70.8 | 10 | Snd Lvl | 62.9 | 5.7 (| 6 | ø | -0.1 |
| Pine Bay 18 18 1 0.0 70.7 66 70.7 10 Snd Lvl 63.0 7.7 8 -0.3 Pine Bay 19 19 1 0.0 70.4 66 70.4 10 Snd Lvl 65.9 7.5 8 -0.5 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Snd Lvl 63.1 7.2 8 -0.6 Pine Bay 20 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.2 7.1 8 -0.6 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.2 7.1 8 -0.6 Pine Bay 21 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.2 7.1 8 -0.6 Pine Bay 23 23 1 0.0 70.3 10 Snd Lvl 63.4 6.9 6.1 < | Pine Bay 17 | 17 | - | 0.0 | 7 | 0.7 | 66 | 70.7 | 10 | Snd Lvl | 63.(| | ~ | ß | -0.3 |
| Pine Bay 19 19 1 0.0 70.4 66 70.4 10 Snd Lvl 62.9 7.5 8 -0.5 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Snd Lvl 63.1 7.2 8 -0.8 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.1 7.2 8 -0.8 Pine Bay 21 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.2 7.1 8 -0.9 Pine Bay 22 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.4 6.9 8 -1.1 Pine Bay 23 1 0.0 70.3 66 70.3 10 Snd Lvl 63.6 6.7 8 -1.1 | Pine Bay 18 | 18 | - | 0.0 | 2 | 0.7 | 66 | 70.7 | 10 | Snd Lvl | 63.(| | ~ | ø | -0.3 |
| Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Snd Lvl 63.1 7.2 8 -0.8 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.1 7.2 8 -0.8 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.2 7.1 8 -0.9 Pine Bay 22 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.4 6.9 8 -1.1 Pine Bay 23 1 0.0 70.3 66 70.3 10 Snd Lvl 6.9 8 -1.1 | Pine Bay 19 | 19 | ۲ | 0.0 | 2 | 0.4 | 66 | 70.4 | 10 | Snd Lvl | 62.9 | .7 6 | 10 | 80 | -0.5 |
| Pine Bay 21 21 1 0.0 70.3 66 70.3 10 8/11 63.2 7.1 8 -0.9 Pine Bay 22 22 1 0.0 70.3 66 70.3 10 8/11 63.4 6.9 8 -1.1 Pine Bay 22 23 1 0.0 70.3 66 70.3 10 8/11 6.9 8 -1.1 Pine Bay 23 23 1 0.0 70.3 66 70.3 10 8/11 6.9 8 -1.1 | Pine Bay 20 | 20 | - | 0.0 | 2 | 0.3 | 66 | 70.3 | 10 | Snd Lvl | 63. | .7 | 0 | 80 | -0.8 |
| Pine Bay 22 22 1 0.0 70.3 66 70.3 10 8nd Lvl 63.4 6.9 8 -1.1 Pine Bay 23 23 1 0.0 70.3 66 70.3 10 8nd Lvl 63.4 6.9 8 -1.1 Pine Bay 23 23 1 0.0 70.3 66 70.3 10 8nd Lvl 63.6 6.7 8 -1.3 | Pine Bay 21 | 21 | - | 0.0 | 2 | 0.3 | 66 | 70.3 | 10 | Snd Lvl | 63.2 | 7.7 | | 8 | -0.9 |
| Pine Bay 23 23 1 0.0 70.3 66 70.3 10 Snd Lvi 63.6 6.7 8 -1.3 | Pine Bay 22 | 22 | - | 0.0 | 20 | 0.3 | 66 | 70.3 | 10 | Snd Lvl | 63.4 | 1 6.9 | 0 | 8 | -1.1 |
| | Pine Bay 23 | 23 | - | 0.0 | 7 | 0.3 | 66 | 70.3 | 10 | Snd Lvl | 63.(| 6.1 | 2 | 80 | -1.3 |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | Ĕ | | | | |
|-----------------------------------|------------|----|-----|------|----|------|---------|-------------|------|-----|-----------|------|
| Pine Bay 24 | 24 | - | 0.0 | 6.93 | 66 | 60.9 | 10 | Snd Lvl | 63.8 | 6.1 | ω | -1.9 |
| Pine Bay 25 | 25 | - | 0.0 | 69.9 | 66 | 69.9 | 10 | Snd Lvl | 64.2 | 5.7 | 80 | -2.3 |
| Pine Bay 26 | 26 | - | 0.0 | 69.6 | 66 | 69.6 | 10 | Snd Lvl | 64.7 | 4.9 | 80 | -3.1 |
| Pine Bay 27 | 27 | - | 0.0 | 69.7 | 66 | 69.7 | 10 | Snd Lvl | 65.2 | 4.5 | œ | -3.5 |
| Pine Bay 28 | 28 | - | 0.0 | 70.3 | 66 | 70.3 | 10 | Snd Lvl | 66.8 | 3.5 | œ | -4.5 |
| Pine Bay 29 | 29 | - | 0.0 | 70.8 | 66 | 70.8 | 10 | Snd Lvl | 68.3 | 2.5 | ω | -5.5 |
| Pine Bay 30 | 30 | ~ | 0.0 | 69.0 | 66 | 69.0 | 10 | Snd Lvi | 67.3 | 1.7 | ŝ | -6.3 |
| Pine Bay 31 | 31 | - | 0.0 | 67.8 | 66 | 67.8 | 10 | Snd Lvl | 66.5 | 1.3 | 8 | -6.7 |
| Pine Bay 32 | 32 | - | 0.0 | 66.6 | 66 | 66.6 | 10 | Snd Lvl | 65.4 | 1.2 | 8 | -6.8 |
| Pine Bay 33 | 33 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | Į | 64.4 | 1.2 | 8 | -6.8 |
| Pine Bay 34 | 34 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | | 63.5 | 1.2 | 80 | -6.8 |
| Pine Bay 35 | 35 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.2 | 1.0 | 80 | -7.0 |
| Pine Bay 36 | 36 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | | 62.5 | 1.0 | 80 | -7.0 |
| Pine Bay 37 | 37 | ~ | 0.0 | 62.9 | 66 | 62.9 | 10 | l | 62.1 | 0.8 | 80 | -7.2 |
| Pine Bay 38 | 38 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | ł | 61.7 | 0.8 | 80 | -7.2 |
| Pine Bay 39 | 39 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | I | 61.2 | 0.8 | 00 | -7.2 |
| Pine Bay 40 | 40 | - | 0.0 | 61.5 | 66 | 61.5 | 10 | 1 | 60.7 | 0.8 | 00 | -7.2 |
| Pine Bay 41 | 41 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | I | 60.6 | 0.7 | 8 | -7.3 |
| Pine Bay 42 | 42 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | 1 | 60.2 | 0.6 | 8 | -7.4 |
| Pine Bay 43 | 43 | - | 0.0 | 60.1 | 66 | 60.1 | 10 | 1 | 59.4 | 0.7 | 80 | -7.3 |
| Pine Bay 44 | 44 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 Alexandre | 59.7 | 0.9 | 80 | -7.1 |
| Pine Bay 45 | 45 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | l | 60.0 | 1.0 | 80 | -7.0 |
| Pine Bay 46 | 46 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | I | 60.2 | 1.1 | 80 | -6.9 |
| Pine Bay 47 | 47 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | l | 60.8 | 1.2 | œ | -6.8 |
| Pine Bay 48 | 48 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 61.1 | 1.4 | 80 | -6.6 |
| Pine Bay 49 | 49 | - | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 61.6 | 1.5 | Ø | -6.5 |
| Pine Bay 50 | 50 | - | 0.0 | 63.7 | 66 | 63.7 | 10 | 1 | 62.1 | 1.6 | 80 | -6.4 |
| Pine Bay 51 | 51 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | I | 62.5 | 1.8 | 80 | -6.2 |
| Pine Bay 52 | 52 | - | 0.0 | 65.2 | 66 | 65.2 | 10 | I | 63.3 | 1.9 | 80 | -6.1 |
| Pine Bay 53 | 53 | - | 0.0 | 66.3 | 66 | 66.3 | 10 | Snd Lvl | 63.8 | 2.5 | 80 | -5.5 |
| Pine Bay 54 | 54 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 63.4 | 2.8 | 80 | -5.2 |
| Pine Bay 55 | 55 | ۴. | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 63.0 | 3.0 | 80 | -5.0 |
| Pine Bay 56 | 56 | - | 0.0 | 65.9 | 66 | 65.9 | 10 | 1 | 62.6 | 3.3 | 80 | -4.7 |
| Pine Bay 57 | 57 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | | 62.0 | 2.4 | Ø | -5.6 |
| Pine Bay 58 | 58 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | and a | 61.3 | 2.2 | 80 | -5.8 |
| Pine Bay 59 | 59 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 60.8 | 1.7 | 80 | -6.3 |
| Pine Bay 60 | 60 | - | 0.0 | 61.6 | 66 | 61.6 | 10 | | 60.2 | 1.4 | 80 | -6.6 |
| Pine Bay 61 | 61 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | | 59.8 | 1.3 | 80 | -6.7 |
| Pine Bay 62 | 62 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | | 59.5 | 0.9 | 80 | -7.1 |
| Pine Bay 63 | 63 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 59.2 | 0.8 | 80 | -7.2 |
| Pine Bay 64 | 64 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.1 | 4.0 | 8 | -4.0 |
| C:\TNM25\230168\Sea 3\8 + 4\NSA D | O Pine Bay | | | | | 2 | | | | | 8 May 201 | 5 |

| RESULTS: SOUND LEVELS | | | | | | -4 | BtU PD | Ĕ | | | | |
|------------------------------|----|------|-----------|--------|------|------|--------|---|------|-----|----|------|
| Pine Bay 65 | 65 | - | 0.0 | 65. | 66 | 65.8 | 10 | I | 61.9 | 3.9 | 8 | -4.1 |
| Pine Bay 66 | 99 | | 0.0 | 64. | 7 66 | 64.7 | 10 | I | 60.7 | 4.0 | 00 | -4.0 |
| Pine Bay 67 | 67 | - | 0.0 | 64. | 66 | 64.6 | 10 | 1 | 60.7 | 3.9 | œ | -4.1 |
| Pine Bay 68 | 68 | - | 0.0 | 64. | 4 66 | 64.4 | 10 | 1 | 60.6 | 3.8 | 80 | -4.2 |
| Pine Bay 69 | 69 | - | 0.0 | 64. | 4 66 | 64.4 | 10 | | 60.7 | 3.7 | 8 | -4.3 |
| Pine Bay 70 | 70 | - | 0.0 | 64.(| 66 | 64.6 | 10 | I | 60.8 | 3.8 | 8 | -4.2 |
| Pine Bay 71 | 71 | - | 0.0 | 64.(| 66 | 64.6 | 10 | ſ | 60.9 | 3.7 | 8 | -4.3 |
| Pine Bay 72 | 72 | - | 0.0 | 64. | 4 66 | 64.4 | 10 | I | 60.9 | 3.5 | 8 | -4.5 |
| Pine Bay 73 | 73 | - | 0.0 | 64. | 66 | 64.3 | 10 | 1 | 61.1 | 3.2 | æ | -4.8 |
| Pine Bay 74 | 74 | - | 0.0 | 64.(| 99 0 | 64.0 | 10 | 1 | 61.1 | 2.9 | ω | -5.1 |
| Pine Bay 75 | 75 | - | 0.0 | 60.4 | 4 66 | 60.4 | 10 | | 58.9 | 1.5 | 80 | -6.5 |
| Pine Bay 76 | 76 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 58.6 | 1.2 | 8 | -6.8 |
| Dwelling Units | # | Us N | loise Red | uction | | | | | | | | |
| | | 2 | ų. | Avg | Мах | | | | | | | |
| | | σ | 8 | đB | đB | | | | | | | |
| All Selected | - | 76 | 0.6 | 3.6 | 9.8 | | | | | | | |
| All Impacted | | 36 | 1.2 | .9 | 8.6 | | | | | | | |
| All that meet NR Goal | | ÷ | 8.0 | 8 | 8.6 | | | | | | | |
| | | | | | | | | | | | | |

8 May 2015

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| Stantec M. Drauer | | | | | 1 | | | |
|--------------------------------|-------------|-----------------------|--------|---------|---------|--------------|-------------|--------|
| | | 8 May 201. TNM 2.5 | LD. | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | |
| PROJECT/CONTRACT: I-4 Btu PD&E | | | | | | | | |
| RUN: I-4 Segment 3 Pine B | ne Bay GM | | | | | | | |
| BARRIER DESIGN: GM 12 | | | | | | | | |
| Barriers | | | | | | | | |
| Name Type Heights along | ong Barrier | | Length | If Wall | If Berm | | | Cost |
| Min Avç | Avg | Max | | Area | Volume | Top Width | Run:Rise | 1 |
| H | ft | ft | ft | sq ft | cu yd | ft | ft:ft | \$ |
| Pine Bay W 12.00 | 12.00 | 12.00 | 1802 | 21624 | | | | 648709 |
| | | | | | | | Total Cost: | 648709 |

8 May :

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| Summe Si My 2015 Thruit 35 IL Druner EREUL PDAE Thruit 35 Thruit 35 RESULT: COUNTEXCI: I 4 BUL PDAE Thruit 35 Thruit 35 RESULT: COUNTEXCI: I 4 BUL PDAE Annang panement type ahall bu used univers RESULT: COUNTEXCI: I 4 BUL PDAE Annang panement type ahall bu used univers RESULT: COUNTEXCI: I 4 BUL PDAE Annang panement type ahall bu used univers RESULT: COUNTEXCI: I 4 BUL PDAE Annang panement type ahall bu used univers RESULT: Annang panement type ahall bu used univers Annang panement type ahall bu used univers RESULT: Annang panement type ahall bu used univers Annang panement type ahall bu used univers RESULT: Annang panement type ahall bu used univers Annang panement type ahall bu used univers RESULT: Annang panement type ahall bu used univers Annang panement type ahall bu used univers RESULT: Annang panement type ahall bu used univers Annang panement type ahall bu used univers RESULT: Annang panement type ahall bu used univers Annang panement type ahall bu used univers RESULT: Annang panement type ahall bu used univers Annang pab | RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU P | D&E | | | | | |
|---|--|--------------|------------|------------|----------|----------|--------|-------------|---------------------|----------------------|-------------------------------|---------------------------------|------------------------|-------------------|------|
| Image: Interact Contract: Image: Interact: Image: Interact: <thimage:< th=""><th>Stantec</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>8 May 20</th><th>15</th><th></th><th></th><th></th><th></th><th></th></thimage:<> | Stantec | | | | | | | | 8 May 20 | 15 | | | | | |
| RESULTS: SOUND LEVELS Head Processon Antering a prevent type shall be used unless a state highway agency substantiates the use a state highway agency and a state highway a | M. Drauer | | | | | | | | Calculate | d with TN | M 2.5 | | | - | |
| RUN: LI Segment 3 Pine Bay GM BARRED DESION: LI Segment 3 Pine Bay GM ATMOSPHERICIS: MI12 ATMOSPHERICIS: MI12 ATMOSPHERICIS: MI12 ATMOSPHERICIS: MI12 ATMOSPHERICIS: MI12 ATMOSPHERICIS: MI12 MI12 ATMOSPHERICIS: MI12 MI12 MI12 MI12 Reserver MI12 MI12 MI12 MI12 MI12 Reserver MI12 MI12 MI12 MI12 MI12 MI12 Reserver MI12 MI12 MI12 MI12 MI12 MI12 MI12 Reserver MI12 MI12 MI12 MI12 MI12 MI12 MI12 Pree Bay MI12 MI12 MI12 MI12 MI12 MI12 Pree Bay MI12 MI12 MI12 MI12 MI12 MI12 Pree Bay MI12 MI12 MI12 MI12 MI12 MI12 MI12 </th <th>RESULTS: SOUND LEVELS PROJECT/CONTRACT:</th> <th></th> <th>4 BtU</th> <th>PD&E</th> <th></th> | RESULTS: SOUND LEVELS PROJECT/CONTRACT: | | 4 BtU | PD&E | | | | | | | | | | | |
| Matrix Decision: Matrix Anticast preventing state highway substantiate the unsessed of 5.30% relation to the set of the relation to the | RUN: | · <u>-</u> · | 4 Seg | ment 3 Pi | ne Bay (| SM | | | | | : | : | | | |
| Kindoshreitikation6 ang F, Sow Rishof a different type with approval of FHWA.KeelorerNo.PUIPuil barrierNo.Puil barrierNo.Puil barrierNo.ReelorerNo.PUIAngthNo.Puil barrierNo.Puil barrierAngthAngthAngthAnneNo.PUIAngthNo.PUIPuel barrierNo.Puel barrierAngth | BARRIER DESIGN: | | ZL Mé | | | | | | | Average a State I | pavement typ iighway agenc | e shali be uso y substantiat | ed unles: tes the u | é é | |
| Receiver No. AUN AUN Mith Bartie Mith Bartie Name No. AUN Leapth Leapth Increase over existing Type Calculated Mith Bartie Name No. Leapth Leapth Leapth Increase over existing Type Calculated Mith Bartie Calculated C | ATMOSPHERICS: | | 68 deg | ι F, 50% F | H | | | | | of a diffe | rrent type with | approval of | FHWA. | | |
| | Receiver Name | No. | DUs | Existina | No Ba | Irier | | | | | With Barriel | | | 0 | |
| Image: constant of the sector of the sect | | | | LAeq1h | LAed. | <u>د</u> | | Increase ov | er existing | Type | Calculated | Noise Redu | ction | | |
| Matrix | | | | | Calcu | lated (| Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculat minus | Ited |
| | | | | | | | | | | | | | | Goal | |
| Prime Bay1 1 1 0.0 71.3 66 71.4 10 56.1 6.2 8 -1.1 Pine Bay 2 2 1 0.0 71.4 66 71.4 10 561 6.3 6.3 6.3 6.3 6.3 6.4 7.1 8 -1.1 Pine Bay 2 5 1 0.0 71.6 6.6 71.6 10 5.40 6.40 7.7 8 -0.1 Pine Bay5 6 1 0.0 71.6 6.6 71.5 10 5.40 6.40 7.7 8 -0.0 Pine Bay1 7 1 0.0 71.5 6.6 71.5 10 5.61 7.7 8 -0.0 Pine Bay10 11 1 0.0 71.5 6.6 71.5 10 5.61 7.7 8 -0.0 Pine Bay10 11 1 0.0 71.5 6.6 71.5 10 5.61 10 | | | | dBA | dBA | | IBA | ß | dB | | dBA | 段 | Вb | 段 | |
| Prine Bay 2 2 1 0.0 714 66 714 10 Snd Lvl 64.0 7.1 8 -0.0 Prine Bay 3 5 1 0.0 71.4 66 71.4 10 Snd Lvl 64.0 7.7 8 -0.0 Prine Bay 4 5 1 0.0 71.6 66 71.6 10 Snd Lvl 64.0 7.7 8 -0.0 Prine Bay 7 7 1 0.0 71.5 66 71.5 10 Snd Lvl 63.0 7.7 8 -0.0 Prine Bay 7 7 1 0.0 71.5 66 71.4 10 Snd Lvl 63.0 7.7 8 -0.0 Prine Bay 10 11 1 0.0 71.4 66 71.4 10 Snd Lvl 63.0 7.7 8 -0.0 Prine Bay 10 11 1 0.0 71.4 10 Snd Lvl 63.0 7.7 8 -0.0 | Pine Bay 1 | - | - | 0 | 0. | 71.3 | Ö | 5 | ن د | 0 Snd Lv | 65. | 1 6.1 | 2 | 80 | -1.8 |
| Pine Bay 3 1 0.0 71.4 0.6 71.4 10 5.0d LM 64.3 7.1 8 -0.0 Pine Bay 4 5 1 0.0 71.6 71.7 71.7 <t< td=""><td>Pine Bay 2</td><td>2</td><td></td><td>0</td><td>0.</td><td>71.4</td><td>Ö</td><td>5 71</td><td>.4</td><td>0 Snd Lv</td><td>64.</td><td>5 6.</td><td>6</td><td>8</td><td>-1.1</td></t<> | Pine Bay 2 | 2 | | 0 | 0. | 71.4 | Ö | 5 71 | .4 | 0 Snd Lv | 64. | 5 6. | 6 | 8 | -1.1 |
| Pine Bay 4 1 0.0 71.6 66 71.6 10 56.10 76.4 8 -0.0 Pine Bay 5 5 1 0.0 71.6 66 71.6 10 56.10 76.6 8 -0.0 Pine Bay 6 7 1 0.0 71.5 66 71.6 10 50.10 63.3 7.7 8 -0.0 Pine Bay 1 1 0.0 71.5 66 71.5 10 50.10 67.3 7.7 8 -0.0 Pine Bay 1 1 0.0 71.5 66 71.5 10 50.10 50.3 7.7 8 -0.0 Pine Bay 1 1 0.0 71.4 66 71.6 10 50.10 50 | Pine Bay 3 | e | - | 0 | 0 | 71.4 | Ö | 5 71 | 4. 1 | 0 Snd Lv | 64. | 3 7. | - | 8 | -0.9 |
| Pine Bay 5 1 0.0 71.6 6 71.6 10 5 md M 64.0 7.6 8 -0.4 Pine Bay 6 6 71.5 66 71.5 10 50.4 63.9 7.7 8 -0.4 Pine Bay 6 7 1 0.0 71.5 66 71.5 10 5nd M 63.9 7.7 8 -0.4 Pine Bay 1 1 0.0 71.5 66 71.5 10 5nd M 63.8 7.7 8 -0.1 Pine Bay 1 11 1 0.0 71.4 66 71.4 10 5nd M 63.6 7.7 8 -0.1 Pine Bay 1 11 1 0.0 71.6 66 71.6 10 5nd M 63.6 8.0 8 0 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 | Pine Bay 4 | 4 | - | 0 | o. | 71.6 | Ö | 5 71 | .6 | 0 Snd Lv | 64. | 2 7. | 4 | 8 | -0.6 |
| Pine Bay 6 1 0.0 71.5 0.6 71.5 10 Snd LM 63.3 7.6 8 -0.4 Pine Bay 7 7 1 0.0 71.5 66 71.5 10 Snd LM 63.3 7.7 8 -0.3 Pine Bay 7 1 0.0 71.5 66 71.5 10 Snd LM 63.3 7.7 8 -0.3 Pine Bay 1 1 10 1 0.0 71.4 66 71.4 10 Snd LM 63.6 7.8 8 -0.3 Pine Bay 1 11 1 0.0 71.6 66 71.6 10 Snd LM 63.6 7.8 8 -0.3 Pine Bay 1 11 1 0.0 71.6 66 71.6 10 Snd LM 63.5 8.0 8 -0.3 Pine Bay 13 11 10 0.1 5.16 71.6 10 Snd LM 63.5 7.1 8 -0.3 | Pine Bay 5 | 5 | | 0 | 0. | 71.6 | Ö | 5 71 | .6 | 0 Snd Lv | 64. | 0 7.0 | Q | 80 | -0.4 |
| Pine Bay 7 7 1 0.0 71.6 66 71.5 10 Snd Lvi 63.3 7.7 8 -0.3 Pine Bay 8 1 0.0 71.5 66 71.5 10 Snd Lvi 63.8 7.7 8 -0.3 Pine Bay 9 1 10 71.5 66 71.5 10 Snd Lvi 63.6 7.7 8 -0.3 Pine Bay 10 11 1 0.0 71.4 66 71.6 10 Snd Lvi 63.6 8.0 8 0 9 10 | Pine Bay 6 | 9 | | 0 | 0. | 71.5 | Ö | 5 71 | .5 | 0 Snd Lv | 63.9 | 9 7.(| 9 | 80 | -0.4 |
| Pine Bay 8 1 0.0 71.5 66 71.5 10 Snd Lvi 63.8 7.7 8 -0.3 Pine Bay 10 11 1 0.0 71.5 66 71.5 10 Snd Lvi 63.6 7.9 8 -0.3 Pine Bay 10 11 1 0.0 71.6 66 71.6 10 Snd Lvi 63.6 8.0 8 0 -0 Pine Bay 11 11 1 0.0 71.6 66 71.6 10 Snd Lvi 63.6 8.0 8 0 0 Pine Bay 12 13 1 0.0 71.5 66 71.6 10 Snd Lvi 63.5 8.1 8 0 0 Pine Bay 13 1 1 0.0 71.5 66 71.6 10 Snd Lvi 63.5 8.1 8 0 0 0 0 0 0 0 0 0 0 0 0 0 </td <td>Pine Bay 7</td> <td>7</td> <td>*-</td> <td>0</td> <td>o.</td> <td>71.6</td> <td>Ö</td> <td>5 71</td> <td>.6</td> <td>0 Snd Lv</td> <td>63.</td> <td>.2. 6</td> <td>7</td> <td>8</td> <td>-0.3</td> | Pine Bay 7 | 7 | * - | 0 | o. | 71.6 | Ö | 5 71 | .6 | 0 Snd Lv | 63. | .2. 6 | 7 | 8 | -0.3 |
| Pine Bay Diameter | Pine Bay 8 | æ | - | 0 | 0. | 71.5 | 9 | 3 71 | .5 | 0 Snd Lv | 63. | 8 7. | 7 | 8 | -0.3 |
| Pine Bay 10 10 1 0.0 71.4 66 71.4 10 83.6 7.8 8 9 0.0 Pine Bay 11 11 1 0.0 71.6 66 71.6 10 SndLyl 63.6 8.0 8.0 8 0 0 Pine Bay 12 11 1 0.0 71.6 66 71.6 10 SndLyl 63.6 8.0 8 0 0 Pine Bay 13 13 1 0.0 71.6 66 71.6 10 SndLyl 63.5 8.1 8 0 0 Pine Bay 14 13 1 0.0 71.5 66 71.6 71.6 71.6 71.6 71.6 71.7 8 0.0 Pine Bay 15 16 10 71.6 71.6 71.6 71.6 71.7 8 0.0 Pine Bay 13 16 10 71.6 71.6 71.7 10 71.4 73.3 7 | Pine Bay 9 | 6 | | 0 | 0. | 71.5 | ø | 5 71 | .5 | 0 Snd Lv | I 63. | 6 7.9 | o | 80 | -0.1 |
| Pine Bay 11 11 1 0.0 71.6 66 71.6 10 63.6 8.0 8.0 8 0 Pine Bay 12 12 1 0.0 71.6 66 71.6 10 63.6 8.0 8.0 8 0 0 Pine Bay 13 13 1 0.0 71.6 66 71.6 10 63.6 8.1 8.0 8 0 0 Pine Bay 14 14 1 0.0 71.5 66 71.6 10 63.5 8.1 8.0 8 0 0 Pine Bay 15 15 1 0.0 71.7 66 70.7 10 63.4 7.3 8 0.0 Pine Bay 15 17 1 0.0 70.7 66 70.7 10 63.4 7.3 8 0.0 Pine Bay 16 1 1 0.0 70.7 66 70.7 10 80.4 7.3 8 0.0 <td>Pine Bay 10</td> <td>10</td> <td></td> <td>0</td> <td>0.</td> <td>71.4</td> <td>ø</td> <td>5 71</td> <td>1</td> <td>0 Snd Lv</td> <td>I 63.</td> <td>6 7.3</td> <td>80</td> <td>80</td> <td>-0.2</td> | Pine Bay 10 | 10 | | 0 | 0. | 71.4 | ø | 5 71 | 1 | 0 Snd Lv | I 63. | 6 7.3 | 80 | 80 | -0.2 |
| Pine Bay 12 12 1 0.0 71.6 66 71.6 10 Sinclut 63.5 8.0 8 9 0.0 Pine Bay 13 13 1 0.0 71.6 66 71.6 10 Sinclut 63.5 8.1 8 0.0 Pine Bay 14 14 1 0.0 71.6 66 71.6 10 Sinclut 63.5 8.1 8 0.0 Pine Bay 15 15 1 0.0 71.6 66 71.6 10 Sinclut 63.5 8.1 8 0.0 Pine Bay 15 16 10 0.0 70.7 66 70.7 10 Sinclut 63.3 7.1 8 0.0 Pine Bay 16 17 1 0.0 70.7 66 70.7 10 Sinclut 63.3 7.1 8 0.0 Pine Bay 16 16 10 0.0 70.7 66 70.7 10 80.1 10.3 <td>Pine Bay 11</td> <td>5</td> <td></td> <td>0</td> <td>0.</td> <td>71.6</td> <td>Ģ</td> <td>6 71</td> <td>.6</td> <td>0 Snd Lv</td> <td>l 63.</td> <td>6 8.0</td> <td>0</td> <td>80</td> <td>0.0</td> | Pine Bay 11 | 5 | | 0 | 0. | 71.6 | Ģ | 6 71 | .6 | 0 Snd Lv | l 63. | 6 8.0 | 0 | 80 | 0.0 |
| Pine Bay 131310.071.66671.610Nnd Lvl63.58.1890.1Pine Bay 141410.071.56671.510Nnd Lvl63.58.08.08.08.09.0Pine Bay 151510.071.56671.010Nnd Lvl63.37.789.00.0Pine Bay 151610.071.06671.010Nnd Lvl63.37.780.0Pine Bay 161710.070.76670.710Snd Lvl63.37.780.0Pine Bay 161710.070.76670.710Snd Lvl63.47.480.0Pine Bay 191810.070.76670.710Snd Lvl63.57.780.1Pine Bay 191919100.070.36670.310Snd Lvl63.57.780.1Pine Bay 202010.070.36670.310Snd Lvl63.56.180.1Pine Bay 21210.070.36670.310Snd Lvl63.56.180.1Pine Bay 21210.070.36670.310Snd Lvl63.56.187.1Pine Bay 22210.070.366< | Pine Bay 12 | 12 | | 0 | 0. | 71.6 | Ö | 5 71 | .6 | 0 Snd Lv | I 63. | 6 8. | 0 | 8 | 0.0 |
| Pine Bay 14 14 1 0.0 71.5 66 71.5 10 Sind Lyl 63.5 8.0 8.0 8 0.0 Pine Bay 15 15 1 0.0 71.0 66 71.0 10 Sind Lyl 63.3 7.7 8 -0.3 Pine Bay 15 16 1 0.0 71.0 66 70.6 70.7 10 Sind Lyl 63.3 7.7 8 -0.3 Pine Bay 17 17 1 0.0 70.7 66 70.7 10 Sind Lyl 63.3 7.7 8 -0.3 Pine Bay 17 11 1 0.0 70.7 66 70.7 10 Sind Lyl 63.4 7.3 8 -0.3 Pine Bay 19 11 0.0 70.3 66 70.3 10 Sind Lyl 63.4 7.4 8 -0.3 Pine Bay 20 20 70 66 70.3 10 Sind Lyl 63.3 7.1 | Pine Bay 13 | 13 | | 0 | 0. | 71.6 | 9 | 5 71 | .6 | 0 Snd Lv | 63. | 5 8. | - | 8 | 0.1 |
| Pine Bay 15 15 1 0.0 71.0 66 71.0 10 NndLvi< 63.3 7.7 8 -0.3 Pine Bay 16 16 1 0.0 70.8 66 70.8 10 SndLvi 63.4 7.4 8 -0.6 Pine Bay 17 17 1 0.0 70.7 66 70.7 10 SndLvi 63.4 7.3 8 -0.6 Pine Bay 18 18 1 0.0 70.7 66 70.7 10 SndLvi 63.4 7.3 8 -0.6 Pine Bay 19 19 1 0.0 70.4 66 70.3 10 SndLvi 63.5 7.1 8 -0.6 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 SndLvi 63.5 6.8 8 -1.2 Pine Bay 21 2 1 0.0 70.3 66 70.3 10 SndLvi 63.5 6.1< | Pine Bay 14 | 14 | ~ | 0 | 0. | 71.5 | Ö | 5 71 | .5 | 0 Snd Lv | 63. | 5 8. | 0 | 80 | 0.0 |
| Pine Bay 16 16 1 0.0 70.8 66 70.8 10 model 7.4 8 -0.6 Pine Bay 17 1 1 0.0 70.7 66 70.7 10 Snd Lvl 63.4 7.4 8 -0.7 Pine Bay 17 1 1 0.0 70.7 66 70.7 10 Snd Lvl 63.4 7.3 8 -0.7 Pine Bay 19 19 1 0.0 70.7 66 70.7 10 Snd Lvl 63.5 7.1 8 -0.6 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Snd Lvl 63.5 6.8 8 -1.2 Pine Bay 20 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.5 6.8 8 -1.2 Pine Bay 21 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.5 6.1 8< | Pine Bay 15 | 15 | Ţ | 0 | 0. | 71.0 | Ö | 5 71 | 1.0 | 0 Snd Lv | 63.0 | 3 7. | 7 | 8 | -0.3 |
| Pine Bay 17 17 1 0.0 70.7 66 70.7 10 Snd Lvl 63.4 7.3 8 -0.7 Pine Bay 18 18 1 0.0 70.7 66 70.7 10 Snd Lvl 63.5 7.2 8 -0.8 Pine Bay 19 19 1 0.0 70.4 66 70.4 10 Snd Lvl 63.5 7.1 8 -0.8 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Snd Lvl 63.5 6.8 8 -0.12 Pine Bay 20 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.5 6.8 8 -1.2 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.5 6.8 8 -1.2 Pine Bay 22 22 1 0.0 70.3 66 70.3 10 Snd Lvl 65.3 | Pine Bay 16 | 16 | ~ | 0 | 0. | 70.8 | Ö | 5 70 | 1.8 | 0 Snd Lv | 63. | 4 7. | 4 | 8 | -0.6 |
| Pine Bay 18 18 1 0.0 70.7 66 70.7 10 Snd Lvl 63.5 7.2 8 -0.8 Pine Bay 19 19 1 0.0 70.4 66 70.4 10 Snd Lvl 63.3 7.1 8 -0.3 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Snd Lvl 63.3 7.1 8 -0.3 Pine Bay 20 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.6 6.7 8 -1.2 Pine Bay 21 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.6 6.7 8 -1.2 Pine Bay 22 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.6 6.7 8 -1.2 Pine Bay 23 23 1 0.0 70.3 10 Snd Lvl 63.6 6.7 8 <td< td=""><td>Pine Bay 17</td><td>17</td><td></td><td>0</td><td>0.</td><td>70.7</td><td>Ö</td><td>92</td><td>1 1.0</td><td>0 Snd Lv</td><td>63.</td><td>4 7.</td><td>8</td><td>8</td><td>-0.7</td></td<> | Pine Bay 17 | 17 | | 0 | 0. | 70.7 | Ö | 92 | 1 1.0 | 0 Snd Lv | 63. | 4 7. | 8 | 8 | -0.7 |
| Pine Bay 19 19 1 0.0 70.4 66 70.4 10 Snd Lvi 63.3 7.1 8 -0.9 Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Snd Lvi 63.5 6.8 8 -0.1 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvi 63.6 6.7 8 -1.2 Pine Bay 21 22 1 0.0 70.3 66 70.3 10 Snd Lvi 63.6 6.7 8 -1.3 Pine Bay 22 22 1 0.0 70.3 66 70.3 10 Snd Lvi 63.6 6.7 8 -1.5 Pine Bay 23 1 0.0 70.3 66 70.3 10 Snd Lvi 65.7 8 -1.5 Pine Bay 23 1 0.0 70.3 66 70.3 10 64.0 6.3 8 -1.5 Pi | Pine Bay 18 | 18 | | 0 | 0. | 70.7 | Ö | 5 70 | 1 1 | 0 Snd Lv | 63. | 5 7. | 2 | 8 | -0.8 |
| Pine Bay 20 20 1 0.0 70.3 66 70.3 10 Snd Lvl 6.3 6.8 8 -1.2 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.5 6.8 8 -1.3 Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.6 6.7 8 -1.3 Pine Bay 22 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.8 6.5 8 -1.5 Pine Bay 23 1 0.0 70.3 66 70.3 10 Snd Lvl 6.5 8 -1.5 | Pine Bay 19 | 19 | · | 0 | 0. | 70.4 | Ö | 6 70 | .4 1 | 0 Snd Lv | 63. | 3 7. | - | 80 | -0.9 |
| Pine Bay 21 21 1 0.0 70.3 66 70.3 10 Snd Lvl 63.6 6.7 8 -1.3 Pine Bay 22 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.6 6.7 8 -1.5 Pine Bay 22 22 1 0.0 70.3 66 70.3 10 Snd Lvl 63.8 6.5 8 -1.5 Pine Bay 23 23 1 0.0 70.3 66 70.3 10 Snd Lvl 63.8 6.5 8 -1.5 | Pine Bay 20 | 20 | • | • | 0. | 70.3 | Ö | 5 70 | .3 1 | 0 Snd Lv | 63. | 5 6. | 8 | 80 | -1.2 |
| Pine Bay 22 22 1 0.0 70.3 66 70.3 10 80 Lvl 63.8 6.5 8 -1.5 Pine Bay 23 23 1 0.0 70.3 66 70.3 10 80 Lvl 63.8 6.5 8 -1.5 Pine Bay 23 23 1 0.0 70.3 66 70.3 10 80 Lvl 6.0 6.3 8 -1.7 | Pine Bay 21 | 21 | | 0 | 0. | 70.3 | Ö | 6 70 | .3 1 | 0 Snd Lv | 63. | 6. | 7 | 8 | -1.3 |
| Pine Bay 23 23 1 0.0 70.3 66 70.3 10 Snd Lvl 64.0 6.3 8 -1.7 | Pine Bay 22 | 22 | | 0 | o. | 70.3 | Ö | 6 70 | .3 1 | 0 Snd Lv | I 63. | 6. | 5 | 8 | -1.5 |
| | Pine Bay 23 | 23 | | 0 | 0. | 70.3 | 9 | 6 70 | .3 1 | 0 Snd Lv | I 64. | 0 6. | 0 | 8 | -1.7 |

| RESULTS: SOUND LEVELS | | | | | | -4- | BtU PD8 | Ë | | | | |
|-----------------------------------|------------|-------|-----|-------|----|-------|---------|---------|------|-----|-----------|-----------|
| Pine Bay 24 | 24 | - | 0.0 | 6.69 | 66 | 69.9 | 10 | Snd Lvl | 64.2 | 5.7 | 80 | -2.3 |
| Pine Bay 25 | 25 | - | 0.0 | 6.69 | 66 | 63.9 | 10 | Snd Lvl | 64.5 | 5.4 | 80 | -2.6 |
| Pine Bay 26 | 26 | - | 0.0 | 69.69 | 66 | 69.69 | 10 | Snd Lvl | 64.9 | 4.7 | 80 | -3.3 |
| Pine Bay 27 | 27 | - | 0.0 | 69.7 | 66 | 69.7 | 10 | Snd Lvl | 65.5 | 4.2 | ø | -3.8 |
| Pine Bay 28 | 28 | - | 0.0 | 70.3 | 66 | 70.3 | 10 | Snd Lvl | 67.0 | 3.3 | 80 | -4.7 |
| Pine Bay 29 | 29 | - | 0.0 | 70.8 | 66 | 70.8 | 10 | Snd Lvl | 68.4 | 2.4 | œ | -5.6 |
| Pine Bay 30 | 30 | - | 0.0 | 69.0 | 66 | 69.0 | 10 | Snd Lvl | 67.3 | 1.7 | 80 | -6.3 |
| Pine Bay 31 | 31 | - | 0.0 | 67.8 | 66 | 67.8 | 10 | Snd Lvl | 66.5 | 1.3 | 8 | -6.7 |
| Pine Bay 32 | 32 | F | 0.0 | 66.6 | 66 | 66.6 | 10 | Snd Lvl | 65.5 | 1.1 | ω | -6.9 |
| Pine Bay 33 | 33 | - | 0.0 | 65.6 | 99 | 65.6 | 10 | Ì | 64.5 | 1.1 | 80 | -6.9 |
| Pine Bay 34 | 34 | - | 0.0 | 64.7 | 99 | 64.7 | 10 | Ĩ | 63.6 | 1.1 | ω | -6.9 - |
| Pine Bay 35 | 35 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.3 | 0.9 | 80 | -7.1 |
| Pine Bay 36 | 36 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | I | 62.6 | 0.9 | 80 | -7.1 |
| Pine Bay 37 | 37 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | 1 | 62.2 | 0.7 | 80 | -7.3 |
| Pine Bay 38 | 38 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | Ĭ. | 61.7 | 0.8 | 80 | -7.2 |
| Pine Bay 39 | 39 | • | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 61.3 | 0.7 | 80 | -7.3 |
| Pine Bay 40 | 40 | - | 0.0 | 61.5 | 66 | 61.5 | 10 | I | 60.8 | 0.7 | ø | -7.3 |
| Pine Bay 41 | 41 | ~ | 0.0 | 61.3 | 66 | 61.3 | 10 | 1 | 60.7 | 0.6 | 8 | -7.4 |
| Pine Bay 42 | 42 | ÷ | 0.0 | 60.8 | 66 | 60.8 | 10 | 1 | 60.2 | 0.6 | 8 | -7.4 |
| Pine Bay 43 | 43 | ++ | 0.0 | 60.1 | 66 | 60.1 | 10 | 1 | 59.5 | 0.6 | 8 | -7.4 |
| Pine Bay 44 | 44 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 59.9 | 0.7 | 8 | -7.3 |
| Pine Bay 45 | 45 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | 1 | 60.1 | 0.9 | œ | -7.1 |
| Pine Bay 46 | 46 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | | 60.4 | 0.9 | 80 | -7.1 |
| Pine Bay 47 | 47 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | Ĩ | 61.0 | 1.0 | ø | -7.0 |
| Pine Bay 48 | 48 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 61.3 | 1.2 | 80 | -6.8 |
| Pine Bay 49 | 49 | ÷ | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 61.8 | 1.3 | œ | -6.7 |
| Pine Bay 50 | 50 | - | 0.0 | 63.7 | 99 | 63.7 | 10 | | 62.2 | 1.5 | ω | -6.5 |
| Pine Bay 51 | 51 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 62.7 | 1.6 | 8 | -6.4 |
| Pine Bay 52 | 52 | - | 0.0 | 65.2 | 66 | 65.2 | 10 | 1 | 63.4 | 1.8 | œ | -6.2 |
| Pine Bay 53 | 53 | - | 0.0 | 66.3 | 66 | 66.3 | 10 | Snd Lvl | 64.0 | 2.3 | œ | -5.7 |
| Pine Bay 54 | 54 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 63.6 | 2.6 | 80 | -5.4 |
| Pine Bay 55 | 55 | - | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 63.2 | 2.8 | œ | -5.2 |
| Pine Bay 56 | 56 | - | 0.0 | 65.9 | 66 | 65.9 | 10 | 1 | 62.9 | 3.0 | 80 | -5.0 |
| Pine Bay 57 | 57 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | - | 62.2 | 2.2 | œ | -5.8 |
| Pine Bay 58 | 58 | | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 61.5 | 2.0 | 80 | -6.0 |
| Pine Bay 59 | 59 | ۲ | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 61.0 | 1.5 | 8 | -6.5 |
| Pine Bay 60 | 60 | - | 0.0 | 61.6 | 66 | 61.6 | 10 | I | 60.3 | 1.3 | 8 | -6.7 |
| Pine Bay 61 | 61 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | | 60.0 | 1.1 | 80 | -6.9 |
| Pine Bay 62 | 62 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | ŀ | 59.6 | 0.8 | œ | -7.2 |
| Pine Bay 63 | 63 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | I | 59.3 | 0.7 | 80 | -7.3 |
| Pine Bay 64 | 64 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.5 | 3.6 | 80 | -4.4 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA I | D Pine Bay | | | | | 2 | | | | | 8 May 201 | 10 |

| RESULTS: SOUND LEVELS | | | | | | 1 | 4 BtU PD | 8.E | | | | |
|------------------------------|----|-------|----------|---------|--------|------|----------|-----|------|-----|----|------|
| Pine Bay 65 | 65 | - | 0.0 | 65 | .8 66 | 65.8 | 10 | Ĩ | 62.3 | 3.5 | 80 | -4.5 |
| Pine Bay 66 | 99 | - | 0.0 | 64 | .7 66 | 64.7 | 10 | Ī | 61.1 | 3.6 | 80 | -4.4 |
| Pine Bay 67 | 67 | - | 0.0 | 64 | .6 66 | 64.6 | 10 | 1 | 61.1 | 3.5 | œ | -4.5 |
| Pine Bay 68 | 68 | - | 0.0 | 64 | .4 66 | 64.4 | 10 | Ĭ | 61.1 | 3.3 | œ | -4.7 |
| Pine Bay 69 | 69 | - | 0.0 | 64 | .4 66 | 64.4 | 10 | 1 | 61.1 | 3.3 | 80 | -4.7 |
| Pine Bay 70 | 20 | - | 0.0 | 64 | .6 66 | 64.6 | 10 | 1 | 61.2 | 3.4 | 80 | -4.6 |
| Pine Bay 71 | 71 | - | 0.0 | 64 | .6 66 | 64.6 | 10 | 1 | 61.3 | 3.3 | 80 | -4.7 |
| Pine Bay 72 | 72 | - | 0.0 | 64 | .4 66 | 64.4 | 10 | Ĭ | 61.3 | 3.1 | 80 | -4.9 |
| Pine Bay 73 | 73 | - | 0.0 | 64 | .3 66 | 64.3 | 10 | Ĩ | 61.4 | 2.9 | 80 | -5.1 |
| Pine Bay 74 | 74 | - | 0.0 | 64 | .0 66 | 64.0 | 10 | Î | 61.4 | 2.6 | 00 | -5.4 |
| Pine Bay 75 | 75 | - | 0.0 | 60 | .4 66 | 60.4 | 10 | 1 | 59.0 | 1.4 | œ | -6.6 |
| Pine Bay 76 | 76 | - | 0.0 | 28 | .8 66 | 59.8 | 10 | 1 | 58.7 | 1.1 | 80 | -6.9 |
| Dwelling Units | | # DUs | Noise Re | duction | | | | | | | | |
| | | | Min | Avg | Max | | | | | | | |
| | | | đb | æ | đB | | | | | | | |
| All Selected | | 76 | 0.6 | e | .6 8.1 | | | | | | | |
| All Impacted | | 36 | 1.1 | ŝ | .8 8.1 | | | | | | | |
| All that meet NR Goal | | 4 | 8.0 | | .0 8.1 | | | | | | | |
| | | | | | | | | | | | | |

8 May 2015

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|--|--------------------|------------|----------------------|--------|---------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | 8 May 201 TNM 2.5 | 2J | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: I-4 BtU P RUN: I-4 Segm BARRIER DESIGN: BM 14 | PD&E ment 3 Pir | ıe Bay BM | | | | | | | |
| Barriers | | | | | | | | | |
| Name Type H | Heights al | ong Barrie | - | Length | If Wall | lf Berm | | | Cost |
| Σ | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| Ŧ | ft | ft | ft | ft | sq ft | cu yd | ft | ft:ft | ß |
| PB BM W | 14.00 | 14.00 | 14.00 | 1746 | 5 2447 | | | 1 | 733400 |
| | | | | | | | | Total Cost: | 733400 |

8 May :

Υ.

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU F | D&E | | | | | |
|---|--------------|-----------------------------|---------------------|------------|----------|-------------|---------------------|----------------------|----------------------------------|-------------------------------|-------------|--------------------------|------|
| Stantec M. Drauer | | | | | | | 8 May 20 TNM 2.5 | 15 | | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seç BM 14 | l PD&E jment 3 P | ine Bay BM | | | Calculat | Average | im z.5 pavement typ | le shall be us | ed unles | | |
| ATMOSPHERICS: | | 68 de | g F, 50% | КН | | | | a state of a diff | nignway agend erent type with | cy substantiat approval of | FHWA. | e | |
| Receiver | | ļ | 1 1 1 | | | | | | Mith David | | | | |
| Name | NO. | son# | L Aed 1 | I Aerth | | Increase of | ver existing | Tvne | Calculated | Noise Redu | ction | | |
| | | | | Calculate | d Crit'n | Calculated | Crit'n Sub'l Ind | Impact | LAeq1h | Calculated | Goal | Calcula minus Goal | ated |
| | | | dBA | dBA | dBA | В | 段 | | dBA | dВ | дB | đB | |
| Pine Bav 1 | | - | - | 7 0.0 | 2.0 | 66 7 | 2.0 | 0 Snd Ly | 1 65. | 0 7.1 | 0 | 8 | -1.0 |
| Pine Bay 2 | | 2 | 1 | 7 0.0 | 2.3 | 66 7 | 2.3 | 0 Snd Ly | d 64. | 3 8.0 | 0 | 8 | 0.0 |
| Pine Bay 3 | | e | - | 7 0.0 | 2.1 | 66 7 | 2.1 | IO Snd Ly | / 64. | 2 7.9 | o | 80 | -0.1 |
| Pine Bay 4 | | 4 | - | 7 0.0 | 2.4 | 66 7 | 2.4 | IO Snd Ly | / 63. | 8.0 | 9 | 8 | 0.6 |
| Pine Bay 5 | | Ð | - | 7 0.0 | 2.4 | 66 7 | 2.4 | IO Snd Ly | / 63. | 8 8. | 9 | 80 | 0.6 |
| Pine Bay 6 | | 9 | - | 7 0.0 | 2.3 | 66 7 | 2.3 | 0 Snd Ly | / 63. | 6 | 7 | 80 | 0.7 |
| Pine Bay 7 | | 7 | 1 | 0.0 | 2.5 | 66 7 | 2.5 | 10 Snd Ly | / 63. | 6 8. | 6 | 8 | 0.9 |
| Pine Bay 8 | | 8 | - | 7 0.0 | 2.4 | 66 7 | 2.4 | 10 Snd Ly | / 63. | 4 9. | 0 | 8 | 1.0 |
| Pine Bay 9 | | 6 | - | 0.0 | 2.4 | 66 7 | 2.4 | IO Snd Ly | / 63. | 4 9. | 0 | 80 | 1.0 |
| Pine Bay 10 | ~ | 0 | - | 7 0.0 | 2.2 | 66 7 | 2.2 | IO Snd Ly | / 63. | 3 8. | 0 | 80 | 0.9 |
| Pine Bay 11 | - | - | - | 7 0.0 | 2.4 | 66 7 | 2.4 | IO Snd L | / 63. | о О | - | œ | 1.1 |
| Pine Bay 12 | - | 2 | - | 7 0.0 | 2.3 | 66. 7 | 2.3 | IO Snd L | / 63. | 2 9. | | 8 | 1.1 |
| Pine Bay 13 | - | 3 | - | 2.0 | 2.3 | 66 7 | 2.3 | 10 Snd L | / 63. | 2 9. | - | 8 | 1.1 |
| Pine Bay 14 | - | 4 | - | 7 0.0 | 2.2 | 66 7 | 2.2 | IO Snd L | / 63. | 2 9. | 0 | 8 | 1.0 |
| Pine Bay 15 | - | 5 | - | 2.0 | 1.5 | 66 7 | 1.5 | 0 Snd L | / 63. | 1 8. | 4 | 8 | 0.4 |
| Pine Bay 16 | - | 9 | - | 2.0 7 | 1.3 | 66 7 | 1.3 | IO Snd Ly | / 63. | 1 8. | 2 | 8 | 0.2 |
| Pine Bay 17 | - | 2 | ~ | 7 0.0 | 1.2 | 66 7 | 1.2 | 10 Snd L | / 63. | 1 8. | - | œ | 0.1 |
| Pine Bay 18 | - | 8 | - | 7 0.0 | 1.2 | 66 7 | 1.2 | 10 Snd L | / 63. | 2 8. | 0 | œ | 0.0 |
| Pine Bay 19 | - | o o | - | 7 0.0 | 0.8 | 66 7 | 0.8 | 10 Snd L | / 63. | 1 7. | 7 | 8 | -0.3 |
| Pine Bay 20 | 0 | 0 | - | 0.0 | 0.6 | 66 7 | 0.6 | 10 Snd L | / 63. | 2 7. | 4 | 80 | -0.6 |
| Pine Bay 21 | N | - | + | 0.0 | 0.7 | 66 7 | 0.7 | 10 Snd L | / 63. | 4 7. | 9 | 80 | -0.7 |
| Pine Bay 22 | 0 | 2 | - | 2 0.0 | 0.7 | 66 7 | 0.7 | 10 Snd L | / 63. | 6 7. | - | 8 | -0.9 |
| Pine Bay 23 | N | 0 | - | 2.0.0 | 0.6 | 66 7 | 0.6 | 10 Snd L | 4 63. | 9 | 7 | 80 | -1.3 |
| C:\TNM25\230168\Seg 3\8 + 4\NS | A D Pine Bay | BM | | | | | ۴ | | | | 8 | Aay 2015 | |
| • | | | | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | Ш | | | | |
|-----------------------------------|---------------|---|-----|------|----|------|---------|---------|------|-----|-----------|------|
| Pine Bay 24 | 24 | - | 0.0 | 70.2 | 66 | 70.2 | 10 | Snd Lvl | 64.1 | 6.1 | ω | -1.9 |
| Pine Bay 25 | 25 | - | 0.0 | 70.1 | 66 | 70.1 | 10 | Snd Lvl | 64.5 | 5.6 | ω | -2.4 |
| Pine Bay 26 | 26 | - | 0.0 | 63.9 | 66 | 6.9 | 10 | Snd Lvl | 65.1 | 4.8 | 80 | -3.2 |
| Pine Bay 27 | 27 | - | 0.0 | 70.0 | 66 | 70.0 | 10 | Snd Lvl | 65.7 | 4.3 | 80 | -3.7 |
| Pine Bay 28 | 28 | - | 0.0 | 70.7 | 66 | 70.7 | 10 | Snd Lvl | 67.4 | 3.3 | Ø | -4.7 |
| Pine Bay 29 | 29 | - | 0.0 | 70.8 | 66 | 70.8 | 10 | Snd Lvl | 68.5 | 2.3 | 80 | -5.7 |
| Pine Bay 30 | 30 | - | 0.0 | 69.1 | 66 | 69.1 | 10 | Snd Lvl | 67.4 | 1.7 | 80 | -6.3 |
| Pine Bay 31 | 31 | - | 0.0 | 67.8 | 66 | 67.8 | 10 | Snd Lvl | 66.6 | 1.2 | 80 | -6.8 |
| Pine Bay 32 | 32 | - | 0.0 | 66.6 | 66 | 66.6 | 10 | Snd Lvl | 65.5 | 1.1 | 80 | -6.9 |
| Pine Bay 33 | 33 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | | 64.4 | 1.2 | 80 | -6.8 |
| Pine Bay 34 | 34 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 63.5 | 1.2 | œ | -6.8 |
| Pine Bay 35 | 35 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.2 | 1.0 | 80 | -7.0 |
| Pine Bay 36 | 36 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | ĺ | 62.5 | 1.0 | 80 | -7.0 |
| Pine Bay 37 | 37 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | l | 62.1 | 0.9 | 80 | -7.1 |
| Pine Bay 38 | 38 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | ľ | 61.7 | 0.8 | 80 | -7.2 |
| Pine Bay 39 | 39 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | I | 61.2 | 0.8 | 80 | -7.2 |
| Pine Bay 40 | 4 | - | 0.0 | 61.5 | 66 | 61.5 | 10 | 1 | 60.7 | 0.8 | ø | -7.2 |
| Pine Bay 41 | 4 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | | 60.7 | 0.6 | œ | -7.4 |
| Pine Bay 42 | 42 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | | 60.2 | 0.6 | 80 | -7.4 |
| Pine Bay 43 | 43 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 59.3 | 0.7 | 80 | -7.3 |
| Pine Bay 44 | 44 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | ļ | 59.7 | 0.9 | 80 | -7.1 |
| Pine Bay 45 | 45 | - | 0.0 | 60.9 | 66 | 60.9 | 10 | 1 | 59.9 | 1.0 | ø | -7.0 |
| Pine Bay 46 | 46 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | | 60.2 | 1.1 | 80 | -6.9 |
| Pine Bay 47 | 47 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 60.8 | 1.2 | 80 | -6.8 |
| Pine Bay 48 | 48 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 61.1 | 1.4 | 80 | -6.6 |
| Pine Bay 49 | 49 | - | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 61.6 | 1.5 | 8 | -6.5 |
| Pine Bay 50 | 50 | - | 0.0 | 63.7 | 66 | 63.7 | 10 | I | 62.1 | 1.6 | 80 | -6.4 |
| Pine Bay 51 | 51 | - | 0.0 | 64.3 | 99 | 64.3 | 10 | I | 62.5 | 1.8 | 8 | -6.2 |
| Pine Bay 52 | 52 | - | 0.0 | 65.2 | 66 | 65.2 | 10 | | 63.3 | 1.9 | 8 | -6.1 |
| Pine Bay 53 | 53 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 63.9 | 2.3 | 8 | -5.7 |
| Pine Bay 54 | 54 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 63.5 | 2.6 | 8 | -5.4 |
| Pine Bay 55 | 55 | - | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 63.1 | 2.9 | 8 | -5.1 |
| Pine Bay 56 | 56 | - | 0.0 | 65.9 | 66 | 65.9 | 10 | 1 | 62.7 | 3.2 | 80 | -4.8 |
| Pine Bay 57 | 57 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | | 62.0 | 2.4 | œ | -5.6 |
| Pine Bay 58 | 58 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 61.3 | 2.2 | 8 | -5.8 |
| Pine Bay 59 | 59 | F | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 60.8 | 1.7 | 80 | -6.3 |
| Pine Bay 60 | 60 | F | 0.0 | 61.6 | 66 | 61.6 | 10 | | 60.1 | 1.5 | 80 | -6.5 |
| Pine Bay 61 | 61 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | | 59.8 | 1.3 | 80 | -6.7 |
| Pine Bay 62 | 62 | ۲ | 0.0 | 60.4 | 66 | 60.4 | 10 | | 59.4 | 1.0 | 8 | -7.0 |
| Pine Bay 63 | 63 | 1 | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 59.1 | 0.9 | 80 | -7.1 |
| Pine Bay 64 | 64 | 1 | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.2 | 3.9 | 8 | -4.1 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D | O Pine Bay BM | | | | | 2 | | | | | 8 May 201 | 10 |

| RESULTS: SOUND LEVELS | | | | | 4 | BtU PD& | ш | | | | |
|------------------------------|-------------|----------|---------|-------|------|---------|---|------|-----|----|------|
| Pine Bay 65 | 65 | 0.0 | 65. | 66 | 65.8 | 10 | I | 62.0 | 3.8 | 00 | -4.2 |
| Pine Bay 66 | . 99 | 0.0 | 64. | 8 66 | 64.8 | 10 | 1 | 60.7 | 4.1 | 80 | -3.9 |
| Pine Bay 67 | . 29 | 0.0 | 64. | 7 66 | 64.7 | 10 | Ì | 60.6 | 4.1 | 80 | -3.9 |
| Pine Bay 68 | . 89 | 0.0 | 64. | 66 | 64.6 | 10 | 1 | 60.6 | 4.0 | 80 | -4.0 |
| Pine Bay 69 | . 69 | 0.0 | 64. | 66 | 64.6 | 10 | 1 | 60.6 | 4.0 | 80 | -4.0 |
| Pine Bay 70 | 20 | 0.0 | 64. | 8 66 | 64.8 | 10 | Ę | 60.7 | 4.1 | œ | -3.9 |
| Pine Bay 71 | 71 | 0.0 | 64. | 66 | 64.6 | 10 | I | 60.9 | 3.7 | 80 | -4.3 |
| Pine Bay 72 | 72 | 0.0 | 64. | 4 66 | 64.4 | 10 | I | 60.9 | 3.5 | 80 | -4.5 |
| Pine Bay 73 | . 13 | 0.0 | 64. | 66 | 64.3 | 10 | 1 | 61.1 | 3.2 | 80 | -4.8 |
| Pine Bay 74 | 74 | 0.0 | 64. | 0 66 | 64.0 | 10 | 1 | 61.1 | 2.9 | 8 | -5.1 |
| Pine Bay 75 | 75 | 0.0 | .09 | 4 66 | 60.4 | 10 | 1 | 58.8 | 1.6 | 80 | -6.4 |
| Pine Bay 76 | 76 , | 0.0 | 59. | 66 | 59.8 | 10 | , | 58.5 | 1.3 | 80 | -6.7 |
| Bolling 1 | . 11 | 0.0 | 59. | 5 66 | 59.5 | 10 | 1 | 59.4 | 0.1 | 80 | -7.9 |
| Bolling 2 | 78 | 0.0 | .09 | 0 66 | 60.0 | 10 | l | 59.8 | 0.2 | ω | -7.8 |
| Bolling 3 | . 62 | 0.0 | .09 | 4 66 | 60.4 | 10 | I | 60.2 | 0.2 | 00 | -7.8 |
| Bolling 4 | 80 | 0.0 | .09 | 66 | 60.6 | 10 | Î | 60.5 | 0.1 | œ | -7.9 |
| Bolling 5 | 81 | 0.0 | 60. | 99 66 | 60.9 | 10 | Ĭ | 60.8 | 0.1 | 80 | -7.9 |
| Bolling 6 | . 82 | 0.0 | 61. | 4 66 | 61.4 | 10 | 1 | 61.2 | 0.2 | 80 | -7.8 |
| Bolling 7 | 83 | 0.0 | 61. | 99 66 | 61.9 | 10 | 1 | 61.7 | 0.2 | 80 | -7.8 |
| Bolling 8 | 84 | 0.0 | 61. | 1 66 | 61.1 | 10 | 1 | 60.8 | 0.3 | 80 | -7.7 |
| Bolling 9 | . 85 | 0.0 | 61. | 99 | 61.9 | 10 | ļ | 61.6 | 0.3 | 80 | -7.7 |
| Bolling 10 | . 86 | 0.0 | 62. | 99 66 | 62.9 | 10 | | 62.6 | 0.3 | 8 | -7.7 |
| Bolling 11 | . 28 | 0.0 | 63. | 2 66 | 63.2 | 10 | Î | 62.9 | 0.3 | 80 | -7.7 |
| Bolling 12 | | 0.0 | 63. | 6 66 | 63.6 | 10 | | 63.2 | 0.4 | 80 | -7.6 |
| Bolling 13 | . 68 | 0.0 | 64. | 2 66 | 64.2 | 10 | 1 | 63.8 | 0.4 | 80 | -7.6 |
| Bolling 14 | 06 | 0.0 | 62. | 666 | 62.6 | 10 | 1 | 61.8 | 0.8 | ø | -7.2 |
| Bolling 15 | 91 | 0.0 | 60. | 7 66 | 60.7 | 10 | 1 | 59.3 | 1.4 | ω | -6.6 |
| Dwelling Units | \$ND # | Noise Re | duction | | | | | | | | |
| | | Min | Avg | Мах | | | | | | | |
| | | đB | dB | dB | | | | | | | |
| All Selected | 6 | 0.1 | 3. | 9.1 | | | | | | | |
| All Impacted | ä | 1.1 | 6. | 9.1 | | | | | | | |
| All that meet NR Goal | ŧ | 5 8.0 | α | 7 9.1 | | | | | | | |

C:\TNM25\230168\Seg 3\8 + 4\NSA D Pine Bay BM

8 May 2015

| Stantec SMay 2015 M. Drauer B. Drauer M. Drauer E. May 2015 M. Drauer I. M. 2.5 RESULTS: BARRIER DESCRIPTIONS I.4 BtU PD&E PROJECT/CONTRACT: I.4 BtU PD&E RESULTS: BARRIER DESCRIPTIONS I.4 BtU PD&E RESULTS: BARRIER DESIGN: I.4 Segment 3 Pine Bay BM BARRIER DESIGN: I.4 Segment 3 Pine Bay BM BARRIER DESIGN: I.4 Segment 3 Pine Bay BM Barriers I.4 Segment 3 Pine Bay BM Mane I.4 Segment 3 Pine Bay BM Barriers I.4 Segment 3 Pine Bay BM Mane I.4 Segment 3 Pine Bay BM Match Moulume Mane I.4 Segment 3 Pine BAR Match Moulume Mane I.4 Bern Match Moulume Match Moulume <th>RESULTS: BARRIER DESCRIPTIONS</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>-4 BtU PD8</th> <th>Щ</th> <th></th> <th></th> <th></th> | RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD8 | Щ | | | |
|--|--|------------------|----------------------|------------|----------------------|--------|------------|---------|--------------|-------------|--------|
| RESULTS: BARIER DESCRIPTIONSPROJECT/CONTRACT:14 BtU PD&EPROJECT/CONTRACT:14 Segment 3 Pine Bay BMRUN:14 Segment 3 Pine Bay BMBARIER DESIGN:14 Segment 3 Pine Bay BMBarriers14 Segment 3 Pine Bay BMManeTypeManeTypeMinAvgManeMaxPB BMVolumeVolumeVolumeVolumeVolumeVolume12.0012.0012.00174620954VolumeVolume | Stantec M. Drauer | | | | 8 May 201 TNM 2.5 | ы | | | | | |
| BARIER DESIGN: BM 12 Barriers Type Heights along Barrier Length If Wall If Berm Name Type Min Avg Max Length If Wall If Berm Name If Area Volume Volume Volume Vini Rise If Area Volume Volume Volume Vini Rise If Area Volume Volume Vini Rise If Area Volume Volume Vidth | RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN: | 1-4 Bt 1-4 Se | U PD&E gment 3 Pi | ne Bay BM | | | | | | | |
| Barriers Type Heights along Barrier Length If Wall If Berm Name Min Avg Max Length If Wall If Berm Name n Avg Max Area Volume Top Run:Rise If ft ft ft ft sq ft cu yd ft ft:ft PB BM W 12.00 12.00 12.00 12.00 1746 20954 n n | BARRIER DESIGN: | BM 1 | 7 | | | | | | | | |
| Name Type Heights along Barrier Length If Wall If Bern Nin Avg Max Volume Volume Top Nin:Rise Image: Volume Min Avg Max Parea Volume Top Nin:Rise Image: Volume Min Avg Max Parea Volume Top Nin:Rise Image: Volume Max Parea Volume Volume Top Nin:Rise Image: Volume Max Parea Volume Top Nin:Rise Image: Volume Max Parea Volume Top Nin:Rise Image: Volume Max Parea Volume Top Nin:Rise Image: Volume Volume Parea Volume Parea Nin:Rise Image: Volume Max Parea Volume Parea Parea Image: Volume Parea Parea Volume Parea Parea Image: Volume Parea Parea | Barriers | | | | | | | | | | |
| Min Avg Max Area Volume Top Run:Rise Mit ft ft ft ft sq ft cu yd ft f | Name | Type | Heights al | ong Barrie | - | Length | If Wall | If Berm | | | Cost |
| ft ft ft ft sq ft cu yd ft ft:ft PB BM W 12.00 12.00 12.00 1746 20954 1 | | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| PB BM W 12.00 12.00 12.00 1746 20954 | | | Ĥ | ft | Ĥ | ħ | sq ft | cu yd | ft | ft:ft | ÷ |
| | PB BM | > | 12.00 | 12.00 | 12.00 | 174(| 3 20954 | | | | 628628 |
| Total Cost: | | | | | | | | | | Total Cost: | 628628 |

8 May :

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PC | с. Е | | | | |
|---|------------|----------------------------|---------------------|------------|---------|----------|-------------|----------------------|---------------------------------------|--------------------------------------|---------------------------------|-------------------------|----------------------------|
| Stantec M. Drauer | | | | | | | | 8 May 201 TNM 2.5 | 2 | | | | _ |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 Btl I-4 Se BM 12 | J PD&E gment 3 P | ine Bay BN | _ | | | Calculate | J with TNN Average a State hi | l 2.5 bavement typ ghway agenc | e shall be use y substantiat | ed unless tes the us | |
| ATMOSPHERICS: | | 68 de | g F, 50% ł | ЯH | | | | | of a diffe | ent type with | approval of | FHWA. | |
| Receiver Name | Ŋ | #DUs | Existing | No Barr | Le | | | | | With Barrier | | | |
| | | | LAea1h | LAea1h | | | Icrease ove | r existing | Type | Calculated | Noise Redu | ction | - |
| | | | | Calculat | ed Crit | <u> </u> | alculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculate minus Goal |
| | | | dBA | dBA | dB∕ | P | в | đB | | dBA | đB | đB | đB |
| Pine Bay 1 | | Ę | - | 0.0 | 72.0 | 99 | 72. | 0 10 | Snd Lvl | 65.4 | 6.6 | 0 | 80 |
| Pine Bay 2 | | 2 | - | 0.0 | 72.3 | 66 | 72. | 3 10 | Snd Lvl | 64.8 | 1.7 | 0 | 80 |
| Pine Bay 3 | | 9 | - | 0.0 | 72.1 | 99 | 72. | 1 10 | Snd Lvl | 64.8 | 3 7.5 | 8 | σ |
| Pine Bay 4 | | 4 | 1 | 0.0 | 72.4 | 99 | 72. | 4 10 | Snd Lvl | 64.4 | 1 8.0 | 0 | Ø |
| Pine Bay 5 | | 5 | 1 | 0.0 | 72.4 | 99 | 72. | 4 10 | Snd Lvl | 64.4 | 9.0 | 0 | 8 |
| Pine Bay 6 | | 9 | - | 0.0 | 72.3 | 99 | 72. | 3 10 | Snd Lvl | 64.2 | 80 | | ω |
| Pine Bay 7 | | 7 | 1 | 0.0 | 72.5 | 99 | 72. | 5 10 | Snd Lvl | 64.2 | 8.5 | 8 | ω |
| Pine Bay 8 | | 8 | 1 | 0.0 | 72.4 | 99 | 72. | 4 10 | Snd Lvl | 64. | 8. | 8 | œ |
| Pine Bay 9 | | 6 | - | 0.0 | 72.4 | 99 | 72. | 4 10 | Snd Lvi | 64.(| 8. | 4 | 80 |
| Pine Bay 10 | ÷ | 0 | - | 0.0 | 72.2 | 99 | 72. | 2 10 | Snd Lvl | 63.9 | 8.8 | 8 | Ø |
| Pine Bay 11 | - | - | - | 0.0 | 72.4 | 99 | 72. | 4 10 | Snd Lvl | 63.9 | 8. | 2 | Ø |
| Pine Bay 12 | - | 2 | 1 | 0.0 | 72.3 | 99 | 72. | 3 10 | Snd Lvl | 63.9 | 9.8 | 4 | 8 |
| Pine Bay 13 | - | e | 1 | 0.0 | 72.3 | 99 | 72. | 3 10 | Snd Lvl | 63.9 | 9.9 | 4 | œ |
| Pine Bay 14 | - | 4 | 1 | 0.0 | 72.2 | 99 | 72. | 2 10 | Snd Lvl | 63.6 | 8. | 4 | 80 |
| Pine Bay 15 | - | 5 | + | 0.0 | 71.5 | 99 | 71. | 5 10 | Snd Lvl | 63.(| 3 7.9 | 6 | ۰ ۵ |
| Pine Bay 16 | - | 9 | 1 | 0.0 | 71.3 | 99 | 71. | 3 10 | Snd Lvl | 63.6 | 3 | 2 | 00 |
| Pine Bay 17 | - | 7 | 1 | 0.0 | 71.2 | 99 | 71. | 2 10 | Snd Lvl | 63.6 | 3 7.0 | G | 00 |
| Pine Bay 18 | - | 8 | 1 | 0.0 | 71.2 | 99 | 71. | 2 10 | Snd Lvl | 63.7 | 7.7 | 2 | 8 |
| Pine Bay 19 | - | 6 | 1 | 0.0 | 70.8 | 99 | 70. | 8 10 | Snd Lvl | 63.(| 3 7.1 | N | 8 |
| Pine Bay 20 | 0 | 0 | 1 | 0.0 | 70.6 | 99 | 70. | 6 10 | Snd Lvl | 63.1 | 6.9 | 6 | 8 |
| Pine Bay 21 | 2 | - | 1 | 0.0 | 70.7 | 99 | 70. | 7 10 | Snd Lvl | 63.9 | 9 6.1 | 80 | 8 |
| Pine Bay 22 | 2 | 2 | 1 | 0.0 | 70.7 | 99 | 70. | 7 10 | Snd Lvl | 64.(| | 2 | 8 |
| Pine Bay 23 | 2 | 3 | 1 | 0.0 | 70.6 | 99 | 70. | 6 10 | Snd Lvl | 64.5 | 9 | e | ۰ ∞ |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D Pine Bay | BM | | | | | | | | | | 8 | lay 2015 |

| RESULTS: SOUND LEVELS | | | | | | I-4 | BtU PD8 | Ë | | | | |
|-----------------------------------|-------------|---|-----|------|----|------------|---------|---------|------|-----|-----------|------|
| Pine Bay 24 | 24 | - | 0.0 | 70.2 | 66 | 70.2 | 10 | Snd Lvl | 64.5 | 5.7 | œ | -2.3 |
| Pine Bay 25 | 25 | - | 0.0 | 70.1 | 66 | 70.1 | 10 | Snd Lvi | 64.8 | 5.3 | œ | -2.7 |
| Pine Bay 26 | 26 | - | 0.0 | 6.69 | 66 | 6.69 | 10 | Snd Lvl | 65.3 | 4.6 | 80 | -3.4 |
| Pine Bay 27 | 27 | - | 0.0 | 70.0 | 66 | 70.0 | 10 | Snd Lvl | 65.9 | 4.1 | œ | -3.9 |
| Pine Bay 28 | 28 | ٢ | 0.0 | 70.7 | 66 | 70.7 | 10 | Snd Lvl | 67.6 | 3.1 | 8 | -4.9 |
| Pine Bay 29 | 29 | - | 0.0 | 70.8 | 66 | 70.8 | 10 | Snd Lvl | 68.6 | 2.2 | 80 | -5.8 |
| Pine Bay 30 | 30 | - | 0.0 | 69.1 | 66 | 69.1 | 10 | Snd Lvl | 67.5 | 1.6 | œ | -6.4 |
| Pine Bay 31 | 31 | ۲ | 0.0 | 67.8 | 66 | 67.8 | 10 | Snd Lvl | 66.7 | 1.1 | œ | -6.9 |
| Pine Bay 32 | 32 | - | 0.0 | 66.6 | 66 | 66.6 | 10 | Snd Lvl | 65.6 | 1.0 | œ | -7.0 |
| Pine Bay 33 | 33 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | 1 | 64.6 | 1.0 | 80 | -7.0 |
| Pine Bay 34 | 34 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | ł | 63.6 | 1.1 | 80 | -6.9 |
| Pine Bay 35 | 35 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.3 | 0.9 | 80 | -7.1 |
| Pine Bay 36 | 36 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 62.6 | 0.9 | 80 | -7.1 |
| Pine Bay 37 | 37 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | I | 62.2 | 0.8 | æ | -7.2 |
| Pine Bay 38 | 38 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | I | 61.7 | 0.8 | 80 | -7.2 |
| Pine Bay 39 | 66 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 61.3 | 0.7 | ω | -7.3 |
| Pine Bay 40 | 40 | ٣ | 0.0 | 61.5 | 66 | 61.5 | 10 | I | 60.8 | 0.7 | 80 | -7.3 |
| Pine Bay 41 | 41 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | 1 | 60.7 | 0.6 | ω | -7.4 |
| Pine Bay 42 | 42 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | | 60.2 | 0.6 | 80 | -7.4 |
| Pine Bay 43 | 43 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 59.4 | 0.6 | 80 | -7.4 |
| Pine Bay 44 | 44 | - | 0.0 | 9.09 | 66 | 60.6 | 10 | | 59.8 | 0.8 | ø | -7.2 |
| Pine Bay 45 | 45 | - | 0.0 | 60.9 | 66 | 60.9 | 10 | I | 60.1 | 0.8 | 80 | -7.2 |
| Pine Bay 46 | 46 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | l | 60.4 | 0.9 | 80 | -7.1 |
| Pine Bay 47 | 47 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | 1 | 61.0 | 1.0 | 80 | -7.0 |
| Pine Bay 48 | 48 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 61.3 | 1.2 | 80 | -6.8 |
| Pine Bay 49 | 49 | - | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 61.8 | 1.3 | 80 | -6.7 |
| Pine Bay 50 | 50 | - | 0.0 | 63.7 | 66 | 63.7 | 10 | 1 | 62.2 | 1.5 | ω | -6.5 |
| Pine Bay 51 | 51 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | I | 62.7 | 1.6 | 80 | -6.4 |
| Pine Bay 52 | 52 | - | 0.0 | 65.2 | 66 | 65.2 | 10 | 1 | 63.5 | 1.7 | 80 | -6.3 |
| Pine Bay 53 | 53 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 64.1 | 2.1 | 80 | -5.9 |
| Pine Bay 54 | 54 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 63.7 | 2.4 | 80 | -5.6 |
| Pine Bay 55 | 55 | - | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 63.4 | 2.6 | 80 | -5.4 |
| Pine Bay 56 | 56 | - | 0.0 | 65.9 | 66 | 65.9 | 10 | | 63.0 | 2.9 | 80 | -5.1 |
| Pine Bay 57 | 57 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | | 62.2 | 2.2 | 80 | -5.8 |
| Pine Bay 58 | 58 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 61.5 | 2.0 | 8 | -6.0 |
| Pine Bay 59 | 59 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | - | 61.0 | 1.5 | 8 | -6.5 |
| Pine Bay 60 | 60 | - | 0.0 | 61.6 | 66 | 61.6 | 10 | ľ | 60.3 | 1.3 | 80 | -6.7 |
| Pine Bay 61 | 61 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | | 60.0 | 1.1 | 8 | -6.9 |
| Pine Bay 62 | 62 | ۲ | 0.0 | 60.4 | 66 | 60.4 | 10 | 1 | 59.6 | 0.8 | 80 | -7.2 |
| Pine Bay 63 | 63 | | 0.0 | 60.0 | 66 | 60.0 | 10 | - | 59.3 | 0.7 | 8 | -7.3 |
| Pine Bay 64 | 64 | ۲ | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.6 | 3.5 | 80 | -4.5 |
| C:\TNM25\230168\Seq 3\8 + 4\NSA D | Dine Bay BM | | | | | 2 | | | | | 8 May 201 | 10 |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD& | ш | | | | |
|-----------------------|----|-------|-------------|------|-----|-------|---------|----|------|-----|----|------|
| Pine Bay 65 | 65 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | 1 | 62.3 | 3.5 | œ | -4.5 |
| Pine Bay 66 | 99 | - | 0.0 | 64.8 | 66 | 64.8 | 10 | 1 | 61.1 | 3.7 | 80 | -4.3 |
| Pine Bay 67 | 67 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 61.0 | 3.7 | ω | -4.3 |
| Pine Bay 68 | 68 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | 1 | 61.0 | 3.6 | œ | -4.4 |
| Pine Bay 69 | 69 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | I | 61.1 | 3.5 | æ | -4.5 |
| Pine Bay 70 | 70 | | 0.0 | 64.8 | 66 | 64.8 | 10 | I | 61.2 | 3.6 | 80 | -4.4 |
| Pine Bay 71 | 71 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | Ĩ | 61.3 | 3.3 | ω | -4.7 |
| Pine Bay 72 | 72 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | Î | 61.2 | 3.2 | ω | -4.8 |
| Pine Bay 73 | 73 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 61.4 | 2.9 | 00 | -5.1 |
| Pine Bay 74 | 74 | - | 0.0 | 64.0 | 66 | 64.0 | 10 | 1 | 61.4 | 2.6 | 80 | -5.4 |
| Pine Bay 75 | 75 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | 1 | 59.0 | 1.4 | 80 | -6.6 |
| Pine Bay 76 | 76 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 58.7 | 1.1 | 80 | -6.9 |
| Bolling 1 | 77 | - | 0.0 | 59.5 | 66 | 59.5 | 10 | I | 59.4 | 0.1 | 8 | -7.9 |
| Bolling 2 | 78 | - | 0.0 | 60.0 | 66 | 60.09 | 10 | Ĭ, | 59.8 | 0.2 | 80 | -7.8 |
| Bolling 3 | 79 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | Ĩ | 60.2 | 0.2 | 80 | -7.8 |
| Bolling 4 | 80 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | I | 60.5 | 0.1 | œ | -7.9 |
| Bolling 5 | 81 | - | 0.0 | 60.9 | 99 | 60.9 | 10 | I | 60.8 | 0.1 | 8 | -7.9 |
| Bolling 6 | 82 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | 1 | 61.2 | 0.2 | 8 | -7.8 |
| Bolling 7 | 83 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | 1 | 61.7 | 0.2 | 80 | -7.8 |
| Bolling 8 | 84 | - | 0.0 | 61.1 | 99 | 61.1 | 10 | 1 | 60.8 | 0.3 | 80 | -7.7 |
| Bolling 9 | 85 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | Ì | 61.6 | 0.3 | 80 | -7.7 |
| Bolling 10 | 86 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | Ĕ | 62.6 | 0.3 | 80 | -7.7 |
| Bolling 11 | 87 | - | 0.0 | 63.2 | 66 | 63.2 | 10 | Ì | 62.9 | 0.3 | œ | 7.7- |
| Bolling 12 | 88 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | l | 63.3 | 0.3 | 80 | -7.7 |
| Bolling 13 | 89 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.8 | 0.4 | 80 | -7.6 |
| Bolling 14 | 06 | - | 0.0 | 62.6 | 66 | 62.6 | 10 | | 61.9 | 0.7 | 80 | -7.3 |
| Bolling 15 | 91 | - | 0.0 | 60.7 | 99 | 60.7 | 10 | 1 | 59.4 | 1.3 | 80 | -6.7 |
| Dwelling Units | # | Us No | oise Reduct | ion | | | | | | | | |
| | | Σ | n Av | Z | ах | | | | | | | |
| | | dĒ | dB | P | m | | | | | | | |
| All Selected | | 91 | 0.1 | 3.2 | 8.5 | | | | | | | |
| All Impacted | | 36 | 1.0 | 6.0 | 8.5 | | | | | | | |
| All that meet NR Goal | | 1 | 8.0 | 8.3 | 8.5 | | | | | | | |

8 May 2015

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD8 | щ | | | |
|--------------------------------------|--------|-----------------------|------------|----------------------|--------|------------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 8 May 201 TNM 2.5 | ŝ | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: RUN: | 1-4 DC | U PUGE gment 3 Pii | ne Bay BM | | | | | | | |
| BARRIER DESIGN: | BM 1(| | | | | | | | | |
| Barriers | | | | | 1 | | | | | |
| Name | Type | Heights al | ong Barrie | | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | ft | ft | ft | sq ft | cu yd | Ħ | ft:ft | \$ |
| PB BM | > | 10.00 | 10.00 | 10.00 | 174(| 5 17462 | | | | 523857 |
| | | | | | | | | | Total Cost: | 523857 |
| | | | | | | | | | | |

 8 May :

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU PI | O&E | | | | | |
|---|----------------------|--------|---------------------|------------|--------|--------------|---------------------|----------------------|------------------------------|--------------------------------|-------------------------|------------------|------|
| Stantec M. Drauer | | | | | | | 8 May 20 TNM 2.5 | 15 | | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: PLIN: | 4- 1 - 1 2 - 1 | atu PD | ¢6E ABio ABio | | | | Calculate | d with TN | M 2.5 | | | | |
| BARRIER DESIGN: | BW | 10 | | | | | | Average a State h | pavement typ ighway agenc | e shall be us sy substantia | ed unles: tes the u: | , e | |
| ATMOSPHERICS: | 68 0 | deg F, | 50% RH | | | | | of a diffe | rent type with | approval of | FHWA. | | |
| Receiver | | | | | | | | | | | | | |
| Name | No. #DU | ي ۳ | tisting | No Barrier | | | | | With Barrie | | | | |
| | | 2 | leq1h | LAeq1h | | Increase ove | existing | Type | Calculated | Noise Redu | Iction | | |
| | | | | Calculated | Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calcula minus | ated |
| | | В | A | dBA | dBA | đB | æ | | dBA | đB | 岛 | dB dB | |
| Pine Bay 1 | - | - | 0.0 | 72. | 0 | 36 72. | 11 | Snd Lv | 66.0 | 0 | 0 | 8 | -2.0 |
| Pine Bay 2 | 7 | - | 0.0 | 72. | e | 36 72. | .3 10 | Snd Lv | 65.1 | 5 | 8 | 80 | -1.2 |
| Pine Bay 3 | ę | | 0.0 | 72. | - | 36 72. | 1 | Snd Lv | 65. | 5 6. | 9 | 80 | -1.4 |
| Pine Bay 4 | 4 | - | 0.0 | 72. | 4 | 36 72. | 4 1(|) Snd Lv | 65.3 | 2 7. | 2 | 8 | -0.8 |
| Pine Bay 5 | 5 | - | 0.0 | 72. | 4 | 36 72. | 4 1(|) Snd Lv | 65.1 | 2 7. | 2 | 80 | -0.8 |
| Pine Bay 6 | 9 | Ţ | 0.0 | 72. | 0 | 36 72. | .3 10 |) Snd Lv | 65.(| 0 7. | en | ø | -0.7 |
| Pine Bay 7 | 7 | - | 0.0 | 72. | 5 | 36 72. | 5 1(|) Snd Lv | 65.(| 0 7. | 5 | 80 | -0.5 |
| Pine Bay 8 | æ | - | 0.0 | 72. | 4 | 36 72. | 4 1(|) Snd Lvl | 64.9 | 9 7. | 5 | ø | -0.5 |
| Pine Bay 9 | 6 | - | 0.0 | 72. | 4 | 36 72. | 4 1(|) Snd Lv | 64.8 | 8 7. | 9 | 80 | -0.4 |
| Pine Bay 10 | 10 | - | 0.0 | 72. | 2 | 36 72. | 1(|) Snd Lvl | 64. | 7 7. | 5 | 80 | -0.5 |
| Pine Bay 11 | | - | 0.0 | 72. | 4 | 36 72. | 1(| Snd Lvl | 64. | 7 7. | 7 | 8 | -0.3 |
| Pine Bay 12 | 12 | - | 0.0 | 72. | 3 | 36 72. | 3 1(|) Snd Lvl | 64. | 7 7. | 9 | 80 | -0.4 |
| Pine Bay 13 | 13 | - | 0.0 | 72. | | 36 72. | .3 1(|) Snd Lvl | 64.6 | 6 7. | 7 | 80 | -0.3 |
| Pine Bay 14 | 4 | - | 0.0 | 72. | 2 | 36 72. | 1(| Snd Lvl | 64.(| 6 7. | 9 | 8 | -0.4 |
| Pine Bay 15 | 15 | - | 0.0 | 71. | 5 | 36 71. | 5 1(| Snd Lvl | 64.0 | 3 7. | 2 | 80 | -0.8 |
| Pine Bay 16 | 16 | - | 0.0 | 71. | 3 | 36 71. | 3 1(| Snd Lv | 64. | 3 7. | 0 | 8 | -1.0 |
| Pine Bay 17 | 17 | - | 0.0 | 71. | 2 | 36 71. | 2 1(| Snd Lvl | 64.0 | 3 6. | 0 | 80 | -1.1 |
| Pine Bay 18 | 18 | - | 0.0 | 71. | 0 | 36 71. | 2 1(| Snd Lvi | 64.3 | 3 6. | 0 | 80 | -1.1 |
| Pine Bay 19 | 19 | - | 0.0 | 70. | 8 | 36 70. | 8 1(| Snd Lvl | 64. | 2 6. | 9 | 80 | -1.4 |
| Pine Bay 20 | 20 | - | 0.0 | 70. | 9 | 36 70. | .6 1(| Snd Lvl | 64.5 | 2 6. | 4 | 8 | -1.6 |
| Pine Bay 21 | 21 | - | 0.0 | 70. | 7 | 36 70. | 7 1(| Snd Lvl | 64.4 | 4 6. | 0 | 8 | -1.7 |
| Pine Bay 22 | 22 | - | 0.0 | 70. | 2 | 36 70. | 7 10 | Snd Lvl | 64.5 | 5 6.1 | 2 | 8 | -1.8 |
| Pine Bay 23 | 23 | - | 0.0 | 70. | 9 | 36 70. | .6 1(| Snd Lvl | 64.7 | 7 5.1 | 6 | 80 | -2.1 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | D Pine Bay BM | | | | | | ÷ | | | | 8 | lay 2015 | |

| RESULTS: SOUND LEVELS | | | | | | 4 | BťU PD | SE SE | | | | |
|-----------------------------------|---------------|---|-----|------|----|------|--------|----------|------|-----|------------|------|
| Pine Bay 24 | 24 | 1 | 0.0 | 70.2 | 66 | 70.2 | 10 | Snd Lvl | 64.9 | 5.3 | œ | -2.7 |
| Pine Bay 25 | 25 | - | 0.0 | 70.1 | 66 | 70.1 | 10 | Snd Lvl | 65.2 | 4.9 | 80 | -3.1 |
| Pine Bay 26 | 26 | - | 0.0 | 6.9 | 99 | 6.9 | 10 | Snd Lvl | 65.6 | 4.3 | 80 | -3.7 |
| Pine Bay 27 | 27 | - | 0.0 | 70.0 | 99 | 70.0 | 10 | Snd Lvl | 66.2 | 3.8 | Ø | 4.2 |
| Pine Bay 28 | 28 | - | 0.0 | 70.7 | 66 | 70.7 | 10 | Snd Lvl | 67.8 | 2.9 | 80 | -5.1 |
| Pine Bay 29 | 29 | - | 0.0 | 70.8 | 66 | 70.8 | 10 | Snd Lvl | 68.8 | 2.0 | 80 | -6.0 |
| Pine Bay 30 | 30 | - | 0.0 | 69.1 | 66 | 69.1 | 10 | Snd Lvl | 67.7 | 1.4 | 8 | -6.6 |
| Pine Bay 31 | 31 | - | 0.0 | 67.8 | 66 | 67.8 | 10 | Snd Lvl | 66.8 | 1.0 | œ | -7.0 |
| Pine Bay 32 | 32 | 1 | 0.0 | 66.6 | 66 | 66.6 | 10 | Snd Lvl | 65.7 | 0.0 | 80 | -7.1 |
| Pine Bay 33 | 33 | - | 0.0 | 65.6 | 99 | 65.6 | 10 | 1 | 64.7 | 0.9 | œ | -7.1 |
| Pine Bay 34 | 34 | - | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 63.9 | 0.8 | œ | -7.2 |
| Pine Bay 35 | 35 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | | 63.5 | 0.7 | 80 | -7.3 |
| Pine Bay 36 | 36 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 62.9 | 0.6 | 8 | -7.4 |
| Pine Bay 37 | 37 | - | 0.0 | 63.0 | 99 | 63.0 | 10 | 2 1000 | 62.4 | 0.6 | 80 | -7.4 |
| Pine Bay 38 | 38 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 61.9 | 0.6 | 8 | -7.4 |
| Pine Bay 39 | 39 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | ļ | 61.5 | 0.5 | 80 | -7.5 |
| Pine Bay 40 | 40 | - | 0.0 | 61.5 | 66 | 61.5 | 10 | 1 | 60.9 | 0.6 | ø | -7.4 |
| Pine Bay 41 | 41 | - | 0.0 | 61.3 | 99 | 61.3 | 10 | 1 | 60.9 | 0.4 | ω | -7.6 |
| Pine Bay 42 | 42 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | 1 | 60.4 | 0.4 | 80 | -7.6 |
| Pine Bay 43 | 43 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 59.6 | 0.4 | 80 | -7.6 |
| Pine Bay 44 | 44 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | I | 60.1 | 0.5 | 80 | -7.5 |
| Pine Bay 45 | 45 | - | 0.0 | 60.9 | 66 | 60.9 | 10 | I | 60.3 | 0.6 | 8 | -7.4 |
| Pine Bay 46 | 46 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | I | 60.7 | 0.6 | œ | -7.4 |
| Pine Bay 47 | 47 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | | 61.3 | 0.7 | ω | -7.3 |
| Pine Bay 48 | 48 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 61.7 | 0.8 | ω | -7.2 |
| Pine Bay 49 | 49 | - | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 62.2 | 0.9 | 80 | -7.1 |
| Pine Bay 50 | 50 | - | 0.0 | 63.7 | 66 | 63.7 | 10 | 1 | 62.7 | 1.0 | 8 | -7.0 |
| Pine Bay 51 | 51 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 63.2 | 1.1 | 8 | -6.9 |
| Pine Bay 52 | 52 | - | 0.0 | 65.2 | 66 | 65.2 | 10 | ļ | 63.9 | 1.3 | œ | -6.7 |
| Pine Bay 53 | 53 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 64.5 | 1.7 | ω | -6.3 |
| Pine Bay 54 | 54 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 64.2 | 1.9 | ω | -6.1 |
| Pine Bay 55 | 55 | - | 0.0 | 66.0 | 66 | 66.0 | 10 | Snd Lvl | 63.9 | 2.1 | œ | -5.9 |
| Pine Bay 56 | 56 | - | 0.0 | 65.9 | 66 | 62.9 | 10 | 1 | 63.6 | 2.3 | ø | -5.7 |
| Pine Bay 57 | 57 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | | 62.8 | 1.6 | 8 | -6.4 |
| Pine Bay 58 | 58 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | | 62.1 | 1.4 | 8 | -6.6 |
| Pine Bay 59 | 59 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 61.5 | 1.0 | 80 | -7.0 |
| Pine Bay 60 | 60 | - | 0.0 | 61.6 | 66 | 61.6 | 10 | l | 60.8 | 0.8 | 80 | -7.2 |
| Pine Bay 61 | 61 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | ľ | 60.3 | 0.8 | ø | -7.2 |
| Pine Bay 62 | 62 | - | 0.0 | 60.4 | 66 | 60.4 | 10 | I | 59.9 | 0.5 | 8 | -7.5 |
| Pine Bay 63 | 63 | - | 0.0 | 60.0 | 66 | 60.0 | 10 | 1 | 59.5 | 0.5 | 8 | -7.5 |
| Pine Bay 64 | 64 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 63.3 | 2.8 | 80 | -5.2 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA D |) Pine Bay BM | | | | | 2 | | | | ~ | 8 May 2015 | |

| RESULTS: SOUND LEVELS | | | | | - 4 | BtU PD& | ш | | | | |
|------------------------------|--------|-------------|------|-----|------------|---------|---|------|-----|----|------|
| Pine Bay 65 | 65 1 | 0.0 | 65.8 | 66 | 65.8 | 10 | 1 | 63.1 | 2.7 | 80 | -5.3 |
| Pine Bay 66 | 66 1 | 0.0 | 64.8 | 66 | 64.8 | 10 | 1 | 62.4 | 2.4 | œ | -5.6 |
| Pine Bay 67 | 67 1 | 0.0 | 64.7 | 66 | 64.7 | 10 | | 62.3 | 2.4 | 80 | -5.6 |
| Pine Bay 68 | 68 1 | 0.0 | 64.6 | 66 | 64.6 | 10 | 1 | 62.3 | 2.3 | œ | -5.7 |
| Pine Bay 69 | 69 | 0.0 | 64.6 | 66 | 64.6 | 10 | I | 62.4 | 2.2 | œ | -5.8 |
| Pine Bay 70 | 70 1 | 0.0 | 64.8 | 66 | 64.8 | 10 | Ĩ | 62.6 | 2.2 | œ | -5.8 |
| Pine Bay 71 | 71 1 | 0.0 | 64.6 | 66 | 64.6 | 10 | Ĩ | 62.6 | 2.0 | ø | -6.0 |
| Pine Bay 72 | 72 1 | 0.0 | 64.4 | 99 | 64.4 | 9 | 1 | 62.4 | 2.0 | ω | -6.0 |
| Pine Bay 73 | 73 1 | 0.0 | 64.3 | 99 | 64.3 | 9 | 1 | 62.5 | 1.8 | 00 | -6.2 |
| Pine Bay 74 | 74 1 | 0.0 | 64.0 | 99 | 64.0 | 10 | Ĩ | 62.4 | 1.6 | 80 | -6.4 |
| Pine Bay 75 | 75 1 | 0.0 | 60.4 | 99 | 60.4 | 10 | 1 | 59.5 | 0.9 | 80 | -7.1 |
| Pine Bay 76 | 76 1 | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 59.1 | 0.7 | 8 | -7.3 |
| Bolling 1 | 77 1 | 0.0 | 59.5 | 66 | 59.5 | 10 | ľ | 59.4 | 0.1 | 80 | -7.9 |
| Bolling 2 | 78 1 | 0.0 | 60.0 | 66 | 60.0 | 10 | Ĩ | 59.9 | 0.1 | œ | -7.9 |
| Bolling 3 | 79 1 | 0.0 | 60.4 | 66 | 60.4 | 10 | 1 | 60.2 | 0.2 | œ | -7.8 |
| Bolling 4 | 80 1 | 0'0 | 60.6 | 66 | 60.6 | 10 | 1 | 60.5 | 0.1 | œ | -7.9 |
| Bolling 5 | 81 1 | 0'0 | 60.9 | 66 | 60.9 | 10 | 1 | 60.8 | 0.1 | œ | -7.9 |
| Bolling 6 | 82 1 | 0.0 | 61.4 | 66 | 61.4 | 10 | 1 | 61.2 | 0.2 | 80 | -7.8 |
| Bolling 7 | 83 1 | 0.0 | 61.9 | 66 | 61.9 | 10 | ŧ | 61.7 | 0.2 | 80 | -7.8 |
| Bolling 8 | 84 1 | 0.0 | 61.1 | 66 | 61.1 | 10 | I | 60.8 | 0.3 | 8 | -7.7 |
| Bolling 9 | 85 1 | 0.0 | 61.9 | 66 | 61.9 | 10 | l | 61.6 | 0.3 | 80 | -7.7 |
| Bolling 10 | 86 1 | 0.0 | 62.9 | 66 | 62.9 | 10 | Ĩ | 62.7 | 0.2 | 80 | -7.8 |
| Bolling 11 | 87 1 | 0.0 | 63.2 | 99 | 63.2 | 10 | Ĭ | 62.9 | 0.3 | 80 | -7.7 |
| Bolling 12 | 88 | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 63.3 | 0.3 | œ | -7.7 |
| Bolling 13 | 89 1 | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 63.9 | 0.3 | œ | -7.7 |
| Bolling 14 | 90 1 | 0.0 | 62.6 | 66 | 62.6 | 10 | | 62.0 | 0.6 | 80 | -7.4 |
| Bolling 15 | 91 1 | 0.0 | 60.7 | 66 | 60.7 | 10 | Ì | 59.6 | 1.1 | 80 | -6.9 |
| Dwelling Units | \$NQ # | Noise Reduc | tion | | | | | | | | |
| | | Min | ٥, | Max | | | | | | | |
| | | dB | m | B | | | | | | | _ |
| All Selected | 91 | 0.1 | 2.7 | 7.7 | | | | | | | |
| All Impacted | 36 | 0.9 | 5.4 | 7.7 | | | | | | | |
| All that meet NR Goal | 0 | 0.0 | 0.0 | 0.0 | | | | | | | |

8 May 2015

Barrier Analysis

NSA E

| ESULTS: BARRIER DESCRIPTIONS | lantec |
|------------------------------|--------|

I-4 BtU PD&E

TNM 2.5

Stantec M. Drauer

RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN:

I-4 Segment 3 NSA E GM I-4 Btu PD&E

GM 22

Cost Ś Total Cost: Run:Rise fi:fi Width ft Top Volume If Berm cu yd 25786 176527 If Wall Area sq ft 8024 1842 Length ŧ 22.00 14.00 Мах £ Type Heights along Barrier 22.00 14.00 Avg ₽ 22.00 14.00 Min ₽ ≥ ≥ **BARRIER DESIGN:** 14' existing NSA E GM Barriers Name

5295824

0 5295824

C:\TNM25\230168\Seg 3\8 + 4\NSA E GM

| State Image Image <th< th=""><th>RESULTS: SOUND LEVELS</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>I-4 BtU PI</th><th>)&E</th><th></th><th></th><th></th><th></th></th<> | RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | |
|---|---|--------|---------------|-------------------|---------------------|----------|-----|----------------------------|-----------------------------------|------------------------------------|-------------------------------|---|----------------|-------|
| Calculated with TMM 2.5 Calculated with TMM 2.5 Calculated With TMM 2.5 Calculated TMM 2.5 <t< th=""><th>Stantec M. Drauer</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>12 May 20 TNM 2.5</th><th>15</th><th></th><th></th><th></th><th></th></t<> | Stantec M. Drauer | | | | | | | | 12 May 20 TNM 2.5 | 15 | | | | |
| A the information of a different type are not uncorrelation of a different type are not uncorrelation of a different type are not uncorrelation. A three information of a different type are not uncorrelation of a different type are not uncorrelation. Anno Existing No. Barting Existing No. Barting Anno Annono Anno Anno | RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BADDIED DESIGN: | 4 4 Q | HBtU Segi | PD&E ment 3 NS | AEGM | | | | Calculate | d with TNI | 1 2.5 | | | |
| Retentor No. MUL MU | ATMOSPHERICS: | 5 8 | w zz 8 deg | F, 50% Rł | - | | | | | Average a State h of a diffe | ghway agency ent type with | summer used unit substantiates the approval of FHWA | ess use | |
| NameNo.FULSExisting Leartin | Receiver | | | | | | | | | | | | | |
| | Name | No. #D | SUS | Existing | No Barrie | Ŀ | | | | | With Barrier | | | |
| Ruledge 1 Ip | | | | L A eq1h | LAeq1h Calculate | d Crit'n | _ 0 | ncrease over Calculated | r existing Crit'n Sub'l Inc | Type Impact | Calculated LAeq1h | Noise Reduction Calculated Goal | Calcu minus | lated |
| Rutledge 1 1 1 0.0 62.6 66 62.7 10 mm 60.6 2.0 8 Rutledge 2 2 1 0.0 66.7 66.7 10 mm 66.6 4.3 4.3 8 Rutledge 3 5 1 0.0 65.7 66 65.7 10 mm 66.7 4.3 8 Rutledge 5 5 1 0.0 65.7 66 65.7 10 mm 57.3 4.8 8 Rutledge 7 6 6 65.1 10 mm 56.5 4.7 8 8 Rutledge 10 11 1 0.0 60.7 66 59.1 10 mm 55.5 4.7 8 Rutledge 12 1 1 0.0 59.1 66 59.1 10 mm 55.5 4.7 8 Rutledge 12 1 1 10 mm 55.2 10 | | | | dBA | dBA | dBA | | 1B | đB | | dBA | dB | dB dB | |
| Rutedge2 2 1 0.0 66.7 66 66.7 10 SndLM 62.4 4.3 8 Rutedge3 3 1 0.0 65.2 66 65.2 10 60.4 4.8 8 Rutedge4 5 1 0.0 65.1 66 65.2 10 60.4 4.8 8 Rutedge6 5 1 0.0 61.1 66 61.1 10 56.5 4.6 8 Rutedge1 7 1 0.0 61.1 66 59.1 10 56.5 4.6 8 Rutedge10 11 1 0.0 59.1 66 59.1 10 56.5 4.7 4.7 8 Rutedge10 11 1 0.0 59.1 66 59.1 10 56.5 4.6 8 Rutedge11 11 1 0.0 59.1 | Rutledge 1 | - | - | 0.0 | • | 2.6 | 99 | 62.6 | 10 | | 60.6 | 2.0 | 80 | -6.0 |
| Rutledge3 3 1 0.0 65.2 66 65.1 10 60.4 4.8 8 Rutledge 6 1 0.0 63.7 66 61.1 10 68.3 4.8 8 Rutledge 6 1 0.0 61.1 66 61.1 10 58.3 4.8 8 Rutledge 7 1 0.0 61.1 66 61.1 10 58.3 4.4 8 Rutledge 1 10 0.0 61.1 66 58.1 10 56.5 4.6 8 Rutledge 1 0.0 59.1 66 58.1 10 56.5 4.7 8 Rutledge 1 0.0 59.1 66 58.1 10 56.5 4.7 8 Rutledge 1 10 0.0 59.1 66 58.1 10 | Rutledge 2 | 2 | - | 0.0 | Ĵ | 6.7 | 99 | 66.7 | 10 | Snd Lvl | 62.4 | 4.3 | 80 | -3.7 |
| Rutledge 4 1 0.0 6.3.7 66 63.7 10 58.9 4.8 8 Rutledge 5 5 1 0.0 62.1 66 61.1 10 55.5 4.8 8 Rutledge 6 6 6 60.1 10 55.5 4.6 8 Rutledge 7 7 1 0.0 60.1 66.0 59.1 10 55.5 4.7 8 Rutledge 7 1 0.0 59.1 66 59.1 10 55.5 4.7 8 Rutledge 1 1 1 0.0 59.8 66 57.8 10 55.2 4.4 8 Rutledge 1 1 1 0.0 57.8 66 57.8 10 55.2 4.4 8 Rutledge 1 1 1 0.0 57.8 66 57.8 10 55.4 | Rutledge 3 | ę | - | 0.0 | 9 | 5.2 | 99 | 65.2 | 10 | | 60.4 | 4.8 | œ | -3.2 |
| Rutledge 5 5 1 0.0 62.1 66 61.1 10 57.3 4.8 8 Rutledge 6 6 1 0.0 61.1 66 61.1 10 56.5 4.6 8 Rutledge 7 8 1 0.0 60.6 66 10 56.5 4.6 8 Rutledge 10 9 1 0.0 59.1 66 59.1 10 56.5 4.6 8 Rutledge 11 11 1 0.0 59.1 66 59.1 10 56.2 4.6 8 Rutledge 11 11 1 0.0 59.1 66 59.1 10 56.2 4.6 8 Rutledge 12 11 1 0.0 59.3 66 59.1 10 56.2 4.6 8 Rutledge 12 11 1 0.0 57.8 66 | Rutledge 4 | 4 | - | 0.0 | 9 | 3.7 | 99 | 63.7 | 10 | | 58.9 | 4.8 | 80 | -3.2 |
| Rutledge (1 0.0 61.1 0.6 61.1 10 56.5 4.6 8 Rutledge 7 7 1 0.0 60.6 66.0 10 56.5 4.6 8 Rutledge 8 8 1 0.0 50.1 66 59.8 10 55.5 4.6 8 Rutledge 10 10 1 0.0 59.8 66 59.8 10 55.2 4.6 8 Rutledge 11 11 1 0.0 59.8 66 59.8 10 55.2 4.6 8 Rutledge 12 13 1 0.0 57.8 66 57.8 10 55.3 4.4 8 Rutledge 12 13 1 0.0 57.8 66 57.8 10 55.3 4.4 8 Rutledge 12 1 1 0.0 57.8 66 57.8 | Rutledge 5 | 5 | L | 0.0 | | 2.1 | 99 | 62.1 | 10 | | 57.3 | 4.8 | 80 | -3.2 |
| Ruledge 7 7 1 0.0 60.6 60.6 10 56.0 4.6 8 Ruledge 8 8 1 0.0 60.2 66 59.1 10 55.5 4.7 8 Ruledge 1 10 1 0.0 59.1 66 59.3 10 55.5 4.4 8 Ruledge 1 11 1 0.0 57.8 66 57.3 10 55.2 4.4 8 Ruledge 12 12 1 0.0 57.3 66 57.3 10 55.3 4.4 8 Ruledge 12 14 1 0.0 57.3 66 57.3 10 53.0 4.3 8 Convey 1 17 1 0.0 57.3 66 57.3 10 57.2 6.6 8 Convey 1 1 1 0.0 75.3 66 75.3 </td <td>Rutledge 6</td> <td>9</td> <td>~</td> <td>0.0</td> <td></td> <td>61.1</td> <td>99</td> <td>61.</td> <td>1</td> <td>1</td> <td>56.5</td> <td>4.6</td> <td>80</td> <td>-3.4</td> | Rutledge 6 | 9 | ~ | 0.0 | | 61.1 | 99 | 61. | 1 | 1 | 56.5 | 4.6 | 80 | -3.4 |
| Rutledge 8 1 0.0 60.2 66 59.1 10 55.5 4.7 8 Rutledge 9 1 0.0 59.1 66 59.1 10 54.7 4.4 8 Rutledge 10 11 1 0.0 59.8 66 59.1 10 54.7 4.4 8 Rutledge 11 11 1 0.0 59.8 66 59.1 10 54.7 4.4 8 Rutledge 12 12 1 0.0 57.8 66 57.3 10 55.2 4.4 8 Rutledge 12 13 1 0.0 57.3 66 57.3 10 55.2 6.6 8 8 Convery 2 14 1 0.0 57.3 66 57.3 10 57.2 6.6 8 Convery 3 17 1 0.0 75.2 66 | Rutledge 7 | 7 | - | 0.0 | | 6.6 | 99 | 60.6 | 10 | | 56.0 | 4.6 | œ | -3.4 |
| Rutledge 9 9 1 0.0 59.1 66 59.1 10 54.7 4.4 8 Rutledge 10 10 1 0.0 59.8 66 59.8 10 55.2 4.6 8 Rutledge 11 1 1 0.0 59.8 66 59.8 10 55.2 4.6 8 Rutledge 12 11 1 0.0 57.8 66 57.3 10 53.0 4.4 8 Cowley 1 13 1 0.0 57.3 66 57.3 10 53.0 4.2 8 Cowley 2 1 1 0.0 57.3 66 57.3 10 57.2 66 57.3 10 57.2 67 67 67 67 67 67 67 67 67 67 67 67 67 67 67 67 67 < | Rutledge 8 | œ | - | 0.0 | | 0.2 | 99 | 60.3 | 10 | | 55.5 | 4.7 | 80 | -3.3 |
| Rutledge 10 10 1 0.0 59.8 66 59.8 10 55.2 4.6 8 Rutledge 11 11 1 0.0 58.7 66 58.7 10 55.3 4.4 8 Rutledge 12 12 1 0.0 58.7 66 57.3 10 53.6 4.2 8 Crowley 1 13 1 0.0 57.3 66 57.3 10 53.0 4.3 8 Crowley 2 14 1 0.0 57.3 66 57.3 10 53.0 4.3 8 Crowley 2 17 1 0.0 57.3 66 57.3 10 57.2 6.6 8 8 Crowley 3 17 1 0.0 71.6 66 71.6 10 57.2 6.6 8 8 Crowley 3 1 10 0.0 <td>Rutledge 9</td> <td>6</td> <td>-</td> <td>0.0</td> <td>ĩ</td> <td>9.1</td> <td>99</td> <td>59.</td> <td>1</td> <td> </td> <td>54.7</td> <td>4.4</td> <td>80</td> <td>-3.6</td> | Rutledge 9 | 6 | - | 0.0 | ĩ | 9.1 | 99 | 59. | 1 | | 54.7 | 4.4 | 80 | -3.6 |
| Rutledge 11 1 0.0 58.7 66 58.7 10 54.3 4.4 8 Rutledge 12 12 1 0.0 57.8 66 57.8 10 53.0 4.2 8 Crowley 1 13 1 0.0 57.3 66 57.3 10 53.0 4.3 8 Crowley 2 14 1 0.0 57.3 66 57.3 10 53.0 4.3 8 Crowley 2 15 1 0.0 59.5 66 57.3 10 57.2 6.6 8 Crowley 3 15 1 0.0 71.6 66 71.6 10 57.2 6.6 8 8 Crowley 3 1 0.0 75.6 66 75.6 10 10 10 10 10 10 10 10 10 10 10 10 10 | Rutledge 10 | 10 | - | 0.0 | - | 9.8 | 99 | 59.8 | 10 | | 55.2 | 4.6 | 80 | -3.4 |
| Rutledge 12 12 1 0.0 57.8 66 57.3 10 53.6 4.2 8 Crowley 1 13 1 0.0 57.3 66 57.3 10 53.6 4.2 8 Crowley 1 14 1 0.0 59.5 66 59.5 10 57.2 6.6 8 Crowley 2 15 1 0.0 59.5 66 59.5 10 57.2 6.6 8 Crowley 3 15 1 0.0 59.5 66 71.6 10 57.2 6.6 8 Crowley 5 17 1 0.0 75.2 66 71.6 10 57.2 6.6 8 Crowley 5 1 1 0 71.6 10 57.2 6.6 8 Crowley 6 71.6 71.6 71.6 71.6 71.6 71.3 73.5 < | Rutledge 11 | 11 | t | 0.0 | | 8.7 | 99 | 58.7 | 10 | 1 | 54.3 | 4.4 | 80 | -3.6 |
| Crowley1 13 1 0.0 57.3 66 57.3 10 53.0 4.3 8 Crowley2 14 1 0.0 59.5 66 59.5 10 54.7 4.8 8 Crowley3 15 1 0.0 59.5 66 59.5 10 57.2 6.6 8 Crowley3 17 1 0.0 71.6 66 71.6 10 57.2 6.6 8 Crowley5 17 1 0.0 75.8 66 75.8 10 57.2 6.6 8 Crowley5 17 1 0.0 75.8 66 75.8 10 80.4 13.3 8 Crowley5 1 1 0.0 75.8 66 75.8 10 80.4 13.3 8 Crowley6 1 1 0.0 75.8 66 75.8 10 | Rutledge 12 | 12 | F | 0.0 | ÷ | 57.8 | 99 | 57.8 | 10 | | 53.6 | 4.2 | 8 | -3.8 |
| Crowley 2 14 1 0.0 59.5 66 59.5 10 54.7 4.8 8 Crowley 3 15 1 0.0 63.8 66 63.8 10 57.2 6.6 8 Crowley 3 16 1 0.0 71.6 66 73.6 61.9 9.7 8 8 Crowley 5 17 1 0.0 75.2 66 75.2 10 81.9 9.7 8 Crowley 5 17 1 0.0 75.8 66 75.6 10 81.9 13.5 8 Crowley 6 75.8 66 75.8 10 8nd Lvi 62.1 13.7 8 Crowley 7 19 1 0.0 75.8 66 75.8 10 8nd Lvi 62.1 13.7 8 Crowley 7 19 10 76.0 76.0 10 8nd Lvi 61.9 13.7 8 <tr< td=""><td>Crowley 1</td><td>13</td><td>-</td><td>0.0</td><td>÷</td><td>57.3</td><td>99</td><td>57.3</td><td>10</td><td> </td><td>53.0</td><td>4.3</td><td>8</td><td>-3.7</td></tr<> | Crowley 1 | 13 | - | 0.0 | ÷ | 57.3 | 99 | 57.3 | 10 | | 53.0 | 4.3 | 8 | -3.7 |
| Crowley 3 15 1 0.0 63.8 66 63.8 10 57.2 6.6 8 Crowley 4 16 1 0.0 71.6 66 71.6 10 57.2 6.6 8 Crowley 4 16 1 0.0 71.6 66 71.6 10 81.9 9.7 8 Crowley 5 17 1 0.0 75.8 66 75.8 10 Snd Lvl 61.9 13.7 8 Crowley 5 19 1 0.0 75.8 66 75.8 10 Snd Lvl 62.1 13.7 8 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 62.1 13.5 8 Crowley 7 19 1 0.0 76.0 66 75.8 10 Snd Lvl 62.3 13.5 8 Crowley 8 20 1 0.0 76.0 66 </td <td>Crowley 2</td> <td>14</td> <td>-</td> <td>0.0</td> <td></td> <td>9.5</td> <td>99</td> <td>59.5</td> <td>10</td> <td>1</td> <td>54.7</td> <td>4.8</td> <td>8</td> <td>-3.2</td> | Crowley 2 | 14 | - | 0.0 | | 9.5 | 99 | 59.5 | 10 | 1 | 54.7 | 4.8 | 8 | -3.2 |
| Crowley 4 16 1 0.0 71.6 66 71.6 10 61.9 9.7 8 Crowley 5 17 1 0.0 75.2 66 75.2 10 Snd Lvl 61.9 13.3 8 Crowley 5 18 1 0.0 75.2 66 75.8 10 Snd Lvl 61.9 13.7 8 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 62.1 13.7 8 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 62.1 13.7 8 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 62.1 13.5 8 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 61.9 14.1 8 Crowley 9 21 1 0.0 76.4 | Crowley 3 | 15 | - | 0.0 | 9 | 3.8 | 99 | 63.6 | 10 | 1 | 57.2 | 6.6 | 8 | -1.4 |
| Crowley 5 17 1 0.0 75.2 66 75.2 10 61.9 13.3 8 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 61.9 13.7 8 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 62.1 13.7 8 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 62.1 13.7 8 Crowley 7 20 1 0.0 75.8 66 75.8 10 Snd Lvl 62.3 13.5 8 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 62.3 13.5 8 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 61.9 14.1 8 Crowley 10 22 1 0.0 76.5 | Crowley 4 | 16 | - | 0.0 | 0 | 1.6 | 99 | 71.(| 10 | Snd Lvl | 61.9 | 9.7 | 8 | 1.7 |
| Crowley 6 18 1 0.0 75.8 66 75.8 10 model 13.7 8 Crowley 7 19 1 0.0 75.8 66 75.8 10 model 13.7 8 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 62.3 13.5 8 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 62.1 13.5 8 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 62.1 13.5 8 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 61.9 14.1 8 Crowley 9 22 1 0.0 76.4 76.4 76.4 76.4 76.4 76.4 76.4 76.4 76.4 76.4 76.4 76.4 76.4 76.4 76.4 <td>Crowley 5</td> <td>17</td> <td>-</td> <td>0.0</td> <td>0</td> <td>5.2</td> <td>99</td> <td>75.2</td> <td>10</td> <td>) Snd Lvl</td> <td>61.9</td> <td>13.3</td> <td>8</td> <td>5.3</td> | Crowley 5 | 17 | - | 0.0 | 0 | 5.2 | 99 | 75.2 | 10 |) Snd Lvl | 61.9 | 13.3 | 8 | 5.3 |
| Crowley 7 19 1 0.0 75.8 66 75.8 10 62.3 13.5 8 Crowley 8 20 1 0.0 76.0 66 75.8 10 8d Lvl 62.3 13.5 8 Crowley 8 20 1 0.0 76.0 66 76.0 10 8d Lvl 62.1 13.9 8 Crowley 9 21 1 0.0 76.0 66 76.0 10 8d Lvl 61.9 14.1 8 Crowley 10 22 1 0.0 76.4 66 76.4 10 8d Lvl 61.9 14.5 8 Crowley 11 23 1 0.0 76.5 66 76.5 10 8d Lvl 61.9 14.6 8 | Crowley 6 | 18 | - | 0.0 | 0 | 5.8 | 99 | 75.8 | 10 | Snd Lvl | 62.1 | 13.7 | 80 | 5.7 |
| Crowley 8 20 1 0.0 76.0 66 76.0 10 62.1 13.9 8 Crowley 9 21 1 0.0 76.0 66 76.0 10 8d Lvl 62.1 13.9 8 Crowley 9 21 1 0.0 76.0 66 76.0 10 8d Lvl 61.9 14.1 8 Crowley 10 22 1 0.0 76.4 66 76.4 10 8d Lvl 61.9 14.5 8 Crowley 11 23 1 0.0 76.5 66 76.5 10 8d Lvl 61.9 14.6 8 | Crowley 7 | 19 | - | 0.0 | | 5.8 | 99 | 75.8 | 10 |) Snd Lvl | 62.3 | 13.5 | 8 | 5.5 |
| Crowley 9 21 1 0.0 76.0 66 76.0 10 10 14.1 8 Crowley 10 22 1 0.0 76.4 66 76.4 10 51.4 14.1 8 Crowley 10 22 1 0.0 76.4 66 76.4 10 51.4 14.5 8 Crowley 11 23 1 0.0 76.5 66 76.5 10 51.4 61.9 14.5 8 | Crowley 8 | 20 | - | 0.0 | | 6.0 | 99 | 76.(| 10 |) Snd Lvl | 62.1 | 13.9 | 8 | 5.9 |
| Crowley 10 22 1 0.0 76.4 66 76.4 10 61.9 14.5 8 Crowley 11 23 1 0.0 76.5 66 76.5 10 50.1 61.9 14.5 8 | Crowley 9 | 21 | - | 0.0 | 0 | 6.0 | 99 | 76.(| 1 | Snd Lvl | 61.9 | 14.1 | 8 | 6.1 |
| Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 61.9 14.6 8 | Crowley 10 | 22 | - | 0.0 | | 6.4 | 99 | 76.4 | 10 | Snd Lvl | 61.9 | 14.5 | 80 | 6.5 |
| | Crowley 11 | 23 | | 0.0 | | 6.5 | 99 | 76.5 | 10 | Snd Lvl | 61.9 | 14.6 | 80 | 6.6 |

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12 May 2015
| RESULTS: SOUND LEVELS | | | | | | I-4 E | StU PD8 | Ë | | | | |
|--------------------------------------|----|--------------|-----|------|----|-------|---------|---------|------|-----------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.2 | 66 | 76.2 | 10 | Snd LvI | 61.7 | 14.5 | 80 | 6.5 |
| Crowley 13 | 25 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd LvI | 61.2 | 13.1 | 80 | 5.1 |
| Crowley 14 | 26 | - | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 61.1 | 11.8 | 80 | 3.8 |
| Crowley 15 | 27 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 61.0 | 11.5 | 8 | 3.5 |
| Crowley 16 | 28 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | I | 54.3 | 4.4 | 80 | -3.6 |
| Crowley 17 | 29 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | I | 55.5 | 5.2 | 80 | -2.8 |
| Crowley 18 | 30 | ~ | 0.0 | 63.6 | 66 | 63.6 | 10 | I | 56.5 | 7.1 | 80 | -0.9 |
| Crowley 19 | 31 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | 1 | 57.1 | 8.7 | ø | 0.7 |
| Crowley 37 | 32 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | i i | 55.3 | 6.6 | œ | -1.4 |
| Crowley 38 | 33 | - | 0.0 | 59.5 | 66 | 59.5 | 10 | | 53.7 | 5.8 | 80 | -2.2 |
| Crowley 39 | 34 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | 1 | 53.0 | 5.4 | 80 | -2.6 |
| Crowley 40 | 35 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | Ļ | 52.7 | 5.5 | 8 | -2.5 |
| Crowley 20 | 36 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | ţ | 57.0 | 8.6 | 8 | 0.6 |
| Crowley 21 | 37 | - | 0.0 | 64.5 | 66 | 64.5 | 6 | Ĩ | 56.6 | 7.9 | œ | -0.1 |
| Crowley 41 | 38 | - | 0.0 | 62.8 | 66 | 62.8 | 10 | I | 55.4 | 7.4 | ω | -0.6 |
| Crowley 42 | 39 | ٢ | 0.0 | 62.3 | 66 | 62.3 | 10 | l | 55.0 | 7.3 | 8 | -0.7 |
| Crowley 22 | 40 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 56.2 | 7.4 | 8 | -0.6 |
| Crowley 23 | 41 | Ŧ | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 53.6 | 5.7 | œ | -2.3 |
| Crowley 24 | 42 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | Ī | 53.1 | 5.3 | 80 | -2.7 |
| Crowley 25 | 43 | - | 0.0 | 58.2 | 66 | 58.2 | 6 | Ĩ | 52.9 | 5.3 | 80 | -2.7 |
| Crowley 26 | 44 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | Ĩ | 55.7 | 6.8 | 80 | -1.2 |
| Crowley 27 | 45 | - | 0.0 | 60.8 | 66 | 60.8 | 6 | Ĩ | 55.0 | 5.8 | 80 | -2.2 |
| Crowley 28 | 46 | ۲ | 0.0 | 59.6 | 66 | 59.6 | 10 | 1 | 54.1 | 5.5 | æ | -2.5 |
| Crowley 29 | 47 | Ţ | 0.0 | 56.8 | 66 | 56.8 | 10 | 1 | 52.1 | 4.7 | 80 | -3.3 |
| Crowley 30 | 48 | - | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 61.2 | 12.2 | 80 | 4.2 |
| Crowley 31 | 49 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 60.2 | 10.8 | æ | 2.8 |
| Crowley 32 | 50 | - | 0.0 | 69.2 | 66 | 69.2 | 10 | Snd Lvl | 59.5 | 9.7 | 80 | 1.7 |
| Crowley 33 | 51 | - | 0.0 | 67.0 | 66 | 67.0 | 10 | Snd Lvl | 58.6 | 8.4 | ω | 0.4 |
| Crowley 34 | 52 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | Ĩ | 55.9 | 5.4 | 8 | -2.6 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | Ī | 54.2 | 5.1 | 8 | -2.9 |
| Crowley 36 | 54 | - | 0.0 | 57.2 | 66 | 57.2 | 10 | I | 52.7 | 4.5 | 80 | -3.5 |
| Long Pond 1 | 55 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | 1 | 52.1 | 3.9 | 80 | -4.1 |
| Long Pond 2 | 56 | - | 0.0 | 57.7 | 66 | 57.7 | 10 | 1 | 53.3 | 4.4 | 8 | -3.6 |
| Long Pond 3 | 57 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 54.9 | 5.0 | 8 | -3.0 |
| Long Pond 4 | 58 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | | 56.8 | 6.1 | 8 | -1.9 |
| Long Pond 5 | 59 | . | 0.0 | 66.4 | 66 | 66.4 | 10 | Snd Lvl | 58.7 | 7.7 | œ | -0.3 |
| Long Pond 6 | 60 | . | 0.0 | 71.7 | 66 | 71.7 | 9 | Snd Lvl | 61.1 | 10.6 | 80 | 2.6 |
| Long Pond 7 | 61 | ÷ | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 61.7 | 11.1 | 80 | 3.1 |
| Long Pond 8 | 62 | ÷ | 0.0 | 73.1 | 66 | 73.1 | 10 | Snd Lvl | 61.9 | 11.2 | œ | 3.2 |
| Long Pond 9 | 63 | - | 0.0 | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 62.2 | 11.4 | 80 | 3.4 |
| Long Pond 10 | 64 | ٢ | 0.0 | 73.2 | 66 | 73.2 | 10 | Snd Lvl | 62.0 | 11.2 | 80 | 3.2 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA E GM | | | | | | | | | | 12 May 20 | 15 | |

| | 1.0 72. | 7 66 | 72.7 | 10 004 | | 61.4 | C + + | | |
|--|---|---|---|---|---|---|---|---|--|
| | | | | | | t. S | | œ | 3.3 |
| • | .0 /2. | 99 | 72.5 | 10 Snd | ۲ ا | 61.3 | 11.2 | œ | 3.2 |
| - | .0 71. | 3 66 | 71.3 | 10 Snd | Z | 60.9 | 10.4 | 80 | 2.4 |
| 1 | .0 71. | 99 0 | 71.0 | 10 Snd | LVI | 60.8 | 10.2 | 80 | 2.2 |
| - | .0 71. | 1 66 | 71.1 | 10 Snd | Lvi | 61.0 | 10.1 | 80 | 2.1 |
| - | .0 71. | 66 | 71.2 | 10 Snd | LvI | 61.1 | 10.1 | 80 | 2.1 |
| 1 | 71.2 | 66 | 71.8 | 10 Snd | L< | 61.5 | 10.3 | 80 | 2.3 |
| 1 | .0 72. | 66 | 72.2 | 10 Snd | Lvl | 61.8 | 10.4 | œ | 2.4 |
| 1 | .0 71. | 66 | 71.6 | 10 Snd | LVI | 61.9 | 9.7 | 80 | 1.7 |
| 1 | .07 70. | 99 66 | 70.9 | 10 Snd | LvI | 61.9 | 9.0 | 60 | 1.0 |
| - | .0 70. | 66 | 70.5 | 10 Snd | Z | 62.7 | 7.8 | 80 | -0.2 |
| - | .0 71. | 66 | 71.0 | 10 Snd | LVI | 64.2 | 6.8 | 60 | -1.2 |
| 1 | .0 61. | 1 66 | 61.1 | 10 | 2 | 56.9 | 4.2 | 80 | -3.8 |
| 1 | .0 62. | 66 | 62.6 | 10 | | 58.2 | 4.4 | 80 | -3.6 |
| 1 | .0 65. | 99 | 65.5 | 10 | | 59.4 | 6.1 | 80 | -1.9 |
| 1 0 | .0 67. | 66 | 67.5 | 10 Snd | Lvl | 59.2 | 8.3 | ø | 0.3 |
| 1 | .0 65. | 66 | 65.2 | 10 | 2 | 59.0 | 6.2 | ø | -1.8 |
| 1 | .0 62. | 1 66 | 62.1 | 10 | | 58.1 | 4.0 | 80 | -4.0 |
| 1 0 | .0 60. | 66 | 60.6 | 10 | | 56.5 | 4.1 | 80 | -3.9 |
| 1 | .0 64. | 66 | 64.2 | 10 | | 58.3 | 5.9 | 80 | -2.1 |
| 1 | .0 61. | 99 | 61.0 | 10 | | 56.6 | 4.4 | 80 | -3.6 |
| 1 | .09 60. | 66 | 60.7 | 10 | | 56.6 | 4.1 | 80 | -3.9 |
| 1 | .09 60.1 | 66 | 60.2 | 10 | | 55.6 | 4.6 | 80 | -3,4 |
| 1 0 | .09 60.1 | 66 | 60.2 | 10 | | 55.8 | 4.4 | 80 | -3.6 |
| 1 | .0 59. | 99 00 | 59.0 | 10 | 14 | 55.8 | 3.2 | œ | -4.8 |
| Is Noise R | teduction | | | | 3 | | | | |
| Min | Avg | Мах | | | | | | | |
| æ | đB | đB | | | | | | | |
| 89 2 | .0 7. | 3 14.6 | | | | | | | |
| 36 4 | 3 10. | 14.6 | | | | | | | |
| 34 8 | .3 11. | 14.6 | | | | | | | |
| 83888888888888888888888888888888888888 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0.0 70.5 0.0 70.5 0.0 71.0 0.0 61.1 0.0 65.1 0.0 65.2 0.0 65.2 0.0 65.2 0.0 65.2 0.0 65.2 0.0 60.1 0.0 60.1 0.0 60.1 0.0 60.1 0.0 60.1 1.0 8.3 11.0 8.3 11.0 | 0.0 70.9 66 0.0 70.5 66 0.0 71.0 66 0.0 61.1 66 0.0 61.1 66 0.0 61.1 66 0.0 65.5 66 0.0 67.5 66 0.0 67.5 66 0.0 67.5 66 0.0 67.5 66 0.0 67.5 66 0.0 67.5 66 0.0 67.5 66 0.0 64.2 66 0.0 64.2 66 0.0 60.7 66 0.0 60.7 66 0.0 60.2 66 0.0 60.2 66 0.0 60.2 66 0.0 60.2 66 0.0 60.2 66 0.0 60.2 66 0.0 60.2 66 | 0.0 70.9 66 70.9 0.0 70.5 66 70.9 0.0 71.0 66 71.0 0.0 61.1 66 71.0 0.0 61.1 66 61.1 0.0 61.1 66 61.1 0.0 61.1 66 61.1 0.0 67.5 66 67.5 0.0 67.5 66 67.5 0.0 67.5 66 67.5 0.0 67.5 66 67.5 0.0 67.5 66 67.5 0.0 67.5 66 67.5 0.0 67.5 66 67.5 0.0 67.1 66 67.5 0.0 61.0 66.5 66.5 0.0 61.0 66.5 66.5 0.0 60.1 66.5 60.5 0.0 60.2 66 60.2 0.0 60.2 < | 0.0 70.9 66 70.9 10 8nd 0.0 70.5 66 70.5 10 8nd 0.0 71.0 66 61.1 66 61.1 8nd 0.0 61.1 66 61.1 66 61.1 10 8nd 0.0 61.1 66 61.1 66 61.1 10 8nd 0.0 65.5 66 65.5 66 67.5 10 8nd 0.0 67.5 66 67.5 10 8nd 8nd 0.0 67.5 66 67.5 10 8nd 0.0 67.5 66 67.5 10 9nd 0.0 62.1 66 67.5 10 9nd 0.0 61.0 60.5 66 60.7 10 9nd 0.0 60.1 60.2 66 60.5 10 9nd 9nd 0.0 60.1 60.7< | 0.0 70.9 66 70.9 10 Snd Lvl 0.0 70.5 66 70.5 10 Snd Lvl 0.0 71.0 66 71.0 10 Snd Lvl 0.0 61.1 66 61.1 10 0.0 65.5 66 65.5 10 Snd Lvl 0.0 67.5 66 65.2 10 0.0 62.1 66 60.5 10 0.0 60.6 66.6 60.7 10 0.0 60.7 66 60.7 10 0.0 60.2 66 60.2 10 0.0 60.2 66 60.2 10 | 0.0 70.3 66 70.3 10 Snd Lvl 61.3 0.0 70.5 66 70.5 10 Snd Lvl 62.7 0.0 71.0 66 71.0 10 Snd Lvl 62.7 0.0 61.1 66 61.1 10 Snd Lvl 62.7 0.0 61.1 66 61.1 10 Snd Lvl 64.2 0.0 61.1 66 61.1 10 Snd Lvl 64.2 0.0 65.5 66 67.5 10 Snd Lvl 53.2 0.0 65.2 66 65.2 10 Snd Lvl 53.2 0.0 65.2 66 65.2 10 Snd Lvl 53.2 0.1 65.2 66 65.2 10 Snd Lvl 53.2 0.1 61.2 66 67.2 10 Snd Lvl 55.3 0.1 61.2 66 67.2 10 Snd Lvl 55.3 | 0.0 70.9 66 70.3 10 Snd Lvl 61.9 90 0.0 70.5 66 70.5 66 70.5 70 84.2 68 0.0 71.0 66 71.0 10 84.2 68 0.0 61.1 66 61.1 10 84.2 68 0.0 61.1 66 61.1 10 84.2 68 0.0 61.6 65.5 10 7.8 44 0.0 65.5 66 65.5 10 84.2 6.1 0.0 65.5 70.6 65.5 10 90.7 8.3 0.0 65.5 66 65.5 10 90.7 8.3 0.0 65.1 66.5 70.5 10 90.7 8.3 0.0 64.2 66 65.5 10 90.7 4.1 0.0 60.2 66.5 10 90.7 90.3 4.1 | 0.0 70.9 66 70.9 10 Snd Lvi 61.9 9.0 6 0.0 71.5 66 70.5 10 Snd Lvi 64.2 6.8 8 0.0 61.1 66 71.0 10 Snd Lvi 64.2 6.8 8 0.0 61.1 66 61.1 10 Snd Lvi 64.2 6.8 8 0.0 65.5 66 61.1 10 55.9 4.4 8 0.0 65.5 66 65.5 10 Snd Lvi 55.9 4.4 8 0.0 65.5 66 65.5 10 55.9 4.4 8 0.0 65.1 66 60.1 10 55.8 4.4 8 0.0 61.0 64.2 10 55.8 4.4 8 0.0 61.0 60.1 10 55.8 4.4 8 |

12 May 2015

| RESULTS: BARRIER DESCRIPTIONS | | | | | - | -4 BtU PD8 | ų | | | |
|--|-----------------|-----------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | 7(| | 12 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: | I-4 Btl | U PD&E | | | ŝ | | | | | |
| RUN: BARRIER DESIGN: | I-4 Se GM 2(| gment 3 NS 0 | A E GM | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | Ŀ. | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ŧ | ft | ft | ft | sq ft | cu yd | ft | ft:ft | в |
| NSA E GM | 3 | 20.00 | 20.00 | 20.00 | 8024 | 160480 | | | | 4814386 |
| 14' existing | > | 14.00 | 14.00 | 14.00 | 1842 | 25786 | | | | 0 |
| | | | | | | | | | Total Cost: | 4814386 |
| | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | |
|---|------|-----------------------------|------------------|-----------|-------------|-----|--------------|----------------------|------------------------------------|--|--|----------------------------------|-----------------------------|
| Stantec M. Drauer | | | | | | | | 12 May 20 TNM 2.5 | 15 | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: RAPRIEP DESIGN: | | I-4 BtU I-4 Seg GM 20 | PD&E ment 3 N | SA E GM | | | | Calculate | d with TNI | A 2.5 | leda An Ieda An Ieda | | |
| ATMOSPHERICS: | | 68 deç | J F, 50% F | Н | | | | | Average a State h of a diffe | ghway agenc ghway agenc rent type with | e snall be use y substantiat approval of I | ed unless les the us FHWA. | Ð |
| Receiver Name | Ő | #DUs | Existing | No Barrie | Jë | ľ | | | | With Barrier | | | |
| P | | | LAeq1h | LAeg1h | | | ncrease over | r existina | Tvpe | Calculated | Noise Reduc | ction | |
| | | | | Calculate | ed Crit' | с . | alculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | dBA | σ | в | đB | | dBA | 昭 | Вb | đB |
| Rutledge 1 | - | | 0 | 0. | 52.6 | 99 | 62.(| 10 | Ĭ | 60.7 | 1.0 | • | -6. |
| Rutledge 2 | 2 | | | 0. | 36.7 | 99 | 66.7 | 7 10 | Snd Lvl | 62.6 | 4.1 | | α Υ |
| Rutledge 3 | ũ | | 0 | 0. | 35.2 | 99 | 65.2 | 10 | Î | 9.09 | 3.4.6 | 6 | 8 |
| Rutledge 4 | 4 | | 5 | 0. | 33.7 | 99 | 63.7 | 7 10 | | 59.1 | 4.6 | 0 | 8 |
| Rutledge 5 | 5 | | - | 0. | 32.1 | 99 | 62. | 10 | 1 | 57.5 | 4.6 | 0 | 8 |
| Rutledge 6 | 9 | | - | 0. | 61.1 | 99 | 61. | 1 | 1 | 56.7 | 4.4 | ** | 8 -3. |
| Rutledge 7 | 7 | | - | 0. | 90.6 | 99 | 60.6 | 10 | | 56.1 | 4.5 | 10 | 8 |
| Rutledge 8 | 8 | ~ | 0 | 0. | 30.2 | 99 | 60.2 | 2 10 | 1 | 55.7 | 4.5 | 10 | 8 |
| Rutledge 9 | 0 | | - | 0. | 59.1 | 66 | 59. | 1 10 | ľ | 54.9 | 4.2 | 0 | -3. |
| Rutledge 10 | 10 | | - | 0. | 59.8 | 99 | 59.8 | 3 10 | Ì | 55.4 | 4.4 | + | -3. |
| Rutledge 11 | 11 | | - | 0. | 58.7 | 99 | 58.7 | 7 10 | Î | 54.5 | 4.2 | 0 | စ |
| Rutledge 12 | 12 | | 0 | 0. | 57.8 | 66 | 57.8 | 10 | | 53.8 | 4.0 | 0 | 8 -4. |
| Crowley 1 | 13 | | 0 | 0. | 57.3 | 66 | 24.0 | 3 10 | | 53.3 | 4.0 | 0 | 8 -4. |
| Crowley 2 | 14 | • | 0 | 0. | 59.5 | 66 | 59.6 | 10 | 1 | 55.C | 4.5 | 10 | 8 |
| Crowley 3 | 15 | | 0 | 0. | 53.8 | 99 | 63.6 | 10 | | 57.6 | 6.2 | 01 | 8 |
| Crowley 4 | 16 | | - | 0. | 71.6 | 66 | 71.(| 3 10 | Snd Lvl | 62.3 | 6.9 | ~ | 8 |
| Crowley 5 | 17 | | 0 | 0. | 75.2 | 99 | 75.2 | 2 10 | Snd Lvl | 62.5 | 12.7 | ~ | 8 4. |
| Crowley 6 | 18 | | 0 | 0. | 75.8 | 66 | 75.8 | 3 10 | Snd Lvl | 62.8 | 13.0 | 0 | 8 5. |
| Crowley 7 | 19 | | 0 | 0. | 75.8 | 66 | 75.8 | 3 10 | Snd Lvl | 63.1 | 12.7 | ~ | 8 |
| Crowley 8 | 20 | | 0 | 0. | 76.0 | 66 | 76.(| 10 10 | Snd Lvl | 62.8 | 13.2 | 01 | 8 |
| Crowley 9 | 21 | Ţ | - | 0. | 76.0 | 66 | 76.(| 10 | Snd Lvl | 62.6 | 13.4 | t | 8 5. |
| Crowley 10 | 22 | ~ | 0 | 0. | 76.4 | 66 | 76.4 | 10 | Snd Lvl | 62.5 | 13.5 | • | 8 |
| Crowley 11 | 23 | - | 0 | 0. | 76.5 | 99 | 76.5 | 10 | Snd Lvl | 62.5 | 14.0 | 0 | 8 6.(|
| C:\TNM25\230168\Seg 3\8 + 4\NSA | E GM | | | | | | - | | | | 12 M | ay 2015 | |

| RESULTS: SOUND LEVELS | | | | | | - 4 | BtU PD8 | RE See | | | | |
|-----------------------------------|----|---|-----|------|----|------------|---------|--------------|------|-----------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.2 | 99 | 76.2 | 10 | Snd Lvl | 62.3 | 13.9 | 80 | 5.9 |
| Crowley 13 | 25 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 61.8 | 12.5 | ω | 4.5 |
| Crowley 14 | 26 | - | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 61.7 | 11.2 | 80 | 3.2 |
| Crowley 15 | 27 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lv1 | 61.6 | 10.9 | 80 | 2.9 |
| Crowley 16 | 28 | - | 0.0 | 58.7 | 66 | 58.7 | 10 |] | 54.6 | 4.1 | œ | -3.9 |
| Crowley 17 | 29 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | 1 | 55.8 | 4.9 | 80 | -3.1 |
| Crowley 18 | 30 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | I | 56.8 | 6.8 | 80 | -1.2 |
| Crowley 19 | 31 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | E | 57.4 | 8.4 | œ | 0.4 |
| Crowley 37 | 32 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | 1 | 55.7 | 6.2 | 80 | -1.8 |
| Crowley 38 | 33 | ſ | 0.0 | 59.5 | 66 | 59.5 | 10 | 1 | 54.1 | 5.4 | œ | -2.6 |
| Crowley 39 | 34 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | - | 53.3 | 5.1 | œ | -2.9 |
| Crowley 40 | 35 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | 1 | 53.0 | 5.2 | 80 | -2.8 |
| Crowley 20 | 36 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | and a second | 57.4 | 8.2 | ∞ | 0.2 |
| Crowley 21 | 37 | - | 0.0 | 64.5 | 66 | 64.5 | 10 | 1 | 56.9 | 7.6 | 80 | -0.4 |
| Crowley 41 | 38 | - | 0.0 | 62.8 | 66 | 62.8 | 10 | I | 55.8 | 7.0 | 80 | -1.0 |
| Crowley 42 | 39 | - | 0.0 | 62.3 | 66 | 62.3 | 10 | | 55.4 | 6.9 | 80 | -1.1 |
| Crowley 22 | 40 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | I | 56.6 | 7.0 | 80 | -1.0 |
| Crowley 23 | 41 | ÷ | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 53.9 | 5.4 | 80 | -2.6 |
| Crowley 24 | 42 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | - | 53.4 | 5.0 | 8 | -3.0 |
| Crowley 25 | 43 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | 1 | 53.2 | 5.0 | ø | -3.0 |
| Crowley 26 | 44 | + | 0.0 | 62.5 | 99 | 62.5 | 10 | 1 | 56.1 | 6.4 | 80 | -1.6 |
| Crowley 27 | 45 | + | 0.0 | 60.8 | 66 | 60.8 | 10 | ł | 55.4 | 5.4 | 80 | -2.6 |
| Crowley 28 | 46 | + | 0.0 | 59.6 | 66 | 59.6 | 10 | I | 54.5 | 5.1 | 8 | -2.9 |
| Crowley 29 | 47 | ÷ | 0.0 | 56.8 | 66 | 56.8 | 10 | ł | 52.3 | 4.5 | 8 | -3.5 |
| Crowley 30 | 48 | + | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 61.8 | 11.6 | 8 | 3.6 |
| Crowley 31 | 49 | + | 0.0 | 71.0 | 99 | 71.0 | 10 | Snd Lvl | 60.8 | 10.2 | 80 | 2.2 |
| Crowley 32 | 50 | 1 | 0.0 | 69.2 | 66 | 69.2 | 10 | Snd Lvl | 60.1 | 9.1 | 80 | 1.1 |
| Crowley 33 | 51 | + | 0.0 | 67.0 | 66 | 67.0 | 10 | Snd Lvl | 59.1 | 7.9 | 8 | -0.1 |
| Crowley 34 | 52 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | 1 | 56.3 | 5.0 | 80 | -3.0 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | | 54.5 | 4.8 | 8 | -3.2 |
| Crowley 36 | 54 | - | 0.0 | 57.2 | 66 | 57.2 | 10 | I | 53.0 | 4.2 | 8 | -3.8 |
| Long Pond 1 | 55 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | - | 52.4 | 3.6 | 8 | -4.4 |
| Long Pond 2 | 56 | - | 0.0 | 57.7 | 66 | 57.7 | 10 | I | 53.6 | 4.1 | 80 | -3.9 |
| Long Pond 3 | 57 | Ţ | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 55.2 | 4.7 | 8 | -3.3 |
| Long Pond 4 | 58 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | 1 | 57.2 | 5.7 | 8 | -2.3 |
| Long Pond 5 | 59 | ۲ | 0.0 | 66.4 | 66 | 66.4 | 10 | Snd Lvl | 59.3 | 7.1 | 80 | 6.0- |
| Long Pond 6 | 60 | - | 0.0 | 71.7 | 66 | 71.7 | 10 | Snd Lvl | 61.7 | 10.0 | 8 | 2.0 |
| Long Pond 7 | 61 | - | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 62.4 | 10.4 | 8 | 2.4 |
| Long Pond 8 | 62 | F | 0.0 | 73.1 | 66 | 73.1 | 10 | Snd Lvl | 62.7 | 10.4 | 8 | 2.4 |
| Long Pond 9 | 63 | - | 0.0 | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 62.9 | 10.7 | 80 | 2.7 |
| Long Pond 10 | 64 | - | 0.0 | 73.2 | 99 | 73.2 | 10 | Snd Lvl | 62.6 | 10.6 | æ | 2.6 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA E | GM | | | | | 2 | | | | 12 May 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | | - 4 | Btu PD | Ř | | | | |
|-----------------------|----|-------|-------------|------|------|--------|--------|---------|------|------|----|------|
| Long Pond 11 | 65 | - | 0.0 | 72.7 | 99 | 72.7 | 10 | Snd Lvl | 62.0 | 10.7 | 80 | 2.7 |
| Long Pond 12 | 99 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 61.8 | 10.7 | 80 | 2.7 |
| Long Pond 13 | 67 | - | 0.0 | 71.3 | 66 | 71.3 | 10 | Snd Lvl | 61.4 | 9.9 | 80 | 1.9 |
| Long Pond 14 | 68 | - | 0.0 | 71.0 | 99 | 71.0 | 10 | Snd Lvl | 61.3 | 9.7 | 80 | 1.7 |
| Long Pond 15 | 69 | - | 0.0 | 71.1 | 66 | 71.1 | 10 | Snd Lvl | 61.5 | 9.6 | 80 | 1.6 |
| Long Pond 16 | 20 | - | 0.0 | 71.2 | 66 | 71.2 | 10 | Snd Lvl | 61.6 | 9.6 | 80 | 1.6 |
| Long Pond 17 | 71 | - | 0.0 | 71.8 | 66 | 71.8 | 10 | Snd Lvl | 62.0 | 9.8 | œ | 1.8 |
| Long Pond 18 | 72 | - | 0.0 | 72.2 | 66 | 72.2 | 10 | Snd Lvl | 62.3 | 9.9 | 80 | 1.9 |
| Long Pond 19 | 73 | - | 0.0 | 71.6 | 66 | 71.6 | 10 | Snd Lvl | 62.3 | 9.3 | œ | 1.3 |
| Long Pond 20 | 74 | - | 0.0 | 70.9 | 99 | 70.9 | 10 | Snd Lvl | 62.2 | 8.7 | œ | 0.7 |
| Long Pond 21 | 75 | - | 0.0 | 70.5 | 66 | 70.5 | 10 | Snd Lvl | 63.0 | 7.5 | 80 | -0.5 |
| Long Pond 22 | 76 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 64.4 | 6.6 | 80 | -1.4 |
| Chardonnay 1 | 77 | - | 0.0 | 61.1 | 99 | 61.1 | 10 | 1 | 57.0 | 4.1 | 80 | -3.9 |
| Chardonnay 2 | 78 | - | 0.0 | 62.6 | 99 | 62.6 | 10 | 1 | 58.3 | 4.3 | 80 | -3.7 |
| Chardonnay 3 | 79 | - | 0.0 | 65.5 | 99 | 65.5 | 10 | | 59.6 | 5.9 | 80 | -2.1 |
| Chardonnay 4 | 80 | - | 0.0 | 67.5 | 66 | 67.5 | 10 | Snd Lvl | 59.3 | 8.2 | 80 | 0.2 |
| Chardonnay 5 | 81 | - | 0.0 | 65.2 | 66 | 65.2 | 10 | 1 | 59.0 | 6.2 | 8 | -1.8 |
| Chardonnay 6 | 82 | - | 0.0 | 62.1 | 66 | 62.1 | 10 | - | 58.1 | 4.0 | 80 | -4.0 |
| Chardonnay 7 | 83 | - | 0.0 | 60.6 | 99 | 60.6 | 10 | 1 | 56.6 | 4.0 | 80 | -4.0 |
| Dunbrooke | 84 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | | 58.3 | 5.9 | 80 | -2.1 |
| Long Pond 23 | 85 | - | 0.0 | 61.0 | 99 | 61.0 | 10 | | 56.8 | 4.2 | 80 | -3.8 |
| Long Pond 24 | 86 | - | 0.0 | 60.7 | 99 | 60.7 | 10 | I | 56.9 | 3.8 | 80 | -4.2 |
| Long Pond 25 | 87 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | I | 55.9 | 4.3 | œ | -3.7 |
| Long Pond 26 | 88 | - | 0.0 | 60.2 | 99 | 60.2 | 10 | - | 56.2 | 4.0 | 80 | 4.0 |
| Long Pond 27 | 89 | - | 0.0 | 59.0 | 99 | 59.0 | 10 | 1 | 56.3 | 2.7 | 80 | -5.3 |
| Dwelling Units | # | DUs N | loise Reduc | tion | | | | | | | | |
| | | 2 | Nin A | 6/ | Max | | | | | | | |
| | | σ | B | m | 8 | | | | | | | |
| All Selected | | 89 | 1.9 | 7.2 | 14.0 | | | | | | | |
| All Impacted | | 36 | 4.1 | 10.4 | 14.0 | | | | | | | |
| All that meet NR Goal | | 33 | 8.2 | 10.8 | 14.0 | | | | | | | |
| | | | | | | | | | | | | |

12 May 2015

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| | | | | | - | -4 Btu PD& | ų | | | |
|---|-----------------------------|----------------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 12 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | I-4 BtU I-4 Seg GM 18 | J PD&E jment 3 NS | AEGM | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | 9r | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | Ĥ | ft | Ĥ | sq ft | cu yd | Ħ | ft:ft | ß |
| NSA E GM | 3 | 18.00 | 18.00 | 18.00 | 8024 | 144432 | | | | 4332947 |
| 14' existing | 3 | 14.00 | 14.00 | 14.00 | 1842 | 25786 | | | | 0 |
| | | | | | | | | | Total Cost: | 4332947 |

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU PI |)&E | | | | |
|---------------------------------|----------|-------------|---------|------------|--------|--------------|----------------------|--------------------------|------------------------------|---------------------------------|--------------------|-----------------------------|
| Stantec M. Drauer | | | | | | | 12 May 20 TNM 2.5 | 115 | | | | |
| RESULTS: SOUND LEVELS | | | | | | | Calculate | d with TNN | A 2.5 | | | |
| PROJECT/CONTRACT: | 14 | StU PD |)&E | | | | | | | | | |
| KUN: BARRIER DESIGN: | GM GM | oegme 18 | | M D L A | | | | Average | bavement type | e shall be use | ed unless | |
| ATMOSPHERICS: | 68. | deg F, | 50% RH | | | | | a state ni of a diffe | gnway agenc ent type with | y substantiati approval of F | es the us FHWA. | ò |
| Receiver | | | | | | | | | | | | |
| Name | No. #DU | ы С | kisting | No Barrier | | | | | With Barrier | | | |
| | | ב | Aeq1h | LAeq1h | | Increase ove | er existing | Type | Calculated | Noise Reduc | ction | |
| | | | | Calculated | Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculateo minus Goal |
| | | Ĥ | 3A | dBA | dBA | đB | Вb | | dBA | đB | đB | dB B |
| Rutledge 1 | - | - | 0.0 | 62.(| 9 | 36 62. | 6 10 | 1 | 60.7 | 1.9 | | 9 |
| Rutledge 2 | 2 | ~ | 0.0 | 66. | 7 6 | 66. | 7 10 | Snd Lvl | 62.8 | 3.9 | | 8 |
| Rutledge 3 | n | - | 0.0 | 65.2 | 2 6 | 65. | 2 10 | Î | 60.8 | 4.4 | | 8 |
| Rutledge 4 | 4 | - | 0.0 | 63. | 2 6 | 63. | .7 10 | Ì | 59.4 | 4.3 | | 8 |
| Rutledge 5 | 5 | - | 0.0 | 62. | 1 | 62. | 1.10 | 1 | 57.7 | 4.4 | | 80 |
| Rutledge 6 | 9 | - | 0.0 | 61. | 1 | 66 61. | .1 10 | 1 | 56.9 | 4.2 | | ې ∞ |
| Rutledge 7 | 2 | - | 0.0 | 60.6 | 9 | 60. | .6 10 | 1 | 56.3 | 4.3 | | ې ∞ |
| Rutledge 8 | 8 | - | 0.0 | 60.5 | 2 | 60. | 2 10 | 1 | 55.9 | 4.3 | | 8 |
| Rutledge 9 | 6 | - | 0.0 | 26. | 6 | 66 59. | 1 10 | 1 | 55.1 | 4.0 | | 7 8 |
| Rutledge 10 | 10 | - | 0.0 | 59.8 | 9 | 66 59. | 8 10 | Í | 55.6 | 4.2 | | ę۰ ∞ |
| Rutledge 11 | 1 | +- | 0.0 | 58. | 2 | 58. | 7 10 | l | 54.7 | 4.0 | | 8 |
| Rutledge 12 | 12 | - | 0.0 | 57.8 | 6 | 6 57. | 8 10 | Ĭ | 54.0 | 3.8 | | 7 |
| Crowley 1 | 13 | - | 0.0 | 57.3 | 9 | 6 57. | 3 10 | 1 | 53.5 | 3.8 | | 7 8 |
| Crowley 2 | 14 | - | 0.0 | 59.6 | 9 | 66 59. | 5 10 | 1 | 55.3 | 4.2 | | 8 |
| Crowley 3 | 15 | - | 0.0 | 63.6 | 3 6 | 66 63. | .8 | 1 | 58.0 | 5.8 | | 8 |
| Crowley 4 | 16 | - | 0.0 | 71.6 | 9 | 6 71. | 6 10 | Snd Lvl | 62.8 | 8.8 | | 8 |
| Crowley 5 | 17 | - | 0.0 | 75.2 | 0 | 6 75. | 2 10 | Snd Lvi | 63.2 | 12.0 | | 8 |
| Crowley 6 | 18 | - | 0.0 | 75.8 | 9 | 6 75. | 8 | Snd Lvl | 63.5 | 12.3 | | 8 |
| Crowley 7 | 19 | - | 0.0 | 75.8 | 6 | 6 75. | 8 10 | Snd Lvl | 63.9 | 11.9 | | 8 |
| Crowley 8 | 20 | | 0.0 | 76.(| 9 | 6 76. | 0 10 | Snd Lvl | 63.6 | 12.4 | | 8 |
| Crowley 9 | 21 | - | 0.0 | 76.(| 9 | 6 76. | 0 10 | Snd Lvl | 63.3 | 12.7 | | 8 |
| Crowley 10 | 22 | - | 0.0 | 76.4 | 4 | 6 76. | 4 10 | Snd Lvl | 63.3 | 13.1 | | 8 |
| Crowley 11 | 23 | - | 0.0 | 76.5 | 9 | 6 76. | 5 10 | Snd Lvl | 63.2 | 13.3 | | 80 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | E GM | | | | | - | | | | 12 M | av 2015 | |

| RESULTS: SOUND LEVELS | | | | | | 141 | Btu PD | с В | | | | |
|-----------------------------------|----|----|-----|------|----|------|--------|---------|------|------------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.2 | 66 | 76.2 | 10 | Snd Lvl | 63.0 | 13.2 | 80 | 5.2 |
| Crowley 13 | 25 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 62.4 | 11.9 | œ | 3.9 |
| Crowley 14 | 26 | - | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 62.2 | 10.7 | ø | 2.7 |
| Crowley 15 | 27 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 62.1 | 10.4 | 00 | 2.4 |
| Crowley 16 | 28 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | I | 54.9 | 3.8 | 80 | -4.2 |
| Crowley 17 | 29 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | ţ | 56.2 | 4.5 | 80 | -3.5 |
| Crowley 18 | 30 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | l | 57.1 | 6.5 | 80 | -1.5 |
| Crowley 19 | 31 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | ł | 57.9 | 7.9 | ø | -0.1 |
| Crowley 37 | 32 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | 1 | 56.0 | 5.9 | 80 | -2.1 |
| Crowley 38 | 33 | *- | 0.0 | 59.5 | 66 | 59.5 | 10 | | 54.4 | 5.1 | œ | -2.9 |
| Crowley 39 | 34 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | ļ | 53.6 | 4.8 | 80 | -3.2 |
| Crowley 40 | 35 | 1 | 0.0 | 58.2 | 66 | 58.2 | 10 | 1 | 53.3 | 4.9 | 80 | -3.1 |
| Crowley 20 | 36 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | ſ | 57.9 | 7.7 | 80 | -0.3 |
| Crowley 21 | 37 | - | 0.0 | 64.5 | 66 | 64.5 | 10 | Same C | 57.3 | 7.2 | œ | -0.8 |
| Crowley 41 | 38 | - | 0.0 | 62.8 | 66 | 62.8 | 10 | 1 | 56.1 | 6.7 | œ | -1.3 |
| Crowley 42 | 39 | - | 0.0 | 62.3 | 66 | 62.3 | 10 | 1 | 55.8 | 6.5 | 80 | -1.5 |
| Crowley 22 | 40 | 4- | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 57.0 | 6.6 | 80 | -1.4 |
| Crowley 23 | 41 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | | 54.3 | 5.0 | 80 | -3.0 |
| Crowley 24 | 42 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | 1 | 53.7 | 4.7 | 80 | -3.3 |
| Crowley 25 | 43 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | ſ | 53.5 | 4.7 | 80 | -3.3 |
| Crowley 26 | 44 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | É | 56.5 | 6.0 | 80 | -2.0 |
| Crowley 27 | 45 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | j. | 55.8 | 5.0 | 80 | -3.0 |
| Crowley 28 | 46 | - | 0.0 | 59.6 | 66 | 59.6 | 10 | 1 | 54.9 | 4.7 | 8 | -3.3 |
| Crowley 29 | 47 | - | 0.0 | 56.8 | 66 | 56.8 | 10 | 1 | 52.6 | 4.2 | œ | -3.8 |
| Crowley 30 | 48 | - | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 62.4 | 11.0 | 8 | 3.0 |
| Crowley 31 | 49 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 61.4 | 9.6 | 8 | 1.6 |
| Crowley 32 | 50 | - | 0.0 | 69.2 | 66 | 69.2 | 10 | Snd Lví | 60.6 | 8.6 | 00 | 0.0 |
| Crowley 33 | 51 | - | 0.0 | 67.0 | 66 | 67.0 | 10 | Snd Lvl | 59.6 | 7.4 | ŝ | -0.6 |
| Crowley 34 | 52 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | I | 56.7 | 4.6 | 80 | -3.4 |
| Crowley 35 | 53 | + | 0.0 | 59.3 | 66 | 59.3 | 10 | I | 54.9 | 4.4 | ω | -3.6 |
| Crowley 36 | 54 | - | 0.0 | 57.2 | 66 | 57.2 | 10 | I | 53.3 | 3.9 | ω | -4.1 |
| Long Pond 1 | 55 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | 1 | 52.7 | 3.3 | ω | -4.7 |
| Long Pond 2 | 56 | - | 0.0 | 57.7 | 66 | 57.7 | 10 | 1 | 53.9 | 3.8 | 80 | -4.2 |
| Long Pond 3 | 57 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 55.4 | 4.5 | ω | -3.5 |
| Long Pond 4 | 58 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | 1 | 57.6 | 5.3 | 80 | -2.7 |
| Long Pond 5 | 59 | ۲ | 0.0 | 66.4 | 66 | 66.4 | 10 | Snd Lvl | 59.8 | 6.6 | 80 | -1.4 |
| Long Pond 6 | 60 | - | 0.0 | 71.7 | 66 | 71.7 | 10 | Snd Lvl | 62.3 | 9.4 | 80 | 1.4 |
| Long Pond 7 | 61 | - | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 63.2 | 9.6 | 80 | 1.6 |
| Long Pond 8 | 62 | - | 0.0 | 73.1 | 66 | 73.1 | 10 | Snd Lvl | 63.4 | 9.7 | ø | 1.7 |
| Long Pond 9 | 63 | - | 0.0 | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 63.6 | 10.0 | ω | 2.0 |
| Long Pond 10 | 64 | - | 0.0 | 73.2 | 99 | 73.2 | 10 | Snd Lvl | 63.4 | 9.8 | 80 | 1.8 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA E | GM | | | | | | | | | 12 May 201 | 2 | |

| RESULTS: SOUND LEVELS | | | | | | I-4 B | tU PD& | ų | | | | |
|-----------------------|-----|----------|---------|----------|-----|-------|--------|---------|------|------|----|------|
| Long Pond 11 | 65 | 1 0.0 | 72 | 7.7 | 66 | 72.7 | 10 | Snd Lvl | 62.7 | 10.0 | 80 | 2.0 |
| Long Pond 12 | 66 | 1 0.0 | 1 72 | 5 | 66 | 72.5 | 10 | Snd Lvl | 62.4 | 10.1 | 80 | 2.1 |
| Long Pond 13 | 67 | 1 0.0 | 71 | uj | 66 | 71.3 | 10 | Snd Lvl | 61.9 | 9.4 | 80 | 1.4 |
| Long Pond 14 | 68 | 1 0.0 | 11 | 0. | 66 | 71.0 | 10 | Snd Lvl | 61.8 | 9.2 | 80 | 1.2 |
| Long Pond 15 | 69 | 1 0.0 | 11 11 | ₹. | 66 | 71.1 | 10 | Snd Lvl | 62.0 | 9.1 | 80 | 1.1 |
| Long Pond 16 | 70 | 1 0.0 | 71 | 2 | 66 | 71.2 | 10 | Snd Lvl | 62.1 | 9.1 | 80 | 1.1 |
| Long Pond 17 | 71 | 1 0.0 | 71 | αġ | 66 | 71.8 | 10 | Snd Lvl | 62.5 | 9.3 | 80 | 1.3 |
| Long Pond 18 | 72 | 1 0.0 | 72 | 2 | 66 | 72.2 | 10 | Snd Lvl | 62.8 | 9.4 | 80 | 1.4 |
| Long Pond 19 | 73 | 1 0.0 | 71 | 9. | 66 | 71.6 | 10 | Snd Lvl | 62.8 | 8.8 | 80 | 0.8 |
| Long Pond 20 | 74 | 1 0.0 | 1 70 | 6.9 | 66 | 70.9 | 10 | Snd Lvl | 62.7 | 8.2 | 80 | 0.2 |
| Long Pond 21 | 75 | 1 0.0 | 1 70 | .5 | 66 | 70.5 | 10 | Snd Lvl | 63.3 | 7.2 | 8 | -0.8 |
| Long Pond 22 | 76 | 1 0.0 | 71 | O. | 66 | 71.0 | 6 | Snd Lvl | 64.6 | 6.4 | 80 | -1.6 |
| Chardonnay 1 | 77 | 1 0.0 | 61 | ₹. | 66 | 61.1 | 10 | ſ | 57.1 | 4.0 | 80 | -4.0 |
| Chardonnay 2 | 78 | 1 0.0 | 62 | 9. | 66 | 62.6 | 9 | I | 58.4 | 4.2 | 80 | -3.8 |
| Chardonnay 3 | 79 | 1 0.0 | 65 | .5 | 66 | 65.5 | 6 | ļ | 59.9 | 5.6 | 00 | -2.4 |
| Chardonnay 4 | 80 | 1 0.0 | 67 | 5 | 66 | 67.5 | 10 | Snd Lvl | 59.4 | 8.1 | ø | 0.1 |
| Chardonnay 5 | 81 | 1 0.0 | 65 | 2 | 66 | 65.2 | 10 | A. | 59.0 | 6.2 | 80 | -1.8 |
| Chardonnay 6 | 82 | 1 0.(| 62 | • | 66 | 62.1 | 6 | | 58.2 | 3.9 | œ | -4.1 |
| Chardonnay 7 | 83 | 1 0.0 | 9 60 | .6 | 66 | 60.6 | 6 | 1 | 56.6 | 4.0 | ø | -4.0 |
| Dunbrooke | 84 | 1 0.0 | 64 | 2 | 66 | 64.2 | 6 | ţ | 58.3 | 5.9 | 80 | -2.1 |
| Long Pond 23 | 85 | 1 0.0 | 61 | 0. | 66 | 61.0 | 10 | I | 56.9 | 4.1 | 00 | -3.9 |
| Long Pond 24 | 86 | 1 0.0 | 9 60 | .7 | 66 | 60.7 | 6 | I | 57.2 | 3.5 | ø | -4.5 |
| Long Pond 25 | 87 | 1 0.0 | 9 60 | 2 | 66 | 60.2 | 6 | I | 56.3 | 3.9 | ω | 4.1 |
| Long Pond 26 | 88 | 1 0.0 | 900 | Ċİ. | 66 | 60.2 | 10 | 1 | 56.6 | 3.6 | ω | -4.4 |
| Long Pond 27 | 89 | 1 0.0 | 26 | 0. | 66 | 59.0 | 10 | 1 | 56.7 | 2.3 | 80 | -5.7 |
| Dwelling Units | nd# | Noise Re | duction | | 1 | | | | | | | |
| | | Min | Avg | Max | | | | | | | | |
| | | đB | đB | đB | | | | | | | | |
| All Selected | 8 | 9 1.9 | 9 | 1 | 3.3 | | | | | | | |
| All Impacted | e | 6 3.9 | 6 | .8 | 3.3 | | | | | | | |
| All that meet NR Goal | 3 | 1 8. | 10 | .4 | 3.3 | | | | | | | |

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12 May 2015

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD& | ш | | | |
|--------------------------------------|---------|------------|------------|-----------|--------|------------|---------|--------------|-------------|---------|
| Stantec | | | | 12 May 20 | 15 | | | | | |
| M. Drauer | | | | TNM 2.5 | | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Btl | U PD&E | | | | | | | | |
| RUN: | I-4 Se | gment 3 NS | A E GM | | | | | | | |
| BARRIER DESIGN: | GM 10 | 6 | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | L | Length | If Wall | lf Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ¥ | ft | ft | ft | sq ft | cu yd | ft | ft:ft | S |
| NSA E GM | > | 16.00 | 16.00 | 16.00 | 8024 | 128384 | | | | 3851508 |
| 14' existing | > | 14.00 | 14.00 | 14.00 | 1842 | 25786 | | | | 0 |
| | | | | | | | | | Total Cost: | 3851508 |
| | | | | | | | | | | |

| Sume: In the interval of th | RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU P | D&E | | | | |
|---|---|--------------|-----------------------|-------------------|--------|------|-------|-------------|---------------------|------------------------------------|--|------------------------------|-------------------------|-----------------------------|
| Contractions Contractions Contractions READIFICIONTACT: EXAM: EXAM: EXAM: EXAM: EXAM: EXAM: EXAM: Assignation for fully and for examinations with approval of for examinations with approvaly and for | Stantec M. Drauer | | | | | | | | 12 May 2 TNM 2.5 | 015 | | | | - |
| KINOSPHERICS:Set deg F, 50%, RHAnd fifterent type with septoral of FIMA.ReceiverAnAnAnAnReceiverAnAnAnAnAnAnneAnAnAnAnAnAnAnne< | RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | <u>4</u> 4 2 | BtU F Segn A 16 | PD&E nent 3 NS | AEGM | | | | Calculate | ed with IN Average a State I | M 2.5 pavement typ nighwav ageno | oe shall be us substantia | sed unles ates the u | |
| Receiver No. Fishing Fishing Nervaluated Calculated Noise Feduction Control Name No. No. Marth LAarth Increase over existing Type Calculated Noise Feduction Calculated Calculated Calculated Calculated Noise Feduction Calculated | ATMOSPHERICS: | 68 | deg | F, 50% RI | Ŧ | | | | | of a diff | erent type with | n approval of | F FHWA. | |
| | Receiver Name | Ue. Wo | sD | Existing | No Bai | rier | | | | | With Barrie | | | |
| Image Catualised Catualised Catualised Catualised Catualised Catualised Catualised Catualised Control C | | | | LAeq1h | LAeq1 | _ | | Increase ov | er existing | Type | Calculated | Noise Red | uction | - |
| dBA dBA <thd>dBA dBA dBA<!--</th--><th></th><th></th><th></th><th></th><th>Calcul</th><th>ated</th><th>rit'n</th><th>Calculated</th><th>Crit'n Sub'l Inc</th><th>Impact</th><th>LAeq1h</th><th>Calculated</th><th>Goal</th><th>Calculated minus Goal</th></thd> | | | | | Calcul | ated | rit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| Rutledge 1 1 1 0 62.6 66 62.6 10 60.8 1.8 8 -6.2 Rutledge 2 2 1 0.0 66.7 66 65.7 10 50.6 61.1 4.1 8 -4.3 Rutledge 5 5 1 0.0 65.7 66 65.7 10 57.9 4.1 8 -3.9 Rutledge 5 6 6 6.1 10 57.9 4.1 8 -3.9 Rutledge 10 10 0 61.1 66 60.1 10 57.9 4.1 8 -3.9 Rutledge 10 11 1 0.0 60.2 66 69.1 55.3 3.8 3.9 Rutledge 10 11 1 0.0 59.1 66 59.1 56.3 3.8 <td< td=""><td></td><td></td><td></td><td>dBA</td><td>dBA</td><td>σ</td><td>BA</td><td>đB</td><td>æ</td><td></td><td>dBA</td><td>岛</td><td>æ</td><td>dB</td></td<> | | | | dBA | dBA | σ | BA | đB | æ | | dBA | 岛 | æ | dB |
| Rutledge 2 1 0.0 66.7 66 66.2 10 5nd 83 37 8 4.3 Rutledge 5 1 0.0 66.2 66 65.2 10 61.1 4.1 8 -33 Rutledge 5 1 0.0 65.7 66 65.1 10 57.9 4.1 8 -33 Rutledge 6 1 0.0 65.1 66 61.1 10 57.9 4.1 8 -33 Rutledge 7 1 0.0 60.1 66 59.1 10 55.5 4.1 8 -33 Rutledge 1 1 0.0 59.1 66 59.1 10 55.5 4.1 8 -33 Rutledge 1 1 0.0 59.8 66 59.1 0 55.5 4.1 8 55.5 </td <td>Rutledae 1</td> <td>F</td> <td>~</td> <td>0.0</td> <td>0</td> <td>62.6</td> <td>ğ</td> <td>62</td> <td>.6</td> <td> </td> <td>60.</td> <td>8</td> <td>80.</td> <td>8</td> | Rutledae 1 | F | ~ | 0.0 | 0 | 62.6 | ğ | 62 | .6 | | 60. | 8 | 80. | 8 |
| Rutedge3 3 1 0.0 65.2 66 61.1 | Rutledge 2 | 0 | - | 0. | 0 | 66.7 | 90 | 99 | 1 1 | 0 Snd Lv | 1 63. | 3 | 5.7 | 8 |
| Rutledge 4 4 1 0.0 63.7 66 63.7 10 57.9 4.1 8 -33 Rutledge 5 5 1 0.0 62.1 66 61.1 10 57.9 4.1 8 -33 Rutledge 6 6 6 66 66 66 66 66 4.1 8 -33 Rutledge 8 8 1 0.0 60.2 66 66 56.1 4.1 8 -33 Rutledge 1 1 1 0.0 59.1 66 59.1 10 56.3 4.1 8 -33 Rutledge 1 1 1 0.0 59.1 66 57.3 10 56.3 3.1 8 -4.3 Rutledge 12 11 1 0.0 59.3 66 57.3 10 56.3 3.1 8 -4.3 Rutledge 12 1 1< | Rutledge 3 | ñ | - | ö | 0 | 65.2 | 9 | 65 | 1 | | 61. | 4 | - | 8 |
| Rutledge 5 5 1 0.0 62.1 66 62.1 10 57.0 4.2 8 -33 Rutledge 6 6 1 0.0 60.1 10 55.3 4.1 8 -33 Rutledge 7 8 7 0 60.0 66.0 60.1 10 55.3 4.1 8 -33 Rutledge 7 9 7 0 60.0 69.1 60.1 55.3 4.1 8 -33 Rutledge 10 11 1 0.0 59.1 66 59.1 10 55.3 3.8 8 -4.2 Rutledge 11 11 1 0.0 59.3 66 57.3 10 55.3 3.8 8 -4.2 Rutledge 11 11 1 0.0 57.3 66 57.3 10 55.3 3.6 8 -4.2 Rutledge 11 | Rutledge 4 | 4 | - | 0 | 0 | 63.7 | 90 | 5 63 | 1 | 0 | 59. | 6 | ÷ | 8 |
| Rutledge 6 1 0.0 61.1 66 61.1 10 $$ 57.0 4.1 8 -3.3 Rutledge 7 7 1 0.0 60.6 60.6 60.6 10 $$ 56.5 4.1 8 -3.3 Rutledge 1 1 1 0.0 59.1 66 55.3 3.8 8 -3.3 Rutledge 10 1 1 0.0 59.8 66 57.8 10 $$ 55.3 3.8 8 -3.3 Rutledge 11 1 10 0.0 57.8 66 57.8 10 $$ 54.3 3.8 8 -4.2 Rutledge 12 13 1 0.0 57.8 66 57.3 10 $$ 54.3 3.5 8 -4.2 Cowley 1 1 1 0.0 57.3 66 57.3 10 $$ 55.4 40 8 -4.2 | Rutledge 5 | 5 | - | ö | 0 | 62.1 | 9 | 5 62 | - | 0 | 57. | 9 | H.2 | 8 |
| Rutledge 7 7 1 0.0 60.6 60.6 10 56.5 4.1 8 3.3 Rutledge 8 8 1 0.0 60.2 66 59.1 10 56.1 4.1 8 3.3 Rutledge 9 1 0.0 59.1 66 59.3 10 56.3 3.8 8 3 Rutledge 10 11 1 0.0 59.8 66 57.3 10 56.3 3.8 8 4.0 Rutledge 11 13 1 0.0 59.8 66 57.3 10 54.3 3.8 8 4.0 Rutledge 12 13 1 0.0 57.3 66 57.3 10 56.4 3.8 8 4.0 Rutledge 12 1 1 0.0 57.3 66 57.3 10 57.4 9 -4.0 Cowiey 2< | Rutledge 6 | Ģ | - | õ | 0 | 61.1 | 9 | 61 | £. | | 57. | 0 | | 8 |
| Rutledge 8 8 1 0.0 60.2 66 59.1 10 56.1 4.1 8 3.3 Rutledge 9 9 1 0.0 59.1 66 59.1 10 55.3 3.8 8 -42 Rutledge 10 11 1 0.0 59.8 66 59.7 10 55.8 4.0 8 -42 Rutledge 11 11 1 0.0 57.8 66 57.3 10 55.8 8 -42 Rutledge 12 13 1 0.0 57.8 66 57.3 10 55.4 8 -45 Condey 1 1 0.0 57.8 66 57.3 10 55.5 4.0 8 -45 Condey 1 1 0.0 57.8 66 57.3 10 55.5 4.0 8 -26 Condey 3 1 | Rutledge 7 | 7 | - | ō | 0 | 60.6 | 90 | 60 | 1.6 | | 56. | 5 4 | 1.1 | -3. |
| Rutledge 1 0 1 0.0 59.1 66 59.1 10 55.3 3.8 8 -4.2 Rutledge 10 10 1 0.0 59.8 66 59.8 10 55.8 4.0 8 -4.0 Rutledge 11 1 0.0 58.7 66 58.7 10 54.3 3.5 8 -4.0 Rutledge 12 12 1 0.0 57.8 66 57.8 10 54.3 3.5 8 -4.0 Rutledge 12 13 1 0.0 57.8 66 57.8 10 54.3 3.5 8 -4.0 Cowley 1 1 1 0.0 57.8 66 57.8 10 55.7 3.6 8 -2.6 Cowley 3 1 10 56.5 10 56.7 10 56.7 10 2.6 <td>Rutledge 8</td> <td>œ</td> <td>-</td> <td>ō</td> <td>0</td> <td>60.2</td> <td>Ö</td> <td>60</td> <td>1.2</td> <td> </td> <td>56.</td> <td>1</td> <td></td> <td>8</td> | Rutledge 8 | œ | - | ō | 0 | 60.2 | Ö | 60 | 1.2 | | 56. | 1 | | 8 |
| Rutledge 10 10 1 0.0 59.8 66 59.8 10 55.8 4.0 8 -4.0 Rutledge 11 11 1 0.0 58.7 66 58.7 10 54.9 38 8 -4 Rutledge 12 12 1 0.0 57.8 66 57.8 10 54.3 36 8 -4 Rutledge 12 13 1 0.0 57.8 66 57.3 10 54.3 36 8 -4 Convey 2 13 1 0.0 57.3 66 57.3 10 55.7 8 -4 Convey 3 15 1 0.0 53.5 66 57.3 10 55.5 40 8 -4 Convey 3 1 1 10 1 10 11 10 11 11 11 11 Convey 3 | Rutledge 9 | 0 | - | 0 | 0 | 59.1 | 9 | 59 | 1 | | 55. | 33 | 8.8 | 8 |
| Rutledge 11 11 1 0.0 58.7 66 58.7 10 54.9 3.8 8 -4.2 Rutledge 12 12 1 0.0 57.8 66 57.8 10 54.3 3.5 8 -4.4 Cowley 1 13 1 0.0 57.3 66 57.3 10 53.7 3.6 8 -4.4 Cowley 1 13 1 0.0 57.3 66 57.3 10 53.7 3.6 8 -4.4 Cowley 2 14 1 0.0 53.8 66 57.3 10 53.7 3.6 8 -4.4 Cowley 3 16 1 0.0 71.6 66 71.6 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.3 67.4 67.3 <t< td=""><td>Rutledge 10</td><td>10</td><td>-</td><td>ō</td><td>0</td><td>59.8</td><td>Ö</td><td>59</td><td>1.8</td><td> </td><td>55.</td><td>8</td><td>0.1</td><td>8</td></t<> | Rutledge 10 | 10 | - | ō | 0 | 59.8 | Ö | 59 | 1.8 | | 55. | 8 | 0.1 | 8 |
| Rutledge 12 12 1 0.0 57.8 66 57.8 10 54.3 3.5 8 4.4 Crowley 1 13 1 0.0 57.3 66 57.3 10 53.7 3.6 8 -4.4 Crowley 1 1 10 0.0 59.5 66 59.5 10 55.5 4.0 8 -4.0 Crowley 2 15 1 0.0 59.5 66 53.8 10 55.5 4.0 8 -4.0 Crowley 3 15 1 0.0 51.6 63.8 10 55.4 8.3 8 26 Crowley 4 1 1 0.0 71.6 66 71.6 10 11.2 8 -4.0 Crowley 6 17 1 0 75.2 66 75.5 10 64.1 11.5 8 3.5 Crowley 7 < | Rutledge 11 | 5 | - | Ö | 0 | 58.7 | 9 | 58 | 1 | | 54. | 6 | 3.8 | 8 |
| Crowley 1 13 1 0.0 57.3 66 57.3 10 53.7 3.6 8 -4.4 Crowley 2 14 1 0.0 59.5 66 59.5 10 55.5 4.0 8 -4.0 Crowley 3 15 1 0.0 59.5 66 59.5 10 55.5 4.0 8 -4.0 Crowley 3 15 1 0.0 63.8 66 53.8 10 55.5 4.0 8 -2.6 Crowley 4 1 0.0 71.6 66 71.6 10 83.3 8.3 9.3 Crowley 5 17 1 0.0 75.2 66 75.6 10 84.3 11.2 8 -3.5 Crowley 6 18 75.8 66 75.8 10 SndLvl 64.3 11.1 8 3.3 Crowley 7 11 10 75.8 | Rutledge 12 | 12 | - | ö | 0 | 57.8 | 9 | 3 57 | 1.8 | | 54. | 3 | 3.5 | 8 |
| Crowley 2 14 1 0.0 59.5 66 59.5 10 55.5 4.0 8 -4.0 Crowley 3 15 1 0.0 63.8 66 63.8 10 58.4 5.4 8 -2.6 Crowley 3 16 1 0.0 71.6 66 71.6 10 Snd Lvi 63.3 8.3 8 -2.6 Crowley 5 17 1 0.0 71.6 66 71.6 10 Snd Lvi 63.3 8.3 8 -2.6 Crowley 5 17 1 0.0 75.2 66 75.6 10 Snd Lvi 64.0 11.2 8 -3.5 Crowley 6 75.8 66 75.8 10 Snd Lvi 64.0 11.1 8 -3.5 Crowley 7 19 10 75.8 10 Snd Lvi 64.3 11.1 8 -3.5 Crowley 8 2 10 | Crowley 1 | 13 | - | ö | 0 | 57.3 | 9 | 5 57 | .3 | | 53. | 7 3 | 3.6 | 8 |
| Crowley 3 15 1 0.0 63.8 66 63.8 10 58.4 5.4 8 2 Crowley 4 16 1 0.0 71.6 66 71.6 10 Snd Lvl 63.3 8.3 8 0.3 Crowley 5 17 1 0.0 75.6 66 75.2 10 Snd Lvl 64.0 11.2 8 3.3 Crowley 5 18 1 0.0 75.8 66 75.2 10 Snd Lvl 64.0 11.2 8 3.3 Crowley 5 19 1 0.0 75.8 66 75.8 10 Snd Lvl 64.7 11.1 8 3.3 Crowley 7 20 1 0.0 75.8 66 75.8 10 Snd Lvl 64.7 11.1 8 3.3 Crowley 8 2 76.0 10 76.0 10 Snd Lvl 64.4 11.6 8 3.3 <td>Crowley 2</td> <td>14</td> <td>-</td> <td>0</td> <td>0</td> <td>59.5</td> <td>Ö</td> <td>59</td> <td>1.5 1</td> <td>1</td> <td>55.</td> <td>5 4</td> <td>0.1</td> <td>8 -4.</td> | Crowley 2 | 14 | - | 0 | 0 | 59.5 | Ö | 59 | 1.5 1 | 1 | 55. | 5 4 | 0.1 | 8 -4. |
| Crowley 4 16 1 0.0 71.6 66 71.6 10 Sind Lvl 63.3 8.3 8.3 8 0.3 Crowley 5 17 1 0.0 75.2 66 75.2 10 Sind Lvl 64.0 11.2 8 3.3 Crowley 5 18 1 0.0 75.8 66 75.8 10 Sind Lvl 64.0 11.2 8 3.5 Crowley 7 19 1 0.0 75.8 66 75.8 10 Sind Lvl 64.3 11.1 8 3.5 Crowley 7 20 1 0.0 75.8 66 75.8 10 Sind Lvl 64.7 11.1 8 3.5 Crowley 8 21 1 0.0 76.0 66 76.0 10 Sind Lvl 64.4 11.6 8 3.6 Crowley 9 2 10 56.0 10 56.1 10 56.1 11.6 11.1 | Crowley 3 | 15 | - | Ö | 0 | 63.8 | 9 | 63 | 1.8 | | 58. | 4 | 5.4 | 8 -2. |
| Crowley 5 17 1 0.0 75.2 66 75.2 10 Snd Lvl 64.0 11.2 8 3.2 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 64.0 11.5 8 3.3 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 3.3 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 64.1 11.1 8 3.3 Crowley 8 20 76.0 66 75.8 10 Snd Lvl 64.4 11.6 8 3.3 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.1 11.6 8 3.3 Crowley 9 22 1 0.0 76.4 66 76.0 10 Snd Lvl 64.1 11.6 8 3.3 | Crowley 4 | 16 | - | ö | 0 | 71.6 | 9 | 5 71 | .6 | 0 Snd Ly | 1 63. | 3 | 3.3 | 8 0. |
| Crowley 6 18 1 0.0 75.8 66 75.8 10 Sulf 64.3 11.5 8 3.5 Crowley 7 19 1 0.0 75.8 66 75.8 10 Sulf 64.7 11.1 8 3.1 Crowley 8 20 7 75.8 66 75.8 10 Sulf wild 64.7 11.1 8 3.1 Crowley 8 20 76.0 66 76.0 10 Sulf wild 64.4 11.6 8 3.6 Crowley 9 21 1 0.0 76.0 66 76.0 10 Sulf wild 64.1 11.6 8 3.6 Crowley 9 22 1 0.0 76.5 66 76.4 10 Sulf wild 64.1 11.9 8 3.6 Crowley 10 22 1 0.0 76.5 66 76.5 10 Sulf wild 64.1 11.9 8 4.3 <tr< td=""><td>Crowley 5</td><td>17</td><td>-</td><td>ö</td><td>0</td><td>75.2</td><td>Ö</td><td>3 75</td><td>1.2</td><td>0 Snd L</td><td>1 64.</td><td>11</td><td>.2</td><td>8 3.</td></tr<> | Crowley 5 | 17 | - | ö | 0 | 75.2 | Ö | 3 75 | 1.2 | 0 Snd L | 1 64. | 11 | .2 | 8 3. |
| Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 64.7 11.1 8 3.1 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 64.7 11.1 8 3.1 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 64.4 11.6 8 3.6 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.1 11.9 8 3.6 Crowley 9 22 1 0.0 76.4 66 76.4 10 Snd Lvl 64.1 11.9 8 4.3 Crowley 10 22 1 0.0 76.5 66 76.5 10 Snd Lvl 64.1 12.3 8 4.3 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.1 12.4 | Crowley 6 | 92 | - | ö | 0 | 75.8 | 9 | 6 75 | 6.8 | 0 Snd Lv | i 64. | 11 | .5 | 3. |
| Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 64.4 11.6 8 3.6 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.4 11.6 8 3.6 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.1 11.9 8 3.9 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 64.1 12.3 8 4.3 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.1 12.3 8 4.3 | Crowley 7 | 19 | - | Ö | 0 | 75.8 | 9 | 6 75 | 1.8 | 0 Snd Lv | I 64. | 7 11 | F . | 3. |
| Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.1 11.9 8 3.9 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 64.1 11.9 8 3.9 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 64.1 12.3 8 4.3 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.1 12.4 8 4.4 | Crowley 8 | 20 | - | Ö | 0 | 76.0 | Ö | 3 76 | 0.0 | 0 Snd Lv | I 64. | 4 11 | 9.1 | Э. |
| Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 64.1 12.3 8 4.3 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.1 12.3 8 4.3 | Crowley 9 | 21 | - | 0. | 0 | 76.0 | 9 | 6 76 | 5.0 | 0 Snd Ly | i 64. | 11 | 6.1 | 8 3. |
| Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.1 12.4 8 4.4 | Crowley 10 | 22 | - | Ö | 0 | 76.4 | 9 | 6 76 | 6.4 | 0 Snd Ly | i 64. | 1 | 2.3 | 8 |
| | Crowley 11 | 23 | 1 | O | 0 | 76.5 | Ō | 6 76 | 5.5 | 0 Snd Ly | ri 64. | 12 | 2.4 | 8 |

| RESULTS: SOUND LEVELS | | | | | | 1-4 E | StU PD8 | Ë | | | | |
|-----------------------------------|----|--------------|-----|------|----|-------|---------|----------|------|-----------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.2 | 99 | 76.2 | 10 | Snd Lvl | 63.7 | 12.5 | 80 | 4.5 |
| Crowley 13 | 25 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 63.1 | 11.2 | œ | 3.2 |
| Crowley 14 | 26 | - | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 62.9 | 10.0 | 80 | 2.0 |
| Crowley 15 | 27 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 62.8 | 9.7 | ω | 1.7 |
| Crowley 16 | 28 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | 1 | 55.3 | 3.4 | 80 | -4.6 |
| Crowley 17 | 29 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | l | 56.6 | 4.1 | 80 | -3.9 |
| Crowley 18 | 30 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | Ē | 57.6 | 6.0 | 80 | -2.0 |
| Crowley 19 | 31 | - | 0.0 | 65.8 | 99 | 65.8 | 10 | l | 58.4 | 7.4 | ø | -0.6 |
| Crowley 37 | 32 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | - | 56.4 | 5.5 | œ | -2.5 |
| Crowley 38 | 33 | - | 0.0 | 59.5 | 66 | 59.5 | 10 | 1 | 54.8 | 4.7 | ω | -3.3 |
| Crowley 39 | 34 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | 1 | 54.0 | 4.4 | 80 | -3.6 |
| Crowley 40 | 35 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | 1 | 53.6 | 4.6 | 8 | -3.4 |
| Crowley 20 | 36 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | 1 | 58.4 | 7.2 | œ | -0.8 |
| Crowley 21 | 37 | - | 0.0 | 64.5 | 66 | 64.5 | 10 | l | 57.8 | 6.7 | 80 | -1.3 |
| Crowley 41 | 38 | - | 0.0 | 62.8 | 66 | 62.8 | 10 | H | 56.6 | 6.2 | 00 | -1.8 |
| Crowley 42 | 39 | - | 0.0 | 62.3 | 66 | 62.3 | 10 | ļ | 56.2 | 6.1 | œ | -1.9 |
| Crowley 22 | 40 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 57.5 | 6.1 | 80 | -1.9 |
| Crowley 23 | 41 | - | 0.0 | 59.3 | 99 | 59.3 | 10 | J | 54.7 | 4.6 | ø | -3.4 |
| Crowley 24 | 42 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | 1 | 54.1 | 4.3 | 80 | -3.7 |
| Crowley 25 | 43 | - | 0.0 | 58.2 | 99 | 58.2 | 10 | 1 | 53.9 | 4.3 | 80 | -3.7 |
| Crowley 26 | 44 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 56.9 | 5.6 | 8 | -2.4 |
| Crowley 27 | 45 | ~ | 0.0 | 60.8 | 66 | 60.8 | 10 | I | 56.3 | 4.5 | 8 | -3.5 |
| Crowley 28 | 46 | - | 0.0 | 59.6 | 66 | 59.6 | 10 | l | 55.3 | 4.3 | æ | -3.7 |
| Crowley 29 | 47 | - | 0.0 | 56.8 | 66 | 56.8 | 10 | 1 | 52.9 | 3.9 | 80 | -4.1 |
| Crowley 30 | 48 | - | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 63.1 | 10.3 | 80 | 2.3 |
| Crowley 31 | 49 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 62.1 | 8.9 | 80 | 0.9 |
| Crowley 32 | 50 | - | 0.0 | 69.2 | 66 | 69.2 | 10 | Snd Lvl | 61.3 | 7.9 | 80 | -0.1 |
| Crowley 33 | 51 | - | 0.0 | 67.0 | 66 | 67.0 | 10 | Snd Lvi | 60.1 | 6.9 | æ | -1.1 |
| Crowley 34 | 52 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | | 57.2 | 4.1 | 8 | -3.9 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | t | 55.2 | 4.1 | 80 | -3.9 |
| Crowley 36 | 54 | - | 0.0 | 57.2 | 66 | 57.2 | 10 | - | 53.6 | 3.6 | 80 | -4.4 |
| Long Pond 1 | 55 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | - | 52.9 | 3.1 | 80 | -4.9 |
| Long Pond 2 | 56 | - | 0.0 | 57.7 | 66 | 57.7 | 10 | 1 | 54.2 | 3.5 | œ | -4.5 |
| Long Pond 3 | 57 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | | 55.8 | 4.1 | 80 | -3.9 |
| Long Pond 4 | 58 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | | 58.0 | 4.9 | 8 | -3.1 |
| Long Pond 5 | 59 | - | 0.0 | 66.4 | 66 | 66.4 | 10 | Snd Lvl | 60.3 | 6.1 | 8 | -1.9 |
| Long Pond 6 | 60 | - | 0.0 | 71.7 | 66 | 71.7 | 10 | Snd Lvl | 63.2 | 8.5 | œ | 0.5 |
| Long Pond 7 | 61 | ، | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 63.9 | 8.9 | œ | 0.9 |
| Long Pond 8 | 62 | - | 0.0 | 73.1 | 66 | 73.1 | 10 | Snd Lvi | 64.1 | 9.0 | œ | 1.0 |
| Long Pond 9 | 63 | - | 0.0 | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 64.4 | 9.2 | œ | 1.2 |
| Long Pond 10 | 64 | - | 0.0 | 73.2 | 66 | 73.2 | 10 | Snd Lvl | 64.2 | 9.0 | 80 | 1.0 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA E | GM | | | | | 2 | | | | 12 May 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | -4 | Btu PD | ш | | | | |
|-----------------------|-------|----------|---------|---------|------|--------|---------|------|-----|----|------|
| Long Pond 11 | 65 | 1 0.0 | 72. | 7 66 | 72.7 | 10 | Snd Lvl | 63.5 | 9.2 | 80 | 1.2 |
| Long Pond 12 | 66 | 1 0.0 | 72. | 5 66 | 72.5 | 10 | Snd Lvl | 63.1 | 9.4 | æ | 1.4 |
| Long Pond 13 | 67 | 1 0.0 | 71. | 3 66 | 71.3 | 10 | Snd Lvl | 62.5 | 8.8 | 80 | 0.8 |
| Long Pond 14 | 68 | 1 0.0 | 71. | 0 66 | 71.0 | 10 | Snd Lvl | 62.4 | 8.6 | 80 | 0.6 |
| Long Pond 15 | 69 | 1 0.0 | 71. | 1 66 | 71.1 | 10 | Snd Lvl | 62.6 | 8.5 | œ | 0.5 |
| Long Pond 16 | 70 | 1 0.0 | 71. | 2 66 | 71.2 | 10 | Snd Lvl | 62.7 | 8.5 | 80 | 0.5 |
| Long Pond 17 | 71 | 1 0.0 | 71. | 8 66 | 71.8 | 10 | Snd Lvl | 63.2 | 8.6 | 80 | 0.6 |
| Long Pond 18 | 72 | 1 0.0 | 72. | 2 66 | 72.2 | 10 | Snd Lvl | 63.4 | 8.8 | 8 | 0.8 |
| Long Pond 19 | 73 | 1 0.0 | 71. | 66 66 | 71.6 | 10 | Snd Lvl | 63.4 | 8.2 | ω | 0.2 |
| Long Pond 20 | 74 | 1 0.0 | 0. 70. | 99 66 | 70.9 | 10 | Snd Lvl | 63.2 | 7.7 | 80 | -0.3 |
| Long Pond 21 | 75 | 1 0.0 | 0 70. | 5 66 | 70.5 | 10 | Snd Lvl | 63.7 | 6.8 | œ | -1.2 |
| Long Pond 22 | 76 | 1 0.0 | 71. | 0 66 | 71.0 | 10 | Snd Lvl | 64.9 | 6.1 | 80 | -1.9 |
| Chardonnay 1 | 77 | 1 0.0 | 61. | 1 66 | 61.1 | 10 | | 57.2 | 3.9 | œ | -4.1 |
| Chardonnay 2 | 78 | 1 0.0 | 62. | 6 66 | 62.6 | 10 | | 58.5 | 4.1 | 80 | -3.9 |
| Chardonnay 3 | 62 | 1 0.0 | 65. | 5 66 | 65.5 | 10 | | 60.1 | 5.4 | 80 | -2.6 |
| Chardonnay 4 | 80 | 1 0.0 | 67. | 5 66 | 67.5 | 10 | Snd Lvl | 59.5 | 8.0 | œ | 0.0 |
| Chardonnay 5 | 81 | 1 0.0 | 65. | 2 66 | 65.2 | 10 | 1 | 59.0 | 6.2 | œ | -1.8 |
| Chardonnay 6 | 82 | 1 0.0 | 62. | 1 66 | 62.1 | 10 | 1 | 58.0 | 4.1 | œ | -3.9 |
| Chardonnay 7 | 83 | 1 0.0 | 09 00 | .6 66 | 60.6 | 10 | 1 | 56.6 | 4.0 | Ø | -4.0 |
| Dunbrooke | 84 | 1 0.0 | 64. | 2 66 | 64.2 | 10 | 1 | 58.3 | 5.9 | 80 | -2.1 |
| Long Pond 23 | 85 | 1 0.0 | 61. | .0 66 | 61.0 | 10 | I | 57.1 | 3.9 | 80 | -4.1 |
| Long Pond 24 | 86 | 1 0.0 | .09 | 7 66 | 60.7 | 10 | I | 57.4 | 3.3 | 80 | -4.7 |
| Long Pond 25 | 87 | 1 0.0 | 09 | 2 66 | 60.2 | 10 | I | 56.6 | 3.6 | 80 | -4.4 |
| Long Pond 26 | 88 | 1 0.0 | .09 60 | 2 66 | 60.2 | 10 | 1 | 56.9 | 3.3 | 8 | -4.7 |
| Long Pond 27 | 89 | 1 0.0 | 59. | .0 66 | 59.0 | 10 | 1 | 57.1 | 1.9 | 80 | -6.1 |
| Dwelling Units | # DUs | Noise Re | duction | | | | | | | | |
| | | Min | Avg | Мах | | | | | | | |
| | | qB | đB | qв | | | | | | | |
| All Selected | 80 | 9 1.8 | 6 | .3 12.5 | | | | | | | |
| All Impacted | e | 6 3.7 | 6 | .1 12.5 | | | | | | | |
| All that meet NR Goal | 2 | 9 8.(| 6 | .8 12.5 | | | | | | | |

12 May 2015

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I-4 Btu PD&E

| Stantec M. Drauer | | | | 26 May 20 TNM 2.5 | 15 | | | | | |
|---|--------------------------|------------------------------|------------|----------------------|--------|---------|---------|--------------|-------------|---------|
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | I-4 Bt I-4 Se GM 2 | U PD&E egment 3 NS 2 R | SA E GM | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | 7 | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | - | ft | ft | ft | ff | sq ft | cu yd | ¥ | ft:ff | \$ |
| NSA E GM | > | 22.00 | 22.00 | 22.00 | 5617 | 123572 | 01 | | | 3707171 |
| 14' existing | 2 | 14.00 | 14.00 | 14.00 | 1842 | 25786 | 6 | | | 0 |
| | | | | | | | | | Total Cost: | 3707171 |

C:\TNM25\230168\Seg 3\8 + 4\NSA E GM

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | | |
|---|-----|-----------------------------|-------------------------|-------------------|------|-------|----------------------------|-----------------------|-------------------------|------------------------------|--------------------------------|--------------------|---------------|------|
| Stantec M. Drauer | | | | | | | | 26 May 20 TNM 2.5 | 15 | | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seg GM 22 | PD&E ment 3 N\$ R | SA E GM | | | | Calculate | d with TN Average | 1 2.5 Davement tvp | e shall be use | ed unless | | |
| ATMOSPHERICS: | | 68 deg | F, 50% R | н | | | | | a State h of a diffe | ghway agenc ent type with | y substantiat approval of I | es the us FHWA. | e | |
| Receiver Name | No. | *DUs | Existing | No Bari | ier | | | | | With Barrier | | | | |
| | | | LAeq1h | LAeq1h Calcula | ted | rit'n | Increase ove Calculated | er existing Crit'n | Type Impact | Calculated LAeq1h | Noise Redu Calculated | ction Goal | Calculate | ted |
| | | | | | | | | Sub'l Inc | | | | | minus Goal | |
| | | | dBA | dBA | Ð | 3A | dB | đB | | dBA | đB | в | æ | |
| Rutledge 1 | - | | Ö | 0 | 62.6 | 99 | 62 | .6 1(| 1 | 62.6 | 0.0 | 0 | 8 | -8.0 |
| Rutledge 2 | 2 | | Ö | 0 | 66.7 | 99 | 66 | .7 1(| Snd Lvl | 66.7 | 0.0 | 0 | 80 | -8.0 |
| Rutledge 3 | e | - | ö | 0 | 65.2 | 99 | 65 | 10 | I | 65.2 | 0.0 | ~ | 80 | -8.0 |
| Rutledge 4 | 4 | - | Ö | 0 | 63.7 | 99 | 63 | .7 1(| I | 63.7 | 0.0 | ~ | 8 | -8.0 |
| Rutledge 5 | S | - | ö | 0 | 62.1 | 99 | 62 | -1 - | 1 | 62.0 | Ö | _ | 80 | -7.9 |
| Rutledge 6 | 9 | - | Ö | 0 | 61.1 | 99 | 61 | 1 10 | 1 | 60.6 | 0 | 2 | 80 | -7.8 |
| Rutledge 7 | 7 | - | Ö | 0 | 60.6 | 99 | 60 | .6 1(|] | 60.4 | :0 | 0 | 8 | -7.8 |
| Rutledge 8 | Ø | - | Ö | 0 | 60.2 | 66 | 60 | 10 | I | 20.6 | 0.0 | e | 8 | -7.7 |
| Rutledge 9 | 0 | - | Ö | 0 | 59.1 | 66 | 59 | 10 | l | 58.6 | 0.1 | 10 | 80 | -7.5 |
| Rutledge 10 | 10 | - | Ö | 0 | 59.8 | 66 | 59 | 8 10 | I | 29.4 | 0. | - | 80 | -7.6 |
| Rutledge 11 | 11 | - | Ö | 0 | 58.7 | 66 | 58 | 7 10 | | 58.0 | .0 | 2 | 8 | -7.3 |
| Rutledge 12 | 12 | - | Ö | 0 | 57.8 | 99 | 57 | .8 1(| 1 | 56.8 | 1.0 | 0 | 8 | -7.0 |
| Crowley 1 | 13 | F | 0 | 0 | 57.3 | 66 | 57. | 3 1(| l | 56.0 | 1.1 | ~ | 8 | -6.7 |
| Crowley 2 | 14 | - | Ö | 0 | 59.5 | 99 | 59 | 5 1(| 1 | 57.8 | - | 2 | 8 | -6.3 |
| Crowley 3 | 15 | - | Ö | 0 | 63.8 | 66 | 63 | .8 1(| I | 61.3 | 2.1 | 10 | 8 | -5.5 |
| Crowley 4 | 16 | - | Ö | 0 | 71.6 | 66 | 71. | .6 1(| Snd Lvl | 66.6 | 5.0 | 0 | 80 | -3.0 |
| Crowley 5 | 17 | - | Ö | 0 | 75.2 | 66 | 75 | 2 1(| Snd Lvl | 64.0 | 11.1 | 2 | 00 | 3.2 |
| Crowley 6 | 18 | - | Ö | 0 | 75.8 | 99 | 75 | .8 10 | Snd Lvl | 63.1 | 12.1 | 2 | 00 | 4.7 |
| Crowley 7 | 19 | ~ | Ö | 0 | 75.8 | 66 | 75 | 8 10 | Snd Lvi | 63.0 | 12.8 | ~ | 80 | 4.8 |
| Crowley 8 | 20 | - | ö | 0 | 76.0 | 99 | 76 | 0 10 | Snd Lvl | 62.6 | 13.4 | t | 8 | 5.4 |
| Crowley 9 | 21 | - | Ö | 0 | 76.0 | 99 | 76 | 0 10 | Snd Lvi | 62.3 | 13.7 | 2 | 8 | 5.7 |
| Crowley 10 | 22 | ~ | Ö | 0 | 76.4 | 66 | 76 | 4 10 | Snd Lvi | 62.1 | 14.3 | m | 80 | 6.3 |
| Crowley 11 | 23 | - | 0 | 0 | 76.5 | 66 | 76 | 5 10 | Snd Lvl | 62.0 | 14. | 10 | 8 | 6.5 |
| C:\TNM25\230168\Seq 3\8 + 4\NSA | EGM | | | | | | • | | | | 26 M | ay 2015 | | |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD | ßE | | | | |
|-----------------------------------|----|---|-----|------|----|------|--------|---------|------|------------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.2 | 66 | 76.2 | 10 | Snd Lvl | 61.7 | 14.5 | 80 | 6.5 |
| Crowley 13 | 25 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 61.3 | 13.0 | œ | 5.0 |
| Crowley 14 | 26 | - | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 61.1 | 11.8 | 80 | 3.8 |
| Crowley 15 | 27 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 61.0 | 11.5 | 80 | 3.5 |
| Crowley 16 | 28 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | l | 55.5 | 3.2 | 80 | -4.8 |
| Crowley 17 | 29 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | I | 56.6 | 4.1 | œ | -3.9 |
| Crowley 18 | 30 | - | 0.0 | 63.6 | 99 | 63.6 | 10 | | 58.3 | 5.3 | 80 | -2.7 |
| Crowley 19 | 31 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | | 57.8 | 8.0 | œ | 0.0 |
| Crowley 37 | 32 | F | 0.0 | 61.9 | 99 | 61.9 | 10 | | 56.0 | 5.9 | œ | -2.1 |
| Crowley 38 | 33 | - | 0.0 | 59.5 | 66 | 59.5 | 10 | 1 | 54.6 | 4.9 | 00 | -3.1 |
| Crowley 39 | 34 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | l | 53.7 | 4.7 | œ | -3.3 |
| Crowley 40 | 35 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | Ē | 53.3 | 4.9 | 80 | -3.1 |
| Crowley 20 | 36 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | I | 57.3 | 8.3 | æ | 0.3 |
| Crowley 21 | 37 | - | 0.0 | 64.5 | 66 | 64.5 | 10 | 1 | 56.6 | 7.9 | 80 | -0.1 |
| Crowley 41 | 38 | ٢ | 0.0 | 62.8 | 99 | 62.8 | 10 | 1 | 55.9 | 6.9 | 80 | -1.1 |
| Crowley 42 | 39 | - | 0.0 | 62.3 | 66 | 62.3 | 10 | | 55.4 | 6.9 | ω | -1.1 |
| Crowley 22 | 40 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | Į | 56.2 | 7.4 | 80 | -0.6 |
| Crowley 23 | 41 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 53.6 | 5.7 | 80 | -2.3 |
| Crowley 24 | 42 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | l | 53.1 | 5.3 | 80 | -2.7 |
| Crowley 25 | 43 | - | 0.0 | 58.2 | 99 | 58.2 | 10 | ŀ | 52.9 | 5.3 | 80 | -2.7 |
| Crowley 26 | 44 | ٢ | 0.0 | 62.5 | 66 | 62.5 | 10 | I | 55.6 | 6.9 | 80 | -1.1 |
| Crowley 27 | 45 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | ļ | 55.0 | 5.8 | 80 | -2.2 |
| Crowley 28 | 46 | - | 0.0 | 59.6 | 66 | 59.6 | 10 | ļ | 54.1 | 5.5 | œ | -2.5 |
| Crowley 29 | 47 | - | 0.0 | 56.8 | 66 | 56.8 | 10 | 1 | 52.1 | 4.7 | 80 | -3.3 |
| Crowley 30 | 48 | - | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 61.2 | 12.2 | 80 | 4.2 |
| Crowley 31 | 49 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvi | 60.3 | 10.7 | 8 | 2.7 |
| Crowley 32 | 50 | - | 0.0 | 69.2 | 66 | 69.2 | 10 | Snd Lvl | 59.6 | 9.6 | œ | 1.6 |
| Crowley 33 | 51 | - | 0.0 | 67.0 | 66 | 67.0 | 10 | Snd Lvl | 58.7 | 8.3 | ω | 0.3 |
| Crowley 34 | 52 | ۳ | 0.0 | 61.3 | 66 | 61.3 | 10 | 1 | 55.9 | 5.4 | æ | -2.6 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 54.2 | 5.1 | œ | -2.9 |
| Crowley 36 | 54 | - | 0.0 | 57.2 | 66 | 57.2 | 10 | 1 | 52.7 | 4.5 | 8 | -3.5 |
| Long Pond 1 | 55 | - | 0.0 | 56.0 | 66 | 56.0 | 10 |] | 52.1 | 3.9 | 8 | -4.1 |
| Long Pond 2 | 56 | - | 0.0 | 57.7 | 66 | 57.7 | 10 | 1 | 53.4 | 4.3 | æ | -3.7 |
| Long Pond 3 | 57 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | 1 | 54.9 | 5.0 | æ | -3.0 |
| Long Pond 4 | 58 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | | 56.8 | 6.1 | 8 | -1.9 |
| Long Pond 5 | 59 | ۲ | 0.0 | 66.4 | 66 | 66.4 | 10 | Snd Lvi | 58.8 | 7.6 | 8 | -0.4 |
| Long Pond 6 | 60 | - | 0.0 | 71.7 | 66 | 71.7 | 10 | Snd Lvl | 61.1 | 10.6 | 8 | 2.6 |
| Long Pond 7 | 61 | F | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 61.7 | 11.1 | ω | 3.1 |
| Long Pond 8 | 62 | - | 0.0 | 73.1 | 66 | 73.1 | 10 | Snd Lvl | 62.0 | 11.1 | 80 | 3.1 |
| Long Pond 9 | 63 | - | 0.0 | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 62.2 | 11.4 | ω | 3.4 |
| Long Pond 10 | 64 | - | 0.0 | 73.2 | 66 | 73.2 | 10 | Snd Lvl | 62.0 | 11.2 | æ | 3.2 |
| C:\TNM25\230168\Seq 3\8 + 4\NSA E | GM | | | | | | | | | 26 May 201 | 5 | |

| RESULTS: SOUND LEVELS | | | | | | 4 | Btu PD2 | Ě | | | | |
|-----------------------|----|-----|-------------------|-------|--------|------|---------|---------|------|------|----|------|
| Long Pond 11 | 65 | - | 0.0 | 72.7 | 66 | 72.7 | 10 | Snd Lvl | 61.5 | 11.2 | 80 | 3.2 |
| Long Pond 12 | 99 | ۲ | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 61.3 | 11.2 | 80 | 3.2 |
| Long Pond 13 | 67 | - | 0.0 | 71.3 | 66 | 71.3 | 10 | Snd Lvl | 60.9 | 10.4 | ω | 2.4 |
| Long Pond 14 | 68 | ~ | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 60.8 | 10.2 | ø | 2.2 |
| Long Pond 15 | 69 | - | 0.0 | 71.1 | 99 | 71.1 | 10 | Snd Lvl | 61.0 | 10.1 | 8 | 2.1 |
| Long Pond 16 | 20 | ~ | 0.0 | 71.2 | 66 | 71.2 | 10 | Snd Lvl | 61.1 | 10.1 | 80 | 2.1 |
| Long Pond 17 | 71 | - | 0.0 | 71.8 | 66 | 71.8 | 10 | Snd Lv | 61.5 | 10.3 | 8 | 2.3 |
| Long Pond 18 | 72 | - | 0.0 | 72.2 | 99 | 72.2 | 10 | Snd Lvl | 61.8 | 10.4 | 8 | 2.4 |
| Long Pond 19 | 73 | - | 0.0 | 71.6 | 66 | 71.6 | 10 | Snd Lvl | 61.9 | 9.7 | 80 | 1.7 |
| Long Pond 20 | 74 | ~ | 0.0 | 70.9 | 99 | 70.9 | 10 | Snd Lvl | 61.9 | 0.6 | ω | 1.0 |
| Long Pond 21 | 75 | ~ | 0.0 | 70.5 | 99 | 70.5 | 10 | Snd Lvl | 62.7 | 7.8 | 8 | -0.2 |
| Long Pond 22 | 76 | - | 0.0 | 71.0 | 99 | 71.0 | 10 | Snd Lvl | 64.2 | 6.8 | 00 | -1.2 |
| Chardonnay 1 | 77 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | 1 | 56.9 | 4.2 | 8 | -3.8 |
| Chardonnay 2 | 78 | - | 0.0 | 62.6 | 66 | 62.6 | 10 | I | 58.2 | 4.4 | 80 | -3.6 |
| Chardonnay 3 | 62 | - | 0.0 | 65.5 | 99 | 65.5 | 10 | 1 | 59.4 | 6.1 | 80 | -1.9 |
| Chardonnay 4 | 80 | - | 0.0 | 67.5 | 66 | 67.5 | 10 | Snd Lvl | 59.2 | 8.3 | ω | 0.3 |
| Chardonnay 5 | 81 | ~ | 0.0 | 65.2 | 66 | 65.2 | 10 | 1 | 59.0 | 6.2 | 80 | -1.8 |
| Chardonnay 6 | 82 | - | 0.0 | 62.1 | 66 | 62.1 | 10 | | 58.1 | 4.0 | 80 | -4.0 |
| Chardonnay 7 | 83 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 56.5 | 4.1 | 80 | -3.9 |
| Dunbrooke | 84 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | | 58.3 | 5.9 | 80 | -2.1 |
| Long Pond 23 | 85 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | ł | 56.6 | 4.4 | 8 | -3.6 |
| Long Pond 24 | 86 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | ł | 56.7 | 4.0 | 8 | -4.0 |
| Long Pond 25 | 87 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | ł | 55.6 | 4.6 | 8 | -3.4 |
| Long Pond 26 | 88 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | - | 55.9 | 4.3 | ω | -3.7 |
| Long Pond 27 | 89 | ** | 0.0 | 59.0 | 99 | 59.0 | 10 | 1 | 55.9 | 3.1 | 8 | -4.9 |
| Dwelling Units | # | DUs | Noise Redu | stion | | | | | | | | |
| | | | Min A | ß | Max | | | | | | | |
| | | • | dB d | 8 | ₿ B | | | | | | | |
| All Selected | | 89 | 0.0 | 6.7 | 14.5 | | | | | | | |
| All Impacted | | 36 | 0.0 | 10.5 | 14.5 | | | | | | | |
| All that meet NR Goal | | 33 | 8.0 | 11.1 | 14.5 | | | | | | | |
| | | | | | | | | | | | | |

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26 May 2015

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD& | щ | | | |
|--------------------------------------|---------|------------|------------|-----------|--------|------------|---------|--------------|-------------|---------|
| Stantec | | | | 26 May 20 | 15 | | | | | |
| M. Drauer | | | | TNM 2.5 | | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Btl | U PD&E | | | | | | | | |
| RUN: | I-4 Se | gment 3 NS | A E GM | | | | | | | |
| BARRIER DESIGN: | GM 2(| 0 R | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | 5 | Length | If Wall | lf Berm | | | Cost |
| | | Li N | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | Ĥ | ft | ft | sq ft | cu yd | Ĥ | ft:ft | \$ |
| NSA E GM | × | 20.00 | 20.00 | 20.00 | 5617 | 112339 | | | | 3370156 |
| 14' existing | ≥ | 14.00 | 14.00 | 14.00 | 1842 | 25786 | | | | 0 |
| | | | | | | | | | Total Cost: | 3370156 |
| | | | | | | | | | | |

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| RESULTS: SOUND LEVELS | | | | | | | | 1 | stU PD8 | щ | | | | | |
|---|------|---------------------------|-----------------------|---------|----------------|--------|--------------------------|-------------------------|------------------|----------------------------|------------------------------|--------------------------------|-------------------|-------------------------|-------|
| Stantec M. Drauer | | | | | | | | 26 A TNN | Aay 201 1 2.5 | a | | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | 0 | -4 BtU -4 Seg SM 20 | PD&E ment 3 N R | SA E GI | 5 | | | Calc | sulated / | with TNM Verage p | 2.5 avement type | e shall be use | id unless | | |
| ATMOSPHERICS: | | 68 deç | J F, 50% F | Ĥ | | | | | | l State hig of a differ | hway agency ant type with | y substantiat approval of F | es the us HWA. | şe | |
| Receiver | | 9 | E-vioting | | ļ | | | | | | | | n n N | | |
| Name | .0N | ŝ | | | arrier | | | | | | | | | | |
| | | | LAeq1h | Calc | 1h ulated (| Crit'n | Increase o Calculated | ver exis Crit Sub | I Inc | ype mpact | Calculated LAeq1h | Noise Reduc Calculated | ction Goal | Calcul minus Goal | lated |
| | | | dBA | dBA | | IBA | 段 | æ | | a l | dBA | dB | dB | æ | |
| Rutledge 1 | F | - | 0 | 0 | 62.6 | Ö | 9 | 32.6 | 10 | 1 | 62.6 | 0.0 | | Ø | -8.0 |
| Rutledge 2 | 2 | - | 0 | 0. | 66.7 | Ö | 9 | 36.7 | 10 | Snd Lvl | 66.7 | 0.0 | | 8 | -8.0 |
| Rutledge 3 | r | | 0 | 0. | 65.2 | Ö | 9 | 35.2 | 10 | I | 65.2 | 0.0 | | 8 | -8.0 |
| Rutledge 4 | 4 | F | 0 | 0.0 | 63.7 | õ | 9 | 33.7 | 10 | ļ | 63.7 | 0.0 | | 00 | -8.0 |
| Rutledge 5 | 5 | - | 0 | 0.0 | 62.1 | Ö | 9 | 32.1 | 10 | I | 62.0 | 0.1 | | 8 | -7.9 |
| Rutledge 6 | 9 | - | 0 | 0. | 61.1 | ø | 9 | 31.1 | 10 | l | 60.9 | 0.2 | | 80 | -7.8 |
| Rutledge 7 | 7 | - | 0 | 0. | 60.6 | õ | 6 | 30.6 | 10 | 1 | 60.4 | 0.2 | | œ | -7.8 |
| Rutledge 8 | Ø | - | 0 | 0, | 60.2 | Ö | 6 | 30.2 | 10 | 1 | 59.9 | 0.0 | | 80 | -7.7 |
| Rutledge 9 | 6 | - | 0 | 0, | 59.1 | Ö | 9 | 59.1 | 10 | Ţ | 58.6 | 0.5 | | 8 | -7.5 |
| Rutledge 10 | 10 | - | 0 | 0, | 59.8 | Ö | 9 | 59.8 | 10 | I | 59.4 | .0.4 | | 80 | -7.6 |
| Rutledge 11 | 11 | | 0 | 0. | 58.7 | Ö | 9 | 58.7 | 10 | ļ | 58.0 | 0.7 | | 80 | -7.3 |
| Rutledge 12 | 12 | - | 0 | 0. | 57.8 | Ö | | 57.8 | 10 | I | 56.9 | 0.0 | | 8 | -7.1 |
| Crowley 1 | 13 | | 0 | 0. | 57.3 | Ö | 9 | 57.3 | 10 | I | 56.0 | | | 80 | -6.7 |
| Crowley 2 | 14 | - | 0 | 0. | 59.5 | Ö | 6 | 59.5 | 10 | 1 | 57.8 | 1.7 | | 8 | -6.3 |
| Crowley 3 | 15 | | 0 | 0 | 63.8 | 9 | 9 | 33.8 | 10 | | 61.4 | 2.4 | | 8 | -5.6 |
| Crowley 4 | 16 | | 0 | 0. | 71.6 | 9 | 6 7 | 1.6 | 10 | Snd Lvl | 66.7 | 4.6 | | 8 | -3.1 |
| Crowley 5 | 17 | - | 0 | 0. | 75.2 | 9 | 0 | 5.2 | 10 | Snd Lvi | 64.4 | 10.8 | | 8 | 2.8 |
| Crowley 6 | 18 | - | 0 | 0. | 75.8 | Ö | 0 | 5.8 | 10 | Snd Lvl | 63.7 | 12.1 | | 8 | 4.1 |
| Crowley 7 | 19 | | 0 | 0. | 75.8 | Ö | 6 7 | 5.8 | 10 | Snd Lvl | 63.7 | 12.1 | | 8 | 4.1 |
| Crowley 8 | 20 | | 0 | 0. | 76.0 | Ö | 6 | 6.0 | 10 | Snd Lvl | 63.2 | 12.8 | | 8 | 4.8 |
| Crowley 9 | 21 | - | 0 | 0. | 76.0 | 9 | 6 | 6.0 | 10 | Snd Lvl | 62.9 | 13.1 | | 8 | 5.1 |
| Crowley 10 | 22 | - | 0 | 0. | 76.4 | 9 | 6 7 | 6.4 | 10 | Snd Lvl | 62.7 | 13.7 | | 8 | 5.7 |
| Crowley 11 | 23 | | 0 | 0. | 76.5 | Ö | 6 7 | 6.5 | 10 | Snd Lvl | 62.6 | 13.5 | | 8 | 5.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | E GM | | | | | | ٣ | | | | | 26 M | ay 2015 | | |

| RESULTS: SOUND LEVELS | | | | | | I-4 E | BtU PD | Ř | | | | |
|-----------------------------------|----|----|-----|------|-----|-------|--------|---------|------|-----------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.2 | 66 | 76.2 | 10 | Snd Lvl | 62.3 | 13.9 | ω | 5.9 |
| Crowley 13 | 25 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 61.8 | 12.5 | 80 | 4.5 |
| Crowley 14 | 26 | - | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 61.7 | 11.2 | ∞ | 3.2 |
| Crowley 15 | 27 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 61.6 | 10.9 | 8 | 2.9 |
| Crowley 16 | 28 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | 1 | 55.6 | 3.1 | 80 | -4.9 |
| Crowley 17 | 29 | | 0.0 | 60.7 | 66 | 60.7 | 10 | 1 | 56.8 | 3.9 | 8 | -4.1 |
| Crowley 18 | 30 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | ļ | 58.5 | 5.1 | œ | -2.9 |
| Crowley 19 | 31 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | ĺ | 58.1 | 7.7 | ω | -0.3 |
| Crowley 37 | 32 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | I | 56.3 | 5.6 | ω | -2.4 |
| Crowley 38 | 33 | - | 0.0 | 59.5 | 66 | 59.5 | 10 | 1 | 54.8 | 4.7 | 80 | -3.3 |
| Crowley 39 | 34 | ۲ | 0.0 | 58.4 | 66 | 58.4 | 10 | I | 53.9 | 4.5 | ω | -3.5 |
| Crowley 40 | 35 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | 1 | 53.5 | 4.7 | ω | -3.3 |
| Crowley 20 | 36 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | 1 | 57.6 | 8.0 | ω | 0.0 |
| Crowley 21 | 37 | - | 0.0 | 64.5 | 66 | 64.5 | 10 | Í | 56.9 | 7.6 | 8 | -0.4 |
| Crowley 41 | 38 | - | 0.0 | 62.8 | 66 | 62.8 | 10 | ł | 56.2 | 6.6 | 80 | -1.4 |
| Crowley 42 | 39 | - | 0.0 | 62.3 | 66 | 62.3 | 10 | ŧ | 55.7 | 6.6 | 8 | -1.4 |
| Crowley 22 | 40 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 56.6 | 7.0 | 80 | -1.0 |
| Crowley 23 | 41 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | 1 | 53.9 | 5.4 | 80 | -2.6 |
| Crowley 24 | 42 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | 1 | 53.4 | 5.0 | 80 | -3.0 |
| Crowley 25 | 43 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | I | 53.2 | 5.0 | 8 | -3.0 |
| Crowley 26 | 44 | - | 0.0 | 62.5 | 66 | 62.5 | 10 | 1 | 56.1 | 6.4 | 8 | -1.6 |
| Crowley 27 | 45 | - | 0.0 | 60.8 | 66 | 60.8 | 10 | | 55.4 | 5.4 | 80 | -2.6 |
| Crowley 28 | 46 | ۲, | 0.0 | 59.6 | 66 | 59.6 | 10 | | 54.4 | 5.2 | ø | -2.8 |
| Crowley 29 | 47 | - | 0.0 | 56.8 | 66 | 56.8 | 10 | | 52.3 | 4.5 | 8 | -3.5 |
| Crowley 30 | 48 | - | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 61.8 | 11.6 | 80 | 3.6 |
| Crowley 31 | 49 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 60.8 | 10.2 | 8 | 2.2 |
| Crowley 32 | 50 | Ţ | 0.0 | 69.2 | 66 | 69.2 | 10 | Snd Lvl | 60.1 | 9.1 | 8 | 1.1 |
| Crowley 33 | 51 | - | 0.0 | 67.0 | .99 | 67.0 | 10 | Snd Lvl | 59.1 | 7.9 | 8 | -0.1 |
| Crowley 34 | 52 | - | 0.0 | 61.3 | 66 | 61.3 | 10 | 1 | 56.3 | 5.0 | 80 | -3.0 |
| Crowley 35 | 53 | ۴- | 0.0 | 59.3 | 66 | 59.3 | 10 | l | 54.5 | 4.8 | ø | -3.2 |
| Crowley 36 | 54 | ۲ | 0.0 | 57.2 | 66 | 57.2 | 10 | I | 53.0 | 4.2 | 80 | -3.8 |
| Long Pond 1 | 55 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | 1 | 52.4 | 3.6 | ø | -4.4 |
| Long Pond 2 | 56 | - | 0.0 | 57.7 | 66 | 57.7 | 10 | I | 53.7 | 4.0 | Ø | -4.0 |
| Long Pond 3 | 57 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | ļ | 55.2 | 4.7 | 80 | -3.3 |
| Long Pond 4 | 58 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | 1 | 57.2 | 5.7 | ø | -2.3 |
| Long Pond 5 | 59 | - | 0.0 | 66.4 | 66 | 66.4 | 10 | Snd Lvl | 59.3 | 7.1 | 8 | -0.9 |
| Long Pond 6 | 60 | ~ | 0.0 | 71.7 | 66 | 71.7 | 10 | Snd Lvl | 61.7 | 10.0 | 80 | 2.0 |
| Long Pond 7 | 61 | ~ | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 62.4 | 10.4 | 80 | 2.4 |
| Long Pond 8 | 62 | - | 0.0 | 73.1 | 66 | 73.1 | 10 | Snd Lvl | 62.7 | 10.4 | œ | 2.4 |
| Long Pond 9 | 63 | - | 0.0 | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 62.9 | 10.7 | 80 | 2.7 |
| Long Pond 10 | 64 | ٦ | 0.0 | 73.2 | 66 | 73.2 | 10 | Snd Lvl | 62.7 | 10.5 | 8 | 2.5 |
| C:\TNM25\230168\Seq 3\8 + 4\NSA E | GM | | | | ., | | | | | 26 May 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | 4 | BtU PD8 | ų | | | | |
|------------------------------|-------|-----------|------------|--------|------|---------|----------|------|------|----|------|
| Long Pond 11 | 65 1 | 0.0 | 72.7 | 66 | 72.7 | 10 | Snd Lvl | 62.1 | 10.6 | 80 | 2.6 |
| Long Pond 12 | 66 1 | 0.0 | 72.5 | 99 | 72.5 | 10 | Snd Lvl | 61.8 | 10.7 | 80 | 2.7 |
| Long Pond 13 | 67 1 | 0.0 | 71.3 | 3 66 | 71.3 | 10 | Snd Lvi | 61.4 | 9.9 | 80 | 1.9 |
| Long Pond 14 | 68 | 0.0 | 71.(| 66 | 71.0 | 10 | Snd Lvl | 61.3 | 9.7 | ø | 1.7 |
| Long Pond 15 | 69 | 0.0 | 71. | 66 | 71.1 | 10 | Snd Lvl | 61.5 | 9.6 | ω | 1.6 |
| Long Pond 16 | 20 | 0.0 | 71.2 | 66 | 71.2 | 10 | Snd Lvl | 61.6 | 9.6 | 80 | 1.6 |
| Long Pond 17 | 71 | 0.0 | 71.8 | 66 | 71.8 | 10 | Snd Lvl | 62.0 | 9.8 | 80 | 1.8 |
| Long Pond 18 | 72 1 | 0.0 | 72.3 | 66 | 72.2 | 10 | Snd Lvl | 62.3 | 9.9 | 80 | 1.9 |
| Long Pond 19 | 73 | 0.0 | 71.(| 66 | 71.6 | 10: | Snd Lvl | 62.3 | 9.3 | 80 | 1.3 |
| Long Pond 20 | 74 1 | 0.0 | 20.9 | 99 66 | 70.9 | 10 | Snd Lvl | 62.3 | 8.6 | 80 | 0.6 |
| Long Pond 21 | 75 1 | 0.0 | 70. | 99 | 70.5 | 10 | Snd Lvl | 63.0 | 7.5 | 80 | -0.5 |
| Long Pond 22 | 76 1 | 0.0 | 71.(| 99 0 | 71.0 | 10 | Snd Lvl | 64.4 | 6.6 | 80 | -1.4 |
| Chardonnay 1 | . 27 | 0.0 | 61. | 66 | 61.1 | 10 | Ī | 57.0 | 4.1 | æ | -3.9 |
| Chardonnay 2 | 78 | 0.0 | 62.(| 66 | 62.6 | 10 | Annual I | 58.3 | 4.3 | 80 | -3.7 |
| Chardonnay 3 | 1 62 | 0.0 | 65.(| 66 | 65.5 | 10 | l | 59.6 | 5.9 | 80 | -2.1 |
| Chardonnay 4 | 80 | 0.0 | 67.1 | 66 | 67.5 | 10 | Snd Lvl | 59.3 | 8.2 | 8 | 0.2 |
| Chardonnay 5 | 81 | 0.0 | 65.2 | 66 | 65.2 | 10 | Ì | 59.0 | 6.2 | 8 | -1.8 |
| Chardonnay 6 | 82 | 0.0 | 62. | 66 | 62.1 | 10 | | 58.1 | 4.0 | æ | -4.0 |
| Chardonnay 7 | 83 | 0.0 | 60.6 | 99 | 60.6 | 10 | | 56.6 | 4.0 | ω | -4.0 |
| Dunbrooke | 84 | 0.0 | 64. | 66 | 64.2 | 10 | | 58.3 | 5.9 | 00 | -2.1 |
| Long Pond 23 | 85 | 0.0 | 61.0 | 99 | 61.0 | 10 | 1 | 56.8 | 4.2 | œ | -3.8 |
| Long Pond 24 | 86 | 0.0 | .09 | 66 | 60.7 | 10 | 1 | 56.9 | 3.8 | 80 | -4.2 |
| Long Pond 25 | 87 | 0.0 | 60. | 66 | 60.2 | 10 | ľ | 55.9 | 4.3 | ω | -3.7 |
| Long Pond 26 | 88 | 0.0 | 60. | 2 66 | 60.2 | 10 | I | 56.3 | 3.9 | 80 | -4.1 |
| Long Pond 27 | 88 | 0.0 | 59.(| 0 66 | 59.0 | 10 | 1 | 56.3 | 2.7 | ω | -5.3 |
| Dwelling Units | # DUs | Noise Red | luction | | | | | | | | |
| | | Min | Avg | Max | | | | | | | |
| | | ą | đB | đB | | | | | | | |
| All Selected | ő | 0.0 | . <u>0</u> | 4 13.9 | | | | | | | |
| All Impacted | 36 | 3 0.0 | 10.1 | 13.9 | | | | | | | |
| All that meet NR Goal | 'n | 8.0 | 10. | 13.9 | | | | | | | |
| | | | | | | | | | | | |

26 May 2015

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD8 | Ш | | | |
|---|--------|------------|------------|-----------|--------|------------|---------|--------------|-------------|---------|
| Stantec | | | | 26 May 20 | 15 | | | | | |
| IM. Drauer RESULTS: BARRIER DESCRIPTIONS | | | | C'Z MN I | | | | | | |
| PROJECT/CONTRACT: | I-4 Bt | U PD&E | | | | | | | | |
| RUN: | I-4 Se | gment 3 NS | A E GM | | | | | | | |
| BARRIER DESIGN: | GM 18 | 8 R | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | Ļ | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | ft | ft | ft | sq ft | cu yd | ft | ft:ft | ъ |
| NSA E GM | 8 | 18.00 | 18.00 | 18.00 | 5617 | 101105 | | | | 3033140 |
| 14' existing | ≥ | 14.00 | 14.00 | 14.00 | 1842 | 25786 | | | | 0 |
| | | | | | | | | | Total Cost: | 3033140 |
| | | | | | | | | | | |

26 May 2015

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| Summe M. 10 Solution M. 12: Solution M. 12: Solution M. 12: Solution M. 12: Solution M. 12: Solution M. 12: M. 12: Solution M. 12: M. 12: Solution M. 12: M. 12: <thm. 12:<="" th=""> <thm. 12:<="" th=""> <thm. 12<="" th=""><th>RESULTS: SOUND LEVELS</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>P</th><th>BtU PD</th><th>Ш</th><th></th><th></th><th></th><th></th></thm.></thm.></thm.> | RESULTS: SOUND LEVELS | | | | | | | | P | BtU PD | Ш | | | | |
|---|---|----|-----------------------------|----------------------------|----------|-----------|--------|----------|-------|------------------|---------------------------|-------------------------------|------------------------------|--------------------|-----------------------------|
| Idea UPDE Decorrect:: Idea UPDE Exercise the figure of the figure | Stantec M. Drauer | | | | | | | | 8 F (| May 201 | 12 | | | | - |
| ATMOSPHERICS: e data interval and anticipation of a manual anticipation of a manu | RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 Btl I-4 Sei GM 18 | J PD&E gment 3 3 R | NSA E (| WS | | | Ŭ | alculated | Average I | n 2.5 aavement typ | e shall be us | ed unless | |
| Receiver No. #DIA Anth Math | ATMOSPHERICS: | | 68 de | ig F, 50% | RH | | | | | | a state ni of a diffel | gnway ageno rent type with | y substantiation approval of | res me us FHWA. | ų |
| Matrix Matrix< | Receiver | QN | elic# | Evictin | CN CN | Rarrior | | | | | | With Barrier | | | |
| Participation Calculated calculated Circle calculated Calculated calculated Circle calculated Calculated calculated Calculated Calculated | | | | LAod 1 | | outh b | | Increase | | icting | Tuno | Calculated | Noise Redu | ction | |
| Image Image <th< th=""><th></th><th></th><th></th><th>LAeq</th><th>Cal</th><th>culated</th><th>Crit'n</th><th>Calculat</th><th></th><th>it'n ub'l Inc</th><th>Impact</th><th>LAeq1h</th><th>Calculated</th><th>Goal</th><th>Calculated minus Goal</th></th<> | | | | LAeq | Cal | culated | Crit'n | Calculat | | it'n ub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| Rutledge 1 1 1 0 62.6 66.7 10 med 62.6 0.0 8 -80 Rutledge 2 2 1 0.0 66.7 66.6 57 10 med 66.7 0.0 8 -80 Rutledge 3 5 1 0.0 65.7 66 65.7 10 65.7 0.0 8 -80 Rutledge 5 5 1 0.0 63.7 66 65.1 10 63.7 0.0 8 -7.0 Rutledge 7 7 0 61.1 10 0 62.1 66 60.1 -7.0 8 -7.7 Rutledge 10 1 0.0 63.1 66 60.2 10 62.0 0.1 8 -7.7 Rutledge 11 1 1 0.0 63.1 10 62.0 0.1 8 -7.7 Rutledge 11 1 1 | | | | dBA | dB/ | - | dBA | æ | đ | | | dBA | dB | dB | dB |
| Ruitedge 2 2 1 0.0 66.7 66 66.2 10 Sind Livi 66.2 0.0 8 8 Ruitedge 3 3 1 0.0 65.2 66 65.2 10 65.2 0.0 8 -80 Ruitedge 4 5 1 0.0 65.7 66 65.2 10 65.2 0.0 8 -80 Ruitedge 5 5 1 0.0 61.1 10 65.2 0.0 8 -7.3 Ruitedge 1 7 7 66 60.2 10 60.3 0.2 8 -7.3 Ruitedge 10 10 10 0.0 58.7 66 59.8 10 59.4 0.2 8 -7.3 Ruitedge 10 11 1 0.0 58.7 66 59.4 0.2 8 -7.3 Ruitedge 11 1 1 10 57.3 | Rutledae 1 | | - | F | 0.0 | 62.6 | | 36 | 62.6 | 10 | 1 | 62.(| 0 | 0 | 8 |
| Rulledge3 3 1 0.0 65.2 66 65.2 10 65.2 0.0 83.7 0.0 83.7 0.0 83.7 0.0 83.7 0.0 83.7 0.0 83.7 0.0 83.7 0.0 63.7 0.0 63.7 0.0 63.7 0.0 63.7 0.0 83.7 0.0 83.7 0.0 83.7 83.7 7.6 Ruledge4 6 1 0.0 61.1 66 53.1 10 60.3 -7.7 Ruledge1 1 1 0.0 53.1 66 53.8 10 53.6 0.2 8 -7.7 Ruledge1 1 1 0.0 53.1 66 57.3 10 53.6 0.2 8 -7.7 Ruledge1 1 1 0.0 53.8 10 53.6 0.2 8 -7.7 Ruledge1 1 1 | Rutledge 2 | | 7 | + | 0.0 | 66.7 | | 36 | 66.7 | 10 | Snd Lvl | .99 | 7 0. | 0 | 8 |
| Rutledge 4 1 0.0 63.7 66 63.7 10 | Rutledge 3 | | 3 | - | 0.0 | 65.2 | | 36 | 65.2 | 10 | l | 65.1 | 0.0 | 0 | φ α |
| Rutledge 5 5 1 0.0 62.1 66 62.1 10 62.0 0.1 8 -7.3 Rutledge 7 8 1 0.0 61.1 10 60.0 0.2 8 -7.3 Rutledge 7 8 1 0.0 60.1 60.6 60.2 10 60.9 0.2 8 -7.3 Rutledge 9 9 1 0.0 60.1 60.5 59.1 10 60.9 0.2 8 -7.3 Rutledge 9 11 1 0.0 59.1 66 57.3 10 59.4 0.2 8 -7.3 Rutledge 12 13 1 0.0 57.3 10 56.0 0.2 8 -7.3 Rutledge 12 13 1 0.0 57.3 10 56.4 0.3 8 -7.3 Rutledge 12 1 1 0 | Rutledge 4 | | 4 | - | 0.0 | 63.7 | | 36 | 63.7 | 10 | I | 63. | 7 | 0 | φ ø |
| Rutledge (6 1 0.0 61.1 66 61.1 10 60.9 0.2 8 -7.8 Rutledge 7 7 7 1 0.0 60.6 66 60.6 60.6 60.6 60.7 60.4 0.2 8 -7.3 Rutledge 1 1 1 0.0 59.1 66 59.8 10 58.6 0.3 8 -7.3 Rutledge 1 11 1 0.0 59.8 66 57.8 10 58.6 0.3 8 -7.3 Rutledge 1 11 1 0.0 57.8 66 57.8 10 58.7 0.3 8 -7.3 Rutledge 12 13 1 0.0 57.3 66 57.3 10 56.9 0.3 8 -7.3 Rutledge 12 14 1 0.0 57.3 10 56.9 0.3 8 | Rutledge 5 | | 5 | - | 0.0 | 62.1 | | 36 | 62.1 | 10 | Ï | 62.(| 0. | 1 | 8 -7 |
| Rutledge 7 7 1 0.0 60.6 60.6 10 60.4 0.2 8 -7.3 Rutledge 8 1 0.0 60.2 66 60.2 10 59.9 0.3 8 -7.3 Rutledge 8 1 1 0.0 59.1 66 59.3 10 58.0 0.3 8 -7.3 Rutledge 10 11 1 0.0 59.3 66 57.3 10 58.0 0.3 8 -7.3 Rutledge 12 13 1 0.0 57.3 66 57.3 10 56.9 0.3 8 -7.3 Rutledge 12 13 1 0.0 57.3 66 57.3 10 56.9 0.3 8 -7.3 Rutledge 12 1 1 0.0 53.3 66 57.3 10 56.1 10 57.3 10 | Rutledge 6 | | 9 | - | 0.0 | 61.1 | | 36 | 61.1 | 10 | I | 60. | .0 | 2 | 8 -7 |
| Rutledge 8 8 1 0.0 60.2 66 60.2 10 58.6 0.3 8 -7.7 Rutledge 9 1 0.0 59.1 66 59.1 10 58.6 0.5 8 -7.5 Rutledge 10 11 1 0.0 59.1 66 59.1 10 58.6 0.7 8 -7.5 Rutledge 11 11 1 0.0 59.8 66 57.3 10 56.9 0.7 8 -7.1 Rutledge 12 13 1 0.0 57.3 66 57.3 10 56.9 0.7 8 -7.1 Crowley 1 13 1 0.0 57.3 66 57.3 10 56.1 12 12 8 -7.1 Crowley 3 10 57.9 10 57.9 16 -5.7 Crowley 4 1 <td>Rutledge 7</td> <td></td> <td>2</td> <td>-</td> <td>0.0</td> <td>60.6</td> <td></td> <td>36</td> <td>60.6</td> <td>10</td> <td>1</td> <td>60.</td> <td>4</td> <td>2</td> <td>8 -7</td> | Rutledge 7 | | 2 | - | 0.0 | 60.6 | | 36 | 60.6 | 10 | 1 | 60. | 4 | 2 | 8 -7 |
| Rutledge 9 9 1 0.0 59.1 66 59.1 10 58.6 0.5 8 -7.5 Rutledge 10 10 1 0.0 59.8 66 59.8 10 59.4 0.4 8 -7.5 Rutledge 11 11 1 0.0 58.7 66 58.7 10 58.0 0.7 8 -7.7 Rutledge 12 11 1 0.0 58.7 66 57.8 10 58.0 0.7 8 -7.1 Rutledge 12 13 1 0.0 57.8 66 57.3 10 56.1 1.2 8 -7.1 Cowey 1 1 1 0.0 57.3 66 57.3 10 57.9 1.6 8 -57.9 Cowey 3 1 1 10 56.1 10 57.9 1.6 57.5 1.6 | Rutledge 8 | | 8 | - | 0.0 | 60.2 | | 36 | 60.2 | 10 | 1 | 29.9 | .0 6 | e | 8 -7 |
| Rutledge 10 10 1 0.0 59.8 66 59.8 10 59.4 0.4 8 -7.3 Rutledge 11 11 1 0.0 58.7 66 58.7 10 58.0 0.7 8 -7.3 Rutledge 12 12 1 0.0 57.8 66 57.3 10 56.0 0.7 8 -7.1 Convey 1 13 1 0.0 57.3 66 57.3 10 56.1 112 12 12 12 12 1 0.0 57.3 66 57.3 10 57.9 16.8 -7.1 Convey 3 1 1 0.0 57.3 66 57.3 10 57.9 16.8 -57.3 8 -57.3 10 57.9 16.8 -57.3 8 -57.3 10 57.9 16.8 16.8 -57.3 8 -57.3 | Rutledge 9 | | 6 | - | 0.0 | 59.1 | | 36 | 59.1 | 10 | 1 | 58. | 0.0 | 5 | 8 -7 |
| Rutledge 11 11 1 0.0 58.7 66 58.7 10 58.0 0.7 8 -7.3 Rutledge 12 12 1 0.0 57.8 66 57.8 10 56.9 0.0 8 -7.1 Crowley 1 13 1 0.0 57.3 66 57.3 10 56.9 0.9 8 -7.1 Crowley 2 14 1 0.0 57.3 66 57.3 10 56.9 10.9 8 -7.1 Crowley 2 15 1 0.0 53.5 66 57.3 10 57.9 16.8 57.9 16.8 57.3 8 -5.7 Crowley 3 17 1 0.0 73.5 66 73.6 10.8 66.8 73.6 13.8 57.3 8 57.3 8 57.3 8 57.3 73.1 8 73.1 <td>Rutledge 10</td> <td>-</td> <td>0</td> <td>-</td> <td>0.0</td> <td>59.8</td> <td></td> <td>36</td> <td>59.8</td> <td>10</td> <td>I</td> <td>59.</td> <td>4</td> <td>4</td> <td>8 -7</td> | Rutledge 10 | - | 0 | - | 0.0 | 59.8 | | 36 | 59.8 | 10 | I | 59. | 4 | 4 | 8 -7 |
| Rutledge 12 12 1 0.0 57.8 66 57.8 10 56.9 0.9 8 -7.1 Crowley 1 13 1 0.0 57.3 66 57.3 10 56.1 12 18 6.6 Crowley 1 14 1 0.0 59.5 66 59.5 10 57.9 1.6 8 -6.4 Crowley 2 15 1 0.0 59.5 66 57.3 10 57.9 1.6 8 -6.4 Crowley 3 15 1 0.0 53.5 66 57.5 10 57.9 1.6 8 -5.7 Crowley 4 1 1 0.0 75.1 66 75.2 10 57.9 11.6 8 -5.7 Crowley 5 18 70 1 10 57.1 10 57.4 11.6 3.7 Crowley 7 19 | Rutledge 11 | | - | - | 0.0 | 58.7 | | 36 | 58.7 | 10 | I | 58. | 0. | 7 | 8 -7 |
| Crowley 1 13 1 0.0 57.3 66 57.3 10 56.1 1.2 8 66.8 Crowley 2 14 1 0.0 59.5 66 59.5 10 57.9 1.6 8 -6.4 Crowley 2 15 1 0.0 59.5 66 59.5 10 57.9 1.6 8 -6.4 Crowley 3 15 1 0.0 59.5 66 53.8 10 61.5 2.3 8 -5.7 Crowley 4 1 0.0 71.6 66 53.8 10 61.5 2.3 8 -5.7 Crowley 4 17 1 0.0 75.2 66 75.6 10 8 4.8 8 -5.4 Crowley 6 18 1 0.0 75.6 66 75.6 10 8 4.15 2.4 Crowley 1 1 <td< td=""><td>Rutledge 12</td><td>-</td><td>2</td><td>-</td><td>0.0</td><td>57.8</td><td></td><td>36</td><td>57.8</td><td>10</td><td>I</td><td>56.</td><td>.0</td><td>0</td><td>8 -7</td></td<> | Rutledge 12 | - | 2 | - | 0.0 | 57.8 | | 36 | 57.8 | 10 | I | 56. | .0 | 0 | 8 -7 |
| Crowley2 14 1 0.0 59.5 66 59.5 10 57.9 1.6 8 -6.4 Crowley3 15 1 0.0 63.8 66 63.8 10 61.5 2.3 8 -5.7 Crowley3 16 1 0.0 63.8 66 63.8 10 61.5 2.3 8 -5.7 Crowley5 17 1 0.0 71.6 66 63.8 71.6 66 73.2 2.3 8 -5.7 Crowley5 17 1 0.0 75.2 66 75.6 10 SndLvi 66.8 74.8 74.8 2.4 Crowley5 1 0.0 75.8 66 75.8 10 SndLvi 66.3 11.5 8 2.4 Crowley1 20 1 0.0 75.8 66 76.0 10 8 13.1 Crowley1 21 | Crowley 1 | - | e | - | 0.0 | 57.3 | | 36 | 57.3 | 10 | l | 56. | 1. | 2 | 9 00 |
| Crowley 3 15 1 0.0 63.8 66 63.8 10 61.5 2.3 8 -5.7 Crowley 4 16 1 0.0 71.6 66 71.6 10 Snd Lvl 66.8 4.8 8 -3.2 Crowley 5 17 1 0.0 71.6 66 75.2 10 Snd Lvl 66.8 4.8 8 -3.2 Crowley 5 17 1 0.0 75.2 66 75.2 10 Snd Lvl 66.8 4.8 8 -3.2 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 -3.5 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 -3.5 Crowley 8 76.0 10 76.0 10 Snd Lvl 64.3 11.5 8 -4.1 | Crowley 2 | - | 4 | - | 0.0 | 59.5 | | 36 | 59.5 | 10 | 1 | 57. | 9 | 9 | ο ∞ |
| Crowley 4 16 1 0.0 71.6 66 71.6 10 Snd Lvl 66.8 4.8 8 -3.2 Crowley 5 17 1 0.0 75.2 66 75.2 10 Snd Lvl 66.8 4.8 8 2.4 Crowley 5 18 1 0.0 75.2 66 75.2 10 Snd Lvl 64.3 10.4 8 2.4 Crowley 6 19 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 3.5 Crowley 7 19 1 0.0 75.8 66 76.0 10 Snd Lvl 64.3 11.5 8 3.5 Crowley 8 20 10 76.0 66 76.0 10 Snd Lvl 63.3 11.5 8 4.1 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 63.3 12.1 8 | Crowley 3 | - | 5 | - | 0.0 | 63.8 | | 36 | 63.8 | 10 | | 61. | 5 2. | 8 | ς Ω |
| Crowley 5 17 1 0.0 75.2 66 75.2 10 Snd Lvl 64.8 10.4 8 2.4 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 3.5 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 3.5 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 3.5 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 63.9 12.1 8 4.1 Crowley 9 21 1 0.0 76.0 66 76.0 10 80.4 10 8 4.5 Crowley 9 22 1 0.0 76.4 66 76.4 10 80.4 15 8 4.5 < | Crowley 4 | - | 9 | - | 0.0 | 71.6 | | 36 | 71.6 | 10 | Snd Lvl | 66. | 8 | 80 | ς. Ω |
| Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 3.5 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 3.5 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 64.3 11.5 8 3.5 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 63.3 12.1 8 4.1 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 63.3 12.1 8 4.5 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 63.4 13.0 8 4.5 Crowley 10 23 1 0.0 76.5 66 76.5 10 510 8 4.5 <td>Crowley 5</td> <td>-</td> <td>7</td> <td>-</td> <td>0.0</td> <td>75.2</td> <td></td> <td>36</td> <td>75.2</td> <td>10</td> <td>Snd Lvl</td> <td>64.</td> <td>8 10.</td> <td>4</td> <td>8</td> | Crowley 5 | - | 7 | - | 0.0 | 75.2 | | 36 | 75.2 | 10 | Snd Lvl | 64. | 8 10. | 4 | 8 |
| Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvi 64.3 11.5 8 3.5 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvi 63.9 12.1 8 4.1 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvi 63.9 12.1 8 4.1 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvi 63.5 12.5 8 4.5 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvi 63.4 13.0 8 4.5 Crowley 10 23 1 0.0 76.5 66 76.4 10 Snd Lvi 63.4 13.0 8 5.0 Crowley 10 23 1 0.0 76.5 66 76.4 10 5nd vi 13.0 8 | Crowley 6 | | 8 | - | 0.0 | 75.8 | | 36 | 75.8 | 10 | Snd Lvl | 64. | 11. | 5 | 8 |
| Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 63.9 12.1 8 4.1 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 63.5 12.1 8 4.5 Crowley 9 22 1 0.0 76.0 66 76.4 10 Snd Lvl 63.5 12.5 8 4.5 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 63.4 13.0 8 5.0 Crowley 10 23 1 0.0 76.5 66 76.5 10 Snd Lvl 63.4 13.0 8 5.0 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 63.4 13.1 8 5.0 | Crowley 7 | | 6 | + | 0.0 | 75.8 | | 36 | 75.8 | 10 | Snd Lvi | 64. | 11. | 5 | с 8 |
| Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 63.5 12.5 8 4.5 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 63.4 13.0 8 4.5 Crowley 10 23 1 0.0 76.5 66 76.5 10 Snd Lvl 63.4 13.0 8 5.0 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 63.4 13.0 8 5.0 | Crowley 8 | | 0 | - | 0.0 | 76.0 | | 96 | 76.0 | 10 | Snd Lvl | 63. | 9 12. | ~ | 8 |
| Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 63.4 13.0 8 5.0 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 63.4 13.0 8 5.0 | Crowley 9 | | Σ | - | 0.0 | 76.0 | | 96 | 76.0 | 10 | Snd Lvl | 63. | 5 12. | 5 | 8 |
| Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvi 63.4 13.1 8 5.1 | Crowley 10 | | ß | - | 0.0 | 76.4 | | 66 | 76.4 | 10 | Snd Lvl | 63. | 4 13. | 0 | ŝ |
| | Crowley 11 | | 33 | 1 | 0.0 | 76.5 | | 96 | 76.5 | 10 | Snd Lvl | 63. | 4 13. | - | α α |

| RESULIS: SOUND LEVELS | | | | | | 1 1 | נט דכמ | Ц | | | | |
|-------------------------------------|----|-----|----|------|----|--------|--------|---------|------|-----------|----|------|
| Crowley 12 | 24 | 1 | 0 | 76.2 | 66 | 76.2 | 10 | Snd Lvl | 63.0 | 13.2 | 80 | 5.2 |
| Crowley 13 | 25 | 1 | 0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 62.5 | 11.8 | œ | 3.8 |
| Crowley 14 | 26 | 1 | 0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 62.3 | 10.6 | 80 | 2.6 |
| Crowley 15 | 27 | 1 | 0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 62.2 | 10.3 | 80 | 2.3 |
| Crowley 16 | 28 | 1 | 0 | 58.7 | 66 | 58.7 | 10 | | 55.8 | 2.9 | 80 | -5.1 |
| Crowley 17 | 29 | 1 | 0 | 60.7 | 66 | 60.7 | 10 | Ĩ | 57.0 | 3.7 | 80 | -4.3 |
| Crowley 18 | 99 | 1 | 0 | 63.6 | 66 | 63.6 | 10 | I | 58.7 | 4.9 | 80 | -3.1 |
| Crowley 19 | 31 | 1 | 0 | 65.8 | 66 | 65.8 | 10 | 1 | 58.5 | 7.3 | 8 | -0.7 |
| Crowley 37 | 32 | 1 | 0 | 61.9 | 66 | 61.9 | 10 | 1 | 56.5 | 5.4 | 80 | -2.6 |
| Crowley 38 | 33 | 1 | 0 | 59.5 | 66 | 59.5 | 10 | 1 | 55.0 | 4.5 | 80 | -3.5 |
| Crowley 39 | 34 | 1 | 0 | 58.4 | 66 | 58.4 | 10 | Ì | 54.1 | 4.3 | ø | -3.7 |
| Crowley 40 | 35 | 1 | 0 | 58.2 | 66 | 58.2 | 10 | 1 | 53.7 | 4.5 | 8 | -3.5 |
| Crowley 20 | 36 | 1 | 0 | 65.6 | 66 | 65.6 | 10 | ſ | 58.0 | 7.6 | 80 | -0.4 |
| Crowley 21 | 37 | 1 | 0 | 64.5 | 66 | 64.5 | 10 | Î | 57.3 | 7.2 | 8 | -0.8 |
| Crowley 41 | 38 | 1 | 0 | 62.8 | 66 | 62.8 | 10 | I | 56.5 | 6.3 | 80 | -1.7 |
| Crowley 42 | 39 | - | 0 | 62.3 | 66 | 62.3 | 10 | I | 56.0 | 6.3 | 80 | -1.7 |
| Crowley 22 | 40 | 1 | 0 | 63.6 | 66 | 63.6 | 10 | 1 | 57.0 | 6.6 | ω | -1.4 |
| Crowley 23 | 41 | 1 | 0 | 59.3 | 66 | 59.3 | 10 | 1 | 54.2 | 5.1 | 89 | -2.9 |
| Crowley 24 | 42 | 1 | 0 | 58.4 | 66 | 58.4 | 10 | 1 | 53.7 | 4.7 | 00 | -3.3 |
| Crowley 25 | 43 | - | o. | 58.2 | 66 | 58.2 | 10 | 1 | 53.4 | 4.8 | 8 | -3.2 |
| Crowley 26 | 44 | - | 0. | 62.5 | 66 | 62.5 | 10 | ľ | 56.4 | 6.1 | 8 | -1.9 |
| Crowley 27 | 45 | • | 0. | 60.8 | 66 | 60.8 | 10 | Ĩ | 55.8 | 5.0 | 80 | -3.0 |
| Crowley 28 | 46 | - | 0. | 59.6 | 66 | 59.6 | 10 | Ĩ | 54.8 | 4.8 | 80 | -3.2 |
| Crowley 29 | 47 | ۰ | 0. | 56.8 | 66 | 56.8 | 10 | 1 | 52.6 | 4.2 | 80 | -3.8 |
| Crowley 30 | 48 | 0 | 0. | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 62.4 | 11.0 | 80 | 3.0 |
| Crowley 31 | 49 | 1 | 0. | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 61.4 | 9.6 | ω | 1.6 |
| Crowley 32 | 50 | 1 | 0. | 69.2 | 66 | 69.2 | 10 | Snd Lvl | 60.7 | 8.5 | 8 | 0.5 |
| Crowley 33 | 51 | 1 | 0. | 67.0 | 66 | 67.0 | 10 | Snd Lvl | 59.6 | 7.4 | 8 | -0.6 |
| Crowley 34 | 52 | 1 | 0. | 61.3 | 66 | 61.3 | 10 | Ĩ | 56.7 | 4.6 | œ | -3.4 |
| Crowley 35 | 53 | 1 | 0. | 59.3 | 66 | 59.3 | 10 | I | 54.9 | 4.4 | ω | -3.6 |
| Crowley 36 | 54 | 0 | 0. | 57.2 | 66 | 57.2 | 10 | ļ | 53.3 | 3.9 | œ | -4.1 |
| Long Pond 1 | 55 | - | 0. | 56.0 | 66 | 56.0 | 10 | 1 | 52.7 | 3.3 | œ | -4.7 |
| Long Pond 2 | 56 | 1 | 0. | 57.7 | 66 | 57.7 | 10 | į | 54.0 | 3.7 | ω | -4.3 |
| Long Pond 3 | 57 | 1 | 0. | 59.9 | 66 | 59.9 | 10 | 1 | 55.4 | 4.5 | œ | -3.5 |
| Long Pond 4 | 58 | 1 | 0. | 62.9 | 66 | 62.9 | 10 | 1 | 57.6 | 5.3 | 00 | -2.7 |
| Long Pond 5 | 59 | 1 | 0. | 66.4 | 66 | 66.4 | 10 | Snd Lvl | 59.8 | 6.6 | œ | -1.4 |
| Long Pond 6 | 60 | 1 | 0. | 71.7 | 66 | 71.7 | 10 | Snd Lvl | 62.4 | 9.3 | 8 | 1.3 |
| Long Pond 7 | 61 | 1 | 0. | 72.8 | 66 | 72.8 | 10 | Snd Lvi | 63.2 | 9.6 | 8 | 1.6 |
| Long Pond 8 | 62 | 1 | 0. | 73.1 | 66 | 73.1 | 10 | Snd Lvl | 63.4 | 9.7 | æ | 1.7 |
| Long Pond 9 | 63 | 1 | 0. | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 63.6 | 10.0 | 8 | 2.0 |
| Long Pond 10 | 64 | 1 0 | 0. | 73.2 | 66 | 73.2 | 10 | Snd Lvl | 63.4 | 9.8 | œ | 1.8 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA E 0 | GM | | | | 2 | | | | | 26 May 20 | 15 | |

| XESULTS: SOUND LEVELS | | | | | | 4 | BtU PD | <u>s</u> e | | | | |
|------------------------------|----|------|------------|-------|------|------|--------|------------|------|------|----|------|
| Long Pond 11 | 65 | - | 0.0 | 72.7 | 99 | 72.7 | 10 | Snd Lvl | 62.7 | 10.0 | 80 | 2.0 |
| Long Pond 12 | 66 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 62.4 | 10.1 | 80 | 2.1 |
| Long Pond 13 | 67 | - | 0.0 | 71.3 | 66 | 71.3 | 10 | Snd Lvl | 61.9 | 9.4 | œ | 1.4 |
| Long Pond 14 | 68 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 61.8 | 9.2 | œ | 1.2 |
| Long Pond 15 | 69 | - | 0.0 | 71.1 | 66 | 71.1 | 10 | Snd Lvl | 62.0 | 9.1 | œ | 1.1 |
| Long Pond 16 | 20 | - | 0.0 | 71.2 | 99 | 71.2 | 10 | Snd Lvl | 62.1 | 9.1 | 80 | 1.1 |
| Long Pond 17 | 71 | - | 0.0 | 71.8 | 66 | 71.8 | 10 | Snd Lvi | 62.5 | 9.3 | 80 | 1.3 |
| Long Pond 18 | 72 | - | 0.0 | 72.2 | 66 | 72.2 | 10 | Snd Lví | 62.8 | 9.4 | œ | 1.4 |
| Long Pond 19 | 73 | - | 0.0 | 71.6 | 99 | 71.6 | 10 | Snd Lvi | 62.8 | 8.8 | œ | 0.8 |
| Long Pond 20 | 74 | - | 0.0 | 70.9 | 99 | 70.9 | 10 | Snd Lvl | 62.7 | 8.2 | 80 | 0.2 |
| Long Pond 21 | 75 | - | 0.0 | 70.5 | 99 | 70.5 | 10 | Snd Lvl | 63.3 | 7.2 | œ | -0.8 |
| Long Pond 22 | 76 | - | 0.0 | 71.0 | 99 | 71.0 | 10 | Snd Lvl | 64.6 | 6.4 | 80 | -1.6 |
| Chardonnay 1 | 77 | - | 0.0 | 61.1 | 99 | 61.1 | 10 | l | 57.1 | 4.0 | 80 | -4.0 |
| Chardonnay 2 | 78 | - | 0.0 | 62.6 | 99 | 62.6 | 10 | j, | 58.4 | 4.2 | œ | -3.8 |
| Chardonnay 3 | 62 | - | 0.0 | 65.5 | 66 | 65.5 | 10 | Ĩ | 59.9 | 5.6 | ω | -2.4 |
| Chardonnay 4 | 80 | - | 0.0 | 67.5 | 99 | 67.5 | 10 | Snd Lvl | 59.4 | 8.1 | ω | 0.1 |
| Chardonnay 5 | 81 | - | 0.0 | 65.2 | 99 | 65.2 | 10 | 1 | 59.0 | 6.2 | 80 | -1.8 |
| Chardonnay 6 | 82 | - | 0.0 | 62.1 | 99 | 62.1 | 10 | į | 58.2 | 3.9 | 8 | -4.1 |
| Chardonnay 7 | 83 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 56.7 | 3.9 | 8 | 4.1 |
| Dunbrooke | 84 | - | 0.0 | 64.2 | 66 | 64.2 | 10 | Į | 58.3 | 5.9 | 80 | -2.1 |
| Long Pond 23 | 85 | - | 0.0 | 61.0 | .99 | 61.0 | 10 | I | 57.0 | 4.0 | 8 | -4.0 |
| Long Pond 24 | 86 | ÷ | 0.0 | 60.7 | 99 | 60.7 | 10 | I | 57.2 | 3.5 | 8 | -4.5 |
| Long Pond 25 | 87 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | Ĩ | 56.3 | 3.9 | 8 | -4.1 |
| Long Pond 26 | 88 | 7 | 0.0 | 60.2 | 99 | 60.2 | 10 | 1 | 56.6 | 3.6 | 8 | -4.4 |
| Long Pond 27 | 89 | • | 0.0 | 59.0 | 99 | 59.0 | 10 | I | 56.8 | 22 | 8 | -5.8 |
| Dwelling Units | # | Us N | loise Redu | ction | | | | | | | | |
| | | 2 | Nin A | βΛ | Мах | | | | | | | |
| | | σ | 8 | 8 | dB | | | | | | | |
| All Selected | | 89 | 0.0 | 6.0 | 13.2 | | | | | | | |
| All Impacted | | 36 | 0.0 | 9.5 | 13.2 | | | | | | | |
| All that meet NR Goal | | 30 | 8.1 | 10.3 | 13.2 | | | | | | | |

26 May 2015

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD& | щ | | | |
|--|-----------------|-------------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 26 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: | I-4 Bt | U PD&E | | | | | | | | |
| RUN: BARRIER DESIGN: | I-4 Se GM 10 | gment 3 NS 6 R | SA E GM | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | ير ۲ | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | - |
| | | ft | ft | ft | ft | sq ft | cu yd | ft | ft:ft | \$ |
| NSA E GM | 3 | 16.00 | 16.00 | 16.00 | 5617 | 7 89871 | | | | 2696124 |
| 14' existing | 3 | 14.00 | 14.00 | 14.00 | 1842 | 25786 | | | | 0 |
| | | | | | | | | | Total Cost: | 2696124 |
| | | | | | | | | | | |

| Statistic Set May 2015 Turk 3.5 Turk 3.5 RESULT: SOUND LFCIS. Mean Turk 3.5 Turk 3.5 RESULT: SOUND LFCIS. Mean Anneage paenement type shall be used unloss. BARDENTRACT: Hall DDAE Anneage paenement type shall be used unloss. BARDENTRACT: Hall DDAE Anneage paenement type shall be used unloss. BARDENTRACT: Hall DDAE Anneage paenement type shall be used unloss. BARDENTRACT: Edeg F, SJX HA Anneage paenement type shall be used unloss. BARDENTRACT: Edeg F, SJX HA Anneage paenement type shall be used unloss. BARDENTRACT: Edeg F, SJX HA Anneage paenement type shall be used unloss. ARMORPHENCS: Edef T, Turk MA Barnert Anneage paenement type shall be used unloss. ARMORPHENCS: Edef T, Turk MA Barnert Anneage paenement type shall be used unloss. ARMORPHENCS: Edef T, Turk MA Barnert Anneage paenement type shall be used unloss. ARMORPHENCS: Edef T, Turk MA Barner Anneage transmemer ARMORPHENCS: Edef T, Turk MA Barner Anneage transmemer | RESULTS: SOUND LEVELS | | | | | | | I-4 BtU P | D&E | | | | |
|---|--|---------|--------------------|--------|-----------|--------|-------------|---------------------|-------------------------|---------------------------------|---|-------------------------|-----------------------|
| REMITTIN 23 A MULTIN 24 | Stantec M. Drauer | | | | | | | 26 May 2 TNM 2.5 | 015 | | | | |
| NIX: I Signer 3 No. I Signer 3 No. I Signer 3 No. Signer 3 No. <th>RESULTS: SOUND LEVELS PROJECT/CONTRACT:</th> <th>4 8</th> <th>tU PD&E</th> <th></th> <th></th> <th></th> <th></th> <th>Calculat</th> <th>ed with TN</th> <th>M 2.5</th> <th></th> <th></th> <th></th> | RESULTS: SOUND LEVELS PROJECT/CONTRACT: | 4 8 | tU PD&E | | | | | Calculat | ed with TN | M 2.5 | | | |
| A Side F SPK Har in the high way agree to the high many agree to thigh many agree to the high many agree to the high many agr | RUN: BARRIER DESIGN: | GM 2 | egment 3 l l6 R | NSA E | GM | | | | Average | pavement type | shall be used unl | ess | |
| Receiver Name No. #Dus Factorial Length No. #Dus Receiver Length Mith Barrier Name Applit Length | ATMOSPHERICS: | 68 0 | eg F, 50% | RH | | | | | a State h of a diffe | ighway agency rent type with | y substantiates the approval of FHWA | e use | |
| NameNo.MOLROLRotationNo.MothMathNo.MothMathNo.MothMat | Receiver | | - | | | | | | | | | | |
| | Name | No. #DU | s Existin | g Nc | o Barrier | | | | | With Barrier | | | |
| Cutantian Cutantian <t< th=""><th></th><th></th><th>LAeq11</th><th>ב ב</th><th>leq1h</th><th></th><th>Increase ov</th><th>/er existing</th><th>Type</th><th>Calculated</th><th>Noise Reduction</th><th><u></u></th><th></th></t<> | | | LAeq11 | ב ב | leq1h | | Increase ov | /er existing | Type | Calculated | Noise Reduction | <u></u> | |
| Mitedge dBA | | | | ü | Ilculated | Crit'n | Calculated | Crit'n Sub'l Inc | Impact | L A eq1h | Calculated Goal | Cal Cal Co Cal | lculated nus al |
| Rutledge 1 1 1 0 62.6 66.7 10 52.6 0.0 8 36.0 Rutledge 2 2 1 0.0 66.7 66.6 65.7 10 56.7 0.0 8 36.0 Rutledge 3 5 1 0.0 65.7 66 65.7 10 65.7 0.0 8 36.0 Rutledge 5 6 1 0.0 63.7 66 65.7 10 65.7 0.0 8 36.0 Rutledge 5 6 61.1 10.0 65.1 10 65.7 0.0 8 -7.7 Rutledge 17 11 1 0.0 66.7 66 60.1 65.0 0.1 8 -7.7 Rutledge 17 11 1 0.0 65.1 10 65.0 0.1 8 -7.7 Rutledge 17 11 1 0.0 55.1 0.0 | | | dBA | 뜅 | A | dBA | đВ | ЯB | | dBA | dB dB | æ | |
| Rutledge 2 2 1 0.0 66.7 66 66.7 10 Sind Livi 66.7 0.0 8 8 Rutledge 3 3 1 0.0 65.2 66 65.2 10 65.2 0.0 8 8 8 Rutledge 4 5 1 0.0 65.7 66 65.1 10 65.2 0.0 8 8 8 Rutledge 6 5 1 0.0 61.1 66 61.1 10 60.3 0.0 8 7.0 Rutledge 1 1 0.0 60.6 66 59.1 10 60.3 8 -7.6 Rutledge 10 11 1 0.0 58.7 66 59.1 10 56.3 0.0 8 -7.6 Rutledge 10 11 1 0.0 58.7 10 56.9 0.2 8 -7.6 R | Rutledge 1 | - | 5 | 0.0 | 62.6 | Ō | 0 | 2.6 | | 62.6 | 0.0 | 8 | -8.0 |
| Rutledge3 3 1 0.0 65.2 66 65.2 10 65.2 0.0 8 Rutledge4 5 1 0.0 63.7 66 63.7 10 65 6 | Rutledge 2 | 2 | * | 0.0 | 66.7 | Ö | 6 | 6.7 1 | 0 Snd Lv | 66.7 | 0.0 | 8 | -8.0 |
| Rutadge 4 4 1 0.0 63.7 66 63.7 10 63.7 0.0 8 Rutadge 5 5 1 0.0 63.7 66 63.1 10 63.7 0.0 8 -7.3 Rutadge 6 5 1 0.0 60.1 66 60.1 10 63.9 0.2 8 -7.3 Rutadge 8 8 1 0.0 60.1 66 60.1 10 60.9 0.2 8 -7.3 Rutadge 10 11 1 0.0 59.8 66 59.8 10 58.9 0.3 8 -7.3 Rutadge 11 11 1 0.0 59.8 66 59.8 10 58.9 0.3 8 -7.13 Rutadge 11 12 1 0.0 59.8 10 58.9 0.3 8 -7.13 < | Rutledge 3 | m | - | 0.0 | 65.2 | Ö | 6 | 5.2 | | 65.2 | 0.0 | 8 | -8.0 |
| Rutledge5 5 1 0.0 62.1 66 62.1 10 62.0 0.1 8 -7.3 Rutledge7 7 7 0.0 61.1 66 61.1 10 60.3 0.2 8 -7.3 Rutledge7 8 1 0.0 60.1 66.0 66.0 66.0 66.0 66.0 60.3 0.3 8 -7.3 Rutledge10 10 1 0.0 59.1 66 59.3 10 58.4 0.3 8 -7.3 Rutledge11 11 1 0.0 59.3 66 57.3 10 58.4 0.3 8 -7.3 Rutledge12 11 1 0.0 57.3 10 58.4 0.4 8 -7.3 Rutledge11 11 1 0.0 57.3 10 56.4 0.4 8 -7.3 Rutledge12 </td <td>Rutledge 4</td> <td>4</td> <td>-</td> <td>0.0</td> <td>63.7</td> <td>9</td> <td>9</td> <td>3.7</td> <td> </td> <td>63.7</td> <td>0.0</td> <td>80</td> <td>-8.0</td> | Rutledge 4 | 4 | - | 0.0 | 63.7 | 9 | 9 | 3.7 | | 63.7 | 0.0 | 80 | -8.0 |
| Rutledge 6 6 1 0.0 61.1 66 60.1 - 60.9 0.2 8 - 7.8 Rutledge 7 7 7 0 60.6 60.6 60.6 60.6 60.6 60.6 60.7 60.4 0.2 8 - 7.1 Rutledge 8 9 1 0.0 59.1 66 59.8 10 60.4 0.2 8 -7.1 Rutledge 10 10 10 10 0.0 59.8 66 57.8 10 59.4 0.4 8 -7.1 Rutledge 11 11 1 0.0 57.3 66 57.3 10 56.9 0.7 8 -7.3 Rutledge 12 11 1 0.0 57.3 66 57.3 10 56.9 0.7 8 -7.3 Rutledge 12 1 1 1 0.0 57.3 10 | Rutledge 5 | 5 | ~ | 0.0 | 62.1 | 9 | 9 | 2.1 | | 62.0 | 0.1 | Ø | -7.9 |
| Rutledge 7 7 1 0.0 60.6 60.6 60.6 60.4 0.2 8 -7.7 Rutledge 8 8 1 0.0 60.2 66 60.2 10 59.4 0.3 8 -7.7 Rutledge 10 11 1 0.0 59.1 66 59.1 10 59.4 0.3 8 -7.3 Rutledge 11 11 1 0.0 58.7 66 57.8 10 58.0 0.4 8 -7.3 Rutledge 12 11 1 0.0 57.8 66 57.3 10 58.0 0.4 8 -7.3 Cowley 12 13 1 0.0 57.3 66 57.3 10 56.1 1.2 8 -7.3 Cowley 12 14 1 0.0 57.3 10 56.1 1.2 8 -7.3 Cowley 1 1 | Rutledge 6 | 9 | - | 0.0 | 61.1 | 9 | 6 | 1.1 | | 60.9 | 0.2 | œ | -7.8 |
| Rutledge 8 8 1 0.0 60.2 66 60.2 10 55.6 0.3 8 -7.7 Rutledge 9 1 0.0 59.1 66 59.1 10 58.6 0.5 8 -7.5 Rutledge 10 11 1 0.0 59.1 66 57.8 10 58.6 0.7 8 -7.5 Rutledge 11 11 1 0.0 58.7 66 57.8 10 56.1 1 8 -7.3 Rutledge 12 13 1 0.0 57.3 10 56.1 12 8 -7.3 Cowley 1 13 1 0.0 59.5 66 57.3 10 57.9 16 -7.5 Cowley 2 1 1 0.0 53.5 10 57.9 16 -5.5 Cowley 4 1 10 0.0 53.6 | Rutledge 7 | 2 | ~ | 0.0 | 60.6 | 9 | 6 | 0.6 | | 60.4 | 0.2 | 80 | -7.8 |
| Rutledge 1 9 1 0.0 59.1 66 59.1 10 58.6 0.5 8 -7.5 Rutledge 10 10 1 0.0 59.8 66 59.8 10 59.4 0.4 8 -7.3 Rutledge 11 11 1 0.0 58.7 66 58.7 10 58.0 0.7 8 -7.3 Rutledge 12 13 1 0.0 58.7 66 57.3 10 56.9 0.2 8 -7.3 Crowley 1 13 1 0.0 57.3 66 57.3 10 56.1 1.2 8 -7.3 Crowley 2 15 1 0.0 53.8 66 57.3 10 57.9 1.6 8 -7.3 Crowley 2 1 1 0.0 75.8 66 57.5 1.6 67.6 67.6 67.6 67.6 | Rutledge 8 | æ | ~ | 0.0 | 60.2 | 9 | 6 | 0.2 | 0 | 59.9 | 0.3 | œ | -7.7 |
| Rutledge 10 10 1 0.0 59.8 66 59.8 10 59.4 0.4 8 -7.5 Rutledge 11 1 1 0.0 58.7 10 58.0 0.7 8 -7.3 Rutledge 12 11 1 0.0 57.8 66 58.7 10 58.0 0.7 8 -7.1 Rutledge 12 13 1 0.0 57.8 66 57.3 10 56.1 12 8 -56.4 Cowley 1 1 0.0 57.3 66 57.3 10 57.9 16.8 -57.9 56.1 12 12 8 -56.4 Crowley 2 1 1 0.0 71.6 66 57.3 10 57.9 16 66.3 66.4 57.9 10 46.1 66.1 66.1 66.1 66.1 66.1 67.1 67.0 16 16< | Rutledge 9 | σ | ~ | 0.0 | 59.1 | Ö | 5 | 9.1 | | 58.6 | 0.5 | 80 | -7.5 |
| Rutledge 11 11 1 0.0 58.7 66 58.7 10 58.0 0.7 8 -7.3 Rutledge 12 12 1 0.0 57.8 66 57.8 10 56.9 0.0 8 -7.1 Crowley 1 13 1 0.0 57.3 66 57.3 10 56.1 1.2 8 -7.1 Crowley 2 14 1 0.0 57.3 66 57.3 10 56.1 1.2 8 -5.8 Crowley 2 15 1 0.0 53.3 66 57.3 10 57.9 1.6 8 -5.8 Crowley 3 16 1 0.0 53.3 66 7.16 7.1 7.1 8 -5.8 Crowley 4 1 0 7.1 8.6 7.16 7.1 8 7.1 8 7.1 Crowley 6 1 | Rutledge 10 | 10 | - | 0.0 | 59.8 | 9 | 5 | 9.8 | | 59.4 | 0.4 | 80 | -7.6 |
| Rutledge 12 12 1 0.0 57.8 66 57.8 10 56.9 0.9 8 -7.1 Crowley 1 13 1 0.0 57.3 66 57.3 10 56.1 1.12 8 -6.8 Crowley 2 15 1 0.0 59.5 66 59.5 10 56.1 1.2 8 -6.8 Crowley 2 15 1 0.0 59.5 66 59.5 10 57.9 1.6 8 -5.8 Crowley 3 17 0 71.6 66 75.8 10 61.6 22 8 -5.8 Crowley 5 1 0.0 75.8 66 75.8 10 50.1 67.0 4.6 8 -5.8 Crowley 6 1 10 75.8 66 75.8 10 50.1 10.7 8 2.3 Crowley 7 1 | Rutledge 11 | ÷ | - | 0.0 | 58.7 | 9 | 5 | 8.7 1 | | 58.0 | 0.7 | 8 | -7.3 |
| Crowley 1 13 1 0.0 57.3 66 57.3 10 56.1 1.2 8 -6.8 Crowley 2 14 1 0.0 59.5 66 59.5 10 57.9 1.6 8 -6.8 Crowley 3 15 1 0.0 59.5 66 59.5 10 61.6 2.2 8 -5.8 Crowley 3 17 1 0.0 73.6 66 63.8 10 61.6 2.2 8 -5.8 Crowley 5 17 1 0.0 75.2 66 75.2 10 61.6 2.2 8 -5.8 Crowley 6 18 1 0.0 75.8 66 75.8 10 86.7 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 | Rutledge 12 | 12 | - | 0.0 | 57.8 | 9 | 6 5 | 7.8 | 0 | 56.9 | 0.9 | 80 | -7.1 |
| Crowley2 1 1 0.0 59.5 66 59.5 10 57.9 1.6 8 -6.4 Crowley3 15 1 0.0 63.8 66 63.8 10 61.6 2.2 8 -5.8 Crowley3 16 1 0.0 71.6 66 63.8 10 61.6 2.2 8 -5.8 Crowley5 17 0 75.2 10 Snd Lvi 67.0 4.6 8 -3.4 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvi 66.9 8 -2.9 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvi 66.9 8 -2.9 Crowley 6 1 10 0.0 75.8 66 75.8 10 Snd Lvi 66.1 10.3 10.3 10.3 10.3 2.3 Crowl | Crowley 1 | 13 | - | 0.0 | 57.3 | 9 | 6 5 | 7.3 | | 56.1 | 1.2 | 80 | -6.8 |
| Crowley 3 15 1 0.0 63.8 66 63.8 10 61.6 2.2 8 -5.8 Crowley 4 16 1 0.0 71.6 66 71.6 10 Snd Lvl 67.0 4.6 8 -3.4 Crowley 5 17 1 0.0 71.6 66 75.2 10 Snd Lvl 67.0 4.6 8 -3.4 Crowley 5 17 10 75.2 10 Snd Lvl 67.0 4.6 8 -3.4 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 66.7 10.9 8 2.9 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 65.1 10.9 8 2.9 Crowley 7 1 10 Snd Lvl 66.1 66.0 76.0 66 76.0 66 76.0 76.1 67.1 11.1 | Crowley 2 | 14 | - | 0.0 | 59.5 | 9 | 6 5 | 9.5 | | 57.9 | 1.6 | ω | -6.4 |
| Crowley 4 16 1 0.0 71.6 66 71.6 10 Snd Lvl 67.0 4.6 8 -3.4 Crowley 5 17 1 0.0 75.2 66 75.2 10 Snd Lvl 65.3 9.9 8 1.9 Crowley 5 18 1 0.0 75.2 66 75.2 10 Snd Lvl 65.3 9.9 8 2.9 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 65.1 10.9 8 2.9 Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 65.1 10.7 8 2.7 Crowley 8 20 10 Snd Lvl 65.1 10.7 8 2.3 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 66.3 3.7 Crowley 9 21 1 0.0 | Crowley 3 | 15 | - | 0.0 | 63.8 | 9 | 6 6 | 3.8 | | 61.6 | 2.2 | ω | -5.8 |
| Crowley 5 17 1 0.0 75.2 66 75.2 10 Snd Lvl 65.3 9.9 8 1.9 Crowley 6 18 1 0.0 75.8 66 75.8 10 Snd Lvl 64.9 10.9 8 2.9 Crowley 6 19 1 0.0 75.8 66 75.8 10 Snd Lvl 65.1 10.7 8 2.7 Crowley 7 20 1 0.0 75.8 66 75.8 10 Snd Lvl 65.1 10.7 8 2.7 Crowley 8 20 10 76.0 66 76.0 10 Snd Lvl 64.7 11.3 8 3.3 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.2 11.7 8 3.3 Crowley 9 22 1 0.0 76.0 10 5nd Lvl 64.2 11.7 8 3.7 | Crowley 4 | 16 | - | 0.0 | 71.6 | 9 | 6 7 | 1.6 | 0 Snd Lv | I 67.0 | 4.6 | 80 | -3.4 |
| Crowley 6 18 1 0.0 75.8 66 75.8 10 5nd Lvl 64.9 10.9 8 2.9 Crowley 7 19 1 0.0 75.8 66 75.8 10 5nd Lvl 64.9 10.9 8 2.9 Crowley 7 19 1 0.0 75.8 66 75.8 10 5nd Lvl 65.1 10.7 8 2.7 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 64.7 11.3 8 3.3 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.3 11.7 8 3.3 Crowley 10 23 1 0.0 76.4 66 76.4 10 64.2 11.7 8 3.3 Crowley 10 23 1 0.0 76.5 66 76.5 10 84.2 12.3 8 4.2 | Crowley 5 | 17 | - | 0.0 | 75.2 | 9 | 6 7 | 5.2 | 0 Snd Lv | l 65.3 | 9.9 | œ | 1.9 |
| Crowley 7 19 1 0.0 75.8 66 75.8 10 Snd Lvl 65.1 10.7 8 2.7 Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 64.7 11.3 8 3.3 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.7 11.3 8 3.3 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.3 11.7 8 3.3 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 64.2 12.2 8 3.7 Crowley 10 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.2 12.2 8 4.2 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.2 12.3 <td>Crowley 6</td> <td>18</td> <td>-</td> <td>0.0</td> <td>75.8</td> <td>9</td> <td>6 7</td> <td>5.8</td> <td>0 Snd Lv</td> <td>l 64.9</td> <td>10.9</td> <td>80</td> <td>2.9</td> | Crowley 6 | 18 | - | 0.0 | 75.8 | 9 | 6 7 | 5.8 | 0 Snd Lv | l 64.9 | 10.9 | 80 | 2.9 |
| Crowley 8 20 1 0.0 76.0 66 76.0 10 Snd Lvl 64.7 11.3 8 3.3 Crowley 9 21 1 0.0 76.0 66 76.0 10 Snd Lvl 64.3 11.7 8 3.7 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 64.2 11.7 8 3.7 Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 64.2 12.2 8 3.7 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.2 12.3 8 4.2 | Crowley 7 | 19 | - | 0.0 | 75.8 | 9 | 6 7 | 5.8 | 0 Snd Lv | l 65.1 | 10.7 | 8 | 2.7 |
| Crowley 9 21 1 0.0 76.0 66 76.0 10 8nd Lvl 64.3 11.7 8 3.7 Crowley 10 22 1 0.0 76.4 66 76.4 10 8nd Lvl 64.2 11.7 8 3.7 Crowley 10 23 1 0.0 76.4 66 76.4 10 8nd Lvl 64.2 12.2 8 4.2 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.2 12.3 8 4.3 | Crowley 8 | 20 | - | 0.0 | 76.0 | 9 | 6 7 | 6.0 | 0 Snd Lv | l 64.7 | 11.3 | 80 | 3.3 |
| Crowley 10 22 1 0.0 76.4 66 76.4 10 Snd Lvl 64.2 12.2 8 4.2 Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.2 12.2 8 4.3 | Crowley 9 | 21 | - | 0.0 | 76.0 | 9 | 6 | . 0.9 | 0 Snd Lv | l 64.3 | 11.7 | 80 | 3.7 |
| Crowley 11 23 1 0.0 76.5 66 76.5 10 Snd Lvl 64.2 12.3 8 4.3 | Crowley 10 | 22 | - | 0.0 | 76.4 | 9 | 6 7 | 6.4 | 0 Snd Lv | l 64.2 | 12.2 | 80 | 4.2 |
| | Crowley 11 | 23 | - | 0.0 | 76.5 | 9 | 6 7 | 6.5 | 0 Snd Lv | l 64.2 | 12.3 | 80 | 4.3 |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD | SЕ В | | | | |
|-----------------------------------|----|---|-----|------|----|------|--------|---------|------|-----------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.2 | 99 | 76.2 | 10 | Snd Lvl | 63.8 | 12.4 | ω | 4.4 |
| Crowley 13 | 25 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 63.1 | 11.2 | 80 | 3.2 |
| Crowley 14 | 26 | - | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 62.9 | 10.0 | 80 | 2.0 |
| Crowley 15 | 27 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 62.8 | 9.7 | 8 | 1.7 |
| Crowley 16 | 28 | ۲ | 0.0 | 58.7 | 66 | 58.7 | 10 | 1 | 55.9 | 2.8 | 8 | -5.2 |
| Crowley 17 | 29 | F | 0.0 | 60.7 | 66 | 60.7 | 10 | 1 | 57.2 | 3.5 | 80 | -4.5 |
| Crowley 18 | 30 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | 1 | 58.9 | 4.7 | 80 | -3.3 |
| Crowley 19 | 31 | ۲ | 0.0 | 65.8 | 99 | 65.8 | 10 | l | 58.9 | 6.9 | 80 | -1.1 |
| Crowley 37 | 32 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | 1 | 56.8 | 5.1 | œ | -2.9 |
| Crowley 38 | 33 | - | 0.0 | 59.5 | 66 | 59.5 | 10 | 1 | 55.3 | 4.2 | 80 | -3.8 |
| Crowley 39 | 34 | ~ | 0.0 | 58.4 | 66 | 58.4 | 10 | I | 54.3 | 4.1 | 80 | -3.9 |
| Crowley 40 | 35 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | 1 | 54.0 | 4.2 | œ | -3.8 |
| Crowley 20 | 36 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | | 58.5 | 7.1 | 80 | -0.9 |
| Crowley 21 | 37 | - | 0.0 | 64.5 | 66 | 64.5 | 10 | 1 | 57.8 | 6.7 | 80 | -1.3 |
| Crowley 41 | 38 | - | 0.0 | 62.8 | 66 | 62.8 | 10 | ŀ | 56.9 | 5.9 | 80 | -2.1 |
| Crowley 42 | 66 | ~ | 0.0 | 62.3 | 66 | 62.3 | 10 | Ī | 56.4 | 5.9 | 8 | -2.1 |
| Crowley 22 | 40 | - | 0.0 | 63.6 | 66 | 63.6 | 10 | Î | 57.4 | 6.2 | 80 | -1.8 |
| Crowley 23 | 41 | - | 0.0 | 59.3 | 99 | 59.3 | 10 | Ī | 54.6 | 4.7 | 8 | -3.3 |
| Crowley 24 | 42 | - | 0.0 | 58.4 | 66 | 58.4 | 10 | | 54.1 | 4.3 | 8 | -3.7 |
| Crowley 25 | 43 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | 1 | 53.8 | 4.4 | ø | -3.6 |
| Crowley 26 | 44 | - | 0.0 | 62.5 | 99 | 62.5 | 10 | 1 | 56.9 | 5.6 | 80 | -2.4 |
| Crowley 27 | 45 | - | 0.0 | 60.8 | 99 | 60.8 | 10 | Ĩ. | 56.2 | 4.6 | 80 | -3.4 |
| Crowley 28 | 46 | - | 0.0 | 59.6 | 66 | 59.6 | 10 | l | 55.3 | 4.3 | 80 | -3.7 |
| Crowley 29 | 47 | - | 0.0 | 56.8 | 66 | 56.8 | 10 | | 52.9 | 3.9 | 80 | -4.1 |
| Crowley 30 | 48 | - | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 63.2 | 10.2 | 80 | 2.2 |
| Crowley 31 | 49 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 62.1 | 8.9 | 80 | 0.9 |
| Crowley 32 | 50 | - | 0.0 | 69.2 | 99 | 69.2 | 10 | Snd Lvl | 61.3 | 7.9 | 80 | -0.1 |
| Crowley 33 | 51 | - | 0.0 | 67.0 | 99 | 67.0 | 10 | Snd Lvl | 60.1 | 6.9 | 80 | -1.1 |
| Crowley 34 | 52 | - | 0.0 | 61.3 | 99 | 61.3 | 10 | Ĩ | 57.2 | 4.1 | œ | -3.9 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 99 | 59.3 | 10 | - | 55.2 | 4.1 | 80 | -3.9 |
| Crowley 36 | 54 | - | 0.0 | 57.2 | 66 | 57.2 | 10 | | 53.6 | 3.6 | 80 | -4.4 |
| Long Pond 1 | 55 | - | 0.0 | 56.0 | 66 | 56.0 | 10 | | 53.0 | 3.0 | 80 | -5.0 |
| Long Pond 2 | 56 | - | 0.0 | 57.7 | 66 | 57.7 | 10 | | 54.2 | 3.5 | 8 | -4.5 |
| Long Pond 3 | 57 | - | 0.0 | 59.9 | 66 | 59.9 | 10 | | 55.8 | 4.1 | 80 | -3.9 |
| Long Pond 4 | 58 | - | 0.0 | 62.9 | 99 | 62.9 | 10 | 1 | 58.1 | 4.8 | 80 | -3.2 |
| Long Pond 5 | 59 | ٢ | 0.0 | 66.4 | 99 | 66.4 | 10 | Snd Lvl | 60.4 | 6.0 | 80 | -2.0 |
| Long Pond 6 | 60 | - | 0.0 | 71.7 | 99 | 71.7 | 10 | Snd Lvl | 63.2 | 8.5 | ø | 0.5 |
| Long Pond 7 | 61 | F | 0.0 | 72.8 | 99 | 72.8 | 10 | Snd Lvl | 63.9 | 8.9 | 8 | 0.9 |
| Long Pond 8 | 62 | F | 0.0 | 73.1 | 66 | 73.1 | 10 | Snd Lvl | 64.1 | 9.0 | 80 | 1.0 |
| Long Pond 9 | 63 | - | 0.0 | 73.6 | 99 | 73.6 | 10 | Snd Lvi | 64.4 | 9.2 | 80 | 1.2 |
| Long Pond 10 | 64 | - | 0.0 | 73.2 | 99 | 73.2 | 10 | Snd Lvl | 64.2 | 9.0 | œ | 1.0 |
| C:\TNM25\230168\Seq 3\8 + 4\NSA E | GM | | | | | 2 | | | | 26 May 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | | -4 | BtU PD | ßЕ | | | | |
|------------------------------|------|--------|----------|------|------|------------|--------|---------|------|-----|----|------|
| Long Pond 11 | 65 | - | 0.0 | 72.7 | 99 | 72.7 | 10 | Snd Lvl | 63.5 | 9.2 | 80 | 1.2 |
| Long Pond 12 | 66 | - | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 63.1 | 9.4 | 80 | 1.4 |
| Long Pond 13 | 67 | - | 0.0 | 71.3 | 66 | 71.3 | 10 | Snd Lvl | 62.5 | 8.8 | 00 | 0.8 |
| Long Pond 14 | 68 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 62.4 | 8.6 | 80 | 0.6 |
| Long Pond 15 | 69 | - | 0.0 | 71.1 | 66 | 71.1 | 10 | Snd Lvl | 62.6 | 8.5 | 80 | 0.5 |
| Long Pond 16 | 70 | - | 0.0 | 71.2 | 66 | 71.2 | 10 | Snd Lvl | 62.7 | 8.5 | 80 | 0.5 |
| Long Pond 17 | 71 | - | 0.0 | 71.8 | 99 | 71.8 | 10 | Snd Lvl | 63.2 | 8.6 | 80 | 0.6 |
| Long Pond 18 | 72 | 1 | 0.0 | 72.2 | 66 | 72.2 | 10 | Snd Lvl | 63.4 | 8.8 | 80 | 0.8 |
| Long Pond 19 | 73 | - | 0.0 | 71.6 | 66 | 71.6 | 10 | Snd Lvl | 63.4 | 8.2 | 00 | 0.2 |
| Long Pond 20 | 74 | - | 0.0 | 70.9 | 99 | 70.9 | 10 | Snd Lvl | 63.2 | 7.7 | 80 | -0.3 |
| Long Pond 21 | 75 | - | 0.0 | 70.5 | 66 | 70.5 | 10 | Snd Lvl | 63.7 | 6.8 | 80 | -1.2 |
| Long Pond 22 | 76 | - | 0.0 | 71.0 | 66 | 71.0 | 10 | Snd Lvl | 64.9 | 6.1 | 80 | -1.9 |
| Chardonnay 1 | 17 | F | 0.0 | 61.1 | 99 | 61.1 | 10 | Ĭ | 57.2 | 3.9 | œ | -4.1 |
| Chardonnay 2 | 78 | - | 0.0 | 62.6 | 66 | 62.6 | 10 | I, | 58.5 | 4.1 | 80 | -3.9 |
| Chardonnay 3 | 62 | F | 0.0 | 65.5 | 66 | 65.5 | 10 | Ĩ | 60.1 | 5.4 | 80 | -2.6 |
| Chardonnay 4 | 80 | + | 0.0 | 67.5 | 66 | 67.5 | 10 | Snd Lvl | 59.5 | 8.0 | 80 | 0.0 |
| Chardonnay 5 | 81 | F | 0.0 | 65.2 | 66 | 65.2 | 10 | I | 59.0 | 6.2 | 80 | -1.8 |
| Chardonnay 6 | 82 | ٢ | 0.0 | 62.1 | 66 | 62.1 | 10 | ł | 58.1 | 4.0 | 80 | -4.0 |
| Chardonnay 7 | 83 | ٢ | 0.0 | 60.6 | 66 | 60.6 | 10 | ļ | 56.6 | 4.0 | 80 | -4.0 |
| Dunbrooke | 84 | + | 0.0 | 64.2 | 66 | 64.2 | 10 | 1 | 58.3 | 5.9 | 8 | -2.1 |
| Long Pond 23 | 85 | + | 0.0 | 61.0 | 66 | 61.0 | 10 | ľ | 57.1 | 3.9 | 80 | -4.1 |
| Long Pond 24 | 86 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | I | 57.5 | 3.2 | 80 | -4.8 |
| Long Pond 25 | 87 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | î. | 56.6 | 3.6 | 80 | -4.4 |
| Long Pond 26 | 88 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | l | 57.0 | 3.2 | 80 | -4.8 |
| Long Pond 27 | 89 | - | 0.0 | 59.0 | 66 | 59.0 | 10 | 1 | 57.2 | 1.8 | 80 | -6.2 |
| Dwelling Units | 10 # | Js Noi | se Reduc | tion | | | | | | | | |
| | | Min | A | Ð | Max | | | | | | | |
| | | đB | đb | | đB | | | | | | | |
| All Selected | | 89 | 0.0 | 5.6 | 12.4 | | | | | | | |
| All Impacted | | 36 | 0.0 | 8.8 | 12.4 | | | | | | | |
| All that meet NR Goal | | 28 | 8.0 | 9.7 | 12.4 | | | | | | | |

26 May 2015

3

| RESULTS: BARRIER DESCRIPTIONS | | | | | | - | 4 BtU PD& | щ | | | |
|--------------------------------------|--------|-----------|-----------|-------|---------|-------|-----------|---------|--------------|-------------|---------|
| Stantec | | | | 26 Ma | iy 2015 | | | | | | |
| M. Drauer | | | | TNM | 2.5 | | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Bt | U PD&E | | | | | | | | | |
| RUN: | I-4 Se | gment 3 N | SA E BM | | | | | | | | |
| BARRIER DESIGN: | BM 1 | 4 left | | | | | | | | | |
| Barriers | | | | | | | | | | | |
| Name | Type | Heights a | long Barr | 'ier | ī | ength | If Wall | If Berm | | | Cost |
| | | Min | Avg | Мах | | | Area | Volume | Top Width | Run:Rise | |
| | | ft | ft | Ŧ | ŧ | | sq ft | cu yd | Ŧ | ft:ft | S |
| NSA E BM | 3 | 14.00 | 14.(| 00 | 4.00 | 5872 | 82213 | | | | 2466394 |
| 14' existing | 3 | 14.00 | 14.(| 00 | 14.00 | 1842 | 25786 | | | | 0 |
| | | | | | | | | | | Total Cost: | 2466394 |
| | | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | | Ī | BtU PD | ы | | | | |
|---|--------|-----------------------------|--------------------------|------|---------|--------|----------|---------|-------------------|---------------------------|------------------------------|--------------------------------|---------------------|-----------------------------|
| Stantec M. Drauer | | | | | | | | 9 I C | May 201 JM 2.5 | 5 with TNN | 2 5 | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seg BM 14 | PD&E ment 3 N left | SAEB | Σ | | | Š | | Average p | avement typ | e shall be use | ed unless | _ |
| ATMOSPHERICS: | | 68 deç | J F, 50% F | R | 9 | | | | | a State hi of a differ | ghway agenc ent type with | y substantiat approval of l | tes the us FHWA. | Ð |
| Receiver Name | No. | #DUs | Existino | No | Barrier | | | | | | With Barrier | | | |
| | | | LAeq1h | LAe | 11h | | Increase | over ex | isting | Type | Calculated | Noise Redu | ction | |
| | | | | Calo | ulated | Crit'n | Calculat | ي هر | it'n Jb'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | | dBA | 臣 | đ | ~ | | dBA | đB | æ | dB |
| Rutledae 1 | | | 0 | 0.0 | 63.8 | | 90 | 63.8 | 10 | 1 | 62.5 | 1 | e | 8 |
| Rutledge 2 | ~~ | | 0 | 0.0 | 68.3 | | 36 | 68.3 | 10 | Snd Lvl | 65.9 | 2. | 4 | 8 -5.6 |
| Rutledge 3 | | | - | 0.0 | 66.0 | Ť | 36 | 66.0 | 10 | Snd Lvl | 62.5 | 3. | 2 | 8 -4.5 |
| Rutledge 4 | 4 | - | - | 0.0 | 64.3 | Ĵ | 36 | 64.3 | 10 | ľ | 60.4 | 1 3.5 | 6 | .4. |
| Rutledge 5 | | 10 | | 0.0 | 62.7 | | 36 | 62.7 | 10 | I | 58. | 5 4. | 2 | 8 -3.0 |
| Rutledge 6 | U | 0 | - | 0.0 | 61.7 | Ū | 36 | 61.7 | 10 | 1 | 27.4 | 4. | e | -3.7 |
| Rutledge 7 | | | - | 0.0 | 61.3 | J | 36 | 61.3 | 10 | Ĭ | 56.8 | 3.4. | Ð | -3.6 |
| Rutledge 8 | w | ~ | - | 0.0 | 60.9 | Ţ | 36 | 60.9 | 10 | 1 | 56.1 | .4. | 4 | -3.6 |
| Rutledge 9 | 0, | | - | 0.0 | 60.2 | Ť | 36 | 60.2 | 10 | | 55.8 | 3 | 4 | -3.(|
| Rutledge 10 | 10 | | - | 0.0 | 60.7 | Ť | 36 | 60.7 | 10 | 1 | 56. | 4. | 9 | -3.4 |
| Rutledge 11 | 11 | | - | 0.0 | 59.9 | | 36 | 59.9 | 10 | ĺ | 55.(| 3 4. | 8 | -3.7 |
| Rutledge 12 | 4 | 01 | - | 0.0 | 59.1 | | 36 | 59.1 | 10 | Ĩ | 55. | 4. | 0 | 8 -4.(|
| Crowley 1 | 13 | ~ | - | 0.0 | 58.8 | Ĵ | 36 | 58.8 | 10 | I | 54. | 3. | 6 | 8 |
| Crowley 2 | 1 | 0 | - | 0.0 | 61.2 | | 36 | 61.2 | 10 | I | 56. | 9 4. | 3 | 8.3. |
| Crowley 3 | 16 | 10 | - | 0.0 | 65.2 | Ť | 36 | 65.2 | 10 | l | 60. | 6.4. | 7 | 8 |
| Crowley 4 | 16 | (0) | - | 0.0 | 72.2 | Ť | 36 | 72.2 | 10 | Snd Lvl | 64. | 7. | 5 | 8 -0.1 |
| Crowley 5 | 17 | ~ | | 0.0 | 75.6 | | 36 | 75.6 | 10 | Snd Lvl | 68. | 2. | 5 | 8 -0.1 |
| Crowley 6 | 18 | 0 | | 0.0 | 76.2 | | 96 | 76.2 | 10 | Snd Lvl | 71.(| 5. | 2 | 8 -2.8 |
| Crowley 7 | 10 | 0 | - | 0.0 | 76.3 | | 36 | 76.3 | 10 | Snd Lvl | 13.1 | ů. | - | 8 -4.9 |
| Crowley 8 | 3 | 0 | | 0.0 | 76.6 | | 36 | 76.6 | 10 | Snd Lvl | 73. | 3 | 8 | 8 -5.1 |
| Crowley 9 | 5 | - | - | 0.0 | 76.6 | | 36 | 76.6 | 10 | Snd Lvl | 73,4 | 3.2 | 8 | 8 -5.1 |
| Crowley 10 | 3 | 0 | 1 0 | 0.0 | 76.8 | | 36 | 76.8 | 10 | Snd Lvl | 73. | 3. | 0 | -5.0 |
| Crowley 11 | 53 | 8 | 1 | 0.0 | 76.8 | | 36 | 76.8 | 10 | Snd Lvl | 73. | τ. Ο | 4 | 8 -4.(|
| C:\TNM25\230168\Seg 3\8 + 4\NS/ | A E BM | | | | | | ÷ | | | | | 26 N | 1ay 2015 | |

| RESULTS: SOUND LEVELS | | | | | | -4- | Btu PD | SE SE | | | | |
|-------------------------------------|----|---|-----|------|----|------|--------|----------|------|-----------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.7 | 66 | 76.7 | 10 | Snd Lvl | 71.8 | 4.9 | 8 | -3.1 |
| Crowley 13 | 25 | ÷ | 0.0 | 75.7 | 99 | 75.7 | 10 | Snd Lvl | 69.3 | 6.4 | ω | -1.6 |
| Crowley 14 | 26 | - | 0.0 | 74.9 | 66 | 74.9 | 10 | Snd Lvl | 67.3 | 7.6 | 8 | -0.4 |
| Crowley 15 | 27 | ÷ | 0.0 | 73.3 | 99 | 73.3 | 10 | Snd Lvl | 65.3 | 8.0 | 80 | 0.0 |
| Crowley 16 | 28 | - | 0.0 | 61.0 | 99 | 61.0 | 10 | 1 | 57.2 | 3.8 | 80 | -4.2 |
| Crowley 17 | 29 | - | 0.0 | 63.1 | 66 | 63.1 | 10 | I | 58.7 | 4.4 | 8 | -3.6 |
| Crowley 18 | 30 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | - | 61.1 | 4.5 | 80 | -3.5 |
| Crowley 19 | 31 | - | 0.0 | 67.1 | 66 | 67.1 | 10 | Snd Lvl | 63.3 | 3.8 | 80 | -4.2 |
| Crowley 37 | 32 | F | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 60.4 | 3.9 | 80 | -4.1 |
| Crowley 38 | 33 | - | 0.0 | 61.8 | 66 | 61.8 | 10 | 1 | 58.0 | 3.8 | 00 | -4.2 |
| Crowley 39 | 34 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | 1 | 57.1 | 3.6 | 80 | -4.4 |
| Crowley 40 | 35 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | 1 | 56.8 | 3.4 | 80 | -4.6 |
| Crowley 20 | 36 | - | 0.0 | 67.2 | 66 | 67.2 | 10 | Snd Lvl | 63.9 | 3.3 | 80 | -4.7 |
| Crowley 21 | 37 | 4 | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.6 | 3.5 | 80 | -4.5 |
| Crowley 41 | 38 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | ł | 61.3 | 3.3 | 80 | -4.7 |
| Crowley 42 | 39 | F | 0.0 | 63.8 | 66 | 63.8 | 10 | 1 | 60.7 | 3.1 | 80 | -4.9 |
| Crowley 22 | 40 | ٣ | 0.0 | 64.9 | 66 | 64.9 | 10 | 1 | 61.1 | 3.8 | œ | -4.2 |
| Crowley 23 | 41 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | 1 | 57.8 | 3.6 | 80 | -4.4 |
| Crowley 24 | 42 | - | 0.0 | 60.3 | 66 | 60.3 | 10 | 1 | 56.8 | 3.5 | 80 | -4.5 |
| Crowley 25 | 43 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 56.2 | 3.6 | 80 | -4.4 |
| Crowley 26 | 44 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | Ē | 59.5 | 4.0 | 80 | 4.0 |
| Crowley 27 | 45 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | Ē | 58.1 | 3.9 | ω | -4.1 |
| Crowley 28 | 46 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | Ì | 56.7 | 3.9 | ω | 4.1 |
| Crowley 29 | 47 | ÷ | 0.0 | 58.2 | 66 | 58.2 | 10 | I | 54.7 | 3.5 | ø | -4.5 |
| Crowley 30 | 48 | - | 0.0 | 72.1 | 66 | 72.1 | 10 | Snd Lvl | 64.3 | 7.8 | 80 | -0.2 |
| Crowley 31 | 49 | - | 0.0 | 69.1 | 66 | 69.1 | 10 | Snd Lvl | 62.8 | 6.3 | œ | -1.7 |
| Crowley 32 | 50 | - | 0.0 | 67.4 | 66 | 67.4 | 10 | Snd Lvł | 61.8 | 5.6 | 8 | -2.4 |
| Crowley 33 | 51 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | 1 | 59.9 | 5.7 | 8 | -2.3 |
| Crowley 34 | 52 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | | 57.8 | 3.6 | 80 | -4.4 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | | 55.9 | 3.4 | 80 | -4.6 |
| Crowley 36 | 54 | - | 0.0 | 58.0 | 66 | 58.0 | 10 | Î | 54.9 | 3.1 | 80 | -4.9 |
| Long Pond 1 | 55 | - | 0.0 | 56.7 | 66 | 56.7 | 10 | Ĩ | 53.6 | 3.1 | 80 | -4.9 |
| Long Pond 2 | 56 | - | 0.0 | 57.9 | 66 | 57.9 | 10 | Î | 54.8 | 3.1 | œ | -4.9 |
| Long Pond 3 | 57 | - | 0.0 | 59.7 | 66 | 59.7 | 10 | | 56.4 | 3.3 | 8 | -4.7 |
| Long Pond 4 | 58 | - | 0.0 | 62.4 | 66 | 62.4 | 10 | | 58.1 | 4.3 | 80 | -3.7 |
| Long Pond 5 | 59 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 60.5 | 5.7 | 80 | -2.3 |
| Long Pond 6 | 60 | - | 0.0 | 71.9 | 66 | 71.9 | 10 | Snd Lvl | 64.0 | 7.9 | œ | -0.1 |
| Long Pond 7 | 61 | - | 0.0 | 73.5 | 66 | 73.5 | 10 | Snd Lvl | 65.8 | 7.7 | 80 | -0.3 |
| Long Pond 8 | 62 | - | 0.0 | 74.0 | 66 | 74.0 | 10 | Snd Lvi | 67.2 | 6.8 | ω | -1.2 |
| Long Pond 9 | 63 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 0.69 | 5.3 | ø | -2.7 |
| Long Pond 10 | 64 | - | 0.0 | 73.7 | 66 | 73.7 | 10 | Snd Lvl | 70.5 | 3.2 | 8 | -4.8 |
| C:\TNM25\230168\Seq 3\8 + 4\NSA E B | SM | | | | | 0 | | | | 26 May 20 | 15 | |

| | | | | | 4 | | ų | | | | |
|-----------------------|-------|----------|---------|-------|------|----|---------|------|-----|----|------|
| | . 65 | 0.0 | 73. | 66 | 73.4 | 10 | Snd Lvl | 72.4 | 1.0 | 8 | -7.0 |
| Long Pond 12 | . 99 | 0.0 | 73. | 99 | 73.9 | 10 | Snd Lvl | 73.6 | 0.3 | 8 | -7.7 |
| Long Pond 13 | . 29 | 0.0 | 73. | 66 | 73.5 | 10 | Snd Lvl | 73.3 | 0.2 | 8 | -7.8 |
| Long Pond 14 | 68 | 0.0 | 73. | 0 66 | 73.0 | 10 | Snd Lvl | 72.9 | 0.1 | ø | -7.9 |
| Long Pond 15 | 69 | 0.0 | 73. | 66 | 73.2 | 10 | Snd Lvl | 73.1 | 0.1 | 80 | -7.9 |
| Long Pond 16 | . 02 | 0.0 | 73. | 99 00 | 73.0 | 10 | Snd Lvl | 72.9 | 0.1 | 80 | -7.9 |
| Long Pond 17 | 71 | 0.0 | 73. | 7 66 | 73.7 | 10 | Snd Lvl | 73.6 | 0.1 | ω | -7.9 |
| Long Pond 18 | 72 | 0.0 | 74. | 66 | 74.3 | 10 | Snd Lvl | 74.3 | 0.0 | 80 | -8.0 |
| Long Pond 19 | . 13 | 0.0 | 73. | 66 | 73.6 | 10 | Snd Lvl | 73.6 | 0.0 | 80 | -8.0 |
| Long Pond 20 | 74 | 0.0 | 72. | 99 66 | 72.9 | 10 | Snd Lvl | 72.9 | 0.0 | 8 | -8.0 |
| Long Pond 21 | 75 . | 0.0 | 72. | 66 | 72.4 | 10 | Snd Lvl | 72.4 | 0.0 | 80 | -8.0 |
| Long Pond 22 | . 92 | 0.0 | 72. | 66 | 72.8 | 10 | Snd Lvi | 72.8 | 0.0 | 8 | -8.0 |
| Chardonnay 1 | . 11 | 0.0 | 62. | 66 | 62.1 | 10 | t | 60.5 | 1.6 | 80 | -6.4 |
| Chardonnay 2 | 78 | 0.0 | 64. | 99 0 | 64.0 | 10 | l | 62.4 | 1.6 | 80 | -6.4 |
| Chardonnay 3 | . 62 | 0.0 | 67. | 1 66 | 67.1 | 10 | Snd Lvl | 65.6 | 1.5 | 80 | -6.5 |
| Chardonnay 4 | . 08 | 0.0 | 68. | 1 66 | 68.1 | 10 | Snd Lvl | 62.1 | 6.0 | 80 | -2.0 |
| Chardonnay 5 | . 18 | 0.0 | 65. | 7 66 | 65.7 | 10 | 1 | 60.8 | 4.9 | 8 | -3.1 |
| Chardonnay 6 | . 82 | 0.0 | 62. | 99 66 | 62.9 | 10 | | 60.2 | 2.7 | 80 | -5.3 |
| Chardonnay 7 | 83 | 0.0 | 61. | 1 66 | 61.1 | 10 | 1 | 58.5 | 2.6 | 8 | -5.4 |
| Dunbrooke | 84 | 0.0 | 64. | 666 | 64.6 | 10 | | 59.8 | 4.8 | œ | -3.2 |
| Long Pond 23 | 85 | 0.0 | 61. | 99 6 | 61.9 | 10 | Í | 61.0 | 0.9 | 80 | -7.1 |
| Long Pond 24 | 98 | 0.0 | 62. | 99 0 | 62.0 | 10 | I | 61.7 | 0.3 | 80 | -7.7 |
| Long Pond 25 | 87 | 0.0 | 60. | 3 66 | 60.3 | 10 | Î | 60.1 | 0.2 | 80 | -7.8 |
| Long Pond 26 | 88 | 0.0 | 60. | 1 66 | 60.1 | 10 | Ï | 59.3 | 0.8 | 8 | -7.2 |
| Long Pond 27 | 68 | 0.0 | 58. | 7 66 | 58.7 | 10 | 1 | 57.8 | 0.9 | œ | -7.1 |
| Dwelling Units | # DUs | Noise Re | duction | | | | | | | | |
| | | Min | Avg | Max | | | | | | | |
| | | đB | ₽ | ₿ | | | | | | | |
| All Selected | ö | 0.0 | 3. | 5 8.0 | | | | | | | |
| All Impacted | 4 | 0.0 | . 3. | 6 8.0 | | | | | | | |
| All that meet NR Goal | | 8.0 | .8 | 0 8.0 | | | | | | | |

26 May 2015

e

| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD& | щ | | | |
|--------------------------------------|---------|------------|------------|----------------------|--------|------------|---------|--------------|-------------|---------|
| Stantec M. Drauer | | | | 26 May 20 TNM 2.5 | 115 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | 1-4 Bft | U PD&F | | | | | | | | |
| RUN: | I-4 Se | gment 3 NS | sa e BM | | | | | | | |
| BARRIER DESIGN: | BM 1 | | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | r | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | Ħ | ft | Ŧ | ¥ | sq ft | cu yd | ft | ft:ft | S |
| NSA E BM | X | 14.00 | 14.00 | 14.00 | 5871 | 82198 | | 2 | | 2465953 |
| 14' existing | 3 | 14.00 | 14.00 | 14.00 | 1842 | 25786 | | | | 0 |
| | | | | | | | | | Total Cost: | 2465953 |
| | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | |
|--|--------|--------------------|---------------------|-------|---------|--------|--------------|----------------------|---------------------------------------|---|--|---------------------------------|-----------------------------|
| Stantec M. Drauer | | | | | | | | 26 May 20 TNM 2.5 | 115 | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: | | 1-4 BtU 1-4 Seg | J PD&E jment 3 N | SAEBM | | | | Calculate | d with TNN | 12.5 | | | |
| BARRIER DESIGN: ATMOSPHERICS: | | BM 14 68 de | g F, 50% F | Ħ | | | | | Average a State hi of a diffe | oavement type ghway agenc ent type with | e shall be use y substantiat approval of I | ed unless es the us FHWA. | a |
| Receiver Name | No. | #DUs | Existino | No Ba | rrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq, | 4 | | Increase ove | er existing | Type | Calculated | Noise Redu | ction | _ |
| | | | | Calcu | lated C | crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | q | BA | dB | B | | dBA | đB | Яþ | dB |
| Rutledge 1 | | | 1 | 0. | 63.8 | 9 | 63 | 1(| | 63.6 | 0.0 | 0 | -8.(|
| Rutledge 2 | | 0 | 1 | O. | 68.3 | 9 | 68 | 3 1(| Snd Lvl | 68.2 | 0. | - | 8 -7.9 |
| Rutledge 3 | | ~ | 1 | 0. | 66.0 | Ö | 99 | 0 10 |) Snd Lvl | 66.0 | 0.0 | C | 8 -8.(|
| Rutledge 4 | | | 1 | 0. | 64.3 | 9 | 64 | .3 | | 64.2 | 0.1 | - | 8 -7.9 |
| Rutledge 5 | | 10 | 1 | 0. | 62.7 | 9 | 62 | .7 1(| - | 62.5 | 0.2 | 2 | 8 -7.8 |
| Rutledge 6 | | 0 | 4 | 0. | 61.7 | 0 | 61. | .7 10 | - | 61.4 | 1 0.5 | e | 8 -7. |
| Rutledge 7 | | ~ | 1 | 0 | 61.3 | 0 | 61. | .3 1(| | 60.8 | 3.0 | ю | 8 -7. |
| Rutledge 8 | | ~ | 1 | 0. | 60.9 | 0 | 60. | 9 1(| | 60.3 | 3.0.6 | 0 | 8 -7. |
| Rutledge 9 | | - | 1 | 0. | 60.2 | Ö | 60. | .2 1(| | 59.2 | 1.0 | 0 | 8 -7.(|
| Rutledge 10 | 1 | 0 | 1 | 0 | 60.7 | Ö | 60 | .7 1(| | 60.0 | 0.1 | 2 | 8 -7. |
| Rutledge 11 | - | | 1 | 0. | 59.9 | 6 | 59 | .9 | | 58.7 | 1.1 | 2 | 8.9- |
| Rutledge 12 | ÷- | 0 | 1 | 0. | 59.1 | 9 | 59 | .1 | | 57.6 | 1.1 | 22 | 8 -6.1 |
| Crowley 1 | ÷ | ~ | 1 | 0.1 | 58.8 | Ö | 58 | 10 | | 57.1 | 1.1 | 2 | 8 |
| Crowley 2 | ÷ | + | 1 | 0.0 | 61.2 | 9 | 61. | .2 1(| 1 | 58.5 | 9 2.0 | 6 | 8 -5.7 |
| Crowley 3 | ÷ | 10 | 1 | 0 | 65.2 | 9 | 65. | .2 | 1 | 62.0 | 3.2 | 2 | 8.4. |
| Crowley 4 | ÷ | 6 | 1 | 0.0 | 72.2 | Ö | 6 72 | 10 |) Snd Lvl | 65.6 | 6.6 | 6 | -1. |
| Crowley 5 | - | ~ | 1 | 0. | 75.6 | Ö | 6 75 | .6 | Snd Lvl | 68.4 | t.7.7 | 2 | 8 -0.8 |
| Crowley 6 | ÷ | | - | 0.1 | 76.2 | Ö | 6 76 | 1(| Snd Lvl | 71.1 | ۱ 5. | F | 8 -2.9 |
| Crowley 7 | ~ | 6 | 1 | 0. | 76.3 | 9 | 5 76 | 3 10 | Snd Lvl | 73.3 | 3.(| 0 | 8 -5.(|
| Crowley 8 | ñ | 0 | 1 | 0.0 | 76.6 | Ō | 6 76 | .6 10 |) Snd Lvl | 73.8 | 3.2.6 | 80 | -5.2 |
| Crowley 9 | 0 | | 1 | 0.1 | 76.6 | Ö | 6 76 | .6 1(| Snd Lvi | 73.6 | 3 2.6 | 8 | 8 -5.2 |
| Crowley 10 | 8 | 0 | 1 | 0. | 76.8 | 9 | 6 76 | .8 | Snd Lvl | 73.6 | 3.(| 0 | 8 -5.(|
| Crowley 11 | 3 | ~ | - | 0.0 | 76.8 | Ō | 6 76 | .8 | Snd Lvl | 73.4 | 1 3. | 4 | 8 |
| C:\TNM25\230168\Seg 3\8 + 4\NS/ | A E BM | | | | | | - | | | | 26 M | lay 2015 | |
| RESULTS: SOUND LEVELS | | | | | | I-4 E | stU PD | Ě | | | | |
|-----------------------------------|----|---|-----|------|----|-------|--------|-----------|------|-----------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.7 | 66 | 76.7 | 10 | Snd Lvl | 71.8 | 4.9 | 80 | -3.1 |
| Crowley 13 | 25 | ٢ | 0.0 | 75.7 | 66 | 75.7 | 10 | Snd Lvl | 69.3 | 6.4 | 80 | -1.6 |
| Crowley 14 | 26 | - | 0.0 | 74.9 | 66 | 74.9 | 10 | Snd Lvl | 67.3 | 7.6 | 80 | -0.4 |
| Crowley 15 | 27 | - | 0.0 | 73.3 | 66 | 73.3 | 10 | Snd Lvl | 65.2 | 8.1 | 80 | 0.1 |
| Crowley 16 | 28 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | 1 | 57.7 | 3.3 | œ | -4.7 |
| Crowley 17 | 29 | - | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 59.2 | 3.9 | 80 | 4.1 |
| Crowley 18 | 30 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | | 61.5 | 4.1 | 80 | -3.9 |
| Crowley 19 | 31 | - | 0.0 | 67.1 | 66 | 67.1 | 10 | Snd Lvl | 63.4 | 3.7 | 80 | -4.3 |
| Crowley 37 | 32 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | ł | 60.7 | 3.6 | 80 | -4.4 |
| Crowley 38 | 33 | - | 0.0 | 61.8 | 66 | 61.8 | 10 | I | 58.4 | 3.4 | 80 | -4.6 |
| Crowley 39 | 34 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | 1 | 57.4 | 3.3 | 80 | -4.7 |
| Crowley 40 | 35 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | - | 57.2 | 3.0 | 80 | -5.0 |
| Crowley 20 | 36 | - | 0.0 | 67.2 | 66 | 67.2 | 10 | Snd Lvl | 63.9 | 3.3 | œ | -4.7 |
| Crowley 21 | 37 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.5 | 3.6 | œ | -4.4 |
| Crowley 41 | 38 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | l | 61.5 | 3.1 | 80 | 4.9 |
| Crowley 42 | 39 | - | 0.0 | 63.8 | 66 | 63.8 | 10 | I | 60.8 | 3.0 | Ø | -5.0 |
| Crowley 22 | 40 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | 1 | 61.0 | 3.9 | œ | -4.1 |
| Crowley 23 | 41 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | 1 | 57.7 | 3.7 | œ | -4.3 |
| Crowley 24 | 42 | - | 0.0 | 60.3 | 66 | 60.3 | 10 | 1 | 56.7 | 3.6 | 80 | -4.4 |
| Crowley 25 | 43 | + | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 56.1 | 3.7 | 80 | -4.3 |
| Crowley 26 | 44 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | Ĩ | 59.5 | 4.0 | 80 | -4.0 |
| Crowley 27 | 45 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | No. | 58.0 | 4.0 | 80 | -4.0 |
| Crowley 28 | 46 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | | 56.7 | 3.9 | 80 | -4.1 |
| Crowley 29 | 47 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | 2 | 54.5 | 3.7 | 80 | -4.3 |
| Crowley 30 | 48 | - | 0.0 | 72.1 | 66 | 72.1 | 10 | Snd Lvl | 64.2 | 7.9 | 80 | -0.1 |
| Crowley 31 | 49 | - | 0.0 | 69.1 | 66 | 69.1 | 10 | Snd Lvi | 62.5 | 6.6 | 8 | -1.4 |
| Crowley 32 | 50 | - | 0.0 | 67.4 | 66 | 67.4 | 10 | Snd Lvl | 61.3 | 6.1 | 80 | -1.9 |
| Crowley 33 | 51 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | 1 | 59.8 | 5.8 | 8 | -2.2 |
| Crowley 34 | 52 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | | 57.8 | 3.6 | 8 | -4.4 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 99 | 59.3 | 10 | Ì | 55.9 | 3.4 | 8 | -4.6 |
| Crowley 36 | 54 | - | 0.0 | 58.0 | 66 | 58.0 | 10 | | 54.8 | 3.2 | 8 | -4.8 |
| Long Pond 1 | 55 | - | 0.0 | 56.7 | 66 | 56.7 | 10 | - | 53.6 | 3.1 | œ | -4.9 |
| Long Pond 2 | 56 | ۲ | 0.0 | 57.9 | 66 | 57.9 | 10 | | 54.7 | 3.2 | 80 | -4.8 |
| Long Pond 3 | 57 | - | 0.0 | 59.7 | 66 | 59.7 | 10 | | 56.4 | 3.3 | 8 | -4.7 |
| Long Pond 4 | 58 | - | 0.0 | 62.4 | 66 | 62.4 | 10 | 1 | 58.2 | 4.2 | 80 | -3.8 |
| Long Pond 5 | 59 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 60.6 | 5.6 | 8 | -2.4 |
| Long Pond 6 | 60 | - | 0.0 | 71.9 | 66 | 71.9 | 10 | Snd Lvl | 63.5 | 8.4 | 8 | 0.4 |
| Long Pond 7 | 61 | - | 0.0 | 73.5 | 66 | 73.5 | 10 | Snd Lvl | 65.1 | 8.4 | 80 | 0.4 |
| Long Pond 8 | 62 | - | 0.0 | 74.0 | 66 | 74.0 | 10 | Snd Lvl | 66.3 | 7.7 | 8 | -0.3 |
| Long Pond 9 | 63 | ۰ | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 67.4 | 6.9 | 8 | -1.1 |
| Long Pond 10 | 64 | ۲ | 0.0 | 73.7 | 66 | 73.7 | 10 | Snd Lvl | 67.4 | 6.3 | 8 | -1.7 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA E | BM | | | | | | | | | 26 May 20 | 15 | |
| | | | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | -4 | BtU PD | S.Е | | | | |
|-----------------------|----|-------|------------|--------|-----|------|--------|--|------|-----|----|------|
| Long Pond 11 | 65 | - | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 66.6 | 6.8 | 80 | -1.2 |
| Long Pond 12 | 66 | - | 0.0 | 73.9 | 66 | 73.9 | 10 | Snd Lvl | 65.8 | 8.1 | 80 | 0.1 |
| Long Pond 13 | 67 | - | 0.0 | 73.5 | 66 | 73.5 | 10 | Snd Lvl | 65.0 | 8.5 | 80 | 0.5 |
| Long Pond 14 | 68 | - | 0.0 | 73.0 | 66 | 73.0 | 10 | Snd Lvl | 64.8 | 8.2 | 80 | 0.2 |
| Long Pond 15 | 69 | - | 0.0 | 73.2 | 66 | 73.2 | 10 | Snd Lvl | 65.0 | 8.2 | 8 | 0.2 |
| Long Pond 16 | 70 | - | 0.0 | 73.0 | 66 | 73.0 | 10 | Snd Lvl | 65.2 | 7.8 | 80 | -0.2 |
| Long Pond 17 | 71 | - | 0.0 | 73.7 | 66 | 73.7 | 10 | Snd Lvl | 65.8 | 7.9 | 80 | -0.1 |
| Long Pond 18 | 72 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 66.0 | 8.3 | 80 | 0.3 |
| Long Pond 19 | 73 | - | 0.0 | 73.6 | 66 | 73.6 | 10 | Snd Lvl | 65.8 | 7.8 | ø | -0.2 |
| Long Pond 20 | 74 | - | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 65.4 | 7.5 | 80 | -0.5 |
| Long Pond 21 | 75 | - | 0.0 | 72.4 | 66 | 72.4 | 10 | Snd Lvl | 65.4 | 7.0 | 80 | -1.0 |
| Long Pond 22 | 76 | | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 66.3 | 6.5 | 80 | -1.5 |
| Chardonnay 1 | 77 | | 0.0 | 62.1 | 66 | 62.1 | 10 | l | 57.7 | 4.4 | 80 | -3.6 |
| Chardonnay 2 | 78 | - | 0.0 | 64.0 | 66 | 64.0 | 10 | the second s | 59.1 | 4.9 | œ | -3.1 |
| Chardonnay 3 | 62 | - | 0.0 | 67.1 | 66 | 67.1 | 10 | Snd Lvl | 61.3 | 5.8 | 8 | -2.2 |
| Chardonnay 4 | 80 | - | 0.0 | 68.1 | 66 | 68.1 | 10 | Snd Lvl | 59.9 | 8.2 | 80 | 0.2 |
| Chardonnay 5 | 81 | | 0.0 | 65.7 | 66 | 65.7 | 10 | - | 59.4 | 6.3 | æ | -1.7 |
| Chardonnay 6 | 82 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | I | 58.3 | 4.6 | 80 | -3.4 |
| Chardonnay 7 | 83 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | 1 | 56.8 | 4.3 | 80 | -3.7 |
| Dunbrooke | 84 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | i u | 58.5 | 6.1 | œ | -1.9 |
| Long Pond 23 | 85 | - | 0.0 | 61.9 | 66 | 61.9 | 10 | ŧ | 58.0 | 3.9 | 80 | -4.1 |
| Long Pond 24 | 86 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | I | 58.3 | 3.7 | œ | -4.3 |
| Long Pond 25 | 87 | - | 0.0 | 60.3 | 66 | 60.3 | 10 | l | 58.2 | 2.1 | 80 | -5.9 |
| Long Pond 26 | 88 | | 0.0 | 60.1 | 66 | 60.1 | 10 | J | 58.7 | 1.4 | 80 | -6.6 |
| Long Pond 27 | 89 | * | 0.0 | 58.7 | 99 | 58.7 | 10 | 1 | 58.3 | 0,4 | 8 | -7.6 |
| Dwelling Units | # | Us No | oise Reduc | tion | | | | | | | | |
| | | Σ | in A | 6 0 | Aax | | | | | | | |
| | | đ | g G | | m | | | | | | | |
| All Selected | | 89 | 0.0 | 4.4 | 8.5 | | | | | | | |
| All Impacted | | 40 | 0.0 | 6.1 | 8.5 | | | | | | | |
| All that meet NR Goal | | б | 8.1 | 8.3 | 8.5 | | | | | | | |
| | | | | | | | | | | | | |

C:\TNM25\230168\Seg 3\8 + 4\NSA E BM

26 May 2015

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| TIONS |
|----------------|
| DESCRIP |
| 3ARRIER |
| ESULTS: E |
| 1 |

I-4 BtU PD&E

12 May 2015

TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

I-4 BtU PD&E PROJECT/CONTRACT: **BARRIER DESIGN:** RUN:

I-4 Segment 3 NSA E BM BM 14

3287729 3287729 Cost ω Total Cost: Run:Rise fi:fi Width Top Ŧ Volume If Berm cu yd 25786 109591 If Wall Area sq ft 7828 1842 Length ₽ 14.00 14.00 Мах ŧ Heights along Barrier Min Avg N 14.00 14.00 Avg ¥ 14.00 14.00 ₽ Type 33 14' existing NSA E BM Barriers Name

0

C:\TNM25\230168\Seg 3\8 + 4\NSA E BM

| RESULTS: SOUND LEVELS | | | | | | | | 1 | 4 BtU PD | В | | | | |
|---|------|-----------------------------|-------------------|---------|--------|--------|-----------|---------|---------------------|---|------------------------------|--------------------------------|--------------------|-----------------------------|
| Stantec M. Drauer | | | | | | | | ΨF | 2 May 201 NM 2.5 | <u>n</u> | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seç BM 14 | PD&E Iment 3 N | SA E BI | 5 | | | 0 | alculated | with TNN Average p | 2.5 avement typ | e shall be use | ed unless | |
| ATMOSPHERICS: | | 68 de; | g F, 50% I | R | | | | | | a State hi of a differ | ghway agenc ent type with | y substantiat approval of f | es the us FHWA. | ð |
| Receiver | | | E.via. | | | | | | | | | | | |
| | 2 | 202 | L Aea1h | Aec | dine. | | Increase | over ex | kistina | Tvne | Calculated | Noise Reduc | ction | |
| | | | | Calc | ulated | Crit'n | Calculate | | rit'n ub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | | dBA | æ | σ | | | dBA | 昭 | đB | 岛 |
| Rutledge 1 | - | | 0 | 0 | 63.8 | Ű | 90 | 63.8 | 10 | 1 | 62.5 | 1.0 | ~ | 8 -6.7 |
| Rutledge 2 | 2 | | - | 0. | 68.3 | Ψ. | 90 | 68.3 | 10 | Snd Lvl | 65.9 | 2.4 | | 8 -5.6 |
| Rutledge 3 | e | | 5 | 0. | 66.0 | Ŧ | 90 | 66.0 | 10 | Snd Lvl | 62.5 | 3.5 | 10 | 8 -4.5 |
| Rutledge 4 | 4 | | 1 | 0.0 | 64.3 | 9 | 90 | 64.3 | 10 | 1 | 60.4 | 3.0 | 0 | 8 -4.1 |
| Rutledge 5 | Ω. | | 5 | 0. | 62.7 | U | 90 | 62.7 | 10 | 1 | 58.4 | 4 | ~ | 8 -3.7 |
| Rutledge 6 | 9 | | 0 | 0.0 | 61.7 | U | 90 | 61.7 | 10 | 1 | 57.4 | 4.0 | | 8 -3.7 |
| Rutledge 7 | 2 | | 1 | 0 | 61.3 | Ŧ | 90 | 61.3 | 10 | / January | 56.8 | 4 | 10 | 8 -3.5 |
| Rutledge 8 | 8 | | 1 | 0. | 60.9 | J | 90 | 60.9 | 10 | I | 56.4 | 4.5 | 10 | 8 -3.5 |
| Rutledge 9 | 6 | | 5 | 0' | 60.2 | U | 90 | 60.2 | 10 | 1,000 | 55.7 | 4.5 | 10 | 8 -3.5 |
| Rutledge 10 | 10 | | - | 0, | 60.7 | U | 90 | 60.7 | 10 | and the second se | 56.1 | 4.6 | (0 | 8 -3.4 |
| Rutledge 11 | 1 | Ì | 5 | 0, | 59.9 | Ű | 90 | 59.9 | 10 | Ĩ. | 55.6 | 4.0 | ~ | 8 -3.7 |
| Rutledge 12 | 12 | | 5 | 0. | 59.1 | J | 90 | 59.1 | 10 | - | 55.1 | 4.0 | 0 | 8 -4.0 |
| Crowley 1 | 13 | | 1 | 0. | 58.8 | | 90 | 58.8 | 10 | Ì | 54.8 | 4.0 | 0 | 8 -4.0 |
| Crowley 2 | 14 | | 5 | 0 | 61.2 | U | 90 | 61.2 | 10 | and A | 56.8 | 4.4 | * | 8 -3.6 |
| Crowley 3 | 15 | | 5 | 0.0 | 65.2 | Ű | 90 | 65.2 | 10 | I | 60.4 | 4.8 | ~ | -3.2 |
| Crowley 4 | 16 | | - | 0. | 72.2 | 0 | 90 | 72.2 | 10 | Snd Lvl | 64.7 | 7.5 | 10 | 8 -0.5 |
| Crowley 5 | 17 | | 5 | 0.0 | 75.6 | Ű | 90 | 75.6 | 10 | Snd Lvl | 68.1 | 7.5 | 10 | 8 -0.5 |
| Crowley 6 | 18 | | 1 | 0. | 76.2 | u | 90 | 76.2 | 10 | Snd Lvl | 71.0 | 5.2 | 01 | 8 -2.8 |
| Crowley 7 | 19 | | 1 | 0. | 76.3 | Ű | 90 | 76.3 | 10 | Snd Lvl | 73.2 | 3.1 | | 8 -4.9 |
| Crowley 8 | 20 | | 5 | 0. | 76.6 | T | 90 | 76.6 | 10 | Snd Lvl | 73.8 | 2.8 | ~ | 8 -5.2 |
| Crowley 9 | 21 | | - | 0. | 76.6 | T | 90 | 76.6 | 10 | Snd Lvl | 73.8 | 2.8 | | 8 -5.2 |
| Crowley 10 | 22 | | 0 | 0. | 76.8 | U | 90 | 76.8 | 10 | Snd Lvl | 73.8 | 3.0 | 0 | 8 -5.0 |
| Crowley 11 | 23 | | - | 0. | 76.8 | U | 99 | 76.8 | 10 | Snd Lvl | 73.4 | 3.4 | Ŧ | 8 -4.6 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | E BM | | | | | | ۴ | | | | | 12 M | ay 2015 | |

| RESULTS: SOUND LEVELS | | | | | | I-4 I | BtU PD | ßЕ | | | | |
|--------------------------------------|----|---|-----|------|----|-------|--------|----------|------|-----------|----|-------------------|
| Crowley 12 | 24 | ٢ | 0.0 | 76.7 | 66 | 76.7 | 10 | Snd Lvl | 71.8 | 4.9 | 8 | -3.1 |
| Crowley 13 | 25 | ۲ | 0.0 | 75.7 | 66 | 75.7 | 10 | Snd Lvi | 69.3 | 6.4 | œ | -1.6 |
| Crowley 14 | 26 | F | 0.0 | 74.9 | 66 | 74.9 | 10 | Snd Lvl | 67.3 | 7.6 | 8 | -0.4 |
| Crowley 15 | 27 | - | 0.0 | 73.3 | 66 | 73.3 | 10 | Snd Lvl | 65.2 | 8.1 | 80 | 0.1 |
| Crowley 16 | 28 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | 1 | 57.2 | 3.8 | 80 | -4.2 |
| Crowley 17 | 29 | - | 0.0 | 63.1 | 66 | 63.1 | 10 | | 58.7 | 4.4 | œ | -3.6 |
| Crowley 18 | 30 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | <u>i</u> | 61.1 | 4.5 | œ | -3.5 |
| Crowley 19 | 31 | - | 0.0 | 67.1 | 66 | 67.1 | 10 | Snd Lvl | 63.3 | 3.8 | œ | -4.2 |
| Crowley 37 | 32 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | l | 60.4 | 3.9 | ω | -4.1 |
| Crowley 38 | 33 | Ę | 0.0 | 61.8 | 66 | 61.8 | 10 | | 58.0 | 3.8 | 8 | -4.2 |
| Crowley 39 | 34 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | - | 57.0 | 3.7 | œ | -4.3 |
| Crowley 40 | 35 | - | 0.0 | 60.2 | 66 | 60.2 | 10 | 1 | 56.8 | 3.4 | œ | -4.6 |
| Crowley 20 | 36 | - | 0.0 | 67.2 | 66 | 67.2 | 10 | Snd Lvl | 63.9 | 3.3 | 8 | -4.7 |
| Crowley 21 | 37 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.5 | 3.6 | 8 | -4.4 |
| Crowley 41 | 38 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | - | 61.2 | 3.4 | œ | -4.6 |
| Crowley 42 | 39 | - | 0.0 | 63.8 | 66 | 63.8 | 10 | ł | 60.7 | 3.1 | œ | -4.9 |
| Crowley 22 | 40 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | 1 | 61.0 | 3.9 | 80 | -4.1 |
| Crowley 23 | 41 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | - | 57.7 | 3.7 | 80 | -4.3 |
| Crowley 24 | 42 | - | 0.0 | 60.3 | 66 | 60.3 | 10 | 1 | 56.7 | 3.6 | 80 | -4.4 |
| Crowley 25 | 43 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 56.2 | 3.6 | 80 | -4.4 |
| Crowley 26 | 44 | + | 0.0 | 63.5 | 66 | 63.5 | 10 | I | 59.5 | 4.0 | 80 | -4.0 |
| Crowley 27 | 45 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | I | 58.0 | 4.0 | 80 | -4.0 |
| Crowley 28 | 46 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 56.7 | 3.9 | œ | -4.1 |
| Crowley 29 | 47 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | 1 | 54.6 | 3.6 | ω | 4.4- |
| Crowley 30 | 48 | - | 0.0 | 72.1 | 66 | 72.1 | 10 | Snd Lvi | 64.2 | 7.9 | ø | -0.1 |
| Crowley 31 | 49 | - | 0.0 | 69.1 | 66 | 69.1 | 10 | Snd Lvl | 62.5 | 6.6 | 80 | -1.4 |
| Crowley 32 | 50 | - | 0.0 | 67.4 | 66 | 67.4 | 10 | Snd Lvl | 61.3 | 6.1 | 8 | -1.9 |
| Crowley 33 | 51 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | Í | 59.8 | 5.8 | 80 | -2.2 |
| Crowley 34 | 52 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | I | 57.8 | 3.6 | 8 | -4.4 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | ł | 55.9 | 3.4 | 8 | -4.6 |
| Crowley 36 | 54 | - | 0.0 | 58.0 | 99 | 58.0 | 10 | I | 54.8 | 3.2 | ω | -4.8 |
| Long Pond 1 | 55 | 1 | 0.0 | 56.7 | 66 | 56.7 | 10 | 1 | 53.6 | 3.1 | 80 | -4.9 |
| Long Pond 2 | 56 | ٦ | 0.0 | 57.9 | 66 | 57.9 | 10 | 1 | 54.7 | 3.2 | 80 | - 4 .8 |
| Long Pond 3 | 57 | ٢ | 0.0 | 59.7 | 66 | 59.7 | 10 | 1 | 56.4 | 3.3 | 80 | -4.7 |
| Long Pond 4 | 58 | - | 0.0 | 62.4 | 66 | 62.4 | 10 | 1 | 58.2 | 4.2 | 80 | -3.8 |
| Long Pond 5 | 59 | - | 0.0 | 66.2 | 66 | 66.2 | 10 | Snd Lvl | 60.6 | 5.6 | 80 | -2.4 |
| Long Pond 6 | 60 | - | 0.0 | 71.9 | 66 | 71.9 | 10 | Snd Lvl | 63.5 | 8.4 | 80 | 0.4 |
| Long Pond 7 | 61 | - | 0.0 | 73.5 | 66 | 73.5 | 10 | Snd Lvl | 65.1 | 8.4 | 80 | 0.4 |
| Long Pond 8 | 62 | - | 0.0 | 74.0 | 66 | 74.0 | 10 | Snd Lvl | 66.3 | 7.7 | 8 | -0.3 |
| Long Pond 9 | 63 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 67.4 | 6.9 | 80 | -1.1 |
| Long Pond 10 | 64 | - | 0.0 | 73.7 | 66 | 73.7 | 10 | Snd Lvl | 67.4 | 6.3 | 80 | -1.7 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA E BM | | | | | 2 | | | | | 12 May 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | Ē | | | | |
|-----------------------|------|----------|-----------|------|-----|------|---------|---------|------|-----|----|------|
| Long Pond 11 | 65 | 1 | 0.0 | 73.4 | 66 | 73.4 | 10 | Snd Lvl | 66.6 | 6.8 | 80 | -1.2 |
| Long Pond 12 | 66 | 1 | 0.0 | 73.9 | 66 | 73.9 | 10 | Snd Lvi | 65.8 | 8.1 | 80 | 0.1 |
| Long Pond 13 | 67 | 1 | 0.0 | 73.5 | 66 | 73.5 | 10 | Snd Lvl | 65.0 | 8.5 | ∞ | 0.5 |
| Long Pond 14 | 68 | 1 | 0.0 | 73.0 | 66 | 73.0 | 10 | Snd LvI | 64.8 | 8.2 | 80 | 0.2 |
| Long Pond 15 | 69 | 1 | 0.0 | 73.2 | 66 | 73.2 | 10 | Snd Lvl | 65.0 | 8,2 | 80 | 0.2 |
| Long Pond 16 | 70 | 4 | 0.0 | 73.0 | 66 | 73.0 | 10 | Snd Lvl | 65.2 | 7.8 | 80 | -0.2 |
| Long Pond 17 | 71 | - | 0.0 | 73.7 | 66 | 73.7 | 10 | Snd Lvl | 65.8 | 7.9 | 80 | -0.1 |
| Long Pond 18 | 72 | 1 | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvi | 66.0 | 8.3 | 80 | 0.3 |
| Long Pond 19 | 73 | 1 | 0.0 | 73.6 | 99 | 73.6 | 10 | Snd Lvl | 65.8 | 7.8 | ∞ | -0.2 |
| Long Pond 20 | 74 | 1 | 0.0 | 72.9 | 66 | 72.9 | 10 | Snd Lvl | 65.4 | 7.5 | 80 | -0.5 |
| Long Pond 21 | 75 | 1 | 0.0 | 72.4 | 66 | 72.4 | 10 | Snd Lvl | 65.4 | 7.0 | 80 | -1.0 |
| Long Pond 22 | 76 | 1 | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 66.3 | 6.5 | 80 | -1.5 |
| Chardonnay 1 | 77 | + | 0.0 | 62.1 | 66 | 62.1 | 10 | | 57.7 | 4.4 | 80 | -3.6 |
| Chardonnay 2 | 78 | 1 | 0.0 | 64.0 | 66 | 64.0 | 10 | 1 | 59.1 | 4.9 | 80 | -3.1 |
| Chardonnay 3 | 19 | - | 0.0 | 67.1 | 66 | 67.1 | 10 | Snd Lvi | 61.3 | 5.8 | 80 | -2.2 |
| Chardonnay 4 | 80 | 1 | 0.0 | 68.1 | 66 | 68.1 | 10 | Snd Lvl | 59.9 | 8.2 | 80 | 0.2 |
| Chardonnay 5 | 81 | • | 0.0 | 65.7 | 66 | 65.7 | 10 | l | 59.4 | 6.3 | 8 | +1.7 |
| Chardonnay 6 | 82 | - | 0.0 | 62.9 | 66 | 62.9 | 10 | 1 | 58.3 | 4.6 | œ | -3.4 |
| Chardonnay 7 | 83 | | 0.0 | 61.1 | 66 | 61.1 | 10 | I | 56.8 | 4.3 | œ | -3.7 |
| Dunbrooke | 84 | 1 | 0.0 | 64.6 | 66 | 64.6 | 10 | | 58.5 | 6.1 | 80 | -1.9 |
| Long Pond 23 | 85 | 1 | 0.0 | 61.9 | 99 | 61.9 | 10 | 1 | 58.0 | 3.9 | 80 | -4.1 |
| Long Pond 24 | 86 | - | 0.0 | 62.0 | 99 | 62.0 | 10 | ł | 58.2 | 3.8 | 8 | -4.2 |
| Long Pond 25 | 87 | - | 0.0 | 60.3 | 66 | 60.3 | 10 | I | 58.2 | 2.1 | 80 | -5.9 |
| Long Pond 26 | 88 | ×- | 0.0 | 60.1 | 66 | 60.1 | 10 | I | 58.7 | 1.4 | 80 | -6.6 |
| Long Pond 27 | 89 | - | 0.0 | 58.7 | 66 | 58.7 | 10 | 1 | 58.3 | 0.4 | 80 | -7.6 |
| Dwelling Units | # DC | Is Noise | Reduction | _ | | | | | | | | |
| | | Min | Avg | 2 | lax | | | | | | | |
| | | ß | æ | Ð | 8 | | | | | | | |
| All Selected | | 89: | 0.4 | 4.9 | 8.5 | | | | | | | |
| All Impacted | | 40 | 2.4 | 6.2 | 8.5 | | | | | | | |
| All that meet NR Goal | | 6 | 8.1 | 8.3 | 8.5 | | | | | | | |
| | | | | | | | | | | | | |

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12 May 2015

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| RESULTS: BARRIER DESCRIPTIONS | | | | | - | -4 BtU PD8 | щ | | | |
|--------------------------------------|---------|------------|-------------|-----------|--------|------------|---------|--------------|-------------|---------|
| Stantec | | | | 26 May 20 | 15 | | | | | |
| M. Drauer | | | | TNM 2.5 | | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Btl | U PD&E | | | | | | | | |
| RUN: | I-4 Se | gment 3 N | SA E BM | | | | | | | |
| BARRIER DESIGN: | BM 1 | 4 far left | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights a | long Barrie | er er | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | 1 |
| | | ft | ff | ¥ | ft | sq ft | cu yd | Ŧ | ft:ft | в |
| NSA E BM | 8 | 14.00 | 14.00 | 14.00 | 4696 | 65743 | | | | 1972281 |
| 14' existing | > | 14.00 | 14.00 | 14.00 | 1842 | 25786 | | | | 0 |
| | | | | | | | | | Total Cost: | 1972281 |
| | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | | ľ | 4 BtU PD | Ч | | | | | |
|---|--------|-----------------------------|---------------------------------|---------|---------|--------|-----------|---------|---------------------|---------------------------|------------------------------|--------------------------------|--------------------|---------------------------|------|
| Stantec M. Drauer | | | | | | | | ă F (| 6 May 201 NM 2.5 | 5 | L | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 Btl I-4 Seg BM 14 | J PD&E gment 3 N far left | ISA E E | W | | | د | alculated | with INN Average F | l z.o Javement type | e shall be use | ed unless | - | |
| ATMOSPHERICS: | | 68 de | g F, 50% | RH | | | | | | a State hi of a differ | ghway agenc ent type with | y substantiat approval of F | es the us FHWA. | Q | |
| Receiver | 2 | 91U# | Evictin | N N | Barriar | | | | | | With Rarrier | | | | |
| | | 201 | LAea1F | | ath | | Increase | over e) | cistina | Tvpe | Calculated | Noise Reduc | ction | - | |
| | | | | | culated | Crit'n | Calculate | | rit'n ub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculat minus Goal | ted |
| | | | dBA | dBA | | dBA | 명 | g | m | | dBA | dB | dB | 衔 | |
| Rutledge 1 | | Ļ | - | 0.0 | 63.8 | | 36 | 63.8 | 10 | 1 | 62.5 | 1.9 | ~ | 80 | -6.7 |
| Rutledge 2 | | 0 | ~ | 0.0 | 68.3 | | 36 | 68.3 | 10 | Snd Lvl | 62.9 | 2.4 | + | 8 | -5.6 |
| Rutledge 3 | | | - | 0.0 | 66.0 | | 36 | 66.0 | 10 | Snd Lvl | 62.5 | 3.5 | 10 | 8 | -4.5 |
| Rutledge 4 | | 4 | - | 0.0 | 64.3 | | 36 | 64.3 | 10 | Î | 60.4 | 3.6 | • | 80 | -4.1 |
| Rutledge 5 | | 5 | - | 0.0 | 62.7 | | 36 | 62.7 | 10 | I | 58.5 | 4.2 | 0 | 8 | -3.8 |
| Rutledge 6 | | 9 | - | 0.0 | 61.7 | | 36 | 61.7 | 10 | 1 | 57.4 | 4.0 | ~ | 8 | -3.7 |
| Rutledge 7 | | 2 | - | 0.0 | 61.3 | | 36 | 61.3 | 10 | 1 | 56.9 | 4.4 | + | 8 | -3.6 |
| Rutledge 8 | | 8 | - | 0.0 | 60.9 | | 36 | 60.9 | 10 | 1 | 56.5 | 4.4 | + | 80 | -3.6 |
| Rutledge 9 | | 0 | - | 0.0 | 60.2 | | 36 | 60.2 | 10 | I | 55.9 | 4.3 | ~ | 8 | -3.7 |
| Rutledge 10 | - | 0 | - | 0.0 | 60.7 | | 36 | 60.7 | 10 | Ĩ | 56.2 | 4.5 | 10 | 80 | -3.5 |
| Rutledge 11 | - | - | - | 0.0 | 59.9 | | 96 | 59.9 | 10 | Ĩ | 55.7 | 4.2 | 01 | 80 | -3.8 |
| Rutledge 12 | - | 2 | - | 0.0 | 59.1 | | 36 | 59.1 | 10 | ł | 55.2 | 3.0 | 0 | 8 | -4.1 |
| Crowley 1 | - | e | - | 0.0 | 58.8 | | 36 | 58.8 | 10 | I | 55.0 | 3.6 | ~ | 8 | -4.2 |
| Crowley 2 | - | 4 | - | 0.0 | 61.2 | | 36 | 61.2 | 10 | 1 | 56.9 | 4.0 | ~ | 8 | -3.7 |
| Crowley 3 | - | 5 | - | 0.0 | 65.2 | | 36 | 65.2 | 10 | J | 60.5 | 4.7 | ~ | 8 | -3.3 |
| Crowley 4 | - | 9 | - | 0.0 | 72.2 | | 36 | 72.2 | 10 | Snd Lvl | 64.7 | 7.5 | 10 | 8 | -0.5 |
| Crowley 5 | ~ | 7 | - | 0.0 | 75.6 | | 36 | 75.6 | 10 | Snd Lvl | 68.1 | 7.5 | 10 | 8 | -0.5 |
| Crowley 6 | - | 8 | - | 0.0 | 76.2 | | 36 | 76.2 | 10 | Snd Lvl | 71.0 | 5.5 | | 8 | -2.8 |
| Crowley 7 | - | 6 | - | 0.0 | 76.3 | | 36 | 76.3 | 10 | Snd Lvl | 73.2 | 3.1 | | 8 | -4.9 |
| Crowley 8 | 2 | 0 | - | 0.0 | 76.6 | | 36 | 76.6 | 10 | Snd Lvl | 73.8 | 2.8 | ~ | 8 | -5.2 |
| Crowley 9 | N | - | - | 0.0 | 76.6 | | 36 | 76.6 | 10 | Snd Lvl | 73.8 | 2.8 | ~ | 8 | -5.2 |
| Crowley 10 | 2 | 2 | - | 0.0 | 76.8 | | 36 | 76.8 | 10 | Snd Lvl | 73.8 | 3.0 | 0 | 8 | -5.0 |
| Crowley 11 | 7 | e | ~ | 0.0 | 76.8 | | 36 | 76.8 | 10 | Snd Lvl | 73.4 | 3.4 | ** | 80 | -4.6 |
| C:\TNM25\230168\Seg 3\8 + 4\NS/ | A E BM | | | | | | - | | | | | 26 M | ay 2015 | | |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD | ßE | | | | |
|-----------------------------------|----|----|-----|------|----|------|--------|---------|------|-----------|----|------|
| Crowley 12 | 24 | - | 0.0 | 76.7 | 66 | 76.7 | 10 | Snd Lv1 | 71.8 | 4.9 | œ | -3.1 |
| Crowley 13 | 25 | - | 0.0 | 75.7 | 66 | 75.7 | 10 | Snd Lvl | 69.4 | 6.3 | 80 | -1.7 |
| Crowley 14 | 26 | - | 0.0 | 74.9 | 66 | 74.9 | 10 | Snd Lvl | 67.4 | 7.5 | œ | -0.5 |
| Crowley 15 | 27 | - | 0.0 | 73.3 | 66 | 73.3 | 10 | Snd Lvl | 65.5 | 7.8 | ø | -0.2 |
| Crowley 16 | 28 | - | 0.0 | 61.0 | 66 | 61.0 | 10 | 1 | 57.4 | 3.6 | 8 | -4.4 |
| Crowley 17 | 29 | ~ | 0.0 | 63.1 | 66 | 63.1 | 10 | 1 | 58.8 | 4.3 | 80 | -3.7 |
| Crowley 18 | 30 | ~ | 0.0 | 65.6 | 99 | 65.6 | 10 | 1 | 61.2 | 4.4 | ω | -3.6 |
| Crowley 19 | 31 | - | 0.0 | 67.1 | 66 | 67.1 | 10 | Snd Lvl | 63.4 | 3.7 | 80 | -4.3 |
| Crowley 37 | 32 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 60.5 | 3.8 | ω | -4.2 |
| Crowley 38 | 33 | - | 0.0 | 61.8 | 66 | 61.8 | 10 | 1 | 58.2 | 3.6 | 8 | -4.4 |
| Crowley 39 | 34 | - | 0.0 | 60.7 | 66 | 60.7 | 10 | 1 | 57.2 | 3.5 | 8 | -4.5 |
| Crowley 40 | 35 | ~ | 0.0 | 60.2 | 66 | 60.2 | 10 | I | 57.0 | 3.2 | 80 | -4.8 |
| Crowley 20 | 36 | | 0.0 | 67.2 | 66 | 67.2 | 10 | Snd Lvl | 64.0 | 3.2 | 80 | -4.8 |
| Crowley 21 | 37 | ~ | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 62.7 | 3.4 | 80 | -4.6 |
| Crowley 41 | 38 | - | 0.0 | 64.6 | 99 | 64.6 | 10 | I | 61.4 | 3.2 | œ | -4.8 |
| Crowley 42 | 39 | - | 0.0 | 63.8 | 99 | 63.8 | 10 | I | 60.8 | 3.0 | œ | -5.0 |
| Crowley 22 | 40 | - | 0.0 | 64.9 | 66 | 64.9 | 10 | I | 61.3 | 3.6 | 80 | -4.4 |
| Crowley 23 | 41 | ۰. | 0.0 | 61.4 | 66 | 61.4 | 10 | 1 | 58.0 | 3.4 | 8 | -4.6 |
| Crowley 24 | 42 | - | 0.0 | 60.3 | 66 | 60.3 | 10 | 1 | 57.0 | 3.3 | œ | -4.7 |
| Crowley 25 | 43 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 56.6 | 3.2 | 8 | -4.8 |
| Crowley 26 | 44 | - | 0.0 | 63.5 | 66 | 63.5 | 10 | 1 | 59.9 | 3.6 | 80 | -4.4 |
| Crowley 27 | 45 | - | 0.0 | 62.0 | 66 | 62.0 | 10 | I | 58.7 | 3.3 | 8 | -4.7 |
| Crowley 28 | 46 | - | 0.0 | 60.6 | 66 | 60.6 | 10 | 1 | 57.7 | 2.9 | 80 | -5.1 |
| Crowley 29 | 47 | - | 0.0 | 58.2 | 66 | 58.2 | 10 | Î | 55.3 | 2.9 | 8 | -5.1 |
| Crowley 30 | 48 | - | 0.0 | 72.1 | 66 | 72.1 | 10 | Snd Lvl | 64.8 | 7.3 | 80 | -0.7 |
| Crowley 31 | 49 | - | 0.0 | 69.1 | 66 | 69.1 | 10 | Snd Lvl | 63.8 | 5.3 | 80 | -2.7 |
| Crowley 32 | 50 | - | 0.0 | 67.4 | 66 | 67.4 | 10 | Snd Lvl | 63.4 | 4.0 | 80 | -4.0 |
| Crowley 33 | 51 | - | 0.0 | 65.6 | 66 | 65.6 | 10 | | 62.9 | 2.7 | 80 | -5.3 |
| Crowley 34 | 52 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | I | 60.1 | 1.3 | 8 | -6.7 |
| Crowley 35 | 53 | - | 0.0 | 59.3 | 66 | 59.3 | 10 | | 57.6 | 1.7 | 80 | -6.3 |
| Crowley 36 | 54 | - | 0.0 | 58.0 | 66 | 58.0 | 10 | I | 56.3 | 1.7 | 80 | -6.3 |
| Long Pond 1 | 55 | - | 0.0 | 56.7 | 99 | 56.7 | 10 | - | 55.0 | 1.7 | 80 | -6.3 |
| Long Pond 2 | 56 | - | 0.0 | 57.9 | 66 | 57.9 | 10 | 1 | 56.3 | 1.6 | œ | -6.4 |
| Long Pond 3 | 57 | - | 0.0 | 59.7 | 66 | 59.7 | 10 | | 58.4 | 1.3 | œ | -6.7 |
| Long Pond 4 | 58 | - | 0.0 | 62.4 | 66 | 62.4 | 10 | | 60.9 | 1.5 | ø | -6.5 |
| Long Pond 5 | 59 | - | 0.0 | 66.2 | 99 | 66.2 | 10 | Snd Lvl | 65.5 | 0.7 | 8 | -7.3 |
| Long Pond 6 | 60 | - | 0.0 | 71.9 | 66 | 71.9 | 10 | Snd Lvl | 71.7 | 0.2 | 80 | -7.8 |
| Long Pond 7 | 61 | - | 0:0 | 73.5 | 66 | 73.5 | 10 | Snd Lvl | 73.4 | 0.1 | 80 | -7.9 |
| Long Pond 8 | 62 | - | 0.0 | 74.0 | 66 | 74.0 | 10 | Snd Lvl | 74.0 | 0.0 | 80 | -8.0 |
| Long Pond 9 | 63 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 74.3 | 0.0 | œ | -8.0 |
| Long Pond 10 | 64 | - | 0.0 | 73.7 | 99 | 73.7 | 10 | Snd Lvl | 73.7 | 0.0 | 80 | -8.0 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA E | BM | | | | | 2 | | | | 26 May 2(| 15 | |
| | | | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | 4 | BtU PD | Ш | | | | |
|------------------------------|-------|----------|---------|-------|------|--------|---------|------|-----|----|------|
| Long Pond 11 | 65 | 1 0.0 | 13. | 4 66 | 73.4 | 10 | Snd Lvl | 73.4 | 0.0 | ω | -8.0 |
| Long Pond 12 | 66 | 1 0.0 | 73.6 | 99 66 | 73.9 | 10 | Snd Lvl | 73.9 | 0.0 | ω | -8.0 |
| Long Pond 13 | 67 | 1 0.0 | 73.1 | 66 | 73.5 | 10 | Snd Lvl | 73.5 | 0.0 | ω | -8.0 |
| Long Pond 14 | 68 | 1 0.0 | 73.(| 66 | 73.0 | 10 | Snd Lvl | 73.0 | 0.0 | ω | -8.0 |
| Long Pond 15 | 69 | 1 0.0 | 73.2 | 66 | 73.2 | 10 | Snd Lvl | 73.2 | 0.0 | œ | -8.0 |
| Long Pond 16 | 70 | 1 0.0 | 73.(| 0 66 | 73.0 | 10 | Snd Lvl | 73.0 | 0.0 | ω | -8.0 |
| Long Pond 17 | 71 | 1 0.0 | 73. | 66 | 73.7 | 10 | Snd Lvl | 73.7 | 0.0 | ω | -8.0 |
| Long Pond 18 | 72 | 1 0.0 | 74.: | 3 66 | 74.3 | 10 | Snd Lvl | 74.3 | 0.0 | ω | -8.0 |
| Long Pond 19 | 73: | 1 0.0 | 73.(| 99 66 | 73.6 | 10 | Snd Lvl | 73.6 | 0.0 | ω | -8.0 |
| Long Pond 20 | 74 | 1 0.0 | 72.9 | 99 66 | 72.9 | 10 | Snd Lvl | 72.9 | 0.0 | ω | -8.0 |
| Long Pond 21 | 75 | 1 0.0 | 72. | 4 66 | 72.4 | 10 | Snd Lvl | 72.4 | 0.0 | 80 | -8.0 |
| Long Pond 22 | 76 | 1 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 72.8 | 0.0 | 80 | -8.0 |
| Chardonnay 1 | 77 | 1 0.0 | 62. | 66 | 62.1 | 10 | | 60.5 | 1.6 | 80 | -6.4 |
| Chardonnay 2 | 78 | 1 0.0 | 64.(| 99 0 | 64.0 | 10 | I | 62.4 | 1.6 | ω | -6.4 |
| Chardonnay 3 | 79 | 1 0.0 | .79 | 1 66 | 67.1 | 10 | Snd Lvl | 65.6 | 1.5 | ø | -6.5 |
| Chardonnay 4 | 80 | 1 0.0 | 68. | 1 66 | 68.1 | 10 | Snd Lvl | 62.1 | 6.0 | 80 | -2.0 |
| Chardonnay 5 | 81 | 1 0.0 | .99 | 7 66 | 65.7 | 10 | 1 | 60.8 | 4.9 | ω | -3.1 |
| Chardonnay 6 | 82 | 1 0.0 | 62.9 | 99 6 | 62.9 | 10 | | 60.3 | 2.6 | 80 | -5.4 |
| Chardonnay 7 | 83 | 1 0.0 | 61. | 66 | 61.1 | 10 | - | 58.5 | 2.6 | 80 | -5.4 |
| Dunbrooke | 84 | 1 0.0 | 64.(| 66 | 64.6 | 10 | 1 | 59.8 | 4.8 | 8 | -3.2 |
| Long Pond 23 | 85 | 1 0.0 | 61.9 | 99 66 | 61.9 | 10 | 1 | 61.0 | 0.9 | œ | -7.1 |
| Long Pond 24 | 86 | 1 0.0 | 62.(| 99 00 | 62.0 | 10 | - | 61.7 | 0.3 | 80 | -7.7 |
| Long Pond 25 | 87 | 1 0.0 | 60. | 3 66 | 60.3 | 10 | | 60.2 | 0.1 | 8 | -7.9 |
| Long Pond 26 | 88 | 1 0.0 | .09 | 1 66 | 60.1 | 10 | - | 59.7 | 0.4 | 8 | -7.6 |
| Long Pond 27 | 80 | 1 0.0 | . 28. | 99 | 58.7 | 10 | 1 | 58.0 | 0.7 | 8 | -7.3 |
| Dwelling Units | # DUs | Noise Re | duction | | | | | | | | |
| | | Min | Avg | Max | | | | | | | |
| | | đB | ф В | đb | | | | | | | |
| All Selected | 8 | 9 0.0 | 2.8 | 3 7.8 | | | | | | | |
| All Impacted | 4 | 0.0 | 2.0 | 5 7.8 | | | | | | | |
| All that meet NR Goal | | 0.0 | 0.0 | 0.0 | | | | | | | |
| | | | | | | | | | | | |

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26 May 2015

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Barrier Analysis

NSA F

| TIONS | |
|----------------|--|
| ESCRIP | |
| RRIER D | |
| TS: BAI | |
| RESUL | |

I-4 BtU PD&E

| Stantec M. Drauer | | | | 26 May 20 TNM 2.5 | 15 | | | | | |
|--|-----------------|-----------------|------------|----------------------|--------|---------|---------|--------------|----------|------|
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: | I-4 Btl | J PD&E | | | | | | | | |
| RUN: BARRIER DESIGN: | I-4 Se Fox G | gmnet 3 NS M | SA F GM | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | ۲. | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | Ĥ | ft | Ĥ | sq ft | cu yd | ft | ft:ft | Ś |

595074 595074

Total Cost:

19836

1240

16.00

16.00

16.00

≥

Fox 1 BM

C:\TNM25\230168\Seg 3\8 + 4\NSA F GM

| Stantec M. Drauer RESULTS: SOUND LEVELS | | | | | | | | | | |
|---|-----------|------------|--------|---------------|----------------|---------------------------|-------------------------------|--------------------------------|--------------------|---------------|
| M. Drauer RESULTS: SOUND LEVELS | | | | | 26 May 20 | 15 | | | | |
| RESULTS: SOUND LEVELS | | | | | TNM 2.5 | | | | | |
| RESULTS: SOUND LEVELS | | | | | Calculated | J with TNN | 12.5 | | | |
| | | | | | | | | | | ~ |
| PROJECT/CONTRACT: I-4 BtU PD&E | D&E | | | | | | | | | |
| RUN: I-4 Segmnet 3 | inet 3 NS | A F GM | | | | | | | | |
| BARRIER DESIGN: Fox GM | | | | | | Average p | avement type | e shall be use | ed unles | |
| ATMOSPHERICS: 68 deg F, 50% | F, 50% RI | Ŧ | | | | a State hi of a differ | ghway agency ent type with | y substantiat approval of I | es the us FHWA. | ę |
| Receiver | | | | | | | | | | |
| Name No. #DUs Existi | Existing | No Barrier | | | | | With Barrier | | | |
| LAeq | LAeq1h | LAeq1h | | Increase over | r existing | Type | Calculated | Noise Redu | ction | |
| | | Calculated | Crit'n | Calculated | Crit'n | Impact | LAeq1h | Calculated | Goal | Calculated |
| | | | | | Sub'l Inc | | | | | minus Goal |
| dBA | dBA | dBA | dBA | đB | dB | | dBA | đB | dB | đB |
| Fox 35 1 1 | 0.0 | 71.5 | 99 | 71.5 | 5 10 | Snd Lvi | 64.0 | 7.5 | 10 | 8 |
| Good Life 45 2 1 | 0.0 | 76.1 | 99 | 76.7 | 1 10 | Snd Lvl | 69.2 | 6.9 | • | 8 |
| Dwelling Units # DUs Noise | Noise Re | duction | | | | | | | | |
| Min | Min | Avg | Max | | | | | | | |
| đB | đB | đB | đB | | | | | | | |
| All Selected 2 | 6.9 | 9 7.2 | 7.5 | | | | | | | |
| All Impacted 2 | 6.9 | 9 7.2 | 7.5 | | | | | | | |
| All that meet NR Goal 0 | 0.0 | 0.0 | 0.0 | | | | | | | |

C:\TNM25\230168\Seg 3\8 + 4\NSA F GM

| RESULTS: BARRIER DESCRIPTIONS | | | | | - | -4 BtU PD8 | Щ | | | |
|--------------------------------------|---------|------------|------------|-----------|--------|------------|---------|--------------|-------------|--------|
| Stantec | | | | 22 May 20 | 15 | | | | | |
| M. Drauer | | | | TNM 2.5 | | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Btl | U PD&E | | | | | | | | |
| RUN: | I-4 Se | gmnet 3 NS | A F BM | | | | | | | |
| BARRIER DESIGN: | Fox B | M 14 | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | - | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | ft | ft | ft | sq ft | cu yd | ft | ft:ft | \$ |
| Fox 1 BM | 3 | 14.00 | 14.00 | 14.00 | 1243 | 17403 | ~ | | | 522091 |
| | | | | | | | | | Total Cost: | 522091 |
| | | | | | | | | | | |

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU PC |)&E | | | | |
|------------------------------|-----|---------|-------------|------------|--------|--------------|----------------------|---------------------------|------------------------------|--------------------------------|--------------------|---------------|
| Stantec M. Drauer | | | | | | | 22 May 20 TNM 2.5 | 15 | | | | |
| | | | | | | | Calculate | d with TNN | I 2.5 | | | |
| RESULTS: SOUND LEVELS | | 1-4 BtU | PD&F | | | | | | | | | |
| RUN: | | I-4 Seg | mnet 3 NS | A F BM | | | | | | | | |
| BARRIER DESIGN: | | Fox Bh | А 14 | | | | | Average p | avement type | e shall be use | ed unless | |
| ATMOSPHERICS: | | 68 deç | j F, 50% RI | Ŧ | | | | a State hi of a differ | ghway agenc ent type with | y substantiat approval of I | es the us FHWA. | đ |
| Receiver | | | | | | | | | | | | |
| Name | No. | #DUs | Existing | No Barrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | Increase ove | er existing | Type | Calculated | Noise Redu | ction | |
| | | | | Calculated | Crit'n | Calculated | Crit'n | Impact | LAeq1h | Calculated | Goal | Calculated |
| | | | | | | | Sub'l Inc | | | | | minus Goal |
| | | | dBA | dBA | dBA | 岛 | Вb | | dBA | đB | dB | dB |
| Fox 35 | | | 1 0.0 | 71. | Q Q | 6 71. | 5 10 | Snd Lvl | 64.4 | 7. | 1 | 8 -0.9 |
| Good Life 45 | | | 1 0.0 | 0 76. | 1 6 | 6 76. | 11 | Snd Lvl | 69.2 | 6.9 | | -1.1 |
| Dwelling Units | | # DUs | Noise Re | eduction | | | | | | | | |
| | | | Min | Avg | Max | | | | | | | |
| | | | đB | dВ | đB | | | | | | | |
| All Selected | | | 6. | 9 7. | 0 7. | - | | | | | | |
| All Impacted | | | 6. | 9 7. | 0 7. | - | | | | | | |
| All that meet NR Goal | | | 0.0 | 0 | 0 | 0 | | | | | | |

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Barrier Analysis

NSA G

| SNC | |
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| SCRIPTIC | |
| RIER DE | |
| TS: BARI | |
| RESUL | |

I-4 BtU PD&E

26 May 2015 TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

| PROJECT/CONTRACT: | I-4 Btl | J PD&E | | | | | | | | | |
|------------------------|---------|-----------|-------------|-----|--------|---------|---------|-------|----------|------|--|
| RUN: | I-4 Se | gment 3 N | SA G BM | | | | | | | | |
| BARRIER DESIGN: | Existi | 1g 22 | | | | | | | | | |
| Barriers | | | | | | | | | | | |
| Name | Type | Heights | along Barri | ier | Length | If Wall | If Berm | | | Cost | |
| | | Min | Avn | Mav | | Aros | Volumo | a C F | Pun-Pice | 1 | |

| | | Min | Avg | Max | | Area | Volume | Тор | Run:Rise | |
|--------------|---|-------|-------|-------|----------------|-------|--------|-------------|-------------|---------|
| | | Ŧ | Ų | Ĥ | ل ا | sq ft | cu yd | Width ft | ft:ft | ÷ |
| Barrier11 | 8 | 00.0 | 0.0 | 0.00 | | | | | | 0 |
| 14' existing | 8 | 22.00 | 22.00 | 22.00 | 1842 | 4052 | - | | | 1215636 |
| | | | | | | | | | Total Cost: | 1215636 |

C:\TNM25\230168\Seg 3\8 + 4\NSA G-BM

| Summet Table of the product of the produc | RESULTS: SOUND LEVELS | | | | | | | I-4 BtU | PD&E | | | | | |
|--|-------------------------|-----|-------------------|-----------------------|----------------------|--------|--------------------------|---------------------------------------|--------------------|--------------------------|---------------------|-------------------------------|-------------------|-----------------|
| Reduct the transmit of the | Stantec M. Drauer | | | | | | | 26 May TNM 2. | 2015 5 | | | | | |
| KullHarmon Latential NameHarmon Latential NameHarmon Latential NameArrange nemeri type with sporoad of HMA.ARREE DESION:Edd p. 50%, RHEdd p. 50%, RHArrange nemeri type with sporoad of HMA.ARREE DESION:Edd p. 50%, RHArrange nemeri type with sporoad of HMA.Arrange nemeri type with sporoad of HMA.Arrange nemeri type with sporoad of HMA.Arrange nemeri type with sporoad of HMA.Mod hArrange nemeri type with sporoad of HMA.Mod hArrange nemeritMod hArrandenney fMod hArrandenney fMod hArrandenney fMod hArrandenney f< | RESULTS: SOUND LEVELS | - | 4 RtH | PD&F | | | | Calcula | ited with T | 'NM 2.5 | | | | _ |
| Amotobulationa state normal and inferentiates from a state normal and interview in paperoval and interview in paperoval and interview in paperoval of FMMs.ReceiveNo.ADIARelationNo.ADIARelationA InterviewA state normal and interview in paperoval of FMMs.NameNo.ADIARelationNo.ADIARelationNo.ADIARelationCollNameNo.ADIARelationCollRelationNo.ADIARelationCollCollNameNo.ADIARelationCollRelationNo.ADIARelationCollCollNameNo.ADIARelationCollRelationNo.ADIARelationCollCollNameNo.ADIARelationCollRelationNo.ADIARelationCollCollNameNo.ADIARelationCollRelationNo.ADIARelationRelationCollNameNo.ADIARelationRelationRelationRelationRelationRelationRelationNameNo.RelationNo.RelationRelationRelationRelationRelationRelationRelationNameRelationRelationRelationRelationRelationRelationRelationRelationRelationRelationNameRelationRelationRelationRelationRelationRelationRelationRelation | RUN: BARRIER DESIGN: | Ш | 4 Segi Xisting | nent 3 NS. 3 22 | A G BM | | | | Averaç | je paveme | ent type | shall be use | d unless | |
| Receive No. #DUs Faiture No. #DUs Faiture Anti- Leagent No. #DUs Faiture Anti- Leagent | ATMOSPHERICS: | 9 | i8 deg | F, 50% R I | - | | | | a State of a di | : highway fferent typ | agency be with a | substantiate pproval of Fl | es the us HWA. | Ð |
| NameNo.#DusExisting LearningNo.#DusTerring LearningNoth LearningMath | Receiver | | | | | | | | | | | | | |
| And Interfact Interfact Interfact InterfactAnd Interfact Interfact Interfact InterfactAnd Interfact Interfact InterfactCalculated Interfact Interfact InterfactCalculated Interfact InterfactCalculated Interfact InterfactCalculated Interfact InterfactCalculated Interfact InterfactCalculated InterfactCalculated Interfact InterfactCalculated Interfact< | Name | No. | DUs | Existing | No Barrier | | | | | With | Barrier | | | |
| matrix display display <t< th=""><th></th><th></th><th></th><th>LAeq1h</th><th>LAeq1h Calculated</th><th>Crit'n</th><th>Increase o Calculated</th><th>over existing d Crit'n Sub'i Ir</th><th>J Type Impact</th><th>Calcu</th><th>llated 1h</th><th>loise Reduct alculated</th><th>tion Goal</th><th>Calculated</th></t<> | | | | LAeq1h | LAeq1h Calculated | Crit'n | Increase o Calculated | over existing d Crit'n Sub'i Ir | J Type Impact | Calcu | llated 1h | loise Reduct alculated | tion Goal | Calculated |
| Integration Integration <thintegration< th=""> <thintegration< th=""></thintegration<></thintegration<> | | | | | Var | | ę | ар 200 | 2 | 207 | | ٥ | ę | Goal d |
| Long Pond 22 76 1 0.0 72.8 66 72.8 0.0 6 6 Chardonnay 1 77 1 0.0 62.0 66 62.0 10 $$ 60.2 119 8 Chardonnay 2 7 1 0.0 63.9 66 67.0 10 $$ 60.2 119 8 Chardonnay 4 80 1 0.0 63.9 66 67.0 10 $$ 60.2 10 $$ Chardonnay 4 80 1 0.0 65.6 66 67.0 10 $$ 82.0 11.9 8 Chardonnay 5 81 1 0.0 67.6 66.6 67.6 10 $$ 82.9 61.1 10 Chardonnay 6 82 1 0.0 61.9 66.5 10 $$ 89.5 61.1 8 Chardonnay 7 82 1 0.0 61.6 67.6 10 $$ 89.5 61.1 8 Chardonnay 7 82 1 0.0 61.9 66.5 10 $$ 89.5 61.1 8 Chardonnay 7 82 1 0.0 61.6 67.6 66.5 66.6 61.1 10 $$ 89.5 61.1 8 Chardonnay 7 82 1 0.0 61.9 61.9 10 $$ 89.6 61.1 61.0 7.0 8 Chardonnay 7 81.7 10 10 <t< td=""><td>Long Pond 21</td><td>75</td><td></td><td>0.0</td><td>72.</td><td>2</td><td>3</td><td>72.5</td><td>10 Snd I</td><td></td><td>72.5</td><td>00</td><td>3</td><td>200</td></t<> | Long Pond 21 | 75 | | 0.0 | 72. | 2 | 3 | 72.5 | 10 Snd I | | 72.5 | 00 | 3 | 200 |
| Chardomay1 77 10.062.06662.010 $$ 60.21.88Chardomay27810.063.96663.910 $$ 62.01.98Chardomay37810.063.66667.11056.41.78Chardomay48110.065.66665.610 $$ 65.96.11.78Chardomay58110.065.66665.610 $$ 59.56.188Chardomay78210.065.66665.110 $$ 59.56.188Chardomay78210.061.16661.110 $$ 58.0888Chardomay78210.061.16661.110 $$ 58.0888Chardomay78210.061.16661.410 $$ 58.4888Chardomay78210.061.16661.410 $$ 58.4678Chardomay78210.061.46661.410 $$ 58.46178Chardomay79110.061.46664.410 $$ 58.46178Chardomay69110.061.4 <t< td=""><td>Long Pond 22</td><td>76</td><td>-</td><td>0.0</td><td>72.</td><td>8</td><td>. 90</td><td>72.8</td><td>10 Snd I</td><td>N</td><td>72.8</td><td>0.0</td><td></td><td>000</td></t<> | Long Pond 22 | 76 | - | 0.0 | 72. | 8 | . 90 | 72.8 | 10 Snd I | N | 72.8 | 0.0 | | 000 |
| Chardonnay 27810.063.96663.910 $$ 62.01.98Chardonnay 37910.067.16667.110Sid Ll65.41.78Chardonnay 48110.065.06665.610 $$ 55.5618Chardonnay 68210.065.66665.610 $$ 55.5618Chardonnay 68210.061.16665.610 $$ 55.388Chardonnay 78310.061.16664.110 $$ 55.338Chardonnay 78310.061.16664.110 $$ 55.338Chardonnay 78310.061.16664.110 $$ 56.338Chardonnay 78310.061.16664.110 $$ 56.338Chardonnay 78310.064.76664.710 $$ 56.378Unbrooke90110.064.46664.410 $$ 56.388Unbrooke9110.064.46664.410 $$ 56.388Unbrooke9110.064.46664.410 $$ 56.3 <td< td=""><td>Chardonnay 1</td><td>17</td><td>-</td><td>0.0</td><td>62.</td><td>9</td><td>36</td><td>62.0</td><td>10</td><td></td><td>60.2</td><td>1.8</td><td></td><td>0</td></td<> | Chardonnay 1 | 17 | - | 0.0 | 62. | 9 | 36 | 62.0 | 10 | | 60.2 | 1.8 | | 0 |
| Chardonnay37910.0 67.1 66 67.1 10 AndLw 65.4 1.78Chardonnay48010.0 68.0 6668.010 AndLw 61.07.08Chardonnay58110.0 68.6 66.066.010 AndLw 61.07.08Chardonnay68210.061.166.061.110 AndLw 59.53.38Chardonnay78310.061.166.061.110 AndLw 58.23.18Chardonnay78310.061.36661.110 AndLw 58.4618Unbrooke8410.064.56664.710 AndLw 58.24.18Unbrooke9010.064.461.070 AndLw 56.97.78Unbrooke9110.064.46664.710 AndLw 56.97.78Unbrooke9110.064.46664.710 AndLw 56.97.78Unbrooke9110.064.46664.710 AndLw 56.97.78Unbrooke9110.064.46664.710 AndLw 56.77.78Unbrooke9110.064.7666 | Chardonnay 2 | 78 | - | 0.0 | 63. | 9 | 36 | 63.9 | 10 | | 62.0 | 1.9 | | 00 |
| Chardonnay 4 80 1 0.0 68.0 68.0 10 Sind Lvi 61.0 7.0 8 Chardonnay 5 81 1 0.0 65.6 66.6 65.6 10 59.5 6.1 8 Chardonnay 6 83 1 0.0 65.6 66.6 65.6 10 59.5 6.1 8 Chardonnay 6 83 1 0.0 61.9 66 61.1 10 59.5 6.1 8 8 8 10 8 31 8 8 10 10 58.6 41 8 8 8 10 10 58.4 6.1 8 8 10 10 8 8 10 | Chardonnay 3 | 62 | - | 0.0 | 67. | 1 | 36 | 67.1 | 10 Snd I | 7 | 65.4 | 1.7 | | т 80 |
| Chardonnay 5 B1 1 0.0 65.6 66.6 10 59.5 6.1 8 Chardonnay 7 82 1 0.0 65.8 66 65.8 10 59.5 3.3 8 Chardonnay 7 83 1 0.0 61.1 66 61.1 10 58.0 3.1 8 3.1 8 3.1 8 3.1 8 10 58.0 3.1 8 8 8 10 58.0 3.1 8 10 | Chardonnay 4 | 80 | | 0.0 | 68. | 0 | 36 | 68.0 | 10 Snd I | -vi | 61.0 | 7.0 | | °1 ∞ |
| Chardonnay 6 B2 1 0.0 62.3 66 62.8 10 59.5 3.3 8 Chardonnay 7 83 1 0.0 61.1 66 61.1 10 58.0 3.1 8 Chardonnay 7 83 1 0.0 64.5 66 61.1 10 58.0 3.1 8 Long Pond 23 85 1 0.0 64.5 66 64.5 10 58.0 7.1 8 Long Pond 23 91 1 0.0 64.7 66 64.4 10 56.3 6.1 8 Unbrooke 3 91 1 0.0 64.4 66 64.4 10 56.3 8.1 8 Unbrooke 3 91 1 0.0 64.4 66 64.4 10 56.3 8.1 8 Unbrooke 4 92 1 0.0 66 | Chardonnay 5 | 81 | | 0.0 | 65. | 6 | 90 | 65.6 | 10 | | 59.5 | 6.1 | | 0 |
| Chardonnay7 (1) (1) (1) (1) (1) (1) (1) (2) (2) (3) (3) (3) Dunbrooke (3) <td>Chardonnay 6</td> <td>82</td> <td>-</td> <td>0.0</td> <td>62.</td> <td>8</td> <td>36</td> <td>62.8</td> <td>10</td> <td></td> <td>59.5</td> <td>3.3</td> <td></td> <td>۲ ۵</td> | Chardonnay 6 | 82 | - | 0.0 | 62. | 8 | 36 | 62.8 | 10 | | 59.5 | 3.3 | | ۲ ۵ |
| Unbrooke 84 10.0 64.5 66 64.5 10 $$ 58.4 6.1 6.1 6.1 8 Long Pond 23 85 1 0.0 61.9 61.9 66.9 61.9 10 $$ 60.9 1.0 8 Long Pond 23 85 1 0.0 61.9 61.9 66 64.1 10 $$ 58.2 4.1 8 Unbrooke 1 91 1 0.0 64.7 66 64.7 10 $$ 56.9 7.7 8 Unbrooke 2 91 1 0.0 64.7 66 64.7 10 $$ 56.9 8.1 8 Unbrooke 3 92 1 0.0 64.7 66 64.7 10 $$ 56.7 8.1 8 Unbrooke 4 93 1 0.0 64.7 66 64.7 10 $$ 56.7 8.1 8 Unbrooke 5 94 1 0.0 64.7 66 64.7 10 $$ 56.7 8.1 8 Unbrooke 6 94 1 0.0 64.7 66 64.7 10 $$ 56.7 8.1 8 Unbrooke 7 96 1 0.0 62.9 66.4 60.4 10 $$ 56.6 63.7 8 8 Unbrooke 7 96 1 0.0 61.3 66 61.3 10 $$ 56.7 29 8 Unbro | Chardonnay 7 | 83 | * | 0*0 | 61. | 1 | 36 (| 61.1 | 10 | | 58.0 | 3.1 | | r 8 |
| Long Pond 238510.061.96661.910 $$ 60.91.08Dunbrooke19010.062.36664.610 $$ 58.24.18Dunbrooke29110.064.664.610 $$ 56.97.78Dunbrooke39210.064.76664.410 $$ 56.38.18Dunbrooke49310.064.46664.410 $$ 56.76.98Dunbrooke59410.063.663.661.410 $$ 56.76.98Dunbrooke79410.062.96663.67.77.78Dunbrooke79410.062.96663.67.0 $$ 56.76.9Dunbrooke79610.062.96661.410 $$ 56.53.98Dunbrooke79610.061.36661.310 $$ 56.53.98Dunbrooke89710.061.36661.310 $$ 56.53.988Dunbrooke89710.063.76661.310 $$ 56.53.988Dunbrooke99810.063.76663.710 $$ 56.27.58< | Dunbrooke | 84 | - | 0.0 | 64. | 5 6 | 90 | 64.5 | 10 | | 58.4 | 6.1 | | `' ∞ |
| Dunbrooke 19010.0 62.3 66 62.3 10 $$ 58.2 4.1 8Dunbrooke 29110.0 64.6 64.610 $$ 56.3 7.7 8Dunbrooke 39210.0 64.7 66 64.7 10 $$ 56.3 8.1 8Dunbrooke 39210.0 64.7 66 64.4 10 $$ 56.3 8.1 8Dunbrooke 49310.0 64.4 66 64.4 10 $$ 56.3 8.1 8Dunbrooke 59410.0 64.4 66 64.4 10 $$ 56.3 8.1 8Dunbrooke 79410.0 64.4 66 64.4 10 $$ 56.5 53.7 8 Dunbrooke 79510.0 62.3 66 65.4 10 $$ 56.5 3.39 8 Dunbrooke 8910.0 61.3 66 61.4 10 $$ 56.5 3.39 8 Dunbrooke 9910.0 61.3 66 61.3 10 $$ 56.5 3.39 8 Dunbrooke 109910.0 61.3 66 63.7 10 $$ 56.5 7.5 8 Dunbrooke 111010.0 63.7 66 63.7 10 $$ 56.3 7.5 8 Dunbro | Long Pond 23 | 85 | - | 0'0 | 61. | 9 | 90 | 61.9 | 10 | 10 | 60.9 | 1.0 | | 80 |
| Dunbrooke 29110.0 64.6 64.6 64.6 10 $$ 56.9 7.7 8 Dunbrooke 39210.0 64.7 66 64.7 10 $$ 56.6 8.3 8.1 8 Dunbrooke 49310.0 64.4 66 64.4 10 $$ 56.3 8.1 8 Dunbrooke 59410.0 63.6 66.4 66.4 10 $$ 56.6 6.3 8.1 8 Dunbrooke 69510.0 63.6 66.4 66.4 10 $$ 56.6 6.3 8.1 8 Dunbrooke 79510.0 63.6 66.4 66.4 10 $$ 56.6 6.3 8.1 8 Dunbrooke 79510.0 61.3 66 61.4 10 $$ 56.6 6.3 8.1 8 Dunbrooke 8910.0 61.3 66 61.3 10 $$ 56.6 6.3 8.1 Dunbrooke 9910.0 61.3 66 61.3 10 $$ 56.6 7.4 8 Dunbrooke 109910.0 61.3 66 61.3 10 $$ 56.5 7.5 8 Dunbrooke 109910.0 61.3 66 61.3 10 $$ 56.5 7.5 7.5 8 Dunbrooke 101010 | Dunbrooke 1 | 66 | - | 0.0 | 62. | 3 | 90 | 62.3 | 10 | | 58.2 | 4.1 | | 8 |
| Dunbrooke39210.0 64.7 66 64.7 10 $$ 56.4 8.3 8 Dunbrooke49310.0 64.4 66 64.4 10 $$ 56.7 6.9 8 8 Dunbrooke59410.0 64.4 66 64.4 10 $$ 56.7 6.9 8 8 Dunbrooke69510.0 62.9 66 63.6 10 $$ 56.5 3.9 8 Dunbrooke79610.0 62.9 66 60.4 10 $$ 56.5 3.9 8 Dunbrooke79610.0 60.4 66 61.3 10 $$ 56.5 3.9 8 Dunbrooke79810.0 61.3 66 61.3 10 $$ 56.5 3.9 8 Dunbrooke79810.0 61.3 66 61.3 10 $$ 56.5 3.9 8 Dunbrooke79810.0 61.3 66 61.3 10 $$ 56.3 7.4 8 Dunbrooke 10991 0.0 61.3 66 63.7 10 $$ 56.2 7.4 8 Dunbrooke 11101 0.0 63.5 66 63.7 10 $$ 56.2 7.5 8 Dunbrooke 11101 0.0 63.6 63.6 63.7 10 $$ </td <td>Dunbrooke 2</td> <td>91</td> <td>-</td> <td>0.0</td> <td>64.</td> <td>6</td> <td>90</td> <td>64.6</td> <td>10</td> <td></td> <td>56.9</td> <td>7.7</td> <td></td> <td>8</td> | Dunbrooke 2 | 91 | - | 0.0 | 64. | 6 | 90 | 64.6 | 10 | | 56.9 | 7.7 | | 8 |
| Dunbrooke 4 93 1 0.0 64.4 66 64.4 10 $$ 56.3 8.1 8 Dunbrooke 5 94 1 0.0 63.6 66 63.6 10 $$ 56.6 6.9 8 Dunbrooke 5 95 1 0.0 62.9 66 62.9 10 $$ 56.6 6.3 8 Dunbrooke 7 96 1 0.0 60.4 66 60.4 10 $$ 56.5 3.9 8 Dunbrooke 7 96 1 0.0 60.4 66 60.4 10 $$ 56.5 3.9 8 Dunbrooke 8 97 1 0.0 60.4 66 60.4 10 $$ 56.5 3.9 8 Dunbrooke 9 98 1 0.0 61.3 66 61.3 10 $$ 56.3 7.4 8 Dunbrooke 10 99 1 0.0 63.7 66 63.7 10 $$ 56.2 7.5 7.5 8 Dunbrooke 11 100 1 0.0 63.5 66 63.7 10 $$ 56.2 7.5 7.5 8 Dunbrooke 11 100 1 0.0 63.5 66 63.5 10 $$ 56.2 7.5 7.5 8 Dunbrooke 11 100 1 0.0 63.5 66 63.5 10 $$ 56.2 7.5 7.5 7.5 7.5 <t< td=""><td>Dunbrooke 3</td><td>92</td><td>-</td><td>0.0</td><td>64.</td><td>7 6</td><td>90</td><td>64.7</td><td>10</td><td>15</td><td>56.4</td><td>8.3</td><td></td><td>8</td></t<> | Dunbrooke 3 | 92 | - | 0.0 | 64. | 7 6 | 90 | 64.7 | 10 | 15 | 56.4 | 8.3 | | 8 |
| Dunbrooke 59410.0 63.6 66.6 63.6 10 $$ 56.7 6.9 8 Dunbrooke 69510.0 62.9 66 62.9 10 $$ 56.6 6.3 8 Dunbrooke 79610.0 60.4 10 $$ 56.5 3.9 8 Dunbrooke 89710.0 59.5 66 60.4 10 $$ 56.3 3.2 8 Dunbrooke 99810.0 59.5 66 61.3 10 $$ 56.3 3.2 8 Dunbrooke 99810.0 63.7 66 63.7 10 $$ 56.3 7.5 8 Dunbrooke 109910.0 63.7 66 63.7 10 $$ 56.2 7.5 8 Dunbrooke 1110010.0 63.5 66 63.7 10 $$ 56.2 7.5 8 Dunbrooke 1110010.0 63.5 66 63.7 10 $$ 56.2 7.5 7.5 8 Dunbrooke 1110010.0 63.5 66 63.5 10 $$ 56.2 7.5 7.5 8 Dunbrooke 111010.0 63.5 66 63.5 10 $$ 56.2 7.5 7.5 8 Dunbrooke 111010.0 63.5 66 63.5 10 $$ | Dunbrooke 4 | 93 | - | 0.0 | 64. | 4 | 36 | 64.4 | 10 | | 56.3 | 8,1 | | 8 |
| Dunbrooke 6 95 1 0.0 62.9 66 62.9 10 56.6 6.3 8 Dunbrooke 7 96 1 0.0 60.4 66 60.4 10 56.5 3.9 8 Dunbrooke 7 96 1 0.0 60.4 66 60.4 10 56.5 3.9 8 Dunbrooke 8 97 1 0.0 59.5 66 61.3 10 56.3 3.9 8 Dunbrooke 9 98 1 0.0 61.3 66 61.3 10 56.3 7.4 8 Dunbrooke 10 99 1 0.0 63.7 66 63.7 10 56.2 7.5 8 Dunbrooke 11 100 1 0.0 63.5 66 63.7 10 56.2 7.5 8 Dunbrooke 11 10 1 0.0 63.5 | Dunbrooke 5 | 94 | - | 0.0 | 63. | 6 | 96 6 | 33.6 | 10 | | 56.7 | 6.9 | | °' 80 |
| Dunbrooke 7 96 1 0.0 60.4 66 60.4 10 56.5 3.9 8 Dunbrooke 8 97 1 0.0 59.5 66 59.5 10 56.3 3.2 8 Dunbrooke 8 97 1 0.0 59.5 66 59.5 10 56.3 3.2 8 Dunbrooke 9 98 1 0.0 61.3 66 61.3 10 56.9 7.4 8 Dunbrooke 10 99 1 0.0 63.7 66 63.7 10 56.2 7.5 8 Dunbrooke 11 100 1 0.0 63.5 66 63.5 10 56.2 7.5 8 Tennis Ct. 101 1 0.0 63.5 66 63.5 10 56.2 7.5 8 | Dunbrooke 6 | 95 | - | 0.0 | 62. | 9 | 90 | 62.9 | 10 | | 56.6 | 6.3 | | °' 80 |
| Dunbrooke 8 97 1 0.0 59.5 66 59.5 10 56.3 3.2 8 Dunbrooke 9 98 1 0.0 61.3 66 61.3 10 56.3 3.2 8 Dunbrooke 9 98 1 0.0 61.3 66 61.3 10 56.9 7.4 8 Dunbrooke 10 99 1 0.0 63.7 66 63.7 10 56.2 7.5 8 Dunbrooke 11 100 1 0.0 63.5 66 63.5 10 56.2 7.5 8 Tennis Ct. 101 1 0.0 63.6 63.6 63.6 63.6 7.0 56.2 7.3 8 | Dunbrooke 7 | 96 | - | 0.0 | 60. | 4 | 9 99 | 60.4 | 10 | | 56.5 | 3.9 | | 7 |
| Dunbrooke 9 98 1 0.0 61.3 66 61.3 10 56.9 4.4 8 Dunbrooke 10 99 1 0.0 63.7 66 63.7 10 56.2 7.5 8 Dunbrooke 11 100 1 0.0 63.5 66 63.5 10 56.2 7.3 8 Tennis Ct. 101 1 0.0 63.6 63.6 63.5 10 56.2 7.3 8 | Dunbrooke 8 | 67 | - | 0.0 | 59. | 5 6 | 90 | 59.5 | 10 | 8 | 56.3 | 3.2 | | 1 |
| Dunbrooke 10 99 1 0.0 63.7 66 63.7 10 56.2 7.5 8 Dunbrooke 11 100 1 0.0 63.5 66 63.5 10 56.2 7.3 8 Tennis Ct. 101 1 0.0 63.6 66 63.5 10 56.2 7.3 8 | Dunbrooke 9 | 98 | - | 0.0 | 61. | 9 | 9 | 61.3 | 10 | | 56.9 | 4.4 | | 8 |
| Dunbrooke 11 100 1 0.0 63.5 66 63.5 10 56.2 7.3 8 Tennis Ct. 101 1 0.0 63.6 66 63.6 10 56.2 7.3 8 | Dunbrooke 10 | 66 | - | 0.0 | 63. | 7 6 | 9 | 53.7 | 10 | | 56.2 | 7.5 | | 9 |
| Tennis Ct. 101 1 0.0 63.6 66 63.6 10 57.1 6.5 8 | Dunbrooke 11 | 100 | - | 0.0 | 63. | 5 6 | 90 | 53.5 | 10 | | 56.2 | 7.3 | | 9 |
| | Tennis Ct. | 101 | - | 0.0 | 63. | 9 | 9 | 63.6 | 10 | | 57.1 | 6.5 | | ` ' ∞ |

26 May 2015

C:\TNM25\230168\Seg 3\8 + 4\NSA G-BM

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD | е В | | | | |
|------------------------------|-----|-------|-------------------|--------|-----|------|--------|---------|------|-----|----|------|
| Dunbrooke 12 | 102 | - | 0.0 | 61.4 | 99 | 61.4 | 10 | Ĵ | 58.4 | 3.0 | 80 | -5.0 |
| Dunbrooke 13 | 103 | - | 0.0 | 59.4 | 99 | 59.4 | 10 | 1 | 57.2 | 2.2 | 80 | -5.8 |
| Oakmonte g | 104 | - | 0.0 | 70.0 | 99 | 70.0 | 10 | Snd Lvl | 70.0 | 0.0 | œ | -8.0 |
| Oakmonte f | 105 | - | 0.0 | 69.7 | 99 | 69.7 | 10 | Snd Lvl | 69.7 | 0.0 | 8 | -8.0 |
| Oakmonte e | 106 | - | 0.0 | 69.3 | 99 | 69.3 | 10 | Snd Lvl | 69.3 | 0.0 | 8 | -8.0 |
| Oakmonte d | 107 | - | 0.0 | 68.9 | 99 | 68.9 | 10 | Snd Lvl | 68.9 | 0.0 | 80 | -8.0 |
| Oakmonte c | 108 | - | 0.0 | 67.2 | 99 | 67.2 | 10 | Snd Lvl | 67.2 | 0.0 | 80 | -8.0 |
| Oakmonte b | 109 | - | 0.0 | 65.8 | 99 | 65.8 | 10 | 1 | 65.8 | 0.0 | œ | -8.0 |
| Oakmonte a | 110 | - | 0.0 | 64.8 | 66 | 64.8 | 10 | I | 64.8 | 0.0 | æ | -8.0 |
| Oakmonte 1 | 111 | - | 0.0 | 63.8 | 99 | 63.8 | 10 | 1 | 63.8 | 0.0 | 80 | -8.0 |
| Oakmonte 2 | 112 | - | 0.0 | 66.1 | 99 | 66.1 | 10 | Snd Lvl | 66.1 | 0.0 | 80 | -8.0 |
| Oakmonte 3 | 113 | 1 | 0.0 | 6.93 | 99 | 69.9 | 10 | Snd Lvl | 6.69 | 0.0 | œ | -8.0 |
| Oakmonte 4 | 114 | - | 0.0 | 69.4 | 66 | 69.4 | 10 | Snd Lvl | 69.4 | 0.0 | 80 | -8.0 |
| Oakmonte 5 | 115 | 1 | 0.0 | 69.8 | 66 | 69.8 | 10 | Snd Lvi | 69.8 | 0.0 | 80 | -8.0 |
| Oakmonte 6 | 116 | - | 0.0 | 65.5 | 66 | 65.5 | 10 | 1 | 65.5 | 0.0 | ω | -8.0 |
| Courtyard Pool | 153 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | 1 | 63.0 | 0.0 | ω | -8.0 |
| Oakmonte A | 154 | - | 0.0 | 70.3 | 66 | 70.3 | 10 | Snd Lvl | 70.3 | 0.0 | œ | -8.0 |
| Oakmonte E | 158 | 1 | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 69.3 | 0.0 | œ | -8.0 |
| Oakmonte F | 159 | 1 | 0.0 | 67.7 | 66 | 67.7 | 10 | Snd Lvl | 67.7 | 0.0 | 80 | -8.0 |
| Oakmonte G | 160 | - | 0.0 | 68.6 | 66 | 68.6 | 10 | Snd Lvl | 68.6 | 0.0 | œ | -8.0 |
| Dwelling Units | | # DUs | Noise Redu | uction | | | | | | | | |
| | | | Min | Avg | Мах | | | | | | | |
| | | | dB | 8 | dB | | | | | | | |
| All Selected | | 43 | 0.0 | 2.6 | 8.3 | | | | | | | |
| All Impacted | | 17 | 0.0 | 0.5 | 7.0 | | | | | | | |
| All that meet NR Goal | | 2 | 8.1 | 8.2 | 8.3 | | | | | | | |
| | | | | | | | | | | | | |

C:\TNM25\230168\Seg 3\8 + 4\NSA G-BM

26 May 2015

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| Stantec 3 June 2015 TNM 2.5 M. Drauer TNM 2.5 TNM 2.5 RESULTS: BARRER DESCRIPTIONS I+ BtU PD&E PROJECT/CONTRACT: I+ BtU PD&E RESULTS: BARRER DESCRIPTIONS I+ BtU PD&E RESULTS: BARRER DESCRIPTIONS I+ BtU PD&E RESULTS: BARRER DESCRIPTIONS I+ BtU PD&E RUN: I+ BtU PD&E BARRIER DESIGN: I+ BtU PD&E BARRIER DESIGN: I+ BtU PD&E BARRIER DESIGN: I+ Betth PDAE BARRIER DESIGN: I+ Betth PDAE Barriers I+ Betth PDAE Mine Max Mine I+ Betth PDAE I+ Betth PDAE I+ Betth PDAE | SULTS: BARRIER DESCRIPTIONS | | | | | | 4 BtU PD& | щ | | | |
|---|-----------------------------|---------|------------|------------|-----------------------------------|--------|-----------|---------|---------------|-------------|---------|
| RSULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: 1-4 BtU PD& RUN: 1-4 Segment 3 NSA G RUN: 1-4 Segment 3 NSA G BARRIER DESIGN: 1-4 Segment 3 NSA G BARRIER DESIGN: 1-4 Segment 3 NSA G Mane 1-4 Segment 3 NSA G Marriers 1-4 Segment 3 NSA G Name 1-4 Segment 3 NSA G Marriers 1-4 Segment 3 NSA G Name 1-4 Segment 3 NSA G Marriers 1-4 Segment 3 NSA G Name 1-4 Segment 3 NSA G 14' existing W 14' existing W N 20:00 20:00 1842 | intec Drauer | | | | 3 June 20 ⁻ TNM 2.5 | 15 | | | | | |
| PROJECT/CONTRACT: I-4 BtU PD&E RUN: I-4 Segment 3 NSA G RUN: I-4 Segment 3 NSA G BARRIER DESIGN: I-4 Segment 3 NSA G Barriers I-4 Segment 3 NSA G Barrier I-4 Segment 3 NSA G Mane I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA G I-4 Segment 3 NSA | SULTS: BARRIER DESCRIPTIONS | | | | a. | | | | | | |
| I-4 Segment 3 NSA G Barriers I-4 Segment 3 NSA G Barriers GM-20 CM-20 Free Run Run Barriers Type Heights along Barrier Length If Wall If Berm Name Type Min Avg Max Length Area Volume Top Run 14' existing W 20.00 20.00 20.00 1842 36837 1 1 1 | OJECT/CONTRACT: | I-4 Btl | J PD&E | | | | | | | | |
| BARRIER DESIGN: GM-20 Barriers Type Heights along Barrier Length If Wall If Berm Name Type Heights along Barrier Length If Wall If Berm Name Type Min Avg Max Length If Wall If Berm Name Min Avg Max Length Rue Volume Width If existing Min Avg 000 20.00 20.00 20.00 20.00 20.00 20.00 20.00 1842 36837 M <td>N:</td> <td>I-4 Se</td> <td>gment 3 NS</td> <td>9 G</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | N: | I-4 Se | gment 3 NS | 9 G | | | | | | | |
| Barriers Type Heights along Barrier Length If Wall If Berm Name Nin Avg Max Length Area Volume Top Run: If existing Min Avg Max Heights along Barrier Length Kem Volume Top Run: 14' existing W 20:00 20:00 20:00 20:00 20:00 1842 36837 M | RRIER DESIGN: | GM-2(| | | | | | | | | |
| Name Type Heights along Barrier Length If Wall If Berm Min Avg Max Area Volume Top Width If ft ft ft ft ft cu yd ft ft:ft 14' existing W 20:00 20:00 20:00 20:00 20:00 1842 36837 m | rriers | | | | | | | | | | |
| Min Avg Max Area Volume Top Run: n ft ft ft ft ft cu yd ft | me | Type | Heights al | ong Barrie | ~ | Length | If Wall | If Berm | | | Cost |
| ft ft ft ft ft sq. ft cu yd ft ft:ft 14' existing W 20.00 20.00 20.00 1842 36837 14' 14' | | | Min | Avg | Max | 1 | Area | Volume | Top Width | Run:Rise | 1 |
| 14' existing W 20.00 20.00 1842 36837 | | | Ŧ | Ŧ | Ŧ | ų | sq ft | cu yd | tr | ft:ff | S |
| | ' existing | 3 | 20.00 | 20.00 | 20.00 | 1842 | 36837 | | | | 1105123 |
| | | | | | | | | | | Total Cost: | 1105123 |

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| RESULTS: SOUND LEVELS | | | | | | | | -4 BtU PD | ĞЕ | | | | | |
|--|----------------|---------------|-------------------|-----------|----------|-----------|-----------|----------------------|-------------------------|-----------------------------|---|----------------------------------|----------------------------|-----|
| Stantec M. Drauer | | | | | | | | 3 June 20 TNM 2.5 | 15 | | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: | <u> 4</u> 4 | BtU I Segn | PD&E nent 3 NS | D A | | | - | Calculated | l with TNN | 12.5 | | | | |
| BARRIER DESIGN: ATMOSEHEPICS | 19 19 19 | Л-20 И-20 | E 50% P | - | | | | | Average a State hi | bavement typ ghway agenc | e shall be us y substantiat approval of | ed unles: tes the u: cuvra | é es | |
| Pereiver | 3 | n) 5 | | - | | | | | | | 0 000 | | | |
| Name | No. #D | SU | Existing | No Barri | er. | | | | | With Barrier | | | | |
| | | | LAeq1h | LAeq1h | - | Increas | se over e | existing | Type | Calculated | Noise Redu | ction | 5 | |
| | | | | Calculate | od Crit' | n Calcula | ated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculate minus Goal | ed |
| | | | dBA | dBA | dBA | æ | | ер П | | dBA | dB | Вb | æ | |
| Rutledge 1 | ~ | - | Ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 80 | 0.0 |
| Rutledge 2 | 2 | - | .0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 80 | 0.0 |
| Rutledge 3 | n | - | Ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 80 | 0.0 |
| Rutledge 4 | 4 | - | Ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 80 | 0.0 |
| Rutledge 5 | Q | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Rutledge 6 | 9 | | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 0 | 80 | 0.0 |
| Rutledge 7 | 2 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 8 | 0.0 |
| Rutledge 8 | ø | - | ō | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 8 | 0.0 |
| Rutledge 9 | σ | - | 0.0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 8 | 0.0 |
| Rutledge 10 | 10 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 0 | 80 | 0.0 |
| Rutledge 11 | 11 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 80 | 0.0 |
| Rutledge 12 | 12 | - | ō | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 1 | 13 | ٣ | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 2 | 14 | - | ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 8 | 0.0 |
| Crowley 3 | 15 | - | ō | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 8 | 0.0 |
| Crowley 4 | 16 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 8 | 0.0 |
| Crowley 5 | 17 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | õ | 0 | 8 | 0.0 |
| Crowley 6 | 18 | - | ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 8 | 0.0 |
| Crowley 7 | 19 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 0 | 80 | 0.0 |
| Crowley 8 | 20 | - | 0. | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 9 | 21 | ٣ | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 10 | 22 | ~ | ö | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 0 | 8 | 0.0 |
| Crowley 11 | 23 | - | 0 | 0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0 | 0 | 8 | 0.0 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | G BM/nsa | | | | | | | * | | | | 3 J | une 2015 | |

| RESULTS: SOUND LEVELS | | | | | | -4- | BtU PD | а В | | | | |
|-----------------------------------|----------|---|-----|-----|----|-----|--------|----------|-----|-----|------------|-----|
| Crowley 12 | 24 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Crowley 13 | 25 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Crowley 14 | 26 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Crowley 15 | 27 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Crowley 16 | 28 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Crowley 17 | 29 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 18 | 30 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 19 | 31 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 37 | 32 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 38 | 33 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 39 | 34 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 40 | 35 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Crowley 20 | 36 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 21 | 37 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 41 | 38 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 42 | 39 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 22 | 40 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 23 | 41 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 24 | 42 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 25 | 43 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 26 | 44 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 27 | 45 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 28 | 46 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 29 | 47 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 30 | 48 | F | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 31 | 49 | F | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 32 | 50 | F | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 33 | 51 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 34 | 52 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Crowley 35 | 53 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Crowley 36 | 54 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 1 | 55 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 2 | 56 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 3 | 57 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 4 | 58 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Long Pond 5 | 59 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 6 | 60 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Long Pond 7 | 61 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 8 | 62 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Long Pond 9 | 63 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Long Pond 10 | 64 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA G | G BM\nsa | | | | | 2 | | | | | 3 June 201 | 5 |

| Long Pond 11 Long Pond 12 | | | | | | | | ļ | | | | |
|------------------------------|------|------------|-----------|------|-----|------|----|----------|------|-----|----|------|
| Long Pond 12 | 65 | 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| | 66 | 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Long Pond 13 | 67 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 14 | 68 | 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Long Pond 15 | 69 | 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 16 | 70 | 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 17 | 71 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Long Pond 18 | 72 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Long Pond 19 out | 73 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 00 | 0.0 |
| Long Pond 20 | 74 | - | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 72.8 | 0.0 | 8 | -8.0 |
| Long Pond 21 | 75 | 1 | 0.0 | 72.5 | 66 | 72.5 | 10 | Snd Lvl | 72.5 | 0.0 | 8 | -8.0 |
| Long Pond 22 | 76 | - | 0.0 | 72.8 | 66 | 72.8 | 10 | Snd Lvl | 72.8 | 0.0 | 8 | -8.0 |
| Chardonnay 1 | 77 | - | 0.0 | 32.0 | 66 | 62.0 | 10 | Ē | 60.3 | 1.7 | 8 | -6.3 |
| Chardonnay 2 | 78 | - | 0.0 | 53.9 | 66 | 63.9 | 10 | Ĩ | 62.1 | 1.8 | 8 | -6.2 |
| Chardonnay 3 | 79 | - | 0.0 | 37.1 | 66 | 67.1 | 10 | Snd Lv! | 65.4 | 1.7 | 8 | -6.3 |
| Chardonnay 4 | 80 | - | 0.0 | 38.0 | 66 | 68.0 | 10 | Snd Lvl | 61.2 | 6.8 | 8 | -1.2 |
| Chardonnay 5 | 81 | - | 0.0 | 35.6 | 66 | 65.6 | 10 | | 59.8 | 5.8 | 80 | -2.2 |
| Chardonnay 6 | 82 | 1 | 0.0 | 32.8 | 66 | 62.8 | 10 | | 59.7 | 3.1 | 8 | -4.9 |
| Chardonnay 7 | 83 | - | 0.0 | 31.0 | 66 | 61.0 | 10 | 1 | 58.2 | 2.8 | 80 | -5.2 |
| Dunbrooke | 84 | - | 0.0 | 34.5 | 66 | 64.5 | 10 | 1 | 58.7 | 5.8 | 80 | -2.2 |
| Long Pond 23 | 85 | - | 0.0 | 51.9 | 66 | 61.9 | 10 | Í | 60.9 | 1.0 | 8 | -7.0 |
| Long Pond 24 | 86 | - | 0.0 | 51.9 | 66 | 61.9 | 10 | | 61.7 | 0.2 | 8 | -7.8 |
| Long Pond 25 | 87 | - | 0.0 | 30.2 | 66 | 60.2 | 10 | I | 60.1 | 0.1 | 8 | -7.9 |
| Long Pond 26 | 88 | - | 0.0 | 59.8 | 66 | 59.8 | 10 | 1 | 59.8 | 0.0 | 80 | -8.0 |
| Long Pond 27 | 89 | 1 | 0.0 | 58.7 | 66 | 58.7 | 10 | 1 | 58.7 | 0.0 | 8 | -8.0 |
| Dwelling Units | 10 # | Js Noise { | Reduction | | | | | | | 2 | | |
| | | Min | Avg | Max | | | | | | | | |
| | | В | ąp | đB | | | | | | | | |
| All Selected | | 89 (| 0.0 | 0.3 | 6.8 | | | | | | | |
| All Impacted | | 5 | 0.0 | 1.7 | 6.8 | | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0.0 | | | | | | | |

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3 June 2015

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| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD | ш | | | |
|--|------------------|---------------------|------------|----------------------|--------|-----------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 26 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: | I-4 Bt | U PD&E | | | | | | | | |
| RUN: BARRIER DESIGN: | I-4 Se Existi | gment 3 NS ng 18 | A G BM | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | 2 | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | Ĥ | Ĥ | Ħ | Ĥ | sq ft | cu yd | ft | ft:ft | Ф |
| Barrier11 | 3 | 0.00 | 0.00 | 0.00 | | 0 | 0 | | | 0 |
| 14' existing | 3 | 18.00 | 18.00 | 18.00 | 1842 | 2 3315 | 4 | | | 994611 |
| | | | | 11 | | | | | Total Cost: | 994611 |
| | | | | | | | | | | |

C:\TNM25\230168\Seg 3\8 + 4\NSA G-BM

| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PI |)&E | | | | |
|---|------|----------------------------|---------------------------|----------|-------------|--------|-------------|----------------------|-------------------------|--------------------------------|------------------------------|---------------------|-----------------------------|
| Stantec M. Drauer | | | | | | | | 26 May 2(TNM 2.5 | 15 | | | | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | W | 4 BtU 4 Segi Xisting | PD&E nent 3 NS 3 18 | A G BM | | | | Calculate | d with TNI Average | A 2.5 pavement typ | e shall be us | ed unless | |
| ATMOSPHERICS; | | S8 deg | , F, 50% R | т | | | | | a State h of a diffe | ighway agenc rent type with | y substantiat approval of | tes the us FHWA. | a |
| Receiver Name | No. | DUs | Existing | No Barri | er. | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | | ICREASE OVE | r existing | Type | Calculated | Noise Redu | ction | |
| | | | | Calculat | ed Crit' | о - | alculated | Crit'n Sub'l Inc | Impact | L A eq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | dBA | P | ш | Вb | | dBA | dB | 段 | dB |
| Long Pond 21 | 75 | - | 0 | 0 | 72.5 | 99 | 72. | 5 1(| Snd Lvl | 72.6 | 0. | 0 | -8.0 |
| Long Pond 22 | 76 | - | 0 | 0 | 72.8 | 99 | 72. | 8 1(| Snd Lvl | 72.8 | 8 0. | 0 | 8-0.6 |
| Chardonnay 1 | 17 | - | Ö | 0 | 52.0 | 66 | 62. | 0 1(| | 60.4 | 1.1 | 9 | 8 -6.4 |
| Chardonnay 2 | 78 | - | Ö | 0 | 63.9 | 99 | 63. | 9 1(| | 62.3 | 1.1 | 7 | 8 -6.3 |
| Chardonnay 3 | 6/ | - | 0 | 0 | 57.1 | 66 | 67. | 1 | Snd Lvi | 65.5 | 5 1. | 9 | 8 -6.4 |
| Chardonnay 4 | 80 | - | Ö | 0 | 68.0 | 99 | 68. | 1(|) Snd Lvi | 61.4 | 4 6. | 9 | 8 -1.4 |
| Chardonnay 5 | 81 | - | ö | 0 | 65.6 | 66 | 65. | 6 1(| | .09 | 1 5. | 5 | 8 -2.5 |
| Chardonnay 6 | 82 | - | 0 | 0 | 52.8 | 66 | 62. | 1(| 1 | 29.6 | 9 | 0 | 8 -5.1 |
| Chardonnay 7 | 83 | - | Ö | 0 | 61.1 | 99 | 61. | 1 10 | | 58.3 | 3 2. | 8 | 8 -5.2 |
| Dunbrooke | 84 | - | Ö | 0 | 64.5 | 99 | 64. | 5 1(| | 59.(| 0 5. | 5 | 8 -2.5 |
| Long Pond 23 | 85 | - | Ö | 0 | 61.9 | 66 | 61. | 9 1(| | 60.9 | 9 | 0 | 8 -7.(|
| Dunbrooke 1 | 6 | * | 0 | 0 | 62.3 | 99 | 62. | 3 10 | | 58.6 | | 7 | 8 -4.3 |
| Dunbrooke 2 | 91 | - | 0 | 0 | 64.6 | 99 | 64. | 6 1(| 1 | 27.7 | 7 6. | 0 | -1.1 |
| Dunbrooke 3 | 92 | - | 0 | 0 | 64.7 | 66 | 64. | 7 1(| 1 | 57.3 | 3 7. | 4 | 8 -0.6 |
| Dunbrooke 4 | 63 | - | Ö | 0 | 64.4 | 66 | 64. | 4 1(| | 57.2 | 2 7.1 | 2 | 8 -0.8 |
| Dunbrooke 5 | 94 | - | 0. | 0 | 63.6 | 66 | 63. | 6 1(| 1 | 57.5 | 5 6. | + | -1.9 |
| Dunbrooke 6 | 95 | - | Ö | 0 | 62.9 | 99 | 62. | 9 1(| | 57.4 | 4 5. | 5 | 8 -2.5 |
| Dunbrooke 7 | 96 | - | ö | 0 | 60.4 | 99 | 60. | 1(| | 57.(| 0 3. | 4 | 8 -4.6 |
| Dunbrooke 8 | 97 | - | Ö | 0 | 59.5 | 66 | 59. | 5 1(| | 56.6 | 6 2. | 6 | 8 -5.1 |
| Dunbrooke 9 | 98 | - | Ö | 0 | 61.3 | 66 | 61. | 3 1(| | 57.4 | 4 3. | 0 | 8 -4.1 |
| Dunbrooke 10 | 66 | - | 0 | 0 | 63.7 | 99 | 63. | 7 1(| 1 | 57.(| 0 6. | 7 | -1.0 |
| Dunbrooke 11 | 100 | - | Ö | 0 | 63.5 | 99 | 63. | 5 1(| 1 | 56.9 | 9 6. | 9 | 8 -1.4 |
| Tennis Ct. | 101 | - | Ö | 0 | 63.6 | 99 | 63. | 6 1(| | 57.6 | 6.0 | 0 | 8 -2.(|
| C:\TNM25\230168\Seg 3\8 + 4\NSA G | S-BM | | | | | | F | | | | 26 N | lay 2015 | |

| RESULTS: SOUND LEVELS | | | | | | 141 | BtU PD | ßЕ | | | | |
|------------------------------|-----|------|--------------|-------|-----|------|--------|---------|------|-----|----|------|
| Dunbrooke 12 | 102 | - | 0.0 | 61.4 | 66 | 61.4 | 10 | | 58.7 | 2.7 | 80 | -5.3 |
| Dunbrooke 13 | 103 | - | 0.0 | 59.4 | 99 | 59.4 | 10 | 1 | 57.4 | 2.0 | 80 | -6.0 |
| Oakmonte g | 104 | - | 0.0 | 70.0 | 99 | 70.0 | 10 | Snd Lvl | 70.0 | 0.0 | 80 | -8.0 |
| Oakmonte f | 105 | - | 0.0 | 69.7 | 66 | 69.7 | 10 | Snd Lvl | 69.7 | 0.0 | 8 | -8.0 |
| Oakmonte e | 106 | - | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 69.3 | 0.0 | 80 | -8.0 |
| Oakmonte d | 107 | | 0.0 | 68.9 | 66 | 68.9 | 10 | Snd Lvl | 68.9 | 0.0 | 80 | -8.0 |
| Oakmonte c | 108 | - | 0.0 | 67.2 | 66 | 67.2 | 10 | Snd Lvl | 67.2 | 0.0 | 80 | -8.0 |
| Oakmonte b | 109 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | 1 | 65.8 | 0.0 | 80 | -8.0 |
| Oakmonte a | 110 | - | 0.0 | 64.8 | 66 | 64.8 | 10 | 1 | 64.8 | 0.0 | œ | 0.6 |
| Oakmonte 1 | 111 | - | 0.0 | 63.8 | 66 | 63.8 | 10 | 1 | 63.8 | 0.0 | ω | -8.0 |
| Oakmonte 2 | 112 | - | 0.0 | 66.1 | 66 | 66.1 | 10 | Snd Lvl | 66.1 | 0.0 | 80 | -8.0 |
| Oakmonte 3 | 113 | - | 0.0 | 66.69 | 99 | 69.9 | 10 | Snd Lvl | 6.69 | 0.0 | ø | -8.0 |
| Oakmonte 4 | 114 | - | 0.0 | 69.4 | 99 | 69.4 | 10 | Snd Lvl | 69.4 | 0.0 | 80 | -8.0 |
| Oakmonte 5 | 115 | - | 0.0 | 69.8 | 66 | 69.8 | 10 | Snd Lvl | 69.8 | 0.0 | 80 | -8.0 |
| Oakmonte 6 | 116 | - | 0.0 | 65.5 | 66 | 65.5 | 10 | Ĩ | 65.5 | 0.0 | ø | -8.0 |
| Courtyard Pool | 153 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | 1 | 63.0 | 0.0 | 80 | -8.0 |
| Oakmonte A | 154 | - | 0.0 | 70.3 | 66 | 70.3 | 10 | Snd Lvl | 70.3 | 0.0 | œ | -8.0 |
| Oakmonte E | 158 | - | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 69.3 | 0.0 | ω | -8.0 |
| Oakmonte F | 159 | - | 0.0 | 67.7 | 66 | 67.7 | 10 | Snd Lvl | 67.7 | 0.0 | 80 | -8.0 |
| Oakmonte G | 160 | - | 0.0 | 68.6 | 66 | 68.6 | 10 | Snd Lvl | 68.6 | 0.0 | 80 | -8.0 |
| Dwelling Units | Q # | Us N | oise Reducti | uo | | | | | | 11 | Î | |
| | | Σ | in Avg | | Мах | | | | | | | |
| | | P | 8 B | | B | | | | | | | |
| All Selected | | 43 | 0.0 | 2.3 | 7,4 | | | | | | | |
| All Impacted | | 17 | 0.0 | 0.5 | 6.6 | | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0.0 | | | | | | | |
| | | | | | | | | | | | | |

1-4 BHI PD&F

C:\TNM25\230168\Seg 3\8 + 4\NSA G-BM

26 May 2015

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I-4 BtU PD&E

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| Stantec | M. Drau |
| | |

3 June 2015 TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

| PROJECT/CONTRACT: | I-4 B |
|--------------------------|-------|
| RUN: | I-4 S |
| BARRIER DESIGN: | Oak |

iegment 3 NSA G BM BM-14 tU PD&E

| Barriers | | 1 | | | | | | | | |
|--------------|------|------------|------------|-------|--------|---------|---------|--------------|-------------|--------|
| Name | Type | Heights al | ong Barrie | Ļ | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | 1 |
| | | ft | ft | ff | Ĥ | sq ft | cu yd | ft | ft:ft | Ф |
| Barrier11 | > | 14.00 | 14.00 | 14.00 | 121 | 5 1702 | 0 | | | 510873 |
| 14' existing | N | 00.00 | 00.0 | 0.0 | | 0 | 0 | | | 0 |
| | | | | | | | | | Total Cost: | 510873 |

| RESULTS: SOUND LEVELS | | | | | | | | - | 4 BtU PD | ш | | | | | |
|--|------|--------------------|---------------------|------|----------------|----------|-----------|---------|--------------------|--|------------------------------|---------------------------------|------------------------|--------------------------|------|
| Stantec M. Drauer | | | | | | | | ς Η Ο | June 201 NM 2.5 | ŝ | | | | 0 | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: | | I-4 Btt I-4 Seç | J PD&E jment 3 N | SAGB | ¥. | | | 5 | alculated | with INN | 1 2.5 | | | - | |
| BARRIER DESIGN: ATMOSPHERICS: | | Oak B | M-14 G E 50% I | на | | | | | | Average p a State hi of a differ | avement type ghway agency | e shall be use y substantiat | ed unless es the us | e e | |
| Receiver | | | - - | | | | | | | | | | | | |
| Name | No. | #DUs | Existinç | NoE | 3arrier | | | | | | With Barrier | | | | |
| | | | LAeq1h | LAe | q1h | | Increase | over ex | kisting | Type | Calculated | Noise Reduc | ction | - | |
| | | | | Calc | ulated | Crit'n | Calculate | o o | rit'n ub'l Inc | Impact | LAeq1h | Calculated | Goal | Calcula minus Goal | ited |
| | | | dBA | dBA | | dBA | 段 | σ | | | dBA | đB | đB | 贸 | |
| Chardonnay 1 | 77 | | - | 0.0 | 62.0 | Ť | 36 | 62.0 | 10 | 1 | 61.9 | 0.1 | | 80 | -7.9 |
| Chardonnay 2 | 78 | | - | 0.0 | 63.9 | T | 36 | 63.9 | 10 | l | 63.8 | 0.1 | _ | 80 | -7.9 |
| Chardonnay 3 | 19 | | 1 | 0.0 | 67.1 | Ű | 36 | 67.1 | 10 | Snd Lvl | 67.1 | 0.0 | 0 | 8 | -8.0 |
| Chardonnay 4 | 80 | | 1 | 0.0 | 68.0 | • | 36. | 68.0 | 10 | Snd Lvl | 68.0 | 0.0 | 0 | 8 | -8.0 |
| Chardonnay 5 | 81 | | 1 | 0.0 | 65.6 | J | 36 | 65.6 | 10 | 1 | 65.6 | 0.0 | 0 | 8 | -8.0 |
| Chardonnay 6 | 82 | | 1 | 0.0 | 62.8 | 9 | 36 | 62.8 | 10 | 1 | 62.8 | 0.0 | 0 | 8 | -8.0 |
| Chardonnay 7 | 83 | | 1 | 0.0 | 61.1 | 9 | 36 | 61.1 | 10 | I | 60.9 | 0.2 | 0 | 8 | -7.8 |
| Dunbrooke | 84 | | 1 | 0.0 | 64.5 | u | 36 | 64.5 | 10 | 1 | 64.4 | .0.1 | | 8 | -7.9 |
| Dunbrooke 1 | 06 | | - | 0.0 | 62.3 | • | 36 | 62.3 | 10 | 1 | 62.1 | 0.2 | 01 | 8 | -7.8 |
| Dunbrooke 2 | 91 | | - | 0.0 | 64.6 | J | 36 | 64.6 | 10 | 1 | 64.5 | 0.1 | _ | 8 | -7.9 |
| Dunbrooke 3 | 92 | | - | 0.0 | 64.7 | J. | 36 | 64.7 | 10 | I | 64.6 | 0.1 | _ | 80 | -7.9 |
| Dunbrooke 4 | 93 | | - | 0.0 | 64.4 | T | 36 | 64.4 | 10 | ß | 64.2 | 0.2 | 0 | 8 | -7.8 |
| Dunbrooke 5 | 94 | | - | 0.0 | 63.6 | U. | 36 | 63.6 | 10 | l | 63.3 | 0.3 | ~ | 80 | -7.7 |
| Dunbrooke 6 | 96 | | 1 | 0.0 | 62.9 | J | 36 | 62.9 | 10 | 1 | 62.4 | .0.5 | 10 | 8 | -7.5 |
| Dunbrooke 7 | 96 | | 1 | 0.0 | 60.4 | 9 | 36 | 60.4 | 10 | I | 59.8 | 0.6 | 6 | 8 | -7.4 |
| Dunbrooke 8 | 61 | | 1 | 0.0 | 59.5 | J | 36 | 59.5 | 10 | 1 | 58.7 | 9.0 | ~ | 8 | -7.2 |
| Dunbrooke 9 | 86 | | - | 0.0 | 61.3 | | 90 | 61.3 | 10 | 1 | 60.4 | .0.0 | 6 | 8 | -7.1 |
| Dunbrooke 10 | 66 | | 1 | 0.0 | 63.7 | J | 36 | 63.7 | 10 | ł | 62.7 | 1.0 | 0 | 8 | -7.0 |
| Dunbrooke 11 | 100 | | 1 | 0.0 | 63.5 | T | 36 | 63.5 | 10 | ľ | 61.6 | 1.6 | • | 8 | -6.1 |
| Tennis Ct. | 101 | | 1 | 0.0 | 63.6 | U | 36 | 63.6 | 10 | ŀ | 61.3 | 2.3 | ~ | 8 | -5.7 |
| Dunbrooke 12 | 102 | | 1 | 0.0 | 61.4 | • | 36 | 61.4 | 10 | I | 59.5 | 1.9 | 6 | 8 | -6.1 |
| Dunbrooke 13 | 103 | | 1 | 0.0 | 59.4 | Ű | 36 | 59.4 | 10 | l | 58.1 | 1.0 | ~ | 8 | -6.7 |
| Oakmonte g | 104 | | - | 0.0 | 70.0 | T | 36 | 70.0 | 10 | Snd Lvl | 63.3 | 6.7 | ~ | 8 | -1.3 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA (| G-BM | | | | | | - | | | | | 3 Jur | ne 2015 | | |

| RESULTS: SOUND LEVELS | | | | | | 4 | BtU PD8 | ш | | | | |
|------------------------------------|-----|--------------|-----|------|----|------|---------|---|------|-----------|----|------|
| Oakmonte f | 105 | - | 0.0 | 69.7 | 66 | 69.7 | 10 | Snd Lvl | 63.7 | 6.0 | 80 | -2.0 |
| Oakmonte e | 106 | - | 0.0 | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 63.9 | 5.4 | 80 | -2.6 |
| Oakmonte d | 107 | - | 0.0 | 68.9 | 66 | 68.9 | 10 | Snd Lvl | 64.1 | 4.8 | 8 | -3.2 |
| Oakmonte c | 108 | - | 0.0 | 67.2 | 66 | 67.2 | 10 | Snd Lvl | 63.6 | 3.6 | 8 | -4.4 |
| Oakmonte b | 109 | - | 0.0 | 65.8 | 66 | 65.8 | 10 | ł | 61.7 | 4.1 | 8 | 9.6- |
| Oakmonte a | 110 | - | 0.0 | 64.8 | 66 | 64.8 | 10 | I | 60.9 | 3.9 | 8 | -4.1 |
| Oakmonte 1 | 111 | - | 0.0 | 63.8 | 66 | 63.8 | 10 | I. | 60.3 | 3.5 | 8 | -4.5 |
| Oakmonte 2 | 112 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 3 | 113 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Oakmonte 4 | 114 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte 5 | 115 | ۳. | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 6 | 116 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ∞ | 0.0 |
| Oakmonte 7 | 117 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 8 | 118 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 9 | 119 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 10 | 120 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| III | 121 | - | 0.0 | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 74.0 | 0.3 | 80 | -7.7 |
| Dunbrooke 13 | 103 | v - | 0.0 | 58.8 | 66 | 58.8 | 10 | | 58.0 | 0.8 | 80 | -7.2 |
| Notting Hill 1 | 122 | - | 0.0 | 59.6 | 66 | 59.6 | 10 | I | 58.7 | 0.9 | 80 | -7.1 |
| Notting Hill 2 | 123 | ~ | 0.0 | 59.8 | 66 | 59.8 | 10 | 100000 | 59.0 | 0.8 | 80 | -7.2 |
| Notting Hill 3 | 124 | - | 0.0 | 62.7 | 66 | 62.7 | 10 | in the second | 61.9 | 0.8 | 80 | -7.2 |
| Notting Hill 4 | 125 | - | 0.0 | 62.4 | 66 | 62.4 | 10 | - | 61.7 | 0.7 | 8 | -7.3 |
| Notting Hill 5 | 126 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | 1 | 63.8 | 0.5 | 8 | -7.5 |
| Notting Hill 6 | 127 | - | 0.0 | 64.5 | 66 | 64.5 | 10 | | 64.1 | 0.4 | 8 | -7.6 |
| Notting Hill 7 | 128 | ~ | 0.0 | 64.9 | 66 | 64.9 | 10 | A set of the | 64.5 | 0.4 | 8 | -7.6 |
| Notting Hill 8 | 129 | - | 0.0 | 65.4 | 66 | 65.4 | 10 | I | 65.1 | 0.3 | 8 | -7.7 |
| Notting Hill 9 | 130 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | Ţ | 65.1 | 0.2 | 80 | -7.8 |
| Notting Hill 10 | 131 | - | 0.0 | 65.3 | 66 | 65.3 | 10 | I | 65.2 | 0.1 | 80 | -7.9 |
| Notting Hill 11 | 132 | - | 0.0 | 65.1 | 66 | 65.1 | 10 | - | 65.0 | 0.1 | ø | -7.9 |
| Notting Hill 12 | 133 | - | 0.0 | 64.3 | 66 | 64.3 | 10 | l | 64.2 | 0.1 | 80 | -7.9 |
| Notting Hill 13 | 134 | - | 0.0 | 64.1 | 66 | 64.1 | 10 | - | 64.0 | 0.1 | 80 | -7.9 |
| Notting Hill 14 | 135 | ٣ | 0.0 | 63.9 | 66 | 63.9 | 10 | 1 | 63.8 | 0.1 | 8 | -7.9 |
| Notting Hill 15 | 136 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | | 64.3 | 0.1 | 80 | -7.9 |
| Notting Hill 16 | 137 | - | 0.0 | 64.1 | 66 | 64.1 | 10 | 1 | 64.0 | 0.1 | 80 | -7.9 |
| Notting Hill 17 | 138 | . | 0.0 | 63.6 | 66 | 63.6 | 10 | | 63.5 | 0.1 | 80 | -7.9 |
| Notting Hill 18 | 139 | - | 0.0 | 63.2 | 66 | 63.2 | 10 | - | 63.1 | 0.1 | 80 | -7.9 |
| Notting Hill 19 | 140 | x - | 0.0 | 65.3 | 66 | 65.3 | 10 | ļ | 65.2 | 0.1 | œ | -7.9 |
| Notting Hill 20 | 141 | ~ | 0.0 | 64.6 | 66 | 64.6 | 10 | 1 | 64.5 | 0.1 | 80 | -7.9 |
| Notting Hill 21 | 142 | 4 | 0.0 | 65.5 | 66 | 65.5 | 10 | 1 | 65.4 | 0.1 | 80 | -7.9 |
| Notting Hill 22 | 143 | - | 0.0 | 64.4 | 66 | 64.4 | 10 | I | 64.4 | 0.0 | œ | -8.0 |
| Notting Hill 23 | 144 | - | 0.0 | 64.7 | 99 | 64.7 | 10 | 1 | 64.6 | 0.1 | 80 | -7.9 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA G- | BM | | | | | 2 | | | | 3 June 20 | 15 | |

| RESULTS: SOUND LEVELS | | | | | | 14 | Btu PD8 | Ě | | | | |
|------------------------------|-----|------|-------------|-------|-----|------|---------|----------|------|-----|----|------|
| Notting Hill 24 | 145 | - | 0.0 | 64.6 | 66 | 64.6 | 10 | | 64.5 | 0.1 | 80 | -7.9 |
| Notting Hill 25 | 146 | - | 0.0 | 62.8 | 66 | 62.8 | 10 | I | 62.8 | 0.0 | 80 | -8.0 |
| Notting Hill 26 | 147 | - | 0.0 | 62.8 | 66 | 62.8 | 10 | 1 | 62.8 | 0.0 | ø | -8.0 |
| Notting Hill 27 | 148 | - | 0.0 | 61.1 | 66 | 61.1 | 10 | į | 61.0 | 0.1 | 80 | -7.9 |
| Notting Hill 28 | 149 | - | 0.0 | 61.2 | 99 | 61.2 | 10 | 1 | 61.2 | 0.0 | 80 | -8.0 |
| Notting Hill 29 | 150 | - | 0.0 | 60.1 | 99 | 60.1 | 10 | 1 | 60.0 | 0.1 | ω | -7.9 |
| Notting Hill 30 | 151 | - | 0.0 | 58.9 | 66 | 58.9 | 10 | 1 | 58.8 | 0.1 | 80 | -7.9 |
| Courtyard Pool | 153 | - | 0.0 | 63.0 | 66 | 63.0 | 10 | Ę | 59.5 | 3.5 | œ | -4.5 |
| Oakmonte A | 154 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte B | 155 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Oakmonte C | 156 | ~ | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte D | 157 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte E | 158 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ω | 0.0 |
| Oakmonte F | 159 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | ω | 0.0 |
| Oakmonte G | 160 | - | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Dwelling Units | 0 # | Us I | Noise Reduc | ction | | | | | | | | |
| | | | Min A | Бл | Max | | | | | | | |
| | | | dB d | ß | đB | | | | | | | |
| All Selected | | 79 | 0.0 | 0.8 | 6.7 | | | | | | | |
| All Impacted | | œ | 0.0 | 3.4 | 6.7 | | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0.0 | | | | | | | |
| | | | | | | | | | | | | |

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3 June 2015

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| RESULTS: BARRIER DESCRIPTIONS | | | | | | | I-4 BtU PD | Ш | | | |
|--------------------------------------|--------|-----------|---------|--------|----------|--------|------------|---------|--------------|-------------|--------|
| Stantec | | | | ß | 9 May 20 | 15 | | | | | |
| M. Drauer | | | | - | NM 2.5 | | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Bt | U PD&E | | | | | | | | | |
| RUN: | l-4 Se | gment 3 N | ISA G (| W5 | | | | | | | |
| BARRIER DESIGN: | Oak 2 | 2 | | | | | | | | | |
| Barriers | | | | | | | | | | | |
| Name | Type | Heights | along E | arrier | | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | 2 | ах | | Area | Volume | Top Width | Run:Rise | |
| | | Ŧ | æ | Ŧ | | Ŧ | sq ft | cu yd | Ĥ | ft:ft | s |
| Barrier11 | 8 | 22.0 | 0 | 22.00 | 22.00 | 121 | 6 2676 | 0 | | | 802800 |
| 14' existing | ≥ | 0.0 | 0 | 0.00 | 0.00 | | 0 | 0 | | | 0 |
| | | | | | | | | | | Total Cost: | 802800 |
| | | | | | | | | | | | |

C:\TNM25\230168\Seg 3\8 + 4\NSA G Oakmonte

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU PI |)&E | | | | | |
|---|------------|------------------------------|------------------|---------------------|----------|---------------------------|-------------------------------------|--------------------------|-------------------------------|------------------------------|---------------------|----------|----------|
| Stantec M. Drauer | | | | | | | 29 May 2(TNM 2.5 | 115 | | | | - | |
| RESULTS: SOUND LEVELS PROJECT/CONTRACT: RUN: BARRIER DESIGN: | | I-4 BtU I-4 Seg Oak 22 | PD&E ment 3 N | SA G GM | | | Calculate | d with TNN Average I | A 2.5 avement typ | e shall be us | ed unles: | | |
| ATMOSPHERICS: | | 68 deç | j F, 50% F | H | | | | a State hi of a diffe | ghway agenc rent type with | y substantial approval of | tes the u: FHWA. | e | |
| Receiver | | | | | | | | | - 000 | | | | |
| Name | No. | #DUs | Existing | No Barrie | | | | | With Barrier | | | | |
| | | | LAeq1h | LAeq1h Calculate | d Crit'n | Increase ov Calculated | rer existing Crit'n Sub'l Inc | Type Impact | Calculated LAeq1h | Noise Redu Calculated | ction Goal | Calculat | pa |
| | | | | | | | | - | | | | Goal | |
| | | | dBA | dBA | dBA | dB | dВ | | dBA | dB | dB | Вb | |
| Long Pond 21 | 75 | 8 | 0 | .0 | 2.5 | 66 72 | 2.5 10 | Snd Lvl | 72.5 | 0.0 | 0 | 80 | -8.0 |
| Long Pond 22 | 76 | | 0 | .0 | 2.8 | 66 73 | 2.8 10 | Snd Lvl | 72.8 | 0.0 | 0 | 8 | -8.0 |
| Chardonnay 1 | 77 | a- | 0 | .0 | 2.0 | 66 62 | 2.0 10 | | 61.9 | .0 | - | 8 | -7.9 |
| Chardonnay 2 | 78 | 8 | 0 | 0. | 3.9 | 66 65 | 3.9 1(| | 63.5 | 0. | - | 80 | -7.9 |
| Chardonnay 3 | 42 | | 0 | .0 | 7.1 | 66 67 | 7.1 10 | Snd Lvl | 67.1 | 0.0 | 0 | 8 | -8.0 |
| Chardonnay 4 | 80 | | 0 | .0 | 8.0 | 66 68 | 3.0 10 | Snd Lvi | 68.0 | 0.0 | 0 | 80 | -8.0 |
| Chardonnay 5 | 81 | \$2 | 0 | 0.0 | 5.6 | 66 68 | 5.6 1(|] | 65.6 | 0.0 | 0 | 8 | 9.0 - |
| Chardonnay 6 | 82 | | 0 | .0 | 2.8 | 66 62 | 2.8 10 | 1 | 62.7 | · 0 | - | 8 | -7.9 |
| Chardonnay 7 | 83 | | 0 | 0.0 | 1.1 | .9 99 | 1.1 10 | 1 | 60.5 | 0. | N | 8 | -7.8 |
| Dunbrooke | 84 | | 0 | .0 | 4.5 | 66 64 | 4.5 1(| I | 64.4 | t.0 | - | 8 | -7.9 |
| Long Pond 23 | 85 | | 0 | 0.0 | 1.9 | .9 99 | 1.9 10 | I | 61.9 | 0.0 | 0 | 8 | -8.0 |
| Dunbrooke 1 | 06 | | 0 | .0 | 2.3 | 66 62 | 2.3 10 | I | 62.1 | 0. | 0 | 8 | -7.8 |
| Dunbrooke 2 | 91 | | 0 | .0 | 4.6 | 66 64 | 4.6 10 | 1 | 64.5 | 2.0 | - | 80 | -7.9 |
| Dunbrooke 3 | 92 | | 0 | .0 | 4.7 | 66 64 | 4.7 10 | | 64.5 | 0.2 | 2 | 8 | -7.8 |
| Dunbrooke 4 | 93 | · | 0 | .0 | 4.4 | 66 64 | 4.4 10 | | 64.2 | 0. | 2 | 80 | -7.8 |
| Dunbrooke 5 | 94 | Ţ | 0 | .0 .0 | 3.6 | 66 63 | 3.6 10 | | 63.3 | 3 0.0 | 6 | 8 | -7.7 |
| Dunbrooke 6 | 92 | | 0 | .0 | 2.9 | 66 62 | 2.9 10 | 1 | 62.3 | 3 0.6 | 0 | 8 | -7.4 |
| Dunbrooke 7 | 96 | ~ | • | .0 | 0.4 | 66 6(| 0.4 10 | Ì | 262 | 0.1 | 2 | 8 | -7.3 |
| Dunbrooke 8 | 61 | | 0 | 0 | 9.5 | 66 53 | 9.5 10 | I | 58.5 | 1.0 | 0 | 8 | -7.0 |
| Dunbrooke 9 | 98 | | 0 | 0 | .3 | 66 6 | 1.3 10 | | 60.3 | 1.0 | 0 | 8 | -7.0 |
| Dunbrooke 10 | 66 | | 0 | 0 | 3.7 | 66 63 | 3.7 10 | 1 | 62.6 | 3 | - | 8 | -6.9 |
| Dunbrooke 11 | 100 | | 0 | .0 | 3.5 | 66 63 | 3.5 10 | 1 | 61.4 | 1 2. | _ | 8 | -5.9 |
| Tennis Ct. | 101 | Ţ | 0 | .0 | 3.6 | 66 63 | 3.6 10 | 1 | 61.0 | 2.0 | 0 | 8 | -5.4 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA C | G Oakmonte | | | | | | ÷ | | | | 29 | May 2015 | |

| RESULTS: SOUND LEVELS | | | | | | 4 | Btu PD8 | щ | | | | |
|---------------------------------|------------|-----|------------|------|----|------|---------|----------|------|-----|-----------|------|
| Dunbrooke 12 | 102 | 1 | 0. | 61.4 | 66 | 61.4 | 10 | Ĩ | 59.2 | 2.2 | 80 | -5.8 |
| Dunbrooke 13 | 103 | 1 | 0. | 59.4 | 66 | 59.4 | 10 | I | 57.8 | 1.6 | œ | -6.4 |
| Oakmonte g | 104 | 1 | 0. | 70.0 | 66 | 70.0 | 10 | Snd Lvl | 62.3 | 7.7 | œ | -0.3 |
| Oakmonte f | 105 | 1 | 0. | 69.7 | 66 | 69.7 | 10 | Snd Lvl | 62.9 | 6.8 | œ | -1.2 |
| Oakmonte e | 106 | 1 | 0. | 69.3 | 66 | 69.3 | 10 | Snd Lvl | 63.2 | 6.1 | æ | -1.9 |
| Oakmonte d | 107 | 1 | 0. | 68.9 | 66 | 68.9 | 10 | Snd Lvi | 63.5 | 5.4 | œ | -2.6 |
| Oakmonte c | 108 | 1 | 0. | 67.2 | 66 | 67.2 | 10 | Snd Lvl | 63.2 | 4.0 | 8 | -4.0 |
| Oakmonte b | 109 | 1 | 0. | 65.8 | 66 | 65.8 | 10 | Ĩ | 61.2 | 4.6 | 80 | -3.4 |
| Oakmonte a | 110 | 1 | o. | 64.8 | 66 | 64.8 | 10 | I | 60.5 | 4.3 | æ | -3.7 |
| Oakmonte 1 | 111 | • | o. | 63.8 | 66 | 63.8 | 10 | 1 | 60.0 | 3.8 | œ | -4.2 |
| Oakmonte 2 | 112 | • | 0. | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | ø | 0.0 |
| Oakmonte 3 | 113 | 1 | 0. | 0.0 | 66 | 0.0 | 10. | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte 4 | 114 | 0 | 0. | 0.0 | 99 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 5 | 115 | 1 | 0. | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| Oakmonte 6 | 116 | 1 | 0. | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 7 | 117 | 1 | 0. | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 8 | 118 | 1 | o. | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| Oakmonte 9 | 119 | 1 | 0. | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| Oakmonte 10 | 120 | 1 | 0. | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| ITT | 121 | 1 | <u>o</u> . | 74.3 | 66 | 74.3 | 10 | Snd Lvl | 73.9 | 0.4 | 00 | -7.6 |
| Dunbrooke 13 | 103 | 1 | 0. | 58.8 | 66 | 58.8 | 10 | | 57.9 | 0.9 | 00 | -7.1 |
| Notting Hill 1 | 122 | 0 | 0. | 59.6 | 66 | 59.6 | 10 | 1 | 58.6 | 1.0 | 80 | -7.0 |
| Notting Hill 2 | 123 | 1 | 0. | 59.8 | 66 | 59.8 | 10 | Í | 58.9 | 0.9 | 80 | -7.1 |
| Notting Hill 3 | 124 | 1 | 0. | 62.7 | 66 | 62.7 | 10 | Ĩ | 61.9 | 0.8 | 80 | -7.2 |
| Notting Hill 4 | 125 | 1 | 0. | 62.4 | 66 | 62.4 | 10 | Î | 61.6 | 0.8 | 8 | -7.2 |
| Notting Hill 5 | 126 | 1 | 0. | 64.3 | 66 | 64.3 | 10 | 1 | 63.7 | 0.6 | 80 | -7.4 |
| Notting Hill 6 | 127 | 1 | 0. | 64.5 | 66 | 64.5 | 10 | 1 | 64.1 | 0.4 | 80 | -7.6 |
| Notting Hill 7 | 128 | 1 | 0. | 64.9 | 66 | 64.9 | 10 | 1 | 64.4 | 0.5 | 8 | -7.5 |
| Notting Hill 8 | 129 | • | 0. | 65.4 | 66 | 65.4 | 10 | 1 | 65.1 | 0.3 | 80 | -7.7 |
| Notting Hill 9 | 130 | • | 0. | 65.3 | 66 | 65.3 | 10 | 1 | 65.1 | 0.2 | 80 | -7.8 |
| Notting Hill 10 | 131 | 1 | 0. | 65.3 | 66 | 65.3 | 10 | | 65.1 | 0.2 | 8 | -7.8 |
| Notting Hill 11 | 132 | 1 | 0. | 65.1 | 66 | 65.1 | 10 | Ĩ | 65.0 | 0.1 | 8 | -7.9 |
| Notting Hill 12 | 133 | 1 0 | o. | 64.3 | 66 | 64.3 | 10 | I | 64.2 | 0.1 | 80 | -7.9 |
| Notting Hill 13 | 134 | 1 | 0. | 64.1 | 66 | 64.1 | 10 | - | 64.0 | 0.1 | 8 | -7.9 |
| Notting Hill 14 | 135 | 1 | 0. | 63.9 | 66 | 63.9 | 10 | 1 | 63.8 | 0.1 | 80 | -7.9 |
| Notting Hill 15 | 136 | 1 0 | 0. | 64.4 | 66 | 64.4 | 10 | 1 | 64.3 | 0.1 | 80 | -7.9 |
| Notting Hill 16 | 137 | 1 | 0. | 64.1 | 66 | 64.1 | 10 | | 64.0 | 0.1 | 80 | -7.9 |
| Notting Hill 17 | 138 | 1 0 | 0. | 63.6 | 66 | 63.6 | 10 | ł | 63.5 | 0.1 | 8 | -7.9 |
| Notting Hill 18 | 139 | 1 | 0. | 63.2 | 66 | 63.2 | 10 | I | 63.1 | 0.1 | 8 | -7.9 |
| Notting Hill 19 | 140 | 1 | 0. | 65.3 | 66 | 65.3 | 10 | Ĺ | 65.2 | 0.1 | 80 | -7.9 |
| Notting Hill 20 | 141 | 1 | 0. | 64.6 | 66 | 64.6 | 10 | Ĩ | 64.4 | 0.2 | 8 | -7.8 |
| C:\TNM25\230168\Seg 3\8 + 4\NSA | G Oakmonte | | | | | 6 | | | | | 20 May 20 | 15 |

| | | | | Т <u>4</u> в | stU PD& | ш | | | | |
|-------|---|---|--|---|--|--|--|---|---|---|
| 142 1 | 0.0 | 65.5 | 66 | 65.5 | 10 | Ī | 65.4 | 0.1 | œ | -7.9 |
| 143 1 | 0.0 | 64.4 | 66 | 64.4 | 10 | 1 | 64.3 | 0.1 | ω | -7.9 |
| 144 1 | 0.0 | 64.7 | 66 | 64.7 | 10 | 1 | 64.6 | 0.1 | 80 | -7.9 |
| 145 1 | 0.0 | 64.6 | 66 | 64.6 | 10 | | 64.5 | 0.1 | œ | -7.9 |
| 146 1 | 0.0 | 62.8 | 66 | 62.8 | 10 | 1 | 62.8 | 0.0 | 80 | -8.0 |
| 147 1 | 0.0 | 62.8 | 66 | 62.8 | 10 | I | 62.7 | 0.1 | 80 | -7.9 |
| 148 1 | 0.0 | 61.1 | 66 | 61.1 | 10 | I | 61.0 | 0.1 | ø | -7.9 |
| 149 1 | 0.0 | 61.2 | 66 | 61.2 | 10 | 1 | 61.2 | 0.0 | 80 | -8.0 |
| 150 1 | 0.0 | 60.1 | 66 | 60.1 | 10 | 1 | 0.09 | 0.1 | 80 | -7.9 |
| 151 1 | 0.0 | 58.9 | 66 | 58.9 | 10 | 1 | 58.8 | 0.1 | ø | -7.9 |
| 153 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| 154 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| 155 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| 156 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| 157 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 8 | 0.0 |
| 158 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| 159 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | œ | 0.0 |
| 160 1 | 0.0 | 0.0 | 66 | 0.0 | 10 | inactive | 0.0 | 0.0 | 80 | 0.0 |
| # DUs | Noise Redu | ction | | | 2 | | | - | 21 | |
| | Min | pvg | Max | | | | | | | |
| | ф В | â | đb | | | | | | | |
| 82 | 0.0 | 0.8 | 7.7 | | | | | | | |
| 10 | 0.0 | 3.0 | 7.7 | | | | | | | |
| 0 | 0.0 | 0.0 | 0.0 | | | | | | | |
| | 42 1 44 1 45 1 45 1 45 1 46 1 55 1 55 1 55 1 55 1 55 1 55 1 55 1 55 1 55 1 60 1 82 1 82 1 82 1 82 1 82 1 90 0 | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$ | 42 1 0.0 65.5 43 1 0.0 65.4 45 1 0.0 64.4 45 1 0.0 64.5 46 1 0.0 64.6 47 1 0.0 64.6 46 1 0.0 64.6 47 1 0.0 64.6 48 1 0.0 64.6 49 1 0.0 64.6 51 0.0 64.6 64.7 52 1 0.0 64.6 53 1 0.0 61.2 54 1 0.0 61.2 55 1 0.0 61.2 54 1 0.0 61.2 55 1 0.0 60.0 56 1 0.0 60.0 57 1 0.0 60.0 58 1 0.0 60.0 59 1 0.0 60.0 60 1 0.0 60.0 | 42 1 0.0 65.5 66 43 1 0.0 64.4 66 44 1 0.0 64.4 66 45 1 0.0 64.1 66 46 1 0.0 64.1 66 47 1 0.0 64.1 66 48 1 0.0 64.1 66 49 1 0.0 64.1 66 51 0.0 64.1 66 66 53 1 0.0 61.1 66 54 1 0.0 61.2 66 66 53 1 0.0 61.2 66 66 54 1 0.0 60.1 66 66 55 1 0.0 0.0 66 66 56 58 0.0 0.0 66 66 57 40 0.0 0.0 66 66 58 1 0.0 0.0 66 66 59 | 42 1 0.0 65.5 66 64.4 66 66 64.4 | 42 1 1 Laten Dag 43 1 0.0 65.5 66 65.5 10 44 1 0.0 64.4 66 65.5 10 45 1 0.0 64.4 66 64.7 10 45 1 0.0 64.6 66 64.7 10 46 1 0.0 64.6 66 64.7 10 47 1 0.0 64.6 66 64.7 10 48 1 0.0 64.6 66 64.7 10 49 1 0.0 64.1 66 64.6 10 50 61.1 66 64.6 66 64.6 10 51 0.0 61.1 66 64.6 10 10 52 1 0.0 61.1 66 64.6 10 53 1 0.0 60.1 66 64.6 10 54 1 0.0 0.0 66 <td>ABIL PARE 42 1 0.0 65.5 66 65.5 10 44 1 0.0 64.4 66 64.4 10 45 1 0.0 64.4 66 64.4 10 46 1 0.0 64.4 66 64.4 10 47 1 0.0 64.4 66 64.4 10 48 1 0.0 64.4 66 64.4 10 49 1 0.0 64.1 66 64.4 10 51 1 0.0 61.1 66 61.1 10 52 1 0.0 66 61.2 10 54 1 0.0 0.0 10 10 54 1 0.0 0.0 0.0 0.0 <</td> <td>ABIL PDRE 42 1 0.0 65.5 66 64.4 10 44.6 65.4</td> <td>44 Bit Distant 42 1 0.0 65.5 66 65.5 10 ~ 65.4 0.1 43 1 0.0 63.5 66 65.5 10 ~ 65.4 0.1 44 1 0.0 64.7 66 65.5 10 ~ 65.4 0.1 45 1 0.0 64.7 10 ~ 65.4 0.1 46 1 0.0 64.7 10 ~ 64.5 0.1 47 1 0.0 64.7 10 ~ 64.5 0.1 48 1 0.0 64.1 10 ~ 64.5 0.1 49 1 0.0 64.1 10 ~ 64.5 0.1 41 0.0 61.0 62.8 66 64.1 0.1 0.1 51 1 0.0 62.1 10 ~ 64.5 0.1 <th< td=""><td>ABIL POAE 42 1 0.0 65.5 66 65.5 10 56 65.4 0.1 8 45 1 0.0 65.5 66 65.5 10 56 65.4 0.1 8 45 1 0.0 64.4 66 64.6 10 64.3 0.1 8 45 0.0 64.4 66 64.6 10 64.3 0.1 8 46 0.0 64.4 10 64.3 0.1 8 6 64.3 0.1 8 47 1 0.0 64.4 10 64.3 0.1 8 50 61.1 0.0 62.8 10 64.3 0.1 8 51 1 0.0 61.1 10 64.3 0.1 8 52 1 0.0 61.3 0.0 </td></th<></td> | ABIL PARE 42 1 0.0 65.5 66 65.5 10 44 1 0.0 64.4 66 64.4 10 45 1 0.0 64.4 66 64.4 10 46 1 0.0 64.4 66 64.4 10 47 1 0.0 64.4 66 64.4 10 48 1 0.0 64.4 66 64.4 10 49 1 0.0 64.1 66 64.4 10 51 1 0.0 61.1 66 61.1 10 52 1 0.0 66 61.2 10 54 1 0.0 0.0 10 10 54 1 0.0 0.0 0.0 0.0 < | ABIL PDRE 42 1 0.0 65.5 66 64.4 10 44.6 65.4 | 44 Bit Distant 42 1 0.0 65.5 66 65.5 10 ~ 65.4 0.1 43 1 0.0 63.5 66 65.5 10 ~ 65.4 0.1 44 1 0.0 64.7 66 65.5 10 ~ 65.4 0.1 45 1 0.0 64.7 10 ~ 65.4 0.1 46 1 0.0 64.7 10 ~ 64.5 0.1 47 1 0.0 64.7 10 ~ 64.5 0.1 48 1 0.0 64.1 10 ~ 64.5 0.1 49 1 0.0 64.1 10 ~ 64.5 0.1 41 0.0 61.0 62.8 66 64.1 0.1 0.1 51 1 0.0 62.1 10 ~ 64.5 0.1 <th< td=""><td>ABIL POAE 42 1 0.0 65.5 66 65.5 10 56 65.4 0.1 8 45 1 0.0 65.5 66 65.5 10 56 65.4 0.1 8 45 1 0.0 64.4 66 64.6 10 64.3 0.1 8 45 0.0 64.4 66 64.6 10 64.3 0.1 8 46 0.0 64.4 10 64.3 0.1 8 6 64.3 0.1 8 47 1 0.0 64.4 10 64.3 0.1 8 50 61.1 0.0 62.8 10 64.3 0.1 8 51 1 0.0 61.1 10 64.3 0.1 8 52 1 0.0 61.3 0.0 </td></th<> | ABIL POAE 42 1 0.0 65.5 66 65.5 10 56 65.4 0.1 8 45 1 0.0 65.5 66 65.5 10 56 65.4 0.1 8 45 1 0.0 64.4 66 64.6 10 64.3 0.1 8 45 0.0 64.4 66 64.6 10 64.3 0.1 8 46 0.0 64.4 10 64.3 0.1 8 6 64.3 0.1 8 47 1 0.0 64.4 10 64.3 0.1 8 50 61.1 0.0 62.8 10 64.3 0.1 8 51 1 0.0 61.1 10 64.3 0.1 8 52 1 0.0 61.3 0.0 |

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29 May 2015

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Barrier Analysis

NSA H

| RESULTS: BARRIER DESCRIPTIONS | | | | | _ | -4 BtU PD& | ų | | | |
|--------------------------------------|-----------------|------------------------|------------|----------------------|--------|------------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 26 May 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | I-4 Bt | U PD&E | | | | | | | | |
| RUN: BARRIER DESIGN: | I-4 Se NSA I | igmnet 3 NS H GM 12 | SA H GM | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | - | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | ft | ft | Ĥ | sq ft | cu yd | ft | ft:ff | s |
| Barrier6 | > | 12.00 | 12.00 | 12.00 | 1751 | 21008 | | | | 630231 |
| | | | | | | | | | Total Cost: | 630231 |
| | | | | | | | | | | |

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| RESULTS: SOUND LEVELS | | | | | | | | I-4 BtU PD | ßЕ | | | | |
|------------------------------|-----|---------|------------|------------|----------|-----|-------------|----------------|--------------------------|-------------------------------|---------------------------------|-------------------|------------|
| Stantec | | | | | | | | 26 May 20 | 15 | | | | |
| M. Drauer | | | | | | | | TNM 2.5 | | | | | |
| | | | | | | | | Calculated | with TNN | 1 2.5 | | | |
| RESULTS: SOUND LEVELS | | | | | | | | | | | | | |
| PROJECT/CONTRACT: | | I-4 Btl | J PD&E | | | | | | | | | | |
| RUN: | | I-4 Se | gmnet 3 NS | SA H GM | | | | | | | | | |
| BARRIER DESIGN: | | NSA H | GM 12 | | | | | | Average | bavement type | shall be use | d unless | |
| ATMOSPHERICS: | | 68 de | g F, 50% R | Т | | | | | a State hi of a diffe | ghway agency ent type with | y substantiate approval of F | es the us HWA. | |
| Receiver | | | | | | | | II II | | | | | |
| Name | No. | #DUs | Existing | No Barrie | | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | Ē | crease over | existing | Type | Calculated | Noise Reduc | stion | |
| | | | | Calculated | d Crit'n | ů | Iculated | Crit'n | Impact | LAeq1h | Calculated | Goal | Calculated |
| | | | | | | | | C | | - | | | |
| | | | | | | | | | | | | | Goal |
| | | | dBA | dBA | dBA | Ð | | dB | | dBA | dB | đB | dB |
| Candlewood Pool | | 3 | 0. | 0 7 | 3.8 | 99 | 73.8 | 10 | Snd Lvl | 66.2 | 7.6 | | 8 -0.4 |
| Filutowski | | 4 | 1 | 0 7 | 3.4 | 99 | 73.4 | 10 | Snd Lvl | 65.2 | 8.2 | | 8 0.2 |
| La Quinta pool | | 5 L | 1 | 0 | 8.7 | 66 | 68.7 | 10 | Snd Lvl | 68.7 | 0.0 | | -8.0 |
| Homestead pool | | 9 | 1 | 0 | 8.3 | 99 | 68.3 | 10 | Snd Lvl | 68.3 | 0.0 | | -8.0 |
| Extended Stay America | | 7 | 1 | 9 | 8.9 | 99 | 68.9 | 10 | Snd Lvl | 68.9 | 0.0 | | -8.0 |
| Dwelling Units | | \$∩a # | Noise R | eduction | | - | | | | | | | |
| | | | Min | Avg | Мах | | | | | | | | |
| | | | ą | æ | Вb | | | | | | | | |
| All Selected | | _ | 5 0. | 0 | 3.2 | 8.2 | | | | | | | |
| All Impacted | | | 5 0. | 0 | 3.2 | 8.2 | | | | | | | |
| All that meet NR Goal | | | 1.8. | 2 | 8.2 | 8.2 | | | | | | | |
| | | | | | | | | | | | | | |

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26 May 2015

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| RESULTS: BARRIER DESCRIPTIONS | | | | | | -4 BtU PD8 | ų | | | |
|--|-----------------|-----------------------|------------|----------------------|--------|------------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 26 May 2(TNM 2.5 | 015 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: | I-4 Bti | U PD&E | | | | | | | | |
| RUN: BARRIER DESIGN: | I-4 Se NSA I | gmnet 3 N\$ H BM14 | SA H BM | | | | | | C | |
| Barriers | | | | | | | | | 0.4 | |
| Name | Type | Heights a | long Barri | er | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | Ĥ | ft | ft | Ħ | sq ft | cu yd | Ĥ | ft:ft | S |
| Barrier6 | 3 | 14.00 | 14.0 | 0 14.00 | 0 1751 | 24509 | | | | 735270 |
| | | | | | | | | | Total Cost: | 735270 |

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26 May 2015

| RESULTS: SOUND LEVELS | | | | | | | I-4 BtU PD |)&E | | | | |
|------------------------------|-----|---------|-------------|------------|--------|--------------|----------------|-------------------------|-------------------------------|---------------------------------|--------------------|---------------|
| Ctantoo | | | | | | | oc mon oc | ų | | | | |
| Slantec | | | | | | | ∠o may ∠u | CL | | | | |
| M. Drauer | | | | | | | TNM 2.5 | | | | | |
| | | | | | | | Calculate | d with TNI | A 2.5 | | | |
| RESULTS: SOUND LEVELS | | | | | | | | | | | | |
| PROJECT/CONTRACT: | | I-4 BtU | PD&E | | | | | | | | | |
| RUN: | | I-4 Seg | mnet 3 NS | A H BM | | | | | | | | |
| BARRIER DESIGN: | | NSA H | BM14 | | | | | Average | pavement type | e shall be use | d unless | |
| ATMOSPHERICS: | | 68 deg | ı F. 50% RI | Ŧ | | | | a State h of a diffe | ghway agency ent type with | y substantiate approval of F | es the use HWA. | |
| Receiver | | | | | | | | | | | | |
| Name | No. | #DUs | Existing | No Barrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | Increase ove | existing | Type | Calculated | Noise Reduc | tion | |
| | | | | Calculated | Crit'n | Calculated | Crit'n | Impact | LAeq1h | Calculated | Goal | Calculated |
| | | | | | | | Sub'l Inc | • | | | | minus Goal |
| | | | dBA | dBA | dBA | đB | ф | | dBA | В | В | dB B |
| Candlewood Pool | | ~ | 0.0 | 73. | 3 66 | 73. | 8 10 | Snd Lvl | 65.4 | 8.4 | | 0.4 |
| Filutowski | | Ť | 0.0 | 73. | 4 66 | 73. | 4 10 | Snd Lvl | 64.5 | 8.9 | | 8 0.9 |
| La Quinta pool | | 10 | 0.0 | 68. | 7 66 | 68. | 7 10 | Snd Lvl | 68.7 | 0.0 | | -8.0 |
| Homestead pool | | () | 0.0 | 68. | 3 66 | 68. | 3 10 | Snd Lvl | 68.3 | 0.0 | | -8.0 |
| Extended Stay America | | • | 0.0 | 68. | 99 66 | 68. | 9 10 | Snd Lvl | 68.9 | 0.0 | | -8.0 |
| Dwelling Units | | # DUs | Noise Re | eduction | | | | | | | 9 | |
| | | | Min | Avg | Мах | | | | | | | |
| | | | Вb | æ | đB | | | | | | | |
| All Selected | | | 0.0 | 3. | 8.9 | | | | | | | |
| All Impacted | | | 0.0 | 3. | 8.9 | | | | | | | |
| All that meet NR Goal | | | 2 8.4 | 4 | 8.9 | | | | | | | |
| | | | | | | | | | | | | |

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26 May 2015

Barrier Analysis

NSA L

| Stantec 3 June 2015 M. Drauer TNM 2.5 RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: 14 PD&E RUN: Segment 3 NSA L | 3 June 2015 TNM 2.5 | | | | | |
|--|------------------------|----------|---------|--------------|-------------|--------|
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: 14 PD&E RUN: Segment 3 NSA L | | | | | | |
| PROJECT/CONTRACT: 14 PD&E RUN: Segment 3 NSA L | | | | | | |
| RUN: Segment 3 NSA L | | | | | | |
| BARRIER DESIGN: Comfort Inn 14 | | | | | | |
| Barriers | | | | | | |
| Name Type Heights along Barrier Length If Wa | rier Length | If Wall | If Berm | | | Cost |
| Min Avg Max Area | Max | Area | Volume | Top Width | Run:Rise | |
| ft ft ft sq ft | ft | sq ft | cu yd | ft | ft:ft | S |
| SR 46 on 14.00 14.00 14.00 1372 1 | .00 14.00 13 | 72 19203 | | | | 576078 |
| | | | | | Total Cost: | 576078 |

| RESULTS: SOUND LEVELS | | | | | | | I 4 PD&E | | | | | |
|------------------------------|-----|--------|------------|------------|--------|---------------|----------------|-------------------------|---------------|---------------------------------|-----------|---------------|
| Stantec | | | | | | | 3 June 20 | 15 | | | | |
| M. Drauer | | | | | | | TNM 2.5 | | | | | |
| | | | | | | | Calculated | I with TNN | 12.5 | | | |
| RESULTS: SOUND LEVELS | | | | | | | | | | | | |
| PROJECT/CONTRACT: | | 4 PD& | щ | | | | | | | | | |
| RUN: | | Segmei | nt 3 NSA L | | | | | | | | | |
| BARRIER DESIGN: | - | Comfor | t Inn 14 | | | | | Average p a State hi | avement type | e shall be use v substantiat | es the us | a |
| ATMOSPHERICS: | | 68 deg | F, 50% RH | _ | | | | of a differ | ent type with | approval of I | | 3 |
| Receiver | | | | | | | | | | | | |
| Name | No. | #DUs | Existing | No Barrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | Increase over | r existing | Type | Calculated | Noise Redu | ction | |
| | | | | Calculated | Crit'n | Calculated | Crit'n | Impact | LAeq1h | Calculated | Goal | Calculated |
| | | | | | | | Sub'l Inc | | | | | minus Goal |
| | | | dBA | dBA | dBA | dB | дB | | dBA | 昀 | đВ | đB |
| Comfort pool | 264 | - | 0.0 | 73.6 | 66 | 5 73.6 | 6 10 | Snd Lvl | 64.7 | 8.0 | | 8 0.9 |
| Super 8 pool | 266 | - | 0.0 | 72.1 | 99 | 3 72.1 | 1 10 | Snd Lvl | 64.6 | 7.5 | 10 | 8 -0.5 |
| Cracker Barrel | 270 | - | 0.0 | 68.7 | 66 | 68.7 | 7 10 | Snd Lvl | 62.5 | 5.6 | | 8 -2.2 |
| Dwelling Units | | # DUs | Noise Re | duction | | | | | | | | |
| | | | Min | Avg | Мах | | | | | | | |
| | | | đB | đb | đB | | | | | | | |
| All Selected | | e | 5.8 | 1.4 | 8.9 | | | | | | | |
| All Impacted | | e | 5.8 | 7.7 | 8.9 | | | | | | | |
| All that meet NR Goal | | + | 8.9 | 8.9 | 8.9 | 0 | | | | | | |
| | | | | | | | | | | | | |

| RESULTS: BARRIER DESCRIPTIONS | | | | | | I 4 PD&E | | | | |
|-------------------------------|------|------------|-----------|----------------------|--------|----------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 3 June 20 TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | Ц | | | | | | | | |
| RUN: | Segm | ient 3 NSA | | | | | | | | |
| BARRIER DESIGN: | Comf | ort Inn | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barri | er | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | ft | ft | Ħ | sq ft | cu yd | ft | ft:ft | в |
| SR 46 on | 3 | 12.00 | 12.0 | 0 12.0 | 0 1372 | 2 16459 | | | | 493781 |
| | | | | | | | | | Total Cost: | 493781 |

| RESULTS: SOUND LEVELS | | | | | | | 14 PD&E | | | | | |
|------------------------------|-----|--------|------------|------------|--------|---------------|----------------|-------------------------|---------------|---------------------------------|------------------------|---------------|
| Stantec | | | | | | | 3 June 20 | 15 | | | | |
| M. Drauer | | | | | | | TNM 2.5 | | | | | |
| | | | | | | | Calculate | d with TNN | 12.5 | | | |
| RESULTS: SOUND LEVELS | | | | | | | | | | | | |
| PROJECT/CONTRACT: | | 4 PD& | ш | | | | | | | | | |
| RUN: | | Segmer | nt 3 NSA L | | | | | | | | | |
| BARRIER DESIGN: | | Comfor | t Inn | | | | | Average a State hi | bavement typ | e shall be use v substantiat | ed unless es the us | 0 |
| ATMOSPHERICS: | | 68 deg | F, 50% RH | | | | | of a diffe | ent type with | approval of F | HWA. | |
| Receiver | | | | | | | | | | | | |
| Name | No. | #DUs | Existing | No Barrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | Increase over | r existing | Type | Calculated | Noise Reduc | ction | |
| | | | | Calculated | Crit'n | Calculated | Crit'n | Impact | LAeq1h | Calculated | Goal | Calculated |
| | | | | | | | Sub'l Inc | | - | | | minus Goal |
| | | | dBA | dBA | dBA | đB | đđ | | dBA | đĐ | đB | đB |
| Comfort pool | 264 | - | 0.0 | 73.6 | 99 | 3 73.6 | 6 10 | Snd Lvl | 65.6 | 8.0 | | 8 0.0 |
| Super 8 pool | 266 | - | 0.0 | 72.1 | 90 | 5 72.1 | 1 |) Snd Lvl | 65.7 | 6.2 | _ | 8 -1.6 |
| Cracker Barrel | 270 | - | 0.0 | 68.7 | 90 | 68.7 | 7 10 | Snd Lvl | 63.(| 5.1 | | 8 -2.9 |
| Dwelling Units | | # DUs | Noise Re | duction | | | | | | | | |
| | | | Min | Avg | Max | | | | | | | |
| | | | đB | đB | đВ | | | | | | | |
| All Selected | | e | 5.1 | 6.5 | 8.0 | 0 | | | | | | |
| All Impacted | | n | 5.1 | 9.9 | 8.0 | 0 | | | | | | |
| All that meet NR Goal | | - | 8.0 | 8.0 | 8.0 | 0 | | | | | | |
| | | | | | | | | | | | | |

3 June 2015

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Barrier Analysis

NSA O

| RESULTS: BARRIER DESCRIPTIONS | | | | | | 4 PD&E | | | | |
|-------------------------------|-------|--------------|------------|-----------------------------------|--------|---------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 3 June 20 [.] TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | | | | | | | | | |
| PROJECT/CONTRACT: | 14 PC |)&E | | | | | | | | |
| RUN: | Segn | ient 3 NSA (| 0 | | | | | | | |
| BARRIER DESIGN: | 0-22 | | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barrie | - | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | ft | ŧ | ft | sq ft | cu yd | ft | ft:ft | ÷ |
| Barrier25 | 3 | 22.00 | 22.00 | 22.00 | 1202 | 26454 | _ | | | 793606 |
| | | | | | | | | | Total Cost: | 793606 |
| | | | | | | | | | | |

| Statet M. Diatet M. | RESULTS: SOUND LEVELS | | | | | | | I 4 PD&E | | | | | |
|---|--|-----|---------------|---------------------|------------|--------|--------------|-----------------------------------|---------------------------|-------------------------------|-------------------------------|------------|-----------------------------|
| REBULTS: SOUND LEVELS PROJECTICONTRACT: BARDIECTICONTRACT: Segment 3 NSA O Average pavement type shall be used unless satate highway agency substantiates the use of a different type with approval of FHWA. ATMOSPHERICS: Average pavement type shall be used unless satate highway agency substantiates the use of a different type with approval of FHWA. ATMOSPHERICS: Average pavement type shall be used unless satate highway agency substantiates the use of a different type with approval of FHWA. ATMOSPHERICS: Average pavement type shall be used unless a state highway agency substantiates the use of a different type with approval of FHWA. ATMOSPHERICS: Average pavement type shall be used unless a state highway agency substantiates the use different type with approval of FHWA. ATMOSPHERICS: Mont Mont Mont Mont Mathematic a different type with approval of FHWA. ATMOSPHERICS: Mont Mont Mont Mathematic a different type with approval of FHWA. ATMOSPHERICS: Mont Mont Mathematic a different type with approval of FHWA. Attended Mont Mont Mathematic a different type with approval of FHWA. Attended Mont Mathematic a different type with approval of FHWA. Mont Mathematic a different type with approval of FHWA. Attended Mont Mathematic a different type attended Mont Mathematic a different type attended Mont Mathema | Stantec M. Drauer | | | | | | | 3 June 20 TNM 2.5 Calculate | 15 d with TNN | 12.5 | | | |
| RUN: Segment 3 NS O BARRIER DESIGN: O_22 Segment 3 NS O AIMOSPHERICS: O_22 Average pavement type with approval of FHM. AIMOSPHERICS: S6 daf F, 50% RH Mithe ared unless AIMOSPHERICS: S6 daf F, 50% RH Mithe ared unless AIMOSPHERICS: S6 daf F, 50% RH Mithe ared unless AIMOSPHERICS: S6 daf F, 50% RH Mithe ared unless Receiver Mithe ared Mithe Barrier Mithe Barrier Name No. #DUS Executing of a different type with approval of FHM. Name No. #DUS Executing of a different type with approval of FHM. Name No. #DUS Executing of a different type with approval of FHM. Name No. #DUS Executing of a different type with approval of FHM. Name No. #DUS Executing of a different type with approval of FHM. Receiver/283 DB Adverting of a different type with approval of FHM. Calculated motion Receiver/283 DB Adverting of a different type motion Calculated motion Calculated motion Receiver/284 DB Adverting of a differ | RESULTS: SOUND LEVELS PROJECT/CONTRACT: | | I 4 PD8 | щ | | | | | | | | | - |
| A and many ageination approval of the many ageination approvance and ageination approvance and ageination approvance and ageination approvance a | RUN: BARRIER DESIGN: | | Segme O-22 | nt 3 NSA O | _ | | | | Average p | bavement type | shall be use | d unless | |
| Receiver Receiver No. #Uus Kaisting No. #Uus Kith Barrie Name No. #Uus Kaisting No ise resisting Type Mith Barrie Name Leeqth Leeqth Leeqth Leeqth No ise resisting Type Calculated No ise reduction Receiver/282 2 dBA | ATMOSPHERICS: | | 68 deç | I F, 50% RH | _ | | | | a state ni of a differ | gnway agency ent type with | substantiate approval of F | es the use | |
| NameNo.#DUsExistingNo. BarrierWith BarrierMith Barrier 1 Partier $1 P$ | Receiver | | | | | | | | | | | | |
| And the first of the first | Name | No. | #DUs | Existing 1 Acrth | No Barrier | | Increase ave | r avisting | Tune | With Barrier Calculated | Noise Redu | tion | |
| dBA dB< | | | | | Calculated | Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| Receiver282 282 1 0.0 72.6 66 72.6 10 Snd Lvi 62.2 10.4 8 2.4 Receiver283 283 1 0.0 72.2 66 72.6 66 72.6 66 72.6 66 72.6 70 61.6 70.6 8 2.4 Receiver283 283 1 0.0 66.2 66 66.2 10 Snd Lvi 60.0 6.2 8 2.6 Receiver285 285 1 0.0 61.9 66 10 Snd Lvi 60.0 6.2 8 -1.6 Receiver285 285 1 0.0 61.9 66 10 60.0 6.2 8 -1.6 Receiver285 Receiver285 1 0.0 61.9 66 10 60.0 6.2 8 -1.6 Receiver285 Max Max Max Max Max 1.5 8 -6.6 6.6.4 | | | | dBA | dBA | dBA | đB | đB | | dBA | dB | æ | dB |
| Receiver/283 283 1 0.0 72.2 66 72.2 10 Snd Lvl 61.6 10.6 8 2.6 Receiver/284 284 1 0.0 66.2 66.2 10 Snd Lvl 60.0 6.2 8 -1.6 Receiver/284 285 1 0.0 61.9 56 66.2 10 Snd Lvl 60.0 6.2 8 -1.6 Receiver/285 285 1 0.0 61.9 56 61.9 10 -1.6 8 -1.6 Receiver/285 285 1 0.0 61.9 56 61.9 10 -1.6 8 -1.6 Receiver/285 8 56 61.9 10 -10 -10 1.5 8 -1.6 Receiver/285 8 61.9 7 7 10 -10 1.5 8 -1.6 Receiver/285 8 8 8 -1.6 10.5 10.6 8< | Receiver282 | 282 | Ì | 0.0 | 72.6 | 9 Q | 6 72. | 6 10 | Snd Lvl | 62.2 | 10.4 | | 8 2.4 |
| Receiver/284 284 1 0.0 66.2 66 6.2 7 8 -1.5 Receiver/285 285 1 0.0 61.9 66.2 10 5nd Lvl 60.0 6.2 8 -1.5 Receiver/285 285 1 0.0 61.9 61.9 60.4 1.5 8 -6.5 Receiver/285 Rous Min Avg Min Avg Max Mineling Units # DUs Min Avg Max 60.4 1.5 8 -6.5 All Selected 1 4 1.5 10.6 4 1.5 8 -6.5 All Impacted 3 6.2 9.1 10.6 1.5 1.6 1.6 1.5 1.6 1.6 1.5 1.6 1.5 1.6 1.5 1.6 1.6 1.5 1.6 1.5 1.6 1.5 1.6 1.5 1.6 1.5 1.6 1.5 1.6 1.5 1. | Receiver283 | 283 | | 0.0 | 72.3 | 9 | 6 72. | 2 10 | Snd Lvl | 61.6 | 10.6 | 10 | 8 2.6 |
| Receiver 285 1 0.0 61.9 61.9 10 60.4 1.5 8 6.1 Dwelling Units # DUs Noise Reduction # DUs Noise Reduction 60.4 1.5 8 -6.1 Dwelling Units # DUs Noise Reduction Avg Max Avg All 60.4 1.5 8 -6.1 All Selected 1 dB dB dB dB 4B 60.4 1.5 8 -6.1 All Selected 1 13 6.2 9.1 10.6 10.5 | Receiver284 | 284 | Ì | 0.0 | 66.2 | 9 | 6 66. | 10 | Snd Lvl | 60.09 | 6.3 | | 8 -1.8 |
| Dwelling Units # DUs Noise Reduction Min Avg Max Min Avg Max All Selected 15 7.2 10.6 All Impacted 3 6.2 9.1 10.6 All that meet NR Goal 2 10.5 10.6 | Receiver285 | 285 | Ì | 0.0 | 61.9 | 9 | 6 61. | 9 10 | 1 | 60.4 | £. | | -6.5 |
| Min Avg Max Mil db db Max All Selected 4 1.5 7.2 10.6 All Impacted 3 6.2 9.1 10.6 All that meet NR Goal 2 10.5 10.6 | Dwelling Units | | # DUs | Noise Re | duction | | | | | | | | |
| dB dB dB dB All Selected 4 1.5 7.2 10.6 All Impacted 3 6.2 9.1 10.6 All that meet NR Goal 2 10.4 10.5 10.6 | | | | Min | Avg | Мах | | | | | | | |
| All Selected 4 1.5 7.2 10.6 All Impacted 3 6.2 9.1 10.6 All that meet NR Goal 2 10.4 10.5 10.6 | | | | đB | đb | đB | | | | | | | |
| All Impacted 3 6.2 9.1 10.6 All that meet NR Goal 2 10.4 10.5 10.6 | All Selected | | | 1.5 | 7.7 | 2 10. | 9 | | | | | | |
| All that meet NR Goal 2 10.4 10.5 10.6 | All Impacted | | | 6.2 | . 6 | 10. | 6 | | | | | | |
| | All that meet NR Goal | | | 10.4 | 10.1 | 5 10. | 6 | | | | | | |

3 June 2015

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14 PD&E

| Stantec M. Drauer | | | | 3 June 20 TNM 2.5 | 15 | | | | | |
|--|------|------------|-------------|----------------------|--------|---------|---------|--------------|-------------|--------|
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: | 4 PD | ßE | | | | | | | | |
| RUN: | Segm | ent 3 NSA | 0 | | | | | | | |
| BARRIER DESIGN: | O 20 | | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | long Barrie | 5 | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | T. | Area | Volume | Top Width | Run:Rise | |
| | | Ŧ | ft | Ŧ | Ŧ | sq ft | cu yd | Ĥ | ft:ft | \$ |
| Barrier25 | ≥ | 20.00 | 20.00 | 20.00 | 1202 | 24049 | | | | 721460 |
| | | | | | | | | | Total Cost: | 721460 |

| RESULTS: SOUND LEVELS | | | | | | | 14 PD&E | | | | | |
|------------------------------|-----|---------|------------|------------|--------|---------------|----------------------|-------------------------|---------------|-------------------------------|----------|------------|
| Stantec M. Drauer | | | | | | | 3 June 20 TNM 2.5 | 15 | | | | 1 |
| | | | | | | | Calculate | d with TNN | 12.5 | | | |
| RESULTS: SOUND LEVELS | | | | | | | | | | | | |
| PROJECT/CONTRACT: | | I 4 PD8 | щ | | | | | | | | | |
| RUN: | | Segme | nt 3 NSA O | | | | | | | | | |
| BARRIER DESIGN: | | 0 20 | | | | | | Average I a State hi | bavement type | shall be use v substantiat | d unless | |
| ATMOSPHERICS: | | 68 deg | F, 50% RH | | | | | of a differ | ent type with | approval of F | HWA. | |
| Receiver | | | | | | | | | | | | |
| Name | No. | #DUS | Existing | No Barrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | Increase over | r existing | Type | Calculated | Noise Reduc | tion | |
| | | | | Calculated | Crit'n | Calculated | Crit'n | Impact | LAea1h | Calculated | Goal | Calculated |
| | | | | | | | Sub'l Inc | | | | | minus |
| | | | | | | | | | | | | Goal |
| | | | dBA | dBA | dBA | dB | дB | | dBA | dB | đB | đB |
| Receiver282 | 282 | | 0.0 | 72.6 | 66 | 5 72.0 | 6 10 | Snd Lvl | 62.8 | 9.8 | | 8 1.8 |
| Receiver283 | 283 | - | 0.0 | 72.2 | 6 | 5 72. | 2 10 | Snd Lvl | 62.3 | 6.6 | | 8 1.9 |
| Receiver284 | 284 | - | 0.0 | 66.2 | 66 | 66.2 | 2 10 | Snd Lvl | 60.6 | 5.6 | | 8 -2.4 |
| Receiver285 | 285 | - | 0.0 | 61.9 | 66 | 6 61.9 | 9 10 | - | 60.6 | 1.3 | | 8 -6.7 |
| Dwelling Units | | # DUs | Noise Re | duction | | | | | | | | |
| | | | Min | Avg | Max | | | | | | | |
| | | | dB | dB | dB | | | | | | | |
| All Selected | | 4 | 1.3 | 6.6 | 6.6 | 0 | | | | | | |
| All Impacted | | e | 5.6 | 8.4 | 0.0 | 0 | | | | | | |
| All that meet NR Goal | | 0 | 9.8 | 9.6 | 6.6 | 0 | | | | | | |
| | | | | | | | | | | | | |

3 June 2015

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| RESULTS: BARRIER DESCRIPTIONS | | | | | | 4 PD&E | | | | |
|--|--------------|-------------|-------------|-----------------------------------|--------|---------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 3 June 20 [.] TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS PROJECT/CONTRACT: | I 4 PD | Я | | | | | | | | |
| RUN: BARRIER DESIGN: | Segm O 18 | ent 3 NSA C | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights ald | ong Barriel | | Length | If Wall | If Berm | | | Cost |
| | | nin | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | ft | ft | ft | ft | sq ft | cu yd | ft | ft:ft | € |
| Barrier25 | > | 18.00 | 18.00 | 18.00 | 120 | 2 2164 | - | | | 649314 |
| | | | | | | | | | Total Cost: | 649314 |

| RESULTS: SOUND LEVELS | | | | | 0 | | I 4 PD&E | | | | | |
|------------------------------|-----|---------|------------|------------|--------|---------------|----------------------|---------------------------|------------------------------|---------------------------------|-------------------|-----------------------------|
| Stantec M. Drauer | | | | | | | 3 June 20 TNM 2.5 | 15 | | | | |
| | | | | | | | Calculate | J with TNN | 12.5 | | | |
| RESULTS: SOUND LEVELS | | | | | | | | | | | | |
| PROJECT/CONTRACT: | | I 4 PD& | щ | | | | | | | | | |
| RUN: | | Segme | nt 3 NSA O | | | | | | | | | |
| BARRIER DESIGN: | | 0 18 | | | | | | Average p | avement type | shall be use | ed unles | |
| ATMOSPHERICS: | | 68 deg | F, 50% RH | _ | | | | a state ni of a differ | grway agenc ent type with | y substantiati approval of F | es the u: HWA. | e e |
| Receiver | | | | | | | | | | | | |
| Name | No. | #DUs | Existing | No Barrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | Increase over | r existing | Type | Calculated | Noise Reduc | ction | |
| | | | | Calculated | Crit'n | Calculated | Crit'n Sub'l Inc | Impact | LAeq1h | Calculated | Goal | Calculated minus Goal |
| | | | dBA | dBA | dBA | đB | đB | | dBA | dB | gВ | æ |
| Receiver282 | 282 | - | 0.0 | 72. | 0 0 | 6 72.6 | 6 10 | Snd Lvl | 63.4 | 9.2 | | 8 1.2 |
| Receiver283 | 283 | - | 0.0 | 72. | 9 | 6 72.3 | 2 10 | Snd Lvl | 63.2 | 9.6 | 0 | 8 1.0 |
| Receiver284 | 284 | | 0.0 | .99 | 9 | 6 66.2 | 2 10 | Snd Lvl | 61.3 | 4.9 | | 8 -3.1 |
| Receiver285 | 285 | - | 0.0 | 61. | 0 | 6 61.9 | 9 10 | 1 | 60.9 | 1.0 | _ | 8 -7.0 |
| Dwelling Units | | # DUs | Noise Re | duction | | | | | | | | |
| | | | Min | Avg | Мах | | | | | | | |
| | | | 鸱 | đB | ₽ | | | | | | | |
| All Selected | | ম | 1.0 | 6. | .6 | 2 | | | | | | |
| All Impacted | | (7) | 4.9 | .7 | 6 | 2 | | | | | | |
| All that meet NR Goal | | N | 9.0 | .0 | | 2 | | | | | | |
| | | | | | | | | | | | | |

| RESULTS: BARRIER DESCRIPTIONS | | | | | | 4 PD&E | | | | |
|--------------------------------------|------|------------------|-----------|----------------------|--------|---------|---------|--------------|-------------|--------|
| Stantec M. Drauer | | | | 3 June 2(TNM 2.5 | 15 | | | | | |
| RESULTS: BARRIER DESCRIPTIONS | | l | | | | | | | | |
| PROJECT/CONTRACT: RUN: | Segm | i&E ent 3 NSA | C | | | | | | | |
| BARRIER DESIGN: | 02 | | | | | | | | | |
| Barriers | | | | | | | | | | |
| Name | Type | Heights al | ong Barri | er | Length | If Wall | If Berm | | | Cost |
| | | Min | Avg | Max | | Area | Volume | Top Width | Run:Rise | |
| | | Ħ | ft | ft | Ĥ | sq ft | cu yd | Ĥ | ft:ft | s |
| Barrier25 | 3 | 14.00 | 14.0 | 0 14.0 | 0 119⁄ | 16717 | | | | 501512 |
| Barrier24 | > | 0.0 | 0.0 | 0.0 | 0 | 0 | | | | 0 |
| | | | | | | | | | Total Cost: | 501512 |

| RESULTS: SOUND LEVELS | | | | | | | I 4 PD&E | | | | | |
|------------------------------|-----|--------|------------|------------|--------|---------------|----------------------|----------------------------|-------------------------------|----------------|----------|------------|
| Stantec M. Drauer | | | | | | | 3 June 20 TNM 2.5 | 15 | | | | |
| | | | | | | | Calculate | d with TNN | 12.5 | | | |
| RESULTS: SOUND LEVELS | | | | | | | | | | | | |
| PROJECT/CONTRACT: | | 4 PD& | ш | | | | | | | | | |
| RUN: | | Segme | nt 3 NSA O | | | | | | | | | |
| BARRIER DESIGN: | - | 02 | | | | | | Average p | avement type | e shall be use | d unless | |
| ATMOSPHERICS: | | 68 deg | F, 50% RH | | | | | a state ril of a differ | griway agenc ent type with | approval of F | shure us | 1) |
| Receiver | | | | | | | | | | | | |
| Name | No. | #DUs | Existing | No Barrier | | | | | With Barrier | | | |
| | | | LAeq1h | LAeq1h | | Increase over | r existing | Type | Calculated | Noise Reduc | tion | |
| | | | | Calculated | Crit'n | Calculated | Crit'n | Impact | L Aed 1h | Calculated | Goal | Calculated |
| | | | | | | | Sub'l inc | | 2 | | 5 | minus |
| | | | | | | | | | | | | Goal |
| | | | dBA | dBA | dBA | dB | qв | | dBA | dB | dB | đB |
| Receiver282 | 282 | - | 0.0 | 72.7 | 66 | 5 72.7 | 7 10 | Snd Lvl | 66.4 | 6.3 | | 8 -1.7 |
| Receiver283 | 283 | - | 0.0 | 72.8 | 3 66 | 5 72.8 | 8 10 | Snd Lvl | 68.1 | 4.7 | | 8 -3.3 |
| Receiver284 | 284 | - | 0.0 | 65.9 | 99 | 65.6 | 9 10 | l | 63.2 | 2.7 | | 8 -5.3 |
| Receiver285 | 285 | - | 0.0 | 61.7 | 66 | 61.7 | 7 10 | I | 61.1 | 0.6 | | 8 -7.4 |
| Dwelling Units | | # DUs | Noise Re | duction | | | | | | | | 1 |
| | | | Min | Avg | Мах | | | | | | | |
| | | | Вb | 段 | đB | | | | | | | |
| All Selected | | 4 | 0.6 | 3.6 | 6.5 | m | | | | | | |
| All Impacted | | N | 4.7 | 5.6 | 6.9 | m | | | | | | |
| All that meet NR Goal | | 0 | 0.0 | 0.0 | 0.0 | 0 | | | | | | |
| | | | | | | | | | | | | |