

Ramona Gateway

NOISE IMPACT ANALYSIS CITY OF PERRIS

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13998-09 RGCC Noise Study



TABLE OF CONTENTS

| | BLE OI PENDI T OF E | F CONTENTS CES XHIBITS ARI ES | . III . IV . IV |
|-----|----------------------------|---|-----------------------|
| LIS | | ABELS | VI 1 |
| 1 | INT | RODUCTION | 3 |
| | 1.1 1.2 | Site Location | 3 |
| 2 | FUI | NDAMENTALS | 7 |
| 3 | REC | GULATORY SETTING | 9 |
| | 3.1 3.2 3.3 3.4 | State of California Noise Requirements State of California Green Building Standards Code City of Perris General Plan Noise Element Operational Noise Standards | 9 9 9 10 |
| | 3.5 3.6 3.7 | Construction Noise Standards Construction Vibration Standards March Air Reserve Base/Inland Port Airport Land Use Compatibility | 11 11 11 12 |
| 4 | SIG | NIFICANCE CRITERIA | 15 |
| | 4.1 4.2 4.3 | CEQA Thresholds Not Further Analyzed Noise Sensitive Use Noise Level Increases Significance Criteria Summary | 15 15 16 |
| 5 | EXI | STING NOISE LEVEL MEASUREMENTS | 17 |
| | 5.1 5.2 5.3 | Measurement Procedure and Criteria Noise Measurement Locations Noise Measurement Results | 17 17 18 |
| 6 | TR | AFFIC NOISE PREDICTION METHODS AND PROCEDURES | 21 |
| | 6.1 6.2 | FHWA Traffic Noise Prediction Model Off-Site Traffic Noise Prediction Model Inputs | 21 21 |
| 7 | OF | F-SITE TRAFFIC NOISE IMPACTS | 27 |
| | 7.1 7.2 7.3 7.4 | Traffic Noise Contours Existing Project Traffic Noise Level Increases EAC (2024) Project Traffic Noise Level Increases HY (2045) Project Traffic Noise Level Increases | 27 34 34 34 |
| 8 | SEN | | 39 |
| 9 | OP | | 41 |
| | 9.1 9.2 9.2.1 9.3 | Operational Noise Sources | 41 41 43 46 |
| | 9.4 9.5 | Project Operational Noise Levels Project Operational Noise Level Compliance | 47 48 |



| 9.6 | Project Operational Noise Level Increases | |
|-------|--|----|
| 10 CC | INSTRUCTION IMPACTS | 53 |
| 10.1 | Construction Noise Levels | |
| 10.2 | Construction Reference Noise Levels | |
| 10.3 | Construction Noise Analysis | |
| 10.4 | Construction Noise Level Compliance | |
| 10.5 | Project Construction Noise Mitigation Measures | |
| 10.6 | Nighttime Concrete Pour Noise Analysis | 60 |
| 10.7 | Construction Vibration Analysis | |
| 11 RE | FERENCES | 65 |
| 12 CE | RTIFICATION | 67 |

APPENDICES

- APPENDIX 3.1: CITY OF PERRIS MUNICIPAL CODE
- **APPENDIX 5.1: STUDY AREA PHOTOS**
- APPENDIX 5.2: NOISE LEVEL MEASUREMENT WORKSHEETS
- APPENDIX 7.1: OFF-SITE TRAFFIC NOISE CONTOURS
- APPENDIX 9.1: CADNAA OPERATIONAL NOISE MODEL INPUTS (LMAX)
- APPENDIX 9.2: CADNAA OPERATIONAL NOISE MODEL INPUTS (LEQ)
- APPENDIX 10.1: CADNAA CONSTRUCTION NOISE MODEL INPUTS
- APPENDIX 10.2: CADNAA MITIGATED CONSTRUCTION NOISE MODEL INPUTS
- APPENDIX 10.3: CADNAA MITIGATED CONCRETE POUR NOISE MODEL INPUTS

LIST OF EXHIBITS

| EXHIBIT 1-A: LOCATION MAP | | 4 |
|---|------------------------------|----|
| EXHIBIT 1-B: SITE PLAN | | 5 |
| EXHIBIT 3-A: MARB/IPA FUTURE AIR | RPORT NOISE CONTOURS | 13 |
| EXHIBIT 5-A: NOISE MEASUREMENT | LOCATIONS | 19 |
| EXHIBIT 8-A: SENSITIVE RECEIVER LO | DCATIONS | 40 |
| EXHIBIT 9-A: OPERATIONAL NOISE S | OURCE LOCATIONS | 42 |
| EXHIBIT 10-A: TYPICAL CONSTRUCTION | ON NOISE SOURCE LOCATIONS | 54 |
| EXHIBIT 10-B: CONSTRUCTION NOIS | E MITIGATION MEASURES | 59 |
| EXHIBIT 10-C: NIGHTTIME CONCRET | E POUR CONSTRUCTION ACTIVITY | 61 |

LIST OF TABLES

| TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS |
|---|
| TABLE 3-1: OPERATIONAL NOISE STANDARDS |
| TABLE 3-2: CONSTRUCTION NOISE STANDARDS |
| TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY 16 |
| TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS 18 |
| TABLE 6-1: OFF-SITE ROADWAY PARAMETERS |
| TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES 23 |
| TABLE 6-3: TIME OF DAY VEHICLE SPLITS |
| TABLE 6-4: WITHOUT PROJECT VEHICLE MIX |
| TABLE 6-5: EXISTING 2022 WITH PROJECT VEHICLE MIX |
| TABLE 6-6: EAC 2024 WITH PROJECT VEHICLE MIX |
| TABLE 6-7: HORIZON YEAR (2045) WITH PROJECT VEHICLE MIX |
| TABLE 7-1: EXISTING WITHOUT PROJECT NOISE CONTOURS 28 |
| TABLE 7-2: EXISTING WITH PROJECT NOISE CONTOURS 29 |
| TABLE 7-3: EAC (2024) WITHOUT PROJECT NOISE CONTOURS 30 |
| TABLE 7-4: EAPC (2024) WITH PROJECT NOISE CONTOURS |
| TABLE 7-5: HORIZON YEAR (2045) WITHOUT PROJECT NOISE CONTOURS 32 |
| TABLE 7-6: HORIZON YEAR (2045) WITH PROJECT NOISE CONTOURS |
| TABLE 7-7: EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES 35 |
| TABLE 7-8: EAC (2024) WITH PROJECT TRAFFIC NOISE INCREASES 36 |
| TABLE 7-9: HORIZON YEAR (2045) WITH PROJECT TRAFFIC NOISE INCREASES 37 |
| TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS 43 |
| TABLE 9-2: TRUCK MOVEMENTS BY LOCATION |
| TABLE 9-3: DAYTIME PROJECT OPERATIONAL NOISE LEVELS |
| TABLE 9-4: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS |
| TABLE 9-5: OPERATIONAL NOISE LEVEL COMPLIANCE 48 |
| TABLE 9-6: OPERATIONAL NOISE LEVEL COMPLIANCE (CNEL) 49 |
| TABLE 9-7: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES |
| TABLE 9-8: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES 52 |
| TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS 55 |
| TABLE 10-2: UNMITIGATED CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY 56 |
| TABLE 10-3: UNMITIGATED CONSTRUCTION NOISE LEVEL COMPLIANCE 56 |
| TABLE 10-4: MITIGATED CONSTRUCTION NOISE LEVELS 57 |
| TABLE 10-5: MITIGATED CONSTRUCTION NOISE LEVEL COMPLIANCE 57 |
| TABLE 10-6: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE |
| TABLE 10-7: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT 62 |
| TABLE 10-8: CONSTRUCTION EQUIPMENT VIBRATION LEVELS 63 |

LIST OF ABBREVIATED TERMS

| (4) | |
|------------------|---|
| (1) | Reference |
| ADT | Average Daily Traffic |
| ANSI | American National Standards Institute |
| Calveno | California Vehicle Noise |
| CEQA | California Environmental Quality Act |
| CNEL | Community Noise Equivalent Level |
| dBA | A-weighted decibels |
| EIR | Environmental Impact Report |
| EPA | Environmental Protection Agency |
| FHWA | Federal Highway Administration |
| FTA | Federal Transit Administration |
| INCE | Institute of Noise Control Engineering |
| L _{eq} | Equivalent continuous (average) sound level |
| L _{max} | Maximum level measured over the time interval |
| LUCP | Land Use Compatibility Plan |
| MARB/IPA | March Air Reserve Base/Inland Port Airport |
| mph | Miles per hour |
| OPR | Office of Planning and Research |
| PVCCSP | Perris Valley Commerce Center Specific Plan |
| PPV | Peak particle velocity |
| Project | Ramona Gateway |
| REMEL | Reference Energy Mean Emission Level |
| RMS | Root-mean-square |
| VdB | Vibration Decibels |

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for the proposed Ramona Gateway development ("Project"). The Project is proposed to consist of a 950,224-square-foot (sf) warehouse building and an eight-building retail component, which will include 16,500 square feet of fast-food restaurant use with drive-through window, 10,200 square feet of fast-food restaurant without drive-through window, a 2,400-square-foot coffee/donut shop with drivethrough, a 3,515-square-foot automated car wash with 1 tunnel, and a 16-vehicle fueling position gas station (with a 4,600-square-foot convenience store). The proposed Project is located within the Perris Valley Commerce Center Specific Plan (PVCCSP) planning area of the City of Perris. This study has been prepared to satisfy applicable City of Perris standards and thresholds of significance based on guidance provided by Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (State CEQA Guidelines). (1)

The results of this Ramona Gateway Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

| Anglusia | Significance Findings | | | | |
|------------------------|-------------------------|-----------------------|--|--|--|
| Analysis | Unmitigated | Mitigated | | | |
| Off-Site Traffic Noise | Less Than Significant | - | | | |
| Operational Noise | Less Than Significant | - | | | |
| Construction Noise | Potentially Significant | Less Than Significant | | | |
| Construction Vibration | Less Than Significant | - | | | |

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

¹ Although Project construction noise and vibration impacts will be less than significant, the Project is required to comply with mitigation measures (MM) Noise 1 through MM Noise 4 from the PVCCSP EIR.

"n/a" = No new significant impacts.

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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Ramona Gateway ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for transportation related CNEL traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source operational noise and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The proposed Project site is located south of Ramona Expressway and between Nevada Avenue and Webster Avenue within the City of Perris' *Perris Valley Commerce Center Specific Plan* (PVCCSP) as shown on Exhibit 1-A. March Air Reserve Base/Inland Port Airport (MARB/IPA) is located approximately 1.2 miles north of the Project site boundary.

1.2 PROJECT DESCRIPTION

The Project is proposed to consist of a 950,224-square-foot (sf) warehouse building which will be evaluated assuming 902,713 square feet of high-cube fulfillment center warehouse use (95% of the total square footage) and 47,511 square feet of high-cube cold storage use (5% of the total square footage). The Project also includes an 8-building retail component that fronts Ramona Expressway, which will include 16,500 square feet of fast-food restaurant use with drive-through window, 10,200 square feet of fast-food restaurant without drive-through window, a 2,400-square-foot coffee/donut shop with drive-through, a 3,515-square-foot automated car wash with 1 tunnel, and a 16-vehicle fueling position gas station (with a 4,600-square-foot convenience store). The Project is anticipated to be constructed in one phase with completion during 2024. The Project would also include roadway and access improvements, and utility infrastructure connections along the roadways adjacent to the project site.

The on-site Project-related noise sources are expected to include: loading dock activity, truck movements, roof-top air conditioning units, courtyard activity, drive-through speakerphone, trash enclosure activity, parking lot vehicle movements, car wash tunnel, car wash vacuum, and gas station activity. This noise analysis is intended to describe noise level impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project will operate 24-hours daily for seven days per week.





EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN





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2 FUNDAMENTALS

For consistency with the PVCCSP EIR, the following noise fundamentals discussion was taken from the EIR, Section 4.9 Noise, Page 4.9-2: (3)

The PVCCSP EIR defines noise as unwanted or objectionable sound. The effect of noise on people can include general annoyance, interference with speech communication, sleep disturbance and, in the extreme, hearing impairment. The unit of measurement used to describe a noise level is the decibel (dB). However, since the human ear is not equally sensitive to all frequencies within the sound spectrum, the "A-weighted" noise scale, which weights the frequencies to which humans are sensitive, is used for measurements. Noise levels using A-weighted measurements are written dB(A) or dBA. Decibels are measured on a logarithmic scale which quantifies sound intensity in a manner that is similar to the Richter scale used for earthquake magnitudes. In the case of noise, a doubling of the energy from a noise source, such as the doubling of a traffic volume, would increase the noise level by 3 dBA; a halving of the energy would result in a 3 dBA decrease.

The PVCCSP EIR further states that average noise levels over a period of minutes or hours are usually expressed as dB L_{eq} or the equivalent noise level for that period of time. For example, $L_{eq(3)}$ would represent a three hour average. When no time-period is specified, a one-hour average is assumed. Noise standards for land use compatibility are stated in terms of the Community Noise Equivalent Level (CNEL) and the Day-Night Average Noise Level (Ldn). CNEL is a 24-hour weighted average measure of community noise. The computation of CNEL adds 5 dBA to the average hourly noise levels between 7 p.m. and 10 p.m. (evening hours), and 10 dBA to the average hourly noise levels between 10p.m. to 7 a.m. (nighttime hours). This weighting accounts for the increased human sensitivity to noise in the evening and nighttime hours. Ldn is a very similar 24-hour weighted average which weighs only the nighttime hours and not the evening hours. CNEL is normally about 1 dB higher than Ldn for typical traffic and other community noise levels.



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3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (4) The purpose of the Noise and Safety Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 STATE OF CALIFORNIA GREEN BUILDING STANDARDS CODE

The State of California's Green Building Standards Code (CALGreen) contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. (4) These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies shall be constructed to provide an interior noise level of 50 dBA L_{eq} in occupied areas during any hour of operation (Section 5.507.4.2). As outlined below in Section 3.7, the Project is not located within the 65 CNEL noise contour of March Air Reserve Base/Inland Port Airport (MARB/IPA).

3.3 CITY OF PERRIS GENERAL PLAN NOISE ELEMENT

The City of Perris has adopted a Noise Element of the General Plan (6) to control and abate environmental noise, and to protect the citizens of Perris from excessive exposure to noise. The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways,





airports, and railroads. In addition, the Noise Element identifies noise polices and implementation measures designed to protect, create, and maintain an environment free from noise that may jeopardize the health or welfare of sensitive receptors, or degrade quality of life.

The noise standards identified in the City of Perris General Plan are guidelines to evaluate the acceptability of the transportation related noise level impacts. These standards are based on the Governor's Office of Planning and Research (OPR) and are used to assess the long-term traffic noise impacts on land uses. According to the City's Land Use Compatibility for Community Noise Exposure (Exhibit N-1), noise-sensitive land uses such as single-family residences are *normally acceptable* with exterior noise levels below 60 dBA CNEL and *conditionally acceptable* with noise levels below 65 dBA CNEL. Commercial uses are *normally acceptable* with exterior noise levels below 65 dBA CNEL and *conditionally acceptable* with noise levels below 75 dBA CNEL and *normally unacceptable* with exterior noise level above 75 dBA CNEL. Industrial uses are considered *normally acceptable* with exterior noise levels between 70 to 80 dBA CNEL. (6)

Based on projected traffic noise levels along roadways adjacent to the Ramona Gateway building presented in Section 7, the Project would be exposed to estimated exterior noise levels of 80.0 dBA CNEL along Ramona Expressway, 77.2 dBA CNEL along Nevada Avenue, and 75.2 dBA CNEL along Webster Avenue. Therefore, the noise levels for the planned commercial land uses along Ramona Expressway are considered *normally unacceptable*, and a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. The planned industrial land use would not exceed those considered *conditionally acceptable*, and conventional construction would ensure that the noise levels are compatible with the proposed use.

3.4 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Ramona Gateway, operational noise such as the expected loading dock activity, truck movements, roof-top air conditioning units, courtyard activity, drive-through speakerphone, trash enclosure activity, parking lot vehicle movements, car wash tunnel, car wash vacuum, and gas station activity are typically evaluated against standards established under a City's Municipal Code.

The City of Perris Municipal Code, Chapter 7.34 *Noise Control*, Section 7.34.040, establishes the permissible noise level at any point on the property line of the affected residential receivers. Therefore, for residential properties, the exterior noise level shall not exceed a maximum noise level of 80 dBA L_{max} during daytime hours (7:01 a.m. to 10:00 p.m.) and shall not exceed a maximum noise level of 60 dBA L_{max} during the nighttime hours (10:01 p.m. to 7:00 a.m.), as shown on Table 3-1. (7) The City of Perris Municipal Code is included in Appendix 3.1. Additional exterior noise level standards are identified in the City of Perris General Plan Noise Element Implementation Measure V.A.1 which requires that new industrial facilities and large-scale commercial facilities within 160 feet of the property line of existing noise-sensitive land uses must demonstrate compliance with a 60 dBA CNEL exterior noise level standard. Table 3-1 shows

the Municipal Code and General Plan standards used in this analysis to evaluate the potential operational noise levels from the Project.

| Jurisdiction | Land Use | Land Use Time Period | |
|-------------------|------------------------------------|---------------------------------|-------------------------|
| | Desidential ¹ | Daytime (7:01 a.m 10:00 p.m.) | 80 dBA L _{max} |
| City of Perris | Residential | Nighttime (10:01 p.m 7:00 a.m.) | 60 dBA L _{max} |
| | Within 160 Feet of PL ² | 24-Hours | 60 dBA CNEL |

TABLE 3-1: OPERATIONAL NOISE STANDARDS

¹ City of Perris Municipal Code, Sections 7.34.040 & 7.34.050 (Appendix 3.1).

² City of Perris General Plan Noise Element, Implementation Measure V.A.1.

3.5 CONSTRUCTION NOISE STANDARDS

To analyze noise impacts originating from the construction of the Ramona Gateway site, noise from construction activities is typically evaluated against standards established under a City's Municipal Code. The City of Perris Municipal Code, Section 7.34.060, identifies the City's construction noise standards and permitted hours of construction activity (refer to Table 3-2). The City of Perris Municipal Code, Section 7.34.060, noise level standard of 80 dBA L_{max} applies to residential zones within the City of Perris. (7)

TABLE 3-2: CONSTRUCTION NOISE STANDARDS

| Jurisdiction | Permitted Hours of Construction Activity | Construction Noise Level Standard | |
|--------------------------------|---|---|--|
| City of Perris ¹ | 7:00 a.m. to 7:00 p.m. on any day except Sundays and legal holidays (with the exception of Columbus Day and Washington's birthday). | 80 dBA L _{max} | |

¹ City of Perris Municipal Code, Section 7.34.060 (Appendix 3.1).

3.6 CONSTRUCTION VIBRATION STANDARDS

According to the PVCCSP EIR, a major concern regarding construction vibration is building damage. Consequently, construction vibration is generally assessed in terms of peak particle velocity (PPV). The United States Department of Transportation Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, buildings can be exposed to ground-borne vibration levels of 0.5 PPV without experiencing structural damage.

Although Project construction noise and vibration impacts will be *less than significant*, the Project is required to comply with the following construction-related mitigation measures (MM) from the PVCCSP EIR:

MM Noise 1 During all project site excavation and grading on site, the construction contractors shall



equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturer's standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.

- *MM Noise 2* During construction, stationary construction equipment, stockpiling and vehicle staging areas would be placed a minimum of 446 feet away from the closest sensitive receptor.
- **MM Noise 3** No combustion-powered equipment, such as pumps or generators, shall be allowed to operate within 446 feet of any occupied residence unless the equipment is surrounded by a noise protection barrier.
- *MM Noise 4* Construction contractors of implementing development projects shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings.

3.7 MARCH AIR RESERVE BASE/INLAND PORT AIRPORT LAND USE COMPATIBILITY

March Air Reserve Base/Inland Port Airport (MARB/IPA) is located approximately 1.2 miles north of the Project site boundary. The *March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan* (MARB/IPA ALUCP) includes the policies for determining the land use compatibility of the Project. (8) The MARB/IPA LUCP, Map MA-1, indicates that the Project site is located within Compatibility Zone C-1, and the Table MA-1 Compatibility Zone Factors indicates that this area is considered to have a *moderate to high* noise impact, and is mostly within or near the 60 dBA CNEL noise level contour boundaries. Consistent with the Basic Compatibility Criteria, listed in Table MA-2 of the MARB/IPA LUCP, noise sensitive outdoor uses are not permitted. The MARB/IPA ALUCP does not identify specific noise compatibility standards, and therefore, the Governor's Office of Planning and Research (OPR) Land Use Compatibility for Community Noise Exposure, previously discussed in Section 3.3, is used to assess potential aircraft-related noise levels at the Project site. The OPR guidelines indicate that commercial uses are considered *normally acceptable* with exterior noise levels of up to 65 dBA CNEL and industrial uses, are considered *normally acceptable* with exterior noise levels of up to 70 dBA CNEL. (4)

The noise contour boundaries of MARB/IPA are presented on Exhibit 3-A of this report and show that the Project is considered *normally acceptable* land use since it is located outside the 65 dBA CNEL noise level contour boundaries.





EXHIBIT 3-A: MARB/IPA FUTURE AIRPORT NOISE CONTOURS

13998-11 RG Noise Study



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4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the State CEQA Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

- A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- B. Generation of excessive ground-borne vibration or ground-borne noise levels?
- C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

While the City of Perris General Plan Noise Element provides direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts, it does not define the levels at which increases are considered substantial for use under Guideline A. The State CEQA Guidelines Appendix G noise threshold C applies to nearest public and private airports, if any, and the Project's land use compatibility.

4.1 CEQA THRESHOLDS NOT FURTHER ANALYZED

The closest airport which would require additional noise analysis under State CEQA Guidelines Appendix G noise threshold C is MARB/IPA. As previously described in Section 3.7, the Project site is in Compatibility Zone C-2, and the Table MA-1 Compatibility Zone Factors indicates that this area is considered to have a *moderate to high* noise impact. The OPR guidelines indicate that the Project commercial and industrial land uses are considered *normally acceptable* with the MARB/IPA exterior noise levels Therefore, the potential impacts under CEQA Guidelines Appendix G noise threshold C, are *less than significant* and are not further analyzed in this noise study.

4.2 NOISE SENSITIVE USE NOISE LEVEL INCREASES

As identified in the PVCCSP EIR, sensitive receivers are areas where humans are participating in activities that may be subject to the stress of significant interference from noise and often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries. Other receivers include office and industrial buildings, which are not considered as sensitive as single-family homes, but are still protected by City of Perris land use compatibility standards, as discussed below. Noise level increases at nearest receiver locations resulting from the Project are evaluated based on the PVCCSP EIR Thresholds described below at nearest sensitive receiver locations. Further, CEQA requires that consideration be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders the noise impact significant*. (9)



According to the PVCCSP EIR, there is no official "industry standard" of determining significance of noise impacts. However, typically, a jurisdiction will identify either 3 dBA or 5 dBA increase as being the threshold because these levels represent varying levels of perceived noise increases. The PVCCSP EIR indicates that a 5 dBA noise level increase is considered discernable to most people in an exterior environment when the resulting noise levels are below 60 dBA. Further, it identifies a 3 dBA increase threshold when the noise levels already exceed 60 dBA. In addition, according to the PVCCSP EIR, an increase of 5 dBA or more above without Project noise levels is considered a significant impact at all other sensitive land uses. (3) The City of Perris does not consider noise increases to non-noise-sensitive uses to be significant.

4.3 SIGNIFICANCE CRITERIA SUMMARY

Even though Section 7.34.060 of the Municipal Code limits the use of the 80 dBA L_{max} standard to residential properties, the same 80 dBA L_{max} exterior noise level standard has been used to assess the potential construction noise level impacts at the nearby Val Verde Unified School District and Riverside Office of Education Facilities. Even though Section 7.34.040 of the Municipal Code limits the use of the 80 dBA L_{max} standard to affected residential properties, the same 80 dBA L_{max} exterior noise level standard has been used to assess the potential operational noise level impacts at the Val Verde Unified School District and Riverside County Office of Education Facilities. Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-1 shows the significance criteria summary matrix.

| Analysis | Receiving | Condition(s) | Significance Criteria | | |
|--------------|----------------------------------|---|---|-------------------------|--|
| | Land OSC | | Daytime | Nighttime | |
| Off-Site | Noise- | if resulting noise level is < 60 dBA CNEL | ≥ 5 dBA CNEL F | Project increase | |
| Traffic | Sensitive ¹ | if resulting noise level is > 60 dBA CNEL | ≥ 3 dBA CNEL Project increase | | |
| | | At residential land use ^{2, 6} | 80 dBA L _{max} | 60 dBA L _{max} | |
| Operational | Noise- Sensitive ³ | Within 160 Feet of noise-sensitive use ³ | 60 dBA CNEL (exterior) | | |
| Operational | | if resulting noise level is < 60 dBA L_{eq}^1 | ≥ 5 dBA L _{eq} Project increase | | |
| | | if resulting noise level is > 60 dBA L_{eq}^1 | ≥ 3 dBA L _{eq} Project increase | | |
| Construction | Noise- | At residential land use ^{4, 6} | 80 dBA L _{max} 0.5 PPV (in/sec) | | |
| Construction | Sensitive | Vibration Level Threshold ⁵ | | | |

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

¹ PVCCSP EIR, Page 4.9-20.

² City of Perris Municipal Code, Section 7.34.040 (Appendix 3.1).

³ City of Perris General Plan Noise Element, Implementation Measure V.A.1.

⁴ City of Perris Municipal Code, Section 7.34.060 (Appendix 3.1).

⁵ PVCCSP EIR, Page 4.9-27.

⁶ Even though the Municipal Code limits the use of the 80 dBA Lmax standard to affected residential properties, the same 80 dBA Lmax exterior noise level standard has been used to assess the potential noise level impacts at the Val Verde Unified School District and Riverside County Office of Education Facilities.

"Daytime" = 7:01 a.m. - 10:00 p.m.; "Nighttime" = 10:01 p.m. - 7:00 a.m.



5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at four locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday July 21st, 2021. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (10)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources. (11) Further, FTA guidance states, that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community. (12)*

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (12) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby



sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix 5.2 provides a summary of the existing hourly ambient noise levels.

| Location ¹ | Description | Energy / Noise (dBA | CNEL | |
|-----------------------|---|---------------------------|-----------|------|
| | | Daytime | Nighttime | |
| L1 | Located northeast of the Project site near single- family residence at 4063 N Webster Ave. | 63.0 | 58.8 | 66.7 |
| L2 | Located east of the Project site near existing commercial use at 3701 Webster Avenue. | 63.0 | 61.3 | 68.2 |
| L3 | Located south of the Project site near Val Verde High School at 972 Morgan Street. | 57.6 | 57.2 | 64.0 |
| L4 | Located southwest of the Project site near single- family residence at 19543 Patterson Avenue. | 52.9 | 50.3 | 57.4 |

TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

¹ See Exhibit 5-A for the noise level measurement locations.

² Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.

"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L₁, L₂, L₅, L₈, L₂₅, L₅₀, L₉₀, L₉₅, and L₉₉ percentile noise levels observed during the daytime and nighttime periods.





EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS

LEGEND: N A Measurement Locations



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6 TRAFFIC NOISE PREDICTION METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment. Consistent with the *Land Use Compatibility Criteria*, all transportation related noise levels are presented in terms of the 24-hour CNEL's.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (13) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (14) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (15)

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site dBA CNEL transportation noise impacts. Table 6-1 identifies the 15 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Perris General Plan Circulation Element, and the posted vehicle speeds. The ADT volumes used in this study area presented on Table 6-2 are based on the *Ramona Gateway Traffic Analysis*, prepared by Urban Crossroads, Inc. for the following traffic scenarios (16):

- Existing (2022)
- Existing Plus Project (E+P)
- Existing Plus Ambient Growth Plus Cumulative Projects (EAC) (2024)
- Existing Plus Ambient Growth Plus Project Plus Cumulative Projects (EAPC) (2024)
- Horizon Year (2045) Without Project
- Horizon Year (2045) With Project



The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. This analysis relies on a comparative evaluation of the off-site traffic noise impacts, without and with project ADT traffic volumes from the Project traffic study.

| ID | Roadway | Segment | Classification ¹ | Receiving Land Use ² | Distance from Centerline to Receiving Land Use (Feet) ³ | Vehicle Speed (mph) |
|----|--------------|------------------|-----------------------------|------------------------------------|---|---------------------------|
| 1 | Nevada Rd. | n/o Morgan St. | Collector | Non-Sensitive | 33' | 45 |
| 2 | Webster Av. | n/o Ramona Expy. | Secondary Arterial | Sensitive | 47' | 35 |
| 3 | Webster Av. | n/o Morgan St. | Secondary Arterial | Non-Sensitive | 47' | 35 |
| 4 | Indian Av. | s/o Morgan St. | Secondary Arterial | Non-Sensitive | 47' | 45 |
| 5 | Indian Av. | n/o Ramona Expy. | Secondary Arterial | Sensitive | 47' | 45 |
| 6 | Perris Blvd. | n/o Ramona Expy. | Arterial | Non-Sensitive | 64' | 45 |
| 7 | Perris Blvd. | s/o Ramona Expy. | Arterial | Non-Sensitive | 64' | 45 |
| 8 | Perris Blvd. | s/o Morgan St. | Arterial | Non-Sensitive | 64' | 45 |
| 9 | Ramona Expy. | w/o Nevada Rd. | Expressway | Non-Sensitive | 92' | 55 |
| 10 | Ramona Expy. | e/o Webster Av. | Expressway | Non-Sensitive | 92' | 55 |
| 11 | Ramona Expy. | e/o Indian Av. | Expressway | Non-Sensitive | 92' | 55 |
| 12 | Ramona Expy. | e/o Perris Blvd. | Expressway | Sensitive | 92' | 55 |
| 13 | Morgan St. | e/o Nevada Rd. | Secondary Arterial | Non-Sensitive | 47′ | 45 |
| 14 | Morgan St. | e/o Webster Av. | Secondary Arterial | Non-Sensitive | 47′ | 45 |
| 15 | Morgan St. | e/o Indian Av. | Secondary Arterial | Non-Sensitive | 47' | 45 |

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

¹ Ramona Gateway Commerce Center Traffic Analysis, Urban Crossroads, Inc.

² Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

³ Distance to receiving land use is based upon the right-of-way distances.

To quantify the off-site noise levels, the Project-related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix. Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Traffic Analysis*. Using the Project truck trips in combination with the Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios, and Tables 6-5 to 6-7 show the vehicle mixes used for the with Project traffic scenarios.



| | | | Average Daily Traffic Volumes ¹ | | | | | |
|----|--------------|------------------|--|-----------------|--------------------|-----------------|--------------------|-----------------|
| ID | Roadway | Segment | Existing (2022) | | EAC (2024) | | HY (2045) | |
| | | | Without Project | With Project | Without Project | With Project | Without Project | With Project |
| 1 | Nevada Rd. | n/o Morgan St. | 6,797 | 8,057 | 7,211 | 8,471 | 10,515 | 11,774 |
| 2 | Webster Av. | n/o Ramona Expy. | 8,699 | 9,033 | 9,588 | 9,922 | 25,011 | 25,345 |
| 3 | Webster Av. | n/o Morgan St. | 4,811 | 5,210 | 5,388 | 5,787 | 7,725 | 8,125 |
| 4 | Indian Av. | s/o Morgan St. | 9,451 | 9,851 | 10,362 | 10,762 | 14,955 | 15,355 |
| 5 | Indian Av. | n/o Ramona Expy. | 9,352 | 9,608 | 10,549 | 10,805 | 15,093 | 15,350 |
| 6 | Perris Blvd. | n/o Ramona Expy. | 30,680 | 31,206 | 33,555 | 34,082 | 48,465 | 48,992 |
| 7 | Perris Blvd. | s/o Ramona Expy. | 29,530 | 29,930 | 32,833 | 33,233 | 47,185 | 47,584 |
| 8 | Perris Blvd. | s/o Morgan St. | 29,573 | 30,290 | 32,727 | 33,444 | 47,099 | 47,816 |
| 9 | Ramona Expy. | w/o Nevada Rd. | 47,339 | 51,736 | 71,545 | 75,942 | 73,396 | 77,792 |
| 10 | Ramona Expy. | e/o Webster Av. | 37,477 | 39,541 | 60,933 | 62,998 | 62,399 | 64,463 |
| 11 | Ramona Expy. | e/o Indian Av. | 35,987 | 37,795 | 58,592 | 60,400 | 59,999 | 61,807 |
| 12 | Ramona Expy. | e/o Perris Blvd. | 33,021 | 33,821 | 55,186 | 55,986 | 56,477 | 57,277 |
| 13 | Morgan St. | e/o Nevada Rd. | 1,958 | 2,358 | 2,078 | 2,477 | 3,029 | 3,429 |
| 14 | Morgan St. | e/o Webster Av. | 4,314 | 5,113 | 4,861 | 5,660 | 6,957 | 7,757 |
| 15 | Morgan St. | e/o Indian Av. | 2,200 | 2,599 | 2,556 | 2,956 | 3,625 | 4,025 |

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

¹ Ramona Gateway Commerce Center Traffic Analysis, Urban Crossroads, Inc.

| | | Total of Time of | | |
|---------------|---------|------------------|-----------|------------|
| venicie Type | Daytime | Evening | Nighttime | Day Splits |
| Autos | 77.50% | 12.90% | 9.60% | 100.00% |
| Medium Trucks | 84.80% | 4.90% | 10.30% | 100.00% |
| Heavy Trucks | 86.50% | 2.70% | 10.80% | 100.00% |

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

¹Typical Southern California vehicle mix.

"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

TABLE 6-4: WITHOUT PROJECT VEHICLE MIX

| Classification | | Total | | |
|----------------|--------|---------------|--------------|---------|
| Classification | Autos | Medium Trucks | Heavy Trucks | Iotai |
| All Segments | 86.76% | 2.77% | 10.47% | 100.00% |

Based on a 24-hour count taken at Webster Avenue and Ramona Expressway (Ramona Gateway Commerce Center Traffic Analysis, Urban Crossroads, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.

Due to the added Project truck trips, the increase in Project traffic volumes and the distributions of trucks on the study area road segments, the percentage of autos, medium trucks and heavy trucks will vary for each of the traffic scenarios. This explains why the existing and future traffic volumes and vehicle mixes vary between seemingly identical study area roadway segments.

| | | | With Project ¹ | | | | |
|----|--------------|------------------|---------------------------|------------------|-----------------|--------------------|--|
| ID | Roadway | Segment | Autos | Medium Trucks | Heavy Trucks | Total ² | |
| 1 | Nevada Rd. | n/o Morgan St. | 87.27% | 4.84% | 7.89% | 100.00% | |
| 2 | Webster Av. | n/o Ramona Expy. | 90.83% | 5.35% | 3.82% | 100.00% | |
| 3 | Webster Av. | n/o Morgan St. | 91.20% | 5.13% | 3.67% | 100.00% | |
| 4 | Indian Av. | s/o Morgan St. | 90.86% | 5.33% | 3.81% | 100.00% | |
| 5 | Indian Av. | n/o Ramona Expy. | 90.73% | 5.41% | 3.86% | 100.00% | |
| 6 | Perris Blvd. | n/o Ramona Expy. | 90.63% | 5.46% | 3.90% | 100.00% | |
| 7 | Perris Blvd. | s/o Ramona Expy. | 90.60% | 5.48% | 3.92% | 100.00% | |
| 8 | Perris Blvd. | s/o Morgan St. | 90.70% | 5.42% | 3.88% | 100.00% | |
| 9 | Ramona Expy. | w/o Nevada Rd. | 91.28% | 5.08% | 3.63% | 100.00% | |
| 10 | Ramona Expy. | e/o Webster Av. | 90.97% | 5.27% | 3.76% | 100.00% | |
| 11 | Ramona Expy. | e/o Indian Av. | 90.93% | 5.29% | 3.78% | 100.00% | |
| 12 | Ramona Expy. | e/o Perris Blvd. | 90.70% | 5.42% | 3.88% | 100.00% | |
| 13 | Morgan St. | e/o Nevada Rd. | 92.09% | 4.61% | 3.30% | 100.00% | |
| 14 | Morgan St. | e/o Webster Av. | 91.96% | 4.69% | 3.35% | 100.00% | |
| 15 | Morgan St. | e/o Indian Av. | 91.94% | 4.70% | 3.36% | 100.00% | |

TABLE 6-5: EXISTING 2022 WITH PROJECT VEHICLE MIX

¹ Total of vehicle mix percentage values rounded to the nearest one-hundredth.



| | | | With Project ¹ | | | | | |
|----|--------------|------------------|---------------------------|------------------|-----------------|--------------------|--|--|
| ID | Roadway | Segment | Autos | Medium Trucks | Heavy Trucks | Total ² | | |
| 1 | Nevada Rd. | n/o Morgan St. | 87.43% | 4.87% | 7.70% | 100.00% | | |
| 2 | Webster Av. | n/o Ramona Expy. | 90.79% | 5.37% | 3.84% | 100.00% | | |
| 3 | Webster Av. | n/o Morgan St. | 91.13% | 5.17% | 3.70% | 100.00% | | |
| 4 | Indian Av. | s/o Morgan St. | 90.83% | 5.35% | 3.82% | 100.00% | | |
| 5 | Indian Av. | n/o Ramona Expy. | 90.70% | 5.42% | 3.88% | 100.00% | | |
| 6 | Perris Blvd. | n/o Ramona Expy. | 90.62% | 5.47% | 3.91% | 100.00% | | |
| 7 | Perris Blvd. | s/o Ramona Expy. | 90.59% | 5.49% | 3.92% | 100.00% | | |
| 8 | Perris Blvd. | s/o Morgan St. | 90.68% | 5.44% | 3.89% | 100.00% | | |
| 9 | Ramona Expy. | w/o Nevada Rd. | 91.03% | 5.23% | 3.74% | 100.00% | | |
| 10 | Ramona Expy. | e/o Webster Av. | 90.79% | 5.37% | 3.84% | 100.00% | | |
| 11 | Ramona Expy. | e/o Indian Av. | 90.76% | 5.39% | 3.85% | 100.00% | | |
| 12 | Ramona Expy. | e/o Perris Blvd. | 90.61% | 5.48% | 3.91% | 100.00% | | |
| 13 | Morgan St. | e/o Nevada Rd. | 92.01% | 4.66% | 3.33% | 100.00% | | |
| 14 | Morgan St. | e/o Webster Av. | 91.82% | 4.77% | 3.41% | 100.00% | | |
| 15 | Morgan St. | e/o Indian Av. | 91.76% | 4.80% | 3.43% | 100.00% | | |

TABLE 6-6: EAC 2024 WITH PROJECT VEHICLE MIX

 $^{\rm 1}$ Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-7: HORIZON YEAR (2045) WITH PROJECT VEHICLE MIX

| | | | With Project ¹ | | | | | |
|----|--------------|------------------|---------------------------|------------------|-----------------|--------------------|--|--|
| ID | Roadway | Segment | Autos | Medium Trucks | Heavy Trucks | Total ² | | |
| 1 | Nevada Rd. | n/o Morgan St. | 88.28% | 5.06% | 6.65% | 100.00% | | |
| 2 | Webster Av. | n/o Ramona Expy. | 90.60% | 5.48% | 3.92% | 100.00% | | |
| 3 | Webster Av. | n/o Morgan St. | 90.94% | 5.28% | 3.78% | 100.00% | | |
| 4 | Indian Av. | s/o Morgan St. | 90.72% | 5.41% | 3.87% | 100.00% | | |
| 5 | Indian Av. | n/o Ramona Expy. | 90.63% | 5.46% | 3.90% | 100.00% | | |
| 6 | Perris Blvd. | n/o Ramona Expy. | 90.58% | 5.50% | 3.93% | 100.00% | | |
| 7 | Perris Blvd. | s/o Ramona Expy. | 90.55% | 5.51% | 3.94% | 100.00% | | |
| 8 | Perris Blvd. | s/o Morgan St. | 90.62% | 5.47% | 3.91% | 100.00% | | |
| 9 | Ramona Expy. | w/o Nevada Rd. | 91.01% | 5.24% | 3.75% | 100.00% | | |
| 10 | Ramona Expy. | e/o Webster Av. | 90.78% | 5.38% | 3.84% | 100.00% | | |
| 11 | Ramona Expy. | e/o Indian Av. | 90.75% | 5.39% | 3.85% | 100.00% | | |
| 12 | Ramona Expy. | e/o Perris Blvd. | 90.61% | 5.48% | 3.92% | 100.00% | | |
| 13 | Morgan St. | e/o Nevada Rd. | 91.58% | 4.91% | 3.51% | 100.00% | | |
| 14 | Morgan St. | e/o Webster Av. | 91.46% | 4.98% | 3.56% | 100.00% | | |
| 15 | Morgan St. | e/o Indian Av. | 91.42% | 5.00% | 3.58% | 100.00% | | |

¹ Total of vehicle mix percentage values rounded to the nearest one-hundredth.



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7 OFF-SITE TRAFFIC NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with the proposed Project, noise contours were developed based on the *Ramona Gateway Traffic Analysis*. (16) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA CNEL noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area.

Tables 7-1 through 7-6 present a summary of the exterior dBA CNEL traffic noise levels without barrier attenuation. Roadway segments are analyzed from the without Project to the with Project conditions in each of the following timeframes:

- Existing (2022)
- Existing Plus Project (E+P)
- Existing Plus Ambient Growth Plus Cumulative Projects (EAC) (2024)
- Existing Plus Ambient Growth Plus Project Plus Cumulative Projects (EAPC) (2024)
- Horizon Year (2045) Without Project
- Horizon Year (2045) With Project

Appendix 7.1 includes a summary of the dBA CNEL traffic noise level contours for each of the traffic scenarios.



| | Road | Segment | Receiving Land Use ¹ | CNEL at Receiving | Distance to Contour from Centerline (Feet) | | | |
|----|--------------|------------------|------------------------------------|--------------------------------|---|----------------|----------------|--|
| IJ | | | | Land Use (dBA) ² | 70 dBA CNEL | 65 dBA CNEL | 60 dBA CNEL | |
| 1 | Nevada Rd. | n/o Morgan St. | Sensitive | 73.5 | 56 | 122 | 262 | |
| 2 | Webster Av. | n/o Ramona Expy. | Sensitive | 70.6 | RW | 111 | 240 | |
| 3 | Webster Av. | n/o Morgan St. | Sensitive | 68.0 | RW | 75 | 161 | |
| 4 | Indian Av. | s/o Morgan St. | Non-Sensitive | 73.1 | 75 | 162 | 350 | |
| 5 | Indian Av. | n/o Ramona Expy. | Sensitive | 73.0 | 75 | 161 | 347 | |
| 6 | Perris Blvd. | n/o Ramona Expy. | Non-Sensitive | 76.4 | 170 | 367 | 790 | |
| 7 | Perris Blvd. | s/o Ramona Expy. | Non-Sensitive | 76.2 | 166 | 358 | 770 | |
| 8 | Perris Blvd. | s/o Morgan St. | Non-Sensitive | 76.2 | 166 | 358 | 771 | |
| 9 | Ramona Expy. | w/o Nevada Rd. | Non-Sensitive | 78.0 | 314 | 677 | 1459 | |
| 10 | Ramona Expy. | e/o Webster Av. | Non-Sensitive | 77.0 | 269 | 579 | 1248 | |
| 11 | Ramona Expy. | e/o Indian Av. | Non-Sensitive | 76.8 | 262 | 564 | 1215 | |
| 12 | Ramona Expy. | e/o Perris Blvd. | Sensitive | 76.4 | 247 | 533 | 1147 | |
| 13 | Morgan St. | e/o Nevada Rd. | Sensitive | 66.2 | RW | 57 | 122 | |
| 14 | Morgan St. | e/o Webster Av. | Non-Sensitive | 69.7 | 45 | 96 | 207 | |
| 15 | Morgan St. | e/o Indian Av. | Non-Sensitive | 66.7 | RW | 61 | 132 | |

TABLE 7-1: EXISTING WITHOUT PROJECT NOISE CONTOURS

¹ Based on a review of existing aerial imagery.

² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use. "RW" = Location of the respective noise contour falls within the right-of-way of the road.



| 15 | Road | Segment | Receiving Land Use ¹ | CNEL at Receiving | Distance to Contour from Centerline (Feet) | | | |
|----|--------------|------------------|------------------------------------|--------------------------------|---|----------------|----------------|--|
| IJ | | | | Land Use (dBA) ² | 70 dBA CNEL | 65 dBA CNEL | 60 dBA CNEL | |
| 1 | Nevada Rd. | n/o Morgan St. | Sensitive | 76.1 | 84 | 181 | 389 | |
| 2 | Webster Av. | n/o Ramona Expy. | Sensitive | 70.6 | 52 | 112 | 241 | |
| 3 | Webster Av. | n/o Morgan St. | Sensitive | 68.1 | RW | 76 | 163 | |
| 4 | Indian Av. | s/o Morgan St. | Non-Sensitive | 73.1 | 76 | 163 | 352 | |
| 5 | Indian Av. | n/o Ramona Expy. | Sensitive | 73.1 | 75 | 162 | 349 | |
| 6 | Perris Blvd. | n/o Ramona Expy. | Non-Sensitive | 76.4 | 171 | 368 | 793 | |
| 7 | Perris Blvd. | s/o Ramona Expy. | Non-Sensitive | 76.2 | 166 | 358 | 772 | |
| 8 | Perris Blvd. | s/o Morgan St. | Non-Sensitive | 76.2 | 167 | 359 | 774 | |
| 9 | Ramona Expy. | w/o Nevada Rd. | Non-Sensitive | 78.1 | 320 | 690 | 1487 | |
| 10 | Ramona Expy. | e/o Webster Av. | Non-Sensitive | 77.1 | 272 | 586 | 1263 | |
| 11 | Ramona Expy. | e/o Indian Av. | Non-Sensitive | 76.9 | 265 | 570 | 1228 | |
| 12 | Ramona Expy. | e/o Perris Blvd. | Sensitive | 76.5 | 248 | 535 | 1153 | |
| 13 | Morgan St. | e/o Nevada Rd. | Sensitive | 66.5 | RW | 59 | 127 | |
| 14 | Morgan St. | e/o Webster Av. | Non-Sensitive | 69.9 | RW | 99 | 214 | |
| 15 | Morgan St. | e/o Indian Av. | Non-Sensitive | 66.9 | RW | 63 | 137 | |

TABLE 7-2: EXISTING WITH PROJECT NOISE CONTOURS

¹ Based on a review of existing aerial imagery.

² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use. "RW" = Location of the respective noise contour falls within the right-of-way of the road.



| 15 | Road | Segment | Receiving Land Use ¹ | CNEL at Receiving | Distance to Contour from Centerline (Feet) | | |
|----|--------------|------------------|------------------------------------|--------------------------------|---|----------------|----------------|
| IJ | | | | Land Use (dBA) ² | 70 dBA CNEL | 65 dBA CNEL | 60 dBA CNEL |
| 1 | Nevada Rd. | n/o Morgan St. | Sensitive | 73.8 | 59 | 127 | 273 |
| 2 | Webster Av. | n/o Ramona Expy. | Sensitive | 71.0 | 55 | 119 | 256 |
| 3 | Webster Av. | n/o Morgan St. | Sensitive | 68.5 | RW | 81 | 174 |
| 4 | Indian Av. | s/o Morgan St. | Non-Sensitive | 73.5 | 80 | 173 | 372 |
| 5 | Indian Av. | n/o Ramona Expy. | Sensitive | 73.5 | 81 | 175 | 376 |
| 6 | Perris Blvd. | n/o Ramona Expy. | Non-Sensitive | 76.8 | 181 | 389 | 839 |
| 7 | Perris Blvd. | s/o Ramona Expy. | Non-Sensitive | 76.7 | 178 | 384 | 827 |
| 8 | Perris Blvd. | s/o Morgan St. | Non-Sensitive | 76.7 | 178 | 383 | 825 |
| 9 | Ramona Expy. | w/o Nevada Rd. | Non-Sensitive | 79.8 | 414 | 892 | 1921 |
| 10 | Ramona Expy. | e/o Webster Av. | Non-Sensitive | 79.1 | 372 | 801 | 1726 |
| 11 | Ramona Expy. | e/o Indian Av. | Non-Sensitive | 78.9 | 362 | 781 | 1682 |
| 12 | Ramona Expy. | e/o Perris Blvd. | Sensitive | 78.7 | 348 | 750 | 1616 |
| 13 | Morgan St. | e/o Nevada Rd. | Sensitive | 66.5 | RW | 59 | 127 |
| 14 | Morgan St. | e/o Webster Av. | Non-Sensitive | 70.2 | 48 | 104 | 224 |
| 15 | Morgan St. | e/o Indian Av. | Non-Sensitive | 67.4 | RW | 68 | 146 |

TABLE 7-3: EAC (2024) WITHOUT PROJECT NOISE CONTOURS

¹ Based on a review of existing aerial imagery.

² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.


| 15 | | Segment | Receiving | CNEL at Receiving | Distance to Contour from Centerline (Feet) | | | |
|----|--------------|------------------|-----------------------|--------------------------------|---|----------------|----------------|--|
| IJ | коад | Segment | Land Use ¹ | Land Use (dBA) ² | 70 dBA CNEL | 65 dBA CNEL | 60 dBA CNEL | |
| 1 | Nevada Rd. | n/o Morgan St. | Sensitive | 76.2 | 86 | 185 | 398 | |
| 2 | Webster Av. | n/o Ramona Expy. | Sensitive | 71.1 | 55 | 119 | 257 | |
| 3 | Webster Av. | n/o Morgan St. | Sensitive | 68.6 | RW | 82 | 176 | |
| 4 | Indian Av. | s/o Morgan St. | Non-Sensitive | 73.5 | 81 | 174 | 374 | |
| 5 | Indian Av. | n/o Ramona Expy. | Sensitive | 73.6 | 81 | 175 | 378 | |
| 6 | Perris Blvd. | n/o Ramona Expy. | Non-Sensitive | 76.8 | 181 | 390 | 841 | |
| 7 | Perris Blvd. | s/o Ramona Expy. | Non-Sensitive | 76.7 | 178 | 385 | 828 | |
| 8 | Perris Blvd. | s/o Morgan St. | Non-Sensitive | 76.7 | 178 | 384 | 828 | |
| 9 | Ramona Expy. | w/o Nevada Rd. | Non-Sensitive | 79.9 | 419 | 903 | 1946 | |
| 10 | Ramona Expy. | e/o Webster Av. | Non-Sensitive | 79.1 | 375 | 807 | 1739 | |
| 11 | Ramona Expy. | e/o Indian Av. | Non-Sensitive | 79.0 | 365 | 786 | 1693 | |
| 12 | Ramona Expy. | e/o Perris Blvd. | Sensitive | 78.7 | 349 | 752 | 1621 | |
| 13 | Morgan St. | e/o Nevada Rd. | Sensitive | 66.7 | RW | 61 | 132 | |
| 14 | Morgan St. | e/o Webster Av. | Non-Sensitive | 70.4 | 50 | 107 | 231 | |
| 15 | Morgan St. | e/o Indian Av. | Non-Sensitive | 67.6 | RW | 70 | 150 | |

TABLE 7-4: EAPC (2024) WITH PROJECT NOISE CONTOURS

¹ Based on a review of existing aerial imagery.

² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.



| | | Sogmont | Receiving | CNEL at Receiving | Distance to Contour from Centerline (Feet) | | | |
|----|-----------------------|------------------|-----------------------|--------------------------------|---|----------------|----------------|--|
| IJ | Land Use ¹ | | Land Use ¹ | Land Use (dBA) ² | 70 dBA CNEL | 65 dBA CNEL | 60 dBA CNEL | |
| 1 | Nevada Rd. | n/o Morgan St. | Sensitive | 75.4 | 76 | 163 | 351 | |
| 2 | Webster Av. | n/o Ramona Expy. | Sensitive | 75.2 | 104 | 225 | 485 | |
| 3 | Webster Av. | n/o Morgan St. | Sensitive | 70.1 | 48 | 103 | 221 | |
| 4 | Indian Av. | s/o Morgan St. | Non-Sensitive | 75.1 | 102 | 220 | 475 | |
| 5 | Indian Av. | n/o Ramona Expy. | Sensitive | 75.1 | 103 | 222 | 478 | |
| 6 | Perris Blvd. | n/o Ramona Expy. | Non-Sensitive | 78.4 | 231 | 497 | 1072 | |
| 7 | Perris Blvd. | s/o Ramona Expy. | Non-Sensitive | 78.2 | 227 | 489 | 1053 | |
| 8 | Perris Blvd. | s/o Morgan St. | Non-Sensitive | 78.2 | 227 | 488 | 1051 | |
| 9 | Ramona Expy. | w/o Nevada Rd. | Non-Sensitive | 79.9 | 421 | 907 | 1954 | |
| 10 | Ramona Expy. | e/o Webster Av. | Non-Sensitive | 79.2 | 378 | 814 | 1754 | |
| 11 | Ramona Expy. | e/o Indian Av. | Non-Sensitive | 79.0 | 368 | 793 | 1709 | |
| 12 | Ramona Expy. | e/o Perris Blvd. | Sensitive | 78.8 | 354 | 762 | 1641 | |
| 13 | Morgan St. | e/o Nevada Rd. | Sensitive | 68.1 | RW | 76 | 164 | |
| 14 | Morgan St. | e/o Webster Av. | Non-Sensitive | 71.7 | 61 | 132 | 285 | |
| 15 | Morgan St. | e/o Indian Av. | Non-Sensitive | 68.9 | RW | 86 | 185 | |

TABLE 7-5: HORIZON YEAR (2045) WITHOUT PROJECT NOISE CONTOURS

¹ Based on a review of existing aerial imagery.

² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.



| 15 | | Sogmont | Receiving | CNEL at Receiving | Distance to Contour from Centerline (Feet) | | | |
|----|--------------|------------------|-----------------------|--------------------------------|---|----------------|----------------|--|
| IJ | коад | Segment | Land Use ¹ | Land Use (dBA) ² | 70 dBA CNEL | 65 dBA CNEL | 60 dBA CNEL | |
| 1 | Nevada Rd. | n/o Morgan St. | Sensitive | 77.2 | 100 | 215 | 464 | |
| 2 | Webster Av. | n/o Ramona Expy. | Sensitive | 75.2 | 105 | 225 | 486 | |
| 3 | Webster Av. | n/o Morgan St. | Sensitive | 70.1 | 48 | 104 | 223 | |
| 4 | Indian Av. | s/o Morgan St. | Non-Sensitive | 75.1 | 103 | 221 | 477 | |
| 5 | Indian Av. | n/o Ramona Expy. | Sensitive | 75.1 | 103 | 222 | 479 | |
| 6 | Perris Blvd. | n/o Ramona Expy. | Non-Sensitive | 78.4 | 231 | 498 | 1074 | |
| 7 | Perris Blvd. | s/o Ramona Expy. | Non-Sensitive | 78.3 | 227 | 489 | 1054 | |
| 8 | Perris Blvd. | s/o Morgan St. | Non-Sensitive | 78.3 | 227 | 489 | 1054 | |
| 9 | Ramona Expy. | w/o Nevada Rd. | Non-Sensitive | 80.0 | 426 | 919 | 1979 | |
| 10 | Ramona Expy. | e/o Webster Av. | Non-Sensitive | 79.2 | 380 | 820 | 1766 | |
| 11 | Ramona Expy. | e/o Indian Av. | Non-Sensitive | 79.1 | 370 | 798 | 1719 | |
| 12 | Ramona Expy. | e/o Perris Blvd. | Sensitive | 78.8 | 355 | 764 | 1646 | |
| 13 | Morgan St. | e/o Nevada Rd. | Sensitive | 68.3 | RW | 78 | 168 | |
| 14 | Morgan St. | e/o Webster Av. | Non-Sensitive | 71.9 | 63 | 135 | 291 | |
| 15 | Morgan St. | e/o Indian Av. | Non-Sensitive | 69.0 | RW | 87 | 188 | |

|--|

¹ Based on a review of existing aerial imagery.

² The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use. "RW" = Location of the respective noise contour falls within the right-of-way of the road.



7.2 EXISTING PROJECT TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report to fully analyze all the existing traffic scenarios identified in the *Ramona Gateway Traffic Analysis*. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 66.2 to 78.0 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions will range from 66.5 to 78.1 dBA CNEL. Table 7-7 shows that the Project off-site traffic noise level impacts will range from 0.0 to 2.6 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.

7.3 EAC (2024) PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-3 presents the Existing Plus Ambient Growth Plus Cumulative Projects (2024) without Project conditions CNEL noise levels. The Existing Plus Ambient Growth Plus Cumulative Projects (2024) without Project exterior noise levels are expected to range from 66.5 to 79.8 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows the Existing Plus Ambient Growth Plus Cumulative Projects (2024) with Project conditions will range from 66.7 to 79.9 dBA CNEL. Table 7-8 shows that the Project off-site traffic noise level increases will range from 0.0 to 2.4 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.

7.4 HY (2045) PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-5 presents the Horizon Year (2045) without Project conditions CNEL noise levels. The Horizon Year (2045) without Project exterior noise levels are expected to range from 68.1 to 79.9 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-6 shows the Horizon Year (2045) with Project conditions will range from 68.3 to 80.0 dBA CNEL. Table 7-9 shows that the Project off-site traffic noise level increases will range from 0.0 to 1.8 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level impacts due to unmitigated Project-related traffic noise levels.



| ID | Road | Segment | Receiving | CNE Lai | EL at Receiv nd Use (dB | ving A) ¹ | Incremental Noise Level Increase Threshold ² | | |
|----|--------------|------------------|-----------------------|---------------|----------------------------|-------------------------|---|-----------|--|
| | | | Land Use ¹ | No Project | With Project | Project Addition | Limit | Exceeded? | |
| 1 | Nevada Rd. | n/o Morgan St. | Sensitive | 73.5 | 76.1 | 2.6 | 3 | No | |
| 2 | Webster Av. | n/o Ramona Expy. | Sensitive | 70.6 | 70.6 | 0.0 | 3 | No | |
| 3 | Webster Av. | n/o Morgan St. | Sensitive | 68.0 | 68.1 | 0.1 | 3 | No | |
| 4 | Indian Av. | s/o Morgan St. | Non-Sensitive | 73.1 | 73.1 | 0.0 | n/a | No | |
| 5 | Indian Av. | n/o Ramona Expy. | Sensitive | 73.0 | 73.1 | 0.1 | 3 | No | |
| 6 | Perris Blvd. | n/o Ramona Expy. | Non-Sensitive | 76.4 | 76.4 | 0.0 | n/a | No | |
| 7 | Perris Blvd. | s/o Ramona Expy. | Non-Sensitive | 76.2 | 76.2 | 0.0 | n/a | No | |
| 8 | Perris Blvd. | s/o Morgan St. | Non-Sensitive | 76.2 | 76.2 | 0.0 | n/a | No | |
| 9 | Ramona Expy. | w/o Nevada Rd. | Non-Sensitive | 78.0 | 78.1 | 0.1 | n/a | No | |
| 10 | Ramona Expy. | e/o Webster Av. | Non-Sensitive | 77.0 | 77.1 | 0.1 | n/a | No | |
| 11 | Ramona Expy. | e/o Indian Av. | Non-Sensitive | 76.8 | 76.9 | 0.1 | n/a | No | |
| 12 | Ramona Expy. | e/o Perris Blvd. | Sensitive | 76.4 | 76.5 | 0.1 | 3 | No | |
| 13 | Morgan St. | e/o Nevada Rd. | Sensitive | 66.2 | 66.5 | 0.3 | 3 | No | |
| 14 | Morgan St. | e/o Webster Av. | Non-Sensitive | 69.7 | 69.9 | 0.2 | n/a | No | |
| 15 | Morgan St. | e/o Indian Av. | Non-Sensitive | 66.7 | 66.9 | 0.2 | n/a | No | |

TABLE 7-7: EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

¹Based on a review of existing aerial imagery.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use. The City of Perris does not consider noise increases to non-noise-sensitive uses to be significant.

³ Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

13998-11 RG Noise Study



| ID | Road | Segment | Receiving | CNE Lai | EL at Recein nd Use (dB | ving A) ¹ | Incremental Noise Level Increase Threshold ² | | |
|----|--------------|------------------|-----------------------|---------------|----------------------------|-------------------------|---|-----------|--|
| | | | Land Use ⁺ | No Project | With Project | Project Addition | Limit | Exceeded? | |
| 1 | Nevada Rd. | n/o Morgan St. | Sensitive | 73.8 | 76.2 | 2.4 | 3 | No | |
| 2 | Webster Av. | n/o Ramona Expy. | Sensitive | 71.0 | 71.1 | 0.1 | 3 | No | |
| 3 | Webster Av. | n/o Morgan St. | Sensitive | 68.5 | 68.6 | 0.1 | 3 | No | |
| 4 | Indian Av. | s/o Morgan St. | Non-Sensitive | 73.5 | 73.5 | 0.0 | n/a | No | |
| 5 | Indian Av. | n/o Ramona Expy. | Sensitive | 73.5 | 73.6 | 0.1 | 3 | No | |
| 6 | Perris Blvd. | n/o Ramona Expy. | Non-Sensitive | 76.8 | 76.8 | 0.0 | n/a | No | |
| 7 | Perris Blvd. | s/o Ramona Expy. | Non-Sensitive | 76.7 | 76.7 | 0.0 | n/a | No | |
| 8 | Perris Blvd. | s/o Morgan St. | Non-Sensitive | 76.7 | 76.7 | 0.0 | n/a | No | |
| 9 | Ramona Expy. | w/o Nevada Rd. | Non-Sensitive | 79.8 | 79.9 | 0.1 | n/a | No | |
| 10 | Ramona Expy. | e/o Webster Av. | Non-Sensitive | 79.1 | 79.1 | 0.0 | n/a | No | |
| 11 | Ramona Expy. | e/o Indian Av. | Non-Sensitive | 78.9 | 79.0 | 0.1 | n/a | No | |
| 12 | Ramona Expy. | e/o Perris Blvd. | Sensitive | 78.7 | 78.7 | 0.0 | 3 | No | |
| 13 | Morgan St. | e/o Nevada Rd. | Sensitive | 66.5 | 66.7 | 0.2 | 3 | No | |
| 14 | Morgan St. | e/o Webster Av. | Non-Sensitive | 70.2 | 70.4 | 0.2 | n/a | No | |
| 15 | Morgan St. | e/o Indian Av. | Non-Sensitive | 67.4 | 67.6 | 0.2 | n/a | No | |

TABLE 7-8: EAC (2024) WITH PROJECT TRAFFIC NOISE INCREASES

¹Based on a review of existing aerial imagery.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use. The City of Perris does not consider noise increases to non-noise-sensitive uses to be significant.

³ Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

13998-11 RG Noise Study



| ID | ID Road | Segment | Receiving | CNE Lai | EL at Receiv nd Use (dB | ving A) ¹ | Incremental Noise Level Increase Threshold ² | | |
|----|--------------|------------------|-----------------------|---------------|----------------------------|-------------------------|---|-----------|--|
| | | | Land Use ⁺ | No Project | With Project | Project Addition | Limit | Exceeded? | |
| 1 | Nevada Rd. | n/o Morgan St. | Sensitive | 75.4 | 77.2 | 1.8 | 3 | No | |
| 2 | Webster Av. | n/o Ramona Expy. | Sensitive | 75.2 | 75.2 | 0.0 | 3 | No | |
| 3 | Webster Av. | n/o Morgan St. | Sensitive | 70.1 | 70.1 | 0.0 | 3 | No | |
| 4 | Indian Av. | s/o Morgan St. | Non-Sensitive | 75.1 | 75.1 | 0.0 | n/a | No | |
| 5 | Indian Av. | n/o Ramona Expy. | Sensitive | 75.1 | 75.1 | 0.0 | 3 | No | |
| 6 | Perris Blvd. | n/o Ramona Expy. | Non-Sensitive | 78.4 | 78.4 | 0.0 | n/a | No | |
| 7 | Perris Blvd. | s/o Ramona Expy. | Non-Sensitive | 78.2 | 78.3 | 0.1 | n/a | No | |
| 8 | Perris Blvd. | s/o Morgan St. | Non-Sensitive | 78.2 | 78.3 | 0.1 | n/a | No | |
| 9 | Ramona Expy. | w/o Nevada Rd. | Non-Sensitive | 79.9 | 80.0 | 0.1 | n/a | No | |
| 10 | Ramona Expy. | e/o Webster Av. | Non-Sensitive | 79.2 | 79.2 | 0.0 | n/a | No | |
| 11 | Ramona Expy. | e/o Indian Av. | Non-Sensitive | 79.0 | 79.1 | 0.1 | n/a | No | |
| 12 | Ramona Expy. | e/o Perris Blvd. | Sensitive | 78.8 | 78.8 | 0.0 | 3 | No | |
| 13 | Morgan St. | e/o Nevada Rd. | Sensitive | 68.1 | 68.3 | 0.2 | 3 | No | |
| 14 | Morgan St. | e/o Webster Av. | Non-Sensitive | 71.7 | 71.9 | 0.2 | n/a | No | |
| 15 | Morgan St. | e/o Indian Av. | Non-Sensitive | 68.9 | 69.0 | 0.1 | n/a | No | |

TABLE 7-9: HORIZON YEAR (2045) WITH PROJECT TRAFFIC NOISE INCREASES

¹Based on a review of existing aerial imagery.

² The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use. The City of Perris does not consider noise increases to non-noise-sensitive uses to be significant.

³ Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?



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8 SENSITIVE RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction impacts, the following receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. As identified in the PVCCSP EIR, sensitive receivers are areas where humans are participating in activities that may be subject to the stress of significant interference from noise and often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries. Other receivers include office and industrial buildings, which are not considered as sensitive as single-family homes, but are still protected by City of Perris land use compatibility standards.

To describe the potential off-site Project noise levels, five receiver locations in the vicinity of the Project site were identified. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to the property line of each receiver location.

- R1: Location R1 represents the property line of the existing residence at 4063 N Webster Ave, approximately 509 feet northeast of the Project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the property line of the existing noise sensitive residence at 3772 Brennan Avenue approximately 747 feet east of the Project site. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R3: Location R3 represents the northeast property line of the existing Val Verde School District athletic field. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R4: Location R4 represents the northern property line of the existing noise sensitive Val Verde High School at 972 Morgan Street, immediately south of the Project site property line. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.
- R5: Location R5 represents the property line of the existing noise sensitive residence at 19542 Patterson Avenue, approximately 1,377 feet southwest of the Project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.





EXHIBIT 8-A: SENSITIVE RECEIVER LOCATIONS



9 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the operation of the proposed Ramona Gateway Project. Exhibit 9-A identifies the representative noise source locations used to assess the operational noise levels. The operational noise analysis includes the planned 14-foot-high screen wall on the east and west perimeter of the loading dock areas for the industrial building. The screen wall locations shown on Exhibit 9-A are designed for screening, privacy, noise control, and security with berms on the street side.

9.1 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. To present the potential worst-case noise conditions, this analysis assumes the Project warehouse and retail land uses would be operational 24 hours per day, seven days per week. Consistent with similar warehouse and light industrial uses, the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays.

The on-site Project-related noise sources are expected to include: loading dock activity, truck movements, roof-top air conditioning units, courtyard activity, drive-through speakerphone, trash enclosure activity, parking lot vehicle movements, car wash tunnel, car wash vacuum, and gas station activity.

9.2 **REFERENCE NOISE LEVELS**

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 9-1 used to estimate the Project operational noise impacts. Table 9-1 presents both the average hourly L_{eq} and the maximum permissible L_{max} reference noise levels. The average hour L_{eq} noise levels are used to calculate the 24-hour noise levels necessary to demonstrate compliance with the City of Perris 60 dBA CNEL exterior noise level standard for new industrial and large commercial facilities within 160 feet of the property line of existing noise-sensitive land uses. In addition, the average hourly L_{eq} noise levels are used to describe the Project related operational noise level increases.

The L_{max} reference noise levels shown on Table 9-1 are used to estimate the Project's maximum permissible exterior noise level consistent with the City's L_{max} noise level standards. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, truck movements, roof-top air conditioning units, courtyard activity, drive-through speakerphone, trash enclosure activity, parking lot vehicle movements, car wash tunnel, car wash vacuum, and gas station activity all operating continuously. These sources of noise activity will likely vary throughout the day.





EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS



| Notes Coursel | Noise Source | Min./Hour ² | | Reference Noise Level (dBA L _{eq}) | | Reference Noise Level (dBA L _{max}) | |
|---------------------------------|------------------|------------------------|-------|---|--------------|--|--------------|
| Noise Source ⁻ | Height (Feet) | Day | Night | @ Ref. Dist. | @ 50 Feet | @ Ref. Dist. | @ 50 Feet |
| Loading Dock Activity | 8′ | 60 | 60 | 78.4 | 64.4 | 88.8 | 74.8 |
| Truck Movements | 8′ | _3 | _3 | 64.0 | 58.0 | 79.1 | 73.1 |
| Roof-Top Air Conditioning Units | 5′ | 39 | 28 | 77.2 | 57.2 | 77.7 | 57.7 |
| Courtyard Activity | 5′ | 60 | 30 | 73.8 | 59.8 | 80.2 | 66.2 |
| Drive-Through Speakerphone | 3' | 60 | 30 | 62.0 | 51.5 | 65.3 | 54.8 |
| Trash Enclosure Activity | 5′ | 10 | 10 | 72.7 | 56.8 | 87.0 | 71.1 |
| Parking Lot Vehicle Movements | 5′ | 60 | 60 | 66.6 | 56.1 | 70.2 | 59.7 |
| Car Wash Tunnel | 8′ | 60 | 30 | 88.3 | 74.3 | 93.3 | 79.3 |
| Car Wash Vacuum | 3′ | 60 | 30 | 74.6 | 54.6 | 78.0 | 58.0 |
| Gas Station Activity | 5' | 60 | 60 | 68.2 | 48.2 | 74.4 | 54.4 |

TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

¹ As measured by Urban Crossroads, Inc.

² Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site.

"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.

³ Truck Movements are calculated based on the number of events by time of day (See Table 9-2).

9.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precisions sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (10)

9.2.2 LOADING DOCK ACTIVITY

The reference loading dock activities are intended to describe the typical operational noise activities associated with the Project. This includes trucks maneuvering, truck loading, truck unloading, backup alarms or beepers, truck docking, a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background forklift operations. Since the noise levels generated by cold storage loading dock activity can be slightly higher due to the use of refrigerated trucks or reefers, this analysis conservatively assumes that all loading dock activity is associated with cold storage facilities, even though only 5 percent cold storage is anticipated. To describe the warehouse loading dock activities, short-term reference noise level measurements were collected. The reference loading dock activity noise level measurement was taken over a fourteen-minute period and represents multiple noise sources taken from the center of activity generating a reference noise level of 74.8 dBA L_{max} at a uniform reference distance of 50 feet. At

this measurement location, the noise sources associated with employees unloading a docked truck container included the squeaking of the truck's shocks when weight was removed from the truck, employees playing music over a radio, as well as a forklift horn and backup alarm or beeper.

9.2.3 TRUCK MOVEMENTS

A truck movements reference noise level measurement was taken over a 15-minute period and represents multiple noise sources producing a reference noise level of 73.1 dBA L_{max} at 50 feet. The noise sources included at this measurement location account for the rattling and squeaking during normal opening and closing operations, the gate closure equipment, truck engines idling outside the entry gate, truck movements through the entry gate, and background truck court activities and forklift backup alarm noise.

Consistent with the *Ramona Gateway Traffic Analysis*, the Project is expected to generate a total of approximately 8,372 trip-ends per day (actual vehicles) and includes 378 truck trip-ends per day.(16) This noise study relies on the actual Project trips (as opposed to the passenger car equivalents) to accurately account for the effect of individual truck trips on the study area roadway network. Using the estimated number of truck trips in combination with time-of-day vehicle splits, the number of entry gate and truck movements by driveway location were calculated. As shown on Table 9-2, this information is then used to calculate the entry gate and truck movements operational noise source activity based on the number of events by time of day. Consistent the Traffic Analysis, truck movements have been limited to Driveways 2 and 3 with access to Nevada Road.

| Truck | Total | Trip Dist. ³ Truck | | Time of Day Vehicle Splits ⁵ | | | Truck Movements ⁶ | | | |
|-----------------------------------|--|-------------------------------|-----|---|--------|---------|------------------------------|-----|---------|-------|
| Movement Location ¹ | Project Truck Trips ² | In | Out | Trips by Location ⁴ | Day | Evening | Night | Day | Evening | Night |
| Driveway 2 | 378 | 50% | 50% | 189 | 86.50% | 2.70% | 10.80% | 163 | 5 | 21 |
| Driveway 3 | | 50% | 50% | 189 | 86.50% | 2.70% | 10.80% | 163 | 5 | 21 |

TABLE 9-2: TRUCK MOVEMENTS BY LOCATION

¹ Driveway locations as shown on Exhibit 9-A.

² Project truck trips based on Table 4-2 of the Ramona Gateway Commerce Center Traffic Analysis, Urban Crossroads, Inc.

³ Project truck trip distribution according Ramona Gateway Commerce Center Traffic Analysis, Urban Crossroads, Inc.

⁴ Calculated trip trucks per location represents the product of the total (inbound and outbound) project truck trips by and the trip distribution.

⁵ Heavy truck time of day vehicle splits as shown on Table 6-3.

⁶ Calculated time of day truck movements by location.

9.2.4 ROOF-TOP AIR CONDITIONING UNITS

To assess the noise levels created by the roof-top air conditioning units, reference noise level measurements were collected from Lennox SCA120 series 10-ton model packaged air conditioning unit. At a uniform reference distance of 50 feet, the roof-top air conditioning units generate a reference noise level of 57.7 dBA L_{max} . Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for and average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project buildings.



9.2.5 COURTYARD ACTIVITY

To describe the outdoor common area courtyards activity areas, a reference noise level measurement was taken. At 50 feet, the reference noise level is 66.2 dBA L_{max} at a noise source height of 5 feet. The reference noise level measurement includes outdoor eating, drinking, with laughing and talking.

9.2.6 DRIVE-THROUGH SPEAKERPHONE ACTIVITY

To describe the potential noise level impacts associated with potential drive-thru speakerphones and vehicle activities, a reference noise level measurement was collected. The reference noise levels collected are expected to reflect potential drive-thru speakerphone noise level activities at the Project site, since the reference measurement includes both drive-thru speakerphone and vehicle activity noise. The noise sources included in the reference noise level measurement consist of voices of the employees over the speakerphone, customers' voices ordering food, car engines idling, car radios playing music, and cars queuing in the drive-thru lane. At 50 feet from the speakerphone, a reference noise level of 54.8 dBA L_{max} was measured.

9.2.7 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project site. The measured reference noise level at the uniform 50-foot reference distance is 71.1 dBA L_{max} for the trash enclosure activities with the trash enclosures for each of the Project buildings. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

9.2.8 PARKING LOT VEHICLE MOVEMENTS

To describe the on-site parking lot activity a reference noise level of 59.7 dBA L_{max} at 50 feet is used. Parking activities are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours. The parking lot noise levels are mainly due cars pulling in and out of parking spaces.

9.2.9 CAR WASH TUNNEL

A reference noise level measurement was taken by Urban Crossroads to describe the air blowers used in a car wash tunnel. A reference noise level of 79.3 dBA L_{max} was measured at the uniform distance of 50 feet. The reference noise level measurement includes an exposed five-unit air blower system with background pressure washer noise and is used to represent the proposed Project facilities. It is anticipated that the air dryers within the proposed car wash will operate continuously during the peak operating conditions. Further, this noise analysis does not include any additional attenuation or directional influence provided by locating the car wash air blower



and dryer equipment inside the tunnel itself, but rather, models the tunnel exit activities as occurring at the building façade. As such, the analysis may conservatively overstate actual noise levels produced by the car wash tunnel air blower and dryer equipment.

9.2.10 CAR WASH VACUUM

To represent self-serve vacuums within the Project site, a reference noise level measurement was collected at an express car wash. The reference noise level measurement represents up to four vacuums operating simultaneously. At a uniform reference distance of 50 feet, the vacuum reference noise level is 58.0 dBA L_{max} . This reference car wash vacuum activity noise level is anticipated to conservatively overstate those of the Project, since this reference noise level includes more vacuums operating simultaneously (4 vacuums) than what will be possible at the Project site (2 vacuums).

9.2.11 GAS STATION ACTIVITY

To describe the potential noise level impacts created by the gas station of the Project, a reference noise level measurement was collected. The reference noise level measurement includes six cars fueling at once, car doors closing, engines starting, fuel pump TV sounds and background car pass-by events within a 3-minute period. At 50 feet from the gas station, a reference noise level of 54.4 dBA L_{max} was measured.

9.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source.

Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 9.1 includes the detailed



noise dBA L_{max} model inputs including the planned 14-foot-high screen wall used to estimate the Project operational noise levels presented in this section.

9.4 **PROJECT OPERATIONAL NOISE LEVELS**

Using the reference noise levels to represent the proposed Project operations that include loading dock activity, truck movements, roof-top air conditioning units, courtyard activity, drive-through speakerphone, trash enclosure activity, parking lot vehicle movements, car wash tunnel, car wash vacuum, and gas station activity, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 9-3 shows the Project operational noise levels during the daytime hours of 7:01 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 52.8 to 62.6 dBA L_{max}.

| Noise Source ¹ | Operat | ional Noise Le | vels by Receiv | er Location (dl | BA L _{max}) |
|---------------------------------|--------|----------------|----------------|-----------------|-----------------------|
| | R1 | R2 | R3 | R4 | R5 |
| Loading Dock Activity | 55.1 | 54.5 | 62.3 | 42.6 | 52.6 |
| Truck Movements | 36.8 | 23.8 | 25.3 | 17.8 | 27.8 |
| Roof-Top Air Conditioning Units | 35.6 | 25.2 | 31.9 | 28.0 | 23.6 |
| Courtyard Activity | 27.5 | 26.7 | 20.6 | 16.0 | 24.1 |
| Drive-Through Speakerphone | 31.0 | 15.3 | 9.7 | 5.0 | 9.2 |
| Trash Enclosure Activity | 38.8 | 28.7 | 31.7 | 20.3 | 24.7 |
| Parking Lot Vehicle Movements | 36.0 | 33.6 | 50.1 | 59.0 | 36.2 |
| Car Wash Tunnel | 55.3 | 43.0 | 44.6 | 28.3 | 30.7 |
| Car Wash Vacuum | 32.4 | 16.8 | 18.7 | 2.7 | 9.7 |
| Gas Station Activity | 31.2 | 24.4 | 22.3 | 7.1 | 12.7 |
| Total (All Noise Sources) | 58.4 | 54.9 | 62.6 | 59.1 | 52.8 |

TABLE 9-3: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

¹ See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

Table 9-4 shows the Project operational noise levels during the nighttime hours of 10:01 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 51.7 to 61.6 dBA L_{max} . The differences between the daytime and nighttime noise levels are largely related to the duration of noise activity (Table 9-1).



| Notes Coursel | Operat | ional Noise Le | vels by Receiv | er Location (dl | BA L _{max}) |
|---------------------------------|--------|----------------|----------------|-----------------|-----------------------|
| Noise Source- | R1 | R2 | R3 | R4 | R5 |
| Loading Dock Activity | 54.2 | 53.5 | 61.3 | 41.6 | 51.6 |
| Truck Movements | 21.2 | 8.1 | 9.7 | 2.2 | 12.2 |
| Roof-Top Air Conditioning Units | 33.1 | 22.8 | 29.5 | 25.6 | 21.2 |
| Courtyard Activity | 23.5 | 22.7 | 16.6 | 12.0 | 20.1 |
| Drive-Through Speakerphone | 27.0 | 11.3 | 5.7 | 1.1 | 5.3 |
| Trash Enclosure Activity | 37.9 | 27.7 | 30.8 | 19.3 | 23.8 |
| Parking Lot Vehicle Movements | 35.0 | 32.6 | 49.1 | 58.1 | 35.3 |
| Car Wash Tunnel | 51.3 | 39.0 | 40.6 | 24.3 | 26.8 |
| Car Wash Vacuum | 28.5 | 12.8 | 14.7 | 0.0 | 5.7 |
| Gas Station Activity | 30.2 | 23.4 | 21.3 | 6.1 | 11.7 |
| Total (All Noise Sources) | 56.1 | 53.7 | 61.6 | 58.2 | 51.7 |

TABLE 9-4: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

¹ See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

9.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Perris exterior noise level standards at nearby noise-sensitive receiver locations. Table 9-5 shows the operational noise levels associated with Ramona Gateway Project will satisfy the City of Perris 80 dBA L_{max} daytime and 60 dBA L_{max} nighttime exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-sensitive receiver locations.

| Receiver Location ¹ | Land Use | Project Operational Noise Levels (dBA L _{max}) ² | | Exterio Level St (dBA | r Noise andards L _{max}) ³ | Noise Level Standards Exceeded? ⁴ | | |
|-----------------------------------|-------------|---|-----------|-----------------------------|---|---|-----------|--|
| | | Daytime | Nighttime | Daytime | Nighttime | Daytime | Nighttime | |
| R1 | Residential | 58.4 | 56.1 | 80 | 60 | No | No | |
| R2 | Residential | 54.9 | 53.7 | 80 | 60 | No | No | |
| R3 | School | 62.6 | 61.6 | 80 | _5 | No | _5 | |
| R4 | School | 59.1 | 58.2 | 80 | _5 | No | _5 | |
| R5 | Residential | 52.8 | 51.7 | 80 | 60 | No | No | |

 TABLE 9-5: OPERATIONAL NOISE LEVEL COMPLIANCE

¹ See Exhibit 8-A for the receiver locations.

² Proposed Project operational noise levels as shown on Tables 9-3 and 9-4.

³ Exterior noise level standard as shown on Table 3-1.

"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.



⁴ Do the estimated Project operational noise source activities exceed the noise level standards?

⁵ Receiver locations R3 and R4 represent the Val Verde Regional Learning Center and Val Verde High School respectively and do not include any noise sensitive nighttime receivers.

Consistent with the City of Perris General Plan Noise Element, Implementation Measure V.A.1, Project operational noise levels at the nearest sensitive receiver locations cannot exceed 60 dBA CNEL. The CNEL metric is typically used to describe 24-hour transportation-related noise levels, however, the City of Perris General Plan Noise Element requires new industrial facilities and large commercial facilities to demonstrate compliance at any noise-sensitive land use within 160 feet of the Project site.

The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive particularly for noise sensitive residential land use. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. Table 9-6 includes the evening and nighttime adjustments made to the operational noise levels during the applicable hours to convert the hourly operational noise levels (L_{eq}) to 24-hour CNELs. Table 9-6 indicates that the 24-hour noise levels associated with the Ramona Gateway at the nearest receiver locations are expected to range from 50.2 to 56.1 dBA CNEL.

| Receiver Location ¹ | Land Use | Project O | perational Noi | se Levels ² | Exterior Noise | Noise Level |
|-----------------------------------|-------------|-----------------------------------|-------------------------------------|------------------------|--|-------------------------------------|
| | | Daytime (dBA L _{eq}) | Nighttime (dBA L _{eq}) | 24-Hour (CNEL) | Level Standards (CNEL) ³ | Standards Exceeded? ⁴ |
| R1 | Residential | 52.2 | 49.4 | 56.1 | 60 | No |
| R2 | Residential | 47.0 | 45.8 | 52.2 | 60 | No |
| R3 | School | 54.9 | _5 | _5 | _5 | No |
| R4 | School | 55.5 | _5 | _5 | _5 | No |
| R5 | Residential | 44.8 | 43.8 | 50.2 | 60 | No |

 TABLE 9-6: OPERATIONAL NOISE LEVEL COMPLIANCE (CNEL)

¹ See Exhibit 8-A for the receiver locations.

² Proposed Project operational noise level calculations are included in Appendix 9.2.

³ City of Perris General Plan Noise Element Implementation Measure V.A.1

⁴ Do the estimated Project operational noise source activities exceed the noise level standards?

⁵ Receiver locations R3 and R4 represent the Val Verde Regional Learning Center and Val Verde High School respectively and do not

include any noise sensitive nighttime receivers.

"Daytime" = 7:01 a.m. to 10:00 p.m.; "Nighttime" = 10:01 p.m. to 7:00 a.m.

Since CNEL noise criteria is used to describe the noise sensitive time periods during the evening and night hours when noise can become more intrusive, the CNEL calculations are limited to the noise sensitive residential receiver locations R1, R2 and R5. Receiver locations R3 and R4 represent the Val Verde Regional Learning Center and Val Verde High School respectively and do not include any noise sensitive nighttime receivers. The Project-related operational noise levels shown on Table 9-6 will satisfy the City of Perris 60 dBA CNEL exterior noise level standards at the nearest receiver locations. The 24-hour noise level calculations are included in Appendix 9.2.



9.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (11) Instead, they must be logarithmically added using the following base equation:

 $SPL_{Total} = 10log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \dots 10^{SPLn/10}]$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. As indicated on Tables 9-7, the Project will generate a daytime operational noise level increases ranging from 0.1 to 2.1 dBA L_{eq} at the nearest receiver locations. Table 9-8 shows that the Project will generate a nighttime operational noise level increases ranging from 0.1 to 0.9 dBA L_{eq} at the nearest receiver locations. Appendix 9.2 includes the detailed noise dBA L_{eq} model inputs including the planned 14-foot-high screen wall used to estimate the Project operational noise levels presented in this section.

The Project-related operational noise level increases will satisfy the operational noise level increase significance criteria presented on Table 4-1. Therefore, the incremental Project operational noise level increase is considered *less than significant* at all receiver locations.



| Receiver Location ¹ | Land Use | Total Project Operational Noise Level ² | Measurement Location ³ | Reference Ambient Noise Levels⁴ | Combined Project and Ambient ⁵ | Project Increase ⁶ | Increase Criteria ⁷ | Increase Criteria Exceeded? |
|-----------------------------------|-------------|--|--------------------------------------|---------------------------------------|---|----------------------------------|-----------------------------------|-----------------------------------|
| R1 | Residential | 52.2 | L1 | 63.0 | 63.3 | 0.3 | 3 | No |
| R2 | Residential | 47.0 | L2 | 63.0 | 63.1 | 0.1 | 3 | No |
| R3 | School | 54.9 | L2 | 63.0 | 63.6 | 0.6 | 3 | No |
| R4 | School | 55.5 | L3 | 57.6 | 59.7 | 2.1 | 5 | No |
| R5 | Residential | 44.8 | L4 | 52.9 | 53.5 | 0.6 | 5 | No |

TABLE 9-7: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

¹ See Exhibit 8-A for the receiver locations.

² Total Project daytime operational noise levels as shown on Table 9-6.

³ Reference noise level measurement locations as shown on Exhibit 5-A.

⁴ Observed daytime ambient noise levels as shown on Table 5-1.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ Significance increase criteria as shown on Table 4-1.



| Receiver Location ¹ | Land Use | Total Project Operational Noise Level ² | Measurement Location ³ | Reference Ambient Noise Levels⁴ | Combined Project and Ambient⁵ | Project Increase ⁶ | Increase Criteria ⁷ | Increase Criteria Exceeded? |
|-----------------------------------|-------------|--|--------------------------------------|---------------------------------------|-------------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| R1 | Residential | 49.4 | L1 | 58.8 | 59.3 | 0.5 | 5 | No |
| R2 | Residential | 45.8 | L2 | 61.3 | 61.4 | 0.1 | 3 | No |
| R3 | School | _8 | L2 | 61.3 | _8 | _8 | _8 | _8 |
| R4 | School | _8 | L3 | 57.2 | _8 | _8 | _8 | _8 |
| R5 | Residential | 43.8 | L4 | 50.3 | 51.2 | 0.9 | 5 | No |

TABLE 9-8: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

¹ See Exhibit 8-A for the receiver locations.

² Total Project daytime operational noise levels as shown on Table 9-6.

³ Reference noise level measurement locations as shown on Exhibit 5-A.

⁴ Observed daytime ambient noise levels as shown on Table 5-1.

⁵ Represents the combined ambient conditions plus the Project activities.

⁶ The noise level increase expected with the addition of the proposed Project activities.

⁷ Significance increase criteria as shown on Table 4-1.

⁸ Receiver locations R3 and R4 represent the Val Verde Regional Learning Center and Val Verde High School respectively and do not include any noise sensitive nighttime receivers.



10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the construction noise source activity including the site adjacent roadway improvements in relation to the nearest sensitive receiver locations previously described in Section 8. In addition, to support the Project development, a new off-site gas line will be installed along Ramona Expressway east to Brennan Avenue. The underground utilities will be installed within the existing public right-of-way (ROW) with construction activities moving linearly along a proposed alignment. It is expected that the off-site construction activities would not take place at one location for the entire duration of construction. Construction noise from this off-site work would, therefore, be relatively short term and the noise levels would be reduced as construction work moves linearly along the existing public ROW and farther from sensitive uses.

To prevent high levels of construction noise from impacting noise-sensitive land uses, City of Perris Municipal Code Section 7.34.060 limits construction activities to the hours of 7:00 a.m. to 7:00 p.m. on any day except Sundays and legal holidays (with the exception of Columbus Day and Washington's birthday).

10.1 CONSTRUCTION NOISE LEVELS

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators that when operating at the project site boundaries closest the nearest sensitive receiver locations can reach high levels. The number and mix of construction equipment are expected to occur in the following stages:

- Site Preparation
- Grading
- Building Construction
- Architectural Coating
- Paving
- Landscaping

10.2 CONSTRUCTION REFERENCE NOISE LEVELS

This construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (17) The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment including reference L_{max} noise levels measured at 50 feet.

Noise levels generated by heavy construction equipment can range from approximately 68 dBA to more than 85 dBA L_{max} when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 85 dBA L_{max} measured at 50 feet from the noise source to the receiver would be



reduced to 79 dBA L_{max} at 100 feet from the source to the receiver and would be further reduced to 73 dBA L_{max} at 200 feet from the source to the receiver. Table 10-1 provides a summary of the construction reference noise levels expected with the Project construction activities.



EXHIBIT 10-A: TYPICAL CONSTRUCTION NOISE SOURCE LOCATIONS

Distance from receiver to construction activity (in feet)



| Construction Stage | Construction Activity | Reference Noise Level @ 50 Feet (dBA L _{max}) ¹ | Highest Reference Noise Level (dBA L _{max}) | |
|-----------------------|--------------------------|--|---|--|
| Site | Crawler Tractors | 82 | 01 | |
| Preparation | Rubber Tired Dozers | 79 | 02 | |
| | Crawler Tractors | 82 | | |
| | Excavators | 81 | | |
| Grading | Graders | 85 | 85 | |
| | Rubber Tired Dozers | 79 | | |
| | Scrapers | 84 | | |
| | Cranes | 81 | | |
| | Forklifts | 85 | | |
| Building | Generator Sets | 73 | 85 | |
| construction | Backhoes | 78 | | |
| | Welders | 74 | | |
| Arch. Coating | Air Compressors | 78 | 78 | |
| | Pavers | 77 | | |
| Paving | Paving Equipment | 85 | 85 | |
| | Rollers | 80 | | |
| | Cranes | 81 | | |
| | Forklifts | 85 | 05 | |
| Landscaping | Backhoes | 78 | 85 | |
| | Welders | 74 | | |

TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

¹ FHWA's Roadway Construction Noise Model, January 2006.

10.3 CONSTRUCTION NOISE ANALYSIS

Using the reference RCNM L_{max} construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts with multiple pieces of equipment operating simultaneously at the nearest receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location.

As shown on Table 10-2, the construction noise levels are expected to range from 62.2 to 84.3 dBA L_{max} at the nearby receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.



| Receiver Location ¹ | Highest Construction Noise Levels (dBA L _{max}) | | | | | | | |
|-----------------------------------|---|---------|--------------------------|------------------|--------|-------------|--------------------------------|--|
| | Site Preparation | Grading | Building Construction | Arch. Coating | Paving | Landscaping | Highest Levels ² | |
| R1 | 72.5 | 75.5 | 75.5 | 68.5 | 75.5 | 75.5 | 75.5 | |
| R2 | 71.4 | 74.4 | 74.4 | 67.4 | 74.4 | 74.4 | 74.4 | |
| R3 | 80.5 | 83.5 | 83.5 | 76.5 | 83.5 | 83.5 | 83.5 | |
| R4 | 81.3 | 84.3 | 84.3 | 77.3 | 84.3 | 84.3 | 84.3 | |
| R5 | 66.2 | 69.2 | 69.2 | 62.2 | 69.2 | 69.2 | 69.2 | |

TABLE 10-2: UNMITIGATED CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

¹Noise receiver locations are shown on Exhibit 10-A.

² Construction noise level calculations based on distance from the construction activity area to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

10.4 CONSTRUCTION NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only construction noise levels are evaluated against exterior noise level thresholds established by Section 7.34.060 of City of Perris Municipal Code at the adjacent property line. As shown on Table 10-3, the estimated construction noise levels at the adjacent noise sensitive receiver locations R1, R2 and R5 will satisfy the 80 dBA L_{max} construction noise level standard. However, the construction noise levels at the southern property line adjacent to the Val Verde Unified School District and Riverside Office of Education Facilities will exceed 80 dBA L_{max}, which is the noise standard being applied to these sensitive uses. Therefore, the unmitigated noise impact due to Project construction activities is considered *potentially significant*.

| TABLE 10-3: UNMITIGATED CONSTRUCTION NOISE LEVEL COMPLIANCE |
|---|
|---|

| | Construction Noise Levels (dBA L _{max}) | | | | | |
|-----------------------------------|--|----|-------------------------------------|--|--|--|
| Receiver Location ¹ | Highest Construction Noise Levels ² Threshold ³ | | Threshold Exceeded? ⁴ | | | |
| R1 | 75.5 | 80 | No | | | |
| R2 | 74.4 | 80 | No | | | |
| R3 | 83.5 | 80 | Yes | | | |
| R4 | 84.3 | 80 | Yes | | | |
| R5 | 69.2 | 80 | No | | | |

¹Noise receiver locations are shown on Exhibit 10-A.

² Highest construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations as shown on Table 10-2.

³ Construction noise level thresholds are limited to the noise sensitive receiver locations (Section 3.5).

⁴ Do the estimated Project construction noise levels exceed the construction noise level threshold?

Therefore, a minimum 8-foot-high noise barrier at the southern Project site boundary is required to reduce the typical construction noise levels as shown on Exhibit 10-B. A permanent 8-foot-high screenwall on the southern project boundary will also satisfy this requirement provided the noise barrier is installed prior to use of any heavy construction equipment or grading activities.



However, if the planned 8-foot-high screenwall is not installed prior to grading permit approval, an 8-foot-high temporary construction noise barrier shall be provided. Table 10-4 shows that the mitigated construction noise levels are expected to range from 62.1 to 78.1 dBA L_{eq} at the parcel boundary of adjacent uses. Appendix 10.2 includes the mitigated typical construction CadnaA noise model calculations.

| Receiver Location ¹ | Highest Construction Noise Levels (dBA L _{max}) | | | | | | | | |
|-----------------------------------|---|---------|--------------------------|------------------|--------|-------------|--------------------------------|--|--|
| | Site Preparation | Grading | Building Construction | Arch. Coating | Paving | Landscaping | Highest Levels ² | | |
| R1 | 72.5 | 75.5 | 75.5 | 68.5 | 75.5 | 75.5 | 75.5 | | |
| R2 | 71.4 | 74.4 | 74.4 | 67.4 | 74.4 | 74.4 | 74.4 | | |
| R3 | 75.1 | 78.1 | 78.1 | 71.1 | 78.1 | 78.1 | 78.1 | | |
| R4 | 74.6 | 77.6 | 77.6 | 70.6 | 77.6 | 77.6 | 77.6 | | |
| R5 | 65.4 | 68.4 | 68.4 | 61.4 | 68.4 | 68.4 | 68.4 | | |

TABLE 10-4: MITIGATED CONSTRUCTION NOISE LEVELS

¹Noise receiver locations are shown on Exhibit 10-A.

² Construction noise level calculations based on distance from the construction activity area to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

Table 10-5 shows that the mitigated construction noise levels will satisfy the City of Perris construction noise level standard 80 dBA L_{max} at the adjacent noise sensitive property line to the south. With the required 8-foot-high temporary noise barrier, the mitigated construction noise impacts are considered *less than significant*.

TABLE 10-5: MITIGATED CONSTRUCTION NOISE LEVEL COMPLIANCE

| . . | Construction Noise Levels (dBA L _{max}) | | | | | |
|-----------------------------------|---|------------------------|-------------------------------------|--|--|--|
| Receiver Location ¹ | Highest Construction Noise Levels ² | Threshold ³ | Threshold Exceeded? ⁴ | | | |
| R1 | 75.5 | 80 | No | | | |
| R2 | 74.4 | 80 | No | | | |
| R3 | 78.1 | 80 | No | | | |
| R4 | 77.6 | 80 | No | | | |
| R5 | 68.4 | 80 | No | | | |

¹Noise receiver locations are shown on Exhibit 10-A.

² Highest construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations as shown on Table 10-4.

³ Construction noise level thresholds are limited to the noise sensitive receiver locations (Section 3.5).

⁴ Do the estimated Project construction noise levels exceed the construction noise level threshold?



10.5 PROJECT CONSTRUCTION NOISE MITIGATION MEASURES

Though construction noise is temporary and intermittent, and will not present any long-term impacts, the following project construction noise mitigation measures shall be provided.

- To reduce construction noise at the Val Verde School District Facilities, the contractor shall install an 8-foot-high noise barrier (temporary or permanent) at the southern Project site boundary for the duration of construction activities. The limits of the noise barrier are shown on Exhibit 10-B. The noise control barrier shall include the following:
 - The noise control barriers must present a solid face from top to bottom.
 - The noise barriers shall be maintained, and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired.
 - The temporary noise barrier shall be constructed using one of the following materials with no decorative cutouts or line-of-sight openings between shielded areas and the noise source:
 - An acoustical blanket (e.g. vinyl acoustic curtains, quilted blankets, or equivalent) attached to the construction site perimeter fence or equivalent temporary fence posts.
 - The permanent noise barrier shall be constructed using one of the following materials with no decorative cutouts or line-of-sight openings between shielded areas and the noise source:
 - Masonry block;
 - Glass (1/4-inch-thick), or other transparent material with sufficient weight per square foot;
 - Earthen berm;
 - Any combination of these construction materials



EXHIBIT 10-B: CONSTRUCTION NOISE MITIGATION MEASURES

LEGEND:

Site Boundary 📼 Temporary 8-Foot High Construction Noise Barrier

N

10.6 NIGHTTIME CONCRETE POUR NOISE ANALYSIS

It is our understanding that nighttime concrete pouring activities will occur as a part of Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building area as shown on Exhibit 10-C. Since the nighttime concrete pours will take place outside the permitted City of Perris Municipal Code Section 7.34.060 hours of 7:00 a.m. to 7:00 p.m. on any day except Sundays and legal holidays (with the exception of Columbus Day and Washington's birthday), the Project Applicant will be required to obtain authorization for nighttime work from the City of Perris.

Table 10-6 shows the mitigated concrete pour activities (paving) noise levels with the required 8-foot-high temporary noise barrier will range from 58.0 to 64.8 dBA $L_{eq.}$ at the parcel boundary of adjacent uses. With the required 8-foot-high temporary noise barrier, the mitigated nighttime concrete noise impacts are considered *less than significant*. Appendix 10.3 includes the CadnaA nighttime concrete pour noise model inputs.

| Descion | Construction Noise Levels (dBA L _{max}) | | | | | |
|-----------------------------------|---|------------------------|-------------------------------------|--|--|--|
| Receiver Location ¹ | Highest Construction Noise Levels ² | Threshold ³ | Threshold Exceeded? ⁴ | | | |
| R1 | 69.0 | 80 | No | | | |
| R2 | 69.5 | 80 | No | | | |
| R3 | 67.8 | _5 | No | | | |
| R4 | 70.0 | _5 | No | | | |
| R5 | 64.1 | 80 | No | | | |

TABLE 10-6: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

¹Noise receiver locations are shown on Exhibit 10-A.

² Highest construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations as shown on Table 10-4.

³ Construction noise level thresholds are limited to the noise sensitive receiver locations (Section 3.5).

⁴ Do the estimated Project construction noise levels exceed the construction noise level threshold?
 ⁵ Receiver locations R3 and R4 represent the Val Verde Regional Learning Center and Val Verde High School respectively and do not include any noise sensitive nighttime receivers.

13998-11 RG Noise Study





EXHIBIT 10-C: NIGHTTIME CONCRETE POUR CONSTRUCTION ACTIVITY

LEGEND:

te Boundary

Receiver Locations

Nighttime Concrete Pour Activity (Building Area) 🚥 Temporary 8-Foot High Construction Noise Barrier



10.7 CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. However, no pile driving or rock blasting activities are planned for the Project. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground vibration levels associated with various types of construction equipment are summarized on Table 10-7. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: $L_{VdB}(D) = L_{VdB}(25 \text{ ft}) - 30\log(D/25)$

| Equipment | PPV (in/sec) at 25 feet |
|-----------------|----------------------------|
| Small bulldozer | 0.003 |
| Jackhammer | 0.035 |
| Loaded Trucks | 0.076 |
| Large bulldozer | 0.089 |

| TABLE 10-7: | VIBRATION SOURCE LEVEL | S FOR CONSTRUCTION | FOUIPMENT |
|-------------|------------------------|--------------------|-----------|
| TADLE IV-7. | | | |

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Using the vibration source level of construction equipment provided on Table 10-7 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration building damage impacts. Table 10-8 presents the expected Project related vibration levels at the nearby building structure locations. At distances ranging from 10 to 1,338 feet from the Project construction boundary to the receiver building locations, construction vibration velocity levels are estimated to be between 0.000 and 0.352 PPV (in/sec). Based on maximum acceptable vibration threshold identified in the PVCCSP EIR (Page 4.9-27) of 0.5 PPV (in/sec), the typical Project construction vibration levels will satisfy the building damage thresholds at all receiver building locations. Therefore, the Project-related vibration impacts are considered *less than significant* during the construction activities at the Project site.

In addition, the typical construction vibration levels are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating.



| Receiver ¹ | Distance to Const. Activity (Feet) ² | Typical Construction Vibration Levels PPV (in/sec) ³ | | | | | Thresholds | Throsholds |
|-----------------------|---|--|------------|------------------|--------------------|-------------------------------|------------------|------------------------|
| | | Small bulldozer | Jackhammer | Loaded Trucks | Large bulldozer | Highest Vibration Level | PPV (in/sec)⁴ | Exceeded? ⁵ |
| R1 | 355' | 0.000 | 0.001 | 0.001 | 0.002 | 0.002 | 0.5 | No |
| R2 | 659' | 0.000 | 0.000 | 0.001 | 0.001 | 0.001 | 0.5 | No |
| R3 | 10' | 0.012 | 0.138 | 0.300 | 0.352 | 0.352 | 0.5 | No |
| R4 | 10' | 0.012 | 0.138 | 0.300 | 0.352 | 0.352 | 0.5 | No |
| R5 | 1,338' | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.5 | No |

TABLE 10-8: CONSTRUCTION EQUIPMENT VIBRATION LEVELS

¹Receiver locations are shown on Exhibit 10-A.

² Distance from Project construction boundary to the receiver building structure.

³ Based on the Vibration Source Levels of Construction Equipment (Table 10-7).

⁴ PVCCSP EIR, Page 4.9-27.

⁵ Does the peak vibration exceed the acceptable vibration thresholds?

"PPV" = Peak Particle Velocity



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11 REFERENCES

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- 2. City of Perris. Perris Valley Commerce Center Specific Plan Final Environmental Impact Report. July 2011.
- 3. Office of Planning and Research. State of California General Plan Guidelines. 2019.
- 4. State of California. 2016 California Green Building Standards Code. August 2019 Supplement.
- 5. City of Perris. General Plan Noise Element. August 2005.
- 6. —. Municipal Code, Chapter 7.34 Noise Control.
- 7. Riverside County Airport Land Use Commission. March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan. November 2014.
- 8. California Court of Appeal. Gray v. County of Madera, F053661. 167 Cal.App.4th 1099; Cal.Rptr.3d, October 2008.
- 9. American National Standards Institute (ANSI). Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.
- 10. **California Department of Transportation Environmental Program.** *Technical Noise Supplement A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
- 11. U.S. Department of Transportation, Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Manual.* September 2018.
- 12. U.S. Department of Transportation, Federal Highway Administration. FHWA Highway Traffic Noise Prediction Model. December 1978. FHWA-RD-77-108.
- 13. California Department of Transportation Environmental Program, Office of Environmental Engineering. Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction. September 1995. TAN 95-03.
- 14. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.
- 15. Urban Crossroads, Inc. Ramona Gateway Commerce Center Traffic Analysis. February 2022.
- 16. U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning. FHWA Roadway Construction Noise Model. January, 2006.

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12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Ramona Gateway Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 584-3148.

Bill Lawson, P.E., INCE Principal URBAN CROSSROADS, INC. 1133 Camelback #8329 Newport Beach, CA 92658 (949) 581-3148 blawson@urbanxroads.com



EDUCATION

Master of Science in Civil and Environmental Engineering California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of San Diego • March, 2018 Certified Acoustical Consultant – County of Orange • February, 2011 FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013



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APPENDIX 3.1:

CITY OF PERRIS MUNICIPAL CODE



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CHAPTER 7.34. - NOISE CONTROL

Sec. 7.34.010. - Declaration of policy.

Excessive noise levels are detrimental to the health and safety of individuals. Noise is considered a public nuisance, and the city discourages unnecessary, excessive or annoying noises from all sources. Creating, maintaining, causing, or allowing to be created, caused or maintained, any noise or vibration in a manner prohibited by the provisions of the ordinance codified in this chapter is a public nuisance and shall be punishable as a misdemeanor.

(Code 1972, § 7.34.010; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.020. - Definitions.

(a) *General.* The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Ambient noise means the all-encompassing noise associated with a given environment usually being composed of sounds from many sources near and far. For the purpose of this chapter, ambient noise level is the level obtained when the noise level is averaged over a period of five minutes without inclusion of noise from isolated identifiable sources at the location and time of day near that at which a comparison is to be made.

Decibel (dB) means an intensity unit which denotes the ratio between two quantities which are proportional to power; the number of decibels corresponding to the ratio is ten times the common logarithm of this ratio.

Sound amplifying equipment means any machine or device for the amplification of the human voice, music or any other sound. The term "sound amplifying equipment" does not include standard vehicle radios when used and heard only by the occupants of the vehicle in which the vehicle radio is installed. The term "sound amplifying equipment," as used in this chapter, does not include warning devices on any vehicle used only for traffic safety purposes and shall not include communications equipment used by public or private utilities when restoring utility service following a public emergency or when doing work required to protect person or property from an imminent exposure to danger.

Sound level (noise level) in decibels is the value of a sound measurement using the "A" weighting network of a sound level meter. Slow response of the sound level meter needle shall be used except where the sound is impulsive or rapidly varying in nature, in which case, fast response shall be used.

Sound level meter means an instrument, including a microphone, an amplifier, an output meter and frequency weighting networks, for the measurement of sound levels, which satisfies the pertinent requirements in American National Standards Institute's specification S1.4-1971 or the most recent revision for type S-2A general purpose sound level meters.

(b) Supplementary definitions of technical terms. Definitions of technical terms not defined in this section shall be obtained from the American National Standards Institute's Acoustical Terminology S1-1971 or the most recent revision thereof.

(Code 1972, § 7.34.020; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.030. - Measurement methods.

(a) Sound shall be measured with a sound level meter as defined in section 7.34.020.

- (b) Unless otherwise provided, outdoor measurements shall be taken with the microphone located at any point on the property line of the noise source but no closer than five feet from any wall or vertical obstruction and three to five feet above ground level whenever possible.
- (c) Unless otherwise provided, indoor measurements shall be taken inside the structure with the microphone located at any point as follows:
 - (1) No less than three feet above floor level;
 - (2) No less than five feet from any wall or vertical obstruction; and
 - (3) Not under common possession and control with the building or portion of the building from which the sound is emanating.

(Code 1972, § 7.34.030; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.040. - Sound amplification.

No person shall amplify sound using sound amplifying equipment contrary to any of the following:

- (1) The only amplified sound permitted shall be either music or the human voice, or both.
- (2) The volume of amplified sound shall not exceed the noise levels set forth in this subsection when measured outdoors at or beyond the property line of the property from which the sound emanates.

| Time Period | Maximum Noise Level |
|----------------------|---------------------|
| 10:01 p.m.—7:00 a.m. | 60 dBA |
| 7:01 a.m.—10:00 p.m. | 80 dBA |

(Code 1972, § 7.34.040; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.050. - General prohibition.

- (a) It unlawful for any person to willfully make, cause or suffer, or permit to be made or caused, any loud excessive or offensive noises or sounds which unreasonably disturb the peace and quiet of any residential neighborhood or which are physically annoying to persons of ordinary sensitivity or which are so harsh, prolonged or unnatural or unusual in their use, time or place as to occasion physical discomfort to the inhabitants of the city, or any section thereof. The standards for dBA noise level in <u>section 7.34.040</u> shall apply to this section. To the extent that the noise created causes the noise level at the property line to exceed the ambient noise level by more than 1.0 decibels, it shall be presumed that the noise being created also is in violation of this section.
- (b) The characteristics and conditions which should be considered in determining whether a violation of the provisions of this section exists should include, but not be limited to, the following:
 - (1) The level of the noise;
 - (2) Whether the nature of the noise is usual or unusual;

- (3) Whether the origin of the noise is natural or unnatural;
- (4) The level of the ambient noise;
- (5) The proximity of the noise to sleeping facilities;
- (6) The nature and zoning of the area from which the noise emanates and the area where it is received;
- (7) The time of day or night the noise occurs;
- (8) The duration of the noise; and
- (9) Whether the noise is recurrent, intermittent or constant.

(Code 1972, § 7.34.050; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.060. - Construction noise.

It is unlawful for any person between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on a legal holiday, with the exception of Columbus Day and Washington's birthday, or on Sundays to erect, construct, demolish, excavate, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise. Construction activity shall not exceed 80 dBA in residential zones in the city.

(Code 1972, § 7.34.060; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.070. - Refuse vehicles and parking lot sweepers.

No person shall operate or permit to be operated a refuse compacting, processing or collection vehicle or parking lot sweeper between the hours of 7:00 p.m. to 7:00 a.m. in any residential area unless a permit has been applied for and granted by the city.

(Code 1972, § 7.34.070; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.080. - Disturbing, excessive, offensive noises; declaration of certain acts constituting.

The following activities, among others, are declared to cause loud, disturbing, excessive or offensive noises in violation of this section and are unlawful, namely:

- (1) *Horns, signaling devices, etc.* Unnecessary use or operation of horns, signaling devices or other similar devices on automobiles, motorcycles or any other vehicle.
- (2) Radios, television sets, phonographs, loud speaking amplifiers and similar devices. The use or operation of any sound production or reproduction device, radio receiving set, musical instrument, drums, phonograph, television set, loudspeakers, sound amplifier, or other similar machine or device for the producing or reproducing of sound, in such a manner as to disturb the peace, quiet or comfort of any reasonable person of normal sensitivity in any area of the city is prohibited. This provision shall not apply to any participant in a licensed parade or to any person who has been otherwise duly authorized by the city to engage in such conduct.
- (3) Animals.
 - a. The keeping or maintenance, or the permitting to be kept or maintained, upon any premises owned, occupied or controlled by any person of any animal or animals which by any frequent or long-continued noise shall cause annoyance or discomfort to a reasonable person of normal sensitiveness

in the vicinity.

- b. The noise from any such animal or animals that disturbs two or more residents residing in separate residences adjacent to any part of the property on which the subject animal or animals are kept or maintained, or three or more residents residing in separate residences in close proximity to the property on which the subject animal or animals are kept or maintained, shall be prima facie evidence of a violation of this section.
- (4) Hospitals, schools, libraries, rest homes, long-term medical or mental care facilities. To make loud, disturbing, excessive noises adjacent to a hospital, school, library, rest home or long-term medical or mental care facility, which noise unreasonably interferes with the workings of such institutions or which disturbs or unduly annoys occupants in said institutions.
- (5) Playing of radios on buses and trolleys. The operation of any radio, phonograph or tape player on an urban transit bus or trolley so as to emit noise that is audible to any other person in the vehicle is prohibited.
- (6) Playing of radios, phonographs and other sound production or reproduction devices in public parks and public parking lots and streets adjacent thereto. The operation of any radio, phonograph, television set or any other sound production or reproduction device in any public park or any public parking lot, or street adjacent to such park or beach, without the prior written approval of the city manager or the administrator, in such a manner that such radio, phonograph, television set or sound production or reproduction device emits a sound level exceeding those found in the table in section 7.34.040.
- (7) Leaf blowers.
 - a. The term "leaf blower" means any portable, hand-held or backpack, engine-powered device with a nozzle that creates a directable airstream which is capable of and intended for moving leaves and light materials.
 - b. No person shall operate a leaf blower in any residential zoned area between the hours of 7:00 p.m. and 8:00 a.m. on weekdays and 5:00 p.m. and 9:00 a.m. on weekends or on legal holidays.
 - c. No person may operate any leaf blower at a sound level in excess of 80 decibels measured at a distance of 50 feet or greater from the point of noise origin.
 - d. Leaf blowers shall be equipped with functional mufflers and an approved sound limiting device required to ensure that the leaf blower is not capable of generating a sound level exceeding any limit prescribed in this section.

(Code 1972, § 7.34.080; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.090. - Burglar alarms.

- (a) Audible burglar alarms for structures or motor vehicles are prohibited unless the operation of such burglar alarm can be terminated within 20 minutes of being activated.
- (b) Notwithstanding the requirements of this provision, any member of the county sheriff's department, Perris Division, shall have the right to take such steps as may be reasonable and necessary to disconnect any such alarm installed in any building, dwelling or motor vehicle at any time during the period of its activation. On or after 30 days from the effective date of the ordinance codified in this chapter, any building, dwelling or motor vehicle upon which a burglar alarm has been installed shall prominently display the telephone number at which communication may be made with the owner of such building, dwelling or motor vehicle.

4/6

(Code 1972, § 7.34.090; Ord. No. 1082, § 2(part), 2000)

Sec. 7.34.100. - Motor vehicles.

- (a) Off-highway.
 - (1) Except as otherwise provided for in this chapter, it shall be unlawful to operate any motor vehicle of any type on any site, other than on a public street or highway as defined in the California Vehicle Code, in any manner so as to cause noise in excess of those noise levels permitted for on-highway motor vehicles as specified in the table for "45-mile-per-hour or less speed limits" contained in section 23130 of the California Vehicle Code and as corrected for distances set forth in subsection (a)(2) of this section.
 - (2) The maximum noise level as the on-highway vehicle passes may be measured at a distance of other than 50 feet from the centerline of travel, provided the measurement is further adjusted by adding algebraically the application correction as follows:

| Distance (feet) | Correction (decibels) |
|----------------------------|--------------------------|
| 25 | -6 |
| 28 | -5 |
| 32 | -4 |
| 35 | -3 |
| 40 | -2 |
| 45 | -1 |
| 50 (preferred distance) | 0 |
| 56 | +1 |
| 63 | +2 |
| 70 | +3 |
| 80 | +4 |
| 90 | +5 |

100

(b) Nothing in this section shall apply to authorized emergency vehicles when being used in emergency situations including the blowing of sirens and/or horns.

(Code 1972, § 7.34.100; Ord. No. 1082, § 2(part), 2000)

APPENDIX 5.1:

STUDY AREA PHOTOS



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JN: 13998 Study Area Photos

L1-N 33, 50' 43.540000"117, 14' 34.070000"



L1-W 33, 50' 43.490000"117, 14' 34.100000"



L2-N 33, 50' 23.960000"117, 14' 37.150000"



33, 50' 43.460000"117, 14' 34.02000"

L1-E

L1-S 33, 50' 43.530000"117, 14' 34.070000"



L2-E 33, 50' 23.960000"117, 14' 37.150000"



JN: 13998 Study Area Photos

L2-W 33, 50' 23.960000"117, 14' 37.180000"



L3-N 33, 50' 17.810000"117, 14' 47.090000"



L3-W 33, 50' 17.770000"117, 14' 47.090000"



L2-S



L3-E 33, 50' 17.780000"117, 14' 47.060000"



L3-S 33, 50' 17.780000"117, 14' 47.090000"



JN: 13998 Study Area Photos

L4-N 33, 50' 15.580000"117, 15' 11.650000"



L4-W 33, 50' 15.600000"117, 15' 11.700000"





L4-S 33, 50' 15.650000"117, 15' 11.670000"



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APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS



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| | | | | | | 24-Ho | our Noise Le | evel Measu | urement S | ummary | | | | | | |
|-------------------------------|------------------------|-----------------------------|--------------|--------------|----------------------|---------------------------|----------------------------|----------------------------|----------------|--------------|--------------|--------------|---------------------|------------------|-----------------|----------------------|
| Date: Project: | Wednesday Ramona Ex | y, July 21, 202 pressway | 21 | | Location: Source: | L1 - Located residence at | northeast of 4063 N Web | the Project s ster Ave. | site near sing | gle-family | Meter: | Piccolo II | | | JN: Analyst: | 13998 A. Khan |
| | | | | | | | Hourly L _{eq} d | IBA Readings | (unadjusted) | | | | | | | |
| 85. | 0 | | | | | | | | | | | | | | | |
| 6 80. | | | | | | | | | | | | | | | | |
| و 70. 65. | | | | | | | | | | | | | | | ~ | |
| ے 60. مح 55. | | o | | r 0 | 1.9 | 2.2 | 64.3 | 33.5 | 3.1 | | 3.2 | 64.9 | - <mark></mark> | <mark>ច</mark> ្ | 66.8 | |
| n 50. of 45. | 0 - 6 | 56.5 | 5.9 | 56.4 | 9 | ° | ⊢ ⊢ | | | | | | - <mark>- 59</mark> | <u>2</u> | 0 | |
| - 40. 35. | 0 0 | | | | | | + | | | | | | | + | | |
| | 0 | 1 2 | 3 | 4 5 | 6 | 7 8 | 9 1 | 0 11 | 12 1 | 3 14 | 15 16 | 5 17 | 18 19 | 20 2 | 21 22 | 23 |
| | | | | | | | | Hour Be | ginning | | | | | | | |
| Timeframe | Hour | L _{eq} | | | L1% | L2% | L5% | L8% | L25% | L50% | L90% | L95% | L99% | L _{eq} | Adj. | Adj. L _{eq} |
| | 1 | 56.9 | 70.2 | 46.5 | 69.1 | 67.2 | 62.3 | 54.5 | 55.2 | 52.2 | 47.1 | 40.9 | 48.9 | 56.9 | 10.0 | 66.9 |
| | 2 | 59.0 | 67.8 | 54.3 | 67.1 | 66.1 | 64.1 | 62.9 | 59.2 | 56.8 | 54.7 | 54.6 | 54.4 | 59.0 | 10.0 | 69.0 |
| Night | 3 | 52.9 | 61.2 | 48.7 40 F | 60.3 | 59.0 | 56.8 | 55.9 | 53.1 | 51.6 | 49.4 | 49.1 | 48.8 | 52.9 | 10.0 | 62.9 |
| | 5 | 59.9 | 70.5 | 55.9 | 69.9 | 69.2 | 66.2 | 64.4 | 60.7 | 58.6 | 56.5 | 56.2 | 56.0 | 59.9 | 10.0 | 69.9 |
| | 6 | 61.9 | 73.1 | 57.5 | 72.3 | 71.2 | 68.8 | 67.6 | 63.6 | 61.0 | 58.1 | 57.9 | 57.6 | 61.9 | 10.0 | 71.9 |
| | 7 | 63.4 | 74.1 | 57.9 | 73.3 | 72.0 | 69.3 | 67.7 | 64.9 | 61.1 | 58.8 | 58.4 | 58.0 | 63.4 | 0.0 | 63.4 |
| | 8 9 | 64.3 | 76.0 | 61.4 | 75.1 | 73.7 | 69.2 | 67.1 | 65.0 | 63.8 | 62.1 | 61.8 | 61.5 | 64.3 | 0.0 | 64.3 |
| | 10 | 64.0 | 72.8 | 59.5 | 72.1 | 71.3 | 68.6 | 67.2 | 64.6 | 62.4 | 60.2 | 59.9 | 59.6 | 64.0 | 0.0 | 64.0 |
| | 11 | 63.5 | 72.5 | 59.9 | 71.9 | 71.2 | 69.7 | 69.1 | 65.4 | 62.9 | 60.8 | 60.3 | 60.0 | 63.5 | 0.0 | 63.5 |
| | 12 | 63.1 | 74.9 | 57.6 | 73.8 | 72.3 | 68.8 | 67.1 | 66.8 | 62.8 | 58.4 57.0 | 56.5 | 56.2 | 62.0 | 0.0 | 62.0 |
| Day | 14 | 61.3 | 68.0 | 56.9 | 67.4 | 66.8 | 65.5 | 64.5 | 62.0 | 59.8 | 57.6 | 57.3 | 57.0 | 61.3 | 0.0 | 61.3 |
| | 15 | 63.2 | 71.6 | 59.0 | 70.7 | 69.6 | 67.7 | 66.6 | 63.5 | 61.5 | 59.7 | 59.4 | 59.1 | 63.2 | 0.0 | 63.2 |
| | 16 | 64.9 | 71.2 | 63.3 | 67.4 70.8 | 70.3 | 64.4 69.1 | 68.7 | 67.8 | 58.5 66.3 | 63.9 | 63.7 | 63.4 | 64.9 | 0.0 | 64.9 |
| | 18 | 57.6 | 66.2 | 53.1 | 65.4 | 64.6 | 62.5 | 61.2 | 57.6 | 55.4 | 53.9 | 53.7 | 53.3 | 57.6 | 0.0 | 57.6 |
| | 19 | 59.6 | 69.0 | 53.3 | 68.3 | 67.3 | 64.9 | 63.5 | 59.7 | 57.2 | 54.6 | 54.1 | 53.5 | 59.6 | 5.0 | 64.6 |
| | 20 | 59.9 66.8 | 68.8 74.5 | 53.7 64.0 | 68.3 73.8 | 67.3 72.8 | 65.8 70.6 | 64.7 69.7 | 59.6 66.9 | 56.6 65.2 | 54.3 64.3 | 54.0 64.2 | 53.8 64.1 | 59.9 66.8 | 5.0 | 64.9 71.8 |
| Night | 22 | 62.8 | 71.1 | 61.2 | 70.7 | 69.9 | 68.4 | 67.0 | 63.3 | 62.3 | 61.5 | 61.4 | 61.2 | 62.8 | 10.0 | 72.8 |
| Timoframo | 23 | 55.5 | 66.8 | 49.3 | 66.2 | 65.0 | 60.5 | 58.2 | 54.6 | 52.2 | 50.0 | 49.6 | 49.4 | 55.5 | 10.0 | 65.5 |
| ninejrume | Min | 57.6 | 66.2 | 53.1 | 65.4 | 64.6 | 62.5 | 61.2 | 57.6 | 55.4 | 53.9 | 53.7 | 53.3 | 24-Hour | Daytime | Nighttime |
| Day | Max | 66.8 | 76.0 | 64.0 | 75.1 | 73.7 | 70.6 | 69.7 | 67.8 | 66.3 | 64.3 | 64.2 | 64.1 | (CNEL) | (7am-10pm) | (10pm-7am) |
| Energy | Average | 63.0 50.9 | Ave | rage: | 70.7 | 69.7 | 67.5 | 66.3 | 63.3 52.1 | 61.0 | 58.8 | 58.5 | 58.2 | 66 7 | 62 0 | 58 9 |
| Night | Max | 62.8 | 73.1 | 61.2 | 72.3 | 71.2 | 68.8 | 67.6 | 63.6 | 62.3 | 61.5 | 61.4 | 61.2 | 00.7 | 03.0 | 20.0 |
| Energy | Average | 58.8 | Ave | rage: | 66.4 | 65.4 | 62.7 | 61.1 | 57.6 | 55.3 | 53.0 | 52.8 | 52.5 | | | |



| | | | | | | 24-Ho | ur Noise Le | evel Measu | urement S | Summary | | | | | | |
|------------------------------|-------------|-----------------|-------|------------------|-----------|---------------------------------------|--------------------------|---------------------------|--------------|--------------|--------------|--------------|------------------|------------------|-----------------------|----------------------|
| Date: | Wednesday | 7, July 21, 202 | 21 | | Location: | L2 - Located | east of the P | roject site ne | ear Val Verd | le Regional | Meter: | Piccolo II | | | JN: | 13998 |
| Project: | Ramona Ex | pressway | | | Source: | Learning Cer | nter at 3710 V | Webster Ave | nue. | | | | | | Analyst: | A. Khan |
| | | | | | | | Hourly L _{eq} (| dBA Readings | (unadjusted) |) | | | | | | |
| 85. | 0 | | | | | | | | | | | | | | | |
| a 80. a 75. | | | | | | | | | | | | | | | | |
| b 70. | | | | | | | | | | | | | | | | |
| - 60. - 55. | | | | 54.0 | 64.6 | <mark>64.0</mark> 2.0 | 1.6 1.6 | | <u></u> | 64.8 64.4 | 64.6 | 3.1 | <mark>1.8</mark> | <mark>1:5</mark> | 1.5 1.5 | |
| 9 45. | 2 6. | 54.5 | 57. | | | • • • • • • • • • • • • • • • • • • • | | [•] [•] | | | | + + | 9 9 | | | <u> </u> |
| - 40. 35. | 0 | | | | | | | | | | | | | | | |
| | 0 | 1 2 | 3 | 4 5 | 6 | 7 8 | 9 1 | 0 11 | 12 2 | 13 14 | 15 10 | 5 17 | 18 19 | 20 | 21 22 | 23 |
| | | | | | | | | Hour Be | eginning | | | | | | | |
| Timeframe | Hour | L _{eq} | | L _{min} | L1% | L2% | L5% | L8% | L25% | L50% | L90% | L95% | L99% | | Adj. | Adj. L _{eq} |
| | | 56.6 | 67.5 | 49.1 | 67.2 | 64.7 | 64.3 62.2 | 59.2 | 53.3 | 49.8 | 49.9 | 49.6 | 49.2 | 56.6 | 10.0 | 64.5 |
| | 2 | 55.5 | 65.8 | 49.1 | 65.3 | 64.7 | 62.5 | 60.4 | 53.3 | 51.3 | 49.8 | 49.5 | 49.2 | 55.5 | 10.0 | 65.5 |
| Night | 3 | 57.7 | 68.0 | 49.8 | 67.6 | 67.2 | 65.3 | 63.0 | 55.4 | 52.2 | 50.4 | 50.2 | 49.9 | 57.7 | 10.0 | 67.7 |
| | 4 | 64.0 | 73.6 | 52.5 | 73.3 | 72.8 | 70.9 | 69.3 | 65.2 | 59.9 | 53.7 | 53.0 | 52.6 | 64.0 63.7 | 10.0 | 74.0 |
| | 6 | 64.6 | 75.9 | 56.0 | 75.6 | 75.0 | 72.8 | 71.0 | 65.1 | 60.2 | 56.7 | 56.4 | 56.1 | 64.6 | 10.0 | 74.6 |
| | 7 | 64.0 | 75.2 | 50.8 | 74.8 | 74.2 | 71.6 | 69.7 | 64.1 | 57.8 | 51.8 | 51.3 | 50.9 | 64.0 | 0.0 | 64.0 |
| | 8 | 62.0 | 75.5 | 47.9 | 74.5 | 73.4 | 70.4 | 68.4 | 61.4 | 54.0 | 48.8 | 48.4 | 48.0 | 62.0 | 0.0 | 62.0 |
| | 9 10 | 62.9 | 72.4 | 44.4 52.6 | 72.1 | 72.7 | 70.3 | 68.4 | 62.2 | 57.5 | 45.5 53.7 | 53.2 | 44.5 52.7 | 62.9 | 0.0 | 62.9 |
| | 11 | 61.0 | 71.4 | 49.1 | 71.1 | 70.4 | 68.3 | 66.5 | 60.1 | 54.2 | 50.3 | 49.8 | 49.2 | 61.0 | 0.0 | 61.0 |
| | 12 | 63.0 | 73.6 | 56.1 | 73.2 | 72.6 | 70.1 | 68.0 | 62.5 | 58.5 | 56.5 | 56.3 | 56.1 | 63.0 | 0.0 | 63.0 |
| Davi | 13 | 64.8 | 74.2 | 53.2 | 73.8 | 73.2 | 71.2 | 69.5 | 65.3 | 60.7 | 54.4 | 53.8 | 53.3 | 64.8 | 0.0 | 64.8 |
| Day | 14 | 64.6 | 73.9 | 54.2 54.4 | 73.5 | 72.9 | 70.9 | 09.0 73.1 | 65.4 66.0 | 60.6 | 55.1 | 54.7 54.9 | 54.3 54.5 | 64.4 64.6 | 0.0 | 64.4 64.6 |
| | 16 | 64.2 | 74.2 | 55.5 | 73.8 | 73.3 | 71.3 | 69.7 | 64.6 | 60.0 | 56.2 | 55.8 | 55.6 | 64.2 | 0.0 | 64.2 |
| | 17 | 63.1 | 72.5 | 55.1 | 72.1 | 71.7 | 69.8 | 68.4 | 63.0 | 57.9 | 55.7 | 55.4 | 55.2 | 63.1 | 0.0 | 63.1 |
| | 18 | 62.0 | 71.9 | 54.2 | 71.6 | 71.1 | 69.1 | 67.2 | 60.8 | 56.7 | 54.9 | 54.7 | 54.4 | 62.0 | 0.0 | 62.0 |
| | 19 | 61.8 | 71.3 | 54.2 | 70.9 | 70.4 | 68.3 | 66.8 | 61.5 | 57.1 | 54.9 | 54.6 | 54.4 | 61.8 | 5.0 | 66.8 |
| | 20 | 61.5 | 72.1 | 53.5 | 71.7 | 71.1 | 68.8 | 66.7 | 61.0 | 56.4 | 54.1 | 53.9 | 53.6 | 61.5 | 5.0 | 66.5 |
| | 21 | 61.0 | 71.2 | 53.4 | 70.9 | 70.4 | 68.2 | 67.0 | 62.3 | 57.1 | 54.1 | 53.8 | 53.5 | 61.0 | 5.0 | 71.5 |
| Night | 22 | 61.0 | 70.3 | 49.8 | 69.9 | 69.3 | 67.6 | 66.3 | 61.2 | 56.4 | 50.7 | 50.3 | 49.9 | 61.0 | 10.0 | 71.0 |
| Timeframe | Hour | L _{eq} | L max | L min | L1% | L2% | L5% | L8% | L25% | L50% | L90% | L95% | L99% | | L _{eq} (dBA) | |
| Day | Min | 61.0 | 71.2 | 44.4 | 70.9 | 70.4 | 68.2 | 66.3 | 60.1 | 51.8 | 45.3 | 44.8 | 44.5 | 24-Hour | Daytime | Nighttime |
| Energy | Max | 64.8 | 78.1 | 56.1 | 77.5 | 76.5 | 74.9 | 73.1 | 66.0 | 60.7 | 56.5 | 56.3 | 56.1 | (CNEL) | (7am-10pm) | (10pm-7am) |
| chergy | Min | 54.5 | 65.7 | 47.5 | 65.3 | 64.7 | 62.2 | 59.2 | 51.0 | 49.8 | 48.3 | 48.0 | 47.6 | 68 2 | 63.0 | 61 २ |
| Night | Max | 64.6 | 75.9 | 56.0 | 75.6 | 75.0 | 72.8 | 71.0 | 65.2 | 60.2 | 56.7 | 56.4 | 56.1 | | 03.0 | 01.3 |
| Energy | Average | 61.3 | Ave | rage: | 69.7 | 69.2 | 67.1 | 65.2 | 58.9 | 55.3 | 52.2 | 51.8 | 51.5 | | | |



| | | | | | | 24-Ho | our Noise Le | evel Measu | urement S | ummary | | | | | | |
|-------------------------------|------------------------|-----------------------------|------------------|--------------------------|----------------------|------------------------------|------------------------------|----------------------|---------------|-------------------|----------------------|---------------------|---------------------|-------------------|----------------------------------|----------------------|
| Date: Project: | Wednesday Ramona Ex | y, July 21, 202 pressway | 21 | | Location: Source: | L3 - Located School at 97 | south of the 2 Morgan Str | Project site eet. | near Val Vero | de High | Meter: | Piccolo II | | | JN: Analyst: | 13998 A. Khan |
| | | | | | | | Hourly L _{eq} o | dBA Readings | (unadjusted) | | | | | | | |
| 85. | 0 | | | | | | | | | | | | | | | |
| 6 80. 75. | 0 | | | | | | | | | | | | | | | |
| و 70. | 0 | | | | | | | | | | | | | | | |
| ں۔ 60. <u>ح</u> 55. | 0 | | | | - v | m N | | | | • • • • | - <mark>m - c</mark> | | <mark></mark> | | <u></u> | |
| n 50. of 45. | 55.4 | i3.4 | 55.2 | 57. | | 57. | 22.7 | 26.0 | 20.4 | <mark>-21.</mark> | 28 <mark>8</mark> 8 | 2 | 28 - 28 - | 2 <mark>2.</mark> | 282 | 26.2 |
| - 40. 35. | 0 | | | | + | | | | | | | | | | | |
| | 0 | 1 2 | 3 | 4 5 | 6 | 7 8 | 9 1 | 0 11 | 12 1 | 3 14 | 15 1 | 6 17 | 18 19 | 20 | 21 22 | 23 |
| | | | | | | | | Hour Be | eginning | | | | | | | |
| Timeframe | Hour | | L _{max} | L _{min} | 62 F | L2% | L5% | L8% | L25% | L50% | L90% | L95% | L99% | | Adj. | Adj. L _{eq} |
| | 1 | 53.4 | 60.3 | 47.8 | 60.0 | 59.4 | 58.1 | 57.0 | 54.4 | 52.0 | 49.5 | 46.7 | 47.9 | 53.4 | 10.0 | 63.4 |
| | 2 | 53.7 | 60.6 | 47.2 | 60.2 | 59.8 | 58.1 | 57.3 | 54.4 | 52.4 | 48.8 | 47.9 | 47.4 | 53.7 | 10.0 | 63.7 |
| Night | 3 | 55.2 | 60.7 | 50.1 | 60.4 | 59.9 | 58.7 | 58.0 | 56.1 | 54.3 | 51.6 | 51.0 | 50.3 | 55.2 | 10.0 | 65.2 |
| | 5 | 60.3 | 66.9 | 56.5 | 66.4 | 65.8 | 64.6 | 63.5 | 60.6 | 59.0 | 54.4 | 55.8 | 56.6 | 60.3 | 10.0 | 70.3 |
| | 6 | 59.5 | 64.4 | 56.4 | 64.0 | 63.4 | 62.2 | 61.5 | 60.0 | 58.9 | 57.3 | 56.9 | 56.5 | 59.5 | 10.0 | 69.5 |
| | 7 | 58.3 | 64.4 | 54.9 | 64.0 | 63.3 | 62.0 | 61.1 | 58.7 | 57.4 | 55.7 | 55.4 | 55.0 | 58.3 | 0.0 | 58.3 |
| | 9 | 57.2 | 61.7 | 55.5 | 61.1 | 60.5 | 59.2 | 58.2 | 56.2 | 55.0 | 54.4 | 54.0 | 55.0 | 57.2 | 0.0 | 57.2 |
| | 10 | 56.5 | 63.7 | 52.1 | 62.9 | 62.1 | 60.6 | 59.2 | 56.9 | 55.3 | 53.1 | 52.7 | 52.2 | 56.5 | 0.0 | 56.5 |
| | 11 | 56.6 | 62.3 | 53.3 | 61.9 | 61.3 | 60.0 | 59.2 | 57.1 | 55.7 | 54.1 | 53.7 | 53.4 | 56.6 | 0.0 | 56.6 |
| | 12 | 56.4 | 62.0 | 52.8 | 61.6 | 61.1 | 60.0 60.2 | 59.0 59.4 | 56.8 | 55.6 56.1 | 53.7 | 53.3 | 52.9 | 56.4 56.8 | 0.0 | 56.4 56.8 |
| Day | 14 | 57.6 | 63.2 | 53.6 | 62.8 | 62.4 | 61.5 | 60.9 | 57.9 | 56.6 | 54.6 | 54.1 | 53.7 | 57.6 | 0.0 | 57.6 |
| | 15 | 58.3 | 65.0 | 53.7 | 64.7 | 64.2 | 62.6 | 61.7 | 58.6 | 56.8 | 54.8 | 54.3 | 53.9 | 58.3 | 0.0 | 58.3 |
| | 16 | 58.2 | 64.0 63.1 | 54.5 54.5 | 62.7 | 62.4 | 61.8 | 60.8 | 58.7 | 57.5 | 55.4 55.6 | 55.0 55.2 | 54.6 54.7 | 58.2 58.2 | 0.0 | 58.2 |
| | 18 | 58.1 | 62.8 | 54.5 | 62.5 | 62.1 | 61.1 | 60.4 | 58.8 | 57.5 | 55.6 | 55.1 | 54.6 | 58.1 | 0.0 | 58.1 |
| | 19 | 58.6 | 63.5 | 54.5 | 63.3 | 62.9 | 61.9 | 61.2 | 59.2 | 58.0 | 55.7 | 55.2 | 54.7 | 58.6 | 5.0 | 63.6 |
| | 20 | 57.4 59.1 | 62.2 64.6 | 53.9 54.8 | 61.9 64.3 | 61.5 63.9 | 60.4 62.7 | 59.7 61.8 | 57.9 59.7 | 56.7 58.2 | 55.0 56.0 | 54.6 55.5 | 54.1 55.0 | 57.4 59.1 | 5.0 | 62.4 64.1 |
| Night | 22 | 58.5 | 64.0 | 54.1 | 63.7 | 63.2 | 62.2 | 61.5 | 59.2 | 57.7 | 55.3 | 54.7 | 54.2 | 58.5 | 10.0 | 68.5 |
| | 23 | 56.2 | 62.7 | 50.7 | 62.3 | 61.9 | 60.7 | 59.6 | 56.7 | 54.9 | 51.9 | 51.3 | 50.8 | 56.2 | 10.0 | 66.2 |
| Timejrame | Min | 55.7 | 61.7 | L _{min} 51.7 | 61.1 | 60.5 | 15% 59.2 | 58.2 | 56.2 | 55.0 | 190% 52.8 | 195% 52.3 | 199% 51.8 | 24-Hour | с _{eq} (авА) Davtime | Niahttime |
| Day | Max | 59.1 | 65.0 | 54.9 | 64.7 | 64.2 | 62.7 | 61.8 | 59.7 | 58.2 | 56.0 | 55.5 | 55.0 | (CNEL) | (7am-10pm) | (10pm-7am) |
| Energy | Average | 57.6 | Ave | rage: | 62.8 | 62.3 | 61.1 | 60.2 | 58.0 | 56.7 | 54.7 | 54.3 | 53.8 | 64.0 | E7 C | F7 2 |
| Night | Min Max | 53.4 60.3 | 60.3 66.9 | 46.1 56.5 | 60.0 66.4 | 59.4 65.8 | 58.1 64.6 | 63.5 | 54.4 60.6 | 52.0 | 47.6 | 46.7 | 46.2 | 04.0 | 57.0 | 57.2 |
| Energy | Average | 57.2 | Ave | rage: | 62.5 | 62.0 | 60.7 | 59.8 | 57.1 | 55.4 | 52.6 | 52.0 | 51.5 | | | |



| | | | | | | 24-Ho | our Noise Le | evel Measu | urement Si | ummary | | | | | | |
|-------------------|-----------------------|----------------------------|--------------|--------------------------|---------------------|----------------------------------|----------------------------|------------------------------|---------------|---|--------------------|--------------------|----------------|-------------------|-----------------------|----------------------|
| Date: Project: | Wednesda Ramona Ex | y, July 21, 20 pressway | 21 | | Location: Source | : L4 - Located : residence at | southwest o 19543 Patte | f the Project rson Avenue | site near sin | gle-family | Meter: | Piccolo II | | | JN: Analyst: | 13998 A. Khan |
| | | | | | | | Hourly L _{eq} o | dBA Readings | (unadjusted) | | | | | | | |
| 85. | 0 | | | | | | | | | | | | | | | |
| ₹ ^{80.} | 0 | | | | | | | | | | | | | | | |
| B 70. | 0 | | | | | | | | | | | | | | | |
| | 0 | | | | | | | | | | | | | | | |
| - 50. | | 9 0 | 9 | -2: O | - o - | <u> </u> | - <mark>2</mark> | 0.000 0.000 | - <u>-</u> • | <u>, </u> | | 0 | <mark>۷</mark> | 9 | <mark>∞ 0</mark> | o |
| ¥ 45. 40. | 45. | 48. | 49. | 53 | 23 | 52. 54 | 23 | 2 <mark>.5.</mark> | 24 | | 2 <mark>- 2</mark> | <mark>. 51.</mark> | 50. 49. | <mark>- 48</mark> | 51. | 47. |
| | 0 | 1 2 | 3 | 4 5 | 6 | 7 8 | 9 1 | 0 11 | 12 1 | 3 14 | 15 1 | 6 17 | 18 19 | 20 | 21 22 | 23 |
| | | | | | | | | Hour Be | eginning | | | | | | | |
| Timeframe | Hour | L _{eq} | L max | L _{min} | L1% | L2% | L5% | L8% | L25% | L50% | L90% | L95% | L99% | L _{eq} | Adj. | Adj. L _{eq} |
| | 0 | 45.4 | 53.9 | 38.8 | 53.6 | 53.1 | 51.6 | 49.9 | 45.6 | 42.2 | 39.6 | 39.3 | 38.9 | 45.4 | 10.0 | 55.4 |
| | 2 | 48.6 | 59.5 | 38.4 | 59.2 | 58.8 | 55.5 | 52.3 | 46.1 | 42.3 | 39.5 | 39.0 | 38.0 | 48.6 | 10.0 | 58.0 |
| Night | 3 | 49.6 | 56.6 | 45.0 | 56.3 | 56.0 | 54.8 | 53.4 | 49.6 | 47.8 | 45.8 | 45.5 | 45.2 | 49.6 | 10.0 | 59.6 |
| | 4 | 53.5 | 68.6 | 42.9 | 68.1 | 67.7 | 65.5 | 62.8 | 54.4 | 48.8 | 44.1 | 43.6 | 43.1 | 53.5 | 10.0 | 63.5 |
| | 5 | 52.0 | 62.0 | 46.0 | 61.7 | 61.1 | 58.7 | 56.5 | 50.5 | 48.5 | 46.8 | 46.5 | 46.1 | 52.0 | 10.0 | 62.0 |
| | 6 | 53.0 | 63.2 | 49.0 | 62.7 | 62.0 | 59.8 | 57.5 | 52.6 | 51.1 | 49.7 | 49.4 | 49.1 | 53.0 | 10.0 | 63.0 52.7 |
| | 8 | 54.1 | 70.3 | 46.3 | 69.1 | 66.6 | 62.3 | 59.7 | 53.3 | 49.4 | 47.2 | 46.8 | 46.5 | 54.1 | 0.0 | 54.1 |
| | 9 | 53.2 | 63.7 | 45.1 | 63.2 | 62.4 | 59.7 | 57.8 | 51.9 | 48.9 | 46.0 | 45.6 | 45.3 | 53.2 | 0.0 | 53.2 |
| | 10 | 55.5 | 65.8 | 45.5 | 65.4 | 64.8 | 62.4 | 60.1 | 54.6 | 51.0 | 47.1 | 46.5 | 45.7 | 55.5 | 0.0 | 55.5 |
| | 11 | 52.3 | 69.2 | 43.6 | 68.8 | 68.0 | 65.2 | 62.0 | 52.2 | 47.6 | 44.6 | 44.2 | 43.7 | 52.3 | 0.0 | 52.3 |
| | 12 | 53.3 | 65.8 | 45.8 | 65.3 | 64.6 | 62.0 | 60.1 | 54.1 | 49.9 51.1 | 40.8 | 46.9 | 46.4 | 53.3 | 0.0 | 53.3 |
| Day | 14 | 55.1 | 68.4 | 45.9 | 67.9 | 66.9 | 63.0 | 60.0 | 52.9 | 49.8 | 47.1 | 46.6 | 46.1 | 55.1 | 0.0 | 55.1 |
| | 15 | 53.1 | 65.6 | 45.0 | 65.2 | 64.4 | 61.3 | 58.5 | 51.7 | 49.0 | 46.1 | 45.6 | 45.1 | 53.1 | 0.0 | 53.1 |
| | 16 | 51.8 | 62.2 | 44.7 | 61.7 | 61.0 | 58.4 | 56.5 | 50.2 | 47.9 | 45.7 | 45.3 | 44.8 | 51.8 | 0.0 | 51.8 |
| | 1/ | 51.7 | 62.5 59.8 | 45.4 | 62.1 59.2 | 61.4 58.6 | 59.0 56.7 | 56.8 54.6 | 51.9 | 48.8 | 46.4 | 45.9 | 45.5 | 51.7 | 0.0 | 51.7 50.7 |
| | 19 | 49.9 | 62.3 | 44.3 | 61.9 | 61.4 | 59.5 | 56.9 | 53.4 | 49.9 | 45.4 | 44.9 | 44.5 | 49.9 | 5.0 | 54.9 |
| | 20 | 48.6 | 56.6 | 43.3 | 56.2 | 55.6 | 53.7 | 52.3 | 48.9 | 46.6 | 44.1 | 43.8 | 43.5 | 48.6 | 5.0 | 53.6 |
| | 21 | 51.8 | 59.9 | 44.2 | 59.6 | 59.1 | 57.5 | 56.1 | 52.4 | 49.4 | 45.5 | 44.9 | 44.4 | 51.8 | 5.0 | 56.8 |
| Night | 22 | 48.0 | 57.7 | 41.4 | 57.2 | 56.5 | 54.6 54.8 | 52.6 | 47.1 | 44.6 | 42.1 | 41.8 | 41.5 | 48.0 | 10.0 | 58.0 |
| Timeframe | Hour | 47.5 L _{ea} | L max | 41.0 L _{min} | L1% | L2% | L5% | L8% | 40.1 L25% | 43.7 L50% | L90% | L95% | L99% | 47.5 | L _{eq} (dBA) | 57.5 |
| Dav | Min | 48.6 | 56.6 | 43.3 | 56.2 | 55.6 | 53.7 | 52.3 | 48.9 | 46.6 | 44.1 | 43.8 | 43.5 | 24-Hour | Daytime | Nighttime |
| Duy | Max | 55.5 | 70.3 | 47.6 | 69.1 | 68.0 | 65.2 | 62.0 | 54.6 | 51.1 | 48.4 | 48.1 | 47.7 | (CNEL) | (7am-10pm) | (10pm-7am) |
| Energy | Average | 52.9 | 53 Q | erage: | <u>63.5</u> | <u>62.6</u> | <u>60.1</u> | 57.9 | 52.3 | 49.2 | 46.2 | 45.8 | 45.3 | 57/ | 52 0 | 50 2 |
| Night | Max | 53.5 | 68.6 | 49.0 | 68.1 | 67.7 | 65.5 | 62.8 | 54.4 | 51.1 | 49.7 | 49.4 | 49.1 | 57.4 | 52.5 | 50.5 |
| Energy | Average | 50.3 | Ave | erage: | 59.5 | 59.0 | 56.9 | 54.6 | 48.5 | 45.7 | 43.2 | 42.9 | 42.6 | | | |

APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS



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| | FHWA-RI | D-77-108 HIGH | WAY NO | ISE F | PREDIC | TION M | ODEL | (9/12/2 | :021) | | |
|----------------------------------|--|-----------------|------------|-------|----------|------------------|-----------------|---------------|-------------|----------|-----------|
| Scenar Road Nam Road Segme | io: E ne: Nevada Rd nt: n/o Morgan | l. I St. | | | | Project Job N | Name: umber: | Ramo 13998 | na Gatewa | y Comr | ne |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | MOD | EL INPUT | S | |
| Highway Data | | | | Si | ite Cond | ditions | (Hard = | = 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 6,797 vehicl | es | | | | | Autos | : 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Med | dium Tru | ucks (2 | Axles) | : 15 | | |
| Peak H | lour Volume: | 479 vehicle | s | | Hea | avy Truc | cks (3+ | Axles) | : 15 | | |
| Ve | hicle Speed: | 45 mph | | V | ohiclo N | liv | | | | | |
| Near/Far La | ne Distance: | 34 feet | | - | Vehic | cleTvpe | | Dav | Evenina | Niaht | Dailv |
| Site Data | | | | | | | Autos: | 71.99 | 6 12.2% | 15.9 | % 90.47% |
| Ba | rrier Height: | 0.0 feet | | | Me | dium Ti | rucks: | 75.39 | 6 7.0% | 17.79 | % 5.56% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | Н | leavy Tr | rucks: | 60.49 | 6 12.0% | 27.69 | % 3.97% |
| Centerline Di | st. to Barrier: | 33.0 feet | | N | oise So | urce El | evatior | ns (in f | eet) | | |
| Centerline Dist. | to Observer: | 33.0 feet | | | | Autos | s: 0 | .000 | | | - |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediun | n Truck | s: 2 | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | v Trucks | s: 8 | .004 | Grade Ad | ljustmei | nt: 0.0 |
| P | ad Elevation: | 0.0 feet | | | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | La | ane Equ | ivalent | Distar | ice (in | feet) | | |
| | Road Grade: | 0.0% | | | | Autos | s: 28 | .723 | | | |
| | Left View: | -90.0 degre | es | | Mediun | n Trucks | s: 28 | .413 | | | |
| | Right View: | 90.0 degre | es | | Heavy | y Trucks | s: 28 | .443 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distand | ce | Finite I | Road | Fres | nel | Barrier Att | en Be | erm Atten |
| Autos: | 68.46 | -5.47 | | 3.51 | | -1.20 | | -4.52 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -17.59 | | 3.58 | | -1.20 | | -4.86 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -19.05 | | 3.57 | | -1.20 | | -5.69 | 0.0 | 000 | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo and | barrier at | tenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | / Le | q Eve | ening | Leq | Night | | Ldn | (| CNEL |
| Autos: | 65 | 5.3 | 64.6 | | 62.9 | | 59. | 3 | 66.9 | 9 | 67.3 |
| Medium Trucks: | 64 | 1.2 | 63.7 | | 59.4 | | 58. | 7 | 66. | 1 | 66.3 |
| Heavy Trucks: | 67 | ′.6 | 66.1 | | 65.1 | | 64. | .0 | 70. | 7 | 71.0 |
| Vehicle Noise: | 70 |).7 | 69.7 | | 67.8 | | 66. | .1 | 73. | 2 | 73.5 |
| Centerline Distant | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | BA | 65 (| dBA | | 60 dBA | 5 | 5 dBA |
| | | | Ldn: | | 54 | | 110 | 6 | 249 |) | 537 |
| | | C | NEL: | | 56 | | 12 | 2 | 262 | 2 | 565 |

| | FHWA-KL | -77-108 HIGH | IVVAT | NOISE | PREDIC | | NODEL (| 9/12/2 | 021) | | |
|--------------------|----------------|----------------|-------|-----------|-----------|---------|------------|----------|-------------|-----------|---------|
| Scenari | o: E+P | | | | | Projec | t Name: I | Ramo | na Gatewa | y Comme | • |
| Road Nam | e: Nevada Rd | | | | | Job I | Number: | 13998 | | | |
| Road Segmer | nt: n/o Morgan | St. | | | | | | | | | |
| SITE S | SPECIFIC IN | PUT DATA | | | | | NOISE | NODE | L INPUT | S | |
| Highway Data | | | | 5 | Site Con | ditions | (Hard = | 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 8,057 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium T | rucks (2 A | Axles): | 15 | | |
| Peak H | our Volume: | 568 vehicle | s | | He | avy Tr. | icks (3+ A | Axles): | 15 | | |
| Vel | hicle Speed: | 45 mph | | ۱ | Vehicle I | Nix | | | | | |
| Near/Far Lar | ne Distance: | 34 feet | | | Veh | icleTyp | e | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 12.2% | 15.9% | 87.27% |
| Bar | rier Heiaht: | 0.0 feet | | | M | edium 1 | Trucks: | 75.3% | 7.0% | 17.7% | 4.84% |
| Barrier Type (0-W | all, 1-Berm): | 0.0 | | | I | leavy 1 | rucks: | 60.4% | 12.0% | 27.6% | 7.89% |
| Centerline Dis | t. to Barrier: | 33.0 feet | | | Voise Sr | urco F | lovation | e (in fi | aat) | | |
| Centerline Dist. | to Observer: | 33.0 feet | | ÷ | 10.00 00 | Auto | ns' 01 | 000 | , | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Truci | (s: 2) | 297 | | | |
| Observer Height (J | Above Pad): | 5.0 feet | | | Heav | v Truci | (S: 8.) | 004 | Grade Ad | iustment. | 0.0 |
| Pa | d Elevation: | 0.0 feet | | _ | | , | | | | | |
| Roa | d Elevation: | 0.0 feet | | 1 | Lane Eq | uivalen | t Distand | ce (in | feet) | | |
| F | Road Grade: | 0.0% | | | | Auto | os: 28. | 723 | | | |
| | Left View: | -90.0 degre | es | | Mediu | m Truci | (s: 28. | 413 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Truci | (S. 28. | 443 | | | |
| FHWA Noise Mode | Calculation: | 5 | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Di | stance | Finite | Road | Fresn | el | Barrier Att | en Ber | m Atten |
| Autos: | 68.46 | -4.89 | | 3.5 | 1 | -1.20 | | -4.52 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -17.45 | | 3.5 | 8 | -1.20 | | -4.86 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 84.25 | -15.32 | | 3.5 | 7 | -1.20 | | -5.69 | 0.0 | 000 | 0.00 |
| Unmitigated Noise | Levels (with | out Topo and | barri | ier atten | uation) | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | / | Leg Ev | vening | Leg | Night | | Ldn | CI | VEL |
| Autos: | 65 | .9 | 65.2 | | 63.5 | | 59.9 |) | 67.5 | 5 | 67.9 |
| Medium Trucks: | 64 | .4 | 63.9 | | 59.6 | | 58.8 | 3 | 66.2 | 2 | 66. |
| Heavy Trucks: | 71 | .3 | 69.8 | | 68.8 | | 67.7 | r | 74.4 | 1 | 74.8 |
| Vehicle Noise: | 73 | .0 | /1.9 | | 70.3 | | 68.8 | 5 | 75.1 | (| 76. |
| Centerline Distanc | e to Noise Co | ntour (in feet |) | | | | | | | | |
| | | | L | 70 c | IBA | 65 | dBA | | 50 dBA | 55 | dBA |
| | | ~ | Ldn: | | 80 | | 172 | | 370 | | 798 |
| | | C | VEL: | | 84 | | 181 | | 389 | | 838 |

Monday, February 28, 2022

| | | | | | | | _ | | | |
|--------------------|-----------------|-----------------|------------|---------|-------------|------------|-----------|-------------|--------|----------|
| | FHWA-RD | -77-108 HIGHW | AY NO | SE PRE | DICTION | NODEL (| 9/12/20 | 021) | | |
| Scenar | io: EAC 2024 | | | | Projec | t Name: | Ramor | na Gatewa | y Comm | e |
| Road Segme | nt: n/o Morgan | St. | | | JUD 1 | vumber. | 13990 | | | |
| SITE | SPECIFIC IN | PUT DATA | | | I | NOISE | MODE | L INPUT | s | |
| Highway Data | | | | Site | Conditions | (Hard = | 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 7,211 vehicles | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Medium T | rucks (2) | Axles): | 15 | | |
| Peak H | lour Volume: | 508 vehicles | | | Heavy Tru | icks (3+ , | Axles): | 15 | | |
| Ve | hicle Speed: | 45 mph | | Vehi | le Mix | | | | | - |
| Near/Far La | ne Distance: | 34 feet | | | VehicleTyp | e | Day | Evening | Night | Daily |
| Site Data | | | | | | Autos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Height | 0.0 feet | | | Medium 1 | Frucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-W | all, 1-Berm): | 0.0 | | | Heavy 1 | rucks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline Di | st. to Barrier: | 33.0 feet | | Nois | e Source E | levation | s (in fe | et) | | |
| Centerline Dist. | to Observer: | 33.0 feet | | | Auto | os: 0 | 000 | , | | - |
| Barrier Distance | to Observer: | 0.0 feet | | M | dium Truci | ks 2 | 297 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | - F | leavy Truck | Grade Ad | liustment | t: 0.0 | | |
| Pa | ad Elevation: | 0.0 feet | | | ioury muo | | | | | |
| Roa | ad Elevation: | 0.0 feet | | Lane | Equivalen | t Distan | ce (in f | feet) | | |
| 1 | Road Grade: | 0.0% | | | Auto | os: 28 | .723 | | | |
| | Left View: | -90.0 degrees | | Me | edium Truci | ks: 28. | .413 | | | |
| | Right View: | 90.0 degrees | | | leavy Truck | (s: 28 | .443 | | | |
| FHWA Noise Mode | el Calculations | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distanc | e Fi | nite Road | Fresi | nel | Barrier Att | en Bei | rm Atten |
| Autos: | 68.46 | -5.21 | : | 3.51 | -1.20 | | -4.52 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -17.33 | 1 | 3.58 | -1.20 | | -4.86 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -18.79 | 1 | 3.57 | -1.20 | | -5.69 | 0.0 | 000 | 0.000 |
| Unmitigated Noise | e Levels (witho | ut Topo and ba | arrier att | enuatio | on) | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | Leq | Evenir | g Leq | Night | | Ldn | C | NEL |
| Autos: | 65. | 6 64 | 1.9 | 6 | 33.2 | 59. | 5 | 67. | 1 | 67.6 |
| Medium Trucks: | 64. | 5 64 | 4.0 | ę | 59.7 | 58. | 9 | 66.3 | 3 | 66.6 |
| Heavy Trucks: | 67. | 8 66 | 5.4 | 6 | 65.4 | 64.: | 2 | 71.0 | 0 | 71.3 |
| Vehicle Noise: | 71. | 0 70 | 0.0 | 6 | 68.1 | 66.4 | 4 | 73.4 | 4 | 73.8 |
| Centerline Distant | e to Noise Co | ntour (in feet) | | | | | | | | |
| | | | 7 | '0 dBA | 65 | dBA | 6 | 0 dBA | 55 | dBA |
| | | Lo | dn: | | 56 | 120 |) | 259 |) | 558 |
| | | CNE | EL: | | 59 | 127 | | 273 | 3 | 587 |
| | | | | | | | | | | |

| | FHWA-R | D-77-108 HIGH | WAY N | OISE I | PREDIC | TION MO | DEL (9 | /12/2 | 021) | | |
|----------------------------------|---|------------------|---------|--------|----------|----------------------|--------------------|---------------|--------------|----------|---------|
| Scenai Road Nan Road Segme | io: EAPC 202 ne: Nevada Ro nt: n/o Morgar | 4 1. n St. | | | | Project N Job Nui | lame: R nber: 1 | tamoi 3998 | na Gateway | Comme | e |
| SITE | SPECIFIC II | NPUT DATA | | | | NC | ISE M | ODE | L INPUTS | ; | |
| Highway Data | | | | S | ite Con | ditions (H | lard = 1 | 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 8,471 vehicl | es | | | | A | lutos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Truc | ks (2 A | xles): | 15 | | |
| Peak H | lour Volume: | 597 vehicle | s | | He | avy Truck | s (3+ A | xles): | 15 | | |
| Ve | hicle Speed: | 45 mph | | v | ehicle l | Nix | | | | | |
| Near/Far La | ne Distance: | 34 feet | | - | Veh | icleType | L | Day | Evening | Night | Daily |
| Site Data | | | | | | Au | tos: 7 | 71.9% | 12.2% | 15.9% | 87.43% |
| Ba | rrier Height: | 0.0 feet | | | M | edium Tru | cks: 7 | 75.3% | 7.0% | 17.7% | 4.87% |
| Barrier Type (0-W | Vall, 1-Berm): | 0.0 | | | F | leavy Tru | cks: 6 | 50.4% | 12.0% | 27.6% | 7.70% |
| Centerline Di | ist. to Barrier: | 33.0 feet | | N | oise Sc | ource Elev | ations | (in fe | et) | | |
| Centerline Dist. | to Observer: | 33.0 feet | | | | Autos: | 0.0 | 00 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Trucks | 2.2 | 97 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | v Trucks: | 8.0 | 04 | Grade Adju | ustment. | : 0.0 |
| P | ad Elevation: | 0.0 feet | | - | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | L | ane Eq | uivalent L | Distanc | e (in i | feet) | | |
| | Road Grade: | 0.0% | | | | Autos: | 28.7 | 23 | | | |
| | Left View: | -90.0 degre | es | | Mediui | m Trucks: | 28.4 | 13 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks: | 28.4 | 43 | | | |
| FHWA Noise Mod | el Calculation | S | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | nce | Finite | Road | Fresne | e/ | Barrier Atte | n Ber | m Atten |
| Autos: | 68.46 | -4.66 | | 3.51 | | -1.20 | - | 4.52 | 0.0 | 00 | 0.000 |
| Medium Trucks: | 79.45 | -17.20 | | 3.58 | | -1.20 | - | 4.86 | 0.0 | 00 | 0.000 |
| Heavy Trucks: | 84.25 | -15.21 | | 3.57 | | -1.20 | - | 5.69 | 0.0 | 00 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier | attenu | ation) | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Day | / L | .eq Ev | ening | Leq N | ight | | Ldn | CI | NEL |
| Autos: | 66 | 5.1 | 65.4 | | 63.7 | | 60.1 | | 67.7 | | 68.1 |
| Medium Trucks: | 64 | 4.6 | 64.1 | | 59.8 | | 59.1 | | 66.5 | | 66.7 |
| Heavy Trucks: | 7. | 1.4 | 69.9 | | 68.9 | | 67.8 | | 74.6 | | 74.9 |
| Vehicle Noise: | 73 | 3.2 | 72.0 | | 70.5 | | 69.0 | | 75.9 | | 76.2 |
| Centerline Distan | ce to Noise C | ontour (in feet |) | | | | | | | | |
| | | | | 70 d | BA | 65 dE | BA | 6 | 60 dBA | 55 | dBA |
| | | | Ldn: | | 82 | | 176 | | 378 | | 815 |
| | | С | NEL: | | 86 | | 185 | | 398 | | 857 |

| | FHWA-RI | D-77-108 HIGH | WAY NO | DISE | PREDIC | TION MC | DDEL (| 9/12/2 | 021) | | |
|----------------------------------|--|-----------------|-----------|--------|----------|---------------------|----------|----------------|-------------|----------|------------|
| Scenar Road Nan Road Segme | rio: HY 2045 ne: Nevada Ro ent: n/o Morgar | l. I St. | | | | Project I Job Nu | Vame: F | Ramor 13998 | na Gatewa | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | DISE N | IODE | L INPUT | S | |
| Highway Data | | | | S | ite Con | ditions (l | Hard = | 10, Sc | oft = 15) | | |
| Average Daily | Traffic (Adt): | 10,515 vehicl | es | | | | , | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium True | cks (2 A | (xles) | 15 | | |
| Peak H | Hour Volume: | 741 vehicle | s | | He | avy Truck | ks (3+ A | (xles) | 15 | | |
| Ve | ehicle Speed: | 45 mph | | V | ehicle I | Mix | | | | | |
| Near/Far La | ane Distance: | 34 feet | | - | Veh | icleTvpe | | Dav | Evenina | Night | Dailv |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Height: | 0.0 feet | | | Me | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | ŀ | leavy Tru | icks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 33.0 feet | | N | oise So | urce Ele | vations | s (in fe | eet) | | |
| Centerline Dist. | to Observer: | 33.0 feet | | | | Autos: | : 0.0 | 000 | , | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediui | n Trucks: | 2.2 | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | y Trucks: | 8.0 | 004 | Grade Ad | justment | : 0.0 |
| P | ad Elevation: | 0.0 feet | | | | | Di- 4 | | 64 | | |
| Ro | ad Elevation: | 0.0 feet | | L | ane Equ | livalent I | Distanc | ce (In 1 | reet) | | |
| | Road Grade: | 0.0% | | | A 4 | Autos. | 28. | 123 | | | |
| | Left View: | -90.0 degre | es | | Mediui | TI Trucks: | 28.4 | 413 | | | |
| | Right view. | 90.0 degre | 55 | | ricav | y mucks. | 20. | 440 | | | |
| FHWA Noise Mod | el Calculation | s | | | 1 | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | ice | Finite | Road | Fresn | el | Barrier Att | en Bei | rm Atten |
| Autos: | 68.46 | -3.57 | | 3.51 | | -1.20 | | -4.52 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -15.69 | | 3.58 | | -1.20 | | -4.86 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -17.15 | | 3.57 | | -1.20 | | -5.69 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | / Le | eq Eve | ening | Leq N | light | | Ldn | C | NEL |
| Autos: | 67 | ⁷ .2 | 66.5 | | 64.8 | | 61.2 | 2 | 68.8 | 8 | 69.2 |
| Medium Trucks: | 66 | 5.1 | 65.6 | | 61.3 | | 60.6 | 5 | 68.0 | 5 | 68.2 |
| Heavy Trucks: | 65 | 1.5 | 68.0 | | 67.0 | | 65.9 | , | 72.0 | o 4 | 72.9 |
| venicle Noise: | 12 | 2.6 | /1.6 | | 69.7 | | 68.0 |) | 75. | 1 | 75.4 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | 70 " | | 05.1 | 0.4 | | 0.404 | | -10.4 |
| | | | | 70 dl | BA TO | 65 d | BA | 6 | DU dBA | 55 | aBA 710 |
| | | 0 | Lan: | | 72 | | 155 | | 333 | | 718 |
| | | C. | VEL. | | 76 | | 163 | | 351 | | /55 |

| | | | | | | | | (| , | | |
|--------------------|-----------------|----------------|-------|-----------|-----------|---------|----------|----------|-------------|-----------|---------|
| Scenari | o: HYP 2045 | | | | | Projec | t Name: | Ramo | na Gatewa | y Comme | е |
| Road Nam | e: Nevada Rd. | | | | | Job I | lumber: | 13998 | | | |
| Road Segmer | nt: n/o Morgan | St. | | | | | | | | | |
| SITE | SPECIFIC IN | PUT DATA | | | | I | NOISE | MODE | EL INPUT | S | |
| Highway Data | | | | 3 | Site Con | ditions | (Hard = | = 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 11,774 vehicle | es | | | | | Autos. | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Ti | ucks (2 | Axles). | 15 | | |
| Peak H | our Volume: | 830 vehicle | s | | He | avy Tru | cks (3+ | Axles) | : 15 | | |
| Vei | hicle Speed: | 45 mph | | | Vehicle I | Nix | | | | | |
| Near/Far La | ne Distance: | 34 feet | | F | Veh | icleTyp | 9 | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 6 12.2% | 15.9% | 88.28% |
| Bai | rier Height: | 0.0 feet | | | Me | edium 1 | rucks: | 75.3% | 6 7.0% | 17.7% | 5.06% |
| Barrier Type (0-W | all, 1-Berm): | 0.0 | | | ŀ | leavy 1 | rucks: | 60.4% | 6 12.0% | 27.6% | 6.65% |
| Centerline Dis | st. to Barrier: | 33.0 feet | | t. | Noiso Sc | urco F | lovation | ne (in f | oof) | | |
| Centerline Dist. | to Observer: | 33.0 feet | | F | 10/30 00 | Auto | 1010101 | 000 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | n Truck | (s: 2 | 297 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | | Heav | v Truck | us: 8 | 004 | Grade Ad | liustment | : 0.0 |
| Pa | ad Elevation: | 0.0 feet | | - | | , | | | | | |
| Roa | ad Elevation: | 0.0 feet | | 4 | Lane Eq | uivalen | t Distar | ice (in | feet) | | |
| ŀ | Road Grade: | 0.0% | | | | Auto | os: 28 | .723 | | | |
| | Left View: | -90.0 degre | es | | Mediui | m Truck | (S: 28 | 1.413 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Truck | (S.' 28 | .443 | | | |
| FHWA Noise Mode | el Calculations | ; | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Di | stance | Finite | Road | Fres | nel | Barrier Att | ten Ber | m Atten |
| Autos: | 68.46 | -3.19 | | 3.5 | 1 | -1.20 | | -4.52 | 0. | 000 | 0.00 |
| Medium Trucks: | 79.45 | -15.60 | | 3.5 | 8 | -1.20 | | -4.86 | 0. | 000 | 0.00 |
| Heavy Trucks: | 84.25 | -14.42 | | 3.5 | 7 | -1.20 | | -5.69 | 0. | 000 | 0.00 |
| Unmitigated Noise | Levels (witho | out Topo and | barri | ier atten | uation) | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | 1 | Leq E | vening | Leq | Night | | Ldn | C | NEL |
| Autos: | 67. | .6 | 66.9 | | 65.2 | | 61 | .6 | 69. | 2 | 69. |
| Medium Trucks: | 66. | .2 | 65.7 | | 61.4 | | 60 | .7 | 68. | 1 | 68. |
| Heavy Trucks: | 72. | .2 | 70.7 | | 69.7 | | 68 | .6 | 75. | 3 | 75. |
| Vehicle Noise: | 74. | 2 | 73.1 | | 71.5 | | 69 | .9 | 76. | 9 | 77. |
| Centerline Distanc | e to Noise Co | ntour (in feet |) | | | | | | | | |
| | | | | 70 (| dBA | 65 | dBA | | 60 dBA | 55 | dBA |
| | | | Ldn: | | 95 | | 20 | 5 | 441 | | 951 |
| | | C | NEL: | | 100 | | 21 | 5 | 464 | l. | 1,000 |

Monday, February 28, 2022

| | FHWA-RD | 0-77-108 HIGH | WAY NC | DISE | PREDIC | | IODEL (| 9/12/2 | 2021) | | | |
|----------------------------------|--|---------------------|-----------|-------|-----------|------------------|------------------|---------------|-----------|-------|------|---------|
| Scenai Road Nan Road Segme | rio: E ne: Webster Av nt: n/o Ramona | и. а Expy. | | | | Project Job N | Name: lumber: | Ramo 13998 | na Gatew | ay C | omme | • |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | IOISE I | MOD | EL INPU | TS | | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, S | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 8,699 vehicle | s | | | | | Autos | : 15 | | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tr | ucks (2) | Axles) | : 15 | | | |
| Peak F | our Volume: | 613 vehicles | ; | | He | avy Tru | cks (3+) | Axles) | : 15 | | | |
| Ve | hicle Speed: | 35 mph | | | (ahiala l | Mix | | | | | | |
| Near/Far La | ne Distance: | 56 feet | | ľ | Veh | icle Type | | Dav | Evening | - N/ | aht | Daily |
| Site Data | | | | _ | ven | icie i ype | Autos: | 71.99 | 6 12.29 | 6 1 | 5.9% | 90.47% |
| | | 0.0.6 | | | M | edium T | rucks: | 75.39 | 6 7.09 | 61 | 7.7% | 5.56% |
| Da Parrier Type (0 V | Vall 1 Rerm): | 0.0 1001 | | | / | leavy T | rucks: | 60.49 | 6 12.09 | 62 | 7.6% | 3.97% |
| Centerline D | ist to Barrier | 47.0 feet | | - | | | | | | | | |
| Centerline Dist | to Observer: | 47.0 feet | | ^ | loise Sc | ource El | evation | s (in f | 'eet) | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Auto | s: 0. | 000 | | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Mediu | m Truck | s: 2. | 297 | Oursels A | | | 0.0 |
| P | ad Elevation: | 0.0 feet | | | Heav | ry Truck | s: 8. | 004 | Grade A | ajust | ment | 0.0 |
| Ro | ad Elevation: | Elevation: 0.0 feet | | | | | Distan | ce (in | feet) | | | |
| | Road Grade: | 0.0% | | | | Auto | s: 38. | .079 | | | | |
| | Left View: | -90.0 degree | s | | Mediu | m Truck | s: 37. | .846 | | | | |
| | Right View: | 90.0 degree | IS | | Heav | ry Truck | s: 37. | 869 | | | | |
| FHWA Noise Mod | el Calculations | s | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | ice | Finite | Road | Fresr | nel | Barrier A | tten | Berr | n Atten |
| Autos: | 64.30 | -3.31 | | 1.67 | , | -1.20 | | -4.63 | (| 0.000 | | 0.000 |
| Medium Trucks: | 75.75 | -15.42 | | 1.71 | | -1.20 | | -4.87 | (| 0.000 | | 0.000 |
| Heavy Trucks: | 81.57 | -16.88 | | 1.71 | | -1.20 | | -5.46 | (| 0.000 | | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenı | uation) | | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | Le | eq Ev | ening | Leq | Night | | Ldn | | C٨ | IEL |
| Autos: | 61 | .5 | 60.8 | | 59.1 | | 55. | 5 | 63 | 3.0 | | 63.5 |
| Medium Trucks: | 60 | .8 | 60.3 | | 56.0 | | 55.3 | 3 | 62 | 2.7 | | 62.9 |
| Heavy Trucks: | 65 | .2 | 63.7 | | 62.7 | | 61.6 | 6 | 68 | 3.3 | | 68.6 |
| Vehicle Noise: | 67 | .7 | 66.7 | | 64.9 | | 63.3 | 3 | 70 |).3 | | 70.6 |
| Centerline Distan | ce to Noise Co | ontour (in feet) | | | | | | | | | | |
| | | | | 70 d | BA | 65 | dBA | | 60 dBA | | 55 | dBA |
| | | | Ldn: | | 49 | | 106 | | 22 | 28 | | 491 |
| | | CI | IEL: | | 52 | | 111 | | 24 | 10 | | 516 |

| | FHWA-RI | D-77-108 HIGHW | AY NOIS | E PREDIC | TION MC | DEL (9/1 | 12/2021) | | | |
|-------------------|------------------|------------------|-------------|----------|--------------------------|--------------|----------------|-----------|--------------------|---------|
| Scena | rio: E+P | | | | Project N | lame: Ra | amona G | ateway C | Comme | |
| Road Nan | ne: Webster A | v. | | | Job Nu | mber: 13 | 998 | | | |
| Road Segme | nt: n/o Ramon | ia Expy. | | | | | | | | |
| SITE | SPECIFIC IN | NPUT DATA | | | NC | DISE MO | DDEL IN | IPUTS | | |
| Highway Data | | | | Site Con | ditions (H | lard = 10 |), Soft = | 15) | | |
| Average Daily | Traffic (Adt): | 9,033 vehicles | | | | AL | itos: 1 | 5 | | |
| Peak Hour | Percentage: | 7.05% | | Me | dium Truc | ks (2 Ax | <i>les):</i> 1 | 5 | | |
| Peak H | lour Volume: | 637 vehicles | | He | avy Truck | is (3+ Ax | <i>les):</i> 1 | 5 | | |
| Ve | ehicle Speed: | 35 mph | | Vehicle | Mix | | | | | |
| Near/Far La | ane Distance: | 56 feet | | Veh | icleTvpe | Di | av Eve | ening N | liaht | Dailv |
| Site Data | | | | | AL | itos: 71 | 1.9% 1 | 2.2% | 15.9% | 90.83% |
| Ba | rrier Height | 0.0 feet | | М | edium Tru | cks: 75 | 5.3% | 7.0% | 17.7% | 5.35% |
| Barrier Type (0-V | Vall. 1-Berm): | 0.0 | | 1 | Heavy Tru | cks: 60 | 0.4% 1 | 2.0% | 27.6% | 3.82% |
| Centerline D | ist. to Barrier: | 47.0 feet | | Noiso S | ourco Elo | vations (| (in foot) | | | |
| Centerline Dist. | to Observer: | 47.0 feet | | NUISE SC | Autos | | | | | |
| Barrier Distance | to Observer: | 0.0 feet | | Madiu | m Trucks: | 2 20 | 7 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | Hear | ni Trucks. ni Trucks: | 2.23 9.00 | A Gra | de Adius | tment [.] | 0.0 |
| P | ad Elevation: | 0.0 feet | | i ica | ry mucks. | 0.00 | 4 0/4 | 007.0300 | innonn. | 0.0 |
| Ro | ad Elevation: | 0.0 feet | | Lane Eq | uivalent L | Distance | (in feet) | | | |
| | Road Grade: | 0.0% | | | Autos: | 38.07 | '9 | | | |
| | Left View: | -90.0 degrees | | Mediu | m Trucks: | 37.84 | -6 | | | |
| | Right View: | 90.0 degrees | | Hear | /y Trucks: | 37.86 | 19 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distance | Finite | Road | Fresnel | Barr | ier Atten | Berr | n Atten |
| Autos: | 64.30 | -3.13 | 1. | 67 | -1.20 | -4 | .63 | 0.000 |) | 0.000 |
| Medium Trucks: | 75.75 | -15.42 | 1. | 71 | -1.20 | -4 | .87 | 0.000 | D | 0.000 |
| Heavy Trucks: | 81.57 | -16.88 | 1. | 71 | -1.20 | -5 | 6.46 | 0.000 | C | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and ba | arrier atte | nuation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | Leq | Evening | Leq N | ight | Ldr | 1 | CN | IEL |
| Autos: | 61 | 1.6 60 |).9 | 59.3 | | 55.6 | | 63.2 | | 63.7 |
| Medium Trucks: | 60 | 0.8 60 |).3 | 56.0 | | 55.3 | | 62.7 | | 62.9 |
| Heavy Trucks: | 65 | 5.2 63 | 3.7 | 62.7 | | 61.6 | | 68.3 | | 68.6 |
| Vehicle Noise: | 67 | 7.8 66 | 6.7 | 64.9 | | 63.3 | | 70.3 | | 70.6 |
| Centerline Distan | ce to Noise C | ontour (in feet) | | | | | | - | | |
| | - | | 70 |) dBA | 65 dl | ВА | 60 dE | 3A | 55 0 | dBA |
| | | Lo | in: | 49 | | 106 | | 229 | | 494 |
| | | CNE | L: | 52 | | 112 | | 241 | | 519 |
| | | | | | | | | | | |

| | FHWA-RI | D-77-108 HIGH | IWAY NO | ISE F | PREDIC | TION M | ODEL (| 9/12/2 | 021) | | |
|----------------------------------|--|-----------------|-----------|--------|-----------|----------------------|-----------------|---------------|-------------|----------|-----------|
| Scenar Road Nam Road Segme | io: EAC 2024 ne: Webster A nt: n/o Ramon | v. a Expy. | | | | Project Job Ni | Name: Imber: | Ramo 13998 | na Gatewa | y Comr | ne |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE I | NODE | L INPUT | S | |
| Highway Data | | | | S | ite Cond | ditions (| Hard = | 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 9,588 vehicl | es | | | | | Autos. | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Med | dium Tru | cks (2 / | Axles). | 15 | | |
| Peak H | lour Volume: | 676 vehicle | s | | Hea | avy Truc | ks (3+ / | Axles). | 15 | | |
| Ve | hicle Speed: | 35 mph | | V | ohiclo II | liv | | | | | |
| Near/Far La | ne Distance: | 56 feet | | | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 6 12.2% | 15.99 | % 90.47% |
| Ba | rrier Heiaht: | 0.0 feet | | | Me | dium Tr | ucks: | 75.3% | 6 7.0% | 17.79 | % 5.56% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | h | leavy Tr | ucks: | 60.4% | 6 12.0% | 27.69 | % 3.97% |
| Centerline Di | st. to Barrier: | 47.0 feet | | N | oise So | urce Ele | vation | s (in f | eet) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | | Autos | : 0. | 000 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediun | n Trucks | : 2. | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | y Trucks | : 8. | 004 | Grade Ad | ljustmei | nt: 0.0 |
| P | ad Elevation: | 0.0 feet | | | | | Distan | // | 6 | | |
| Ro | ad Elevation: | 0.0 feet | | La | ane Equ | ivalent | Distan | ce (In | reet) | | |
| | Road Grade: | 0.0% | | | Martin | Autos | 38. | 079 | | | |
| | Left View: Bight View: | -90.0 degre | es | | Heav | n Trucks v Trucks | : 37. · 37 | 840 860 | | | |
| | Right view. | 90.0 degre | 63 | | neav. | y macks | . 07. | 000 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | ce | Finite | Road | Fresr | nel | Barrier Att | ten Be | erm Atten |
| Autos: | 64.30 | -2.88 | | 1.67 | | -1.20 | | -4.63 | 0.0 | 000 | 0.000 |
| Medium Trucks: | /5./5 | -15.00 | | 1./1 | | -1.20 | | -4.87 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 81.57 | -16.46 | | 1.71 | | -1.20 | | -5.46 | 0.0 | 000 | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | 1 | | | |
| VehicleType | Leq Peak Hou | ur Leq Da | / Le | eq Eve | ening | Leq I | Vight | | Ldn | (| CNEL |
| Autos: | 61 | 1.9 | 61.2 | | 59.5 | | 55.9 | 9 | 63. | 5 | 63.9 |
| Medium Trucks: | 61 | 1.3 | 60.8 | | 56.4 | | 55. | r | 63. | 1 | 63.4 |
| rieavy Trucks: | 65 | 0.0 | 04.2 | | 03.1 | | 62.0 | J 7 | 68. | 0 7 | 69.1 |
| venicie ivoise: | 66 |). I | 07.1 | | 00.3 | | 03. | | 70. | 1 | /1.0 |
| Centerline Distant | ce to Noise Co | ontour (in feet |) | 70 di | DA I | 65.0 | ID A | r . | 60 dB 4 | 5 | EdBA |
| | | | L dn: | , u al | 54 | 030 | 140 | 1 ' | | 1 2 | UDA EOA |
| | | ~ | | | 52 | | 113 | | 243 | 5 | 524 |
| | | L | NEL. | | 22 | | 119 | | 256 |) | 551 |

| | THWATCH | | WAI | NOISE | FREDIC | | | 5/12/2 | 021) | | |
|---------------------|-------------------------|----------------|---------|-----------|----------|------------|---------------|----------|-------------|------------|---------|
| Scenario | : EAPC 2024 | | | | | Project | Name: | Ramo | na Gatewa | y Comm | e |
| Road Name | : Webster Av | | | | | Job N | umber: | 13998 | | | |
| Road Segmen | t: n/o Ramona | a Expy. | | | | | | | | | |
| SITE S | PECIFIC IN | PUT DATA | | | | N | IOISE I | NODE | L INPUT | S | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, So | oft = 15) | | |
| Average Daily 7 | raffic (Adt): | 9,922 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour F | Percentage: | 7.05% | | | Me | dium Tri | ucks (2 / | Axles): | 15 | | |
| Peak Ho | ur Volume: | 699 vehicle | s | | He | avy Tru | cks (3+) | Axles): | 15 | | |
| Veh | icle Speed: | 35 mph | | V | ehicle l | <i>lix</i> | | | | | |
| Near/Far Lan | e Distance: | 56 feet | | | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 12.2% | 15.9% | 90.799 |
| Bari | ier Heiaht: | 0.0 feet | | | Me | edium T | rucks: | 75.3% | 7.0% | 17.7% | 5.379 |
| Barrier Type (0-Wa | II, 1-Berm): | 0.0 | | | ŀ | leavy T | rucks: | 60.4% | 12.0% | 27.6% | 3.849 |
| Centerline Dis | to Barrier: | 47.0 feet | | | loise So | urce El | evation | s (in fi | pet) | | |
| Centerline Dist. to | o Observer: | 47.0 feet | | | 0.00 00 | Auto | s' 0 | 000 | | | |
| Barrier Distance to | o Observer: | 0.0 feet | | | Mediu | n Truck | s. 0. | 207 | | | |
| Observer Height (A | bove Pad): | 5.0 feet | | | Heav | v Truck | с. 2. с. Я | 004 | Grade Ad | liustment | .00 |
| Pa | Pad Elevation: 0.0 feet | | | | | y mach | 3. 0. | 004 | 0/000/10 | Juotinioni | . 0.0 |
| Roa | d Elevation: | L | ane Equ | uivalent | Distan | ce (in i | feet) | | | | |
| R | oad Grade: | 0.0% | | | | Auto | s: 38. | 079 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Truck | s: 37. | 846 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Truck | s: 37. | 869 | | | |
| FHWA Noise Mode | Calculations | 5 | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite | Road | Fresr | nel | Barrier Att | en Bei | m Atten |
| Autos: | 64.30 | -2.72 | | 1.67 | , | -1.20 | | -4.63 | 0. | 000 | 0.00 |
| Medium Trucks: | 75.75 | -15.00 | | 1.71 | | -1.20 | | -4.87 | 0. | 000 | 0.00 |
| Heavy Trucks: | 81.57 | -16.46 | | 1.71 | | -1.20 | | -5.46 | 0. | 000 | 0.00 |
| Unmitigated Noise | Levels (with | out Topo and | barri | er atteni | uation) | | | | | | |
| VehicleType | .eq Peak Hou | r Leq Day | / | Leq Ev | ening | Leq | Night | | Ldn | С | NEL |
| Autos: | 62 | .1 | 61.3 | | 59.7 | | 56.0 |) | 63. | 6 | 64. |
| Medium Trucks: | 61 | .3 | 60.8 | | 56.4 | | 55.7 | 7 | 63. | 1 | 63. |
| Heavy Trucks: | 65 | .6 | 64.2 | | 63.1 | | 62.0 |) | 68. | 8 | 69. |
| Vehicle Noise: | 68 | .2 | 67.1 | | 65.4 | | 63.7 | 7 | 70. | 7 | 71. |
| Centerline Distance | e to Noise Co | ntour (in feet |) | | | | | | - | | |
| | | | L | 70 d | BA | 65 | dBA | 6 | 50 dBA | 55 | dBA |
| | | - | Ldn: | | 53 | | 113 | | 244 | Ļ | 527 |
| | | C | NEL: | | 55 | | 119 | | 257 | r | 554 |

Monday, February 28, 2022

| | FHWA-RD | 0-77-108 HIGHV | VAY NO | ISE I | PREDIC | TION M | ODEL | (9/12/2 | 2021) | | | |
|---------------------------------|--|------------------|-----------|-------|----------|------------------|-----------------|---------------|----------|--------|-------|---------|
| Scena Road Nar Road Segme | rio: HY 2045 ne: Webster Av ent: n/o Ramon | и. a Expy. | | | | Project Job N | Name: umber: | Ramo 13998 | na Gate | eway C | omme | 1 |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | MOD | EL INP | UTS | | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | : 10, S | oft = 15 |) | | |
| Average Daily | Traffic (Adt): | 25,011 vehicles | ; | | | | | Autos | : 15 | | | |
| Peak Hou | r Percentage: | 7.05% | | | Me | dium Tri | ucks (2 | Axles) | : 15 | | | |
| Peak I | Hour Volume: | 1,763 vehicles | | | He | avy Tru | cks (3+ | Axles) | : 15 | | | |
| Ve | ehicle Speed: | 35 mph | | V | ohiclo I | Mix | | | | | | |
| Near/Far La | ane Distance: | 56 feet | | - | Veh | icleTvpe | | Dav | Eveni | na N | iaht | Dailv |
| Site Data | | | | - | | / | Autos: | 71.99 | 6 12.2 | 2% 1 | 5.9% | 90.47% |
| Ba | arriar Haight: | 0.0 feet | | | M | edium Ti | rucks: | 75.39 | 6 7.0 | 0% 1 | 7.7% | 5.56% |
| Barrier Type (0-V | Vall. 1-Berm): | 0.0 | | | I | Heavy Ti | rucks: | 60.4% | 6 12.0 | 0% 2 | 7.6% | 3.97% |
| Centerline D | ist. to Barrier: | 47.0 feet | | | laiaa Cr | uree El | overtier | o (in f | (act) | | | |
| Centerline Dist. | to Observer: | 47.0 feet | | N | uise sc | Auto | evalion | | eel) | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Auto | s. U | 207 | | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Mealu | m Truck | S: 2 | .297 | Grade | Adjust | ment | 0.0 |
| P | Pad Elevation: | 0.0 feet | | | neav | y muck | s. o | .004 | 0/200 | Ациза | mont. | 0.0 |
| Ro | ad Elevation: | 0.0 feet | | L | ane Eq | uivalent | Distan | ce (in | feet) | | | |
| | Road Grade: | 0.0% | | | | Auto | s: 38 | .079 | | | | |
| | Left View: | -90.0 degrees | | | Mediu | m Truck | s: 37 | .846 | | | | |
| | Right View: | 90.0 degrees | ; | | Heav | ry Truck | s: 37 | .869 | | | | |
| FHWA Noise Mod | lel Calculation | s | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distand | ce | Finite | Road | Fres | nel | Barrier | Atten | Berr | n Atten |
| Autos: | 64.30 | 1.28 | | 1.67 | | -1.20 | | -4.63 | | 0.000 | | 0.000 |
| Medium Trucks: | 75.75 | -10.84 | | 1.71 | | -1.20 | | -4.87 | | 0.000 | | 0.000 |
| Heavy Trucks: | 81.57 | -12.30 | | 1.71 | | -1.20 | | -5.46 | | 0.000 | | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and b | arrier at | tenu | ation) | | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | Le | q Ev | ening | Leq | Night | | Ldn | | CN | IEL |
| Autos: | 66 | .1 6 | 5.3 | | 63.7 | | 60. | 0 | | 67.6 | | 68.1 |
| Medium Trucks: | 65 | .4 6 | 4.9 | | 60.6 | | 59. | 9 | | 67.3 | | 67.5 |
| Heavy Trucks: | 69 | .8 6 | 8.3 | | 67.3 | | 66. | 2 | | 72.9 | | 73.2 |
| Vehicle Noise: | 72 | .3 7 | 1.2 | | 69.5 | | 67. | 9 | | 74.9 | | 75.2 |
| Centerline Distan | ce to Noise Co | ontour (in feet) | | | | | | | | | | |
| | | | | 70 d | BA | 65 | dBA | | 60 dBA | | 55 | JBA |
| | | L | dn: | | 99 | | 214 | 1 | | 461 | | 993 |
| | | CN | EL: | | 104 | | 225 | 5 | | 485 | | 1,044 |
| | | | | | | | | | | | | |

| | FHWA-R | D-77-108 HIGH | IWAY NO | DISE F | PREDIC | TION MC | DEL (9/12/ | 2021) | | |
|----------------------------------|---|-----------------|-----------|--------|----------|---------------------|---------------------------------|------------------|-----------------------|---------|
| Scenai Road Nan Road Segme | rio: HYP 2045 ne: Webster A nt: n/o Ramor | v. na Expy. | | | | Project N Job Nu | <i>lame:</i> Ramo mber: 1399 | ona Gateway 3 | / Comme | |
| SITE | SPECIFIC II | NPUT DATA | | | | NC | DISE MOD | EL INPUTS | 5 | |
| Highway Data | | | | S | ite Con | ditions (H | Hard = 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 25,345 vehicl | es | | | | Autos | : 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Truc | cks (2 Axles |): 15 | | |
| Peak H | lour Volume: | 1,786 vehicle | s | | Hei | avy Truck | s (3+ Axles) |): 15 | | |
| Ve | hicle Speed: | 35 mph | | V | ohiclo I | Air | | | | |
| Near/Far La | ne Distance: | 56 feet | | - | Vehi | cleTvpe | Dav | Evenina | Niaht | Daily |
| Site Data | | | | | 10111 | AL | Itos: 71.9 | % 12.2% | 15.9% | 90.60% |
| Ba | rrier Height | 0.0 feet | | | Ме | edium Tru | cks: 75.3 | % 7.0% | 17.7% | 5.48% |
| Barrier Type (0-W | /all_1-Rerm) | 0.0 | | | F | leavy Tru | icks: 60.4 | % 12.0% | 27.6% | 3.92% |
| Centerline Di | st. to Barrier: | 47.0 feet | | | aiaa Ca | uree Ele | votiono (in | faati | | |
| Centerline Dist. | to Observer: | 47.0 feet | | /1 | oise so | Autoo | | ieel) | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Autos. | 0.000 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Meaiur | n Trucks: | 2.297 | Grade Adi | iustment [.] | 0.0 |
| P | ad Elevation: | 0.0 feet | | | neav | y mucks. | 0.004 | Orade Haj | ustinent. | 0.0 |
| Ro | ad Elevation: | 0.0 feet | | L | ane Equ | ivalent L | Distance (in | feet) | | |
| | Road Grade: | 0.0% | | | | Autos: | 38.079 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Trucks: | 37.846 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks: | 37.869 | | | |
| FHWA Noise Mod | el Calculation | IS | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | псе | Finite | Road | Fresnel | Barrier Atte | en Berr | n Atten |
| Autos: | 64.30 | 1.34 | | 1.67 | | -1.20 | -4.63 | 8 0.0 | 000 | 0.000 |
| Medium Trucks: | 75.75 | -10.84 | | 1.71 | | -1.20 | -4.87 | ° 0.0 | 000 | 0.000 |
| Heavy Trucks: | 81.57 | -12.30 | | 1.71 | | -1.20 | -5.46 | 6 O.C | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | attenu | ation) | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Day | / L | eq Ev | ening | Leq N | light | Ldn | CN | IEL |
| Autos: | 66 | 6.1 | 65.4 | | 63.7 | | 60.1 | 67.7 | 7 | 68.1 |
| Medium Trucks: | 65 | 5.4 | 64.9 | | 60.6 | | 59.9 | 67.3 | 3 | 67.5 |
| Heavy Trucks: | 69 | 9.8 | 68.3 | | 67.3 | | 66.2 | 72.9 |) | 73.2 |
| Vehicle Noise: | 72 | 2.3 | 71.3 | | 69.5 | | 67.9 | 74.9 |) | 75.2 |
| Centerline Distan | ce to Noise C | ontour (in feet |) | | | | | | | |
| | | | | 70 di | BA | 65 dl | BA | 60 dBA | 55 (| 1BA |
| | | | Ldn: | | 100 | | 214 | 462 | | 995 |
| | | С | NEL: | | 105 | | 225 | 486 | | 1,046 |

| | FHWA-RI | D-77-108 HIGH | WAY NO | DISE | PREDIC | | ODEL | (9/12/2 | .021) | | |
|----------------------------------|--|-----------------|-----------|--------|----------|------------------|-----------------|---------------|-------------|----------|----------|
| Scenar Road Nan Road Segme | io: E ne: Webster A nt: n/o Morgar | v. ı St. | | | | Project Job N | Name: umber: | Ramo 13998 | na Gatewa | y Comm | ie |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | MOD | EL INPUT | S | |
| Highway Data | | | | S | ite Cond | ditions | (Hard = | = 10, S | oft = 15) | | - |
| Average Daily | Traffic (Adt): | 4,811 vehicle | es | | | | | Autos | : 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Med | dium Tri | ucks (2 | Axles) | : 15 | | |
| Peak F | lour Volume: | 339 vehicle | s | | Hea | avy Truc | cks (3+ | Axles) | : 15 | | |
| Ve | hicle Speed: | 35 mph | | ν | ehicle N | lix | | | | | |
| Near/Far La | ne Distance: | 56 feet | | | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.99 | 6 12.2% | 15.9% | 90.47% |
| Ba | rrier Height: | 0.0 feet | | | Me | dium Ti | rucks: | 75.3% | 6 7.0% | 17.7% | 5.56% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | h | leavy Ti | rucks: | 60.49 | 6 12.0% | 27.6% | 3.97% |
| Centerline Di | st. to Barrier: | 47.0 feet | | ٨ | loise So | urce El | evatior | ns (in f | eet) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | | Auto | s: 0 | .000 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediun | n Truck | s: 2 | .297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | y Truck | s: 8 | .004 | Grade Ad | ljustmen | t: 0.0 |
| P | ad Elevation: | 0.0 feet | | | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | L | ane Equ | ivalent | Distan | ice (in | teet) | | |
| | Road Grade: | 0.0% | | | | Auto | s: 38 | .079 | | | |
| | Left View: | -90.0 degre | es | | Mediun | n Truck | S: 37 | .846 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Truck | 5: 37 | .869 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | nce | Finite | Road | Fres | nel | Barrier Att | en Be | rm Atten |
| Autos: | 64.30 | -5.88 | | 1.67 | , | -1.20 | | -4.63 | 0. | 000 | 0.000 |
| Medium Trucks: | 75.75 | -18.00 | | 1.71 | | -1.20 | | -4.87 | 0. | 000 | 0.000 |
| Heavy Trucks: | 81.57 | -19.46 | | 1.71 | | -1.20 | | -5.46 | 0. | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | attenı | uation) | | | - | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | / L | eq Ev | ening | Leq | Night | | Ldn | C | ;NEL |
| Autos: | 58 | 3.9 | 58.2 | | 56.5 | | 52. | 9 | 60. | 5 | 60.9 |
| Medium Trucks: | 58 | 3.3 | 57.8 | | 53.4 | | 52. | 7 | 60. | 1 | 60.4 |
| Heavy Trucks: | 62 | 2.6 | 61.2 | | 60.1 | | 59. | .0 | 65. | 8 | 66.1 |
| Vehicle Noise: | 65 | 5.1 | 64.1 | | 62.3 | | 60. | .7 | 67. | 7 | 68.0 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | _ | | - | _ | | | | |
| | | | | 70 d | BA | 65 | dBA | | 60 dBA | 55 | i dBA |
| | | _ | Ldn: | | 33 | | 7 | 1 | 154 | ļ | 331 |
| | | C | NEL: | | 35 | | 7 | 5 | 161 | | 348 |

| | FHWA-RL | -77-108 HIGH | IVVAT | NUISE | REDIC | | JDEL (9 | 11212 | J21) | | |
|----------------------|--------------|----------------|-------------|-----------|----------|---|----------|----------|-------------|----------|----------|
| Scenario: | E+P | | | | | Project I | Vame: F | lamor | na Gatewa | y Comm | е |
| Road Name: | Webster Av | | | | | Job Nu | mber: 1 | 3998 | | | |
| Road Segment: | n/o Morgan | St. | | | | | | | | | |
| SITE SP | ECIFIC IN | PUT DATA | | | | N | DISE M | ODE | | S | |
| Highway Data | | | | S | ite Con | ditions (| Hard = : | 10, Sc | oft = 15) | | |
| Average Daily Tra | affic (Adt): | 5,210 vehicle | es | | | | A | utos: | 15 | | |
| Peak Hour Pe | ercentage: | 7.05% | | | Me | dium Tru | cks (2 A | xles): | 15 | | |
| Peak Hou | r Volume: | 367 vehicle | s | | Hei | avy Truci | ks (3+ A | xles): | 15 | | |
| Vehic | le Speed: | 35 mph | | v | ehicle N | lix | | | | | |
| Near/Far Lane | Distance: | 56 feet | | | Vehi | cleType | I | Day | Evening | Night | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 91.209 |
| Barrie | er Height: | 0.0 feet | | | Me | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 5.139 |
| Barrier Type (0-Wall | , 1-Berm): | 0.0 | | | F | leavy Tru | icks: (| 60.4% | 12.0% | 27.6% | 3.67 |
| Centerline Dist. | to Barrier: | 47.0 feet | | N | oise So | urce Ele | vations | (in fe | et) | | |
| Centerline Dist. to | Observer: | 47.0 feet | | | | Autos | : 0.0 | 00 | | | |
| Barrier Distance to | Observer: | 0.0 feet | | | Mediur | n Trucks | : 2.2 | 97 | | | |
| Observer Height (Ab | ove Pad): | 5.0 feet | | | Heav | y Trucks | : 8.0 | 04 | Grade Ad | justment | : 0.0 |
| Pad | Elevation: | | | | | Di-4 | - // | (4) | | | |
| Road | Elevation: | 0.0 feet | | L | ane Equ | Ivalent | Distanc | e (IN) | reet) | | |
| Ro | ad Grade: | 0.0% | | | Modiur | Autos n Trucks | . 38.0 | 19 | | | |
| | ight View: | -90.0 degree | 25 | | Heav | v Trucks | . 37.6 | 40 60 | | | |
| | igni view. | 50.0 degree | | | 11001 | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | . 07.0 | | | | |
| FHWA Noise Model | Calculations | 5 | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Di | stance | Finite | Road | Fresne | 2 | Barrier Att | en Bei | rm Atten |
| Autos: | 64.30 | -5.50 | | 1.67 | | -1.20 | - | 4.63 | 0.0 | 000 | 0.00 |
| Medium Trucks: | 75.75 | -18.00 | | 1.71 | | -1.20 | - | 4.87 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 81.57 | -19.46 | | 1.71 | | -1.20 | | 5.46 | 0.0 | 000 | 0.00 |
| Unmitigated Noise L | evels (with | out Topo and | barri | er attenu | ation) | | | | | | |
| VehicleType Le | eq Peak Hou | r Leq Day | ′ | Leq Eve | ening | Leq N | light | | Ldn | С | NEL |
| Autos: | 59 | .3 | 58.6 | | 56.9 | | 53.3 | | 60.9 | 9 | 61 |
| Medium Trucks: | 58 | .3 | 57.8 | | 53.4 | | 52.7 | | 60.1 | 1 | 60. |
| Heavy Trucks: | 62 | .0 | 64.2 | | 60.1 | | 59.0 | | 65.0 | 5 | 60 |
| venicie noise. | 00 | .2 | 04.2 | | 02.4 | | 00.0 | | 07.0 | 2 | 00. |
| Centerline Distance | to Noise Co | ntour (in feet |) | 70 | D.4 | 05 | 04 | | 0 -0 4 | | -0.4 |
| | | | I da: | 70 di | 5A 00 | 65 d | BA | e | OU OBA | 55 | aBA |
| | | ~ | Lan: NEL | | 33 | | 72 | | 155 | | 335 |
| | | C . | VEL. | | .50 | | 76 | | 163 | | 352 |

Monday, February 28, 2022

| | FHWA-RD | -77-108 HIGHW | AY NO | SE PRE | DICTION | NODEL | (9/12/2 | :021) | | | |
|--------------------------------------|---|-----------------|------------|---------|-----------------|--------------------|---------------|-----------|-------|-------|---------|
| Scenario Road Name Road Segmen | o: EAC 2024 e: Webster Av. ht: n/o Morgan S | St. | | | Projec Job I | t Name: Number: | Ramo 13998 | na Gatew | ay Co | omme | |
| SITE S | SPECIFIC INI | PUT DATA | | | | NOISE | MODE | EL INPU | TS | | |
| Highway Data | | | | Site C | conditions | (Hard = | : 10, S | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 5,388 vehicles | | | | | Autos | : 15 | | | |
| Peak Hour I | Percentage: | 7.05% | | | Medium T | rucks (2 | Axles) | : 15 | | | |
| Peak Ho | our Volume: | 380 vehicles | | | Heavy Tru | ıcks (3+ | Axles) | : 15 | | | |
| Vel | hicle Speed: | 35 mph | | Vehic | lo Mix | | | | | | |
| Near/Far Lar | ne Distance: | 56 feet | | Venic | ehicleTvn | e | Dav | Evening | Ni | aht | Daily |
| Site Data | | | | - · | oniolo ryp | Autos: | 71.99 | 6 12.2% | 5 1 | 5.9% | 90.47% |
| Bar | rior Hoight: | 0.0 foot | | | Medium 1 | rucks: | 75.39 | 6 7.0% | 5 1 | 7.7% | 5.56% |
| Barrier Type (0-Wa | all 1-Berm) | 0.0 1001 | | | Heavy 1 | rucks: | 60.4% | 6 12.0% | 5 2 | 7.6% | 3.97% |
| Centerline Dis | t. to Barrier: | 47.0 feet | | Maine | 0 | | | 41 | | | |
| Centerline Dist. t | o Observer: | 47.0 feet | | NOISE | Source E | levation | is (in t | eet) | | | |
| Barrier Distance t | o Observer: | 0.0 feet | | | Auto | DS: 0 | .000 | | | | |
| Observer Height () | Above Pad): | 5.0 feet | | ме | aium Truci | KS: 2 | .297 | Crada | divet | mont | 0.0 |
| Pa | d Elevation: | 0.0 feet | | н | eavy Truci | (S: 8 | .004 | Grade A | ujusi | ment. | 0.0 |
| Roa | d Elevation: | 0.0 feet | | Lane | Equivalen | t Distan | ce (in | feet) | | | |
| F | Road Grade: | 0.0% | | | Auto | os: 38 | .079 | | | | |
| | Left View: | -90.0 degrees | | Me | dium Trucl | ks: 37 | .846 | | | | |
| | Right View: | 90.0 degrees | | Н | eavy Truck | ks: 37 | .869 | | | | |
| FHWA Noise Mode | l Calculations | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distanc | e Fir | ite Road | Fres | nel | Barrier A | tten | Berr | n Atten |
| Autos: | 64.30 | -5.39 | | 1.67 | -1.20 | | -4.63 | C | 0.000 | | 0.000 |
| Medium Trucks: | 75.75 | -17.50 | | 1.71 | -1.20 | | -4.87 | C | 0.000 | | 0.000 |
| Heavy Trucks: | 81.57 | -18.96 | | 1.71 | -1.20 | | -5.46 | C | 0.000 | | 0.000 |
| Unmitigated Noise | Levels (witho | ut Topo and b | arrier att | enuatio | n) | | | | | | |
| VehicleType | Leq Peak Hour | Leq Day | Leq | Evenin | g Leq | Night | | Ldn | | CN | IEL |
| Autos: | 59.4 | 4 5 | 8.7 | 5 | 7.0 | 53. | 4 | 61 | .0 | | 61.4 |
| Medium Trucks: | 58. | B 5 | 8.3 | 5 | 3.9 | 53. | 2 | 60 |).6 | | 60.9 |
| Heavy Trucks: | 63. | 1 6 | 1.6 | 6 | 0.6 | 59. | 5 | 66 | 5.3 | | 66.6 |
| Vehicle Noise: | 65. | 6 6 | 4.6 | 6 | 2.8 | 61. | 2 | 68 | 3.2 | | 68.5 |
| Centerline Distanc | e to Noise Cor | ntour (in feet) | | | | | | | | | |
| | | | . 7 | U dBA | 65 | aBA | _ | ьи dBA | | 55 | 3BA |
| | | L | dn: _, | | 36 | 71 | | 16 | 6 | | 357 |
| | | CNI | =L.: | | 38 | 8 | 1 | 17 | 4 | | 375 |

| | FHWA-RI | D-77-108 HIGH | WAY N | IOISE | PREDIC | TION M | ODEL (| 9/12/2 | 021) | | | | |
|----------------------------------|---|------------------|---------|--------|--------------------------------------|-------------------|-----------------|---------------|-----------|-------|-------|---------|--|
| Scenar Road Nan Road Segme | nio: EAPC 2024 ne: Webster Av ent: n/o Morgan | 4 /. St. | | | | Project Job Ni | Name: Imber: | Ramo 13998 | na Gatew | ay Co | omme | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | MODE | L INPU | тs | | | |
| Highway Data | | | | S | Site Con | ditions (| Hard = | 10, S | oft = 15) | | | | |
| Average Daily | Traffic (Adt): | 5,787 vehicle | s | | | | | Autos. | 15 | | | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 | Axles). | 15 | | | | |
| Peak H | lour Volume: | 408 vehicles | 6 | | He | avy Truc | ks (3+ . | Axles). | : 15 | | | | |
| Ve | ehicle Speed: | 35 mph | | L. | (ohiclo I | liv | | | | | | | |
| Near/Far La | ane Distance: | 56 feet | | | Vehi | cleTvne | | Dav | Evening | Ni | aht | Daily | |
| Site Data | | | | | Autos: 71.9% 12.2% 15.9% 91.1 | | | | | | | | |
| ono puta | | 0.0.6 | | | Medium Trucks: 75.3% 7.0% 17.7% 5.17 | | | | | | | | |
| Ba Parrier Type (0 M | Vall 1 Borm) | 0.0 feet | | | F | leavv Tr | ucks: | 60.4% | 6 12.0% | 6 2 | 7.6% | 3.70% | |
| Centerline Di | ist to Barrier | 47.0 feet | | _ | | , | | | | | | | |
| Centerline Dist | to Observer: | 47.0 feet | | ۸ | Noise Source Elevations (in feet) | | | | | | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Autos | : O. | 000 | | | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Mediur | n Trucks | : 2. | 297 | Out of a | | | | |
| P | Pad Elevation: 0.0 feet | | | | | | : 8. | 004 | Grade A | ajust | ment: | 0.0 | |
| Ro | Road Elevation: 0.0 feet | | | | | | Distan | ce (in | feet) | | | | |
| | Road Grade: | 0.0% | | | | Autos | : 38 | .079 | | | | | |
| | Left View: | -90.0 degree | es | | Mediur | n Trucks | 37 | .846 | | | | | |
| | Right View: | 90.0 degree | es | | Heav | y Trucks | 37 | .869 | | | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | ance | Finite | Road | Fresi | nel | Barrier A | tten | Berr | n Atten | |
| Autos: | 64.30 | -5.04 | | 1.67 | 7 | -1.20 | | -4.63 | C | 0.000 | | 0.000 | |
| Medium Trucks: | 75.75 | -17.50 | | 1.71 | 1 | -1.20 | | -4.87 | C | 0.000 | | 0.000 | |
| Heavy Trucks: | 81.57 | -18.96 | | 1.71 | 1 | -1.20 | | -5.46 | C | 0.000 | | 0.000 | |
| Unmitigated Nois | e Levels (with | out Topo and | barrier | attenu | uation) | | | | | | | | |
| VehicleType | Leq Peak Hou | ır Leq Day | · 1 | Leq Ev | rening | Leq I | Vight | | Ldn | | CN | IEL | |
| Autos: | 59 |).7 | 59.0 | | 57.3 | | 53. | 7 | 61 | .3 | | 61.8 | |
| Medium Trucks: | 58 | 1.8 | 58.3 | | 53.9 | | 53. | 2 | 60 | 0.6 | | 60.9 | |
| Heavy Trucks: | 63 | 3.1 | 61.6 | | 60.6 | | 59. | 5 | 66 | 6.3 | | 66.6 | |
| Vehicle Noise: | 65 | 5.7 | 64.7 | | 62.9 | | 61. | 3 | 68 | 3.3 | | 68.6 | |
| Centerline Distan | ce to Noise Co | ontour (in feet) | 1 | | | | | 1 | | 1 | | | |
| | | | | 70 d | IBA 🛛 | 65 0 | <i>iBA</i> | 1 | 60 dBA | | 55 0 | dBA | |
| | | | Ldn: | | 36 | | 78 | 3 | 16 | 67 | | 361 | |
| | | CI | VEL: | | 38 | | 82 | 2 | 17 | 6 | | 379 | |

| | FHWA-RI | D-77-108 HIGH | WAY NO | DISE | PREDIC | | ODEL | 9/12/2 | .021) | | |
|----------------------------------|--|-----------------|--------------|--------|--------------|----------------------|-----------------|---------------|------------|----------|-----------|
| Scenar Road Nan Road Segme | io: HY 2045 ne: Webster A nt: n/o Morgan | v. ı St. | | | | Project Job Ni | Name: umber: | Ramo 13998 | na Gatewa | y Comn | ne |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | MODE | EL INPUT | S | |
| Highway Data | | | | S | ite Con | ditions (| 'Hard = | 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 7,725 vehicle | es | | | | | Autos | : 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Mee | dium Tru | icks (2 | Axles) | : 15 | | |
| Peak H | lour Volume: | 544 vehicle | s | | Hea | avy Truc | ks (3+ | Axles) | : 15 | | |
| Ve | hicle Speed: | 35 mph | | V | ohiclo I | Nix | | | | | |
| Near/Far La | ne Distance: | 56 feet | | - | Vehi | cleTvpe | | Dav | Evenina | Niaht | Dailv |
| Site Data | | | | | | A | utos: | 71.99 | 6 12.2% | 15.9% | 6 90.47% |
| Ba | rrier Heiaht: | 0.0 feet | | | Me | edium Tr | ucks: | 75.3% | 6 7.0% | 17.79 | 6 5.56% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | H | leavy Tr | ucks: | 60.4% | 6 12.0% | 27.6% | 6 3.97% |
| Centerline Di | st. to Barrier: | 47.0 feet | | N | oise So | urce Ele | evation | s (in f | eet) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | | Autos | . 0 | .000 | , | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediur | n Trucks | : 2 | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | y Trucks | : 8 | .004 | Grade Ad | ljustmer | nt: 0.0 |
| P | ad Elevation: | 0.0 feet | | - | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | L | ane Equ | livalent | Distan | ce (In | reet) | | |
| | Road Grade: | 0.0% | | | | Autos | : 38 | .079 | | | |
| | Left View: Right View: | -90.0 degree | es | | Heav | n Trucks v Trucks | : 37 | .840 869 | | | |
| | ragin tion. | 50.0 dogro. | | | | , | | | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | ice | Finite | Road | Fres | nel | Barrier At | ten Be | erm Atten |
| Autos: Madium Truaka | 64.30 75.75 | -3.82 | | 1.07 | | -1.20 | | -4.03 | 0. | 000 | 0.000 |
| Heavy Trucks | 91.57 | -15.94 | | 1.71 | | -1.20 | | -4.07 | 0. | 000 | 0.000 |
| Tieavy Trucks. | 01.57 | -17.40 | | 1.71 | | =1.20 | | -5.40 | 0. | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | iation) | | | - | | 1 | |
| Venicie I ype | Leq Peak Hou | Ir Leq Day | / Le | eq Eve | ening | Leq I | vignt | _ | Lan | | INEL 00.0 |
| Autos: Madium Truaka | 6 | 1.0 | 60.2 E0.9 | | 58.0 EE E | | 54. EA | 9 | 62. | 5 2 | 63.0 |
| Heavy Trucks | 60 | 1.3 | 09.0 63.2 | | 62.2 | | 04. 61 | 0 1 | 67 | 2 | 69.1 |
| Vehicle Noise | 67 | 12 | 66.1 | | 64.4 | | 62 | 8 | 69 | 8 | 70.1 |
| | | | | | 04.4 | | 02. | • | 00. | • | 70.1 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | 70 d | RA | 65 (| IRA | | 60 dBA | 5 | 5 dBA |
| | | | Ldn: | | 45 | 000 | QS | 1 | 211 | 1 | 454 |
| | | C | NEL | | 43 | | 103 | , 1 | 21 | | 434 |
| | | 0. | | | 40 | | 100 | · | ~~~~ | | 411 |

| 0 | | | _ | | | Desires | | | O -+ | | |
|-----------------------|--------------------------|-----------------|----------|-----------|-----------|---------|------------------------|-------------------|------------|-----------|-----------|
| Scenario Road Nami | D: HTP 2045 | | | | | Projec | t Name | : Ramo - 12009 | na Gatewa | iy Comm | 3 |
| Road Seamen | t: n/o Morgan | St. | | | | 300 1 | vumber | . 13350 | | | |
| SITE | PECIFIC IN | | | | | | NOISE | MODE | | ·s | |
| Highway Data | | | Site Con | ditions | (Hard | = 10, S | oft = 15) | • | | | |
| Average Daily | Traffic (Adt): | 8,125 vehicle | es | | | | | Autos | : 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Ti | rucks (2 | 2 Axles) | : 15 | | |
| Peak He | our Volume: | 573 vehicle | s | | He | avy Tru | icks (3- | Axles) | : 15 | | |
| Vel | nicle Speed: | 35 mph | | ŀ | Vehicle I | Nix | | | | | |
| Near/Far Lar | ne Distance: | 56 feet | | ŀ | Veh | cleTvp | e | Dav | Evenina | Niaht | Dailv |
| Site Data | | | | | | | Autos: | 71.99 | 6 12.2% | 15.9% | 90.94 |
| Bar | rier Heiaht: | 0.0 feet | | | Me | edium 1 | rucks: | 75.3% | 6 7.0% | 17.7% | 5.289 |
| Barrier Type (0-Wa | all, 1-Berm): | 0.0 | | | ŀ | leavy 1 | rucks: | 60.4% | 6 12.0% | 27.6% | 3.789 |
| Centerline Dis | t. to Barrier: | 47.0 feet | | ŀ | Noiso Sa | urco E | lovatio | ne (in f | iont) | | |
| Centerline Dist. t | o Observer: | 47.0 feet | | ŀ | 140/36 30 | Auto | ievauu | 0.000 | eeij | | |
| Barrier Distance t | o Observer: | 0.0 feet | | | Mediu | n Truck | /a. /e [.] | 2 207 | | | |
| Observer Height (/ | Above Pad): | 5.0 feet | | | Heav | v Truck | (S' | 8 004 | Grade Ad | liustment | 0.0 |
| Pa | Pad Elevation: 0.0 feet | | | | | , | | 0.001 | | , | |
| Roa | Road Elevation: 0.0 feet | | | | | uivalen | t Dista | nce (in | feet) | | |
| F | Road Grade: | 0.0% | | | | Auto | os: 3 | 8.079 | | | |
| | Left View: | -90.0 degree | es | | Mediu | n Truck | (s: 3 | 7.846 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Truck | (s: 3 | 7.869 | | | |
| FHWA Noise Mode | I Calculation: | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Di | stance | Finite | Road | Fre | snel | Barrier At | ten Ber | m Atten |
| Autos: | 64.30 | -3.58 | | 1.6 | 57 | -1.20 | | -4.63 | 0. | 000 | 0.00 |
| Medium Trucks: | 75.75 | -15.94 | | 1.7 | '1 | -1.20 | | -4.87 | 0. | 000 | 0.00 |
| Heavy Trucks: | 81.57 | -17.40 | | 1.7 | '1 | -1.20 | | -5.46 | 0. | 000 | 0.00 |
| Unmitigated Noise | Levels (with | out Topo and | barri | ier atter | nuation) | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | / | Leq E | vening | Leq | Night | | Ldn | C | NEL |
| Autos: | 61 | .2 | 60.5 | | 58.8 | | 5 | 5.2 | 62. | 8 | 63. |
| Medium Trucks: | 60 | .3 | 59.8 | | 55.5 | | 54 | 1.8 | 62. | 2 | 62 |
| Heavy Trucks: | 64 | .7 | 63.2 | | 62.2 | | 6 | 1.1 | 67. | 8 | 68. |
| Venicle Noise: | 67 | .3 | 66.2 | | 64.4 | | 62 | 2.8 | 69. | 8 | 70. |
| Centerline Distanc | e to Noise Co | ontour (in feet |) | 70 | -10.4 | | -/0.4 | - | 00 -ID 4 | | -10.4 |
| | | | 1 day | 70 | aba 40 | 65 | авА | | ou aBA | 55 | aBA 45 |
| | | ~ | LUN: | | 46 | | | 98 14 | 212 | <u> </u> | 45 |
| | | | WEL. | | 48 | | 10 | 14 | 223 | 2 | 48 |

Monday, February 28, 2022

| | FHWA-RD | 0-77-108 HIGH\ | NAY NC | ISE I | PREDIC | TION M | IODEL (| 9/12/2 | 2021) | | |
|------------------------------------|---|------------------------|----------|-------|----------|------------------|--------------------|-----------------|--------------|---------|----------|
| Scenari Road Nam Road Segmer | io: E le: Indian Av. nt: s/o Morgan | St. | | | | Project Job N | Name: I lumber: | Ramo 13998 | na Gatewa | y Comm | ie |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | IOISE N | IODI | EL INPUT | S | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, S | oft = 15) | | |
| Average Daily Peak Hour | Traffic (Adt): Percentage: | 9,451 vehicle 7.05% | 5 | | Me | dium Tri | ucks (2 A | Autos Axles) | : 15 : 15 | | |
| Peak H | our volume: | 666 vehicles | | | не | avy iru | CKS (3+ A | (xies) | : 15 | | |
| Ve | hicle Speed: | 45 mph | | V | ehicle l | Nix | | | | | |
| Near/Far La | ne Distance: | 56 feet | | | Veh | icleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 6 12.2% | 15.9% | 90.47% |
| Bai | rrier Heiaht: | 0.0 feet | | | M | edium Ti | rucks: | 75.39 | 6 7.0% | 17.7% | 5.56% |
| Barrier Type (0-W | all, 1-Berm): | 0.0 | | | I | leavy Ti | rucks: | 60.49 | 6 12.0% | 27.6% | 3.97% |
| Centerline Dis | st. to Barrier: | 47.0 feet | | N | oise Sc | ource El | evation | s (in f | eet) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | | Auto | s: 0.0 | 000 | | | - |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | n Truck | e 21 | 297 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | | Heav | v Truck | e 81 | 104 | Grade Ad | iustmen | t: 0.0 |
| Pa | ad Elevation: | 0.0 feet | | | near | y mack | 3. 0. | -00 | , | , | |
| Roa | ad Elevation: | 0.0 feet | | L | ane Eq | uivalent | Distanc | e (in | feet) | | |
| 1 | Road Grade: | 0.0% | | | | Auto | s: 38. | 079 | | | |
| | Left View: | -90.0 degree | S | | Mediu | n Truck | s: 37. | 846 | | | |
| | Right View: | 90.0 degree | S | | Heav | y Truck | s: 37. | 869 | | | |
| FHWA Noise Mode | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite | Road | Fresn | el | Barrier Att | en Be | rm Atten |
| Autos: | 68.46 | -4.04 | | 1.67 | | -1.20 | | -4.63 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -16.16 | | 1.71 | | -1.20 | | -4.87 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -17.61 | | 1.71 | | -1.20 | | -5.46 | 0.0 | 000 | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo and L | arrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | Ir Leq Day | Le | q Ev | ening | Leq | Night | | Ldn | С | NEL |
| Autos: | 64 | .9 6 | 64.2 | | 62.5 | | 58.9 |) | 66.5 | 5 | 66.9 |
| Medium Trucks: | 63 | .8 6 | 3.3 | | 59.0 | | 58.3 | 3 | 65.7 | 7 | 65.9 |
| Heavy Trucks: | 67 | .1 6 | 5.7 | | 64.7 | | 63.5 | 5 | 70.3 | 3 | 70.6 |
| Vehicle Noise: | 70 | .3 6 | 9.3 | | 67.4 | | 65.7 | , | 72.7 | 7 | 73.1 |
| Centerline Distance | ce to Noise Co | ontour (in feet) | | | | | | | | | |
| | | | | 70 d | BA | 65 | dBA | | 60 dBA | 55 | 5 dBA |
| | | 1 | .dn: | | 72 | | 154 | | 332 | ! | 716 |
| | | CN | IEL: | | 75 | | 162 | | 350 | | 753 |
| | | | | | | | | | | | |

| | FRWA-RD | -//-106 ПІЗНИ | AT NUIS | | | EL (9/12/2 | 2021) | | |
|--------------------|-----------------|-----------------------------|-------------|-----------|--------------|------------|--------------|----------|----------|
| Scenar | io: E+P | | | | Project Nar | ne: Ramo | ona Gatewa | y Comm | e |
| Road Nam | e: Indian Av. | | | | Job Numb | er: 13998 | 3 | | |
| Road Segme | nt: s/o Morgan | St. | | | | | | | |
| SITE | SPECIFIC IN | PUT DATA | | | NOIS | E MOD | EL INPUT | s | |
| Highway Data | | | | Site Con | ditions (Hai | d = 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 9,851 vehicles | | | | Autos | : 15 | | |
| Peak Hour | Percentage: | 7.05% | | Me | dium Trucks | (2 Axles) | : 15 | | |
| Peak H | lour Volume: | 694 vehicles | | He | avy Trucks (| 3+ Axles) | : 15 | | |
| Ve | hicle Speed: | 45 mph | | Vehicle I | Vix | | | | |
| Near/Far La | ne Distance: | 56 feet | | Veh | icleType | Day | Evening | Night | Daily |
| Site Data | | | | | Auto | 5: 71.99 | % 12.2% | 15.9% | 90.86% |
| Ba | rrier Height | 0.0 feet | | M | edium Truck | s: 75.39 | % 7.0% | 17.7% | 5.33% |
| Barrier Type (0-W | (all, 1-Berm): | 0.0 | | ŀ | leavy Truck | s: 60.49 | % 12.0% | 27.6% | 3.81% |
| Centerline Di | st. to Barrier: | 47.0 feet | | Noiso Se | urco Elova | ione (in i | Foot) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | 10136 30 | Autos: | 0.000 | eelj | | |
| Barrier Distance | to Observer: | 0.0 feet | | Modiu | m Trucks: | 2 207 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | Heav | n Trucks. | 8 004 | Grade Ad | iustment | t: 0.0 |
| Pa | ad Elevation: | 0.0 feet | | neav | y mucho. | 0.004 | | | |
| Roa | ad Elevation: | 0.0 feet | | Lane Eq | uivalent Dis | tance (in | feet) | | |
| 1 | Road Grade: | 0.0% | | | Autos: | 38.079 | | | |
| | Left View: | -90.0 degrees | | Mediui | m Trucks: | 37.846 | | | |
| | Right View: | 90.0 degrees | | Heav | y Trucks: | 37.869 | | | |
| FHWA Noise Mode | el Calculations | | | 1 | | | | | |
| VehicleType | REMEL | Traffic Flow | Distance | Finite | Road F | resnel | Barrier Atte | en Ber | rm Atten |
| Autos: | 68.46 | -3.84 | 1. | 67 | -1.20 | -4.63 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -16.16 | 1. | 71 | -1.20 | -4.87 | 0.0 |)00 | 0.000 |
| Heavy Trucks: | 84.25 | -17.61 | 1. | 71 | -1.20 | -5.46 | 0.0 |)00 | 0.000 |
| Unmitigated Noise | e Levels (witho | ut Topo and ba | arrier atte | nuation) | | | | - | - |
| VehicleType | Leq Peak Hour | Leq Day | Legi | Evening | Leq Nigh | t | Ldn | C | NEL |
| Autos: | 65. | 1 64 | 1.4 | 62.7 | | 59.1 | 66.7 | 7 | 67.1 |
| Medium Trucks: | 63. | 8 63 | 3.3 | 59.0 | | 58.3 | 65.7 | 7 | 65.9 |
| Heavy Trucks: | 67. | 1 65 | 5.7 | 64.7 | | 63.5 | 70.3 | 3 | 70.6 |
| Vehicle Noise: | 70. | 3 69 | 9.3 | 67.5 | | 65.7 | 72.8 | 3 | 73.1 |
| Centerline Distant | ce to Noise Co | ntour (in feet) | | | | | | | |
| | | | 70 |) dBA | 65 dBA | | 60 dBA | 55 | dBA |
| | | Lo | dn: | 72 | | 155 | 335 | | 721 |
| | | CNE | EL: | 76 | | 163 | 352 | | 759 |
| | | | | | | | | | |

| | FHWA-RI | D-77-108 HIGH | WAY NO | ISE F | REDICT | ION MC | DEL (9/12/ | 2021) | | |
|----------------------------------|--|-----------------|-----------|-------|-----------|---------------------|--------------------------------|-----------------|-----------|------------|
| Scenar Road Nan Road Segme | io: EAC 2024 ne: Indian Av. nt: s/o Morgan | ı St. | | | F | Project N Job Nu | <i>lame:</i> Ram mber: 1399 | ona Gatewa 8 | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | NC | DISE MOD | EL INPUT | S | |
| Highway Data | | | | Si | ite Condi | tions (F | Hard = 10, 3 | Soft = 15) | | |
| Average Daily | Traffic (Adt): | 10,362 vehicle | es | | | | Auto | s: 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Medi | um Truc | cks (2 Axles |): 15 | | |
| Peak H | lour Volume: | 730 vehicle | s | | Heav | y Truck | is (3+ Axles |): 15 | | |
| Ve | hicle Speed: | 45 mph | | Ve | ehicle Mi | x | | | | - |
| Near/Far La | ne Distance: | 56 feet | | - | Vehicl | еТуре | Day | Evening | Night | Daily |
| Site Data | | | | | | AL | itos: 71.9 | % 12.2% | 15.9% | 90.47% |
| Ba | rrier Height: | 0.0 feet | | | Med | ium Tru | icks: 75.3 | % 7.0% | 17.7% | 5.56% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | He | avy Tru | cks: 60.4 | % 12.0% | 27.6% | 3.97% |
| Centerline Di | st. to Barrier: | 47.0 feet | | N | oise Sou | rce Ele | vations (in | feet) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | | Autos: | 0.000 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Medium | Trucks: | 2.297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heavy | Trucks: | 8.004 | Grade Ad | ljustment | t: 0.0 |
| P | ad Elevation: | 0.0 feet | | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | Lá | ane Equi | valent L | Jistance (II | i teet) | | |
| | Road Grade: | 0.0% | | | | Autos: | 38.079 | | | |
| | Left View: | -90.0 degre | es | | Meaium | Trucks: | 37.846 | | | |
| | Right View: | 90.0 degre | es | | Heavy | I rucks: | 37.869 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | ce | Finite R | oad | Fresnel | Barrier Att | en Ber | rm Atten |
| Autos: | 68.46 | -3.64 | | 1.67 | | -1.20 | -4.6 | 3 0. | 000 | 0.000 |
| Medium Trucks: | 79.45 | -15.76 | | 1.71 | | -1.20 | -4.8 | 7 0. | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -17.21 | | 1.71 | | -1.20 | -5.4 | 6 0. | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | / Le | q Eve | ening | Leq N | light | Ldn | C | NEL |
| Autos: | 65 | 5.3 | 64.6 | | 62.9 | | 59.3 | 66. | 9 | 67.3 |
| Medium Trucks: | 64 | 1.2 | 63.7 | | 59.4 | | 58.7 | 66. | 1 | 66.3 |
| Heavy Trucks: | 67 | .5 | 66.1 | | 65.1 | | 63.9 | 70. | 7 | 71.0 |
| Vehicle Noise: | 70 |).7 | 69.7 | | 67.8 | | 66.1 | 73. | 1 | 73.5 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | 70 ." | - | 05.1 | | CO -/DA | | |
| | | | L | /U dE | 5A 70 | 05 di | 5A | ou aBA | 55 | abA Tot |
| | | 0 | Lan: | | 76 | | 164 | 353 | 1 | 761 |
| | | C | VEL: | | 80 | | 173 | 372 | 1 | 801 |

| | FHWA-RL | D-77-108 HIGH | IVVAT | NOISE | PREDIC | | ODEL (| 9/12/2 | JZ 1) | | |
|--------------------|----------------|-----------------|-------|----------|-----------|----------|------------|----------|-------------|----------|----------|
| Scenario | : EAPC 2024 | Ļ | | | | Project | Name: | Ramor | na Gatewa | y Comm | e |
| Road Name | e: Indian Av. | | | | | Job N | umber: | 13998 | | | |
| Road Segmen | t: s/o Morgan | St. | | | | | | | | | |
| SITE S | SPECIFIC IN | IPUT DATA | | | | N | IOISE I | IODE | L INPUT | S | |
| Highway Data | | | | 5 | Site Con | ditions | (Hard = | 10, So | oft = 15) | | |
| Average Daily 1 | Traffic (Adt): | 10,762 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour I | Percentage: | 7.05% | | | Me | dium Tri | ucks (2 / | Axles): | 15 | | |
| Peak Ho | our Volume: | 758 vehicle | s | | Hei | avy Tru | cks (3+ / | Axles): | 15 | | |
| Veh | nicle Speed: | 45 mph | | 1 | /ehicle N | lix | | | | | |
| Near/Far Lan | ne Distance: | 56 feet | | | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 12.2% | 15.9% | 90.83% |
| Ban | rier Height: | 0.0 feet | | | Me | dium T | ucks: | 75.3% | 7.0% | 17.7% | 5.35% |
| Barrier Type (0-Wa | all, 1-Berm): | 0.0 | | | F | leavy Ti | ucks: | 60.4% | 12.0% | 27.6% | 3.82% |
| Centerline Dis | t. to Barrier: | 47.0 feet | | | laise Sa | urco El | ovation | s (in fi | oof) | | |
| Centerline Dist. t | o Observer: | 47.0 feet | | ľ. | 10/30 00 | Auto | evanon. | 000 | | | |
| Barrier Distance t | o Observer: | 0.0 feet | | | Mediur | n Truck | s. 0. | 207 | | | |
| Observer Height (# | Above Pad): | 5.0 feet | | | Heav | v Truck | s. 2. | 004 | Grade Ad | iustment | 0.0 |
| Pa | d Elevation: | 0.0 feet | | | | , | | | | | |
| Roa | d Elevation: | 0.0 feet | | 1 | ane Equ | iivalent | Distan | ce (in i | feet) | | |
| F | Road Grade: | 0.0% | | | | Auto | s: 38. | 079 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Truck | s: 37. | 846 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Truck | s: 37. | 869 | | | |
| FHWA Noise Mode | I Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite | Road | Fresr | el | Barrier Att | en Bei | rm Atten |
| Autos: | 68.46 | -3.46 | | 1.6 | 7 | -1.20 | | -4.63 | 0.0 | 000 | 0.00 |
| Medium Trucks: | 79.45 | -15.76 | | 1.7 | 1 | -1.20 | | -4.87 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 84.25 | -17.21 | | 1.7 | 1 | -1.20 | | -5.46 | 0.0 | 000 | 0.00 |
| Unmitigated Noise | Levels (with | out Topo and | barri | er atten | uation) | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | / | Leg Ev | rening | Leq | Night | | Ldn | С | NEL |
| Autos: | 65 | .5 | 64.8 | | 63.1 | | 59.5 | 5 | 67. | D | 67. |
| Medium Trucks: | 64 | .2 | 63.7 | | 59.4 | | 58.7 | 7 | 66. | 1 | 66. |
| Heavy Trucks: | 67 | .5 | 66.1 | | 65.1 | | 63.9 |) | 70. | 7 | 71.0 |
| Vehicle Noise: | 70 | .7 | 69.7 | | 67.9 | | 66.1 | | 73.: | 2 | 73. |
| Centerline Distanc | e to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | Latar | 70 0 | IBA | 65 | ara 102 | 6 | о авА | 55 | aBA |
| | | ~ | Lan: | | 77 | | 165 | | 356 | • | 766 |
| | | C | VEL. | | 81 | | 174 | | 374 | | 806 |

Monday, February 28, 2022

| | FHWA-RD- | -//-108 HIGHV | VAY N | DISE | PREDIC | TION M | IODEL | 9/12/2 | :021) | | | |
|---------------------------------------|---|-----------------|----------|-------|-----------|------------------|------------------|---------------|----------|--------|-------|---------|
| Scenario Road Name Road Segment | e: HY 2045 e: Indian Av. t: s/o Morgan \$ | St. | | | | Project Job N | Name: lumber: | Ramo 13998 | na Gate | eway C | omme | • |
| SITE S | PECIFIC INF | PUT DATA | | | | N | IOISE | MODE | EL INP | UTS | | |
| Highway Data | | | | | Site Con | ditions | (Hard = | 10, S | oft = 15 |) | | |
| Average Daily T | raffic (Adt): | 14,955 vehicles | 6 | | | | | Autos | : 15 | | | |
| Peak Hour F | Percentage: | 7.05% | | | Me | dium Tri | ucks (2 | Axles) | : 15 | | | |
| Peak Ho | our Volume: | 1,054 vehicles | | | He | avy Tru | cks (3+ | Axles) | : 15 | | | |
| Veh | icle Speed: | 45 mph | | H | Vehicle I | Mix | | | | | | |
| Near/Far Lan | e Distance: | 56 feet | | F | Veh | icleTvne | | Dav | Eveni | na N | iaht | Daily |
| Site Data | | | | - | | 0.01.jp0 | Autos: | 71.99 | 6 12.2 | 2% 1 | 5.9% | 90.47% |
| Par | ior Hoight: | 0.0 foot | | | Me | edium Ti | rucks: | 75.39 | 6 7.0 | 0% 1 | 7.7% | 5.56% |
| Barrier Type (0-Wa | all 1-Rerm) | 0.0 1001 | | | ŀ | leavy Ti | rucks: | 60.4% | 6 12.0 | 0% 2 | 7.6% | 3.97% |
| Centerline Dist | t. to Barrier: | 47.0 feet | | - | N 0- | | | - 6- 4 | 41 | | | |
| Centerline Dist. to | o Observer: | 47.0 feet | | H | Noise Sc | ource El | evation | s (in f | eet) | | | |
| Barrier Distance to | o Observer: | 0.0 feet | | | | Auto | s: 0 | .000 | | | | |
| Observer Height (A | bove Pad): | 5.0 feet | | | Mediui | n Truck | s: 2 | .297 | 0 | A | | 0.0 |
| Pa | d Elevation: | 0.0 feet | | | Heav | y Truck | s: 8 | .004 | Grade | Aajus | ment: | 0.0 |
| Road | d Elevation: | 0.0 feet | | 1 | Lane Equ | uivalent | t Distan | ce (in | feet) | | | |
| R | oad Grade: | 0.0% | | | | Auto | s: 38 | .079 | | | | |
| | Left View: | -90.0 degrees | 3 | | Mediui | n Truck | s: 37 | .846 | | | | |
| | Right View: | 90.0 degrees | 3 | | Heav | y Truck | s: 37 | .869 | | | | |
| FHWA Noise Model | Calculations | | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | nce | Finite | Road | Fres | nel | Barrier | Atten | Ben | m Atten |
| Autos: | 68.46 | -2.04 | | 1.6 | 7 | -1.20 | | -4.63 | | 0.000 | | 0.000 |
| Medium Trucks: | 79.45 | -14.16 | | 1.7 | '1 | -1.20 | | -4.87 | | 0.000 | | 0.000 |
| Heavy Trucks: | 84.25 | -15.62 | | 1.7 | '1 | -1.20 | | -5.46 | | 0.000 | | 0.000 |
| Unmitigated Noise | Levels (witho | ut Topo and b | arrier a | atten | nuation) | | | | | | | |
| VehicleType L | eq Peak Hour | Leq Day | L | eq E | vening | Leq | Night | | Ldn | | CI | IEL |
| Autos: | 66.9 | 96 | 6.2 | | 64.5 | | 60. | 9 | | 68.5 | | 68.9 |
| Medium Trucks: | 65.8 | в 6 | 5.3 | | 61.0 | | 60. | 2 | | 67.6 | | 67.9 |
| Heavy Trucks: | 69.1 | 1 6 | 7.7 | | 66.7 | | 65. | 5 | | 72.3 | | 72.6 |
| Vehicle Noise: | 72.3 | 3 7 | 1.3 | | 69.4 | | 67. | 7 | | 74.7 | | 75.1 |
| Centerline Distance | e to Noise Cor | ntour (in feet) | | | | | | - | | | | |
| | | | | 70 | dBA | 65 | dBÁ | | 60 dBA | | 55 | dBA |
| | | L | dn: | | 97 | | 209 |) | | 451 | | 972 |
| | | CN | EL: | | 102 | | 220 |) | | 475 | | 1,023 |

| | FHWA-RI | D-77-108 HIGHW | AY NOIS | | | DDEL (9 |)/12/20 | 021) | | |
|----------------------------------|--|--------------------------|------------|-----------|---------------------|---------------------------|----------------------------|----------------|---------|---------|
| Scenai Road Nan Road Segme | rio: HYP 2045 ne: Indian Av. ent: s/o Morgan | St. | | | Project I Job Nu | Vame: F mber: 1 | Ramor 3998 | na Gateway | Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | N | DISE N | IODE | L INPUTS | ; | |
| Highway Data | | | | Site Con | ditions (l | Hard = | 10, So | oft = 15) | | |
| Average Daily Peak Hour | Traffic (Adt): Percentage: | 15,355 vehicles 7.05% | | Me | dium Truc | A cks (2 A ks (3+ 4 | Autos: xles): xles): | 15 15 15 | | |
| 1 cuit 1 | hicle Sneed | 45 mph | | | ary 1100 | 10 10 - 71 | 5.100). | 10 | | |
| Near/Ear La | ane Distance: | 56 feet | | Vehicle | Mix | | | | | |
| | nio Biotanioo. | 30 1001 | | Veh | icleType | 1 | Day | Evening | Night | Daily |
| Site Data | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.72% |
| Ba | rrier Height: | 0.0 feet | | M | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 5.41% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | Heavy Tru | icks: | 60.4% | 12.0% | 27.6% | 3.87% |
| Centerline Di | ist. to Barrier: | 47.0 feet | | Noise So | ource Ele | vations | in fe | eet) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | Autos. | : 0.0 | 000 | , | | |
| Barrier Distance | to Observer: | 0.0 feet | | Mediu | m Trucks. | 2.2 | 97 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | Heav | /v Trucks | : 8.0 | 04 | Grade Adj | ustment | : 0.0 |
| P | ad Elevation: | 0.0 feet | | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | Lane Eq | uivalent | Distanc | e (in 1 | reet) | | |
| | Road Grade: | 0.0% | | | Autos. | 38.0 | 079 | | | |
| | Left View: | -90.0 degrees | | Mediu | m Trucks. | 37.8 | 346 | | | |
| | Right View: | 90.0 degrees | | Heat | /y Trucks. | 37.8 | 369 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distance | Finite | Road | Fresn | e/ | Barrier Atte | n Ber | m Atten |
| Autos: | 68.46 | -1.92 | 1 | .67 | -1.20 | | 4.63 | 0.0 | 00 | 0.000 |
| Medium Trucks: | 79.45 | -14.16 | 1. | .71 | -1.20 | | 4.87 | 0.0 | 00 | 0.000 |
| Heavy Trucks: | 84.25 | -15.62 | 1 | .71 | -1.20 | | -5.46 | 0.0 | 00 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and ba | rrier atte | enuation) | | | | | | |
| VehicleType | Leq Peak Hou | Ir Leq Day | Leq | Evening | Leq N | light | | Ldn | C | NEL |
| Autos: | 67 | .0 66 | .3 | 64.6 | | 61.0 | | 68.6 | | 69.0 |
| Medium Trucks: | 65 | 5.8 65 | .3 | 61.0 | | 60.2 | | 67.6 | | 67.9 |
| Heavy Trucks: | 69 | 0.1 67 | .7 | 66.7 | | 65.5 | | 72.3 | | 72.6 |
| Vehicle Noise: | 72 | 2.3 71 | .3 | 69.4 | | 67.7 | | 74.8 | | 75.1 |
| Centerline Distan | ce to Noise Co | ontour (in feet) | | | | | | | | |
| | | | 70 | 0 dBA | 65 d | BA | 6 | 60 dBA | 55 | dBA |
| | | Ld | n: | 98 | | 210 | | 453 | | 977 |
| | | CNE | L: | 103 | | 221 | | 477 | | 1,028 |

| | FHWA-R | D-77-108 HIGH | WAY N | DISE F | PREDIC | TION MC | DEL (| 9/12/20 | 021) | | |
|----------------------------------|--|-----------------|-----------|--------|----------|---------------------|----------------|----------------|-------------|----------|----------|
| Scenar Road Nan Road Segme | rio: E ne: Indian Av. ent: n/o Ramon | а Ехру. | | | | Project N Job Nu | lame: mber: | Ramon 13998 | a Gatewa | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | DISE | IODE | L INPUT | S | |
| Highway Data | | | | S | ite Con | ditions (I | lard = | 10, So | ft = 15) | | |
| Average Daily | Traffic (Adt): | 9,352 vehicl | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Mee | dium Truc | cks (2 / | Axles): | 15 | | |
| Peak H | Hour Volume: | 659 vehicle | s | | Hea | avy Truck | (3+ A | Axles): | 15 | | |
| Ve | ehicle Speed: | 45 mph | | V | ohiclo I | <i>liv</i> | | | | | |
| Near/Far La | ane Distance: | 56 feet | | | Vehi | cleTvpe | | Dav | Evenina | Night | Dailv |
| Site Data | | | | | | AL | itos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Heiaht: | 0.0 feet | | | Me | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | H | leavy Tru | icks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 47.0 feet | | N | oise So | urce Ele | vation | s (in fe | et) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | | Autos: | 0. | 000 | , | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediur | n Trucks: | 2. | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | y Trucks: | 8. | 004 | Grade Ad | justment | : 0.0 |
| P | ad Elevation: | 0.0 feet | | | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | Li | ane Equ | livalent L | Jistano | ce (in f | eet) | | |
| | Road Grade: | 0.0% | | | | Autos: | 38. | 079 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Trucks: | 37. | 846 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks: | 37. | 869 | | | |
| FHWA Noise Mod | lel Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | nce | Finite | Road | Fresr | el i | Barrier Att | en Ber | rm Atten |
| Autos: | 68.46 | -4.08 | | 1.67 | | -1.20 | | -4.63 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -16.20 | | 1.71 | | -1.20 | | -4.87 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -17.66 | | 1.71 | | -1.20 | | -5.46 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | attenu | ation) | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Day | / L | eq Eve | ening | Leq N | light | | Ldn | C | NEL |
| Autos: | 64 | 1.8 | 64.1 | | 62.5 | | 58.8 | 3 | 66.4 | 4 | 66.9 |
| Medium Trucks: | 63 | 3.8 | 63.3 | | 58.9 | | 58.2 | 2 | 65.6 | 6 | 65.9 |
| Heavy Trucks: | 67 | 7.1 | 65.6 | | 64.6 | | 63.5 | 5 | 70.2 | 2 | 70.6 |
| Vehicle Noise: | 70 |).2 | 69.2 | | 67.4 | | 65.6 | 6 | 72.7 | 7 | 73.0 |
| Centerline Distan | ce to Noise C | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | BA | 65 d | BA | 6 | 0 dBA | 55 | dBA |
| | | | Ldn: | | 71 | | 153 | | 330 | | 711 |
| | | C | NEL: | | 75 | | 161 | | 347 | | 748 |

| | FHWA-RL | D-77-108 HIGH | WAI | NUISE | PREDIC | | | 5/12/2 | 021) | | |
|---------------------|---------------|-----------------|-------|----------|-----------|---------|-----------|---------|-------------|---------|----------|
| Scenario | : E+P | | | | | Projec | t Name: | Ramo | na Gatewa | y Comm | e |
| Road Name | : Indian Av. | | | | | Job N | lumber: | 13998 | | | |
| Road Segmen | t n/o Ramon | a Expy. | | | | | | | | | |
| SITE S | PECIFIC IN | IPUT DATA | | | | 1 | NOISE | MODE | L INPUT | s | |
| Highway Data | | | | | Site Cond | ditions | (Hard = | 10, Se | oft = 15) | | |
| Average Daily T | raffic (Adt): | 9,608 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour F | Percentage: | 7.05% | | | Med | dium Tr | ucks (2 | Axles): | 15 | | |
| Peak Ho | ur Volume: | 677 vehicle | s | | Hea | avy Tru | cks (3+ . | Axles): | 15 | | |
| Veh | icle Speed: | 45 mph | | F | Vehicle N | lix | | | | | |
| Near/Far Lan | e Distance: | 56 feet | | ŀ | Vehi | cleType | 9 | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 6 12.2% | 15.9% | 90.739 |
| Barr | ier Height: | 0.0 feet | | | Me | dium T | rucks: | 75.3% | 5 7.0% | 17.7% | 5.419 |
| Barrier Type (0-Wa | II, 1-Berm): | 0.0 | | | H | leavy T | rucks: | 60.4% | 5 12.0% | 27.6% | 3.869 |
| Centerline Dist | to Barrier: | 47.0 feet | | F | Noise So | urce E | levation | s (in f | eet) | | |
| Centerline Dist. to | o Observer: | 47.0 feet | | F | | Auto | s: 0 | 000 | | | |
| Barrier Distance to | o Observer: | 0.0 feet | | | Mediun | n Truck | (s: 2 | 297 | | | |
| Observer Height (A | lbove Pad): | 5.0 feet | | | Heav | v Truck | (S) 8 | 004 | Grade Ad | iustmen | t: 0.0 |
| Pa | d Elevation: | 0.0 feet | | ļ | | , | | | | | |
| Road | d Elevation: | 0.0 feet | | - | Lane Equ | iivalen | t Distan | ce (in | feet) | | |
| R | oad Grade: | 0.0% | | | | Auto | s: 38 | .079 | | | |
| | Left View: | -90.0 degree | es | | Mediun | n Truck | (s: 37 | .846 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Truck | (S. 37 | .869 | | | |
| FHWA Noise Model | Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite | Road | Fresi | nel | Barrier Att | en Be | rm Atten |
| Autos: | 68.46 | -3.95 | | 1.6 | 67 | -1.20 | | -4.63 | 0.0 | 000 | 0.00 |
| Medium Trucks: | 79.45 | -16.20 | | 1.7 | '1 | -1.20 | | -4.87 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 84.25 | -17.66 | | 1.7 | 1 | -1.20 | | -5.46 | 0.0 | 000 | 0.00 |
| Unmitigated Noise | Levels (with | out Topo and | barri | er atter | nuation) | | | | | | |
| VehicleType I | eq Peak Hou | ir Leq Day | / | Leq E | vening | Leq | Night | | Ldn | C | NEL |
| Autos: | 65 | .0 | 64.3 | | 62.6 | | 59. | 0 | 66. | 6 | 67. |
| Medium Trucks: | 63 | .8 | 63.3 | | 58.9 | | 58. | 2 | 65. | 6 | 65. |
| Heavy Trucks: | 67 | .1 | 65.6 | | 64.6 | | 63. | 5 | 70.3 | 2 | 70. |
| Vehicle Noise: | 70 | .3 | 69.3 | | 67.4 | | 65. | 7 | 72. | 7 | 73. |
| Centerline Distance | e to Noise Co | ontour (in feet |) | | | | | | | 1 | |
| | | | . L | 70 | dBA | 65 | dBA | | 50 dBA | 55 | 6 dBA |
| | | | Ldn: | | 71 | | 154 | | 332 | | 714 |
| | | | | | | | | | | | |

Monday, February 28, 2022

| | FHWA-RD | -77-108 HIGHW | 'AY NC | DISE | PREDIC | TION MO | DEL (9 | /12/20 | 021) | | |
|---|--|--|--------------------------|-----------------------|---|---|---|---|--|---------------------------|----------------------------------|
| Scenario: Road Name: Road Segment: | EAC 2024 Indian Av. n/o Ramona | Expy. | | | | Project N Job Nur | ame: F nber: 1 | Ramor 3998 | na Gatewa | y Comme | e |
| SITE SP | ECIFIC IN | PUT DATA | | | | NO | ISE N | IODE | | 5 | |
| Highway Data Average Daily Tra Peak Hour Pe Peak Hou Vehic Near/Far Lane | ffic (Adt): rcentage: r Volume: le Speed: Distance: | 10,549 vehicles 7.05% 743 vehicles 45 mph 56 feet | | v | Mee Mee Hee Yehicle M | ditions (H dium Truc avy Truck: Nix | ks (2 A s (3+ A | 10, Sc Autos: xles): xles): | nt = 15) 15 15 15 | | |
| Sito Data | Biotanoo. | 30 1001 | | _ | Vehi | cleType | tos: | Day 71.0% | Evening | Night | Daily |
| Barrie Barrier Type (0-Wall, | r Height: 1-Berm): | 0.0 feet 0.0 | | | Me F | dium Truc leavy Truc | cks: cks: (| 75.3% 60.4% | 7.0% | 17.7% 27.6% | 5.56% 3.97% |
| Centerine Dist. 1 o Centerline Dist. to i Barrier Distance to i Observer Height (Ab Pad Road I Road Road Road Road Road Road Road Road | to Barner: Dbserver: Dbserver: Dove Pad): Elevation: Elevation: ad Grade: Left View: ight View: Calculations REMEL 68.46 79.45 | 47.0 feet 47.0 feet 0.0 feet 5.0 feet 0.0 feet 0.0% -90.0 degrees 90.0 degrees 7raffic Flow -3.56 -15.68 | Distan | L 1.67 1.71 | Ioise So Mediur Heav ane Equ Mediur Heav | urce Elev Autos: n Trucks: y Trucks: itvalent D Autos: n Trucks: y Trucks: Road -1.20 -1.20 | rations 0.0 2.2 8.0 iistanc 38.0 37.8 37.8 Fresne | (in fe 100 197 104 e (in 1 179 146 169 146 169 146 169 146 169 146 169 146 169 169 169 169 169 169 169 16 | Grade Adj feet) Barrier Att 0.0 | iustment en Ber 000 | : 0.0 m Atten 0.00 0.00 |
| Heavy Trucks: | 84.25 | -17.14 | | 1.71 | | -1.20 | | -5.46 | 0.0 | 000 | 0.00 |
| Unmitigated Noise Lo VehicleType Le | e vels (witho q Peak Hour | ut Topo and ba | arrier a | ttenι eq Ev | iation) ening | Leq Ni | ght | | Ldn | CI | VEL |
| Autos: Medium Trucks: Heavy Trucks: Vehicle Noise: | 65. 64. 67. 70. | 4 64 3 63 6 66 8 69 | 4.7 3.8 3.2 9.8 | | 63.0 59.5 65.2 67.9 | | 59.4 58.7 64.0 66.2 | | 66.9 66.1 70.8 73.2 | 9 1 3 2 | 67. 66. 71. 73. |
| Centerline Distance t | o Noise Co | ntour (in feet) | Т | | | | | | | 1 | |
| | | Lo | in: EL: | 70 d | BA 77 81 | 65 dE | 166 175 | 6 | 358 376 | 55 | dBA 770 810 |

| | FHWA-RD | 0-77-108 HIGHW | AY NO | SE PRED | ICTION M | ODEL (9 | 9/12/2 | 021) | | |
|---|--|------------------|-----------|-----------|------------------|---------------------|----------------|--------------|---------|----------|
| Scenari Road Nam Road Segmer | o: EAPC 2024 e: Indian Av. nt: n/o Ramon | а Ехру. | | | Project Job N | Name: I umber: ' | Ramoi 13998 | na Gateway | / Comm | e |
| SITE | SPECIFIC IN | PUT DATA | | | N | OISE N | IODE | L INPUT | 5 | |
| Highway Data | | | | Site Co | onditions | (Hard = | 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 10,805 vehicles | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | ^ | Aedium Tru | icks (2 A | (xles) | 15 | | |
| Peak H | our Volume: hicle Speed: | 761 vehicles | | | leavy Truc | cks (3+ A | (xles): | 15 | | |
| Near/Ear La | nicle Speeu. | 45 mpn | | Vehicl | e Mix | | | | | |
| Nedi/Fai Lai | le Distance. | 20 ieer | | Ve | ehicleType | | Day | Evening | Night | Daily |
| Site Data | | | | | A | Autos: | 71.9% | 5 12.2% | 15.9% | 90.70% |
| Bai | rier Height: | 0.0 feet | | | Medium Ti | ucks: | 75.3% | 5 7.0% | 17.7% | 5.42% |
| Barrier Type (0-W | all, 1-Berm): | 0.0 | | | Heavy Ti | rucks: | 60.4% | 12.0% | 27.6% | 3.88% |
| Centerline Dis | st. to Barrier: | 47.0 feet | | Noise | Source El | evations | s (in fe | eet) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | Autos | s: 0.(| 000 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | Med | ium Truck | s; 2.2 | 297 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | He | avv Truck | s: 8.0 | 004 | Grade Adj | ustment | : 0.0 |
| Pa | ad Elevation: | 0.0 feet | | - | | | | | | |
| Roa | ad Elevation: | 0.0 feet | | Lane E | quivalent | Distanc | e (in i | teet) | | |
| , i i i i i i i i i i i i i i i i i i i | Road Grade: | 0.0% | | | Autos | s: 38.0 | 079 | | | |
| | Left View: | -90.0 degrees | | Mea | ium Truck | s: 37. | 846 | | | |
| | Right View: | 90.0 degrees | | He | avy Truck | s: 37. | 869 | | | |
| FHWA Noise Mode | el Calculation: | S | | 1 | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distanc | e Fini | te Road | Fresn | el | Barrier Atte | en Bei | rm Atten |
| Autos: | 68.46 | -3.45 | | 1.67 | -1.20 | | -4.63 | 0.0 | 00 | 0.000 |
| Medium Trucks: | 79.45 | -15.68 | | 1.71 | -1.20 | | -4.87 | 0.0 | 00 | 0.000 |
| Heavy Trucks: | 84.25 | -17.14 | | 1.71 | -1.20 | | -5.46 | 0.0 | 00 | 0.000 |
| Unmitigated Noise | Levels (with | out Topo and b | arrier at | tenuation |) | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | Le | q Evening | Leq | Night | | Ldn | С | NEL |
| Autos: | 65 | .5 6 | 4.8 | 63 | .1 | 59.5 | 5 | 67.1 | | 67.5 |
| Medium Trucks: | 64 | .3 6 | 3.8 | 59 | .5 | 58.7 | , | 66.1 | | 66.4 |
| Heavy Trucks: | 67 | .6 6 | 5.2 | 65 | .2 | 64.0 |) | 70.8 | } | 71.1 |
| Vehicle Noise: | 70 | .8 6 | 9.8 | 67 | .9 | 66.2 | | 73.2 | 2 | 73.6 |
| Centerline Distance | e to Noise Co | ontour (in feet) | | | | | | | | |
| | | | | 70 dBA | 65 | dBA | 6 | 60 dBA | 55 | dBA |
| | | L | dn: | 7 | 7 | 167 | | 359 | | 774 |
| | | CN | EL: | 8 | 1 | 175 | | 378 | | 814 |

| | FHWA-R | D-77-108 HIGH | WAY NO | DISE | PREDIC | | DDEL (| 9/12/2 | 021) | | |
|---------------------------------|--|-----------------|-----------|--------|--------------|---------------------|---------------------|----------------|-------------|----------|----------|
| Scena Road Nan Road Segme | rio: HY 2045 ne: Indian Av. ent: n/o Ramon | a Expy. | | | | Project I Job Nu | Name: F Imber: 1 | Ramoi 13998 | na Gatewa | y Comm | e |
| SITE | SPECIFIC IN | NPUT DATA | | | | N | OISE N | IODE | L INPUT | s | |
| Highway Data | | | | S | ite Con | ditions (| Hard = | 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 15,093 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 A | (xles) | 15 | | |
| Peak I | Hour Volume: | 1,064 vehicle | в | | He | avy Truci | ks (3+ A | (xles | 15 | | |
| Ve | ehicle Speed: | 45 mph | | V | ehicle I | Mix | | | | | |
| Near/Far La | ane Distance: | 56 feet | | - | Vehi | icleTvpe | | Dav | Evenina | Night | Dailv |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Heiaht: | 0.0 feet | | | Me | edium Tru | ucks: | 75.3% | 5 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | ŀ | leavy Tru | ucks: | 60.4% | 5 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 47.0 feet | | N | oise So | urce Ele | vations | s (in f | eet) | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | | Autos | : 0.0 | 000 | , | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediur | n Trucks | : 2.2 | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | y Trucks | : 8.0 | 004 | Grade Ad | justment | : 0.0 |
| P | ad Elevation: | 0.0 feet | | | | | Di-4 | | 641 | | |
| Ro | ad Elevation: | 0.0 feet | | L | ane Equ | livalent | Distanc | e (In | reet) | | |
| | Road Grade: | 0.0% | | | | Autos. | . 38.0 | 0/9 | | | |
| | Lent View: | -90.0 degree | es | | Heav | n Trucks | . 37.0 | 040 960 | | | |
| | Right view. | 90.0 degree | :5 | | neav | y mucks. | . 57.0 | 005 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | nce | Finite | Road | Fresn | el | Barrier Att | en Ber | rm Atten |
| Autos: | 68.46 | -2.00 | | 1.67 | | -1.20 | | -4.63 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -14.12 | | 1.71 | | -1.20 | | -4.87 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -15.58 | | 1.71 | | -1.20 | | -5.46 | 0.0 | 100 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | T | |
| VehicleType | Leq Peak Ho | ur Leq Day | ' Le | eq Eve | ening | Leq N | light | | Ldn | C | NEL |
| Autos: | 66 | 3.9 | 66.2 | | 64.5 | | 60.9 |) | 68.5 | 5 | 69.0 |
| Medium Trucks: | 65 | 5.8 | 65.3 | | 61.0 | | 60.3 | 3 | 67.1 | r | 67.9 |
| Heavy Trucks: | 65 | 9.2 | 57.7 | | 66.7 | | 65.6 |) , | 72.3 | 3 | 72.6 |
| venicie ivoise. | 14 | 2.3 | /1.3 | | 69.4 | | 67.7 | | 74.0 | 5 | /5.1 |
| Centerline Distan | ce to Noise C | ontour (in feet |) | 70 - | D A 1 | 65 - | DA | | C dBA | | dDA |
| | | | I dn: | 70 al | DM 00 | 65 d | DM 014 | | | 55 | 070 |
| | | 0 | | | 102 | | 211 | | 454 | | 978 |
| | | C. | VĽL. | | 103 | | 222 | | 4/8 | | 1,029 |

| | 10/0 00/5 | | | | | . · | | | 0.1 | | |
|---------------------------|--------------------------------|------------------|-------|-----------|-----------|-----------|------------------|-----------|------------|-----------|-----------|
| Scenario Bood Norm | 2: HYP 2045 | | | | | Projec | t Name | e: Ramo | na Gatewa | iy Comm | 9 |
| Road Seamen | s. Inulan Av. | a Expy | | | | J00 I | vumbe | 1. 13990 | | | |
| | | | | | | | | | | | |
| Highway Data | SPECIFIC IN | PUTDATA | | | Site Con | ditions | Hard | = 10. S | cft = 15 | 3 | |
| Average Daily | Traffic (Adt) | 15 350 vehicle | es | | | | (| Autos | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium T | rucks (| 2 Axles) | : 15 | | |
| Peak H | our Volume: | 1.082 vehicle | s | | He | avv Tru | icks (3 | + Axles) | : 15 | | |
| Vel | nicle Speed: | 45 mph | | - | V-6 | | | , | | | |
| Near/Far Lar | ne Distance: | 56 feet | | - | Venicie i | iolo Turo | | Dev | Evening | Night | Dailu |
| Sito Data | | | | | ven | cieryp | e Autos: | 71 Q9 | 6 12.2% | 15 Q% | 00.639 |
| Sile Dala | | | | | M | odium 1 | nucks: Trucks | 75.39 | 6 7.0% | 17.7% | 5.469 |
| Bar Domine Time (0.14) | rier Height: | 0.0 feet | | | ŀ | leavy 1 | Trucks: | 60.49 | 6 12.0% | 27.6% | 3 909 |
| Centerline Dis | all, 1-Berm): t to Parrier: | 0.0 47.0 foot | | | | , | | 00.17 | 0 12.070 | 27.070 | 0.00 |
| Centerline Dist | o Observer: | 47.0 feet | | 2 | Noise Sc | ource E | levatio | ons (in f | eet) | | |
| Barrier Distance t | o Observer: | 0.0 feet | | | | Auto | os: | 0.000 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | | Mediu | m Truci | ks: | 2.297 | | | |
| Pa | d Elevation: | 0.0 feet | | | Heav | y Truci | KS: | 8.004 | Grade Ad | ijustment | : 0.0 |
| Roa | d Elevation: | 0.0 feet | | | Lane Eq | uivalen | t Dista | nce (in | feet) | | |
| F | Road Grade: | 0.0% | | ſ | | Auto | os: 3 | 88.079 | | | |
| | Left View: | -90.0 degree | es | | Mediu | m Truci | ks: 3 | 87.846 | | | |
| | Right View: | 90.0 degree | es | | Heav | y Truci | ks: 3 | 87.869 | | | |
| FHWA Noise Mode | I Calculation: | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Di | stance | Finite | Road | Fre | esnel | Barrier At | ten Ber | m Atten |
| Autos: | 68.46 | -1.92 | | 1.6 | 7 | -1.20 | | -4.63 | 0. | 000 | 0.00 |
| Medium Trucks: | 79.45 | -14.12 | | 1.7 | 1 | -1.20 | | -4.87 | 0. | 000 | 0.00 |
| Heavy Trucks: | 84.25 | -15.58 | | 1.7 | 1 | -1.20 | | -5.46 | 0. | 000 | 0.00 |
| Unmitigated Noise | Levels (with | out Topo and | barri | ier atter | uation) | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | / | Leq E | vening | Leq | Night | | Ldn | C | NEL |
| Autos: | 67 | .0 | 66.3 | | 64.6 | | 6 | 1.0 | 68. | 6 | 69. |
| Medium Trucks: | 65 | .8 | 65.3 | | 61.0 | | 6 | 0.3 | 67. | 7 | 67. |
| Heavy Trucks: | 69 | .2 | 67.7 | | 66.7 | | 6 | 5.6 | 72. | 3 | 72 |
| Vehicle Noise: | 72 | .3 | 71.3 | | 69.5 | | 6 | 7.7 | 74. | 8 | 75. |
| Centerline Distanc | e to Noise Co | ontour (in feet |) | 70 | -10.4 | | | | 00 -ID 4 | | -10.4 |
| | | | 1 day | 70 | OBA 00 | 65 | aBA | 44 | ou aBA | 55 | aBA 00 |
| | | ~ | LUN: | | 98 | | 2 | 22 | 45 | 2 | 1.00 |
| | | | WEL. | | 103 | | 2 | 22 | 475 | 9 | 1,032 |

Monday, February 28, 2022

| | FHWA-RI | D-77-108 HIGH | WAY NO | ISE F | PREDIC | | IODEL | (9/12/2 | 2021) | | | |
|--------------------------------------|---|---|-----------|--------|----------|---------------------|--------------------|---------------------------|----------------------|-------|--------|---------|
| Scenai Road Nan Road Segme | rio: E ne: Perris Blvd nt: n/o Ramon | a Expy. | | | | Project Job N | Name: lumber: | Ramo 13998 | ona Gate 3 | way C | omme | • |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | IOISE | MOD | | JTS | | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | = 10, S | oft = 15 | | | |
| Average Daily Peak Hour Peak F | Traffic (Adt): Percentage: Iour Volume: | 30,680 vehicle 7.05% 2,162 vehicles | s | | Me He | dium Tri avy Tru | ucks (2 cks (3+ | Autos Axles) Axles) | : 15 : 15 : 15 | | | |
| Ve | hicle Speed: | 45 mph | | | | | | , | - | | | |
| Near/Far La | ne Distance: | 80 feet | | V | enicie i | MIX icleType | | Dav | Eveni | M | iaht | Daily |
| Site Data | | | | _ | ven | icie i ype | Autos: | 71.99 | % 12.2 | % 1 | 5.9% | 90.47% |
| Ba | rrier Height | 0.0 feet | | | M | edium T | rucks: | 75.39 | % 7.0 | % 1 | 7.7% | 5.56% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 1001 | | | 1 | Heavy T | rucks: | 60.49 | % 12.0 | % 2 | 7.6% | 3.97% |
| Centerline D | ist. to Barrier: | 64.0 feet | | N | oise So | ource El | levatior | ns (in i | feet) | | | |
| Centerline Dist. | to Observer: | 64.0 feet | | | | Auto | s: 0 | .000 | , | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Truck | s: 2 | .297 | | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | y Truck | s: 8 | .004 | Grade | Adjus | tment: | 0.0 |
| P | ad Elevation: | 0.0 feet | | | ano Fa | uivalon | t Dietar | nco (in | foot) | | | |
| Ro | ad Elevation: | 0.0 feet | | - | ane Ly | Auto | C DIStan | 210 | leelj | | | |
| | Loft View: | 0.0% | ~ | | Mediu | m Truck | S. 50 | 022 | | | | |
| | Right View: | 90.0 degree | s | | Heav | ry Truck | s: 50 | .050 | | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite | Road | Fres | nel | Barrier | Atten | Ben | m Atten |
| Autos: | 68.46 | 1.08 | | -0.13 | | -1.20 | | -4.70 | | 0.000 | ĺ | 0.000 |
| Medium Trucks: | 79.45 | -11.04 | | -0.11 | | -1.20 | | -4.88 | | 0.000 | | 0.000 |
| Heavy Trucks: | 84.25 | -12.50 | | -0.11 | | -1.20 | | -5.31 | | 0.000 | | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and I | barrier a | ttenu | ation) | | | | | | | |
| VehicleType | Leq Peak Hou | ır Leq Day | Le | eq Eve | ening | Leq | Night | | Ldn | | CI | VEL |
| Autos: | 68 | .2 | 37.5 | | 65.8 | | 62. | 2 | (| 6.98 | | 70.2 |
| Medium Trucks: | 67 | .1 (| 6.6 | | 62.3 | | 61. | 6 | (| 59.0 | | 69.2 |
| Heavy Trucks: | 70 | .4 (| 69.0 | | 68.0 | | 66. | .8 | | 73.6 | | 73.9 |
| Vehicle Noise: | 73 | .6 | 72.6 | | 70.7 | | 69. | 0 | 1 | 76.0 | | 76.4 |
| Centerline Distan | ce to Noise Co | ontour (in feet) | | | | | | | | | | |
| | | | | 70 dl | BA | 65 | dBA | | 60 dBA | | 55 | dBA |
| | | | Ldn: | | 162 | | 349 | 9 | 1 | 751 | | 1,618 |
| | | CI | IEL: | | 170 | | 36 | 7 | 1 | 790 | | 1,702 |

| | FHWA-RI | D-77-108 HIGH | | IOISE | PREDIC | TION MC | DDEL (| 9/12/2 | 021) | | | |
|--------------------|-----------------|-----------------|---------|--------|-----------|---|----------|---------|-----------|--------|-------|---------|
| Scenar | io: E+P | | | | | Project I | Vame: | Ramo | na Gatew | ay Co | mme | |
| Road Nam | ne: Perris Blvd | | | | | Job Nu | mber: | 13998 | | - | | |
| Road Segme | nt: n/o Ramon | a Expy. | | | | | | | | | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | DISE | MODE | L INPU | rs | | |
| Highway Data | | | | 9, | Site Cond | ditions (l | Hard = | 10, Se | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 31,206 vehicle | es | | | | | Autos: | 15 | | | |
| Peak Hour | Percentage: | 7.05% | | | Med | dium Tru | cks (2 . | Axles): | 15 | | | |
| Peak H | lour Volume: | 2,199 vehicle | s | | Hea | avy Truck | ks (3+ . | Axles): | 15 | | | |
| Ve | hicle Speed: | 45 mph | | 1 | /ehicle N | lix | | | | | | |
| Near/Far La | ne Distance: | 80 feet | | F | Vehi | cleType | | Day | Evening | Nig | aht | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 6 12.2% | 5 15 | 5.9% | 90.63% |
| Ba | rrier Height | 0.0 feet | | | Me | dium Tru | icks: | 75.3% | 5 7.0% | 5 17 | 7.7% | 5.46% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | H | leavy Tru | icks: | 60.4% | 5 12.0% | 5 27 | 7.6% | 3.90% |
| Centerline Di | st. to Barrier: | 64.0 feet | | | Voise So | urce Ele | vation | s (in f | eet) | | | |
| Centerline Dist. | to Observer: | 64.0 feet | | - | 10/30 00 | Autos | · 0 | 000 | | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediun | n Trucks | . 0. | 297 | | | | |
| Observer Height (| (Above Pad): | 5.0 feet | | | Heav | v Trucks | | 004 | Grade A | diustr | nent: | 0.0 |
| Pa | ad Elevation: | 0.0 feet | | | mour. | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | . 0. | | | | | |
| Roa | ad Elevation: | 0.0 feet | | L | .ane Equ | ivalent l | Distan | ce (in | feet) | | | |
| | Road Grade: | 0.0% | | | | Autos. | : 50 | .210 | | | | |
| | Left View: | -90.0 degre | es | | Mediun | n Trucks. | 50 | .033 | | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks. | 50 | .050 | | | | |
| FHWA Noise Mode | el Calculation | s | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | ance | Finite | Road | Fresi | nel | Barrier A | tten | Berr | n Atten |
| Autos: | 68.46 | 1.16 | | -0.13 | 3 | -1.20 | | -4.70 | C | .000 | | 0.000 |
| Medium Trucks: | 79.45 | -11.04 | | -0.1 | 1 | -1.20 | | -4.88 | 0 | .000 | | 0.000 |
| Heavy Trucks: | 84.25 | -12.50 | | -0.11 | 1 | -1.20 | | -5.31 | C | .000 | | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo and | barrier | atten | uation) | | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | / | Leq Ev | /ening | Leq N | light | | Ldn | | C٨ | IEL |
| Autos: | 68 | 3.3 | 67.6 | | 65.9 | | 62. | 3 | 69 | 1.9 | | 70.3 |
| Medium Trucks: | 67 | 7.1 | 66.6 | | 62.3 | | 61. | 6 | 69 | 0.0 | | 69.2 |
| Heavy Trucks: | 70 |).4 | 69.0 | | 68.0 | | 66. | 8 | 73 | 1.6 | | 73.9 |
| Vehicle Noise: | 73 | 3.6 | 72.6 | | 70.7 | | 69. | 0 | 76 | i.1 | | 76.4 |
| Centerline Distant | ce to Noise C | ontour (in feet |) | | | | | | | | | |
| | | | | 70 a | iBA | 65 d | BA | | 50 dBA | | 55 0 | dBA |
| | | | Ldn: | | 162 | | 350 |) | 75 | 3 | | 1,623 |
| | | C | NEL: | | 171 | | 368 | 5 | 79 | 13 | | 1,707 |
| | | | | | | | | | | | | |

| | FHWA-RI | D-77-108 HIGH | WAY NO | ISE F | REDIC | TION MC | DDEL (| 9/12/20 | 021) | | |
|----------------------------------|---|-----------------|-----------|-------|----------|---------------------|------------------|----------------|-------------|----------|---------|
| Scenar Road Nan Road Segme | io: EAC 2024 ne: Perris Blvd. nt: n/o Ramon | a Expy. | | | | Project I Job Nu | Vame: I mber: | Ramor 13998 | a Gatewa | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | DISE N | IODE | L INPUT | s | |
| Highway Data | | | | Si | ite Con | ditions (l | Hard = | 10, So | ft = 15) | | |
| Average Daily | Traffic (Adt): | 33,555 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Mee | dium True | cks (2 A | Axles): | 15 | | |
| Peak H | lour Volume: | 2,365 vehicle | s | | Hea | avy Truck | ks (3+ A | Axles): | 15 | | |
| Ve | hicle Speed: | 45 mph | | Ve | ehicle N | <i>lix</i> | | | | | |
| Near/Far La | ne Distance: | 80 feet | | - | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Height: | 0.0 feet | | | Me | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | F | leavy Tru | icks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline Di | st. to Barrier: | 64.0 feet | | N | oise So | urce Ele | vation | s (in fe | et) | | |
| Centerline Dist. | to Observer: | 64.0 feet | | | | Autos | : 0.0 | 000 | , | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediur | n Trucks | 2.2 | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | v Trucks | 8.0 | 004 | Grade Ad | iustment | : 0.0 |
| P | ad Elevation: | 0.0 feet | | | | , | | | | | |
| Ro | ad Elevation: | 0.0 feet | | Lá | ane Equ | ivalent l | Distand | ce (in f | 'eet) | | |
| | Road Grade: | 0.0% | | | | Autos: | 50. | 210 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Trucks: | 50. | 033 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks: | 50. | 050 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | ce | Finite | Road | Fresn | el | Barrier Att | en Ber | m Atten |
| Autos: | 68.46 | 1.47 | | 0.13 | | -1.20 | | -4.70 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -10.65 | | 0.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -12.11 | | 0.11 | | -1.20 | | -5.31 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | / Le | q Eve | ening | Leq N | light | | Ldn | C | NEL |
| Autos: | 68 | 3.6 | 67.9 | | 66.2 | | 62.6 | 5 | 70.2 | 2 | 70.6 |
| Medium Trucks: | 67 | 7.5 | 67.0 | | 62.7 | | 61.9 |) | 69.3 | 3 | 69.6 |
| Heavy Trucks: | 70 |).8 | 69.4 | | 68.4 | | 67.2 | 2 | 74.0 |) | 74.3 |
| Vehicle Noise: | 74 | 1.0 | 73.0 | | 71.1 | | 69.4 | Ļ | 76.4 | 4 | 76.8 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | BA | 65 d | BA | 6 | 0 dBA | 55 | dBA |
| | | | Ldn: | | 172 | | 370 | | 797 | | 1,717 |
| | | C | NEL: | | 181 | | 389 | | 839 | | 1,807 |

| | FRWA-KL | 0-77-108 HIGF | IVVAT | NUISE | PREDIC | | | 9/12/2 | 021) | | |
|---------------------|--|-----------------|--------|----------|-----------|---------|------------|----------|--------------|---------|---------|
| Scenario | EAPC 2024 | | | | | Projec | t Name: I | Ramo | na Gateway | / Comm | е |
| Road Name | Perris Blvd. | | | | | Job I | Number: | 13998 | | | |
| Road Segment | n/o Ramona | a Expy. | | | | | | | | | |
| SITE S | Scenario: EAPC 2024 Road Name: Peris Bivd. Road Segment: n/o Ramona Expy. SITE SPECIFIC INPUT DATA ghway Data Average Daily Traffic (Adt): 34,082 vehicles Peak Hour Percentage: 7.05% Peak Hour Portcontage: 7.05% Peak Hour Pourme: 2,402 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet te Data Barrier Height: 0.0 feet Sarrier Type (0-Wall, 1-Bern): 0.0 Centerline Dist. to Barrie: 64.0 feet Barrier Distance to Observer: 64.0 feet Barrier Distance to Observer: 64.0 feet Scenterline Dist. to Observer: 64.0 feet Centerline Dist. to Observer: 64.0 feet Disterver Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Grade: 0.0% | | | | | | NOISE N | IODE | L INPUT | 5 | |
| Highway Data | | | | | Site Cond | litions | : (Hard = | 10, So | oft = 15) | | |
| Average Daily T | raffic (Adt): | 34,082 vehicl | es | | | | | Autos: | 15 | | |
| Peak Hour P | ercentage: | 7.05% | | | Med | lium T | rucks (2 A | Axles): | 15 | | |
| Peak Ho | ur Volume: | 2,402 vehicle | s | | Hea | avy Tri | ıcks (3+ A | (xles | 15 | | |
| Veh | cle Speed: | 45 mph | | | Vehicle N | lix | | | | | |
| Near/Far Lane | e Distance: | 80 feet | | F | Vehio | cleTyp | е | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 12.2% | 15.9% | 90.629 |
| Barr | ier Heiaht: | 0.0 feet | | | Me | dium | Trucks: | 75.3% | 7.0% | 17.7% | 5.47% |
| Barrier Type (0-Wa | II, 1-Berm): | 0.0 | | | н | leavy 1 | Trucks: | 60.4% | 12.0% | 27.6% | 3.91% |
| Centerline Dist | to Barrier: | 64.0 feet | | - | Noise So | urce F | levation | s (in fi | oet) | | |
| Centerline Dist. to | Observer: | 64.0 feet | | | 10.00 00 | Auto | ns: 01 | 000 | | | |
| Barrier Distance to | Observer: | 0.0 feet | | | Mediun | 1 Truc | ks: 2. | 297 | | | |
| Observer Height (A | bove Pad): | 5.0 feet | | | Heav | v Truc | ks: 8.0 | 004 | Grade Ad | ustment | : 0.0 |
| Pad | Elevation: | 0.0 feet | | | | | | | | | |
| Road | Elevation: | 0.0 feet | | - | Lane Equ | ivaler | t Distand | ce (in | feet) | | |
| R | oad Grade: | 0.0% | | | | Auto | os: 50. | 210 | | | |
| | Left View: | -90.0 degre | es | | Mediun | 1 Truc | ks: 50. | 033 | | | |
| | Right View: | 90.0 degre | es | | Heavy | / Truc | ks: 50. | 050 | | | |
| FHWA Noise Model | Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite I | Road | Fresh | el | Barrier Atte | en Ber | m Atten |
| Autos: | 68.46 | 1.54 | | -0.1 | 13 | -1.20 | | -4.70 | 0.0 | 00 | 0.00 |
| Medium Trucks: | 79.45 | -10.65 | | -0.1 | 11 | -1.20 | | -4.88 | 0.0 | 00 | 0.00 |
| Heavy Trucks: | 84.25 | -12.11 | | -0.1 | 11 | -1.20 | | -5.31 | 0.0 | 00 | 0.00 |
| Unmitigated Noise | Levels (with | out Topo and | barrie | er atter | nuation) | | | | | | |
| VehicleType L | eq Peak Hou | r Leq Day | / | Leq E | vening | Leo | Night | | Ldn | C | NEL |
| Autos: | 68 | .7 | 68.0 | | 66.3 | | 62.7 | 7 | 70.2 | 2 | 70. |
| Medium Trucks: | 67 | .5 | 67.0 | | 62.7 | | 61.9 |) | 69.3 | 5 | 69. |
| Heavy Trucks: | 70 | .8 | 69.4 | | 68.4 | | 67.2 | 2 | 74.0 |) | 74. |
| Vehicle Noise: | 74 | .0 | 73.0 | | 71.1 | | 69.4 | ļ | 76.4 | | 76. |
| Centerline Distance | to Noise Co | ontour (in feet |) | | | | | _ | | | |
| | | | L | 70 | dBA | 65 | dBA | | 50 dBA | 55 | dBA |
| | | | Ldn: | | 172 | | 371 | | 799 | | 1,722 |
| | | | | | | | | | | | 1 0 1 0 |

Monday, February 28, 2022

| | FHWA-RD | 0-77-108 HIGHW | AY NOI | SE P | REDIC | TION MO | DDEL (| 9/12/2 | 021) | | |
|---|---|--|------------|--------------|--|-----------------------------|---------------------------|------------------------------|----------------|--------|---------|
| Scenari Road Nam Road Segmer | o: HY 2045 e: Perris Blvd. nt: n/o Ramona | а Ехру. | | | | Project I Job Ni | Name: I Imber: | Ramo 13998 | na Gateway | / Comm | e |
| SITE S | Scenario: HY 2045 Road Name: Perris Blvd. Road Segment: n/o Ramona Expy. SITE SPECIFIC INPUT DATA thway Data Average Daily Traffic (Adt): 48,465 vehicles Peak Hour Percentage: 7.05% Peak Hour Volume: 3,415 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet a Data Barrier Height: 0.0 feet centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Doserver: 64.0 feet Pada Elevation: 0.0 feet Pada Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees Right View: 90.0 degrees Kingth View: 100.0 degrees Wehicle Type | | | | | N | OISE N | IODE | L INPUT | 5 | |
| Highway Data | | | | Si | te Con | ditions (| Hard = | 10, S | oft = 15) | | |
| Average Daily Peak Hour Peak Ho Vel | Traffic (Adt): Percentage: our Volume: hicle Speed: | 48,465 vehicles 7.05% 3,415 vehicles 45 mph | | V | Me He | dium Tru avy Truc Aix | , cks (2 A ks (3+ A | Autos: Axles): Axles): | 15 15 15 | | |
| Near/Far Lar | ne Distance: | 80 feet | | Ve | Veh | cleType | 1 | Dav | Evening | Night | Daily |
| Site Data | | | | _ | M | A A A | utos: | 71.99 | 6 12.2% | 15.9% | 90.47% |
| Barrier Turne (0.14) | rier Height: | 0.0 feet | | | ŀ | leavy Tri | ucks: | 60.4% | 6 12.0% | 27.6% | 3.97% |
| Centerline Dis | t to Barrier | 0.0 64.0 feet | | | | , | | | | | |
| Centerline Dist. 1 Barrier Distance 1 Observer Height (Pa Roa F | Centerine Dist. to Barrer: 64.0 feet Centerine Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet bserver Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees | | | | Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustment: 0.0 Lane Equivalent Distance (in feet) Autos: 50.210 | | | | | | |
| | Left View: Right View: | -90.0 degrees 90.0 degrees | | | Mediui Heav | n Trucks y Trucks | : 50. : 50. | 033 050 | | | |
| VehicleType | REMEI | Traffic Flow | Distanc | P | Finite | Road | Fresh | el | Barrier Atte | en Re | m Atten |
| Autos: | 68.46 | 3.06 | -(| 0.13 | 1 11110 | -1.20 | 110011 | -4.70 | 0.0 | 000 | 0.000 |
| Medium Trucks: Heavy Trucks: | 79.45 84.25 | -9.06 -10.51 | -(-(|).11).11 | | -1.20 -1.20 | | -4.88 -5.31 | 0.0 | 000 | 0.000 |
| Unmitigated Noise | Levels (with | out Topo and ba | arrier att | enu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | Leq | Eve | ening | Leq N | light | | Ldn | С | NEL |
| Autos: | 70 | .2 69 | 9.5 | | 67.8 | | 64.2 | 2 | 71.8 | 3 | 72.2 |
| Medium Trucks: | 69 | .1 68 | 3.6 | | 64.3 | | 63.5 | 5 | 70.9 |) | 71.2 |
| Heavy Trucks: | 72 | .4 7 | 1.0 | | 70.0 | | 68.8 | 3 | 75.6 | j | 75.9 |
| venicle Noise: | 75 | .0 /4 | 1.0 | | 12.1 | | 71.0 | , | 78.0 |) | 78.4 |
| Centerline Distanc | e to Noise Co | ontour (in feet) | | | | | | | - | _ | |
| | | | 7 | '0 dE | BA | 65 d | BA | 1 | 60 dBA | 55 | dBA |
| | | Lo | in: | | 219 | | 473 | | 1,019 | | 2,194 |
| | | CNE | :L: | | 231 | | 497 | | 1,072 | | 2,309 |

| | FHWA-RI | D-77-108 HIGH | IWAY N | OISE | PREDIC | TION MO | DDEL (S | 9/12/2 | 021) | | | | |
|----------------------------------|--|-----------------|---------|--------|-----------|---------------------|---------------------|----------------|--------------|-----------|---------|--|--|
| Scenar Road Nam Road Segme | io: HYP 2045 ne: Perris Blvd nt: n/o Ramon | a Expy. | | | | Project I Job Nu | Vame: F Imber: 1 | Ramoi 13998 | na Gateway | / Comm | e | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | DISE N | IODE | L INPUT | 5 | | | |
| Highway Data | | | | S | Site Con | ditions (l | Hard = | 10, So | oft = 15) | | | | |
| Average Daily | Traffic (Adt): | 48,992 vehicl | es | | | | | Autos: | 15 | | | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 A | xles): | 15 | | | | |
| Peak H | lour Volume: | 3,452 vehicle | s | | He | avy Truck | ks (3+ A | xles): | 15 | | | | |
| Ve | hicle Speed: | 45 mph | | v | /ehicle I | <i>lix</i> | | | | | - | | |
| Near/Far La | ne Distance: | 80 feet | | F | Vehi | cleTvpe | | Dav | Evenina | Niaht | Daily | | |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.58% | | |
| Ba | rrier Heiaht: | 0.0 feet | | | Me | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 5.50% | | |
| Barrier Type (0-W | /all. 1-Berm): | 0.0 | | | ŀ | leavy Tru | icks: | 60.4% | 12.0% | 27.6% | 3.93% | | |
| Centerline Di | st. to Barrier: | 64.0 feet | | | loise So | urco Elo | vations | in f | oof) | | | | |
| Centerline Dist. | to Observer: | 64.0 feet | | ~ | 10/30 00 | Autos | · 00 | 000 | | | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | n Trucks | . 22 | 997 | | | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | v Trucks | | 104 | Grade Adi | ustment | 0.0 | | |
| P | ad Elevation: | 0.0 feet | | | neav | y macks. | . 0.0 | 704 | , | | | | |
| Ro | ad Elevation: | 0.0 feet | | L | ane Equ | uivalent l | Distanc | e (in i | feet) | | | | |
| | Road Grade: | 0.0% | | | | Autos. | 50.2 | 210 | | | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Trucks. | 50.0 | 033 | | | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks. | 50.0 | 050 | | | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | nce | Finite | Road | Fresn | el | Barrier Atte | en Ber | m Atten | | |
| Autos: | 68.46 | 3.11 | | -0.13 | 3 | -1.20 | | -4.70 | 0.0 | 00 | 0.000 | | |
| Medium Trucks: | 79.45 | -9.06 | | -0.11 | 1 | -1.20 | | -4.88 | 0.0 | 00 | 0.000 | | |
| Heavy Trucks: | 84.25 | -10.51 | | -0.11 | 1 | -1.20 | | -5.31 | 0.0 | 00 | 0.000 | | |
| Unmitigated Noise | e Levels (with | out Topo and | barrier | attenu | uation) | | | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Da | / L | Leq Ev | rening | Leq N | light | | Ldn | C | NEL | | |
| Autos: | 70 | 0.2 | 69.5 | | 67.9 | | 64.2 | | 71.8 | 5 | 72.3 | | |
| Medium Trucks: | 69 | 9.1 | 68.6 | | 64.3 | | 63.5 | | 70.9 |) | 71.2 | | |
| Heavy Trucks: | 72 | 2.4 | 71.0 | | 70.0 | | 68.8 | | 75.6 | 5 | 75.9 | | |
| Vehicle Noise: | 75 | 5.6 | 74.6 | | 72.7 | | 71.0 | | 78.0 |) | 78.4 | | |
| Centerline Distant | ce to Noise C | ontour (in feel |) | | | | | | | | | | |
| | | | | 70 d | IBA | 65 d | BA | 6 | 60 dBA | 55 | dBA | | |
| | | | Ldn: | | 220 | | 474 | | 1,020 | | 2,198 | | |
| | | С | NEL: | | 231 | | 498 | | 1,074 | 074 2,313 | | | |

| | FHWA-R | D-77-108 HIGH | WAY N | OISE F | REDIC | TION MC | DDEL (| 9/12/20 | 021) | | |
|----------------------------------|---|-----------------|---------|---------|----------|---------------------|------------------|----------------|-------------|----------|---------|
| Scenai Road Nan Road Segme | rio: E ne: Perris Blvd ent: s/o Ramon | a Expy. | | | | Project I Job Nu | Vame: I mber: | Ramor 13998 | a Gatewa | y Comm | e |
| SITE | SPECIFIC II | PUT DATA | | | | N | DISE N | IODE | | s | |
| Highway Data | | | | S | ite Con | ditions (l | Hard = | 10, So | ft = 15) | | |
| Average Daily | Traffic (Adt): | 29,530 vehicl | es | | | | , | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 A | Axles): | 15 | | |
| Peak H | -lour Volume: | 2,081 vehicle | s | | He | avy Truck | ks (3+ A | Axles): | 15 | | |
| Ve | ehicle Speed: | 45 mph | | V | ohiclo I | Mix | | | | | |
| Near/Far La | ane Distance: | 80 feet | | - | Veh | icleType | | Dav | Evenina | Niaht | Dailv |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Heiaht: | 0.0 feet | | | Me | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | ŀ | leavy Tru | icks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 64.0 feet | | N | oise Sc | urce Ele | vation | s (in fe | et) | | |
| Centerline Dist. | to Observer: | 64.0 feet | | | | Autos | 0.0 | 000 | ., | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | n Trucks | 2.2 | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | v Trucks | : 8.0 | 004 | Grade Ad | iustment | : 0.0 |
| P | ad Elevation: | 0.0 feet | | _ | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | La | ane Equ | uivalent l | Distanc | e (in f | 'eet) | | |
| | Road Grade: | 0.0% | | | | Autos: | 50. | 210 | | | |
| | Left View: | -90.0 degre | es | | Mediui | n Trucks: | 50. | 033 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks: | 50. | 050 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | nce | Finite | Road | Fresn | el | Barrier Att | en Ber | m Atten |
| Autos: | 68.46 | 0.91 | | -0.13 | | -1.20 | | -4.70 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -11.21 | | -0.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -12.67 | | -0.11 | | -1.20 | | -5.31 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier | attenu | ation) | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Daj | ′ L | .eq Eve | ening | Leq N | light | | Ldn | C | NEL |
| Autos: | 68 | 3.0 | 67.3 | | 65.7 | | 62.0 |) | 69.6 | 3 | 70.1 |
| Medium Trucks: | 66 | 3.9 | 66.4 | | 62.1 | | 61.4 | ŀ | 68.8 | 3 | 69.0 |
| Heavy Trucks: | 70 | 0.3 | 68.8 | | 67.8 | | 66.7 | ' | 73.4 | 1 | 73.7 |
| Vehicle Noise: | 73 | 3.4 | 72.4 | | 70.5 | | 68.8 | 3 | 75.9 | 9 | 76.2 |
| Centerline Distan | ce to Noise C | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | BA | 65 d | BA | 6 | 0 dBA | 55 | dBA |
| | | | Ldn: | | 158 | | 340 | | 732 | | 1,577 |
| | | С | NEL: | | 166 | | 358 | | 770 | | 1,659 |

| | | | | NOISE | | | ODEE (| 5/12/2 | 021) | | |
|------------------------|--|----------------|-------|-----------|-----------|------------|------------|----------|-------------|----------|---------|
| Scenario: E | +P | | | | | Project | Name: | Ramor | na Gatewa | y Comm | е |
| Road Name: F | erris Blvd. | | | | | Job N | umber: | 13998 | | | |
| Road Segment: s | /o Ramona | і Ехру. | | | | | | | | | |
| SITE SPE | HWA-RD-77-103 HiGHWAY Scenario: E+P Road Name: Peris Blvd. Road Name: Peris Blvd. Road Name: Peris Blvd. Road Name: Peris Blvd. SITE SPECIFIC INPUT DATA ghway Data Average Daily Traffic (Adt): 29,930 vehicles Average Daily Traffic (Adt): 29,930 vehicles Peak Hour Volume: 2,109 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet Barrier Height: 0.0 feet Average Daily Traffic (Adt): 29,930 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet Barrier Height: 0.0 feet Barrier Height: 0.0 feet Pade Elevation: 0.0 feet Pade Elevation: 0.0 feet Pade Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Circulations Vehicle Type REMEL Traffic Flow Dis Autos: 68 | | | | | N | OISE | IODE | L INPUT | s | |
| Highway Data | | | | | Site Con | ditions | Hard = | 10, So | oft = 15) | | |
| Average Daily Traf | fic (Adt): | 29,930 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour Pere | entage: | 7.05% | | | Me | dium Tru | icks (2 / | Axles): | 15 | | |
| Peak Hour | Volume: | 2,109 vehicle | s | | He | avy Truc | ks (3+ / | Axles): | 15 | | |
| Vehicle | Speed: | 45 mph | | | Vehicle I | <i>lix</i> | | | | | |
| Near/Far Lane D | istance: | 80 feet | | | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.60 |
| Barrier | Heiaht: | 0.0 feet | | | Me | edium Tr | ucks: | 75.3% | 7.0% | 17.7% | 5.489 |
| Barrier Type (0-Wall, | 1-Berm): | 0.0 | | | ŀ | leavy Tr | ucks: | 60.4% | 12.0% | 27.6% | 3.92 |
| Centerline Dist. to | Barrier: | 64.0 feet | | | Noise So | urce El | evation | s (in fe | eet) | | |
| Centerline Dist. to O | bserver: | 64.0 feet | | | | Autos | . 0. | 000 | , | | |
| Barrier Distance to O | bserver: | 0.0 feet | | | Mediur | n Trucks | 2. | 297 | | | |
| Observer Height (Abo | ve Pad): | 5.0 feet | | | Heav | y Trucks | . 8. | 004 | Grade Ad | justment | : 0.0 |
| Pad E | levation: | 0.0 feet | | | | | | | | | |
| Road E | levation: | 0.0 feet | | | Lane Equ | livalent | Distan | ce (in i | feet) | | |
| Road | Grade: | 0.0% | | | | Autos | : 50. | 210 | | | |
| L | eft View: | -90.0 degree | es | | Mediur | n Trucks | 50. 50. | 033 | | | |
| Rig | nt view: | 90.0 degre | es | | Heav | y Trucks | : 50. | 050 | | | |
| FHWA Noise Model Ca | lculations | ; | | | | | | | | | |
| VehicleType R | EMEL | Traffic Flow | Di | stance | Finite | Road | Fresr | iel | Barrier Att | en Ber | m Atten |
| Autos: | 68.46 | 0.97 | | -0.1 | 13 | -1.20 | | -4.70 | 0.0 | 000 | 0.00 |
| Medium Trucks: | 79.45 | -11.21 | | -0.1 | 11 | -1.20 | | -4.88 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 84.25 | -12.67 | | -0.1 | 11 | -1.20 | | -5.31 | 0.0 | 000 | 0.00 |
| Unmitigated Noise Le | els (witho | out Topo and | barri | ier attei | nuation) | | | | | | |
| VehicleType Leq | Peak Hou | r Leq Day | / | Leq E | vening | Leq | Vight | | Ldn | C | NEL |
| Autos: | 68. | .1 | 67.4 | | 65.7 | | 62.1 | | 69. | 7 | 70. |
| Medium Trucks: | 66. | .9 | 66.4 | | 62.1 | | 61.4 | Ļ | 68. | 3 | 69. |
| Heavy Trucks: | 70. | .3 | 68.8 | | 67.8 | | 66.7 | | 73.4 | 1 | 73. |
| Vehicle Noise: | 73. | .4 | 72.4 | | 70.6 | | 68.8 | 3 | 75. | 9 | 76. |
| Centerline Distance to | Noise Co | ntour (in feet |) | | | | | | | | |
| | | | L | 70 | dBA | 65 (| 1BA - | 6 | 50 dBA | 55 | dBA |
| | | | Ldn: | | 158 | | 341 | | 734 | | 1,58 |
| | | 0 | NEL: | | 166 | | 358 | | 772 | | 1.663 |

Monday, February 28, 2022

| | FHWA-RE | 0-77-108 HIGHW | AY NOIS | SE PREDI | CTION MC | DDEL (9/12 | /2021) | |
|---|---|--|------------|-------------|----------------------------|------------------------------------|----------------------------|---------------|
| Scenario Road Name Road Segmen | o: EAC 2024 e: Perris Blvd. t: s/o Ramona | а Ехру. | | | Project I Job Nu | Vame: Ran mber: 139 | nona Gateway 98 | Comme |
| SITE S | Scenario: EAC 2024 Road Name: Perris Bivd. Road Segment: s/o Ramona Expy. SITE SPECIFIC INPUT DATA hway Data Average Daily Traffic (Adt): 32,833 vehicles Peak Hour Volume: 2,314 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet Pata Barrier Height: 0.0 feet arrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 64.0 feet Centerline Dist. to Desrver: 64.0 feet Centerline Dist. to Observer: 64.0 feet Centerline Dist. to Observer: 64.0 feet Barrier Distance to Observer: 0.0 feet Barrier Distance to Observer: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: -90.0 degrees | | | | | DISE MOI | DEL INPUTS | 3 |
| Highway Data | | | | Site Co | nditions (l | Hard = 10, | Soft = 15) | |
| Average Daily 1 Peak Hour F Peak Ho | Fraffic (Adt): Percentage: our Volume: | 32,833 vehicles 7.05% 2,314 vehicles | | M H | ledium Truc leavy Truck | Auto cks (2 Axle ks (3+ Axle | os: 15 s): 15 s): 15 | |
| Veh | icle Speed: | 45 mph | | Vehicle | Mix | | | |
| Near/Far Lan | e Distance: | 80 feet | | Ve | hicleTvpe | Dav | Evenina | Night Daily |
| Site Data | | | | | A | utos: 71. | 9% 12.2% | 15.9% 90.47 |
| Bar | rior Hoight | 0.0 feet | | | Aedium Tru | icks: 75. | 3% 7.0% | 17.7% 5.56 |
| Barrier Type (0-Wa | all, 1-Berm): | 0.0 | | | Heavy Tru | icks: 60.4 | 4% 12.0% | 27.6% 3.97 |
| Centerline Dis | t. to Barrier: | 64.0 feet | | Noise S | Source Ele | vations (ir | feet) | |
| Centerline Dist. t | o Observer: | 64.0 feet | | | Autos | 0.000 | | |
| Barrier Distance t | o Observer: | 0.0 feet | | Medi | um Trucks | 2.297 | | |
| Observer Height (A | Above Pad): | 5.0 feet | | Hea | avv Trucks | 8.004 | Grade Adj | ustment: 0.0 |
| Pa | d Elevation: | 0.0 feet | | | | | | |
| Roa | d Elevation: | 0.0 feet | | Lane E | quivalent l | Distance (I | n feet) | |
| F | load Grade: | 0.0% | | | Autos: | 50.210 | | |
| | Left View: Right View: | -90.0 degrees 90.0 degrees | | Medi Hea | um Trucks: avy Trucks: | 50.033 50.050 | | |
| EHWA Noise Mode | I Calculation | - | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distance | e Finit | e Road | Fresnel | Barrier Atte | en Berm Atter |
| Autos: | 68.46 | 1.37 | -0 | .13 | -1.20 | -4.7 | 0.0 | 0.0 0.0 |
| Medium Trucks: | 79.45 | -10.75 | -0 | .11 | -1.20 | -4.8 | 8 0.0 | 0.0 0.0 |
| Heavy Trucks: | 84.25 | -12.21 | -C | .11 | -1.20 | -5.3 | 81 0.0 | 0.0 |
| Unmitigated Noise | Levels (with | out Topo and ba | arrier att | enuation) | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | Leq | Evening | Leq N | light | Ldn | CNEL |
| Autos: | 68 | .5 67 | 7.8 | 66. | 1 | 62.5 | 70.1 | 70 |
| Medium Trucks: | 67 | .4 66 | 6.9 | 62. | 6 | 61.8 | 69.2 | 69 |
| Heavy Trucks: | 70 | .7 69 | 9.3 | 68. | 3 | 67.1 | 73.9 |) 74 |
| Vehicle Noise: | 73 | .9 72 | 2.9 | 71. | 0 | 69.3 | 76.3 | 76 |
| Centerline Distance | e to Noise Co | ontour (in feet) | 7 | 0 dBA | 65 d | PA . | 60 dRA | 55 dPA |
| | | | 10 | 160 160 | 050 | 265 | 00 UDA 796 | 33 UBA |
| | | CNE | | 10: | , 1 | 384 | 827 | 1,05 |
| | | CIVE | | 170 | , | 004 | 021 | 1,70 |

| | FHWA-R | D-77-108 HIGH | IWAY N | OISE | PREDIC | TION MC | DDEL (S | 9/12/2 | 021) | | |
|---------------------------------|--|---|---------|---------|----------|---------------------|--------------------|---------------|--------------|---------|---------|
| Scena Road Nar Road Segme | rio: EAPC 202 ne: Perris Blvd ent: s/o Ramon | 4 a Expy. | | | | Project N Job Nu | lame: F mber: 1 | Ramo 13998 | na Gateway | Comme | e |
| SITE | SPECIFIC IN | NPUT DATA | | | | N | DISE N | IODE | L INPUTS | 3 | |
| Highway Data | | | | S | ite Con | ditions (I | Hard = | 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 33,233 vehicl | es | | | | | Autos. | 15 | | |
| Peak Hou | r Percentage: | 7.05% | | | Me | aium Truc | CKS (2 A | (xies) | 15 | | |
| Peak I | Hour Volume: | 2,342 vehicle | s | | He | avy Iruck | (S (3+ A | xies). | 15 | | |
| Ve | ehicle Speed: | 45 mph | | V | ehicle I | Mix | | | | | |
| Near/Far La | ane Distance: | 80 feet | | | Veh | icleType | | Day | Evening | Night | Daily |
| Site Data | | FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021) EAPC 2024 Project Name: Ramona Gateway Com Job Number: 13998 Peris Blvd. Job Number: 13998 Site Conditions (Hard = 10, Soft = 15) Advois: 15 Autos: 15 Autos: 15 Autos: 15 Precipic (Adl): 33,233 vehicles affic (Adl): 33,233 vehicles affic (Adl): 33,233 vehicles affic (Adl): 33,233 vehicles affic (Adl): 33,233 vehicles ble Speed: 45 mph Distance: 80 feet Molise MODEL INPUTS Autos: 15 Medium Trucks (3+ Axles): 15 Vehicle Mix Distance: 80 feet Medium Trucks: (2 Axles): 15 Vehicle Mix Distance: 80 feet Medium Trucks: 75.3% 7.0% 17.7 Heavy Trucks: 60.4% 12.0% 27.6 Observer: 64.0 feet Observer: 64.0 feet Nolse Source Elevations (in feet) Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.004 Grade Adjustme Elevation: 0.0 feet Elevation: 0.0 feet Elevation: 0.0 feet Elevation: 0.0 feet Elevation: 0.0 feet Elevation: 0.0 feet Elevation: 0.0 degrees Bight View: 90.0 degrees Finite Road Fresnel Barrier Atten B Barrier Atten B Ba | | 15.9% | 90.59% | | | | | | |
| Ba | nrrier Heiaht: | 0.0 feet | | | M | edium Tru | icks: | 75.3% | 6 7.0% | 17.7% | 5.49% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | ŀ | leavy Tru | icks: | 60.4% | 6 12.0% | 27.6% | 3.92% |
| Centerline D | ist. to Barrier: | 64.0 feet | | N | oise Sc | ource Ele | vations | s (in f | eet) | | |
| Centerline Dist. | to Observer: | 64.0 feet | | | | Autos: | 0.0 | 000 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Trucks: | 2.2 | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | v Trucks | 8.0 | 004 | Grade Adj | ustment | : 0.0 |
| F | Pad Elevation: | 0.0 feet | | | | , | | | | | |
| Ro | ad Elevation: | 0.0 feet | | L | ane Eq | uivalent l | Distanc | e (in: | feet) | | |
| | Road Grade: | 0.0% | | | | Autos: | 50.2 | 210 | | | |
| | Left View: | -90.0 degre | es | | Mediui | m Trucks: | 50.0 | 033 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks: | 50.0 | 050 | | | |
| FHWA Noise Mod | lel Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | nce | Finite | Road | Fresn | el | Barrier Atte | en Ber | m Atten |
| Autos | 68.46 | 1.43 | | -0.13 | | -1.20 | | -4.70 | 0.0 | 00 | 0.000 |
| Medium Trucks | 79.45 | -10.75 | | -0.11 | | -1.20 | | -4.88 | 0.0 | 00 | 0.000 |
| Heavy Trucks | 84.25 | -12.21 | | -0.11 | | -1.20 | | -5.31 | 0.0 | 00 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier | attenu | ation) | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Da | / L | Leq Eve | ening | Leq N | light | | Ldn | CI | NEL |
| Autos: | 68 | 3.6 | 67.9 | | 66.2 | | 62.5 | ; | 70.1 | | 70.6 |
| Medium Trucks | 6 | 7.4 | 66.9 | | 62.6 | | 61.8 | | 69.2 | | 69.5 |
| Heavy Trucks | 70 |).7 | 69.3 | | 68.3 | | 67.1 | | 73.9 | | 74.2 |
| Vehicle Noise. | 73 | 3.9 | 72.9 | | 71.0 | | 69.3 | | 76.3 | | 76.7 |
| Centerline Distan | ce to Noise C | ontour (in feel |) | | | | | r | | | |
| | | | | 70 di | BA | 65 di | BA | | 60 dBA | 55 | dBA |
| | | | Ldn: | | 170 | | 365 | | 787 | | 1,696 |
| | | С | NEL: | | 178 | | 385 | | 828 | | 1,785 |

| | FHWA-RI | D-77-108 HIGH | IWAY NC | DISE F | PREDIC | TION MC | DDEL (| 9/12/20 | 021) | | |
|----------------------------------|---|-----------------|-----------|--------|----------|---------------------|--------------------|----------------|--|-----------|----------|
| Scenai Road Nan Road Segme | rio: HY 2045 ne: Perris Blvd ent: s/o Ramon | a Expy. | | | | Project I Job Nu | Vame: I mber: ` | Ramor 13998 | a Gatewa | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | DISE N | IODE | L INPUT | S | |
| Highway Data | | | | S | ite Con | ditions (l | Hard = | 10, So | ft = 15) | | |
| Average Daily | Traffic (Adt): | 47,185 vehicl | es | | | | , | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 A | Axles): | 15 | | |
| Peak H | Hour Volume: | 3,325 vehicle | s | | He | avy Truck | ks (3+ A | Axles): | 15 | | |
| Ve | ehicle Speed: | 45 mph | | V | ohiclo I | Mix | | | | | |
| Near/Far La | ane Distance: | 80 feet | | - | Vehi | icleTyne | | Dav | Evenina | Niaht | Daily |
| Site Data | | | | | | A | utos: | 71.9% | Barrier Atten E Barrier Atten E Barrier Atten E Grade Adjustme Nigh 15 5 7 Evening Nigh 12.2% 9% 12.2% 15 5 16 5 17.1 14% 12.0% 27.6 16 6 16 12.0% 17.1 10.0% 18 0.000 10 0.000 11.0 71.7 70.8 75.5 77.9 60 dBA 1.001 1001 | | 90.47% |
| Ba | rrier Height | 0.0 feet | | | Me | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall. 1-Berm): | 0.0 | | | ŀ | leavy Tru | icks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 64.0 feet | | N | oioo Co | uree Ele | votion | n lin fa | ent) | | |
| Centerline Dist. | to Observer: | 64.0 feet | | 14 | 0136 30 | Autos | vauon: | | eij | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Modiu | m Trucks | . 0. | 207 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | n Trucks. | . 2. | 201 | Grade Ad | iustment | · 0.0 |
| P | ad Elevation: | 0.0 feet | | | Ticav | y mucks. | . 0.1 | 504 | Orade Au | Justinent | . 0.0 |
| Ro | ad Elevation: | 0.0 feet | | La | ane Equ | uivalent l | Distand | e (in f | eet) | | |
| | Road Grade: | 0.0% | | | | Autos: | 50. | 210 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Trucks: | 50. | 033 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks: | 50. | 050 | | | |
| FHWA Noise Mod | lel Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite | Road | Fresn | el 🛛 | Barrier Att | en Ber | rm Atten |
| Autos: | 68.46 | 2.95 | | -0.13 | | -1.20 | | -4.70 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -9.17 | | -0.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -10.63 | | -0.11 | | -1.20 | | -5.31 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Daj | / Le | eq Eve | ening | Leq N | light | | Ldn | C | NEL |
| Autos: | 70 | 0.1 | 69.4 | | 67.7 | | 64.1 | | 71.7 | 7 | 72.1 |
| Medium Trucks: | 69 | 9.0 | 68.5 | | 64.2 | | 63.4 | ŀ | 70.8 | В | 71.1 |
| Heavy Trucks: | 72 | 2.3 | 70.9 | | 69.8 | | 68.7 | · | 75.8 | 5 | 75.8 |
| Vehicle Noise: | 75 | 5.5 | 74.4 | | 72.6 | | 70.9 |) | 77.9 | 9 | 78.2 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | BA | 65 d | BA | 6 | 0 dBA | 55 | dBA |
| | | | Ldn: | | 216 | | 464 | | 1,001 | | 2,156 |
| | | С | NEL: | | 227 | | 489 | | 1,053 | | 2,268 |

| F | HWA-RD-// | -108 HIGH | WAY | NOISE | PREDIC | | NODEL | (9/12/2 | 021) | | |
|--------------------------|--|--------------|--------|----------|-----------|----------|----------|-----------|-------------|---------|----------|
| Scenario: HY | 'P 2045 | | | | | Projec | t Name: | Ramor | na Gatewa | y Comm | e |
| Road Name: Pe | rris Blvd. | | | | | Job I | Vumber: | 13998 | | | |
| Road Segment: s/o | Ramona Ex | py. | | | | | | | | | |
| SITE SPEC | Scenario: HYP 2045 Scenario: HYP 2045 Scad Xame: Perris Blvd. Road Segment: s/o Ramona Expy. SITE SPECIFIC INPUT DATA Hywy Data Average Daily Traffic (Adt): 47,584 vehicles Peak Hour Percentage: 7.05% Peak Hour Volume: 3,353 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 80 feet e Data Barrier Height: 0.0 feet arrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Observer: 64.0 feet Garrier Distance to Observer: 64.0 feet Garrier Distance to Observer: 0.0 feet Barrier Distance to Observer: 0.0 feet Barrier Dist. to Observer: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: 90.0 degrees WA Noise Model Calculations VehicleType REMELL Traffic Flow D Autors: 68.46 2 20 | | | | | | NOISE | MODE | L INPUT | S | |
| Highway Data | | | | | Site Cond | litions | (Hard : | = 10, So | oft = 15) | | |
| Average Daily Traffic | (Adt): 47, | 584 vehicle | s | | | | | Autos: | 15 | | |
| Peak Hour Perce | ntage: 7. | 05% | | | Med | lium T | rucks (2 | Axles): | 15 | | |
| Peak Hour Vo | olume: 3,3 | 53 vehicles | | | Hea | avy Tru | ıcks (3+ | Axles): | 15 | | |
| Vehicle S | Speed: | 45 mph | | ŀ | Vehicle N | lix | | | | | |
| Near/Far Lane Dis | stance: | 80 feet | | ľ | Vehic | cleTyp | e | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 12.2% | 15.9% | 90.55% |
| Barrier H | leight: | 0.0 feet | | | Me | dium 1 | Trucks: | 75.3% | 7.0% | 17.7% | 5.51% |
| Barrier Type (0-Wall, 1- | Berm): | 0.0 | | | н | leavy 1 | Trucks: | 60.4% | 12.0% | 27.6% | 3.94% |
| Centerline Dist. to E | Barrier: 6 | 4.0 feet | | ł | Noise So | urce F | levatio | ns (in fi | pet) | | |
| Centerline Dist. to Ob: | server: 6 | 4.0 feet | | ŀ | | Auto | ns' (| 000 | | | |
| Barrier Distance to Obs | server: | 0.0 feet | | | Mediun | 1 Truci | ks: 2 | 297 | | | |
| Observer Height (Above | e Pad): | 5.0 feet | | | Heav | / Truci | ks: 8 | .004 | Grade Ad | justmen | : 0.0 |
| Pad Ele | vation: | 0.0 feet | | - | | | | ,, | | | |
| Road Ele | vation: | 0.0 feet | | - | Lane Equ | ivalen | t Distar | ice (in | teet) | | |
| Road | Grade: 0. | 0% | | | | Auto | os: 50 | 0.210 | | | |
| Lef | t View: -9 | 0.0 degree | s | | Meaiun | 1 I ruci | KS: 50 | 0.033 | | | |
| Right | t view: 9 | 0.0 degree | 5 | | neav | y muci | (5. 0) | 1.030 | | | |
| FHWA Noise Model Calo | culations | | | | | | | | | | |
| VehicleType RE | MEL Tra | affic Flow | Dis | tance | Finite I | Road | Fres | nel | Barrier Att | en Be | rm Atten |
| Autos: | 68.46 | 2.99 | | -0.1 | 3 | -1.20 | | -4.70 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -9.17 | | -0.1 | 1 | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -10.63 | | -0.1 | 1 | -1.20 | | -5.31 | 0.0 | 000 | 0.00 |
| Unmitigated Noise Leve | els (without | Topo and k | oarrie | er atter | nuation) | | | | | | |
| VehicleType Leq F | Peak Hour | Leq Day | | Leq E | vening | Leg | Night | | Ldn | С | NEL |
| Autos: | 70.1 | 6 | 9.4 | | 67.7 | | 64 | .1 | 71. | 7 | 72.1 |
| Medium Trucks: | 69.0 | 6 | 68.5 | | 64.2 | | 63 | .4 | 70.8 | В | 71.1 |
| Heavy Trucks: | 72.3 | 7 | 0.9 | | 69.8 | | 68 | .7 | 75. | 5 | 75.8 |
| Vehicle Noise: | 75.5 | 7 | 4.5 | | 72.6 | | 70 | .9 | 77.9 | 9 | 78.3 |
| Centerline Distance to N | Voise Conto | ur (in feet) | | | | | | _ | | 1 | |
| | | | ĻL | 70 | dBA | 65 | dBA | 1 6 | 60 dBA | 55 | dBA |
| | | | .dn: | | 216 | | 46 | 5 | 1,002 | | 2,159 |
| | | C1 | 1.1.1 | | 007 | | 40 | 3 | 1 05/ | | 2 271 |

Monday, February 28, 2022

| | FHWA-RD | 0-77-108 HIGH | WAY NC | DISE | PREDIC | | IODEL (| 9/12/2 | 2021) | | |
|------------------------------------|--|------------------|-----------|-------|----------|------------------|--------------------|---------------|--------------|---------|----------|
| Scenari Road Nam Road Segmer | io: E e: Perris Blvd. nt: s/o Morgan | St. | | | | Project Job N | t Name: lumber: | Ramo 13998 | na Gateway | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | P | NOISE I | NOD | EL INPUT | S | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 29,573 vehicle | es | | | | | Autos | : 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tr | ucks (2 / | Axles) | : 15 | | |
| Peak H | our Volume: | 2,084 vehicles | 5 | | He | avy Tru | cks (3+ / | Axles) | : 15 | | |
| Ve | hicle Speed: | 45 mph | | V | ohiclo I | Mix | | | | | |
| Near/Far La | ne Distance: | 80 feet | | - | Veh | icleTvpe | | Dav | Evening | Night | Dailv |
| Site Data | | | | | | | Autos: | 71.99 | 6 12.2% | 15.9% | 90.47% |
| Bai | rier Height | 0.0 feet | | | M | edium T | rucks: | 75.39 | 6 7.0% | 17.7% | 5.56% |
| Barrier Type (0-W | all, 1-Berm): | 0.0 | | | 1 | Heavy T | rucks: | 60.49 | 6 12.0% | 27.6% | 3.97% |
| Centerline Dis | st. to Barrier: | 64.0 feet | | N | loise Sr | ource E | levation | s (in f | eet) | | |
| Centerline Dist. | to Observer: | 64.0 feet | | | 0.00 00 | Auto | e' 0 | 000 | 000 | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Truck | | 297 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | | Heav | w Truck | is: 2. | 004 | Grade Ad | iustmen | t: 0.0 |
| Pa | ad Elevation: | 0.0 feet | | | mour | <i>y maon</i> | 0. 0. | | | | |
| Roa | ad Elevation: | 0.0 feet | | L | ane Eq | uivalen | t Distan | ce (in | feet) | | |
| 1 | Road Grade: | 0.0% | | | | Auto | s: 50. | 210 | | | |
| | Left View: | -90.0 degree | es | | Mediu | m Truck | s: 50. | 033 | | | |
| | Right View: | 90.0 degree | es | | Heav | ry Truck | s: 50. | 050 | | | |
| FHWA Noise Mode | el Calculations | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | ice | Finite | Road | Fresr | nel | Barrier Atte | en Be | rm Atten |
| Autos: | 68.46 | 0.92 | | -0.13 | | -1.20 | | -4.70 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -11.20 | | -0.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -12.66 | | -0.11 | | -1.20 | | -5.31 | 0.0 | 000 | 0.000 |
| Unmitigated Noise | Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | ' Le | eq Ev | ening | Leq | Night | | Ldn | С | NEL |
| Autos: | 68 | .0 | 67.3 | | 65.7 | | 62.0 | D | 69.6 | 3 | 70.1 |
| Medium Trucks: | 66 | .9 | 66.4 | | 62.1 | | 61.4 | 4 | 68.8 | 3 | 69.0 |
| Heavy Trucks: | 70 | .3 | 68.8 | | 67.8 | | 66.7 | 7 | 73.4 | 1 | 73.7 |
| Vehicle Noise: | 73 | .4 | 72.4 | | 70.6 | | 68.8 | 3 | 75.9 | 9 | 76.2 |
| Centerline Distance | e to Noise Co | ontour (in feet) |) | | | | | | | | |
| | | | | 70 d | BA | 65 | dBA | | 60 dBA | 55 | i dBA |
| | | | Ldn: | | 158 | | 340 | | 733 | | 1,579 |
| | | CI | NEL: | | 166 | | 358 | | 771 | | 1,661 |

| | FHWA-R | D-77-108 HIG | HWAY | NOISE | PREDIC | TION MO | DEL (9 |)/12/20 |)21) | | | | | |
|--------------------------------------|--|--|-----------|----------|-----------------------|---|-------------------------|----------------------------|----------------|---------|----------|--|--|--|
| Scenar Road Nam Road Segme | Scenario: E+P Road Name: Perris Blvd. Road Segment: s/o Morgan St. | | | | | Project Name: Ramona Gateway Comme Job Number: 13998 | | | | | | | | |
| SITE | SPECIFIC II | NPUT DATA | | | | NO | ISE N | IODE | | s | | | | |
| Highway Data | | | | | Site Con | ditions (H | lard = | 10, So | ft = 15) | | | | | |
| Average Daily Peak Hour Peak H | Traffic (Adt): Percentage: Iour Volume: | 30,290 vehic 7.05% 2,135 vehicle | les es | | Me He | dium Truc avy Truck | 4 ks (2 A s (3+ A | Autos: xles): xles): | 15 15 15 | | | | | |
| Ve | hicle Speed: | 45 mph 80 feet | | | Vehicle Mix | | | | | | | | | |
| Near/Far La | ne Distance: | | | | Veh | icleTvpe | | Dav | Evenina | Niaht | Dailv | | | |
| Site Data | | | | | | Au | tos: | 71.9% | 12.2% | 15.9% | 90.70% | | | |
| Pa | rrior Hoight | 0.0 foot | | | M | edium Tru | cks: | 75.3% | 7.0% | 17.7% | 5.42% | | | |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | I | Heavy Tru | cks: | 60.4% | 12.0% | 27.6% | 3.88% | | | |
| Centerline Di | st. to Barrier: | 64.0 feet | | | Noise So | ource Elev | ations | in fe | et) | | | | | |
| Centerline Dist. | to Observer: | 64.0 feet | | | | Autos: | 0.0 | 000 | | | | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Trucks: | 2.2 | 97 | | | | | | |
| Observer Height (| Above Pad): | 5.0 feet | | | Heav | v Trucks: | 8.0 | 04 | Grade Ad | justmen | t: 0.0 | | | |
| Pa | ad Elevation: | 0.0 feet | | _ | | | | | | | | | | |
| Roa | ad Elevation: | 0.0 feet | | - | Lane Eq | uivalent L | ustanc | e (in f | eet) | | | | | |
| | Road Grade: | 0.0% | | | | Autos: | 50.2 | 210 | | | | | | |
| | Left View: | -90.0 degrees | | | Medium Trucks: 50.033 | | | | | | | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks: | 50.0 |)50 | | | | | | |
| FHWA Noise Mode | el Calculation | 15 | | | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite | Road | Fresn | e/ | Barrier Att | en Be | rm Atten | | | |
| Autos: | 68.46 | 6 1.03 | 3 | -0.1 | 3 | -1.20 | | -4.70 | 0.0 | 000 | 0.000 | | | |
| Medium Trucks: | 79.45 | 5 -11.20 |) | -0.1 | 1 | -1.20 | | -4.88 | 0.0 | 000 | 0.000 | | | |
| Heavy Trucks: | 84.25 | -12.66 | 6 | -0.1 | 1 | -1.20 | | -5.31 | 0.0 | 000 | 0.000 | | | |
| Unmitigated Noise | e Levels (with | nout Topo and | l barrie | er atter | nuation) | | | | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Da | y I | Leq E | vening | Leq Ni | ight | | Ldn | C | NEL | | | |
| Autos: | 6 | 8.2 | 67.5 | | 65.8 | | 62.2 | | 69.1 | 7 | 70.2 | | | |
| Medium Trucks: | 6 | 6.9 | 66.4 | | 62.1 | | 61.4 | 4 68.8 | | 3 | 69.0 | | | |
| Heavy Trucks: | 7 | 0.3 | 68.8 | | 67.8 | | 66.7 | | 73.4 | 1 | 73.7 | | | |
| Vehicle Noise: | 73 | 3.5 | 72.5 | | 70.6 | | 68.8 | | 75.9 | 9 | 76.2 | | | |
| Centerline Distant | ce to Noise C | ontour (in fee | t) | 70 | dRA | EE dE | | 6 | 0 48 4 | 54 | d B A | | | |
| | | | 1 day | 70 | 150 | 65 dE | 242 | 0 | U UDA | 55 | 1 E 0 E | | | |
| | | | | | 159 | | 342 | 736 | | | 1,585 | | | |
| | | C | INEL: | | 107 | | 309 | | //4 | | 1,068 | | | |

| | FHWA-RI | D-77-108 HIGH | WAY NO | ISE F | PREDIC | TION M | ODEL (| 9/12/2 | 021) | | | |
|----------------------------------|--|-----------------|-----------|--------|------------------------------------|------------------|-----------------|----------------|--------------|---------|----------|--|
| Scenar Road Nan Road Segme | rio: EAC 2024 ne: Perris Blvd nt: s/o Morgan | ı St. | | | | Project Job N | Name: umber: | Ramoi 13998 | na Gateway | y Comm | e | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | IOISE I | IODE | L INPUT | S | | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, So | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 32,727 vehicl | es | | | | | Autos: | 15 | | | |
| Peak Hour Percentage: 7.05% | | | | | Me | dium Tri | ucks (2 / | (xles) | 15 | | | |
| Peak H | lour Volume: | 2,306 vehicle | 5 | | He | avy Truc | cks (3+ / | (xles) | 15 | | | |
| Ve | ehicle Speed: | 45 mph | | V | ohiclo I | Mix | | | | | | |
| Near/Far La | ne Distance: | 80 feet | | | Veh | icle Tyne | | Dav | Evenina | Night | Daily | |
| Site Data | | | | | | , , , | Autos: | 71.9% | 5 12.2% | 15.9% | 90.47% | |
| Ba | rrier Height | 0.0 feet | | | Me | edium Ti | rucks: | 75.3% | 5 7.0% | 17.7% | 5.56% | |
| Barrier Type (0-V | Vall. 1-Berm): | 0.0 | | | ŀ | leavy Ti | rucks: | 60.4% | 5 12.0% | 27.6% | 3.97% | |
| Centerline D | ist. to Barrier: | 64.0 feet | | M | oico Sa | urco El | ovation | in fi | not) | | | |
| Centerline Dist. | to Observer: | 64.0 feet | | | 0130 00 | Auto | e 0 | 200 | | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | n Truck | s. 0. | 297 | | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | v Truck | s: 8. | 004 | Grade Ad | iustmen | t: 0.0 | |
| P | ad Elevation: | 0.0 feet | | | | , | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | Li | Lane Equivalent Distance (in feet) | | | | | | | |
| | Road Grade: | 0.0% | | | Autos: 50.210 | | | | | | | |
| | Left View: | -90.0 degre | es | | Medium Trucks: 50.033 | | | | | | | |
| | Right View: | 90.0 degre | es | | Heav | y Truck | s: 50. | 050 | | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite | Road | Fresr | el | Barrier Atte | en Be | rm Atten | |
| Autos: | 68.46 | 1.36 | | -0.13 | | -1.20 | | -4.70 | 0.0 | 000 | 0.000 | |
| Medium Trucks: | 79.45 | -10.76 | | -0.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 | |
| Heavy Trucks: | 84.25 | -12.22 | | -0.11 | | -1.20 | | -5.31 | 0.0 | 000 | 0.000 | |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | ' Le | eq Eve | ening | Leq | Night | | Ldn | С | NEL | |
| Autos: | 68 | 3.5 | 67.8 | | 66.1 | | 62.5 | 5 | 70.1 | 1 | 70.5 | |
| Medium Trucks: | 67 | 7.4 | 66.9 | | 62.6 | 61.8 | | 69.2 | | 2 | 69.5 | |
| Heavy Trucks: | 70 |).7 | 69.3 | | 68.3 | | 67.1 | | 73.9 | 9 | 74.2 | |
| Vehicle Noise: | 73 | 3.9 | 72.9 | | 71.0 | | 69.3 | 8 | 76.3 | 3 | 76.7 | |
| Centerline Distan | ce to Noise Co | ontour (in feet | | | | | | | | | | |
| | | | | 70 dE | BA | 65 | dBA | | 50 dBA | 55 | dBA | |
| | | - | Ldn: | | 169 | | 364 | | 784 | | 1,689 | |
| | | C | VEL: | | 178 | | 383 | | 825 | | 1,777 | |

| | FHWA-RD | -77-108 HIGH | IWAY | NOISE | PREDIC | TION M | IODEL (| 9/12/2 | 021) | | | | |
|---|---|---|--------------|----------------|---|-------------------------|---------------------|----------------|-------------------|----------------|----------------|--|--|
| Scenario Road Name Road Segmen | | Project Name: Ramona Gateway Comme Job Number: 13998 | | | | | | | | | | | |
| SITE S | | | | | | | OISE | MODE | | s | | | |
| Highway Data | | C. DAIA | | S | Site Con | ditions | (Hard = | 10, Se | oft = 15) | • | | | |
| Average Daily Traffic (Adt): 33,444 vehicles Peak Hour Percentage: 7.05% Peak Hour Volume: 2,357 vehicles | | | | | Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15 | | | | | | | | |
| Near/Far I an | e Distance: | 40 feet | | v | /ehicle l | Nix | | | , | | | | |
| Neally at Earl | e Distance. | 00 1001 | | | Veh | icleType | | Day | Evening | Night | Daily | | |
| Site Data | | | | | | | Autos: | 71.9% | b 12.2% | 15.9% | 90.68% | | |
| Barr Barrier Type (0-Wa | ier Height: II, 1-Berm): | 0.0 feet 0.0 | | | M I | eaium Ti Ieavy Ti | rucks: rucks: | 75.3% 60.4% | 5 7.0% 5 12.0% | 17.7% 27.6% | 5.44% 3.89% | | |
| Centerline Dist | . to Barrier: | 64.0 feet | | ٨ | loise So | ource El | evation | s (in f | eet) | | | | |
| Centerline Dist. to Barrier Distance to Observer Height (A Pao | 0.0 feet 5.0 feet 0.0 feet | | | Mediu. Heav | Auto: m Truck: y Truck: | s: 0. s: 2. s: 8. | .000 297 .004 | Grade Ad | justment | : 0.0 | | | |
| Road | d Elevation: | 0.0 feet | | L | Lane Equivalent Distance (in feet) | | | | | | | | |
| R | oad Grade: Left View: Right View: | 0.0% -90.0 degree 90.0 degree | es es | | Autos: 50.210 Medium Trucks: 50.033 Heavy Trucks: 50.050 | | | | | | | | |
| FHWA Noise Model | Calculations | ; | | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Di | stance | Finite | Road | Fresi | nel | Barrier Att | en Ber | m Atten | | |
| Autos: | 68.46 | 1.46 | | -0.13 | 3 | -1.20 | | -4.70 | 0.0 | 000 | 0.00 | | |
| Medium Trucks: | 79.45 | -10.76 | | -0.11 | 1 | -1.20 | | -4.88 | 0.0 | 000 | 0.00 | | |
| Heavy Trucks: | 84.25 | -12.22 | | -0.11 | 1 | -1.20 | | -5.31 | 0.0 | 000 | 0.00 | | |
| Unmitigated Noise | Levels (witho | out Topo and | barri | er atteni | uation) | | | | | | | | |
| VehicleType I | eq Peak Hou | r Leq Day | / | Leq Ev | ening | Leq | Night | | Ldn | C | NEL | | |
| Autos: | 68 | .6 | 67.9 | | 66.2 | | 62. | 6 | 70. | 2 | 70. | | |
| Medium Trucks: | 67. | .4 | 66.9 | | 62.6 | | 61. | 61.8 69.2 | | 2 | 69. | | |
| Heavy Trucks: | 70.7 69.3 | | | 68.3 | | 67. | 67.1 73.9 | | 9 | 74.2 | | | |
| Vehicle Noise: | 73 | .9 | 72.9 | | 71.0 | | 69. | 3 | 76. | 3 | 76. | | |
| Centerline Distance | to Noise Co | ntour (in feet |) | | | | | | | | | | |
| | | | T | 70 d | IBA | 65 | dBA | (| 50 dBA | 55 | dBA | | |
| | | C | Ldn: NEL: | | 170 178 | | 365 384 | i L | 787 828 | | 1,695 1,784 | | |
| | | 0. | | | 170 | | 304 | r | 020 | | 1,704 | | |

Monday, February 28, 2022

| | FHWA-RI | 0-77-108 HIGHV | VAY NO | ISE I | PREDIC | TION M | ODEL (| 9/12/2 | :021) | | | | | | |
|-----------------------------------|--|------------------|-----------|-------|----------|---|-----------|---------|-----------|--------|-------|---------|--|--|--|
| Scenar Road Nam Road Segmei | Scenario: HY 2045 Road Name: Perris Blvd. Road Segment: s/o Morgan St. | | | | | Project Name: Ramona Gateway Comme Job Number: 13998 | | | | | | | | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | IOISE I | MODE | EL INPU | rs | | | | | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, S | oft = 15) | | | | | | |
| Average Daily | Traffic (Adt): | 47,099 vehicles | | | | | | Autos | : 15 | | | | | | |
| Peak Hour Percentage: 7.05% | | | | | Me | dium Tru | ucks (2 | Axles) | : 15 | | | | | | |
| Peak H | lour Volume: | 3,319 vehicles | | | He | avy Truc | cks (3+) | Axles) | : 15 | | | | | | |
| Ve | hicle Speed: | 45 mph | | V | ohicle I | Mix | | | | | | | | | |
| Near/Far La | ne Distance: | 80 feet | | - | Veh | icleTvne | | Dav | Evenina | Nic | ht | Daily | | | |
| Site Data | | | | | VCIII | cic i ypc | Autos: | 71.99 | 6 12.2% | 15 | 9% | 90.47% | | | |
| Ba | rrier Height | 0.0 feet | | | Me | , edium Tr | rucks: | 75.39 | 6 7.0% | 5 17 | .7% | 5.56% | | | |
| Barrier Tune (0.14 | rrier Height: | 0.0 feet | | | ŀ | leavy Tr | rucks: | 60.49 | 6 12.0% | 27 | 6% | 3.97% | | | |
| Centerline Di | st to Barrier | 64.0 feet | | | | | | | | | | | | | |
| Centerline Dist | to Observer: | 64.0 feet | | N | loise Sc | ource El | evation | s (in f | eet) | | | | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Autos | s: 0. | 000 | | | | | | | |
| Observer Height (| (Above Pad): | 5.0 feet | | | Mediui | n Trucks | s: 2. | 297 | | | | | | | |
| Discriver ricigin (| ad Elevation: | 0.0 feet | | | Heav | y Trucks | s: 8. | 004 | Grade A | djustn | ient: | 0.0 | | | |
| Ro | ad Elevation: | 0.0 feet | | L | ane Eq | uivalent | Distan | ce (in | feet) | | | | | | |
| , | Road Grade: | 0.0% | | | | Auto | s: 50 | 210 | | | | | | | |
| | Left View | -90 0 degrees | | | Mediu | n Truck | s: 50 | 033 | | | | | | | |
| | Right View: | 90.0 degrees | | | Heav | y Trucks | s: 50 | .050 | | | | | | | |
| FHWA Noise Mode | el Calculation | s | | | | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distand | ce | Finite | Road | Fresi | nel | Barrier A | tten | Bern | n Atten | | | |
| Autos: | 68.46 | 2.94 | - | 0.13 | | -1.20 | | -4.70 | 0 | .000 | | 0.000 | | | |
| Medium Trucks: | 79.45 | -9.18 | - | 0.11 | | -1.20 | | -4.88 | 0 | .000 | | 0.000 | | | |
| Heavy Trucks: | 84.25 | -10.64 | | 0.11 | | -1.20 | | -5.31 | 0 | .000 | | 0.000 | | | |
| Unmitigated Noise | e Levels (with | out Topo and b | arrier at | tenu | ation) | | | | | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | Le | q Ev | ening | Leq | Night | | Ldn | | CN | IEL | | | |
| Autos: | 70 | .1 6 | 9.4 | | 67.7 | | 64. | 1 | 71 | .6 | | 72.1 | | | |
| Medium Trucks: | 69 | .0 6 | 8.5 | | 64.1 | | 63.4 | 4 | 70 | .8 | | 71.1 | | | |
| Heavy Trucks: | 72 | .3 7 | 0.8 | | 69.8 | | 68. | 7 | 75 | .4 | | 75.8 | | | |
| Vehicle Noise: | 75 | .4 7 | 4.4 | | 72.6 | | 70. | В | 77 | .9 | | 78.2 | | | |
| Centerline Distand | ce to Noise Co | ontour (in feet) | - | | | | | 1 | | | | | | | |
| | | | | 70 d | BA | 65 (| dBA | | 60 dBA | | 55 0 | 1BA | | | |
| | | L | dn: | | 215 | | 464 | | 99 | 9 | | 2,153 | | | |
| | | CN | EL: | | 227 | | 488 | 5 | 1,05 | 1 | | 2,265 | | | |
| | | | | | | | | | | | | | | | |

| | FHWA-RI | D-77-108 HIGH | IWAY NC | DISE | PREDIC | | DDEL (9 | /12/20 |)21) | | | |
|----------------------------------|----------------------------------|---|-----------|----------------|-----------------------|------------|----------|---------|--------------|---------|----------|--|
| Scenal Road Nan Road Segme | | Project Name: Ramona Gateway Comme Job Number: 13998 | | | | | | | | | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | DISE M | ODE | L INPUT | 5 | | |
| Highway Data | | | | S | ite Cond | ditions (l | Hard = 1 | 10, So | ft = 15) | | | |
| Average Daily | Traffic (Adt): | 47,816 vehicl | es | | | | A | lutos: | 15 | | | |
| Peak Hour | Peak Hour Percentage: 7.05% | | | | Med | dium Tru | cks (2 A | xles): | 15 | | | |
| Peak H | Peak Hour Volume: 3,370 vehicles | | | | Hea | avy Truck | ks (3+ A | xles): | 15 | | | |
| Ve | ehicle Speed: | 45 mph | | V | ahiclo I | liv | | | | | | |
| Near/Far La | ane Distance: | 80 feet | | | Vehi | | | Dav | Evenina | Night | Daily | |
| Site Data | | | | | VOIII | A | utos: T | 71.9% | 12.2% | 15.9% | 90.62% | |
| Ba | wier Height | 0.0 feet | | | Me | dium Tru | icks: ī | 75.3% | 7.0% | 17.7% | 5.47% | |
| Da Barrier Type (0-V | Vall 1-Berm) | 0.0 1001 | | | H | leavy Tru | icks: 6 | 50.4% | 12.0% | 27.6% | 3.91% | |
| Centerline D | ist to Barrier | 64.0 feet | | | | | | | | | | |
| Centerline Dist | to Observer: | 64.0 feet | | N | loise So | urce Ele | vations | (in fe | et) | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Autos. | : 0.0 | 00 | | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Mediun | n Trucks. | : 2.2 | 97 | 0 | | | |
| F | ad Elevation: | 0.0 feet | | | Heav | y Trucks. | : 8.0 | 04 | Grade Adj | ustment | . 0.0 | |
| Ro | ad Elevation: | 0.0 feet | | L | ane Equ | ivalent l | Distanc | e (in f | ieet) | | | |
| | Road Grade: | 0.0% | | | Autos: 50.210 | | | | | | | |
| | Left View: | -90.0 degre | es | | Medium Trucks: 50.033 | | | | | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks. | 50.0 | 50 | | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite | Road | Fresne | e/ | Barrier Atte | en Bei | rm Atten | |
| Autos: | 68.46 | 3.01 | | -0.13 | | -1.20 | - | 4.70 | 0.0 | 000 | 0.000 | |
| Medium Trucks: | 79.45 | -9.18 | | -0.11 | | -1.20 | - | 4.88 | 0.0 | 000 | 0.000 | |
| Heavy Trucks: | 84.25 | -10.64 | | -0.11 | | -1.20 | - | 5.31 | 0.0 | 000 | 0.000 | |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | uation) | | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Da | y Le | eq Ev | ening | Leq N | light | | Ldn | С | NEL | |
| Autos: | 70 | 0.1 | 69.4 | | 67.8 | | 64.1 | | 71.7 | 7 | 72.2 | |
| Medium Trucks: | 69 | 9.0 | 68.5 | | 64.1 | | 63.4 | | 70.8 | 3 | 71.1 | |
| Heavy Trucks: 72.3 70.8 | | | | 69.8 68.7 75.4 | | | | | 75.8 | | | |
| Vehicle Noise: | 75 | 0.5 | /4.5 | | 72.6 | | 70.9 | | 77.9 | 9 | 78.3 | |
| Centerline Distan | ce to Noise C | ontour (in feel | 9 | 70 d | PA I | 65 d | DA. | 6 | OdRA | 55 | dBA | |
| | | | I dn | 10 01 | 216 | 05 U | 465 | 0 | 1 000 | 55 | 2 150 | |
| | | 0 | NEL: | | 210 | | 403 | | 1,002 | | 2,139 | |
| | | 0 | | | 221 | | 405 | | 1,034 | | 2,211 | |
| | FHWA-R | D-77-108 HIGH | WAY N | OISE F | PREDIC | | DDEL (| 9/12/20 | 021) | | |
|--------------------|---------------------------------------|-----------------|---------|--------|---------|-----------|----------|----------|-------------|----------|----------|
| Scenar Road Nan | rio: E | YDV. | | | | Project I | Name: F | Ramor | a Gatewa | y Comm | e |
| Road Segme | ent: w/o Nevad | a Rd. | | | | 300 140 | imber. | 13330 | | | |
| SITE | SPECIFIC IN | NPUT DATA | | | | N | OISE N | IODE | L INPUT | s | |
| Highway Data | | | | S | ite Con | ditions (| Hard = | 10, So | ft = 15) | | |
| Average Daily | Traffic (Adt): | 47,339 vehicl | es | | | | , | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 A | (xles): | 15 | | |
| Peak H | Hour Volume: | 3,336 vehicle | s | | He | avy Truc | ks (3+ A | (xles): | 15 | | |
| Ve | ehicle Speed: | 55 mph | | V | ehicle | Mix | | | | | |
| Near/Far La | ane Distance: | 124 feet | | Ē | Veh | icleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Height: | 0.0 feet | | | М | edium Tru | ucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | 1 | Heavy Tru | ucks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 92.0 feet | | N | oise So | ource Ele | vations | s (in fe | et) | | |
| Centerline Dist. | to Observer: | 92.0 feet | | | | Autos | : 0.0 | 000 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Trucks | : 2.2 | 297 | | | |
| Observer Height | Observer Height (Above Pad): 5.0 feet | | | | Heav | /v Trucks | : 8.0 | 004 | Grade Ad | iustment | : 0.0 |
| P | Pad Elevation: 0.0 feet | | | | | | | | | | |
| Ro | Road Elevation: 0.0 feet | | | | ane Eq | uivalent | Distanc | e (in f | 'eet) | | |
| | Road Grade: | 0.0% | | | | Autos | : 68. | 154 | | | |
| | Left View: | -90.0 degre | es | | Mediu | m Trucks | : 68.0 | 024 | | | |
| | Right View: | 90.0 degre | es | | Heav | /y Trucks | : 68.0 | 037 | | | |
| FHWA Noise Mod | lel Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | nce | Finite | Road | Fresn | el | Barrier Att | en Ber | rm Atten |
| Autos: | 71.78 | 2.09 | | -2.12 | | -1.20 | | -4.76 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 82.40 | -10.03 | | -2.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -11.49 | | -2.11 | | -1.20 | | -5.18 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier | attenu | ation) | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Day | ′ L | eq Eve | ening | Leq N | light | | Ldn | C | NEL |
| Autos: | 70 | 0.5 | 69.8 | | 68.2 | | 64.5 | | 72.1 | 1 | 72.6 |
| Medium Trucks: | 69 | 9.1 | 68.6 | | 64.3 | | 63.5 | | 70.9 | 9 | 71.2 |
| Heavy Trucks: | 71 | 1.6 | 70.1 | | 69.1 | | 68.0 | | 74.7 | 7 | 75.1 |
| Vehicle Noise: | 75 | 5.3 | 74.3 | | 72.4 | | 70.6 | i | 77.1 | (| 78.0 |
| Centerline Distan | ce to Noise C | ontour (in feet |) | | | | | | | | |
| | | | | 70 dl | BA | 65 d | BA | 6 | 0 dBA | 55 | dBA |
| | | - | Ldn: | | 298 | | 643 | | 1,386 | | 2,985 |
| | CNEL: | | | | 314 | | 677 | | 1,459 | | 3,143 |

| | FHWA-RD | -77-108 HIGH | IWAY | NOISE | PREDIC | TION M | ODEL (| 9/12/2 | 021) | | |
|-----------------------|---|----------------|-------|-----------|----------|------------------|-----------------|---------------|-------------|----------|---------|
| Scenario Road Name | Scenario: E+P Road Name: Ramona Expy. Road Segment: w/o Novodo Rd | | | | | Project Job N | Name: umber: | Ramo 13998 | na Gatewa | y Comm | e |
| Road Segmen | : w/o Nevada | Rd. | | | | | | | | | |
| SITE S | PECIFIC IN | PUT DATA | | | | N | OISE | NODE | L INPUT | s | |
| Highway Data | | | | s | ite Con | ditions | (Hard = | 10, So | oft = 15) | | |
| Average Daily T | raffic (Adt): | 51,736 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour F | Percentage: | 7.05% | | | Me | dium Tru | icks (2) | Axles): | 15 | | |
| Peak Ho | ur Volume: | 3,646 vehicle | s | | He | avy Truc | :ks (3+ / | Axles): | 15 | | |
| Veh | icle Speed: | 55 mph | | v | ehicle l | <i>lix</i> | | | | | |
| Near/Far Lan | e Distance: | 124 feet | | | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | A | lutos: | 71.9% | 12.2% | 15.9% | 91.289 |
| Barr | ier Heiaht: | 0.0 feet | | | Me | edium Tr | ucks: | 75.3% | 7.0% | 17.7% | 5.089 |
| Barrier Type (0-Wa | II, 1-Berm): | 0.0 | | | ŀ | leavy Tr | ucks: | 60.4% | 12.0% | 27.6% | 3.63 |
| Centerline Dist | to Barrier: | 92.0 feet | | | loiso Sa | urco El | ovation | e (in fi | nof) | | |
| Centerline Dist. to | Observer: | 92.0 feet | | ~ | 0136 30 | Autos | | 000 | eey | | |
| Barrier Distance to | Observer: | 0.0 feet | | | Mediu | n Trucks | . 0. | 297 | | | |
| Observer Height (A | Observer Height (Above Pad): 5.0 feet | | | | | v Trucks | . 8. | 004 | Grade Ad | iustment | : 0.0 |
| Pa | Pad Elevation: 0.0 feet | | | | | , | | | | | |
| Road | d Elevation: | 0.0 feet | | L | ane Equ | uivalent | Distan | ce (in | feet) | | |
| R | oad Grade: | 0.0% | | | | Autos | s: 68. | 154 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Trucks | s: 68. | 024 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks | 5.' 68. | 037 | | | |
| FHWA Noise Model | Calculations | ; | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite | Road | Fresr | nel | Barrier Att | en Ber | m Atten |
| Autos: | 71.78 | 2.51 | | -2.12 | | -1.20 | | -4.76 | 0.0 | 000 | 0.00 |
| Medium Trucks: | 82.40 | -10.03 | | -2.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 86.40 | -11.49 | | -2.11 | | -1.20 | | -5.18 | 0.0 | 000 | 0.00 |
| Unmitigated Noise | Levels (witho | out Topo and | barri | er attenı | uation) | | | | | | |
| VehicleType I | .eq Peak Hou | r Leq Day | / | Leq Ev | ening | Leq | Night | | Ldn | C | NEL |
| Autos: | 71. | .0 | 70.3 | | 68.6 | | 65.0 |) | 72. | 5 | 73. |
| Medium Trucks: | 69. | .1 | 68.6 | | 64.3 | | 63.5 | 5 | 70. | 9 | 71 |
| Heavy Trucks: | 71. | .6 | 70.1 | | 69.1 | | 68.0 |) | 74. | / | 75. |
| Vehicle Noise: | 75. | .4 | 74.5 | | 72.6 | | 70.1 | (| 77.3 | 5 | 78. |
| Centerline Distance | to Noise Co | ntour (in feet |) | 70 | - | | 10.4 | | | | (8.4 |
| | | | Latar | 70 d | BA | 65 (| зBA | | ou dBA | 55 | aBA |
| | | ~ | Lan: | | 304 | | 655 | | 1,412 | | 3,042 |
| | CNEL: | | | | 320 | | 690 | | 1,487 | | 3,204 |

Monday, February 28, 2022

| | FHWA-RI | D-77-108 HIGH | WATN | IOISE | PREDIC | TION MC | DEL (| 9/12/2 | 021) | | | |
|--------------------------------------|--------------------------------------|------------------|--------|--------|-----------|-----------|-----------|----------|----------------|--------|---------------|------------|
| Scenari | o: EAC 2024 | | | | | Project I | lame: | Ramor | na Gatewa | y Corr | ime | |
| Road Nam | e: Ramona E | кру. | | | | Job Nu | mber: | 13998 | | | | |
| Road Segmer | nt: w/o Nevada | a Rd. | | | | | | | | | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | DISE I | NODE | L INPUT | s | | |
| Highway Data | | | | S | ite Con | ditions (| Hard = | 10, Sc | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 71,545 vehicle | s | | | | | Autos: | 15 | | | |
| Peak Hour | Percentage: | 7.05% | | | Mee | dium Tru | cks (2 / | Axles): | 15 | | | |
| Peak H | our Volume: | 5,042 vehicles | | | Hea | avy Truci | (S (3+) | Axles): | 15 | | | |
| Vei | hicle Speed: | 55 mph | | v | ehicle A | lix | | | | | | |
| Near/Far Lai | ne Distance: | 124 feet | | F | Vehi | cleTvpe | | Dav | Evenina | Niah | t D | Dailv |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9 | 9% 90 | 0.47% |
| Bar | rior Hoight: | 0.0 feet | | | Me | dium Tru | icks: | 75.3% | 7.0% | 17.7 | 7% 5 | 5.56% |
| Barrier Type (0-W | all. 1-Berm): | 0.0 | | | H | leavy Tru | icks: | 60.4% | 12.0% | 27.6 | 6% 3 | 3.97% |
| Centerline Dis | t. to Barrier: | 92.0 feet | | - | | | | - 6- 4 | 41 | | | |
| Centerline Dist. | to Observer: | 92.0 feet | | ~ | ioise so | urce Ele | vation | s (in re | eet) | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Autos. | 0. | 000 | | | | |
| Observer Height (| bserver Height (Above Pad): 5.0 feet | | | | | | 2. | 297 | Grade Ar | liuctm | nt 0 | 0 |
| Pa | Pad Elevation: 0.0 feet | | | | | | 8. | 004 | Graue Au | ijusum | <i>in.</i> 0. | 0 |
| Roa | Road Elevation: 0.0 feet | | | | | | Distan | ce (in i | feet) | | | |
| F | Road Grade: | 0.0% | | | | Autos | 68. | 154 | | | | |
| | Left View: | -90.0 degree | s | | Mediur | n Trucks | 68. | 024 | | | | |
| | Right View: | 90.0 degree | S | | Heav | y Trucks | 68. | 037 | | | | |
| FHWA Noise Mode | l Calculation | s | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | ance | Finite | Road | Fresr | nel | Barrier At | ten E | Berm A | Atten |
| Autos: | 71.78 | 3.88 | | -2.12 | 2 | -1.20 | | -4.76 | 0. | 000 | | 0.000 |
| Medium Trucks: | 82.40 | -8.24 | | -2.11 | | -1.20 | | -4.88 | 0. | 000 | | 0.000 |
| Heavy Trucks: | 86.40 | -9.69 | | -2.11 | | -1.20 | | -5.18 | 0. | 000 | | 0.000 |
| Unmitigated Noise | Levels (with | out Topo and L | arrier | attenu | uation) | | | | | | | |
| VehicleType | Leq Peak Hou | ır Leq Day | 1 | Leq Ev | ening | Leq N | light | | Ldn | | CNEL | <u> </u> |
| Autos: | 72 | .3 7 | 1.6 | | 70.0 | | 66.3 | 3 | 73. | 9 | | 74.4 |
| Medium Trucks: | 70 | .9 7 | 0.4 | | 66.0 | | 65.3 | 3 | 72. | 7 | | 73.0 |
| Heavy Trucks: | 73 | .4 7 | '1.9 | | 70.9 | | 69.8 | 3 | 76. | 5 | | 76.8 |
| | 77 | '.1 ī | 6.1 | | 74.2 | | 72.4 | 4 | 79. | 5 | | 79.8 |
| venicle Noise: | | | | | | | | | | | | |
| Centerline Distanc | e to Noise Co | ontour (in feet) | | | | | | | | | | |
| Centerline Distanc | e to Noise Co | ontour (in feet) | | 70 d | BA | 65 d | BA | 6 | 60 dBA | | 55 dB, | A |
| Venicie Noise: Centerline Distanc | e to Noise Co | ontour (in feet) | .dn: | 70 d | BA 393 | 65 d | BA 847 | 6 | 60 dBA 1,82 | 5 | 55 dB/ | A 3,931 |

| | FHWA-RI | D-77-108 HIGH | IWAY I | NOISE | PREDIC | TION MO | ODEL (| 9/12/2 | 021) | | |
|---------------------------------------|---------------------------------------|-----------------|--------|---------|-----------|-----------|---------------------|----------|-------------|----------|-----------|
| Scenar | io: EAPC 2024 | 4 | | | | Project | Name: | Ramo | na Gatewa | y Comm | ne |
| Road Nam | e: Ramona Ex | хру. | | | | Job NL | imber: | 13998 | | | |
| Road Segme | nt: w/o Nevada | a Rd. | | | | | | | | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | NODE | L INPUT | S | |
| Highway Data | | | | 5 | Site Con | ditions (| Hard = | 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 75,942 vehicl | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 . | Axles): | 15 | | |
| Peak H | lour Volume: | 5,352 vehicle | s | | Hei | avy Truc | ks (3+ . | Axles): | 15 | | |
| Ve | hicle Speed: | 55 mph | | 1 | /ehicle N | lix | | | | | |
| Near/Far La | ne Distance: | 124 feet | | | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 6 91.03% |
| Ba | rrier Height | 0.0 feet | | | Me | edium Tri | ucks: | 75.3% | 7.0% | 17.7% | 6 5.23% |
| Barrier Type (0-W | /all. 1-Berm): | 0.0 | | | F | leavy Tri | ucks: | 60.4% | 12.0% | 27.6% | 6 3.74% |
| Centerline Di | st. to Barrier: | 92.0 feet | | | laisa Sa | urco Ele | wation | e (in fi | nof) | | |
| Centerline Dist. | to Observer: | 92.0 feet | | , | 10/36 30 | | · 0 | 000 | eei) | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Modiur | n Trucks | . U. . 2 | 207 | | | |
| Observer Height (| Observer Height (Above Pad): 5.0 feet | | | | | | . <u>2</u> . . g | 004 | Grade Ad | liustmen | t: 0.0 |
| Pa | Pad Elevation: 0.0 feet | | | | | | . 0. | 004 | | , | |
| Roa | ad Elevation: | 0.0 feet | | L | ane Equ | ivalent | Distan | ce (in | feet) | | |
| i i i i i i i i i i i i i i i i i i i | Road Grade: | 0.0% | | | | Autos | : 68 | 154 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Trucks | : 68 | 024 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks | : 68 | 037 | | | |
| FHWA Noise Mode | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dist | tance | Finite | Road | Fresi | nel | Barrier Att | en Be | erm Atten |
| Autos: | 71.78 | 4.17 | | -2.12 | 2 | -1.20 | | -4.76 | 0. | 000 | 0.000 |
| Medium Trucks: | 82.40 | -8.24 | | -2.1 | 1 | -1.20 | | -4.88 | 0. | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -9.69 | | -2.11 | 1 | -1.20 | | -5.18 | 0. | 000 | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo and | barrie | r atten | uation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Da | Ý | Leg Ev | /ening | Leq N | light | | Ldn | 0 | ONEL |
| Autos: | 72 | 2.6 | 71.9 | | 70.2 | | 66. | 5 | 74. | 2 | 74.7 |
| Medium Trucks: | 70 |).9 | 70.4 | | 66.0 | | 65. | 3 | 72. | 7 | 73.0 |
| Heavy Trucks: | 73 | 3.4 | 71.9 | | 70.9 | | 69. | 3 | 76. | 5 | 76.8 |
| Vehicle Noise: | 77 | 7.2 | 76.2 | | 74.3 | | 72. | 4 | 79. | 5 | 79.9 |
| Centerline Distant | ce to Noise Co | ontour (in feel | 9 | | | | | | | | |
| | | | | 70 a | iBA | 65 a | IBA | (| 60 dBA | 55 | 5 dBA |
| | | | Ldn: | | 398 | | 858 | | 1,848 | 3 | 3,981 |
| | | С | NEL: | | 419 | | 903 | | 1,946 | 6 | 4,193 |
| | | | | | | | | | | | |

| | FHWA-R | D-77-108 | HIGHWA | Y NOIS | E PREDI | CTION M | ODEL (9 | 9/12/20 | 21) | | |
|----------------------------------|--|---------------|---------|-----------|-----------|-------------------|---------------------|---------------|--------------|---------|---------|
| Scenar Road Nan Road Segme | io: HY 2045 ne: Ramona E nt: w/o Nevad | xpy. a Rd. | | | | Project Job Nu | Name: F Imber: 1 | Ramon 3998 | a Gateway | / Comme | 9 |
| SITE | SPECIFIC IN | NPUT DA | TA | | | N | OISE N | IODEI | . INPUT | 5 | |
| Highway Data | | | | | Site Co. | nditions (| Hard = | 10, So | ft = 15) | | |
| Average Daily | Traffic (Adt): | 73,396 v | ehicles | | | | A | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | М | edium Tru | cks (2 A | xles): | 15 | | |
| Peak H | our Volume: | 5,172 ve | hicles | | н | eavy Truc | ks (3+ A | xles): | 15 | | |
| Ve | hicle Speed: | 55 m | ph | | Vehiele | Mix | | | | | |
| Near/Far La | ne Distance: | 124 fe | et | | Venicle | hicleType | | Dav | Evening | Night | Daily |
| Site Data | | | | | Vei | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrior Hoight: | 0.0.6 | oot | | ٨ | Aedium Tri | ucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | /all 1-Rerm) | 0.0 1 | eet | | | Heavy Tr | ucks: (| 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline Di | st. to Barrier: | 92.0 fe | eet | | Noine C | | | 6 K. | - 4) | | |
| Centerline Dist. | to Observer: | 92.0 fe | eet | | Noise S | ource Ele | evations | in re | et) | | |
| Barrier Distance | to Observer: | 0.0 fe | eet | | 1 4 m all | Autos | . 0.0 | 000 | | | |
| Observer Height | Observer Height (Above Pad): 5.0 feet | | | | Weak | um Trucks | . 2.2 | 297 | Grade Ad | ustmont | |
| P | Pad Elevation: 0.0 feet | | | | nea | ivy mucks | . 0.0 | 104 | Graue Auj | usuneni | 0.0 |
| Ro | Road Elevation: 0.0 feet | | | | Lane Ed | quivalent | Distanc | e (in fe | eet) | | |
| | Road Grade: | 0.0% | | | | Autos | : 68.1 | 154 | | | |
| | Left View: | -90.0 d | legrees | | Media | um Trucks | : 68.0 |)24 | | | |
| | Right View: | 90.0 d | legrees | | Hea | wy Trucks | : 68.0 | 037 | | | |
| FHWA Noise Mod | el Calculation | s | | | 1 | | | | | | |
| VehicleType | REMEL | Traffic F | low D | Distance | Finite | e Road | Fresne | el l | Barrier Atte | en Ber | m Atten |
| Autos: | 71.78 | | 3.99 | -2. | 12 | -1.20 | | -4.76 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 82.40 | | -8.12 | -2. | 11 | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 86.40 | | -9.58 | -2. | 11 | -1.20 | | -5.18 | 0.0 | 000 | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo | and ban | rier atte | nuation) | | | | | | |
| VehicleType | Leq Peak Ho | ur Lee | q Day | Leq | Evening | Leq I | Vight | | Ldn | CI | NEL |
| Autos: | 72 | 2.5 | 71.7 | 7 | 70. | 1 | 66.4 | | 74.0 |) | 74.5 |
| Medium Trucks: | 71 | 1.0 | 70.5 | 5 | 66.3 | 2 | 65.4 | | 72.8 | 3 | 73.1 |
| Heavy Trucks: | 73 | 3.5 | 72.0 |) | 71.0 | 0 | 69.9 | | 76.6 | 6 | 77.0 |
| Vehicle Noise: | 77 | 7.2 | 76.2 | 2 | 74.3 | 3 | 72.5 | | 79.6 | 6 | 79.9 |
| Centerline Distan | ce to Noise C | ontour (in | ı feet) | 1 | | | | | | | |
| | | | | 70 |) dBA | 65 a | IBA | 6 | 0 dBA | 55 | dBA |
| | | | Ldn | Ľ | 400 | 1 | 861 | | 1,856 | | 3,999 |
| | CNEL: | | | | 421 | | 907 | | 1,954 | | 4,210 |

| | FRWA-KL | | IVVAT | NOISE | PREDIC | | | 9/12/20 | JZI) | | |
|---------------------|--------------------------------------|-----------------|--------|----------|------------|---------|-----------|----------|-------------|----------|---------|
| Scenario | : HYP 2045 | | | Project | Name: | Ramor | na Gatewa | y Comm | e | | |
| Road Name | : Ramona Ex | фy. | | | | Job N | umber: | 13998 | | | |
| Road Segment | w/o Nevada | a Rd. | | | | | | | | | |
| SITE S | PECIFIC IN | IPUT DATA | | | | N | IOISE N | IODE | L INPUT | s | |
| Highway Data | | | | | Site Con | ditions | (Hard = | 10, Sc | oft = 15) | | |
| Average Daily T | raffic (Adt): | 77,792 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour F | Percentage: | 7.05% | | | Me | dium Tr | ucks (2 A | (xles) | 15 | | |
| Peak Ho | ur Volume: | 5,482 vehicle | s | | Hei | avy Tru | cks (3+ A | (xles): | 15 | | |
| Veh | icle Speed: | 55 mph | | ľ | Vehicle N | lix | | | | | |
| Near/Far Lan | e Distance: | 124 feet | | ľ | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | , | Autos: | 71.9% | 12.2% | 15.9% | 91.01% |
| Barr | ier Height: | 0.0 feet | | | Me | dium T | rucks: | 75.3% | 7.0% | 17.7% | 5.24% |
| Barrier Type (0-Wa | ll, 1-Berm): | 0.0 | | | F | leavy T | rucks: | 60.4% | 12.0% | 27.6% | 3.75% |
| Centerline Dist | to Barrier: | 92.0 feet | | - | Noise So | urce El | evation | s (in fe | et) | | |
| Centerline Dist. to | Observer: | 92.0 feet | | ŀ | | Auto | s: 0.0 | 000 | | | |
| Barrier Distance to | Observer: | 0.0 feet | | | Mediur | n Truck | s: 2.1 | 297 | | | |
| Observer Height (A | bserver Height (Above Pad): 5.0 feet | | | | | y Truck | s: 8.0 | 004 | Grade Ad | justment | : 0.0 |
| Pad | Pad Elevation: 0.0 feet | | | | | | | | | | |
| Road | Road Elevation: 0.0 feet | | | | | iivalen | Distant | e (in i | reet) | | |
| R | oad Grade: | 0.0% | | | | Auto | s: 68. | 154 | | | |
| | Left View: | -90.0 degree | es | | Mediur | n Truck | S.' 68. | 024 | | | |
| | Right View: | 90.0 degre | es | | Heav | у ттиск | S. 08. | J37 | | | |
| FHWA Noise Model | Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite | Road | Fresn | el | Barrier Att | en Bei | m Atten |
| Autos: | 71.78 | 4.27 | | -2.1 | 2 | -1.20 | | -4.76 | 0.0 | 000 | 0.00 |
| Medium Trucks: | 82.40 | -8.12 | | -2.1 | 1 | -1.20 | | -4.88 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 86.40 | -9.58 | | -2.1 | 1 | -1.20 | | -5.18 | 0.0 | 000 | 0.00 |
| Unmitigated Noise | Levels (with | out Topo and | barrie | er atter | nuation) | | | | | | |
| VehicleType L | .eq Peak Hou | ir Leq Day | / | Leq E | vening | Leq | Night | | Ldn | С | NEL |
| Autos: | 72 | 7 | 72.0 | | 70.4 | | 66.7 | | 74.3 | 3 | 74. |
| Medium Trucks: | 71 | .0 | 70.5 | | 66.2 | | 65.4 | | 72.8 | 3 | 73. |
| Heavy Trucks: | 73 | .5 | 72.0 | | 71.0 | | 69.9 | | 76.0 | 5 | //. |
| Venicle Noise: | // | .3 | 76.3 | | 74.4 | | 72.5 |) | 79.1 | (| 80.0 |
| Centerline Distance | e to Noise Co | ontour (in feet |) | 70 | -04 | 07 | | | 0.404 | | -10.4 |
| | | | L | 70 | aba 40- | 65 | ава | 6 | O aBA | 55 | aBA |
| | | - | Lan: | | 405 | | 872 | | 1,879 | | 4,048 |
| | CNEL: | | | | 406 | | 010 | | 1 070 | | 4 263 |

Monday, February 28, 2022

| | FHWA-RD |)-77-108 HIGH\ | NAY NOI | SE F | PREDIC | | IODEL (| (9/12/2 | 2021) | | | |
|----------------------------------|---|-----------------|-------------|-------|----------|------------------|------------------|---------------|-----------|------------|--------|---------|
| Scenar Road Nan Road Segme | rio: E ne: Ramona Ex nt: e/o Webste | rpy. r Av. | | | | Project Job N | Name: lumber: | Ramo 13998 | na Gate | way C | omme | • |
| SITE | SPECIFIC IN | PUT DATA | | | | N | IOISE | MOD | EL INPU | JTS | | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, S | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 37,477 vehicles | s | | | | | Autos | : 15 | | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tr | ucks (2 | Axles) | : 15 | | | |
| Peak H | our Volume: | 2,641 vehicles | | | He | avy Tru | cks (3+ . | Axles) | : 15 | | | |
| Ve | hicle Speed: | 55 mph | | | ahiala I | Aire | | | | | | |
| Near/Far La | ne Distance: | 124 feet | | V | Veh | | | Dav | Evenin | | iaht | Dailu |
| Site Data | | | | - | Ven | cie i ype | Autos: | 71.99 | 6 12.2 | 9 N % 1 | 5.9% | 90.47% |
| Ba | rrier Height | 0.0 feet | | | Me | edium T | rucks: | 75.39 | 6 7.0 | % 1 | 7.7% | 5.56% |
| Barrier Tune (0.14 | rrier Height: | 0.0 feet | | | ŀ | leavy T | rucks: | 60.49 | 6 12.0 | % 2 | 7.6% | 3.97% |
| Centerline Di | ist to Barrier | 92.0 feet | | | | | | | | | | |
| Centerline Dist | to Observer: | 92.0 feet | | N | oise Sc | ource El | evation | s (in f | 'eet) | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Auto | s: 0 | .000 | | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Mediui | m Truck | s: 2 | .297 | ~ / | | | |
| P | Pad Elevation: 0.0 feet | | | | Heav | y Truck | s: 8 | .004 | Grade | Aajus | tment: | 0.0 |
| Ro | Road Elevation: 0.0 feet | | | | | | t Distan | ce (in | feet) | | | |
| | Road Grade: | 0.0% | | | | Auto | s: 68 | .154 | | | | |
| | Left View: | -90.0 degree | s | | Mediui | n Truck | s: 68 | .024 | | | | |
| | Right View: | 90.0 degree | s | | Heav | y Truck | s: 68 | .037 | | | | |
| FHWA Noise Mod | el Calculations | 5 | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distanc | е | Finite | Road | Fres | nel | Barrier | Atten | Ben | m Atten |
| Autos: | 71.78 | 1.07 | -2 | 2.12 | | -1.20 | | -4.76 | | 0.000 | ĺ | 0.000 |
| Medium Trucks: | 82.40 | -11.04 | -2 | 2.11 | | -1.20 | | -4.88 | | 0.000 | | 0.000 |
| Heavy Trucks: | 86.40 | -12.50 | -2 | 2.11 | | -1.20 | | -5.18 | | 0.000 | | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and b | oarrier att | enu | ation) | | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | Leq | Eve | ening | Leq | Night | | Ldn | | CI | IEL |
| Autos: | 69 | .5 6 | 8.8 | | 67.2 | | 63. | 5 | 7 | 1.1 | | 71.6 |
| Medium Trucks: | 68 | .1 € | 57.5 | | 63.2 | | 62. | 5 | 6 | 9.9 | | 70.1 |
| Heavy Trucks: | 70 | .6 6 | 9.1 | | 68.1 | | 67. | 0 | 7 | 3.7 | | 74.0 |
| Vehicle Noise: | 74 | .3 7 | 3.3 | | 71.4 | | 69. | 5 | 7 | 6.7 | | 77.0 |
| Centerline Distan | ce to Noise Co | ntour (in feet) | - | | | | | _ | | | | |
| | | | . 7 | 'U dl | BA | 65 | aBA | | ου dBA | | 55 | aBA |
| | | | .an: | | 255 | | 550 | , | 1,1 | 86 | | 2,554 |
| | CNEL: | | | | 269 | | 579 | 9 | 1,2 | 48 | | 2,690 |

| | FHWA-RI | D-77-108 HIGH | WAY | NOISE | PREDIC | | ODEL (| 9/12/2 | 021) | | | |
|--------------------|---------------------------------------|-----------------|--------|----------|-----------|-------------------|-----------------|---------------|-------------|--------|--------|--------|
| Scenal Road Nan | rio: E+P ne: Ramona E: | xpy. | | | | Project Job Ni | Name: Imber: | Ramo 13998 | na Gatewa | y Con | nme | |
| Road Segme | nt: e/o Webste | er Av. | | | | | | | | | | |
| SITE | SPECIFIC IN | NPUT DATA | | | | N | OISE I | NODE | L INPUT | s | | |
| Highway Data | | | | 5 | Site Con | ditions (| 'Hard = | 10, S | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 39,541 vehicl | es | | | | | Autos. | 15 | | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2) | Axles). | 15 | | | |
| Peak H | lour Volume: | 2,786 vehicle | s | | He | avy Truc | ks (3+) | Axles) | 15 | | | |
| Ve | ehicle Speed: | 55 mph | | 1 | Vehicle I | Mix | | | | | | |
| Near/Far La | ane Distance: | 124 feet | | F | Veh | icleType | | Day | Evening | Nigi | nt | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 6 12.2% | 15. | 9% 9 | 90.97% |
| Ba | rrier Heiaht: | 0.0 feet | | | M | edium Tr | ucks: | 75.3% | 6 7.0% | 17. | 7% | 5.27% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | 1 | Heavy Tr | ucks: | 60.4% | 6 12.0% | 27. | 6% | 3.76% |
| Centerline D | ist. to Barrier: | 92.0 feet | | 7 | Noise So | ource Ele | vation | s (in f | eet) | | | |
| Centerline Dist. | to Observer: | 92.0 feet | | Ē | | Autos | . 0 | 000 | | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Trucks | 2. | 297 | | | | |
| Observer Height | Observer Height (Above Pad): 5.0 feet | | | | Heav | v Trucks | . 8. | 004 | Grade Ad | ljustm | ent: (| 0.0 |
| P | Pad Elevation: 0.0 feet | | | | | | | | | - | | |
| Ro | Road Elevation: 0.0 feet | | | | | uivalent | Distan | ce (In | teet) | | | |
| | Road Grade: | 0.0% | | | | Autos | : 68. | 154 | | | | |
| | Left View: | -90.0 degre | es | | Mediu | m Trucks | 68. | 024 | | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks | : 68. | 037 | | | | |
| FHWA Noise Mod | el Calculation | S | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dist | tance | Finite | Road | Fresr | nel | Barrier Att | ten | Berm | Atten |
| Autos: | 71.78 | 1.33 | | -2.1 | 2 | -1.20 | | -4.76 | 0. | 000 | | 0.000 |
| Medium Trucks: | 82.40 | -11.04 | | -2.1 | 1 | -1.20 | | -4.88 | 0. | 000 | | 0.000 |
| Heavy Trucks: | 86.40 | -12.50 | | -2.1 | 1 | -1.20 | | -5.18 | 0. | 000 | | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrie | er atten | uation) | | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Da | V | Leg Ev | vening | Leq I | Vight | | Ldn | | CNE | EL |
| Autos: | 69 | 9.8 | 69.1 | | 67.4 | | 63. | 3 | 71. | 4 | | 71.8 |
| Medium Trucks: | 68 | 3.1 | 67.5 | | 63.2 | | 62. | 5 | 69. | 9 | | 70.1 |
| Heavy Trucks: | 70 | 0.6 | 69.1 | | 68.1 | | 67.0 |) | 73. | 7 | | 74.0 |
| Vehicle Noise: | 74 | 1.4 | 73.4 | | 71.5 | | 69.0 | 5 | 76. | 7 | | 77.1 |
| Centerline Distan | ce to Noise C | ontour (in feel | 9 | | | | | | | | | |
| | | | | 70 c | dBA | 65 c | íBA | | 60 dBA | | 55 dl | BA |
| | | | Ldn: | | 258 | | 557 | | 1,199 | 9 | | 2,583 |
| | CNEL: | | | | 272 | | 586 | | 1,263 | 3 | | 2,721 |

| | FHWA-RI | D-77-108 HIGH | IWAY NO | DISE F | REDIC | TION M | ODEL (| 9/12/20 | 021) | | |
|----------------------------------|--|-----------------|-----------|--------|----------|-------------------|-----------------|----------------|-------------|----------|---------|
| Scenai Road Nan Road Segme | rio: EAC 2024 ne: Ramona E: nt: e/o Webste | kpy. er Av. | | | | Project Job Ni | Name: umber: | Ramor 13998 | a Gatewa | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE I | IODE | L INPUT | S | |
| Highway Data | | | | S | ite Con | ditions (| (Hard = | 10, So | ft = 15) | | |
| Average Daily | Traffic (Adt): | 60,933 vehicl | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | icks (2 / | Axles): | 15 | | |
| Peak H | lour Volume: | 4,294 vehicle | s | | He | avy Truc | :ks (3+ / | Axles): | 15 | | |
| Ve | ehicle Speed: | 55 mph | | V | ohiclo I | Mix | | | | | |
| Near/Far La | ne Distance: | 124 feet | | | Veh | icleTyne | | Dav | Evenina | Night | Daily |
| Site Data | | | | | VCIII | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Height | 0.0 feet | | | Me | edium Tr | ucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall. 1-Berm): | 0.0 | | | ŀ | leavy Tr | ucks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline Di | ist. to Barrier: | 92.0 feet | | N | oico Sc | urco Ek | wation | e (in fe | unf) | | |
| Centerline Dist. | to Observer: | 92.0 feet | | 14 | 0136 30 | | evaluon. | 000 | eŋ | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Modiu | n Trucks | . 0. | 207 | | | |
| Observer Height | Observer Height (Above Pad): 5.0 feet | | | | Heav | n Trucks | . 2. | 004 | Grade Ad | iustment | .00 |
| P | Pad Elevation: 0.0 feet | | | | | y macks | . 0. | 004 | 0/000/10 | aounom | . 0.0 |
| Ro | Road Elevation: 0.0 feet | | | | | uivalent | Distan | ce (in f | 'eet) | | |
| | Road Grade: | 0.0% | | | | Autos | s: 68. | 154 | | | |
| | Left View: | -90.0 degre | es | | Mediui | m Trucks | s: 68. | 024 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks | s: 68. | 037 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | nce | Finite | Road | Fresr | el | Barrier Att | en Ber | m Atten |
| Autos: | 71.78 | 3.18 | | -2.12 | | -1.20 | | -4.76 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 82.40 | -8.93 | | -2.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -10.39 | | -2.11 | | -1.20 | | -5.18 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | attenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Daj | V L | eq Eve | ening | Leq I | Night | | Ldn | C | NEL |
| Autos: | 71 | .6 | 70.9 | | 69.3 | | 65.6 | 6 | 73. | 2 | 73.7 |
| Medium Trucks: | 70 |).2 | 69.7 | | 65.3 | | 64.6 | 6 | 72.0 |) | 72.3 |
| Heavy Trucks: | 72 | 2.7 | 71.2 | | 70.2 | | 69.1 | | 75.8 | 3 | 76.1 |
| Vehicle Noise: | 76 | 3.4 | 75.4 | | 73.5 | | 71.7 | 7 | 78. | 3 | 79.1 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | BA | 65 0 | 'BA | 6 | 0 dBA | 55 | dBA |
| | | | Ldn: | | 353 | | 761 | | 1,639 | | 3,532 |
| | CNEL: | | | | 372 | | 801 | | 1,726 | | 3,719 |

| FRWA- | KD-77-106 HIGI | IVVAT | NUISE | PREDIC | | NODEL | 9/12/2 | 021) | | |
|--------------------------------|---------------------|----------|----------|-----------|---------|----------|----------|-------------|---------|----------|
| Scenario: EAPC 20 | Scenario: EAPC 2024 | | | | | | Ramo | na Gatewa | y Comm | е |
| Road Name: Ramona | Expy. | | | | Job I | Number: | 13998 | | | |
| Road Segment: e/o Webs | ster Av. | | | | | | | | | |
| SITE SPECIFIC | INPUT DATA | | | | I | NOISE | MODE | L INPUT | s | |
| Highway Data | | | | Site Cond | ditions | (Hard = | : 10, Se | oft = 15) | | |
| Average Daily Traffic (Adt): | 62,998 vehic | les | | | | | Autos: | 15 | | |
| Peak Hour Percentage: | 7.05% | | | Med | dium Ti | rucks (2 | Axles): | 15 | | |
| Peak Hour Volume: | 4,439 vehicle | es | | Hea | avy Tru | icks (3+ | Axles): | 15 | | |
| Vehicle Speed: | 55 mph | | | Vehicle N | lix | | | | | |
| Near/Far Lane Distance: | 124 feet | | Ē | Vehi | cleTyp | e | Day | Evening | Night | Daily |
| Site Data | | | | | | Autos: | 71.9% | 6 12.2% | 15.9% | 90.79% |
| Barrier Height: | 0.0 feet | | | Me | dium 1 | rucks: | 75.3% | 5 7.0% | 17.7% | 5.37% |
| Barrier Type (0-Wall, 1-Berm). | 0.0 | | | H | leavy 1 | rucks: | 60.4% | 5 12.0% | 27.6% | 3.84% |
| Centerline Dist. to Barrier. | 92.0 feet | | ŀ | Noise So | urce F | levation | s (in f | eet) | | |
| Centerline Dist. to Observer. | 92.0 feet | | - | | Auto | ns' 0 | 000 | | | |
| Barrier Distance to Observer. | 0.0 feet | | | Mediur | n Truck | (s: 2 | 297 | | | |
| Observer Height (Above Pad). | 5.0 feet | | | Heav | v Truck | (s: 8 | .004 | Grade Ad | justmen | : 0.0 |
| Pad Elevation. | - | | | | | | | | | |
| Road Elevation. | 4 | Lane Equ | ivalen | t Distan | ce (in | feet) | | | | |
| Road Grade. | 0.0% | | | | Auto | os: 68 | .154 | | | |
| Left View. | -90.0 degre | es | | Mediun | n Truck | (S: 68 | .024 | | | |
| Right View. | 90.0 degre | es | | neav | y muci | 15. 00 | .037 | | | |
| FHWA Noise Model Calculatio | ons | | | | | | | | | |
| VehicleType REMEL | Traffic Flow | Dis | stance | Finite | Road | Fres | nel | Barrier Att | en Be | rm Atten |
| Autos: 71.7 | 8 3.34 | ŀ | -2.1 | 2 | -1.20 | | -4.76 | 0.0 | 000 | 0.00 |
| Medium Trucks: 82.4 | -8.93 | 3 | -2.1 | 1 | -1.20 | | -4.88 | 0.0 | 000 | 0.00 |
| Heavy Trucks: 86.4 | -10.39 |) | -2.1 | 1 | -1.20 | | -5.18 | 0.0 | 000 | 0.00 |
| Unmitigated Noise Levels (wi | thout Topo and | l barrie | er atter | uation) | | | | | | |
| VehicleType Leq Peak H | our Leq Da | y | Leq E | vening | Leq | Night | | Ldn | С | NEL |
| Autos: | 71.8 | 71.1 | | 69.4 | | 65. | 8 | 73.4 | 4 | 73.8 |
| Medium Trucks: | 70.2 | 69.7 | | 65.3 | | 64. | 6 | 72. | D | 72.3 |
| Heavy Trucks: | 72.7 | 71.2 | | 70.2 | | 69. | 1 | 75. | в | 76. |
| venicie Noise: | /6.4 | 75.5 | | 73.6 | | 71. | / | 78. | 5 | 79. |
| Centerline Distance to Noise | Contour (in fee | t) | | | | | | | | |
| | | L | 70 | dBA | 65 | dBA _ | | 50 dBA | 55 | dBA |
| | _ | Ldn: | | 356 | | 766 | 3 | 1,651 | | 3,557 |
| CNEL: | | | | | | | | 4 700 | | |

Monday, February 28, 2022

| | FHWA-RD | 0-77-108 HIGH | WAY NC | ISE | PREDIC | TION M | IODEL | (9/12/2 | 2021) | | | |
|---------------------------------|--|------------------|-----------|-------|----------|------------------|------------------|---------------|-----------|--------|-------|--------|
| Scena Road Nar Road Segme | rio: HY 2045 ne: Ramona Ex ent: e/o Webste | rpy. r Av. | | | | Project Job N | Name: lumber: | Ramo 13998 | na Gatewa | ay Cor | nme | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | IOISE | MOD | EL INPUT | ſS | | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, S | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 62,399 vehicle | es | | | | | Autos | : 15 | | | |
| Peak Hou | Percentage: | 7.05% | | | Me | dium Tri | ucks (2 | Axles) | : 15 | | | |
| Peak I | lour Volume: | 4,397 vehicles | 5 | | He | avy Truc | cks (3+ | Axles) | : 15 | | | |
| Ve | hicle Speed: | 55 mph | | V | ahicle I | Mix | | | | | | |
| Near/Far La | ne Distance: | 124 feet | | Ē | Veh | icleTvpe | | Dav | Evenina | Niai | ht | Dailv |
| Site Data | | | | | | | Autos: | 71.99 | 6 12.2% | 15. | 9% | 90.47% |
| Ba | rrier Height: | 0.0 feet | | | Me | edium Ti | rucks: | 75.39 | 6 7.0% | 17. | .7% | 5.56% |
| Barrier Type (0-V | Vall. 1-Berm): | 0.0 | | | ŀ | leavy Ti | rucks: | 60.4% | 6 12.0% | 27. | .6% | 3.97% |
| Centerline D | ist. to Barrier: | 92.0 feet | | | loico Sa | urco El | ovation | e (in f | (oot) | | | |
| Centerline Dist. | to Observer: | 92.0 feet | | ~ | 10/36 30 | Auto | evalion | 000 | eeij | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Madiu | m Truck | a. 0 | 207 | | | | |
| Observer Height | Observer Height (Above Pad): 5.0 feet | | | | Wealur | II TIUCK | s. 2 | 004 | Grade A | diustm | ont (| 0.0 |
| P | Pad Elevation: 0.0 feet | | | | Tieav | y much | 3. 0 | .004 | 0/000/1 | | 0/11. | 5.0 |
| Ro | Road Elevation: 0.0 feet | | | | | uivalent | t Distan | ce (in | feet) | | | |
| | Road Grade: | 0.0% | | | | Auto | s: 68 | .154 | | | | |
| | Left View: | -90.0 degree | es | | Mediur | n Truck | s: 68 | .024 | | | | |
| | Right View: | 90.0 degree | es | | Heav | y Truck | s: 68 | .037 | | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite | Road | Fres | nel | Barrier A | ten | Berm | Atten |
| Autos: | 71.78 | 3.29 | | -2.12 | 2 | -1.20 | | -4.76 | 0 | .000 | | 0.000 |
| Medium Trucks: | 82.40 | -8.83 | | -2.11 | | -1.20 | | -4.88 | 0 | .000 | | 0.000 |
| Heavy Trucks: | 86.40 | -10.29 | | -2.11 | | -1.20 | | -5.18 | 0 | .000 | | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenı | uation) | | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | ' Le | eq Ev | ening | Leq | Night | | Ldn | | CNE | EL |
| Autos: | 71 | .7 | 71.0 | | 69.4 | | 65. | 7 | 73 | .3 | | 73.8 |
| Medium Trucks: | 70 | .3 | 69.8 | | 65.5 | | 64. | 7 | 72 | .1 | | 72.4 |
| Heavy Trucks: | 72 | .8 | 71.3 | | 70.3 | | 69. | 2 | 75 | .9 | | 76.3 |
| Vehicle Noise: | 76 | .5 | 75.5 | | 73.6 | | 71. | 8 | 78 | .9 | | 79.2 |
| Centerline Distan | ce to Noise Co | ontour (in feet) |) | | | | | 1 | | | | - |
| | | | | 70 d | BA | 65 | dBA | | 60 dBA | | 55 d | BA |
| | | | Ldn: | | 359 | | 773 | 3 | 1,66 | 6 | | 3,588 |
| | | CI | NEL: | | 378 | | 814 | Ļ | 1,75 | 4 | | 3,778 |
| | | | | | | | | | | | | |

| | FHWA-RI | D-77-108 HIGH | WAY NO | ISE P | REDIC | | DDEL (| 9/12/2 | 021) | | |
|----------------------------------|--|-----------------|-----------|--------|---------|------------|------------------|----------------|-------------|---------|----------|
| Scenar Road Nan Road Segme | Scenario: HYP 2045 Road Name: Ramona Expy. Road Segment: e/o Webster Av. | | | | | | Vame: I mber: | Ramoi 13998 | na Gatewa | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | DISE N | IODE | L INPUT | S | |
| Highway Data | | | | Si | te Con | ditions (l | Hard = | 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 64,463 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Truc | cks (2 A | Axles): | 15 | | |
| Peak H | our Volume: | 4,543 vehicle | s | | He | avy Truck | ks (3+ A | Axles): | 15 | | |
| Ve | hicle Speed: | 55 mph | | Ve | hicle I | Aiv | | | | | |
| Near/Far La | ne Distance: | 124 feet | | | Vehi | cleTvpe | | Dav | Evenina | Niaht | Dailv |
| Site Data | | | | | | AL | utos: | 71.9% | 12.2% | 15.9% | 90.78% |
| Ba | rrier Height | 0.0 feet | | | Me | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 5.38% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | ŀ | leavy Tru | icks: | 60.4% | 12.0% | 27.6% | 3.84% |
| Centerline Di | st. to Barrier: | 92.0 feet | | No | oise So | urce Ele | vation | s (in fe | et) | | |
| Centerline Dist. | to Observer: | 92.0 feet | | | | Autos | 0 | 000 | , | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | n Trucks | 2 | 297 | | | |
| Observer Height | Observer Height (Above Pad): 5.0 feet | | | | Heav | v Trucks: | 8. | 004 | Grade Ad | justmen | t: 0.0 |
| P | Pad Elevation: 0.0 feet | | | | | , | | | | · | |
| Ro | Road Elevation: 0.0 feet | | | | | uivalent l | Distand | ce (in i | feet) | | |
| | Road Grade: | 0.0% | | | | Autos: | 68. | 154 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Trucks: | 68. | 024 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks: | 68. | 037 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite | Road | Fresn | el | Barrier Att | en Be | rm Atten |
| Autos: | 71.78 | 3.44 | | -2.12 | | -1.20 | | -4.76 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 82.40 | -8.83 | | -2.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -10.29 | | -2.11 | | -1.20 | | -5.18 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenua | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | ' Le | q Eve | ening | Leq N | light | | Ldn | С | NEL |
| Autos: | 71 | .9 | 71.2 | | 69.5 | | 65.9 |) | 73. | 5 | 73.9 |
| Medium Trucks: | 70 | .3 | 69.8 | | 65.5 | | 64.7 | 7 | 72. | 1 | 72.4 |
| Heavy Trucks: | 72 | 8 | 71.3 | | 70.3 | | 69.2 | 2 | 75. | 9 | 76.3 |
| Vehicle Noise: | 76 | .5 | 75.6 | | 73.7 | | 71.8 | 3 | 78.9 | 9 | 79.2 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | BA | 65 d | BA | e | 60 dBA | 55 | dBA |
| | | | Ldn: | | 361 | | 778 | | 1,677 | | 3,613 |
| | CNEL: | | | | 380 | | 820 | | 1,766 | | 3,805 |

| | FHWA-R | D-77-108 HIGH | WAY NO | DISE F | REDIC | | DDEL (| 9/12/20 | 021) | | |
|----------------------------------|---|-----------------|-----------|--------|----------|---------------------|-------------------|----------------|-------------|----------|----------|
| Scenar Road Nan Road Segme | rio: E ne: Ramona E int: e/o Indian | xpy. Av. | | | | Project I Job Nu | Vame: I imber: | Ramor 13998 | na Gatewa | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE N | IODE | L INPUT | S | |
| Highway Data | | | | S | ite Con | ditions (| Hard = | 10, Sc | oft = 15) | | |
| Average Daily | Traffic (Adt): | 35,987 vehicl | es | | | | , | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 A | Axles): | 15 | | |
| Peak H | lour Volume: | 2,536 vehicle | s | | He | avy Truci | ks (3+ A | Axles): | 15 | | |
| Ve | hicle Speed: | 55 mph | | V | ehicle I | Mix | | | | | |
| Near/Far La | ne Distance: | 124 feet | | Ē | Vehi | icleTvpe | | Dav | Evenina | Niaht | Dailv |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Height: | 0.0 feet | | | Me | edium Tru | ucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | ŀ | leavy Tru | ucks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 92.0 feet | | N | oise So | ource Ele | vation | s (in fe | et) | | |
| Centerline Dist. | to Observer: | 92.0 feet | | - | | Autos | : 0.0 | 000 | , | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediur | n Trucks | : 2. | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heav | y Trucks | : 8.0 | 004 | Grade Ad | justment | : 0.0 |
| P | ad Elevation: | 0.0 feet | | - | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | | Li | ane Equ | livalent | Distand | ce (in i | teet) | | |
| | Road Grade: | 0.0% | | | Ma - 16 | Autos. | . 68. | 154 | | | |
| | Left View: | -90.0 degre | es | | Mediur | TI TTUCKS. | . 08. | 024 | | | |
| | Right view. | 90.0 degre | 25 | | Ticav | y muchs. | . 00. | 037 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | ice | Finite | Road | Fresn | el 🛛 | Barrier Att | en Ber | rm Atten |
| Autos: | 71.78 | 0.90 | | -2.12 | | -1.20 | | -4.76 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 82.40 | -11.22 | | -2.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -12.68 | | -2.11 | | -1.20 | | -5.18 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Day | / Le | eq Eve | ening | Leq N | light | | Ldn | C | NEL |
| Autos: | 69 | 9.4 | 68.7 | | 67.0 | | 63.3 | 3 | 70.9 | 9 | 71.4 |
| Medium Trucks: | 67 | 7.9 | 67.4 | | 63.1 | | 62.3 | 3 | 69.7 | 7 | 70.0 |
| Heavy Trucks: | 70 |).4 | 68.9 | | 67.9 | | 66.8 | 3 | 73.5 | - | 73.9 |
| venicie Noise: | 14 | 1.1 | 73.1 | | /1.2 | | 69.4 | • | 76.5 |) | 76.8 |
| Centerline Distan | ce to Noise C | ontour (in feet |) | | | | | | | | |
| | | | ட | 70 dł | BA | 65 d | BA | 6 | ou dBA | 55 | аВА |
| | | - | Lan: | | 249 | | 536 | | 1,154 | | 2,486 |
| | | C | VEL: | | 262 | | 564 | | 1,215 | | 2,618 |

| | FHWA-RL | -//-108 HIGF | IVVAT | NUISE | PREDIC | | ODEL | 9/12/2 | 021) | | |
|---------------------|-----------------|----------------|---------|----------|-----------|------------|---------|---------|-------------|----------|----------|
| Scenario | p: E+P | | | | | Project | Name: | Ramo | na Gatewa | y Comm | е |
| Road Name | e: Ramona Ex | py. | | | | Job N | umber: | 13998 | | | |
| Road Segmen | t: e/o Indian A | ν. | | | | | | | | | |
| SITE S | SPECIFIC IN | PUT DATA | | | | N | IOISE | MODE | L INPUT | s | |
| Highway Data | | | | | Site Con | ditions | (Hard = | 10, Se | oft = 15) | | |
| Average Daily 1 | Traffic (Adt): | 37,795 vehicl | es | | | | | Autos: | 15 | | |
| Peak Hour I | Percentage: | 7.05% | | | Me | dium Tri | ucks (2 | Axles): | 15 | | |
| Peak Ho | our Volume: | 2,663 vehicle | s | | He | avy Tru | cks (3+ | Axles): | 15 | | |
| Veh | nicle Speed: | 55 mph | | ١ | /ehicle I | <i>lix</i> | | | | | |
| Near/Far Lan | ne Distance: | 124 feet | | | Veh | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | / | Autos: | 71.9% | 6 12.2% | 15.9% | 90.93 |
| Ban | rier Heiaht: | 0.0 feet | | | Me | edium T | rucks: | 75.3% | 5.0% | 17.7% | 5.29 |
| Barrier Type (0-Wa | all, 1-Berm): | 0.0 | | | ŀ | leavy T | rucks: | 60.4% | 6 12.0% | 27.6% | 3.789 |
| Centerline Dis | t. to Barrier: | 92.0 feet | | 7 | Voise Sc | urce Fl | evation | s (in f | eet) | | |
| Centerline Dist. t | o Observer: | 92.0 feet | | ÷ | 10.00 00 | Auto | s' 0 | 000 | | | |
| Barrier Distance t | o Observer: | 0.0 feet | | | Mediu | n Truck | s. 0 | 297 | | | |
| Observer Height (A | Above Pad): | 5.0 feet | | | Heav | v Truck | s: 8 | 004 | Grade Ad | justment | : 0.0 |
| Pa | d Elevation: | 0.0 feet | | H | | | | | | | |
| Roa | d Elevation: | 0.0 feet | | 1 | ane Eq | livalent | Distan | ce (in | feet) | | |
| F | Road Grade: | 0.0% | | | | Auto | s: 68 | .154 | | | |
| | Left View: | -90.0 degre | es | | Mediui | n Truck | S.' 68 | .024 | | | |
| | Right view: | 90.0 degre | es | | neav | y muck | 5. 00 | .037 | | | |
| FHWA Noise Mode | I Calculations | 5 | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Di | stance | Finite | Road | Fres | nel | Barrier Att | en Bei | rm Atten |
| Autos: | 71.78 | 1.13 | | -2.1 | 2 | -1.20 | | -4.76 | 0. | 000 | 0.00 |
| Medium Trucks: | 82.40 | -11.22 | | -2.1 | 1 | -1.20 | | -4.88 | 0. | 000 | 0.00 |
| Heavy Trucks: | 86.40 | -12.68 | | -2.1 | 1 | -1.20 | | -5.18 | 0. | 000 | 0.00 |
| Unmitigated Noise | Levels (with | out Topo and | barri | er atten | uation) | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | / | Leg Ev | /ening | Leq | Night | | Ldn | С | NEL |
| Autos: | 69 | .6 | 68.9 | | 67.2 | | 63. | 6 | 71. | 2 | 71. |
| Medium Trucks: | 67 | .9 | 67.4 | | 63.1 | | 62. | 3 | 69. | 7 | 70 |
| Heavy Trucks: | 70 | .4 | 68.9 | | 67.9 | | 66. | 8 | 73. | 5 | 73. |
| Vehicle Noise: | 74 | .2 | 73.2 | | 71.3 | | 69. | 4 | 76. | 5 | 76 |
| Centerline Distance | e to Noise Co | ntour (in feet |) | | | | | | | | |
| | | | [| 70 c | iBA | 65 | dBA | (| 60 dBA | 55 | dBA |
| | | - | Ldn: | | 251 | | 541 | | 1,166 | ; | 2,512 |
| | | ~ | ALC'L - | | | | | | 4 000 | | 0.04/ |

Monday, February 28, 2022

| | FHWA-RD | 0-77-108 HIGH | NAY N | OISE | PREDIC | TION M | ODEL | (9/12/2 | 021) | | |
|--------------------|------------------|-----------------|---------|--------|----------|----------|---------|-----------|------------|----------|-----------|
| Scenari | o: EAC 2024 | | | | | Project | Name: | Ramo | na Gatewa | y Comn | пе |
| Road Nam | e: Ramona Ex | py. | | | | Job N | umber: | 13998 | | | |
| Road Segmer | nt: e/o Indian A | w. | | | | | | | | | |
| SITE | SPECIFIC IN | PUT DATA | | | | N | IOISE | MODE | L INPUT | S | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | = 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 58,592 vehicle | s | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Mee | dium Tri | ucks (2 | Axles): | 15 | | |
| Peak H | our Volume: | 4,129 vehicles | | | Hea | avy Truo | cks (3+ | Axles): | 15 | | |
| Vei | hicle Speed: | 55 mph | | v | ehicle A | lix | | | | | |
| Near/Far Lai | ne Distance: | 124 feet | | - | Vehi | cleTvpe | | Dav | Evenina | Niaht | Dailv |
| Site Data | | | | | | / | Autos: | 71.9% | 12.2% | 15.99 | 6 90.47% |
| Par | rior Hoight: | 0.0 foot | | | Me | dium Ti | rucks: | 75.3% | 5 7.0% | 17.79 | 6 5.56% |
| Barrier Type (0-W | all 1-Berm) | 0.0 | | | H | leavy Ti | rucks: | 60.4% | 5 12.0% | 27.6% | 6 3.97% |
| Centerline Dis | st. to Barrier: | 92.0 feet | | - | | | | | | | |
| Centerline Dist. | to Observer: | 92.0 feet | | ^ | loise So | urce El | evatior | ns (in fe | eet) | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Auto | s: 0 | .000 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | | Mediur | n Truck | s: 2 | .297 | 0 | | 4.0.0 |
| Pa | ad Elevation: | 0.0 feet | | | Heav | y Truck | s: 8 | .004 | Grade Ad | ijustmer | 12: 0.0 |
| Roa | ad Elevation: | 0.0 feet | | L | ane Equ | iivalent | Distar | ice (in | feet) | | |
| F | Road Grade: | 0.0% | | | | Auto | s: 68 | .154 | | | |
| | Left View: | -90.0 degree | s | | Mediur | n Truck | s: 68 | .024 | | | |
| | Right View: | 90.0 degree | s | | Heav | y Truck | s: 68 | .037 | | | |
| FHWA Noise Mode | el Calculations | 5 | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | nce | Finite | Road | Fres | nel | Barrier At | ten Be | erm Atten |
| Autos: | 71.78 | 3.01 | | -2.12 | 2 | -1.20 | | -4.76 | 0. | 000 | 0.000 |
| Medium Trucks: | 82.40 | -9.10 | | -2.11 | | -1.20 | | -4.88 | 0. | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -10.56 | | -2.11 | | -1.20 | | -5.18 | 0. | 000 | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo and I | oarrier | attenı | uation) | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | L | .eq Ev | ening | Leq | Night | | Ldn | 0 | CNEL |
| Autos: | 71 | .5 | 70.8 | | 69.1 | | 65. | 5 | 73. | 0 | 73.5 |
| Medium Trucks: | 70 | .0 6 | 69.5 | | 65.2 | | 64. | .4 | 71. | 8 | 72.1 |
| Heavy Trucks: | 72 | .5 | 71.1 | | 70.1 | | 68. | .9 | 75. | 7 | 76.0 |
| Vehicle Noise: | 76 | .2 | 75.3 | | 73.3 | | 71. | 5 | 78. | 6 | 78.9 |
| Centerline Distanc | e to Noise Co | ntour (in feet) | | | | | | | | | |
| | | | | 70 d | BA | 65 | dBA | | 60 dBA | 5 | 5 dBA |
| | | | .dn: | | 344 | | 74 | 1 | 1,597 | 7 | 3,441 |
| | | CN | IEL: | | 362 | | 78 | 1 | 1,682 | 2 | 3,623 |
| | | | | | | | | | | | |

| | FHWA-RI | 0-77-108 HIGH | WAY N | OISE | PREDIC | | IODEL | (9/12/2 | 021) | | |
|---------------------|------------------|------------------|---------|-------|-----------|---------|---------------------------------|-----------|-------------|---------|----------|
| Scenari | o: EAPC 2024 | Ļ | | | | Project | Name: | Ramo | na Gatewa | y Comm | ie |
| Road Nam | e: Ramona Ex | сру. | | | | Job N | lumber: | 13998 | | | |
| Road Segmer | nt: e/o Indian A | Av. | | | | | | | | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | Ν | IOISE | MODE | L INPUT | s | |
| Highway Data | | | | S | Site Con | ditions | (Hard = | = 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 60,400 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tr | ucks (2 | Axles): | 15 | | |
| Peak H | our Volume: | 4,256 vehicles | 6 | | Hei | avy Tru | cks (3+ | Axles): | 15 | | |
| Vei | hicle Speed: | 55 mph | | V | /ehicle N | lix | | | | | |
| Near/Far La | ne Distance: | 124 feet | | F | Vehi | cleType | 2 | Day | Evening | Night | Daily |
| Site Data | | | | - | | | Autos: | 71.9% | 12.2% | 15.9% | 90.76% |
| Bai | rier Height | 0.0 feet | | | Me | dium T | rucks: | 75.3% | 7.0% | 17.7% | 5.39% |
| Barrier Type (0-W | all, 1-Berm): | 0.0 | | | F | leavy T | rucks: | 60.4% | 12.0% | 27.6% | 3.85% |
| Centerline Dis | st. to Barrier: | 92.0 feet | | | laise Sa | urco El | ovation | ne (in fa | aat) | | |
| Centerline Dist. | to Observer: | 92.0 feet | | | 10/30 00 | Auto | evanor. | 000 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Modiur | n Truck | 5. U | 207 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | | Heav | v Truck | з. <u>-</u> е [,] Я | 004 | Grade Ad | iustmen | t: 0.0 |
| Pa | ad Elevation: | 0.0 feet | | | neav | y much | 3. 0 | .004 | | , | |
| Roa | ad Elevation: | 0.0 feet | | L | ane Equ | iivalen | t Distan | ce (in | feet) | | |
| ŀ | Road Grade: | 0.0% | | | | Auto | s: 68 | .154 | | | |
| | Left View: | -90.0 degree | es | | Mediur | n Truck | s: 68 | .024 | | | |
| | Right View: | 90.0 degree | es | | Heav | y Truck | s: 68 | .037 | | | |
| FHWA Noise Mode | l Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | nce | Finite | Road | Fres | nel | Barrier Att | en Be | rm Atten |
| Autos: | 71.78 | 3.16 | | -2.12 | 2 | -1.20 | | -4.76 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 82.40 | -9.10 | | -2.11 | 1 | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -10.56 | | -2.11 | 1 | -1.20 | | -5.18 | 0.0 | 000 | 0.000 |
| Unmitigated Noise | Levels (with | out Topo and | barrier | atten | uation) | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | L | eq Ev | rening | Leq | Night | | Ldn | C | NEL |
| Autos: | 71 | .6 | 70.9 | | 69.2 | | 65. | 6 | 73. | 2 | 73.6 |
| Medium Trucks: | 70 | .0 | 69.5 | | 65.2 | | 64. | 4 | 71. | В | 72.1 |
| Heavy Trucks: | 72 | 5 | 71.1 | | 70.1 | | 68. | 9 | 75. | 7 | 76.0 |
| Vehicle Noise: | 76 | .3 | 75.3 | | 73.4 | | 71. | 5 | 78. | 6 | 79.0 |
| Centerline Distance | e to Noise Co | ontour (in feet, |) | | | | | | | | |
| | | | | 70 d | IBA | 65 | dBA | 6 | 60 dBA | 55 | 5 dBA |
| | | | Ldn: | | 346 | | 746 | 3 | 1,607 | | 3,463 |
| | | CI | VEL: | | 365 | | 786 | 6 | 1,693 | | 3,647 |

| | FHWA-R | D-77-108 HIGH | IWAY N | OISE F | REDIC | | IODEL (S | 9/12/20 | 021) | | |
|----------------------------------|--|-----------------|---------|---------|---------|------------------|----------------------|-----------------|-------------|----------|---------|
| Scenar Road Nan Road Segme | rio: HY 2045 ne: Ramona E nt: e/o Indian | xpy. Av. | | | | Project Job N | Name: F lumber: 1 | Ramor I 3998 | a Gatewa | y Comm | Э |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | IOISE N | IODE | L INPUT | S | |
| Highway Data | | | | S | ite Cor | ditions | (Hard = | 10, So | ft = 15) | | |
| Average Daily | Traffic (Adt): | 59,999 vehicl | es | | | | , | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | edium Tr | ucks (2 A | (xles): | 15 | | |
| Peak H | lour Volume: | 4,228 vehicle | s | | He | avy Tru | cks (3+ A | (xles): | 15 | | |
| Ve | hicle Speed: | 55 mph | | V | ohiclo | Mix | | | | | |
| Near/Far La | ne Distance: | 124 feet | | | Veh | icleTvpe | | Dav | Evenina | Niaht | Dailv |
| Site Data | | | | | | , | Autos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Height | 0.0 feet | | | М | edium T | rucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | | | Heavy T | rucks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 92.0 feet | | N | nisa Si | ource El | lovation | in fc | of) | | |
| Centerline Dist. | to Observer: | 92.0 feet | | | 0136 01 | Auto | e 0 (| 000 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Truck | s. 0.0 | 297 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Heat | vv Truck | s: 8.0 | 004 | Grade Ad | iustment | : 0.0 |
| P | ad Elevation: | 0.0 feet | | | | , | | | | | |
| Ro | ad Elevation: | 0.0 feet | | Li | ane Eq | uivalen | t Distanc | e (in f | 'eet) | | |
| | Road Grade: | 0.0% | | | | Auto | s: 68. | 154 | | | |
| | Left View: | -90.0 degre | es | | Mediu | m Truck | s: 68.0 |)24 | | | |
| | Right View: | 90.0 degre | es | | неа | vy Truck | S. 68.0 | J37 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | ince | Finite | Road | Fresn | el | Barrier Att | en Ber | m Atten |
| Autos: | 71.78 | 3.12 | | -2.12 | | -1.20 | | -4.76 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 82.40 | -9.00 | | -2.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -10.46 | | -2.11 | | -1.20 | | -5.18 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier | attenu | ation) | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Daj | / L | Leq Eve | ening | Leq | Night | | Ldn | C | NEL |
| Autos: | 71 | 1.6 | 70.9 | | 69.2 | | 65.6 | i | 73.2 | 2 | 73.6 |
| Medium Trucks: | 70 | 0.1 | 69.6 | | 65.3 | | 64.5 | , | 71.9 | 9 | 72.2 |
| Heavy Trucks: | 72 | 2.6 | 71.2 | | 70.2 | | 69.0 | | 75.8 | 3 | 76.1 |
| Vehicle Noise: | 76 | 5.3 | 75.4 | | 73.4 | | 71.6 | i | 78.7 | 7 | 79.0 |
| Centerline Distan | ce to Noise C | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | ЗA | 65 | dBA | 6 | 0 dBA | 55 | dBA |
| | | | Ldn: | | 350 | | 753 | | 1,623 | | 3,496 |
| | | С | NEL: | | 368 | | 793 | | 1,709 | | 3,681 |

| Scenario: HYP 2045 Project Name: Ramona Gateway Comme Job Number: 13998 Road Segment: e/o Indian Av. Noise Model INPUTS SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS Highway Data Site Conditions (Hard = 10, Soft = 15) Average Daily Traffic (Adt): 61,807 vehicles Peak Hour Porentage: 7.05% Peak Hour Porentage: Autos:: 15 Peak Hour Volume: 4,356 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 124 feet Vehicle Mix Site Data Autos:: 71.3% 12.2% 15. Barrier Height: 0.0 feet Medium Trucks: 0.4 tots: 7.0% 17.7% 5.3 Barrier Distance to Doserver: 92.0 feet Medium Trucks: 8.004 Grade Adjustment: 0.0 Centerline Dist. to Barrier: 92.0 feet Medium Trucks: 8.004 Grade Adjustment: 0.0 Road Grade: 0.0% Left View: 90.0 degrees Rinder Trucks: 8.004 Grade Adjustment: 0.0 Moise Source Elevations: 0.146 -2.12 -4.76 0.000 0 | | FHWA-RD | -77-108 HIGH | WAY | NOISE F | REDIC | TION M | DDEL (S | 0/12/2 | 021) | | |
|---|--------------------------------------|--|----------------|--------|----------|----------|-------------------|---------------------|----------------|--------------|----------|---------|
| SITE SPECIFIC INPUT DATA NODEL INPUTS Highway Data Site Conditions (Hard = 10, Soft = 15) Average Daily Traffic (Adt): 61,807 vehicles Autros: 15 Peak Hour Percentage: 7.05% Medium Trucks: (2 Axles): 15 Peak Hour Volume: 4,356 vehicles Heavy Trucks: (3 Axles): 15 Vehicle Speed: 55 mph Medium Trucks: (3 Axles): 15 Vehicle Speed: 55 mph Vehicle Type Day Evening Night Da Site Data | Scenario Road Name Road Segmen | o: HYP 2045 e: Ramona Ex t: e/o Indian A | py. v. | | | | Project Job Ni | Name: F Imber: 1 | Ramoi 13998 | na Gateway | / Comm | 9 |
| Highway Data Site Conditions (Hard = 10, Soft = 15) Average Daily Traffic (Adt): 61,807 vehicles Autos: 15 Peak Hour Percentage: 7.05% Medium Trucks (24.ke): 15 Peak Hour Volume: 4,356 vehicles Heavy Trucks (3+ Akles): 15 Vehicle Speed: 55 mph Vehicle Mix Vehicle Mix Site Data Vehicle Mix Vehicle Mix 15.% Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% 5.3 Barrier Type (0-Wall, I-Berm): 0.0 12.0% 22.0 feet Medium Trucks: 2.0 feet New Source Elevations (in feet) 0.0 2.0 feet Medium Trucks: 8.004 Grade Adjustment: 0.0 Centerline Dist. to Dserver: 9.0 feet Medium Trucks: 8.004 Grade Adjustment: 0.0 Road Grade: 0.0% Left View: -90.0 degrees Medium Trucks: 68.04 12.0% 2.1 12.0% 0.00 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.76 <th>SITE S</th> <th>SPECIFIC IN</th> <th>PUT DATA</th> <th></th> <th></th> <th></th> <th>N</th> <th>OISE N</th> <th>IODE</th> <th>L INPUT</th> <th>S</th> <th></th> | SITE S | SPECIFIC IN | PUT DATA | | | | N | OISE N | IODE | L INPUT | S | |
| Average Daily Traffic (Ad): 61,807 vehicles Autos: 15 Peak Hour Percentage: 7.05% Medium Trucks (2 Avles): 15 Peak Hour Vencentage: 7.05% Medium Trucks (2 Avles): 15 Peak Hour Volume: 4.356 vehicles 14 Heavy Trucks (2 Avles): 15 Vehicle Speed: 55 mph Vehicle Mix Vehicle Mix 12.2% 15.9% 90.0 Site Data Autos: 71.9% 12.2% 15.9% 90.0 17.7% 5.5 Barrier Type (0-Wall, 1-Berm): 0.0 feet Medium Trucks: 0.0% Heavy Trucks: 60.4% 12.0% 27.6% 3.4 Centerline Dist to Dserver: 0.0 feet Autos: 0.00 Medium Trucks: 60.4% 12.0% 27.6% 3.4 Observer Height (Above Pad): 5.0 feet Autos: 0.00 Medium Trucks: 8.004 Grade Adjustment: 0.0 Road Grade: 0.0% Autos: 68.154 Heavy Trucks: 68.037 FHWA Noise Model Calculations Yuekice Type REIMEL Traffic F | Highway Data | | | | S | ite Con | ditions (| Hard = | 10, So | oft = 15) | | |
| Peak Hour Precentage: 7.05% Medium Trucks (2 Avles): 15 Peak Hour Volume: 4.356 vehicles Heavy Trucks (2 Avles): 15 Vehicle Speed: 55 mph Heavy Trucks (2 Avles): 15 Near/Far Lane Distance: 124 feet Vehicle Mix Vehicle Mix Site Data Autos: 71.9% 12.2% 15.9% 90. Barrier Type (0-Wall, 1-Berm): 0.0 Medium Trucks: 75.3% 7.0% 17.7% 5.3 Barrier Type (0-Wall, 1-Berm): 0.0 Medium Trucks: 75.3% 7.0% 17.7% 5.3 Centerline Dist. to Barrier: 92.0 feet Moise Source Elevations (in feet) Moise Source Elevations (in feet) Moise Source Elevation: 0.0 feet Barrier Type (0-Wall, 1-Bern): 0.0 feet Autos: 8.004 Grade Adjustment: 0.0 Barrier Attor View: 90.0 degrees Medium Trucks: 68.024 Heavy Trucks: 68.024 Heavy Trucks: 68.00 -2.12 -1.20 -4.88 0.000 0 Medium Trucks: 82.40 | Average Daily 1 | Traffic (Adt): | 61,807 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour Volume: 4,356 vehicles Vehicle Speed: Heavy Trucks (3+ Akles): 15 Near/Far Lane Distance: 124 feet Vehicle Mix Vehicle Mix Site Data Autos: 71.9% 12.2% 15.9% 90. Barrier Height: 0.0 feet Medium Trucks: 73.3% 7.0% 17.7% 5.3 Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 92.0 feet Medium Trucks: 60.4% 12.0% 27.6% 3.1 Centerline Dist. to Doserver: 92.0 feet Matos: Noise Source Elevations (in feet) Medium Trucks: 8.004 Grade Adjustment: 0.0 Deserver Height (Above Pad): 5.0 feet Medium Trucks: 8.004 Grade Adjustment: 0.0 Road Grade: 0.0% Left View: 90.0 degrees Medium Trucks: 68.024 Heavy Trucks: 68.024 FHWA Noise Model Calculations Vehicle Type Reavy Trucks: 68.024 Heavy Trucks: 68.024 Weitice Type REMEL Traffic Flow Distance Finite Road Fresnet <td>Peak Hour I</td> <td>Percentage:</td> <td>7.05%</td> <td></td> <td></td> <td>Ме</td> <td>dium Tru</td> <td>cks (2 A</td> <td>xles):</td> <td>15</td> <td></td> <td></td> | Peak Hour I | Percentage: | 7.05% | | | Ме | dium Tru | cks (2 A | xles): | 15 | | |
| Vehicle Speed: 55 mph Vehicle Mix Near/Far Lane Distance: 124 feet Vehicle Mix Night Day Night Night Day | Peak Ho | our Volume: | 4,356 vehicle | s | | He | avy Truc | ks (3+ A | xles): | 15 | | |
| Near/Far Lane Distance: 124 feet VehicleType Day Evening Night Day Site Data Autos: 71.9% 12.2% 15.9% 90.0 Barrier Height: 0.0 feet Medium Trucks: 70.9% 12.2% 15.9% 90.0 Barrier Type (0-Wall, 1-Berm): 0.0 Medium Trucks: 70.9% 12.7% 5.3 Centerline Dist to Dbserver: 92.0 feet Moise Source Elevations (in feet) Autos: 0.00 Barrier Distance to Observer: 0.0 feet Autos: 0.00 Medium Trucks: 2.20 feet Road Elevation: 0.0 feet Autos: 8.004 Grade Adjustment: 0.0 Road Elevation: 0.0 feet Autos: 68.024 Heavy Trucks: 68.024 Left View: 90.0 degrees Pittle Road Fresnel Barrier Atten Berm Att Medium Trucks: 82.40 -9.00 -2.12 -1.20 -4.88 0.000 0 Heavy Trucks: 86.40 -10.46 -2.11 -1.20 | Veh | nicle Speed: | 55 mph | | V | ehicle I | <i>lix</i> | | | | | |
| Site Data Autos: 71.9% 12.2% 15.9% 90.3 Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% 5.3 Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 92.0 feet Medium Trucks: 60.4% 12.0% 17.7% 5.3 Centerline Dist. to Observer: 92.0 feet Autos: Noise Source Elevations (in feet) 2.0% 7.6% 3.4 Observer Height (Above Pad): 5.0 feet Medium Trucks: 2.297 1.000 Medium Trucks: 8.004 Grade Adjustment: 0.0 Pad Elevation: 0.0 feet Autos: 68.154 1.24% 1.000 1.000 Road Grade: 0.9% Lare Equivalent Distance (in feet) Autos: 68.154 Medium Trucks: 68.024 Heavy Trucks: 82.40 -9.00 -2.12 -1.20 -4.76 0.000 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.76 0.000 0 Medium Trucks: | Near/Far Lan | ne Distance: | 124 feet | | - | Veh | cleTvpe | | Dav | Evenina | Niaht | Dailv |
| Barrier Height: 0.0 feet Barrier Type (0-Wail, 1-Berm): 0.0 Centerline Dist. to Barrier: 92.0 feet Barrier Dist. to Barrier: 92.0 feet Barrier Distance to Observer: 90.0 feet Road Grade: 0.0% Left View: 90.0 degrees Right View: 90.0 degrees PHWA Noise Model Calculations VerticeType VeniceType REMEL Medium Trucks: 86.40 -10.46 -2.11 -1.20 -4.76 Medium Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 Outo: 71.7 VehicleType Leq Peak Hour | Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.75% |
| Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Diserver: 92.0 feet Centerline Dist. to Diserver: 92.0 feet Diserver: 92.0 feet Mainter Dist. to Diserver: 0.0 feet Diserver: 0.0 feet Road Elevation: 0.0 feet Road Grade: 0.0% Left View: 90.0 degrees Right View: 90.0 degrees Rodel Calculations Distance VehicleType REMEL Medium Trucks: 82.4 Autos: 71.7 3.26 -2.12 -11 -1.20 Medium Trucks: 86.40 Medium Trucks: 86.40 Medium Trucks: 86.40 -10.46 -2.11 -1.20 -4.76 Medium Trucks: 86.40 Umitigated Noise Levels (without Topo and barrier atternation) VehicleType Leqt Peak Hour Leqt View: 90.0 Paile Reade: 71.7 10.46 -2.11 < | Ban | rier Height: | 0.0 feet | | | M | edium Tr | ucks: | 75.3% | 7.0% | 17.7% | 5.39% |
| Centerline Dist. to Barrier: 92.0 feet Centerline Dist. to Deserver: 92.0 feet Barrier Distance to Observer: 0.0 feet Observer Height (Above Pad): 5.0 feet Pad Elevation: 0.0 feet Road Elevation: 0.0 feet Right View: 90.0 degrees Right View: 90.0 degrees Vehicle Type REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm Atten Autos: 71.78 3.26 -2.12 -1.20 -4.88 0.000 0 Heavy Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 0.000 0 Medium Trucks: 71.7 71.0 69.3 65.7 73.3 Medium Trucks: 70.1 69.6 65.3 64.5 71.9 < | Barrier Type (0-Wa | all. 1-Berm): | 0.0 | | | ŀ | leavy Tr | ucks: | 60.4% | 12.0% | 27.6% | 3.85% |
| Centerline Dist. to Observer: 92.0 feet Autos: 0.000 Barier Distance to Observer: 0.0 feet Autos: 0.000 Deserver Height (Above Pad): 5.0 feet Medium Trucks: 2.297 Pad Elevation: 0.0 feet Heavy Trucks: 8.004 Grade Adjustment: 0.0 Road Elevation: 0.0 feet Lane Equivalent Distance (in feet) Autos: 68.024 Heavy Trucks: 68.024 Heavy Trucks: 68.024 Heavy Trucks: 68.024 VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm Att Autos: 71.78 3.26 -2.12 -1.20 -4.76 0.000 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -5.18 0.000 0 Unnitigated Noise Levels (without Topo and barrier attenuation) Leq Right Ldn CNEL VehiceType Leq Peak Hour Leq Devening Leq Night Ldn CNEL Medium Trucks: 71.7 71. | Centerline Dis | t. to Barrier: | 92.0 feet | | | oioo Ce | uree Ele | vetions | lin f | naf) | | |
| Barrier Distance to Observer: 0.0 feet Medium Trucks: 0.004 Observer Height (Above Pad): 5.0 feet Medium Trucks: 2.297 Pad Elevation: 0.0 feet Heavy Trucks: 8.004 Grade Adjustment: 0.0 Road Clevation: 0.0 feet Left View: 40.0 degrees Adlus: 68.154 Heavy Trucks: 68.00 degrees Medium Trucks: 68.024 Heavy Trucks: 68.024 FHWA Noise Model Calculations VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm Att Autos: 71.78 3.26 -2.11 -1.20 -4.76 0.000 0 Medium Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 0.000 0 Unmitigated Noise Levels (without Topo and barrier attenuation) Leq Night Ldn CNEL CNEL Vehicle Type Req Peak Hour Leq Day Leq Night Ldn CNEL Medium Trucks: 71.7 71.0 69.3 65.7 | Centerline Dist. t | o Observer: | 92.0 feet | | 14 | uise sc | Autos | vauons | 000 | el) | | |
| Observer Height (Above Pad): 5.0 feet Heavy Trucks: 2.04 Grade Adjustment: 0.0 Road Elevation: 0.0 feet Heavy Trucks: 8.04 Grade Adjustment: 0.0 Road Elevation: 0.0 feet Heavy Trucks: 8.04 Grade Adjustment: 0.0 Road Elevation: 0.0 feet Heavy Trucks: 8.04 Grade Adjustment: 0.0 Right View: 90.0 degrees Medium Trucks: 68.054 Medium Trucks: 68.024 VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm Atten Autos: 71.78 3.26 -2.12 -4.76 0.000 0 Heavy Trucks: 86.40 -10.46 -2.11 -1.20 -4.88 0.000 0 Ummitigated Noise Levels (without Topo and barrier attenuation) Leq Evening Leq Night Ldn CNEL Vehicle Type Leq Peak Hour Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69 | Barrier Distance t | o Observer: | 0.0 feet | | | Modiu | Autos n Trucks | . 0.0 | 000 | | | |
| Pad Elevation: 0.0 feet Lane Equivalent Distance (in feet) Road Clevation: 0.0 feet Lane Equivalent Distance (in feet) Road Grade: 0.0 % Lattos: 68.154 Road Clevation: 9.0 degrees Medium Trucks: 68.024 Right View: 90.0 degrees Heavy Trucks: 68.037 FHWA Noise Model Calculations Distance Finite Road Fresnel Barrier Atten Berm Att Autos: 71.78 3.26 -2.12 -1.20 -4.76 0.000 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.76 0.000 0 Medium Trucks: 86.40 -10.46 -2.11 -1.20 -4.76 0.000 0 Unnitigated Noise Levels (without Topo and barrier attenuation) Vehicle Nype Leq Paek Hour Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69.3 65.7 73.3 - Medium Trucks: 70.1 69.6 65.3 64.5 71. | Observer Height (/ | Above Pad): | 5.0 feet | | | Heav | v Trucks | · 2.2 | 104 | Grade Ad | iustment | .00 |
| Road Elevation: 0.0 feet Lane Equivalent Distance (in feet) Road Grade: 0.0% Autos: 68.154 Left View: -90.0 degrees Autos: 68.024 Right View: 90.0 degrees Heavy Trucks: 68.024 Heavy Trucks: 68.024 Heavy Trucks: 68.024 Heavy Trucks: 68.024 Heavy Trucks: 68.024 Mutato: 71.78 3.26 -2.12 -1.20 -4.76 0.000 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.88 0.000 0 Medium Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 0.000 0 Unmitigated Noise Levels (without Topo and barrier attenuation) Vehicle Type Leq Peak Hour Leq Revining Leq Night Ldn CNEL Vehicle Noise: 70.1 69.3 65.7 73.3 1 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 1 Vehicle Noise: 76.4 | Pa | d Elevation: | 0.0 feet | | | near | y macks | . 0.0 | 704 | 0/000/10 | aounom | . 0.0 |
| Road Grade: 0.0% Autos: 68.154 Left View: 90.0 degrees Medium Trucks: 68.024 Right View: 90.0 degrees Medium Trucks: 68.037 FHWA Noise Model Calculations Distance Finite Road Fresnel Barrier Atten Berm Atten Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.76 0.000 0 Medium Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 0.000 0 Medium Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 0.000 0 Ummitgated Noise Levels (without Topo and barrier attenuation) Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69.3 65.7 73.3 Medium Trucks: 70.1 69.6 65.3 64.5 71.9 Flewy Yes Vehicle Noise: 72.6 71.2 70.2 69.0 75.8 Yes Yes 73.5 71.6 78.7 Vehicle Noise: 76.4< | Roa | d Elevation: | 0.0 feet | | Li | ane Eq | uivalent | Distanc | e (in | feet) | | |
| Left View: -90.0 degrees Medium Trucks: 68.024 Right View: 90.0 degrees Heavy Trucks: 68.037 FHWA Noise Model Calculations VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm Att Autos: 71.78 3.26 -2.12 -1.20 -4.76 0.000 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.88 0.000 0 Heavy Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 0.000 0 Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Day Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69.3 65.7 73.3 1 Medium Trucks: 70.1 69.6 65.3 64.5 71.9 1 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 1 Vehicle Noise: 76.4 | F | Road Grade: | 0.0% | | | | Autos | : 68. | 154 | | | |
| Right View: 90.0 degrees Heavy Trucks: 68.037 FHWA Noise Model Calculations Finite Road Fresnel Barrier Atten Berm Att Vehicle Type REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm Att Autos: 71.78 3.26 -2.12 -1.20 -4.76 0.000 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.88 0.000 0 Unnitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69.3 65.7 73.3 71.9 Medium Trucks: 70.1 69.6 65.3 64.5 71.9 19 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 19 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 19 | | Left View: | -90.0 degree | es | | Mediu | n Trucks | : 68.0 | 024 | | | |
| FHWA Noise Model Calculations VehicleType RENEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm Att Autos: 71.78 3.26 -2.12 -1.20 -4.76 0.000 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.88 0.000 0 Image: Comparison of the event of the | | Right View: | 90.0 degre | es | | Heav | y Trucks | : 68.0 |)37 | | | |
| Vehicle Type REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Berm Att Autos: 71.78 3.26 -2.12 -1.20 -4.76 0.000 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.88 0.000 0 Heavy Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 0.000 0 Ummitgated Noise Levels (without Topo and barrier attenuation) Vehicle Type Leq Peak Hour Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69.3 65.7 73.3 Medium Trucks: 70.1 69.6 65.3 64.5 71.9 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 74.0 74.0 74.0 74.0 74.0 74.0 74.0 <t< th=""><th>FHWA Noise Mode</th><th>I Calculations</th><th>;</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<> | FHWA Noise Mode | I Calculations | ; | | | | | | | | | |
| Autos: 71.78 3.26 -2.12 -1.20 -4.76 0.000 0 Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.76 0.000 0 Heavy Trucks: 82.40 -9.00 -2.11 -1.20 -4.88 0.000 0 Umitigate Moise Levels (without Top on ab arrier attenuation) -10.46 -2.11 -1.20 -5.18 0.000 0 Umitigate Moise Levels (without Top on ab arrier attenuation) -4.88 0.000 0 0 VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69.3 65.7 73.3 - Medium Trucks: 70.1 69.6 65.3 64.5 71.9 - Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 - Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 - | VehicleType | REMEL | Traffic Flow | Dis | tance | Finite | Road | Fresn | el | Barrier Atte | en Ber | m Atten |
| Medium Trucks: 82.40 -9.00 -2.11 -1.20 -4.88 0.000 0 Heavy Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 0.000 0 Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69.3 65.7 73.3 71.9 Heavy Trucks: 70.1 69.6 65.3 64.5 71.9 14 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 14 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 14 | Autos: | 71.78 | 3.26 | | -2.12 | | -1.20 | | -4.76 | 0.0 | 000 | 0.00 |
| Heavy Trucks: 86.40 -10.46 -2.11 -1.20 -5.18 0.000 0 Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour Leq Day Leq Night Ldn CNEL VehicleType Leq Peak Hour Leq Day Leq Vening Leq Night Ldn CNEL Medium Trucks: 71.7 71.0 69.3 65.7 73.3 Medium Trucks: 70.1 69.6 65.3 64.5 71.9 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 Centerline Distance to Noise Contour (in feet) 20.01 20.01 20.01 | Medium Trucks: | 82.40 | -9.00 | | -2.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.00 |
| Unmitigated Noise Levels (without Topo and barrier attenuation) VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69.3 65.7 73.3 Medium Trucks: 70.1 69.6 65.3 64.5 71.9 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 | Heavy Trucks: | 86.40 | -10.46 | | -2.11 | | -1.20 | | -5.18 | 0.0 | 000 | 0.00 |
| VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL Autos: 71.7 71.0 69.3 65.7 73.3 Medium Trucks: 70.1 69.6 65.3 64.5 71.9 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 | Unmitigated Noise | Levels (with | out Topo and | barrie | r attenu | ation) | | | | | | |
| Autos: 71.7 71.0 69.3 65.7 73.3 Medium Trucks: 70.1 69.6 65.3 64.5 71.9 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 Centerline Distance to Noise Contour (in feet) 75.6 75.6 75.6 75.6 75.6 | VehicleType | Leq Peak Hou | r Leq Day | / | Leq Eve | ening | Leq I | light | | Ldn | С | NEL |
| Medium Trucks: 70.1 69.6 65.3 64.5 71.9 Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 Centerline Distance to Noise Contour (in feet) 70.1 70.1 70.2 69.0 75.8 | Autos: | 71. | .7 | 71.0 | | 69.3 | | 65.7 | | 73.3 | 3 | 73. |
| Heavy Trucks: 72.6 71.2 70.2 69.0 75.8 Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 Centerline Distance to Noise Contour (in feet) | Medium Trucks: | 70. | .1 | 69.6 | | 65.3 | | 64.5 | | 71.9 | 9 | 72. |
| Vehicle Noise: 76.4 75.4 73.5 71.6 78.7 Centerline Distance to Noise Contour (in feet) The transmission of transmission of the transmission of transmissi | Heavy Trucks: | 72. | .6 | 71.2 | | 70.2 | | 69.0 | | 75.8 | 3 | 76. |
| Centerline Distance to Noise Contour (in feet) | Vehicle Noise: | 76. | .4 | 75.4 | | 73.5 | | 71.6 | | 78.7 | 7 | 79. |
| 70 /04 05 /04 00 /04 55 /04 | Centerline Distance | e to Noise Co | ntour (in feet |) | | | | | | | | |
| 70 dBA 65 dBA 60 dBA 55 dBA | | | | | 70 di | BA | 65 c | IBA | 6 | 60 dBA | 55 | dBA |
| Ldn: 352 758 1,633 3, | | | | Ldn: | | 352 | | 758 | | 1,633 | | 3,517 |
| CNEL: 370 798 1,719 3, | | | C | NEL: | | 370 | | 798 | | 1,719 | | 3,704 |

Monday, February 28, 2022

| Scenario: E Project Name: Ramona Gateway Comm Road Name: Ramona Expy. Job Number: 13998 Sitte SPECIFIC INPUT DATA NOISE MODEL INPUTS Highway Data Site Conditions (Hard = 10, Soft = 15) Average Daily Traffic (Adt): 33.021 vehicles Peak Hour Percentage: 7.05% Vehicle Speed: 55 mph Near/Far Lane Distance: 124 feet Site Data Autos: Barrier Height: 0.0 feet Barrier Type (O-Wall, 1-Berm): 0.0 Barrier Dit te Barrier: 0.0 feet | e Daily 90.47% 5.56% 3.97% |
|--|--|
| Road Name: Ramona Expy. Job Number: 13998 Road Segment: elo Perris Blvd. Noise MODEL INPUTS Sitte Specific INPUT DATA NOIse MODEL INPUTS Highway Data Site Conditions (Hard = 10, Soft = 15) Average Daily Traffic (Adt): 33,021 vehicles Medium Trucks (2 Axles): 15 Peak Hour Volume: 2,327 vehicles Heavy Trucks (2 Axles): 15 Vehicle Speed: 55 mph Vehicle Mix Near/Far Lane Distance: 124 feet Vehicle Type Barrier Height: 0.0 feet Barrier Type (O-Wall, 1-Berm): 0.0 Barrier Dist hours: 0.0 feet | Daily 90.47% 5.56% 3.97% |
| Road Segment: elo Perris Bivd. SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS Highway Data Site Conditions (Hard = 10, Soft = 15) Average Daily Traffic (Adt): 33,021 vehicles Autos: 15 Peak Hour Percentage: 7.05% Medium Trucks (2 Axles): 15 Peak Hour Volume: 2,327 vehicles Heavy Trucks (3+ Axles): 15 Vehicle Speed: 55 mph Vehicle Type Day Evening Night Site Data Autos: 71.9% 12.2% 15.5% Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% Barrier Type (O-Wail, 1-Berm): 0.0 Heavy Trucks: 60.4% 12.0% 27.6% | Daily 90.47% 5.56% 3.97% |
| SITE SPECIFIC INPUT DATA NOISE MODEL INPUTS Highway Data Site Conditions (Hard = 10, Soft = 15) Average Daily Traffic (Adt): 33,021 vehicles Peak Hour Percentage: 7.05% Peak Hour Volume: 2,327 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 124 feet Site Data Autos: Barrier Height: 0.0 feet Barrier Type (O-Wall, 1-Berm): 0.0 Centraling Dirt in Barrier: 0.0 feet | Daily 90.47% 5.56% 3.97% |
| Highway Data Site Conditions (Hard = 10, Soft = 15) Average Daily Traffic (Adt): 33,021 vehicles Autos: 15 Peak Hour Percentage: 7.05% Medium Trucks (2 Axles): 15 Peak Hour Volume: 2,327 vehicles Heavy Trucks (3 + Axles): 15 Vehicle Speed: 55 mph Heavy Trucks (3 + Axles): 15 Near/Far Lane Distance: 124 feet Vehicle Mix Vehicle Mix Site Data Autos: 71.9% 12.2% 15.9% Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% Barrier Upto (-0.Wail, 1-Berm): 0.0 Heavy Trucks: 60.4% 12.0% 27.6% | Daily 90.47% 5.56% 3.97% |
| Average Daily Traffic (Adt): 33.021 vehicles Autos: 15 Peak Hour Volume: 7.05% Medium Trucks (2 Axles): 15 Peak Hour Volume: 2,327 vehicles Heavy Trucks (2 Axles): 15 Vehicle Speed: 55 mph Vehicle Mix 15 Vehicle Speed: 12 feet Vehicle Mix Night Site Data Autos: 71.9% 12.2% 15.9% Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% Barrier Upt: 0.0 feet Heavy Trucks: 60.4% 12.0% 27.6% | Daily 90.47% 5.56% 3.97% |
| Peak Hour Percentage: 7.05% Medium Trucks (2 Axles): 15 Peak Hour Volume: 2,327 vehicles Heavy Trucks (3+ Axles): 15 Vehicle Speed: 55 mph Vehicle Mix Vehicle Mix Site Data Autos: 7.19% 12.2% 15.9% Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% Barrier Lype (O-Wall, 1-Berm): 0.0 Heavy Trucks: 60.4% 12.0% 27.6% | Daily 90.47% 5.56% 3.97% |
| Barrier Height: 0.0 Get Heavy Trucks: (3+ Axles): 15 Vehicle Speed: 55 mph Vehicle Mix Vehicle Mix Vehicle Mix 15 Site Data Vehicle Type Day Evening Night Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% Barrier Uptic Dit tr Barrier: 0.0 feet Heavy Trucks: 60.4% 12.0% 27.6% | Daily 90.47% 5.56% 3.97% |
| Vehicle Speed: 55 mph Near/Far Lane Distance: 124 feet Vehicle Mix Vehicle Type Barrier Height: 0.0 feet Barrier Type (O-Wall, 1-Berm): 0.0 Centering Dirty Barrier: 0.0 feet | Daily 90.47% 5.56% 3.97% |
| Near/Far Lane Distance: 124 feet Venic/Erype Day Evening Night Site Data Autos: 71.9% 12.2% 15.9% Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% Barrier Type (-0-Wall, 1-Berm): 0.0 Heavy Trucks: 60.4% 12.0% 27.6% | Daily 90.47% 5.56% 3.97% |
| Site Data Autos: 71.9% 12.2% 15.9% Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% Barrier Type (-Wall, 1-Berm): 0.0 Heavy Trucks: 60.4% 12.0% 27.6% | 90.47% 5.56% 3.97% |
| Barrier Height: 0.0 feet Medium Trucks: 75.3% 7.0% 17.7% Barrier Type (-0-Wall, 1-Berm): 0.0 Heavy Trucks: 60.4% 12.0% 27.6% | 5.56% 3.97% |
| Barrier Type (0-Wall, 1-Berrin): 0.0 Heavy Trucks: 60.4% 12.0% 27.6% | 3.97% |
| Contarling Dist to Parrier: 02.0 foot | |
| Conconnic Dist. to Danici. 32.0 ICCL Maine Course Elevations (in feet) | |
| Centerline Dist. to Observer: 92.0 feet | |
| Barrier Distance to Observer: 0.0 feet 0.000 | |
| Observer Height (Above Pad): 5.0 feet Heavy Trucks: 2.291 | H 0.0 |
| Pad Elevation: 0.0 feet | . 0.0 |
| Road Elevation: 0.0 feet Lane Equivalent Distance (in feet) | |
| Road Grade: 0.0% Autos: 68.154 | |
| Left View: -90.0 degrees Medium Trucks: 68.024 | |
| Right View: 90.0 degrees Heavy Trucks: 68.037 | |
| FHWA Noise Model Calculations | |
| VehicleType REMEL Traffic Flow Distance Finite Road Fresnel Barrier Atten Be | rm Atten |
| Autos: 71.78 0.52 -2.12 -1.20 -4.76 0.000 | 0.000 |
| Medium Trucks: 82.40 -11.59 -2.11 -1.20 -4.88 0.000 | 0.000 |
| Heavy Trucks: 86.40 -13.05 -2.11 -1.20 -5.18 0.000 | 0.000 |
| Unmitigated Noise Levels (without Topo and barrier attenuation) | |
| VehicleType Leq Peak Hour Leq Day Leq Evening Leq Night Ldn C | NEL |
| Autos: 69.0 68.3 66.6 63.0 70.6 | 71.0 |
| Medium Trucks: 67.5 67.0 62.7 62.0 69.4 | 69.6 |
| Heavy Trucks: 70.0 68.6 67.6 66.4 73.2 | 73.5 |
| Vehicle Noise: 73.7 72.8 70.8 69.0 76.1 | 76.4 |
| Centerline Distance to Noise Contour (in feet) | |
| 70 dBA 65 dBA 60 dBA 55 | dBA |
| Ldn: 235 506 1,090 | 2,348 |
| CNEL: 247 533 1,147 | 2,472 |

| | FHWA-RI | D-77-108 HIGF | | IOISE | PREDIC | | | (9/12/2 | 021) | | |
|---------------------|---------------------------|-----------------|---------|--------|----------|----------|--------------|-----------|-------------|----------|-----------|
| Scenan | io: E+P | | | | | Project | Name: | Ramo | na Gatewa | y Comn | пе |
| Road Nam | e: Ramona E | xpy. | | | | Job N | lumber: | 13998 | | | |
| Road Segmen | nt: e/o Perris E | Blvd. | | | | | | | | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | IOISE | MODE | L INPUT | s | |
| Highway Data | | | | S | ite Cond | ditions | (Hard : | = 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 33,821 vehicl | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Med | dium Tri | ucks (2 | Axles): | 15 | | |
| Peak H | lour Volume: | 2,383 vehicle | s | | Hea | avy Tru | cks (3+ | Axles): | 15 | | |
| Ve | hicle Speed: | 55 mph | | v | ehicle N | lix | | | | | |
| Near/Far La | ne Distance: | 124 feet | | - | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 5 12.2% | 15.9% | 6 90.70% |
| Bai | rrier Heiaht [.] | 0.0 feet | | | Me | dium T | rucks: | 75.3% | 5.0% | 17.79 | 6 5.42% |
| Barrier Type (0-W | /all. 1-Berm): | 0.0 | | | н | leavy Ti | rucks: | 60.4% | 5 12.0% | 27.6% | 6 3.88% |
| Centerline Dis | st. to Barrier: | 92.0 feet | | | loico So | urco El | lovatio | ne (in fi | nof) | | |
| Centerline Dist. | to Observer: | 92.0 feet | | - | 10/36 30 | Auto | evauoi | 000 | eei) | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Modium | n Truck | o. u r: 2 | 207 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | | Heav | v Truck | а. 2 е Я | 004 | Grade Ad | liustmer | t: 0.0 |
| Pa | ad Elevation: | 0.0 feet | | | neavy | y mack | J. U | .004 | | , | |
| Roa | ad Elevation: | 0.0 feet | | L | ane Equ | iivalent | t Distar | ice (in | feet) | | |
| 1 | Road Grade: | 0.0% | | | | Auto | s: 68 | 1.154 | | | |
| | Left View: | -90.0 degre | es | | Mediun | n Truck | s: 68 | .024 | | | |
| | Right View: | 90.0 degre | es | | Heavy | y Truck | s: 68 | .037 | | | |
| FHWA Noise Mode | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | ance | Finite I | Road | Fres | nel | Barrier Att | ten Be | erm Atten |
| Autos: | 71.78 | 0.64 | | -2.12 | 2 | -1.20 | | -4.76 | 0. | 000 | 0.000 |
| Medium Trucks: | 82.40 | -11.59 | | -2.11 | | -1.20 | | -4.88 | 0. | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -13.05 | | -2.11 | | -1.20 | | -5.18 | 0. | 000 | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo and | barrier | attenu | uation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | / 1 | Leq Ev | rening | Leq | Night | | Ldn | 0 | ONEL |
| Autos: | 69 | 9.1 | 68.4 | | 66.7 | | 63 | .1 | 70. | 7 | 71.1 |
| Medium Trucks: | 67 | 7.5 | 67.0 | | 62.7 | | 62 | .0 | 69. | 4 | 69.6 |
| Heavy Trucks: | 70 | 0.0 | 68.6 | | 67.6 | | 66 | .4 | 73. | 2 | 73.5 |
| Vehicle Noise: | 73 | 3.8 | 72.8 | | 70.9 | | 69 | .0 | 76. | 1 | 76.5 |
| Centerline Distance | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 d | BA | 65 | dBA | (| 50 dBA | 5 | 5 dBA |
| | | | Ldn: | | 236 | | 50 | в | 1,095 | 5 | 2,359 |
| | | С | NEL: | | 248 | | 53 | 5 | 1,153 | 3 | 2,485 |

| | FHWA-RI | D-77-108 HIGH | IWAY NO | DISE F | REDIC | TION M | ODEL (| 9/12/20 | 021) | | |
|----------------------------------|--|-----------------|-----------|--------|----------|-------------------|-----------------|----------------|-------------|---------|---------|
| Scenai Road Nan Road Segme | rio: EAC 2024 ne: Ramona E: nt: e/o Perris E | kpy. Blvd. | | | | Project Job Ni | Name: umber: | Ramor 13998 | a Gatewa | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | NODE | L INPUT | S | |
| Highway Data | | | | S | ite Con | ditions (| (Hard = | 10, Sc | ft = 15) | | |
| Average Daily | Traffic (Adt): | 55,186 vehicl | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | icks (2 | Axles): | 15 | | |
| Peak H | lour Volume: | 3,889 vehicle | s | | He | avy Truc | :ks (3+) | Axles): | 15 | | |
| Ve | hicle Speed: | 55 mph | | 14 | obiolo I | Mise | | | | | |
| Near/Far La | ne Distance: | 124 feet | | | Voh | iolo Tuno | | Dav | Evening | Night | Dailu |
| Site Data | | | | _ | ven | сіетуре Д | utos: | 71.9% | 12 2% | 15.9% | 90.47% |
| Ba | wier Height | 0.0 feet | | | Me | edium Tr | ucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0.1 | Vall 1 Borm) | 0.0 1001 | | | ŀ | leavy Tr | ucks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist to Barrier | 92.0 feet | | _ | | | | | | - | |
| Centerline Dist | to Observer: | 92.0 feet | | N | oise Sc | ource Ele | evation | s (in fe | et) | | |
| Barrier Distance | to Observer: | 0.0 feet | | | | Autos | s: 0. | 000 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Mediui | n Trucks | s: 2. | 297 | | | |
| P | ad Elevation: | 0.0 feet | | | Heav | y Trucks | s: 8. | 004 | Grade Ad | ustment | : 0.0 |
| Ro | ad Elevation: | 0.0 feet | | La | ane Equ | uivalent | Distan | ce (in i | eet) | | |
| | Road Grade: | 0.0% | | | | Autos | s: 68. | 154 | í | | |
| | Left View: | -90.0 deare | es | | Mediui | n Trucks | 68. | 024 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks | 68 | 037 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | nce | Finite | Road | Fresi | nel | Barrier Att | en Ber | m Atten |
| Autos: | 71.78 | 2.75 | | -2.12 | | -1.20 | | -4.76 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 82.40 | -9.36 | | -2.11 | | -1.20 | | -4.88 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -10.82 | | -2.11 | | -1.20 | | -5.18 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Da | / L | eq Eve | ening | Leq I | Night | | Ldn | C | NEL |
| Autos: | 71 | .2 | 70.5 | | 68.8 | | 65. | 2 | 72.8 | 3 | 73.2 |
| Medium Trucks: | 69 | 9.7 | 69.2 | | 64.9 | | 64.: | 2 | 71.6 | 3 | 71.8 |
| Heavy Trucks: | 72 | 2.3 | 70.8 | | 69.8 | | 68. | 7 | 75.4 | 1 | 75.7 |
| Vehicle Noise: | 76 | 3.0 | 75.0 | | 73.1 | | 71. | 2 | 78.3 | 3 | 78.7 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 dł | ЗA | 65 0 | зВА | 1 6 | U dBA | 55 | аВА |
| | | - | Ldn: | | 331 | | 712 | | 1,535 | | 3,306 |
| | | С | NEL: | | 348 | | 750 | | 1,616 | | 3,481 |

| | FHWA-RI | D-77-108 HIGF | IWAY | NOISE | = PREDIC | TION | NODEL | (9/12/2 | 021) | | |
|---------------------|-----------------|-----------------|--------|----------|-----------|---------|----------|----------|-------------|----------|----------|
| Scenario | : EAPC 2024 | 4 | | | | Projec | t Name: | Ramo | na Gatewa | y Comm | ie |
| Road Name | : Ramona E | кру. | | | | Job I | Vumber: | 13998 | | | |
| Road Segmen | t: e/o Perris E | Blvd. | | | | | | | | | |
| SITE S | PECIFIC IN | IPUT DATA | | | | I | NOISE | MODE | L INPUT | s | |
| Highway Data | | | | | Site Cond | ditions | (Hard : | = 10, S | oft = 15) | | |
| Average Daily 1 | raffic (Adt): | 55,986 vehicl | es | | | | | Autos. | 15 | | |
| Peak Hour I | Percentage: | 7.05% | | | Med | dium T | rucks (2 | Axles). | 15 | | |
| Peak Ho | our Volume: | 3,945 vehicle | s | | Hea | avy Tru | ıcks (3+ | Axles) | 15 | | |
| Veh | icle Speed: | 55 mph | | | Vehicle N | lix | | | | | |
| Near/Far Lan | e Distance: | 124 feet | | | Vehi | cleTyp | е | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 5 12.2% | 15.9% | 90.61% |
| Ban | rier Heiaht: | 0.0 feet | | | Me | dium 1 | Trucks: | 75.3% | 5.0% | 17.7% | 5.48% |
| Barrier Type (0-Wa | all, 1-Berm): | 0.0 | | | H | leavy T | Trucks: | 60.4% | 6 12.0% | 27.6% | 3.91% |
| Centerline Dis | t. to Barrier: | 92.0 feet | | | Noise So | urco F | lovatio | ne (in f | oof) | | |
| Centerline Dist. t | o Observer: | 92.0 feet | | | 110/30 00 | Δute | | 000 | | | |
| Barrier Distance t | o Observer: | 0.0 feet | | | Mediur | n Truci | ks: 2 | 297 | | | |
| Observer Height (A | Above Pad): | 5.0 feet | | | Heav | v Truci | ks: 8 | 004 | Grade Ad | liustmen | t: 0.0 |
| Pa | d Elevation: | 0.0 feet | | | | | | | | • | |
| Roa | d Elevation: | 0.0 feet | | | Lane Equ | iivalen | t Distar | ice (in | feet) | | |
| F | load Grade: | 0.0% | | | | Auto | os: 68 | 3.154 | | | |
| | Left View: | -90.0 degre | es | | Mediun | n Truci | KS: 68 | 3.024 | | | |
| | Right View: | 90.0 degre | es | | Heav | y iruci | KS: 00 | 5.037 | | | |
| FHWA Noise Mode | Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite | Road | Fres | nel | Barrier Att | en Be | rm Atten |
| Autos: | 71.78 | 2.82 | | -2.1 | 12 | -1.20 | | -4.76 | 0.0 | 000 | 0.00 |
| Medium Trucks: | 82.40 | -9.36 | | -2.1 | 11 | -1.20 | | -4.88 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 86.40 | -10.82 | | -2.1 | 11 | -1.20 | | -5.18 | 0.0 | 000 | 0.000 |
| Unmitigated Noise | Levels (with | out Topo and | barrie | er attei | nuation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | / | Leq E | ening | Leq | Night | | Ldn | С | NEL |
| Autos: | 71 | 1.3 | 70.6 | | 68.9 | | 65 | .3 | 72. | 9 | 73.3 |
| Medium Trucks: | 69 | 9.7 | 69.2 | | 64.9 | | 64 | .2 | 71. | 6 | 71.8 |
| Heavy Trucks: | 72 | 2.3 | 70.8 | | 69.8 | | 68 | .7 | 75.4 | 4 | 75. |
| Vehicle Noise: | 76 | 3.0 | 75.0 | | 73.1 | | 71 | .2 | 78.4 | 4 | 78.7 |
| Centerline Distance | e to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | L | 70 | dBA | 65 | dBA | | 60 dBA | 55 | i dBA |
| | | | Ldn: | | 332 | | 71 | 4 | 1,539 |) | 3,316 |
| | | C | NEL: | | 349 | | 75 | 2 | 1,621 | | 3,492 |
| | | | | | | | | | | | |

Monday, February 28, 2022

| | FHWA-RD | -77-108 HIGHW | AY NOIS | E PREDI | CTION M | ODEL (S | 9/12/20 | 21) | | |
|--------------------------------------|---|-----------------|------------|-----------|-------------------|---------------------|-----------------|------------|----------|-----------|
| Scenario Road Name Road Segmen | o: HY 2045 e: Ramona Exp t: e/o Perris Bl | oy. vd. | | | Project Job Ni | Name: F umber: 1 | Ramon I 3998 | a Gatewa | y Comr | ne |
| SITE S | SPECIFIC INI | PUT DATA | | | N | OISE N | IODEI | | S | |
| Highway Data | | | | Site Col | nditions (| 'Hard = | 10, So | ft = 15) | | |
| Average Daily T | Traffic (Adt): | 56,477 vehicles | | | | , | Autos: | 15 | | |
| Peak Hour F | Percentage: | 7.05% | | M | edium Tru | icks (2 A | (xles): | 15 | | |
| Peak Ho | our Volume: | 3,980 vehicles | | H | eavy Truc | ks (3+ A | (xles): | 15 | | |
| Veh | nicle Speed: | 55 mph | | Vehicle | Mix | | | | | |
| Near/Far Lan | e Distance: | 124 feet | | Vel | hicleType | | Dav | Evenina | Niaht | Daily |
| Site Data | | | | 10. | A | utos: | 71.9% | 12.2% | 15.9 | % 90.47% |
| Bar | rior Hoight: | 0.0 foot | | ٨ | 1edium Tr | ucks: | 75.3% | 7.0% | 17.79 | % 5.56% |
| Barrier Type (0-W/s | all 1-Berm) | 0.0 1001 | | | Heavy Tr | ucks: | 60.4% | 12.0% | 27.6 | % 3.97% |
| Centerline Dis | t. to Barrier: | 92.0 feet | | | | | | | | |
| Centerline Dist. to | o Observer: | 92.0 feet | | Noise S | ource Ele | evations | s (in te | et) | | |
| Barrier Distance to | o Observer: | 0.0 feet | | | Autos | :: 0.0 | 000 | | | |
| Observer Height (A | Above Pad): | 5.0 feet | | Mediu | Im Trucks | 12.2 | 297 | O | | -+ 0.0 |
| Pa | d Elevation: | 0.0 feet | | Hea | vy Trucks | :: 8.0 |)04 | Grade Ad | ijustmei | 11: 0.0 |
| Roa | d Elevation: | 0.0 feet | | Lane Eq | quivalent | Distand | e (in fe | eet) | | |
| R | Road Grade: | 0.0% | | | Autos | 68. | 154 | | | |
| | Left View: | -90.0 degrees | | Mediu | im Trucks | 68.0 | 024 | | | |
| | Right View: | 90.0 degrees | | Hea | vy Trucks | 68.0 | 037 | | | |
| FHWA Noise Mode | I Calculations | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distance | e Finite | e Road | Fresn | el l | Barrier At | ten Be | erm Atten |
| Autos: | 71.78 | 2.86 | -2 | .12 | -1.20 | | -4.76 | 0. | 000 | 0.000 |
| Medium Trucks: | 82.40 | -9.26 | -2 | .11 | -1.20 | | -4.88 | 0. | 000 | 0.000 |
| Heavy Trucks: | 86.40 | -10.72 | -2 | .11 | -1.20 | | -5.18 | 0. | 000 | 0.000 |
| Unmitigated Noise | Levels (witho | ut Topo and ba | arrier att | enuation) | | | | | | |
| VehicleType I | Leq Peak Hour | · Leq Day | Leq | Evening | Leq I | Vight | | Ldn | (| CNEL |
| Autos: | 71.3 | 3 70 | 0.6 | 68.9 | 9 | 65.3 | | 72. | 9 | 73.3 |
| Medium Trucks: | 69. | 8 69 | 9.3 | 65.0 |) | 64.3 | | 71. | 7 | 71.9 |
| Heavy Trucks: | 72.4 | 4 70 |).9 | 69.9 | 9 | 68.8 | | 75. | 5 | 75. |
| Vehicle Noise: | 76. | 1 75 | 5.1 | 73.2 | 2 | 71.3 | | 78. | 4 | 78. |
| Centerline Distance | e to Noise Cor | ntour (in feet) | | | | | | | | |
| | | | . 7 | U dBA | 65 0 | IBA TC- | 6 | U dBA | 5 | 5 dBA |
| | | Lo | dn: | 336 | | 723 | | 1,559 | | 3,358 |
| | | CNE | =L.: | 354 | | 762 | | 1,641 | I | 3,536 |

| | FHWA-RI | D-77-108 HIGHWA | AY NOIS | E PREDIC | TION M | ODEL (| 9/12/2 | 021) | | |
|-------------------|------------------|------------------|-----------|----------|-----------|-----------|---------|--------------|--------|----------------|
| Scena | rio: HYP 2045 | | | | Project | Name: | Ramo | na Gateway | / Comr | me |
| Road Nan | ne: Ramona E | kpy. | | | Job N | umber: | 13998 | | | |
| Road Segme | nt: e/o Perris E | Blvd. | | | | | | | | |
| SITE | SPECIFIC IN | IPUT DATA | | | N | IOISE N | NODE | | 5 | |
| Highway Data | | | | Site Con | ditions | (Hard = | 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 57,277 vehicles | | | | | Autos | 15 | | |
| Peak Hour | Percentage: | 7.05% | | Me | dium Tru | ucks (2 A | Axles) | 15 | | |
| Peak I | lour Volume: | 4,036 vehicles | | He | avy Truc | cks (3+ A | Axles) | 15 | | |
| Ve | ehicle Speed: | 55 mph | | Vehicle | Mix | | | | | - |
| Near/Far La | ane Distance: | 124 feet | | Veh | icleType | | Dav | Evenina | Niaht | Daily |
| Site Data | | | | | | Autos: | 71.99 | 6 12.2% | 15.9 | % 90.61% |
| Ba | rrior Hoight | 0.0 foot | | м | edium Tr | ucks: | 75.39 | 6 7.0% | 17.7 | % 5.48% |
| Barrier Type (0-V | Vall. 1-Berm) | 0.0 | | | Heavy Tr | ucks: | 60.49 | 6 12.0% | 27.6 | % 3.92% |
| Centerline D | ist. to Barrier: | 92.0 feet | | Noise O | | | | 41 | | |
| Centerline Dist. | to Observer: | 92.0 feet | | Noise So | ource El | evation | s (IN 1 | eet) | | |
| Barrier Distance | to Observer: | 0.0 feet | | Marthu | Autos | 5. 0.0 | 207 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | Mediu | m Trucks | 5: Z. | 297 | Grade Adi | ustma | nt: 0.0 |
| F | ad Elevation: | 0.0 feet | | Heat | у ттиска | 5. 8.0 | 004 | Grade Auj | usune | <i>n</i> . 0.0 |
| Ro | ad Elevation: | 0.0 feet | | Lane Eq | uivalent | Distand | ce (in | feet) | | |
| | Road Grade: | 0.0% | | | Autos | s: 68. | 154 | | | |
| | Left View: | -90.0 degrees | | Mediu | m Trucks | s: 68. | 024 | | | |
| | Right View: | 90.0 degrees | | Hear | /y Trucks | s: 68. | 037 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distance | Finite | Road | Fresh | el | Barrier Atte | en B | erm Atten |
| Autos: | 71.78 | 2.92 | -2. | 12 | -1.20 | | -4.76 | 0.0 | 00 | 0.000 |
| Medium Trucks: | 82.40 | -9.26 | -2. | 11 | -1.20 | | -4.88 | 0.0 | 00 | 0.000 |
| Heavy Trucks: | 86.40 | -10.72 | -2. | 11 | -1.20 | | -5.18 | 0.0 | 00 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and bar | rier atte | nuation) | | | | | | - |
| VehicleType | Leg Peak Hou | ır Leq Day | Leq | Evening | Leq | Night | | Ldn | (| CNEL |
| Autos: | 71 | .4 70. | 7 | 69.0 | | 65.4 | Ļ | 73.0 | , | 73.4 |
| Medium Trucks: | 69 | 0.8 69. | 3 | 65.0 | | 64.3 | 3 | 71.7 | | 71.9 |
| Heavy Trucks: | 72 | 2.4 70.5 | 9 | 69.9 | | 68.8 | 3 | 75.5 | j – | 75.8 |
| Vehicle Noise: | 76 | 6.1 75. | 1 | 73.2 | | 71.3 | 3 | 78.5 | j – | 78.8 |
| Centerline Distan | ce to Noise Co | ontour (in feet) | | | | | | | - | |
| | | | 70 |) dBA | 65 0 | dBA | | 60 dBA | 5 | i5 dBA |
| | | Ldr | 1: | 337 | | 725 | | 1,563 | | 3,367 |
| | | CNEL | | 355 | | 764 | | 1,646 | | 3,546 |
| | | | | | | | | | | |

| | FHWA-RI | D-77-108 HIGH | IWAY NO | DISE F | PREDIC | TION MO | DDEL (| 9/12/20 | 021) | | |
|----------------------------------|--|-----------------|-----------|--------|---------------------|-----------------|----------------|-----------|-------------|-----------|----------|
| Scenar Road Nan Road Segme | rio: E ne: Morgan St. nt: e/o Nevada | | | | Project I Job Nu | Name: Imber: | Ramor 13998 | na Gatewa | y Comm | e | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE I | IODE | L INPUT | s | |
| Highway Data | | | | S | ite Con | ditions (| Hard = | 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 1,958 vehicl | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 / | Axles): | 15 | | |
| Peak H | our Volume: | 138 vehicle | s | | He | avy Truci | ks (3+ / | Axles): | 15 | | |
| Ve | hicle Speed: | 45 mph | | V | ohiclo I | <i>Aix</i> | | | | | |
| Near/Far La | ane Distance: | 56 feet | | | Vehi | cleTyne | | Dav | Evenina | Niaht | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Height | 0.0 feet | | | Me | edium Tru | ucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall. 1-Berm): | 0.0 | | | ŀ | leavy Tru | ucks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 47.0 feet | | M | oico So | urco Elo | vation | r (in fo | of | | |
| Centerline Dist. | to Observer: | 47.0 feet | | 14 | 0136 30 | Autos | · 0 | | ey | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Modiu | n Trucke | . 0. | 207 | | | |
| Observer Height | Observer Height (Above Pad): 5.0 feet | | | | | n Trucks | . 2. | 201 | Grade Ad | iustment | - 0 0 |
| P | Pad Elevation: 0.0 feet | | | | | | . 0. | 504 | Orade Au | Justinent | . 0.0 |
| Ro | ad Elevation: | 0.0 feet | | La | ane Equ | livalent | Distan | e (in f | feet) | | |
| | Road Grade: | 0.0% | | | | Autos. | : 38. | 079 | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Trucks | : 37. | 846 | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks | : 37. | 869 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | nce | Finite | Road | Fresr | el | Barrier Att | en Bei | rm Atten |
| Autos: | 68.46 | -10.87 | | 1.67 | | -1.20 | | -4.63 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -22.99 | | 1.71 | | -1.20 | | -4.87 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -24.45 | | 1.71 | | -1.20 | | -5.46 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ır Leq Daj | / L | eq Eve | ening | Leq N | light | | Ldn | C | NEL |
| Autos: | 58 | 1.1 | 57.4 | | 55.7 | | 52.0 |) | 59.6 | 5 | 60.1 |
| Medium Trucks: | 57 | .0 | 56.5 | | 52.2 | | 51.4 | ł | 58.8 | 3 | 59.1 |
| Heavy Trucks: | 60 | 1.3 | 58.8 | | 57.8 | | 56.7 | ' | 63.5 | 5 | 63.8 |
| Vehicle Noise: | 63 | 1.4 | 62.4 | | 60.6 | | 58.8 | 3 | 65.9 | 9 | 66.2 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | BA | 65 d | BA | 6 | 60 dBA | 55 | dBA |
| | | | Ldn: | | 25 | | 54 | | 116 | | 251 |
| | | С | NEL: | | 26 | | 57 | | 122 | | 264 |

| | -HWA-RD- | | WAT | NUISE | PREDIC | | IUDEL | 9/12/2 | 021) | | | | | |
|-------------------------|---------------------------------------|----------------|-------|-------------|-----------------------------|----------|---|-----------|-------------|--------|----------|--|--|--|
| Scenario: E- | +P | | | | Projec | t Name: | Ramo | na Gatewa | y Comm | e | | | | |
| Road Name: M | organ St. | | | | | Job N | lumber: | 13998 | | | | | | |
| Road Segment: e/ | o Nevada F | td. | | | | | | | | | | | | |
| SITE SPE | CIFIC INP | UT DATA | | | | I | NOISE | MODE | L INPUT | s | | | | |
| Highway Data | | | | | Site Cond | litions | (Hard = | : 10, Se | oft = 15) | | | | | |
| Average Daily Traffi | ic (Adt): | 2,358 vehicle | s | | Autos: 15 | | | | | | | | | |
| Peak Hour Perc | entage: | 7.05% | | | Medium Trucks (2 Axles): 15 | | | | | | | | | |
| Peak Hour \ | /olume: | 166 vehicles | 6 | | Hea | avy Tru | cks (3+ | Axles): | 15 | | | | | |
| Vehicle | Speed: | 45 mph | | | Vehicle N | lix | | | | | | | | |
| Near/Far Lane Di | istance: | 56 feet | | | Vehic | cleType | | Day | Evening | Night | Daily | | | |
| Site Data | | | | | | | Autos: | 71.9% | 5 12.2% | 15.9% | 92.09% | | | |
| Barrier | Height: | 0.0 feet | | | Me | dium T | rucks: | 75.3% | 5 7.0% | 17.7% | 4.61% | | | |
| Barrier Type (0-Wall, 1 | -Berm): | 0.0 | | | н | leavy T | rucks: | 60.4% | 5 12.0% | 27.6% | 3.30% | | | |
| Centerline Dist. to | Barrier: | 47.0 feet | | | Noise So | urce F | levatior | s (in f | eet) | | | | | |
| Centerline Dist. to Ol | oserver: | 47.0 feet | | | 10.00 00 | Auto | us' 0 | 000 | | | | | | |
| Barrier Distance to Ol | oserver: | 0.0 feet | | | Mediun | n Truck | (s: 2 | 297 | | | | | | |
| Observer Height (Abov | Observer Height (Above Pad): 5.0 feet | | | | | | Heavy Trucks: 8.004 Grade Adjustment: 0.0 | | | | | | | |
| Pad El | Pad Elevation: 0.0 feet | | | | | | | | | | | | | |
| Road El | evation: | 0.0 feet | | | Lane Equ | ivalen | t Distan | ce (in | feet) | | | | | |
| Road | Grade: | 0.0% | | | | Auto | is: 38 | .079 | | | | | | |
| Le | ft View: | -90.0 degree | es | | Mediun | 1 I ruck | (S: 37 | .846 | | | | | | |
| Rigi | nt view: | 90.0 degree | s | | neav | / ITUCK | 15. 37 | .009 | | | | | | |
| FHWA Noise Model Ca | lculations | | | | | | | | | | | | | |
| VehicleType R | EMEL 1 | Fraffic Flow | Dis | stance | Finite I | Road | Fres | nel | Barrier Att | en Bei | rm Atten | | | |
| Autos: | 68.46 | -9.99 | | 1.6 | 67 | -1.20 | | -4.63 | 0.0 | 000 | 0.000 | | | |
| Medium Trucks: | 79.45 | -22.99 | | 1.7 | '1 | -1.20 | | -4.87 | 0.0 | 000 | 0.000 | | | |
| Heavy Trucks: | 84.25 | -24.45 | | 1.7 | '1 | -1.20 | | -5.46 | 0.0 | 000 | 0.000 | | | |
| Unmitigated Noise Lev | els (withou | t Topo and | barri | er attei | nuation) | | | | | | | | | |
| VehicleType Leq | Peak Hour | Leq Day | r | Leq E | vening | Leq | Night | | Ldn | С | NEL | | | |
| Autos: | 58.9 | | 58.2 | | 56.6 | | 52. | 9 | 60. | 5 | 61.0 | | | |
| Medium Trucks: | 57.0 | | 56.5 | | 52.2 | | 51. | 4 | 58. | B _ | 59. | | | |
| Heavy Trucks: | 60.3 | | 58.8 | | 57.8 | | 56. | / | 63. | 5 | 63.8 | | | |
| Venicle Noise: | 63.7 | | 62.7 | | 60.9 | | 59. | 0 | 66. | 1 | 66.5 | | | |
| Centerline Distance to | Noise Con | tour (in feet) | 1 | | | | | | | | | | | |
| | | | L | 70 | dBA | 65 | dBA | | 50 dBA | 55 | dBA | | | |
| | Ldn: | | | 26 56 120 2 | | | | 259 | | | | | | |
| | | | | | | | | | | | | | | |

Monday, February 28, 2022

| | FHWA-RD | -77-108 HIGHW | AY NOI | SE PREDI | CTION MC | DEL (9/12 | /2021) | | |
|---------------------------------------|------------------------|-----------------|------------|-----------|---------------------|--------------------------------|------------------|----------|---------|
| Scenario Road Name Road Segment | EAC 2024 Morgan St. | Rd. | | | Project N Job Nu | <i>lame:</i> Ram mber: 1399 | ona Gatewa 18 | y Comme | 9 |
| SITE S | PECIFIC IN | PUT DATA | | | N | DISE MOD | EL INPUT | 5 | |
| Highway Data | | | | Site Co. | nditions (l | Hard = 10, | Soft = 15) | | |
| Average Daily T | raffic (Adt): | 2,078 vehicles | | | | Auto | s: 15 | | |
| Peak Hour F | Percentage: | 7.05% | | М | edium Tru | cks (2 Axle | s): 15 | | |
| Peak Ho | ur Volume: | 146 vehicles | | Н | eavy Truck | ks (3+ Axles | s): 15 | | |
| Veh | icle Speed: | 45 mph | | Vehicle | Mix | | | | |
| Near/Far Lan | e Distance: | 56 feet | | Ve | hicleTyne | Dav | Evenina | Night | Daily |
| Site Data | | | | | A | utos: 71.9 | 9% 12.2% | 15.9% | 90.47% |
| Barr | ior Hoight: | 0.0 foot | | ٨ | ledium Tru | icks: 75.3 | 3% 7.0% | 17.7% | 5.56% |
| Barrier Type (0-Wa | ll. 1-Berm): | 0.0 | | | Heavy Tru | icks: 60.4 | 12.0% | 27.6% | 3.97% |
| Centerline Dist | to Barrier: | 47.0 feet | | Noise S | ource Fle | vations (in | feet) | | - |
| Centerline Dist. to | Observer: | 47.0 feet | | | Autos | 0.000 | 1000 | | |
| Barrier Distance to | Observer: | 0.0 feet | | Medi | im Trucks | 2 297 | | | |
| Observer Height (A | bove Pad): | 5.0 feet | | Hea | vv Trucks | 8 004 | Grade Ad | iustment | : 0.0 |
| Pad | d Elevation: | 0.0 feet | | | <i>i) naono.</i> | 0.001 | | | |
| Road | d Elevation: | 0.0 feet | | Lane Ed | uivalent l | Distance (i | n feet) | | |
| R | oad Grade: | 0.0% | | | Autos: | 38.079 | | | |
| | Left View: | -90.0 degrees | | Media | im Trucks: | 37.846 | | | |
| | Right View: | 90.0 degrees | | Hea | vy Trucks. | 37.869 | | | |
| FHWA Noise Model | Calculations | 3 | | 1 | | | | | |
| VehicleType | REMEL | Traffic Flow | Distance | e Finite | e Road | Fresnel | Barrier Att | en Ber | m Atten |
| Autos: | 68.46 | -10.62 | 1 | 1.67 | -1.20 | -4.6 | 3 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -22.73 | 1 | 1.71 | -1.20 | -4.8 | 7 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -24.19 | 1 | 1.71 | -1.20 | -5.4 | 6 0.0 | 000 | 0.000 |
| Unmitigated Noise | Levels (witho | out Topo and ba | nrrier att | enuation) | | | | | |
| VehicleType L | .eq Peak Hou | r Leq Day | Leq | Evening | Leq N | light | Ldn | CI | NEL |
| Autos: | 58 | .3 57 | .6 | 55.9 | 9 | 52.3 | 59.9 | 9 | 60.3 |
| Medium Trucks: | 57 | .2 56 | 6.7 | 52.4 | 1 | 51.7 | 59.1 | 1 | 59.3 |
| Heavy Trucks: | 60 | .6 59 |).1 | 58. | 1 | 57.0 | 63.7 | 7 | 64.0 |
| Vehicle Noise: | 63 | .7 62 | 2.7 | 60.6 | 3 | 59.1 | 66.2 | 2 | 66.5 |
| Centerline Distance | to Noise Co | ntour (in feet) | | | | | | | |
| | | | 7 | 0 dBA | 65 d | BA | 60 dBA | 55 | dBA |
| | | Lc | in: | 26 | | 56 | 121 | | 261 |
| | | CNE | EL: | 27 | | 59 | 127 | | 274 |

| | FHWA-R | D-77-108 HIGH | WAY NO | DISE | PREDIC | TION MO | DDEL (S | /12/2 | 021) | | | | | |
|------------------------------------|--|------------------|-----------|-----------|---|------------|--------------------|--------------|--------------|---------|---------|--|--|--|
| Scenari Road Nam Road Segmer | Scenario: EAPC 2024 Road Name: Morgan St. Road Segment: e/o Nevada Rd. | | | | | | Vame: F mber: 1 | Ramo 3998 | na Gateway | Comm | e | | | |
| SITE | SPECIFIC II | NPUT DATA | | | | N | DISE N | IODE | L INPUTS | 3 | | | | |
| Highway Data | | | | S | Site Con | ditions (l | Hard = | 10, S | oft = 15) | | | | | |
| Average Daily | Traffic (Adt): | 2,477 vehicle | es | | Autos: 15 | | | | | | | | | |
| Peak Hour | Percentage: | 7.05% | | | Medium Trucks (2 Axles): 15 | | | | | | | | | |
| Peak H | our Volume: | 175 vehicles | 5 | | He | avy Truck | ks (3+ A | xles). | : 15 | | | | | |
| Ve | hicle Speed: | 45 mph | | L. | (ohiclo I | Niv | | | | | | | | |
| Near/Far La | ne Distance: | 56 feet | | - | Veh | icleType | | Dav | Evening | Night | Daily | | | |
| Site Data | | | | | Autos: 71.9% 12.2% 15.9% 92.01 | | | | | | | | | |
| one Data | | | | | M | adium Tri | icks: | 75.39 | 6 7.0% | 17.7% | 4 66% | | | |
| Bar Demise Terre (0.14) | rier Height: | 0.0 feet | | | , in the second s | leavy Tri | icks: | 60.4% | 6 12.0% | 27.6% | 3.33% | | | |
| Barrier Type (U-VV | all, 1-Berm): | 0.0 | | | | loary ne | iono. | , | 12.070 | 21.070 | 0.0070 | | | |
| Centerline Dis | to Observer: | 47.0 feet | | ۸ | loise Sc | ource Ele | vations | : (in f | eet) | | | | | |
| Centernine Dist. | to Observer. | 47.0 feet | | | | Autos. | 0.0 | 000 | | | | | | |
| Observer Usinkt | Observer Height (Above Pad): 5.0 feet | | | | | m Trucks. | 2.2 | 97 | | | | | | |
| Observer Height (| Observer Height (Above Pad): 5.0 feet | | | | | y Trucks. | 8.0 | 04 | Grade Adj | ustment | : 0.0 | | | |
| Pa | d Elevation: | 0.0 feet | | 1 | ano Fa | uivalent | Distanc | o (in | foot) | | | | | |
| Roa | a Elevation: | 0.0 teet | | - | ane Ly | Autos | 201 | 070 | leelj | | | | | |
| , | Loft View | 0.0% | | | Modiu | m Trucks | | 046 | | | | | | |
| | Lent View: | -90.0 degree | es | | Wealur | TTTUCKS. | 37.0 | 940 | | | | | | |
| | Right view: | 90.0 degree | es | | neav | y mucks. | 37.0 | 309 | | | | | | |
| FHWA Noise Mode | l Calculation | s | | | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | nce | Finite | Road | Fresn | e/ | Barrier Atte | en Ber | m Atten | | | |
| Autos: | 68.46 | -9.78 | | 1.67 | , | -1.20 | | -4.63 | 0.0 | 00 | 0.000 | | | |
| Medium Trucks: | 79.45 | -22.73 | | 1.71 | I | -1.20 | | 4.87 | 0.0 | 00 | 0.000 | | | |
| Heavy Trucks: | 84.25 | -24.19 | | 1.71 | | -1.20 | | -5.46 | 0.0 | 00 | 0.000 | | | |
| Unmitigated Noise | Levels (with | out Topo and | barrier a | attenu | uation) | | | | | | | | | |
| VehicleType | Leq Peak Ho | ur Leq Day | L | eq Ev | rening | Leq N | light | | Ldn | C | NEL | | | |
| Autos: | 59 | 9.2 | 58.4 | | 56.8 | | 53.1 | | 60.7 | | 61.2 | | | |
| Medium Trucks: | 57 | 7.2 | 56.7 | | 52.4 | | 51.7 | | 59.1 | | 59.3 | | | |
| Heavy Trucks: | 60 | 0.6 | 59.1 | | 58.1 | | 57.0 | | 63.7 | | 64.0 | | | |
| Vehicle Noise: | 64 | 4.0 | 63.0 | | 61.1 | | 59.3 | | 66.4 | | 66.7 | | | |
| Centerline Distance | e to Noise C | ontour (in feet, | | | | | | | | | | | | |
| - | | | | 70 d | BA | 65 d | BA | | 60 dBA | 55 | dBA | | | |
| | | | Ldn: | 27 58 125 | | | 269 | | | | | | | |
| | | CI | VEL: | | 28 61 132 284 | | | | | | 284 | | | |
| | | | | | | | | | | | | | | |

| | FHWA-RI | D-77-108 HIGH | WAY NO | ISE F | PREDIC | | ODEL | (9/12/2 | 2021) | | |
|----------------------------------|---|-----------------|-----------|-----------|------------------|-----------------|---------------|-----------|-------------|---------|-----------|
| Scenar Road Nan Road Segme | io: HY 2045 ne: Morgan St. nt: e/o Nevada | | | | Project Job N | Name: umber: | Ramo 13998 | na Gatewa | y Comr | ne | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | MOD | EL INPUT | s | |
| Highway Data | | | | S | ite Cond | ditions | (Hard = | = 10, S | oft = 15) | | |
| Average Daily | Traffic (Adt): | 3,029 vehicl | es | | | | | Autos | : 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Med | dium Tru | icks (2 | Axles) | : 15 | | |
| Peak H | lour Volume: | 213 vehicle | s | | Hea | avy Truc | cks (3+ | Axles) | : 15 | | |
| Ve | hicle Speed: | 45 mph | | V | ohiclo N | liv | | | | | |
| Near/Far La | ne Distance: | 56 feet | | - | Vehi | cleTvne | | Dav | Evenina | Niaht | Daily |
| Site Data | | | | - | 10/11 | A construction | Autos: | 71.99 | 6 12.2% | 15.9 | % 90.47% |
| Ba | rrier Height | 0.0 feet | | | Me | dium Ti | ucks: | 75.39 | 6 7.0% | 17.7 | % 5.56% |
| Barrier Type (0-W | /all_1-Berm): | 0.0 | | | н | leavy Tr | ucks: | 60.49 | 6 12.0% | 27.6 | % 3.97% |
| Centerline Di | st. to Barrier: | 47.0 feet | | | | | | C A | 41 | | |
| Centerline Dist. | to Observer: | 47.0 feet | | N | oise so | urce El | evation | 15 (111 1 | eet) | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Madis | Autos | s: 0 | .000 | | | |
| Observer Height | Observer Height (Above Pad): 5.0 feet | | | | | n Trucks | 5: Z | .297 | Grade Ad | liustma | nt: 0.0 |
| P | Pad Elevation: 0.0 feet | | | | | | s. o | .004 | Grade Au | jusune | 1. 0.0 |
| Ro | ad Elevation: | 0.0 feet | | L | ane Equ | ivalent | Distan | ice (in | feet) | | |
| | Road Grade: | 0.0% | | | | Autos | s: 38 | .079 | | | |
| | Left View: | -90.0 degre | es | | Mediun | n Trucks | s: 37 | .846 | | | |
| | Right View: | 90.0 degre | es | | Heavy | y Trucks | s: 37 | .869 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite I | Road | Fres | nel | Barrier Att | en B | erm Atten |
| Autos: | 68.46 | -8.98 | | 1.67 | | -1.20 | | -4.63 | 0. | 000 | 0.000 |
| Medium Trucks: | 79.45 | -21.10 | | 1.71 | | -1.20 | | -4.87 | 0. | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -22.56 | | 1.71 | | -1.20 | | -5.46 | 0. | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Day | / Le | q Eve | ening | Leq | Night | | Ldn | | CNEL |
| Autos: | 60 | 0.0 | 59.2 | | 57.6 | | 53. | 9 | 61. | 5 | 62.0 |
| Medium Trucks: | 58 | 3.9 | 58.4 | | 54.0 | | 53. | 3 | 60. | 7 | 61.0 |
| Heavy Trucks: | 62 | 2.2 | 60.7 | | 59.7 | | 58. | .6 | 65. | 3 | 65.7 |
| Vehicle Noise: | 65 | 5.3 | 64.3 | | 62.5 | | 60. | 7 | 67. | 8 | 68.1 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 dl | BA | 65 (| dBA | | 60 dBA | 5 | i5 dBA |
| | | - | Ldn: | 34 72 156 | | | 335 | | | | |
| | CNEL: | | | | | | 70 | ö | 164 | ŀ | 353 |

| | FINA-KL | -77-100 mgn | IVVAT | NOISE | FREDIC | | | 5/12/2 | <u>52</u> 1) | | | | |
|----------------------|--------------------------------------|----------------|------------------------------------|----------|---------------------------------|---------|---------------|----------|--------------|------------|----------|--|--|
| Scenario: | HYP 2045 | | Project Name: Ramona Gateway Comme | | | | | | | | | | |
| Road Name: | Morgan St. | | | | | Job N | lumber: | 13998 | | | | | |
| Road Segment: | e/o Nevada | Rd. | | | | | | | | | | | |
| SITE SP | ECIFIC IN | PUT DATA | | | | Ν | IOISE I | IODE | L INPUT | S | | | |
| Highway Data | | | | 5 | Site Con | ditions | (Hard = | 10, So | oft = 15) | | | | |
| Average Daily Tra | affic (Adt): | 3,429 vehicle | es | | Autos: 15 | | | | | | | | |
| Peak Hour Pe | ercentage: | 7.05% | | | Me | dium Tr | ucks (2 / | Axles): | 15 | | | | |
| Peak Hou | r Volume: | 242 vehicle | s | | He | avy Tru | cks (3+) | Axles): | 15 | | | | |
| Vehic | le Speed: | 45 mph | | 1 | /ehicle I | lix | | | | | | | |
| Near/Far Lane | Distance: | 56 feet | | | VehicleType Day Evening Night D | | | | | | | | |
| Site Data | | | | | Autos: 71.9% 12.2% 15.9% 91 | | | | | | | | |
| Barrio | er Heiaht: | 0.0 feet | | | Me | edium T | rucks: | 75.3% | 7.0% | 17.7% | 4.91% | | |
| Barrier Type (0-Wall | , 1-Berm): | 0.0 | | | ŀ | leavy T | rucks: | 60.4% | 12.0% | 27.6% | 3.51% | | |
| Centerline Dist. | to Barrier: | 47.0 feet | | | loise So | urco El | ovation | s (in fi | oof) | | | | |
| Centerline Dist. to | Observer: | 47.0 feet | | , | 10/30 00 | Auto | cruuon. | 000 | | | | | |
| Barrier Distance to | Observer: | 0.0 feet | | | Mediu | n Truck | s. 0. e 2 | 207 | | | | | |
| Observer Height (Ab | bserver Height (Above Pad): 5.0 feet | | | | | | с. 2. с. 8 | 104 | Grade Ad | iustment | · 0.0 | | |
| Pad | Pad Elevation: 0.0 feet | | | | | | 3. 0. | -00 | 0/000/10 | Juotinioni | 0.0 | | |
| Road | Elevation: | 0.0 feet | | L | ane Equ | iivalen | t Distan | ce (in i | feet) | | | | |
| Ro | ad Grade: | 0.0% | | | | Auto | s: 38. | 079 | | | | | |
| | Left View: | -90.0 degre | es | | Mediur | n Truck | s: 37. | 846 | | | | | |
| R | ight View: | 90.0 degre | es | | Heav | y Truck | s: 37. | 869 | | | | | |
| FHWA Noise Model | Calculations | 5 | | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite | Road | Fresr | iel | Barrier Att | en Bei | rm Atten | | |
| Autos: | 68.46 | -8.39 | | 1.67 | 7 | -1.20 | | -4.63 | 0.0 | 000 | 0.00 | | |
| Medium Trucks: | 79.45 | -21.10 | | 1.71 | 1 | -1.20 | | -4.87 | 0.0 | 000 | 0.00 | | |
| Heavy Trucks: | 84.25 | -22.56 | | 1.71 | 1 | -1.20 | | -5.46 | 0.0 | 000 | 0.00 | | |
| Unmitigated Noise L | evels (with | out Topo and | barri | er atten | uation) | | | | | | | | |
| VehicleType Le | eq Peak Hou | r Leq Day | / | Leq Ev | rening | Leq | Night | | Ldn | С | NEL | | |
| Autos: | 60 | .5 | 59.8 | | 58.2 | | 54.8 | 5 | 62. | 1 | 62. | | |
| Medium Trucks: | 58 | .9 | 58.4 | | 54.0 | | 53.3 | 3 | 60. | 7 | 61. | | |
| Heavy Trucks: | 62 | .2 | 60.7 | | 59.7 | | 58.6 | 6 | 65. | 3 | 65. | | |
| Vehicle Noise: | 65 | .5 | 64.5 | | 62.7 | | 60.9 |) | 67.9 | 9 | 68. | | |
| Centerline Distance | to Noise Co | ntour (in feet |) | | | - | | | - | | | | |
| | | | . L | 70 a | IBA | 65 | dBA | 6 | i0 dBA | 55 | dBA | | |
| | | - | Ldn: | | 34 | | 74 | | 159 | | 343 | | |
| | | 0 | NEL: | | 36 | | 78 | | 168 | | 361 | | |

Monday, February 28, 2022

| | FHWA-RD | 0-77-108 HIGHV | VAY NO | SE F | PREDIC | | IODEL (| 9/12/2 | 2021) | | | |
|----------------------------------|--|------------------|-----------|----------|------------------|------------------|---------------|-----------|--------------------|--------|-------|---------|
| Scenai Road Nan Road Segme | rio: E ne: Morgan St. nt: e/o Webste | | | | Project Job N | Name: lumber: | Ramo 13998 | na Gatewa | ay Co | mme | | |
| SITE | SPECIFIC IN | PUT DATA | | | | | IOISE I | NOD | EL INPUT | s | | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, S | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 4,314 vehicles | 5 | | | | | Autos | : 15 | | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tr | ucks (2) | Axles) | : 15 | | | |
| Peak H | our Volume: | 304 vehicles | | | He | avy Tru | cks (3+) | Axles) | : 15 | | | |
| Ve | hicle Speed: | 45 mph | | | ahiala I | Mise | | | | | | |
| Near/Far La | ne Distance: | 56 feet | | v | Veh | icle Type | | Dav | Evening | Nia | ht | Daily |
| Site Data | | | | + | ven | icie i ype | Autos: | 71 Q0 | 6 12.2% | 119 | 9% | 00 47% |
| one Data | | | | | М | edium T | nucks: | 75.39 | 6 12.270 6 7.0% | 17 | 7% | 5.56% |
| Ba Domion Trans (O.M | rrier Height: | 0.0 feet | | | | Heavy T | rucks: | 60.49 | 6 12.0% | 27 | 6% | 3.97% |
| Contorlino D | ist to Parrier: | 0.0 47.0 foot | | | | loary i | raono. | 00.17 | | 2. | .0 /0 | 0.0170 |
| Centerline Di | to Observer: | 47.0 feet | | N | oise So | ource E | levation | s (in f | 'eet) | | | |
| Barrier Distance | to Observer: | 47.0 feet | | | | Auto | s: 0. | 000 | | | | |
| Observer Height | Distance to Observer: 0.0 feet | | | | | m Truck | s: 2. | 297 | | | | |
| P | | | Heav | /y Truck | s: 8. | 004 | Grade A | djustn | nent: | 0.0 | | |
| , Ro | ad Elevation: | 0.0 feet | | L | ane Ea | uivalen | t Distan | ce (in | feet) | | | |
| | Road Grade: | 0.0% | | | | Auto | s: 38 | 079 | , | | | |
| | Left View | -90 0 degree | - | | Mediu | m Truck | s: 37 | 846 | | | | |
| | Right View: | 90.0 degrees | 5 | | Heav | /y Truck | s: 37. | 869 | | | | |
| FHWA Noise Mod | el Calculations | 5 | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distand | e | Finite | Road | Fresr | nel | Barrier A | ten | Bern | n Atten |
| Autos: | 68.46 | -7.44 | | 1.67 | | -1.20 | | -4.63 | 0 | .000 | | 0.000 |
| Medium Trucks: | 79.45 | -19.56 | | 1.71 | | -1.20 | | -4.87 | 0 | .000 | | 0.000 |
| Heavy Trucks: | 84.25 | -21.02 | | 1.71 | | -1.20 | | -5.46 | 0 | 000 | | 0.000 |
| Unmitigated Nois | e Levels (witho | out Topo and b | arrier at | tenu | ation) | | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | Lee | q Eve | ening | Leq | Night | | Ldn | | CN | IEL |
| Autos: | 61 | .5 6 | 0.8 | | 59.1 | | 55. | 5 | 63 | .1 | | 63.5 |
| Medium Trucks: | 60 | .4 5 | 9.9 | | 55.6 | | 54.8 | 3 | 62 | .3 | | 62.5 |
| Heavy Trucks: | 63 | .7 6 | 2.3 | | 61.3 | | 60.1 | 1 | 66 | .9 | | 67.2 |
| Vehicle Noise: | 66 | .9 6 | 5.9 | | 64.0 | | 62.3 | 3 | 69 | .3 | | 69.7 |
| Centerline Distan | ce to Noise Co | ntour (in feet) | | 70 / | | | | 1 | | - | | |
| | | | . 📖 | /U dl | BA | 65 | ава | | 60 aBA | _ | 55 0 | JBA |
| | | L | an: | | 42 | | 91 | | 19 | / - | | 424 |
| | | CN | EL: | | 45 | | 96 | | 20 | (| | 447 |

| | FHWA-RI | 0-77-108 HIGHW | AY NOISE | | | DEL (9/1 | 2/2021) | | | |
|----------------------------------|---|------------------|-------------|-----------|----------------------|----------------------|----------------|----------|--------|---------|
| Scenai Road Nan Road Segme | io: E+P ne: Morgan St. nt: e/o Webste | r Av. | | | Project N Job Nur | lame: Ra nber: 13 | mona Ga 998 | iteway C | Comme | 1 |
| SITE | SPECIFIC IN | IPUT DATA | | | NO | DISE MO | DEL IN | PUTS | | |
| Highway Data | | | | Site Con | ditions (H | lard = 10 |), Soft = : | 15) | | |
| Average Daily | Traffic (Adt): | 5,113 vehicles | | | | Au | tos: 1 | 5 | | |
| Peak Hour | Percentage: | 7.05% | | Me | dium Truc | ks (2 Axl | es): 1 | 5 | | |
| Peak H | lour Volume: | 360 vehicles | | He | avy Truck | s (3+ Axl | es): 1 | 5 | | |
| Ve | hicle Speed: | 45 mph | ŀ | Vehicle I | Mix | | | - | | |
| Near/Far La | ne Distance: | 56 feet | ŀ | Veh | icleType | Da | ay Eve | ning N | light | Daily |
| Site Data | | | | | Au | tos: 71 | .9% 12 | 2.2% 1 | 15.9% | 91.96% |
| Ba | rrier Height | 0.0 feet | | M | edium Tru | cks: 75 | 5.3% 7 | 7.0% 1 | 17.7% | 4.69% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | 1 | leavy Tru | <i>cks:</i> 60 |).4% 12 | 2.0% 2 | 27.6% | 3.35% |
| Centerline Di | st. to Barrier: | 47.0 feet | ŀ | Noise Sr | urco Flor | ations (| in foot) | | | |
| Centerline Dist. | to Observer: | 47.0 feet | ŀ | 10/30 00 | Autos: | 0.00 | 0 | | | |
| Barrier Distance | to Observer: | 0.0 feet | | Mediu | m Trucks | 2 29 | 7 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | Heav | v Trucks: | 8.00 | ⊿ Grao | de Adius | tment: | 0.0 |
| P | ad Elevation: | 0.0 feet | | mour | y maono. | 0.00 | | | | |
| Ro | ad Elevation: | 0.0 feet | - | Lane Eq | uivalent D | Distance | (in feet) | | | |
| | Road Grade: | 0.0% | | | Autos: | 38.07 | 9 | | | |
| | Left View: | -90.0 degrees | | Mediu | m Trucks: | 37.84 | 6 | | | |
| | Right View: | 90.0 degrees | | Heav | y Trucks: | 37.86 | 9 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distance | Finite | Road | Fresnel | Barri | er Atten | Berr | m Atten |
| Autos: | 68.46 | -6.63 | 1.6 | 67 | -1.20 | -4 | .63 | 0.000 |) | 0.000 |
| Medium Trucks: | 79.45 | -19.56 | 1.7 | 71 | -1.20 | -4 | .87 | 0.000 |) | 0.000 |
| Heavy Trucks: | 84.25 | -21.02 | 1.7 | '1 | -1.20 | -5 | .46 | 0.000 |) | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and ba | rrier atter | nuation) | | | | | | |
| VehicleType | Leq Peak Hou | Ir Leq Day | Leq E | vening | Leq Ni | ight | Ldn | | CI | VEL |
| Autos: | 62 | .3 61. | .6 | 59.9 | | 56.3 | | 63.9 | | 64.3 |
| Medium Trucks: | 60 | .4 59. | .9 | 55.6 | | 54.8 | | 62.3 | | 62.5 |
| Heavy Trucks: | 63 | .7 62. | .3 | 61.3 | | 60.1 | | 66.9 | | 67.2 |
| Vehicle Noise: | 67 | .1 66. | .1 | 64.3 | | 62.5 | | 69.5 | | 69.9 |
| Centerline Distan | ce to Noise Co | ontour (in feet) | | | | | | | | - |
| - | | | 70 | dBA | 65 dE | BA | 60 dB | A | 55 | dBA |
| | | Ldi | n: | 44 | | 94 | | 203 | | 438 |
| | | CNE | L: | 46 | | 99 | | 214 | | 461 |
| | | | | | | | | | | |

| | FHWA-RI | D-77-108 HIGH | IWAY NO | | PREDIC | | ODEL | (9/12/2 | 2021) | | | |
|------------------------------------|--|-----------------|---|-----------|-------------------------------|-----------|---------|---------|-------------|---------|-----------|--|
| Scenari Road Nam Road Segmer | io: EAC 2024 le: Morgan St. nt: e/o Webste | | Project Name: Ramona Gateway Comme Job Number: 13998 | | | | | | | | | |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | MODI | EL INPUT | S | | |
| Highway Data | | | | S | ite Cond | ditions (| (Hard = | : 10, S | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 4,861 vehicl | es | | | | | Autos | : 15 | | | |
| Peak Hour | Percentage: | 7.05% | | | Med | dium Tru | icks (2 | Axles) | : 15 | | | |
| Peak H | lour Volume: | 343 vehicle | s | | Hea | avy Truc | cks (3+ | Axles) | : 15 | | | |
| Ve | hicle Speed: | 45 mph | | V | ehicle II | liv | | | | | | |
| Near/Far La | ne Distance: | 56 feet | | F | Vehi | cleTvpe | | Dav | Evenina | Niaht | Daily | |
| Site Data | | | | | Autos: 71.9% 12.2% 15.9% 90.4 | | | | | | | |
| Bai | rrier Height | 0.0 feet | | | Me | dium Tr | ucks: | 75.3% | 6 7.0% | 17.7 | % 5.56% | |
| Barrier Type (0-W | all_1-Berm): | 0.0 | | | h | leavy Tr | ucks: | 60.49 | 6 12.0% | 27.6 | % 3.97% | |
| Centerline Dis | st. to Barrier: | 47.0 feet | | | laisa Sa | urco Ek | ovation | e (in f | ioot) | | | |
| Centerline Dist. | to Observer: | 47.0 feet | | N | oise so | Autor | | 000 | eel) | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediun | n Trucks | s. 0 | 207 | | | | |
| Observer Height (| Observer Height (Above Pad): 5.0 feet | | | | | v Trucks | s. 2 | 004 | Grade Ad | liustme | nt: 0.0 | |
| Pa | Pad Elevation: 0.0 feet | | | | | | . 0 | | | , | | |
| Roa | ad Elevation: | 0.0 feet | | L | ane Equ | ivalent | Distan | ce (in | feet) | | | |
| / | Road Grade: | 0.0% | | | | Autos | s: 38 | .079 | | | | |
| | Left View: | -90.0 degre | es | | Mediun | n Trucks | s: 37 | .846 | | | | |
| | Right View: | 90.0 degre | es | | Heav | y Trucks | s: 37 | .869 | | | | |
| FHWA Noise Mode | el Calculation | s | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | псе | Finite I | Road | Fres | nel | Barrier Att | ten B | erm Atten | |
| Autos: | 68.46 | -6.93 | | 1.67 | | -1.20 | | -4.63 | 0. | 000 | 0.000 | |
| Medium Trucks: | 79.45 | -19.04 | | 1.71 | | -1.20 | | -4.87 | 0. | 000 | 0.000 | |
| Heavy Trucks: | 84.25 | -20.50 | | 1.71 | | -1.20 | | -5.46 | 0. | 000 | 0.000 | |
| Unmitigated Noise | e Levels (with | out Topo and | barrier a | attenu | ation) | | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Daj | V L | eq Ev | ening | Leq | Night | | Ldn | | CNEL | |
| Autos: | 62 | 2.0 | 61.3 | | 59.6 | | 56. | 0 | 63. | 6 | 64.0 | |
| Medium Trucks: | 60 |).9 | 60.4 | | 56.1 | | 55. | 4 | 62. | 8 | 63.0 | |
| Heavy Trucks: | 64 | 1.3 | 62.8 | | 61.8 | | 60. | 6 | 67. | 4 | 67.7 | |
| Vehicle Noise: | 67 | .4 | 66.4 | | 64.5 | | 62. | 8 | 69. | 9 | 70.2 | |
| Centerline Distance | ce to Noise Co | ontour (in feet | 9 | | | | | | | | | |
| | | | | 70 d | BA | 65 0 | dBA | | 60 dBA | 5 | 55 dBA | |
| | | | Ldn: | 46 99 213 | | | 460 | | | | | |
| | CNEL: | | | | 48 104 224 483 | | | | | | 483 | |

| | | | | Noioe | TILEBIO | | ODEE | (| •= •) | | | | | |
|----------------------|--------------------------------------|-----------------|------------------------------------|-----------|--------------------------------------|-----------------|--------------------------|---------|-------------|------------|----------|--|--|--|
| Scenario: | EAPC 2024 | | Project Name: Ramona Gateway Comme | | | | | | | | | | | |
| Road Name: | Morgan St. | | | | | Job N | lumber: | 13998 | | | | | | |
| Road Segment: | e/o Webste | r Av. | | | | | | | | | | | | |
| SITE SF | ECIFIC IN | PUT DATA | | | | N | IOISE | MODE | L INPUT | S | | | | |
| Highway Data | | | | 5 | Site Con | ditions | (Hard = | = 10, S | oft = 15) | | | | | |
| Average Daily Tra | affic (Adt): | 5,660 vehicle | es | | Autos: 15 | | | | | | | | | |
| Peak Hour Pe | ercentage: | 7.05% | | | Medium Trucks (2 Axles): 15 | | | | | | | | | |
| Peak Hou | r Volume: | 399 vehicle | s | | Heavy Trucks (3+ Axles): 15 | | | | | | | | | |
| Vehic | le Speed: | 45 mph | | 1 | /ehicle I | <i>lix</i> | | | | | | | | |
| Near/Far Lane | Distance: | 56 feet | | | Veh | cleType | 2 | Day | Evening | Night | Daily | | | |
| Site Data | | | | | | | Autos: | 71.9% | 6 12.2% | 15.9% | 91.82% | | | |
| Barrie | er Heiaht: | 0.0 feet | | | Medium Trucks: 75.3% 7.0% 17.7% 4.7 | | | | | | | | | |
| Barrier Type (0-Wall | , 1-Berm): | 0.0 | | | Heavy Trucks: 60.4% 12.0% 27.6% 3.41 | | | | | | | | | |
| Centerline Dist. | to Barrier: | 47.0 feet | | | laina Ca | uree E | ovetier | o (in f | not) | | | | | |
| Centerline Dist. to | Observer: | 47.0 feet | | , | ioise sc | Auto | evalion | 000 | eel) | | | | | |
| Barrier Distance to | Observer: | 0.0 feet | | | Modiu | AULO n Truck | s. U | 207 | | | | | | |
| Observer Height (Ab | bserver Height (Above Pad): 5.0 feet | | | | | v Truck | з. 2 е [.] Я | 004 | Grade Ad | liustment | · 0.0 | | | |
| Pad | Pad Elevation: 0.0 feet | | | | | | 3. 0 | .004 | 0/000/10 | Juotinioni | 0.0 | | | |
| Road | Elevation: | 0.0 feet | | L | ane Eq | uivalen | t Distan | ce (in | feet) | | | | | |
| Ro | ad Grade: | 0.0% | | | | Auto | s: 38 | .079 | | | | | | |
| | Left View: | -90.0 degree | es | | Mediui | n Truck | s: 37 | .846 | | | | | | |
| R | light View: | 90.0 degre | es | | Heav | y Truck | s: 37 | .869 | | | | | | |
| FHWA Noise Model | Calculation | s | | | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Di | stance | Finite | Road | Fres | nel | Barrier Att | en Bei | rm Atten | | | |
| Autos: | 68.46 | -6.20 | | 1.67 | 7 | -1.20 | | -4.63 | 0. | 000 | 0.00 | | | |
| Medium Trucks: | 79.45 | -19.04 | | 1.71 | 1 | -1.20 | | -4.87 | 0. | 000 | 0.00 | | | |
| Heavy Trucks: | 84.25 | -20.50 | | 1.71 | 1 | -1.20 | | -5.46 | 0. | 000 | 0.00 | | | |
| Unmitigated Noise L | evels (with | out Topo and | barri | ier atten | uation) | | | | | | | | | |
| VehicleType Le | eq Peak Hou | r Leq Day | / | Leg Ev | rening | Leq | Night | | Ldn | С | NEL | | | |
| Autos: | 62 | .7 | 62.0 | | 60.4 | | 56. | 7 | 64. | 3 | 64. | | | |
| Medium Trucks: | 60 | .9 | 60.4 | | 56.1 | | 55. | 4 | 62. | 8 | 63. | | | |
| Heavy Trucks: | 64 | .3 | 62.8 | | 61.8 | | 60. | 6 | 67. | 4 | 67. | | | |
| Vehicle Noise: | 67 | .6 | 66.6 | | 64.8 | | 63. | 0 | 70. | 0 | 70.4 | | | |
| Centerline Distance | to Noise Co | ontour (in feet |) | | | | | | | | | | | |
| | | | L | 70 c | IBA | 65 | aBA | | bU dBA | 55 | aBA | | | |
| | | ~ | Lan: | | 47 | | 102 | 2 | 219 | 9 | 473 | | | |
| | | C | NEL: | | 50 | | 107 | (| 231 | | 498 | | | |

Monday, February 28, 2022

| | FHWA-RD | -77-108 HIGHV | VAY NC | ISE | PREDIC | | IODEL (| 9/12/2 | :021) | | | |
|------------------------------------|--|-----------------|----------|---------|------------------|------------------|-------------------|----------|-----------|------|------|---------|
| Scenari Road Nam Road Segmer | o: HY 2045 e: Morgan St. nt: e/o Webster | | | | Project Job N | Name: lumber: | Ramo 13998 | na Gatew | ay Co | omme | | |
| SITE | SPECIFIC IN | PUT DATA | | | | N | IOISE I | NOD | EL INPU | rs | | |
| Highway Data | | | | S | Site Con | ditions | (Hard = | 10, S | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 6,957 vehicles | | | | | | Autos | : 15 | | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tr | ucks (2) | Axles) | : 15 | | | |
| Peak H | our Volume: | 490 vehicles | | | He | avy Tru | cks (3+) | Axles) | : 15 | | | |
| Vei | hicle Speed: | 45 mph | | | (obiolo l | Mix | | | | | | |
| Near/Far Lai | ne Distance: | 56 feet | | | Veh | | | Dev | Evening | A.I. | wht | Deilu |
| Site Data | | | | - | ven | icie i ype | Autos | 71 Q0 | 6 12 2% | 11 | 5 9% | 00 47% |
| one bata | | | | | M | , edium T | nucks: | 75.39 | 6 7.0% | 1 | 7.7% | 5 56% |
| Bar | rier Height: | 0.0 feet | | | | Heavy T | rucke: | 60.49 | 6 12.0% | 2 | 7.6% | 3 97% |
| Barner Type (0-W | all, 1-Berm): | 0.0 | | | | icavy n | ucho. | 00.47 | 0 12.07 | | .070 | 0.0770 |
| Centerline Dis | to Deserver: | 47.0 feet | | ۸ | loise So | ource El | evation | s (in f | eet) | | | |
| Berrier Distance | to Observer. | 47.0 feet | | | | Auto | s: 0. | 000 | | | | |
| Observer Height (| Denver Height (Above Pad): 5.0 feet | | | | | m Truck | s: 2. | 297 | | | | |
| Observer Height (. | | | Heav | y Truck | s: 8. | 004 | Grade A | djusti | ment: | 0.0 | | |
| Fa | d Elevation. | 0.0 feet | | 1 | ano Ea | uivalon | Dietan | co (in | foot) | | | |
| RUe | a Elevation. | 0.0 reet | | - | une Ly | Auto | c: 29 | 070 | 1000 | | | |
| 1 | Loft View: | 0.0% | | | Mediu | m Truck | e [.] 27 | 946 | | | | |
| | Right View: | 90.0 degrees | • | | Heav | ry Truck | s: 37. | 869 | | | | |
| FHWA Noise Mode | l Calculations | ; | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite | Road | Fresr | nel | Barrier A | tten | Berr | n Atten |
| Autos: | 68.46 | -5.37 | | 1.67 | 7 | -1.20 | | -4.63 | 0 | .000 | | 0.000 |
| Medium Trucks: | 79.45 | -17.49 | | 1.71 | 1 | -1.20 | | -4.87 | 0 | .000 | | 0.000 |
| Heavy Trucks: | 84.25 | -18.94 | | 1.71 | I | -1.20 | | -5.46 | 0 | .000 | | 0.000 |
| Unmitigated Noise | Levels (witho | out Topo and b | arrier a | ttenı | uation) | | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | Le | eq Ev | rening | Leq | Night | | Ldn | | C٨ | IEL |
| Autos: | 63. | .6 6 | 2.9 | | 61.2 | | 57.6 | 6 | 65 | .1 | | 65.6 |
| Medium Trucks: | 62. | 5 6 | 2.0 | | 57.7 | | 56.9 | Э | 64 | .3 | | 64.6 |
| Heavy Trucks: | 65. | .8 6 | 4.4 | | 63.3 | | 62.2 | 2 | 69 | .0 | | 69.3 |
| Vehicle Noise: | 69. | .0 6 | 7.9 | | 66.1 | | 64.4 | 4 | 71 | .4 | | 71.7 |
| Centerline Distanc | e to Noise Co | ntour (in feet) | | | | | | | | | | |
| | | | | 70 d | IBA | 65 | dBA | | 60 dBA | | 55 (| dBA |
| | | L | dn: | | 58 | | 126 | | 27 | 1 | | 584 |
| | | CN | EL: | | 61 | | 132 | | 28 | 5 | | 614 |

| | FHWA-RD | 0-77-108 HIGHWA | Y NOISE | E PREDIC | TION MC | DDEL (S | 9/12/2 | 021) | | | |
|----------------------------------|---|-------------------|------------|------------------------------|---------------------|--------------------|----------------|--------------|--------|----------|--|
| Scenai Road Nan Road Segme | rio: HYP 2045 ne: Morgan St. nt: e/o Webste | r Av. | | | Project N Job Nu | Vame: F mber: 1 | Ramoi 13998 | na Gateway | / Comm | e | |
| SITE | SPECIFIC IN | PUT DATA | | | N | DISE N | IODE | L INPUTS | 5 | | |
| Highway Data | | | | Site Con | ditions (I | Hard = | 10, So | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 7,757 vehicles | | | | | Autos: | 15 | | | |
| Peak Hour | Percentage: | 7.05% | | Me | dium Truc | cks (2 A | Axles): | 15 | | | |
| Peak H | lour Volume: | 547 vehicles | | He | avy Truck | ks (3+ A | (xles) | 15 | | | |
| Ve | ehicle Speed: | 45 mph | ŀ | Vehicle I | Mix | | | | | | |
| Near/Far La | ane Distance: | 56 feet | - | Veh | icleTvpe | | Dav | Evenina | Niaht | Dailv | |
| Site Data | | | | Autos: 71.9% 12.2% 15.9% 91. | | | | | | | |
| Ba | rrier Height | 0.0 feet | | M | edium Tru | icks: | 75.3% | 7.0% | 17.7% | 4.98% | |
| Barrier Type (0-V | Vall, 1-Berm): | 0.0 | | 1 | Heavy Tru | icks: | 60.4% | 12.0% | 27.6% | 3.56% | |
| Centerline D | ist. to Barrier: | 47.0 feet | ŀ | Noise So | ource Ele | vations | s (in fe | eet) | | | |
| Centerline Dist. | to Observer: | 47.0 feet | ŀ | | Autos | 0.0 | 000 | | | | |
| Barrier Distance | to Observer: | | Mediu | m Trucks | 2.2 | 297 | | | | | |
| Observer Height | (Above Pad): | | Heav | v Trucks: | 8.0 | 004 | Grade Adj | ustment | : 0.0 | | |
| P | ad Elevation: | 0.0 feet | - | | | | | | | | |
| Ro | ad Elevation: | 0.0 feet | - | Lane Eq | uivalent l | Distanc | e (in i | teet) | | | |
| | Road Grade: | 0.0% | | | Autos: | 38.0 | 079 | | | | |
| | Left View: | -90.0 degrees | | Mediu | m Trucks: | 37.8 | 846 | | | | |
| | Right View: | 90.0 degrees | | Heav | y Trucks: | 37.8 | 869 | | | | |
| FHWA Noise Mod | el Calculation | S | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow D | listance | Finite | Road | Fresn | el | Barrier Atte | en Bei | rm Atten | |
| Autos: | 68.46 | -4.85 | 1.6 | 67 | -1.20 | | -4.63 | 0.0 | 00 | 0.000 | |
| Medium Trucks: | 79.45 | -17.49 | 1.7 | 1 | -1.20 | | -4.87 | 0.0 | 00 | 0.000 | |
| Heavy Trucks: | 84.25 | -18.94 | 1.7 | '1 | -1.20 | | -5.46 | 0.0 | 00 | 0.000 | |
| Unmitigated Nois | e Levels (with | out Topo and barr | rier atter | nuation) | | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | Leq E | vening | Leq N | light | | Ldn | С | NEL | |
| Autos: | 64 | .1 63.4 | Ļ | 61.7 | | 58.1 | | 65.7 | | 66.1 | |
| Medium Trucks: | 62 | .5 62.0 |) | 57.7 | | 56.9 |) | 64.3 | 5 | 64.6 | |
| Heavy Trucks: | 65 | .8 64.4 | ļ | 63.3 | | 62.2 | | 69.0 |) | 69.3 | |
| Vehicle Noise: | 69 | .1 68.1 | | 66.3 | | 64.5 | | 71.5 | 5 | 71.9 | |
| Centerline Distan | ce to Noise Co | ontour (in feet) | | | | | | | | | |
| | | | 70 | dBA | 65 di | BA | 6 | 60 dBA | 55 | dBA | |
| | | Ldn: | : | 60 128 276 | | | 595 | | | | |
| | CNEL: | | | | | 135 | | 291 | | 627 | |

| | FHWA-RI | D-77-108 HIGH | IWAY NO | DISE F | PREDIC | TION MO | ODEL (| 9/12/20 | 021) | | |
|----------------------------------|--|-----------------|-----------|--------|----------|---------------------|---------------------|----------------|-------------|----------|---------|
| Scenar Road Nan Road Segme | rio: E ne: Morgan St. nt: e/o Indian / | Av. | | | | Project I Job Ni | Name: I Imber: ' | Ramor 13998 | na Gatewa | y Comm | e |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE N | IODE | L INPUT | S | |
| Highway Data | | | | S | ite Con | ditions (| Hard = | 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 2,200 vehicl | es | | | | , | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tru | cks (2 A | Axles): | 15 | | |
| Peak H | lour Volume: | 155 vehicle | s | | He | avy Truc | ks (3+ A | Axles): | 15 | | |
| Ve | ehicle Speed: | 45 mph | | V | ohiclo I | Mix | | | | | |
| Near/Far La | ne Distance: | 56 feet | | | Veh | icleTvne | | Dav | Evenina | Niaht | Daily |
| Site Data | | | | | | A | utos: | 71.9% | 12.2% | 15.9% | 90.47% |
| Ba | rrier Height | 0.0 feet | | | М | edium Tru | ucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Barrier Type (0-V | Vall. 1-Berm): | 0.0 | | | 1 | Heavy Tru | ucks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline D | ist. to Barrier: | 47.0 feet | | N | | uree Ele | votion | n lin fa | a fl | | |
| Centerline Dist. | to Observer: | 47.0 feet | | 14 | uise sc | Autoo | vauon | | el) | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Madiu | Autos Trucko | . 0. | 207 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | | Hoo | II TIUCKS | . 2. | 297 | Grade Ad | iuctmont | |
| P | ad Elevation: | 0.0 feet | | | neav | y mucks | . 0. | 504 | Orade Auj | usuncin | . 0.0 |
| Ro | ad Elevation: | 0.0 feet | | Li | ane Eq | uivalent | Distand | ce (in f | feet) | | |
| | Road Grade: | 0.0% | | | | Autos | 38. | 079 | | | |
| | Left View: | -90.0 degre | es | | Mediu | m Trucks | 37. | 846 | | | |
| | Right View: | 90.0 degre | es | | Heav | ry Trucks | 37. | 869 | | | |
| FHWA Noise Mod | el Calculation | s | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distar | nce | Finite | Road | Fresn | el | Barrier Att | en Ber | m Atten |
| Autos: | 68.46 | -10.37 | | 1.67 | | -1.20 | | -4.63 | 0.0 | 000 | 0.000 |
| Medium Trucks: | 79.45 | -22.49 | | 1.71 | | -1.20 | | -4.87 | 0.0 | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -23.95 | | 1.71 | | -1.20 | | -5.46 | 0.0 | 000 | 0.000 |
| Unmitigated Nois | e Levels (with | out Topo and | barrier a | ttenu | ation) | | | | | | |
| VehicleType | Leq Peak Hou | ur Leq Da | / L | eq Eve | ening | Leq N | Vight | | Ldn | C | NEL |
| Autos: | 58 | 3.6 | 57.9 | | 56.2 | | 52.6 | 6 | 60.1 | 1 | 60.6 |
| Medium Trucks: | 57 | .5 | 57.0 | | 52.7 | | 51.9 |) | 59.3 | 3 | 59.6 |
| Heavy Trucks: | 60 |).8 | 59.4 | | 58.3 | | 57.2 | 2 | 64.0 |) | 64.3 |
| Vehicle Noise: | 64 | 1.0 | 62.9 | | 61.1 | | 59.4 | Ļ | 66.4 | 1 | 66.7 |
| Centerline Distan | ce to Noise Co | ontour (in feet |) | | | | | | | | |
| | | | | 70 dE | ЗA | 65 d | IBA | 6 | i0 dBA | 55 | dBA |
| | | - | Ldn: | | 27 | | 58 | | 126 | | 271 |
| | | С | NEL: | | 28 | | 61 | | 132 | | 285 |

| Scenario: | E+P | | | | | Project | Name: | Ramo | na Gatewa | y Comm | е |
|---------------------|--------------|----------------|-------|----------|-----------|---------|-----------|---------|-------------|----------|----------|
| Road Name: | Morgan St. | | | | | Job N | lumber: | 13998 | | | |
| Road Segment: | e/o Indian A | ν. | | | | | | | | | |
| SITE SI | PECIFIC IN | PUT DATA | | | | 1 | IOISE | NODE | L INPUT | S | |
| Highway Data | | | | | Site Cond | ditions | (Hard = | 10, So | oft = 15) | | |
| Average Daily Tr | affic (Adt): | 2,599 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour Pe | ercentage: | 7.05% | | | Med | dium Tr | ucks (2 | Axles): | 15 | | |
| Peak Hou | ır Volume: | 183 vehicle | 5 | | Hea | avy Tru | cks (3+ . | Axles): | 15 | | |
| Vehi | cle Speed: | 45 mph | | | Vehicle N | lix | | | | | |
| Near/Far Lane | Distance: | 56 feet | | | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 5 12.2% | 15.9% | 91.949 |
| Barri | er Heiaht: | 0.0 feet | | | Me | dium T | rucks: | 75.3% | 5.0% | 17.7% | 4.70% |
| Barrier Type (0-Wal | l, 1-Berm): | 0.0 | | | H | leavy T | rucks: | 60.4% | 5 12.0% | 27.6% | 3.369 |
| Centerline Dist. | to Barrier: | 47.0 feet | | | Noise So | urce E | levation | s (in f | eet) | | |
| Centerline Dist. to | Observer: | 47.0 feet | | | | Auto | s' 0 | 000 | | | |
| Barrier Distance to | Observer: | 0.0 feet | | | Mediun | n Truck | s: 2 | 297 | | | |
| Observer Height (Al | oove Pad): | 5.0 feet | | | Heav | v Truck | s: 8. | 004 | Grade Ad | justment | : 0.0 |
| Pad | Elevation: | 0.0 feet | | | | | | | | · | |
| Road | Elevation: | 0.0 feet | | | Lane Equ | iivalen | t Distan | ce (in | feet) | | |
| Ro | ad Grade: | 0.0% | | | | Auto | s: 38 | 079 | | | |
| | Left View: | -90.0 degree | es | | Mediun | n Truck | s: 37 | 846 | | | |
| F | Right View: | 90.0 degre | es | | Heav | y Truck | s: 37 | 869 | | | |
| FHWA Noise Model | Calculations | ; | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Di | stance | Finite | Road | Fresi | nel | Barrier Att | en Bei | rm Atten |
| Autos: | 68.46 | -9.57 | | 1.6 | 67 | -1.20 | | -4.63 | 0.0 | 000 | 0.00 |
| Medium Trucks: | 79.45 | -22.49 | | 1.7 | 71 | -1.20 | | -4.87 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 84.25 | -23.95 | | 1.7 | 71 | -1.20 | | -5.46 | 0.0 | 000 | 0.00 |
| Unmitigated Noise L | evels (witho | out Topo and | barri | er attei | nuation) | | | | | | |
| VehicleType L | eq Peak Hou | r Leq Day | r - | Leq E | vening | Leq | Night | | Ldn | С | NEL |
| Autos: | 59. | .4 | 58.7 | | 57.0 | | 53. | 3 | 60. | 9 | 61. |
| Medium Trucks: | 57. | .5 | 57.0 | | 52.7 | | 51. | Э | 59.3 | 3 | 59. |
| Heavy Trucks: | 60. | .8 | 59.4 | | 58.3 | | 57.: | 2 | 64. | 0 | 64. |
| Vehicle Noise: | 64. | .2 | 63.2 | | 61.4 | | 59. | 5 | 66. | 6 | 66. |
| Centerline Distance | to Noise Co | ntour (in feet |) | | | | | | | | |
| | | | | 70 | dBA | 65 | dBA | | 60 dBA | 55 | dBA |
| | | | Ldn: | | 28 | | 60 | | 130 |) | 279 |
| | | ~ | | | | | | | 107 | | 00. |

Monday, February 28, 2022

| | FHWA-RD |)-77-108 HIGH | WAY NO | ISE | PREDIC | | IODEL (| 9/12/2 | 021) | | | |
|----------------------------------|--|-----------------|-----------|-------|----------|------------------|--------------------|---------------|-----------|--------|-------|---------|
| Scenar Road Nam Road Segme | io: EAC 2024 ne: Morgan St. nt: e/o Indian A | w. | | | | Project Job N | t Name: lumber: | Ramo 13998 | na Gatev | vay C | omme | : |
| SITE | SPECIFIC IN | PUT DATA | | | | | NOISE I | NODE | EL INPU | TS | | |
| Highway Data | | | | S | ite Con | ditions | (Hard = | 10, S | oft = 15) | | | |
| Average Daily | Traffic (Adt): | 2,556 vehicle | s | | | | | Autos. | 15 | | | |
| Peak Hour | Percentage: | 7.05% | | | Me | dium Tr | ucks (2 / | Axles). | 15 | | | |
| Peak H | lour Volume: | 180 vehicles | ; | | He | avy Tru | cks (3+ / | Axles). | 15 | | | |
| Ve | hicle Speed: | 45 mph | | v | ahicle l | Mix | | | | | | |
| Near/Far La | ne Distance: | 56 feet | | | Veh | icleType | 9 | Day | Evenin | g N | ight | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 6 12.2 | % 1 | 5.9% | 90.47% |
| Ba | rrier Heiaht: | 0.0 feet | | | M | edium T | rucks: | 75.3% | 6 7.0 | % 1 | 7.7% | 5.56% |
| Barrier Type (0-W | /all, 1-Berm): | 0.0 | | | 1 | Heavy T | rucks: | 60.4% | 6 12.0 | % 2 | 7.6% | 3.97% |
| Centerline Di | st. to Barrier: | 47.0 feet | | Λ | loise Sc | ource E | levation | s (in f | eet) | | | |
| Centerline Dist. | to Observer: | 47.0 feet | | | | Auto | s: 0 | 000 | | | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Mediu | m Truck | s 2 | 297 | | | | |
| Observer Height (| (Above Pad): | 5.0 feet | | | Heav | v Truck | is: 8 | 004 | Grade | Adiust | ment: | 0.0 |
| Pa | ad Elevation: | 0.0 feet | | | 71001 | <i>y m</i> aon | 0. 0. | | | | | |
| Roa | ad Elevation: | 0.0 feet | | L | ane Eq | uivalen | t Distan | ce (in | feet) | | | |
| 1 | Road Grade: | 0.0% | | | | Auto | s: 38. | 079 | | | | |
| | Left View: | -90.0 degree | s | | Mediu | m Truck | s: 37. | 846 | | | | |
| | Right View: | 90.0 degree | S | | Heav | ry Truck | :s: 37. | 869 | | | | |
| FHWA Noise Mode | el Calculation: | 5 | | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distan | се | Finite | Road | Fresr | nel | Barrier / | Atten | Ben | n Atten |
| Autos: | 68.46 | -9.72 | | 1.67 | , | -1.20 | | -4.63 | | 0.000 | | 0.000 |
| Medium Trucks: | 79.45 | -21.83 | | 1.71 | | -1.20 | | -4.87 | | 0.000 | | 0.000 |
| Heavy Trucks: | 84.25 | -23.29 | | 1.71 | | -1.20 | | -5.46 | | 0.000 | | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo and | barrier a | ttenı | uation) | | | | | | | |
| VehicleType | Leq Peak Hou | r Leq Day | Le | q Ev | ening | Leq | Night | | Ldn | | CI | IEL |
| Autos: | 59 | .2 | 58.5 | | 56.8 | | 53.2 | 2 | 6 | 0.8 | | 61.2 |
| Medium Trucks: | 58 | .1 | 57.6 | | 53.3 | | 52.6 | 3 | 6 | 0.0 | | 60.2 |
| Heavy Trucks: | 61 | .5 | 60.0 | | 59.0 | | 57.9 | 9 | 6 | 4.6 | | 64.9 |
| Vehicle Noise: | 64 | .6 | 63.6 | | 61.7 | | 60.0 |) | 6 | 7.1 | | 67.4 |
| Centerline Distance | ce to Noise Co | ntour (in feet) | | | | | | | | | | |
| | | | | 70 d | BA | 65 | dBA | 1 | 60 dBA | | 55 | dBA |
| | | | Ldn: | | 30 | | 65 | | 1 | 39 | | 299 |
| | | CI | IEL: | | 32 | | 68 | | 1 | 46 | | 315 |

| | FHWA-RI | D-77-108 HIGH | WAYN | NOISE | PREDIC | | ODEL | (9/12/2 | 021) | | |
|----------------------------------|---|------------------|---------|----------|----------|------------------|-----------------|----------------|-------------|----------|-----------|
| Scenar Road Nam Road Segme | io: EAPC 2024 ne: Morgan St. nt: e/o Indian A | Av. | | | | Project Job N | Name: umber: | Ramor 13998 | na Gatewa | y Comn | ne |
| SITE | SPECIFIC IN | IPUT DATA | | | | N | OISE | MODE | | S | |
| Highway Data | | | | S | ite Cond | ditions | (Hard = | = 10, So | oft = 15) | | |
| Average Daily | Traffic (Adt): | 2,956 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | | Med | dium Tru | icks (2 | Axles): | 15 | | |
| Peak H | lour Volume: | 208 vehicles | S | | Hea | avy Truc | :ks (3+ | Axles): | 15 | | |
| Ve | hicle Speed: | 45 mph | | v | ehicle N | lix | | | | | |
| Near/Far La | ne Distance: | 56 feet | | F | Vehi | cleTvpe | | Dav | Evenina | Niaht | Dailv |
| Site Data | | | | | | A | lutos: | 71.9% | 12.2% | 15.99 | 6 91.76% |
| Ba | rrior Hoight: | 0.0 feet | | | Me | dium Tr | ucks: | 75.3% | 7.0% | 17.79 | 6 4.80% |
| Barrier Type (0-W | (all. 1-Berm): | 0.0 | | | H | leavy Tr | ucks: | 60.4% | 12.0% | 27.6% | 6 3.43% |
| Centerline Di | st. to Barrier: | 47.0 feet | | | laina Ca | uree El | ovetier | in fin fi | n of l | | |
| Centerline Dist. | to Observer: | 47.0 feet | | ~ | ioise 30 | Autor | evauor | | el) | | |
| Barrier Distance | to Observer: | 0.0 feet | | | Madium | Autos | s. U | 207 | | | |
| Observer Height (| Above Pad): | 5.0 feet | | | Heav | v Trucks | s. 2 | .291 | Grade Ad | liustmer | nt: 0.0 |
| Pa | ad Elevation: | 0.0 feet | | | neav. | y mucks | s. o | .004 | 0/000/10 | jaounioi | |
| Roa | ad Elevation: | 0.0 feet | | L | ane Equ | iivalent | Distan | ce (in | feet) | | |
| | Road Grade: | 0.0% | | | | Autos | s: 38 | .079 | | | |
| | Left View: | -90.0 degree | es | | Mediun | n Trucks | s: 37 | .846 | | | |
| | Right View: | 90.0 degree | es | | Heav | y Trucks | 5: 37 | .869 | | | |
| FHWA Noise Mode | el Calculation | s | | l | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dista | ance | Finite | Road | Fres | nel | Barrier Att | ten Be | erm Atten |
| Autos: | 68.46 | -9.02 | | 1.67 | 7 | -1.20 | | -4.63 | 0. | 000 | 0.000 |
| Medium Trucks: | 79.45 | -21.83 | | 1.71 | | -1.20 | | -4.87 | 0. | 000 | 0.000 |
| Heavy Trucks: | 84.25 | -23.29 | | 1.71 | | -1.20 | | -5.46 | 0. | 000 | 0.000 |
| Unmitigated Noise | e Levels (with | out Topo and | barrier | r atteni | uation) | | | | | | |
| VehicleType | Leq Peak Hou | ir Leq Day | · . | Leq Ev | rening | Leq | Night | | Ldn | (| CNEL |
| Autos: | 59 | .9 | 59.2 | | 57.5 | | 53. | 9 | 61. | 5 | 61.9 |
| Medium Trucks: | 58 | - | 57.6 | | 53.3 | | 52. | 6 | 60. | 0 | 60.2 |
| Heavy Trucks: | 61 | .5 | 60.0 | | 59.0 | | 57. | 9 | 64. | 6 | 64.9 |
| Vehicle Noise: | 64 | .8 | 63.8 | | 62.0 | | 60. | 2 | 67. | 2 | 67.6 |
| Centerline Distant | ce to Noise Co | ontour (in feet, |) | | | | | _ | | | |
| | | | L | 70 d | BA | 65 (| dBA | 6 | 60 dBA | 5 | 5 dBA |
| | | | Ldn: | | 31 | | 66 | 6 | 143 | 3 | 307 |
| | | CI | NEL: | | 32 | | 70 |) | 150 |) | 324 |

| | FHWA-RD- | 77-108 HIGHW | AY NOIS | E PREDIC | TION M | ODEL (9 | /12/2 | 021) | | |
|----------------------------------|--|-----------------|-------------|-----------|------------------|---------------------|---------------|--------------|---------|----------|
| Scenar Road Nan Road Segme | io: HY 2045 ne: Morgan St. nt: e/o Indian Av | <i>I</i> . | | | Project Job N | Name: F umber: 1 | Ramor 3998 | na Gateway | Comm | e |
| SITE | SPECIFIC INF | PUT DATA | | | N | OISE N | IODE | L INPUTS | 6 | |
| Highway Data | | | | Site Con | ditions | (Hard = | 10, Sc | oft = 15) | | |
| Average Daily | Traffic (Adt): | 3,625 vehicles | | | | A | Autos: | 15 | | |
| Peak Hour | Percentage: | 7.05% | | Me | dium Tru | icks (2 A | xles): | 15 | | |
| Peak H | our Volume: | 255 vehicles | | He | avy Truc | ks (3+ A | xles): | 15 | | |
| Ve | hicle Speed: | 45 mph | | Vahiala | liv | | | | | |
| Near/Far La | ne Distance: | 56 feet | | Venicle I | icleType | | Dav | Evening | Night | Daily |
| Site Data | | | | ven | cie i ype A | utos: | 71.9% | 5 12.2% | 15.9% | 90.47% |
| Ba | rrior Hoight: | 0.0 foot | | Me | edium Ti | ucks: | 75.3% | 7.0% | 17.7% | 5.56% |
| Da Parrier Tupe (0 M | /all_1_Rerm): | 0.0 1001 | | ŀ | leavy Tr | ucks: | 60.4% | 12.0% | 27.6% | 3.97% |
| Centerline Di | ist to Barrier: | 47.0 feet | | | | | | | | |
| Centerline Dist. | to Observer: | 47.0 feet | | Noise Sc | ource El | evations | (IN TO | eet) | | |
| Barrier Distance | to Observer: | 0.0 feet | | 14 | Autos | S: 0.0 | 00 | | | |
| Observer Height | (Above Pad): | 5.0 feet | | Mediui | TTTUCKS | 5: 2.2 | 97 | Crada Adi | | |
| P | ad Elevation: | 0.0 feet | | Heav | y Trucks | 5: 8.0 | 104 | Grade Auj | usument | . 0.0 |
| Ro | ad Elevation: | 0.0 feet | | Lane Equ | uivalent | Distanc | e (in i | feet) | | |
| | Road Grade: | 0.0% | | | Autos | s: 38.0 |)79 | | | |
| | Left View: | -90.0 degrees | | Mediur | n Trucks | s: 37.8 | 346 | | | |
| | Right View: | 90.0 degrees | | Heav | y Truck | s: 37.8 | 869 | | | |
| FHWA Noise Mod | el Calculations | | | 1 | | | | | | |
| VehicleType | REMEL | Traffic Flow | Distance | e Finite | Road | Fresne | e/ | Barrier Atte | en Bei | rm Atten |
| Autos: | 68.46 | -8.20 | 1 | .67 | -1.20 | | 4.63 | 0.0 | 00 | 0.000 |
| Medium Trucks: | 79.45 | -20.32 | 1 | .71 | -1.20 | | 4.87 | 0.0 | 00 | 0.000 |
| Heavy Trucks: | 84.25 | -21.78 | 1 | .71 | -1.20 | | -5.46 | 0.0 | 00 | 0.000 |
| Unmitigated Nois | e Levels (witho | ut Topo and ba | nrrier atte | enuation) | | | | | | |
| VehicleType | Leq Peak Hour | Leq Day | Leq | Evening | Leq | Night | | Ldn | C | NEL |
| Autos: | 60.7 | 7 60 | 0.0 | 58.4 | | 54.7 | | 62.3 | | 62.8 |
| Medium Trucks: | 59.6 | 6 59 |).1 | 54.8 | | 54.1 | | 61.5 | | 61.7 |
| Heavy Trucks: | 63.0 | 0 61 | .5 | 60.5 | | 59.4 | | 66.1 | | 66.4 |
| Vehicle Noise: | 66.1 | 1 65 | 5.1 | 63.3 | | 61.5 | | 68.6 | | 68.9 |
| Centerline Distan | ce to Noise Cor | ntour (in feet) | | | | | | | | |
| | | | 7 | 0 dBA | 65 (| 1BA | 6 | 60 dBA | 55 | dBA |
| | | Lo | in: | 38 | | 81 | | 175 | | 378 |
| | | CNE | EL: | 40 | | 86 | | 185 | | 398 |

| | FINANC | | WAI | NOISE | FREDIC | | ODEE (| 5/12/2 | 021) | | |
|---------------------|--------------|-----------------|-------|----------|-----------|----------|-----------|----------|-------------|----------|---------|
| Scenario: | HYP 2045 | | | | | Project | Name: | Ramor | na Gatewa | y Comm | е |
| Road Name: | Morgan St. | | | | | Job N | umber: | 13998 | | | |
| Road Segment: | e/o Indian A | w. | | | | | | | | | |
| SITE SI | PECIFIC IN | PUT DATA | | | | N | IOISE I | IODE | L INPUT | S | |
| Highway Data | | | | 3 | Site Con | ditions | (Hard = | 10, So | oft = 15) | | |
| Average Daily Tr | affic (Adt): | 4,025 vehicle | es | | | | | Autos: | 15 | | |
| Peak Hour Pe | ercentage: | 7.05% | | | Me | dium Tri | ucks (2 / | Axles): | 15 | | |
| Peak Hou | ır Volume: | 284 vehicle | s | | Hea | avy Tru | cks (3+) | Axles): | 15 | | |
| Vehi | cle Speed: | 45 mph | | ١ | /ehicle N | lix | | | | | |
| Near/Far Lane | Distance: | 56 feet | | | Vehi | cleType | | Day | Evening | Night | Daily |
| Site Data | | | | | | | Autos: | 71.9% | 12.2% | 15.9% | 91.42% |
| Barri | er Height: | 0.0 feet | | | Me | edium T | ucks: | 75.3% | 7.0% | 17.7% | 5.00% |
| Barrier Type (0-Wal | l, 1-Berm): | 0.0 | | | F | leavy Ti | ucks: | 60.4% | 12.0% | 27.6% | 3.58% |
| Centerline Dist. | to Barrier: | 47.0 feet | | 7 | Voise So | urce Fl | evation | s (in fi | pet) | | |
| Centerline Dist. to | Observer: | 47.0 feet | | ŕ | | Auto | s' 0 | 000 | | | |
| Barrier Distance to | Observer: | 0.0 feet | | | Mediur | n Truck | s. 0. | 297 | | | |
| Observer Height (Al | bove Pad): | 5.0 feet | | | Heav | v Truck | s: 8. | 004 | Grade Ad | iustment | : 0.0 |
| Pad | Elevation: | 0.0 feet | | | | , | | | | | |
| Road | Elevation: | 0.0 feet | | 1 | ane Equ | iivalent | Distan | ce (in i | feet) | | |
| Ro | ad Grade: | 0.0% | | | | Auto | s: 38. | 079 | | | |
| _ | Left View: | -90.0 degre | es | | Mediur | n Truck | s: 37. | 846 | | | |
| F | Right View: | 90.0 degre | es | | Heav | у тиск | s: 37. | 869 | | | |
| FHWA Noise Model | Calculation | 5 | | | | | | | | | |
| VehicleType | REMEL | Traffic Flow | Dis | stance | Finite | Road | Fresr | iel | Barrier Att | en Bei | m Atten |
| Autos: | 68.46 | -7.70 | | 1.6 | 7 | -1.20 | | -4.63 | 0.0 | 000 | 0.00 |
| Medium Trucks: | 79.45 | -20.32 | | 1.7 | 1 | -1.20 | | -4.87 | 0.0 | 000 | 0.00 |
| Heavy Trucks: | 84.25 | -21.78 | | 1.7 | 1 | -1.20 | | -5.46 | 0.0 | 000 | 0.00 |
| Unmitigated Noise L | evels (with | out Topo and | barri | er atten | uation) | | | | | | |
| VehicleType L | eq Peak Hou | r Leq Day | / | Leg Ev | /ening | Leq | Night | | Ldn | С | NEL |
| Autos: | 61 | .2 | 60.5 | | 58.9 | | 55.2 | 2 | 62. | В | 63. |
| Medium Trucks: | 59 | .6 | 59.1 | | 54.8 | | 54.1 | I | 61. | 5 | 61. |
| Heavy Trucks: | 63 | .0 | 61.5 | | 60.5 | | 59.4 | 1 | 66. | 1 | 66. |
| Vehicle Noise: | 66 | .3 | 65.3 | | 63.4 | | 61.6 | 6 | 68. | / | 69. |
| Centerline Distance | to Noise Co | ontour (in feet |) | | | | | | | 1 | |
| | | | L | 70 c | 1BA | 65 | dBA | 6 | 60 dBA | 55 | dBA |
| | | | Ldn: | | 39 | | 83 | | 179 | | 385 |
| | | C | NEL: | | 41 | | 87 | | 188 | | 405 |

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APPENDIX 9.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS (LMAX)



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13998 - Ramona Gateway Commerce Center CadnaA Noise Prediction Model: 13998_06.cna

CadnaA Noise Prediction Model: 13998_06.cna Date: 22.03.22 Analyst: B. Lawson

Calculation Configuration

| Configurat | ion |
|--------------------------------------|--------------------------------|
| Parameter | Value |
| General | |
| Country | (user defined) |
| Max. Error (dB) | 0.00 |
| Max. Search Radius (#(Unit,LEN)) | 2000.01 |
| Min. Dist Src to Rcvr | 0.00 |
| Partition | |
| Raster Factor | 0.50 |
| Max. Length of Section (#(Unit,LEN)) | 999.99 |
| Min. Length of Section (#(Unit,LEN)) | 1.01 |
| Min. Length of Section (%) | 0.00 |
| Proj. Line Sources | On |
| Proj. Area Sources | On |
| Ref. Time | |
| Reference Time Day (min) | 960.00 |
| Reference Time Night (min) | 480.00 |
| Daytime Penalty (dB) | 0.00 |
| Recr. Time Penalty (dB) | 5.00 |
| Night-time Penalty (dB) | 10.00 |
| DTM | |
| Standard Height (m) | 0.00 |
| Model of Terrain | Triangulation |
| Reflection | |
| max. Order of Reflection | 2 |
| Search Radius Src | 100.00 |
| Search Radius Rcvr | 100.00 |
| Max. Distance Source - Rcvr | 1000.00 1000.00 |
| Min. Distance Rvcr - Reflector | 1.00 1.00 |
| Min. Distance Source - Reflector | 0.10 |
| Industrial (ISO 9613) | |
| Lateral Diffraction | some Obj |
| Obst. within Area Src do not shield | On |
| Screening | Incl. Ground Att. over Barrier |
| | Dz with limit (20/25) |
| Barrier Coefficients C1,2,3 | 3.0 20.0 0.0 |
| Temperature (#(Unit,TEMP)) | 10 |
| rel. Humidity (%) | 70 |
| Ground Absorption G | 0.50 |
| Wind Speed for Dir. (#(Unit,SPEED)) | 3.0 |
| Roads (TNM) | |
| Railways (FTA/FRA) | |
| Aircraft (???) | |
| Strictly acc. to AzB | |

Receiver Noise Levels

| Name | м. | ID | | Level Lr | | Lir | ue | | Land | Use | Height | | Co | oordinates | | |
|-----------|----|----|-------|----------|-------|-------|-------|-------|------|------|------------|------|----|------------|------------|------|
| | | | Day | Night | CNEL | Day | Night | CNEL | Туре | Auto | Noise Type | | | Х | Y | Z |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | | (ft) | | (ft) | (ft) | (ft) |
| RECEIVERS | | R1 | 58.4 | 56.1 | 62.7 | 80.0 | 60.0 | 0.0 | | | | 5.00 | a | 6259920.31 | 2252784.09 | 5.00 |
| RECEIVERS | | R2 | 54.9 | 53.7 | 60.2 | 80.0 | 60.0 | 0.0 | | | | 5.00 | a | 6260576.74 | 2251019.92 | 5.00 |
| RECEIVERS | | R3 | 62.6 | 61.6 | 68.0 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259825.35 | 2250569.24 | 5.00 |
| RECEIVERS | | R4 | 59.1 | 58.2 | 64.6 | 80.0 | 60.0 | 0.0 | | | | 5.00 | a | 6259207.76 | 2250557.95 | 5.00 |
| RECEIVERS | | R5 | 52.8 | 51.8 | 58.2 | 80.0 | 60.0 | 0.0 | | | | 5.00 | a | 6257425.14 | 2249822.33 | 5.00 |

Point Source(s)

| Name M ID Result PW/ | | | | | | - | | | | | | 12 | | | | |
|----------------------|------|------|-------|------------|-------|------|-------|-------|--------|-----------|--------|--------|---|------------|------------|-------|
| Name | IVI. | ID | H | lesult. PW | L | | LW/L | .I | Op | erating I | ime | Height | t | U | pordinates | |
| | | | Day | Evening | Night | Туре | Value | norm. | Day | Special | Night | | | x | Y | z |
| | | | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | (ft) | | (ft) | (ft) | (ft) |
| POINTSOURCE | | AC01 | 89.4 | 89.4 | 89.4 | Lw | 89.4 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259627.01 | 2252236.51 | 30.00 |
| POINTSOURCE | | AC02 | 89.4 | 89.4 | 89.4 | Lw | 89.4 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259467.78 | 2252225.59 | 30.00 |
| POINTSOURCE | | AC03 | 89.4 | 89.4 | 89.4 | Lw | 89.4 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259326.17 | 2252216.98 | 30.00 |
| POINTSOURCE | | AC04 | 89.4 | 89.4 | 89.4 | Lw | 89.4 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259106.24 | 2252219.24 | 30.00 |
| POINTSOURCE | | AC05 | 89.4 | 89.4 | 89.4 | Lw | 89.4 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6258961.93 | 2252188.53 | 30.00 |
| POINTSOURCE | | AC06 | 89.4 | 89.4 | 89.4 | Lw | 89.4 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6258823.64 | 2252243.16 | 30.00 |
| POINTSOURCE | | AC07 | 89.4 | 89.4 | 89.4 | Lw | 89.4 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6258659.28 | 2252163.23 | 30.00 |
| POINTSOURCE | | AC08 | 89.4 | 89.4 | 89.4 | Lw | 89.4 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259564.94 | 2250786.94 | 50.00 |
| POINTSOURCE | | DT01 | 86.5 | 86.5 | 86.5 | Lw | 86.5 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259388.83 | 2252189.81 | 3.00 |
| POINTSOURCE | | DT02 | 86.5 | 86.5 | 86.5 | Lw | 86.5 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259507.52 | 2252179.04 | 3.00 |
| POINTSOURCE | | DT03 | 86.5 | 86.5 | 86.5 | Lw | 86.5 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259139.56 | 2252240.10 | 3.00 |
| POINTSOURCE | | DT04 | 86.5 | 86.5 | 86.5 | Lw | 86.5 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259001.55 | 2252242.10 | 3.00 |

| Name | М. | ID | R | esult. PW | 'L | | Lw/L | i | Ope | erating Ti | ime | Height | t | Co | oordinates | |
|--------------|----|----------|-------|-----------|-------|------|-------|-------|--------|------------|--------|--------|--------|------------|------------|------|
| | | | Day | Evening | Night | Туре | Value | norm. | Day | Special | Night | | | Х | Y | Z |
| | | | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | (ft) | | (ft) | (ft) | (ft) |
| POINTSOURCE | | DT05 | 86.5 | 86.5 | 86.5 | Lw | 86.5 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6258662.62 | 2252224.92 | 3.00 |
| POINTSOURCE | | DT06 | 86.5 | 86.5 | 86.5 | Lw | 86.5 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259151.53 | 2252251.90 | 3.00 |
| POINTSOURCE | | DT07 | 86.5 | 86.5 | 86.5 | Lw | 86.5 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259013.17 | 2252254.65 | 3.00 |
| POINTSOURCE | | DT08 | 86.5 | 86.5 | 86.5 | Lw | 86.5 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6258663.70 | 2252240.32 | 3.00 |
| POINTSOURCE1 | | GAS01 | 86.1 | 86.1 | 86.1 | Lw | 86.1 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259583.04 | 2252131.04 | 5.00 |
| POINTSOURCE1 | | GAS02 | 86.1 | 86.1 | 86.1 | Lw | 86.1 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259616.12 | 2252131.04 | 5.00 |
| POINTSOURCE1 | | GAS03 | 86.1 | 86.1 | 86.1 | Lw | 86.1 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259648.36 | 2252130.76 | 5.00 |
| POINTSOURCE1 | | GAS04 | 86.1 | 86.1 | 86.1 | Lw | 86.1 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259681.44 | 2252129.92 | 5.00 |
| POINTSOURCE1 | | GAS05 | 86.1 | 86.1 | 86.1 | Lw | 86.1 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259681.44 | 2252147.30 | 5.00 |
| POINTSOURCE1 | | GAS06 | 86.1 | 86.1 | 86.1 | Lw | 86.1 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259648.92 | 2252147.30 | 5.00 |
| POINTSOURCE1 | | GAS07 | 86.1 | 86.1 | 86.1 | Lw | 86.1 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259616.40 | 2252147.86 | 5.00 |
| POINTSOURCE1 | | GAS08 | 86.1 | 86.1 | 86.1 | Lw | 86.1 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259583.04 | 2252148.70 | 5.00 |
| POINTSOURCE | | PARK01 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259737.55 | 2250719.13 | 5.00 |
| POINTSOURCE | | PARK02 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259732.93 | 2250827.01 | 5.00 |
| POINTSOURCE | | PARK03 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6258718.84 | 2250739.16 | 5.00 |
| POINTSOURCE | | PARK04 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6258721.92 | 2250840.88 | 5.00 |
| POINTSOURCE | | PARK05 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259656.29 | 2252195.76 | 5.00 |
| POINTSOURCE | | PARK06 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259599.17 | 2252197.14 | 5.00 |
| POINTSOURCE | | PARK07 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | a | 6259488.36 | 2252155.84 | 5.00 |
| POINTSOURCE | | PARK08 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | a | 6259452 57 | 2252156.53 | 5.00 |
| | | PARKOG | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | a | 6259357 59 | 2252156.53 | 5.00 |
| POINTSOURCE | | PARK10 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | a | 6259310 78 | 2252150.55 | 5.00 |
| | | DARK11 | 01 / | 01 / | 01 / | Lw | 01 / | | 900.00 | 0.00 | 540.00 | 5.00 | 2 | 625010/ 31 | 2252157.51 | 5.00 |
| POINTSOURCE | | DARK11 | 01 / | 01 / | 01 / | | 01 / | | 900.00 | 0.00 | 540.00 | 5.00 | 2 | 6258070 78 | 2252058.05 | 5.00 |
| POINTSOURCE | | PARKIZ | 91.4 | 91.4 | 91.4 | LW | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | a 2 | 6258807.66 | 2252055.40 | 5.00 |
| POINTSOURCE | | | 01.4 | 01.4 | 01.4 | | 01.4 | | 000.00 | 0.00 | 540.00 | 5.00 | 2 | 6250007.00 | 2252117.50 | 5.00 |
| POINTSOURCE | | | 01.4 | 91.4 | 91.4 | | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | a 2 | 6250042.00 | 2232130.37 | 5.00 |
| POINTSOURCE | | DADV16 | 01.4 | 91.4 | 91.4 | | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | a 2 | 6250031.02 | 2232101.31 | 5.00 |
| POINTSOURCE | | PARKIO | 91.4 | 91.4 | 91.4 | LW | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | a | 6250754.35 | 2232102.00 | 5.00 |
| POINTSOURCE | | PARK17 | 91.4 | 91.4 | 91.4 | LW | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | d | 6256757.42 | 2252127.02 | 5.00 |
| POINTSOURCE | | PARK10 | 91.4 | 91.4 | 91.4 | LW | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | d | 6259571.07 | 2252108.20 | 5.00 |
| POINTSOURCE | | PARK19 | 91.4 | 91.4 | 91.4 | LW | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | d | 6259508.10 | 2252107.24 | 5.00 |
| POINTSOURCE | | PARK20 | 91.4 | 91.4 | 91.4 | LW | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6258859.97 | 2250618.95 | 5.00 |
| POINTSOURCE | | PARK21 | 91.4 | 91.4 | 91.4 | LW | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6258959.08 | 2250612.75 | 5.00 |
| POINTSOURCE | | PARK22 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259056.82 | 2250614.82 | 5.00 |
| POINTSOURCE | | PARK23 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259157.99 | 2250612.07 | 5.00 |
| POINTSOURCE | | PARK24 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259261.92 | 2250612.75 | 5.00 |
| POINTSOURCE | | PARK25 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259367.22 | 2250610.00 | 5.00 |
| POINTSOURCE | | PARK26 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259471.15 | 2250607.25 | 5.00 |
| POINTSOURCE | | PARK27 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259573.70 | 2250610.00 | 5.00 |
| POINTSOURCE | | PARK28 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259567.51 | 2250679.52 | 5.00 |
| POINTSOURCE | | PARK29 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259469.77 | 2250680.89 | 5.00 |
| POINTSOURCE | | PARK30 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259365.85 | 2250680.89 | 5.00 |
| POINTSOURCE | | PARK31 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259262.61 | 2250683.65 | 5.00 |
| POINTSOURCE | | PARK32 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259160.05 | 2250683.65 | 5.00 |
| POINTSOURCE | | PARK33 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6259058.19 | 2250682.96 | 5.00 |
| POINTSOURCE | | PARK34 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6258960.46 | 2250686.40 | 5.00 |
| POINTSOURCE | | PARK35 | 91.4 | 91.4 | 91.4 | Lw | 91.4 | | 900.00 | 0.00 | 540.00 | 5.00 | а | 6258871.67 | 2250689.84 | 5.00 |
| POINTSOURCE | | PLAY01 | 97.9 | 97.9 | 97.9 | Lw | 97.9 | | 900.00 | 0.00 | 270.00 | 5.00 | а | 6258965.58 | 2252126.17 | 5.00 |
| POINTSOURCE | | PLAY02 | 97.9 | 97.9 | 97.9 | Lw | 97.9 | | 900.00 | 0.00 | 270.00 | 5.00 | а | 6259099.89 | 2252124.95 | 5.00 |
| POINTSOURCE | | PLAY03 | 97.9 | 97.9 | 97.9 | Lw | 97.9 | | 900.00 | 0.00 | 270.00 | 5.00 | а | 6259302.17 | 2252180.30 | 5.00 |
| POINTSOURCE | | PLAY04 | 97.9 | 97.9 | 97.9 | Lw | 97.9 | | 900.00 | 0.00 | 270.00 | 5.00 | а | 6259466.60 | 2252190.88 | 5.00 |
| POINTSOURCE | | TRASH01 | 102.8 | 102.8 | 102.8 | Lw | 102.8 | | 150.00 | 0.00 | 90.00 | 5.00 | а | 6258712.49 | 2250905.04 | 5.00 |
| POINTSOURCE | | TRASH02 | 102.8 | 102.8 | 102.8 | Lw | 102.8 | | 150.00 | 0.00 | 90.00 | 5.00 | а | 6258720.81 | 2251809.03 | 5.00 |
| POINTSOURCE | | TRASH03 | 102.8 | 102.8 | 102.8 | Lw | 102.8 | | 150.00 | 0.00 | 90.00 | 5.00 | а | 6259720.53 | 2250892.55 | 5.00 |
| POINTSOURCE | | TRASH04 | 102.8 | 102.8 | 102.8 | Lw | 102.8 | | 150.00 | 0.00 | 90.00 | 5.00 | а | 6259724.69 | 2251799.87 | 5.00 |
| POINTSOURCE | | TRASH05 | 102.8 | 102.8 | 102.8 | Lw | 102.8 | | 150.00 | 0.00 | 90.00 | 5.00 | а | 6259263.86 | 2252100.53 | 5.00 |
| POINTSOURCE | | TRASH06 | 102.8 | 102.8 | 102.8 | Lw | 102.8 | | 150.00 | 0.00 | 90.00 | 5.00 | а | 6259319.94 | 2252101.40 | 5.00 |
| POINTSOURCE | | TRASH07 | 102.8 | 102.8 | 102.8 | Lw | 102.8 | | 150.00 | 0.00 | 90.00 | 5.00 | а | 6259440.94 | 2252101.92 | 5.00 |
| POINTSOURCE | | TRASH08 | 102.8 | 102.8 | 102.8 | Lw | 102.8 | | 150.00 | 0.00 | 90.00 | 5.00 | а | 6259747.71 | 2252116.85 | 5.00 |
| POINTSOURCE | | TRASH09 | 102.8 | 102.8 | 102.8 | Lw | 102.8 | | 150.00 | 0.00 | 90.00 | 5.00 | а | 6258880.62 | 2252117.30 | 5.00 |
| POINTSOURCE | | TUNNEL01 | 111.0 | 111.0 | 111.0 | Lw | 111 | | 900.00 | 0.00 | 270.00 | 8.00 | а | 6259800.68 | 2252236.63 | 8.00 |
| POINTSOURCE | | TUNNEL02 | 111.0 | 111.0 | 111.0 | Lw | 111 | | 900.00 | 0.00 | 270.00 | 8.00 | а | 6259798.86 | 2252112.39 | 8.00 |
| POINTSOURCE2 | | VAC01 | 89.7 | 89.7 | 89.7 | Lw | 89.7 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259756.33 | 2252206.34 | 3.00 |
| POINTSOURCE? | | VAC02 | 89.7 | 89.7 | 89.7 | Lw | 89.7 | | 900.00 | 0.00 | 270.00 | 3.00 | a | 6259705.31 | 2252216.48 | 3.00 |
| | I | | | 55.7 | 20.7 | | | | | 5.00 | | 5.00 | - | | | 2100 |

Line Source(s)

| Name | м. | ID | R | esult. PW | /L | R | esult. PW | "L' | | Lw / Li | | Op | erating Ti | ime | | Moving | Pt. Src | | Heig | ht |
|------------|----|---------|-------|-----------|-------|-------|-----------|-------|--------|---------|-------|-------|------------|-------|-------|---------|---------|-------|------|----|
| | | | Day | Evening | Night | Day | Evening | Night | Type | Value | norm. | Day | Special | Night | | Number | | Speed | | |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | Day | Evening | Night | (mph) | (ft) | |
| LINESOURCE | | TRUCK03 | 102.2 | 87.1 | 86.6 | 76.5 | 61.4 | 60.9 | PWL-Pt | 91.4 | | | | | 327.0 | 10.0 | 9.0 | 6.2 | 8 | а |
| LINESOURCE | | TRUCK03 | 93.0 | 77.9 | 77.4 | 76.5 | 61.4 | 60.9 | PWL-Pt | 91.4 | | | | | 327.0 | 10.0 | 9.0 | 6.2 | 8 | а |
| LINESOURCE | | TRUCK02 | 91.6 | 76.5 | 76.0 | 76.5 | 61.4 | 60.9 | PWL-Pt | 91.4 | | | | | 327.0 | 10.0 | 9.0 | 6.2 | 8 | а |

| Name | ŀ | lei | ght | | | Coordinat | es | |
|------------|-------|-----|------|--|------------|------------|------|--------|
| | Begin | | End | | х | У | z | Ground |
| | (ft) | | (ft) | | (ft) | (ft) | (ft) | (ft) |
| LINESOURCE | 8.00 | а | | | 6259677.45 | 2251820.54 | 8.00 | 0.00 |
| | | | | | 6259675.90 | 2251941.27 | 8.00 | 0.00 |
| | | | | | 6259658.95 | 2251955.14 | 8.00 | 0.00 |
| | | | | | 6259646.62 | 2251961.31 | 8.00 | 0.00 |
| | | | | | 6259623.50 | 2251967.47 | 8.00 | 0.00 |
| | | | | | 6258765.07 | 2251976.72 | 8.00 | 0.00 |
| | | | | | 6258745.04 | 2251956.68 | 8.00 | 0.00 |
| | | | | | 6258708.05 | 2251948.98 | 8.00 | 0.00 |
| | | | | | 6258595.48 | 2251942.81 | 8.00 | 0.00 |
| LINESOURCE | 8.00 | а | | | 6258780.44 | 2251830.07 | 8.00 | 0.00 |
| | | | | | 6258782.09 | 2251976.54 | 8.00 | 0.00 |
| LINESOURCE | 8.00 | а | | | 6258701.19 | 2251133.70 | 8.00 | 0.00 |
| | | | | | 6258595.81 | 2251133.76 | 8.00 | 0.00 |

Area Source(s)

| Name | М. | ID | R | esult. PW | Ľ | Re | esult. PW | L'' | | Lw/L | i | Ор | erating Ti | me | Height | t |
|------------|----|--------|-------|-----------|-------|-------|-----------|-------|------|-------|-------|--------|------------|--------|--------|---|
| | | | Day | Evening | Night | Day | Evening | Night | Туре | Value | norm. | Day | Special | Night | (ft) | Π |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | | |
| AREASOURCE | | DOCK01 | 119.7 | 119.7 | 119.7 | 76.6 | 76.6 | 76.6 | Lw | 119.7 | | 900.00 | 0.00 | 540.00 | 8 | а |
| AREASOURCE | | DOCK02 | 119.7 | 119.7 | 119.7 | 76.6 | 76.6 | 76.6 | Lw | 119.7 | | 900.00 | 0.00 | 540.00 | 8 | a |

| Name | ŀ | lei | ght | | Coordinat | es | |
|------------|-------|-----|------|------------|------------|------|--------|
| | Begin | | End | х | У | z | Ground |
| | (ft) | | (ft) | (ft) | (ft) | (ft) | (ft) |
| AREASOURCE | 8.00 | а | | 6258654.54 | 2251831.93 | 8.00 | 0.00 |
| | | | | 6258890.46 | 2251828.45 | 8.00 | 0.00 |
| | | | | 6258880.04 | 2250885.74 | 8.00 | 0.00 |
| | | | | 6258643.42 | 2250886.82 | 8.00 | 0.00 |
| | | | | 6258646.85 | 2251088.67 | 8.00 | 0.00 |
| | | | | 6258700.73 | 2251086.10 | 8.00 | 0.00 |
| | | | | 6258701.59 | 2251175.05 | 8.00 | 0.00 |
| | | | | 6258646.85 | 2251173.34 | 8.00 | 0.00 |
| AREASOURCE | 8.00 | а | | 6259574.43 | 2251821.78 | 8.00 | 0.00 |
| | | | | 6259633.89 | 2251820.48 | 8.00 | 0.00 |
| | | | | 6259701.54 | 2251820.58 | 8.00 | 0.00 |
| | | | | 6259807.77 | 2251820.58 | 8.00 | 0.00 |
| | | | | 6259798.37 | 2250874.82 | 8.00 | 0.00 |
| | | | | 6259624.83 | 2250876.63 | 8.00 | 0.00 |
| | | | | 6259566.24 | 2250876.63 | 8.00 | 0.00 |

Barrier(s)

| Name | М. | ID | Abso | rption | Z-Ext. | Canti | ilever | H | lei | ght | | Coordinat | es | |
|-----------------|----|----|------|--------|--------|-------|--------|-------|-----|------|------------|------------|-------|--------|
| | | | left | right | | horz. | vert. | Begin | | End | x | У | z | Ground |
| | | | | | (ft) | (ft) | (ft) | (ft) | | (ft) | (ft) | (ft) | (ft) | (ft) |
| BARRIEREXISTING | | 0 | | | | | | 6.00 | а | | 6260560.53 | 2251104.42 | 6.00 | 0.00 |
| | | | | | | | | | | | 6260561.31 | 2251009.02 | 6.00 | 0.00 |
| | | | | | | | | | | | 6260585.62 | 2251008.32 | 6.00 | 0.00 |
| BARRIERTEMP | | 0 | | | | | | 14.00 | а | | 6258759.98 | 2251830.37 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258654.54 | 2251831.93 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258646.85 | 2251173.34 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258701.59 | 2251175.05 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258701.39 | 2251154.32 | 14.00 | 0.00 |
| BARRIERTEMP | | 0 | | | | | | 14.00 | а | | 6258700.99 | 2251113.18 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258700.73 | 2251086.10 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258646.85 | 2251088.67 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258643.42 | 2250886.82 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258766.83 | 2250886.26 | 14.00 | 0.00 |
| BARRIERTEMP | | 0 | | | | | | 14.00 | а | | 6259701.54 | 2251820.58 | 14.00 | 0.00 |
| | | | | | | | | | | | 6259807.77 | 2251820.58 | 14.00 | 0.00 |
| | | | | | | | | | | | 6259798.37 | 2250874.82 | 14.00 | 0.00 |
| | | | | | | | | | | | 6259695.44 | 2250875.89 | 14.00 | 0.00 |
| BARRIERTEMP | | 0 | | | | | | 14.00 | а | | 6259649.70 | 2250876.37 | 14.00 | 0.00 |
| | | | | | | | | | | | 6259624.83 | 2250876.63 | 14.00 | 0.00 |

Building(s)

| Name | М. | ID | RB | Residents | Absorption | Height | | | Coordinat | es | |
|----------|----|---------------|----|-----------|------------|--------|---|------------|------------|-------|--------|
| | | | | | | Begin | | х | у | z | Ground |
| | | | | | | (ft) | | (ft) | (ft) | (ft) | (ft) |
| BUILDING | | BUILDING00001 | х | 0 | | 45.00 | а | 6258847.34 | 2251924.35 | 45.00 | 0.00 |
| | | | | | | | | 6258875.98 | 2251923.31 | 45.00 | 0.00 |
| | | | | | | | | 6258876.51 | 2251930.60 | 45.00 | 0.00 |
| | | | | | | | | 6259590.49 | 2251923.78 | 45.00 | 0.00 |
| | | | | | | | | 6259590.49 | 2251916.83 | 45.00 | 0.00 |
| | | | | | | | | 6259619.14 | 2251916.83 | 45.00 | 0.00 |

| Name | М. | ID | RB | Residents | Absorption | Height | | | Coordinat | es | |
|-----------|----------|---------------|----|-----------|------------|--------|----------|------------|-------------|-------|--------|
| | | | | | | Begin | _ | х | У | z | Ground |
| | | | | | | (ft) | | (ft) | (ft) | (ft) | (ft) |
| | | | | | | | | 6259619.14 | 2251887.75 | 45.00 | 0.00 |
| | | | | | | | | 6259628.69 | 2251886.88 | 45.00 | 0.00 |
| | | | | | | | | 6259628.25 | 2251873.86 | 45.00 | 0.00 |
| | | | | | | | | 6259635.20 | 2251873.43 | 45.00 | 0.00 |
| | | | | | | | | 6259633.89 | 2251820.48 | 45.00 | 0.00 |
| | | | | | | | | 6259574.43 | 2251821.78 | 45.00 | 0.00 |
| | | | | | | | | 6259566.24 | 2250876.63 | 45.00 | 0.00 |
| | | | | | | | | 6259624.83 | 2250876.63 | 45.00 | 0.00 |
| | | | | | | | | 6259623.53 | 2250767.26 | 45.00 | 0.00 |
| | | | | | | | | 6259615.72 | 2250767.26 | 45.00 | 0.00 |
| | | | | | | | | 6259618.32 | 2250754.23 | 45.00 | 0.00 |
| | | | | | | | | 6259607.91 | 2250752.93 | 45.00 | 0.00 |
| | | | | | | | | 6259606.61 | 2250725.59 | 45.00 | 0.00 |
| | | | | | | | | 6259577.96 | 2250725.59 | 45.00 | 0.00 |
| | | | | | | | | 6259579.26 | 2250717.78 | 45.00 | 0.00 |
| | | | | | | | | 6258834.47 | 2250730.80 | 45.00 | 0.00 |
| | | | | | | | | 6258835.77 | 2250763.35 | 45.00 | 0.00 |
| | | | | | | | | 6258826.66 | 2250765.95 | 45.00 | 0.00 |
| | | | | | | | L | 6258827.96 | 2250775.07 | 45.00 | 0.00 |
| | | | | | | | Ĺ | 6258817.54 | 2250776.37 | 45.00 | 0.00 |
| | | | | | | | | 6258822.75 | 2250885.74 | 45.00 | 0.00 |
| | | | | | | | | 6258880.04 | 2250885.74 | 45.00 | 0.00 |
| | | | | | | | | 6258890.46 | 2251828.45 | 45.00 | 0.00 |
| | | | | | | | | 6258827.96 | 2251831.06 | 45.00 | 0.00 |
| | | | | | | | | 6258829.26 | 2251880.54 | 45.00 | 0.00 |
| | | | | | | | | 6258837.07 | 2251879.23 | 45.00 | 0.00 |
| | | | | | | | | 6258838.38 | 2251896.16 | 45.00 | 0.00 |
| | | | | | | | | 6258844.89 | 2251896.16 | 45.00 | 0.00 |
| BUILDING | | BUILDING00002 | х | 0 | | 25.00 | a | 6258637.54 | 2252210.84 | 25.00 | 0.00 |
| | | | | | | | | 6258681.87 | 2252210.33 | 25.00 | 0.00 |
| | | | | | | | | 6258681.36 | 2252111.30 | 25.00 | 0.00 |
| | | | | | | | | 6258636.28 | 2252111.30 | 25.00 | 0.00 |
| BUILDING | | BUILDING00003 | х | 0 | | 25.00 | a | 6258765.70 | 2252269.85 | 25.00 | 0.00 |
| | | | | | | | | 6258886.26 | 2252269.60 | 25.00 | 0.00 |
| | | | | | | | | 6258885.51 | 2252209.57 | 25.00 | 0.00 |
| | | | | | | | | 6258765.45 | 2252211.34 | 25.00 | 0.00 |
| BUILDING | | BUILDING00004 | x | 0 | | 25.00 | a | 6258939.96 | 2252234.14 | 25.00 | 0.00 |
| | | | | | | | | 6258985.04 | 2252233.63 | 25.00 | 0.00 |
| | | | | | | | | 6258983.52 | 2252135.10 | 25.00 | 0.00 |
| | | | | | | | | 6258938.44 | 2252135.61 | 25.00 | 0.00 |
| BUILDING | | BUILDING00005 | x | 0 | | 25.00 | a | 6259076.48 | 2252232.62 | 25.00 | 0.00 |
| | | | | - | | | - | 6259121.56 | 2252232.36 | 25.00 | 0.00 |
| | | | | | | | | 6259121.50 | 2252252.00 | 25.00 | 0.00 |
| | | | | | | | ⊢ | 6259075.46 | 2252132.05 | 25.00 | 0.00 |
| | | | v | 0 | | 25.00 | | 6259276 57 | 2252135.55 | 25.00 | 0.00 |
| - 0.22110 | | - 5.25 | Ê | | | 25.00 | ľ | 6259376 26 | 2252246.04 | 25.00 | 0.00 |
| | | | - | | | | \vdash | 6259376 11 | 2252187 28 | 25.00 | 0.00 |
| | | | | | | | \vdash | 6259276 57 | 2252107.20 | 25.00 | 0.00 |
| | | BUILDING00007 | × | 0 | | 25.00 | 2 | 6259438 07 | 22522100.29 | 25.00 | 0.00 |
| JOILDING | | 2012211000007 | ^ | | | 20.00 | d | 6259430.32 | 2252243.20 | 25.00 | 0.00 |
| | | | | | | | \vdash | 6250/07 04 | 2252242.24 | 25.00 | 0.00 |
| | | | | | | | \vdash | 6259/28 14 | 2252202.30 | 25.00 | 0.00 |
| | | | ~ | 0 | | 25 00 | 2 | 6259572 15 | 2252205.24 | 25.00 | 0.00 |
| DOILDING | | DOILDINGUUU08 | ^ | | | 20.00 | a | 6250605 07 | 2252250.71 | 25.00 | 0.00 |
| | | | | | | | \vdash | 6250604 02 | 2232237.09 | 25.00 | 0.00 |
| | | | | | | | \vdash | 6250649.64 | 2232200.48 | 25.00 | 0.00 |
| | | | | | | | \vdash | 0259048.04 | 2252259.97 | 25.00 | 0.00 |
| | | | | | | | \vdash | 0259048.38 | 2252257.69 | 25.00 | 0.00 |
| | <u> </u> | | | | | | \vdash | 0259085.11 | 2252256.68 | 25.00 | 0.00 |
| | | | | | | | \vdash | 0259684.86 | 2252214.63 | 25.00 | 0.00 |
| | | | | - | | 25.00 | | 0259571.64 | 2252216.41 | 25.00 | 0.00 |
| BUILDING | | BUILDING00009 | x | 0 | | 25.00 | а | 6259789.21 | 2252230.08 | 25.00 | 0.00 |
| | | | | | | | - | 6259810.74 | 2252230.08 | 25.00 | 0.00 |
| | | | | | | | | 6259810.23 | 2252119.65 | 25.00 | 0.00 |
| | | | | | | | | 6259778.57 | 2252120.16 | 25.00 | 0.00 |
| | | | | | | | | 6259779.33 | 2252225.27 | 25.00 | 0.00 |
| | | | | | | | | 6259789.46 | 2252225.27 | 25.00 | 0.00 |

APPENDIX 9.2:

CADNAA OPERATIONAL NOISE MODEL INPUTS (LEQ)



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13998 - Ramona Gateway Commerce Center CadnaA Noise Prediction Model: 13998_06_CNEL.cna

CadnaA Noise Prediction Model: 13998_06_CNEL.cna Date: 22.03.22 Analyst: B. Lawson

Calculation Configuration

| Configurat | ion |
|--------------------------------------|--------------------------------|
| Parameter | Value |
| General | |
| Country | (user defined) |
| Max. Error (dB) | 0.00 |
| Max. Search Radius (#(Unit,LEN)) | 2000.01 |
| Min. Dist Src to Rcvr | 0.00 |
| Partition | |
| Raster Factor | 0.50 |
| Max. Length of Section (#(Unit,LEN)) | 999.99 |
| Min. Length of Section (#(Unit,LEN)) | 1.01 |
| Min. Length of Section (%) | 0.00 |
| Proj. Line Sources | On |
| Proj. Area Sources | On |
| Ref. Time | |
| Reference Time Day (min) | 960.00 |
| Reference Time Night (min) | 480.00 |
| Daytime Penalty (dB) | 0.00 |
| Recr. Time Penalty (dB) | 5.00 |
| Night-time Penalty (dB) | 10.00 |
| DTM | |
| Standard Height (m) | 0.00 |
| Model of Terrain | Triangulation |
| Reflection | |
| max. Order of Reflection | 2 |
| Search Radius Src | 100.00 |
| Search Radius Rcvr | 100.00 |
| Max. Distance Source - Rcvr | 1000.00 1000.00 |
| Min. Distance Rvcr - Reflector | 1.00 1.00 |
| Min. Distance Source - Reflector | 0.10 |
| Industrial (ISO 9613) | |
| Lateral Diffraction | some Obj |
| Obst. within Area Src do not shield | On |
| Screening | Incl. Ground Att. over Barrier |
| | Dz with limit (20/25) |
| Barrier Coefficients C1,2,3 | 3.0 20.0 0.0 |
| Temperature (#(Unit,TEMP)) | 10 |
| rel. Humidity (%) | 70 |
| Ground Absorption G | 0.50 |
| Wind Speed for Dir. (#(Unit,SPEED)) | 3.0 |
| Roads (TNM) | |
| Railways (FTA/FRA) | |
| Aircraft (???) | |
| Strictly acc. to AzB | |

Receiver Noise Levels

| Name | м. | ID | | Level Lr | | Lir | nit. Valı | ue | | Land | Use | Height | : | Co | oordinates | |
|-----------|----|----|-------|----------|-------|-------|-----------|-------|------|------|------------|--------|---|------------|------------|------|
| | | | Day | Night | CNEL | Day | Night | CNEL | Туре | Auto | Noise Type | | | Х | Y | Z |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | | (ft) | | (ft) | (ft) | (ft) |
| RECEIVERS | | R1 | 52.2 | 49.4 | 56.1 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259920.31 | 2252784.09 | 5.00 |
| RECEIVERS | | R2 | 47.0 | 45.8 | 52.2 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6260576.74 | 2251019.92 | 5.00 |
| RECEIVERS | | R3 | 54.9 | 53.9 | 60.3 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259825.35 | 2250569.24 | 5.00 |
| RECEIVERS | | R4 | 55.5 | 54.5 | 60.9 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259207.76 | 2250557.95 | 5.00 |
| RECEIVERS | | R5 | 44.8 | 43.8 | 50.2 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6257425.14 | 2249822.33 | 5.00 |

Point Source(s)

| | | | Result. PWL | | | - | | | | | | | _ | | | |
|-------------|----|------|-------------|------------|-------|------|--------|-------|--------|------------|--------|--------|---|------------|------------|-------|
| Name | Μ. | ID | R | lesult. PW | 'L | | Lw / L | i | Op | erating Ti | ime | Height | t | C | oordinates | |
| | | | Day | Evening | Night | Туре | Value | norm. | Day | Special | Night | | | Х | Y | Z |
| | | | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | (ft) | | (ft) | (ft) | (ft) |
| POINTSOURCE | | AC01 | 88.9 | 88.9 | 88.9 | Lw | 88.9 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259627.01 | 2252236.51 | 30.00 |
| POINTSOURCE | | AC02 | 88.9 | 88.9 | 88.9 | Lw | 88.9 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259467.78 | 2252225.59 | 30.00 |
| POINTSOURCE | | AC03 | 88.9 | 88.9 | 88.9 | Lw | 88.9 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259326.17 | 2252216.98 | 30.00 |
| POINTSOURCE | | AC04 | 88.9 | 88.9 | 88.9 | Lw | 88.9 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259106.24 | 2252219.24 | 30.00 |
| POINTSOURCE | | AC05 | 88.9 | 88.9 | 88.9 | Lw | 88.9 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6258961.93 | 2252188.53 | 30.00 |
| POINTSOURCE | | AC06 | 88.9 | 88.9 | 88.9 | Lw | 88.9 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6258823.64 | 2252243.16 | 30.00 |
| POINTSOURCE | | AC07 | 88.9 | 88.9 | 88.9 | Lw | 88.9 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6258659.28 | 2252163.23 | 30.00 |
| POINTSOURCE | | AC08 | 88.9 | 88.9 | 88.9 | Lw | 88.9 | | 585.00 | 0.00 | 252.00 | 5.00 | g | 6259564.94 | 2250786.94 | 50.00 |
| POINTSOURCE | | DT01 | 83.2 | 83.2 | 83.2 | Lw | 83.2 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259388.83 | 2252189.81 | 3.00 |
| POINTSOURCE | | DT02 | 83.2 | 83.2 | 83.2 | Lw | 83.2 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259507.52 | 2252179.04 | 3.00 |
| POINTSOURCE | | DT03 | 83.2 | 83.2 | 83.2 | Lw | 83.2 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259139.56 | 2252240.10 | 3.00 |
| POINTSOURCE | | DT04 | 83.2 | 83.2 | 83.2 | Lw | 83.2 | | 900.00 | 0.00 | 270.00 | 3.00 | а | 6259001.55 | 2252242.10 | 3.00 |

| Name | M. | ID | R | esult. PW | 'L | | Lw/L | i | Ope | erating Ti | ime | Height | C | oordinates | |
|--------------|----|----------|--------------|--------------|--------------|------|----------|----------|--------|------------|--------|--------|------------|-------------|------|
| | | | Day | Evening | Night | Туре | Value | norm. | Day | Special | Night | | Х | Y | Z |
| | | | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | (ft) | (ft) | (ft) | (ft) |
| POINTSOURCE | | DT05 | 83.2 | 83.2 | 83.2 | Lw | 83.2 | | 900.00 | 0.00 | 270.00 | 3.00 a | 6258662.62 | 2252224.92 | 3.00 |
| POINTSOURCE | | DT06 | 83.2 | 83.2 | 83.2 | Lw | 83.2 | | 900.00 | 0.00 | 270.00 | 3.00 a | 6259151.53 | 2252251.90 | 3.00 |
| POINTSOURCE | | DT07 | 83.2 | 83.2 | 83.2 | Lw | 83.2 | | 900.00 | 0.00 | 270.00 | 3.00 a | 6259013.17 | 2252254.65 | 3.00 |
| POINTSOURCE | | DT08 | 83.2 | 83.2 | 83.2 | Lw | 83.2 | | 900.00 | 0.00 | 270.00 | 3.00 a | 6258663.70 | 2252240.32 | 3.00 |
| POINTSOURCE1 | | GAS01 | 79.9 | 79.9 | 79.9 | Lw | 79.9 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259583.04 | 2252131.04 | 5.00 |
| POINTSOURCE1 | | GAS02 | 79.9 | 79.9 | 79.9 | Lw | 79.9 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259616.12 | 2252131.04 | 5.00 |
| POINTSOURCE1 | | GAS03 | 79.9 | 79.9 | 79.9 | Lw | 79.9 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259648.36 | 2252130.76 | 5.00 |
| POINTSOURCE1 | | GAS04 | 79.9 | 79.9 | 79.9 | Lw | 79.9 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259681.44 | 2252129.92 | 5.00 |
| POINTSOURCE1 | | GAS05 | 79.9 | 79.9 | 79.9 | Lw | 79.9 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259681.44 | 2252147.30 | 5.00 |
| POINTSOURCE1 | | GAS06 | 79.9 | 79.9 | 79.9 | Lw | 79.9 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259648.92 | 2252147.30 | 5.00 |
| POINTSOURCE1 | | GAS07 | 79.9 | 79.9 | 79.9 | Lw | 79.9 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259616.40 | 2252147.86 | 5.00 |
| POINTSOURCE1 | | GAS08 | 79.9 | 79.9 | 79.9 | Lw | 79.9 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259583.04 | 2252148.70 | 5.00 |
| POINTSOURCE | | PARK01 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259737.55 | 2250719.13 | 5.00 |
| POINTSOURCE | | PARK02 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259732.93 | 2250827.01 | 5.00 |
| POINTSOURCE | | PARK03 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258718.84 | 2250739.16 | 5.00 |
| POINTSOURCE | | PARK04 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258721.92 | 2250840.88 | 5.00 |
| POINTSOURCE | - | PARK05 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259656.29 | 2252195.76 | 5.00 |
| POINTSOURCE | | PARK06 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259599.17 | 2252197.14 | 5.00 |
| POINTSOURCE | | PARK07 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259488.36 | 2252155.84 | 5.00 |
| POINTSOURCE | | PARK08 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259452.57 | 2252156.53 | 5.00 |
| POINTSOURCE | | PARK09 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259357.59 | 2252156.53 | 5.00 |
| POINTSOURCE | | PARK10 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259310.78 | 2252157.91 | 5.00 |
| POINTSOURCE | | PARK11 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259104.31 | 2252098.03 | 5.00 |
| POINTSOURCE | | PARK12 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258970.78 | 2252099.40 | 5.00 |
| POINTSOURCE | _ | PARK13 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258807.66 | 2252117.30 | 5.00 |
| POINTSOURCE | | PARK14 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258842.08 | 2252136.57 | 5.00 |
| POINTSOURCE | | PARK15 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258851.02 | 2252181.31 | 5.00 |
| POINTSOURCE | | PARK16 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258794.59 | 2252182.68 | 5.00 |
| POINTSOURCE | | PARK17 | 87.8 | 87.8 | 87.8 | Lw. | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258757 42 | 2252127.62 | 5.00 |
| POINTSOURCE | | PARK18 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259371.07 | 2252108 26 | 5.00 |
| POINTSOURCE | | PARK19 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259508 16 | 2252100.20 | 5.00 |
| POINTSOURCE | | PARK20 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258859.97 | 2250618 95 | 5.00 |
| POINTSOURCE | | PARK21 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258959.08 | 2250612.75 | 5.00 |
| POINTSOURCE | | PARK22 | 87.8 | 87.8 | 87.8 | Iw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259056.82 | 2250614.82 | 5.00 |
| POINTSOURCE | | PARK23 | 87.8 | 87.8 | 87.8 | Lw. | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259157.99 | 2250612.07 | 5.00 |
| POINTSOURCE | | PARK24 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259261.92 | 2250612.75 | 5.00 |
| | | PARK25 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259367.22 | 2250610.00 | 5.00 |
| POINTSOURCE | | PARK26 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259471 15 | 22506010.00 | 5.00 |
| POINTSOURCE | | PARK27 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259573 70 | 2250610.00 | 5.00 |
| | | PARK28 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259567.51 | 2250610.00 | 5.00 |
| | | PARK29 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259469 77 | 2250680.89 | 5.00 |
| | | PARK30 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259365.85 | 2250680.89 | 5.00 |
| | | DARK31 | 87.8 | 87.8 | 87.8 | Lw | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6250262.63 | 2250600.05 | 5.00 |
| POINTSOURCE | | DVDK33 | 87.8 | 87.8 | 87.8 | | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259160.05 | 2250683.65 | 5.00 |
| POINTSOURCE | _ | PARK32 | 87.8 | 87.8 | 87.8 | 1.00 | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6259058 10 | 2250682 96 | 5.00 |
| POINTSOURCE | | PARK34 | 87.9 | 87.8 | 87.8 | Lw. | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258960 46 | 2250686.40 | 5.00 |
| POINTSOURCE | - | PARK35 | 87.8 | 87.8 | 87.8 | 1.00 | 87.8 | | 900.00 | 0.00 | 540.00 | 5.00 a | 6258871 67 | 2250689 8/ | 5.00 |
| POINTSOURCE | - | | 91 5 | Q1 5 | 91 5 | 1.00 | 91 5 | | 900.00 | 0.00 | 270.00 | 5.00 a | 6258965 58 | 2252126 17 | 5.00 |
| | | PLAY02 | 91 5 | 91.5 | 91 5 | 1.00 | 91 5 | | 900.00 | 0.00 | 270.00 | 5.00 a | 6259099 20 | 2252120.17 | 5.00 |
| | - | PLAYOR | 91 5 | 91.5 | 91 5 | 1.00 | 91 5 | | 900.00 | 0.00 | 270.00 | 5.00 a | 6259302 17 | 2252124.35 | 5.00 |
| POINTSOURCE | | | 01 5 | 91.5 01 F | 01 F | | 01 5 | | 00.00 | 0.00 | 270.00 | 5.00 a | 6250/66 60 | 2252100.50 | 5.00 |
| POINTSOURCE | | | 91.5 | 91.5 | 91.5 | | 91.5 | | 150.00 | 0.00 | 270.00 | 5.00 a | 6259400.00 | 2232190.00 | 5.00 |
| POINTSOURCE | | | 89.0 | 89.0 | 89.0 | | 0.9 | | 150.00 | 0.00 | 90.00 | 5.00 a | 6250712.49 | 2230903.04 | 5.00 |
| POINTSOURCE | | TRACUON | 09.0 | 0.00 | 09.0 | | 09 | | 150.00 | 0.00 | 30.00 | 5.00 a | 6250720.01 | 2221003.03 | 5.00 |
| POINTSOURCE | | TRASHUS | 89.0 | 89.0 | 89.0 | LW | 89 | | 150.00 | 0.00 | 90.00 | 5.00 a | 6259720.55 | 2250692.55 | 5.00 |
| POINTSOURCE | | TRACUOE | 09.U 80.0 | 09.U | 09.U 20.0 | | 09 09 | | 150.00 | 0.00 | 30.00 | 5.00 a | 6250262 00 | 2231/99.0/ | 5.00 |
| POINTSOURCE | | TRASHUS | 09.0 | 89.0 | 69.0 | LW | 69 | | 150.00 | 0.00 | 90.00 | 5.00 a | 0259203.80 | 2252100.53 | 5.00 |
| POINTSOURCE | | TRASH06 | 89.0 | 89.0 | 89.0 | LW | 89 | | 150.00 | 0.00 | 90.00 | 5.00 a | 6259319.94 | 2252101.40 | 5.00 |
| POINTSOURCE | | TRASH07 | 89.0 | 89.0 | 89.0 | LW | 89 | | 150.00 | 0.00 | 90.00 | 5.00 a | 6259440.94 | 2252101.92 | 5.00 |
| POINTSOURCE | | TRASH08 | 89.0 | 89.0 | 89.0 | LW | 89 | <u> </u> | 150.00 | 0.00 | 90.00 | 5.00 a | 6259747.71 | 2252116.85 | 5.00 |
| POINTSOURCE | | TRASH09 | 89.0 | 89.0 | 89.0 | Lw | 89 | | 150.00 | 0.00 | 90.00 | 5.00 a | 6258880.62 | 2252117.30 | 5.00 |
| POINTSOURCE | | TUNNEL01 | 106.0 | 106.0 | 106.0 | Lw | 106 | | 900.00 | 0.00 | 270.00 | 8.00 a | 6259800.68 | 2252236.63 | 8.00 |
| POINTSOURCE | | TUNNEL02 | 106.0 | 106.0 | 106.0 | Lw | 106 | | 900.00 | 0.00 | 270.00 | 8.00 a | 6259798.86 | 2252112.39 | 8.00 |
| POINTSOURCE2 | | VAC01 | 86.3 | 86.3 | 86.3 | Lw | 86.3 | | 900.00 | 0.00 | 270.00 | 3.00 a | 6259756.33 | 2252206.34 | 3.00 |
| POINTSOURCE2 | | VAC02 | 86.3 | 86.3 | 86.3 | Lw | 86.3 | | 900.00 | 0.00 | 270.00 | 3.00 a | 6259705.31 | 2252216.48 | 3.00 |

Line Source(s)

| Name | М. | ID | R | esult. PW | /L | R | esult. PW | "L' | | Lw / Li | | Op | erating Ti | ime | | Moving | Pt. Src | | Heig | ht |
|------------|----|---------|-------|-----------|-------|-------|-----------|-------|--------|---------|-------|-------|------------|--------------------------|-------|---------|---------|-------|------|----|
| | | | Day | Evening | Night | Day | Evening | Night | Type | Value | norm. | Day | Special | Night Nu (min) Day Ev | | Number | | Speed | | |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | Day | Evening | Night | (mph) | (ft) | |
| LINESOURCE | | TRUCK03 | 100.5 | 85.4 | 84.9 | 74.8 | 59.7 | 59.2 | PWL-Pt | 89.7 | | | | | 327.0 | 10.0 | 9.0 | 6.2 | 8 | а |
| LINESOURCE | | TRUCK03 | 91.3 | 76.2 | 75.7 | 74.8 | 59.7 | 59.2 | PWL-Pt | 89.7 | | | | | 327.0 | 10.0 | 9.0 | 6.2 | 8 | а |
| LINESOURCE | | TRUCK02 | 89.9 | 74.8 | 74.3 | 74.8 | 59.7 | 59.2 | PWL-Pt | 89.7 | | | | | 327.0 | 10.0 | 9.0 | 6.2 | 8 | а |

| Name | ŀ | lei | ght | | Coordinat | es | |
|------------|-------|-----|------|------------|------------|------|--------|
| | Begin | | End | х | У | z | Ground |
| | (ft) | | (ft) | (ft) | (ft) | (ft) | (ft) |
| LINESOURCE | 8.00 | а | | 6259677.45 | 2251820.54 | 8.00 | 0.00 |
| | | | | 6259675.90 | 2251941.27 | 8.00 | 0.00 |
| | | | | 6259658.95 | 2251955.14 | 8.00 | 0.00 |
| | | | | 6259646.62 | 2251961.31 | 8.00 | 0.00 |
| | | | | 6259623.50 | 2251967.47 | 8.00 | 0.00 |
| | | | | 6258765.07 | 2251976.72 | 8.00 | 0.00 |
| | | | | 6258745.04 | 2251956.68 | 8.00 | 0.00 |
| | | | | 6258708.05 | 2251948.98 | 8.00 | 0.00 |
| | | | | 6258595.48 | 2251942.81 | 8.00 | 0.00 |
| LINESOURCE | 8.00 | а | | 6258780.44 | 2251830.07 | 8.00 | 0.00 |
| | | | | 6258782.09 | 2251976.54 | 8.00 | 0.00 |
| LINESOURCE | 8.00 | а | | 6258701.19 | 2251133.70 | 8.00 | 0.00 |
| | | | | 6258595.81 | 2251133.76 | 8.00 | 0.00 |

Area Source(s)

| Name | М. | ID | R | esult. PW | 'L | Re | esult. PW | L'' | | Lw / L | i | Op | erating Ti | me | Height | t |
|------------|----|--------|-------|-----------|-------|-------|-----------|-------|------|--------|-------|--------|------------|--------|--------|---|
| | | | Day | Evening | Night | Day | Evening | Night | Туре | Value | norm. | Day | Special | Night | (ft) | |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | | |
| AREASOURCE | | DOCK01 | 111.5 | 111.5 | 111.5 | 68.4 | 68.4 | 68.4 | Lw | 111.5 | | 900.00 | 0.00 | 540.00 | 8 | а |
| AREASOURCE | | DOCK02 | 111.5 | 111.5 | 111.5 | 68.4 | 68.4 | 68.4 | Lw | 111.5 | | 900.00 | 0.00 | 540.00 | 8 | a |

| Name | ŀ | lei | ght | | Coordinat | es | |
|------------|-------|-----|------|------------|------------|------|--------|
| | Begin | | End | х | У | z | Ground |
| | (ft) | | (ft) | (ft) | (ft) | (ft) | (ft) |
| AREASOURCE | 8.00 | а | | 6258654.54 | 2251831.93 | 8.00 | 0.00 |
| | | | | 6258890.46 | 2251828.45 | 8.00 | 0.00 |
| | | | | 6258880.04 | 2250885.74 | 8.00 | 0.00 |
| | | | | 6258643.42 | 2250886.82 | 8.00 | 0.00 |
| | | | | 6258646.85 | 2251088.67 | 8.00 | 0.00 |
| | | | | 6258700.73 | 2251086.10 | 8.00 | 0.00 |
| | | | | 6258701.59 | 2251175.05 | 8.00 | 0.00 |
| | | | | 6258646.85 | 2251173.34 | 8.00 | 0.00 |
| AREASOURCE | 8.00 | а | | 6259574.43 | 2251821.78 | 8.00 | 0.00 |
| | | | | 6259633.89 | 2251820.48 | 8.00 | 0.00 |
| | | | | 6259701.54 | 2251820.58 | 8.00 | 0.00 |
| | | | | 6259807.77 | 2251820.58 | 8.00 | 0.00 |
| | | | | 6259798.37 | 2250874.82 | 8.00 | 0.00 |
| | | | | 6259624.83 | 2250876.63 | 8.00 | 0.00 |
| | | | | 6259566.24 | 2250876.63 | 8.00 | 0.00 |

Barrier(s)

| Name | М. | ID | Abso | rption | Z-Ext. | Canti | ilever | H | lei | ght | | Coordinat | es | |
|-----------------|----|----|------|--------|--------|-------|--------|---------|-----|------|------------|------------|-------|--------|
| | | | left | right | | horz. | vert. | Begin | | End | x | У | z | Ground |
| | | | | | (ft) | (ft) | (ft) | (ft) | | (ft) | (ft) | (ft) | (ft) | (ft) |
| BARRIEREXISTING | | 0 | | | | | | 6.00 | а | | 6260560.53 | 2251104.42 | 6.00 | 0.00 |
| | | | | | | | | | | | 6260561.31 | 2251009.02 | 6.00 | 0.00 |
| | | | | | | | | | | | 6260585.62 | 2251008.32 | 6.00 | 0.00 |
| BARRIERTEMP | | 0 | | | | | | 14.00 | а | | 6258759.98 | 2251830.37 | 14.00 | 0.00 |
| | | | | | | | | 14.00 u | | | 6258654.54 | 2251831.93 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258646.85 | 2251173.34 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258701.59 | 2251175.05 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258701.39 | 2251154.32 | 14.00 | 0.00 |
| BARRIERTEMP | | 0 | | | | | | 14.00 a | | | 6258700.99 | 2251113.18 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258700.73 | 2251086.10 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258646.85 | 2251088.67 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258643.42 | 2250886.82 | 14.00 | 0.00 |
| | | | | | | | | | | | 6258766.83 | 2250886.26 | 14.00 | 0.00 |
| BARRIERTEMP | | 0 | | | | | | 14.00 | а | | 6259701.54 | 2251820.58 | 14.00 | 0.00 |
| | | | | | | | | | | | 6259807.77 | 2251820.58 | 14.00 | 0.00 |
| | | | | | | | | | | | 6259798.37 | 2250874.82 | 14.00 | 0.00 |
| | | | | | | | | | | | 6259695.44 | 2250875.89 | 14.00 | 0.00 |
| BARRIERTEMP | | 0 | | | | | | 14.00 | а | | 6259649.70 | 2250876.37 | 14.00 | 0.00 |
| | | | | | | | | | | | 6259624.83 | 2250876.63 | 14.00 | 0.00 |

Building(s)

| Name | М. | ID | RB | Residents | Absorption | Height | | | Coordinat | es | |
|----------|----|---------------|----|-----------|------------|--------|---|------------|------------|-------|--------|
| | | | | | | Begin | | x | у | z | Ground |
| | | | | | | (ft) | | (ft) | (ft) | (ft) | (ft) |
| BUILDING | | BUILDING00001 | х | 0 | | 45.00 | a | 6258847.34 | 2251924.35 | 45.00 | 0.00 |
| | | | | | | | | 6258875.98 | 2251923.31 | 45.00 | 0.00 |
| | | | | | | | | 6258876.51 | 2251930.60 | 45.00 | 0.00 |
| | | | | | | | | 6259590.49 | 2251923.78 | 45.00 | 0.00 |
| | | | | | | | | 6259590.49 | 2251916.83 | 45.00 | 0.00 |
| | | | | | | | | 6259619.14 | 2251916.83 | 45.00 | 0.00 |

| Name | М. | ID | RB | Residents | Absorption | Height | | | Coordinat | es | |
|-----------|----------|---------------|----|-----------|------------|--------|----------|------------|-------------|-------|--------|
| | | | | | | Begin | _ | x | У | z | Ground |
| | | | | | | (ft) | | (ft) | (ft) | (ft) | (ft) |
| | | | | | | | | 6259619.14 | 2251887.75 | 45.00 | 0.00 |
| | | | | | | | | 6259628.69 | 2251886.88 | 45.00 | 0.00 |
| | | | | | | | | 6259628.25 | 2251873.86 | 45.00 | 0.00 |
| | | | | | | | | 6259635.20 | 2251873.43 | 45.00 | 0.00 |
| | | | | | | | | 6259633.89 | 2251820.48 | 45.00 | 0.00 |
| | | | | | | | | 6259574.43 | 2251821.78 | 45.00 | 0.00 |
| | | | | | | | | 6259566.24 | 2250876.63 | 45.00 | 0.00 |
| | | | | | | | | 6259624.83 | 2250876.63 | 45.00 | 0.00 |
| | | | | | | | | 6259623.53 | 2250767.26 | 45.00 | 0.00 |
| | | | | | | | | 6259615.72 | 2250767.26 | 45.00 | 0.00 |
| | | | | | | | | 6259618.32 | 2250754.23 | 45.00 | 0.00 |
| | | | | | | | | 6259607.91 | 2250752.93 | 45.00 | 0.00 |
| | | | | | | | | 6259606.61 | 2250725.59 | 45.00 | 0.00 |
| | | | | | | | | 6259577.96 | 2250725.59 | 45.00 | 0.00 |
| | | | | | | | | 6259579.26 | 2250717.78 | 45.00 | 0.00 |
| | | | | | | | | 6258834.47 | 2250730.80 | 45.00 | 0.00 |
| | | | | | | | | 6258835.77 | 2250763.35 | 45.00 | 0.00 |
| | | | | | | | | 6258826.66 | 2250765.95 | 45.00 | 0.00 |
| | | | | | | | L | 6258827.96 | 2250775.07 | 45.00 | 0.00 |
| | | | | | | | Ĺ | 6258817.54 | 2250776.37 | 45.00 | 0.00 |
| | | | | | | | | 6258822.75 | 2250885.74 | 45.00 | 0.00 |
| | | | | | | | | 6258880.04 | 2250885.74 | 45.00 | 0.00 |
| | | | | | | | | 6258890.46 | 2251828.45 | 45.00 | 0.00 |
| | | | | | | | | 6258827.96 | 2251831.06 | 45.00 | 0.00 |
| | | | | | | | | 6258829.26 | 2251880.54 | 45.00 | 0.00 |
| | | | | | | | | 6258837.07 | 2251879.23 | 45.00 | 0.00 |
| | | | | | | | | 6258838.38 | 2251896.16 | 45.00 | 0.00 |
| | | | | | | | | 6258844.89 | 2251896.16 | 45.00 | 0.00 |
| BUILDING | | BUILDING00002 | х | 0 | | 25.00 | a | 6258637.54 | 2252210.84 | 25.00 | 0.00 |
| | | | | | | | | 6258681.87 | 2252210.33 | 25.00 | 0.00 |
| | | | | | | | | 6258681.36 | 2252111.30 | 25.00 | 0.00 |
| | | | | | | | | 6258636.28 | 2252111.30 | 25.00 | 0.00 |
| BUILDING | | BUILDING00003 | х | 0 | | 25.00 | a | 6258765.70 | 2252269.85 | 25.00 | 0.00 |
| | | | | | | | | 6258886.26 | 2252269.60 | 25.00 | 0.00 |
| | | | | | | | | 6258885.51 | 2252209.57 | 25.00 | 0.00 |
| | | | | | | | | 6258765.45 | 2252211.34 | 25.00 | 0.00 |
| BUILDING | | BUILDING00004 | x | 0 | | 25.00 | a | 6258939.96 | 2252234.14 | 25.00 | 0.00 |
| | | | | | | | | 6258985.04 | 2252233.63 | 25.00 | 0.00 |
| | | | | | | | | 6258983.52 | 2252135.10 | 25.00 | 0.00 |
| | | | | | | | | 6258938.44 | 2252135.61 | 25.00 | 0.00 |
| BUILDING | | BUILDING00005 | x | 0 | | 25.00 | a | 6259076.48 | 2252232.62 | 25.00 | 0.00 |
| | | | | - | | | - | 6259121.56 | 2252232.36 | 25.00 | 0.00 |
| | | | | | | | | 6259120.80 | 2252252.00 | 25.00 | 0.00 |
| | | | | | | | ⊢ | 6259075.46 | 2252132.05 | 25.00 | 0.00 |
| | | | v | 0 | | 25.00 | | 6259276 57 | 2252135.55 | 25.00 | 0.00 |
| - 0.22110 | | - 5.25 | Ê | | | 25.00 | ľ | 6259376 26 | 2252246.04 | 25.00 | 0.00 |
| | | | - | | | | \vdash | 6259376 11 | 2252187 28 | 25.00 | 0.00 |
| | | | | | | | \vdash | 6259276 57 | 2252107.20 | 25.00 | 0.00 |
| | | BUILDING00007 | × | 0 | | 25.00 | 2 | 6259438 07 | 22522100.29 | 25.00 | 0.00 |
| JOILDING | | 2012211000007 | ^ | | | 20.00 | d | 6259430.32 | 2252243.20 | 25.00 | 0.00 |
| | | | | | | | \vdash | 6250/07 04 | 2252242.24 | 25.00 | 0.00 |
| | | | | | | | \vdash | 6259/28 14 | 2252202.30 | 25.00 | 0.00 |
| | | | ~ | 0 | | 25 00 | 2 | 6259572 15 | 2252205.24 | 25.00 | 0.00 |
| DOILDING | | DOILDINGUUU08 | ^ | | | 20.00 | a | 6250605 07 | 2252250.71 | 25.00 | 0.00 |
| | | | | | | | \vdash | 6250604 02 | 2232237.09 | 25.00 | 0.00 |
| | | | - | | | | \vdash | 6250649.64 | 2232200.48 | 25.00 | 0.00 |
| | | | | | | | \vdash | 0259048.04 | 2252259.97 | 25.00 | 0.00 |
| | | | | | | | \vdash | 0259048.38 | 2252257.69 | 25.00 | 0.00 |
| | <u> </u> | | | | | | \vdash | 0259085.11 | 2252256.68 | 25.00 | 0.00 |
| | | | | | | | \vdash | 0259684.86 | 2252214.63 | 25.00 | 0.00 |
| | | | | - | | 25.00 | | 0259571.64 | 2252216.41 | 25.00 | 0.00 |
| BUILDING | | BUILDING00009 | x | 0 | | 25.00 | а | 6259789.21 | 2252230.08 | 25.00 | 0.00 |
| | | | | | | | - | 6259810.74 | 2252230.08 | 25.00 | 0.00 |
| | | | | | | | | 6259810.23 | 2252119.65 | 25.00 | 0.00 |
| | | | | | | | | 6259778.57 | 2252120.16 | 25.00 | 0.00 |
| | | | | | | | | 6259779.33 | 2252225.27 | 25.00 | 0.00 |
| | | | | | | | | 6259789.46 | 2252225.27 | 25.00 | 0.00 |

APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS

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13998 - Ramona Gateway Commerce Center

CadnaA Noise Prediction Model: 13998_05_Construction.cna Date: 16.03.22 Analyst: B. Lawson

Calculation Configuration

| Configurat | ion |
|--------------------------------------|--------------------------------|
| Parameter | Value |
| General | |
| Country | (user defined) |
| Max. Error (dB) | 0.00 |
| Max. Search Radius (#(Unit,LEN)) | 2000.01 |
| Min. Dist Src to Rcvr | 0.00 |
| Partition | |
| Raster Factor | 0.50 |
| Max. Length of Section (#(Unit,LEN)) | 999.99 |
| Min. Length of Section (#(Unit,LEN)) | 1.01 |
| Min. Length of Section (%) | 0.00 |
| Proj. Line Sources | On |
| Proj. Area Sources | On |
| Ref. Time | |
| Reference Time Day (min) | 960.00 |
| Reference Time Night (min) | 480.00 |
| Daytime Penalty (dB) | 0.00 |
| Recr. Time Penalty (dB) | 5.00 |
| Night-time Penalty (dB) | 10.00 |
| DTM | |
| Standard Height (m) | 0.00 |
| Model of Terrain | Triangulation |
| Reflection | |
| max. Order of Reflection | 2 |
| Search Radius Src | 100.00 |
| Search Radius Rcvr | 100.00 |
| Max. Distance Source - Rcvr | 1000.00 1000.00 |
| Min. Distance Rvcr - Reflector | 1.00 1.00 |
| Min. Distance Source - Reflector | 0.10 |
| Industrial (ISO 9613) | |
| Lateral Diffraction | some Obj |
| Obst. within Area Src do not shield | On |
| Screening | Incl. Ground Att. over Barrier |
| | Dz with limit (20/25) |
| Barrier Coefficients C1,2,3 | 3.0 20.0 0.0 |
| Temperature (#(Unit,TEMP)) | 10 |
| rel. Humidity (%) | 70 |
| Ground Absorption G | 0.50 |
| Wind Speed for Dir. (#(Unit,SPEED)) | 3.0 |
| Roads (TNM) | |
| Railways (FTA/FRA) | |
| Aircraft (???) | |
| Strictly acc. to AzB | |

Receiver Noise Levels

| Name | м. | ID | | Level Lr | | Lir | nit. Valı | ue | | Land | Use | Height | | Coordinates | | | |
|-----------|----|----|-------|----------|-------|-------|-----------|-------|------|------|------------|--------|---|-------------|------------|------|--|
| | | | Day | Night | CNEL | Day | Night | CNEL | Туре | Auto | Noise Type | | | Х | Y | Z | |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | | (ft) | | (ft) | (ft) | (ft) | |
| RECEIVERS | | R1 | 75.5 | 75.5 | 82.2 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259920.31 | 2252784.09 | 5.00 | |
| RECEIVERS | | R2 | 74.4 | 74.4 | 81.1 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6260576.74 | 2251019.92 | 5.00 | |
| RECEIVERS | | R3 | 83.5 | 83.5 | 90.2 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259810.65 | 2250557.12 | 5.00 | |
| RECEIVERS | | R4 | 84.3 | 84.3 | 90.9 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259207.19 | 2250547.05 | 5.00 | |
| RECEIVERS | | R5 | 69.2 | 69.2 | 75.8 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6257425.14 | 2249822.33 | 5.00 | |

Area Source(s)

| Name | М. | ID | R | esult. PW | 'L | Re | esult. PW | L'' | | Lw/L | i | Op | erating Ti | Height | | |
|--------------|----|--------------|-------|-----------|-------|-------|-----------|-------|------|-------|-------|-------|------------|--------|------|---|
| | | | Day | Evening | Night | Day | Evening | Night | Туре | Value | norm. | Day | Special | Night | (ft) | |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | | |
| CONSTRUCTION | | CONSTRUCTION | 138.9 | 138.9 | 138.9 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |

| Name | ł | lei | ight | | | Coordinat | es | |
|--------------|-------|---------------------|------|--|------------|------------|------|--------|
| | Begin | | End | | х | У | z | Ground |
| | (ft) | (ft) (ft) 8.00 a | | | (ft) | (ft) | (ft) | (ft) |
| CONSTRUCTION | 8.00 | 10 a | | | 6259205.61 | 2250562.27 | 8.00 | 0.00 |
| | | | | | 6258596.06 | 2250551.13 | 8.00 | 0.00 |
| | | | | | 6258533.92 | 2250551.12 | 8.00 | 0.00 |
| | | | | | 6258533.37 | 2250728.77 | 8.00 | 0.00 |
| | | | | | 6258530.76 | 2250903.75 | 8.00 | 0.00 |
| | | | | | 6258525.64 | 2251247.28 | 8.00 | 0.00 |
| | | | | | 6258535.43 | 2252303.01 | 8.00 | 0.00 |

| Name | He | ight | | Coordinat | es | |
|------|-------|------|------------|------------|------|--------|
| | Begin | End | x | У | z | Ground |
| | (ft) | (ft) | (ft) | (ft) | (ft) | (ft) |
| | | | 6258536.98 | 2252449.46 | 8.00 | 0.00 |
| | | | 6259928.19 | 2252432.64 | 8.00 | 0.00 |
| | | | 6259929.13 | 2252271.19 | 8.00 | 0.00 |
| | | | 6259927.87 | 2252135.52 | 8.00 | 0.00 |
| | | | 6259926.31 | 2251967.73 | 8.00 | 0.00 |
| | | | 6259924.76 | 2251799.93 | 8.00 | 0.00 |
| | | | 6259923.20 | 2251632.14 | 8.00 | 0.00 |
| | | | 6259921.64 | 2251464.35 | 8.00 | 0.00 |
| | | | 6259920.09 | 2251296.55 | 8.00 | 0.00 |
| | | | 6259918.53 | 2251128.76 | 8.00 | 0.00 |
| | | | 6259916.97 | 2250960.97 | 8.00 | 0.00 |
| | | | 6259915.42 | 2250793.18 | 8.00 | 0.00 |
| | | | 6259913.33 | 2250575.64 | 8.00 | 0.00 |
| | | | 6259819.90 | 2250573.60 | 8.00 | 0.00 |

APPENDIX 10.2:

CADNAA MITIGATED CONSTRUCTION NOISE MODEL INPUTS



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13998 - Ramona Gateway Commerce Center

CadnaA Noise Prediction Model: 13998_05_Construction_Mitigated.cna Date: 16.03.22 Analyst: B. Lawson

Calculation Configuration

| Configurat | ion |
|--------------------------------------|--------------------------------|
| Parameter | Value |
| General | |
| Country | (user defined) |
| Max. Error (dB) | 0.00 |
| Max. Search Radius (#(Unit,LEN)) | 2000.01 |
| Min. Dist Src to Rcvr | 0.00 |
| Partition | |
| Raster Factor | 0.50 |
| Max. Length of Section (#(Unit,LEN)) | 999.99 |
| Min. Length of Section (#(Unit,LEN)) | 1.01 |
| Min. Length of Section (%) | 0.00 |
| Proj. Line Sources | On |
| Proj. Area Sources | On |
| Ref. Time | |
| Reference Time Day (min) | 960.00 |
| Reference Time Night (min) | 480.00 |
| Daytime Penalty (dB) | 0.00 |
| Recr. Time Penalty (dB) | 5.00 |
| Night-time Penalty (dB) | 10.00 |
| DTM | |
| Standard Height (m) | 0.00 |
| Model of Terrain | Triangulation |
| Reflection | |
| max. Order of Reflection | 2 |
| Search Radius Src | 100.00 |
| Search Radius Rcvr | 100.00 |
| Max. Distance Source - Rcvr | 1000.00 1000.00 |
| Min. Distance Rvcr - Reflector | 1.00 1.00 |
| Min. Distance Source - Reflector | 0.10 |
| Industrial (ISO 9613) | |
| Lateral Diffraction | some Obj |
| Obst. within Area Src do not shield | On |
| Screening | Incl. Ground Att. over Barrier |
| | Dz with limit (20/25) |
| Barrier Coefficients C1,2,3 | 3.0 20.0 0.0 |
| Temperature (#(Unit,TEMP)) | 10 |
| rel. Humidity (%) | 70 |
| Ground Absorption G | 0.50 |
| Wind Speed for Dir. (#(Unit,SPEED)) | 3.0 |
| Roads (TNM) | |
| Railways (FTA/FRA) | |
| Aircraft (???) | |
| Strictly acc. to AzB | |

Receiver Noise Levels

| Name | м. | ID | | Level Lr | | Lir | nit. Valı | ue | | Land | Use | Height | | Coordinates | | | |
|-----------|----|----|-------|----------|-------|-------|-----------|-------|------|---|------------|--------|---|-------------|------------|------|--|
| | | | Day | Night | CNEL | Day | Night | CNEL | Туре | Auto | Noise Type | | | Х | Y | Z | |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | (ft) | | (ft) | (ft) | (ft) | |
| RECEIVERS | | R1 | 75.5 | 75.5 | 82.2 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259920.31 | 2252784.09 | 5.00 | |
| RECEIVERS | | R2 | 74.4 | 74.4 | 81.1 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6260576.74 | 2251019.92 | 5.00 | |
| RECEIVERS | | R3 | 78.1 | 78.1 | 84.8 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259810.65 | 2250557.12 | 5.00 | |
| RECEIVERS | | R4 | 77.6 | 77.6 | 84.3 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259207.19 | 2250547.05 | 5.00 | |
| RECEIVERS | | R5 | 68.4 | 68.4 | 75.1 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6257425.14 | 2249822.33 | 5.00 | |

Area Source(s)

| Name | М. | ID | R | esult. PW | 'L | Re | esult. PW | L'' | | Lw/L | i | Op | erating Ti | Height | | |
|--------------|----|--------------|-------|-----------|-------|-------|-----------|-------|------|-------|-------|-------|------------|--------|------|---|
| | | | Day | Evening | Night | Day | Evening | Night | Туре | Value | norm. | Day | Special | Night | (ft) | |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | | |
| CONSTRUCTION | | CONSTRUCTION | 138.9 | 138.9 | 138.9 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |

| Name | ł | lei | ight | | Coordinates | | | | | | | |
|--------------|--------|-----|------|--|-------------|------------|------|--------|--|--|--|--|
| | Begin | | End | | x | У | z | Ground | | | | |
| | (ft) | | (ft) | | (ft) | (ft) | (ft) | (ft) | | | | |
| CONSTRUCTION | 8.00 a | | 1 | | 6259205.61 | 2250562.27 | 8.00 | 0.00 | | | | |
| | | | | | 6258596.06 | 2250551.13 | 8.00 | 0.00 | | | | |
| | | | | | 6258533.92 | 2250551.12 | 8.00 | 0.00 | | | | |
| | | | | | 6258533.37 | 2250728.77 | 8.00 | 0.00 | | | | |
| | | | | | 6258530.76 | 2250903.75 | 8.00 | 0.00 | | | | |
| | | | | | 6258525.64 | 2251247.28 | 8.00 | 0.00 | | | | |
| | | | | | 6258535.43 | 2252303.01 | 8.00 | 0.00 | | | | |

| Name | He | ight | Coordinates | | | | | | | |
|------|-------|------|----------------------|------------|------|--------|--|--|--|--|
| | Begin | End | х | У | z | Ground | | | | |
| | (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | | | | |
| | | | 6258536.98 | 2252449.46 | 8.00 | 0.00 | | | | |
| | | | 6259928.19 | 2252432.64 | 8.00 | 0.00 | | | | |
| | | | 6259929.13 | 2252271.19 | 8.00 | 0.00 | | | | |
| | | | 6259927.87 | 2252135.52 | 8.00 | 0.00 | | | | |
| | | | 6259926.31 | 2251967.73 | 8.00 | 0.00 | | | | |
| | | | 6259924.76 | 2251799.93 | 8.00 | 0.00 | | | | |
| | | | 6259923.20 | 2251632.14 | 8.00 | 0.00 | | | | |
| | | | 6259921.64 | 2251464.35 | 8.00 | 0.00 | | | | |
| | | | 6259920.09 2251296.5 | | 8.00 | 0.00 | | | | |
| | | | 6259918.53 | 2251128.76 | 8.00 | 0.00 | | | | |
| | | | 6259916.97 | 2250960.97 | 8.00 | 0.00 | | | | |
| | | | 6259915.42 | 2250793.18 | 8.00 | 0.00 | | | | |
| | | | 6259913.33 | 2250575.64 | 8.00 | 0.00 | | | | |
| | | | 6259819.90 | 2250573.60 | 8.00 | 0.00 | | | | |

Barrier(s)

| Name | М. | ID | Absorption Z-Ext. | | | -Ext. Cantilever | | | Height | | | Coordinates | | | | |
|-------------|----|----|-------------------|-------|------|------------------|-------|--------|--------|------|--|-------------|------------|------|--------|--|
| | | | left | right | | horz. | vert. | Begin | | End | | x | У | z | Ground | |
| | | | | | (ft) | (ft) | (ft) | (ft) | | (ft) | | (ft) | (ft) | (ft) | (ft) | |
| BARRIERCONS | | 0 | | | | | | 8.00 a | | | | 6259825.35 | 2250569.24 | 8.00 | 0.00 | |
| | | | | | | | | | | | | 6258596.06 | 2250546.77 | 8.00 | 0.00 | |

APPENDIX 10.3:

CADNAA MITIGATED CONCRETE POUR NOISE MODEL INPUTS

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13998 - Ramona Gateway Commerce Center

CadnaA Noise Prediction Model: 13998_05_ConcretePour_Mitigated.cna Date: 16.03.22 Analyst: B. Lawson

Calculation Configuration

| Configuration | | | | | | | | |
|--------------------------------------|--------------------------------|--|--|--|--|--|--|--|
| Parameter | Value | | | | | | | |
| General | | | | | | | | |
| Country | (user defined) | | | | | | | |
| Max. Error (dB) | 0.00 | | | | | | | |
| Max. Search Radius (#(Unit,LEN)) | 2000.01 | | | | | | | |
| Min. Dist Src to Rcvr | 0.00 | | | | | | | |
| Partition | | | | | | | | |
| Raster Factor | 0.50 | | | | | | | |
| Max. Length of Section (#(Unit,LEN)) | 999.99 | | | | | | | |
| Min. Length of Section (#(Unit,LEN)) | 1.01 | | | | | | | |
| Min. Length of Section (%) | 0.00 | | | | | | | |
| Proj. Line Sources | On | | | | | | | |
| Proj. Area Sources | On | | | | | | | |
| Ref. Time | | | | | | | | |
| Reference Time Day (min) | 960.00 | | | | | | | |
| Reference Time Night (min) | 480.00 | | | | | | | |
| Daytime Penalty (dB) | 0.00 | | | | | | | |
| Recr. Time Penalty (dB) | 5.00 | | | | | | | |
| Night-time Penalty (dB) | 10.00 | | | | | | | |
| DTM | | | | | | | | |
| Standard Height (m) | 0.00 | | | | | | | |
| Model of Terrain | Triangulation | | | | | | | |
| Reflection | | | | | | | | |
| max. Order of Reflection | 2 | | | | | | | |
| Search Radius Src | 100.00 | | | | | | | |
| Search Radius Rcvr | 100.00 | | | | | | | |
| Max. Distance Source - Rcvr | 1000.00 1000.00 | | | | | | | |
| Min. Distance Rvcr - Reflector | 1.00 1.00 | | | | | | | |
| Min. Distance Source - Reflector | 0.10 | | | | | | | |
| Industrial (ISO 9613) | | | | | | | | |
| Lateral Diffraction | some Obj | | | | | | | |
| Obst. within Area Src do not shield | On | | | | | | | |
| Screening | Incl. Ground Att. over Barrier | | | | | | | |
| _ | Dz with limit (20/25) | | | | | | | |
| Barrier Coefficients C1,2,3 | 3.0 20.0 0.0 | | | | | | | |
| Temperature (#(Unit,TEMP)) | 10 | | | | | | | |
| rel. Humidity (%) | 70 | | | | | | | |
| Ground Absorption G | 0.50 | | | | | | | |
| Wind Speed for Dir. (#(Unit,SPEED)) | 3.0 | | | | | | | |
| Roads (TNM) | | | | | | | | |
| Railways (FTA/FRA) | | | | | | | | |
| Aircraft (???) | | | | | | | | |
| Strictly acc. to AzB | | | | | | | | |

Receiver Noise Levels

| Name | м. | ID | Level Lr | | | Limit. Value | | | | Land | Use | Height | | Coordinates | | |
|-----------|----|----|----------|-------|-------|--------------|-------|-------|------|------|------------|--------|---|-------------|------------|------|
| | | | Day | Night | CNEL | Day | Night | CNEL | Туре | Auto | Noise Type | | | Х | Y | Z |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | | (ft) | | (ft) | (ft) | (ft) |
| RECEIVERS | | R1 | 69.0 | 69.0 | 75.7 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259920.31 | 2252784.09 | 5.00 |
| RECEIVERS | | R2 | 69.5 | 69.5 | 76.2 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6260576.74 | 2251019.92 | 5.00 |
| RECEIVERS | | R3 | 67.8 | 67.8 | 74.5 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259810.65 | 2250557.12 | 5.00 |
| RECEIVERS | | R4 | 70.0 | 70.0 | 76.6 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6259207.19 | 2250547.05 | 5.00 |
| RECEIVERS | | R5 | 64.1 | 64.1 | 70.8 | 80.0 | 60.0 | 0.0 | | | | 5.00 | а | 6257425.14 | 2249822.33 | 5.00 |

Area Source(s)

| Name | М. | ID | Result. PWL | | | R | esult. PW | | Lw/L | i | Op | Height | t | | | |
|----------|----|---------------|-------------|---------|-------|-------|-----------|-------|------|-------|-------|--------|---------|-------|------|---|
| | | | Day | Evening | Night | Day | Evening | Night | Туре | Value | norm. | Day | Special | Night | (ft) | |
| | | | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | (dBA) | | | dB(A) | (min) | (min) | (min) | | |
| BUILDING | | BUILDING00001 | 134.0 | 134.0 | 134.0 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |
| BUILDING | | BUILDING00002 | 111.2 | 111.2 | 111.2 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |
| BUILDING | | BUILDING00003 | 113.2 | 113.2 | 113.2 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |
| BUILDING | | BUILDING00004 | 111.2 | 111.2 | 111.2 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |
| BUILDING | | BUILDING00005 | 111.2 | 111.2 | 111.2 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |
| BUILDING | | BUILDING00006 | 112.4 | 112.4 | 112.4 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |
| BUILDING | | BUILDING00007 | 108.4 | 108.4 | 108.4 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |
| BUILDING | | BUILDING00008 | 111.6 | 111.6 | 111.6 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | а |
| BUILDING | | BUILDING00009 | 110.0 | 110.0 | 110.0 | 85.0 | 85.0 | 85.0 | Lw" | 85 | | | | | 8 | a |

| Name | ŀ | łei | ght | | Coordinates | | | | | | | | | |
|----------|-------|-----|------|---|-------------|------------|--------------|--------|--|--|--|--|--|--|
| | Begin | | End | | х | У | z | Ground | | | | | | |
| | (ft) | | (ft) | | (ft) | (ft) | (ft) | (ft) | | | | | | |
| BUILDING | 8.00 | а | | | 6258847.34 | 2251924.35 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258875.98 | 2251923.31 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258876.51 | 2251930.60 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259590.49 | 2251923.78 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259590.49 | 2251916.83 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259619.14 | 2251916.83 | 8.00 | 0.00 | | | | | | |
| | | - | | _ | 6259619.14 | 2251886.88 | 8.00 | 0.00 | | | | | | |
| | | | | _ | 6259628.05 | 2251800.88 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259635.20 | 2251873.43 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259633.89 | 2251820.48 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259574.43 | 2251821.78 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259566.24 | 2250876.63 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259624.83 | 2250876.63 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259623.53 | 2250767.26 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259615.72 | 2250767.26 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259618.32 | 2250754.23 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259607.91 | 2250752.93 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259606.61 | 2250725.59 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259577.96 | 2250725.59 | 8.00 | 0.00 | | | | | | |
| | | - | | | 6259579.26 | 2250/17.78 | 8.00 | 0.00 | | | | | | |
| | | | | | 0238834.47 | 2250/30.80 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258826 64 | 2250/03.35 | 8.00 2.00 | 0.00 | | | | | | |
| | | | | | 6258827 96 | 2250705.95 | 8.00 8.00 | 0.00 | | | | | | |
| | | | | | 6258817 54 | 2250776 37 | 8 00 | 0.00 | | | | | | |
| | | | | | 6258822.75 | 2250885.74 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258880.04 | 2250885.74 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258890.46 | 2251828.45 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258827.96 | 2251831.06 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258829.26 | 2251880.54 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258837.07 | 2251879.23 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258838.38 | 2251896.16 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258844.89 | 2251896.16 | 8.00 | 0.00 | | | | | | |
| BUILDING | 8.00 | а | | | 6258637.54 | 2252210.84 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258681.87 | 2252210.33 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258681.36 | 2252111.30 | 8.00 | 0.00 | | | | | | |
| | 8 00 | 2 | | _ | 6258636.28 | 2252111.30 | 8.00 | 0.00 | | | | | | |
| BUILDING | 8.00 | a | | | 6258886.26 | 2252205.85 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258885.51 | 2252209.57 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258765.45 | 2252211.34 | 8.00 | 0.00 | | | | | | |
| BUILDING | 8.00 | а | | | 6258939.96 | 2252234.14 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258985.04 | 2252233.63 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258983.52 | 2252135.10 | 8.00 | 0.00 | | | | | | |
| | | | | | 6258938.44 | 2252135.61 | 8.00 | 0.00 | | | | | | |
| BUILDING | 8.00 | а | | | 6259076.48 | 2252232.62 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259121.56 | 2252232.36 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259120.80 | 2252132.83 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259075.46 | 2252133.59 | 8.00 | 0.00 | | | | | | |
| BUILDING | 8.00 | а | | | 6259276.57 | 2252247.31 | 8.00 | 0.00 | | | | | | |
| | | | | | 6250274 11 | 2252246.04 | 8.00 8.00 | 0.00 | | | | | | |
| | | | | | 6259276 57 | 2252107.20 | 8.00 8.00 | 0.00 | | | | | | |
| BUILDING | 8.00 | а | | | 6259438.92 | 2252243.26 | 8.00 | 0.00 | | | | | | |
| | | - | | | 6259498.70 | 2252242.24 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259497.94 | 2252202.98 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259438.16 | 2252203.24 | 8.00 | 0.00 | | | | | | |
| BUILDING | 8.00 | а | | | 6259572.15 | 2252258.71 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259605.07 | 2252257.69 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259604.82 | 2252260.48 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259648.64 | 2252259.97 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259648.38 | 2252257.69 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259685.11 | 2252256.68 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259684.86 | 2252214.63 | 8.00 | 0.00 | | | | | | |
| | 0.00 | - | | | 6259571.64 | 2252216.41 | 8.00 | 0.00 | | | | | | |
| BUILDING | 8.00 | d | | | 6250910 74 | 2252230.08 | 8.00 | 0.00 | | | | | | |
| | | | | _ | 6259810.74 | 2252250.08 | 8.00 8.00 | 0.00 | | | | | | |
| | | | | | 6259778.57 | 2252120.16 | 8.00 | 0.00 | | | | | | |
| | | | | - | 6259779.33 | 2252225.27 | 8.00 | 0.00 | | | | | | |
| | | | | | 6259789.46 | 2252225.27 | 8.00 | 0.00 | | | | | | |

Barrier(s)
| Name | M. | ID | Absorption | | Z-Ext. | Cantilever | | Height | | | Coordinates | | | |
|-------------|----|----|------------|-------|--------|------------|-------|--------|---|------|-------------|------------|------|--------|
| | | | left | right | | horz. | vert. | Begin | | End | х | У | z | Ground |
| | | | | | (ft) | (ft) | (ft) | (ft) | | (ft) | (ft) | (ft) | (ft) | (ft) |
| BARRIERCONS | | 0 | | | | | | 8.00 | а | | 6259825.35 | 2250569.24 | 8.00 | 0.00 |
| | | | | | | | | | | | 6258596.06 | 2250546.77 | 8.00 | 0.00 |

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