



Legado

NOISE IMPACT ANALYSIS

CITY OF MENIFEE

PREPARED BY:

Bill Lawson, PE, INCE
blawson@urbanxroads.com
(949) 336-5979

Alex Wolfe, INCE
awolfe@urbanxroads.com
(949) 336-5977

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TABLE OF CONTENTS

TABLE OF CONTENTS	III
APPENDICES	IV
LIST OF EXHIBITS	V
LIST OF TABLES	V
LIST OF ABBREVIATED TERMS.....	VII
EXECUTIVE SUMMARY	1
Off-Site Traffic Noise Analysis.....	1
On-Site Traffic Noise Analysis	1
Operational Noise Analysis	4
Construction Noise Analysis	4
Construction Vibration Analysis.....	5
Summary of Significance Findings	6
1 INTRODUCTION.....	9
1.1 Site Location.....	9
1.2 Project Description.....	9
2 FUNDAMENTALS	13
2.1 Range of Noise	13
2.2 Noise Descriptors	14
2.3 Sound Propagation.....	14
2.4 Noise Control	15
2.5 Noise Barrier Attenuation.....	16
2.6 Land Use Compatibility With Noise	16
2.7 Community Response to Noise	16
2.8 Exposure to High Noise Levels	17
2.9 Vibration	17
3 REGULATORY SETTING.....	21
3.1 State of California Noise Requirements.....	21
3.2 State of California Building Code	21
3.3 City of Menifee General Plan Noise Element.....	22
3.4 Operational Noise Standards	25
3.5 Construction Noise Standards	25
3.6 Construction Vibration Standards.....	26
3.7 Riverside County Airport Land Use Compatibility Plan.....	27
4 SIGNIFICANCE CRITERIA.....	29
4.1 Noise-Sensitive Receivers	29
4.2 Non-Noise-Sensitive Receivers	30
4.3 Significance Criteria Summary	31
4.4 Impacts Not Further Analyzed	32
5 EXISTING NOISE LEVEL MEASUREMENTS.....	35
5.1 Measurement Procedure and Criteria	35
5.2 Noise Measurement Locations	35
5.3 Noise Measurement Results	36

6	METHODS AND PROCEDURES	41
6.1	FHWA Traffic Noise Prediction Model	41
6.2	Vibration Assessment	47
7	OFF-SITE TRANSPORTATION NOISE IMPACTS	49
7.2	Baseline Noise Conditions.....	49
7.2	Traffic Noise Contours	50
7.3	Existing Condition Project Traffic Noise Levels	63
7.4	Opening Year 2020 Phase 1 Project Traffic Noise Levels.....	64
7.5	Opening Year 2023 Phase 2 Project Traffic Noise Levels.....	64
7.6	Opening Year 2025 Project Buildout Traffic Noise Levels.....	64
7.7	Horizon Year 2040 Project Traffic Noise Level Contributions.....	65
8	ON-SITE TRANSPORTATION NOISE IMPACTS	81
8.1	On-Site Exterior Noise Analysis.....	81
8.2	On-Site Interior Noise Analysis	83
9	RECEIVER LOCATIONS.....	87
10	OPERATIONAL IMPACTS	91
10.1	Reference Noise Levels	91
10.2	Operational Noise Levels	94
10.3	Project Operational Noise Level Contributions	97
11	CONSTRUCTION IMPACTS.....	101
11.1	Construction Noise Levels.....	101
11.2	Construction Reference Noise Levels	101
11.3	Construction Noise Analysis.....	102
11.4	Construction Noise Thresholds of Significance.....	109
11.5	Construction Noise Level Increases	110
11.6	Construction Vibration Impacts	113
11.7	Construction Noise and Vibration Mitigation Measures	115
12	REFERENCES.....	117
13	CERTIFICATION.....	119

APPENDICES

APPENDIX 3.1: CITY OF MENIFEE MUNICIPAL CODE

APPENDIX 5.1: STUDY AREA PHOTOS

APPENDIX 5.2: NOISE LEVEL MEASUREMENT WORKSHEETS

APPENDIX 7.1: OFF-SITE TRAFFIC NOISE CONTOURS

APPENDIX 8.1: ON-SITE TRAFFIC NOISE CALCULATIONS

APPENDIX 10.1: OPERATIONAL STATIONARY-SOURCE NOISE CALCULATIONS

APPENDIX 11.1: TEMPORARY CONSTRUCTION NOISE BARRIER ATTENUATION

APPENDIX 11.2: TEMPORARY CONSTRUCTION NOISE BARRIER EXAMPLE PHOTOS

LIST OF EXHIBITS

EXHIBIT ES-A: SUMMARY OF RECOMMENDATIONS	7
EXHIBIT 1-A: LOCATION MAP	10
EXHIBIT 1-B: SITE PLAN	11
EXHIBIT 2-A: TYPICAL NOISE LEVELS	13
EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION	17
EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION	19
EXHIBIT 3-A: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS	24
EXHIBIT 3-B: FUTURE AIRPORT NOISE LEVEL CONTOUR BOUNDARIES	28
EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS	39
EXHIBIT 9-A: RECEIVER LOCATIONS	89
EXHIBIT 10-A: OPERATIONAL NOISE SOURCE AND RECEIVER LOCATIONS	92
EXHIBIT 11-A: CONSTRUCTION ACTIVITY AND RECEIVER LOCATIONS	108

LIST OF TABLES

TABLE ES-1: SUMMARY OF SIGNIFICANCE FINDINGS	6
TABLE 3-1: OPERATIONAL NOISE STANDARDS	25
TABLE 4-1: SIGNIFICANCE OF NOISE IMPACTS AT NOISE-SENSITIVE RECEIVERS	30
TABLE 4-2: SIGNIFICANCE CRITERIA SUMMARY	33
TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS	38
TABLE 6-1: OFF-SITE ROADWAY PARAMETERS	43
TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES (1 OF 2)	44
TABLE 6-3: AVERAGE DAILY TRAFFIC VOLUMES (2 OF 2)	45
TABLE 6-4: TIME OF DAY VEHICLE SPLITS	46
TABLE 6-5: DISTRIBUTION OF TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)	46
TABLE 6-6: ON-SITE ROADWAY PARAMETERS	47
TABLE 6-7: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT	48
TABLE 7-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS	51
TABLE 7-2: EXISTING WITH PHASE 1 PROJECT CONDITIONS NOISE CONTOURS	52
TABLE 7-3: EXISTING WITH PHASE 2 PROJECT CONDITIONS NOISE CONTOURS	53
TABLE 7-4: EXISTING WITH PROJECT BUILDOUT CONDITIONS NOISE CONTOURS	54
TABLE 7-5: YEAR 2020 WITHOUT PHASE 1 PROJECT CONDITIONS NOISE CONTOURS	55
TABLE 7-6: YEAR 2020 WITH PHASE 1 PROJECT CONDITIONS NOISE CONTOURS	56
TABLE 7-7: YEAR 2023 WITH PHASE 2 PROJECT CONDITIONS NOISE CONTOURS	57
TABLE 7-8: YEAR 2023 WITH PHASE 2 PROJECT CONDITIONS NOISE CONTOURS	58
TABLE 7-9: YEAR 2025 WITHOUT PROJECT BUILDOUT CONDITIONS NOISE CONTOURS	59
TABLE 7-10: YEAR 2025 WITH PROJECT BUILDOUT CONDITIONS NOISE CONTOURS	60
TABLE 7-11: HORIZON YEAR 2040 WITHOUT PROJECT CONDITIONS NOISE CONTOURS	61
TABLE 7-12: HORIZON YEAR 2040 WITH PROJECT CONDITIONS NOISE CONTOURS	62
TABLE 7-13: EXISTING OFF-SITE PHASE 1 PROJECT-RELATED TRAFFIC NOISE IMPACTS	66
TABLE 7-14: EXISTING OFF-SITE PHASE 2 PROJECT-RELATED TRAFFIC NOISE IMPACTS	68
TABLE 7-15: EXISTING OFF-SITE PROJECT BUILDOUT-RELATED TRAFFIC NOISE IMPACTS	70
TABLE 7-16: OPENING YEAR 2020 PHASE 1 PROJECT RELATED TRAFFIC NOISE IMPACTS	72
TABLE 7-17: OPENING YEAR 2023 PHASE 2 PROJECT RELATED TRAFFIC NOISE IMPACTS	74

TABLE 7-18: OPENING YEAR 2025 PROJECT BUILDOUT RELATED TRAFFIC NOISE IMPACTS	76
TABLE 7-19: HORIZON YEAR 2040 PROJECT RELATED TRAFFIC NOISE IMPACTS.....	78
TABLE 8-1: EXTERIOR NOISE LEVELS (CNEL)	82
TABLE 8-2: FIRST FLOOR INTERIOR NOISE IMPACTS (CNEL)	84
TABLE 8-3: SECOND FLOOR INTERIOR NOISE IMPACTS (CNEL).....	85
TABLE 10-1: REFERENCE NOISE LEVEL MEASUREMENTS.....	91
TABLE 10-2: PROJECT OPERATIONAL NOISE LEVELS (DBA L _{EQ})	95
TABLE 10-3: PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE (DBA L _{EQ})	97
TABLE 10-4: DAYTIME OPERATIONAL NOISE LEVEL CONTRIBUTIONS (DBA L _{EQ}).....	98
TABLE 10-5: NIGHTTIME OPERATIONAL NOISE LEVEL CONTRIBUTIONS (DBA L _{EQ})	99
TABLE 11-1: CONSTRUCTION REFERENCE NOISE LEVELS.....	102
TABLE 11-2: SITE PREPARATION EQUIPMENT NOISE LEVELS	103
TABLE 11-3: GRADING EQUIPMENT NOISE LEVELS.....	104
TABLE 11-4: BUILDING CONSTRUCTION EQUIPMENT NOISE LEVELS	105
TABLE 11-5: PAVING EQUIPMENT NOISE LEVELS.....	106
TABLE 11-6: ARCHITECTURAL COATING EQUIPMENT NOISE LEVELS	107
TABLE 11-7: UNMITIGATED CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY (DBA L _{EQ})	109
TABLE 11-8: CONSTRUCTION NOISE LEVEL COMPLIANCE (DBA L _{EQ})	110
TABLE 11-9: UNMITIGATED CONSTRUCTION TEMPORARY NOISE LEVEL INCREASES (DBA L _{EQ}).....	111
TABLE 11-10: MITIGATED CONSTRUCTION EQUIPMENT NOISE LEVELS	112
TABLE 11-11: MITIGATED CONSTRUCTION TEMPORARY NOISE LEVEL INCREASES (DBA L _{EQ}).....	113
TABLE 11-12: UNMITIGATED CONSTRUCTION EQUIPMENT VIBRATION LEVELS	114
TABLE 11-13: MITIGATED CONSTRUCTION EQUIPMENT VIBRATION LEVELS	115

LIST OF ABBREVIATED TERMS

(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
I-215	Interstate 215
INCE	Institute of Noise Control Engineering
L_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
L_{min}	Minimum level measured over the time interval
MARB/IPA	March Air Reserve Base/Inland Port Airport
mph	Miles per hour
PA	Planning Area
PPV	Peak Particle Velocity
Project	Legado
RC ALUCP	Riverside County Airport Land Use Compatibility Plan
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

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EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the noise exposure and the necessary noise mitigation measures for the proposed Legado development (“Project”). The proposed Legado site is generally located north of Chambers Avenue between Encanto Drive and Antelope Road in City of Menifee. The Project is proposed to consist of up to 1,080 single family detached residential dwelling units, up to 225,000 square feet of commercial use, and up to 13.35 acres of sports park use. This noise impact analysis was prepared to satisfy the City of Menifee noise level standards and significance criteria based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA). (1)

OFF-SITE TRAFFIC NOISE ANALYSIS

Traffic generated by the operation of the proposed Project will influence the traffic noise levels in surrounding off-site areas. To quantify the traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on 38 roadway segments surrounding the Project site were calculated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in *Legado Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (2) To assess the off-site noise level impacts associated with the proposed Project, noise contour boundaries were developed for Existing, Opening Year 2020 (Phase 1), Opening Year 2023 (Phase 2), Opening Year 2025 (Project Buildout), and Horizon Year traffic conditions. The analysis shows that the long-term unmitigated Project-related traffic noise level increases will be *less than significant*.

ON-SITE TRAFFIC NOISE ANALYSIS

An on-site exterior noise impact analysis has been completed to determine the traffic noise exposure and to identify potential necessary noise abatement measures for the proposed Legado Project. It is expected that the primary source of noise impacts to the Project site will be traffic noise from I-215, Encanto Drive, Sherman Road, Antelope Road, Rouse Road, and Chambers Avenue.

EXTERIOR NOISE MITIGATION

To satisfy the City of Menifee 65 dBA CNEL exterior noise level standards for residential land use, the construction of 6-foot high noise barriers is required for the outdoor living areas (backyards) of single-family residential uses in Planning Areas 1 to 15. With the recommended noise barriers shown on Exhibit ES-A, the mitigated future exterior noise levels at the outdoor living areas (backyards) of single-family residential uses in Planning Areas 1 to 15 will be reduced to 63.0 dBA CNEL. This noise analysis shows that the recommended noise barriers will satisfy the City of Menifee 65 dBA CNEL exterior noise level standards for single-family residential use. The recommendations identify the minimum required noise barrier height to satisfy the City of Menifee exterior noise level standards.

The results of the on-site traffic noise analysis also indicate that commercial uses adjacent to I-215 and Encanto Drive in Planning Areas 16 and 17 will experience unmitigated exterior noise levels approaching 78.0 dBA CNEL, which represent *normally unacceptable* land use requiring interior noise analysis, as provided in this noise study. Further, sports park use in Planning Area 18 is shown to experience unmitigated exterior traffic noise levels of up to 68.0 dBA CNEL, which represents *conditionally acceptable* use, however, since there are no interior areas requiring interior noise reduction, the exterior noise levels satisfy the land use compatibility criteria of the City of Menifee General Plan Noise Element.

The recommended noise control barriers shall be constructed so that the top of each wall extends to the recommended height above the pad elevation of the lot it is shielding. When the road is elevated above the pad elevation, the barrier shall extend to the recommended height above the highest point between the residential home and the road. The barriers shall provide a weight of at least 4 pounds per square foot of face area with no decorative cutouts or line-of-sight openings between shielded areas and the roadways. The barrier must present a solid face from top to bottom. Unnecessary openings or decorative cutouts shall not be made. All gaps (except for weep holes) should be filled with grout or caulking. The noise barrier shall be constructed using one of the following materials:

- Masonry block;
- Stucco veneer over wood framing (or foam core), or one-inch thick tongue and groove wood of sufficient weight per square foot;
- Glass (1/4-inch-thick), or other transparent material with sufficient weight per square foot capable of providing a minimum transmission loss of 20 dBA;
- Earthen berm;
- Any combination of these construction materials.

INTERIOR NOISE MITIGATION

To satisfy the City of Menifee 45 dBA CNEL residential interior noise level standard, and the 50 dBA CNEL commercial interior noise level threshold based on California Green Building Standards Code requirements, Planning Areas adjacent to I-215, Encanto Drive, Sherman Road, Antelope Road, Rouse Road, and Chambers Avenue will require a Noise Reduction (NR) of up to 28.0 dBA and a windows-closed condition requiring a means of mechanical ventilation (e.g. air conditioning). With the following noise mitigation measures the Project will satisfy the interior noise level standards:

Residential:

- Windows: All residential lots require first and second-floor windows and sliding glass doors that have well-fitted, well-weather-stripped assemblies, with minimum sound transmission class (STC) ratings of 27.
- Doors (Non-Glass): All exterior doors shall be well weather-stripped and have minimum STC ratings of 25. Well-sealed perimeter gaps around the doors are essential to achieve the optimal STC rating. (3)

- **Walls:** At any penetrations of exterior walls by pipes, ducts, or conduits, the space between the wall and pipes, ducts, or conduits shall be caulked or filled with mortar to form an airtight seal.
- **Roof:** Roof sheathing of wood construction shall be per manufacturer's specification or caulked plywood of at least one-half inch thick. Ceilings shall be per manufacturer's specification or well-sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space.
- **Ventilation:** Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use and still receive circulated air. A forced air circulation system (e.g. air conditioning) or active ventilation system (e.g. fresh air supply) shall be provided which satisfies the requirements of the Uniform Building Code.
- **Final Noise Study:** A final noise study shall be prepared prior to obtaining building permits for the project. This report would finalize the mitigation measures described in this study using the precise grading plans and actual building design specifications, and may include additional mitigation, if necessary, to meet the interior noise level standards for residential (45 dBA CNEL) and commercial (50 dBA CNEL) land uses.

Commercial:

- **Windows:** Commercial uses in Planning Areas 16 and 17 require upgraded windows with a minimum STC rating of 32 and a means of mechanical ventilation (e.g., air conditioning);
- **Doors (Non-Glass):** All exterior doors shall be well weather-stripped and have minimum STC ratings of 25. Well-sealed perimeter gaps around the doors are essential to achieve the optimal STC rating. (3)
- **Walls:** At any penetrations of exterior walls by pipes, ducts, or conduits, the space between the wall and pipes, ducts, or conduits shall be caulked or filled with mortar to form an airtight seal.
- **Roof:** Roof sheathing shall be per manufacturer's specification. Ceilings shall be per manufacturer's specification. Ceiling/roof Insulation, if required under manufacturer's specification, shall have a minimum rating of R-19.
- **Ventilation:** Arrangements for any habitable room (e.g., office) shall be such that any exterior door or window can be kept closed when the room is in use and still receive circulated air. A forced air circulation system (e.g. air conditioning) or active ventilation system (e.g. fresh air supply) shall be provided which satisfies the requirements of the Uniform Building Code.
- **Final Noise Study:** A final noise study shall be prepared prior to obtaining building permits for the project. This report would finalize the mitigation measures described in this study using the precise grading plans and actual building design specifications, and may include additional mitigation, if necessary, to meet the interior noise level standards for residential (45 dBA CNEL) and commercial (50 dBA CNEL) land uses.

With the interior noise mitigation measures provided in this study, the proposed Project is expected to satisfy the City of Menifee 45 dBA CNEL interior noise level standard for residential development, and the 50 dBA CNEL interior noise level threshold for commercial uses.

OPERATIONAL NOISE ANALYSIS

Using reference noise levels to represent the potential noise sources within the Legado site, this analysis estimates the Project-related operational (stationary-source) noise levels at the nearby noise-sensitive receiver locations. The Project-related operational noise sources are expected to include: roof-top air conditioning units, parking lot vehicle movements, sports park activities, and open space activities. The analysis shows that the Project-related operational noise levels will satisfy the City of Menifee noise level standards at the off-site receiver locations in the Project study area. Further, this analysis demonstrates that the Project will not contribute an operational noise level impact to the existing ambient noise environment at any of the nearby sensitive receiver locations. Therefore, the operational noise level impacts associated with the proposed Project activities, such as the roof-top air conditioning units, parking lot vehicle movements, sports park activities, and open space activities will be *less than significant*.

CONSTRUCTION NOISE ANALYSIS

Construction activities can generate short-term noise level increases on the ambient noise levels. Construction-related noise impacts are expected to create temporary and intermittent high-level noise conditions at receivers surrounding the Project site when certain activities occur at the closest point to the nearby receiver locations from primary Project construction activity. Using sample reference noise levels to represent the planned construction activities of the Legado site, this analysis estimates the Project-related construction noise levels at nearby sensitive receiver locations. Since the City of Menifee General Plan and Municipal Code do not identify specific construction noise level thresholds, a threshold is identified based on the National Institute for Occupational Safety and Health (NIOSH) limits for construction noise. The results of the analysis show that the Project-related short-term construction noise levels are expected to range from 45.6 to 81.9 dBA L_{eq} and will satisfy the 85 dBA L_{eq} threshold identified by NIOSH at all receiver locations.

To describe the temporary Project construction noise level contributions to the existing ambient noise environment, the Project construction noise levels were combined with the existing ambient noise levels measurements at the off-site receiver locations. A temporary noise level increase of 12 dBA L_{eq} is considered a potentially significant impact based on the Caltrans substantial noise level increase criteria which is used to assess the Project-construction noise level increases. (4) The analysis shows that the Project will contribute unmitigated, worst-case construction noise level increases ranging from 0.2 to 24.3 dBA L_{eq} at the nearby receiver locations during the daytime construction hours. Since the worst-case temporary noise level increase of up to 24.3 dBA L_{eq} during Project construction will exceed the 12 dBA L_{eq} significance threshold, the unmitigated construction noise level increases are considered *potentially significant* temporary noise impacts at receiver locations R1, R3, R6, R7, R9, and R10. Therefore, construction noise mitigation is required to reduce the short-term noise level increases at the potentially impacted receiver locations.

With the 8-foot high temporary noise barriers and 200-foot buffer for large construction equipment mitigation measures, outlined below, all nearby sensitive receiver locations will

experience *less than significant* impacts due to temporary Project construction noise levels. The construction noise analysis presents a conservative approach with the highest noise-level-producing equipment for each stage of Project construction operating at the closest point from primary construction activity to the nearby sensitive receiver locations. This scenario is unlikely to occur during typical construction activities and likely overstates the construction noise levels which will be experienced at each receiver location.

CONSTRUCTION VIBRATION ANALYSIS

At distances ranging from 30 to 2,499 feet from the Project construction activities, construction vibration levels are expected to range from 27.0 to 84.6 VdB. Based on the FTA vibration standard of 80 VdB for annoyance, the proposed Project construction activities will generate unmitigated vibration levels capable of human annoyance at receiver locations R1 and R9, and therefore, represent a *potentially significant* vibration impact. However, the analysis shows that all Project construction-related vibration levels, approaching a highest level of 84.6 VdB, will remain below the FTA's 90 VdB threshold for building damage.

To reduce the potential impacts due to Project construction equipment vibration levels, the 200-foot buffer for large construction equipment, as described below, will reduce the vibration levels at the nearby sensitive receiver locations. The analysis shows that the mitigated Project vibration levels will range from 27.0 to 59.9 VdB with the mitigation measures identified in this report, and therefore, will remain below the FTA 80 VdB annoyance and 90 VdB building damage thresholds. As such, Project-construction vibration levels will be *less than significant* with mitigation.

CONSTRUCTION NOISE AND VIBRATION MITIGATION MEASURES

The following mitigation measures are required to reduce noise and vibration levels produced by the construction equipment to the nearby sensitive residential land uses.

- Install minimum 8-foot high temporary construction noise barriers at the Project's site boundaries adjacent to sensitive receiver locations R7 (Hans Christensen Middle School), R9 (northern property line of Bell Air Mobile Estates), and R10 (north and east property lines of Life Care Center), shown on Exhibit 11-A, for the duration of Project construction. The noise control barriers must have a solid face from top to bottom. The noise control barriers must meet the minimum height and be constructed as follows:
 - The temporary noise barriers shall provide a minimum transmission loss of 20 dBA (Federal Highway Administration, Noise Barrier Design Handbook). The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts. Example photos are provided in Appendix 11.2.;
 - The noise barrier must 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 noise control barrier and associated elements shall be completely removed, and the site appropriately restored upon the conclusion of the construction activity.

- The use of large construction equipment (e.g., dozers, graders, scrapers) capable of generating noise levels in excess of 68 dBA Leq (10-minute) at 10 feet and vibration levels of 80 VdB at sensitive receiver locations shall be prohibited within 200 feet of nearby occupied sensitive uses to reduce the noise and vibration levels for the entire duration of Project construction. If the contractor can demonstrate that specific pieces of large construction equipment can demonstrate compliance with the 68 dBA Leq (10-minute) at 10 feet criteria, and will generate vibration levels at adjacent sensitive uses which remain below 80 VdB, then they shall be allowed to operate within the buffer zone shown on Exhibit 11-A.
- Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 6:00 a.m. and 6:00 p.m. from June to September, and 7:00 a.m. to 6:00 p.m. from October to May, with no activity allowed on Sundays and nationally recognized holidays (Section 9.09.030(B) of the City of Menifee Municipal Code).
- During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' 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.
- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site (i.e., to the center) during all Project construction.
- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 a.m. and 6:00 p.m. from June to September, and 7:00 a.m. to 6:00 p.m. from October to May, with no activity allowed on Sundays and nationally recognized holidays). The contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

SUMMARY OF SIGNIFICANCE FINDINGS

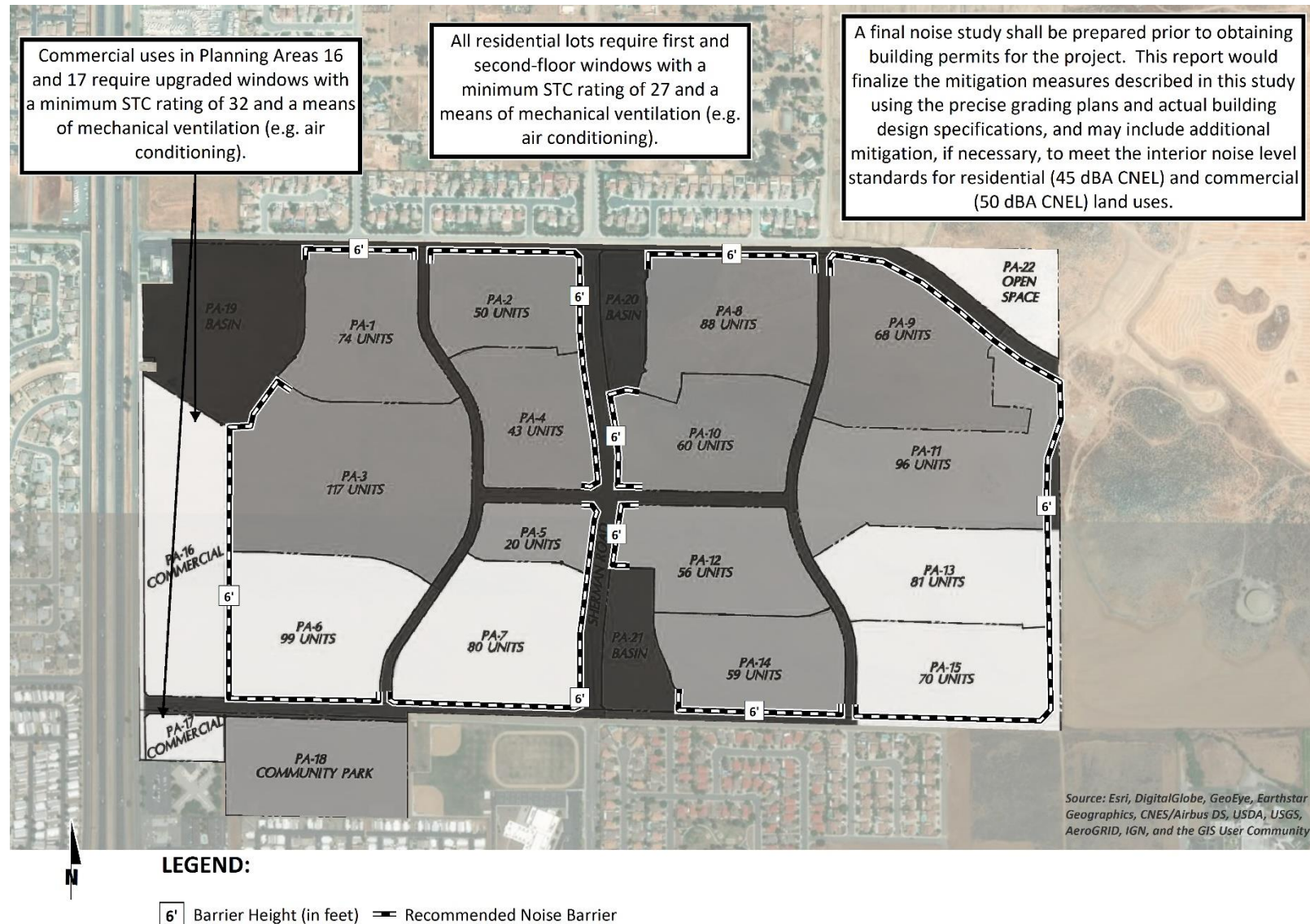
The results of this Legado Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise impact before and after any needed mitigation measures.

TABLE ES-1: SUMMARY OF SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Off-Site Traffic Noise	7	<i>Less Than Significant</i>	<i>n/a</i>
On-Site Traffic Noise	8	<i>Potentially Significant</i>	<i>Less Than Significant</i>
Operational Noise	10	<i>Less Than Significant</i>	<i>n/a</i>
Construction Noise	11	<i>Potentially Significant</i>	<i>Less Than Significant</i>
Construction Vibration		<i>Potentially Significant</i>	<i>Less Than Significant</i>

"n/a" = No mitigation is required since the unmitigated impact will be less than significant.

EXHIBIT ES-A: SUMMARY OF RECOMMENDATIONS



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1 INTRODUCTION

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

1.1 SITE LOCATION

The proposed Legado site is generally located north of Chambers Avenue between Encanto Drive and Antelope Road in the City of Menifee, as shown on Exhibit 1-A. The Project site is currently vacant. Existing residential uses in the Project study area are located north, south, east and west of the Project site. The Evans Brown Mortuary is located adjacent to the Project's northwestern site boundaries, and the Life Care Center is located adjacent to the southwestern Project site boundaries. The Hans Christensen Middle School is located south of the Project site across Chambers Avenue. Interstate 215 (I-215) is located roughly 100 feet west of the Project site. The Project site is located approximately 2.5 miles southeast of the Perris Valley Airport, and over 9 miles southeast of the March Air Reserve Base/Inland Port Airport (MARB/IPA).

1.2 PROJECT DESCRIPTION

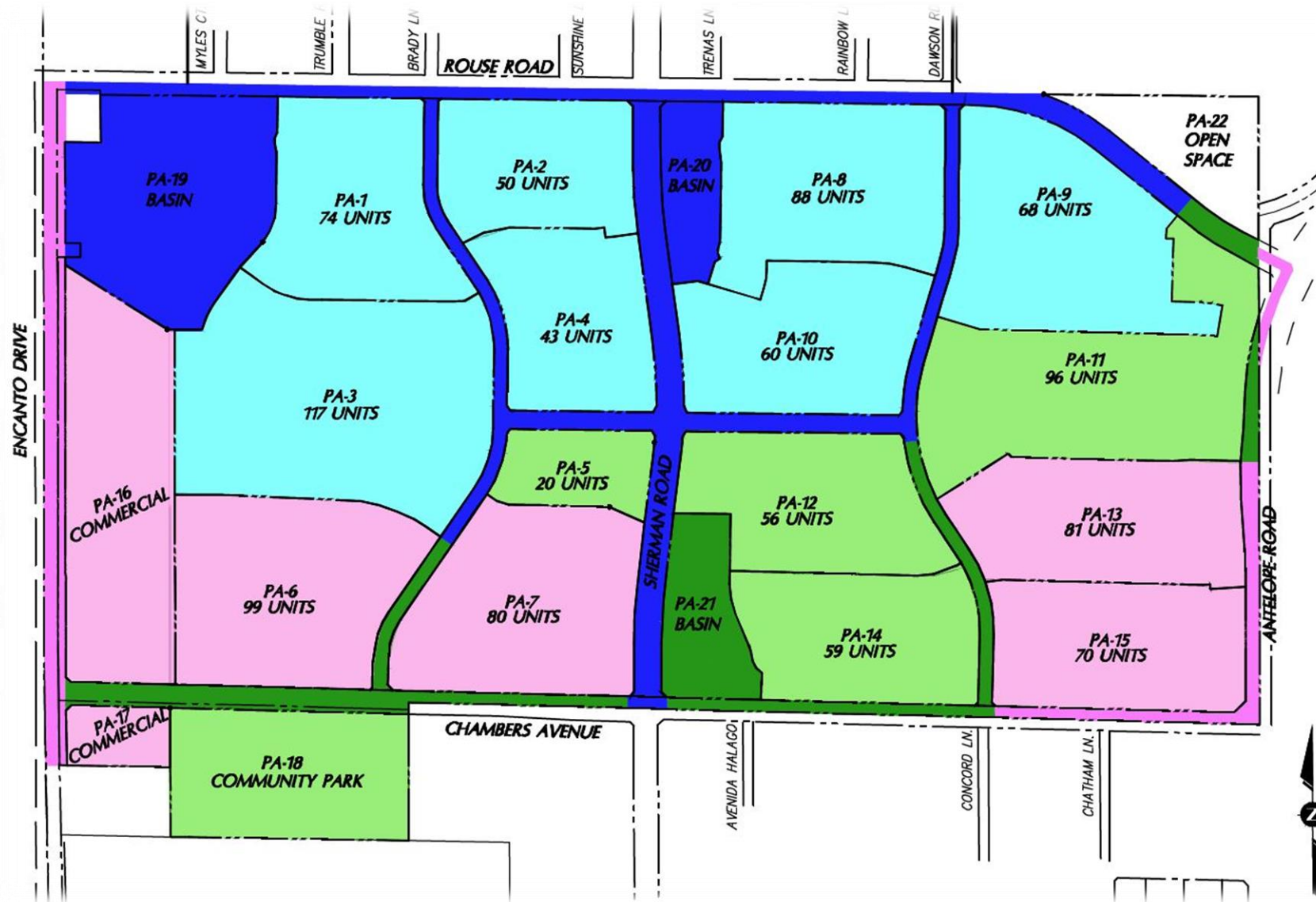
The Project is proposed to consist of up to 1,080 single family detached residential dwelling units, up to 225,000 square feet of commercial use, and up to 13.35 acres of sports park use, as shown on Exhibit 1-B. For the purposes of this analysis, the Project is anticipated to be developed in three phases with a projected Project Buildout in Year 2025. Phase 1 (2020) of the proposed Project is anticipated to include the development of 500 single family detached residential dwelling units and Phase 2 (2023) of the proposed Project is anticipated to include an additional 250 single family detached residential dwelling units for a total of 750 dwelling units. Project Buildout (2025) is anticipated to include up to an additional 330 single family detached residential dwelling units for a total of 1,080 dwelling units, up to 225,000 square feet of commercial use, and up to 13.35 acres of sports park use.

The on-site Project operational noise sources are expected to include roof-top air conditioning units, parking lot vehicle movements, sports park activities, and open space activities.

EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN



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2 FUNDAMENTALS

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	SPEECH INTERFERENCE
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety* (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (5) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 100 feet, which can cause serious discomfort. (6) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the “average” noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Day-Night Average Noise Level (LDN) and the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The LDN and CNEL are weighted averages of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The LDN time of day corrections include the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. The CNEL time of day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., in addition to the corrections for the LDN. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. LDN and CNEL do not represent the actual sound level heard at any particular time, but rather represent the total sound exposure. The City of Menifee relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources, and therefore, this analysis uses the CNEL noise level to apply the more conservative evening hour corrections to the 24-hour noise levels.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source.

2.3.3 ATMOSPHERIC EFFECTS

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also increase noise levels.

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure.

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for a particular observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to any and all of these three elements.

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (7)

2.6 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (8)

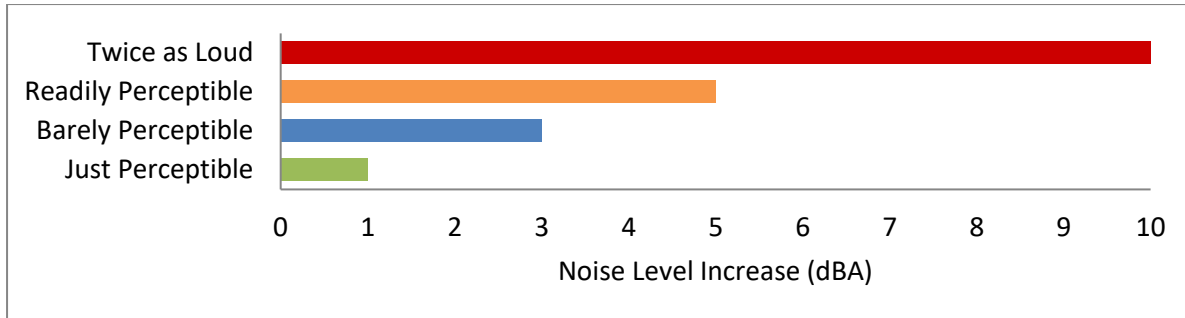
2.7 COMMUNITY RESPONSE TO NOISE

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon each individual's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (9) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (9)

Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA are considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (7)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION

2.8 EXPOSURE TO HIGH NOISE LEVELS

The Occupational Safety and Health Administration (OSHA) sets legal limits on noise exposure in the workplace. The permissible exposure limit (PEL) for a worker over an eight-hour day is 90 dBA. The OSHA standard uses a 5 dBA exchange rate. This means that when the noise level is increased by 5 dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half. The National Institute for Occupational Safety and Health (NIOSH) has recommended that all worker exposures to noise should be controlled below a level equivalent to 85 dBA for eight hours to minimize occupational noise induced hearing loss. NIOSH also recommends a 3 dBA exchange rate so that every increase by 3 dBA doubles the amount of the noise and halves the recommended amount of exposure time. (10)

OSHA has implemented requirements to protect all workers in general industry (e.g. the manufacturing and the service sectors) for employers to implement a Hearing Conservation Program where workers are exposed to a time weighted average noise level of 85 dBA or higher over an eight-hour work shift. Hearing Conservation Programs require employers to measure noise levels, provide free annual hearing exams and free hearing protection, provide training, and conduct evaluations of the adequacy of the hearing protectors in use unless changes to tools, equipment and schedules are made so that they are less noisy and worker exposure to noise is less than the 85 dBA. This noise study does not evaluate the noise exposure of workers within a project or construction site based on CEQA requirements, and instead, evaluates Project-related operational and construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment. (11)

2.9 VIBRATION

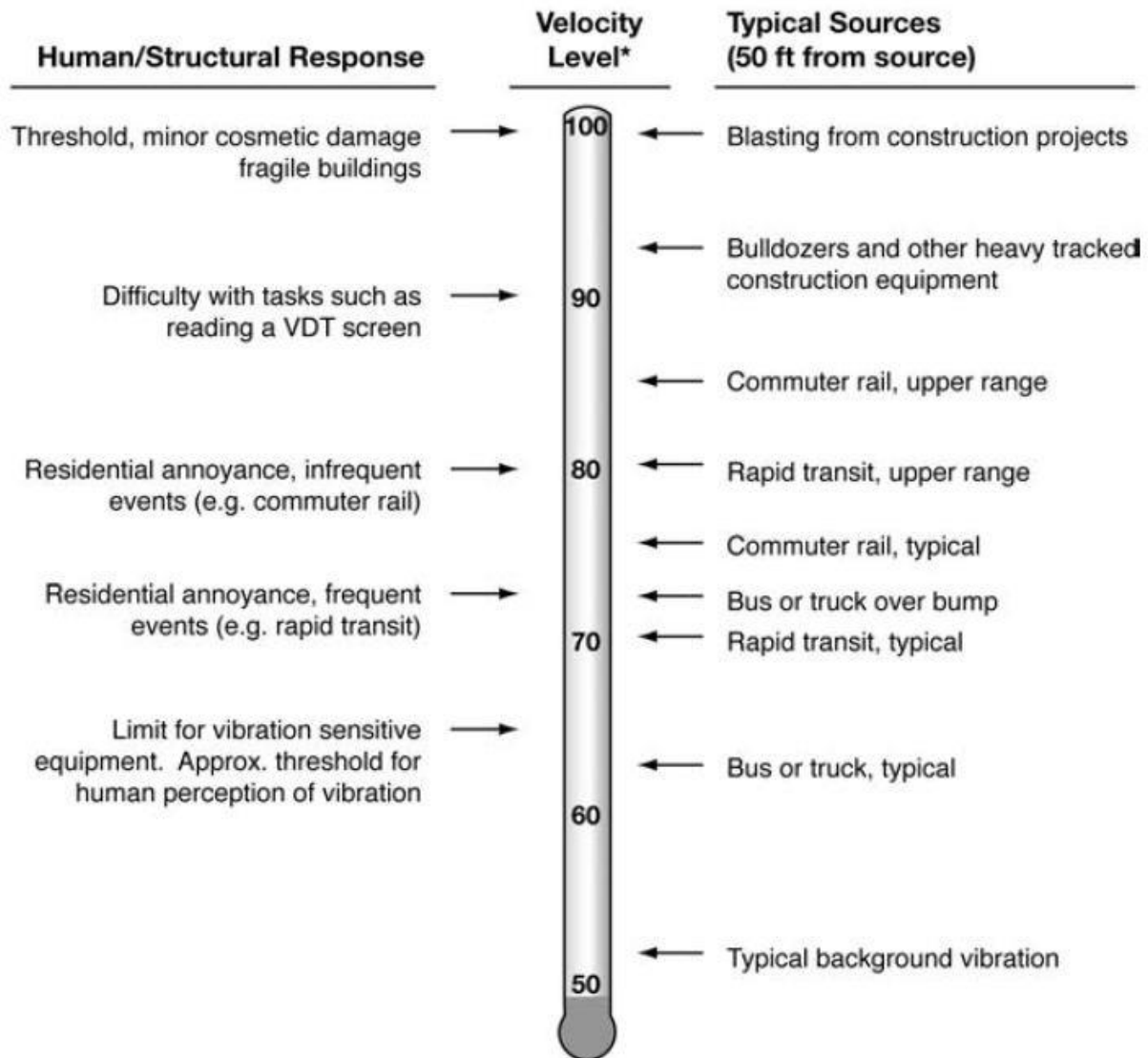
According to the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Assessment* (12), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such

as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings, but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal, and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



* RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second

Source: Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment.

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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 fairly 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 according to guidelines adopted by the Governor's Office of Planning and Research. (13) The purpose of the Noise 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 the potential environmental noise impacts.

3.2 STATE OF CALIFORNIA BUILDING CODE

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

The 2016 State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. (14) 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 must be at least 50. For those developments in areas where noise contours are not readily available, and the noise level exceeds 65 dBA L_{eq} for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1). Alternatively, if the interior noise levels of non-residential buildings satisfy the performance criteria of 50 dBA L_{eq} (1 hour), then the performance method as defined by the California's Green Building Standards Code can be used. Since no interior noise level standards are identified in the City of Menifee General Plan Noise Element for commercial uses, this noise analysis relies on an interior noise level threshold of 50 dBA CNEL, consistent with the California Green Building Standards Code. The CNEL is used in place of a 1-hour L_{eq} since it represents a more conservative analysis which applies the previously discussed (Section 2.2) CNEL adjustment factors to the evening and nighttime hours.

3.3 CITY OF MENIFEE GENERAL PLAN NOISE ELEMENT

The City of Menifee has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of City of Menifee from excessive exposure to noise. (15) 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 several policies to minimize the impacts of excessive noise levels throughout the community, and establishes noise level requirements for all land uses. To protect City of Menifee residents from excessive noise, the Noise Element contains the following goal related to the Project:

N-1 Noise-sensitive land uses are protected from excessive noise and vibration exposure.

The noise policies specified in the City of Menifee Noise Element provide the guidelines necessary to satisfy this goal. Policy N-1.2 states that new developments are required to *comply with the noise standards of local, regional, and state building code regulations*, including the City's Municipal Code, Title 24 of the California code of Regulations, and the California Green Building Code, and this analysis has been prepared to satisfy the 45 dBA CNEL interior noise level standards of the Title 24 of the California Code of Regulations, previously discussed in Section 3.2. The Noise Element provides Policy N-1.11 to reduce excessive noise impacts from transportation and discourages the siting of noise-sensitive uses in areas in excess of 65 dBA CNEL without appropriate mitigation. (15)

3.3.1 LAND USE COMPATIBILITY

The noise criteria identified in the City of Menifee Noise Element are guidelines to evaluate the land use compatibility of transportation related noise. The compatibility criteria, shown on Exhibit 3-A, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels.

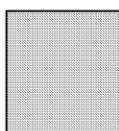
Per the City's *Noise Element Background Document and Definitions, Land Use Compatibility for Community Noise Environments* (Table N-b3), the single-family residential land use within the Project is considered *normally acceptable* with noise levels below 60 dBA CNEL. *Conditionally acceptable* single-family residential land uses experience noise levels approaching 70 dBA CNEL.

Commercial uses within the Project site are considered *normally acceptable* with exterior noise levels below 70 dBA CNEL, and *conditionally acceptable* with exterior noise levels approaching 75 dBA CNEL. Playground and park uses, such as those within the sports park and open space areas of the Project site, are considered *normally acceptable* with exterior noise levels below 70 dBA CNEL, and *conditionally acceptable* with exterior noise levels approaching 75 dBA CNEL. For *conditionally acceptable* land use, *new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.* (15)

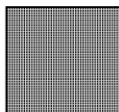
Consistent with the land use compatibility guidelines and Noise Element Policy N-1.11, this noise study has been prepared to satisfy an exterior noise level of less than 65 dBA CNEL for single-family residential land use. An interior noise level of less than 45 dBA CNEL shall be required for residential uses within the Project. The 65 dBA CNEL exterior noise standards typically apply to outdoor areas where people congregate. In the case of residential projects, the standards typically apply to outdoor living areas (backyards) of single-family homes. Additional exterior noise analysis is provided for commercial and sports park uses adjacent to major transportation noise sources in the Project study area. As previously described in Section 3.2, an interior noise level threshold of 50 dBA CNEL is used in this analysis to evaluate potential impacts at the commercial uses within the Project site, consistent with California Green Building Standards Code requirements for non-residential buildings.

EXHIBIT 3-A: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

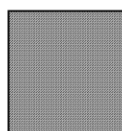
Land Uses	CNEL (dBA)					
	55	60	65	70	75	80
Residential-Low Density Single Family, Duplex, Mobile Homes						
Residential- Multiple Family						
Transient Lodging, Motels, Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Businesses, Commercial and Professional						
Industrial, Manufacturing, Utilities, Agricultural						



Normally Acceptable:
Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



Conditionally Acceptable:
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.



Normally Unacceptable:
New construction or development should generally be discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



Clearly Unacceptable:
New construction or development generally should not be undertaken.

Source: California Office of Noise Control. Guidelines for the Preparation and Content of Noise Elements of the General Plan. February 1976.
Adapted from the US EPA Office of Noise Abatement Control, Washington D.C. Community Noise. Prepared by Wyle Laboratories.
December 1971.

Source: City of Menifee General Plan, Noise Background Document and Definitions, Table N-b3.

3.4 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as Legado Project, stationary-source (operational) noise such as the expected roof-top air conditioning units, parking lot vehicle movements, sports park activities, and open space activities are typically evaluated against standards established under a jurisdiction's Municipal Code or General Plan.

The City of Menifee Municipal Code, Chapter 9.09 Noise Control Regulations, Section 9.09.050 Table 1 establishes the permissible noise level that may intrude into a neighbor's property. The Municipal Code establishes the exterior noise level criteria for noise-sensitive residential properties affected by stationary noise sources. For residential properties, the exterior noise level shall not exceed 65 dBA Leq during daytime hours (7:00 a.m. to 10:00 p.m.) and shall not exceed 45 dBA Leq during the nighttime hours (10:00 p.m. to 7:00 a.m.). (16) Since existing uses in the Project study area include non-residential, medical/hospital, and school uses, and the City of Menifee does not identify exterior noise level standards specific to these uses, the residential exterior noise level limits are applied to all noise-sensitive receiver locations in the Project study area. The City of Menifee Municipal Code noise regulations are included in Appendix 3.1.

TABLE 3-1: OPERATIONAL NOISE STANDARDS

Jurisdiction	Land Use	Time Period	Exterior Noise Level Standards (dBA Leq) ²
City of Menifee ¹	Residential	Daytime (7:00 a.m. - 10:00 p.m.)	65
		Nighttime (10:00 p.m. - 7:00 a.m.)	45

¹ Source: City of Menifee Municipal Code, Section 9.09.050 (Appendix 3.1).

² Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.

3.5 CONSTRUCTION NOISE STANDARDS

To control noise impacts associated with the construction of the proposed Project, the City has established limits to the hours of operation. Section 9.09.030(B) of the City's Municipal Code indicates that private construction projects, located within one-quarter of a mile from an occupied residence, are considered exempt from the Municipal Code noise standards if they occur within the permitted hours of 6:00 a.m. and 6:00 p.m. from June to September, and 7:00 a.m. to 6:00 p.m. from October to May, with no activity allowed on Sundays and nationally recognized holidays. (17) However, the City's General Plan and Municipal Code do not establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes as the *generation of noise levels in excess of standards* or as a *substantial temporary or periodic noise increase*, the following construction noise level thresholds are used in this noise study.

3.5.1 CONSTRUCTION NOISE LEVEL COMPLIANCE THRESHOLD

To evaluate whether the Project will generate potentially significant temporary construction noise levels at off-site sensitive receiver locations, a construction-related noise level threshold is adopted from the *Criteria for Recommended Standard: Occupational Noise Exposure* prepared by the National Institute for Occupational Safety and Health (NIOSH). (18) A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The construction related noise level threshold starts at 85 dBA for more than eight hours per day, and for every 3 dBA increase, the exposure time is cut in half. This results in noise level thresholds of 88 dBA for more than four hours per day, 92 dBA for more than one hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. (18) For the purposes of this analysis, the lowest, more conservative construction noise level threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receiver locations. Since this construction-related noise level threshold represents the energy average of the noise source over a given time period, they are expressed as L_{eq} noise levels. Therefore, the noise level threshold of 85 dBA L_{eq} over a period of eight hours or more is used to evaluate the potential Project-related construction noise level impacts at the nearby sensitive receiver locations.

The 85 dBA L_{eq} threshold is also consistent with the FTA *Transit Noise and Vibration Impact Assessment* criteria for construction noise which identifies an hourly construction noise level threshold of 90 dBA L_{eq} during daytime hours, and 80 dBA L_{eq} during nighttime hours for construction for general assessment at noise-sensitive uses (e.g., residential, medical/hospital, school, etc.). (12) Detailed assessment, according to the FTA, identifies an 8-hour dBA L_{eq} noise level threshold specific to noise-sensitive uses of 80 dBA L_{eq} . Therefore, the Noise Study relies on the NIOSH 85 dBA L_{eq} threshold, consistent with FTA general and detailed assessment criteria for noise-sensitive uses, and represents an appropriate threshold for construction noise analysis.

3.5.2 CONSTRUCTION-RELATED HEARING CONSERVATION

The Occupational Safety and Health Administration (OSHA) requires hearing protection be provided by employers in workplaces where the noise levels may, over long periods of exposure to high noise levels, endanger the hearing of their employees. Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels. (10) This analysis does not evaluate the noise exposure of construction workers within the Project site based on CEQA requirements, and instead, evaluates the Project-related construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment. (11)

3.6 CONSTRUCTION VIBRATION STANDARDS

The City of Menifee has not identified or adopted vibration standards. However, the United States Department of Transportation Federal Transit Administration (FTA) provides guidelines for

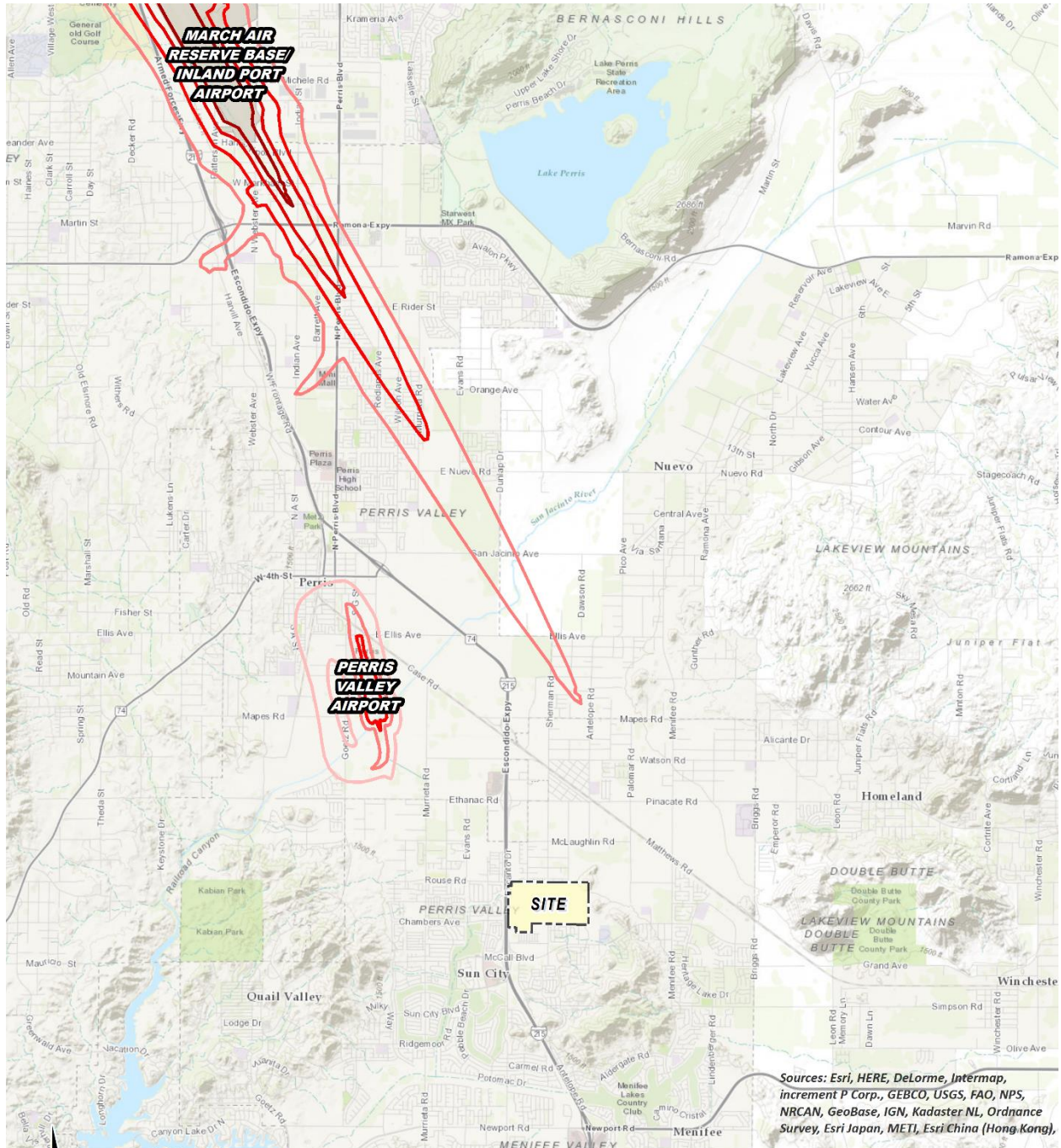
maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 80 VdB for human annoyance and 90 VdB for building damage at noise-sensitive uses and buildings where people normally sleep. (19)

Construction activity can result in varying degrees of ground-borne 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. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. While not enforceable regulations within the City of Menifee, the FTA guidelines of 80 VdB for annoyance and 90 VdB for building damage at sensitive land uses provide the basis for determining the relative significance of potential Project-related vibration impacts.

3.7 RIVERSIDE COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

The Project site is located approximately 2.5 miles southeast of the Perris Valley Airport, and over 9 miles southeast of the March Air Reserve Base/Inland Port Airport (MARB/IPA). The Riverside County Airport Land Use Compatibility Plan (RC ALUCP) establishes compatibility criteria for land uses in relation to the noise contour boundaries of airports within the City of Menifee. Table 2B *Supporting Compatibility Criteria: Noise* of the RC ALUCP indicates that residential, commercial, and recreational uses, such as those within the Project, are considered *clearly acceptable* when located within the 50 to 55 dBA CNEL noise contour of an airport. (20) Exhibit 3-B shows the MARB/IPA and Perris Valley Airport noise level contour boundaries in relation to the Project site.

EXHIBIT 3-B: FUTURE AIRPORT NOISE LEVEL CONTOUR BOUNDARIES



LEGEND:

Unmitigated Noise Level Contour Boundaries

- | | |
|-------------|-------------|
| 55 dBA CNEL | 70 dBA CNEL |
| 60 dBA CNEL | 75 dBA CNEL |
| 65 dBA CNEL | |

Source: Riverside County Airport Land Use Compatibility Plan Policy Document, March 2011.

4 SIGNIFICANCE CRITERIA

The following significance criteria are based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. 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 Menifee General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts, they do not define the levels at which increases are considered substantial for use under Guideline A. CEQA Appendix G Guideline C applies to nearby public and private airports, if any, and the Project's land use compatibility.

4.1 NOISE-SENSITIVE RECEIVERS

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must 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.* (21) Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment.

4.1.1 SUBSTANTIAL PERMANENT NOISE LEVEL INCREASES

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) (22) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) or hourly logarithmic average noise levels (L_{eq}).

For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, FICON identifies a *readily perceptible* 5 dBA or greater project-related noise level increase is considered a significant impact when the noise criteria for a given land use is exceeded. Per FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA *barely perceptible* noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. Table 4-1 below provides a summary of the potential noise impact significance criteria, based on guidance from FICON.

TABLE 4-1: SIGNIFICANCE OF NOISE IMPACTS AT NOISE-SENSITIVE RECEIVERS

Without Project Noise Level	Potential Significant Impact
< 60 dBA	5 dBA or more
60 - 65 dBA	3 dBA or more
> 65 dBA	1.5 dBA or more

Federal Interagency Committee on Noise (FICON), 1992.

4.1.2 SUBSTANTIAL TEMPORARY OR PERIODIC NOISE LEVEL INCREASES

Due to the temporary, short-term nature of noise-generating construction activities, the temporary or periodic noise level increases over the existing ambient conditions must be considered under CEQA Guideline D, consistent with the legal case, *Friends of Riverside's Hills v. Riverside Transportation Commission, et al.* (23) Therefore, the Caltrans *Traffic Noise Analysis Protocol* 12 dBA L_{eq} *substantial* noise level increase threshold is used in this analysis to assess temporary noise level increases. (4) If the Project-related construction noise levels generate a temporary noise level increase above the existing ambient noise levels of up to 12 dBA L_{eq} , then the Project construction noise level increases will be considered a potentially significant impact. Although the Caltrans recommendations were specifically developed to assess traffic noise impacts, the 12 dBA L_{eq} *substantial* noise level increase threshold is used in California to address noise level increases with the potential to exceed existing conditions. (4)

4.2 NON-NOISE-SENSITIVE RECEIVERS

The City of Menifee *General Plan Noise Background Document and Definitions*, Table N-b3 *Land Use Compatibility for Community Noise Environments* matrix is used to establish the satisfactory noise levels of significance for non-noise-sensitive land uses in the Project study area. As indicated on Table N-b3 of the City of Menifee *General Plan Noise Background Document and Definitions*, the criteria for *normally acceptable* non-noise-sensitive land use, such as commercial use, allows for exterior noise levels of up to 70 dBA CNEL. Noise levels greater than 67.5 dBA CNEL are considered *conditionally acceptable* per the City of Menifee *General Plan Noise Background Document and Definitions*, Table N-b3.

To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a *readily perceptible* 5 dBA and *barely perceptible* 3 dBA criteria are used. When the without Project noise levels at the non-noise-sensitive land uses are below the *normally acceptable* 70 dBA CNEL compatibility criteria, a *readily perceptible* 5 dBA or greater noise level increase is considered a significant impact. When the without Project noise levels are greater than the *normally acceptable* 70 dBA CNEL land use compatibility criteria, a *barely perceptible* 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses are generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on the City of Menifee *General Plan Noise Background Document and Definitions*, Table N-b3, 70 dBA CNEL exterior noise level criteria.

4.3 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-2 shows the significance criteria summary matrix.

OFF-SITE TRAFFIC NOISE

- When the noise levels at existing and future noise-sensitive land uses (e.g. residential, medical/hospital, school, etc.):
 - are less than 60 dBA CNEL and the Project creates a *readily perceptible* 5 dBA CNEL or greater Project-related noise level increase; or
 - range from 60 to 65 dBA CNEL and the Project creates a *barely perceptible* 3 dBA CNEL or greater Project-related noise level increase; or
 - already exceed 65 dBA CNEL, and the Project creates a community noise level impact of greater than 1.5 dBA CNEL (FICON, 1992).
- When the noise levels at existing and future non-noise-sensitive land uses (e.g. commercial, etc.):
 - are less than the City of Menifee *General Plan Noise Background Document and Definitions*, Table N-b3, 70 dBA CNEL and the Project creates a *readily perceptible* 5 dBA CNEL or greater Project-related noise level increase; or
 - are greater than the City of Menifee *General Plan Noise Background Document and Definitions*, Table N-b3, 70 dBA CNEL and the Project creates a *barely perceptible* 3 dBA CNEL or greater Project-related noise level increase.

ON-SITE TRAFFIC NOISE

- If the on-site exterior noise levels:
 - exceed 65 dBA CNEL at outdoor living areas (backyards) of the single-family residential land uses within the Project site. Interior noise levels shall not exceed 45 dBA CNEL for residential land uses;
 - exceed the exterior noise land use compatibility criteria for commercial and recreation uses within the Project site (City of Menifee General Noise Element).
 - exceed an interior noise level limit of 50 dBA CNEL for commercial uses (Based on the California Green Building Standards Code, Section 5.507.4.2.).

OPERATIONAL NOISE

- If Project-related operational (stationary-source) noise levels exceed the daytime 65 dBA L_{eq} or nighttime 45 dBA L_{eq} operational noise level standards at nearby noise-sensitive residential receiver locations (City of Menifee Municipal Code, Section 9.09.050, Table 1); or
- If the existing ambient noise levels at the nearby noise-sensitive receivers near the Project site:
 - are less than 60 dBA L_{eq} and the Project creates a readily perceptible 5 dBA L_{eq} or greater Project-related noise level increase; or
 - range from 60 to 65 dBA L_{eq} and the Project creates a barely perceptible 3 dBA L_{eq} or greater Project-related noise level increase; or
 - already exceed 65 dBA L_{eq} , and the Project creates a community noise level impact of greater than 1.5 dBA L_{eq} (FICON, 1992).

CONSTRUCTION NOISE AND VIBRATION

- If Project-related construction activities:
 - occur at any time other than the permitted hours of 6:00 a.m. to 6:00 p.m. June to September, 7:00 a.m. to 6:00 p.m. October to May; no activity on Sundays and national holidays (City of Menifee Municipal Code, Section 9.09.030(B)); or
 - generate noise levels which exceed the 85 dBA L_{eq} acceptable noise level threshold at the nearby sensitive receiver locations (NIOSH, Criteria for Recommended Standard: Occupational Noise Exposure); or
 - generate temporary Project construction-related noise level increases which exceed the 12 dBA L_{eq} *substantial* noise level increase threshold at noise-sensitive receiver locations (Caltrans, Traffic Noise Analysis Protocol).
- If short-term Project generated construction vibration levels exceed FTA vibration thresholds of 80 VdB for annoyance at sensitive receiver locations or 90 VdB for building damage at sensitive buildings (FTA Transit Noise and Vibration Impact Assessment).

4.4 IMPACTS NOT FURTHER ANALYZED

As previously shown on Exhibit 3-B, the Project site is located outside of the 55 dBA CNEL noise level contour boundaries of the Perris Valley Airport and outside of the 60 dBA CNEL noise level contour boundaries of MARB/IPA. As such, the Project land uses are considered *normally acceptable* and *clearly acceptable* uses per the Table 2B criteria of the RC ALUCP. Therefore, no exterior noise mitigation is required. Further, the Project site is not located within the vicinity of a private airstrip, and therefore, would not expose people residing or working in the Project area to excessive noise levels. While some aircraft noise levels will be heard, the noise due to aircraft flyovers represents a *less than significant* noise level impact at the Project site. No further noise analysis is conducted in relation to Guideline C.

TABLE 4-2: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site	Noise-Sensitive ¹	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
	Non-Noise-Sensitive ²	if ambient is < 70 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
On-Site	Single-Family Residential	Exterior Noise Level Criteria ²	65 dBA CNEL	
		Interior Noise Level Standard ³	45 dBA CNEL	
	Commercial & Recreation	Exterior Noise Level Criteria ²	See Exhibit 3-A	
		Interior Noise Level Standard ⁴	50 dBA CNEL (Commercial)	
Operational	Noise-Sensitive	Hourly Leq ⁵	65	45
		if ambient is < 60 dBA Leq ¹	≥ 5 dBA Leq Project increase	
		if ambient is 60 - 65 dBA Leq ¹	≥ 3 dBA Leq Project increase	
		if ambient is > 65 dBA Leq ¹	≥ 1.5 dBA Leq Project increase	
Construction	Noise-Sensitive	Permitted hours of 6:00 a.m. and 6:00 p.m. from June to September, and 7:00 a.m. to 6:00 p.m. from October to May, with no activity allowed on Sundays and nationally recognized holidays. ⁶		
		Noise Level Threshold ⁷	85 dBA Leq	n/a
		Vibration Level Threshold (Annoyance) ⁸	80 VdB	n/a
		Vibration Level Threshold (Building Damage) ⁸	90 VdB	n/a

¹ Source: FICON, 1992.² Source: City of Menifee General Plan Noise Background Document and Definitions, Table N-b3.³ Source: California Code of Regulations, Title 24, Building Standards Administrative Code.⁴ Source: California Green Building Standards Code, Section 5.507.4.2.⁵ Source: City of Menifee Municipal Code, Section 9.09.050, Table 1 (Appendix 3.1).⁶ Source: City of Menifee Municipal Code, Section 9.09.030(B) (Appendix 3.1).⁷ Source: NIOSH, Criteria for Recommended Standard: Occupational Noise Exposure, June 1998.⁸ Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "n/a" = No nighttime construction activity is permitted, so no nighttime construction noise level limits are identified.

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, eight 24-hour noise level measurements were taken at sensitive receiver 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, November 8th, 2017. 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. (24)

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 any 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.* (5) 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 described below:

- Location L1 represents the noise levels at the northwest corner of the Project site near the existing Evans Brown Mortuary at the southeast corner of Encanto Drive and Rouse Road. The noise level measurements collected show an overall 24-hour exterior noise level of 71.8 dBA CNEL. The hourly noise levels measured at location L1 ranged from 63.7 to 68.1 dBA L_{eq} during the daytime hours and from 58.2 to 68.5 dBA L_{eq} during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 66.4 dBA L_{eq} with an average nighttime noise level of 64.8 dBA L_{eq} .
- Location L2 represents the noise levels north of the Project site across Rouse Road near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 61.4 dBA CNEL. The hourly noise levels measured at location L2 ranged from 51.3 to 57.3 dBA L_{eq} during the daytime hours and from 47.1 to 59.0 dBA L_{eq} during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 54.6 dBA L_{eq} with an average nighttime noise level of 54.8 dBA L_{eq} .
- Location L3 represents the noise levels east of the Project site on Palomar Road near a residential home and the Boulder Ridge Elementary School. The 24-hour CNEL indicates that the overall exterior noise level is 55.3 dBA CNEL. At location L3 the background ambient noise levels ranged from 43.1 to 60.7 dBA L_{eq} during the daytime hours to levels of 40.6 to 53.0 dBA L_{eq} during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 52.9 dBA L_{eq} with an average nighttime noise level of 47.5 dBA L_{eq} .
- Location L4 represents the noise levels east of the Project site at the end of Aspel Road near the existing Meniffee Valley Medical Center. The noise level measurements collected show an overall 24-hour exterior noise level of 54.8 dBA CNEL. The hourly noise levels measured at location L4 ranged from 44.6 to 57.0 dBA L_{eq} during the daytime hours and from 39.6 to 52.2 dBA L_{eq} during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 50.4 dBA L_{eq} with an average nighttime noise level of 47.6 dBA L_{eq} .
- Location L5 represents the noise levels south of the Project site across Chambers Avenue adjacent to an existing 6-foot high noise barrier for residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 58.5 dBA CNEL. The hourly noise levels measured at location L5 ranged from 50.6 to 58.7 dBA L_{eq} during the daytime hours and from 45.1 to 55.7 dBA L_{eq} during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 54.2 dBA L_{eq} with an average nighttime noise level of 51.3 dBA L_{eq} .

- Location L6 represents the noise levels south of the Project site adjacent to the baseball and athletic fields of Hans Christensen Middle School on Chambers Avenue. The 24-hour CNEL indicates that the overall exterior noise level is 60.6 dBA CNEL. At location L6 the background ambient noise levels ranged from 46.3 to 61.2 dBA L_{eq} during the daytime hours to levels of 48.8 to 56.6 dBA L_{eq} during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 53.8 dBA L_{eq} with an average nighttime noise level of 54.0 dBA L_{eq} .
- Location L7 represents the noise levels south of the Project site adjacent to the Bell Air Estates mobile home park and Life Care Center. The noise level measurements collected show an overall 24-hour exterior noise level of 61.3 dBA CNEL. The hourly noise levels measured at location L7 ranged from 51.3 to 59.2 dBA L_{eq} during the daytime hours and from 48.2 to 58.7 dBA L_{eq} during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 55.3 dBA L_{eq} with an average nighttime noise level of 54.4 dBA L_{eq} .
- Location L8 represents the noise levels west of the Project site across Interstate 215 on Bradley Road near an existing mobile home park and residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 69.8 dBA CNEL. The hourly noise levels measured at location L8 ranged from 61.4 to 68.1 dBA L_{eq} during the daytime hours and from 56.3 to 67.3 dBA L_{eq} during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 66.2 dBA L_{eq} with an average nighttime noise level of 62.3 dBA L_{eq} .

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.

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with the arterial roadway network. This includes the auto and heavy truck activities near the noise level measurement locations on I-215. The 24-hour existing noise level measurements shown on Table 5-1 present the existing ambient noise conditions.

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

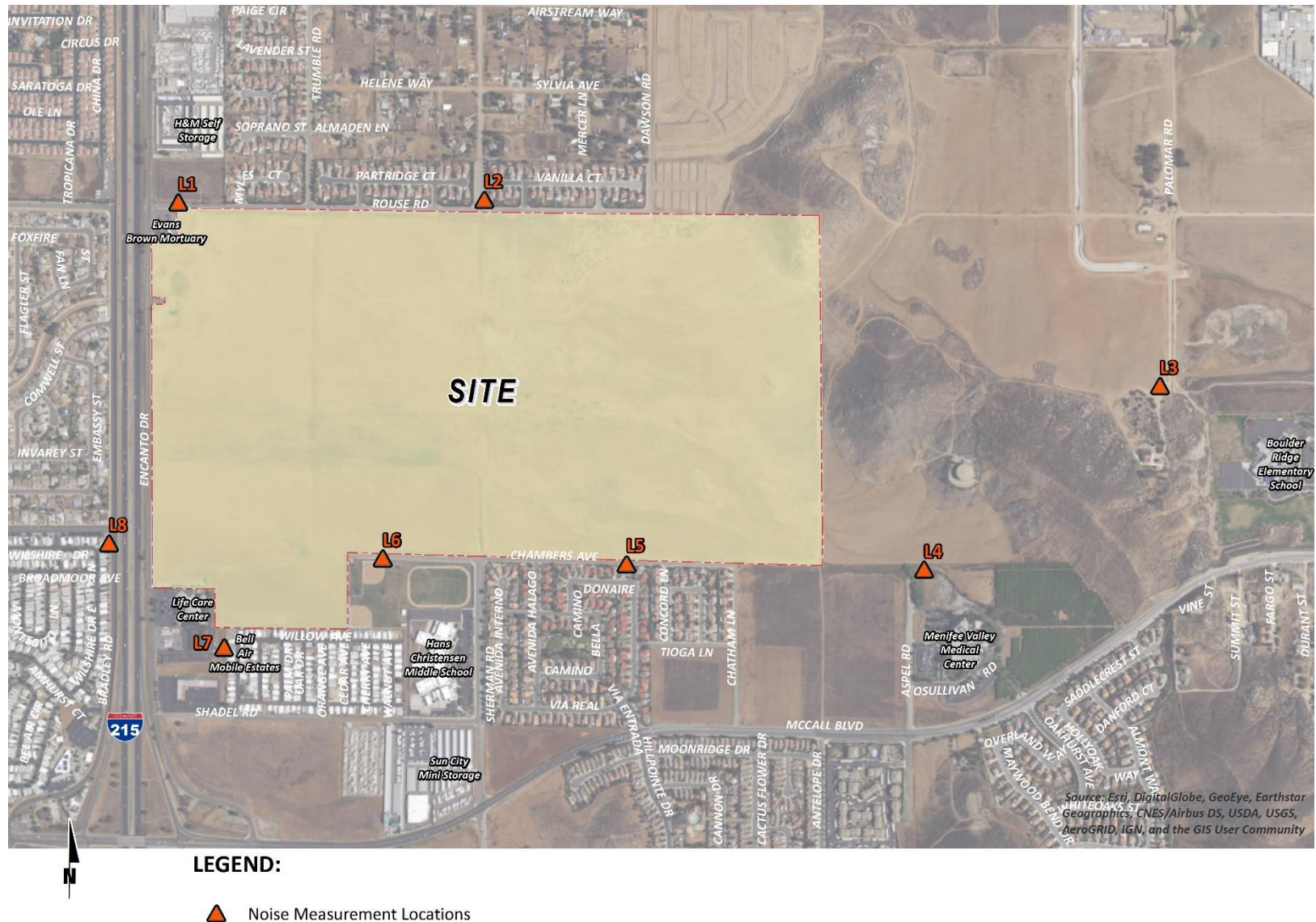
Location ¹	Distance to Project Boundary (Feet)	Description	Energy Average Hourly Noise Level (dBA L _{eq}) ²		CNEL
			Daytime	Nighttime	
L1	30'	Located at the northwest corner of the Project site near the existing Evans Brown Mortuary at the southeast corner of Encanto Drive and Rouse Road.	66.4	64.8	71.8
L2	100'	Located north of the Project site across Rouse Road near existing residential homes.	54.6	54.8	61.4
L3	2,600'	Located east of the Project site on Palomar Road near a residential home and the Boulder Ridge Elementary School.	52.9	47.5	55.3
L4	780'	Located east of the Project site at the end of Aspel Road near the existing Menifee Valley Medical Center.	50.4	47.6	54.8
L5	30'	Located south of the Project site across Chambers Avenue adjacent to an existing 6-foot high noise barrier for residential homes.	54.2	51.3	58.5
L6	40'	Located south of the Project site adjacent to the baseball and athletic fields of Hans Christensen Middle School on Chambers Avenue.	53.8	54.0	60.6
L7	155'	Located south of the Project site adjacent to the Bell Air Estates mobile home park and Life Care Center.	55.3	54.4	61.3
L8	335'	Located west of the Project site across Interstate 215 on Bradley Road near an existing mobile home park and residential homes.	66.2	62.3	69.8

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

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

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

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



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6 METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (25) 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. (26) 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.

In addition, the Noise Study methodology is consistent with *City of Menifee General Plan Draft Environmental Impact Report* prepared in September 2013 which also relies on the FHWA RD-77-108 model. (27) This is further consistent with the County of Riverside Office of Industrial Hygiene *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures*, which specifically requires the FHWA RD-77-108 model to be used in analysis within the County's jurisdiction. (28)

6.1.1 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the 38 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Menifee General Plan Circulation Element, and the posted vehicle speeds. For this analysis, soft site conditions are used to analyze the traffic noise impacts within the Project study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Caltrans' research has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model as used in this off-site traffic noise analysis. (29) In addition, the use of soft site conditions is consistent with the methodology of the *City of Menifee General Plan Draft Environmental Impact Report* prepared in September 2013. (27)

The Existing, Opening Year 2020, Opening Year 2023, Opening Year 2025, and Horizon Year 2040 average daily traffic volumes used for this study are presented on Tables 6-2 and 6-3 and are provided by *Legado Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (2) Table 6-4 presents the time of day vehicle splits and Table 6-5 presents the traffic flow distributions (vehicle mix) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA noise prediction model.

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Adjacent Planned (Existing) Land Use ¹	Distance From Centerline To Nearest Adjacent Land Use (Feet) ²	Vehicle Speed (mph) ³
1	I-215	n/o Ethanac Rd.	Commercial	80'	70
2	I-215	s/o Ethanac Rd.	Commercial	80'	70
3	I-215	s/o McCall Bl.	EDC/Residential	80'	70
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	59'	55
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	59'	55
6	Encanto Dr.	s/o Chambers Av.	EDC	59'	55
7	Encanto Dr.	s/o Shadel Rd.	Commercial	59'	35
8	Sherman Rd.	s/o SR-74	EDC/Business Park	59'	45
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	59'	45
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	59'	45
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	50'	40
12	Antelope Rd.	s/o Chambers Av.	EDC	59'	40
13	Palomar Rd.	n/o SR-74	Business Park	37'	40
14	Menifee Rd.	n/o SR-74	Business Park	76'	55
15	Menifee Rd.	s/o SR-74	Residential	76'	55
16	Menifee Rd.	s/o Rouse Rd.	Residential	76'	55
17	SR-74	e/o I-215	EDC	59'	50
18	SR-74	e/o Trumble Rd.	EDC	59'	50
19	SR-74	e/o Sherman Rd.	Commercial	59'	45
20	SR-74	w/o Palomar Rd.	Open Space	100'	45
21	SR-74	e/o Palomar Rd.	Business Park	100'	50
22	SR-74	e/o Menifee Rd.	Commercial/School	100'	50
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	100'	50
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	100'	50
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	100'	50
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	100'	45
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	100'	45
28	Rouse Rd.	e/o Encanto Dr.	Residential	50'	25
29	Rouse Rd.	e/o Street A	Residential	50'	25
30	Rouse Rd.	e/o Sherman Rd.	Residential	50'	25
31	Rouse Rd.	e/o Antelope Rd.	Residential	50'	25
32	Chambers Av.	e/o Sherman Rd.	Residential	50'	25
33	Chambers Av.	e/o Street C	Residential	50'	25
34	McCall Bl.	w/o Sun City Bl.	Residential	59'	35
35	McCall Bl.	e/o I-215	EDC (Commercial)	76'	45
36	McCall Bl.	e/o Sherman Rd.	Residential	76'	45
37	McCall Bl.	e/o Antelope Rd.	Residential	76'	55
38	McCall Bl.	e/o Menifee Rd.	Residential	76'	55
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	50'	40
40	Encanto Dr.	s/o A Street	Commercial	59'	55

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the City of Menifee and Perris General Plan Circulation Elements.

³ Source: Legado Traffic Impact Analysis, Urban Crossroads, Inc.

"EDC" = Economic Development Corridor

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES (1 OF 2)

ID	Roadway	Segment	Average Daily Traffic (1,000's) ¹					
			Existing				Opening Year 2020	
			Without Project	With Phase 1	With Phase 2	With Buildout	Without Project	With Project
1	I-215	n/o Ethanac Rd.	92.6	95.8	95.8	98.6	99.2	102.5
2	I-215	s/o Ethanac Rd.	94.1	97.4	97.3	100.1	100.9	104.2
3	I-215	s/o McCall Bl.	96.1	98.8	98.7	101.0	102.6	105.3
4	Encanto Dr.	n/o McLaughlin Rd.	3.6	5.0	5.9	8.2	5.7	7.1
5	Encanto Dr.	s/o McLaughlin Rd.	3.3	4.7	5.6	7.9	5.4	6.8
6	Encanto Dr.	s/o Chambers Av.	4.7	4.9	5.2	9.9	6.9	7.1
7	Encanto Dr.	s/o Shadel Rd.	5.0	5.3	5.5	10.2	5.9	6.1
8	Sherman Rd.	s/o SR-74	3.8	3.8	3.8	3.8	6.1	6.1
9	Sherman Rd.	s/o Ethanac Rd.	0.4	0.4	0.4	0.4	7.7	7.7
10	Sherman Rd.	s/o McLaughlin Rd.	0.1	0.1	0.1	0.1	0.1	0.1
11	Antelope Rd.	s/o Ethanac Rd.	0.6	0.6	0.6	0.6	5.1	5.1
12	Antelope Rd.	s/o Chambers Av.	n/a	n/a	n/a	n/a	4.2	4.2
13	Palomar Rd.	n/o SR-74	2.2	2.2	2.2	2.2	4.7	4.7
14	Meniffee Rd.	n/o SR-74	6.6	6.8	6.9	7.1	9.4	9.6
15	Meniffee Rd.	s/o SR-74	11.2	11.6	11.8	12.1	17.7	18.0
16	Meniffee Rd.	s/o Rouse Rd.	11.6	12.0	12.2	12.5	16.0	16.4
17	SR-74	e/o I-215	32.4	32.4	32.4	32.4	40.8	40.8
18	SR-74	e/o Trumble Rd.	23.6	23.6	23.6	23.6	28.7	28.7
19	SR-74	e/o Sherman Rd.	25.5	25.5	25.5	25.5	29.1	29.1
20	SR-74	w/o Palomar Rd.	25.7	25.7	25.7	25.7	35.9	35.9
21	SR-74	e/o Palomar Rd.	25.7	25.7	25.7	25.7	35.9	35.9
22	SR-74	e/o Meniffee Rd.	32.5	32.7	32.8	32.9	41.6	41.8
23	Ethanac Rd.	w/o Goetz Rd.	2.3	2.3	2.3	2.4	3.6	3.6
24	Ethanac Rd.	e/o Goetz Rd.	12.5	12.7	12.9	13.0	17.1	17.4
25	Ethanac Rd.	w/o Barnett Rd.	14.6	15.0	15.3	15.5	21.3	21.8
26	Ethanac Rd.	e/o Trumble Rd.	10.8	10.8	10.8	10.9	27.2	27.2
27	Ethanac Rd.	e/o Sherman Rd.	7.3	7.3	7.3	7.3	11.9	11.9
28	Rouse Rd.	e/o Encanto Dr.	1.9	3.6	4.6	4.8	2.7	4.4
29	Rouse Rd.	e/o Street A	0.7	1.9	2.7	3.1	2.2	3.4
30	Rouse Rd.	e/o Sherman Rd.	0.5	1.4	1.9	1.8	1.8	2.8
31	Rouse Rd.	e/o Antelope Rd.	n/a	n/a	n/a	n/a	6.0	6.0
32	Chambers Av.	e/o Sherman Rd.	0.5	0.5	0.6	2.0	0.5	0.5
33	Chambers Av.	e/o Street C	0.1	0.1	0.1	0.1	0.1	0.1
34	McCall Bl.	w/o Sun City Bl.	14.0	14.5	14.9	15.4	17.5	18.1
35	McCall Bl.	e/o I-215	24.1	25.9	27.0	28.3	33.6	35.4
36	McCall Bl.	e/o Sherman Rd.	18.9	19.9	20.6	21.8	34.1	35.1
37	McCall Bl.	e/o Antelope Rd.	19.2	20.2	20.9	21.8	25.6	26.6
38	McCall Bl.	e/o Meniffee Rd.	8.1	8.3	8.4	8.6	11.1	11.3
39	Trumble Rd.	s/o Ethanac Rd.	3.8	5.2	6.1	8.4	11.5	12.9
40	Encanto Dr.	s/o A Street	3.1	4.6	5.5	7.7	11.5	12.9

¹ Source: Legado Traffic Impact Analysis, Urban Crossroads, Inc.

"n/a" = Roadway segment represents unpaved, dirt road under the given scenario.

TABLE 6-3: AVERAGE DAILY TRAFFIC VOLUMES (2 OF 2)

ID	Roadway	Segment	Average Daily Traffic (1,000's) ¹					
			Opening Year 2023		Opening Year 2025		Horizon Year 2040	
			Without Project	With Project	Without Project	With Project	Without Project	With Project
1	I-215	n/o Ethanac Rd.	104.5	107.8	114.3	120.3	136.2	142.2
2	I-215	s/o Ethanac Rd.	106.3	109.6	116.2	122.2	139.2	145.2
3	I-215	s/o McCall Bl.	107.9	110.6	117.8	122.7	145.0	149.9
4	Encanto Dr.	n/o McLaughlin Rd.	6.8	9.2	8.0	12.6	10.6	13.9
5	Encanto Dr.	s/o McLaughlin Rd.	6.5	8.9	7.7	12.3	10.3	13.5
6	Encanto Dr.	s/o Chambers Av.	8.0	8.5	9.3	14.5	13.1	15.4
7	Encanto Dr.	s/o Shadel Rd.	6.4	6.9	7.0	12.2	11.8	14.0
8	Sherman Rd.	s/o SR-74	6.6	6.6	7.5	7.5	16.6	18.1
9	Sherman Rd.	s/o Ethanac Rd.	11.4	11.4	15.0	15.0	12.1	15.5
10	Sherman Rd.	s/o McLaughlin Rd.	0.1	0.1	0.1	0.1	14.4	18.2
11	Antelope Rd.	s/o Ethanac Rd.	5.1	5.1	5.2	5.2	17.7	18.0
12	Antelope Rd.	s/o Chambers Av.	4.2	4.2	4.2	4.2	6.6	7.7
13	Palomar Rd.	n/o SR-74	4.8	4.8	5.0	5.0	8.8	9.1
14	Meniffee Rd.	n/o SR-74	10.9	11.2	12.4	12.9	34.6	35.1
15	Meniffee Rd.	s/o SR-74	21.0	21.6	24.5	25.4	39.6	40.1
16	Meniffee Rd.	s/o Rouse Rd.	18.3	18.9	20.7	21.7	48.6	48.6
17	SR-74	e/o I-215	43.3	43.3	47.4	47.4	52.3	53.2
18	SR-74	e/o Trumble Rd.	30.3	30.3	32.9	32.9	39.8	40.8
19	SR-74	e/o Sherman Rd.	30.5	30.5	32.8	32.8	58.5	58.7
20	SR-74	w/o Palomar Rd.	37.0	37.0	38.7	38.7	70.7	71.6
21	SR-74	e/o Palomar Rd.	39.5	39.5	41.1	41.1	69.6	70.2
22	SR-74	e/o Meniffee Rd.	46.5	46.8	52.3	52.6	63.7	64.2
23	Ethanac Rd.	w/o Goetz Rd.	4.2	4.2	4.9	4.9	43.1	43.6
24	Ethanac Rd.	e/o Goetz Rd.	19.6	20.0	22.4	22.9	50.5	51.3
25	Ethanac Rd.	w/o Barnett Rd.	24.8	25.6	28.7	29.7	52.5	53.9
26	Ethanac Rd.	e/o Trumble Rd.	27.6	27.6	28.4	28.5	60.7	63.0
27	Ethanac Rd.	e/o Sherman Rd.	14.2	14.2	16.8	16.8	52.2	53.1
28	Rouse Rd.	e/o Encanto Dr.	3.2	5.9	3.6	6.5	3.9	7.2
29	Rouse Rd.	e/o Street A	2.2	4.2	2.2	4.6	3.0	6.0
30	Rouse Rd.	e/o Sherman Rd.	1.8	3.4	1.9	3.2	3.1	5.2
31	Rouse Rd.	e/o Antelope Rd.	6.0	6.0	6.0	6.0	16.6	17.5
32	Chambers Av.	e/o Sherman Rd.	0.5	0.7	0.7	2.1	3.0	4.5
33	Chambers Av.	e/o Street C	0.1	0.1	0.1	0.1	5.5	6.1
34	McCall Bl.	w/o Sun City Bl.	19.4	20.3	21.5	22.9	23.2	23.8
35	McCall Bl.	e/o I-215	38.6	41.5	44.3	48.4	51.1	53.2
36	McCall Bl.	e/o Sherman Rd.	35.0	36.6	36.2	39.1	42.5	43.0
37	McCall Bl.	e/o Antelope Rd.	28.8	30.5	32.3	34.9	36.8	38.4
38	McCall Bl.	e/o Meniffee Rd.	12.7	13.0	14.5	15.0	36.0	37.2
39	Trumble Rd.	s/o Ethanac Rd.	11.6	14.0	11.9	16.5	20.1	20.1
40	Encanto Dr.	s/o A Street	11.6	14.0	11.9	16.5	20.1	20.1

¹ Source: Legado Traffic Impact Analysis, Urban Crossroads, Inc.

TABLE 6-4: TIME OF DAY VEHICLE SPLITS

Time Period	Vehicle Type		
	Autos	Medium Trucks	Heavy Trucks
Daytime (7:00 a.m. - 7:00 p.m.)	77.5%	84.8%	86.5%
Evening (7:00 p.m. - 10:00 p.m.)	12.9%	4.9%	2.7%
Nighttime (10:00 p.m. - 7:00 a.m.)	9.6%	10.3%	10.8%
Total:	100.0%	100.0%	100.0%

Source: Typical Southern California vehicle mix based on data collected by the County of Orange during surveys of 53 intersections and is considered representative for the majority of roadways throughout Southern California. The time of day vehicle mixes are used in General Plan Noise Elements throughout Southern California, including the City of Laguna Beach (to the south) and City of Santa Clarita (to the north).

TABLE 6-5: DISTRIBUTION OF TRAFFIC FLOW BY VEHICLE TYPE (VEHICLE MIX)

Roadway	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
I-215 ¹	88.20%	6.04%	5.76%	100.00%
SR-74 ¹	90.00%	5.50%	4.50%	100.00%
All Roadways ²	97.42%	1.84%	0.74%	100.00%

¹ Source: Caltrans Data Branch Annual Average Daily Truck Traffic on the California Highways System, 2015.

² Source: County of Riverside Office of Industrial Hygiene.

6.1.2 ON-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

The on-site roadway parameters including the ADT volumes used for this analysis are presented on Table 6-6. Based on the City of Menifee General Plan Circulation Element, Exhibit C-3, Encanto Drive, Sherman Road, and Antelope Road are classified as 4-lane Major roadways. Rouse Road and Chambers Avenue are classified as 4-lane Secondary roadways. (30) To predict the future on-site noise environment at the Project site, the *City of Menifee General Plan Circulation Element Traffic Impact Analysis* future daily roadway capacity traffic volumes were used. (31) The future traffic volumes for I-215 were obtained from the Horizon Year 2040 with Project volumes in the *Legado Traffic Impact Analysis*. (2) The traffic volumes shown on Table 6-6 reflect future long-range traffic conditions needed to assess the future on-site traffic noise environment and to identify potential mitigation measures (if any) that address the worst-case future conditions. For the purposes of this analysis, soft site conditions were used to analyze the on-site traffic noise impacts for the Project study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. 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. (29) In addition, the use of soft site conditions is consistent with the methodology of the *City of Menifee General Plan Draft Environmental Impact Report* prepared in September 2013. (27)

TABLE 6-6: ON-SITE ROADWAY PARAMETERS

Roadway Segment	Lanes	Classification ¹	Average Daily Traffic Volume ²	Speed Limit (mph) ³	Site Conditions ⁴
I-215	6	Freeway	145,200	70	Soft
Encanto Dr.	4	Major	34,100	55	Soft
Sherman Rd.	4	Major	34,100	45	Soft
Antelope Rd.	4	Major	34,100	40	Soft
Rouse Rd.	4	Secondary	25,900	40	Soft
Chambers Av.	4	Secondary	25,900	40	Soft

¹ Road classifications based upon the City of Menifee General Plan Circulation Element.

² Sources: I-215 future ADT volume based on the Legado Traffic Impact Analysis. All other future ADT volumes for roadways were obtained from the City of Menifee General Plan Circulation Element Traffic Study, July 2013.

³ Posted speed limits on Encanto Drive and Sherman Road. The 40 mph speeds are based on County of Riverside Office of Industrial Hygiene noise study guidelines. I-215 speed conservatively estimated at 5 mph over the 65 mph speed limit.

⁴ Consistent with the City of Menifee General Plan Draft Environmental Impact Report prepared in September 2013.

To predict the future noise environment at Planning Areas within the Project site, coordinate information was collected to identify the noise transmission path between the noise source and receiver. The coordinate information is based on the Project site plan, previously shown on Exhibit 1-B, showing the plotting of the Project uses in relationship to I-215, Encanto Drive, Sherman Road, Antelope Road, Rouse Road, and Chambers Avenue.

The exterior noise level impacts at the outdoor living area receivers were placed five feet above the pad elevation and ten feet from the proposed barrier location and at the proposed building façade for first-floor exterior noise levels. All second-floor receivers were located 14 feet above the proposed finished floor elevation.

6.2 VIBRATION ASSESSMENT

This analysis focuses on the potential ground-borne vibration associated with vehicular traffic and construction activities. Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity.

However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 6-7. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the human response (annoyance) 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 (19): $L_{VdB}(D) = L_{VdB}(25 \text{ ft}) - 30\log(D/25)$

TABLE 6-7: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	Vibration Decibels (VdB) at 25 feet
Small bulldozer	58
Jackhammer	79
Loaded Trucks	86
Large bulldozer	87

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

7 OFF-SITE TRANSPORTATION NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the *Legado Traffic Impact Analysis*. (2) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- Existing Conditions:
 - Without Project: This scenario refers to the existing present-day noise conditions without the proposed Project.
 - With Phase 1 of the Project: This scenario refers to the existing present-day noise conditions with Phase 1 of the proposed Project.
 - With Phase 2 of the Project: This scenario refers to the existing present-day noise conditions with Phase 2 of the proposed Project.
 - With Project Buildout: This scenario refers to the existing present-day noise conditions with Buildout of the proposed Project.
- Opening Year 2020 Without / With Phase 1 of the Project: This scenario refers to Year 2020 noise conditions without and with Phase 1 of the proposed Project. This scenario includes all cumulative projects identified in the Traffic Impact Analysis.
- Opening Year 2023 Without / With Phase 2 of the Project: This scenario refers to Year 2023 noise conditions without and with Phase 2 of the proposed Project. This scenario includes all cumulative projects identified in the Traffic Impact Analysis.
- Opening Year 2025 Without / With Buildout of the Project: This scenario refers to Year 2025 noise conditions without and with Buildout of the proposed Project. This scenario includes all cumulative projects identified in the Traffic Impact Analysis.
- Horizon Year 2040 Without / With Project: This scenario refers to the background noise conditions at future Year 2040 without and with the proposed Project. This scenario corresponds to 2040 conditions, and includes all cumulative projects identified in the Traffic Impact Analysis.

7.2 BASELINE NOISE CONDITIONS

This section analyzes multiple baseline conditions, or without Project scenarios, to determine the Project-related traffic noise level increases on off-site roadway segments under multiple time frames: Existing, Opening Year 2020 (Phase 1), Opening Year 2023 (Phase 2), Opening Year 2025 (Project Buildout), and Horizon Year 2040. All traffic data used in this analysis is based on the *Traffic Impact Analysis*, and as such, both the without Project (baseline) and with Project analysis scenarios are limited to those identified in the *Traffic Impact Analysis* for consistency. (2) Therefore, the Existing plus Project analyses presented in this Section are provided consistent with the *Traffic Impact Analysis* for disclosure purposes, since these scenarios are based on conditions that will not actually occur in reality, since Project traffic will not physically be operating on off-site roadway segments until each scenarios' respective Opening Year for the

given Project phase. Therefore, Opening Year conditions for each with Project Phase scenario present the potential impacts due to the Project, as these scenarios take into account background ambient growth and cumulative developments identified in the *Traffic Impact Analysis* under each time frame.

7.2 TRAFFIC NOISE CONTOURS

To quantify the Project's operational traffic noise impacts on the surrounding areas, the changes in traffic noise levels on roadway segments surrounding the Project were calculated based on the changes in the average daily traffic volumes. Based on the noise impact significance criteria described in Section 4 and shown on Table 4-2, a significant off-site traffic noise level impact occurs:

- When the noise levels at existing and future noise-sensitive land uses (e.g. residential, medical/hospital, school, etc.):
 - are less than 60 dBA CNEL and the Project creates a *readily perceptible* 5 dBA CNEL or greater Project-related noise level increase; or
 - range from 60 to 65 dBA CNEL and the Project creates a *barely perceptible* 3 dBA CNEL or greater Project-related noise level increase; or
 - already exceed 65 dBA CNEL, and the Project creates a community noise level impact of greater than 1.5 dBA CNEL (FICON, 1992).
- When the noise levels at existing and future non-noise-sensitive land uses (e.g. commercial, etc.):
 - are less than the City of Menifee *General Plan Noise Background Document and Definitions*, Table N-b3, 70 dBA CNEL and the Project creates a *readily perceptible* 5 dBA CNEL or greater Project-related noise level increase; or
 - are greater than the City of Menifee *General Plan Noise Background Document and Definitions*, Table N-b3, 70 dBA CNEL and the Project creates a *barely perceptible* 3 dBA CNEL or greater Project-related noise level increase.

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 noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may affect ambient noise levels. In addition, since the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contribution from any surrounding stationary noise sources within the Project study area. Tables 7-1 to 7-12 present a summary of the unmitigated exterior traffic noise levels for the 38 study area roadway segments analyzed from the without Project to the with Project conditions in each of the timeframes: Existing, Opening Year 2020, Opening Year 2023, Opening Year 2025, and Horizon Year 2040 conditions. Appendix 7.1 includes a summary of the traffic noise level contours for each of the 12 traffic scenarios.

TABLE 7-1: EXISTING WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	83.7	653	1408	3033
2	I-215	s/o Ethanac Rd.	Commercial	83.8	661	1424	3067
3	I-215	s/o McCall Bl.	EDC/Residential	83.8	670	1443	3110
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	63.7	RW	RW	104
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	63.3	RW	RW	99
6	Encanto Dr.	s/o Chambers Av.	EDC	64.9	RW	RW	125
7	Encanto Dr.	s/o Shadel Rd.	Commercial	60.3	RW	RW	61
8	Sherman Rd.	s/o SR-74	EDC/Business Park	61.8	RW	RW	77
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	52.0	RW	RW	RW
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	53.7	RW	RW	RW
12	Antelope Rd.	s/o Chambers Av.	EDC	n/a	n/a	n/a	n/a
13	Palomar Rd.	n/o SR-74	Business Park	60.6	RW	RW	41
14	Menifee Rd.	n/o SR-74	Business Park	65.1	RW	77	167
15	Menifee Rd.	s/o SR-74	Residential	67.4	RW	110	237
16	Menifee Rd.	s/o Rouse Rd.	Residential	67.6	RW	113	243
17	SR-74	e/o I-215	EDC	72.2	83	179	385
18	SR-74	e/o Trumble Rd.	EDC	70.8	67	145	311
19	SR-74	e/o Sherman Rd.	Commercial	70.0	59	128	275
20	SR-74	w/o Palomar Rd.	Open Space	70.9	114	246	531
21	SR-74	e/o Palomar Rd.	Business Park	71.8	132	285	613
22	SR-74	e/o Menifee Rd.	Commercial/School	72.8	154	333	717
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	61.3	RW	RW	123
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	68.7	RW	176	379
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	69.4	RW	195	421
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	67.1	RW	138	298
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	65.4	RW	106	229
28	Rouse Rd.	e/o Encanto Dr.	Residential	53.8	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	49.5	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	48.0	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	n/a	n/a	n/a	n/a
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	64.7	RW	RW	122
35	McCall Bl.	e/o I-215	EDC (Commercial)	68.5	RW	131	282
36	McCall Bl.	e/o Sherman Rd.	Residential	67.5	RW	111	240
37	McCall Bl.	e/o Antelope Rd.	Residential	69.8	RW	158	340
38	McCall Bl.	e/o Menifee Rd.	Residential	66.0	RW	89	191
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	61.7	RW	RW	65
40	Encanto Dr.	s/o A Street	Commercial	63.1	RW	RW	95

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

"n/a" = Roadway segment represents unpaved, dirt road under the given scenario.

TABLE 7-2: EXISTING WITH PHASE 1 PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	83.8	669	1441	3104
2	I-215	s/o Ethanac Rd.	Commercial	83.9	676	1456	3138
3	I-215	s/o McCall Bl.	EDC/Residential	84.0	682	1470	3168
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	65.1	RW	60	130
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	64.9	RW	RW	125
6	Encanto Dr.	s/o Chambers Av.	EDC	65.1	RW	60	128
7	Encanto Dr.	s/o Shadel Rd.	Commercial	60.5	RW	RW	64
8	Sherman Rd.	s/o SR-74	EDC/Business Park	61.8	RW	RW	77
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	52.0	RW	RW	RW
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	53.7	RW	RW	RW
12	Antelope Rd.	s/o Chambers Av.	EDC	n/a	n/a	n/a	n/a
13	Palomar Rd.	n/o SR-74	Business Park	60.6	RW	RW	41
14	Menifee Rd.	n/o SR-74	Business Park	65.2	RW	79	170
15	Menifee Rd.	s/o SR-74	Residential	67.6	RW	113	243
16	Menifee Rd.	s/o Rouse Rd.	Residential	67.7	RW	115	248
17	SR-74	e/o I-215	EDC	72.2	83	179	385
18	SR-74	e/o Trumble Rd.	EDC	70.8	67	145	311
19	SR-74	e/o Sherman Rd.	Commercial	70.0	59	128	275
20	SR-74	w/o Palomar Rd.	Open Space	70.9	114	246	531
21	SR-74	e/o Palomar Rd.	Business Park	71.8	132	285	613
22	SR-74	e/o Menifee Rd.	Commercial/School	72.9	155	334	720
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	61.3	RW	RW	123
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	68.8	RW	178	383
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	69.5	RW	199	428
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	67.1	RW	138	298
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	65.4	RW	106	229
28	Rouse Rd.	e/o Encanto Dr.	Residential	56.6	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	53.8	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	52.5	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	n/a	n/a	n/a	n/a
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	64.9	RW	RW	125
35	McCall Bl.	e/o I-215	EDC (Commercial)	68.9	RW	137	296
36	McCall Bl.	e/o Sherman Rd.	Residential	67.7	RW	115	248
37	McCall Bl.	e/o Antelope Rd.	Residential	70.0	76	163	352
38	McCall Bl.	e/o Menifee Rd.	Residential	66.1	RW	90	194
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	63.1	RW	RW	80
40	Encanto Dr.	s/o A Street	Commercial	64.8	RW	RW	123

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

"n/a" = Roadway segment represents unpaved, dirt road under the given scenario.

TABLE 7-3: EXISTING WITH PHASE 2 PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	83.8	668	1440	3103
2	I-215	s/o Ethanac Rd.	Commercial	83.9	676	1456	3137
3	I-215	s/o McCall Bl.	EDC/Residential	84.0	682	1470	3167
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	65.9	RW	67	145
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	65.6	RW	65	140
6	Encanto Dr.	s/o Chambers Av.	EDC	65.3	RW	62	134
7	Encanto Dr.	s/o Shadel Rd.	Commercial	60.7	RW	RW	65
8	Sherman Rd.	s/o SR-74	EDC/Business Park	61.8	RW	RW	77
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	52.0	RW	RW	RW
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	53.7	RW	RW	RW
12	Antelope Rd.	s/o Chambers Av.	EDC	n/a	n/a	n/a	n/a
13	Palomar Rd.	n/o SR-74	Business Park	60.6	RW	RW	41
14	Menifee Rd.	n/o SR-74	Business Park	65.3	RW	80	172
15	Menifee Rd.	s/o SR-74	Residential	67.6	RW	114	246
16	Menifee Rd.	s/o Rouse Rd.	Residential	67.8	RW	117	251
17	SR-74	e/o I-215	EDC	72.2	83	179	385
18	SR-74	e/o Trumble Rd.	EDC	70.8	67	145	311
19	SR-74	e/o Sherman Rd.	Commercial	70.0	59	128	275
20	SR-74	w/o Palomar Rd.	Open Space	70.9	114	246	531
21	SR-74	e/o Palomar Rd.	Business Park	71.8	132	285	613
22	SR-74	e/o Menifee Rd.	Commercial/School	72.9	155	335	721
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	61.3	RW	RW	123
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	68.8	RW	180	387
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	69.6	RW	201	434
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	67.1	RW	138	298
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	65.4	RW	106	229
28	Rouse Rd.	e/o Encanto Dr.	Residential	57.6	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	55.3	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	53.8	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	n/a	n/a	n/a	n/a
32	Chambers Av.	e/o Sherman Rd.	Residential	48.8	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	65.0	RW	59	127
35	McCall Bl.	e/o I-215	EDC (Commercial)	69.0	RW	141	304
36	McCall Bl.	e/o Sherman Rd.	Residential	67.9	RW	118	254
37	McCall Bl.	e/o Antelope Rd.	Residential	70.1	77	167	360
38	McCall Bl.	e/o Menifee Rd.	Residential	66.2	RW	91	196
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	63.8	RW	RW	89
40	Encanto Dr.	s/o A Street	Commercial	65.6	RW	64	139

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

"n/a" = Roadway segment represents unpaved, dirt road under the given scenario.

TABLE 7-4: EXISTING WITH PROJECT BUILDOUT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	84.0	681	1468	3163
2	I-215	s/o Ethanac Rd.	Commercial	84.0	689	1484	3196
3	I-215	s/o McCall Bl.	EDC/Residential	84.1	693	1493	3216
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	67.3	RW	84	181
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	67.1	RW	82	176
6	Encanto Dr.	s/o Chambers Av.	EDC	68.1	RW	95	205
7	Encanto Dr.	s/o Shadel Rd.	Commercial	63.4	RW	RW	99
8	Sherman Rd.	s/o SR-74	EDC/Business Park	61.8	RW	RW	77
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	52.0	RW	RW	RW
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	53.7	RW	RW	RW
12	Antelope Rd.	s/o Chambers Av.	EDC	n/a	n/a	n/a	n/a
13	Palomar Rd.	n/o SR-74	Business Park	60.6	RW	RW	41
14	Menifee Rd.	n/o SR-74	Business Park	65.4	RW	81	175
15	Menifee Rd.	s/o SR-74	Residential	67.8	RW	116	250
16	Menifee Rd.	s/o Rouse Rd.	Residential	67.9	RW	118	255
17	SR-74	e/o I-215	EDC	72.2	83	179	385
18	SR-74	e/o Trumble Rd.	EDC	70.8	67	145	311
19	SR-74	e/o Sherman Rd.	Commercial	70.0	59	128	275
20	SR-74	w/o Palomar Rd.	Open Space	70.9	114	246	531
21	SR-74	e/o Palomar Rd.	Business Park	71.8	132	285	613
22	SR-74	e/o Menifee Rd.	Commercial/School	72.9	156	336	723
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	61.5	RW	RW	126
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	68.9	RW	181	389
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	69.6	RW	203	438
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	67.1	RW	139	300
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	65.4	RW	106	229
28	Rouse Rd.	e/o Encanto Dr.	Residential	57.8	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	55.9	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	53.6	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	n/a	n/a	n/a	n/a
32	Chambers Av.	e/o Sherman Rd.	Residential	54.0	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	65.1	RW	60	130
35	McCall Bl.	e/o I-215	EDC (Commercial)	69.2	RW	146	314
36	McCall Bl.	e/o Sherman Rd.	Residential	68.1	RW	122	264
37	McCall Bl.	e/o Antelope Rd.	Residential	70.3	80	172	370
38	McCall Bl.	e/o Menifee Rd.	Residential	66.3	RW	92	199
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	65.1	RW	51	110
40	Encanto Dr.	s/o A Street	Commercial	67.0	RW	81	173

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

"n/a" = Roadway segment represents unpaved, dirt road under the given scenario.

TABLE 7-5: YEAR 2020 WITHOUT PHASE 1 PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	84.0	684	1474	3176
2	I-215	s/o Ethanac Rd.	Commercial	84.1	692	1491	3213
3	I-215	s/o McCall Bl.	EDC/Residential	84.1	700	1508	3248
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	65.7	RW	66	142
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	65.5	RW	64	137
6	Encanto Dr.	s/o Chambers Av.	EDC	66.5	RW	75	161
7	Encanto Dr.	s/o Shadel Rd.	Commercial	61.0	RW	RW	69
8	Sherman Rd.	s/o SR-74	EDC/Business Park	63.8	RW	RW	106
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	64.8	RW	RW	124
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	63.0	RW	RW	79
12	Antelope Rd.	s/o Chambers Av.	EDC	60.9	RW	RW	68
13	Palomar Rd.	n/o SR-74	Business Park	63.9	RW	RW	68
14	Menifee Rd.	n/o SR-74	Business Park	66.7	RW	98	211
15	Menifee Rd.	s/o SR-74	Residential	69.4	RW	149	322
16	Menifee Rd.	s/o Rouse Rd.	Residential	69.0	RW	140	301
17	SR-74	e/o I-215	EDC	73.2	97	208	449
18	SR-74	e/o Trumble Rd.	EDC	71.7	76	165	355
19	SR-74	e/o Sherman Rd.	Commercial	70.6	65	139	300
20	SR-74	w/o Palomar Rd.	Open Space	72.3	143	308	663
21	SR-74	e/o Palomar Rd.	Business Park	73.3	165	356	766
22	SR-74	e/o Menifee Rd.	Commercial/School	73.9	182	392	845
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	63.3	RW	RW	165
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	70.0	101	217	467
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	71.0	117	251	541
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	71.1	119	256	551
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	67.5	RW	147	318
28	Rouse Rd.	e/o Encanto Dr.	Residential	55.3	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	54.4	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	53.6	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	58.8	RW	RW	RW
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	65.7	RW	66	142
35	McCall Bl.	e/o I-215	EDC (Commercial)	70.0	76	163	352
36	McCall Bl.	e/o Sherman Rd.	Residential	70.1	77	165	355
37	McCall Bl.	e/o Antelope Rd.	Residential	71.0	89	191	412
38	McCall Bl.	e/o Menifee Rd.	Residential	67.4	RW	109	236
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	66.5	RW	63	136
40	Encanto Dr.	s/o A Street	Commercial	68.8	RW	105	227

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-6: YEAR 2020 WITH PHASE 1 PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	84.1	699	1507	3246
2	I-215	s/o Ethanac Rd.	Commercial	84.2	707	1523	3281
3	I-215	s/o McCall Bl.	EDC/Residential	84.2	712	1534	3305
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	66.7	RW	76	164
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	66.5	RW	74	160
6	Encanto Dr.	s/o Chambers Av.	EDC	66.7	RW	76	164
7	Encanto Dr.	s/o Shadel Rd.	Commercial	61.1	RW	RW	70
8	Sherman Rd.	s/o SR-74	EDC/Business Park	63.8	RW	RW	106
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	64.8	RW	RW	124
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	63.0	RW	RW	79
12	Antelope Rd.	s/o Chambers Av.	EDC	60.9	RW	RW	68
13	Palomar Rd.	n/o SR-74	Business Park	63.9	RW	RW	68
14	Menifee Rd.	n/o SR-74	Business Park	66.7	RW	99	214
15	Menifee Rd.	s/o SR-74	Residential	69.5	RW	151	326
16	Menifee Rd.	s/o Rouse Rd.	Residential	69.1	RW	142	306
17	SR-74	e/o I-215	EDC	73.2	97	208	449
18	SR-74	e/o Trumble Rd.	EDC	71.7	76	165	355
19	SR-74	e/o Sherman Rd.	Commercial	70.6	65	139	300
20	SR-74	w/o Palomar Rd.	Open Space	72.3	143	308	663
21	SR-74	e/o Palomar Rd.	Business Park	73.3	165	356	766
22	SR-74	e/o Menifee Rd.	Commercial/School	73.9	183	394	848
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	63.3	RW	RW	165
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	70.1	102	219	473
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	71.1	118	255	549
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	71.1	119	256	551
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	67.5	RW	147	318
28	Rouse Rd.	e/o Encanto Dr.	Residential	57.5	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	56.3	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	55.5	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	58.8	RW	RW	RW
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	65.8	RW	67	145
35	McCall Bl.	e/o I-215	EDC (Commercial)	70.2	79	169	364
36	McCall Bl.	e/o Sherman Rd.	Residential	70.2	78	168	362
37	McCall Bl.	e/o Antelope Rd.	Residential	71.2	91	196	422
38	McCall Bl.	e/o Menifee Rd.	Residential	67.5	RW	111	239
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	67.0	RW	68	147
40	Encanto Dr.	s/o A Street	Commercial	69.3	RW	114	245

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-7: YEAR 2023 WITH PHASE 2 PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	84.2	709	1527	3290
2	I-215	s/o Ethanac Rd.	Commercial	84.3	717	1544	3327
3	I-215	s/o McCall Bl.	EDC/Residential	84.3	724	1559	3360
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	66.5	RW	74	160
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	66.3	RW	72	155
6	Encanto Dr.	s/o Chambers Av.	EDC	67.2	RW	83	178
7	Encanto Dr.	s/o Shadel Rd.	Commercial	61.3	RW	RW	72
8	Sherman Rd.	s/o SR-74	EDC/Business Park	64.2	RW	RW	112
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	66.5	RW	75	161
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	63.0	RW	RW	79
12	Antelope Rd.	s/o Chambers Av.	EDC	60.9	RW	RW	68
13	Palomar Rd.	n/o SR-74	Business Park	64.0	RW	RW	69
14	Menifee Rd.	n/o SR-74	Business Park	67.3	RW	108	233
15	Menifee Rd.	s/o SR-74	Residential	70.1	78	167	361
16	Menifee Rd.	s/o Rouse Rd.	Residential	69.5	RW	153	329
17	SR-74	e/o I-215	EDC	73.5	101	217	467
18	SR-74	e/o Trumble Rd.	EDC	71.9	79	171	368
19	SR-74	e/o Sherman Rd.	Commercial	70.8	67	144	310
20	SR-74	w/o Palomar Rd.	Open Space	72.5	146	314	677
21	SR-74	e/o Palomar Rd.	Business Park	73.7	176	379	817
22	SR-74	e/o Menifee Rd.	Commercial/School	74.4	196	423	910
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	63.9	RW	RW	183
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	70.6	110	238	512
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	71.7	129	278	599
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	71.2	120	258	557
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	68.3	RW	166	357
28	Rouse Rd.	e/o Encanto Dr.	Residential	56.1	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	54.4	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	53.6	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	58.8	RW	RW	RW
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	66.1	RW	70	152
35	McCall Bl.	e/o I-215	EDC (Commercial)	70.6	83	179	386
36	McCall Bl.	e/o Sherman Rd.	Residential	70.2	78	168	362
37	McCall Bl.	e/o Antelope Rd.	Residential	71.5	96	207	445
38	McCall Bl.	e/o Menifee Rd.	Residential	68.0	RW	120	258
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	66.5	RW	63	137
40	Encanto Dr.	s/o A Street	Commercial	68.8	RW	106	228

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-8: YEAR 2023 WITH PHASE 2 PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	84.3	723	1558	3357
2	I-215	s/o Ethanac Rd.	Commercial	84.4	731	1575	3394
3	I-215	s/o McCall Bl.	EDC/Residential	84.5	736	1585	3414
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	67.8	RW	91	195
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	67.7	RW	89	191
6	Encanto Dr.	s/o Chambers Av.	EDC	67.5	RW	86	185
7	Encanto Dr.	s/o Shadel Rd.	Commercial	61.7	RW	RW	76
8	Sherman Rd.	s/o SR-74	EDC/Business Park	64.2	RW	RW	112
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	66.5	RW	75	161
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	63.0	RW	RW	79
12	Antelope Rd.	s/o Chambers Av.	EDC	60.9	RW	RW	68
13	Palomar Rd.	n/o SR-74	Business Park	64.0	RW	RW	69
14	Menifee Rd.	n/o SR-74	Business Park	67.4	RW	110	237
15	Menifee Rd.	s/o SR-74	Residential	70.3	79	171	368
16	Menifee Rd.	s/o Rouse Rd.	Residential	69.7	RW	156	336
17	SR-74	e/o I-215	EDC	73.5	101	217	467
18	SR-74	e/o Trumble Rd.	EDC	71.9	79	171	368
19	SR-74	e/o Sherman Rd.	Commercial	70.8	67	144	310
20	SR-74	w/o Palomar Rd.	Open Space	72.5	146	314	677
21	SR-74	e/o Palomar Rd.	Business Park	73.7	176	379	817
22	SR-74	e/o Menifee Rd.	Commercial/School	74.4	197	424	914
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	63.9	RW	RW	183
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	70.7	112	241	519
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	71.8	132	284	612
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	71.2	120	258	557
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	68.3	RW	166	357
28	Rouse Rd.	e/o Encanto Dr.	Residential	58.7	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	57.3	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	56.3	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	58.8	RW	RW	RW
32	Chambers Av.	e/o Sherman Rd.	Residential	49.5	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	66.3	RW	73	156
35	McCall Bl.	e/o I-215	EDC (Commercial)	70.9	87	188	405
36	McCall Bl.	e/o Sherman Rd.	Residential	70.4	80	173	373
37	McCall Bl.	e/o Antelope Rd.	Residential	71.8	100	215	463
38	McCall Bl.	e/o Menifee Rd.	Residential	68.1	RW	122	262
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	67.4	RW	72	155
40	Encanto Dr.	s/o A Street	Commercial	69.6	RW	120	258

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-9: YEAR 2025 WITHOUT PROJECT BUILDOUT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	84.6	752	1620	3490
2	I-215	s/o Ethanac Rd.	Commercial	84.7	761	1639	3530
3	I-215	s/o McCall Bl.	EDC/Residential	84.7	767	1653	3562
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	67.2	RW	83	178
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	67.0	RW	81	173
6	Encanto Dr.	s/o Chambers Av.	EDC	67.8	RW	91	197
7	Encanto Dr.	s/o Shadel Rd.	Commercial	61.7	RW	RW	77
8	Sherman Rd.	s/o SR-74	EDC/Business Park	64.7	RW	RW	122
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	67.7	RW	90	193
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	63.1	RW	RW	80
12	Antelope Rd.	s/o Chambers Av.	EDC	60.9	RW	RW	68
13	Palomar Rd.	n/o SR-74	Business Park	64.2	RW	RW	70
14	Menifee Rd.	n/o SR-74	Business Park	67.9	RW	118	254
15	Menifee Rd.	s/o SR-74	Residential	70.8	86	186	400
16	Menifee Rd.	s/o Rouse Rd.	Residential	70.1	77	166	357
17	SR-74	e/o I-215	EDC	73.9	107	230	496
18	SR-74	e/o Trumble Rd.	EDC	72.3	84	180	389
19	SR-74	e/o Sherman Rd.	Commercial	71.1	70	151	325
20	SR-74	w/o Palomar Rd.	Open Space	72.7	150	324	697
21	SR-74	e/o Palomar Rd.	Business Park	73.9	181	389	838
22	SR-74	e/o Menifee Rd.	Commercial/School	74.9	212	457	985
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	64.6	RW	RW	203
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	71.2	121	260	559
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	72.3	142	306	660
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	71.3	122	263	567
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	69.0	RW	186	400
28	Rouse Rd.	e/o Encanto Dr.	Residential	56.6	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	54.4	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	53.8	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	58.8	RW	RW	RW
32	Chambers Av.	e/o Sherman Rd.	Residential	49.5	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	66.6	RW	75	162
35	McCall Bl.	e/o I-215	EDC (Commercial)	71.2	91	196	423
36	McCall Bl.	e/o Sherman Rd.	Residential	70.3	80	172	370
37	McCall Bl.	e/o Antelope Rd.	Residential	72.0	104	223	481
38	McCall Bl.	e/o Menifee Rd.	Residential	68.5	RW	131	282
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	66.7	RW	65	139
40	Encanto Dr.	s/o A Street	Commercial	68.9	RW	108	232

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

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TABLE 7-10: YEAR 2025 WITH PROJECT BUILDOUT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	84.8	778	1676	3611
2	I-215	s/o Ethanac Rd.	Commercial	84.9	787	1695	3651
3	I-215	s/o McCall Bl.	EDC/Residential	84.9	789	1699	3661
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	69.2	RW	112	241
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	69.1	RW	110	237
6	Encanto Dr.	s/o Chambers Av.	EDC	69.8	RW	123	264
7	Encanto Dr.	s/o Shadel Rd.	Commercial	64.1	RW	RW	111
8	Sherman Rd.	s/o SR-74	EDC/Business Park	64.7	RW	RW	122
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	67.7	RW	90	193
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	RW	RW	RW
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	63.1	RW	RW	80
12	Antelope Rd.	s/o Chambers Av.	EDC	60.9	RW	RW	68
13	Palomar Rd.	n/o SR-74	Business Park	64.2	RW	RW	70
14	Menifee Rd.	n/o SR-74	Business Park	68.0	RW	121	261
15	Menifee Rd.	s/o SR-74	Residential	71.0	88	190	410
16	Menifee Rd.	s/o Rouse Rd.	Residential	70.3	79	171	369
17	SR-74	e/o I-215	EDC	73.9	107	230	496
18	SR-74	e/o Trumble Rd.	EDC	72.3	84	180	389
19	SR-74	e/o Sherman Rd.	Commercial	71.1	70	151	325
20	SR-74	w/o Palomar Rd.	Open Space	72.7	150	324	697
21	SR-74	e/o Palomar Rd.	Business Park	73.9	181	389	838
22	SR-74	e/o Menifee Rd.	Commercial/School	74.9	213	459	988
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	64.6	RW	RW	203
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	71.3	122	264	568
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	72.4	145	313	675
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	71.3	123	264	569
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	69.0	RW	186	400
28	Rouse Rd.	e/o Encanto Dr.	Residential	59.1	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	57.6	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	56.1	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	58.8	RW	RW	RW
32	Chambers Av.	e/o Sherman Rd.	Residential	54.2	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	41.0	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	66.9	RW	79	169
35	McCall Bl.	e/o I-215	EDC (Commercial)	71.6	97	208	449
36	McCall Bl.	e/o Sherman Rd.	Residential	70.6	84	181	389
37	McCall Bl.	e/o Antelope Rd.	Residential	72.4	109	235	506
38	McCall Bl.	e/o Menifee Rd.	Residential	68.7	RW	134	288
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	68.1	RW	80	173
40	Encanto Dr.	s/o A Street	Commercial	70.3	62	134	288

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-11: HORIZON YEAR 2040 WITHOUT PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	85.4	845	1821	3924
2	I-215	s/o Ethanac Rd.	Commercial	85.5	858	1848	3981
3	I-215	s/o McCall Bl.	EDC/Residential	85.6	881	1899	4090
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	68.4	RW	100	215
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	68.3	RW	98	211
6	Encanto Dr.	s/o Chambers Av.	EDC	69.3	RW	115	247
7	Encanto Dr.	s/o Shadel Rd.	Commercial	64.0	RW	RW	109
8	Sherman Rd.	s/o SR-74	EDC/Business Park	68.2	RW	96	206
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	66.8	RW	78	167
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	67.5	RW	87	188
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	68.4	RW	84	181
12	Antelope Rd.	s/o Chambers Av.	EDC	62.9	RW	RW	92
13	Palomar Rd.	n/o SR-74	Business Park	66.6	RW	48	103
14	Menifee Rd.	n/o SR-74	Business Park	72.3	108	234	503
15	Menifee Rd.	s/o SR-74	Residential	72.9	119	256	551
16	Menifee Rd.	s/o Rouse Rd.	Residential	73.8	136	293	631
17	SR-74	e/o I-215	EDC	74.3	114	246	529
18	SR-74	e/o Trumble Rd.	EDC	73.1	95	205	441
19	SR-74	e/o Sherman Rd.	Commercial	73.6	103	222	478
20	SR-74	w/o Palomar Rd.	Open Space	75.3	225	484	1042
21	SR-74	e/o Palomar Rd.	Business Park	76.1	257	553	1191
22	SR-74	e/o Menifee Rd.	Commercial/School	75.8	242	521	1123
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	74.1	186	402	865
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	74.7	207	446	962
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	74.9	213	458	987
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	74.6	203	437	941
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	74.0	183	395	851
28	Rouse Rd.	e/o Encanto Dr.	Residential	56.9	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	55.8	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	55.9	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	63.2	RW	RW	82
32	Chambers Av.	e/o Sherman Rd.	Residential	55.8	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	58.4	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	66.9	RW	79	171
35	McCall Bl.	e/o I-215	EDC (Commercial)	71.8	100	216	466
36	McCall Bl.	e/o Sherman Rd.	Residential	71.0	89	191	412
37	McCall Bl.	e/o Antelope Rd.	Residential	72.6	113	243	524
38	McCall Bl.	e/o Menifee Rd.	Residential	72.5	111	240	517
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	68.9	RW	91	197
40	Encanto Dr.	s/o A Street	Commercial	71.2	71	153	329

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-12: HORIZON YEAR 2040 WITH PROJECT CONDITIONS NOISE CONTOURS

ID	Road	Segment	Adjacent Land Use ¹	dBA CNEL			
				@ Adj. Land Use	70	65	60
					CL to Contour Distance (Feet) ²		
1	I-215	n/o Ethanac Rd.	Commercial	85.5	870	1874	4038
2	I-215	s/o Ethanac Rd.	Commercial	85.6	882	1901	4095
3	I-215	s/o McCall Bl.	EDC/Residential	85.8	901	1942	4183
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	69.6	RW	119	257
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	69.5	RW	117	252
6	Encanto Dr.	s/o Chambers Av.	EDC	70.0	59	128	275
7	Encanto Dr.	s/o Shadel Rd.	Commercial	64.7	RW	RW	122
8	Sherman Rd.	s/o SR-74	EDC/Business Park	68.5	RW	102	219
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	67.9	RW	92	197
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	68.6	RW	102	220
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	68.5	RW	85	183
12	Antelope Rd.	s/o Chambers Av.	EDC	63.6	RW	RW	102
13	Palomar Rd.	n/o SR-74	Business Park	66.8	RW	49	105
14	Menifee Rd.	n/o SR-74	Business Park	72.4	109	236	508
15	Menifee Rd.	s/o SR-74	Residential	73.0	120	258	555
16	Menifee Rd.	s/o Rouse Rd.	Residential	73.8	136	293	631
17	SR-74	e/o I-215	EDC	74.4	115	249	535
18	SR-74	e/o Trumble Rd.	EDC	73.2	97	208	449
19	SR-74	e/o Sherman Rd.	Commercial	73.6	103	222	479
20	SR-74	w/o Palomar Rd.	Open Space	75.3	226	488	1051
21	SR-74	e/o Palomar Rd.	Business Park	76.2	258	556	1198
22	SR-74	e/o Menifee Rd.	Commercial/School	75.8	243	524	1129
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	74.1	188	405	872
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	74.8	209	451	972
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	75.0	216	466	1005
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	74.8	208	448	965
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	74.0	185	400	861
28	Rouse Rd.	e/o Encanto Dr.	Residential	59.6	RW	RW	RW
29	Rouse Rd.	e/o Street A	Residential	58.8	RW	RW	RW
30	Rouse Rd.	e/o Sherman Rd.	Residential	58.2	RW	RW	RW
31	Rouse Rd.	e/o Antelope Rd.	Residential	63.4	RW	RW	85
32	Chambers Av.	e/o Sherman Rd.	Residential	57.6	RW	RW	RW
33	Chambers Av.	e/o Street C	Residential	58.9	RW	RW	RW
34	McCall Bl.	w/o Sun City Bl.	Residential	67.0	RW	81	174
35	McCall Bl.	e/o I-215	EDC (Commercial)	72.0	103	222	478
36	McCall Bl.	e/o Sherman Rd.	Residential	71.1	89	193	415
37	McCall Bl.	e/o Antelope Rd.	Residential	72.8	116	250	539
38	McCall Bl.	e/o Menifee Rd.	Residential	72.6	114	245	528
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	68.9	RW	91	197
40	Encanto Dr.	s/o A Street	Commercial	71.2	71	153	329

¹ Sources: City of Menifee General Plan Land Use Map, Exhibit LU-2, and the City of Perris General Plan Map.

² "RW" = Location of the respective noise contour falls within the right-of-way of the road.

7.3 EXISTING CONDITION PROJECT TRAFFIC NOISE LEVELS

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project (E+P) has been included in this report for information purposes, consistent with the *Traffic Impact Analysis*. The analysis of existing traffic noise levels plus traffic noise generated by the proposed Project (E+P) scenario will not actually occur since the Project would not be fully constructed and operational until the Opening Year conditions. Table 7-1 shows that the unmitigated exterior noise levels are expected to range from 41.0 to 83.8 dBA CNEL for Existing without Project conditions. The sections below describe the Existing with Project traffic noise level conditions under each Phase of Project development.

7.3.1 WITH PHASE 1 PROJECT CONDITIONS

Table 7-13 presents a comparison of the Existing without and with Phase 1 Project conditions CNEL noise levels. Table 7-2 presents the Existing with Phase 1 Project conditions noise level contours that are expected to range from 41.0 to 84.0 dBA CNEL. As shown on Table 7-13 the Project is expected to generate exterior noise level increases ranging from 0.0 to 4.5 dBA CNEL. This scenario is provided solely for informational purposes and will not occur, since the Project will not be built and occupied under Existing conditions and the without Project scenario does not include background ambient growth or cumulative developments at the time of Phase 1 of Project development.

7.3.2 WITH PHASE 2 PROJECT CONDITIONS

Table 7-14 presents a comparison of the Existing without and with Phase 2 Project conditions CNEL noise levels. Table 7-3 presents the Existing with Phase 2 Project conditions noise level contours that are expected to range from 41.0 to 84.0 dBA CNEL. As shown on Table 7-14 the Project is expected to generate exterior noise level increases ranging from 0.0 to 5.8 dBA CNEL, which exceeds significance thresholds identified in Section 4 at two of 40 off-site roadway segments: Rouse Road east of Street A (Segment 29), and Rouse Road east of Sherman Road (Segment 30). However, this scenario is provided solely for informational purposes and will not occur, since the Project will not be built and occupied under Existing conditions and the without Project scenario does not include background ambient growth or cumulative developments at the time of Phase 2 of Project development.

7.3.3 WITH PROJECT BUILDOUT CONDITIONS

Table 7-15 presents a comparison of the Existing without and with Project Buildout conditions CNEL noise levels. Table 7-4 presents the Existing with Project Buildout conditions noise level contours that are expected to range from 41.0 to 84.1 dBA CNEL. As shown on Table 7-15 the Project is expected to generate exterior noise level increases ranging from 0.0 to 6.4 dBA CNEL, which exceeds significance thresholds identified in Section 4 at nine of 40 off-site roadway segments: Encanto Drive north of McLaughlin Road (Segment 4), Encanto Drive south of McLaughlin Road (Segment 5), Encanto Drive south of Chambers Avenue (Segment 6), Encanto Drive south of Shadel Road (Segment 7), Rouse Road east of Street A (Segment 29), Rouse Road east of Sherman Road (Segment 30), Chambers Avenue east of Sherman Road (Segment 32),

Trumble Road south of Ethanac Road (Segment 39), and Encanto Drive south of “A” Street. However, this scenario is provided solely for informational purposes and will not occur, since the Project will not be built and occupied under Existing conditions and the without Project scenario does not include background ambient growth or cumulative developments at the time of Project Buildout.

7.4 OPENING YEAR 2020 PHASE 1 PROJECT TRAFFIC NOISE LEVELS

Table 7-16 presents a comparison of the Opening Year 2020 without and with Phase 1 Project conditions CNEL noise levels. Table 7-5 shows that the unmitigated exterior noise levels are expected to range from 41.0 to 84.1 dBA CNEL for Opening Year 2020 without Project conditions. Table 7-6 presents the Opening Year 2020 with Phase 1 Project conditions noise level contours that are expected to range from 41.0 to 84.2 dBA CNEL. As shown on Table 7-16 the Project is expected to generate an exterior noise level increase of up to 2.2 dBA CNEL, which is below the significance thresholds identified in Section 4. Therefore, the Phase 1 Project-related off-site traffic noise level increases are considered *less than significant* for Opening Year 2020 conditions.

7.5 OPENING YEAR 2023 PHASE 2 PROJECT TRAFFIC NOISE LEVELS

Table 7-17 presents a comparison of the Opening Year 2023 without and with Phase 2 Project conditions CNEL noise levels. Table 7-7 shows that the unmitigated exterior noise levels are expected to range from 41.0 to 84.3 dBA CNEL for Opening Year 2023 without Project conditions. Table 7-8 presents the Opening Year 2023 with Phase 2 Project conditions noise level contours that are expected to range from 41.0 to 84.5 dBA CNEL. As shown on Table 7-17 the Project is expected to generate an exterior noise level increase of up to 2.9 dBA CNEL, which is below the significance thresholds identified in Section 4. Therefore, the Phase 2 Project-related off-site traffic noise level increases are considered *less than significant* for Opening Year 2023 conditions.

7.6 OPENING YEAR 2025 PROJECT BUILDOUT TRAFFIC NOISE LEVELS

Table 7-18 presents a comparison of the Opening Year 2025 without and with Project Buildout conditions CNEL noise levels. Table 7-9 shows that the unmitigated exterior noise levels are expected to range from 41.0 to 84.7 dBA CNEL for Opening Year 2025 without Project conditions. Table 7-8 presents the Opening Year 2025 with Project Buildout conditions noise level contours that are expected to range from 41.0 to 84.9 dBA CNEL. As shown on Table 7-18 the Project is expected to generate an exterior noise level increase of up to 4.7 dBA CNEL, which is below the significance thresholds identified in Section 4. Therefore, the Project Buildout-related off-site traffic noise level increases are considered *less than significant* for Opening Year 2025 conditions.

7.7 HORIZON YEAR 2040 PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 7-19 presents a comparison of the Horizon Year 2040 without and with Project conditions CNEL noise levels. Table 7-11 shows that the unmitigated exterior noise levels are expected to range from 55.8 to 85.6 dBA CNEL for Horizon Year 2040 without Project conditions. Table 7-12 presents the Horizon Year 2040 with Project conditions noise level contours that are expected to range from 57.6 to 85.8 dBA CNEL. As shown on Table 7-19 the Project is expected to generate an exterior noise level increase of up to 3.0 dBA CNEL, which is below the significance thresholds identified in Section 4. Therefore, the Project-related off-site traffic noise level increases are considered *less than significant* for Horizon Year 2040 conditions.

7.8 ENCANTO DRIVE CLOSURE ALTERNATIVE ANALYSIS

According to the City of Perris, the buildout of the Perris Towne Center project will include the closure of Encanto Drive at Ethanac Road. In order to access Encanto Road, traffic will be redirected via Trumble Road (Segment 39) and "A" Street (located within the Perris Towne Center site) to Encanto Road south of "A" Street (Segment 40). To evaluate the Encanto Drive closure, the Traffic Impact Analysis redistributed the existing traffic volumes along Encanto Drive to "A" Street and Trumble Road. Project (Phase 1), Project (Phase 2), and Project (Buildout) traffic volumes have then been added to the Existing redistributed traffic volumes.

TABLE 7-13: EXISTING OFF-SITE PHASE 1 PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?
				No Project	With Project	Project Addition	
1	I-215	n/o Ethanac Rd.	Commercial	83.7	83.8	0.1	No
2	I-215	s/o Ethanac Rd.	Commercial	83.8	83.9	0.1	No
3	I-215	s/o McCall Bl.	EDC/Residential	83.8	84.0	0.2	Yes
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	63.7	65.1	1.4	No
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	63.3	64.9	1.6	No
6	Encanto Dr.	s/o Chambers Av.	EDC	64.9	65.1	0.2	No
7	Encanto Dr.	s/o Shadel Rd.	Commercial	60.3	60.5	0.2	No
8	Sherman Rd.	s/o SR-74	EDC/Business Park	61.8	61.8	0.0	No
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	52.0	52.0	0.0	No
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	46.0	0.0	Yes
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	53.7	53.7	0.0	No
12	Antelope Rd.	s/o Chambers Av.	EDC	n/a	n/a	n/a	n/a
13	Palomar Rd.	n/o SR-74	Business Park	60.6	60.6	0.0	No
14	Meniffee Rd.	n/o SR-74	Business Park	65.1	65.2	0.1	No
15	Meniffee Rd.	s/o SR-74	Residential	67.4	67.6	0.2	Yes
16	Meniffee Rd.	s/o Rouse Rd.	Residential	67.6	67.7	0.1	Yes
17	SR-74	e/o I-215	EDC	72.2	72.2	0.0	No
18	SR-74	e/o Trumble Rd.	EDC	70.8	70.8	0.0	No
19	SR-74	e/o Sherman Rd.	Commercial	70.0	70.0	0.0	No
20	SR-74	w/o Palomar Rd.	Open Space	70.9	70.9	0.0	No
21	SR-74	e/o Palomar Rd.	Business Park	71.8	71.8	0.0	No
22	SR-74	e/o Meniffee Rd.	Commercial/School	72.8	72.9	0.1	Yes
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	61.3	61.3	0.0	Yes
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	68.7	68.8	0.1	Yes
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	69.4	69.5	0.1	Yes
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	67.1	67.1	0.0	No
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	65.4	65.4	0.0	Yes

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise-Sensitive?
				No Project	With Project	Project Addition	
28	Rouse Rd.	e/o Encanto Dr.	Residential	53.8	56.6	2.8	Yes
29	Rouse Rd.	e/o Street A	Residential	49.5	53.8	4.3	Yes
30	Rouse Rd.	e/o Sherman Rd.	Residential	48.0	52.5	4.5	Yes
31	Rouse Rd.	e/o Antelope Rd.	Residential	n/a	n/a	n/a	n/a
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	48.0	0.0	Yes
33	Chambers Av.	e/o Street C	Residential	41.0	41.0	0.0	Yes
34	McCall Bl.	w/o Sun City Bl.	Residential	64.7	64.9	0.2	Yes
35	McCall Bl.	e/o I-215	EDC (Commercial)	68.5	68.9	0.4	No
36	McCall Bl.	e/o Sherman Rd.	Residential	67.5	67.7	0.2	Yes
37	McCall Bl.	e/o Antelope Rd.	Residential	69.8	70.0	0.2	Yes
38	McCall Bl.	e/o Menifee Rd.	Residential	66.0	66.1	0.1	Yes
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	61.7	63.1	1.4	No
40	Encanto Dr.	s/o A Street	Commercial	63.1	64.8	1.7	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

² Significance Criteria (Section 4).

"n/a" = Roadway segment represents unpaved, dirt road under the given scenario.

TABLE 7-14: EXISTING OFF-SITE PHASE 2 PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?
				No Project	With Project	Project Addition	
1	I-215	n/o Ethanac Rd.	Commercial	83.7	83.8	0.1	No
2	I-215	s/o Ethanac Rd.	Commercial	83.8	83.9	0.1	No
3	I-215	s/o McCall Bl.	EDC/Residential	83.8	84.0	0.2	Yes
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	63.7	65.9	2.2	No
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	63.3	65.6	2.3	No
6	Encanto Dr.	s/o Chambers Av.	EDC	64.9	65.3	0.4	No
7	Encanto Dr.	s/o Shadel Rd.	Commercial	60.3	60.7	0.4	No
8	Sherman Rd.	s/o SR-74	EDC/Business Park	61.8	61.8	0.0	No
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	52.0	52.0	0.0	No
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	46.0	0.0	Yes
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	53.7	53.7	0.0	No
12	Antelope Rd.	s/o Chambers Av.	EDC	n/a	n/a	n/a	n/a
13	Palomar Rd.	n/o SR-74	Business Park	60.6	60.6	0.0	No
14	Meniffee Rd.	n/o SR-74	Business Park	65.1	65.3	0.2	No
15	Meniffee Rd.	s/o SR-74	Residential	67.4	67.6	0.2	Yes
16	Meniffee Rd.	s/o Rouse Rd.	Residential	67.6	67.8	0.2	Yes
17	SR-74	e/o I-215	EDC	72.2	72.2	0.0	No
18	SR-74	e/o Trumble Rd.	EDC	70.8	70.8	0.0	No
19	SR-74	e/o Sherman Rd.	Commercial	70.0	70.0	0.0	No
20	SR-74	w/o Palomar Rd.	Open Space	70.9	70.9	0.0	No
21	SR-74	e/o Palomar Rd.	Business Park	71.8	71.8	0.0	No
22	SR-74	e/o Meniffee Rd.	Commercial/School	72.8	72.9	0.1	Yes
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	61.3	61.3	0.0	Yes
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	68.7	68.8	0.1	Yes
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	69.4	69.6	0.2	Yes
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	67.1	67.1	0.0	No
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	65.4	65.4	0.0	Yes
28	Rouse Rd.	e/o Encanto Dr.	Residential	53.8	57.6	3.8	Yes

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?
				No Project	With Project	Project Addition	
29	Rouse Rd.	e/o Street A	Residential	49.5	55.3	5.8	Yes
30	Rouse Rd.	e/o Sherman Rd.	Residential	48.0	53.8	5.8	Yes
31	Rouse Rd.	e/o Antelope Rd.	Residential	n/a	n/a	n/a	n/a
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	48.8	0.8	Yes
33	Chambers Av.	e/o Street C	Residential	41.0	41.0	0.0	Yes
34	McCall Bl.	w/o Sun City Bl.	Residential	64.7	65.0	0.3	Yes
35	McCall Bl.	e/o I-215	EDC (Commercial)	68.5	69.0	0.5	No
36	McCall Bl.	e/o Sherman Rd.	Residential	67.5	67.9	0.4	Yes
37	McCall Bl.	e/o Antelope Rd.	Residential	69.8	70.1	0.3	Yes
38	McCall Bl.	e/o Menifee Rd.	Residential	66.0	66.2	0.2	Yes
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	61.7	63.8	2.1	No
40	Encanto Dr.	s/o A Street	Commercial	63.1	65.6	2.5	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

² Significance Criteria (Section 4).

"n/a" = Roadway segment represents unpaved, dirt road under the given scenario.

TABLE 7-15: EXISTING OFF-SITE PROJECT BUILDOUT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?
				No Project	With Project	Project Addition	
1	I-215	n/o Ethanac Rd.	Commercial	83.7	84.0	0.3	No
2	I-215	s/o Ethanac Rd.	Commercial	83.8	84.0	0.2	No
3	I-215	s/o McCall Bl.	EDC/Residential	83.8	84.1	0.3	Yes
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	63.7	67.3	3.6	No
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	63.3	67.1	3.8	No
6	Encanto Dr.	s/o Chambers Av.	EDC	64.9	68.1	3.2	No
7	Encanto Dr.	s/o Shadel Rd.	Commercial	60.3	63.4	3.1	No
8	Sherman Rd.	s/o SR-74	EDC/Business Park	61.8	61.8	0.0	No
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	52.0	52.0	0.0	No
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	46.0	0.0	Yes
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	53.7	53.7	0.0	No
12	Antelope Rd.	s/o Chambers Av.	EDC	n/a	n/a	n/a	n/a
13	Palomar Rd.	n/o SR-74	Business Park	60.6	60.6	0.0	No
14	Meniffee Rd.	n/o SR-74	Business Park	65.1	65.4	0.3	No
15	Meniffee Rd.	s/o SR-74	Residential	67.4	67.8	0.4	Yes
16	Meniffee Rd.	s/o Rouse Rd.	Residential	67.6	67.9	0.3	Yes
17	SR-74	e/o I-215	EDC	72.2	72.2	0.0	No
18	SR-74	e/o Trumble Rd.	EDC	70.8	70.8	0.0	No
19	SR-74	e/o Sherman Rd.	Commercial	70.0	70.0	0.0	No
20	SR-74	w/o Palomar Rd.	Open Space	70.9	70.9	0.0	No
21	SR-74	e/o Palomar Rd.	Business Park	71.8	71.8	0.0	No
22	SR-74	e/o Meniffee Rd.	Commercial/School	72.8	72.9	0.1	Yes
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	61.3	61.5	0.2	Yes
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	68.7	68.9	0.2	Yes
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	69.4	69.6	0.2	Yes
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	67.1	67.1	0.0	No
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	65.4	65.4	0.0	Yes
28	Rouse Rd.	e/o Encanto Dr.	Residential	53.8	57.8	4.0	Yes

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise-Sensitive?
				No Project	With Project	Project Addition	
29	Rouse Rd.	e/o Street A	Residential	49.5	55.9	6.4	Yes
30	Rouse Rd.	e/o Sherman Rd.	Residential	48.0	53.6	5.6	Yes
31	Rouse Rd.	e/o Antelope Rd.	Residential	n/a	n/a	n/a	n/a
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	54.0	6.0	Yes
33	Chambers Av.	e/o Street C	Residential	41.0	41.0	0.0	Yes
34	McCall Bl.	w/o Sun City Bl.	Residential	64.7	65.1	0.4	Yes
35	McCall Bl.	e/o I-215	EDC (Commercial)	68.5	69.2	0.7	No
36	McCall Bl.	e/o Sherman Rd.	Residential	67.5	68.1	0.6	Yes
37	McCall Bl.	e/o Antelope Rd.	Residential	69.8	70.3	0.5	Yes
38	McCall Bl.	e/o Menifee Rd.	Residential	66.0	66.3	0.3	Yes
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	61.7	65.1	3.4	No
40	Encanto Dr.	s/o A Street	Commercial	63.1	67.0	3.9	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

² Significance Criteria (Section 4).

"n/a" = Roadway segment represents unpaved, dirt road under the given scenario.

TABLE 7-16: OPENING YEAR 2020 PHASE 1 PROJECT RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?	Threshold Exceeded? ²
				No Project	With Project	Project Addition		
1	I-215	n/o Ethanac Rd.	Commercial	84.0	84.1	0.1	No	No
2	I-215	s/o Ethanac Rd.	Commercial	84.1	84.2	0.1	No	No
3	I-215	s/o McCall Bl.	EDC/Residential	84.1	84.2	0.1	Yes	No
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	65.7	66.7	1.0	No	No
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	65.5	66.5	1.0	No	No
6	Encanto Dr.	s/o Chambers Av.	EDC	66.5	66.7	0.2	No	No
7	Encanto Dr.	s/o Shadel Rd.	Commercial	61.0	61.1	0.1	No	No
8	Sherman Rd.	s/o SR-74	EDC/Business Park	63.8	63.8	0.0	No	No
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	64.8	64.8	0.0	No	No
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	46.0	0.0	Yes	No
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	63.0	63.0	0.0	No	No
12	Antelope Rd.	s/o Chambers Av.	EDC	60.9	60.9	0.0	No	No
13	Palomar Rd.	n/o SR-74	Business Park	63.9	63.9	0.0	No	No
14	Meniffee Rd.	n/o SR-74	Business Park	66.7	66.7	0.0	No	No
15	Meniffee Rd.	s/o SR-74	Residential	69.4	69.5	0.1	Yes	No
16	Meniffee Rd.	s/o Rouse Rd.	Residential	69.0	69.1	0.1	Yes	No
17	SR-74	e/o I-215	EDC	73.2	73.2	0.0	No	No
18	SR-74	e/o Trumble Rd.	EDC	71.7	71.7	0.0	No	No
19	SR-74	e/o Sherman Rd.	Commercial	70.6	70.6	0.0	No	No
20	SR-74	w/o Palomar Rd.	Open Space	72.3	72.3	0.0	No	No
21	SR-74	e/o Palomar Rd.	Business Park	73.3	73.3	0.0	No	No
22	SR-74	e/o Meniffee Rd.	Commercial/School	73.9	73.9	0.0	Yes	No
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	63.3	63.3	0.0	Yes	No
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	70.0	70.1	0.1	Yes	No
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	71.0	71.1	0.1	Yes	No
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	71.1	71.1	0.0	No	No
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	67.5	67.5	0.0	Yes	No
28	Rouse Rd.	e/o Encanto Dr.	Residential	55.3	57.5	2.2	Yes	No

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?	Threshold Exceeded? ²
				No Project	With Project	Project Addition		
29	Rouse Rd.	e/o Street A	Residential	54.4	56.3	1.9	Yes	No
30	Rouse Rd.	e/o Sherman Rd.	Residential	53.6	55.5	1.9	Yes	No
31	Rouse Rd.	e/o Antelope Rd.	Residential	58.8	58.8	0.0	Yes	No
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	48.0	0.0	Yes	No
33	Chambers Av.	e/o Street C	Residential	41.0	41.0	0.0	Yes	No
34	McCall Bl.	w/o Sun City Bl.	Residential	65.7	65.8	0.1	Yes	No
35	McCall Bl.	e/o I-215	EDC (Commercial)	70.0	70.2	0.2	No	No
36	McCall Bl.	e/o Sherman Rd.	Residential	70.1	70.2	0.1	Yes	No
37	McCall Bl.	e/o Antelope Rd.	Residential	71.0	71.2	0.2	Yes	No
38	McCall Bl.	e/o Meniffee Rd.	Residential	67.4	67.5	0.1	Yes	No
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	66.5	67.0	0.5	No	No
40	Encanto Dr.	s/o A Street	Commercial	68.8	69.3	0.5	No	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

² Significance Criteria (Section 4).

TABLE 7-17: OPENING YEAR 2023 PHASE 2 PROJECT RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?	Threshold Exceeded? ²
				No Project	With Project	Project Addition		
1	I-215	n/o Ethanac Rd.	Commercial	84.2	84.3	0.1	No	No
2	I-215	s/o Ethanac Rd.	Commercial	84.3	84.4	0.1	No	No
3	I-215	s/o McCall Bl.	EDC/Residential	84.3	84.5	0.2	Yes	No
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	66.5	67.8	1.3	No	No
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	66.3	67.7	1.4	No	No
6	Encanto Dr.	s/o Chambers Av.	EDC	67.2	67.5	0.3	No	No
7	Encanto Dr.	s/o Shadel Rd.	Commercial	61.3	61.7	0.4	No	No
8	Sherman Rd.	s/o SR-74	EDC/Business Park	64.2	64.2	0.0	No	No
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	66.5	66.5	0.0	No	No
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	46.0	0.0	Yes	No
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	63.0	63.0	0.0	No	No
12	Antelope Rd.	s/o Chambers Av.	EDC	60.9	60.9	0.0	No	No
13	Palomar Rd.	n/o SR-74	Business Park	64.0	64.0	0.0	No	No
14	Menifee Rd.	n/o SR-74	Business Park	67.3	67.4	0.1	No	No
15	Menifee Rd.	s/o SR-74	Residential	70.1	70.3	0.2	Yes	No
16	Menifee Rd.	s/o Rouse Rd.	Residential	69.5	69.7	0.2	Yes	No
17	SR-74	e/o I-215	EDC	73.5	73.5	0.0	No	No
18	SR-74	e/o Trumble Rd.	EDC	71.9	71.9	0.0	No	No
19	SR-74	e/o Sherman Rd.	Commercial	70.8	70.8	0.0	No	No
20	SR-74	w/o Palomar Rd.	Open Space	72.5	72.5	0.0	No	No
21	SR-74	e/o Palomar Rd.	Business Park	73.7	73.7	0.0	No	No
22	SR-74	e/o Menifee Rd.	Commercial/School	74.4	74.4	0.0	Yes	No
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	63.9	63.9	0.0	Yes	No
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	70.6	70.7	0.1	Yes	No
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	71.7	71.8	0.1	Yes	No
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	71.2	71.2	0.0	No	No
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	68.3	68.3	0.0	Yes	No
28	Rouse Rd.	e/o Encanto Dr.	Residential	56.1	58.7	2.6	Yes	No

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise-Sensitive?	Threshold Exceeded? ²
				No Project	With Project	Project Addition		
29	Rouse Rd.	e/o Street A	Residential	54.4	57.3	2.9	Yes	No
30	Rouse Rd.	e/o Sherman Rd.	Residential	53.6	56.3	2.7	Yes	No
31	Rouse Rd.	e/o Antelope Rd.	Residential	58.8	58.8	0.0	Yes	No
32	Chambers Av.	e/o Sherman Rd.	Residential	48.0	49.5	1.5	Yes	No
33	Chambers Av.	e/o Street C	Residential	41.0	41.0	0.0	Yes	No
34	McCall Bl.	w/o Sun City Bl.	Residential	66.1	66.3	0.2	Yes	No
35	McCall Bl.	e/o I-215	EDC (Commercial)	70.6	70.9	0.3	No	No
36	McCall Bl.	e/o Sherman Rd.	Residential	70.2	70.4	0.2	Yes	No
37	McCall Bl.	e/o Antelope Rd.	Residential	71.5	71.8	0.3	Yes	No
38	McCall Bl.	e/o Meniffee Rd.	Residential	68.0	68.1	0.1	Yes	No
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	66.5	67.4	0.9	No	No
40	Encanto Dr.	s/o A Street	Commercial	68.8	69.6	0.8	No	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

² Significance Criteria (Section 4).

TABLE 7-18: OPENING YEAR 2025 PROJECT BUILDOUT RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise-Sensitive?	Threshold Exceeded? ²
				No Project	With Project	Project Addition		
1	I-215	n/o Ethanac Rd.	Commercial	84.6	84.8	0.2	No	No
2	I-215	s/o Ethanac Rd.	Commercial	84.7	84.9	0.2	No	No
3	I-215	s/o McCall Bl.	EDC/Residential	84.7	84.9	0.2	Yes	No
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	67.2	69.2	2.0	No	No
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	67.0	69.1	2.1	No	No
6	Encanto Dr.	s/o Chambers Av.	EDC	67.8	69.8	2.0	No	No
7	Encanto Dr.	s/o Shadel Rd.	Commercial	61.7	64.1	2.4	No	No
8	Sherman Rd.	s/o SR-74	EDC/Business Park	64.7	64.7	0.0	No	No
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	67.7	67.7	0.0	No	No
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	46.0	46.0	0.0	Yes	No
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	63.1	63.1	0.0	No	No
12	Antelope Rd.	s/o Chambers Av.	EDC	60.9	60.9	0.0	No	No
13	Palomar Rd.	n/o SR-74	Business Park	64.2	64.2	0.0	No	No
14	Meniffee Rd.	n/o SR-74	Business Park	67.9	68.0	0.1	No	No
15	Meniffee Rd.	s/o SR-74	Residential	70.8	71.0	0.2	Yes	No
16	Meniffee Rd.	s/o Rouse Rd.	Residential	70.1	70.3	0.2	Yes	No
17	SR-74	e/o I-215	EDC	73.9	73.9	0.0	No	No
18	SR-74	e/o Trumble Rd.	EDC	72.3	72.3	0.0	No	No
19	SR-74	e/o Sherman Rd.	Commercial	71.1	71.1	0.0	No	No
20	SR-74	w/o Palomar Rd.	Open Space	72.7	72.7	0.0	No	No
21	SR-74	e/o Palomar Rd.	Business Park	73.9	73.9	0.0	No	No
22	SR-74	e/o Meniffee Rd.	Commercial/School	74.9	74.9	0.0	Yes	No
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	64.6	64.6	0.0	Yes	No
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	71.2	71.3	0.1	Yes	No
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	72.3	72.4	0.1	Yes	No
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	71.3	71.3	0.0	No	No
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	69.0	69.0	0.0	Yes	No
28	Rouse Rd.	e/o Encanto Dr.	Residential	56.6	59.1	2.5	Yes	No

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?	Threshold Exceeded? ²
				No Project	With Project	Project Addition		
29	Rouse Rd.	e/o Street A	Residential	54.4	57.6	3.2	Yes	No
30	Rouse Rd.	e/o Sherman Rd.	Residential	53.8	56.1	2.3	Yes	No
31	Rouse Rd.	e/o Antelope Rd.	Residential	58.8	58.8	0.0	Yes	No
32	Chambers Av.	e/o Sherman Rd.	Residential	49.5	54.2	4.7	Yes	No
33	Chambers Av.	e/o Street C	Residential	41.0	41.0	0.0	Yes	No
34	McCall Bl.	w/o Sun City Bl.	Residential	66.6	66.9	0.3	Yes	No
35	McCall Bl.	e/o I-215	EDC (Commercial)	71.2	71.6	0.4	No	No
36	McCall Bl.	e/o Sherman Rd.	Residential	70.3	70.6	0.3	Yes	No
37	McCall Bl.	e/o Antelope Rd.	Residential	72.0	72.4	0.4	Yes	No
38	McCall Bl.	e/o Meniffee Rd.	Residential	68.5	68.7	0.2	Yes	No
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	66.7	68.1	1.4	No	No
40	Encanto Dr.	s/o A Street	Commercial	68.9	70.3	1.4	No	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

² Significance Criteria (Section 4).

TABLE 7-19: HORIZON YEAR 2040 PROJECT RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?	Threshold Exceeded? ²
				No Project	With Project	Project Addition		
1	I-215	n/o Ethanac Rd.	Commercial	85.4	85.5	0.1	No	No
2	I-215	s/o Ethanac Rd.	Commercial	85.5	85.6	0.1	No	No
3	I-215	s/o McCall Bl.	EDC/Residential	85.6	85.8	0.2	Yes	No
4	Encanto Dr.	n/o McLaughlin Rd.	Commercial	68.4	69.6	1.2	No	No
5	Encanto Dr.	s/o McLaughlin Rd.	Commercial	68.3	69.5	1.2	No	No
6	Encanto Dr.	s/o Chambers Av.	EDC	69.3	70.0	0.7	No	No
7	Encanto Dr.	s/o Shadel Rd.	Commercial	64.0	64.7	0.7	No	No
8	Sherman Rd.	s/o SR-74	EDC/Business Park	68.2	68.5	0.3	No	No
9	Sherman Rd.	s/o Ethanac Rd.	Business Park	66.8	67.9	1.1	No	No
10	Sherman Rd.	s/o McLaughlin Rd.	Residential	67.5	68.6	1.1	Yes	No
11	Antelope Rd.	s/o Ethanac Rd.	Business Park	68.4	68.5	0.1	No	No
12	Antelope Rd.	s/o Chambers Av.	EDC	62.9	63.6	0.7	No	No
13	Palomar Rd.	n/o SR-74	Business Park	66.6	66.8	0.2	No	No
14	Meniffee Rd.	n/o SR-74	Business Park	72.3	72.4	0.1	No	No
15	Meniffee Rd.	s/o SR-74	Residential	72.9	73.0	0.1	Yes	No
16	Meniffee Rd.	s/o Rouse Rd.	Residential	73.8	73.8	0.0	Yes	No
17	SR-74	e/o I-215	EDC	74.3	74.4	0.1	No	No
18	SR-74	e/o Trumble Rd.	EDC	73.1	73.2	0.1	No	No
19	SR-74	e/o Sherman Rd.	Commercial	73.6	73.6	0.0	No	No
20	SR-74	w/o Palomar Rd.	Open Space	75.3	75.3	0.0	No	No
21	SR-74	e/o Palomar Rd.	Business Park	76.1	76.2	0.1	No	No
22	SR-74	e/o Meniffee Rd.	Commercial/School	75.8	75.8	0.0	Yes	No
23	Ethanac Rd.	w/o Goetz Rd.	EDC (Residential)	74.1	74.1	0.0	Yes	No
24	Ethanac Rd.	e/o Goetz Rd.	EDC (Residential)	74.7	74.8	0.1	Yes	No
25	Ethanac Rd.	w/o Barnett Rd.	EDC (Residential)	74.9	75.0	0.1	Yes	No
26	Ethanac Rd.	e/o Trumble Rd.	Commercial	74.6	74.8	0.2	No	No
27	Ethanac Rd.	e/o Sherman Rd.	Business Park (Res.)	74.0	74.0	0.0	Yes	No
28	Rouse Rd.	e/o Encanto Dr.	Residential	56.9	59.6	2.7	Yes	No

ID	Road	Segment	Adjacent Planned Land Use ¹	CNEL at Adjacent Land Use (dBA) ¹			Noise- Sensitive?	Threshold Exceeded? ²
				No Project	With Project	Project Addition		
29	Rouse Rd.	e/o Street A	Residential	55.8	58.8	3.0	Yes	No
30	Rouse Rd.	e/o Sherman Rd.	Residential	55.9	58.2	2.3	Yes	No
31	Rouse Rd.	e/o Antelope Rd.	Residential	63.2	63.4	0.2	Yes	No
32	Chambers Av.	e/o Sherman Rd.	Residential	55.8	57.6	1.8	Yes	No
33	Chambers Av.	e/o Street C	Residential	58.4	58.9	0.5	Yes	No
34	McCall Bl.	w/o Sun City Bl.	Residential	66.9	67.0	0.1	Yes	No
35	McCall Bl.	e/o I-215	EDC (Commercial)	71.8	72.0	0.2	No	No
36	McCall Bl.	e/o Sherman Rd.	Residential	71.0	71.1	0.1	Yes	No
37	McCall Bl.	e/o Antelope Rd.	Residential	72.6	72.8	0.2	Yes	No
38	McCall Bl.	e/o Meniffee Rd.	Residential	72.5	72.6	0.1	Yes	No
39	Trumble Rd.	s/o Ethanac Rd.	Commercial	68.9	68.9	0.0	No	No
40	Encanto Dr.	s/o A Street	Commercial	71.2	71.2	0.0	No	No

¹ The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.

² Significance Criteria (Section 4).

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8 ON-SITE TRANSPORTATION NOISE IMPACTS

An on-site exterior noise impact analysis has been completed to determine the traffic noise exposure and to identify potential necessary noise abatement measures for the proposed Legado Project. It is expected that the primary source of noise impacts to the Project site will be traffic noise from I-215, Encanto Drive, Sherman Road, Antelope Road, Rouse Road, and Chambers Avenue. The Project will also experience some background traffic noise impacts from the Project's internal local streets, however, due to the low traffic volume/speeds, traffic noise from these roads will not make a significant contribution to the noise environment beyond of the right-of-way of the roadways.

8.1 ON-SITE EXTERIOR NOISE ANALYSIS

Using the FHWA traffic noise prediction model and the parameters outlined in Tables 6-4 to 6-6, the expected future exterior noise levels for the on-site building were calculated. Table 8-1 presents a summary of future exterior noise level impacts in the single-family residential outdoor living areas (backyards), commercial building facades, and outdoor sports park uses of the Project Planning Areas. The on-site traffic noise level impacts indicate that the Planning Areas adjacent to I-215, Encanto Drive, Sherman Road, Antelope Road, Rouse Road, and Chambers Avenue will experience unmitigated exterior noise levels ranging from 58.7 to 76.0 dBA CNEL. The on-site traffic noise analysis calculations are provided in Appendix 8.1.

To satisfy the City of Menifee 65 dBA CNEL exterior noise level standards for residential land use, the construction of 6-foot high noise barriers is required for the outdoor living areas (backyards) of single-family residential uses in Planning Areas 1 to 15. With the recommended noise barriers shown on Exhibit ES-A, the mitigated future exterior noise levels at the outdoor living areas (backyards) of single-family residential uses in Planning Areas 1 to 15 will be reduced to 63.0 dBA CNEL. This noise analysis shows that the recommended noise barriers will satisfy the City of Menifee 65 dBA CNEL exterior noise level standards for single-family residential use. The recommendations identify the minimum required noise barrier height to satisfy the City of Menifee exterior noise level standards.

The results of the on-site traffic noise analysis also indicate that commercial uses adjacent to I-215 and Encanto Drive in Planning Areas 16 and 17 will experience unmitigated exterior noise levels approaching 78.0 dBA CNEL, which represent *normally unacceptable* land use requiring interior noise analysis. Further, sports park use in Planning Area 18 is shown to experience unmitigated exterior traffic noise levels of up to 68.0 dBA CNEL, which represents *conditionally acceptable* use, however, since there are no interior areas requiring interior noise reduction, the exterior noise levels satisfy the land use compatibility criteria of the City of Menifee General Plan Noise Element.

TABLE 8-1: EXTERIOR NOISE LEVELS (CNEL)

Planning Area	General Plan Noise Element Land Use	Roadway	Unmitigated Exterior Noise Level (dBA CNEL)		Mitigated Exterior Noise Level (dBA CNEL)		Land Use Compatibility Criteria ¹		
			Individual	Combined	Individual	Combined	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable
PA-16	Commercial ²	I-215	76.0	78.0	-	-	< 70	70 - 75	> 75
		Encanto Dr.	73.5		-				
PA-3	Single-Family Residential	I-215	67.7	68.0	62.2	63.0	< 60	55 - 70	70 - 75
		Encanto Dr.	58.7		53.1				
PA-18	Playground/ Park	I-215	67.8	68.0	-	-	< 70	70 - 75	> 75
		Encanto Dr.	58.8		-				
PA-2, 4, 5, 7, 10, & 12	Single-Family Residential	Sherman Rd.	70.1	-	63.8	-	< 60	55 - 70	70 - 75
PA-11, 13, 15		Antelope Rd.	68.8	-	62.6	-	< 60	55 - 70	70 - 75
PA-1, 2, 8		Rouse Rd.	68.7	-	62.4	-	< 60	55 - 70	70 - 75
PA-6, 7, 14, 15		Chambers Av.	68.4	-	62.0	-	< 60	55 - 70	70 - 75

¹ Source: City of Menifee General Plan Noise Background Document and Definitions, Table N-b3.

² Consistent with *normally unacceptable* land use, this noise study demonstrates the necessary interior noise reduction requirements to satisfy the interior noise level standard of 50 dBA CNEL for commercial use, based on the California Green Building Standards Code requirements for non-residential uses.

"PA" = Planning Area; "MDR" = Medium Density Residential

8.2 ON-SITE INTERIOR NOISE ANALYSIS

To ensure that the interior noise levels comply with the City of Menifee 45 dBA CNEL interior noise standards for residential land use, and the interior noise level threshold of 50 dBA CNEL based on the California Green Building Standards Code for non-residential buildings (Section 5.507.4.2), future noise levels were calculated at the first and second-floor building façades.

8.2.1 NOISE REDUCTION METHODOLOGY

The interior noise level is the difference between the predicted exterior noise level at the building facade and the noise reduction of the structure. Typical building construction will provide a Noise Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." However, sound leaks, cracks and openings within the window assembly can greatly diminish its effectiveness in reducing noise. Several methods are used to improve interior noise reduction, including: (1) weather-stripped solid core exterior doors; (2) upgraded dual glazed windows; (3) mechanical ventilation/air conditioning; and (4) exterior wall/roof assemblies free of cut outs or openings.

8.2.2 INTERIOR NOISE LEVEL ASSESSMENT

To provide the necessary interior noise level reduction, Tables 8-2 and 8-3 indicate that Project uses adjacent to I-215, Encanto Drive, Sherman Road, Antelope Road, Rouse Road, and Chambers Avenue will require a windows-closed condition and a means of mechanical ventilation (e.g. air conditioning). Table 8-2 shows that the future unmitigated noise levels at the first-floor building façade are expected to range from 61.1 to 78.0 dBA CNEL. The first-floor interior noise level analysis shows that the City of Menifee 45 dBA CNEL interior noise level standards for residential uses can be satisfied using standard windows with a minimum STC rating of 27. Upgraded windows with STC ratings of 32 are required for commercial buildings facing I-215 to satisfy the 50 dBA CNEL interior noise level threshold.

Table 8-3 shows that the future noise levels at the second-floor building façades are expected to range from 67.2 to 78.0 dBA CNEL, and standard windows with a minimum STC rating of 27 are required to satisfy the City of Menifee's 45 dBA CNEL interior noise level standards for residential uses. Commercial buildings facing I-215 will require upgraded windows with STC ratings of 32 to satisfy the 50 dBA CNEL interior noise level threshold. The interior noise analysis shows that with the recommended interior noise mitigation measures described in the Executive Summary the Project will satisfy the City of Menifee 45 dBA CNEL interior noise level standard for residential development, and the 50 dBA CNEL interior noise level threshold for commercial uses.

A final noise study shall be prepared prior to obtaining building permits for the project. This report would finalize the mitigation measures described in this study using the precise grading plans and actual building design specifications, and may include additional mitigation, if necessary, to meet the interior noise level standards for residential (45 dBA CNEL) and commercial (50 dBA CNEL) land uses.

TABLE 8-2: FIRST FLOOR INTERIOR NOISE IMPACTS (CNEL)

Planning Area	Land Use	Noise Level at Façade ¹	Required Interior Noise Reduction ²	Estimated Interior Noise Reduction ³	Upgraded Windows ⁴	Interior Noise Level ⁵	Threshold	Threshold Exceeded?
PA-16	Commercial	78.0	28.0	30.0	Yes	48.0	50	No
PA-3	Single-Family Res.	63.0	18.0	25.0	No	38.0	45	No
PA-2, 4, 5, 7, 10, & 12	Single-Family Res.	63.0	18.0	25.0	No	38.0	45	No
PA-11, 13, 15		61.8	16.8	25.0	No	36.8	45	No
PA-1, 2, 8		61.3	16.3	25.0	No	36.3	45	No
PA-6, 7, 14, 15		61.1	16.1	25.0	No	36.1	45	No

¹ Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).

² Noise reduction to satisfy the interior noise standards: 45 dBA CNEL for residential use (California Code of Regulations, Title 24, Building Standards Administrative Code), and 50 dBA CNEL for commercial uses (Based on the California Green Building Standards Code, Section 5.507.4.2).

³ A minimum of 25 dBA noise reduction is assumed with standard building construction.

⁴ Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?

⁵ Estimated interior noise level with minimum STC rating for all windows.

TABLE 8-3: SECOND FLOOR INTERIOR NOISE IMPACTS (CNEL)

Planning Area	Land Use	Noise Level at Façade ¹	Required Interior Noise Reduction ²	Estimated Interior Noise Reduction ³	Upgraded Windows ⁴	Interior Noise Level ⁵	Threshold	Threshold Exceeded?
PA-16	Commercial	78.0	28.0	30.0	Yes	48.0	50	No
PA-3	Single-Family Res.	68.0	23.0	25.0	No	43.0	45	No
PA-2, 4, 5, 7, 10, & 12	Single-Family Res.	69.1	24.1	25.0	No	44.1	45	No
PA-11, 13, 15		67.8	22.8	25.0	No	42.8	45	No
PA-1, 2, 8		67.5	22.5	25.0	No	42.5	45	No
PA-6, 7, 14, 15		67.2	22.2	25.0	No	42.2	45	No

¹ Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).

² Noise reduction to satisfy the interior noise standards: 45 dBA CNEL for residential use (California Code of Regulations, Title 24, Building Standards Administrative Code), and 50 dBA CNEL for commercial uses (Based on the California Green Building Standards Code, Section 5.507.4.2).

³ A minimum of 25 dBA noise reduction is assumed with standard building construction.

⁴ Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?

⁵ Estimated interior noise level with minimum STC rating for all windows.

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9 RECEIVER LOCATIONS

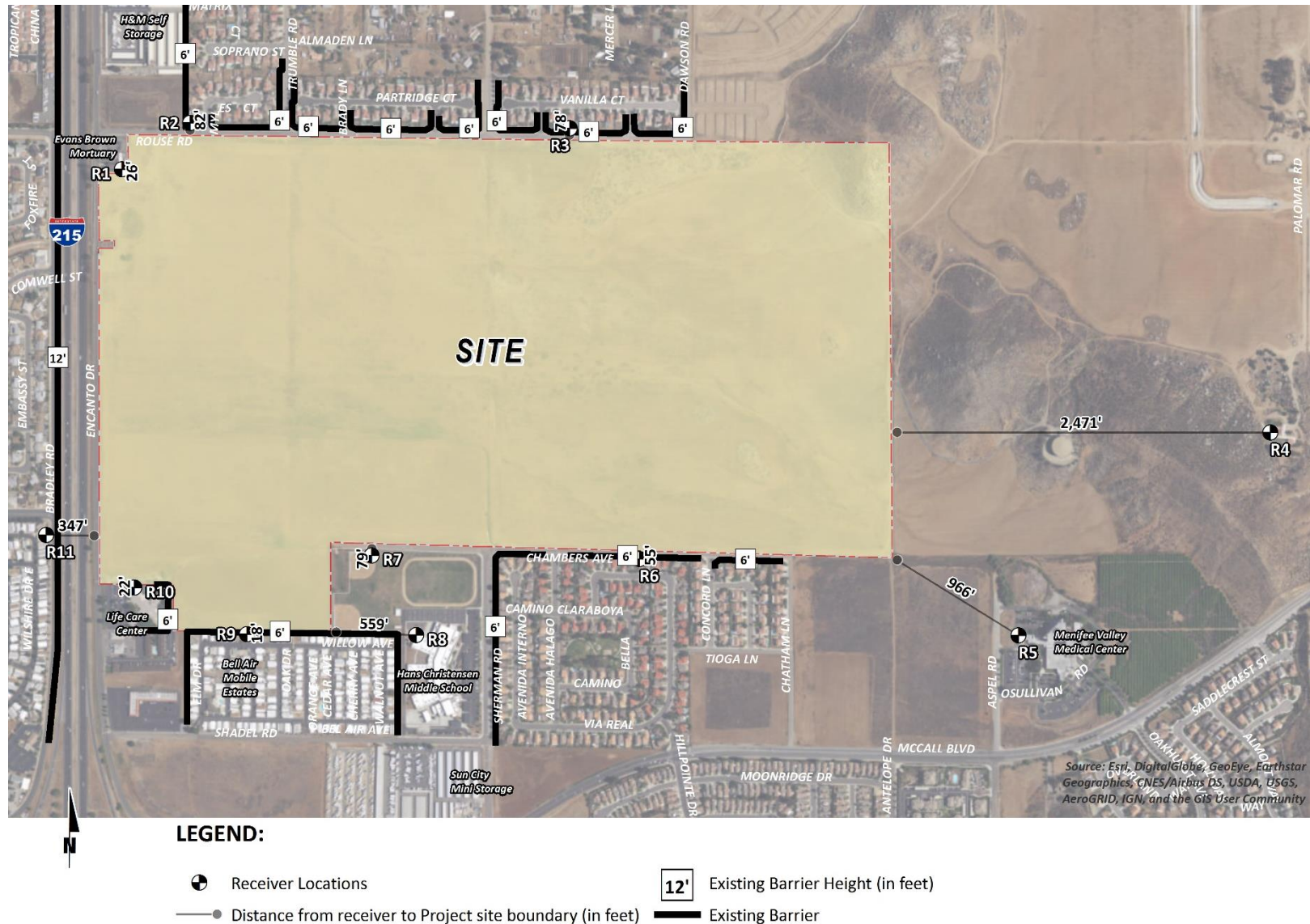
To assess the potential for short-term construction noise impacts, the following 11 receiver locations as shown on Exhibit 9-A were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

Sensitive receiver locations near the Project site include existing residential, commercial, school, and medical uses, with the closest sensitive receiver located at approximately 18 feet south of the Project site boundary at location R9. 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.

- R1: Located approximately 26 feet north of the Project site, R1 represents the existing Evans Brown Mortuary on the southeast corner of Encanto Drive and Rouse Road. A 24-hour noise level measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents existing residential homes located approximately 82 feet north of the Project site across Rouse Road.
- R3: Location R3 represents the future single-family residential homes located roughly 78 feet north of the Project site across Rouse Road. A 24-hour noise level measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R4: Location R4 represents the existing single-family residential home located approximately 2,471 feet east of the Project site. A 24-hour noise level measurement was taken near this location, L3, to describe the existing ambient noise environment.
- R5: Located approximately 966 feet southeast of the Project site, R5 represents the existing Menifee Valley Medical Center on Aspel Road. A 24-hour noise level measurement was taken near this location, L4, to describe the existing ambient noise environment.
- R6: Location R6 represents existing residential homes located approximately 55 feet south of the Project site across Chambers Avenue. A 24-hour noise level measurement was taken near this location, L5, to describe the existing ambient noise environment.
- R7: Location R7 represents the existing sports fields of the Hans Christensen Middle School located roughly 79 feet south of the Project site on Chambers Avenue. A 24-hour noise level measurement was taken near this location, L6, to describe the existing ambient noise environment.

- R8: Location R8 represents the closest building of the Hans Christensen Middle School to the Project site boundaries at approximately 559 feet.
- R9: Located approximately 18 feet south of the Project site, R9 represents the existing Bell Air Mobile Home Estates. A 24-hour noise level measurement was taken near this location, L7, to describe the existing ambient noise environment.
- R10: Location R10 represents existing Life Care Center approximately 22 feet south of the Project site on Encanto Drive.
- R11: Location R11 represents the existing single-family residential homes located roughly 347 feet west of the Project site across I-215. A 24-hour noise level measurement was taken near this location, L8, to describe the existing ambient noise environment.

EXHIBIT 9-A: RECEIVER LOCATIONS



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10 OPERATIONAL IMPACTS

This section analyzes the potential operational noise impacts due to the Project's stationary noise sources on the off-site sensitive receiver locations identified in Section 9. Exhibit 10-A identifies the receiver locations and noise source locations used to assess the Project-related operational noise levels.

10.1 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. It is important to note that the following projected noise levels assume the worst-case noise environment with the roof-top air conditioning units, parking lot vehicle movements, sports park activities, and open space activities operating continuously. In reality, these noise level impacts will vary throughout the day.

TABLE 10-1: REFERENCE NOISE LEVEL MEASUREMENTS

Noise Source	Duration (h:mm:ss)	Distance From Source (Feet)	Noise Source Height (Feet)	Hourly Activity (Min.) ¹	Noise Level (dBA Leq)	
					@ Ref. Distance	@ 50 Feet
Roof-Top Air Conditioning Units ²	96:00:00	5'	25'	39	77.2	57.2
Parking Lot Vehicle Movements ³	00:15:00	5'	4'	60	60.1	45.1
Sports Park Activity ⁴	00:15:00	5'	4'	60	63.4	43.4
Open Space Activity ⁵	00:02:30	10'	5'	60	57.7	43.7

¹ Anticipated duration (minutes within the hour) of noise activity during peak hourly conditions expected at the Project site.

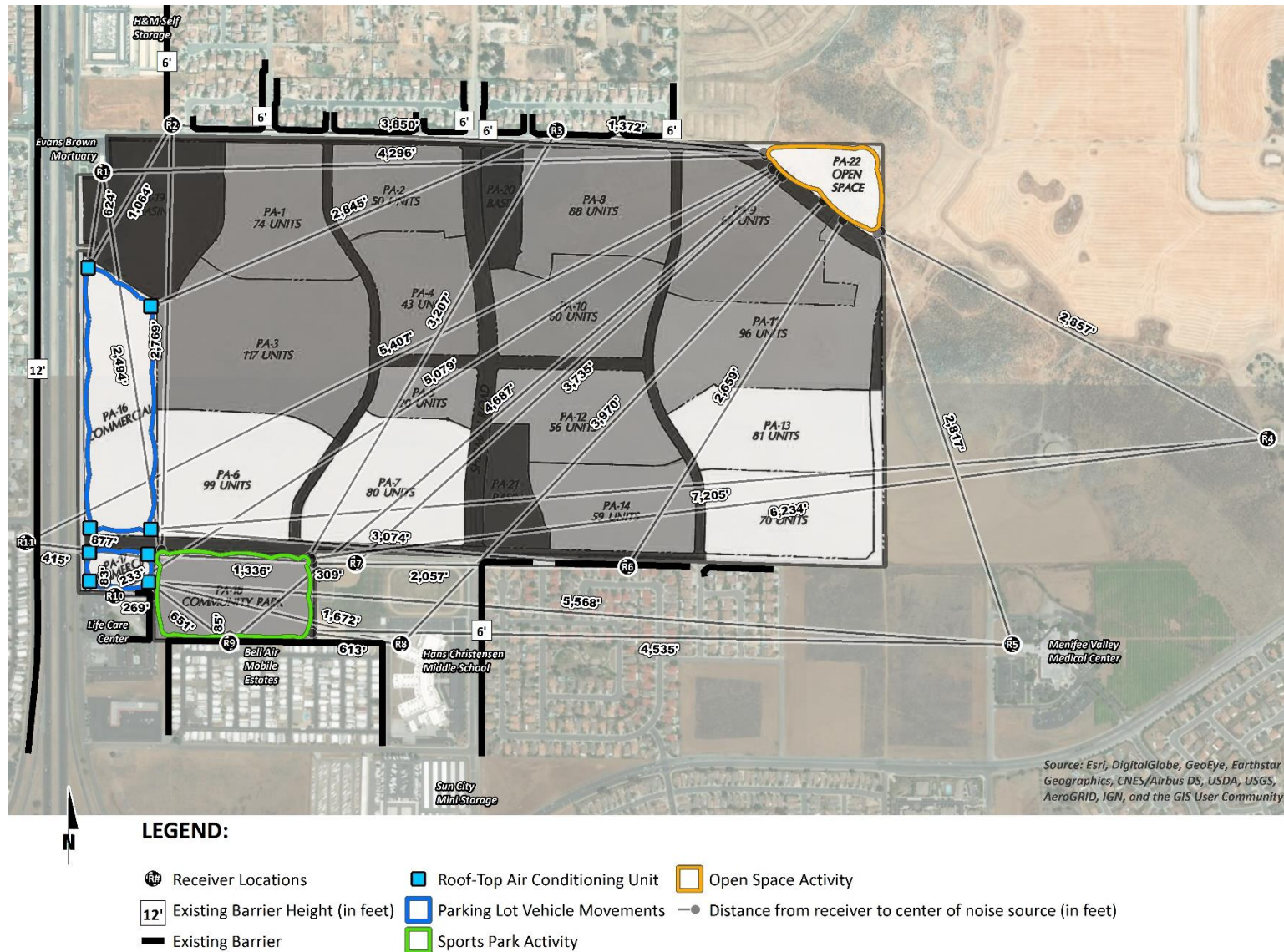
² As measured by Urban Crossroads, Inc. on 7/27/2015 at the Santee Walmart located at 170 Town Center Parkway.

³ As measured by Urban Crossroads, Inc. on 5/30/2012 at the Laguna Niguel Walmart located at 27470 Alicia Parkway.

⁴ As measured by Urban Crossroads, Inc. on 10/8/2014 by Urban Crossroads, Inc. at the Founder's Park in the unincorporated community of Ladera Ranch in the County of Orange.

⁵ As measured by Urban Crossroads, Inc. on 4/13/2016 by Urban Crossroads, Inc. at the Rancho Santa Margarita Lake.

EXHIBIT 10-A: OPERATIONAL NOISE SOURCE AND RECEIVER LOCATIONS



10.1.1 ROOF-TOP AIR CONDITIONING UNITS

To assess the impacts created by the roof-top air conditioning units at the Project commercial buildings, reference noise level measurements were taken at the Santee Walmart on July 27, 2015. Located at 170 Town Center Parkway in the City of Santee, the noise level measurements describe a single mechanical roof-top air conditioning unit on the roof of an existing Walmart store. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. Using the uniform reference distance of 50 feet, the reference air conditioning unit noise level is 57.2 dBA L_{eq} . The operating conditions of the reference noise level measurement reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. The roof-top air condition units were observed to operate the most during the daytime hours for a total of 39 minutes per hour. The noise attenuation provided by a parapet wall is not reflected in this reference noise level measurement.

10.1.2 PARKING LOT VEHICLE MOVEMENTS

To determine the noise levels associated with commercial parking lot vehicle movements, Urban Crossroads collected reference noise level measurements at the Laguna Niguel Walmart located at 27470 Alicia Parkway on May 30, 2012. The 15-minute noise level measurement indicates that the parking lot vehicle movements generates noise levels of 45.1 dBA L_{eq} at a normalized distance of 50 feet. The parking lot noise levels are mainly due to cars pulling in and out of spaces, car alarms sounding, and customers moving shopping carts. Noise associated with parking lot vehicle movements is expected during the typical daytime, and nighttime conditions for the entire hour (60 minutes).

10.1.3 SPORTS PARK ACTIVITIES

To represent the potential noise level impacts associated with the Project's sports park activities, a reference noise level measurement was collected on Wednesday, October 8, 2014 at the Founders Park in the unincorporated community of Ladera Ranch in the County of Orange. The reference noise levels collected at the Founders Park are expected to reflect the noise level activities within the recreation area of the Project site, since the reference noise level measurement includes girls' youth soccer games, coaches shouting instructions, and parents speaking on cell phones at five feet from the noise level measurement location, and background noise levels from kids playing on swing sets and people cheering and clapping at 50 feet from the noise level measurement location. Using the uniform reference distance of 50 feet, the reference park activity noise level is 43.4 dBA L_{eq} . The playground activities are estimated to occur for 60 minutes during the peak hour conditions.

10.1.4 OPEN SPACE ACTIVITIES

To describe the Project's potential open space use, Urban Crossroads, Inc. collected reference noise level measurements from similar open space uses on April 13, 2016 at the Rancho Santa Margarita Lake. The reference noise level measurement represents open space activities observed over a two-and-a-half-minute period at a trail adjacent to the lake. The noise sources

included in the reference noise level measurement consist of multiple pedestrian pass-by events, people with strollers, groups talking while walking, children on scooters, people jogging, and bike pass-by events. In addition, the reference noise levels include pedestrians talking on cell phones, playing music, laughing, and walking their dogs. At a common distance of 50 feet from the source, a reference noise level of 43.7 dBA L_{eq} was measured. The park trail activities are estimated to occur for 60 minutes during the peak hour conditions.

10.2 OPERATIONAL NOISE LEVELS

Based upon the reference noise levels, it is possible to estimate the Project operational stationary-source noise levels at each of the sensitive receiver locations. The operational noise level calculations shown on Table 10-2 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. Hard site conditions are used in the operational noise analysis which result in noise levels that attenuate (or decrease) at a rate of 6 dBA for each doubling of distance from a point source. The basic noise attenuation equation shown below is used to calculate the distance attenuation based on a reference noise level (SPL_1):

$$SPL_2 = SPL_1 - 20\log(D_2/D_1)$$

Where SPL_2 is the resulting noise level after attenuation, SPL_1 is the source noise level, D_2 is the distance to the reference sound pressure level (SPL_1), and D_1 is the distance to the receiver location. Table 10-2 indicates that the hourly operational noise levels associated with the Project's roof-top air conditioning units, parking lot vehicle movements, sports park activities, and open space activities are expected to range from 16.4 to 43.0 dBA L_{eq} at the sensitive off-site receiver locations. The operational noise level calculation worksheets are included in Appendix 10.1.

TABLE 10-2: PROJECT OPERATIONAL NOISE LEVELS (DBA L_{EQ})

Receiver Location ¹	Noise Source(s) ²	Operational Noise Levels (dBA L _{eq}) ³	Combined Noise Level (dBA L _{eq})
R1	Roof-Top Air Conditioning Units	33.4	34.7
	Parking Lot Vehicle Movements	28.7	
	Sports Park Activity	9.4	
	Open Space Activity	5.0	
R2	Roof-Top Air Conditioning Units	23.4	25.0
	Parking Lot Vehicle Movements	19.7	
	Sports Park Activity	3.0	
	Open Space Activity	0.5	
R3	Roof-Top Air Conditioning Units	14.8	17.9
	Parking Lot Vehicle Movements	13.3	
	Sports Park Activity	1.8	
	Open Space Activity	9.5	
R4	Roof-Top Air Conditioning Units	12.1	16.4
	Parking Lot Vehicle Movements	12.7	
	Sports Park Activity	1.5	
	Open Space Activity	8.6	
R5	Roof-Top Air Conditioning Units	14.4	18.1
	Parking Lot Vehicle Movements	14.4	
	Sports Park Activity	4.2	
	Open Space Activity	8.7	
R6	Roof-Top Air Conditioning Units	14.1	17.1
	Parking Lot Vehicle Movements	12.8	
	Sports Park Activity	5.6	
	Open Space Activity	3.7	
R7	Roof-Top Air Conditioning Units	26.8	31.1
	Parking Lot Vehicle Movements	23.7	
	Sports Park Activity	27.6	
	Open Space Activity	6.3	
R8	Roof-Top Air Conditioning Units	24.8	27.9
	Parking Lot Vehicle Movements	22.2	
	Sports Park Activity	21.6	
	Open Space Activity	5.7	
R9	Roof-Top Air Conditioning Units	27.8	34.5
	Parking Lot Vehicle Movements	22.9	

Receiver Location ¹	Noise Source(s) ²	Operational Noise Levels (dBA L _{eq}) ³	Combined Noise Level (dBA L _{eq})
	Sports Park Activity	33.1	
	Open Space Activity	0.0	
R10	Roof-Top Air Conditioning Units	36.3	43.0
	Parking Lot Vehicle Movements	41.8	
	Sports Park Activity	28.8	
	Open Space Activity	3.6	
R11	Roof-Top Air Conditioning Units	28.3	29.2
	Parking Lot Vehicle Movements	21.5	
	Sports Park Activity	8.7	
	Open Space Activity	0.0	

¹ See Exhibit 10-A for the receiver and noise source locations.

² Reference noise sources as shown on Table 10-1.

³ Stationary source noise level calculations are provided in Appendix 10.1.

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against the City of Menifee 65 dBA L_{eq} daytime and 45 dBA L_{eq} nighttime exterior noise level standards. Table 10-3 shows the operational noise levels associated with the Legado will satisfy the exterior noise level standards at the nearby sensitive residential receivers in the City of Menifee. Therefore, since the Project will satisfy the noise level standards of the City of Menifee, the Project-related operational noise level impact will be *less than significant*.

TABLE 10-3: PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE (dBA Leq)

Receiver Location ¹	Noise Level at Receiver Locations (dBA Leq) ²	Noise Level Standards (dBA Leq) ³		Threshold Exceeded? ⁴	
		Daytime	Nighttime	Daytime	Nighttime
R1	34.7	65	45	No	No
R2	25.0	65	45	No	No
R3	17.9	65	45	No	No
R4	16.4	65	45	No	No
R5	18.1	65	45	No	No
R6	17.1	65	45	No	No
R7	31.1	65	45	No	No
R8	27.9	65	45	No	No
R9	34.5	65	45	No	No
R10	43.0	65	45	No	No
R11	29.2	65	45	No	No

¹ See Exhibit 10-A for the noise receiver and noise source locations.

² Project operational noise levels as shown on Table 10-2.

³ City of Menifee Municipal Code noise standards (Appendix 3.1).

⁴ Do the estimated Project stationary source noise levels exceed the noise standards on the affected land uses?

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

10.3 PROJECT OPERATIONAL NOISE LEVEL CONTRIBUTIONS

To describe the Project operational noise level contributions, the Project operational noise levels were combined with the existing ambient noise levels measurements for the off-site 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. (5) Instead, they must be logarithmically added using the following base equation:

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

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 describe the Project noise level contributions. Noise levels that would be experienced at receiver locations when Project-source noise is added to the ambient daytime and nighttime conditions are presented on Tables 10-4 and 10-5, respectively.

As indicated on Table 10-4, the Project will contribute an operational noise level increase of up to 0.3 dBA Leq during the daytime hours. Table 10-5 shows the Project-related operational noise level contributions during the nighttime hours will approach 0.3 dBA Leq. Since the Project-related operational noise level contributions of up to 0.3 dBA Leq will satisfy the significance criteria discussed in Section 4, the increases at the sensitive receiver locations will be *less than*

significant. On this basis, Project operational stationary-source noise would not result in a substantial temporary/periodic, or permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project, and impacts in these regards will be *less than significant*.

TABLE 10-4: DAYTIME OPERATIONAL NOISE LEVEL CONTRIBUTIONS (DBA L_{EQ})

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Contribution ⁶	Threshold Exceeded? ⁷
R1	34.7	L1	66.4	66.4	0.0	No
R2	25.0	L1	66.4	66.4	0.0	No
R3	17.9	L2	54.6	54.6	0.0	No
R4	16.4	L3	52.9	52.9	0.0	No
R5	18.1	L4	50.4	50.4	0.0	No
R6	17.1	L5	54.2	54.2	0.0	No
R7	31.1	L6	53.8	53.8	0.0	No
R8	27.9	L6	53.8	53.8	0.0	No
R9	34.5	L7	55.3	55.3	0.0	No
R10	43.0	L7	55.3	55.6	0.3	No
R11	29.2	L8	66.2	66.2	0.0	No

¹ See Exhibit 10-A for the sensitive receiver locations.

² Total Project operational noise levels as shown on Table 10-3.

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 Criteria as defined in Section 4.

TABLE 10-5: NIGHTTIME OPERATIONAL NOISE LEVEL CONTRIBUTIONS (DBA L_{EQ})

Receiver Location ¹	Total Project Operational Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Contribution ⁶	Threshold Exceeded? ⁷
R1	34.7	L1	64.8	64.8	0.0	No
R2	25.0	L1	64.8	64.8	0.0	No
R3	17.9	L2	54.8	54.8	0.0	No
R4	16.4	L3	47.5	47.5	0.0	No
R5	18.1	L4	47.6	47.6	0.0	No
R6	17.1	L5	51.3	51.3	0.0	No
R7	31.1	L6	54.0	54.0	0.0	No
R8	27.9	L6	54.0	54.0	0.0	No
R9	34.5	L7	54.4	54.4	0.0	No
R10	43.0	L7	54.4	54.7	0.3	No
R11	29.2	L8	62.3	62.3	0.0	No

¹ See Exhibit 10-A for the sensitive receiver locations.

² Total Project operational noise levels as shown on Table 10-5.

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

⁴ Observed nighttime 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 Criteria as defined in Section 4.

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11 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 11-A shows the construction activity boundaries in relation to the nearby sensitive receiver locations.

11.1 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 combined can reach high levels. The number and mix of construction equipment is expected to occur in the following stages:

- Grading (Phases 1 and 2)
- Building Construction
- Paving
- Architectural Coating

This construction noise analysis was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 62 dBA to in excess of 80 dBA 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 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver and would be further reduced to 68 dBA at 200 feet from the source to the receiver. The construction stages used in this analysis are consistent with the data used to support the construction emissions in the *Legado Air Quality Impact Analysis* prepared by Urban Crossroads Inc. (32)

11.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe the Project construction noise levels, measurements were collected for similar activities at several construction sites. Table 11-1 provides a summary of the 17-construction reference noise level measurements. Since the reference noise levels were collected at varying distances, all construction noise level measurements presented on Table 11-1 have been adjusted to describe a common reference distance of 50 feet.

TABLE 11-1: CONSTRUCTION REFERENCE NOISE LEVELS

ID	Noise Source	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance (dBA L_{eq})	Reference Noise Levels @ 50 Feet (dBA L_{eq}) ⁷
1	Truck Pass-Bys & Dozer Activity ¹	30'	63.6	59.2
2	Dozer Activity ¹	30'	68.6	64.2
3	Construction Vehicle Maintenance Activities ²	30'	71.9	67.5
4	Foundation Trenching ²	30'	72.6	68.2
5	Rough Grading Activities ²	30'	77.9	73.5
6	Framing ³	30'	66.7	62.3
7	Water Truck Pass-By & Backup Alarm ⁴	30'	76.3	71.9
8	Dozer Pass-By ⁴	30'	84.0	79.6
9	Two Scrapers & Water Truck Pass-By ⁴	30'	83.4	79.0
10	Two Scrapers Pass-By ⁴	30'	83.7	79.3
11	Scraper, Water Truck, & Dozer Activity ⁴	30'	79.7	75.3
12	Concrete Mixer Truck Movements ⁵	50'	71.2	71.2
13	Concrete Paver Activities ⁵	30'	70.0	65.6
14	Concrete Mixer Pour & Paving Activities ⁵	30'	70.3	65.9
15	Concrete Mixer Backup Alarms & Air Brakes ⁵	50'	71.6	71.6
16	Concrete Mixer Pour Activities ⁵	50'	67.7	67.7
17	Forklift, Jackhammer, & Metal Truck Bed Loading	50'	67.9	67.9

¹ As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.

² As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.

³ As measured by Urban Crossroads, Inc. on 10/20/15 at a residential construction site located in Rancho Mission Viejo.

⁴ As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.

⁵ Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.

⁶ As measured by Urban Crossroads, Inc. on 9/9/16 during the demolition of an existing paved parking lot at 41 Corporate Park in Irvine.

⁷ Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

11.3 CONSTRUCTION NOISE ANALYSIS

Tables 11-2 to 11-6 show the Project construction stages and the reference construction noise levels used for each stage. Table 11-7 provides a summary of the noise levels from each stage of construction at each of the sensitive receiver locations in the City of Menifee. Based on the reference construction noise levels, the Project-related construction noise levels when the peak reference noise level is operating at a single point nearest the sensitive receiver location from the center of construction activity will range from 45.6 to 81.9 dBA L_{eq} at the sensitive receiver locations in the City of Menifee. Exhibit 10-A shows the construction activity noise source location and the distance to each nearby sensitive receiver location.

TABLE 11-2: SITE PREPARATION EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹	Reference Noise Level @ 50 Feet (dBA L _{eq})
Truck Pass-Bys & Dozer Activity	59.2
Dozer Activity	64.2
Dozer Pass-By	79.6
Peak Reference Noise Level at 50 Feet (dBA L _{eq}):	79.6

Receiver Location	Distance to Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Calculated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	38'	2.4	0.0	81.9
R2	96'	-5.7	-5.5	68.4
R3	100'	-6.0	-5.5	68.0
R4	2,499'	-34.0	0.0	45.6
R5	1,016'	-26.2	0.0	53.4
R6	86'	-4.7	-5.5	69.4
R7	103'	-6.3	0.0	73.3
R8	608'	-21.7	0.0	57.9
R9	30'	4.4	-5.5	78.5
R10	50'	0.0	0.0	79.6
R11	378'	-17.6	-9.7	52.3

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

³ Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

⁴ Calculated barrier attenuation from existing barriers in the Project study area (Appendix 11.1).

TABLE 11-3: GRADING EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹	Reference Noise Level @ 50 Feet (dBA L _{eq})
Truck Pass-Bys & Dozer Activity	59.2
Dozer Activity	64.2
Rough Grading Activities	73.5
Peak Reference Noise Level at 50 Feet (dBA L _{eq}):	73.5

Receiver Location	Distance to Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Calculated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	38'	2.4	0.0	75.8
R2	96'	-5.7	-5.5	62.3
R3	100'	-6.0	-5.5	61.9
R4	2,499'	-34.0	0.0	39.5
R5	1,016'	-26.2	0.0	47.3
R6	86'	-4.7	-5.5	63.3
R7	103'	-6.3	0.0	67.2
R8	608'	-21.7	0.0	51.8
R9	30'	4.4	-5.5	72.4
R10	50'	0.0	0.0	73.5
R11	378'	-17.6	-9.7	46.2

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

³ Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

⁴ Calculated barrier attenuation from existing barriers in the Project study area (Appendix 11.1).

TABLE 11-4: BUILDING CONSTRUCTION EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹	Reference Noise Level @ 50 Feet (dBA L _{eq})
Construction Vehicle Maintenance Activities	67.5
Foundation Trenching	68.2
Framing	62.3
Peak Reference Noise Level at 50 Feet (dBA L _{eq}):	68.2

Receiver Location	Distance to Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Calculated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	38'	2.4	0.0	70.5
R2	96'	-5.7	-5.5	57.0
R3	100'	-6.0	-5.5	56.6
R4	2,499'	-34.0	0.0	34.2
R5	1,016'	-26.2	0.0	42.0
R6	86'	-4.7	-5.5	58.0
R7	103'	-6.3	0.0	61.9
R8	608'	-21.7	0.0	46.5
R9	30'	4.4	-5.5	67.1
R10	50'	0.0	0.0	68.2
R11	378'	-17.6	-9.7	40.9

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

³ Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

⁴ Calculated barrier attenuation from existing barriers in the Project study area (Appendix 11.1).

TABLE 11-5: PAVING EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹	Reference Noise Level @ 50 Feet (dBA L _{eq})
Concrete Mixer Truck Movements	71.2
Concrete Paver Activities	65.6
Concrete Mixer Pour & Paving Activities	65.9
Concrete Mixer Backup Alarms & Air Brakes	71.6
Concrete Mixer Pour Activities	67.7
Peak Reference Noise Level at 50 Feet (dBA L _{eq}):	71.6

Receiver Location	Distance to Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Calculated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	38'	2.4	0.0	74.0
R2	96'	-5.7	-5.5	60.4
R3	100'	-6.0	-5.5	60.1
R4	2,499'	-34.0	0.0	37.6
R5	1,016'	-26.2	0.0	45.4
R6	86'	-4.7	-5.5	61.4
R7	103'	-6.3	0.0	65.3
R8	608'	-21.7	0.0	49.9
R9	30'	4.4	-5.5	70.5
R10	50'	0.0	0.0	71.6
R11	378'	-17.6	-9.7	44.3

¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

³ Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

⁴ Calculated barrier attenuation from existing barriers in the Project study area (Appendix 11.1).

TABLE 11-6: ARCHITECTURAL COATING EQUIPMENT NOISE LEVELS

Reference Construction Activity ¹	Reference Noise Level @ 50 Feet (dBA L _{eq})
Construction Vehicle Maintenance Activities	67.5
Framing	62.3
Peak Reference Noise Level at 50 Feet (dBA L _{eq}):	67.5

Receiver Location	Distance to Construction Activity (Feet) ²	Distance Attenuation (dBA L _{eq}) ³	Calculated Noise Barrier Attenuation (dBA L _{eq}) ⁴	Construction Noise Level (dBA L _{eq})
R1	38'	2.4	0.0	69.8
R2	96'	-5.7	-5.5	56.3
R3	100'	-6.0	-5.5	55.9
R4	2,499'	-34.0	0.0	33.5
R5	1,016'	-26.2	0.0	41.3
R6	86'	-4.7	-5.5	57.3
R7	103'	-6.3	0.0	61.2
R8	608'	-21.7	0.0	45.8
R9	30'	4.4	-5.5	66.4
R10	50'	0.0	0.0	67.5
R11	378'	-17.6	-9.7	40.2

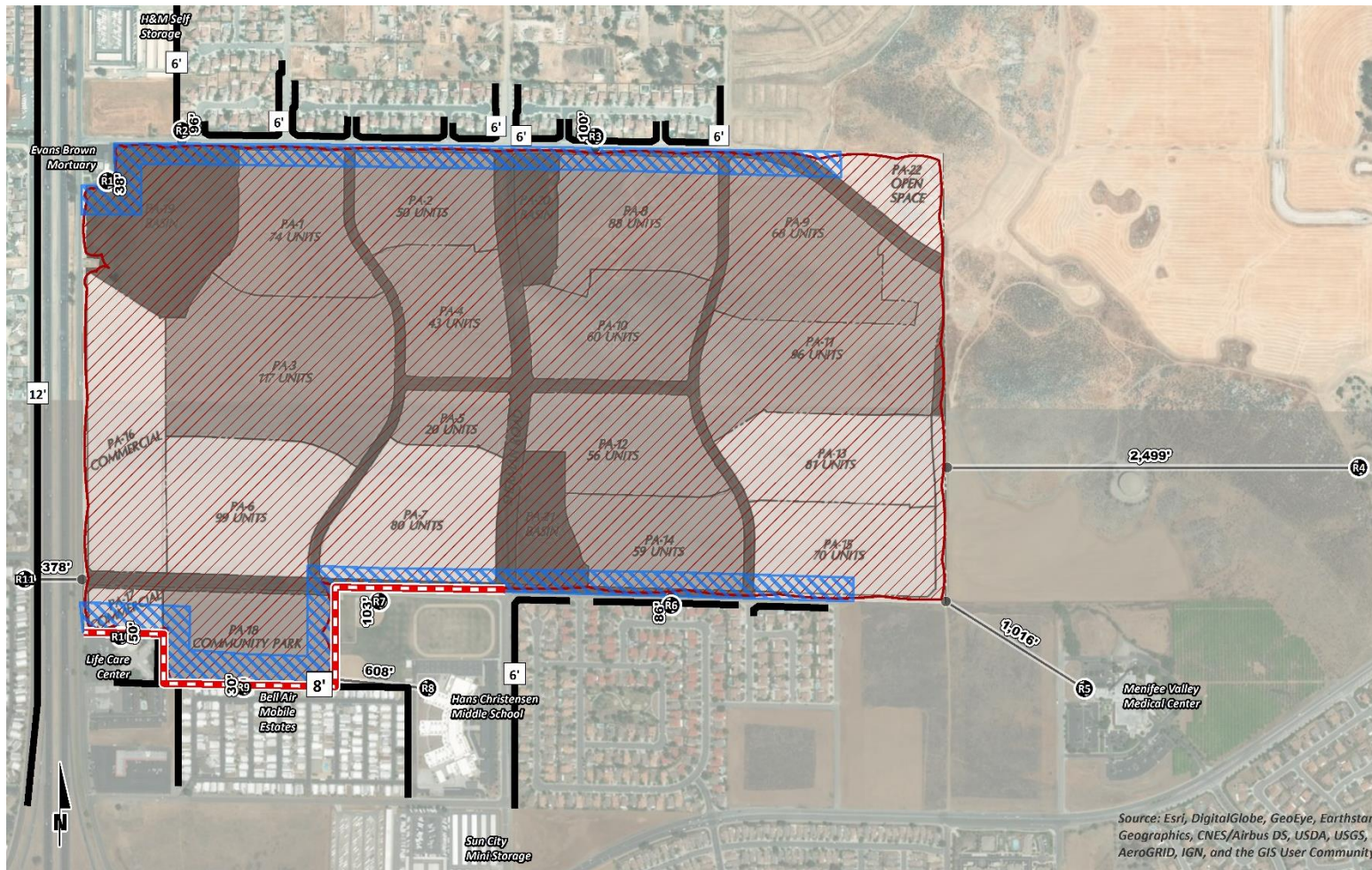
¹ Reference construction noise level measurements taken by Urban Crossroads, Inc.

² Distance from the nearest point of construction activity to the nearest receiver.

³ Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.

⁴ Calculated barrier attenuation from existing barriers in the Project study area (Appendix 11.1).

EXHIBIT 11-A: CONSTRUCTION ACTIVITY AND RECEIVER LOCATIONS



LEGEND:

- Receiver Locations
- Existing Barrier
- Distance from receiver to construction activity (in feet)
- Barrier Height (in feet)
- Construction Activity
- Temporary Noise Barrier
- 200-foot buffer for large construction equipment (e.g., dozers, graders, scrapers) capable of noise levels of greater than 68 dBA Leq at 10 feet over a 10-minute period.

11.4 CONSTRUCTION NOISE THRESHOLDS OF SIGNIFICANCE

The construction noise analysis shows that the highest construction noise levels will occur when construction activities take place at the edge of the Project site. As shown on Table 11-7, the unmitigated construction noise levels are expected to range from 45.6 to 81.9 dBA L_{eq} at the sensitive receiver locations in the City of Menifee.

TABLE 11-7: UNMITIGATED CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY (DBA L_{eq})

Receiver Location ¹	Construction Hourly Noise Level (dBA L_{eq})					
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Peak Activity ²
R1	81.9	75.8	70.5	74.0	69.8	81.9
R2	68.4	62.3	57.0	60.4	56.3	68.4
R3	68.0	61.9	56.6	60.1	55.9	68.0
R4	45.6	39.5	34.2	37.6	33.5	45.6
R5	53.4	47.3	42.0	45.4	41.3	53.4
R6	69.4	63.3	58.0	61.4	57.3	69.4
R7	73.3	67.2	61.9	65.3	61.2	73.3
R8	57.9	51.8	46.5	49.9	45.8	57.9
R9	78.5	72.4	67.1	70.5	66.4	78.5
R10	79.6	73.5	68.2	71.6	67.5	79.6
R11	52.3	46.2	40.9	44.3	40.2	52.3

¹ Noise receiver locations are shown on Exhibit 11-A.

² Estimated construction noise levels during peak operating conditions.

Table 11-8 shows the highest construction noise levels at the potentially impacted receiver locations approaching 81.9 dBA L_{eq} will satisfy the NIOSH 85 dBA L_{eq} significance threshold during temporary Project construction activities. Therefore, the unmitigated noise impact due to Project construction is considered *less than significant*.

TABLE 11-8: CONSTRUCTION NOISE LEVEL COMPLIANCE (DBA L_{eq})

Receiver Location ¹	Construction Noise Levels (dBA L _{eq})		
	Highest Construction Noise Levels ²	Threshold ³	Threshold Exceeded? ⁴
R1	81.9	85	No
R2	68.4	85	No
R3	68.0	85	No
R4	45.6	85	No
R5	53.4	85	No
R6	69.4	85	No
R7	73.3	85	No
R8	57.9	85	No
R9	78.5	85	No
R10	79.6	85	No
R11	52.3	85	No

¹ Noise receiver locations are shown on Exhibit 11-A.

² Estimated construction noise levels during peak operating conditions, as shown on Table 11-7.

³ Construction noise standards as shown on Table 4-2.

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

11.5 CONSTRUCTION NOISE LEVEL INCREASES

To describe the temporary Project construction noise level contributions to the existing ambient noise environment, the Project construction noise levels were combined with the existing ambient noise levels measurements at the off-site receiver locations. The difference between the combined Project-construction and ambient noise levels are used to describe the construction noise level contributions. Temporary noise level increases that would be experienced at sensitive receiver locations when Project construction-source noise is added to the ambient daytime conditions are presented on Table 11-9. A temporary noise level increase of 12 dBA L_{eq} is considered a potentially significant impact based on the Caltrans substantial noise level increase criteria which is used to assess the Project-construction noise level increases. (4) No nighttime construction activity is permitted in the City of Menifee Municipal Code, and therefore, nighttime noise level increases are not analyzed in this noise study.

As indicated in Table 11-9, the Project will contribute unmitigated, worst-case construction noise level increases between 0.2 to 24.3 dBA L_{eq} at the adjacent sensitive receiver locations during the daytime hours. Since the worst-case temporary noise level increase of up to 24.3 dBA L_{eq} during Project construction will exceed the 12 dBA L_{eq} significance threshold at receiver locations R1, R3, R6, R7, R9, and R10, the unmitigated construction noise level increases are considered *potentially significant* temporary noise impacts.

TABLE 11-9: UNMITIGATED CONSTRUCTION TEMPORARY NOISE LEVEL INCREASES (DBA L_{EQ})

Receiver Location ¹	Unmitigated Construction Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Contribution ⁶	Threshold Exceeded? ⁷
R1	81.9	L1	66.4	82.1	15.7	Yes
R2	68.4	L1	66.4	70.5	4.1	No
R3	68.0	L2	54.6	68.2	13.6	Yes
R4	45.6	L3	52.9	53.6	0.7	No
R5	53.4	L4	50.4	55.2	4.8	No
R6	69.4	L5	54.2	69.5	15.3	Yes
R7	73.3	L6	53.8	73.3	19.5	Yes
R8	57.9	L6	53.8	59.3	5.5	No
R9	78.5	L7	55.3	78.5	23.2	Yes
R10	79.6	L7	55.3	79.6	24.3	Yes
R11	52.3	L8	66.2	66.4	0.2	No

¹ See Exhibit 11-A for the sensitive receiver locations.

² Construction noise levels as shown on Table 11-8.

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 Criteria as defined in Section 4.

Therefore, temporary construction noise mitigation measures are required to reduce these impacts at receiver locations R1, R3, R6, R7, R9, and R10. This includes mitigation in the form of a 200-foot buffer zone for large construction equipment (e.g. dozers, graders, scrapers, etc.) from all of the impacted receiver locations and an 8-foot high temporary noise barrier for receiver locations R7, R9, and R10 where Project construction noise levels could potentially exceed the noise level thresholds, as shown on Exhibit 11-A. The construction noise analysis presents a conservative approach with the highest noise-level-producing equipment for each stage of Project construction operating at the closest point from primary construction activity to the nearby sensitive receiver locations. This scenario is unlikely to occur during typical construction activities and likely overstates the construction noise levels which will be experienced at each receiver location. With the construction noise mitigation measures identified in this noise study, shown on Exhibit 11-A, the worst-case construction noise level increases at the nearby residential receivers would be reduced.

The noise attenuation provided through temporary noise barriers depends on many factors including cost, wind loading, the location of the receiver, and the ability to place barriers such that the line-of-sight of the receiver is blocked to the noise source, among others. This analysis assumes a temporary noise barrier constructed using frame-mounted materials such as vinyl acoustic curtains or quilted blankets attached to the construction site perimeter fence.

Table 11-10 shows the mitigated construction noise levels at the potentially impacted receiver locations will be reduced to range from 62.0 to 71.7 dBA L_{eq} with the attenuation provided by the 200-foot buffer zone for large construction equipment (e.g., dozers, graders, scrapers, etc.) capable of generating noise levels greater than 68 dBA L_{eq} at 10 feet over a 10-minute period of activity, and the 8-foot high temporary noise barrier. Sample temporary noise barrier photos are provided in Appendix 11.2 for reference.

TABLE 11-10: MITIGATED CONSTRUCTION EQUIPMENT NOISE LEVELS

Receiver Location ¹	Highest Construction Noise Levels (dBA L_{eq}) ²	Additional Distance to 200-Foot Buffer	Attenuation from Mitigation Measures (dBA L_{eq}) ³		Mitigated Construction Noise Levels (dBA L_{eq})
			Distance Attenuation with 200-Foot Buffer	8' Temp. Barrier	
R1	81.9	162'	-10.2	0.0	71.7
R3	68.0	100'	-6.0	0.0	62.0
R6	69.4	114'	-7.2	0.0	62.2
R7	73.3	97'	-5.8	-4.9	62.6
R9	78.5	170'	-10.6	-4.9	63.0
R10	79.6	150'	-9.5	-4.9	65.1

¹ Noise receiver locations are shown on Exhibit 11-A.

² Highest construction noise levels, as shown on Table 11-9, based on the distance to each receiver location shown on Exhibit 11-A.

³ Calculated barrier attenuation provided in Appendix 11.1.

As shown on Table 11-11, the temporary construction noise mitigation measures will reduce the construction noise level increases to range from 1.3 to 11.1 dBA L_{eq} at the impacted receiver locations to satisfy the 12 dBA L_{eq} temporary noise level increase threshold used in this analysis during temporary Project construction activities. Therefore, the noise impact due to Project construction is considered a *less than significant* impact with mitigation.

TABLE 11-11: MITIGATED CONSTRUCTION TEMPORARY NOISE LEVEL INCREASES (DBA L_{EQ})

Receiver Location ¹	Mitigated Construction Noise Level ²	Measurement Location ³	Reference Ambient Noise Levels ⁴	Combined Project and Ambient ⁵	Project Contribution ⁶	Threshold Exceeded? ⁷
R1	71.7	L1	66.4	72.9	6.5	No
R3	62.0	L2	54.6	62.7	8.1	No
R6	62.2	L5	54.2	62.8	8.6	No
R7	62.6	L6	53.8	63.2	9.4	No
R9	63.0	L7	55.3	63.7	8.4	No
R10	65.1	L7	55.3	65.6	10.3	No

¹ See Exhibit 11-A for the sensitive receiver locations.

² Mitigated construction noise levels as shown on Table 11-10.

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 Criteria as defined in Section 4.

11.6 CONSTRUCTION VIBRATION IMPACTS

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. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are:

- **Heavy Construction Equipment:** Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to building, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. It is not expected that heavy equipment such as large bulldozers would operate close enough to any residences to cause a vibration impact.
- **Trucks:** Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

Ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration. Construction activities that would have the potential to generate low levels of ground-borne vibration within the Project site include grading. Using the vibration source level of construction equipment provided on Table 6-7 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 11-12 presents the expected Project related vibration levels at each of the sensitive receiver locations.

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference velocity of 87 VdB at a distance of 25 feet. At distances ranging from 30 to 2,499 feet from the Project construction activities, construction vibration velocity levels are expected to range from 27.0 to 84.6 VdB, as shown on Table 11-12. Based on the FTA vibration standard of 80 VdB for annoyance, the proposed Project construction activities will generate unmitigated vibration levels capable of human annoyance at receiver locations R1 and R9, and therefore, represents a *potentially significant* impact. All Project vibration levels, approaching a highest level of 84.6 VdB, will remain below the FTA's 90 VdB threshold for building damage.

TABLE 11-12: UNMITIGATED CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Receiver ¹	Distance to Construction Activity (Feet)	Unmitigated Receiver Vibration Levels (VdB) ²					Threshold Exceeded? ³
		Small Bulldozer	Jackhammer	Loaded Trucks	Large Bulldozer	Highest Vibration Level	
R1	38'	52.5	73.5	80.5	81.5	81.5	Yes
R2	96'	40.5	61.5	68.5	69.5	69.5	No
R3	100'	39.9	60.9	67.9	68.9	68.9	No
R4	2,499'	0.0	19.0	26.0	27.0	27.0	No
R5	1,016'	9.7	30.7	37.7	38.7	38.7	No
R6	86'	41.9	62.9	69.9	70.9	70.9	No
R7	103'	39.6	60.6	67.6	68.6	68.6	No
R8	608'	16.4	37.4	44.4	45.4	45.4	No
R9	30'	55.6	76.6	83.6	84.6	84.6	Yes
R10	50'	49.0	70.0	77.0	78.0	78.0	No
R11	378'	22.6	43.6	50.6	51.6	51.6	No

¹ Noise receiver locations are shown on Exhibit 11-A.

² Based on the Vibration Source Levels of Construction Equipment included on Table 6-7.

³ Does the Peak Vibration exceed the FTA maximum acceptable vibration standard of 80 VdB for annoyance and 90 VdB for building damage?

To reduce the potential impacts due to Project construction equipment vibration levels, the 200-foot buffer, previously described to reduce construction noise levels, will also reduce the vibration levels at the nearby sensitive receiver locations. Table 11-13 shows the mitigated Project vibration levels will range from 27.0 to 59.9 VdB with the mitigation measures identified in this section, and therefore, will remain below the FTA 80 VdB annoyance and 90 VdB building damage thresholds. As such, Project-construction vibration levels will be *less than significant* with mitigation.

TABLE 11-13: MITIGATED CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Receiver ¹	Distance to Construction Activity (Feet)	Mitigated Receiver Vibration Levels (VdB) ²					Threshold Exceeded? ³
		Small Bulldozer	Jackhammer	Loaded Trucks	Large Bulldozer	Highest Vibration Level	
R1	200'	30.9	51.9	58.9	59.9	59.9	No
R2	200'	30.9	51.9	58.9	59.9	59.9	No
R3	200'	30.9	51.9	58.9	59.9	59.9	No
R4	2,499'	0.0	19.0	26.0	27.0	27.0	No
R5	1,016'	9.7	30.7	37.7	38.7	38.7	No
R6	200'	30.9	51.9	58.9	59.9	59.9	No
R7	200'	30.9	51.9	58.9	59.9	59.9	No
R8	608'	16.4	37.4	44.4	45.4	45.4	No
R9	200'	30.9	51.9	58.9	59.9	59.9	No
R10	200'	30.9	51.9	58.9	59.9	59.9	No
R11	378'	22.6	43.6	50.6	51.6	51.6	No

¹ Noise receiver locations are shown on Exhibit 11-A.

² Based on the Vibration Source Levels of Construction Equipment included on Table 6-7.

³ Does the Peak Vibration exceed the FTA maximum acceptable vibration standard of 80 VdB for annoyance and 90 VdB for building damage?

11.7 CONSTRUCTION NOISE AND VIBRATION MITIGATION MEASURES

The following mitigation measures are required to reduce noise and vibration levels produced by the construction equipment to the nearby sensitive residential land uses.

- Install minimum 8-foot high temporary construction noise barriers at the Project's site boundaries adjacent to sensitive receiver locations R7 (Hans Christensen Middle School), R9 (northern property line of Bell Air Mobile Estates), and R10 (north and east property lines of Life Care Center), shown on Exhibit 11-A, for the duration of Project construction. The noise control barriers must have a solid face from top to bottom. The noise control barriers must meet the minimum height and be constructed as follows:
 - The temporary noise barriers shall provide a minimum transmission loss of 20 dBA (Federal Highway Administration, Noise Barrier Design Handbook). The noise barrier shall be constructed using an acoustical blanket (e.g. vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts. Example photos are provided in Appendix 11.2.;
 - The noise barrier must 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 noise control barrier and associated elements shall be completely removed, and the site appropriately restored upon the conclusion of the construction activity.
- The use of large construction equipment (e.g., dozers, graders, scrapers) capable of generating noise levels in excess of 68 dBA L_{eq} (10-minute) at 10 feet and vibration levels of 80 VdB at sensitive

receiver locations shall be prohibited within 200 feet of nearby occupied sensitive uses to reduce the noise and vibration levels for the entire duration of Project construction. If the contractor can demonstrate that specific pieces of large construction equipment can demonstrate compliance with the 68 dBA L_{eq} (10-minute) at 10 feet criteria, and will generate vibration levels at adjacent sensitive uses which remain below 80 VdB, then they shall be allowed to operate within the buffer zone shown on Exhibit 11-A.

- Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 6:00 a.m. and 6:00 p.m. from June to September, and 7:00 a.m. to 6:00 p.m. from October to May, with no activity allowed on Sundays and nationally recognized holidays (Section 9.09.030(B) of the City of Menifee Municipal Code).
- During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' 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.
- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site (i.e., to the center) during all Project construction.
- The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 a.m. and 6:00 p.m. from June to September, and 7:00 a.m. to 6:00 p.m. from October to May, with no activity allowed on Sundays and nationally recognized holidays). The contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

12 REFERENCES

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13 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Legado 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) 336-5979.

Bill Lawson, P.E., INCE
Principal
URBAN CROSSROADS, INC.
260 E. Baker Street, Suite 200
Costa Mesa, CA 92626
(949) 336-5979
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 Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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APPENDIX 3.1:

CITY OF MENIFEE MUNICIPAL CODE

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CHAPTER 9.09: NOISE CONTROL REGULATIONS

Section

- 9.09.010 Intent
- 9.09.020 General exemptions
- 9.09.030 Construction-related exemptions
- 9.09.040 Definitions
- 9.09.050 General sound level standards
- 9.09.060 Sound level measurement methodology
- 9.09.070 Special sound sources standards
- 9.09.080 Duty to cooperate

§ 9.09.010 INTENT.

At certain levels, sound becomes noise and may jeopardize the health, safety or general welfare of city residents and degrade their quality of life. Pursuant to its police power, the City Council hereby declares that noise shall be regulated in the manner described herein. This chapter is intended to establish city wide standards regulating noise. This chapter is not intended to establish thresholds of significance for the purpose of any analysis required by the CEQA and no such thresholds are hereby established.

(Ord. 2014-155, passed 10-1-2014)

§ 9.09.020 GENERAL EXEMPTIONS.

Sound emanating from the following sources are exempt from the provisions of this chapter:

- (A) Facilities owned or operated by or for a governmental agency.
- (B) Capital improvement projects of a governmental agency.
- (C) The maintenance or repair of public properties.
- (D) Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile.
- (E) Public and private schools and school- sponsored activities.
- (F) Agricultural operations on land designated Agriculture in the city's General Plan, or land zoned A-1 (Light Agriculture), A-P (Light Agriculture With Poultry), A-2 (Heavy Agriculture), A-D (Agriculture-Dairy) or C/V (Citrus/Vineyard), provided such operations are carried out in a manner consistent with accepted industry standards. This exemption includes, without limitation, sound emanating from all equipment used during such operations, whether stationary or mobile.
- (G) Wind energy conversion systems (WECS), provided such systems comply with the noise provisions of Menifee Municipal Code.
- (H) Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 7:00 a.m. and 8:00 p.m.
- (I) Motor vehicles (factory equipped), other than off-highway vehicles. This exemption does not include sound emanating from motor vehicle sound systems.
- (J) Heating and air conditioning equipment in proper repair.
- (K) Safety, warning and alarm devices, including, but not limited to, house and car alarms, and other warning devices that are designed to protect the public health, safety, and welfare.
- (L) The discharge of firearms consistent with all state laws.
- (M) Bars, nightclubs, cocktail lounges, cabarets, billiards/pool halls, restaurants, drive-ins and eating establishments that have a conditional use permit for on-site alcohol sales and live entertainment (interior noise). Outdoor patios and similar areas shall be subject to the requirements of this chapter, unless conditioned otherwise under conditional use permit review.
- (N) *Single event exceptions.* A single event exception shall be considered a minor temporary use as defined in Chapter 9.06 of this code. An application for a single event exception shall be made using the temporary use application provided by the Community Development Director in Chapter 9.06 of this code.
- (O) *Continuous events exceptions.* A continuous events exception shall be considered a major temporary use as defined in Chapter 9.06 of this code. An application for a continuous events exception shall be made using the temporary use application provided by the Community Development Director in Chapter 9.06.
- (P) *Procedures, required findings, conditions of approval, and enforcement.* The application procedures, required findings, conditions of approval, and enforcement of the permit issued under this section shall be governed by provisions in Chapter 9.06 of this code.
- (Q) The exemptions noted above shall only be granted under a temporary use permit application where the following can be demonstrated:
 - (1) That granting the exemption shall not create, in the opinion of the Community Development Director, either short or long term detrimental disturbances to the adjoining or surrounding properties, or to the community as a whole;
 - (2) That such exemption shall not create a precedent that may be cited by others to justify further exemptions;
 - (3) That if an exception is granted, reasonable conditions of approval may be imposed to minimize the public detriment, including, but not limited to, restrictions on sound level, sound duration and operating hours; and
 - (4) That a procedure shall be set in place (a contact person, phone number and address) that has the ability and authority to immediately terminate the sound creating event or activity if found to be either a short or long term detrimental disturbance or being conducted in a manner that is inconsistent with the TUP approval or any applied conditions of approval.

(Ord. 2014-155, passed 10-1-2014)

§ 9.09.030 CONSTRUCTION-RELATED EXEMPTIONS.

Exceptions may be requested from the standards set forth in § 9.09.040 or 9.09.060 of this chapter and may be characterized as construction-related, single event or continuous events exceptions.

- (A) Private construction projects, with or without a building permit, located one-quarter of a mile or more from an inhabited dwelling.
- (B) Private construction projects, with or without a building permit, located within one-quarter of a mile from an inhabited dwelling, provided that:
 - (1) Construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. the following morning during the months of June through September; and
 - (2) Construction does not occur between the hours of 6:00 p.m. and 7:00 a.m. the following morning during the months of October through May.

(C) *Construction-related exceptions.* A construction-related exception shall be considered either a minor temporary use or a major temporary use as defined in Chapter 9.06 of this code. An application for a construction-related exception shall be made using the temporary use application provided by the Community Development Director in Chapter 9.06 of this code. For construction activities on Sunday or nationally recognized holidays, § 8.01.010 shall prevail.

(Ord. 2014-155, passed 10-1-2014)

§ 9.09.040 DEFINITIONS.

For purposes of this chapter the following definitions shall apply unless the context clearly indicates or requires a different meaning.

AUDIO EQUIPMENT. A television, stereo, radio, tape player, compact disc player, mp3 player, I-POD, music equipment/instrument or other similar device.

DECIBEL (DB). A unit for measuring the relative amplitude of a sound equal approximately to the smallest difference normally detectable by the human ear, the range of which includes approximately 130 decibels on a scale beginning with zero decibels for the faintest detectable sound. Decibels are measured with a sound level meter using different methodologies as defined below:

(1) **A-WEIGHTING (dBA).** The standard A-weighted frequency response of a sound level meter, which de-emphasizes low and high frequencies of sound in a manner similar to the human ear for moderate sounds.

(2) **EQUIVALENT CONTINUOUS NOISE LEVEL (L_{eq}).** The noise level energy averaged over the measurement period. For example, a ten-minute L_{eq} would be averaged over a ten-minute period.

GOVERNMENTAL AGENCY. The United States, the State of California, Riverside County, the City of Menifee, any city within Riverside County, any special district within Riverside County or any combination of these agencies.

LAND USE PERMIT. A discretionary permit issued by the city pursuant to the Menifee Municipal Code allowing a specific activity to be conducted on an individual property.

MOTOR VEHICLE. A vehicle that is self-propelled by a motor or engine.

MOTOR VEHICLE SOUND SYSTEM. A television, stereo, radio, tape player, compact disc player, mp3 player, I-POD, music equipment/ instrument or other similar device attached to or installed within the vehicle.

NOISE. Any loud, discordant or disagreeable sound.

OCCUPIED PROPERTY. Property upon which is located a residence, business, or industrial or manufacturing use. Property where a residential, commercial, business, industrial, manufacturing or storage activity is taking place.

OFF-HIGHWAY VEHICLE. A motor vehicle as defined in Cal. Vehicle Code § 38006 including without limitation off-highway motorcycle, sand buggy, dune buggy, all-terrain vehicle, or jeep.

PUBLIC or PRIVATE SCHOOL. An institution conducting academic instruction at the preschool, elementary school, junior high school, high school, or college level.

PUBLIC PROPERTY. Property owned by a governmental agency or held open to the public, including, but not limited to, parks, streets, sidewalks, and alleys.

SENSITIVE RECEPTOR. A living organism or land use that is identified as sensitive to noise in the Noise Element of the city's General Plan, including, but not limited to, residences, schools, hospitals, churches, rest homes, cemeteries or public libraries.

SOUND AMPLIFYING EQUIPMENT. A loudspeaker, microphone, megaphone or other similar device.

SOUND GENERATING EQUIPMENT. Musical instrument/device, motor, generator or other mechanical equipment or device capable of generating sound not otherwise defined herein.

SOUND LEVEL METER. An instrument meeting the standards of the American National Standards Institute for Type 1 or Type 2 sound level meters or an instrument that provides equivalent data.

(Ord. 2014-155, passed 10-1-2014)

§ 9.09.050 GENERAL SOUND LEVEL STANDARDS.

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior and interior sound level on any other occupied property to exceed the sound level standards set forth in Table 1.

<i>Table 1</i> <i>Stationary Source Noise Standards</i>		
<i>Land Use</i>	<i>Interior Standards</i>	<i>Exterior Standards</i>
Residential*		
10:00 p.m. to 7:00 a.m.	40 L_{eq} (10 minute)	45 L_{eq} (10 minute)
7:00 a.m. to 10:00 p.m.	55 L_{eq} (10 minute)	65 L_{eq} (10 minute)
* Excepted as permitted under § 9.09.020, Exceptions.		

§ 9.09.060 SOUND LEVEL MEASUREMENT METHODOLOGY.

Sound level measurements may be made anywhere within the boundaries of an occupied property. The actual location of a sound level measurement shall be at the discretion of the enforcement officials identified in § 9.09.080. Sound level measurements shall be made with a sound level meter. Immediately before a measurement is made, the sound level meter shall be calibrated utilizing an acoustical calibrator meeting the standards of the American National Standards Institute. Following a sound level measurement, the calibration of the sound level meter shall be re-verified. Sound level meters and calibration equipment shall be certified annually.

(Ord. 2014-155, passed 10-1-2014)

§ 9.09.070 SPECIAL SOUND SOURCES STANDARDS.

The general sound level standards set forth in § 9.09.040 apply to sound emanating from all sources, including the following special sound sources, and the person creating, or allowing the creation of, the sound is subject to the requirements of that section. The following special sound sources are also subject to the following additional standards, the failure to comply with which constitute separate violations of this chapter.

(A) *Motor vehicles.*

(1) *Off-highway vehicles.*

(a) No person shall operate an off-highway vehicle unless it is equipped with a USDA qualified spark arrester and a constantly operating and properly maintained muffler. A muffler is not considered constantly operating and properly maintained if it is equipped with a cutout, bypass or similar device.

(b) No person shall operate an off-highway vehicle unless the noise emitted by the vehicle is not more than 96 dBA if the vehicle was manufactured on or after January 1, 1986 or is not more than 101 dBA if the vehicle was manufactured before January 1, 1986. For purposes of this division, emitted noise shall be measured a distance of 20 inches from the vehicle tailpipe using test procedures established by the Society of Automotive Engineers under Standard J-1287.

(2) *Sound systems.* No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, between the hours of 10:00 p.m. and 8:00 a.m. the following morning, such that the sound system is audible to the human ear inside any inhabited dwelling. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, at any other time such that the sound system is audible to the human ear at a distance greater than 100 feet from the vehicle.

(3) *Power tools and equipment.* No person shall operate any power tools or equipment between the hours of 7:00 p.m. and 7:00 a.m. the following morning during the months of June through September and 6:00 p.m. and 7:00 a.m. the following morning during the months of October through May such that the power tools or equipment are audible to the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools or equipment are audible to the human ear at a distance greater than 100 feet from the power tools or equipment.

(4) *Audio equipment.* No person shall operate any audio equipment, whether portable or not, between the hours of 10:00 p.m. and 8:00 a.m. the following morning such that the equipment is audible to the human ear inside an inhabited dwelling other than a dwelling in which the equipment may be located. No person shall operate any audio equipment, whether portable or not, at any other time such that the equipment is audible to the human ear at a distance greater than 100 feet from the equipment.

(5) *Sound amplifying equipment and live music.* No person shall install, use or operate sound amplifying equipment, or perform, or allow to be performed, live music unless such activities comply with the following requirements. To the extent that these requirements conflict with any conditions of approval attached to an underlying land use permit, these requirements shall control.

(a) Sound amplifying equipment or live music is prohibited between the hours of 10:00 p.m. and 8:00 a.m. the following morning on Sunday through Thursday and 11:00 p.m. and 8:00 a.m. the following morning on Friday and Saturday.

(b) Sound emanating from sound amplifying equipment or live music at any other time shall not be audible to the human ear at a distance greater than 200 feet from the equipment or music.

(Ord. 2014-155, passed 10-1-2014)

§ 9.09.080 DUTY TO COOPERATE.

No person shall refuse to cooperate with, or obstruct, any peace officer or Code Enforcement officer when they are engaged in the process of enforcing the provisions of this chapter. This duty to cooperate may require a person to extinguish a sound source so that it can be determined whether sound emanating from the source violates the provisions of this chapter.

(Ord. 2014-155, passed 10-1-2014)

APPENDIX 5.1:

STUDY AREA PHOTOS

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L1_E
33, 43' 43.230000", 117, 11' 17.010000"



L1_N
33, 43' 43.220000", 117, 11' 16.840000"



L1_S
33, 43' 43.260000", 117, 11' 16.980000"



L1_W
33, 43' 43.220000", 117, 11' 16.840000"



L2_N
33, 43' 43.490000", 117, 10' 48.850000"



L2_S
33, 43' 43.490000", 117, 10' 48.850000"

JN:08728 Legado



L2_W

33, 43' 43.490000", 117, 10' 48.850000"



L3_E

33, 43' 30.500000", 117, 9' 46.640000"



L3_N

33, 43' 30.500000", 117, 9' 46.640000"



L3_S

33, 43' 30.500000", 117, 9' 46.640000"



L3_W

33, 43' 30.500000", 117, 9' 46.640000"



L4_E

33, 43' 14.230000", 117, 10' 10.070000"

JN:08728 Legado



L4_N

33, 43' 14.120000", 117, 10' 10.150000"



L4_S

33, 43' 13.950000", 117, 10' 10.350000"



L4_W

33, 43' 13.140000", 117, 10' 10.460000"



L5_E

33, 43' 15.640000", 117, 10' 33.030000"



L5_N

33, 43' 15.780000", 117, 10' 32.980000"



L5_W

33, 43' 15.510000", 117, 10' 33.060000"

JN:08728 Legado



L6_E
33, 43' 16.230000", 117, 10' 59.560000"



L6_N
33, 43' 16.210000", 117, 10' 59.540000"



L6_S
33, 43' 16.210000", 117, 10' 59.540000"



L6_SW
33, 43' 16.330000", 117, 10' 59.560000"



L6_W
33, 43' 16.210000", 117, 10' 59.540000"



L7_E
33, 43' 8.790000", 117, 11' 12.340000"

JN:08728 Legado



L7_N
33, 43' 8.820000", 117, 11' 12.340000"



L7_S
33, 43' 8.860000", 117, 11' 12.200000"



L7_W
33, 43' 8.870000", 117, 11' 12.230000"



L8_E
33, 43' 17.180000", 117, 11' 23.100000"



L8_N
33, 43' 17.180000", 117, 11' 23.100000"



L8_S
33, 43' 17.180000", 117, 11' 23.070000"

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APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

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24-Hour Noise Level Measurement Summary

Project Name: Legado

JN: 8728

Energy Average Leq

24-Hour

Location: L1 - Located at the northwest corner of the Project site near the existing Evans Brown Mortuary at the southeast corner of Encanto Drive and Rouse Road.

Analyst: A. Wolfe

Day

Night

CNEL

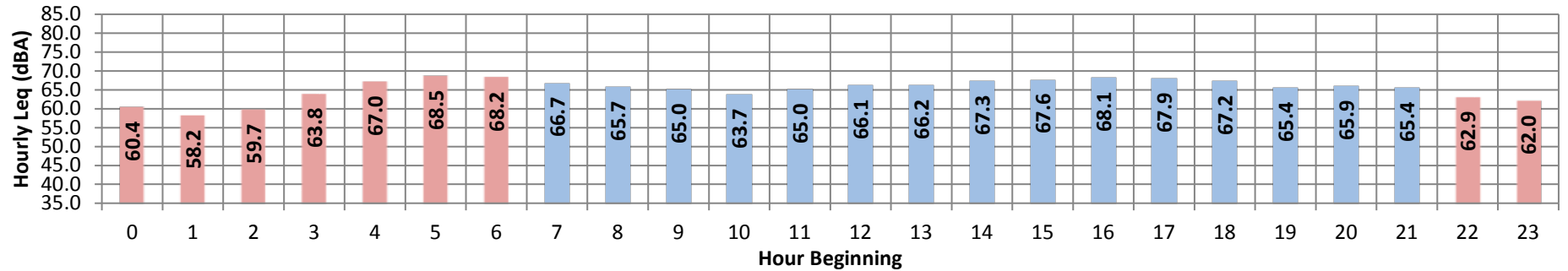
Date: 11/8/2017

66.4

64.8

71.8

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	63.7	80.8	49.2	74.0	72.0	69.0	67.0	62.0	59.0	55.0	54.0	53.0
	Max	68.1	91.2	58.3	77.0	75.0	73.0	71.0	66.0	64.0	62.0	61.0	59.0
Energy Average:		66.4	Average:		75.3	73.8	70.9	69.3	64.6	62.3	59.0	58.0	56.1
Night	Min	58.2	77.0	38.3	67.0	65.0	63.0	61.0	58.0	54.0	46.0	44.0	40.0
	Max	68.5	89.2	58.6	77.0	75.0	72.0	71.0	67.0	66.0	63.0	63.0	61.0
Energy Average:		64.8	Average:		72.1	70.0	67.2	66.0	62.7	60.3	54.4	52.8	49.3
Hourly Summary													
Night	0	60.4	82.3	39.3	70.0	67.0	64.0	63.0	59.0	56.0	48.0	45.0	40.0
	1	58.2	77.0	38.3	67.0	65.0	63.0	61.0	58.0	54.0	46.0	44.0	41.0
	2	59.7	80.1	41.2	68.0	66.0	64.0	63.0	59.0	56.0	47.0	45.0	42.0
	3	63.8	80.0	42.4	73.0	70.0	68.0	67.0	64.0	61.0	54.0	52.0	46.0
	4	67.0	89.2	51.5	75.0	73.0	70.0	69.0	66.0	65.0	61.0	60.0	57.0
	5	68.5	89.2	58.6	77.0	75.0	71.0	70.0	67.0	66.0	63.0	63.0	61.0
	6	68.2	86.2	58.1	76.0	75.0	72.0	71.0	67.0	66.0	63.0	62.0	60.0
Day	7	66.7	85.5	53.2	76.0	75.0	72.0	71.0	65.0	62.0	59.0	58.0	56.0
	8	65.7	84.3	52.4	75.0	74.0	71.0	69.0	64.0	61.0	58.0	57.0	55.0
	9	65.0	87.4	52.7	75.0	73.0	70.0	68.0	63.0	61.0	57.0	56.0	54.0
	10	63.7	80.8	49.4	74.0	73.0	69.0	67.0	62.0	59.0	55.0	54.0	53.0
	11	65.0	84.7	52.0	75.0	73.0	70.0	68.0	63.0	60.0	57.0	56.0	54.0
	12	66.1	84.8	51.9	76.0	74.0	71.0	70.0	64.0	61.0	58.0	57.0	55.0
	13	66.2	84.7	53.9	75.0	74.0	71.0	69.0	65.0	63.0	59.0	58.0	56.0
	14	67.3	90.3	55.4	75.0	74.0	72.0	70.0	66.0	64.0	61.0	60.0	58.0
	15	67.6	87.3	54.8	77.0	75.0	73.0	71.0	65.0	63.0	60.0	60.0	58.0
	16	68.1	91.2	56.4	77.0	75.0	72.0	71.0	66.0	64.0	61.0	60.0	59.0
	17	67.9	87.9	58.3	76.0	75.0	72.0	71.0	66.0	64.0	62.0	61.0	59.0
	18	67.2	84.9	55.9	76.0	75.0	72.0	71.0	66.0	64.0	61.0	60.0	58.0
	19	65.4	85.9	51.9	74.0	72.0	69.0	68.0	64.0	62.0	59.0	58.0	56.0
	20	65.9	85.0	50.2	74.0	73.0	70.0	68.0	65.0	63.0	59.0	58.0	56.0
	21	65.4	83.4	49.2	74.0	72.0	70.0	68.0	65.0	63.0	59.0	57.0	54.0
Night	22	62.9	82.6	44.1	72.0	70.0	67.0	65.0	62.0	60.0	55.0	53.0	49.0
	23	62.0	77.7	45.6	71.0	69.0	66.0	65.0	62.0	59.0	53.0	51.0	48.0

24-Hour Noise Level Measurement Summary

Project Name: Legado

JN: 8728

Location: L2 - Located north of the Project site across Rouse Road near existing residential homes.

Analyst: A. Wolfe

Date: 11/8/2017

Energy Average Leq

24-Hour

Day

Night

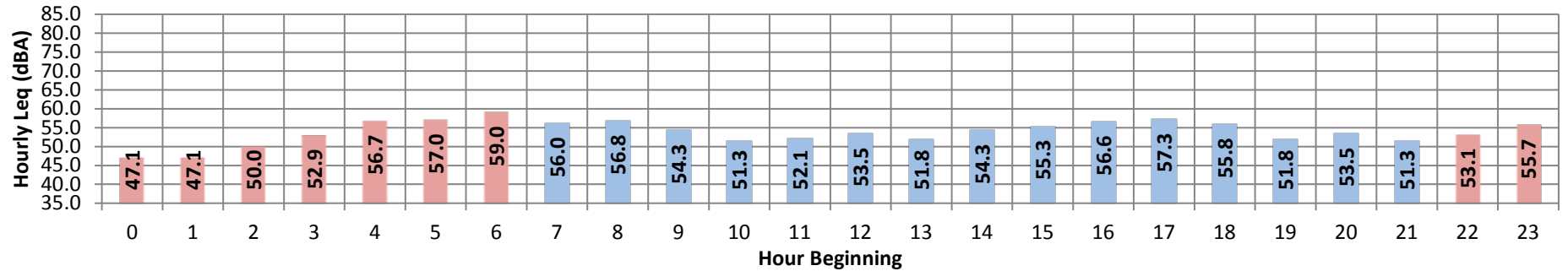
CNEL

54.6

54.8

61.4

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	51.3	66.3	37.8	60.0	58.0	55.0	53.0	47.0	43.0	39.0	39.0	37.0
	Max	57.3	82.5	45.9	66.0	65.0	62.0	59.0	54.0	52.0	48.0	47.0	46.0
Energy Average:		54.6	Average:		63.9	62.0	58.7	56.6	50.5	47.2	43.6	42.7	41.5
Night	Min	47.1	65.1	37.8	53.0	51.0	49.0	48.0	46.0	44.0	40.0	39.0	37.0
	Max	59.0	82.4	52.0	67.0	65.0	65.0	60.0	58.0	57.0	54.0	53.0	52.0
Energy Average:		54.8	Average:		61.3	59.0	56.1	54.7	51.7	49.6	46.3	45.4	44.3
Hourly Summary													
Night	0	47.1	69.0	39.5	53.0	51.0	49.0	48.0	46.0	45.0	42.0	41.0	40.0
	1	47.1	65.1	37.8	55.0	53.0	50.0	50.0	47.0	44.0	40.0	39.0	37.0
	2	50.0	68.9	39.5	62.0	59.0	52.0	51.0	48.0	46.0	43.0	42.0	41.0
	3	52.9	76.8	43.2	62.0	57.0	54.0	53.0	51.0	50.0	46.0	45.0	44.0
	4	56.7	73.5	49.6	63.0	61.0	60.0	59.0	58.0	54.0	52.0	51.0	50.0
	5	57.0	79.0	46.6	67.0	64.0	60.0	59.0	55.0	52.0	49.0	48.0	47.0
Day	6	59.0	82.4	52.0	64.0	63.0	61.0	60.0	58.0	57.0	54.0	53.0	52.0
	7	56.0	79.6	40.8	65.0	63.0	60.0	58.0	54.0	51.0	45.0	42.0	41.0
	8	56.8	82.5	39.5	64.0	62.0	59.0	56.1	49.0	45.0	40.0	40.0	39.0
	9	54.3	75.5	39.5	66.0	63.0	59.0	57.0	50.0	44.0	40.0	39.0	39.0
	10	51.3	68.3	39.6	62.0	60.0	57.0	56.0	49.0	43.0	40.0	40.0	40.0
	11	52.1	70.9	37.8	64.0	62.0	58.0	56.0	48.0	43.0	39.0	39.0	37.0
	12	53.5	73.8	37.8	64.0	62.0	60.0	58.0	51.0	45.0	41.0	39.0	39.0
	13	51.8	74.1	38.0	63.0	61.0	57.0	54.0	47.0	44.0	41.0	40.0	39.0
	14	54.3	80.9	41.3	65.0	62.0	59.0	57.0	48.0	45.0	43.0	42.0	41.0
	15	55.3	80.1	40.8	65.0	64.0	61.0	59.0	51.0	48.0	43.0	43.0	41.0
	16	56.6	77.5	41.2	66.0	64.0	61.0	59.0	54.0	51.0	46.0	45.0	41.0
	17	57.3	81.5	43.2	66.0	65.0	62.0	59.0	54.0	52.0	48.0	45.0	43.0
	18	55.8	74.7	43.2	66.0	65.0	61.0	59.0	52.0	50.0	45.0	45.0	44.0
	19	51.8	68.8	45.0	61.0	59.0	55.0	53.0	50.0	49.0	48.0	47.0	46.0
	20	53.5	79.3	44.7	62.0	60.0	57.0	55.0	51.0	49.0	48.0	47.0	46.0
	21	51.3	66.3	45.9	60.0	58.0	55.0	53.0	50.0	49.0	47.0	47.0	46.0
Night	22	53.1	75.2	45.2	61.0	58.0	54.0	53.0	51.0	50.0	47.0	47.0	46.0
	23	55.7	72.9	41.7	65.0	65.0	65.0	59.0	51.0	48.0	44.0	43.0	42.0

24-Hour Noise Level Measurement Summary

Project Name: Legado

JN: 8728

Location: L3 - Located east of the Project site on Palomar Road near a residential home and the Boulder Ridge Elementary School.

Analyst: A. Wolfe

Date: 11/8/2017

Energy Average Leq

24-Hour

Day

Night

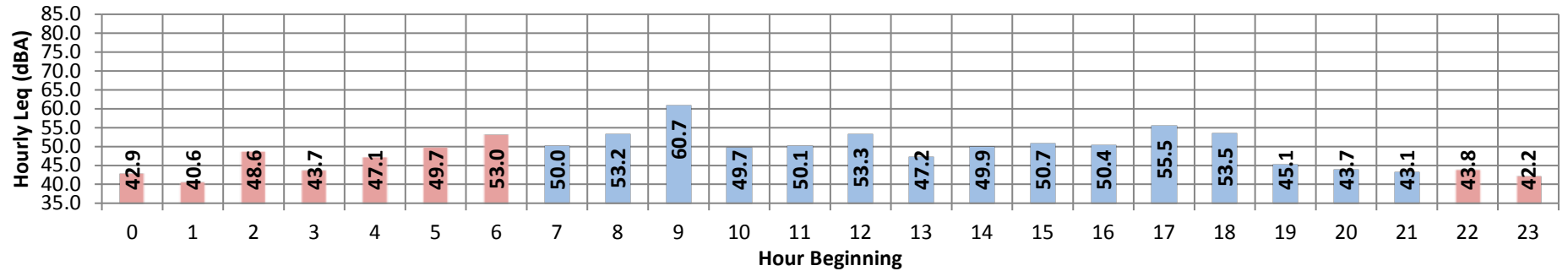
CNEL

52.9

47.5

55.3

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	43.1	53.5	36.3	48.0	47.0	45.0	44.0	43.0	39.0	36.0	36.0	36.0
	Max	60.7	84.7	44.6	72.0	68.0	65.0	62.0	51.0	48.0	46.0	45.0	45.0
Energy Average:		52.9	Average:		60.7	58.1	54.4	51.7	46.3	43.0	39.4	39.0	38.3
Night	Min	40.6	54.6	36.3	45.0	44.0	43.0	43.0	41.0	39.0	36.0	36.0	36.0
	Max	53.0	72.8	46.3	65.0	57.0	54.0	53.0	51.0	50.0	48.0	47.0	47.0
Energy Average:		47.5	Average:		53.1	50.1	47.4	46.7	44.9	43.3	40.7	40.4	39.6
Hourly Summary													
Night	0	42.9	57.2	36.3	51.0	48.0	46.0	45.0	43.0	41.0	39.0	39.0	36.0
	1	40.6	54.8	36.3	45.0	44.0	43.0	43.0	41.0	39.0	36.0	36.0	36.0
	2	48.6	68.5	36.3	65.0	55.0	44.0	43.0	41.0	39.0	36.0	36.0	36.0
	3	43.7	54.6	39.0	50.0	47.0	46.0	45.0	44.0	43.0	40.0	39.0	39.0
	4	47.1	55.8	39.3	53.0	52.0	50.0	49.0	48.0	46.0	41.0	41.0	39.0
	5	49.7	58.9	43.4	54.0	53.0	52.0	52.0	50.0	48.0	46.0	46.0	45.0
	6	53.0	72.8	46.3	63.0	57.0	54.0	53.0	51.0	50.0	48.0	47.0	47.0
Day	7	50.0	69.3	44.6	56.0	55.0	53.0	52.0	50.0	48.0	46.0	45.0	45.0
	8	53.2	72.1	36.3	66.0	63.0	59.0	54.0	47.0	44.0	39.0	39.0	36.0
	9	60.7	84.7	36.3	72.0	68.0	65.0	62.0	51.0	44.0	38.0	36.0	36.0
	10	49.7	66.2	36.3	61.0	58.0	55.0	53.0	48.0	44.0	39.0	38.0	36.0
	11	50.1	70.0	36.3	63.0	57.0	53.0	51.0	46.0	41.0	36.0	36.0	36.0
	12	53.3	72.1	36.3	64.0	63.0	60.0	58.0	48.0	42.0	36.0	36.0	36.0
	13	47.2	66.4	36.3	59.0	57.0	52.0	50.0	44.0	39.0	36.0	36.0	36.0
	14	49.9	69.2	36.3	62.0	59.0	55.0	52.0	47.0	42.0	36.0	36.0	36.0
	15	50.7	69.8	36.3	63.0	61.0	57.0	54.0	47.0	43.0	36.0	36.0	36.0
	16	50.4	68.3	39.2	63.0	61.0	56.0	52.0	45.0	42.0	41.0	40.0	39.0
	17	55.5	78.5	39.3	70.0	62.0	53.0	47.0	44.0	43.0	41.0	41.0	40.0
	18	53.5	71.5	41.0	66.0	65.0	60.0	54.0	45.0	44.0	42.0	42.0	41.0
	19	45.1	57.9	41.5	50.0	49.0	47.0	47.0	45.0	44.0	42.0	42.0	42.0
	20	43.7	55.6	40.9	48.0	47.0	46.0	45.0	44.0	43.0	42.0	41.0	41.0
	21	43.1	53.5	39.3	48.0	47.0	45.0	44.0	43.0	42.0	41.0	41.0	39.0
Night	22	43.8	56.2	39.3	50.0	49.0	47.0	46.0	44.0	43.0	41.0	41.0	39.0
	23	42.2	55.5	39.2	47.0	46.0	45.0	44.0	42.0	41.0	39.0	39.0	39.0

24-Hour Noise Level Measurement Summary

Project Name: Legado

JN: 8728

Energy Average Leq

24-Hour

Location: L4 - Located east of the Project site at the end of Aspel Road near the existing Menifee Valley Medical Center.

Analyst: A. Wolfe

Day

Night

CNEL

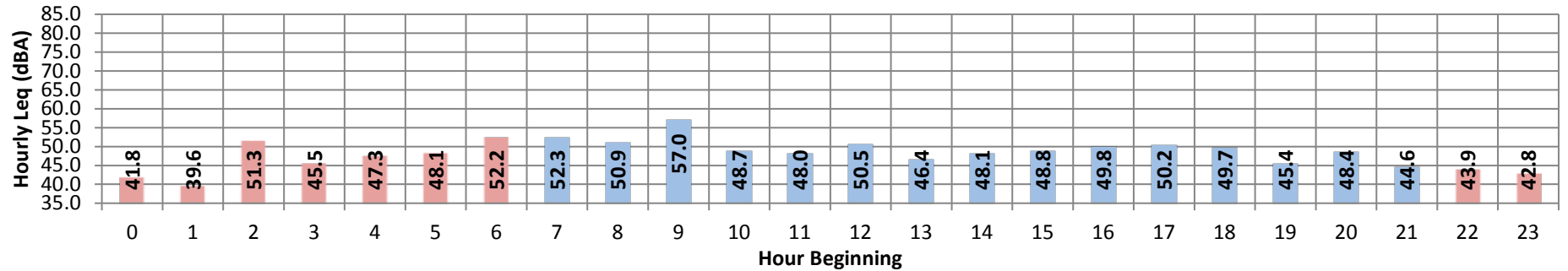
Date: 11/8/2017

50.4

47.6

54.8

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	44.6	57.4	38.9	51.0	49.0	47.0	46.0	44.0	43.0	40.0	39.0	39.0
	Max	57.0	80.2	43.4	69.0	64.0	60.0	57.0	52.0	50.0	47.0	46.0	45.0
Energy Average:		50.4	Average:		58.5	56.5	53.5	51.3	47.3	44.7	41.8	41.1	40.3
Night	Min	39.6	49.1	36.1	44.0	43.0	42.0	41.0	40.0	39.0	36.0	36.0	36.0
	Max	52.2	66.8	45.3	63.0	63.0	59.0	57.0	52.0	51.0	48.0	46.0	46.0
Energy Average:		47.6	Average:		52.2	50.8	48.9	48.1	45.2	43.6	41.2	40.7	40.1
Hourly Summary													
Night	0	41.8	55.6	38.4	50.0	46.0	44.0	43.0	41.0	40.0	39.0	39.0	39.0
	1	39.6	49.1	36.1	44.0	43.0	42.0	41.0	40.0	39.0	36.0	36.0	36.0
	2	51.3	65.6	36.1	63.0	63.0	59.0	57.0	46.0	41.0	39.0	39.0	37.0
	3	45.5	59.1	39.2	51.0	50.0	48.0	48.0	46.0	44.0	41.0	40.0	40.0
	4	47.3	59.9	42.1	51.0	50.0	49.0	49.0	48.0	46.0	44.0	43.0	43.0
	5	48.1	65.6	42.8	53.0	52.0	51.0	50.0	48.0	47.0	44.0	44.0	43.0
	6	52.2	66.8	45.3	59.0	56.0	54.0	54.0	52.0	51.0	48.0	46.0	46.0
Day	7	52.3	75.9	43.4	57.0	56.0	54.0	53.0	52.0	50.0	47.0	46.0	45.0
	8	50.9	68.4	39.1	62.0	60.0	57.0	55.0	48.0	45.0	42.0	41.0	40.0
	9	57.0	80.2	39.0	69.0	64.0	60.0	57.0	50.0	45.0	41.0	40.0	39.0
	10	48.7	63.6	38.9	58.0	57.0	54.0	53.0	48.0	45.0	40.0	39.0	39.0
	11	48.0	64.1	39.1	57.0	55.0	53.0	51.0	47.0	44.0	41.0	40.0	39.0
	12	50.5	69.2	39.0	61.0	59.0	57.0	54.0	48.0	45.0	40.0	40.0	39.0
	13	46.4	62.0	39.0	55.0	53.0	51.0	50.0	46.0	43.0	40.0	39.0	39.0
	14	48.1	67.1	39.1	58.0	56.0	53.0	51.0	47.0	45.0	41.0	40.0	39.0
	15	48.8	63.4	39.0	59.0	57.0	54.0	52.0	47.0	45.0	42.0	41.0	40.0
	16	49.8	67.5	40.9	60.0	58.0	54.0	52.0	48.0	46.0	43.0	42.0	42.0
	17	50.2	69.6	40.8	62.0	60.0	52.0	48.0	47.0	44.0	42.0	42.0	41.0
	18	49.7	66.2	40.8	61.0	59.0	56.0	53.0	46.0	43.0	42.0	42.0	41.0
	19	45.4	57.4	40.8	51.0	49.0	48.0	47.0	46.0	44.0	42.0	42.0	41.0
	20	48.4	73.5	39.7	57.0	56.0	52.0	48.0	46.0	43.0	42.0	41.0	40.0
	21	44.6	59.4	39.1	51.0	49.0	47.0	46.0	44.0	43.0	42.0	41.0	40.0
Night	22	43.9	54.4	39.1	49.0	48.0	47.0	46.0	44.0	43.0	41.0	40.0	40.0
	23	42.8	59.5	36.1	50.0	49.0	46.0	45.0	42.0	41.0	39.0	39.0	37.0

24-Hour Noise Level Measurement Summary

Project Name: Legado

JN: 8728

Energy Average Leq

24-Hour

Location: L5 - Located south of the Project site across Chambers Avenue adjacent to an existing 6-foot high noise barrier for residential homes.

Analyst: A. Wolfe

Day

Night

CNEL

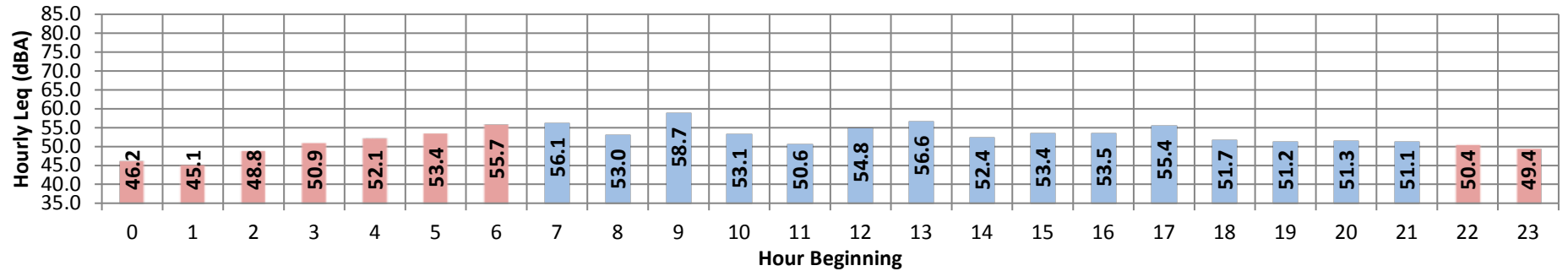
Date: 11/8/2017

54.2

51.3

58.5

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	50.6	67.4	36.7	60.0	56.0	53.0	52.0	46.0	43.0	36.0	36.0	36.0
	Max	58.7	81.3	45.1	71.0	66.0	62.0	60.0	54.0	52.0	47.0	46.0	46.0
Energy Average:		54.2	Average:		64.3	61.3	57.7	55.6	50.2	46.4	41.5	40.7	39.6
Night	Min	45.1	58.6	36.7	52.0	50.0	47.0	46.0	44.0	42.0	39.0	37.0	36.0
	Max	55.7	73.4	49.3	63.0	59.0	57.0	56.0	55.0	54.0	51.0	51.0	50.0
Energy Average:		51.3	Average:		57.6	55.0	52.9	52.1	49.8	47.9	44.9	44.0	42.8
Hourly Summary													
Night	0	46.2	58.6	39.5	52.0	51.0	50.0	49.0	46.0	44.0	42.0	41.0	39.0
	1	45.1	64.9	36.7	54.0	50.0	47.0	46.0	44.0	42.0	39.0	37.0	36.0
	2	48.8	71.2	36.7	61.0	56.0	51.0	50.0	46.0	44.0	41.0	39.0	38.0
	3	50.9	70.1	42.4	57.0	55.0	53.0	53.0	51.0	49.0	46.0	45.0	44.0
	4	52.1	60.2	45.0	57.0	56.0	55.0	54.0	52.0	51.0	49.0	48.0	46.0
	5	53.4	64.3	45.8	60.0	58.0	56.0	56.0	54.0	52.0	48.0	47.0	46.0
	6	55.7	73.4	49.3	63.0	59.0	57.0	56.0	55.0	54.0	51.0	51.0	50.0
Day	7	56.1	79.6	42.7	65.0	62.0	58.0	57.0	54.0	52.0	45.0	45.0	44.0
	8	53.0	73.8	36.7	65.0	63.0	60.0	56.0	46.0	43.0	39.0	39.0	36.0
	9	58.7	81.3	36.7	71.0	66.0	62.0	60.0	52.0	46.0	39.0	36.0	36.0
	10	53.1	70.6	36.7	65.0	62.0	59.0	57.0	51.0	45.0	39.0	39.0	36.0
	11	50.6	69.7	36.7	61.0	59.0	56.0	55.0	49.0	44.0	36.0	36.0	36.0
	12	54.8	73.2	36.7	67.0	64.0	61.0	58.0	52.0	45.0	39.0	38.0	36.0
	13	56.6	81.3	36.7	69.0	66.0	62.0	58.0	50.0	43.0	38.0	36.0	36.0
	14	52.4	75.8	36.7	63.0	60.0	57.0	55.0	50.0	45.0	39.0	39.0	38.0
	15	53.4	72.8	36.7	65.0	63.0	59.0	57.0	50.0	46.0	39.0	39.0	38.0
	16	53.5	78.8	39.6	65.0	62.0	56.0	54.0	48.0	45.0	42.0	41.0	39.0
	17	55.4	80.6	41.4	65.0	61.0	56.0	54.0	51.0	49.0	45.0	43.0	42.0
	18	51.7	67.4	43.6	62.0	60.0	56.0	54.0	50.0	48.0	45.0	45.0	44.0
	19	51.2	71.8	41.4	61.0	59.0	57.0	54.0	50.0	47.0	43.0	43.0	42.0
	20	51.3	70.8	45.1	60.0	56.0	53.0	52.0	50.0	49.0	47.0	46.0	46.0
	21	51.1	68.3	43.8	60.0	57.0	54.0	53.0	50.0	49.0	47.0	46.0	45.0
Night	22	50.4	61.2	44.1	56.0	55.0	54.0	53.0	51.0	49.0	46.0	46.0	45.0
	23	49.4	67.6	39.7	58.0	55.0	53.0	52.0	49.0	46.0	42.0	42.0	41.0

24-Hour Noise Level Measurement Summary

Project Name: Legado

JN: 8728

Location: L6 - Located south of the Project site adjacent to the baseball and athletic fields of Hans Christensen Middle School on Chambers Avenue.

Analyst: A. Wolfe

Date: 11/8/2017

Energy Average Leq

24-Hour

Day

Night

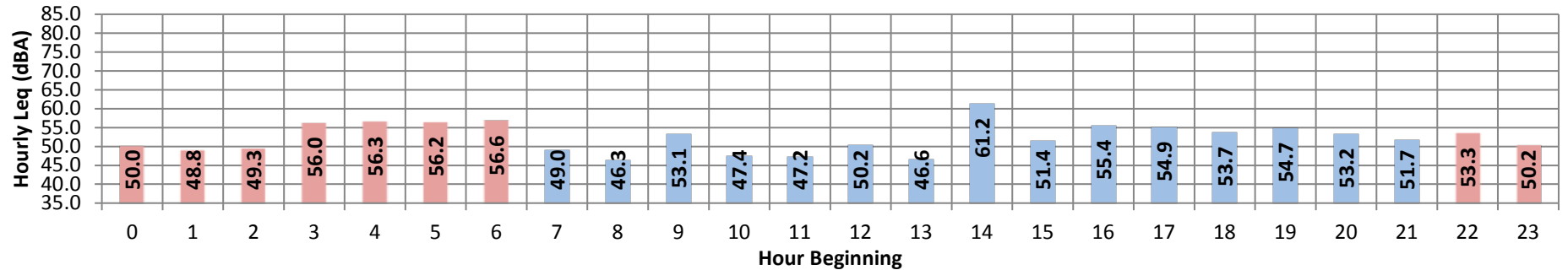
CNEL

53.8

54.0

60.6

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	46.3	61.2	38.2	55.0	53.0	50.0	49.0	44.0	42.0	40.0	40.0	38.0
	Max	61.2	77.0	49.2	66.0	65.0	64.0	63.0	63.0	62.0	51.0	51.0	50.0
Energy Average:		53.8	Average:		59.0	57.2	55.1	53.9	50.9	48.9	45.1	44.4	43.4
Night	Min	48.8	58.0	40.5	53.0	52.0	51.0	51.0	49.0	48.0	45.0	44.0	43.0
	Max	56.6	69.7	50.2	68.0	68.0	59.0	59.0	57.0	56.0	53.0	52.0	51.0
Energy Average:		54.0	Average:		58.2	57.4	55.1	54.6	52.9	51.2	48.0	47.2	46.1
Hourly Summary													
Night	0	50.0	60.3	40.5	55.0	54.0	53.0	52.0	51.0	49.0	45.0	44.0	43.0
	1	48.8	59.1	42.1	53.0	52.0	51.0	51.0	49.0	48.0	45.0	44.0	43.0
	2	49.3	58.0	41.2	54.0	53.0	52.0	52.0	50.0	48.0	45.0	44.0	43.0
	3	56.0	69.0	44.0	68.0	68.0	55.0	54.0	52.0	50.0	47.0	46.0	45.0
	4	56.3	62.5	50.2	59.0	59.0	59.0	58.0	57.0	55.0	53.0	52.0	51.0
	5	56.2	64.6	48.5	61.0	60.0	59.0	58.0	56.0	55.0	52.0	50.0	49.0
Day	6	56.6	67.1	49.7	61.0	60.0	59.0	59.0	57.0	56.0	51.0	51.0	50.0
	7	49.0	64.0	39.9	57.0	55.0	53.0	51.0	49.0	47.0	42.0	41.0	41.0
	8	46.3	61.2	39.9	56.0	54.0	52.0	51.0	44.0	42.0	41.0	40.0	40.0
	9	53.1	77.0	39.8	64.0	60.0	56.0	54.0	48.0	43.0	41.0	40.0	39.0
	10	47.4	61.2	39.8	56.0	55.0	53.0	52.0	46.0	43.0	41.0	40.0	40.0
	11	47.2	65.4	38.2	56.0	54.0	51.0	50.0	45.0	42.0	40.0	40.0	38.0
	12	50.2	67.5	39.9	61.0	59.0	55.0	53.0	48.0	45.0	42.0	41.0	40.0
	13	46.6	63.3	39.9	55.0	53.0	50.0	49.0	46.0	44.0	42.0	41.0	41.0
	14	61.2	75.6	42.1	66.0	65.0	64.0	63.0	63.0	62.0	44.0	43.0	42.0
	15	51.4	68.7	42.9	60.0	57.0	55.0	54.0	52.0	49.0	45.0	44.0	43.0
	16	55.4	71.3	46.0	64.0	62.0	59.0	58.0	55.0	53.0	50.0	49.0	48.0
	17	54.9	68.2	45.2	59.0	58.0	57.0	56.0	55.0	54.0	49.0	48.0	46.0
	18	53.7	63.9	47.3	59.0	57.0	56.0	55.0	54.0	53.0	50.0	50.0	48.0
	19	54.7	75.3	49.2	58.0	57.0	56.0	55.0	54.0	53.0	51.0	51.0	50.0
	20	53.2	66.7	48.9	57.0	56.0	55.0	55.0	53.0	52.0	50.0	50.0	49.0
	21	51.7	61.9	45.2	57.0	56.0	54.0	53.0	52.0	51.0	48.0	48.0	46.0
Night	22	53.3	61.9	46.2	58.0	57.0	56.0	55.0	54.0	52.0	49.0	49.0	48.0
	23	50.2	69.7	41.1	55.0	54.0	52.0	52.0	50.0	48.0	45.0	45.0	43.0

24-Hour Noise Level Measurement Summary

Project Name: Legado

JN: 8728

Location: L7 - Located south of the Project site adjacent to the Bell Air Estates mobile home park and Life Care Center.

Analyst: A. Wolfe

Date: 11/8/2017

Energy Average Leq

24-Hour

Day

Night

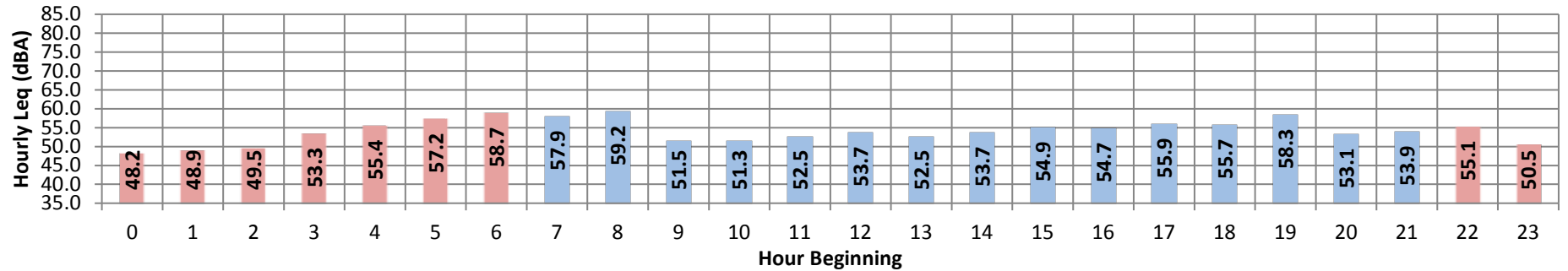
CNEL

55.3

54.4

61.3

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	51.3	59.7	44.0	56.0	56.0	54.0	53.0	51.0	49.0	47.0	46.0	45.0
	Max	59.2	84.1	51.1	71.0	68.0	65.0	64.0	57.0	56.0	54.0	53.0	52.0
Energy Average:		55.3	Average:		60.7	59.4	57.4	56.9	53.9	52.1	49.5	48.7	47.7
Night	Min	48.2	58.4	39.4	54.0	53.0	51.0	50.0	48.0	47.0	43.0	43.0	41.0
	Max	58.7	78.5	52.7	70.0	67.0	61.0	59.0	57.0	56.0	55.0	54.0	53.0
Energy Average:		54.4	Average:		58.8	57.6	55.6	54.9	52.9	51.2	48.1	47.6	46.1
Hourly Summary													
Night	0	48.2	58.4	41.0	54.0	53.0	51.0	50.0	48.0	47.0	44.0	44.0	42.0
	1	48.9	62.4	39.4	56.0	54.0	53.0	52.0	49.0	47.0	43.0	43.0	41.0
	2	49.5	68.7	40.5	56.0	54.0	52.0	51.0	49.0	47.0	44.0	43.0	41.0
	3	53.3	62.4	44.0	58.0	57.0	56.0	56.0	54.0	52.0	48.0	47.0	45.0
	4	55.4	63.9	51.1	58.0	58.0	57.0	57.0	56.0	55.0	53.0	52.0	52.0
	5	57.2	64.5	52.7	60.0	60.0	59.0	58.0	57.0	56.0	55.0	54.0	53.0
Day	6	58.7	78.5	49.6	70.0	67.0	61.0	59.0	57.0	55.0	51.0	51.0	50.0
	7	57.9	78.2	46.3	67.0	66.0	65.0	64.0	53.0	51.0	49.0	48.0	47.0
	8	59.2	81.8	45.2	71.0	68.0	63.0	61.0	55.0	51.0	48.0	47.0	46.0
	9	51.5	66.2	45.2	59.0	57.0	55.0	54.0	51.0	49.0	47.0	46.0	46.0
	10	51.3	63.9	44.3	59.0	58.0	55.0	54.0	51.0	49.0	47.0	46.0	45.0
	11	52.5	72.6	44.0	59.0	57.0	54.0	53.0	51.0	49.0	47.0	46.0	45.0
	12	53.7	66.2	46.0	61.0	60.0	58.0	57.0	53.0	51.0	49.0	48.0	47.0
	13	52.5	64.6	45.9	58.0	57.0	55.0	55.0	53.0	51.0	48.0	48.0	47.0
	14	53.7	69.8	46.4	62.0	59.0	57.0	56.0	53.0	52.0	49.0	48.0	47.0
	15	54.9	66.7	49.5	60.0	59.0	57.0	57.0	55.0	54.0	52.0	51.0	50.0
	16	54.7	70.8	48.0	61.0	59.0	57.0	57.0	55.0	53.0	50.0	50.0	49.0
	17	55.9	63.0	47.6	59.0	59.0	58.0	58.0	57.0	55.0	51.0	50.0	48.0
	18	55.7	65.2	49.9	59.0	59.0	58.0	58.0	56.0	55.0	52.0	51.0	50.0
	19	58.3	84.1	51.1	60.0	59.0	58.0	58.0	57.0	56.0	54.0	53.0	52.0
	20	53.1	59.7	48.6	56.0	56.0	55.0	55.0	54.0	52.0	50.0	50.0	49.0
	21	53.9	67.2	46.5	59.0	58.0	56.0	56.0	54.0	53.0	50.0	49.0	48.0
Night	22	55.1	75.6	44.2	60.0	59.0	58.0	58.0	56.0	53.0	49.0	48.0	47.0
	23	50.5	65.7	43.2	57.0	56.0	53.0	53.0	50.0	49.0	46.0	46.0	44.0

24-Hour Noise Level Measurement Summary

Project Name: Legado

JN: 8728

Energy Average Leq

24-Hour

Location: L8 - Located west of the Project site across Interstate 215 on Bradley Road near an existing mobile home park and residential homes.

Analyst: A. Wolfe

Day

Night

CNEL

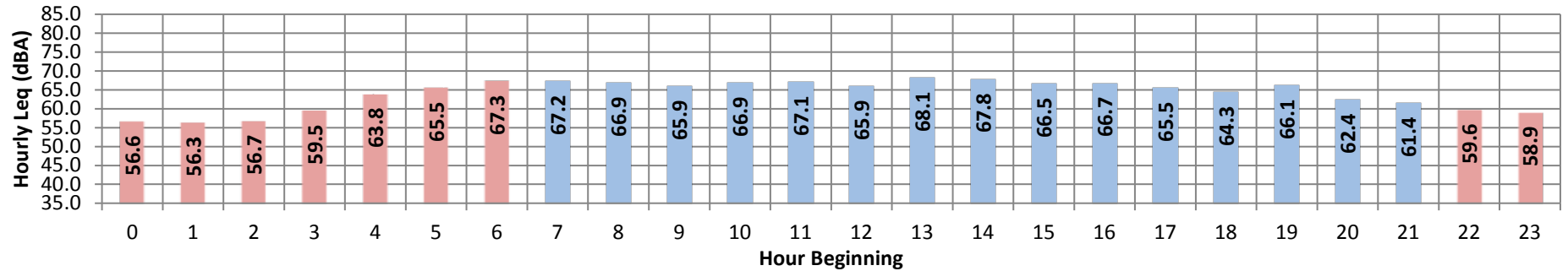
Date: 11/8/2017

66.2

62.3

69.8

Hourly Leq dBA Readings (unadjusted)



Time Period	Hour	Leq	Lmax	Lmin	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	61.4	80.0	49.5	71.0	69.0	66.0	64.0	60.0	58.0	55.0	54.0	52.0
	Max	68.1	95.9	56.7	77.0	74.0	72.0	71.0	67.0	64.0	61.0	60.0	59.0
Energy Average:		66.2	Average:		73.8	72.2	70.1	69.0	64.8	61.9	58.6	57.7	56.1
Night	Min	56.3	74.8	41.1	64.0	63.0	60.0	59.0	54.0	51.0	46.0	44.0	42.0
	Max	67.3	92.4	56.8	74.0	73.0	71.0	70.0	65.0	63.0	61.0	60.0	59.0
Energy Average:		62.3	Average:		68.9	66.6	63.9	62.7	59.1	57.0	53.1	52.0	50.1
Hourly Summary													
Night	0	56.6	74.8	42.4	67.0	63.0	60.0	59.0	55.0	53.0	49.0	48.0	46.0
	1	56.3	81.2	41.1	66.0	63.0	60.0	59.0	54.0	51.0	46.0	44.0	42.0
	2	56.7	76.1	43.5	64.0	63.0	61.0	60.0	56.0	53.0	48.0	47.0	44.0
	3	59.5	75.0	46.3	69.0	65.0	63.0	62.0	59.0	57.0	52.0	51.0	49.0
	4	63.8	82.7	51.2	72.0	70.0	66.0	65.0	63.0	62.0	58.0	57.0	55.0
	5	65.5	87.4	56.7	73.0	72.0	69.0	67.0	65.0	63.0	60.0	59.0	58.0
Day	6	67.3	92.4	56.8	74.0	73.0	71.0	70.0	65.0	63.0	61.0	60.0	59.0
	7	67.2	83.8	55.8	75.0	74.0	72.0	71.0	67.0	64.0	61.0	60.0	58.0
	8	66.9	88.0	55.8	75.0	74.0	71.0	70.0	66.0	63.0	59.0	58.0	57.0
	9	65.9	82.2	52.0	74.0	72.0	71.0	70.0	66.0	62.0	59.0	58.0	56.0
	10	66.9	87.2	55.0	76.0	73.0	71.0	70.0	66.0	63.0	59.0	58.0	56.0
	11	67.1	90.4	54.5	75.0	73.0	71.0	70.0	66.0	63.0	59.0	58.0	56.0
	12	65.9	80.7	55.0	73.0	72.0	71.0	70.0	66.0	63.0	59.0	58.0	57.0
	13	68.1	95.9	53.6	74.0	73.0	71.0	70.0	65.0	62.0	59.0	58.0	56.0
	14	67.8	90.0	56.7	77.0	74.0	72.0	71.0	66.0	63.0	60.0	59.0	58.0
	15	66.5	83.7	53.9	74.0	73.0	71.0	70.0	66.0	63.0	60.0	59.0	57.0
	16	66.7	88.8	56.2	74.0	73.0	71.0	70.0	66.0	63.0	60.0	60.0	59.0
	17	65.5	80.0	55.9	73.0	72.0	70.0	69.0	65.0	62.0	59.0	58.0	57.0
	18	64.3	80.3	53.0	72.0	71.0	69.0	68.0	64.0	61.0	58.0	57.0	56.0
	19	66.1	94.1	52.8	72.0	70.0	68.0	67.0	62.0	60.0	57.0	56.0	54.0
	20	62.4	82.6	49.5	72.0	70.0	67.0	65.0	61.0	59.0	55.0	54.0	52.0
	21	61.4	80.6	49.6	71.0	69.0	66.0	64.0	60.0	58.0	55.0	54.0	52.0
Night	22	59.6	81.5	47.2	68.0	66.0	63.0	61.0	58.0	56.0	53.0	52.0	50.0
	23	58.9	83.1	47.4	67.0	64.0	62.0	61.0	57.0	55.0	51.0	50.0	48.0

APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 92,550 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,255 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Heavy Trucks (3+ Axles): 15				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.36	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.28	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.49	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.4	77.5	75.8	69.7	78.3	78.9			
Medium Trucks:	78.0	76.5	70.1	68.6	77.0	77.3			
Heavy Trucks:	80.8	79.4	70.3	71.6	79.9	80.1			
Vehicle Noise:	84.3	82.7	77.7	74.9	83.4	83.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				623	1,343	2,894	6,234		
CNEL:				653	1,408	3,033	6,534		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 94,120 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,412 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.44	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.21	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.42	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.5	77.6	75.8	69.8	78.4	79.0			
Medium Trucks:	78.1	76.6	70.2	68.6	77.1	77.3			
Heavy Trucks:	80.9	79.5	70.4	71.7	80.0	80.1			
Vehicle Noise:	84.4	82.8	77.8	75.0	83.4	83.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			630	1,358	2,926	6,304			
CNEL:			661	1,424	3,067	6,608			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 96,090 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,609 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.53	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.12	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.33	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.6	77.7	75.9	69.9	78.5	79.1			
Medium Trucks:	78.2	76.6	70.3	68.7	77.2	77.4			
Heavy Trucks:	81.0	79.5	70.5	71.8	80.1	80.2			
Vehicle Noise:	84.5	82.9	77.9	75.1	83.5	83.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				639	1,377	2,967	6,392		
CNEL:				670	1,443	3,110	6,700		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 360 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-7.26	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-24.50	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-28.45	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.7	60.8	59.0	53.0	61.6	62.2			
Medium Trucks:	56.1	54.6	48.2	46.7	55.2	55.4			
Heavy Trucks:	56.1	54.7	45.7	46.9	55.3	55.4			
Vehicle Noise:	64.3	62.5	59.6	54.7	63.2	63.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			21	45	97	209			
CNEL:			23	48	104	225			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing Without Project Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		3,300 vehicles		Autos:		15	
Peak Hour Percentage:		10%		Medium Trucks (2 Axles):		15	
Peak Hour Volume:		330 vehicles		Heavy Trucks (3+ Axles):		15	
Vehicle Speed:		55 mph					
Near/Far Lane Distance:		48 feet					
Site Data				Vehicle Mix			
Barrier Height:		0.0 feet		Autos:		77.5% 12.9% 9.6% 97.42%	
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		84.8% 4.9% 10.3% 1.84%	
Centerline Dist. to Barrier:		59.0 feet		Heavy Trucks:		86.5% 2.7% 10.8% 0.74%	
Centerline Dist. to Observer:		59.0 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					
Road Grade:		0.0%					
Left View:		-90.0 degrees					
Right View:		90.0 degrees					
				Noise Source Elevations (in feet)			
				Autos:		0.000	
				Medium Trucks:		2.297	
				Heavy Trucks:		8.006 Grade Adjustment: 0.0	
				Lane Equivalent Distance (in feet)			
				Autos:		54.129	
				Medium Trucks:		53.966	
				Heavy Trucks:		53.982	
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-7.64	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-24.88	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-28.83	-0.60	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	62.3	60.4	58.7	52.6	61.2	61.8	
Medium Trucks:	55.7	54.2	47.9	46.3	54.8	55.0	
Heavy Trucks:	55.8	54.3	45.3	46.6	54.9	55.0	
Vehicle Noise:	63.9	62.1	59.2	54.3	62.9	63.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			20	43	92	197	
CNEL:			21	46	99	212	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Encanto Dr. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 4,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 470 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		54.129			
					Medium Trucks:		53.966			
					Heavy Trucks:		53.982			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-6.10	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	82.40	-23.34	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-27.30	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	63.9	62.0	60.2	54.1	62.8	63.4				
Medium Trucks:	57.3	55.8	49.4	47.8	56.3	56.5				
Heavy Trucks:	57.3	55.9	46.8	48.1	56.4	56.6				
Vehicle Noise:	65.4	63.7	60.7	55.9	64.4	64.9				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				25	54	116	250			
CNEL:				27	58	125	269			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 500 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-3.87	-0.62	-1.20	-4.69	0.000	0.000	0.000	
Medium Trucks:	75.75	-21.11	-0.60	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	81.57	-25.06	-0.60	-1.20	-5.35	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	58.6	56.7	54.9	48.9	57.5	58.1			
Medium Trucks:	52.8	51.3	45.0	43.4	51.9	52.1			
Heavy Trucks:	54.7	53.3	44.2	45.5	53.8	54.0			
Vehicle Noise:	60.8	59.1	55.7	51.3	59.8	60.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			12	27	57	124			
CNEL:			13	28	61	132			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing Without Project Road Name: Sherman Rd. Road Segment: s/o SR-74				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 380 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-6.15	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-23.39	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-27.35	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	60.5	58.6	56.8	50.8	59.4	60.0		
Medium Trucks:	54.3	52.7	46.4	44.8	53.3	53.5		
Heavy Trucks:	55.1	53.7	44.6	45.9	54.2	54.4		
Vehicle Noise:	62.3	60.6	57.4	52.8	61.3	61.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			16	33	72	155		
CNEL:			17	36	77	166		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		400 vehicles			Autos:		15		
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		40 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		45 mph							
Near/Far Lane Distance:		48 feet							
Site Data					Vehicle Mix				
Barrier Height:		0.0 feet			Autos:		77.5%		12.9%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%		4.9%
Centerline Dist. to Barrier:		59.0 feet			Heavy Trucks:		86.5%		2.7%
Centerline Dist. to Observer:		59.0 feet					10.8%		97.42%
Barrier Distance to Observer:		0.0 feet							1.84%
Observer Height (Above Pad):		5.0 feet							0.74%
Pad Elevation:		0.0 feet							
Road Elevation:		0.0 feet							
Road Grade:		0.0%							
Left View:		-90.0 degrees							
Right View:		90.0 degrees							
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-15.93	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-33.17	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-37.12	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)					Lane Equivalent Distance (in feet)				
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	50.7	48.8	47.0	41.0	49.6	50.2			
Medium Trucks:	44.5	43.0	36.6	35.1	43.5	43.8			
Heavy Trucks:	45.3	43.9	34.9	36.1	44.5	44.6			
Vehicle Noise:	52.6	50.8	47.7	43.0	51.5	52.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				3	7	16	35		
CNEL:				4	8	17	37		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-21.95	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-39.19	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-43.15	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	44.7	42.8	41.0	35.0	43.6	44.2			
Medium Trucks:	38.5	37.0	30.6	29.0	37.5	37.7			
Heavy Trucks:	39.3	37.9	28.8	30.1	38.5	38.6			
Vehicle Noise:	46.5	44.8	41.6	37.0	45.5	46.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			1	3	6	14			
CNEL:			1	3	7	15			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		600 vehicles			Autos:		15		
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		60 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		40 mph							
Near/Far Lane Distance:		45 feet							
Site Data					Vehicle Mix				
Barrier Height:		0.0 feet			Autos:		77.5%		12.9%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%		4.9%
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		86.5%		2.7%
Centerline Dist. to Observer:		50.0 feet					10.8%		0.74%
Barrier Distance to Observer:		0.0 feet							
Observer Height (Above Pad):		5.0 feet			Autos:		0.000		
Pad Elevation:		0.0 feet			Medium Trucks:		2.297		
Road Elevation:		0.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0
Road Grade:		0.0%							
Left View:		-90.0 degrees							
Right View:		90.0 degrees							
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
Vehicle Type		REMEEL		Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:		66.51		-13.66	0.59	-1.20	-4.65	0.000	0.000
Medium Trucks:		77.72		-30.90	0.62	-1.20	-4.87	0.000	0.000
Heavy Trucks:		82.99		-34.85	0.62	-1.20	-5.43	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type		Leq Peak Hour		Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:		52.2		50.3	48.6	42.5	51.1	51.8	
Medium Trucks:		46.2		44.7	38.4	36.8	45.3	45.5	
Heavy Trucks:		47.6		46.1	37.1	38.4	46.7	46.8	
Vehicle Noise:		54.3		52.5	49.3	44.7	53.2	53.7	
Centerline Distance to Noise Contour (in feet)									
					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					4	8	18	38	
CNEL:					4	9	19	41	
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Antelope Rd. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-21.44	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	77.72	-38.68	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	82.99	-42.63	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	43.3	41.4	39.6	33.5	42.2	42.8			
Medium Trucks:	37.2	35.7	29.4	27.8	36.3	36.5			
Heavy Trucks:	38.6	37.1	28.1	29.3	37.7	37.8			
Vehicle Noise:	45.3	43.5	40.3	35.7	44.2	44.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			1	2	5	11			
CNEL:			1	3	6	12			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 220 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 37.0 feet Centerline Dist. to Observer: 37.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 36.851 Medium Trucks: 36.610 Heavy Trucks: 36.634				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-8.02	1.88	-1.20	-4.56	0.000	0.000		
Medium Trucks:	77.72	-25.25	1.93	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-29.21	1.92	-1.20	-5.61	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	59.2	57.3	55.5	49.5	58.1		58.7		
Medium Trucks:	53.2	51.7	45.3	43.8	52.2		52.5		
Heavy Trucks:	54.5	53.1	44.1	45.3	53.7		53.8		
Vehicle Noise:	61.2	59.5	56.2	51.6	60.2		60.6		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				8	18	38	82		
CNEL:				9	19	41	88		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 660 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-4.63	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-21.87	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-25.82	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.1	62.2	60.4	54.4	63.0	63.6			
Medium Trucks:	57.5	56.0	49.6	48.1	56.5	56.8			
Heavy Trucks:	57.5	56.1	47.1	48.3	56.7	56.8			
Vehicle Noise:	65.7	63.9	61.0	56.1	64.6	65.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			33	72	155	334			
CNEL:			36	77	167	359			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,120 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 78 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 76.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 76.0 feet									
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet									
Road Grade: 0.0%					Noise Source Elevations (in feet)				
Left View: -90.0 degrees					Autos: 0.000				
Right View: 90.0 degrees					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.33	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-19.57	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.52	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.4	64.5	62.7	56.7	65.3	65.9			
Medium Trucks:	59.8	58.3	51.9	50.4	58.8	59.1			
Heavy Trucks:	59.8	58.4	49.4	50.6	59.0	59.1			
Vehicle Noise:	68.0	66.2	63.3	58.4	66.9	67.4			
Centerline Distance to Noise Contour (in feet)									
		70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:	48	102	221	475					
CNEL:	51	110	237	511					
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,160 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.18	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-19.42	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.37	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.5	64.6	62.9	56.8	65.5	66.1			
Medium Trucks:	59.9	58.4	52.1	50.5	59.0	59.2			
Heavy Trucks:	60.0	58.6	49.5	50.8	59.1	59.3			
Vehicle Noise:	68.1	66.4	63.4	58.5	67.1	67.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			49	105	226	486			
CNEL:			52	113	243	523			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: SR-74 Road Segment: elo I-215					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 32,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,240 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006					Grade Adjustment: 0.0
					Lane Equivalent Distance (in feet)					
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	70.20	2.70	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	81.00	-14.54	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	85.38	-18.50	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	71.1	69.2	67.4	61.4	70.0	70.6				
Medium Trucks:	64.7	63.2	56.8	55.2	63.7	63.9				
Heavy Trucks:	65.1	63.7	54.6	55.9	64.2	64.4				
Vehicle Noise:	72.8	71.0	68.0	63.2	71.7	72.2				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				77	166	358	772			
CNEL:				83	179	385	829			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,360 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 59.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 54.129				
Road Grade: 0.0%					Medium Trucks: 53.966				
Left View: -90.0 degrees					Heavy Trucks: 53.982				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.32	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-15.92	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-19.87	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.7	67.8	66.0	60.0	68.6	69.2			
Medium Trucks:	63.3	61.8	55.4	53.9	62.3	62.6			
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8	63.0			
Vehicle Noise:	71.4	69.7	66.6	61.8	70.4	70.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				62	135	290	625		
CNEL:				67	145	311	671		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,550 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.11	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-15.12	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-19.08	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.8	66.9	65.1	59.0	67.7	68.3			
Medium Trucks:	62.5	61.0	54.7	53.1	61.6	61.8			
Heavy Trucks:	63.4	61.9	52.9	54.2	62.5	62.6			
Vehicle Noise:	70.6	68.9	65.7	61.0	69.6	70.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				55	119	256	552		
CNEL:				59	128	275	592		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,570 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	1.80	-3.18	-1.20	-4.77	0.000	0.000	0.000	
Medium Trucks:	79.45	-10.33	-3.17	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	84.25	-11.21	-3.17	-1.20	-5.16	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.9	64.0	62.2	56.2	64.8	65.4			
Medium Trucks:	64.7	63.2	56.9	55.3	63.8	64.0			
Heavy Trucks:	68.7	67.3	58.2	59.5	67.8	68.0			
Vehicle Noise:	71.5	70.0	64.5	62.1	70.6	70.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			110	236	508	1,095			
CNEL:			114	246	531	1,143			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,570 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.35	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-10.79	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-11.66	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.2	65.3	63.5	57.5	66.1	66.7			
Medium Trucks:	65.8	64.3	58.0	56.4	64.9	65.1			
Heavy Trucks:	69.3	67.9	58.9	60.1	68.5	68.6			
Vehicle Noise:	72.5	70.9	65.6	63.1	71.5	71.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			126	272	586	1,263			
CNEL:			132	285	613	1,321			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,250 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.37	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-9.77	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-10.64	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.2	66.3	64.5	58.5	67.1	67.7			
Medium Trucks:	66.9	65.4	59.0	57.4	65.9	66.1			
Heavy Trucks:	70.4	68.9	59.9	61.2	69.5	69.6			
Vehicle Noise:	73.5	71.9	66.6	64.1	72.5	72.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			148	318	686	1,477			
CNEL:			154	333	717	1,545			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 230 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-9.14	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-21.27	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-22.15	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.7	54.8	53.0	47.0	55.6	56.2			
Medium Trucks:	55.4	53.8	47.5	45.9	54.4	54.6			
Heavy Trucks:	58.9	57.4	48.4	49.7	58.0	58.1			
Vehicle Noise:	62.0	60.4	55.1	52.6	61.0	61.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				25	54	117	253		
CNEL:				26	57	123	264		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,250 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-1.78	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-13.92	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-14.79	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.0	62.1	60.4	54.3	62.9	63.6			
Medium Trucks:	62.7	61.2	54.8	53.3	61.8	62.0			
Heavy Trucks:	66.2	64.8	55.8	57.0	65.4	65.5			
Vehicle Noise:	69.3	67.8	62.5	59.9	68.4	68.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			78	168	363	781			
CNEL:			82	176	379	817			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,460 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos:	77.5%	12.9%	9.6%	90.00%
					Medium Trucks:	84.8%	4.9%	10.3%	5.50%
					Heavy Trucks:	86.5%	2.7%	10.8%	4.50%
					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.006	Grade Adjustment: 0.0		
					Lane Equivalent Distance (in feet)				
					Autos:	80.156			
					Medium Trucks:	80.046			
					Heavy Trucks:	80.056			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-1.11	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-13.25	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-14.12	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.7	62.8	61.1	55.0	63.6	64.2			
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.7			
Heavy Trucks:	66.9	65.5	56.4	57.7	66.0	66.2			
Vehicle Noise:	70.0	68.4	63.2	60.6	69.1	69.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			87	187	402	866			
CNEL:			91	195	421	906			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 10,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,080 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	90.00%
					Medium Trucks:		84.8%	4.9%	10.3%	5.50%
					Heavy Trucks:		86.5%	2.7%	10.8%	4.50%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)					
					Autos:		80.156			
					Medium Trucks:		80.046			
					Heavy Trucks:		80.056			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	-1.96	-3.18	-1.20	-4.77	0.000	0.000			
Medium Trucks:	79.45	-14.10	-3.17	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-14.97	-3.17	-1.20	-5.16	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	62.1	60.2	58.5	52.4	61.0	61.6				
Medium Trucks:	61.0	59.5	53.1	51.6	60.0	60.3				
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2				
Vehicle Noise:	67.8	66.2	60.7	58.4	66.8	67.1				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				61	132	285	615			
CNEL:				64	138	298	642			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,300 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 730 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 120 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 100.0 feet					Daily				
Centerline Dist. to Observer: 100.0 feet					Autos: 77.5% 12.9% 9.6% 90.00%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-3.66	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-15.80	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-16.67	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	60.4	58.5	56.8	50.7	59.3		59.9		
Medium Trucks:	59.3	57.8	51.4	49.9	58.3		58.6		
Heavy Trucks:	63.2	61.8	52.8	54.0	62.4		62.5		
Vehicle Noise:	66.1	64.5	59.0	56.7	65.1		65.4		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				47	102	220	473		
CNEL:				49	106	229	494		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 1,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 190 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-6.61	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	70.80	-23.85	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	77.97	-27.80	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	51.5	49.6	47.9	41.8	50.4	51.0		51.0	
Medium Trucks:	46.4	44.9	38.5	37.0	45.4	45.6		45.6	
Heavy Trucks:	49.6	48.2	39.1	40.4	48.7	48.9		48.9	
Vehicle Noise:	54.4	52.7	48.8	44.9	53.4	53.8		53.8	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				4	8	18	39		
CNEL:				4	9	19	42		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Rouse Rd. Road Segment: elo Street A					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		700 vehicles			Autos:		15		
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		70 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		25 mph			Vehicle Mix				
Near/Far Lane Distance:		45 feet							
Site Data					VehicleType				
Barrier Height:		0.0 feet			Autos:		77.5%		12.9%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%		4.9%
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		86.5%		2.7%
Centerline Dist. to Observer:		50.0 feet					10.8%		0.74%
Barrier Distance to Observer:		0.0 feet			Noise Source Elevations (in feet)				
Observer Height (Above Pad):		5.0 feet			Autos:		0.000		
Pad Elevation:		0.0 feet			Medium Trucks:		2.297		
Road Elevation:		0.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0
Road Grade:		0.0%			Lane Equivalent Distance (in feet)				
Left View:		-90.0 degrees			Autos:		44.931		
Right View:		90.0 degrees			Medium Trucks:		44.733		
					Heavy Trucks:		44.752		
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-10.95	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-28.19	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-32.14	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	47.2	45.3	43.5	37.5	46.1	46.7			
Medium Trucks:	42.0	40.5	34.2	32.6	41.1	41.3			
Heavy Trucks:	45.3	43.8	34.8	36.0	44.4	44.5			
Vehicle Noise:	50.1	48.4	44.5	40.6	49.1	49.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				2	4	9	20		
CNEL:				2	5	10	21		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		500 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		50 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet								
Site Data					VehicleType		Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0=Wall, 1=Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006			
					Grade Adjustment:		0.0			
					Lane Equivalent Distance (in feet)					
					Autos:		44.931			
					Medium Trucks:		44.733			
					Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-12.41	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-29.65	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-33.60	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	45.7	43.8	42.1	36.0	44.6	45.2				
Medium Trucks:	40.6	39.1	32.7	31.2	39.6	39.8				
Heavy Trucks:	43.8	42.4	33.3	34.6	42.9	43.1				
Vehicle Noise:	48.6	46.9	43.0	39.1	47.6	48.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				2	3	7	16			
CNEL:				2	4	8	17			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet								
Site Data					VehicleType					
Barrier Height:		0.0 feet			Autos:		77.5%	12.9%	9.6%	97.42%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Observer:		50.0 feet			Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet								
Observer Height (Above Pad):		5.0 feet			Autos:		0.000			
Pad Elevation:		0.0 feet			Medium Trucks:		2.297			
Road Elevation:		0.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Road Grade:		0.0%			Lane Equivalent Distance (in feet)					
Left View:		-90.0 degrees								
Right View:		90.0 degrees			Autos:		44.931			
					Medium Trucks:		44.733			
					Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000	0.000		
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000	0.000		
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	38.7	36.8	35.1	29.0	37.6	38.2				
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9				
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1				
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	1	3	6			
CNEL:				1	1	3	6			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Chambers Av. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		500 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		50 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		77.5%	12.9%	9.6%	97.42%
Barrier Height:		0.0 feet			Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:		50.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet			Autos:		44.931			
Road Grade:		0.0%			Medium Trucks:		44.733			
Left View:		-90.0 degrees			Heavy Trucks:		44.752			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-12.41	0.59	-1.20	-4.65	0.000		0.000		
Medium Trucks:	70.80	-29.65	0.62	-1.20	-4.87	0.000		0.000		
Heavy Trucks:	77.97	-33.60	0.62	-1.20	-5.43	0.000		0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL			
Autos:	45.7	43.8	42.1	36.0	44.6		45.2			
Medium Trucks:	40.6	39.1	32.7	31.2	39.6		39.8			
Heavy Trucks:	43.8	42.4	33.3	34.6	42.9		43.1			
Vehicle Noise:	48.6	46.9	43.0	39.1	47.6		48.0			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				2	3	7	16			
CNEL:				2	4	8	17			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: Chambers Av. Road Segment: elo Street C					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph								
Near/Far Lane Distance:		45 feet			Vehicle Mix					
Site Data					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 44.931					
					Medium Trucks: 44.733 Heavy Trucks: 44.752					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:		58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:		70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:		77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:		38.7	36.8	35.1	29.0	37.6	38.2			
Medium Trucks:		33.6	32.1	25.7	24.2	32.6	32.9			
Heavy Trucks:		36.8	35.4	26.3	27.6	35.9	36.1			
Vehicle Noise:		41.6	39.9	36.0	32.1	40.6	41.0			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	1	3	6			
CNEL:				1	1	3	6			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 14,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,400 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	0.60	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	75.75	-16.64	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	81.57	-20.59	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	63.1	61.2	59.4	53.4	62.0	62.6				
Medium Trucks:	57.3	55.8	49.4	47.9	56.4	56.6				
Heavy Trucks:	59.2	57.8	48.7	50.0	58.3	58.4				
Vehicle Noise:	65.3	63.6	60.2	55.8	64.3	64.7				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			25	53	114	246				
CNEL:			26	57	122	263				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: McCall Bl. Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,410 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 76.0 feet					Daily				
Centerline Dist. to Observer: 76.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006				
Right View: 90.0 degrees					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	1.87	-1.85	-1.20	-4.73	0.000	0.000		0.000
Medium Trucks:	79.45	-15.37	-1.84	-1.20	-4.88	0.000	0.000		0.000
Heavy Trucks:	84.25	-19.33	-1.84	-1.20	-5.25	0.000	0.000		0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	67.3	65.4	63.6	57.6	66.2		66.8		
Medium Trucks:	61.0	59.5	53.2	51.6	60.1		60.3		
Heavy Trucks:	61.9	60.5	51.4	52.7	61.0		61.2		
Vehicle Noise:	69.1	67.4	64.2	59.5	68.1		68.5		
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			57	122	263	566			
CNEL:			61	131	282	608			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing Without Project Road Name: McCall Bl. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 18,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,890 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	0.81	-1.85	-1.20	-4.73	0.000	0.000			
Medium Trucks:	79.45	-16.42	-1.84	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-20.38	-1.84	-1.20	-5.25	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	66.2	64.3	62.6	56.5	65.1	65.7				
Medium Trucks:	60.0	58.5	52.1	50.6	59.0	59.3				
Heavy Trucks:	60.8	59.4	50.4	51.6	60.0	60.1				
Vehicle Noise:	68.1	66.3	63.2	58.5	67.0	67.5				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			48	104	224	482				
CNEL:			52	111	240	517				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing Without Project Road Name: McCall Bl. Road Segment: e/o Antelope Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,920 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	0.01	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-17.23	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-21.18	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	68.7	66.8	65.1	59.0	67.6	68.2		
Medium Trucks:	62.1	60.6	54.3	52.7	61.2	61.4		
Heavy Trucks:	62.2	60.7	51.7	53.0	61.3	61.4		
Vehicle Noise:	70.3	68.6	65.6	60.7	69.3	69.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			68	147	316	681		
CNEL:			73	158	340	732		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: McCall Bl. Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 810 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.74	-1.85	-1.20	-4.73	0.000		0.000	
Medium Trucks:	82.40	-20.98	-1.84	-1.20	-4.88	0.000		0.000	
Heavy Trucks:	86.40	-24.93	-1.84	-1.20	-5.25	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	65.0	63.1	61.3	55.3	63.9			64.5	
Medium Trucks:	58.4	56.9	50.5	49.0	57.4			57.7	
Heavy Trucks:	58.4	57.0	48.0	49.2	57.6			57.7	
Vehicle Noise:	66.6	64.8	61.9	57.0	65.5			66.0	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				38	82	178	383		
CNEL:				41	89	191	412		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing Without Project Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 380 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-5.64	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	77.72	-22.88	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	82.99	-26.84	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.3	58.4	56.6	50.5	59.2	59.8			
Medium Trucks:	54.3	52.7	46.4	44.8	53.3	53.5			
Heavy Trucks:	55.6	54.2	45.1	46.4	54.7	54.9			
Vehicle Noise:	62.3	60.5	57.3	52.7	61.3	61.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			13	28	61	131			
CNEL:			14	30	65	140			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing Without Project Road Name: Encanto Dr. Road Segment: s/o A Street				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 310 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-7.91	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-25.15	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-29.10	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	62.1	60.2	58.4	52.3	61.0	61.6		
Medium Trucks:	55.5	53.9	47.6	46.0	54.5	54.7		
Heavy Trucks:	55.5	54.1	45.0	46.3	54.6	54.8		
Vehicle Noise:	63.6	61.9	58.9	54.0	62.6	63.1		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			19	41	88	189		
CNEL:			20	44	95	204		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 95,810 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,581 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.51	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.13	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.34	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.6	77.7	75.9	69.9	78.5	79.1			
Medium Trucks:	78.1	76.6	70.3	68.7	77.2	77.4			
Heavy Trucks:	81.0	79.5	70.5	71.7	80.1	80.2			
Vehicle Noise:	84.5	82.9	77.8	75.1	83.5	83.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				638	1,374	2,961	6,379		
CNEL:				669	1,441	3,104	6,687		
Friday, May 24, 2019									

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 97,380 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,738 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.58	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.06	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.27	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.7	77.8	76.0	69.9	78.6	79.2			
Medium Trucks:	78.2	76.7	70.3	68.8	77.3	77.5			
Heavy Trucks:	81.0	79.6	70.6	71.8	80.2	80.3			
Vehicle Noise:	84.6	83.0	77.9	75.1	83.6	83.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			645	1,389	2,993	6,449			
CNEL:			676	1,456	3,138	6,760			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 98,780 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 9,878 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph									
Near/Far Lane Distance: 120 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Centerline Dist. to Barrier: 80.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Observer: 80.0 feet									
Barrier Distance to Observer: 0.0 feet					Noise Source Elevations (in feet)				
Observer Height (Above Pad): 5.0 feet					Autos: 0.000				
Pad Elevation: 0.0 feet					Medium Trucks: 2.297				
Road Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Grade: 0.0%									
Left View: -90.0 degrees					Lane Equivalent Distance (in feet)				
Right View: 90.0 degrees					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.65	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.00	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.21	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.7	77.8	76.0	70.0	78.6	79.2			
Medium Trucks:	78.3	76.8	70.4	68.9	77.3	77.6			
Heavy Trucks:	81.1	79.7	70.6	71.9	80.2	80.4			
Vehicle Noise:	84.6	83.0	78.0	75.2	83.7	84.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				651	1,403	3,022	6,511		
CNEL:				682	1,470	3,168	6,824		

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing With Phase 1
Road Name: I-215
Road Segment: s/o McCall Bl.

Project Name: Legado
Job Number: 8728

SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 98,780 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 9,878 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph									
Near/Far Lane Distance: 120 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Centerline Dist. to Barrier: 80.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Observer: 80.0 feet									
Barrier Distance to Observer: 0.0 feet					Noise Source Elevations (in feet)				
Observer Height (Above Pad): 5.0 feet					Autos: 0.000				
Pad Elevation: 0.0 feet					Medium Trucks: 2.297				
Road Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Grade: 0.0%									
Left View: -90.0 degrees					Lane Equivalent Distance (in feet)				
Right View: 90.0 degrees					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	75.77	5.65	-0.50	-1.20	-4.74	0.000	0.000
Medium Trucks:	85.95	-6.00	-0.48	-1.20	-4.88	0.000	0.000
Heavy Trucks:	88.97	-6.21	-0.48	-1.20	-5.23	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	79.7	77.8	76.0	70.0	78.6	79.2
Medium Trucks:	78.3	76.8	70.4	68.9	77.3	77.6
Heavy Trucks:	81.1	79.7	70.6	71.9	80.2	80.4
Vehicle Noise:	84.6	83.0	78.0	75.2	83.7	84.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	651	1,403	3,022	6,511
CNEL:	682	1,470	3,168	6,824

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 500 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-5.83	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-23.07	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-27.03	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.1	62.2	60.5	54.4	63.0	63.6			
Medium Trucks:	57.5	56.0	49.7	48.1	56.6	56.8			
Heavy Trucks:	57.6	56.1	47.1	48.4	56.7	56.8			
Vehicle Noise:	65.7	63.9	61.0	56.1	64.7	65.1			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	26		56		121		260		
CNEL:	28		60		130		280		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 470 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
Autos: 54.129								
Medium Trucks: 53.966								
Heavy Trucks: 53.982								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-6.10	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-23.34	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-27.30	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	63.9	62.0	60.2	54.1	62.8	63.4		
Medium Trucks:	57.3	55.8	49.4	47.8	56.3	56.5		
Heavy Trucks:	57.3	55.9	46.8	48.1	56.4	56.6		
Vehicle Noise:	65.4	63.7	60.7	55.9	64.4	64.9		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			25	54	116	250		
CNEL:			27	58	125	269		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: Encanto Dr. Road Segment: s/o Chambers Av.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 490 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-5.92	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-23.16	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-27.11	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	64.0	62.1	60.4	54.3	62.9	63.5		
Medium Trucks:	57.4	55.9	49.6	48.0	56.5	56.7		
Heavy Trucks:	57.5	56.1	47.0	48.3	56.6	56.8		
Vehicle Noise:	65.6	63.9	60.9	56.0	64.6	65.1		
Centerline Distance to Noise Contour (in feet)								
				70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:				26	55	119	257	
CNEL:				28	60	128	276	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,300 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 530 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 59.0 feet					Daily				
Centerline Dist. to Observer: 59.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-3.62	-0.62	-1.20	-4.69	0.000	0.000		0.000
Medium Trucks:	75.75	-20.86	-0.60	-1.20	-4.88	0.000	0.000		0.000
Heavy Trucks:	81.57	-24.81	-0.60	-1.20	-5.35	0.000	0.000		0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	58.9	57.0	55.2	49.1	57.8	58.4			
Medium Trucks:	53.1	51.6	45.2	43.7	52.1	52.4			
Heavy Trucks:	55.0	53.5	44.5	45.7	54.1	54.2			
Vehicle Noise:	61.1	59.4	55.9	51.6	60.1	60.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				13	28	60	129		
CNEL:				14	30	64	137		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: Sherman Rd. Road Segment: s/o SR-74				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 380 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-6.15	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-23.39	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-27.35	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	60.5	58.6	56.8	50.8	59.4	60.0		
Medium Trucks:	54.3	52.7	46.4	44.8	53.3	53.5		
Heavy Trucks:	55.1	53.7	44.6	45.9	54.2	54.4		
Vehicle Noise:	62.3	60.6	57.4	52.8	61.3	61.8		
Centerline Distance to Noise Contour (in feet)								
				70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:				16	33	72	155	
CNEL:				17	36	77	166	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 40 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-15.93	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-33.17	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-37.12	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	50.7	48.8	47.0	41.0	49.6	50.2			
Medium Trucks:	44.5	43.0	36.6	35.1	43.5	43.8			
Heavy Trucks:	45.3	43.9	34.9	36.1	44.5	44.6			
Vehicle Noise:	52.6	50.8	47.7	43.0	51.5	52.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				3	7	16	35		
CNEL:				4	8	17	37		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-21.95	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-39.19	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-43.15	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	44.7	42.8	41.0	35.0	43.6	44.2			
Medium Trucks:	38.5	37.0	30.6	29.0	37.5	37.7			
Heavy Trucks:	39.3	37.9	28.8	30.1	38.5	38.6			
Vehicle Noise:	46.5	44.8	41.6	37.0	45.5	46.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			1	3	6	14			
CNEL:			1	3	7	15			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Phase 1 Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		600 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		60 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		77.5%	12.9%	9.6%	97.42%
Barrier Height:		0.0 feet			Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:		50.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet			Autos:		44.931			
Road Grade:		0.0%			Medium Trucks:		44.733			
Left View:		-90.0 degrees			Heavy Trucks:		44.752			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-13.66	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	77.72	-30.90	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	82.99	-34.85	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	52.2	50.3	48.6	42.5	51.1	51.8				
Medium Trucks:	46.2	44.7	38.4	36.8	45.3	45.5				
Heavy Trucks:	47.6	46.1	37.1	38.4	46.7	46.8				
Vehicle Noise:	54.3	52.5	49.3	44.7	53.2	53.7				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			4	8	18	38				
CNEL:			4	9	19	41				
Friday, May 24, 2019										

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Phase 1 Road Name: Antelope Rd. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		40 mph								
Near/Far Lane Distance:		48 feet								
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet					VehicleType		Day	Evening	Night	Daily
Barrier Type (0-Wall, 1-Berm): 0.0					Autos:		77.5%	12.9%	9.6%	97.42%
Centerline Dist. to Barrier: 59.0 feet					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Centerline Dist. to Observer: 59.0 feet					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Barrier Distance to Observer: 0.0 feet					Noise Source Elevations (in feet)					
Observer Height (Above Pad): 5.0 feet					Autos:		0.000			
Pad Elevation: 0.0 feet					Medium Trucks:		2.297			
Road Elevation: 0.0 feet					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Road Grade: 0.0%					Lane Equivalent Distance (in feet)					
Left View: -90.0 degrees					Autos:		54.129			
Right View: 90.0 degrees					Medium Trucks:		53.966			
					Heavy Trucks:		53.982			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-21.44	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	77.72	-38.68	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	82.99	-42.63	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL			
Autos:	43.3	41.4	39.6	33.5	42.2		42.8			
Medium Trucks:	37.2	35.7	29.4	27.8	36.3		36.5			
Heavy Trucks:	38.6	37.1	28.1	29.3	37.7		37.8			
Vehicle Noise:	45.3	43.5	40.3	35.7	44.2		44.7			
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			1	2	5	11				
CNEL:			1	3	6	12				
Friday, May 24, 2019										

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: Existing With Phase 1 Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 2,200 vehicles					Autos: 15						
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15						
Peak Hour Volume: 220 vehicles					Heavy Trucks (3+ Axles): 15						
Vehicle Speed: 40 mph											
Near/Far Lane Distance: 12 feet					Vehicle Mix						
Site Data					VehicleType		Day	Evening	Night	Daily	
							Autos:	77.5%	12.9%	9.6%	97.42%
							Medium Trucks:	84.8%	4.9%	10.3%	1.84%
							Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
							Grade Adjustment: 0.0				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 37.0 feet Centerline Dist. to Observer: 37.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)						
							Autos:	0.000			
							Medium Trucks:	2.297			
							Heavy Trucks:	8.006			
							Lane Equivalent Distance (in feet)				
							Autos:	36.851			
							Medium Trucks:	36.610			
							Heavy Trucks:	36.634			
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	66.51	-8.02	1.88	-1.20	-4.56	0.000	0.000				
Medium Trucks:	77.72	-25.25	1.93	-1.20	-4.87	0.000	0.000				
Heavy Trucks:	82.99	-29.21	1.92	-1.20	-5.61	0.000	0.000				
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	59.2	57.3	55.5	49.5	58.1	58.7					
Medium Trucks:	53.2	51.7	45.3	43.8	52.2	52.5					
Heavy Trucks:	54.5	53.1	44.1	45.3	53.7	53.8					
Vehicle Noise:	61.2	59.5	56.2	51.6	60.2	60.6					
Centerline Distance to Noise Contour (in feet)											
			70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:			8	18	38	82					
CNEL:			9	19	41	88					

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Phase 1 Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 6,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 680 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		65.422			
					Medium Trucks:		65.286			
					Heavy Trucks:		65.300			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-4.50	-1.85	-1.20	-4.73	0.000	0.000			
Medium Trucks:	82.40	-21.74	-1.84	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-25.69	-1.84	-1.20	-5.25	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	64.2	62.3	60.6	54.5	63.1	63.7				
Medium Trucks:	57.6	56.1	49.8	48.2	56.7	56.9				
Heavy Trucks:	57.7	56.2	47.2	48.5	56.8	56.9				
Vehicle Noise:	65.8	64.0	61.1	56.2	64.8	65.2				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				34	73	158	341			
CNEL:				37	79	170	366			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,160 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 76.0 feet					Daily				
Centerline Dist. to Observer: 76.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.18	-1.85	-1.20	-4.73	0.000	0.000	0.000	0.000
Medium Trucks:	82.40	-19.42	-1.84	-1.20	-4.88	0.000	0.000	0.000	0.000
Heavy Trucks:	86.40	-23.37	-1.84	-1.20	-5.25	0.000	0.000	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.5	64.6	62.9	56.8	65.5	66.1			
Medium Trucks:	59.9	58.4	52.1	50.5	59.0	59.2			
Heavy Trucks:	60.0	58.6	49.5	50.8	59.1	59.3			
Vehicle Noise:	68.1	66.4	63.4	58.5	67.1	67.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			49	105	226	486			
CNEL:			52	113	243	523			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,200 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-2.03	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-19.27	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-23.22	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	66.7	64.8	63.0	57.0	65.6	66.2		
Medium Trucks:	60.1	58.6	52.2	50.7	59.1	59.4		
Heavy Trucks:	60.1	58.7	49.7	50.9	59.3	59.4		
Vehicle Noise:	68.3	66.5	63.6	58.7	67.2	67.7		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			50	107	231	497		
CNEL:			54	115	248	535		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: SR-74 Road Segment: elo I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,400 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,240 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 59.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 54.129				
Road Grade: 0.0%					Medium Trucks: 53.966				
Left View: -90.0 degrees					Heavy Trucks: 53.982				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.70	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-14.54	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-18.50	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.2	67.4	61.4	70.0	70.6			
Medium Trucks:	64.7	63.2	56.8	55.2	63.7	63.9			
Heavy Trucks:	65.1	63.7	54.6	55.9	64.2	64.4			
Vehicle Noise:	72.8	71.0	68.0	63.2	71.7	72.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				77	166	358	772		
CNEL:				83	179	385	829		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,360 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.32	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-15.92	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-19.87	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.7	67.8	66.0	60.0	68.6	69.2			
Medium Trucks:	63.3	61.8	55.4	53.9	62.3	62.6			
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8	63.0			
Vehicle Noise:	71.4	69.7	66.6	61.8	70.4	70.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				62	135	290	625		
CNEL:				67	145	311	671		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,550 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 59.0 feet					Daily				
Centerline Dist. to Observer: 59.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.11	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-15.12	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-19.08	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	68.8	66.9	65.1	59.0	67.7		68.3		
Medium Trucks:	62.5	61.0	54.7	53.1	61.6		61.8		
Heavy Trucks:	63.4	61.9	52.9	54.2	62.5		62.6		
Vehicle Noise:	70.6	68.9	65.7	61.0	69.6		70.0		
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:	55	119	256	552					
CNEL:	59	128	275	592					

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,570 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	1.80	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-10.33	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-11.21	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.9	64.0	62.2	56.2	64.8	65.4			
Medium Trucks:	64.7	63.2	56.9	55.3	63.8	64.0			
Heavy Trucks:	68.7	67.3	58.2	59.5	67.8	68.0			
Vehicle Noise:	71.5	70.0	64.5	62.1	70.6	70.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				110	236	508	1,095		
CNEL:				114	246	531	1,143		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,570 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.35	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-10.79	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-11.66	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.2	65.3	63.5	57.5	66.1	66.7			
Medium Trucks:	65.8	64.3	58.0	56.4	64.9	65.1			
Heavy Trucks:	69.3	67.9	58.9	60.1	68.5	68.6			
Vehicle Noise:	72.5	70.9	65.6	63.1	71.5	71.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				126	272	586	1,263		
CNEL:				132	285	613	1,321		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,270 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.39	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-9.75	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-10.62	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.2	66.3	64.6	58.5	67.1	67.7			
Medium Trucks:	66.9	65.4	59.0	57.5	65.9	66.2			
Heavy Trucks:	70.4	69.0	59.9	61.2	69.5	69.7			
Vehicle Noise:	73.5	71.9	66.7	64.1	72.6	72.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			148	320	688	1,483			
CNEL:			155	334	720	1,551			
Friday, May 24, 2019									

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,300 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 230 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 120 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 90.00%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Centerline Dist. to Barrier: 100.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Centerline Dist. to Observer: 100.0 feet									
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006				
Road Elevation: 0.0 feet					Grade Adjustment: 0.0				
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
Vehicle Type					Autos: 0.000				
Autos:					Medium Trucks: 2.297				
Medium Trucks:					Heavy Trucks: 8.006				
Heavy Trucks:					Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
Vehicle Type					Autos: 80.156				
Autos:					Medium Trucks: 80.046				
Medium Trucks:					Heavy Trucks: 80.056				
Heavy Trucks:									

FHWA Noise Model Calculations							
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-9.14	-3.18	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-21.27	-3.17	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-22.15	-3.17	-1.20	-5.16	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)							
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	56.7	54.8	53.0	47.0	55.6	56.2	
Medium Trucks:	55.4	53.8	47.5	45.9	54.4	54.6	
Heavy Trucks:	58.9	57.4	48.4	49.7	58.0	58.1	
Vehicle Noise:	62.0	60.4	55.1	52.6	61.0	61.3	

Centerline Distance to Noise Contour (in feet)				
	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	54	117	253
CNEL:	26	57	123	264

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,270 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-1.71	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-13.85	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-14.72	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.1	62.2	60.4	54.4	63.0	63.6			
Medium Trucks:	62.8	61.3	54.9	53.4	61.8	62.1			
Heavy Trucks:	66.3	64.9	55.8	57.1	65.4	65.6			
Vehicle Noise:	69.4	67.8	62.6	60.0	68.5	68.8			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	79		170		366		790		
CNEL:	83		178		383		826		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,500 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	-0.99	-3.18	-1.20	-4.77	0.000	0.000	
Medium Trucks:	81.00	-13.13	-3.17	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	85.38	-14.00	-3.17	-1.20	-5.16	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	64.8	62.9	61.2	55.1	63.7	64.3		
Medium Trucks:	63.5	62.0	55.6	54.1	62.5	62.8		
Heavy Trucks:	67.0	65.6	56.5	57.8	66.2	66.3		
Vehicle Noise:	70.1	68.6	63.3	60.7	69.2	69.5		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			88	190	409	882		
CNEL:			92	199	428	923		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,080 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-1.96	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-14.10	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-14.97	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.1	60.2	58.5	52.4	61.0	61.6			
Medium Trucks:	61.0	59.5	53.1	51.6	60.0	60.3			
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2			
Vehicle Noise:	67.8	66.2	60.7	58.4	66.8	67.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				61	132	285	615		
CNEL:				64	138	298	642		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 730 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-3.66	-3.18	-1.20	-4.77	0.000	0.000	0.000	
Medium Trucks:	79.45	-15.80	-3.17	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	84.25	-16.67	-3.17	-1.20	-5.16	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.4	58.5	56.8	50.7	59.3	59.9			
Medium Trucks:	59.3	57.8	51.4	49.9	58.3	58.6			
Heavy Trucks:	63.2	61.8	52.8	54.0	62.4	62.5			
Vehicle Noise:	66.1	64.5	59.0	56.7	65.1	65.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			47	102	220	473			
CNEL:			49	106	229	494			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 360 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations				Lane Equivalent Distance (in feet)				
				Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	58.73	-3.84	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:	70.80	-21.07	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	77.97	-25.03	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	54.3	52.4	50.6	44.6	53.2	53.8		
Medium Trucks:	49.1	47.6	41.3	39.7	48.2	48.4		
Heavy Trucks:	52.4	50.9	41.9	43.2	51.5	51.6		
Vehicle Noise:	57.2	55.5	51.6	47.7	56.2	56.6		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			6	13	28	60		
CNEL:			6	14	30	64		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: Rouse Rd. Road Segment: e/o Street A				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 1,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 190 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
Autos: 44.931								
Medium Trucks: 44.733								
Heavy Trucks: 44.752								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	58.73	-6.61	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:	70.80	-23.85	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	77.97	-27.80	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	51.5	49.6	47.9	41.8	50.4	51.0		
Medium Trucks:	46.4	44.9	38.5	37.0	45.4	45.6		
Heavy Trucks:	49.6	48.2	39.1	40.4	48.7	48.9		
Vehicle Noise:	54.4	52.7	48.8	44.9	53.4	53.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			4	8	18	39		
CNEL:			4	9	19	42		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 1,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 140 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-7.94	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-25.18	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-29.13	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	50.2	48.3	46.5	40.5	49.1	49.7			
Medium Trucks:	45.0	43.5	37.2	35.6	44.1	44.3			
Heavy Trucks:	48.3	46.8	37.8	39.1	47.4	47.5			
Vehicle Noise:	53.1	51.4	47.5	43.6	52.1	52.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				3	7	15	32		
CNEL:				3	7	16	34		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Phase 1 Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%					
Barrier Height:		0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Centerline Dist. to Barrier:		50.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.006 Grade Adjustment: 0.0			
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet			Autos: 44.931					
Road Grade:		0.0%			Medium Trucks: 44.733					
Left View:		-90.0 degrees			Heavy Trucks: 44.752					
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000	0.000		
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000	0.000		
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	38.7	36.8	35.1	29.0	37.6	38.2				
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9				
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1				
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			1	1	3	6				
CNEL:			1	1	3	6				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: Chambers Av. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 50 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-12.41	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	70.80	-29.65	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	77.97	-33.60	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	45.7	43.8	42.1	36.0	44.6	45.2		45.2	
Medium Trucks:	40.6	39.1	32.7	31.2	39.6	39.8		39.8	
Heavy Trucks:	43.8	42.4	33.3	34.6	42.9	43.1		43.1	
Vehicle Noise:	48.6	46.9	43.0	39.1	47.6	48.0		48.0	
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			2	3	7	16			
CNEL:			2	4	8	17			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Phase 1 Road Name: Chambers Av. Road Segment: e/o Street C					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph								
Near/Far Lane Distance:		45 feet			Vehicle Mix					
Site Data					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 44.931					
					Medium Trucks: 44.733 Heavy Trucks: 44.752					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:		58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:		70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:		77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:		38.7	36.8	35.1	29.0	37.6	38.2			
Medium Trucks:		33.6	32.1	25.7	24.2	32.6	32.9			
Heavy Trucks:		36.8	35.4	26.3	27.6	35.9	36.1			
Vehicle Noise:		41.6	39.9	36.0	32.1	40.6	41.0			
Centerline Distance to Noise Contour (in feet)										
				70 dBA		65 dBA		60 dBA		55 dBA
Ldn:				1		1		3		6
CNEL:				1		1		3		6

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: McCall Bl. Road Segment: w/o Sun City Bl.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,450 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	64.30	0.75	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	75.75	-16.48	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	81.57	-20.44	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	63.2	61.3	59.6	53.5	62.1	62.7		
Medium Trucks:	57.5	56.0	49.6	48.1	56.5	56.7		
Heavy Trucks:	59.3	57.9	48.9	50.1	58.5	58.6		
Vehicle Noise:	65.5	63.8	60.3	55.9	64.5	64.9		
Centerline Distance to Noise Contour (in feet)								
				70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:				25	54	117	252	
CNEL:				27	58	125	269	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: McCall Bl. Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,900 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,590 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 76.0 feet					Daily				
Centerline Dist. to Observer: 76.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006				
Right View: 90.0 degrees					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.18	-1.85	-1.20	-4.73	0.000	0.000		0.000
Medium Trucks:	79.45	-15.06	-1.84	-1.20	-4.88	0.000	0.000		0.000
Heavy Trucks:	84.25	-19.01	-1.84	-1.20	-5.25	0.000	0.000		0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	67.6	65.7	63.9	57.9	66.5		67.1		
Medium Trucks:	61.4	59.8	53.5	51.9	60.4		60.6		
Heavy Trucks:	62.2	60.8	51.7	53.0	61.3		61.5		
Vehicle Noise:	69.4	67.7	64.5	59.9	68.4		68.9		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				59	128	276	594		
CNEL:				64	137	296	638		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: McCall Bl. Road Segment: e/o Sherman Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,990 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	1.04	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	79.45	-16.20	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-20.16	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	66.4	64.5	62.8	56.7	65.3	66.0		
Medium Trucks:	60.2	58.7	52.3	50.8	59.3	59.5		
Heavy Trucks:	61.1	59.6	50.6	51.8	60.2	60.3		
Vehicle Noise:	68.3	66.5	63.4	58.7	67.3	67.7		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			50	107	231	499		
CNEL:			53	115	248	535		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: McCall Bl. Road Segment: e/o Antelope Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,020 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
Autos: 65.422								
Medium Trucks: 65.286								
Heavy Trucks: 65.300								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	0.23	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-17.01	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-20.96	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.0	67.1	65.3	59.2	67.9	68.5		
Medium Trucks:	62.4	60.8	54.5	52.9	61.4	61.6		
Heavy Trucks:	62.4	61.0	51.9	53.2	61.5	61.7		
Vehicle Noise:	70.5	68.8	65.8	60.9	69.5	70.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			70	152	327	704		
CNEL:			76	163	352	757		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 1 Road Name: McCall Bl. Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 830 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.63	-1.85	-1.20	-4.73	0.000		0.000	
Medium Trucks:	82.40	-20.87	-1.84	-1.20	-4.88	0.000		0.000	
Heavy Trucks:	86.40	-24.83	-1.84	-1.20	-5.25	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	65.1	63.2	61.4	55.4	64.0		64.6		
Medium Trucks:	58.5	57.0	50.6	49.1	57.5		57.8		
Heavy Trucks:	58.5	57.1	48.1	49.3	57.7		57.8		
Vehicle Noise:	66.7	64.9	62.0	57.1	65.6		66.1		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				39	84	181	389		
CNEL:				42	90	194	419		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Phase 1 Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		5,200 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		520 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		40 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%					
Barrier Height:		0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Centerline Dist. to Barrier:		50.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet			Autos: 44.931					
Road Grade:		0.0%			Medium Trucks: 44.733					
Left View:		-90.0 degrees			Heavy Trucks: 44.752					
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	-4.28	0.59	-1.20	-4.65	0.000	0.000	0.000		
Medium Trucks:	77.72	-21.52	0.62	-1.20	-4.87	0.000	0.000	0.000		
Heavy Trucks:	82.99	-25.47	0.62	-1.20	-5.43	0.000	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	61.6	59.7	58.0	51.9	60.5	61.1				
Medium Trucks:	55.6	54.1	47.7	46.2	54.7	54.9				
Heavy Trucks:	56.9	55.5	46.5	47.7	56.1	56.2				
Vehicle Noise:	63.6	61.9	58.6	54.1	62.6	63.1				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			16	35	75	161				
CNEL:			17	37	80	172				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 1 Road Name: Encanto Dr. Road Segment: s/o A Street				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 460 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-6.19	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-23.43	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-27.39	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	63.8	61.9	60.1	54.0	62.7	63.3		
Medium Trucks:	57.2	55.7	49.3	47.8	56.2	56.4		
Heavy Trucks:	57.2	55.8	46.7	48.0	56.4	56.5		
Vehicle Noise:	65.3	63.6	60.6	55.8	64.3	64.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			25	53	114	246		
CNEL:			27	57	123	265		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 95,770 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,577 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.51	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.13	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.34	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.6	77.7	75.9	69.9	78.5	79.1			
Medium Trucks:	78.1	76.6	70.3	68.7	77.2	77.4			
Heavy Trucks:	81.0	79.5	70.5	71.7	80.1	80.2			
Vehicle Noise:	84.5	82.9	77.8	75.1	83.5	83.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			638	1,374	2,960	6,378			
CNEL:			668	1,440	3,103	6,685			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 97,340 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,734 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.58	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.06	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.27	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.7	77.8	76.0	69.9	78.6	79.2			
Medium Trucks:	78.2	76.7	70.3	68.8	77.3	77.5			
Heavy Trucks:	81.0	79.6	70.6	71.8	80.2	80.3			
Vehicle Noise:	84.5	83.0	77.9	75.1	83.6	83.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			645	1,389	2,993	6,447			
CNEL:			676	1,456	3,137	6,758			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 98,740 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,874 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20% Medium Trucks: 84.8% 4.9% 10.3% 6.04% Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.64	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.00	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.21	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.7	77.8	76.0	70.0	78.6	79.2			
Medium Trucks:	78.3	76.8	70.4	68.9	77.3	77.6			
Heavy Trucks:	81.1	79.7	70.6	71.9	80.2	80.4			
Vehicle Noise:	84.6	83.0	78.0	75.2	83.7	84.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			651	1,402	3,021	6,509			
CNEL:			682	1,470	3,167	6,822			

Finding May, 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 590 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-5.11	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-22.35	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-26.31	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.8	62.9	61.2	55.1	63.7	64.4			
Medium Trucks:	58.3	56.7	50.4	48.8	57.3	57.5			
Heavy Trucks:	58.3	56.9	47.8	49.1	57.4	57.6			
Vehicle Noise:	66.4	64.7	61.7	56.8	65.4	65.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			29	63	135	291			
CNEL:			31	67	145	313			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 560 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-5.34	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-22.58	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-26.53	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.6	62.7	61.0	54.9	63.5	64.1			
Medium Trucks:	58.0	56.5	50.2	48.6	57.1	57.3			
Heavy Trucks:	58.1	56.6	47.6	48.9	57.2	57.3			
Vehicle Noise:	66.2	64.4	61.5	56.6	65.2	65.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				28	61	130	281		
CNEL:				30	65	140	302		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Encanto Dr. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 520 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
Site Data					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 59.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 59.0 feet					Noise Source Elevations (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Grade: 0.0%					Autos: 54.129				
Left View: -90.0 degrees					Medium Trucks: 53.966				
Right View: 90.0 degrees					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-5.66	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-22.90	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-26.86	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.3	62.4	60.6	54.6	63.2	63.8			
Medium Trucks:	57.7	56.2	49.8	48.3	56.7	57.0			
Heavy Trucks:	57.7	56.3	47.3	48.5	56.9	57.0			
Vehicle Noise:	65.9	64.1	61.2	56.3	64.8	65.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				27	58	124	267		
CNEL:				29	62	134	288		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 550 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 59.0 feet					Daily				
Centerline Dist. to Observer: 59.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006				
Right View: 90.0 degrees					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-3.46	-0.62	-1.20	-4.69	0.000	0.000	0.000	0.000
Medium Trucks:	75.75	-20.69	-0.60	-1.20	-4.88	0.000	0.000	0.000	0.000
Heavy Trucks:	81.57	-24.65	-0.60	-1.20	-5.35	0.000	0.000	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	59.0	57.1	55.4	49.3	57.9		58.5		
Medium Trucks:	53.3	51.7	45.4	43.8	52.3		52.5		
Heavy Trucks:	55.1	53.7	44.7	45.9	54.3		54.4		
Vehicle Noise:	61.3	59.5	56.1	51.7	60.2		60.7		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				13	28	61	132		
CNEL:				14	30	65	141		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Sherman Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 380 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-6.15	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-23.39	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-27.35	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.5	58.6	56.8	50.8	59.4	60.0			
Medium Trucks:	54.3	52.7	46.4	44.8	53.3	53.5			
Heavy Trucks:	55.1	53.7	44.6	45.9	54.2	54.4			
Vehicle Noise:	62.3	60.6	57.4	52.8	61.3	61.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				16	33	72	155		
CNEL:				17	36	77	166		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: Existing With Phase 2 Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		400 vehicles		Autos:		15	
Peak Hour Percentage:		10%		Medium Trucks (2 Axles):		15	
Peak Hour Volume:		40 vehicles		Heavy Trucks (3+ Axles):		15	
Vehicle Speed:		45 mph					
Near/Far Lane Distance:		48 feet					
Site Data				Vehicle Mix			
Barrier Height:		0.0 feet		Autos:		77.5% 12.9% 9.6% 97.42%	
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		84.8% 4.9% 10.3% 1.84%	
Centerline Dist. to Barrier:		59.0 feet		Heavy Trucks:		86.5% 2.7% 10.8% 0.74%	
Centerline Dist. to Observer:		59.0 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					
Road Grade:		0.0%					
Left View:		-90.0 degrees					
Right View:		90.0 degrees					
				Noise Source Elevations (in feet)			
				Autos:		0.000	
				Medium Trucks:		2.297	
				Heavy Trucks:		8.006 Grade Adjustment: 0.0	
				Lane Equivalent Distance (in feet)			
				Autos:		54.129	
				Medium Trucks:		53.966	
				Heavy Trucks:		53.982	
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-15.93	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-33.17	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-37.12	-0.60	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	50.7	48.8	47.0	41.0	49.6	50.2	
Medium Trucks:	44.5	43.0	36.6	35.1	43.5	43.8	
Heavy Trucks:	45.3	43.9	34.9	36.1	44.5	44.6	
Vehicle Noise:	52.6	50.8	47.7	43.0	51.5	52.0	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			3	7	16	35	
CNEL:			4	8	17	37	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		100 vehicles			Autos: 15				
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15				
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		45 mph							
Near/Far Lane Distance:		48 feet			Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos:	77.5%	12.9%	9.6%	97.42%
					Medium Trucks:	84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.006	Grade Adjustment: 0.0		
					Lane Equivalent Distance (in feet)				
					Autos:	54.129			
					Medium Trucks:	53.966			
					Heavy Trucks:	53.982			
					FHWA Noise Model Calculations				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-21.95	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-39.19	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-43.15	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	44.7	42.8	41.0	35.0	43.6	44.2			
Medium Trucks:	38.5	37.0	30.6	29.0	37.5	37.7			
Heavy Trucks:	39.3	37.9	28.8	30.1	38.5	38.6			
Vehicle Noise:	46.5	44.8	41.6	37.0	45.5	46.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				1	3	6	14		
CNEL:				1	3	7	15		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		600 vehicles			Autos: 15				
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15				
Peak Hour Volume:		60 vehicles			Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		40 mph			Vehicle Mix				
Near/Far Lane Distance:		45 feet			VehicleType				
Site Data					Day				
Barrier Height:		0.0 feet			Evening				
Barrier Type (0-Wall, 1-Berm):		0.0			Night				
Centerline Dist. to Barrier:		50.0 feet			Daily				
Centerline Dist. to Observer:		50.0 feet			Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer:		0.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad):		5.0 feet			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation:		0.0 feet			Noise Source Elevations (in feet)				
Road Elevation:		0.0 feet			Autos: 0.000				
Road Grade:		0.0%			Medium Trucks: 2.297				
Left View:		-90.0 degrees			Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View:		90.0 degrees			Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-13.66	0.59	-1.20	-4.65	0.000	0.000	0.000	0.000
Medium Trucks:	77.72	-30.90	0.62	-1.20	-4.87	0.000	0.000	0.000	0.000
Heavy Trucks:	82.99	-34.85	0.62	-1.20	-5.43	0.000	0.000	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	52.2	50.3	48.6	42.5	51.1		51.8		
Medium Trucks:	46.2	44.7	38.4	36.8	45.3		45.5		
Heavy Trucks:	47.6	46.1	37.1	38.4	46.7		46.8		
Vehicle Noise:	54.3	52.5	49.3	44.7	53.2		53.7		
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA		55 dBA		
Ldn:	4		8		18		38		
CNEL:	4		9		19		41		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 2 Road Name: Antelope Rd. Road Segment: s/o Chambers Av.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		100 vehicles		Autos: 15				
Peak Hour Percentage:		10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume:		10 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		40 mph						
Near/Far Lane Distance:		48 feet						
Site Data				Vehicle Mix				
Barrier Height:		0.0 feet		VehicleType	Day	Evening	Night	Daily
Barrier Type (0-Wall, 1-Berm):		0.0		Autos: 77.5% 12.9% 9.6% 97.42%				
Centerline Dist. to Barrier:		59.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Observer:		59.0 feet		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Distance to Observer:		0.0 feet						
Observer Height (Above Pad):		5.0 feet		Grade Adjustment: 0.0				
Pad Elevation:		0.0 feet						
Road Elevation:		0.0 feet						
Road Grade:		0.0%						
Left View:		-90.0 degrees						
Right View:		90.0 degrees						
FHWA Noise Model Calculations				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006				
FHWA Noise Model Calculations				Lane Equivalent Distance (in feet)				
				Autos: 54.129				
				Medium Trucks: 53.966				
				Heavy Trucks: 53.982				
FHWA Noise Model Calculations				Noise Source Elevations (in feet)				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	66.51	-21.44	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	77.72	-38.68	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	82.99	-42.63	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	43.3	41.4	39.6	33.5	42.2	42.8		
Medium Trucks:	37.2	35.7	29.4	27.8	36.3	36.5		
Heavy Trucks:	38.6	37.1	28.1	29.3	37.7	37.8		
Vehicle Noise:	45.3	43.5	40.3	35.7	44.2	44.7		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			1	2	5	11		
CNEL:			1	3	6	12		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 220 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 12 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Site Data					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet					Autos: 0.000				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 2.297				
Centerline Dist. to Barrier: 37.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Centerline Dist. to Observer: 37.0 feet									
Barrier Distance to Observer: 0.0 feet					Lane Equivalent Distance (in feet)				
Observer Height (Above Pad): 5.0 feet					Autos: 36.851				
Pad Elevation: 0.0 feet					Medium Trucks: 36.610				
Road Elevation: 0.0 feet					Heavy Trucks: 36.634				
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-8.02	1.88	-1.20	-4.56	0.000	0.000		
Medium Trucks:	77.72	-25.25	1.93	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-29.21	1.92	-1.20	-5.61	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	59.2	57.3	55.5	49.5	58.1	58.7			
Medium Trucks:	53.2	51.7	45.3	43.8	52.2	52.5			
Heavy Trucks:	54.5	53.1	44.1	45.3	53.7	53.8			
Vehicle Noise:	61.2	59.5	56.2	51.6	60.2	60.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			8	18	38	82			
CNEL:			9	19	41	88			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 690 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-4.43	-1.85	-1.20	-4.73	0.000		0.000	
Medium Trucks:	82.40	-21.67	-1.84	-1.20	-4.88	0.000		0.000	
Heavy Trucks:	86.40	-25.63	-1.84	-1.20	-5.25	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	64.3	62.4	60.6	54.6	63.2		63.8		
Medium Trucks:	57.7	56.2	49.8	48.3	56.7		57.0		
Heavy Trucks:	57.7	56.3	47.3	48.5	56.9		57.0		
Vehicle Noise:	65.9	64.1	61.2	56.3	64.8		65.3		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				34	74	160	344		
CNEL:				37	80	172	370		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,180 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.10	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-19.34	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.30	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.6	64.7	63.0	56.9	65.5	66.1			
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3			
Heavy Trucks:	60.1	58.6	49.6	50.8	59.2	59.3			
Vehicle Noise:	68.2	66.4	63.5	58.6	67.2	67.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				49	106	228	492		
CNEL:				53	114	246	529		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 2 Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,220 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-1.96	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-19.20	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-23.15	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	66.8	64.9	63.1	57.0	65.7	66.3		
Medium Trucks:	60.2	58.7	52.3	50.8	59.2	59.4		
Heavy Trucks:	60.2	58.8	49.7	51.0	59.3	59.5		
Vehicle Noise:	68.3	66.6	63.6	58.8	67.3	67.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			50	108	233	503		
CNEL:			54	117	251	541		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: SR-74 Road Segment: elo I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,240 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.70	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-14.54	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-18.50	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.2	67.4	61.4	70.0	70.6			
Medium Trucks:	64.7	63.2	56.8	55.2	63.7	63.9			
Heavy Trucks:	65.1	63.7	54.6	55.9	64.2	64.4			
Vehicle Noise:	72.8	71.0	68.0	63.2	71.7	72.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				77	166	358	772		
CNEL:				83	179	385	829		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,360 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.32	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-15.92	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-19.87	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.7	67.8	66.0	60.0	68.6	69.2			
Medium Trucks:	63.3	61.8	55.4	53.9	62.3	62.6			
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8	63.0			
Vehicle Noise:	71.4	69.7	66.6	61.8	70.4	70.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			62	135	290	625			
CNEL:			67	145	311	671			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,550 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.11	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-15.12	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-19.08	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.8	66.9	65.1	59.0	67.7	68.3			
Medium Trucks:	62.5	61.0	54.7	53.1	61.6	61.8			
Heavy Trucks:	63.4	61.9	52.9	54.2	62.5	62.6			
Vehicle Noise:	70.6	68.9	65.7	61.0	69.6	70.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				55	119	256	552		
CNEL:				59	128	275	592		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,570 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	1.80	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-10.33	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-11.21	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.9	64.0	62.2	56.2	64.8	65.4			
Medium Trucks:	64.7	63.2	56.9	55.3	63.8	64.0			
Heavy Trucks:	68.7	67.3	58.2	59.5	67.8	68.0			
Vehicle Noise:	71.5	70.0	64.5	62.1	70.6	70.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			110	236	508	1,095			
CNEL:			114	246	531	1,143			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,570 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEI	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.35	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-10.79	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-11.66	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.2	65.3	63.5	57.5	66.1	66.7			
Medium Trucks:	65.8	64.3	58.0	56.4	64.9	65.1			
Heavy Trucks:	69.3	67.9	58.9	60.1	68.5	68.6			
Vehicle Noise:	72.5	70.9	65.6	63.1	71.5	71.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			126	272	586	1,263			
CNEL:			132	285	613	1,321			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,280 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
VehicleType	REMEF	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.41	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-9.73	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-10.60	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.2	66.3	64.6	58.5	67.1	67.7			
Medium Trucks:	66.9	65.4	59.0	57.5	65.9	66.2			
Heavy Trucks:	70.4	69.0	59.9	61.2	69.6	69.7			
Vehicle Noise:	73.5	72.0	66.7	64.1	72.6	72.9			
Centerline Distance to Noise Contour (in feet)									
	70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:	149	320	690	1,486					
CNEL:	155	335	721	1,554					
Friday, May 24, 2019									

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,300 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 230 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 120 feet					Vehicle Mix				
Site Data					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006				
					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMEF	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-9.14	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-21.27	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-22.15	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.7	54.8	53.0	47.0	55.6	56.2			
Medium Trucks:	55.4	53.8	47.5	45.9	54.4	54.6			
Heavy Trucks:	58.9	57.4	48.4	49.7	58.0	58.1			
Vehicle Noise:	62.0	60.4	55.1	52.6	61.0	61.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				25	54	117	253		
CNEL:				26	57	123	264		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,290 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-1.65	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-13.79	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-14.66	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.2	62.3	60.5	54.5	63.1	63.7			
Medium Trucks:	62.8	61.3	55.0	53.4	61.9	62.1			
Heavy Trucks:	66.4	64.9	55.9	57.1	65.5	65.6			
Vehicle Noise:	69.5	67.9	62.6	60.1	68.5	68.8			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	80		172		370		798		
CNEL:	83		180		387		834		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL													
Scenario: Existing With Phase 2 Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728								
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS								
Highway Data					Site Conditions (Hard = 10, Soft = 15)								
Average Daily Traffic (Adt): 15,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,530 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15								
Site Data					Vehicle Mix								
					VehicleType	Day	Evening	Night	Daily				
					Autos:	77.5%	12.9%	9.6%	90.00%				
					Medium Trucks:	84.8%	4.9%	10.3%	5.50%				
					Heavy Trucks:					86.5%	2.7%	10.8%	4.50%
					Noise Source Elevations (in feet)								
					Autos:	0.000							
					Medium Trucks:	2.297							
					Heavy Trucks:	8.006	Grade Adjustment: 0.0						
					Lane Equivalent Distance (in feet)								
					Autos:	80.156							
					Medium Trucks:	80.046							
					Heavy Trucks:	80.056							
FHWA Noise Model Calculations													
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten						
Autos:	70.20	-0.91	-3.18	-1.20	-4.77	0.000	0.000						
Medium Trucks:	81.00	-13.04	-3.17	-1.20	-4.88	0.000	0.000						
Heavy Trucks:	85.38	-13.92	-3.17	-1.20	-5.16	0.000	0.000						
Unmitigated Noise Levels (without Topo and barrier attenuation)													
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL							
Autos:	64.9	63.0	61.3	55.2	63.8	64.4							
Medium Trucks:	63.6	62.1	55.7	54.2	62.6	62.9							
Heavy Trucks:	67.1	65.7	56.6	57.9	66.2	66.4							
Vehicle Noise:	70.2	68.6	63.4	60.8	69.3	69.6							
Centerline Distance to Noise Contour (in feet)													
			70 dBA	65 dBA	60 dBA	55 dBA							
Ldn:			89	193	415	894							
CNEL:			93	201	434	935							

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,080 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-1.96	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-14.10	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-14.97	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.1	60.2	58.5	52.4	61.0	61.6			
Medium Trucks:	61.0	59.5	53.1	51.6	60.0	60.3			
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2			
Vehicle Noise:	67.8	66.2	60.7	58.4	66.8	67.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				61	132	285	615		
CNEL:				64	138	298	642		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,300 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 730 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 120 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 100.0 feet					Daily				
Centerline Dist. to Observer: 100.0 feet					Autos: 77.5% 12.9% 9.6% 90.00%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-3.66	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-15.80	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-16.67	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	60.4	58.5	56.8	50.7	59.3		59.9		
Medium Trucks:	59.3	57.8	51.4	49.9	58.3		58.6		
Heavy Trucks:	63.2	61.8	52.8	54.0	62.4		62.5		
Vehicle Noise:	66.1	64.5	59.0	56.7	65.1		65.4		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				47	102	220	473		
CNEL:				49	106	229	494		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 460 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-2.77	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	70.80	-20.01	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	77.97	-23.96	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	55.4	53.5	51.7	45.6	54.3	54.9		54.9	
Medium Trucks:	50.2	48.7	42.3	40.8	49.3	49.5		49.5	
Heavy Trucks:	53.4	52.0	43.0	44.2	52.6	52.7		52.7	
Vehicle Noise:	58.3	56.6	52.7	48.8	57.3	57.6		57.6	
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			7	15	33	71			
CNEL:			8	16	35	75			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Rouse Rd. Road Segment: e/o Street A					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 270 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos:	77.5%	12.9%	9.6%	97.42%
					Medium Trucks:	84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.006	Grade Adjustment: 0.0		
					Lane Equivalent Distance (in feet)				
					Autos:	44.931			
					Medium Trucks:	44.733			
					Heavy Trucks:	44.752			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-5.08	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-22.32	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-26.28	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	53.0	51.1	49.4	43.3	51.9	52.6			
Medium Trucks:	47.9	46.4	40.0	38.5	46.9	47.2			
Heavy Trucks:	51.1	49.7	40.7	41.9	50.3	50.4			
Vehicle Noise:	55.9	54.3	50.3	46.4	54.9	55.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				5	11	23	50		
CNEL:				5	11	24	53		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Phase 2 Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 1,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 190 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006 Grade Adjustment: 0.0			
Lane Equivalent Distance (in feet)										
					Autos:		44.931			
					Medium Trucks:		44.733			
					Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-6.61	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-23.85	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-27.80	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	51.5	49.6	47.9	41.8	50.4	51.0				
Medium Trucks:	46.4	44.9	38.5	37.0	45.4	45.6				
Heavy Trucks:	49.6	48.2	39.1	40.4	48.7	48.9				
Vehicle Noise:	54.4	52.7	48.8	44.9	53.4	53.8				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				4	8	18	39			
CNEL:				4	9	19	42			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		100 vehicles			Autos: 15				
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15				
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		25 mph			Vehicle Mix				
Near/Far Lane Distance:		45 feet			VehicleType				
Site Data					Day				
					Evening				
					Night				
					Daily				
Barrier Height:		0.0 feet			Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer:		50.0 feet			Noise Source Elevations (in feet)				
Barrier Distance to Observer:		0.0 feet			Autos: 0.000				
Observer Height (Above Pad):		5.0 feet			Medium Trucks: 2.297				
Pad Elevation:		0.0 feet			Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation:		0.0 feet			Lane Equivalent Distance (in feet)				
Road Grade:		0.0%			Autos: 44.931				
Left View:		-90.0 degrees			Medium Trucks: 44.733				
Right View:		90.0 degrees			Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	38.7	36.8	35.1	29.0	37.6	38.2			
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9			
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1			
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				1	1	3	6		
CNEL:				1	1	3	6		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Chambers Av. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		600 vehicles			Autos: 15				
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15				
Peak Hour Volume:		60 vehicles			Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		25 mph							
Near/Far Lane Distance:		45 feet							
Site Data					Vehicle Mix				
Barrier Height:		0.0 feet			VehicleType	Day	Evening	Night	Daily
Barrier Type (0-Wall, 1-Berm):		0.0			Autos: 77.5% 12.9% 9.6% 97.42%				
Centerline Dist. to Barrier:		50.0 feet			Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Observer:		50.0 feet			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Distance to Observer:		0.0 feet							
Observer Height (Above Pad):		5.0 feet							
Pad Elevation:		0.0 feet							
Road Elevation:		0.0 feet							
Road Grade:		0.0%							
Left View:		-90.0 degrees							
Right View:		90.0 degrees							
Noise Source Elevations (in feet)									
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Lane Equivalent Distance (in feet)									
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-11.62	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-28.86	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-32.81	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	46.5	44.6	42.8	36.8	45.4	46.0			
Medium Trucks:	41.4	39.9	33.5	31.9	40.4	40.6			
Heavy Trucks:	44.6	43.2	34.1	35.4	43.7	43.9			
Vehicle Noise:	49.4	47.7	43.8	39.9	48.4	48.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				2	4	8	18		
CNEL:				2	4	9	19		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Phase 2 Road Name: Chambers Av. Road Segment: e/o Street C					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet								
Site Data					VehicleType					
Barrier Height:		0.0 feet			Autos:		77.5%		12.9%	
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%		4.9%	
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		86.5%		2.7%	
Centerline Dist. to Observer:		50.0 feet					10.8%		0.74%	
Barrier Distance to Observer:		0.0 feet			Noise Source Elevations (in feet)					
Observer Height (Above Pad):		5.0 feet								
Pad Elevation:		0.0 feet								
Road Elevation:		0.0 feet			Autos:		0.000			
Road Grade:		0.0%			Medium Trucks:		2.297			
Left View:		-90.0 degrees			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Right View:		90.0 degrees			Lane Equivalent Distance (in feet)					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	38.7	36.8	35.1	29.0	37.6	38.2				
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9				
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1				
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	1	3	6			
CNEL:				1	1	3	6			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,490 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	0.87	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	75.75	-16.37	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	81.57	-20.32	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.4	61.5	59.7	53.6	62.3	62.9			
Medium Trucks:	57.6	56.1	49.7	48.2	56.6	56.9			
Heavy Trucks:	59.4	58.0	49.0	50.2	58.6	58.7			
Vehicle Noise:	65.6	63.9	60.4	56.0	64.6	65.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				26	55	119	256		
CNEL:				27	59	127	274		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: McCall Bl. Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 27,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,700 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 76.0 feet					Daily				
Centerline Dist. to Observer: 76.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.36	-1.85	-1.20	-4.73	0.000	0.000	0.000	0.000
Medium Trucks:	79.45	-14.88	-1.84	-1.20	-4.88	0.000	0.000	0.000	0.000
Heavy Trucks:	84.25	-18.83	-1.84	-1.20	-5.25	0.000	0.000	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.8	65.9	64.1	58.0	66.7	67.3		67.3	67.3
Medium Trucks:	61.5	60.0	53.7	52.1	60.6	60.8		60.8	60.8
Heavy Trucks:	62.4	61.0	51.9	53.2	61.5	61.7		61.7	61.7
Vehicle Noise:	69.6	67.9	64.7	60.0	68.6	69.0		69.0	69.0
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				61	132	284	611		
CNEL:				66	141	304	655		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Phase 2 Road Name: McCall Bl. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 20,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,060 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	1.19	-1.85	-1.20	-4.73	0.000	0.000			
Medium Trucks:	79.45	-16.05	-1.84	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-20.01	-1.84	-1.20	-5.25	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	66.6	64.7	62.9	56.9	65.5	66.1				
Medium Trucks:	60.4	58.8	52.5	50.9	59.4	59.6				
Heavy Trucks:	61.2	59.8	50.7	52.0	60.4	60.5				
Vehicle Noise:	68.4	66.7	63.5	58.9	67.4	67.9				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			51	110	237	510				
CNEL:			55	118	254	547				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Phase 2 Road Name: McCall Bl. Road Segment: e/o Antelope Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,090 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
Autos: 65.422								
Medium Trucks: 65.286								
Heavy Trucks: 65.300								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	0.38	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-16.86	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-20.82	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.1	67.2	65.4	59.4	68.0	68.6		
Medium Trucks:	62.5	61.0	54.6	53.1	61.5	61.8		
Heavy Trucks:	62.5	61.1	52.1	53.3	61.7	61.8		
Vehicle Noise:	70.7	68.9	66.0	61.1	69.6	70.1		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			72	155	334	720		
CNEL:			77	167	360	775		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: McCall Bl. Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 840 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.58	-1.85	-1.20	-4.73	0.000		0.000	
Medium Trucks:	82.40	-20.82	-1.84	-1.20	-4.88	0.000		0.000	
Heavy Trucks:	86.40	-24.77	-1.84	-1.20	-5.25	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	65.1	63.2	61.5	55.4	64.0		64.7		
Medium Trucks:	58.5	57.0	50.7	49.1	57.6		57.8		
Heavy Trucks:	58.6	57.2	48.1	49.4	57.7		57.9		
Vehicle Noise:	66.7	65.0	62.0	57.1	65.7		66.2		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				39	84	182	392		
CNEL:				42	91	196	422		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 610 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 50.0 feet					Daily				
Centerline Dist. to Observer: 50.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-3.59	0.59	-1.20	-4.65	0.000	0.000		0.000
Medium Trucks:	77.72	-20.82	0.62	-1.20	-4.87	0.000	0.000		0.000
Heavy Trucks:	82.99	-24.78	0.62	-1.20	-5.43	0.000	0.000		0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	62.3	60.4	58.7	52.6	61.2		61.8		
Medium Trucks:	56.3	54.8	48.4	46.9	55.4		55.6		
Heavy Trucks:	57.6	56.2	47.2	48.4	56.8		56.9		
Vehicle Noise:	64.3	62.6	59.3	54.8	63.3		63.8		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				18	39	83	179		
CNEL:				19	41	89	192		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Phase 2 Road Name: Encanto Dr. Road Segment: s/o A Street					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 550 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-5.42	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-22.66	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-26.61	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.5	62.6	60.9	54.8	63.4	64.0			
Medium Trucks:	57.9	56.4	50.1	48.5	57.0	57.2			
Heavy Trucks:	58.0	56.6	47.5	48.8	57.1	57.3			
Vehicle Noise:	66.1	64.4	61.4	56.5	65.1	65.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			28	60	129	278			
CNEL:			30	64	139	299			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 98,550 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,855 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20% Medium Trucks: 84.8% 4.9% 10.3% 6.04% Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.63	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-6.01	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.22	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.7	77.8	76.0	70.0	78.6	79.2			
Medium Trucks:	78.3	76.8	70.4	68.8	77.3	77.5			
Heavy Trucks:	81.1	79.7	70.6	71.9	80.2	80.3			
Vehicle Noise:	84.6	83.0	78.0	75.2	83.6	84.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				650	1,400	3,017	6,501		
CNEL:				681	1,468	3,163	6,814		
Friday, May 24, 2019									

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10,012 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.70	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.94	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.15	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.8	77.9	76.1	70.1	78.7	79.3			
Medium Trucks:	78.3	76.8	70.5	68.9	77.4	77.6			
Heavy Trucks:	81.1	79.7	70.7	71.9	80.3	80.4			
Vehicle Noise:	84.7	83.1	78.0	75.3	83.7	84.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			657	1,415	3,049	6,569			
CNEL:			689	1,484	3,196	6,886			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 10,104 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph									
Near/Far Lane Distance: 120 feet									
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Height: 0.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Barrier Type (0-Wall, 1-Berm): 0.0									
Centerline Dist. to Barrier: 80.0 feet									
Centerline Dist. to Observer: 80.0 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					Grade Adjustment: 0.0				
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.74	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.90	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.11	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)					Lane Equivalent Distance (in feet)				
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.8	77.9	76.1	70.1	78.7	79.3			
Medium Trucks:	78.4	76.9	70.5	69.0	77.4	77.7			
Heavy Trucks:	81.2	79.8	70.7	72.0	80.3	80.5			
Vehicle Noise:	84.7	83.1	78.1	75.3	83.8	84.1			
Centerline Distance to Noise Contour (in feet)					70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:					661	1,424	3,068	6,610	
CNEL:					693	1,493	3,216	6,928	

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 820 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.68	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-20.92	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-24.88	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.3	64.4	62.6	56.6	65.2	65.8			
Medium Trucks:	59.7	58.2	51.8	50.3	58.7	59.0			
Heavy Trucks:	59.7	58.3	49.3	50.5	58.9	59.0			
Vehicle Noise:	67.9	66.1	63.1	58.3	66.8	67.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			36	78	168	362			
CNEL:			39	84	181	390			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.				Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 7,900 vehicles				Autos: 15					
Peak Hour Percentage: 10%				Medium Trucks (2 Axles): 15					
Peak Hour Volume: 790 vehicles				Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph				Vehicle Mix					
Near/Far Lane Distance: 48 feet				VehicleType		Day	Evening	Night	Daily
Site Data				Autos: 77.5% 12.9% 9.6% 97.42%					
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
				Noise Source Elevations (in feet)					
				Autos: 0.000					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Medium Trucks: 2.297		Grade Adjustment: 0.0			
				Heavy Trucks: 8.006					
				Lane Equivalent Distance (in feet)					
				Autos: 54.129		Medium Trucks: 53.966			
				Heavy Trucks: 53.982					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.85	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-21.08	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-25.04	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.1	64.2	62.4	56.4	65.0	65.6			
Medium Trucks:	59.5	58.0	51.6	50.1	58.6	58.8			
Heavy Trucks:	59.6	58.1	49.1	50.3	58.7	58.8			
Vehicle Noise:	67.7	65.9	63.0	58.1	66.7	67.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			35	76	164	353			
CNEL:			38	82	176	380			
Friday, May 24, 2019									

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Encanto Dr. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 990 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.87	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-20.10	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-24.06	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.1	65.2	63.4	57.4	66.0	66.6			
Medium Trucks:	60.5	59.0	52.6	51.1	59.5	59.8			
Heavy Trucks:	60.5	59.1	50.1	51.3	59.7	59.8			
Vehicle Noise:	68.7	66.9	64.0	59.1	67.6	68.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			41	88	191	411			
CNEL:			44	95	205	442			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Project Buildout Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.				Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS						
Highway Data				Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 10,200 vehicles				Autos: 15						
Peak Hour Percentage: 10%				Medium Trucks (2 Axles): 15						
Peak Hour Volume: 1,020 vehicles				Heavy Trucks (3+ Axles): 15						
Vehicle Speed: 35 mph										
Near/Far Lane Distance: 48 feet										
Site Data				Vehicle Mix						
Barrier Height: 0.0 feet				VehicleType		Day	Evening	Night	Daily	
Barrier Type (0-Wall, 1-Berm): 0.0						Autos:	77.5%	12.9%	9.6%	97.42%
Centerline Dist. to Barrier: 59.0 feet						Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Centerline Dist. to Observer: 59.0 feet						Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
Barrier Distance to Observer: 0.0 feet				Noise Source Elevations (in feet)						
Observer Height (Above Pad): 5.0 feet				Autos: 0.000						
Pad Elevation: 0.0 feet				Medium Trucks: 2.297						
Road Elevation: 0.0 feet				Heavy Trucks: 8.006						
Road Grade: 0.0%				Grade Adjustment: 0.0						
Left View: -90.0 degrees				Lane Equivalent Distance (in feet)						
Right View: 90.0 degrees				Autos: 54.129						
				Medium Trucks: 53.966						
				Heavy Trucks: 53.982						
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	-0.77	-0.62	-1.20	-4.69	0.000	0.000	0.000		
Medium Trucks:	75.75	-18.01	-0.60	-1.20	-4.88	0.000	0.000	0.000		
Heavy Trucks:	81.57	-21.97	-0.60	-1.20	-5.35	0.000	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	61.7	59.8	58.0	52.0	60.6	61.2		61.2		
Medium Trucks:	55.9	54.4	48.1	46.5	55.0	55.2		55.2		
Heavy Trucks:	57.8	56.4	47.3	48.6	56.9	57.1		57.1		
Vehicle Noise:	63.9	62.2	58.8	54.4	62.9	63.4		63.4		
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				20	43	92	199			
CNEL:				21	46	99	213			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Sherman Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 380 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-6.15	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-23.39	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-27.35	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.5	58.6	56.8	50.8	59.4	60.0			
Medium Trucks:	54.3	52.7	46.4	44.8	53.3	53.5			
Heavy Trucks:	55.1	53.7	44.6	45.9	54.2	54.4			
Vehicle Noise:	62.3	60.6	57.4	52.8	61.3	61.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			16	33	72	155			
CNEL:			17	36	77	166			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Project Buildout Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		400 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		40 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		45 mph			Vehicle Mix					
Near/Far Lane Distance:		48 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		77.5%	12.9%	9.6%	97.42%
Barrier Height:		0.0 feet			Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:		59.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		59.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet			Autos:		54.129			
Road Grade:		0.0%			Medium Trucks:		53.966			
Left View:		-90.0 degrees			Heavy Trucks:		53.982			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	RECEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	-15.93	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	79.45	-33.17	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-37.12	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	50.7	48.8	47.0	41.0	49.6	50.2				
Medium Trucks:	44.5	43.0	36.6	35.1	43.5	43.8				
Heavy Trucks:	45.3	43.9	34.9	36.1	44.5	44.6				
Vehicle Noise:	52.6	50.8	47.7	43.0	51.5	52.0				
Centerline Distance to Noise Contour (in feet)										
		70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:		3	7	16	35					
CNEL:		4	8	17	37					

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-21.95	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-39.19	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-43.15	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	44.7	42.8	41.0	35.0	43.6	44.2			
Medium Trucks:	38.5	37.0	30.6	29.0	37.5	37.7			
Heavy Trucks:	39.3	37.9	28.8	30.1	38.5	38.6			
Vehicle Noise:	46.5	44.8	41.6	37.0	45.5	46.0			
Centerline Distance to Noise Contour (in feet)									
		70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:	1	3	6	14					
CNEL:	1	3	7	15					

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: Existing With Project Buildout Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt):		600 vehicles			Autos:		15				
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15				
Peak Hour Volume:		60 vehicles			Heavy Trucks (3+ Axles):		15				
Vehicle Speed:		40 mph									
Near/Far Lane Distance:		45 feet									
Site Data					Vehicle Mix						
					VehicleType		Day	Evening	Night	Daily	
							Autos:	77.5%	12.9%	9.6%	97.42%
							Medium Trucks:	84.8%	4.9%	10.3%	1.84%
							Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)						
							Autos:	0.000			
							Medium Trucks:	2.297			
							Heavy Trucks:	8.006	Grade Adjustment: 0.0		
										Lane Equivalent Distance (in feet)	
				Autos:	44.931						
				Medium Trucks:	44.733						
				Heavy Trucks:	44.752						
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	66.51	-13.66	0.59	-1.20	-4.65	0.000	0.000				
Medium Trucks:	77.72	-30.90	0.62	-1.20	-4.87	0.000	0.000				
Heavy Trucks:	82.99	-34.85	0.62	-1.20	-5.43	0.000	0.000				
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	52.2	50.3	48.6	42.5	51.1	51.8					
Medium Trucks:	46.2	44.7	38.4	36.8	45.3	45.5					
Heavy Trucks:	47.6	46.1	37.1	38.4	46.7	46.8					
Vehicle Noise:	54.3	52.5	49.3	44.7	53.2	53.7					
Centerline Distance to Noise Contour (in feet)											
			70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:			4	8	18	38					
CNEL:			4	9	19	41					

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Antelope Rd. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-21.44	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	77.72	-38.68	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	82.99	-42.63	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	43.3	41.4	39.6	33.5	42.2	42.8			
Medium Trucks:	37.2	35.7	29.4	27.8	36.3	36.5			
Heavy Trucks:	38.6	37.1	28.1	29.3	37.7	37.8			
Vehicle Noise:	45.3	43.5	40.3	35.7	44.2	44.7			
Centerline Distance to Noise Contour (in feet)									
		70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:	1	2	5	11					
CNEL:	1	3	6	12					

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: Existing With Project Buildout Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 2,200 vehicles					Autos: 15						
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15						
Peak Hour Volume: 220 vehicles					Heavy Trucks (3+ Axles): 15						
Vehicle Speed: 40 mph											
Near/Far Lane Distance: 12 feet					Vehicle Mix						
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 37.0 feet Centerline Dist. to Observer: 37.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily	
							Autos:	77.5%	12.9%	9.6%	97.42%
							Medium Trucks:	84.8%	4.9%	10.3%	1.84%
							Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)						
							Autos:	0.000			
							Medium Trucks:	2.297			
							Heavy Trucks:	8.006			
							Grade Adjustment: 0.0				
							Lane Equivalent Distance (in feet)				
		Autos:	36.851								
		Medium Trucks:	36.610								
		Heavy Trucks:	36.634								

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.02	1.88	-1.20	-4.56	0.000	0.000
Medium Trucks:	77.72	-25.25	1.93	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-29.21	1.92	-1.20	-5.61	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	59.2	57.3	55.5	49.5	58.1	58.7	
Medium Trucks:	53.2	51.7	45.3	43.8	52.2	52.5	
Heavy Trucks:	54.5	53.1	44.1	45.3	53.7	53.8	
Vehicle Noise:	61.2	59.5	56.2	51.6	60.2	60.6	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			8	18	38	82	
CNEL:			9	19	41	88	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 710 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-4.31	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-21.55	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-25.50	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.4	62.5	60.8	54.7	63.3	63.9			
Medium Trucks:	57.8	56.3	49.9	48.4	56.9	57.1			
Heavy Trucks:	57.8	56.4	47.4	48.6	57.0	57.1			
Vehicle Noise:	66.0	64.2	61.3	56.4	65.0	65.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				35	76	163	351		
CNEL:				38	81	175	377		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,210 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 76.0 feet					Daily				
Centerline Dist. to Observer: 76.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006				
Right View: 90.0 degrees					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.99	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-19.23	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.19	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.7	64.8	63.1	57.0	65.6	66.2			
Medium Trucks:	60.1	58.6	52.3	50.7	59.2	59.4			
Heavy Trucks:	60.2	58.7	49.7	51.0	59.3	59.4			
Vehicle Noise:	68.3	66.6	63.6	58.7	67.3	67.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			50	108	232	500			
CNEL:			54	116	250	538			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Project Buildout Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,250 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-1.85	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-19.09	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-23.05	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	66.9	65.0	63.2	57.2	65.8	66.4		
Medium Trucks:	60.3	58.8	52.4	50.9	59.3	59.5		
Heavy Trucks:	60.3	58.9	49.8	51.1	59.5	59.6		
Vehicle Noise:	68.5	66.7	63.7	58.9	67.4	67.9		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			51	110	237	511		
CNEL:			55	118	255	550		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: SR-74 Road Segment: elo I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,240 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.70	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-14.54	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-18.50	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.2	67.4	61.4	70.0	70.6			
Medium Trucks:	64.7	63.2	56.8	55.2	63.7	63.9			
Heavy Trucks:	65.1	63.7	54.6	55.9	64.2	64.4			
Vehicle Noise:	72.8	71.0	68.0	63.2	71.7	72.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			77	166	358	772			
CNEL:			83	179	385	829			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,360 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.32	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-15.92	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-19.87	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	69.7	67.8	66.0	60.0	68.6		69.2		
Medium Trucks:	63.3	61.8	55.4	53.9	62.3		62.6		
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8		63.0		
Vehicle Noise:	71.4	69.7	66.6	61.8	70.4		70.8		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				62	135	290	625		
CNEL:				67	145	311	671		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,550 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.11	-0.62	-1.20	-4.69	0.000	0.000	0.000	
Medium Trucks:	79.45	-15.12	-0.60	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	84.25	-19.08	-0.60	-1.20	-5.35	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.8	66.9	65.1	59.0	67.7	68.3			
Medium Trucks:	62.5	61.0	54.7	53.1	61.6	61.8			
Heavy Trucks:	63.4	61.9	52.9	54.2	62.5	62.6			
Vehicle Noise:	70.6	68.9	65.7	61.0	69.6	70.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			55	119	256	552			
CNEL:			59	128	275	592			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,570 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	1.80	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-10.33	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-11.21	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.9	64.0	62.2	56.2	64.8	65.4			
Medium Trucks:	64.7	63.2	56.9	55.3	63.8	64.0			
Heavy Trucks:	68.7	67.3	58.2	59.5	67.8	68.0			
Vehicle Noise:	71.5	70.0	64.5	62.1	70.6	70.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			110	236	508	1,095			
CNEL:			114	246	531	1,143			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,570 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.35	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-10.79	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-11.66	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.2	65.3	63.5	57.5	66.1	66.7			
Medium Trucks:	65.8	64.3	58.0	56.4	64.9	65.1			
Heavy Trucks:	69.3	67.9	58.9	60.1	68.5	68.6			
Vehicle Noise:	72.5	70.9	65.6	63.1	71.5	71.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			126	272	586	1,263			
CNEL:			132	285	613	1,321			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,290 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.42	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-9.72	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-10.59	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.2	66.3	64.6	58.5	67.1	67.8			
Medium Trucks:	66.9	65.4	59.0	57.5	66.0	66.2			
Heavy Trucks:	70.4	69.0	60.0	61.2	69.6	69.7			
Vehicle Noise:	73.5	72.0	66.7	64.1	72.6	72.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			149	321	691	1,489			
CNEL:			156	336	723	1,557			
Friday, May 24, 2019									

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,400 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 240 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 120 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Site Data					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet					Autos: 0.000				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 2.297				
Centerline Dist. to Barrier: 100.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Centerline Dist. to Observer: 100.0 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									
Road Grade: 0.0%					Lane Equivalent Distance (in feet)				
Left View: -90.0 degrees					Autos: 80.156				
Right View: 90.0 degrees					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-8.95	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-21.09	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-21.96	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.9	55.0	53.2	47.2	55.8	56.4			
Medium Trucks:	55.5	54.0	47.7	46.1	54.6	54.8			
Heavy Trucks:	59.0	57.6	48.6	49.8	58.2	58.3			
Vehicle Noise:	62.2	60.6	55.3	52.8	61.2	61.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				26	56	121	260		
CNEL:				27	59	126	272		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,300 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-1.61	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-13.75	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-14.62	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.2	62.3	60.5	54.5	63.1	63.7			
Medium Trucks:	62.9	61.4	55.0	53.5	61.9	62.2			
Heavy Trucks:	66.4	65.0	55.9	57.2	65.5	65.7			
Vehicle Noise:	69.5	67.9	62.7	60.1	68.6	68.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			80	173	372	802			
CNEL:			84	181	389	839			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,550 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-0.85	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-12.99	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-13.86	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.0	63.1	61.3	55.3	63.9	64.5			
Medium Trucks:	63.6	62.1	55.8	54.2	62.7	62.9			
Heavy Trucks:	67.1	65.7	56.7	57.9	66.3	66.4			
Vehicle Noise:	70.3	68.7	63.4	60.9	69.3	69.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				90	194	419	902		
CNEL:				94	203	438	943		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: Existing With Project Buildout Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,090 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 90.00%				
				Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
				Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-1.92	-3.18	-1.20	-4.77	0.000	0.000	
Medium Trucks:	79.45	-14.06	-3.17	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-14.93	-3.17	-1.20	-5.16	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	62.2	60.3	58.5	52.4	61.1	61.7		
Medium Trucks:	61.0	59.5	53.2	51.6	60.1	60.3		
Heavy Trucks:	65.0	63.5	54.5	55.7	64.1	64.2		
Vehicle Noise:	67.8	66.2	60.8	58.4	66.9	67.1		
Centerline Distance to Noise Contour (in feet)								
				70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:				62	133	287	618	
CNEL:				65	139	300	645	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 730 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-3.66	-3.18	-1.20	-4.77	0.000	0.000	0.000	
Medium Trucks:	79.45	-15.80	-3.17	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	84.25	-16.67	-3.17	-1.20	-5.16	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.4	58.5	56.8	50.7	59.3	59.9			
Medium Trucks:	59.3	57.8	51.4	49.9	58.3	58.6			
Heavy Trucks:	63.2	61.8	52.8	54.0	62.4	62.5			
Vehicle Noise:	66.1	64.5	59.0	56.7	65.1	65.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			47	102	220	473			
CNEL:			49	106	229	494			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 480 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-2.59	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-19.82	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-23.78	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	55.5	53.6	51.9	45.8	54.4	55.0			
Medium Trucks:	50.4	48.9	42.5	41.0	49.4	49.7			
Heavy Trucks:	53.6	52.2	43.2	44.4	52.8	52.9			
Vehicle Noise:	58.4	56.8	52.8	48.9	57.4	57.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				7	16	34	73		
CNEL:				8	17	36	77		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Rouse Rd. Road Segment: elo Street A					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 310 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-4.48	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-21.72	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-25.68	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	53.6	51.7	50.0	43.9	52.5	53.2			
Medium Trucks:	48.5	47.0	40.6	39.1	47.5	47.8			
Heavy Trucks:	51.7	50.3	41.3	42.5	50.9	51.0			
Vehicle Noise:	56.5	54.9	50.9	47.0	55.5	55.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			5	12	25	54			
CNEL:			6	12	27	58			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 1,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 180 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-6.85	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-24.08	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-28.04	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	51.3	49.4	47.6	41.6	50.2	50.8			
Medium Trucks:	46.1	44.6	38.3	36.7	45.2	45.4			
Heavy Trucks:	49.4	47.9	38.9	40.1	48.5	48.6			
Vehicle Noise:	54.2	52.5	48.6	44.7	53.2	53.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				4	8	18	38		
CNEL:				4	9	19	40		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Project Buildout Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph								
Near/Far Lane Distance:		45 feet								
Site Data					Vehicle Mix					
Barrier Height:		0.0 feet			VehicleType		Day	Evening	Night	Daily
Barrier Type (0-Wall, 1-Berm):		0.0			Autos:		77.5%	12.9%	9.6%	97.42%
Centerline Dist. to Barrier:		50.0 feet			Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Centerline Dist. to Observer:		50.0 feet			Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Barrier Distance to Observer:		0.0 feet								
Observer Height (Above Pad):		5.0 feet								
Pad Elevation:		0.0 feet								
Road Elevation:		0.0 feet								
Road Grade:		0.0%								
Left View:		-90.0 degrees								
Right View:		90.0 degrees								
FHWA Noise Model Calculations					Noise Source Elevations (in feet)					
Autos:		58.73			Autos:		0.000			
Medium Trucks:		70.80			Medium Trucks:		2.297			
Heavy Trucks:		77.97			Heavy Trucks:		8.006			
					Grade Adjustment: 0.0					
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)					
Autos:		58.73			Autos:		44.931			
Medium Trucks:		70.80			Medium Trucks:		44.733			
Heavy Trucks:		77.97			Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000		0.000	
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000		0.000	
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	38.7	36.8	35.1	29.0	37.6	38.2				
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9				
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1				
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	1	3	6			
CNEL:				1	1	3	6			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Chambers Av. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 200 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-6.39	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	70.80	-23.63	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	77.97	-27.58	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	51.7	49.8	48.1	42.0	50.6	51.2		51.2	
Medium Trucks:	46.6	45.1	38.7	37.2	45.6	45.9		45.9	
Heavy Trucks:	49.8	48.4	39.4	40.6	49.0	49.1		49.1	
Vehicle Noise:	54.6	53.0	49.0	45.1	53.6	54.0		54.0	
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			4	9	19	41			
CNEL:			4	9	20	43			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Chambers Av. Road Segment: e/o Street C					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000		0.000
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000		0.000
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000		0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	38.7	36.8	35.1	29.0	37.6	38.2			38.2
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9			32.9
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1			36.1
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0			41.0
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				1	1	3	6		
CNEL:				1	1	3	6		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,540 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	1.02	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	75.75	-16.22	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	81.57	-20.18	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.5	61.6	59.8	53.8	62.4	63.0			
Medium Trucks:	57.7	56.2	49.9	48.3	56.8	57.0			
Heavy Trucks:	59.6	58.2	49.1	50.4	58.7	58.9			
Vehicle Noise:	65.7	64.0	60.6	56.2	64.7	65.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			26	56	122	262			
CNEL:			28	60	130	280			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: McCall Bl. Road Segment: elo I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,830 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.57	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-14.67	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-18.63	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.0	66.1	64.3	58.3	66.9	67.5			
Medium Trucks:	61.7	60.2	53.9	52.3	60.8	61.0			
Heavy Trucks:	62.6	61.2	52.1	53.4	61.7	61.9			
Vehicle Noise:	69.8	68.1	64.9	60.2	68.8	69.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				63	136	293	631		
CNEL:				68	146	314	676		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: McCall Bl. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,180 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	1.43	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-15.80	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-19.76	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.8	64.9	63.2	57.1	65.7	66.3			
Medium Trucks:	60.6	59.1	52.7	51.2	59.7	59.9			
Heavy Trucks:	61.4	60.0	51.0	52.2	60.6	60.7			
Vehicle Noise:	68.7	66.9	63.8	59.1	67.7	68.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			53	114	246	530			
CNEL:			57	122	264	568			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: McCall Bl. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,180 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.56	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-16.68	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-20.63	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.3	67.4	65.6	59.6	68.2	68.8			
Medium Trucks:	62.7	61.2	54.8	53.3	61.7	62.0			
Heavy Trucks:	62.7	61.3	52.3	53.5	61.9	62.0			
Vehicle Noise:	70.9	69.1	66.2	61.3	69.8	70.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			74	160	344	741			
CNEL:			80	172	370	797			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: Existing With Project Buildout Road Name: McCall Bl. Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 8,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 860 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006 Grade Adjustment: 0.0			
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)					
					Autos:		65.422			
					Medium Trucks:		65.286			
					Heavy Trucks:		65.300			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-3.48	-1.85	-1.20	-4.73	0.000	0.000			
Medium Trucks:	82.40	-20.72	-1.84	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-24.67	-1.84	-1.20	-5.25	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	65.2	63.4	61.6	55.5	64.2	64.8				
Medium Trucks:	58.6	57.1	50.8	49.2	57.7	57.9				
Heavy Trucks:	58.7	57.3	48.2	49.5	57.8	58.0				
Vehicle Noise:	66.8	65.1	62.1	57.2	65.8	66.3				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				40	86	185	398			
CNEL:				43	92	199	429			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,400 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 840 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet					VehicleType				
Site Data					Day				
					Evening				
					Night				
					Daily				
					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 50.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 50.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 44.931				
Road Grade: 0.0%					Medium Trucks: 44.733				
Left View: -90.0 degrees					Heavy Trucks: 44.752				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-2.20	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	77.72	-19.44	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	82.99	-23.39	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.7	61.8	60.0	54.0	62.6	63.2			
Medium Trucks:	57.7	56.2	49.8	48.3	56.7	57.0			
Heavy Trucks:	59.0	57.6	48.6	49.8	58.2	58.3			
Vehicle Noise:	65.7	64.0	60.7	56.2	64.7	65.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			22	48	103	222			
CNEL:			24	51	110	237			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: Existing With Project Buildout Road Name: Encanto Dr. Road Segment: s/o A Street					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 770 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.96	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-21.20	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-25.15	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.0	64.1	62.3	56.3	64.9	65.5			
Medium Trucks:	59.4	57.9	51.5	50.0	58.5	58.7			
Heavy Trucks:	59.4	58.0	49.0	50.2	58.6	58.7			
Vehicle Noise:	67.6	65.8	62.9	58.0	66.5	67.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				35	75	161	347		
CNEL:				37	81	173	374		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 99,199 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 9,920 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.66	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.98	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.19	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.7	77.8	76.1	70.0	78.6	79.2			
Medium Trucks:	78.3	76.8	70.4	68.9	77.3	77.6			
Heavy Trucks:	81.1	79.7	70.6	71.9	80.2	80.4			
Vehicle Noise:	84.6	83.0	78.0	75.2	83.7	84.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				653	1,407	3,031	6,529		
CNEL:				684	1,474	3,176	6,844		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 10,090 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph					Vehicle Mix				
Near/Far Lane Distance: 120 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 80.0 feet					Daily				
Centerline Dist. to Observer: 80.0 feet					Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.74	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.91	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.11	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.8	77.9	76.1	70.1	78.7	79.3			
Medium Trucks:	78.4	76.9	70.5	69.0	77.4	77.6			
Heavy Trucks:	81.2	79.8	70.7	72.0	80.3	80.5			
Vehicle Noise:	84.7	83.1	78.1	75.3	83.8	84.1			
Centerline Distance to Noise Contour (in feet)									
	70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:	660	1,423	3,065	6,603					
CNEL:	692	1,491	3,213	6,921					

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10,257 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.81	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.84	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.04	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.9	78.0	76.2	70.2	78.8	79.4			
Medium Trucks:	78.4	76.9	70.6	69.0	77.5	77.7			
Heavy Trucks:	81.2	79.8	70.8	72.0	80.4	80.5			
Vehicle Noise:	84.8	83.2	78.1	75.4	83.8	84.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				668	1,438	3,099	6,676		
CNEL:				700	1,508	3,248	6,998		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 570 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Noise Source Elevations (in feet)					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-5.26	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-22.50	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-26.46	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.7	62.8	61.0	55.0	63.6	64.2			
Medium Trucks:	58.1	56.6	50.2	48.7	57.1	57.4			
Heavy Trucks:	58.1	56.7	47.7	48.9	57.3	57.4			
Vehicle Noise:	66.3	64.5	61.6	56.7	65.2	65.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				28	61	132	284		
CNEL:				31	66	142	306		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2020 Without Project Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 540 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-5.50	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-22.74	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-26.69	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	64.5	62.6	60.8	54.7	63.4	64.0		
Medium Trucks:	57.9	56.4	50.0	48.5	56.9	57.1		
Heavy Trucks:	57.9	56.5	47.4	48.7	57.0	57.2		
Vehicle Noise:	66.0	64.3	61.3	56.5	65.0	65.5		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			27	59	127	274		
CNEL:			29	64	137	295		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 Without Project Road Name: Encanto Dr. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 6,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 690 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		54.129			
					Medium Trucks:		53.966			
					Heavy Trucks:		53.982			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-4.43	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	82.40	-21.67	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-25.63	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	65.5	63.6	61.9	55.8	64.4	65.0				
Medium Trucks:	58.9	57.4	51.1	49.5	58.0	58.2				
Heavy Trucks:	59.0	57.5	48.5	49.8	58.1	58.2				
Vehicle Noise:	67.1	65.3	62.4	57.5	66.1	66.5				
Centerline Distance to Noise Contour (in feet)										
				70 dBA		65 dBA		60 dBA		55 dBA
Ldn:				32		70		150		323
CNEL:				35		75		161		347

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 590 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-3.15	-0.62	-1.20	-4.69	0.000	0.000	0.000	
Medium Trucks:	75.75	-20.39	-0.60	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	81.57	-24.35	-0.60	-1.20	-5.35	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	59.3	57.4	55.7	49.6	58.2	58.8		58.8	
Medium Trucks:	53.6	52.1	45.7	44.1	52.6	52.8		52.8	
Heavy Trucks:	55.4	54.0	45.0	46.2	54.6	54.7		54.7	
Vehicle Noise:	61.6	59.8	56.4	52.0	60.5	61.0		61.0	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				14	30	64	138		
CNEL:				15	32	69	148		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Sherman Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 610 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-4.10	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-21.34	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-25.29	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.5	60.6	58.9	52.8	61.4	62.1			
Medium Trucks:	56.3	54.8	48.4	46.9	55.4	55.6			
Heavy Trucks:	57.2	55.7	46.7	47.9	56.3	56.4			
Vehicle Noise:	64.4	62.6	59.5	54.8	63.4	63.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				21	46	99	213		
CNEL:				23	49	106	228		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,700 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 770 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-3.09	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-20.32	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-24.28	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.6	61.7	59.9	53.8	62.5	63.1			
Medium Trucks:	57.3	55.8	49.5	47.9	56.4	56.6			
Heavy Trucks:	58.2	56.7	47.7	49.0	57.3	57.4			
Vehicle Noise:	65.4	63.7	60.5	55.8	64.4	64.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			25	54	115	248			
CNEL:			27	57	124	267			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 Without Project Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	-21.95	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	79.45	-39.19	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-43.15	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	44.7	42.8	41.0	35.0	43.6	44.2				
Medium Trucks:	38.5	37.0	30.6	29.0	37.5	37.7				
Heavy Trucks:	39.3	37.9	28.8	30.1	38.5	38.6				
Vehicle Noise:	46.5	44.8	41.6	37.0	45.5	46.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	3	6	14			
CNEL:				1	3	7	15			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 510 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 50.0 feet					Daily				
Centerline Dist. to Observer: 50.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.36	0.59	-1.20	-4.65	0.000	0.000	0.000	0.000
Medium Trucks:	77.72	-21.60	0.62	-1.20	-4.87	0.000	0.000	0.000	0.000
Heavy Trucks:	82.99	-25.56	0.62	-1.20	-5.43	0.000	0.000	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.5	59.6	57.9	51.8	60.4	61.0			
Medium Trucks:	55.5	54.0	47.7	46.1	54.6	54.8			
Heavy Trucks:	56.9	55.4	46.4	47.6	56.0	56.1			
Vehicle Noise:	63.6	61.8	58.5	54.0	62.5	63.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				16	34	74	159		
CNEL:				17	37	79	170		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2020 Without Project Road Name: Antelope Rd. Road Segment: s/o Chambers Av.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 420 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	66.51	-5.21	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	77.72	-22.45	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	82.99	-26.40	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	59.5	57.6	55.8	49.8	58.4	59.0		
Medium Trucks:	53.5	52.0	45.6	44.1	52.5	52.7		
Heavy Trucks:	54.8	53.4	44.3	45.6	53.9	54.1		
Vehicle Noise:	61.5	59.8	56.5	51.9	60.5	60.9		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			14	29	63	137		
CNEL:			15	32	68	146		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,700 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 470 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 12 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 37.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 37.0 feet									
Barrier Distance to Observer: 0.0 feet									
Observer Height (Above Pad): 5.0 feet					Autos: 0.000				
Pad Elevation: 0.0 feet					Medium Trucks: 2.297				
Road Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
VehicleType					Lane Equivalent Distance (in feet)				
Autos: 66.51					Autos: 36.851				
Medium Trucks: 77.72					Medium Trucks: 36.610				
Heavy Trucks: 82.99					Heavy Trucks: 36.634				
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.5	60.6	58.8	52.8	61.4	62.0			
Medium Trucks:	56.5	55.0	48.6	47.1	55.5	55.8			
Heavy Trucks:	57.8	56.4	47.3	48.6	57.0	57.1			
Vehicle Noise:	64.5	62.8	59.5	54.9	63.5	63.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			14	29	63	136			
CNEL:			15	31	68	146			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 940 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.09	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-20.33	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-24.29	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.6	63.7	62.0	55.9	64.5	65.1			
Medium Trucks:	59.0	57.5	51.2	49.6	58.1	58.3			
Heavy Trucks:	59.1	57.6	48.6	49.9	58.2	58.3			
Vehicle Noise:	67.2	65.5	62.5	57.6	66.2	66.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				42	91	196	423		
CNEL:				45	98	211	455		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,770 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.34	-1.85	-1.20	-4.73	0.000	0.000	0.000	
Medium Trucks:	82.40	-17.58	-1.84	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	86.40	-21.54	-1.84	-1.20	-5.25	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.4	66.5	64.7	58.7	67.3	67.9		67.9	
Medium Trucks:	61.8	60.3	53.9	52.4	60.8	61.1		61.1	
Heavy Trucks:	61.8	60.4	51.4	52.6	61.0	61.1		61.1	
Vehicle Noise:	70.0	68.2	65.2	60.4	68.9	69.4		69.4	
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			64	139	299	645			
CNEL:			69	149	322	693			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,600 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.78	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-18.02	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-21.98	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.9	66.0	64.3	58.2	66.8	67.5			
Medium Trucks:	61.3	59.8	53.5	51.9	60.4	60.6			
Heavy Trucks:	61.4	60.0	50.9	52.2	60.5	60.7			
Vehicle Noise:	69.5	67.8	64.8	59.9	68.5	69.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				60	130	280	603		
CNEL:				65	140	301	648		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: SR-74 Road Segment: elo I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 40,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,080 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.70	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-13.54	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-17.50	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	72.1	70.2	68.4	62.4	71.0	71.6			
Medium Trucks:	65.7	64.2	57.8	56.2	64.7	64.9			
Heavy Trucks:	66.1	64.7	55.6	56.9	65.2	65.4			
Vehicle Noise:	73.8	72.0	69.0	64.2	72.7	73.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			90	194	418	900			
CNEL:			97	208	449	967			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,870 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.17	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-15.07	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-19.02	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.6	68.7	66.9	60.8	69.5	70.1			
Medium Trucks:	64.1	62.6	56.3	54.7	63.2	63.4			
Heavy Trucks:	64.6	63.1	54.1	55.3	63.7	63.8			
Vehicle Noise:	72.3	70.5	67.5	62.7	71.2	71.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			71	153	330	712			
CNEL:			76	165	355	764			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,910 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.69	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-14.55	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-18.51	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.3	67.4	65.7	59.6	68.2	68.8			
Medium Trucks:	63.1	61.6	55.2	53.7	62.1	62.4			
Heavy Trucks:	63.9	62.5	53.5	54.7	63.1	63.2			
Vehicle Noise:	71.2	69.4	66.3	61.6	70.1	70.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			60	130	280	603			
CNEL:			65	139	300	647			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,590 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.26	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-8.88	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-9.75	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	67.3	65.4	63.7	57.6	66.2		66.8		
Medium Trucks:	66.2	64.7	58.3	56.8	65.2		65.5		
Heavy Trucks:	70.1	68.7	59.7	60.9	69.3		69.4		
Vehicle Noise:	73.0	71.4	66.0	63.6	72.0		72.3		
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			137	295	635	1,369			
CNEL:			143	308	663	1,429			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,590 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.80	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-9.34	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-10.21	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.6	66.7	65.0	58.9	67.5	68.1			
Medium Trucks:	67.3	65.8	59.4	57.9	66.3	66.6			
Heavy Trucks:	70.8	69.4	60.3	61.6	69.9	70.1			
Vehicle Noise:	73.9	72.3	67.1	64.5	73.0	73.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				158	340	733	1,578		
CNEL:				165	356	766	1,651		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: SR-74 Road Segment: elo Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 41,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,160 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.44	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-8.70	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-9.57	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.3	67.4	65.6	59.5	68.2	68.8			
Medium Trucks:	67.9	66.4	60.1	58.5	67.0	67.2			
Heavy Trucks:	71.4	70.0	61.0	62.2	70.6	70.7			
Vehicle Noise:	74.6	73.0	67.7	65.2	73.6	73.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			174	375	808	1,741			
CNEL:			182	392	845	1,821			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 360 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-7.19	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-19.33	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-20.20	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	58.6	56.7	55.0	48.9	57.5	58.1			
Medium Trucks:	57.3	55.8	49.4	47.9	56.3	56.6			
Heavy Trucks:	60.8	59.4	50.4	51.6	60.0	60.1			
Vehicle Noise:	63.9	62.4	57.1	54.5	63.0	63.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				34	73	158	341		
CNEL:				36	77	165	356		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,710 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-0.42	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-12.56	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-13.43	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.4	63.5	61.7	55.7	64.3	64.9			
Medium Trucks:	64.1	62.6	56.2	54.7	63.1	63.3			
Heavy Trucks:	67.6	66.2	57.1	58.4	66.7	66.8			
Vehicle Noise:	70.7	69.1	63.8	61.3	69.8	70.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			96	207	447	963			
CNEL:			101	217	467	1,007			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,130 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	0.53	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-11.61	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-12.48	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.4	64.5	62.7	56.6	65.3	65.9			
Medium Trucks:	65.0	63.5	57.2	55.6	64.1	64.3			
Heavy Trucks:	68.5	67.1	58.1	59.3	67.7	67.8			
Vehicle Noise:	71.7	70.1	64.8	62.3	70.7	71.0			
Centerline Distance to Noise Contour (in feet)									
	70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:	111	240	517	1,115					
CNEL:	117	251	541	1,166					

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 27,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,720 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.05	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-10.09	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-10.96	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.1	64.2	62.5	56.4	65.0	65.6			
Medium Trucks:	65.0	63.5	57.1	55.6	64.0	64.3			
Heavy Trucks:	68.9	67.5	58.5	59.7	68.1	68.2			
Vehicle Noise:	71.8	70.2	64.7	62.4	70.8	71.1			
Centerline Distance to Noise Contour (in feet)									
	70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:	114	245	528	1,138					
CNEL:	119	256	551	1,188					

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,190 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:		68.46	-1.54	-3.18	-1.20	-4.77	0.000	0.000	
Medium Trucks:		79.45	-13.68	-3.17	-1.20	-4.88	0.000	0.000	
Heavy Trucks:		84.25	-14.55	-3.17	-1.20	-5.16	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:		62.5	60.6	58.9	52.8	61.4	62.1		
Medium Trucks:		61.4	59.9	53.5	52.0	60.4	60.7		
Heavy Trucks:		65.3	63.9	54.9	56.1	64.5	64.6		
Vehicle Noise:		68.2	66.6	61.2	58.8	67.3	67.5		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				66	141	304	656		
CNEL:				68	147	318	684		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 270 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-5.08	0.59	-1.20	-4.65	0.000		0.000	
Medium Trucks:	70.80	-22.32	0.62	-1.20	-4.87	0.000		0.000	
Heavy Trucks:	77.97	-26.28	0.62	-1.20	-5.43	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	53.0	51.1	49.4	43.3	51.9		52.6		
Medium Trucks:	47.9	46.4	40.0	38.5	46.9		47.2		
Heavy Trucks:	51.1	49.7	40.7	41.9	50.3		50.4		
Vehicle Noise:	55.9	54.3	50.3	46.4	54.9		55.3		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				5	11	23	50		
CNEL:				5	11	24	53		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Rouse Rd. Road Segment: elo Street A					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 220 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-5.97	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-23.21	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-27.17	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	52.2	50.3	48.5	42.4	51.1	51.7			
Medium Trucks:	47.0	45.5	39.1	37.6	46.1	46.3			
Heavy Trucks:	50.2	48.8	39.8	41.0	49.4	49.5			
Vehicle Noise:	55.0	53.4	49.5	45.5	54.1	54.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			4	9	20	43			
CNEL:			5	10	21	46			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 1,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 180 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-6.85	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-24.08	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-28.04	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	51.3	49.4	47.6	41.6	50.2	50.8			
Medium Trucks:	46.1	44.6	38.3	36.7	45.2	45.4			
Heavy Trucks:	49.4	47.9	38.9	40.1	48.5	48.6			
Vehicle Noise:	54.2	52.5	48.6	44.7	53.2	53.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				4	8	18	38		
CNEL:				4	9	19	40		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 600 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 50.0 feet					Daily				
Centerline Dist. to Observer: 50.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006				
Right View: 90.0 degrees					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-1.62	0.59	-1.20	-4.65	0.000	0.000	0.000	0.000
Medium Trucks:	70.80	-18.86	0.62	-1.20	-4.87	0.000	0.000	0.000	0.000
Heavy Trucks:	77.97	-22.81	0.62	-1.20	-5.43	0.000	0.000	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	56.5	54.6	52.8	46.8	55.4		56.0		
Medium Trucks:	51.4	49.9	43.5	41.9	50.4		50.6		
Heavy Trucks:	54.6	53.2	44.1	45.4	53.7		53.9		
Vehicle Noise:	59.4	57.7	53.8	49.9	58.4		58.8		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				8	18	39	84		
CNEL:				9	19	42	90		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2020 Without Project Road Name: Chambers Av. Road Segment: e/o Sherman Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		500 vehicles		Autos: 15				
Peak Hour Percentage:		10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume:		50 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		25 mph						
Near/Far Lane Distance:		45 feet						
Site Data				Vehicle Mix				
Barrier Height:		0.0 feet		VehicleType	Day	Evening	Night	Daily
Barrier Type (0-Wall, 1-Berm):		0.0		Autos: 77.5% 12.9% 9.6% 97.42%				
Centerline Dist. to Barrier:		50.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Observer:		50.0 feet		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Distance to Observer:		0.0 feet						
Observer Height (Above Pad):		5.0 feet		Grade Adjustment: 0.0				
Pad Elevation:		0.0 feet						
Road Elevation:		0.0 feet						
Road Grade:		0.0%						
Left View:		-90.0 degrees						
Right View:		90.0 degrees						
FHWA Noise Model Calculations				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006				
FHWA Noise Model Calculations				Lane Equivalent Distance (in feet)				
				Autos: 44.931				
				Medium Trucks: 44.733				
				Heavy Trucks: 44.752				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	58.73	-12.41	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:	70.80	-29.65	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	77.97	-33.60	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	45.7	43.8	42.1	36.0	44.6	45.2		
Medium Trucks:	40.6	39.1	32.7	31.2	39.6	39.8		
Heavy Trucks:	43.8	42.4	33.3	34.6	42.9	43.1		
Vehicle Noise:	48.6	46.9	43.0	39.1	47.6	48.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			2	3	7	16		
CNEL:			2	4	8	17		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 Without Project Road Name: Chambers Av. Road Segment: elo Street C					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph								
Near/Far Lane Distance:		45 feet			Vehicle Mix					
Site Data					VehicleType	Day	Evening	Night	Daily	
Barrier Height:		0.0 feet			Autos:		77.5%	12.9%	9.6%	97.42%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Observer:		50.0 feet			Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet			Autos:		0.000			
Observer Height (Above Pad):		5.0 feet			Medium Trucks:		2.297			
Pad Elevation:		0.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Road Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Grade:		0.0%			Autos:		44.931			
Left View:		-90.0 degrees			Medium Trucks:		44.733			
Right View:		90.0 degrees			Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	38.7	36.8	35.1	29.0	37.6	38.2				
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9				
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1				
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	1	3	6			
CNEL:				1	1	3	6			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 Without Project Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 17,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,750 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	1.57	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	75.75	-15.67	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	81.57	-19.62	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	64.1	62.2	60.4	54.3	63.0	63.6				
Medium Trucks:	58.3	56.8	50.4	48.9	57.3	57.6				
Heavy Trucks:	60.1	58.7	49.7	50.9	59.3	59.4				
Vehicle Noise:	66.3	64.6	61.1	56.7	65.3	65.7				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			29	61	132	285				
CNEL:			30	66	142	305				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 Without Project Road Name: McCall Bl. Road Segment: e/o I-215					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 33,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,360 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006	Grade Adjustment: 0.0		
					Lane Equivalent Distance (in feet)					
					Autos:		65.422			
					Medium Trucks:		65.286			
					Heavy Trucks:		65.300			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	3.31	-1.85	-1.20	-4.73	0.000	0.000	68.2		
Medium Trucks:	79.45	-13.93	-1.84	-1.20	-4.88	0.000	0.000	61.8		
Heavy Trucks:	84.25	-17.88	-1.84	-1.20	-5.25	0.000	0.000	62.6		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	68.7	66.8	65.1	59.0	67.6	68.2				
Medium Trucks:	62.5	61.0	54.6	53.1	61.5	61.8				
Heavy Trucks:	63.3	61.9	52.9	54.1	62.5	62.6				
Vehicle Noise:	70.6	68.8	65.7	61.0	69.5	70.0				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			71	152	328	707				
CNEL:			76	163	352	758				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: McCall Bl. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,410 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.38	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-13.86	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-17.82	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.8	66.9	65.1	59.1	67.7	68.3			
Medium Trucks:	62.5	61.0	54.7	53.1	61.6	61.8			
Heavy Trucks:	63.4	62.0	52.9	54.2	62.5	62.7			
Vehicle Noise:	70.6	68.9	65.7	61.1	69.6	70.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			71	154	331	714			
CNEL:			77	165	355	766			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: McCall Bl. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,560 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.26	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-15.98	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-19.93	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.0	68.1	66.3	60.3	68.9	69.5			
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.7			
Heavy Trucks:	63.4	62.0	53.0	54.2	62.6	62.7			
Vehicle Noise:	71.6	69.8	66.8	62.0	70.5	71.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			82	178	383	824			
CNEL:			89	191	412	887			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 Without Project Road Name: McCall Bl. Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 11,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,110 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		65.422			
					Medium Trucks:		65.286			
					Heavy Trucks:		65.300			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-2.37	-1.85	-1.20	-4.73	0.000	0.000			
Medium Trucks:	82.40	-19.61	-1.84	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-23.56	-1.84	-1.20	-5.25	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL			
Autos:	66.4	64.5	62.7	56.6	65.3		65.9			
Medium Trucks:	59.8	58.2	51.9	50.3	58.8		59.0			
Heavy Trucks:	59.8	58.4	49.3	50.6	58.9		59.1			
Vehicle Noise:	67.9	66.2	63.2	58.3	66.9		67.4			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				47	102	219	472			
CNEL:				51	109	236	508			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,150 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-0.83	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	77.72	-18.07	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	82.99	-22.03	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.1	63.2	61.4	55.4	64.0	64.6			
Medium Trucks:	59.1	57.6	51.2	49.7	58.1	58.3			
Heavy Trucks:	60.4	59.0	49.9	51.2	59.5	59.7			
Vehicle Noise:	67.1	65.4	62.1	57.5	66.1	66.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				27	59	127	273		
CNEL:				29	63	136	293		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 Without Project Road Name: Encanto Dr. Road Segment: s/o A Street					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,150 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.22	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-19.45	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.41	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.7	65.8	64.1	58.0	66.6	67.3			
Medium Trucks:	61.1	59.6	53.3	51.7	60.2	60.4			
Heavy Trucks:	61.2	59.8	50.7	52.0	60.3	60.5			
Vehicle Noise:	69.3	67.6	64.6	59.7	68.3	68.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				45	98	211	454		
CNEL:				49	105	227	488		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10,246 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20% Medium Trucks: 84.8% 4.9% 10.3% 6.04% Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.80	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.84	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-6.05	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.9	78.0	76.2	70.2	78.8	79.4			
Medium Trucks:	78.4	76.9	70.6	69.0	77.5	77.7			
Heavy Trucks:	81.2	79.8	70.8	72.0	80.4	80.5			
Vehicle Noise:	84.8	83.2	78.1	75.4	83.8	84.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				667	1,437	3,097	6,671		
CNEL:				699	1,507	3,246	6,993		
Friday, May 24, 2019									

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10,416 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.88	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.77	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.98	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	79.9	78.0	76.3	70.2	78.8	79.5			
Medium Trucks:	78.5	77.0	70.6	69.1	77.6	77.8			
Heavy Trucks:	81.3	79.9	70.9	72.1	80.5	80.6			
Vehicle Noise:	84.8	83.3	78.2	75.4	83.9	84.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			674	1,453	3,131	6,745			
CNEL:			707	1,523	3,281	7,070			
Friday, May 24, 2019									

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 10,526 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph					Vehicle Mix				
Near/Far Lane Distance: 120 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Barrier: 80.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 80.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 53.151				
Road Grade: 0.0%					Medium Trucks: 52.984				
Left View: -90.0 degrees					Heavy Trucks: 53.000				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.92	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.72	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.93	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.0	78.1	76.3	70.3	78.9	79.5			
Medium Trucks:	78.5	77.0	70.7	69.1	77.6	77.8			
Heavy Trucks:	81.4	79.9	70.9	72.2	80.5	80.6			
Vehicle Noise:	84.9	83.3	78.3	75.5	83.9	84.2			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	679		1,463		3,153		6,792		
CNEL:	712		1,534		3,305		7,119		

Finding May, 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 710 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-4.31	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-21.55	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-25.50	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.7	63.8	62.0	55.9	64.6	65.2			
Medium Trucks:	59.1	57.5	51.2	49.6	58.1	58.3			
Heavy Trucks:	59.1	57.7	48.6	49.9	58.2	58.4			
Vehicle Noise:	67.2	65.5	62.5	57.6	66.2	66.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			33	71	153	329			
CNEL:			35	76	164	354			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: OY 2020 With Project Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 6,800 vehicles					Autos: 15						
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15						
Peak Hour Volume: 680 vehicles					Heavy Trucks (3+ Axles): 15						
Vehicle Speed: 55 mph					Vehicle Mix						
Near/Far Lane Distance: 48 feet					VehicleType	Day	Evening	Night	Daily		
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%						
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%						
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%						
					Noise Source Elevations (in feet)						
					Autos: 0.000						
					Medium Trucks: 2.297						
					Heavy Trucks: 8.006 Grade Adjustment: 0.0						
					Lane Equivalent Distance (in feet)						
					Autos: 54.129						
					Medium Trucks: 53.966						
					Heavy Trucks: 53.982						
					FHWA Noise Model Calculations						
					VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten
Autos:					71.78	-4.50	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:					82.40	-21.74	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:					86.40	-25.69	-0.60	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:		65.5	63.6	61.8	55.7	64.4	65.0				
Medium Trucks:		58.9	57.4	51.0	49.5	57.9	58.1				
Heavy Trucks:		58.9	57.5	48.4	49.7	58.0	58.2				
Vehicle Noise:		67.0	65.3	62.3	57.5	66.0	66.5				
Centerline Distance to Noise Contour (in feet)											
				70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:				32	69	148	320				
CNEL:				34	74	160	344				

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Encanto Dr. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 710 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-4.31	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-21.55	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-25.50	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	65.7	63.8	62.0	55.9	64.6		65.2		
Medium Trucks:	59.1	57.5	51.2	49.6	58.1		58.3		
Heavy Trucks:	59.1	57.7	48.6	49.9	58.2		58.4		
Vehicle Noise:	67.2	65.5	62.5	57.6	66.2		66.7		
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			33	71	153	329			
CNEL:			35	76	164	354			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 610 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 59.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 54.129				
Road Grade: 0.0%					Medium Trucks: 53.966				
Left View: -90.0 degrees					Heavy Trucks: 53.982				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-3.01	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	75.75	-20.24	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	81.57	-24.20	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	59.5	57.6	55.8	49.8	58.4	59.0			
Medium Trucks:	53.7	52.2	45.8	44.3	52.8	53.0			
Heavy Trucks:	55.6	54.1	45.1	46.4	54.7	54.8			
Vehicle Noise:	61.7	60.0	56.5	52.2	60.7	61.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				14	30	66	141		
CNEL:				15	33	70	151		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Sherman Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 610 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-4.10	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-21.34	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-25.29	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.5	60.6	58.9	52.8	61.4	62.1			
Medium Trucks:	56.3	54.8	48.4	46.9	55.4	55.6			
Heavy Trucks:	57.2	55.7	46.7	47.9	56.3	56.4			
Vehicle Noise:	64.4	62.6	59.5	54.8	63.4	63.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			21	46	99	213			
CNEL:			23	49	106	228			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,700 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 770 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-3.09	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-20.32	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-24.28	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.6	61.7	59.9	53.8	62.5	63.1			
Medium Trucks:	57.3	55.8	49.5	47.9	56.4	56.6			
Heavy Trucks:	58.2	56.7	47.7	49.0	57.3	57.4			
Vehicle Noise:	65.4	63.7	60.5	55.8	64.4	64.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				25	54	115	248		
CNEL:				27	57	124	267		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 With Project Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		54.129			
					Medium Trucks:		53.966			
					Heavy Trucks:		53.982			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	-21.95	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	79.45	-39.19	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-43.15	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	44.7	42.8	41.0	35.0	43.6	44.2				
Medium Trucks:	38.5	37.0	30.6	29.0	37.5	37.7				
Heavy Trucks:	39.3	37.9	28.8	30.1	38.5	38.6				
Vehicle Noise:	46.5	44.8	41.6	37.0	45.5	46.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	3	6	14			
CNEL:				1	3	7	15			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 510 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 50.0 feet					Daily				
Centerline Dist. to Observer: 50.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.36	0.59	-1.20	-4.65	0.000	0.000	0.000	0.000
Medium Trucks:	77.72	-21.60	0.62	-1.20	-4.87	0.000	0.000	0.000	0.000
Heavy Trucks:	82.99	-25.56	0.62	-1.20	-5.43	0.000	0.000	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.5	59.6	57.9	51.8	60.4	61.0			
Medium Trucks:	55.5	54.0	47.7	46.1	54.6	54.8			
Heavy Trucks:	56.9	55.4	46.4	47.6	56.0	56.1			
Vehicle Noise:	63.6	61.8	58.5	54.0	62.5	63.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				16	34	74	159		
CNEL:				17	37	79	170		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Antelope Rd. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 420 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-5.21	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	77.72	-22.45	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	82.99	-26.40	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	59.5	57.6	55.8	49.8	58.4	59.0			
Medium Trucks:	53.5	52.0	45.6	44.1	52.5	52.7			
Heavy Trucks:	54.8	53.4	44.3	45.6	53.9	54.1			
Vehicle Noise:	61.5	59.8	56.5	51.9	60.5	60.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				14	29	63	137		
CNEL:				15	32	68	146		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,700 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 470 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 12 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 37.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 37.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 36.851				
Road Grade: 0.0%					Medium Trucks: 36.610				
Left View: -90.0 degrees					Heavy Trucks: 36.634				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.72	1.88	-1.20	-4.56	0.000	0.000		
Medium Trucks:	77.72	-21.96	1.93	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-25.91	1.92	-1.20	-5.61	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.5	60.6	58.8	52.8	61.4	62.0			
Medium Trucks:	56.5	55.0	48.6	47.1	55.5	55.8			
Heavy Trucks:	57.8	56.4	47.3	48.6	57.0	57.1			
Vehicle Noise:	64.5	62.8	59.5	54.9	63.5	63.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				14	29	63	136		
CNEL:				15	31	68	146		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 960 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.00	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-20.24	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-24.19	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.7	63.8	62.1	56.0	64.6	65.2			
Medium Trucks:	59.1	57.6	51.3	49.7	58.2	58.4			
Heavy Trucks:	59.2	57.7	48.7	50.0	58.3	58.4			
Vehicle Noise:	67.3	65.5	62.6	57.7	66.3	66.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			43	92	199	429			
CNEL:			46	99	214	461			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,800 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 78 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 76.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 76.0 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					Grade Adjustment: 0.0				
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations					FHWA Noise Model Calculations				
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.27	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-17.51	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-21.46	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.5	66.6	64.8	58.7	67.4	68.0			
Medium Trucks:	61.9	60.3	54.0	52.4	60.9	61.1			
Heavy Trucks:	61.9	60.5	51.4	52.7	61.0	61.2			
Vehicle Noise:	70.0	68.3	65.3	60.4	69.0	69.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			65	140	303	652			
CNEL:			70	151	326	701			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,640 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.67	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-17.91	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-21.87	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.1	66.2	64.4	58.3	67.0	67.6			
Medium Trucks:	61.5	59.9	53.6	52.0	60.5	60.7			
Heavy Trucks:	61.5	60.1	51.0	52.3	60.6	60.8			
Vehicle Noise:	69.6	67.9	64.9	60.0	68.6	69.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			61	132	284	613			
CNEL:			66	142	306	659			

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: SR-74 Road Segment: elo I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 40,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,080 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.70	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-13.54	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-17.50	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	72.1	70.2	68.4	62.4	71.0	71.6			
Medium Trucks:	65.7	64.2	57.8	56.2	64.7	64.9			
Heavy Trucks:	66.1	64.7	55.6	56.9	65.2	65.4			
Vehicle Noise:	73.8	72.0	69.0	64.2	72.7	73.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			90	194	418	900			
CNEL:			97	208	449	967			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,870 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.17	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-15.07	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-19.02	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.6	68.7	66.9	60.8	69.5	70.1			
Medium Trucks:	64.1	62.6	56.3	54.7	63.2	63.4			
Heavy Trucks:	64.6	63.1	54.1	55.3	63.7	63.8			
Vehicle Noise:	72.3	70.5	67.5	62.7	71.2	71.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			71	153	330	712			
CNEL:			76	165	355	764			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,910 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.69	-0.62	-1.20	-4.69	0.000	0.000	0.000	
Medium Trucks:	79.45	-14.55	-0.60	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	84.25	-18.51	-0.60	-1.20	-5.35	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.3	67.4	65.7	59.6	68.2	68.8			
Medium Trucks:	63.1	61.6	55.2	53.7	62.1	62.4			
Heavy Trucks:	63.9	62.5	53.5	54.7	63.1	63.2			
Vehicle Noise:	71.2	69.4	66.3	61.6	70.1	70.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			60	130	280	603			
CNEL:			65	139	300	647			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,590 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.26	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-8.88	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-9.75	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.3	65.4	63.7	57.6	66.2	66.8			
Medium Trucks:	66.2	64.7	58.3	56.8	65.2	65.5			
Heavy Trucks:	70.1	68.7	59.7	60.9	69.3	69.4			
Vehicle Noise:	73.0	71.4	66.0	63.6	72.0	72.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			137	295	635	1,369			
CNEL:			143	308	663	1,429			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,590 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.80	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-9.34	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-10.21	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.6	66.7	65.0	58.9	67.5	68.1			
Medium Trucks:	67.3	65.8	59.4	57.9	66.3	66.6			
Heavy Trucks:	70.8	69.4	60.3	61.6	69.9	70.1			
Vehicle Noise:	73.9	72.3	67.1	64.5	73.0	73.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				158	340	733	1,578		
CNEL:				165	356	766	1,651		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 41,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,180 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.46	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-8.68	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-9.55	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.3	67.4	65.6	59.6	68.2	68.8			
Medium Trucks:	68.0	66.4	60.1	58.5	67.0	67.2			
Heavy Trucks:	71.5	70.0	61.0	62.2	70.6	70.7			
Vehicle Noise:	74.6	73.0	67.7	65.2	73.6	73.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			175	376	811	1,747			
CNEL:			183	394	848	1,827			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 360 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 120 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 90.00%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Centerline Dist. to Barrier: 100.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Centerline Dist. to Observer: 100.0 feet									
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet									
Road Grade: 0.0%					Noise Source Elevations (in feet)				
Left View: -90.0 degrees					Autos: 80.156				
Right View: 90.0 degrees					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations					FHWA Noise Model Calculations				
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-7.19	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-19.33	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-20.20	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	58.6	56.7	55.0	48.9	57.5	58.1			
Medium Trucks:	57.3	55.8	49.4	47.9	56.3	56.6			
Heavy Trucks:	60.8	59.4	50.4	51.6	60.0	60.1			
Vehicle Noise:	63.9	62.4	57.1	54.5	63.0	63.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				34	73	158	341		
CNEL:				36	77	165	356		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,740 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-0.35	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-12.49	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-13.36	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.5	63.6	61.8	55.8	64.4	65.0			
Medium Trucks:	64.1	62.6	56.3	54.7	63.2	63.4			
Heavy Trucks:	67.7	66.2	57.2	58.4	66.8	66.9			
Vehicle Noise:	70.8	69.2	63.9	61.4	69.8	70.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			97	210	452	974			
CNEL:			102	219	473	1,018			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,180 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	0.63	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-11.51	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-12.38	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.5	64.6	62.8	56.7	65.4	66.0			
Medium Trucks:	65.1	63.6	57.3	55.7	64.2	64.4			
Heavy Trucks:	68.6	67.2	58.2	59.4	67.8	67.9			
Vehicle Noise:	71.8	70.2	64.9	62.4	70.8	71.1			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	113		244		525		1,132		
CNEL:	118		255		549		1,184		
Friday, May 24, 2019									

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 27,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,720 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 120 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Centerline Dist. to Barrier: 100.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 100.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 80.156				
Road Grade: 0.0%					Medium Trucks: 80.046				
Left View: -90.0 degrees					Heavy Trucks: 80.056				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.05	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-10.09	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-10.96	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.1	64.2	62.5	56.4	65.0	65.6			
Medium Trucks:	65.0	63.5	57.1	55.6	64.0	64.3			
Heavy Trucks:	68.9	67.5	58.5	59.7	68.1	68.2			
Vehicle Noise:	71.8	70.2	64.7	62.4	70.8	71.1			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	114		245		528		1,138		
CNEL:	119		256		551		1,188		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,900 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,190 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 120 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 90.00%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Centerline Dist. to Barrier: 100.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Centerline Dist. to Observer: 100.0 feet									
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet									
Road Grade: 0.0%					Noise Source Elevations (in feet)				
Left View: -90.0 degrees					Autos: 0.000				
Right View: 90.0 degrees					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMODEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-1.54	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-13.68	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-14.55	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.5	60.6	58.9	52.8	61.4	62.1			
Medium Trucks:	61.4	59.9	53.5	52.0	60.4	60.7			
Heavy Trucks:	65.3	63.9	54.9	56.1	64.5	64.6			
Vehicle Noise:	68.2	66.6	61.2	58.8	67.3	67.5			
Centerline Distance to Noise Contour (in feet)									
		70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:	66	141	304	656					
CNEL:	68	147	318	684					

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 440 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:		58.73	-2.96	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:		70.80	-20.20	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:		77.97	-24.16	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:		55.2	53.3	51.5	45.4	54.1	54.7		
Medium Trucks:		50.0	48.5	42.1	40.6	49.1	49.3		
Heavy Trucks:		53.2	51.8	42.8	44.0	52.4	52.5		
Vehicle Noise:		58.1	56.4	52.5	48.6	57.1	57.5		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				7	15	32	69		
CNEL:				7	16	34	73		

Friday, May 24, 2019

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Rouse Rd. Road Segment: elo Street A					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,400 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 340 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-4.08	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-21.32	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-25.28	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	54.0	52.1	50.4	44.3	52.9	53.6			
Medium Trucks:	48.9	47.4	41.0	39.5	47.9	48.2			
Heavy Trucks:	52.1	50.7	41.7	42.9	51.3	51.4			
Vehicle Noise:	56.9	55.3	51.3	47.4	55.9	56.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				6	12	27	58		
CNEL:				6	13	28	61		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 With Project Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 2,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 280 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006 Grade Adjustment: 0.0			
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)					
					Autos:		44.931			
					Medium Trucks:		44.733			
					Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-4.93	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-22.17	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-26.12	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	53.2	51.3	49.5	43.5	52.1	52.7				
Medium Trucks:	48.1	46.5	40.2	38.6	47.1	47.3				
Heavy Trucks:	51.3	49.8	40.8	42.1	50.4	50.5				
Vehicle Noise:	56.1	54.4	50.5	46.6	55.1	55.5				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				5	11	24	51			
CNEL:				5	12	25	54			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 600 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 50.0 feet					Daily				
Centerline Dist. to Observer: 50.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006				
Right View: 90.0 degrees					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-1.62	0.59	-1.20	-4.65	0.000	0.000	0.000	0.000
Medium Trucks:	70.80	-18.86	0.62	-1.20	-4.87	0.000	0.000	0.000	0.000
Heavy Trucks:	77.97	-22.81	0.62	-1.20	-5.43	0.000	0.000	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	56.5	54.6	52.8	46.8	55.4		56.0		
Medium Trucks:	51.4	49.9	43.5	41.9	50.4		50.6		
Heavy Trucks:	54.6	53.2	44.1	45.4	53.7		53.9		
Vehicle Noise:	59.4	57.7	53.8	49.9	58.4		58.8		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				8	18	39	84		
CNEL:				9	19	42	90		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Chambers Av. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 50 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-12.41	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-29.65	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-33.60	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	45.7	43.8	42.1	36.0	44.6			45.2	
Medium Trucks:	40.6	39.1	32.7	31.2	39.6			39.8	
Heavy Trucks:	43.8	42.4	33.3	34.6	42.9			43.1	
Vehicle Noise:	48.6	46.9	43.0	39.1	47.6			48.0	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				2	3	7	16		
CNEL:				2	4	8	17		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 With Project Road Name: Chambers Av. Road Segment: elo Street C					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph								
Near/Far Lane Distance:		45 feet			Vehicle Mix					
Site Data					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006 Grade Adjustment: 0.0			
					Lane Equivalent Distance (in feet)					
					Autos:		44.931			
					Medium Trucks:		44.733			
					Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:		58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:		70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:		77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:		38.7	36.8	35.1	29.0	37.6	38.2			
Medium Trucks:		33.6	32.1	25.7	24.2	32.6	32.9			
Heavy Trucks:		36.8	35.4	26.3	27.6	35.9	36.1			
Vehicle Noise:		41.6	39.9	36.0	32.1	40.6	41.0			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	1	3	6			
CNEL:				1	1	3	6			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2020 With Project Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 18,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,810 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		54.129			
					Medium Trucks:		53.966			
					Heavy Trucks:		53.982			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	1.72	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	75.75	-15.52	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	81.57	-19.48	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	64.2	62.3	60.5	54.5	63.1	63.7				
Medium Trucks:	58.4	56.9	50.6	49.0	57.5	57.7				
Heavy Trucks:	60.3	58.9	49.8	51.1	59.4	59.6				
Vehicle Noise:	66.4	64.7	61.3	56.9	65.4	65.8				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				29	63	135	292			
CNEL:				31	67	145	312			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: McCall Bl. Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,540 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.54	-1.85	-1.20	-4.73	0.000	0.000	0.000	
Medium Trucks:	79.45	-13.70	-1.84	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	84.25	-17.66	-1.84	-1.20	-5.25	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.9	67.0	65.3	59.2	67.8	68.5			
Medium Trucks:	62.7	61.2	54.8	53.3	61.8	62.0			
Heavy Trucks:	63.6	62.1	53.1	54.3	62.7	62.8			
Vehicle Noise:	70.8	69.0	65.9	61.2	69.8	70.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			73	158	340	732			
CNEL:			79	169	364	785			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY 2020 With Project Road Name: McCall Bl. Road Segment: e/o Sherman Rd.				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 35,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,510 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.50	-1.85	-1.20	-4.73	0.000	0.000
Medium Trucks:	79.45	-13.74	-1.84	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-17.69	-1.84	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	68.9	67.0	65.2	59.2	67.8	68.4	
Medium Trucks:	62.7	61.2	54.8	53.3	61.7	62.0	
Heavy Trucks:	63.5	62.1	53.1	54.3	62.7	62.8	
Vehicle Noise:	70.7	69.0	65.9	61.2	69.7	70.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			73	157	338	728	
CNEL:			78	168	362	781	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2020 With Project Road Name: McCall Bl. Road Segment: e/o Antelope Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 26,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,660 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	1.43	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-15.81	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-19.77	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.2	68.3	66.5	60.4	69.1	69.7		
Medium Trucks:	63.6	62.0	55.7	54.1	62.6	62.8		
Heavy Trucks:	63.6	62.2	53.1	54.4	62.7	62.9		
Vehicle Noise:	71.7	70.0	67.0	62.1	70.7	71.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			85	182	393	846		
CNEL:			91	196	422	910		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: McCall Bl. Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,130 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.29	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-19.53	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.49	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.4	64.5	62.8	56.7	65.3	65.9			
Medium Trucks:	59.8	58.3	52.0	50.4	58.9	59.1			
Heavy Trucks:	59.9	58.4	49.4	50.7	59.0	59.1			
Vehicle Noise:	68.0	66.3	63.3	58.4	67.0	67.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				48	103	222	478		
CNEL:				51	111	239	514		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,290 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-0.33	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	77.72	-17.57	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	82.99	-21.53	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.6	63.7	61.9	55.9	64.5	65.1			
Medium Trucks:	59.6	58.1	51.7	50.2	58.6	58.8			
Heavy Trucks:	60.9	59.5	50.4	51.7	60.0	60.2			
Vehicle Noise:	67.6	65.9	62.6	58.0	66.6	67.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			30	64	137	295			
CNEL:			32	68	147	316			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2020 With Project Road Name: Encanto Dr. Road Segment: s/o A Street					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,290 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.72	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-18.95	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-22.91	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.2	66.3	64.6	58.5	67.1	67.8			
Medium Trucks:	61.6	60.1	53.8	52.2	60.7	60.9			
Heavy Trucks:	61.7	60.3	51.2	52.5	60.8	61.0			
Vehicle Noise:	69.8	68.1	65.1	60.2	68.8	69.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			49	106	227	490			
CNEL:			53	114	245	527			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 10,454 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph					Vehicle Mix				
Near/Far Lane Distance: 120 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 80.0 feet					Daily				
Centerline Dist. to Observer: 80.0 feet					Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.89	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.75	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.96	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.0	78.1	76.3	70.2	78.9	79.5			
Medium Trucks:	78.5	77.0	70.7	69.1	77.6	77.8			
Heavy Trucks:	81.3	79.9	70.9	72.1	80.5	80.6			
Vehicle Noise:	84.9	83.3	78.2	75.4	83.9	84.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				676	1,457	3,138	6,762		
CNEL:				709	1,527	3,290	7,087		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10,634 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Medium Trucks: 2.297					Grade Adjustment: 0.0				
Heavy Trucks: 8.006									
Lane Equivalent Distance (in feet)									
Autos: 53.151					Medium Trucks: 52.984 Heavy Trucks: 53.000				
Medium Trucks: 52.984									
Heavy Trucks: 53.000									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	5.97	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.68	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.89	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.0	78.1	76.4	70.3	78.9	79.5			
Medium Trucks:	78.6	77.1	70.7	69.2	77.6	77.9			
Heavy Trucks:	81.4	80.0	70.9	72.2	80.6	80.7			
Vehicle Noise:	84.9	83.3	78.3	75.5	84.0	84.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				684	1,473	3,174	6,839		
CNEL:				717	1,544	3,327	7,168		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10,790 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297		Grade Adjustment: 0.0		
Heavy Trucks: 8.006									
					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.03	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.62	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.82	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.1	78.2	76.4	70.4	79.0	79.6			
Medium Trucks:	78.7	77.1	70.8	69.2	77.7	77.9			
Heavy Trucks:	81.5	80.0	71.0	72.3	80.6	80.7			
Vehicle Noise:	85.0	83.4	78.4	75.6	84.0	84.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				691	1,488	3,205	6,906		
CNEL:				724	1,559	3,360	7,238		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 680 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 71.78 -4.50 -0.62 -1.20 -4.69 0.000 0.000									
Medium Trucks: 82.40 -21.74 -0.60 -1.20 -4.88 0.000 0.000									
Heavy Trucks: 86.40 -25.69 -0.60 -1.20 -5.35 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 65.5 63.6 61.8 55.7 64.4 65.0									
Medium Trucks: 58.9 57.4 51.0 49.5 57.9 58.1									
Heavy Trucks: 58.9 57.5 48.4 49.7 58.0 58.2									
Vehicle Noise: 67.0 65.3 62.3 57.5 66.0 66.5									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				32	69	148	320		
CNEL:				34	74	160	344		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL																								
Scenario: OY 2023 Without Project Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728																			
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS																			
Highway Data Average Daily Traffic (Adt): 6,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 650 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Site Conditions (Hard = 10, Soft = 15) Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15																			
					Vehicle Mix <table><tr><th>VehicleType</th><th>Day</th><th>Evening</th><th>Night</th><th>Daily</th></tr><tr><td>Autos:</td><td>77.5%</td><td>12.9%</td><td>9.6%</td><td>97.42%</td></tr><tr><td>Medium Trucks:</td><td>84.8%</td><td>4.9%</td><td>10.3%</td><td>1.84%</td></tr><tr><td>Heavy Trucks:</td><td>86.5%</td><td>2.7%</td><td>10.8%</td><td>0.74%</td></tr></table>					VehicleType	Day	Evening	Night	Daily	Autos:	77.5%	12.9%	9.6%	97.42%	Medium Trucks:	84.8%	4.9%	10.3%	1.84%
VehicleType	Day	Evening	Night	Daily																				
Autos:	77.5%	12.9%	9.6%	97.42%																				
Medium Trucks:	84.8%	4.9%	10.3%	1.84%																				
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%																				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet) Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0																			
					Lane Equivalent Distance (in feet) Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982																			
FHWA Noise Model Calculations																								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten																	
Autos:	71.78	-4.69	-0.62	-1.20	-4.69	0.000	0.000																	
Medium Trucks:	82.40	-21.93	-0.60	-1.20	-4.88	0.000	0.000																	
Heavy Trucks:	86.40	-25.89	-0.60	-1.20	-5.35	0.000	0.000																	
Unmitigated Noise Levels (without Topo and barrier attenuation)																								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL																		
Autos:	65.3	63.4	61.6	55.5	64.2	64.8																		
Medium Trucks:	58.7	57.2	50.8	49.3	57.7	58.0																		
Heavy Trucks:	58.7	57.3	48.2	49.5	57.9	58.0																		
Vehicle Noise:	66.9	65.1	62.1	57.3	65.8	66.3																		
Centerline Distance to Noise Contour (in feet)																								
				70 dBA	65 dBA	60 dBA	55 dBA																	
Ldn:				31	67	144	310																	
CNEL:				33	72	155	334																	
Friday, May 24, 2019																								

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Encanto Dr. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 800 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.79	-0.62	-1.20	-4.69	0.000	0.000		0.000
Medium Trucks:	82.40	-21.03	-0.60	-1.20	-4.88	0.000	0.000		0.000
Heavy Trucks:	86.40	-24.99	-0.60	-1.20	-5.35	0.000	0.000		0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	66.2	64.3	62.5	56.4	65.1		65.7		
Medium Trucks:	59.6	58.1	51.7	50.2	58.6		58.9		
Heavy Trucks:	59.6	58.2	49.2	50.4	58.8		58.9		
Vehicle Noise:	67.8	66.0	63.0	58.2	66.7		67.2		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				36	77	165	356		
CNEL:				38	83	178	383		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,400 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 640 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph									
Near/Far Lane Distance: 48 feet									
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 59.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 59.0 feet									
Barrier Distance to Observer: 0.0 feet									
Observer Height (Above Pad): 5.0 feet									
Pad Elevation: 0.0 feet					Grade Adjustment: 0.0				
Road Elevation: 0.0 feet									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-2.80	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	75.75	-20.04	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	81.57	-23.99	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	59.7	57.8	56.0	50.0	58.6	59.2			
Medium Trucks:	53.9	52.4	46.0	44.5	53.0	53.2			
Heavy Trucks:	55.8	54.4	45.3	46.6	54.9	55.0			
Vehicle Noise:	61.9	60.2	56.8	52.4	60.9	61.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				15	31	68	146		
CNEL:				16	34	72	156		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL																													
Scenario: OY 2023 Without Project Road Name: Sherman Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728																								
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS																								
Highway Data					Site Conditions (Hard = 10, Soft = 15)																								
Average Daily Traffic (Adt): 6,600 vehicles					Autos: 15																								
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15																								
Peak Hour Volume: 660 vehicles					Heavy Trucks (3+ Axles): 15																								
Vehicle Speed: 45 mph					Vehicle Mix																								
Near/Far Lane Distance: 48 feet					<table><tr><th>VehicleType</th><th>Day</th><th>Evening</th><th>Night</th><th>Daily</th></tr><tr><td colspan="5">Autos: 77.5% 12.9% 9.6% 97.42%</td></tr><tr><td colspan="5">Medium Trucks: 84.8% 4.9% 10.3% 1.84%</td></tr><tr><td colspan="5">Heavy Trucks: 86.5% 2.7% 10.8% 0.74%</td></tr></table>					VehicleType	Day	Evening	Night	Daily	Autos: 77.5% 12.9% 9.6% 97.42%					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
VehicleType	Day	Evening	Night	Daily																									
Autos: 77.5% 12.9% 9.6% 97.42%																													
Medium Trucks: 84.8% 4.9% 10.3% 1.84%																													
Heavy Trucks: 86.5% 2.7% 10.8% 0.74%																													
Site Data					Noise Source Elevations (in feet)																								
Barrier Height: 0.0 feet					Autos: 0.000																								
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 2.297																								
Centerline Dist. to Barrier: 59.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0																								
Centerline Dist. to Observer: 59.0 feet					Lane Equivalent Distance (in feet)																								
Barrier Distance to Observer: 0.0 feet					Autos: 54.129																								
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 53.966																								
Pad Elevation: 0.0 feet					Heavy Trucks: 53.982																								
Road Elevation: 0.0 feet																													
Road Grade: 0.0%																													
Left View: -90.0 degrees																													
Right View: 90.0 degrees																													
FHWA Noise Model Calculations																													
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten																						
Autos:	68.46	-3.76	-0.62	-1.20	-4.69	0.000		0.000																					
Medium Trucks:	79.45	-20.99	-0.60	-1.20	-4.88	0.000		0.000																					
Heavy Trucks:	84.25	-24.95	-0.60	-1.20	-5.35	0.000		0.000																					
Unmitigated Noise Levels (without Topo and barrier attenuation)																													
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL																							
Autos:	62.9	61.0	59.2	53.2	61.8	62.4																							
Medium Trucks:	56.7	55.1	48.8	47.2	55.7	55.9																							
Heavy Trucks:	57.5	56.1	47.0	48.3	56.6	56.8																							
Vehicle Noise:	64.7	63.0	59.8	55.2	63.7	64.2																							
Centerline Distance to Noise Contour (in feet)																													
	70 dBA	65 dBA	60 dBA	55 dBA																									
Ldn:	22	48	104	224																									
CNEL:	24	52	112	241																									
Friday, May 24, 2019																													

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2023 Without Project Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,400 vehicles				Autos: 15				
Peak Hour Percentage: 10%				Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,140 vehicles				Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph								
Near/Far Lane Distance: 48 feet				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
Site Data				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000				
Barrier Height: 0.0 feet				Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Centerline Dist. to Barrier: 59.0 feet								
Centerline Dist. to Observer: 59.0 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								
Road Grade: 0.0%								
Left View: -90.0 degrees								
Right View: 90.0 degrees								
				Lane Equivalent Distance (in feet)				
				Autos: 54.129				
				Medium Trucks: 53.966				
				Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	-1.38	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-18.62	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-22.58	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	65.3	63.4	61.6	55.5	64.2	64.8		
Medium Trucks:	59.0	57.5	51.2	49.6	58.1	58.3		
Heavy Trucks:	59.9	58.5	49.4	50.7	59.0	59.1		
Vehicle Noise:	67.1	65.4	62.2	57.5	66.1	66.5		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			32	70	150	323		
CNEL:			35	75	161	346		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 510 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data									
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 50.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 50.0 feet					Noise Source Elevations (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Grade: 0.0%					Autos: 44.931				
Left View: -90.0 degrees					Medium Trucks: 44.733				
Right View: 90.0 degrees					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.36	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	77.72	-21.60	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-25.56	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.5	59.6	57.9	51.8	60.4	61.0			
Medium Trucks:	55.5	54.0	47.7	46.1	54.6	54.8			
Heavy Trucks:	56.9	55.4	46.4	47.6	56.0	56.1			
Vehicle Noise:	63.6	61.8	58.5	54.0	62.5	63.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			16	34	74	159			
CNEL:			17	37	79	170			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2023 Without Project Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 54.129					
					Medium Trucks: 53.966					
					Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos: 68.46 -21.95 -0.62 -1.20 -4.69 0.000 0.000										
Medium Trucks: 79.45 -39.19 -0.60 -1.20 -4.88 0.000 0.000										
Heavy Trucks: 84.25 -43.15 -0.60 -1.20 -5.35 0.000 0.000										
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos: 44.7 42.8 41.0 35.0 43.6 44.2										
Medium Trucks: 38.5 37.0 30.6 29.0 37.5 37.7										
Heavy Trucks: 39.3 37.9 28.8 30.1 38.5 38.6										
Vehicle Noise: 46.5 44.8 41.6 37.0 45.5 46.0										
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	3	6	14			
CNEL:				1	3	7	15			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY 2023 Without Project Road Name: Antelope Rd. Road Segment: s/o Chambers Av.				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		4,200 vehicles		Autos:		15	
Peak Hour Percentage:		10%		Medium Trucks (2 Axles):		15	
Peak Hour Volume:		420 vehicles		Heavy Trucks (3+ Axles):		15	
Vehicle Speed:		40 mph					
Near/Far Lane Distance:		48 feet					
Site Data				Vehicle Mix			
Barrier Height:		0.0 feet		VehicleType	Day	Evening	Night
Barrier Type (0-Wall, 1-Berm):		0.0					Daily
Centerline Dist. to Barrier:		59.0 feet		Autos:		77.5%	12.9%
Centerline Dist. to Observer:		59.0 feet		Medium Trucks:		84.8%	4.9%
Barrier Distance to Observer:		0.0 feet		Heavy Trucks:		86.5%	2.7%
Observer Height (Above Pad):		5.0 feet				10.8%	0.74%
Pad Elevation:		0.0 feet					
Road Elevation:		0.0 feet					
Road Grade:		0.0%					
Left View:		-90.0 degrees					
Right View:		90.0 degrees					
FHWA Noise Model Calculations				Noise Source Elevations (in feet)			
Autos:		66.51		Autos:		0.000	
Medium Trucks:		77.72		Medium Trucks:		2.297	
Heavy Trucks:		82.99		Heavy Trucks:		8.006	
				Grade Adjustment: 0.0			
FHWA Noise Model Calculations				Lane Equivalent Distance (in feet)			
Autos:		66.51		Autos:		54.129	
Medium Trucks:		77.72		Medium Trucks:		53.966	
Heavy Trucks:		82.99		Heavy Trucks:		53.982	
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.21	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-22.45	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-26.40	-0.60	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	59.5	57.6	55.8	49.8	58.4	59.0	
Medium Trucks:	53.5	52.0	45.6	44.1	52.5	52.7	
Heavy Trucks:	54.8	53.4	44.3	45.6	53.9	54.1	
Vehicle Noise:	61.5	59.8	56.5	51.9	60.5	60.9	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			14	29	63	137	
CNEL:			15	32	68	146	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 480 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 12 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 36.851 Medium Trucks: 36.610 Heavy Trucks: 36.634				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.63	1.88	-1.20	-4.56	0.000	0.000		
Medium Trucks:	77.72	-21.87	1.93	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-25.82	1.92	-1.20	-5.61	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.6	60.7	58.9	52.8	61.5	62.1			
Medium Trucks:	56.6	55.1	48.7	47.2	55.6	55.9			
Heavy Trucks:	57.9	56.5	47.4	48.7	57.0	57.2			
Vehicle Noise:	64.6	62.9	59.6	55.0	63.6	64.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				14	30	64	138		
CNEL:				15	32	69	148		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,090 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.45	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-19.69	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.64	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.3	64.4	62.6	56.6	65.2	65.8			
Medium Trucks:	59.7	58.2	51.8	50.3	58.7	59.0			
Heavy Trucks:	59.7	58.3	49.3	50.5	58.9	59.0			
Vehicle Noise:	67.9	66.1	63.1	58.3	66.8	67.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			47	101	217	467			
CNEL:			50	108	233	502			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,100 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006				Grade Adjustment: 0.0
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.40	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-16.84	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-20.79	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.1	67.2	65.5	59.4	68.0	68.6			
Medium Trucks:	62.5	61.0	54.7	53.1	61.6	61.8			
Heavy Trucks:	62.6	61.1	52.1	53.4	61.7	61.8			
Vehicle Noise:	70.7	68.9	66.0	61.1	69.7	70.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				72	156	335	722		
CNEL:				78	167	361	777		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,830 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.20	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-17.44	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-21.39	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.5	66.6	64.9	58.8	67.4	68.0			
Medium Trucks:	61.9	60.4	54.1	52.5	61.0	61.2			
Heavy Trucks:	62.0	60.5	51.5	52.8	61.1	61.2			
Vehicle Noise:	70.1	68.3	65.4	60.5	69.1	69.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			66	142	306	659			
CNEL:			71	153	329	709			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY 2023 Without Project Road Name: SR-74 Road Segment: e/o I-215				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 43,300 vehicles				Autos: 15			
Peak Hour Percentage: 10%				Medium Trucks (2 Axles): 15			
Peak Hour Volume: 4,330 vehicles				Heavy Trucks (3+ Axles): 15			
Vehicle Speed: 50 mph				Vehicle Mix			
Near/Far Lane Distance: 48 feet				VehicleType			
Site Data				Day			
Barrier Height: 0.0 feet				Evening			
Barrier Type (0-Wall, 1-Berm): 0.0				Night			
Centerline Dist. to Barrier: 59.0 feet				Daily			
Centerline Dist. to Observer: 59.0 feet				Autos: 77.5%			
Barrier Distance to Observer: 0.0 feet				Medium Trucks: 84.8%			
Observer Height (Above Pad): 5.0 feet				Heavy Trucks: 86.5%			
Pad Elevation: 0.0 feet				Grade Adjustment: 0.0			
Road Elevation: 0.0 feet				Noise Source Elevations (in feet)			
Road Grade: 0.0%				Autos: 0.000			
Left View: -90.0 degrees				Medium Trucks: 2.297			
Right View: 90.0 degrees				Heavy Trucks: 8.006			
				Lane Equivalent Distance (in feet)			
				Autos: 54.129			
				Medium Trucks: 53.966			
				Heavy Trucks: 53.982			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.96	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-13.28	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-17.24	-0.60	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.3	70.4	68.7	62.6	71.2	71.8	
Medium Trucks:	65.9	64.4	58.0	56.5	65.0	65.2	
Heavy Trucks:	66.3	64.9	55.9	57.1	65.5	65.6	
Vehicle Noise:	74.0	72.3	69.2	64.5	73.0	73.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			94	202	434	936	
CNEL:			101	217	467	1,006	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 30,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,050 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data									
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 59.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 59.0 feet									
Barrier Distance to Observer: 0.0 feet					Noise Source Elevations (in feet)				
Observer Height (Above Pad): 5.0 feet					Autos: 0.000				
Pad Elevation: 0.0 feet					Medium Trucks: 2.297				
Road Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Grade: 0.0%									
Left View: -90.0 degrees					Lane Equivalent Distance (in feet)				
Right View: 90.0 degrees					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.89	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-14.35	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-18.30	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	69.5	67.6	65.9	59.8	68.4		69.0		
Medium Trucks:	63.3	61.8	55.4	53.9	62.3		62.6		
Heavy Trucks:	64.1	62.7	53.7	54.9	63.3		63.4		
Vehicle Noise:	71.4	69.6	66.5	61.8	70.3		70.8		
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			62	134	289	622			
CNEL:			67	144	310	667			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2023 Without Project Road Name: SR-74 Road Segment: e/o Trumble Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 30,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,030 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Vehicle Type	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129				
				Medium Trucks: 53.966				
				Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	2.41	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	81.00	-14.83	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	85.38	-18.79	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.8	68.9	67.1	61.1	69.7	70.3		
Medium Trucks:	64.4	62.9	56.5	55.0	63.4	63.6		
Heavy Trucks:	64.8	63.4	54.3	55.6	63.9	64.1		
Vehicle Noise:	72.5	70.7	67.7	62.9	71.5	71.9		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			74	159	342	738		
CNEL:			79	171	368	793		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY 2023 Without Project Road Name: SR-74 Road Segment: w/o Palomar Rd.				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 37,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,700 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 90.00%			
				Medium Trucks: 84.8% 4.9% 10.3% 5.50%			
				Heavy Trucks: 86.5% 2.7% 10.8% 4.50%			
				Noise Source Elevations (in feet)			
				Autos: 0.000			
				Medium Trucks: 2.297			
				Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 80.156			
				Medium Trucks: 80.046			
Heavy Trucks: 80.056							
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	3.39	-3.18	-1.20	-4.77	0.000	0.000
Medium Trucks:	79.45	-8.75	-3.17	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-9.62	-3.17	-1.20	-5.16	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.5	65.6	63.8	57.8	66.4	67.0	
Medium Trucks:	66.3	64.8	58.5	56.9	65.4	65.6	
Heavy Trucks:	70.3	68.8	59.8	61.1	69.4	69.5	
Vehicle Noise:	73.1	71.6	66.1	63.7	72.2	72.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			140	301	648	1,397	
CNEL:			146	314	677	1,458	

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,950 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Noise Source Elevations (in feet)									
Autos: 0.000									
Medium Trucks: 2.297									
Heavy Trucks: 8.006					Grade Adjustment: 0.0				
Lane Equivalent Distance (in feet)									
Autos: 80.156									
Medium Trucks: 80.046									
Heavy Trucks: 80.056									
FHWA Noise Model Calculations									
VehicleType	REMEI	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.21	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-8.93	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-9.80	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.0	67.1	65.4	59.3	67.9	68.5			
Medium Trucks:	67.7	66.2	59.8	58.3	66.8	67.0			
Heavy Trucks:	71.2	69.8	60.8	62.0	70.4	70.5			
Vehicle Noise:	74.3	72.8	67.5	64.9	73.4	73.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				168	362	781	1,682		
CNEL:				176	379	817	1,759		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY 2023 Without Project Road Name: SR-74 Road Segment: e/o Menifee Rd.				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 46,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,650 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056			
FHWA Noise Model Calculations							
VehicleType	RECEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	3.92	-3.18	-1.20	-4.77	0.000	0.000
Medium Trucks:	81.00	-8.22	-3.17	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-9.09	-3.17	-1.20	-5.16	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.7	67.8	66.1	60.0	68.7	69.3	
Medium Trucks:	68.4	66.9	60.5	59.0	67.5	67.7	
Heavy Trucks:	71.9	70.5	61.5	62.7	71.1	71.2	
Vehicle Noise:	75.0	73.5	68.2	65.6	74.1	74.4	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			188	404	871	1,876	
CNEL:			196	423	910	1,961	
Friday, May 24, 2019							

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		4,200 vehicles			Autos:		15		
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		420 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		50 mph			Vehicle Mix				
Near/Far Lane Distance:		120 feet			Vehicle Type	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
Barrier Height:		0.0 feet			Medium Trucks:		4.9% 10.3% 5.50%		
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		2.7% 10.8% 4.50%		
Centerline Dist. to Barrier:		100.0 feet			Noise Source Elevations (in feet)				
Centerline Dist. to Observer:		100.0 feet			Autos:		0.000		
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297		
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)				
Road Elevation:		0.0 feet			Autos:		80.156		
Road Grade:		0.0%			Medium Trucks:		80.046		
Left View:		-90.0 degrees			Heavy Trucks:		80.056		
Right View:		90.0 degrees							
FHWA Noise Model Calculations									
Vehicle Type	REMEI	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:		70.20	-6.52	-3.18	-1.20	-4.77	0.000	0.000	
Medium Trucks:		81.00	-18.66	-3.17	-1.20	-4.88	0.000	0.000	
Heavy Trucks:		85.38	-19.53	-3.17	-1.20	-5.16	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:		59.3	57.4	55.6	49.6	58.2	58.8		
Medium Trucks:		58.0	56.5	50.1	48.6	57.0	57.3		
Heavy Trucks:		61.5	60.1	51.0	52.3	60.6	60.8		
Vehicle Noise:		64.6	63.0	57.7	55.2	63.7	63.9		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				38	81	175	378		
CNEL:				39	85	183	395		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 19,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,960 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	0.17	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-11.97	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-12.84	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.0	64.1	62.3	56.3	64.9	65.5			
Medium Trucks:	64.7	63.2	56.8	55.2	63.7	63.9			
Heavy Trucks:	68.2	66.7	57.7	59.0	67.3	67.4			
Vehicle Noise:	71.3	69.7	64.4	61.9	70.3	70.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			105	227	489	1,054			
CNEL:			110	238	512	1,103			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,800 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,480 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 120 feet					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.006				
Centerline Dist. to Barrier: 100.0 feet					Grade Adjustment: 0.0				
Centerline Dist. to Observer: 100.0 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									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.19	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-10.95	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-11.82	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.0	65.1	63.4	57.3	65.9	66.5			
Medium Trucks:	65.7	64.2	57.8	56.3	64.7	65.0			
Heavy Trucks:	69.2	67.8	58.7	60.0	68.3	68.5			
Vehicle Noise:	72.3	70.7	65.5	62.9	71.4	71.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			123	266	573	1,234			
CNEL:			129	278	599	1,290			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 27,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,760 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 120 feet					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.11	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-10.02	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-10.90	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.2	64.3	62.5	56.5	65.1	65.7			
Medium Trucks:	65.1	63.5	57.2	55.6	64.1	64.3			
Heavy Trucks:	69.0	67.6	58.5	59.8	68.1	68.3			
Vehicle Noise:	71.8	70.3	64.8	62.5	70.9	71.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			115	248	533	1,149			
CNEL:			120	258	557	1,199			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2023 Without Project Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 14,200 vehicles					Autos: 15					
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15					
Peak Hour Volume: 1,420 vehicles					Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 45 mph										
Near/Far Lane Distance: 120 feet					Vehicle Mix					
Site Data					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	90.00%
					Medium Trucks:		84.8%	4.9%	10.3%	5.50%
					Heavy Trucks:		86.5%	2.7%	10.8%	4.50%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006			
					Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos:		80.156			
					Medium Trucks:		80.046			
					Heavy Trucks:		80.056			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	-0.77	-3.18	-1.20	-4.77	0.000	0.000			
Medium Trucks:	79.45	-12.91	-3.17	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-13.78	-3.17	-1.20	-5.16	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	63.3	61.4	59.6	53.6	62.2	62.8				
Medium Trucks:	62.2	60.7	54.3	52.8	61.2	61.4				
Heavy Trucks:	66.1	64.7	55.6	56.9	65.2	65.4				
Vehicle Noise:	69.0	67.4	61.9	59.6	68.0	68.3				
Centerline Distance to Noise Contour (in feet)										
			70 dBA		65 dBA		60 dBA		55 dBA	
Ldn:			74		159		342		738	
CNEL:			77		166		357		770	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY 2023 Without Project Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt):		3,200 vehicles		Autos:		15	
Peak Hour Percentage:		10%		Medium Trucks (2 Axles):		15	
Peak Hour Volume:		320 vehicles		Heavy Trucks (3+ Axles):		15	
Vehicle Speed:		25 mph					
Near/Far Lane Distance:		45 feet		Vehicle Mix			
				VehicleType	Day	Evening	Night
							Daily
Site Data							
Barrier Height:		0.0 feet		Autos:		77.5% 12.9% 9.6% 97.42%	
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		84.8% 4.9% 10.3% 1.84%	
Centerline Dist. to Barrier:		50.0 feet		Heavy Trucks:		86.5% 2.7% 10.8% 0.74%	
Centerline Dist. to Observer:		50.0 feet					
Barrier Distance to Observer:		0.0 feet		Noise Source Elevations (in feet)			
Observer Height (Above Pad):		5.0 feet		Autos:		0.000	
Pad Elevation:		0.0 feet		Medium Trucks:		2.297	
Road Elevation:		0.0 feet		Heavy Trucks:		8.006	
Road Grade:		0.0%				Grade Adjustment: 0.0	
Left View:		-90.0 degrees		Lane Equivalent Distance (in feet)			
Right View:		90.0 degrees		Autos:		44.931	
				Medium Trucks:		44.733	
				Heavy Trucks:		44.752	
FHWA Noise Model Calculations							
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	58.73	-4.35	0.59	-1.20	-4.65	0.000	0.000
Medium Trucks:	70.80	-21.59	0.62	-1.20	-4.87	0.000	0.000
Heavy Trucks:	77.97	-25.54	0.62	-1.20	-5.43	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	53.8	51.9	50.1	44.1	52.7	53.3	
Medium Trucks:	48.6	47.1	40.8	39.2	47.7	47.9	
Heavy Trucks:	51.9	50.4	41.4	42.6	51.0	51.1	
Vehicle Noise:	56.7	55.0	51.1	47.2	55.7	56.1	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			6	12	26	56	
CNEL:			6	13	27	59	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Rouse Rd. Road Segment: elo Street A					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 220 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Site Data					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet					Autos: 0.000				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 2.297				
Centerline Dist. to Barrier: 50.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Centerline Dist. to Observer: 50.0 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									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-5.97	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-23.21	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-27.17	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	52.2	50.3	48.5	42.4	51.1	51.7			
Medium Trucks:	47.0	45.5	39.1	37.6	46.1	46.3			
Heavy Trucks:	50.2	48.8	39.8	41.0	49.4	49.5			
Vehicle Noise:	55.0	53.4	49.5	45.5	54.1	54.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			4	9	20	43			
CNEL:			5	10	21	46			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 1,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 180 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-6.85	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-24.08	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-28.04	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	51.3	49.4	47.6	41.6	50.2	50.8			
Medium Trucks:	46.1	44.6	38.3	36.7	45.2	45.4			
Heavy Trucks:	49.4	47.9	38.9	40.1	48.5	48.6			
Vehicle Noise:	54.2	52.5	48.6	44.7	53.2	53.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				4	8	18	38		
CNEL:				4	9	19	40		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2023 Without Project Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		6,000 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		600 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		77.5%	12.9%	9.6%	97.42%
Barrier Height:		0.0 feet			Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:		50.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		50.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet			Autos:		44.931			
Road Grade:		0.0%			Medium Trucks:		44.733			
Left View:		-90.0 degrees			Heavy Trucks:		44.752			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-1.62	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-18.86	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-22.81	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	56.5	54.6	52.8	46.8	55.4	56.0				
Medium Trucks:	51.4	49.9	43.5	41.9	50.4	50.6				
Heavy Trucks:	54.6	53.2	44.1	45.4	53.7	53.9				
Vehicle Noise:	59.4	57.7	53.8	49.9	58.4	58.8				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			8	18	39	84				
CNEL:			9	19	42	90				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2023 Without Project Road Name: Chambers Av. Road Segment: e/o Sherman Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		500 vehicles		Autos: 15				
Peak Hour Percentage:		10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume:		50 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed:		25 mph						
Near/Far Lane Distance:		45 feet						
Site Data				Vehicle Mix				
Barrier Height:		0.0 feet		VehicleType	Day	Evening	Night	Daily
Barrier Type (0-Wall, 1-Berm):		0.0		Autos: 77.5% 12.9% 9.6% 97.42%				
Centerline Dist. to Barrier:		50.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Observer:		50.0 feet		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Distance to Observer:		0.0 feet						
Observer Height (Above Pad):		5.0 feet		Grade Adjustment: 0.0				
Pad Elevation:		0.0 feet						
Road Elevation:		0.0 feet						
Road Grade:		0.0%						
Left View:		-90.0 degrees						
Right View:		90.0 degrees						
FHWA Noise Model Calculations				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006				
FHWA Noise Model Calculations				Lane Equivalent Distance (in feet)				
				Autos: 44.931				
				Medium Trucks: 44.733				
				Heavy Trucks: 44.752				
FHWA Noise Model Calculations				FHWA Noise Model Calculations				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	58.73	-12.41	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:	70.80	-29.65	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	77.97	-33.60	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	45.7	43.8	42.1	36.0	44.6	45.2		
Medium Trucks:	40.6	39.1	32.7	31.2	39.6	39.8		
Heavy Trucks:	43.8	42.4	33.3	34.6	42.9	43.1		
Vehicle Noise:	48.6	46.9	43.0	39.1	47.6	48.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			2	3	7	16		
CNEL:			2	4	8	17		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2023 Without Project Road Name: Chambers Av. Road Segment: e/o Street C					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet			VehicleType					
Site Data					Day		Evening		Night	
Barrier Height:		0.0 feet			Autos:		77.5%		12.9%	
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%		4.9%	
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		86.5%		2.7%	
Centerline Dist. to Observer:		50.0 feet					10.8%		0.74%	
Barrier Distance to Observer:		0.0 feet			Noise Source Elevations (in feet)					
Observer Height (Above Pad):		5.0 feet			Autos:		0.000			
Pad Elevation:		0.0 feet			Medium Trucks:		2.297			
Road Elevation:		0.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Road Grade:		0.0%			Lane Equivalent Distance (in feet)					
Left View:		-90.0 degrees			Autos:		44.931			
Right View:		90.0 degrees			Medium Trucks:		44.733			
					Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	38.7	36.8	35.1	29.0	37.6	38.2				
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9				
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1				
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			1	1	3	6				
CNEL:			1	1	3	6				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: McCall Bl. Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,860 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 78 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.91	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-13.32	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-17.28	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.3	67.4	65.7	59.6	68.2	68.8			
Medium Trucks:	63.1	61.6	55.2	53.7	62.1	62.4			
Heavy Trucks:	63.9	62.5	53.5	54.7	63.1	63.2			
Vehicle Noise:	71.2	69.4	66.3	61.6	70.1	70.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			78	167	360	775			
CNEL:			83	179	386	832			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2023 Without Project Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 19,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,940 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006			
					Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos:		54.129			
					Medium Trucks:		53.966			
					Heavy Trucks:		53.982			
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	2.02	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	75.75	-15.22	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	81.57	-19.18	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	64.5	62.6	60.8	54.8	63.4	64.0				
Medium Trucks:	58.7	57.2	50.9	49.3	57.8	58.0				
Heavy Trucks:	60.6	59.2	50.1	51.4	59.7	59.9				
Vehicle Noise:	66.7	65.0	61.6	57.2	65.7	66.1				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			31	66	142	306				
CNEL:			33	70	152	327				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: McCall Bl. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 35,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,500 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.49	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-13.75	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-17.70	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.9	67.0	65.2	59.2	67.8	68.4			
Medium Trucks:	62.7	61.2	54.8	53.2	61.7	61.9			
Heavy Trucks:	63.5	62.1	53.0	54.3	62.7	62.8			
Vehicle Noise:	70.7	69.0	65.8	61.2	69.7	70.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			73	157	337	726			
CNEL:			78	168	362	779			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: McCall Bl. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,800 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,880 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 78 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.006				
Centerline Dist. to Barrier: 76.0 feet					Grade Adjustment: 0.0				
Centerline Dist. to Observer: 76.0 feet					Lane Equivalent Distance (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 65.422				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 65.286				
Pad Elevation: 0.0 feet					Heavy Trucks: 65.300				
Road Elevation: 0.0 feet									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.77	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-15.47	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-19.42	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.5	68.6	66.8	60.8	69.4	70.0			
Medium Trucks:	63.9	62.4	56.0	54.5	62.9	63.2			
Heavy Trucks:	63.9	62.5	53.5	54.7	63.1	63.2			
Vehicle Noise:	72.1	70.3	67.4	62.5	71.0	71.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			89	192	414	892			
CNEL:			96	207	445	959			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,160 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
Heavy Trucks: 44.752									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-0.79	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	77.72	-18.03	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-21.99	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.1	63.2	61.4	55.4	64.0	64.6			
Medium Trucks:	59.1	57.6	51.2	49.7	58.2	58.4			
Heavy Trucks:	60.4	59.0	50.0	51.2	59.6	59.7			
Vehicle Noise:	67.1	65.4	62.1	57.6	66.1	66.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			27	59	128	275			
CNEL:			29	63	137	294			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2023 Without Project Road Name: McCall Bl. Road Segment: e/o Menifee Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,270 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-1.78	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-19.02	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-22.98	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	66.9	65.0	63.3	57.2	65.8	66.4		
Medium Trucks:	60.3	58.8	52.5	50.9	59.4	59.6		
Heavy Trucks:	60.4	59.0	49.9	51.2	59.5	59.6		
Vehicle Noise:	68.5	66.8	63.8	58.9	67.5	68.0		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			52	111	240	517		
CNEL:			56	120	258	556		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 Without Project Road Name: Encanto Dr. Road Segment: s/o A Street					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,160 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.18	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-19.42	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.37	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.8	65.9	64.1	58.1	66.7	67.3			
Medium Trucks:	61.2	59.7	53.3	51.8	60.2	60.5			
Heavy Trucks:	61.2	59.8	50.8	52.0	60.4	60.5			
Vehicle Noise:	69.4	67.6	64.6	59.8	68.3	68.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			46	98	212	456			
CNEL:			49	106	228	491			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10,776 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20% Medium Trucks: 84.8% 4.9% 10.3% 6.04% Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.02	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.62	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.83	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.1	78.2	76.4	70.4	79.0	79.6			
Medium Trucks:	78.7	77.1	70.8	69.2	77.7	77.9			
Heavy Trucks:	81.5	80.0	71.0	72.3	80.6	80.7			
Vehicle Noise:	85.0	83.4	78.4	75.6	84.0	84.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				690	1,486	3,203	6,900		
CNEL:				723	1,558	3,357	7,232		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10,956 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20% Medium Trucks: 84.8% 4.9% 10.3% 6.04% Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.09	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.55	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.76	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.2	78.3	76.5	70.4	79.1	79.7			
Medium Trucks:	78.7	77.2	70.9	69.3	77.8	78.0			
Heavy Trucks:	81.5	80.1	71.1	72.3	80.7	80.8			
Vehicle Noise:	85.1	83.5	78.4	75.6	84.1	84.4			
Centerline Distance to Noise Contour (in feet)									
	70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:	698	1,503	3,238	6,976					
CNEL:	731	1,575	3,394	7,312					
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 11,055 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Heavy Trucks (3+ Axles): 15				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.13	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.51	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.72	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.2	78.3	76.5	70.5	79.1	79.7			
Medium Trucks:	78.8	77.3	70.9	69.3	77.8	78.0			
Heavy Trucks:	81.6	80.2	71.1	72.4	80.7	80.8			
Vehicle Noise:	85.1	83.5	78.5	75.7	84.1	84.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				702	1,512	3,258	7,018		
CNEL:				736	1,585	3,414	7,356		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 9,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 920 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Noise Source Elevations (in feet)									
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Lane Equivalent Distance (in feet)									
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.18	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-20.42	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-24.38	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.8	64.9	63.1	57.1	65.7	66.3			
Medium Trucks:	60.2	58.7	52.3	50.8	59.2	59.5			
Heavy Trucks:	60.2	58.8	49.8	51.0	59.4	59.5			
Vehicle Noise:	68.4	66.6	63.6	58.8	67.3	67.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				39	84	182	391		
CNEL:				42	91	195	421		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,900 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 890 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.33	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-20.57	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-24.52	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.6	64.7	63.0	56.9	65.5	66.1			
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3			
Heavy Trucks:	60.1	58.6	49.6	50.9	59.2	59.3			
Vehicle Noise:	68.2	66.5	63.5	58.6	67.2	67.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				38	82	178	383		
CNEL:				41	89	191	412		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Encanto Dr. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 850 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
Autos: 54.129									
Medium Trucks: 53.966									
Heavy Trucks: 53.982									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.53	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-20.77	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-24.72	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.4	64.5	62.8	56.7	65.3	65.9			
Medium Trucks:	59.8	58.3	52.0	50.4	58.9	59.1			
Heavy Trucks:	59.9	58.4	49.4	50.7	59.0	59.1			
Vehicle Noise:	68.0	66.3	63.3	58.4	67.0	67.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				37	80	172	371		
CNEL:				40	86	185	399		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,900 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 690 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType				
Site Data					Day				
					Evening				
					Night				
					Daily				
					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 59.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006				
Pad Elevation: 0.0 feet					Grade Adjustment: 0.0				
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Grade: 0.0%					Autos: 54.129				
Left View: -90.0 degrees					Medium Trucks: 53.966				
Right View: 90.0 degrees					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-2.47	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	75.75	-19.71	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	81.57	-23.67	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.0	58.1	56.3	50.3	58.9	59.5			
Medium Trucks:	54.2	52.7	46.4	44.8	53.3	53.5			
Heavy Trucks:	56.1	54.7	45.6	46.9	55.2	55.4			
Vehicle Noise:	62.2	60.5	57.1	52.7	61.2	61.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				15	33	71	153		
CNEL:				16	35	76	164		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Sherman Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 660 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType				
					Day				
					Evening				
					Night				
					Daily				
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet									
Centerline Dist. to Observer: 59.0 feet					Noise Source Elevations (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006				
Road Elevation: 0.0 feet					Grade Adjustment: 0.0				
Road Grade: 0.0%					Lane Equivalent Distance (in feet)				
Left View: -90.0 degrees					Autos: 54.129				
Right View: 90.0 degrees					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType		REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:		68.46	-3.76	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:		79.45	-20.99	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:		84.25	-24.95	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType		Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:		62.9	61.0	59.2	53.2	61.8	62.4		
Medium Trucks:		56.7	55.1	48.8	47.2	55.7	55.9		
Heavy Trucks:		57.5	56.1	47.0	48.3	56.6	56.8		
Vehicle Noise:		64.7	63.0	59.8	55.2	63.7	64.2		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				22	48	104	224		
CNEL:				24	52	112	241		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,140 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-1.38	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-18.62	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-22.58	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.3	63.4	61.6	55.5	64.2	64.8			
Medium Trucks:	59.0	57.5	51.2	49.6	58.1	58.3			
Heavy Trucks:	59.9	58.5	49.4	50.7	59.0	59.1			
Vehicle Noise:	67.1	65.4	62.2	57.5	66.1	66.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				32	70	150	323		
CNEL:				35	75	161	346		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-21.95	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-39.19	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-43.15	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	44.7	42.8	41.0	35.0	43.6	44.2			
Medium Trucks:	38.5	37.0	30.6	29.0	37.5	37.7			
Heavy Trucks:	39.3	37.9	28.8	30.1	38.5	38.6			
Vehicle Noise:	46.5	44.8	41.6	37.0	45.5	46.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				1	3	6	14		
CNEL:				1	3	7	15		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 510 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.36	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	77.72	-21.60	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-25.56	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	61.5	59.6	57.9	51.8	60.4		61.0		
Medium Trucks:	55.5	54.0	47.7	46.1	54.6		54.8		
Heavy Trucks:	56.9	55.4	46.4	47.6	56.0		56.1		
Vehicle Noise:	63.6	61.8	58.5	54.0	62.5		63.0		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				16	34	74	159		
CNEL:				17	37	79	170		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Antelope Rd. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 420 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 66.51 -5.21 -0.62 -1.20 -4.69 0.000 0.000									
Medium Trucks: 77.72 -22.45 -0.60 -1.20 -4.88 0.000 0.000									
Heavy Trucks: 82.99 -26.40 -0.60 -1.20 -5.35 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos: 59.5 57.6 55.8 49.8 58.4 59.0									
Medium Trucks: 53.5 52.0 45.6 44.1 52.5 52.7									
Heavy Trucks: 54.8 53.4 44.3 45.6 53.9 54.1									
Vehicle Noise: 61.5 59.8 56.5 51.9 60.5 60.9									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				14	29	63	137		
CNEL:				15	32	68	146		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,800 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 480 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 12 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Centerline Dist. to Barrier: 37.0 feet									
Centerline Dist. to Observer: 37.0 feet					Lane Equivalent Distance (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 36.851				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 36.610				
Pad Elevation: 0.0 feet					Heavy Trucks: 36.634				
Road Elevation: 0.0 feet									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.63	1.88	-1.20	-4.56	0.000	0.000		
Medium Trucks:	77.72	-21.87	1.93	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-25.82	1.92	-1.20	-5.61	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.6	60.7	58.9	52.8	61.5	62.1			
Medium Trucks:	56.6	55.1	48.7	47.2	55.6	55.9			
Heavy Trucks:	57.9	56.5	47.4	48.7	57.0	57.2			
Vehicle Noise:	64.6	62.9	59.6	55.0	63.6	64.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			14	30	64	138			
CNEL:			15	32	69	148			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,160 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 78 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
Heavy Trucks: 65.300									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.52	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-16.72	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-20.67	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.2	67.3	65.6	59.5	68.2	68.8			
Medium Trucks:	62.6	61.1	54.8	53.2	61.7	61.9			
Heavy Trucks:	62.7	61.3	52.2	53.5	61.8	62.0			
Vehicle Noise:	70.8	69.1	66.1	61.2	69.8	70.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			74	159	342	736			
CNEL:			79	171	368	792			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,120 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 76.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 76.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 65.422				
Road Grade: 0.0%					Medium Trucks: 65.286				
Left View: -90.0 degrees					Heavy Trucks: 65.300				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.33	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-19.57	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.52	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.4	64.5	62.7	56.7	65.3	65.9			
Medium Trucks:	59.8	58.3	51.9	50.4	58.8	59.1			
Heavy Trucks:	59.8	58.4	49.4	50.6	59.0	59.1			
Vehicle Noise:	68.0	66.2	63.3	58.4	66.9	67.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				48	102	221	475		
CNEL:				51	110	237	511		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,890 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-0.06	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-17.30	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-21.25	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.7	66.8	65.0	58.9	67.6	68.2			
Medium Trucks:	62.1	60.6	54.2	52.7	61.1	61.3			
Heavy Trucks:	62.1	60.7	51.6	52.9	61.2	61.4			
Vehicle Noise:	70.2	68.5	65.5	60.7	69.2	69.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			67	145	313	673			
CNEL:			72	156	336	724			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL															
Scenario: OY 2023 With Project Road Name: SR-74 Road Segment: e/o I-215					Project Name: Legado Job Number: 8728										
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS										
Highway Data					Site Conditions (Hard = 10, Soft = 15)										
Average Daily Traffic (Adt): 43,300 vehicles					Autos: 15										
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15										
Peak Hour Volume: 4,330 vehicles					Heavy Trucks (3+ Axles): 15										
Vehicle Speed: 50 mph					Vehicle Mix										
Near/Far Lane Distance: 48 feet					VehicleType										
Site Data					Day		Evening		Night		Daily				
					Autos: 77.5%					12.9%		9.6%		97.42%	
					Medium Trucks: 84.8%					4.9%		10.3%		1.84%	
					Heavy Trucks: 86.5%					2.7%		10.8%		0.74%	
					Noise Source Elevations (in feet)										
					Autos: 0.000										
					Medium Trucks: 2.297										
					Heavy Trucks: 8.006					Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)										
					Autos: 54.129										
Medium Trucks: 53.966															
Heavy Trucks: 53.982															
FHWA Noise Model Calculations															
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten								
Autos:	70.20	3.96	-0.62	-1.20	-4.69	0.000	0.000								
Medium Trucks:	81.00	-13.28	-0.60	-1.20	-4.88	0.000	0.000								
Heavy Trucks:	85.38	-17.24	-0.60	-1.20	-5.35	0.000	0.000								
Unmitigated Noise Levels (without Topo and barrier attenuation)															
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL									
Autos:	72.3	70.4	68.7	62.6	71.2	71.8									
Medium Trucks:	65.9	64.4	58.0	56.5	65.0	65.2									
Heavy Trucks:	66.3	64.9	55.9	57.1	65.5	65.6									
Vehicle Noise:	74.0	72.3	69.2	64.5	73.0	73.5									
Centerline Distance to Noise Contour (in feet)															
				70 dBA	65 dBA	60 dBA	55 dBA								
Ldn:				94	202	434	936								
CNEL:				101	217	467	1,006								

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 30,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,050 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 59.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet									
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Grade: 0.0%					Autos: 54.129				
Left View: -90.0 degrees					Medium Trucks: 53.966				
Right View: 90.0 degrees					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.89	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-14.35	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-18.30	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.5	67.6	65.9	59.8	68.4	69.0			
Medium Trucks:	63.3	61.8	55.4	53.9	62.3	62.6			
Heavy Trucks:	64.1	62.7	53.7	54.9	63.3	63.4			
Vehicle Noise:	71.4	69.6	66.5	61.8	70.3	70.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			62	134	289	622			
CNEL:			67	144	310	667			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2023 With Project Road Name: SR-74 Road Segment: e/o Trumble Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 30,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,030 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	2.41	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	81.00	-14.83	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	85.38	-18.79	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.8	68.9	67.1	61.1	69.7	70.3		
Medium Trucks:	64.4	62.9	56.5	55.0	63.4	63.6		
Heavy Trucks:	64.8	63.4	54.3	55.6	63.9	64.1		
Vehicle Noise:	72.5	70.7	67.7	62.9	71.5	71.9		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			74	159	342	738		
CNEL:			79	171	368	793		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 37,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,700 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.39	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-8.75	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-9.62	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.5	65.6	63.8	57.8	66.4	67.0			
Medium Trucks:	66.3	64.8	58.5	56.9	65.4	65.6			
Heavy Trucks:	70.3	68.8	59.8	61.1	69.4	69.5			
Vehicle Noise:	73.1	71.6	66.1	63.7	72.2	72.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			140	301	648	1,397			
CNEL:			146	314	677	1,458			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,950 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 120 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.006				
Centerline Dist. to Barrier: 100.0 feet					Grade Adjustment: 0.0				
Centerline Dist. to Observer: 100.0 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									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.21	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-8.93	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-9.80	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.0	67.1	65.4	59.3	67.9	68.5			
Medium Trucks:	67.7	66.2	59.8	58.3	66.8	67.0			
Heavy Trucks:	71.2	69.8	60.8	62.0	70.4	70.5			
Vehicle Noise:	74.3	72.8	67.5	64.9	73.4	73.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			168	362	781	1,682			
CNEL:			176	379	817	1,759			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 4,200 vehicles				Autos: 15					
Peak Hour Percentage: 10%				Medium Trucks (2 Axles): 15					
Peak Hour Volume: 420 vehicles				Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 120 feet				Vehicle Mix					
				VehicleType	Day	Evening	Night	Daily	
Site Data				Autos: 77.5% 12.9% 9.6% 90.00%					
				Medium Trucks: 84.8% 4.9% 10.3% 5.50%					
				Heavy Trucks: 86.5% 2.7% 10.8% 4.50%					
				Noise Source Elevations (in feet)					
				Autos: 0.000					
				Medium Trucks: 2.297					
				Heavy Trucks: 8.006 Grade Adjustment: 0.0					
				Lane Equivalent Distance (in feet)					
				Autos: 80.156					
				Medium Trucks: 80.046					
				Heavy Trucks: 80.056					
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-6.52	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-18.66	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-19.53	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	59.3	57.4	55.6	49.6	58.2	58.8			
Medium Trucks:	58.0	56.5	50.1	48.6	57.0	57.3			
Heavy Trucks:	61.5	60.1	51.0	52.3	60.6	60.8			
Vehicle Noise:	64.6	63.0	57.7	55.2	63.7	63.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			38	81	175	378			
CNEL:			39	85	183	395			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 46,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,680 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.95	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-8.19	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-9.06	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.8	67.9	66.1	60.1	68.7	69.3			
Medium Trucks:	68.4	66.9	60.6	59.0	67.5	67.7			
Heavy Trucks:	71.9	70.5	61.5	62.7	71.1	71.2			
Vehicle Noise:	75.1	73.5	68.2	65.7	74.1	74.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				188	406	874	1,884		
CNEL:				197	424	914	1,970		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,000 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	0.26	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-11.88	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-12.75	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.1	64.2	62.4	56.4	65.0	65.6			
Medium Trucks:	64.8	63.2	56.9	55.3	63.8	64.0			
Heavy Trucks:	68.3	66.8	57.8	59.0	67.4	67.5			
Vehicle Noise:	71.4	69.8	64.5	62.0	70.4	70.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			107	230	496	1,069			
CNEL:			112	241	519	1,118			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,560 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.33	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-10.81	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-11.68	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.2	65.3	63.5	57.4	66.1	66.7			
Medium Trucks:	65.8	64.3	58.0	56.4	64.9	65.1			
Heavy Trucks:	69.3	67.9	58.9	60.1	68.5	68.6			
Vehicle Noise:	72.5	70.9	65.6	63.1	71.5	71.8			
Centerline Distance to Noise Contour (in feet)									
		70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:		126	271	585	1,260				
CNEL:		132	284	612	1,318				
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 27,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,760 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.11	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-10.02	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-10.90	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.2	64.3	62.5	56.5	65.1	65.7			
Medium Trucks:	65.1	63.5	57.2	55.6	64.1	64.3			
Heavy Trucks:	69.0	67.6	58.5	59.8	68.1	68.3			
Vehicle Noise:	71.8	70.3	64.8	62.5	70.9	71.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			115	248	533	1,149			
CNEL:			120	258	557	1,199			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,420 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-0.77	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-12.91	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-13.78	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.3	61.4	59.6	53.6	62.2	62.8			
Medium Trucks:	62.2	60.7	54.3	52.8	61.2	61.4			
Heavy Trucks:	66.1	64.7	55.6	56.9	65.2	65.4			
Vehicle Noise:	69.0	67.4	61.9	59.6	68.0	68.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				74	159	342	738		
CNEL:				77	166	357	770		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 590 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-1.69	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	70.80	-18.93	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	77.97	-22.88	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.4	54.5	52.8	46.7	55.3	55.9		55.9	
Medium Trucks:	51.3	49.8	43.4	41.9	50.3	50.6		50.6	
Heavy Trucks:	54.5	53.1	44.1	45.3	53.7	53.8		53.8	
Vehicle Noise:	59.3	57.7	53.7	49.8	58.3	58.7		58.7	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				8	18	39	83		
CNEL:				9	19	41	89		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2023 With Project Road Name: Rouse Rd. Road Segment: e/o Street A				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,200 vehicles				Autos: 15				
Peak Hour Percentage: 10%				Medium Trucks (2 Axles): 15				
Peak Hour Volume: 420 vehicles				Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph								
Near/Far Lane Distance: 45 feet				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
Site Data				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000				
Barrier Height: 0.0 feet				Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Centerline Dist. to Barrier: 50.0 feet								
Centerline Dist. to Observer: 50.0 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								
Road Grade: 0.0%								
Left View: -90.0 degrees								
Right View: 90.0 degrees								
				Lane Equivalent Distance (in feet)				
				Autos: 44.931				
				Medium Trucks: 44.733				
				Heavy Trucks: 44.752				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	58.73	-3.17	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:	70.80	-20.40	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	77.97	-24.36	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	55.0	53.1	51.3	45.2	53.9	54.5		
Medium Trucks:	49.8	48.3	41.9	40.4	48.9	49.1		
Heavy Trucks:	53.0	51.6	42.6	43.8	52.2	52.3		
Vehicle Noise:	57.9	56.2	52.3	48.4	56.9	57.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			7	14	31	67		
CNEL:			7	15	33	71		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 600 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data									
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 50.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 50.0 feet									
Barrier Distance to Observer: 0.0 feet					Noise Source Elevations (in feet)				
Observer Height (Above Pad): 5.0 feet					Autos: 0.000				
Pad Elevation: 0.0 feet					Medium Trucks: 2.297				
Road Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Grade: 0.0%					Lane Equivalent Distance (in feet)				
Left View: -90.0 degrees					Autos: 44.931				
Right View: 90.0 degrees					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-1.62	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-18.86	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-22.81	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.5	54.6	52.8	46.8	55.4	56.0			
Medium Trucks:	51.4	49.9	43.5	41.9	50.4	50.6			
Heavy Trucks:	54.6	53.2	44.1	45.4	53.7	53.9			
Vehicle Noise:	59.4	57.7	53.8	49.9	58.4	58.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			8	18	39	84			
CNEL:			9	19	42	90			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2023 With Project Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 3,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 340 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 44.931					
					Medium Trucks: 44.733					
					Heavy Trucks: 44.752					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-4.08	0.59	-1.20	-4.65	0.000		0.000		
Medium Trucks:	70.80	-21.32	0.62	-1.20	-4.87	0.000		0.000		
Heavy Trucks:	77.97	-25.28	0.62	-1.20	-5.43	0.000		0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	54.0	52.1	50.4	44.3	52.9	53.6				
Medium Trucks:	48.9	47.4	41.0	39.5	47.9	48.2				
Heavy Trucks:	52.1	50.7	41.7	42.9	51.3	51.4				
Vehicle Noise:	56.9	55.3	51.3	47.4	55.9	56.3				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			6	12	27	58				
CNEL:			6	13	28	61				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Chambers Av. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):		700 vehicles			Autos:		15		
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15		
Peak Hour Volume:		70 vehicles			Heavy Trucks (3+ Axles):		15		
Vehicle Speed:		25 mph			Vehicle Mix				
Near/Far Lane Distance:		45 feet							
Site Data					VehicleType				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-10.95	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	70.80	-28.19	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	77.97	-32.14	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	47.2	45.3	43.5	37.5	46.1	46.7		46.7	
Medium Trucks:	42.0	40.5	34.2	32.6	41.1	41.3		41.3	
Heavy Trucks:	45.3	43.8	34.8	36.0	44.4	44.5		44.5	
Vehicle Noise:	50.1	48.4	44.5	40.6	49.1	49.5		49.5	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				2	4	9	20		
CNEL:				2	5	10	21		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2023 With Project Road Name: Chambers Av. Road Segment: e/o Street C					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet			VehicleType					
Site Data					Day		Evening		Night	Daily
Barrier Height:		0.0 feet			Autos:		77.5%		12.9%	9.6%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%		4.9%	10.3%
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		86.5%		2.7%	10.8%
Centerline Dist. to Observer:		50.0 feet			Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet			Autos:		0.000			
Observer Height (Above Pad):		5.0 feet			Medium Trucks:		2.297			
Pad Elevation:		0.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Road Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Grade:		0.0%			Autos:		44.931			
Left View:		-90.0 degrees			Medium Trucks:		44.733			
Right View:		90.0 degrees			Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	38.7	36.8	35.1	29.0	37.6	38.2				
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9				
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1				
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				1	1	3	6			
CNEL:				1	1	3	6			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: OY 2023 With Project Road Name: McCall Bl. Road Segment: w/o Sun City Bl.			Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA			NOISE MODEL INPUTS				
Highway Data			Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,300 vehicles			Autos: 15				
Peak Hour Percentage: 10%			Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,030 vehicles			Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph							
Near/Far Lane Distance: 48 feet			Vehicle Mix				
			Vehicle Type	Day	Evening	Night	Daily
Site Data			Autos: 77.5% 12.9% 9.6% 97.42%				
			Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
			Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
			Noise Source Elevations (in feet)				
			Autos: 0.000				
Barrier Height: 0.0 feet			Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0			Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Centerline Dist. to Barrier: 59.0 feet							
Centerline Dist. to Observer: 59.0 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							
Road Grade: 0.0%							
Left View: -90.0 degrees							
Right View: 90.0 degrees							
			Lane Equivalent Distance (in feet)				
			Autos: 54.129				
			Medium Trucks: 53.966				
			Heavy Trucks: 53.982				
FHWA Noise Model Calculations							
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	64.30	2.22	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	75.75	-15.02	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	81.57	-18.98	-0.60	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	64.7	62.8	61.0	55.0	63.6	64.2	
Medium Trucks:	58.9	57.4	51.1	49.5	58.0	58.2	
Heavy Trucks:	60.8	59.4	50.3	51.6	59.9	60.1	
Vehicle Noise:	66.9	65.2	61.8	57.4	65.9	66.3	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			32	68	146	315	
CNEL:			34	73	156	337	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: McCall Bl. Road Segment: elo I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 41,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,150 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Medium Trucks: 2.297					Grade Adjustment: 0.0				
Heavy Trucks: 8.006									
Lane Equivalent Distance (in feet)					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	4.23	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-13.01	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-16.96	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.6	67.7	66.0	59.9	68.5	69.1			
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.7			
Heavy Trucks:	64.2	62.8	53.8	55.0	63.4	63.5			
Vehicle Noise:	71.5	69.7	66.6	61.9	70.4	70.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			81	175	378	814			
CNEL:			87	188	405	873			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: McCall Bl. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,660 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 78 feet					Vehicle Mix				
Site Data					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006				
					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.68	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-13.55	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-17.51	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.1	67.2	65.4	59.4	68.0	68.6			
Medium Trucks:	62.9	61.3	55.0	53.4	61.9	62.1			
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8	63.0			
Vehicle Noise:	70.9	69.2	66.0	61.4	69.9	70.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			75	161	347	748			
CNEL:			80	173	373	803			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: McCall Bl. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 30,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,050 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 78 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Site Data									
Barrier Height: 0.0 feet									
Barrier Type (0-Wall, 1-Berm): 0.0									
Centerline Dist. to Barrier: 76.0 feet									
Centerline Dist. to Observer: 76.0 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									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.02	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-15.22	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-19.17	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.7	68.8	67.1	61.0	69.6	70.3			
Medium Trucks:	64.1	62.6	56.3	54.7	63.2	63.4			
Heavy Trucks:	64.2	62.8	53.7	55.0	63.3	63.5			
Vehicle Noise:	72.3	70.6	67.6	62.7	71.3	71.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				93	200	430	927		
CNEL:				100	215	463	997		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: McCall Bl. Road Segment: e/o Meniffee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,300 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 76.0 feet					(in feet)				
Centerline Dist. to Observer: 76.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					(in feet)				
Road Elevation: 0.0 feet					Autos: 65.422				
Road Grade: 0.0%					Medium Trucks: 65.286				
Left View: -90.0 degrees					Heavy Trucks: 65.300				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.68	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-18.92	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-22.88	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.0	65.1	63.4	57.3	65.9	66.6			
Medium Trucks:	60.4	58.9	52.6	51.0	59.5	59.7			
Heavy Trucks:	60.5	59.1	50.0	51.3	59.6	59.8			
Vehicle Noise:	68.6	66.9	63.9	59.0	67.6	68.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				52	113	244	525		
CNEL:				56	122	262	565		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,400 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	0.02	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	77.72	-17.22	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-21.17	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.9	64.0	62.3	56.2	64.8	65.4			
Medium Trucks:	59.9	58.4	52.1	50.5	59.0	59.2			
Heavy Trucks:	61.2	59.8	50.8	52.0	60.4	60.5			
Vehicle Noise:	67.9	66.2	62.9	58.4	66.9	67.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			31	67	145	312			
CNEL:			33	72	155	334			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2023 With Project Road Name: Encanto Dr. Road Segment: s/o A Street					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,400 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 59.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 54.129				
Road Grade: 0.0%					Medium Trucks: 53.966				
Left View: -90.0 degrees					Heavy Trucks: 53.982				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.36	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-18.60	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-22.56	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.6	66.7	64.9	58.9	67.5	68.1			
Medium Trucks:	62.0	60.5	54.1	52.6	61.1	61.3			
Heavy Trucks:	62.0	60.6	51.6	52.8	61.2	61.3			
Vehicle Noise:	70.2	68.4	65.5	60.6	69.1	69.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			52	111	240	517			
CNEL:			56	120	258	557			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 11,426 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.28	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.37	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.57	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.3	78.4	76.7	70.6	79.2	79.9			
Medium Trucks:	78.9	77.4	71.0	69.5	78.0	78.2			
Heavy Trucks:	81.7	80.3	71.3	72.5	80.9	81.0			
Vehicle Noise:	85.2	83.7	78.6	75.8	84.3	84.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				717	1,546	3,330	7,174		
CNEL:				752	1,620	3,490	7,520		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 11,623 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.35	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.29	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.50	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.4	78.5	76.8	70.7	79.3	79.9			
Medium Trucks:	79.0	77.5	71.1	69.6	78.0	78.3			
Heavy Trucks:	81.8	80.4	71.3	72.6	80.9	81.1			
Vehicle Noise:	85.3	83.7	78.7	75.9	84.4	84.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			726	1,563	3,368	7,256			
CNEL:			761	1,639	3,530	7,606			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 11,777 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006				
					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.41	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.24	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.44	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.5	78.6	76.8	70.8	79.4	80.0			
Medium Trucks:	79.0	77.5	71.2	69.6	78.1	78.3			
Heavy Trucks:	81.8	80.4	71.4	72.6	81.0	81.1			
Vehicle Noise:	85.4	83.8	78.7	76.0	84.4	84.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				732	1,577	3,398	7,321		
CNEL:				767	1,653	3,562	7,673		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 800 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.79	-0.62	-1.20	-4.69	0.000		0.000	
Medium Trucks:	82.40	-21.03	-0.60	-1.20	-4.88	0.000		0.000	
Heavy Trucks:	86.40	-24.99	-0.60	-1.20	-5.35	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	66.2	64.3	62.5	56.4	65.1		65.7		
Medium Trucks:	59.6	58.1	51.7	50.2	58.6		58.9		
Heavy Trucks:	59.6	58.2	49.2	50.4	58.8		58.9		
Vehicle Noise:	67.8	66.0	63.0	58.2	66.7		67.2		
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	36		77		165		356		
CNEL:	38		83		178		383		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL															
Scenario: OY 2025 Without Project Road Name: Encanto Dr Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728										
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS										
Highway Data					Site Conditions (Hard = 10, Soft = 15)										
Average Daily Traffic (Adt): 7,700 vehicles					Autos: 15										
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15										
Peak Hour Volume: 770 vehicles					Heavy Trucks (3+ Axles): 15										
Vehicle Speed: 55 mph					Vehicle Mix										
Near/Far Lane Distance: 48 feet					VehicleType										
Site Data					Day		Evening		Night		Daily				
					Autos: 77.5%					12.9%		9.6%		97.42%	
					Medium Trucks: 84.8%					4.9%		10.3%		1.84%	
					Heavy Trucks: 86.5%					2.7%		10.8%		0.74%	
					Noise Source Elevations (in feet)										
					Autos: 0.000										
					Medium Trucks: 2.297										
					Heavy Trucks: 8.006		Grade Adjustment: 0.0								
					Lane Equivalent Distance (in feet)										
					Autos: 54.129										
					Medium Trucks: 53.966										
					Heavy Trucks: 53.982										
FHWA Noise Model Calculations															
VehicleType		REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten							
Autos:		71.78	-3.96	-0.62	-1.20	-4.69	0.000	0.000							
Medium Trucks:		82.40	-21.20	-0.60	-1.20	-4.88	0.000	0.000							
Heavy Trucks:		86.40	-25.15	-0.60	-1.20	-5.35	0.000	0.000							
Unmitigated Noise Levels (without Topo and barrier attenuation)															
VehicleType		Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL								
Autos:		66.0	64.1	62.3	56.3	64.9	65.5								
Medium Trucks:		59.4	57.9	51.5	50.0	58.5	58.7								
Heavy Trucks:		59.4	58.0	49.0	50.2	58.6	58.7								
Vehicle Noise:		67.6	65.8	62.9	58.0	66.5	67.0								
Centerline Distance to Noise Contour (in feet)															
				70 dBA	65 dBA	60 dBA	55 dBA								
Ldn:				35	75	161	347								
CNEL:				37	81	173	374								

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 700 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 35 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet									
Centerline Dist. to Observer: 59.0 feet					Noise Source Elevations (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet									
Road Grade: 0.0%					Lane Equivalent Distance (in feet)				
Left View: -90.0 degrees					Autos: 54.129				
Right View: 90.0 degrees					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-2.41	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	75.75	-19.65	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	81.57	-23.60	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.1	58.2	56.4	50.4	59.0	59.6			
Medium Trucks:	54.3	52.8	46.4	44.9	53.3	53.6			
Heavy Trucks:	56.2	54.7	45.7	47.0	55.3	55.4			
Vehicle Noise:	62.3	60.6	57.1	52.8	61.3	61.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			15	33	72	155			
CNEL:			17	36	77	166			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Encanto Dr. Road Segment: s/o Chambers Av.				Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		9,300 vehicles		Autos:		15			
Peak Hour Percentage:		10%		Medium Trucks (2 Axles):		15			
Peak Hour Volume:		930 vehicles		Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		55 mph		Vehicle Mix					
Near/Far Lane Distance:		48 feet							
Site Data				VehicleType	Day	Evening	Night	Daily	
Barrier Height:		0.0 feet		Autos:		77.5%	12.9%	9.6%	97.42%
Barrier Type (0-Wall, 1-Berm):		0.0		Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Centerline Dist. to Barrier:		59.0 feet		Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Observer:		59.0 feet		Noise Source Elevations (in feet)					
Barrier Distance to Observer:		0.0 feet							
Observer Height (Above Pad):		5.0 feet		Autos:		0.000			
Pad Elevation:		0.0 feet		Medium Trucks:		2.297			
Road Elevation:		0.0 feet		Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Road Grade:		0.0%		Lane Equivalent Distance (in feet)					
Left View:		-90.0 degrees							
Right View:		90.0 degrees		Autos:		54.129			
				Medium Trucks:		53.966			
				Heavy Trucks:		53.982			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-3.14	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-20.38	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-24.33	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.8	64.9	63.2	57.1	65.7	66.3			
Medium Trucks:	60.2	58.7	52.4	50.8	59.3	59.5			
Heavy Trucks:	60.3	58.8	49.8	51.1	59.4	59.5			
Vehicle Noise:	68.4	66.6	63.7	58.8	67.4	67.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				39	85	183	394		
CNEL:				42	91	197	424		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 Without Project Road Name: Sherman Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 7,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 750 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	-3.20	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	79.45	-20.44	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-24.39	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	63.4	61.5	59.8	53.7	62.3	62.9				
Medium Trucks:	57.2	55.7	49.3	47.8	56.3	56.5				
Heavy Trucks:	58.1	56.6	47.6	48.8	57.2	57.3				
Vehicle Noise:	65.3	63.5	60.4	55.7	64.3	64.7				
Centerline Distance to Noise Contour (in feet)										
			70 dBA		65 dBA		60 dBA		55 dBA	
Ldn:			24		53		113		244	
CNEL:			26		56		122		262	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data Average Daily Traffic (Adt): 15,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,500 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Site Conditions (Hard = 10, Soft = 15)				
					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-0.19	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-17.43	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-21.38	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.5	64.6	62.8	56.7	65.4	66.0			
Medium Trucks:	60.2	58.7	52.4	50.8	59.3	59.5			
Heavy Trucks:	61.1	59.6	50.6	51.9	60.2	60.3			
Vehicle Noise:	68.3	66.5	63.4	58.7	67.3	67.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				39	84	180	388		
CNEL:				42	90	193	416		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
Autos: 54.129									
Medium Trucks: 53.966									
Heavy Trucks: 53.982									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-21.95	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-39.19	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-43.15	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	44.7	42.8	41.0	35.0	43.6	44.2			
Medium Trucks:	38.5	37.0	30.6	29.0	37.5	37.7			
Heavy Trucks:	39.3	37.9	28.8	30.1	38.5	38.6			
Vehicle Noise:	46.5	44.8	41.6	37.0	45.5	46.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			1	3	6	14			
CNEL:			1	3	7	15			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 520 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 50.0 feet					Daily				
Centerline Dist. to Observer: 50.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Right View: 90.0 degrees					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.28	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	77.72	-21.52	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-25.47	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.6	59.7	58.0	51.9	60.5	61.1			
Medium Trucks:	55.6	54.1	47.7	46.2	54.7	54.9			
Heavy Trucks:	56.9	55.5	46.5	47.7	56.1	56.2			
Vehicle Noise:	63.6	61.9	58.6	54.1	62.6	63.1			
Centerline Distance to Noise Contour (in feet)									
	70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:	16	35	75	161					
CNEL:	17	37	80	172					
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Antelope Rd. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 420 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet									
Site Data									
Barrier Height: 0.0 feet									
Barrier Type (0-Wall, 1-Berm): 0.0									
Centerline Dist. to Barrier: 59.0 feet									
Centerline Dist. to Observer: 59.0 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									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 500 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 12 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.006				
Centerline Dist. to Barrier: 37.0 feet					Grade Adjustment: 0.0				
Centerline Dist. to Observer: 37.0 feet					Lane Equivalent Distance (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 36.851				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 36.610				
Pad Elevation: 0.0 feet					Heavy Trucks: 36.634				
Road Elevation: 0.0 feet									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.45	1.88	-1.20	-4.56	0.000	0.000		
Medium Trucks:	77.72	-21.69	1.93	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-25.64	1.92	-1.20	-5.61	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.7	60.8	59.1	53.0	61.6	62.3			
Medium Trucks:	56.8	55.2	48.9	47.3	55.8	56.0			
Heavy Trucks:	58.1	56.7	47.6	48.9	57.2	57.3			
Vehicle Noise:	64.8	63.0	59.8	55.2	63.7	64.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				14	31	66	142		
CNEL:				15	33	70	152		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 24,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,450 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 78 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	1.07	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-16.17	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-20.13	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.8	67.9	66.1	60.1	68.7	69.3			
Medium Trucks:	63.2	61.7	55.3	53.8	62.2	62.5			
Heavy Trucks:	63.2	61.8	52.8	54.0	62.4	62.5			
Vehicle Noise:	71.4	69.6	66.7	61.8	70.3	70.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			80	172	372	801			
CNEL:			86	186	400	861			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,240 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.89	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-19.13	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.08	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.8	64.9	63.2	57.1	65.7	66.3			
Medium Trucks:	60.2	58.7	52.4	50.8	59.3	59.5			
Heavy Trucks:	60.3	58.8	49.8	51.1	59.4	59.5			
Vehicle Noise:	68.4	66.7	63.7	58.8	67.4	67.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				51	110	236	508		
CNEL:				55	118	254	547		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,070 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	0.34	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-16.90	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-20.86	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.1	67.2	65.4	59.3	68.0	68.6			
Medium Trucks:	62.5	61.0	54.6	53.0	61.5	61.7			
Heavy Trucks:	62.5	61.1	52.0	53.3	61.6	61.8			
Vehicle Noise:	70.6	68.9	65.9	61.1	69.6	70.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			72	154	332	716			
CNEL:			77	166	357	770			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: SR-74 Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 47,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,740 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	4.35	-0.62	-1.20	-4.69	0.000		0.000	
Medium Trucks:	81.00	-12.89	-0.60	-1.20	-4.88	0.000		0.000	
Heavy Trucks:	85.38	-16.84	-0.60	-1.20	-5.35	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	72.7	70.8	69.1	63.0	71.6	72.2			
Medium Trucks:	66.3	64.8	58.4	56.9	65.4	65.6			
Heavy Trucks:	66.7	65.3	56.3	57.5	65.9	66.0			
Vehicle Noise:	74.4	72.7	69.6	64.9	73.4	73.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				99	214	461	994		
CNEL:				107	230	496	1,068		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,290 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
Autos: 54.129									
Medium Trucks: 53.966									
Heavy Trucks: 53.982									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.76	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-14.47	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-18.43	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.2	67.5	61.4	70.0	70.7			
Medium Trucks:	64.7	63.2	56.9	55.3	63.8	64.0			
Heavy Trucks:	65.1	63.7	54.7	55.9	64.3	64.4			
Vehicle Noise:	72.8	71.1	68.0	63.3	71.8	72.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				78	168	362	779		
CNEL:				84	180	389	837		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,280 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.21	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-14.03	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-17.99	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.8	67.9	66.2	60.1	68.8	69.4			
Medium Trucks:	63.6	62.1	55.7	54.2	62.7	62.9			
Heavy Trucks:	64.5	63.0	54.0	55.3	63.6	63.7			
Vehicle Noise:	71.7	69.9	66.8	62.1	70.7	71.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				65	141	303	653		
CNEL:				70	151	325	700		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,870 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.58	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-8.56	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-9.43	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.7	65.8	64.0	57.9	66.6	67.2			
Medium Trucks:	66.5	65.0	58.7	57.1	65.6	65.8			
Heavy Trucks:	70.5	69.0	60.0	61.2	69.6	69.7			
Vehicle Noise:	73.3	71.7	66.3	63.9	72.4	72.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				144	310	668	1,439		
CNEL:				150	324	697	1,502		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 Without Project Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 41,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,110 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type	Day	Evening	Night	Daily	
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%					
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006					Grade Adjustment: 0.0
					Lane Equivalent Distance (in feet)					
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056					
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	70.20	3.39	-3.18	-1.20	-4.77	0.000	0.000			
Medium Trucks:	81.00	-8.75	-3.17	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	85.38	-9.62	-3.17	-1.20	-5.16	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	69.2	67.3	65.5	59.5	68.1	68.7				
Medium Trucks:	67.9	66.4	60.0	58.5	66.9	67.2				
Heavy Trucks:	71.4	70.0	60.9	62.2	70.5	70.7				
Vehicle Noise:	74.5	72.9	67.7	65.1	73.6	73.9				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			173	372	802	1,727				
CNEL:			181	389	838	1,806				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 Without Project Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 52,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,230 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					Vehicle Type		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%					
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006		Grade Adjustment: 0.0			
					Lane Equivalent Distance (in feet)					
					Autos: 80.156					
					Medium Trucks: 80.046					
					Heavy Trucks: 80.056					
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	70.20	4.43	-3.18	-1.20	-4.77	0.000	0.000			
Medium Trucks:	81.00	-7.71	-3.17	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	85.38	-8.58	-3.17	-1.20	-5.16	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	70.3	68.4	66.6	60.5	69.2	69.8				
Medium Trucks:	68.9	67.4	61.1	59.5	68.0	68.2				
Heavy Trucks:	72.4	71.0	62.0	63.2	71.6	71.7				
Vehicle Noise:	75.6	74.0	68.7	66.2	74.6	74.9				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				203	437	942	2,029			
CNEL:				212	457	985	2,121			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,900 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 490 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 120 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Centerline Dist. to Barrier: 100.0 feet									
Centerline Dist. to Observer: 100.0 feet					Lane Equivalent Distance (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 80.156				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 80.046				
Pad Elevation: 0.0 feet					Heavy Trucks: 80.056				
Road Elevation: 0.0 feet									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-5.85	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-17.99	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-18.86	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.0	58.1	56.3	50.3	58.9	59.5			
Medium Trucks:	58.6	57.1	50.8	49.2	57.7	57.9			
Heavy Trucks:	62.1	60.7	51.7	52.9	61.3	61.4			
Vehicle Noise:	65.3	63.7	58.4	55.9	64.3	64.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				42	90	194	418		
CNEL:				44	94	203	438		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,240 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	0.75	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-11.39	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-12.26	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.6	64.7	62.9	56.9	65.5	66.1			
Medium Trucks:	65.2	63.7	57.4	55.8	64.3	64.5			
Heavy Trucks:	68.7	67.3	58.3	59.5	67.9	68.0			
Vehicle Noise:	71.9	70.3	65.0	62.5	70.9	71.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			115	248	535	1,153			
CNEL:			121	260	559	1,205			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 Without Project Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 28,700 vehicles					Autos: 15					
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15					
Peak Hour Volume: 2,870 vehicles					Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 50 mph										
Near/Far Lane Distance: 120 feet					Vehicle Mix					
Site Data					Vehicle Type		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%					
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%					
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006					
					Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 80.156					
					Medium Trucks: 80.046					
					Heavy Trucks: 80.056					
FHWA Noise Model Calculations										
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	70.20	1.83	-3.18	-1.20	-4.77	0.000	0.000			
Medium Trucks:	81.00	-10.31	-3.17	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	85.38	-11.18	-3.17	-1.20	-5.16	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	67.7	65.8	64.0	57.9	66.6	67.2				
Medium Trucks:	66.3	64.8	58.4	56.9	65.4	65.6				
Heavy Trucks:	69.8	68.4	59.4	60.6	69.0	69.1				
Vehicle Noise:	72.9	71.4	66.1	63.5	72.0	72.3				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				136	293	631	1,360			
CNEL:				142	306	660	1,422			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 28,400 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,840 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 120 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Centerline Dist. to Barrier: 100.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 100.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 80.156				
Road Grade: 0.0%					Medium Trucks: 80.046				
Left View: -90.0 degrees					Heavy Trucks: 80.056				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	2.24	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-9.90	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-10.77	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.3	64.4	62.7	56.6	65.2	65.8			
Medium Trucks:	65.2	63.7	57.3	55.8	64.2	64.5			
Heavy Trucks:	69.1	67.7	58.7	59.9	68.3	68.4			
Vehicle Noise:	72.0	70.4	64.9	62.6	71.0	71.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				117	252	543	1,171		
CNEL:				122	263	567	1,222		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,800 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,680 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 120 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-0.04	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-12.18	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-13.05	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	64.0	62.1	60.4	54.3	62.9	63.5			
Medium Trucks:	62.9	61.4	55.0	53.5	61.9	62.2			
Heavy Trucks:	66.8	65.4	56.4	57.6	66.0	66.1			
Vehicle Noise:	69.7	68.1	62.7	60.3	68.7	69.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			83	178	383	825			
CNEL:			86	186	400	861			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 360 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-3.84	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-21.07	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-25.03	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	54.3	52.4	50.6	44.6	53.2	53.8			
Medium Trucks:	49.1	47.6	41.3	39.7	48.2	48.4			
Heavy Trucks:	52.4	50.9	41.9	43.2	51.5	51.6			
Vehicle Noise:	57.2	55.5	51.6	47.7	56.2	56.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				6	13	28	60		
CNEL:				6	14	30	64		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: OY 2025 Without Project Road Name: Rouse Rd. Road Segment: e/o Street A					Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 2,200 vehicles					Autos: 15						
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15						
Peak Hour Volume: 220 vehicles					Heavy Trucks (3+ Axles): 15						
Vehicle Speed: 25 mph											
Near/Far Lane Distance: 45 feet					Vehicle Mix						
Site Data					VehicleType		Day	Evening	Night	Daily	
							Autos:	77.5%	12.9%	9.6%	97.42%
							Medium Trucks:	84.8%	4.9%	10.3%	1.84%
							Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
							Noise Source Elevations (in feet)				
							Autos:	0.000			
							Medium Trucks:	2.297			
							Heavy Trucks:	8.006	Grade Adjustment: 0.0		
							Lane Equivalent Distance (in feet)				
							Autos:	44.931			
							Medium Trucks:	44.733			
							Heavy Trucks:	44.752			
					FHWA Noise Model Calculations						
VehicleType		REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:		58.73	-5.97	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:		70.80	-23.21	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:		77.97	-27.17	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType		Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:		52.2	50.3	48.5	42.4	51.1	51.7				
Medium Trucks:		47.0	45.5	39.1	37.6	46.1	46.3				
Heavy Trucks:		50.2	48.8	39.8	41.0	49.4	49.5				
Vehicle Noise:		55.0	53.4	49.5	45.5	54.1	54.4				
Centerline Distance to Noise Contour (in feet)											
				70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:				4	9	20	43				
CNEL:				5	10	21	46				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 600 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 50.0 feet									
Centerline Dist. to Observer: 50.0 feet					Noise Source Elevations (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet									
Road Grade: 0.0%					Lane Equivalent Distance (in feet)				
Left View: -90.0 degrees					Autos: 44.931				
Right View: 90.0 degrees					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-1.62	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-18.86	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-22.81	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.5	54.6	52.8	46.8	55.4	56.0			
Medium Trucks:	51.4	49.9	43.5	41.9	50.4	50.6			
Heavy Trucks:	54.6	53.2	44.1	45.4	53.7	53.9			
Vehicle Noise:	59.4	57.7	53.8	49.9	58.4	58.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			8	18	39	84			
CNEL:			9	19	42	90			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL												
Scenario: OY 2025 Without Project Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728							
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS							
Highway Data					Site Conditions (Hard = 10, Soft = 15)							
Average Daily Traffic (Adt):		1,900 vehicles			Autos:		15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15					
Peak Hour Volume:		190 vehicles			Heavy Trucks (3+ Axles):		15					
Vehicle Speed:		25 mph			Vehicle Mix							
Near/Far Lane Distance:		45 feet										
Site Data					VehicleType							
Barrier Height:		0.0 feet			Autos:		77.5%	12.9%	9.6%	97.42%		
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%	4.9%	10.3%	1.84%		
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		86.5%	2.7%	10.8%	0.74%		
Centerline Dist. to Observer:		50.0 feet			Noise Source Elevations (in feet)							
Barrier Distance to Observer:		0.0 feet										
Observer Height (Above Pad):		5.0 feet			Autos:		0.000					
Pad Elevation:		0.0 feet			Medium Trucks:		2.297					
Road Elevation:		0.0 feet			Heavy Trucks:		8.006					
Road Grade:		0.0%			Lane Equivalent Distance (in feet)		Grade Adjustment: 0.0					
Left View:		-90.0 degrees			Autos:						44.931	
Right View:		90.0 degrees			Medium Trucks:						44.733	
					Heavy Trucks:		44.752					
FHWA Noise Model Calculations												
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten					
Autos:	58.73	-6.61	0.59	-1.20	-4.65	0.000	0.000					
Medium Trucks:	70.80	-23.85	0.62	-1.20	-4.87	0.000	0.000					
Heavy Trucks:	77.97	-27.80	0.62	-1.20	-5.43	0.000	0.000					
Unmitigated Noise Levels (without Topo and barrier attenuation)												
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL						
Autos:	51.5	49.6	47.9	41.8	50.4	51.0						
Medium Trucks:	46.4	44.9	38.5	37.0	45.4	45.6						
Heavy Trucks:	49.6	48.2	39.1	40.4	48.7	48.9						
Vehicle Noise:	54.4	52.7	48.8	44.9	53.4	53.8						
Centerline Distance to Noise Contour (in feet)												
				70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:				4	8	18	39					
CNEL:				4	9	19	42					

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 Without Project Road Name: Chambers Av. Road Segment: elo Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		700 vehicles			Autos: 15					
Peak Hour Percentage:		10%			Medium Trucks (2 Axles): 15					
Peak Hour Volume:		70 vehicles			Heavy Trucks (3+ Axles): 15					
Vehicle Speed:		25 mph								
Near/Far Lane Distance:		45 feet			Vehicle Mix					
Site Data					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 44.931					
					Medium Trucks: 44.733					
					Heavy Trucks: 44.752					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-10.95	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-28.19	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-32.14	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	47.2	45.3	43.5	37.5	46.1	46.7				
Medium Trucks:	42.0	40.5	34.2	32.6	41.1	41.3				
Heavy Trucks:	45.3	43.8	34.8	36.0	44.4	44.5				
Vehicle Noise:	50.1	48.4	44.5	40.6	49.1	49.5				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			2	4	9	20				
CNEL:			2	5	10	21				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 Without Project Road Name: Chambers Av. Road Segment: e/o Street C					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		25 mph			Vehicle Mix					
Near/Far Lane Distance:		45 feet			VehicleType					
Site Data					Day		Evening		Night	Daily
Barrier Height:		0.0 feet			Autos:		77.5%		12.9%	9.6%
Barrier Type (0-Wall, 1-Berm):		0.0			Medium Trucks:		84.8%		4.9%	10.3%
Centerline Dist. to Barrier:		50.0 feet			Heavy Trucks:		86.5%		2.7%	10.8%
Centerline Dist. to Observer:		50.0 feet							0.74%	
Barrier Distance to Observer:		0.0 feet			Noise Source Elevations (in feet)					
Observer Height (Above Pad):		5.0 feet			Autos:		0.000			
Pad Elevation:		0.0 feet			Medium Trucks:		2.297			
Road Elevation:		0.0 feet			Heavy Trucks:		8.006		Grade Adjustment: 0.0	
Road Grade:		0.0%			Lane Equivalent Distance (in feet)					
Left View:		-90.0 degrees			Autos:		44.931			
Right View:		90.0 degrees			Medium Trucks:		44.733			
					Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	38.7	36.8	35.1	29.0	37.6	38.2				
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9				
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1				
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			1	1	3	6				
CNEL:			1	1	3	6				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: McCall Bl. Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 44,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,430 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet) Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet) Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	4.51	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-12.73	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-16.68	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.9	68.0	66.3	60.2	68.8	69.4			
Medium Trucks:	63.7	62.2	55.8	54.3	62.7	63.0			
Heavy Trucks:	64.5	63.1	54.1	55.3	63.7	63.8			
Vehicle Noise:	71.8	70.0	66.9	62.2	70.7	71.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			85	183	395	850			
CNEL:			91	196	423	912			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 Without Project Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 21,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,150 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 54.129					
					Medium Trucks: 53.966					
					Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	2.46	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	75.75	-14.77	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	81.57	-18.73	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	64.9	63.0	61.3	55.2	63.8	64.5				
Medium Trucks:	59.2	57.7	51.3	49.8	58.2	58.5				
Heavy Trucks:	61.0	59.6	50.6	51.8	60.2	60.3				
Vehicle Noise:	67.2	65.5	62.0	57.6	66.2	66.6				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				33	71	152	327			
CNEL:				35	75	162	350			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2025 Without Project Road Name: McCall Bl. Road Segment: e/o Sherman Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,620 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422				
				Medium Trucks: 65.286				
				Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	3.64	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	79.45	-13.60	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-17.56	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.0	67.1	65.4	59.3	67.9	68.6		
Medium Trucks:	62.8	61.3	54.9	53.4	61.9	62.1		
Heavy Trucks:	63.7	62.2	53.2	54.4	62.8	62.9		
Vehicle Noise:	70.9	69.1	66.0	61.3	69.9	70.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			74	160	345	743		
CNEL:			80	172	370	797		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: McCall Bl. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,230 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.27	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-14.97	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-18.92	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.0	69.1	67.3	61.3	69.9	70.5			
Medium Trucks:	64.4	62.9	56.5	55.0	63.4	63.7			
Heavy Trucks:	64.4	63.0	54.0	55.2	63.6	63.7			
Vehicle Noise:	72.6	70.8	67.9	63.0	71.5	72.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				96	207	447	963		
CNEL:				104	223	481	1,036		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: McCall Bl. Road Segment: e/o Meniffee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,450 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.21	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-18.45	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-22.40	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.5	65.6	63.9	57.8	66.4	67.0			
Medium Trucks:	60.9	59.4	53.0	51.5	60.0	60.2			
Heavy Trucks:	61.0	59.5	50.5	51.7	60.1	60.2			
Vehicle Noise:	69.1	67.3	64.4	59.5	68.1	68.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			56	122	262	564			
CNEL:			61	131	282	607			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,190 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-0.68	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	77.72	-17.92	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-21.88	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.2	63.3	61.6	55.5	64.1	64.7			
Medium Trucks:	59.2	57.7	51.3	49.8	58.3	58.5			
Heavy Trucks:	60.5	59.1	50.1	51.3	59.7	59.8			
Vehicle Noise:	67.2	65.5	62.2	57.7	66.2	66.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				28	60	130	280		
CNEL:				30	65	139	299		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 Without Project					Project Name: Legado				
Road Name: Encanto Dr.					Job Number: 8728				
Road Segment: s/o A Street									
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,900 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,190 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 59.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 54.129				
Road Grade: 0.0%					Medium Trucks: 53.966				
Left View: -90.0 degrees					Heavy Trucks: 53.982				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.07	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-19.31	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.26	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.9	66.0	64.2	58.2	66.8	67.4			
Medium Trucks:	61.3	59.8	53.4	51.9	60.3	60.6			
Heavy Trucks:	61.3	59.9	50.9	52.1	60.5	60.6			
Vehicle Noise:	69.5	67.7	64.8	59.9	68.4	68.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			46	100	216	464			
CNEL:			50	108	232	499			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 12,026 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.50	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.14	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.35	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.6	78.7	76.9	70.8	79.5	80.1			
Medium Trucks:	79.1	77.6	71.3	69.7	78.2	78.4			
Heavy Trucks:	81.9	80.5	71.5	72.7	81.1	81.2			
Vehicle Noise:	85.5	83.9	78.8	76.1	84.5	84.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				742	1,599	3,445	7,423		
CNEL:				778	1,676	3,611	7,781		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 12,223 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.57	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.07	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.28	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.6	78.7	77.0	70.9	79.5	80.1			
Medium Trucks:	79.2	77.7	71.3	69.8	78.2	78.5			
Heavy Trucks:	82.0	80.6	71.6	72.8	81.2	81.3			
Vehicle Noise:	85.5	83.9	78.9	76.1	84.6	84.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			750	1,617	3,483	7,504			
CNEL:			787	1,695	3,651	7,865			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 12,272 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph									
Near/Far Lane Distance: 120 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Centerline Dist. to Barrier: 80.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Observer: 80.0 feet									
Barrier Distance to Observer: 0.0 feet					Noise Source Elevations (in feet)				
Observer Height (Above Pad): 5.0 feet					Autos: 0.000				
Pad Elevation: 0.0 feet					Medium Trucks: 2.297				
Road Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Grade: 0.0%									
Left View: -90.0 degrees					Lane Equivalent Distance (in feet)				
Right View: 90.0 degrees					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	6.59	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-5.06	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-5.26	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	80.7	78.8	77.0	70.9	79.6	80.2			
Medium Trucks:	79.2	77.7	71.3	69.8	78.3	78.5			
Heavy Trucks:	82.0	80.6	71.6	72.8	81.2	81.3			
Vehicle Noise:	85.6	84.0	78.9	76.1	84.6	84.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				752	1,621	3,492	7,524		
CNEL:				789	1,699	3,661	7,887		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,260 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.82	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-19.06	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.01	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.1	66.2	64.5	58.4	67.0	67.6			
Medium Trucks:	61.5	60.0	53.7	52.1	60.6	60.8			
Heavy Trucks:	61.6	60.2	51.1	52.4	60.7	60.9			
Vehicle Noise:	69.7	68.0	65.0	60.1	68.7	69.2			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				48	104	224	482		
CNEL:				52	112	241	519		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,300 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,230 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 59.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 59.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 54.129				
Road Grade: 0.0%					Medium Trucks: 53.966				
Left View: -90.0 degrees					Heavy Trucks: 53.982				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.92	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-19.16	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.12	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.0	66.1	64.4	58.3	66.9	67.5			
Medium Trucks:	61.4	59.9	53.6	52.0	60.5	60.7			
Heavy Trucks:	61.5	60.1	51.0	52.3	60.6	60.7			
Vehicle Noise:	69.6	67.9	64.9	60.0	68.6	69.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			47	102	220	475			
CNEL:			51	110	237	511			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 With Project Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 12,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,220 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	0.00	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	75.75	-17.23	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	81.57	-21.19	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	62.5	60.6	58.8	52.8	61.4	62.0				
Medium Trucks:	56.7	55.2	48.8	47.3	55.8	56.0				
Heavy Trucks:	58.6	57.2	48.1	49.4	57.7	57.8				
Vehicle Noise:	64.7	63.0	59.6	55.2	63.7	64.1				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			22	48	104	224				
CNEL:			24	52	111	240				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Encanto Dr. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 14,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,450 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.21	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-18.45	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-22.40	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.8	66.9	65.1	59.0	67.7	68.3			
Medium Trucks:	62.2	60.6	54.3	52.7	61.2	61.4			
Heavy Trucks:	62.2	60.8	51.7	53.0	61.3	61.5			
Vehicle Noise:	70.3	68.6	65.6	60.7	69.3	69.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				53	114	246	530		
CNEL:				57	123	264	570		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Sherman Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 750 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-3.20	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-20.44	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-24.39	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	63.4	61.5	59.8	53.7	62.3	62.9			
Medium Trucks:	57.2	55.7	49.3	47.8	56.3	56.5			
Heavy Trucks:	58.1	56.6	47.6	48.8	57.2	57.3			
Vehicle Noise:	65.3	63.5	60.4	55.7	64.3	64.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			24	53	113	244			
CNEL:			26	56	122	262			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,500 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-0.19	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-17.43	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-21.38	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.5	64.6	62.8	56.7	65.4	66.0			
Medium Trucks:	60.2	58.7	52.4	50.8	59.3	59.5			
Heavy Trucks:	61.1	59.6	50.6	51.9	60.2	60.3			
Vehicle Noise:	68.3	66.5	63.4	58.7	67.3	67.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			39	84	180	388			
CNEL:			42	90	193	416			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 With Project Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt):		100 vehicles			Autos:		15			
Peak Hour Percentage:		10%			Medium Trucks (2 Axles):		15			
Peak Hour Volume:		10 vehicles			Heavy Trucks (3+ Axles):		15			
Vehicle Speed:		45 mph			Vehicle Mix					
Near/Far Lane Distance:		48 feet			VehicleType		Day	Evening	Night	Daily
Site Data					Autos:		77.5%	12.9%	9.6%	97.42%
Barrier Height:		0.0 feet			Medium Trucks:		84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):		0.0			Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:		59.0 feet			Noise Source Elevations (in feet)					
Centerline Dist. to Observer:		59.0 feet			Autos:		0.000			
Barrier Distance to Observer:		0.0 feet			Medium Trucks:		2.297			
Observer Height (Above Pad):		5.0 feet			Heavy Trucks:		8.006	Grade Adjustment: 0.0		
Pad Elevation:		0.0 feet			Lane Equivalent Distance (in feet)					
Road Elevation:		0.0 feet			Autos:		54.129			
Road Grade:		0.0%			Medium Trucks:		53.966			
Left View:		-90.0 degrees			Heavy Trucks:		53.982			
Right View:		90.0 degrees								
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	-21.95	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	79.45	-39.19	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-43.15	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	44.7	42.8	41.0	35.0	43.6	44.2				
Medium Trucks:	38.5	37.0	30.6	29.0	37.5	37.7				
Heavy Trucks:	39.3	37.9	28.8	30.1	38.5	38.6				
Vehicle Noise:	46.5	44.8	41.6	37.0	45.5	46.0				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			1	3	6	14				
CNEL:			1	3	7	15				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 520 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
Heavy Trucks: 44.752									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.28	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	77.72	-21.52	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-25.47	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.6	59.7	58.0	51.9	60.5	61.1			
Medium Trucks:	55.6	54.1	47.7	46.2	54.7	54.9			
Heavy Trucks:	56.9	55.5	46.5	47.7	56.1	56.2			
Vehicle Noise:	63.6	61.9	58.6	54.1	62.6	63.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			16	35	75	161			
CNEL:			17	37	80	172			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: OY 2025 With Project Road Name: Antelope Rd. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 4,200 vehicles					Autos: 15						
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15						
Peak Hour Volume: 420 vehicles					Heavy Trucks (3+ Axles): 15						
Vehicle Speed: 40 mph											
Near/Far Lane Distance: 48 feet					Vehicle Mix						
					VehicleType		Day	Evening	Night	Daily	
Site Data							Autos:	77.5%	12.9%	9.6%	97.42%
							Medium Trucks:	84.8%	4.9%	10.3%	1.84%
							Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)						
							Autos:	0.000			
							Medium Trucks:	2.297			
							Heavy Trucks:	8.006 Grade Adjustment: 0.0			
					Lane Equivalent Distance (in feet)						
							Autos:	54.129			
							Medium Trucks:	53.966			
							Heavy Trucks:	53.982			
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	66.51	-5.21	-0.62	-1.20	-4.69	0.000	0.000				
Medium Trucks:	77.72	-22.45	-0.60	-1.20	-4.88	0.000	0.000				
Heavy Trucks:	82.99	-26.40	-0.60	-1.20	-5.35	0.000	0.000				
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL				
Autos:	59.5	57.6	55.8	49.8	58.4		59.0				
Medium Trucks:	53.5	52.0	45.6	44.1	52.5		52.7				
Heavy Trucks:	54.8	53.4	44.3	45.6	53.9		54.1				
Vehicle Noise:	61.5	59.8	56.5	51.9	60.5		60.9				
Centerline Distance to Noise Contour (in feet)											
			70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:			14	29	63	137					
CNEL:			15	32	68	146					

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 500 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 12 feet					VehicleType				
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
Barrier Height: 0.0 feet					Medium Trucks: 2.297				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Centerline Dist. to Barrier: 37.0 feet					Lane Equivalent Distance (in feet)				
Centerline Dist. to Observer: 37.0 feet					Autos: 36.851				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 36.610				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 36.634				
Pad Elevation: 0.0 feet									
Road Elevation: 0.0 feet									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-4.45	1.88	-1.20	-4.56	0.000	0.000		
Medium Trucks:	77.72	-21.69	1.93	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-25.64	1.92	-1.20	-5.61	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.7	60.8	59.1	53.0	61.6	62.3			
Medium Trucks:	56.8	55.2	48.9	47.3	55.8	56.0			
Heavy Trucks:	58.1	56.7	47.6	48.9	57.2	57.3			
Vehicle Noise:	64.8	63.0	59.8	55.2	63.7	64.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			14	31	66	142			
CNEL:			15	33	70	152			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 With Project Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 25,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,540 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006		Grade Adjustment: 0.0			
					Lane Equivalent Distance (in feet)					
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	1.23	-1.85	-1.20	-4.73	0.000	0.000			
Medium Trucks:	82.40	-16.01	-1.84	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-19.97	-1.84	-1.20	-5.25	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	70.0	68.1	66.3	60.2	68.9	69.5				
Medium Trucks:	63.4	61.8	55.5	53.9	62.4	62.6				
Heavy Trucks:	63.4	62.0	52.9	54.2	62.5	62.7				
Vehicle Noise:	71.5	69.8	66.8	61.9	70.5	71.0				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			82	177	381	820				
CNEL:			88	190	410	882				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,290 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.72	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-18.95	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-22.91	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.0	65.1	63.3	57.3	65.9	66.5			
Medium Trucks:	60.4	58.9	52.5	51.0	59.5	59.7			
Heavy Trucks:	60.4	59.0	50.0	51.2	59.6	59.7			
Vehicle Noise:	68.6	66.8	63.9	59.0	67.6	68.0			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				52	112	242	522		
CNEL:				56	121	261	562		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: OY 2025 With Project Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 21,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,170 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422				
				Medium Trucks: 65.286				
				Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	0.54	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-16.70	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-20.65	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	69.3	67.4	65.6	59.5	68.2	68.8		
Medium Trucks:	62.7	61.2	54.8	53.3	61.7	61.9		
Heavy Trucks:	62.7	61.3	52.2	53.5	61.8	62.0		
Vehicle Noise:	70.8	69.1	66.1	61.3	69.8	70.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			74	159	343	738		
CNEL:			79	171	369	794		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: SR-74 Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 47,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,740 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	4.35	-0.62	-1.20	-4.69	0.000		0.000	
Medium Trucks:	81.00	-12.89	-0.60	-1.20	-4.88	0.000		0.000	
Heavy Trucks:	85.38	-16.84	-0.60	-1.20	-5.35	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	72.7	70.8	69.1	63.0	71.6		72.2		
Medium Trucks:	66.3	64.8	58.4	56.9	65.4		65.6		
Heavy Trucks:	66.7	65.3	56.3	57.5	65.9		66.0		
Vehicle Noise:	74.4	72.7	69.6	64.9	73.4		73.9		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				99	214	461	994		
CNEL:				107	230	496	1,068		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,290 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
Autos: 54.129									
Medium Trucks: 53.966									
Heavy Trucks: 53.982									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	2.76	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-14.47	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-18.43	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.2	67.5	61.4	70.0	70.7			
Medium Trucks:	64.7	63.2	56.9	55.3	63.8	64.0			
Heavy Trucks:	65.1	63.7	54.7	55.9	64.3	64.4			
Vehicle Noise:	72.8	71.1	68.0	63.3	71.8	72.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			78	168	362	779			
CNEL:			84	180	389	837			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 32,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,280 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.21	-0.62	-1.20	-4.69	0.000		0.000	
Medium Trucks:	79.45	-14.03	-0.60	-1.20	-4.88	0.000		0.000	
Heavy Trucks:	84.25	-17.99	-0.60	-1.20	-5.35	0.000		0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	69.8	67.9	66.2	60.1	68.8			69.4	
Medium Trucks:	63.6	62.1	55.7	54.2	62.7			62.9	
Heavy Trucks:	64.5	63.0	54.0	55.3	63.6			63.7	
Vehicle Noise:	71.7	69.9	66.8	62.1	70.7			71.1	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				65	141	303	653		
CNEL:				70	151	325	700		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,870 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.58	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-8.56	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-9.43	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.7	65.8	64.0	57.9	66.6	67.2			
Medium Trucks:	66.5	65.0	58.7	57.1	65.6	65.8			
Heavy Trucks:	70.5	69.0	60.0	61.2	69.6	69.7			
Vehicle Noise:	73.3	71.7	66.3	63.9	72.4	72.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			144	310	668	1,439			
CNEL:			150	324	697	1,502			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data Average Daily Traffic (Adt): 41,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,110 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Site Conditions (Hard = 10, Soft = 15)				
					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.39	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-8.75	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-9.62	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.2	67.3	65.5	59.5	68.1	68.7			
Medium Trucks:	67.9	66.4	60.0	58.5	66.9	67.2			
Heavy Trucks:	71.4	70.0	60.9	62.2	70.5	70.7			
Vehicle Noise:	74.5	72.9	67.7	65.1	73.6	73.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				173	372	802	1,727		
CNEL:				181	389	838	1,806		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 52,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,260 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
Autos: 80.156									
Medium Trucks: 80.046									
Heavy Trucks: 80.056									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	4.46	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-7.68	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-8.55	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.3	68.4	66.6	60.6	69.2	69.8			
Medium Trucks:	68.9	67.4	61.1	59.5	68.0	68.2			
Heavy Trucks:	72.5	71.0	62.0	63.2	71.6	71.7			
Vehicle Noise:	75.6	74.0	68.7	66.2	74.6	74.9			
Centerline Distance to Noise Contour (in feet)									
	70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:	204	439	945	2,036					
CNEL:	213	459	988	2,129					
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 490 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	-5.85	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-17.99	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-18.86	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.0	58.1	56.3	50.3	58.9	59.5			
Medium Trucks:	58.6	57.1	50.8	49.2	57.7	57.9			
Heavy Trucks:	62.1	60.7	51.7	52.9	61.3	61.4			
Vehicle Noise:	65.3	63.7	58.4	55.9	64.3	64.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				42	90	194	418		
CNEL:				44	94	203	438		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,900 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,290 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph					Vehicle Mix				
Near/Far Lane Distance: 120 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
Centerline Dist. to Barrier: 100.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 100.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 80.156				
Road Grade: 0.0%					Medium Trucks: 80.046				
Left View: -90.0 degrees					Heavy Trucks: 80.056				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	0.85	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-11.29	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-12.16	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.7	64.8	63.0	57.0	65.6	66.2			
Medium Trucks:	65.3	63.8	57.5	55.9	64.4	64.6			
Heavy Trucks:	68.8	67.4	58.4	59.6	68.0	68.1			
Vehicle Noise:	72.0	70.4	65.1	62.6	71.0	71.3			
Centerline Distance to Noise Contour (in feet)									
	70 dBA		65 dBA		60 dBA		55 dBA		
Ldn:	117		252		543		1,170		
CNEL:	122		264		568		1,223		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 29,700 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,970 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 50 mph									
Near/Far Lane Distance: 120 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006				
					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	1.97	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-10.16	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-11.04	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.8	65.9	64.1	58.1	66.7	67.3			
Medium Trucks:	66.5	65.0	58.6	57.1	65.5	65.7			
Heavy Trucks:	70.0	68.6	59.5	60.8	69.1	69.2			
Vehicle Noise:	73.1	71.5	66.2	63.7	72.2	72.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			139	300	646	1,391			
CNEL:			145	313	675	1,455			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: OY 2025 With Project Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 16,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,680 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%					
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%					
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 80.156					
					Medium Trucks: 80.046					
					Heavy Trucks: 80.056					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	-0.04	-3.18	-1.20	-4.77	0.000	0.000			
Medium Trucks:	79.45	-12.18	-3.17	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-13.05	-3.17	-1.20	-5.16	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	64.0	62.1	60.4	54.3	62.9	63.5				
Medium Trucks:	62.9	61.4	55.0	53.5	61.9	62.2				
Heavy Trucks:	66.8	65.4	56.4	57.6	66.0	66.1				
Vehicle Noise:	69.7	68.1	62.7	60.3	68.7	69.0				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			83	178	383	825				
CNEL:			86	186	400	861				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: OY 2025 With Project Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 28,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,850 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data					Vehicle Mix						
					VehicleType	Day	Evening	Night	Daily		
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%						
					Noise Source Elevations (in feet)						
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006					Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)						
Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056											
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	68.46	2.25	-3.18	-1.20	-4.77	0.000	0.000				
Medium Trucks:	79.45	-9.89	-3.17	-1.20	-4.88	0.000	0.000				
Heavy Trucks:	84.25	-10.76	-3.17	-1.20	-5.16	0.000	0.000				
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	66.3	64.4	62.7	56.6	65.2	65.8					
Medium Trucks:	65.2	63.7	57.3	55.8	64.2	64.5					
Heavy Trucks:	69.1	67.7	58.7	59.9	68.3	68.4					
Vehicle Noise:	72.0	70.4	64.9	62.6	71.0	71.3					
Centerline Distance to Noise Contour (in feet)											
				70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:				117	253	545	1,174				
CNEL:				123	264	569	1,225				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 650 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-1.27	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-18.51	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-22.46	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.9	55.0	53.2	47.1	55.8	56.4			
Medium Trucks:	51.7	50.2	43.8	42.3	50.8	51.0			
Heavy Trucks:	54.9	53.5	44.5	45.7	54.1	54.2			
Vehicle Noise:	59.8	58.1	54.2	50.3	58.8	59.1			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			9	19	41	89			
CNEL:			9	20	44	95			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Rouse Rd. Road Segment: e/o Street A					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,600 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 460 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet					VehicleType				
Site Data					Day				
					Evening				
					Night				
					Daily				
					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 50.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 50.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006				
Pad Elevation: 0.0 feet					Grade Adjustment: 0.0				
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Grade: 0.0%					Autos: 44.931				
Left View: -90.0 degrees					Medium Trucks: 44.733				
Right View: 90.0 degrees					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-2.77	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-20.01	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-23.96	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	55.4	53.5	51.7	45.6	54.3	54.9			
Medium Trucks:	50.2	48.7	42.3	40.8	49.3	49.5			
Heavy Trucks:	53.4	52.0	43.0	44.2	52.6	52.7			
Vehicle Noise:	58.3	56.6	52.7	48.8	57.3	57.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			7	15	33	71			
CNEL:			8	16	35	75			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 600 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data									
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 50.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 50.0 feet					Noise Source Elevations (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Grade: 0.0%					Autos: 44.931				
Left View: -90.0 degrees					Medium Trucks: 44.733				
Right View: 90.0 degrees					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-1.62	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-18.86	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-22.81	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.5	54.6	52.8	46.8	55.4	56.0			
Medium Trucks:	51.4	49.9	43.5	41.9	50.4	50.6			
Heavy Trucks:	54.6	53.2	44.1	45.4	53.7	53.9			
Vehicle Noise:	59.4	57.7	53.8	49.9	58.4	58.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			8	18	39	84			
CNEL:			9	19	42	90			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: OY 2025 With Project Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 3,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 320 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15						
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix						
					VehicleType		Day	Evening	Night	Daily	
							Autos:	77.5%	12.9%	9.6%	97.42%
							Medium Trucks:	84.8%	4.9%	10.3%	1.84%
							Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)						
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0						
					Lane Equivalent Distance (in feet)						
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752						
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos:	58.73	-4.35	0.59	-1.20	-4.65	0.000	0.000				
Medium Trucks:	70.80	-21.59	0.62	-1.20	-4.87	0.000	0.000				
Heavy Trucks:	77.97	-25.54	0.62	-1.20	-5.43	0.000	0.000				
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos:	53.8	51.9	50.1	44.1	52.7	53.3					
Medium Trucks:	48.6	47.1	40.8	39.2	47.7	47.9					
Heavy Trucks:	51.9	50.4	41.4	42.6	51.0	51.1					
Vehicle Noise:	56.7	55.0	51.1	47.2	55.7	56.1					
Centerline Distance to Noise Contour (in feet)											
			70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:			6	12	26	56					
CNEL:			6	13	27	59					

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Chambers Av. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 2,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 210 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-6.18	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-23.41	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-27.37	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	52.0	50.1	48.3	42.2	50.9	51.5			
Medium Trucks:	46.8	45.3	38.9	37.4	45.8	46.1			
Heavy Trucks:	50.0	48.6	39.6	40.8	49.2	49.3			
Vehicle Noise:	54.8	53.2	49.3	45.3	53.9	54.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			4	9	19	42			
CNEL:			4	10	21	45			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: Chambers Av. Road Segment: e/o Street C					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data Average Daily Traffic (Adt): 100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 10 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Site Conditions (Hard = 10, Soft = 15) Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet) Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-19.40	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-36.64	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-40.59	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	38.7	36.8	35.1	29.0	37.6	38.2			
Medium Trucks:	33.6	32.1	25.7	24.2	32.6	32.9			
Heavy Trucks:	36.8	35.4	26.3	27.6	35.9	36.1			
Vehicle Noise:	41.6	39.9	36.0	32.1	40.6	41.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			1	1	3	6			
CNEL:			1	1	3	6			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 22,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,290 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
Autos: 54.129									
Medium Trucks: 53.966									
Heavy Trucks: 53.982									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	2.74	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	75.75	-14.50	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	81.57	-18.46	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.2	63.3	61.6	55.5	64.1	64.7			
Medium Trucks:	59.4	57.9	51.6	50.0	58.5	58.7			
Heavy Trucks:	61.3	59.9	50.9	52.1	60.5	60.6			
Vehicle Noise:	67.5	65.7	62.3	57.9	66.4	66.9			
Centerline Distance to Noise Contour (in feet)									
		70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:		34	74	158	341				
CNEL:		36	79	169	365				
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: McCall Bl. Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 48,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,840 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	4.90	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-12.34	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-16.30	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.3	68.4	66.6	60.6	69.2	69.8			
Medium Trucks:	64.1	62.6	56.2	54.7	63.1	63.3			
Heavy Trucks:	64.9	63.5	54.5	55.7	64.1	64.2			
Vehicle Noise:	72.1	70.4	67.2	62.6	71.1	71.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				90	194	419	902		
CNEL:				97	208	449	967		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project Road Name: McCall Bl. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,910 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 76.0 feet					Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 76.0 feet					Autos: 0.000				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet					Autos: 65.422				
Road Grade: 0.0%					Medium Trucks: 65.286				
Left View: -90.0 degrees					Heavy Trucks: 65.300				
Right View: 90.0 degrees									
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	3.97	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-13.27	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-17.22	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.4	67.5	65.7	59.7	68.3	68.9			
Medium Trucks:	63.1	61.6	55.3	53.7	62.2	62.4			
Heavy Trucks:	64.0	62.6	53.5	54.8	63.1	63.3			
Vehicle Noise:	71.2	69.5	66.3	61.6	70.2	70.6			
Centerline Distance to Noise Contour (in feet)									
	70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:	78	169	363	782					
CNEL:	84	181	389	839					
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project					Project Name: Legado				
Road Name: McCall Bl.					Job Number: 8728				
Road Segment: e/o Antelope Rd.									
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,900 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,490 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos:	77.5%	12.9%	9.6%	97.42%
					Medium Trucks:	84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)				
					Autos:	0.000			
					Medium Trucks:	2.297			
					Heavy Trucks:	8.006	Grade Adjustment:	0.0	
					Lane Equivalent Distance (in feet)				
					Autos:	65.422			
					Medium Trucks:	65.286			
					Heavy Trucks:	65.300			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.61	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-14.63	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-18.59	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.3	69.4	67.7	61.6	70.2	70.8			
Medium Trucks:	64.7	63.2	56.9	55.3	63.8	64.0			
Heavy Trucks:	64.8	63.3	54.3	55.6	63.9	64.0			
Vehicle Noise:	72.9	71.2	68.2	63.3	71.9	72.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				101	218	470	1,014		
CNEL:				109	235	506	1,090		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project					Project Name: Legado				
Road Name: McCall Bl.					Job Number: 8728				
Road Segment: e/o Menifee Rd.									
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,500 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.06	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-18.30	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-22.26	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.7	65.8	64.0	57.9	66.6	67.2			
Medium Trucks:	61.1	59.6	53.2	51.6	60.1	60.3			
Heavy Trucks:	61.1	59.7	50.6	51.9	60.2	60.4			
Vehicle Noise:	69.2	67.5	64.5	59.7	68.2	68.7			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			58	124	268	577			
CNEL:			62	134	288	621			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project					Project Name: Legado				
Road Name: Trumble Rd.					Job Number: 8728				
Road Segment: s/o Ethanac Rd.									
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,650 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph					Vehicle Mix				
Near/Far Lane Distance: 45 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Grade Adjustment: 0.0				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	0.74	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	77.72	-16.50	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-20.46	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.6	64.7	63.0	56.9	65.5	66.1			
Medium Trucks:	60.6	59.1	52.8	51.2	59.7	59.9			
Heavy Trucks:	62.0	60.5	51.5	52.7	61.1	61.2			
Vehicle Noise:	68.7	66.9	63.6	59.1	67.6	68.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				35	75	161	348		
CNEL:				37	80	173	372		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: OY 2025 With Project					Project Name: Legado				
Road Name: Encanto Dr.					Job Number: 8728				
Road Segment: s/o A Street									
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,650 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph					Vehicle Mix				
Near/Far Lane Distance: 48 feet					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 71.78 -0.65 -0.62 -1.20 -4.69 0.000 0.000									
Medium Trucks: 82.40 -17.89 -0.60 -1.20 -4.88 0.000 0.000									
Heavy Trucks: 86.40 -21.84 -0.60 -1.20 -5.35 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 69.3 67.4 65.6 59.6 68.2 68.8									
Medium Trucks: 62.7 61.2 54.8 53.3 61.8 62.0									
Heavy Trucks: 62.8 61.3 52.3 53.5 61.9 62.0									
Vehicle Noise: 70.9 69.1 66.2 61.3 69.9 70.3									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				58	124	268	577		
CNEL:				62	134	288	621		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 13,620 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	7.04	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-4.60	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-4.81	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	81.1	79.2	77.4	71.4	80.0	80.6			
Medium Trucks:	79.7	78.2	71.8	70.3	78.7	78.9			
Heavy Trucks:	82.5	81.1	72.0	73.3	81.6	81.8			
Vehicle Noise:	86.0	84.4	79.4	76.6	85.1	85.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			807	1,738	3,744	8,065			
CNEL:			845	1,821	3,924	8,454			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 13,918 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20% Medium Trucks: 84.8% 4.9% 10.3% 6.04% Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	7.13	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-4.51	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-4.72	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	81.2	79.3	77.5	71.5	80.1	80.7			
Medium Trucks:	79.8	78.3	71.9	70.3	78.8	79.0			
Heavy Trucks:	82.6	81.2	72.1	73.4	81.7	81.8			
Vehicle Noise:	86.1	84.5	79.5	76.7	85.1	85.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			818	1,763	3,798	8,183			
CNEL:			858	1,848	3,981	8,577			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 14,496 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph									
Near/Far Lane Distance: 120 feet									
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Centerline Dist. to Barrier: 80.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Observer: 80.0 feet									
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
Vehicle Type					Lane Equivalent Distance (in feet)				
Autos: 75.77 7.31 -0.50 -1.20 -4.74 0.000 0.000					Autos: 53.151				
Medium Trucks: 85.95 -4.33 -0.48 -1.20 -4.88 0.000 0.000					Medium Trucks: 52.984				
Heavy Trucks: 88.97 -4.54 -0.48 -1.20 -5.23 0.000 0.000					Heavy Trucks: 53.000				
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type Leq Peak Hour Leq Day Leq Evening Leq Night Ldn CNEL									
Autos: 81.4 79.5 77.7 71.7 80.3 80.9									
Medium Trucks: 79.9 78.4 72.1 70.5 79.0 79.2									
Heavy Trucks: 82.8 81.3 72.3 73.5 81.9 82.0									
Vehicle Noise: 86.3 84.7 79.6 76.9 85.3 85.6									
Centerline Distance to Noise Contour (in feet)									
70 dBA 65 dBA 60 dBA 55 dBA									
Ldn: 841 1,811 3,902 8,408									
CNEL: 881 1,899 4,090 8,813									
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,060 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-2.57	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-19.81	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-23.76	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.4	65.5	63.7	57.7	66.3	66.9			
Medium Trucks:	60.8	59.3	52.9	51.4	59.8	60.1			
Heavy Trucks:	60.8	59.4	50.4	51.6	60.0	60.1			
Vehicle Noise:	69.0	67.2	64.3	59.4	67.9	68.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			43	93	200	430			
CNEL:			46	100	215	462			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 Without Project Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 10,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,030 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
Autos: 54.129								
Medium Trucks: 53.966								
Heavy Trucks: 53.982								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-2.69	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-19.93	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-23.89	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	67.3	65.4	63.6	57.5	66.2	66.8		
Medium Trucks:	60.7	59.2	52.8	51.3	59.7	59.9		
Heavy Trucks:	60.7	59.3	50.2	51.5	59.9	60.0		
Vehicle Noise:	68.8	67.1	64.1	59.3	67.8	68.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			42	91	196	422		
CNEL:			45	98	211	454		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 Without Project Road Name: Encanto Dr. Road Segment: s/o Chambers Av.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,310 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	-1.65	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-18.89	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-22.84	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	68.3	66.4	64.6	58.6	67.2	67.8		
Medium Trucks:	61.7	60.2	53.8	52.3	60.8	61.0		
Heavy Trucks:	61.7	60.3	51.3	52.5	60.9	61.0		
Vehicle Noise:	69.9	68.1	65.2	60.3	68.9	69.3		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			50	107	230	495		
CNEL:			53	115	247	533		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 11,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,180 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	-0.14	-0.62	-1.20	-4.69	0.000	0.000	0.000	
Medium Trucks:	75.75	-17.38	-0.60	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	81.57	-21.33	-0.60	-1.20	-5.35	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.3	60.4	58.7	52.6	61.2	61.8			
Medium Trucks:	56.6	55.1	48.7	47.2	55.6	55.8			
Heavy Trucks:	58.4	57.0	48.0	49.2	57.6	57.7			
Vehicle Noise:	64.6	62.9	59.4	55.0	63.6	64.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			22	47	102	219			
CNEL:			23	51	109	234			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 Without Project Road Name: Sherman Rd. Road Segment: s/o SR-74				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,660 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	68.46	0.25	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.45	-16.99	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	84.25	-20.94	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	66.9	65.0	63.2	57.2	65.8	66.4		
Medium Trucks:	60.7	59.2	52.8	51.2	59.7	59.9		
Heavy Trucks:	61.5	60.1	51.0	52.3	60.7	60.8		
Vehicle Noise:	68.7	67.0	63.8	59.2	67.7	68.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			41	89	192	415		
CNEL:			44	96	206	445		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 12,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,210 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-1.12	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-18.36	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-22.32	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.5	63.6	61.9	55.8	64.4	65.0			
Medium Trucks:	59.3	57.8	51.4	49.9	58.3	58.6			
Heavy Trucks:	60.1	58.7	49.7	50.9	59.3	59.4			
Vehicle Noise:	67.4	65.6	62.5	57.8	66.3	66.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			34	72	156	336			
CNEL:			36	78	167	360			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.				Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS					
Highway Data				Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 14,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,440 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data				Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType		Day	Evening	Night	Daily
				Autos:		77.5%	12.9%	9.6%	97.42%
				Medium Trucks:		84.8%	4.9%	10.3%	1.84%
				Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
				Noise Source Elevations (in feet)					
				Autos:		0.000			
				Medium Trucks:		2.297			
				Heavy Trucks:		8.006		Grade Adjustment: 0.0	
FHWA Noise Model Calculations				Lane Equivalent Distance (in feet)					
				Autos:		54.129			
				Medium Trucks:		53.966			
				Heavy Trucks:		53.982			
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-0.37	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-17.61	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-21.56	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.3	64.4	62.6	56.6	65.2	65.8			
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3			
Heavy Trucks:	60.9	59.5	50.4	51.7	60.0	60.2			
Vehicle Noise:	68.1	66.4	63.2	58.5	67.1	67.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			38	81	175	377			
CNEL:			40	87	188	405			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,770 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	1.04	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	77.72	-16.20	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	82.99	-20.15	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.9	65.0	63.3	57.2	65.8	66.5			
Medium Trucks:	60.9	59.4	53.1	51.5	60.0	60.2			
Heavy Trucks:	62.3	60.8	51.8	53.1	61.4	61.5			
Vehicle Noise:	69.0	67.2	63.9	59.4	67.9	68.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				36	79	169	364		
CNEL:				39	84	181	390		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Antelope Rd. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 660 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-3.24	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	77.72	-20.48	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	82.99	-24.44	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.4	59.5	57.8	51.7	60.3	61.0			
Medium Trucks:	55.4	53.9	47.6	46.0	54.5	54.7			
Heavy Trucks:	56.8	55.3	46.3	47.5	55.9	56.0			
Vehicle Noise:	63.5	61.7	58.4	53.9	62.4	62.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			18	40	86	185			
CNEL:			20	43	92	198			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 8,800 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 880 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph									
Near/Far Lane Distance: 12 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Site Data					Noise Source Elevations (in feet)				
Barrier Height: 0.0 feet					Autos: 0.000				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 2.297				
Centerline Dist. to Barrier: 37.0 feet					Heavy Trucks: 8.006				
Centerline Dist. to Observer: 37.0 feet					Grade Adjustment: 0.0				
Barrier Distance to Observer: 0.0 feet									
Observer Height (Above Pad): 5.0 feet									
Pad Elevation: 0.0 feet									
Road Elevation: 0.0 feet									
Road Grade: 0.0%									
Left View: -90.0 degrees									
Right View: 90.0 degrees									
					Lane Equivalent Distance (in feet)				
					Autos: 36.851				
					Medium Trucks: 36.610				
					Heavy Trucks: 36.634				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-1.99	1.88	-1.20	-4.56	0.000	0.000		
Medium Trucks:	77.72	-19.23	1.93	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	82.99	-23.19	1.92	-1.20	-5.61	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.2	63.3	61.5	55.5	64.1	64.7			
Medium Trucks:	59.2	57.7	51.3	49.8	58.3	58.5			
Heavy Trucks:	60.5	59.1	50.1	51.3	59.7	59.8			
Vehicle Noise:	67.2	65.5	62.2	57.7	66.2	66.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				21	44	96	207		
CNEL:				22	48	103	221		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,460 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.57	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-14.67	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-18.63	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.3	69.4	67.6	61.6	70.2	70.8			
Medium Trucks:	64.7	63.2	56.8	55.3	63.7	64.0			
Heavy Trucks:	64.7	63.3	54.3	55.5	63.9	64.0			
Vehicle Noise:	72.9	71.1	68.2	63.3	71.8	72.3			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				101	217	468	1,008		
CNEL:				108	234	503	1,084		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,960 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	3.15	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-14.08	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-18.04	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.9	70.0	68.2	62.2	70.8	71.4			
Medium Trucks:	65.3	63.8	57.4	55.9	64.3	64.6			
Heavy Trucks:	65.3	63.9	54.9	56.1	64.5	64.6			
Vehicle Noise:	73.5	71.7	68.7	63.9	72.4	72.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				110	238	512	1,103		
CNEL:				119	256	551	1,186		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 Without Project Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 48,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,860 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	4.04	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-13.19	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-17.15	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	72.8	70.9	69.1	63.1	71.7	72.3		
Medium Trucks:	66.2	64.7	58.3	56.8	65.2	65.4		
Heavy Trucks:	66.2	64.8	55.7	57.0	65.4	65.5		
Vehicle Noise:	74.4	72.6	69.6	64.8	73.3	73.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			126	272	587	1,264		
CNEL:			136	293	631	1,360		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL															
Scenario: HY 2040 Without Project Road Name: SR-74 Road Segment: e/o I-215					Project Name: Legado Job Number: 8728										
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS										
Highway Data					Site Conditions (Hard = 10, Soft = 15)										
Average Daily Traffic (Adt): 52,300 vehicles					Autos: 15										
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15										
Peak Hour Volume: 5,230 vehicles					Heavy Trucks (3+ Axles): 15										
Vehicle Speed: 50 mph					Vehicle Mix										
Near/Far Lane Distance: 48 feet					VehicleType										
Site Data					Day		Evening		Night		Daily				
					Autos: 77.5%					12.9%		9.6%		97.42%	
					Medium Trucks: 84.8%					4.9%		10.3%		1.84%	
					Heavy Trucks: 86.5%					2.7%		10.8%		0.74%	
					Noise Source Elevations (in feet)										
					Autos: 0.000										
					Medium Trucks: 2.297										
					Heavy Trucks: 8.006					Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)										
					Autos: 54.129										
Medium Trucks: 53.966															
Heavy Trucks: 53.982															
FHWA Noise Model Calculations															
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten								
Autos:	70.20	4.78	-0.62	-1.20	-4.69	0.000	0.000								
Medium Trucks:	81.00	-12.46	-0.60	-1.20	-4.88	0.000	0.000								
Heavy Trucks:	85.38	-16.42	-0.60	-1.20	-5.35	0.000	0.000								
Unmitigated Noise Levels (without Topo and barrier attenuation)															
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL									
Autos:	73.2	71.3	69.5	63.4	72.1	72.7									
Medium Trucks:	66.7	65.2	58.9	57.3	65.8	66.0									
Heavy Trucks:	67.2	65.7	56.7	57.9	66.3	66.4									
Vehicle Noise:	74.9	73.1	70.1	65.3	73.8	74.3									
Centerline Distance to Noise Contour (in feet)															
				70 dBA	65 dBA	60 dBA	55 dBA								
Ldn:				106	229	493	1,062								
CNEL:				114	246	529	1,141								

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: SR-74 Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 58,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 5,850 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data									
Barrier Height: 0.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Type (0-Wall, 1-Berm): 0.0					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Centerline Dist. to Barrier: 59.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Observer: 59.0 feet					Noise Source Elevations (in feet)				
Barrier Distance to Observer: 0.0 feet					Autos: 0.000				
Observer Height (Above Pad): 5.0 feet					Medium Trucks: 2.297				
Pad Elevation: 0.0 feet					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Road Elevation: 0.0 feet					Lane Equivalent Distance (in feet)				
Road Grade: 0.0%					Autos: 54.129				
Left View: -90.0 degrees					Medium Trucks: 53.966				
Right View: 90.0 degrees					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	5.72	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-11.52	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-15.47	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	72.4	70.5	68.7	62.6	71.3	71.9			
Medium Trucks:	66.1	64.6	58.3	56.7	65.2	65.4			
Heavy Trucks:	67.0	65.6	56.5	57.8	66.1	66.3			
Vehicle Noise:	74.2	72.5	69.3	64.6	73.2	73.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			96	207	446	960			
CNEL:			103	222	478	1,030			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 39,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,980 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.59	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-13.65	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-17.60	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	72.0	70.1	68.3	62.3	70.9	71.5			
Medium Trucks:	65.6	64.0	57.7	56.1	64.6	64.8			
Heavy Trucks:	66.0	64.6	55.5	56.8	65.1	65.2			
Vehicle Noise:	73.7	71.9	68.9	64.1	72.6	73.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				88	191	411	885		
CNEL:				95	205	441	951		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 70,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 7,070 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	6.20	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-5.94	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-6.81	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.3	68.4	66.6	60.6	69.2	69.8			
Medium Trucks:	69.1	67.6	61.3	59.7	68.2	68.4			
Heavy Trucks:	73.1	71.6	62.6	63.9	72.2	72.3			
Vehicle Noise:	75.9	74.4	68.9	66.5	75.0	75.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			215	463	998	2,151			
CNEL:			225	484	1,042	2,245			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 69,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 6,960 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	5.67	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-6.47	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-7.34	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.5	69.6	67.8	61.8	70.4	71.0			
Medium Trucks:	70.2	68.7	62.3	60.8	69.2	69.4			
Heavy Trucks:	73.7	72.2	63.2	64.5	72.8	72.9			
Vehicle Noise:	76.8	75.2	69.9	67.4	75.8	76.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				245	529	1,139	2,454		
CNEL:				257	553	1,191	2,566		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 63,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 6,370 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	5.29	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-6.85	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-7.72	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.2	67.4	61.4	70.0	70.6			
Medium Trucks:	69.8	68.3	61.9	60.4	68.8	69.1			
Heavy Trucks:	73.3	71.9	62.8	64.1	72.4	72.6			
Vehicle Noise:	76.4	74.8	69.6	67.0	75.5	75.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			231	498	1,074	2,314			
CNEL:			242	521	1,123	2,419			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 43,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,310 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.59	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-8.55	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-9.42	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.4	67.5	65.8	59.7	68.3	68.9			
Medium Trucks:	68.1	66.6	60.2	58.7	67.1	67.4			
Heavy Trucks:	71.6	70.2	61.1	62.4	70.7	70.9			
Vehicle Noise:	74.7	73.1	67.9	65.3	73.8	74.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				178	384	828	1,783		
CNEL:				186	402	865	1,865		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 50,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,050 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	4.28	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-7.86	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-8.73	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.1	68.2	66.4	60.4	69.0	69.6			
Medium Trucks:	68.8	67.3	60.9	59.4	67.8	68.1			
Heavy Trucks:	72.3	70.9	61.8	63.1	71.4	71.6			
Vehicle Noise:	75.4	73.8	68.5	66.0	74.5	74.7			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				198	427	920	1,982		
CNEL:				207	446	962	2,072		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 Without Project Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 52,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,250 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%					
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%					
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%					
					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 80.156					
					Medium Trucks: 80.046					
					Heavy Trucks: 80.056					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	70.20	4.45	-3.18	-1.20	-4.77	0.000	0.000			
Medium Trucks:	81.00	-7.69	-3.17	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	85.38	-8.56	-3.17	-1.20	-5.16	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	70.3	68.4	66.6	60.6	69.2	69.8				
Medium Trucks:	68.9	67.4	61.1	59.5	68.0	68.2				
Heavy Trucks:	72.4	71.0	62.0	63.2	71.6	71.7				
Vehicle Noise:	75.6	74.0	68.7	66.2	74.6	74.9				
Centerline Distance to Noise Contour (in feet)										
			70 dBA	65 dBA	60 dBA	55 dBA				
Ldn:			203	438	944	2,034				
CNEL:			213	458	987	2,127				

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 60,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 6,070 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006				
					Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	5.54	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-6.60	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-7.47	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.6	67.7	66.0	59.9	68.5	69.1			
Medium Trucks:	68.5	67.0	60.6	59.1	67.5	67.8			
Heavy Trucks:	72.4	71.0	62.0	63.2	71.6	71.7			
Vehicle Noise:	75.3	73.7	68.2	65.9	74.3	74.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				194	419	902	1,943		
CNEL:				203	437	941	2,028		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 52,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,220 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	4.88	-3.18	-1.20	-4.77	0.000	0.000	0.000	
Medium Trucks:	79.45	-7.26	-3.17	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	84.25	-8.13	-3.17	-1.20	-5.16	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.0	67.1	65.3	59.2	67.9	68.5		68.5	
Medium Trucks:	67.8	66.3	60.0	58.4	66.9	67.1		67.1	
Heavy Trucks:	71.8	70.3	61.3	62.5	70.9	71.0		71.0	
Vehicle Noise:	74.6	73.0	67.6	65.2	73.7	74.0		74.0	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				176	379	816	1,757		
CNEL:				183	395	851	1,834		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 390 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-3.49	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-20.73	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-24.68	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	54.6	52.7	51.0	44.9	53.5			54.1	
Medium Trucks:	49.5	48.0	41.6	40.1	48.5			48.8	
Heavy Trucks:	52.7	51.3	42.3	43.5	51.9			52.0	
Vehicle Noise:	57.5	55.9	51.9	48.0	56.5			56.9	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				6	14	29	63		
CNEL:				7	14	31	67		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Rouse Rd. Road Segment: elo Street A					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,000 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 300 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-4.63	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-21.87	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-25.82	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	53.5	51.6	49.8	43.8	52.4	53.0			
Medium Trucks:	48.4	46.8	40.5	38.9	47.4	47.6			
Heavy Trucks:	51.6	50.1	41.1	42.4	50.7	50.8			
Vehicle Noise:	56.4	54.7	50.8	46.9	55.4	55.8			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			5	11	25	53			
CNEL:			6	12	26	56			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 Without Project Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 3,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 310 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006			
					Grade Adjustment: 0.0					
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)					
					Autos:		44.931			
					Medium Trucks:		44.733			
					Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-4.48	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-21.72	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-25.68	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	53.6	51.7	50.0	43.9	52.5	53.2				
Medium Trucks:	48.5	47.0	40.6	39.1	47.5	47.8				
Heavy Trucks:	51.7	50.3	41.3	42.5	50.9	51.0				
Vehicle Noise:	56.5	54.9	50.9	47.0	55.5	55.9				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				5	12	25	54			
CNEL:				6	12	27	58			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 16,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,660 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	2.80	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	70.80	-14.44	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	77.97	-18.39	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	60.9	59.0	57.3	51.2	59.8	60.4			
Medium Trucks:	55.8	54.3	47.9	46.4	54.8	55.1			
Heavy Trucks:	59.0	57.6	48.5	49.8	58.1	58.3			
Vehicle Noise:	63.8	62.1	58.2	54.3	62.8	63.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			17	36	77	166			
CNEL:			18	38	82	177			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Chambers Av. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 3,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 300 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-4.63	0.59	-1.20	-4.65	0.000	0.000		0.000
Medium Trucks:	70.80	-21.87	0.62	-1.20	-4.87	0.000	0.000		0.000
Heavy Trucks:	77.97	-25.82	0.62	-1.20	-5.43	0.000	0.000		0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	53.5	51.6	49.8	43.8	52.4	53.0			53.0
Medium Trucks:	48.4	46.8	40.5	38.9	47.4	47.6			47.6
Heavy Trucks:	51.6	50.1	41.1	42.4	50.7	50.8			50.8
Vehicle Noise:	56.4	54.7	50.8	46.9	55.4	55.8			55.8
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			5	11	25	53			
CNEL:			6	12	26	56			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: Chambers Av. Road Segment: e/o Street C					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 5,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 550 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-1.99	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-19.23	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-23.19	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.1	54.2	52.5	46.4	55.0	55.6			
Medium Trucks:	51.0	49.5	43.1	41.6	50.0	50.3			
Heavy Trucks:	54.2	52.8	43.7	45.0	53.3	53.5			
Vehicle Noise:	59.0	57.4	53.4	49.5	58.0	58.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				8	17	37	80		
CNEL:				8	18	39	85		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 23,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,320 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	64.30	2.80	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	75.75	-14.44	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	81.57	-18.40	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	65.3	63.4	61.6	55.6	64.2	64.8			
Medium Trucks:	59.5	58.0	51.6	50.1	58.6	58.8			
Heavy Trucks:	61.4	59.9	50.9	52.2	60.5	60.6			
Vehicle Noise:	67.5	65.8	62.4	58.0	66.5	66.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			34	74	160	344			
CNEL:			37	79	171	368			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: McCall Bl. Road Segment: elo I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 51,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,110 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	5.13	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-12.11	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-16.06	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	70.5	68.6	66.9	60.8	69.4		70.0		
Medium Trucks:	64.3	62.8	56.4	54.9	63.3		63.6		
Heavy Trucks:	65.1	63.7	54.7	55.9	64.3		64.4		
Vehicle Noise:	72.4	70.6	67.5	62.8	71.3		71.8		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				93	201	434	935		
CNEL:				100	216	466	1,003		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: McCall Bl. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 42,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,250 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	4.33	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	79.45	-12.91	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-16.86	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.7	67.8	66.1	60.0	68.6	69.2			
Medium Trucks:	63.5	62.0	55.6	54.1	62.5	62.8			
Heavy Trucks:	64.3	62.9	53.9	55.1	63.5	63.6			
Vehicle Noise:	71.6	69.8	66.7	62.0	70.5	71.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			83	178	384	827			
CNEL:			89	191	412	887			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: McCall Bl. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,800 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,680 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 78 feet					Vehicle Mix				
Site Data					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422				
					Medium Trucks: 65.286				
					Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.84	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-14.40	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-18.36	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.6	69.7	67.9	61.8	70.5	71.1			
Medium Trucks:	65.0	63.5	57.1	55.5	64.0	64.2			
Heavy Trucks:	65.0	63.6	54.5	55.8	64.1	64.3			
Vehicle Noise:	73.1	71.4	68.4	63.6	72.1	72.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				105	226	487	1,050		
CNEL:				113	243	524	1,130		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 Without Project Road Name: McCall Bl. Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 36,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,600 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	2.74	-1.85	-1.20	-4.73	0.000	0.000		
Medium Trucks:	82.40	-14.50	-1.84	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-18.45	-1.84	-1.20	-5.25	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL		
Autos:	71.5	69.6	67.8	61.7	70.4		71.0		
Medium Trucks:	64.9	63.4	57.0	55.5	63.9		64.1		
Heavy Trucks:	64.9	63.5	54.4	55.7	64.0		64.2		
Vehicle Noise:	73.0	71.3	68.3	63.5	72.0		72.5		
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				103	223	480	1,035		
CNEL:				111	240	517	1,113		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 Without Project Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 20,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,010 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006		Grade Adjustment: 0.0			
					Lane Equivalent Distance (in feet)					
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	66.51	1.59	0.59	-1.20	-4.65	0.000	0.000	0.000		
Medium Trucks:	77.72	-15.65	0.62	-1.20	-4.87	0.000	0.000	0.000		
Heavy Trucks:	82.99	-19.60	0.62	-1.20	-5.43	0.000	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	67.5	65.6	63.8	57.8	66.4	67.0				
Medium Trucks:	61.5	60.0	53.6	52.1	60.5	60.8				
Heavy Trucks:	62.8	61.4	52.4	53.6	62.0	62.1				
Vehicle Noise:	69.5	67.8	64.5	60.0	68.5	68.9				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				40	85	184	397			
CNEL:				42	91	197	425			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: HY 2040 Without Project Road Name: Encanto Dr. Road Segment: s/o A Street				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 20,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,010 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	0.21	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-17.03	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-20.98	-0.60	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	70.2	68.3	66.5	60.5	69.1	69.7	
Medium Trucks:	63.6	62.1	55.7	54.2	62.6	62.9	
Heavy Trucks:	63.6	62.2	53.2	54.4	62.8	62.9	
Vehicle Noise:	71.8	70.0	67.0	62.2	70.7	71.2	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			66	142	306	659	
CNEL:			71	153	329	708	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: I-215 Road Segment: n/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 14,220 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151				
					Medium Trucks: 52.984				
					Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	7.23	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-4.42	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-4.62	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	81.3	79.4	77.6	71.6	80.2	80.8			
Medium Trucks:	79.9	78.3	72.0	70.4	78.9	79.1			
Heavy Trucks:	82.7	81.2	72.2	73.5	81.8	81.9			
Vehicle Noise:	86.2	84.6	79.6	76.8	85.2	85.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				830	1,788	3,853	8,301		
CNEL:				870	1,874	4,038	8,700		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: I-215 Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 14,518 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 88.20%				
					Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
					Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	7.32	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-4.33	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-4.53	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	81.4	79.5	77.7	71.7	80.3	80.9			
Medium Trucks:	79.9	78.4	72.1	70.5	79.0	79.2			
Heavy Trucks:	82.8	81.3	72.3	73.5	81.9	82.0			
Vehicle Noise:	86.3	84.7	79.7	76.9	85.3	85.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			842	1,813	3,906	8,416			
CNEL:			882	1,901	4,095	8,821			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: I-215 Road Segment: s/o McCall Bl.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): ##### vehicles Peak Hour Percentage: 10% Peak Hour Volume: 14,991 vehicles Vehicle Speed: 70 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 80.0 feet Centerline Dist. to Observer: 80.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 88.20% Medium Trucks: 84.8% 4.9% 10.3% 6.04% Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 53.151 Medium Trucks: 52.984 Heavy Trucks: 53.000				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	75.77	7.46	-0.50	-1.20	-4.74	0.000	0.000		
Medium Trucks:	85.95	-4.19	-0.48	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	88.97	-4.39	-0.48	-1.20	-5.23	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	81.5	79.6	77.9	71.8	80.4	81.0			
Medium Trucks:	80.1	78.6	72.2	70.7	79.1	79.4			
Heavy Trucks:	82.9	81.5	72.4	73.7	82.0	82.2			
Vehicle Noise:	86.4	84.8	79.8	77.0	85.5	85.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				860	1,852	3,991	8,598		
CNEL:				901	1,942	4,183	9,012		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Encanto Dr. Road Segment: n/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,390 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.39	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-18.63	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-22.59	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.6	66.7	64.9	58.8	67.5	68.1			
Medium Trucks:	62.0	60.5	54.1	52.6	61.0	61.3			
Heavy Trucks:	62.0	60.6	51.5	52.8	61.2	61.3			
Vehicle Noise:	70.2	68.4	65.4	60.6	69.1	69.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			51	111	239	515			
CNEL:			55	119	257	554			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Encanto Dr. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 13,500 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 1,350 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph									
Near/Far Lane Distance: 48 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	-1.52	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	82.40	-18.76	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	86.40	-22.71	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	68.4	66.5	64.8	58.7	67.3	67.9			
Medium Trucks:	61.8	60.3	54.0	52.4	60.9	61.1			
Heavy Trucks:	61.9	60.5	51.4	52.7	61.0	61.2			
Vehicle Noise:	70.0	68.3	65.3	60.4	69.0	69.5			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			51	109	234	505			
CNEL:			54	117	252	543			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 With Project Road Name: Encanto Dr. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 15,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,540 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		54.129			
					Medium Trucks:		53.966			
					Heavy Trucks:		53.982			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	-0.95	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	82.40	-18.19	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-22.14	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL			
Autos:	69.0	67.1	65.3	59.3	67.9		68.5			
Medium Trucks:	62.4	60.9	54.5	53.0	61.5		61.7			
Heavy Trucks:	62.5	61.0	52.0	53.2	61.6		61.7			
Vehicle Noise:	70.6	68.8	65.9	61.0	69.6		70.0			
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				55	119	256	551			
CNEL:				59	128	275	593			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 With Project Road Name: Encanto Dr. Road Segment: s/o Shadel Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 14,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,400 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Noise Source Elevations (in feet)					
					Autos: 0.000					
					Medium Trucks: 2.297					
					Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 54.129					
					Medium Trucks: 53.966					
					Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	0.60	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	75.75	-16.64	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	81.57	-20.59	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	63.1	61.2	59.4	53.4	62.0	62.6				
Medium Trucks:	57.3	55.8	49.4	47.9	56.4	56.6				
Heavy Trucks:	59.2	57.8	48.7	50.0	58.3	58.4				
Vehicle Noise:	65.3	63.6	60.2	55.8	64.3	64.7				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				25	53	114	246			
CNEL:				26	57	122	263			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: HY 2040 With Project Road Name: Sherman Rd. Road Segment: s/o SR-74				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 18,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,810 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	0.63	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.45	-16.61	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	84.25	-20.57	-0.60	-1.20	-5.35	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	67.3	65.4	63.6	57.5	66.2	66.8	
Medium Trucks:	61.0	59.5	53.2	51.6	60.1	60.3	
Heavy Trucks:	61.9	60.5	51.4	52.7	61.0	61.2	
Vehicle Noise:	69.1	67.4	64.2	59.5	68.1	68.5	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			44	95	204	439	
CNEL:			47	102	219	471	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Sherman Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 15,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,550 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	-0.05	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-17.29	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-21.24	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	66.6	64.7	62.9	56.9	65.5	66.1			
Medium Trucks:	60.4	58.9	52.5	50.9	59.4	59.6			
Heavy Trucks:	61.2	59.8	50.8	52.0	60.4	60.5			
Vehicle Noise:	68.4	66.7	63.5	58.9	67.4	67.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			40	85	184	396			
CNEL:			42	92	197	425			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 With Project Road Name: Sherman Rd. Road Segment: s/o McLaughlin Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 18,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,820 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		54.129			
					Medium Trucks:		53.966			
					Heavy Trucks:		53.982			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	0.65	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	79.45	-16.59	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-20.54	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	67.3	65.4	63.6	57.6	66.2	66.8				
Medium Trucks:	61.1	59.6	53.2	51.6	60.1	60.3				
Heavy Trucks:	61.9	60.5	51.4	52.7	61.1	61.2				
Vehicle Noise:	69.1	67.4	64.2	59.6	68.1	68.6				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				44	95	205	441			
CNEL:				47	102	220	473			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Antelope Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 18,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,800 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	1.11	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	77.72	-16.13	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	82.99	-20.08	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.0	65.1	63.4	57.3	65.9	66.5			
Medium Trucks:	61.0	59.5	53.1	51.6	60.1	60.3			
Heavy Trucks:	62.3	60.9	51.9	53.1	61.5	61.6			
Vehicle Noise:	69.0	67.3	64.0	59.5	68.0	68.5			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				37	79	171	369		
CNEL:				39	85	183	395		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Antelope Rd. Road Segment: s/o Chambers Av.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 770 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	-2.57	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	77.72	-19.81	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	82.99	-23.77	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	62.1	60.2	58.5	52.4	61.0	61.6			
Medium Trucks:	56.1	54.6	48.2	46.7	55.1	55.4			
Heavy Trucks:	57.4	56.0	47.0	48.2	56.6	56.7			
Vehicle Noise:	64.1	62.4	59.1	54.6	63.1	63.6			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			20	44	95	205			
CNEL:			22	47	102	219			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL											
Scenario: HY 2040 With Project Road Name: Palomar Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728						
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS						
Highway Data					Site Conditions (Hard = 10, Soft = 15)						
Average Daily Traffic (Adt): 9,100 vehicles					Autos: 15						
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15						
Peak Hour Volume: 910 vehicles					Heavy Trucks (3+ Axles): 15						
Vehicle Speed: 40 mph											
Near/Far Lane Distance: 12 feet					Vehicle Mix						
Site Data					VehicleType		Day	Evening	Night	Daily	
							Autos:	77.5%	12.9%	9.6%	97.42%
							Medium Trucks:	84.8%	4.9%	10.3%	1.84%
							Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)						
							Autos:	0.000			
							Medium Trucks:	2.297			
							Heavy Trucks:	8.006			
					Grade Adjustment: 0.0						
					Lane Equivalent Distance (in feet)						
							Autos:	36.851			
							Medium Trucks:	36.610			
							Heavy Trucks:	36.634			
FHWA Noise Model Calculations											
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten				
Autos: 66.51 -1.85 1.88 -1.20 -4.56 0.000 0.000											
Medium Trucks: 77.72 -19.09 1.93 -1.20 -4.87 0.000 0.000											
Heavy Trucks: 82.99 -23.04 1.92 -1.20 -5.61 0.000 0.000											
Unmitigated Noise Levels (without Topo and barrier attenuation)											
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL					
Autos: 65.3 63.4 61.7 55.6 64.2 64.9											
Medium Trucks: 59.4 57.8 51.5 49.9 58.4 58.6											
Heavy Trucks: 60.7 59.3 50.2 51.5 59.8 59.9											
Vehicle Noise: 67.4 65.6 62.4 57.8 66.3 66.8											
Centerline Distance to Noise Contour (in feet)											
			70 dBA	65 dBA	60 dBA	55 dBA					
Ldn:			21	45	98	211					
CNEL:			23	49	105	226					

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 With Project Road Name: Menifee Rd. Road Segment: n/o SR-74					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 35,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,510 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		65.422			
					Medium Trucks:		65.286			
					Heavy Trucks:		65.300			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	71.78	2.63	-1.85	-1.20	-4.73	0.000	0.000			
Medium Trucks:	82.40	-14.61	-1.84	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	86.40	-18.56	-1.84	-1.20	-5.25	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	71.4	69.5	67.7	61.6	70.3	70.9				
Medium Trucks:	64.8	63.2	56.9	55.3	63.8	64.0				
Heavy Trucks:	64.8	63.4	54.3	55.6	63.9	64.1				
Vehicle Noise:	72.9	71.2	68.2	63.3	71.9	72.4				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				102	219	472	1,017			
CNEL:				109	236	508	1,095			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Menifee Rd. Road Segment: s/o SR-74					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 40,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,010 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	71.78	3.21	-1.85	-1.20	-4.73	0.000	0.000	0.000	
Medium Trucks:	82.40	-14.03	-1.84	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	86.40	-17.99	-1.84	-1.20	-5.25	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.9	70.0	68.3	62.2	70.8	71.4			
Medium Trucks:	65.3	63.8	57.5	55.9	64.4	64.6			
Heavy Trucks:	65.4	63.9	54.9	56.2	64.5	64.6			
Vehicle Noise:	73.5	71.8	68.8	63.9	72.5	73.0			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			111	240	516	1,112			
CNEL:			120	258	555	1,196			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL							
Scenario: HY 2040 With Project Road Name: Menifee Rd. Road Segment: s/o Rouse Rd.				Project Name: Legado Job Number: 8728			
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS			
Highway Data				Site Conditions (Hard = 10, Soft = 15)			
Average Daily Traffic (Adt): 48,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,860 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15			
Site Data				Vehicle Mix			
				VehicleType	Day	Evening	Night
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%			
				Noise Source Elevations (in feet)			
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0			
				Lane Equivalent Distance (in feet)			
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300			
FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.04	-1.85	-1.20	-4.73	0.000	0.000
Medium Trucks:	82.40	-13.19	-1.84	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-17.15	-1.84	-1.20	-5.25	0.000	0.000
Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	72.8	70.9	69.1	63.1	71.7	72.3	
Medium Trucks:	66.2	64.7	58.3	56.8	65.2	65.4	
Heavy Trucks:	66.2	64.8	55.7	57.0	65.4	65.5	
Vehicle Noise:	74.4	72.6	69.6	64.8	73.3	73.8	
Centerline Distance to Noise Contour (in feet)							
			70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:			126	272	587	1,264	
CNEL:			136	293	631	1,360	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: SR-74 Road Segment: elo I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 53,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,320 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	4.85	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-12.39	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-16.34	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	73.2	71.3	69.6	63.5	72.1	72.7			
Medium Trucks:	66.8	65.3	58.9	57.4	65.9	66.1			
Heavy Trucks:	67.2	65.8	56.8	58.0	66.4	66.5			
Vehicle Noise:	74.9	73.2	70.1	65.4	73.9	74.4			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				107	231	498	1,074		
CNEL:				115	249	535	1,154		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: SR-74 Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 40,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,080 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
FHWA Noise Model Calculations					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
					Autos: 54.129				
					Medium Trucks: 53.966				
					Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.70	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	81.00	-13.54	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-17.50	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	72.1	70.2	68.4	62.4	71.0	71.6			
Medium Trucks:	65.7	64.2	57.8	56.2	64.7	64.9			
Heavy Trucks:	66.1	64.7	55.6	56.9	65.2	65.4			
Vehicle Noise:	73.8	72.0	69.0	64.2	72.7	73.2			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			90	194	418	900			
CNEL:			97	208	449	967			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: SR-74 Road Segment: elo Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 58,700 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,870 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					Vehicle Type	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations									
Vehicle Type	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	5.74	-0.62	-1.20	-4.69	0.000	0.000		
Medium Trucks:	79.45	-11.50	-0.60	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-15.46	-0.60	-1.20	-5.35	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
Vehicle Type	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	72.4	70.5	68.7	62.7	71.3	71.9			
Medium Trucks:	66.1	64.6	58.3	56.7	65.2	65.4			
Heavy Trucks:	67.0	65.6	56.5	57.8	66.1	66.3			
Vehicle Noise:	74.2	72.5	69.3	64.6	73.2	73.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				96	207	447	963		
CNEL:				103	222	479	1,032		
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: SR-74 Road Segment: w/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 71,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 7,160 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	6.25	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	79.45	-5.88	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	84.25	-6.76	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	70.3	68.4	66.7	60.6	69.2	69.8			
Medium Trucks:	69.2	67.7	61.3	59.8	68.2	68.5			
Heavy Trucks:	73.1	71.7	62.7	63.9	72.3	72.4			
Vehicle Noise:	76.0	74.4	69.0	66.6	75.0	75.3			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			217	467	1,007	2,169			
CNEL:			226	488	1,051	2,264			
Friday, May 24, 2019									

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: SR-74 Road Segment: e/o Palomar Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 70,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 7,020 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 70.20 5.71 -3.18 -1.20 -4.77 0.000 0.000									
Medium Trucks: 81.00 -6.43 -3.17 -1.20 -4.88 0.000 0.000									
Heavy Trucks: 85.38 -7.30 -3.17 -1.20 -5.16 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 71.5 69.6 67.9 61.8 70.4 71.0									
Medium Trucks: 70.2 68.7 62.3 60.8 69.3 69.5									
Heavy Trucks: 73.7 72.3 63.3 64.5 72.9 73.0									
Vehicle Noise: 76.8 75.3 70.0 67.4 75.9 76.2									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				247	532	1,146	2,468		
CNEL:				258	556	1,198	2,581		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: SR-74 Road Segment: e/o Menifee Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 64,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 6,420 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	5.32	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-6.82	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-7.69	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	71.1	69.3	67.5	61.4	70.1	70.7			
Medium Trucks:	69.8	68.3	61.9	60.4	68.9	69.1			
Heavy Trucks:	73.3	71.9	62.9	64.1	72.5	72.6			
Vehicle Noise:	76.4	74.9	69.6	67.0	75.5	75.8			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				233	501	1,079	2,326		
CNEL:				243	524	1,129	2,432		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Ethanac Rd. Road Segment: w/o Goetz Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 43,600 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,360 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	70.20	3.64	-3.18	-1.20	-4.77	0.000	0.000		
Medium Trucks:	81.00	-8.50	-3.17	-1.20	-4.88	0.000	0.000		
Heavy Trucks:	85.38	-9.37	-3.17	-1.20	-5.16	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.5	67.6	65.8	59.7	68.4	69.0			
Medium Trucks:	68.1	66.6	60.3	58.7	67.2	67.4			
Heavy Trucks:	71.6	70.2	61.2	62.4	70.8	70.9			
Vehicle Noise:	74.8	73.2	67.9	65.4	73.8	74.1			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				180	387	834	1,797		
CNEL:				188	405	872	1,879		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 With Project Road Name: Ethanac Rd. Road Segment: e/o Goetz Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 51,300 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,130 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 90.00%				
				Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
				Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	70.20	4.35	-3.18	-1.20	-4.77	0.000	0.000	
Medium Trucks:	81.00	-7.79	-3.17	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	85.38	-8.66	-3.17	-1.20	-5.16	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.2	68.3	66.5	60.5	69.1	69.7		
Medium Trucks:	68.8	67.3	61.0	59.4	67.9	68.1		
Heavy Trucks:	72.3	70.9	61.9	63.1	71.5	71.6		
Vehicle Noise:	75.5	73.9	68.6	66.1	74.5	74.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			200	431	930	2,003		
CNEL:			209	451	972	2,094		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Ethanac Rd. Road Segment: w/o Barnett Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 53,900 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,390 vehicles Vehicle Speed: 50 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 90.00%				
					Medium Trucks: 84.8% 4.9% 10.3% 5.50%				
					Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156				
					Medium Trucks: 80.046				
					Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos: 70.20 4.56 -3.18 -1.20 -4.77 0.000 0.000									
Medium Trucks: 81.00 -7.58 -3.17 -1.20 -4.88 0.000 0.000									
Heavy Trucks: 85.38 -8.45 -3.17 -1.20 -5.16 0.000 0.000									
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos: 70.4 68.5 66.7 60.7 69.3 69.9									
Medium Trucks: 69.1 67.5 61.2 59.6 68.1 68.3									
Heavy Trucks: 72.6 71.1 62.1 63.4 71.7 71.8									
Vehicle Noise: 75.7 74.1 68.8 66.3 74.7 75.0									
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				207	446	961	2,070		
CNEL:				216	466	1,005	2,164		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 With Project Road Name: Ethanac Rd. Road Segment: e/o Trumble Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 63,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 6,300 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	90.00%
					Medium Trucks:		84.8%	4.9%	10.3%	5.50%
					Heavy Trucks:		86.5%	2.7%	10.8%	4.50%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		80.156			
					Medium Trucks:		80.046			
					Heavy Trucks:		80.056			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	5.70	-3.18	-1.20	-4.77	0.000	0.000			
Medium Trucks:	79.45	-6.44	-3.17	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-7.31	-3.17	-1.20	-5.16	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	69.8	67.9	66.1	60.1	68.7	69.3				
Medium Trucks:	68.6	67.1	60.8	59.2	67.7	67.9				
Heavy Trucks:	72.6	71.1	62.1	63.4	71.7	71.8				
Vehicle Noise:	75.4	73.9	68.4	66.0	74.5	74.8				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				199	429	924	1,992			
CNEL:				208	448	965	2,079			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Ethanac Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 53,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 5,310 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 120 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 100.0 feet Centerline Dist. to Observer: 100.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 90.00% Medium Trucks: 84.8% 4.9% 10.3% 5.50% Heavy Trucks: 86.5% 2.7% 10.8% 4.50%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 80.156 Medium Trucks: 80.046 Heavy Trucks: 80.056				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	68.46	4.96	-3.18	-1.20	-4.77	0.000	0.000	0.000	
Medium Trucks:	79.45	-7.18	-3.17	-1.20	-4.88	0.000	0.000	0.000	
Heavy Trucks:	84.25	-8.05	-3.17	-1.20	-5.16	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	69.0	67.1	65.4	59.3	67.9	68.5		68.5	
Medium Trucks:	67.9	66.4	60.0	58.5	66.9	67.2		67.2	
Heavy Trucks:	71.8	70.4	61.4	62.6	71.0	71.1		71.1	
Vehicle Noise:	74.7	73.1	67.7	65.3	73.7	74.0		74.0	
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				178	383	825	1,777		
CNEL:				185	400	861	1,855		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Rouse Rd. Road Segment: e/o Encanto Dr.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 7,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 720 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType	Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-0.82	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-18.06	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-22.02	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	57.3	55.4	53.6	47.6	56.2	56.8			
Medium Trucks:	52.2	50.6	44.3	42.7	51.2	51.4			
Heavy Trucks:	55.4	54.0	44.9	46.2	54.5	54.6			
Vehicle Noise:	60.2	58.5	54.6	50.7	59.2	59.6			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				10	21	44	95		
CNEL:				10	22	47	101		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 With Project Road Name: Rouse Rd. Road Segment: e/o Street A				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 600 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
Autos: 44.931								
Medium Trucks: 44.733								
Heavy Trucks: 44.752								
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	58.73	-1.62	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:	70.80	-18.86	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	77.97	-22.81	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	56.5	54.6	52.8	46.8	55.4	56.0		
Medium Trucks:	51.4	49.9	43.5	41.9	50.4	50.6		
Heavy Trucks:	54.6	53.2	44.1	45.4	53.7	53.9		
Vehicle Noise:	59.4	57.7	53.8	49.9	58.4	58.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			8	18	39	84		
CNEL:			9	19	42	90		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 With Project Road Name: Rouse Rd. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 5,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 520 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos:		0.000			
					Medium Trucks:		2.297			
					Heavy Trucks:		8.006		Grade Adjustment: 0.0	
					Lane Equivalent Distance (in feet)					
					Autos:		44.931			
					Medium Trucks:		44.733			
					Heavy Trucks:		44.752			
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	58.73	-2.24	0.59	-1.20	-4.65	0.000	0.000			
Medium Trucks:	70.80	-19.48	0.62	-1.20	-4.87	0.000	0.000			
Heavy Trucks:	77.97	-23.43	0.62	-1.20	-5.43	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	55.9	54.0	52.2	46.2	54.8	55.4				
Medium Trucks:	50.7	49.2	42.9	41.3	49.8	50.0				
Heavy Trucks:	54.0	52.5	43.5	44.8	53.1	53.2				
Vehicle Noise:	58.8	57.1	53.2	49.3	57.8	58.2				
Centerline Distance to Noise Contour (in feet)										
				70 dBA		65 dBA		60 dBA		55 dBA
Ldn:				8		17		36		77
CNEL:				8		18		38		81

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Rouse Rd. Road Segment: e/o Antelope Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 17,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 1,750 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	3.03	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	70.80	-14.21	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	77.97	-18.16	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	61.2	59.3	57.5	51.4	60.1	60.7			
Medium Trucks:	56.0	54.5	48.1	46.6	55.1	55.3			
Heavy Trucks:	59.2	57.8	48.8	50.0	58.4	58.5			
Vehicle Noise:	64.1	62.4	58.5	54.6	63.1	63.4			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			17	37	80	172			
CNEL:			18	39	85	183			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 With Project Road Name: Chambers Av. Road Segment: e/o Sherman Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 4,500 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 450 vehicles Vehicle Speed: 25 mph Near/Far Lane Distance: 45 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	58.73	-2.87	0.59	-1.20	-4.65	0.000	0.000	
Medium Trucks:	70.80	-20.10	0.62	-1.20	-4.87	0.000	0.000	
Heavy Trucks:	77.97	-24.06	0.62	-1.20	-5.43	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	55.3	53.4	51.6	45.5	54.2	54.8		
Medium Trucks:	50.1	48.6	42.2	40.7	49.2	49.4		
Heavy Trucks:	53.3	51.9	42.9	44.1	52.5	52.6		
Vehicle Noise:	58.2	56.5	52.6	48.7	57.2	57.6		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			7	15	32	70		
CNEL:			7	16	34	74		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Chambers Av. Road Segment: elo Street C					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 6,100 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 610 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 25 mph									
Near/Far Lane Distance: 45 feet					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Site Data					Autos: 77.5% 12.9% 9.6% 97.42%				
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000				
					Medium Trucks: 2.297				
					Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931				
					Medium Trucks: 44.733				
					Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	58.73	-1.54	0.59	-1.20	-4.65	0.000	0.000		
Medium Trucks:	70.80	-18.78	0.62	-1.20	-4.87	0.000	0.000		
Heavy Trucks:	77.97	-22.74	0.62	-1.20	-5.43	0.000	0.000		
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	56.6	54.7	52.9	46.9	55.5	56.1			
Medium Trucks:	51.4	49.9	43.6	42.0	50.5	50.7			
Heavy Trucks:	54.7	53.2	44.2	45.4	53.8	53.9			
Vehicle Noise:	59.5	57.8	53.9	50.0	58.5	58.9			
Centerline Distance to Noise Contour (in feet)									
				70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:				9	18	40	85		
CNEL:				9	20	42	91		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 With Project Road Name: McCall Bl. Road Segment: w/o Sun City Bl.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 23,800 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,380 vehicles Vehicle Speed: 35 mph Near/Far Lane Distance: 48 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos:		77.5%	12.9%	9.6%	97.42%
					Medium Trucks:		84.8%	4.9%	10.3%	1.84%
					Heavy Trucks:		86.5%	2.7%	10.8%	0.74%
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	64.30	2.91	-0.62	-1.20	-4.69	0.000	0.000			
Medium Trucks:	75.75	-14.33	-0.60	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	81.57	-18.29	-0.60	-1.20	-5.35	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	65.4	63.5	61.7	55.7	64.3	64.9				
Medium Trucks:	59.6	58.1	51.7	50.2	58.7	58.9				
Heavy Trucks:	61.5	60.1	51.0	52.3	60.6	60.8				
Vehicle Noise:	67.6	65.9	62.5	58.1	66.6	67.0				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				35	75	163	350			
CNEL:				37	81	174	374			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: McCall Bl. Road Segment: e/o I-215					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 53,200 vehicles					Autos: 15				
Peak Hour Percentage: 10%					Medium Trucks (2 Axles): 15				
Peak Hour Volume: 5,320 vehicles					Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph					Vehicle Mix				
Near/Far Lane Distance: 78 feet					VehicleType				
Site Data					Day				
Barrier Height: 0.0 feet					Evening				
Barrier Type (0-Wall, 1-Berm): 0.0					Night				
Centerline Dist. to Barrier: 76.0 feet					Daily				
Centerline Dist. to Observer: 76.0 feet					Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Distance to Observer: 0.0 feet					Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Observer Height (Above Pad): 5.0 feet					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Pad Elevation: 0.0 feet					Noise Source Elevations (in feet)				
Road Elevation: 0.0 feet					Autos: 0.000				
Road Grade: 0.0%					Medium Trucks: 2.297				
Left View: -90.0 degrees					Heavy Trucks: 8.006				
Right View: 90.0 degrees					Grade Adjustment: 0.0				
FHWA Noise Model Calculations					Lane Equivalent Distance (in feet)				
VehicleType					Autos: 65.422				
REMED					Medium Trucks: 65.286				
Traffic Flow					Heavy Trucks: 65.300				
Distance					Finite Road				
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Barrier Atten					Berm Atten				
Berm Atten					Autos: 0.000				
Autos: 68.46					Medium Trucks: 79.45				
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Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL										
Scenario: HY 2040 With Project Road Name: McCall Bl. Road Segment: e/o Sherman Rd.					Project Name: Legado Job Number: 8728					
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS					
Highway Data					Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 43,000 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 4,300 vehicles Vehicle Speed: 45 mph Near/Far Lane Distance: 78 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15					
Site Data					Vehicle Mix					
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					VehicleType		Day	Evening	Night	Daily
					Autos: 77.5% 12.9% 9.6% 97.42%					
					Medium Trucks: 84.8% 4.9% 10.3% 1.84%					
					Heavy Trucks: 86.5% 2.7% 10.8% 0.74%					
					Noise Source Elevations (in feet)					
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0					
					Lane Equivalent Distance (in feet)					
					Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300					
FHWA Noise Model Calculations										
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten			
Autos:	68.46	4.38	-1.85	-1.20	-4.73	0.000	0.000			
Medium Trucks:	79.45	-12.85	-1.84	-1.20	-4.88	0.000	0.000			
Heavy Trucks:	84.25	-16.81	-1.84	-1.20	-5.25	0.000	0.000			
Unmitigated Noise Levels (without Topo and barrier attenuation)										
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL				
Autos:	69.8	67.9	66.1	60.1	68.7	69.3				
Medium Trucks:	63.6	62.0	55.7	54.1	62.6	62.8				
Heavy Trucks:	64.4	63.0	53.9	55.2	63.5	63.7				
Vehicle Noise:	71.6	69.9	66.7	62.1	70.6	71.1				
Centerline Distance to Noise Contour (in feet)										
				70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:				83	180	387	833			
CNEL:				89	193	415	894			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 With Project Road Name: McCall Bl. Road Segment: e/o Antelope Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 38,400 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,840 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
				VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 65.422 Medium Trucks: 65.286 Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	3.02	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-14.22	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-18.17	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	71.7	69.8	68.1	62.0	70.6	71.3		
Medium Trucks:	65.1	63.6	57.3	55.7	64.2	64.4		
Heavy Trucks:	65.2	63.8	54.7	56.0	64.3	64.5		
Vehicle Noise:	73.3	71.6	68.6	63.7	72.3	72.8		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			108	233	501	1,080		
CNEL:			116	250	539	1,162		

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 With Project Road Name: McCall Bl. Road Segment: e/o Meniffee Rd.				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 37,200 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 3,720 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 78 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 76.0 feet Centerline Dist. to Observer: 76.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000				
				Medium Trucks: 2.297				
				Heavy Trucks: 8.006 Grade Adjustment: 0.0				
FHWA Noise Model Calculations				Lane Equivalent Distance (in feet)				
				Autos: 65.422				
				Medium Trucks: 65.286				
				Heavy Trucks: 65.300				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	2.88	-1.85	-1.20	-4.73	0.000	0.000	
Medium Trucks:	82.40	-14.36	-1.84	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-18.31	-1.84	-1.20	-5.25	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	71.6	69.7	67.9	61.9	70.5	71.1		
Medium Trucks:	65.0	63.5	57.1	55.6	64.1	64.3		
Heavy Trucks:	65.0	63.6	54.6	55.8	64.2	64.3		
Vehicle Noise:	73.2	71.4	68.5	63.6	72.2	72.6		
Centerline Distance to Noise Contour (in feet)								
				70 dBA	65 dBA	60 dBA	55 dBA	
Ldn:				106	228	491	1,058	
CNEL:				114	245	528	1,138	

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL									
Scenario: HY 2040 With Project Road Name: Trumble Rd. Road Segment: s/o Ethanac Rd.					Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA					NOISE MODEL INPUTS				
Highway Data					Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,010 vehicles Vehicle Speed: 40 mph Near/Far Lane Distance: 45 feet					Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data					Vehicle Mix				
					VehicleType	Day	Evening	Night	Daily
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 50.0 feet Centerline Dist. to Observer: 50.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees					Autos: 77.5% 12.9% 9.6% 97.42% Medium Trucks: 84.8% 4.9% 10.3% 1.84% Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
					Noise Source Elevations (in feet)				
					Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
					Lane Equivalent Distance (in feet)				
					Autos: 44.931 Medium Trucks: 44.733 Heavy Trucks: 44.752				
FHWA Noise Model Calculations									
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten		
Autos:	66.51	1.59	0.59	-1.20	-4.65	0.000	0.000	0.000	
Medium Trucks:	77.72	-15.65	0.62	-1.20	-4.87	0.000	0.000	0.000	
Heavy Trucks:	82.99	-19.60	0.62	-1.20	-5.43	0.000	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)									
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL			
Autos:	67.5	65.6	63.8	57.8	66.4	67.0			
Medium Trucks:	61.5	60.0	53.6	52.1	60.5	60.8			
Heavy Trucks:	62.8	61.4	52.4	53.6	62.0	62.1			
Vehicle Noise:	69.5	67.8	64.5	60.0	68.5	68.9			
Centerline Distance to Noise Contour (in feet)									
			70 dBA	65 dBA	60 dBA	55 dBA			
Ldn:			40	85	184	397			
CNEL:			42	91	197	425			

Friday, May 24, 2019

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL								
Scenario: HY 2040 With Project Road Name: Encanto Dr. Road Segment: s/o A Street				Project Name: Legado Job Number: 8728				
SITE SPECIFIC INPUT DATA				NOISE MODEL INPUTS				
Highway Data				Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 20,100 vehicles Peak Hour Percentage: 10% Peak Hour Volume: 2,010 vehicles Vehicle Speed: 55 mph Near/Far Lane Distance: 48 feet				Autos: 15 Medium Trucks (2 Axles): 15 Heavy Trucks (3+ Axles): 15				
Site Data				Vehicle Mix				
Barrier Height: 0.0 feet Barrier Type (0-Wall, 1-Berm): 0.0 Centerline Dist. to Barrier: 59.0 feet Centerline Dist. to Observer: 59.0 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 Road Grade: 0.0% Left View: -90.0 degrees Right View: 90.0 degrees				VehicleType	Day	Evening	Night	Daily
				Autos: 77.5% 12.9% 9.6% 97.42%				
				Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
				Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
				Noise Source Elevations (in feet)				
				Autos: 0.000 Medium Trucks: 2.297 Heavy Trucks: 8.006 Grade Adjustment: 0.0				
				Lane Equivalent Distance (in feet)				
				Autos: 54.129 Medium Trucks: 53.966 Heavy Trucks: 53.982				
FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	71.78	0.21	-0.62	-1.20	-4.69	0.000	0.000	
Medium Trucks:	82.40	-17.03	-0.60	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	86.40	-20.98	-0.60	-1.20	-5.35	0.000	0.000	
Unmitigated Noise Levels (without Topo and barrier attenuation)								
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL		
Autos:	70.2	68.3	66.5	60.5	69.1	69.7		
Medium Trucks:	63.6	62.1	55.7	54.2	62.6	62.9		
Heavy Trucks:	63.6	62.2	53.2	54.4	62.8	62.9		
Vehicle Noise:	71.8	70.0	67.0	62.2	70.7	71.2		
Centerline Distance to Noise Contour (in feet)								
			70 dBA	65 dBA	60 dBA	55 dBA		
Ldn:			66	142	306	659		
CNEL:			71	153	329	708		

Friday, May 24, 2019

APPENDIX 8.1:

ON-SITE TRAFFIC NOISE CALCULATIONS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
 Road Name: I-215
 Lot No: PA-16 (Commercial)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 145,200 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 14,520 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph		Vehicle Mix				
Near/Far Lane Distance: 120 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Height: 0.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Barrier: 200.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 200.0 feet		Autos: 0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 190.853				
Barrier Elevation: 0.0 feet		Medium Trucks: 190.807				
Road Grade: 0.0%		Heavy Trucks: 190.812				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	76.79	7.32	-8.83	-1.20	-4.83	0.000	0.000
Medium Trucks:	82.53	-4.33	-8.83	-1.20	-4.89	0.000	0.000
Heavy Trucks:	85.83	-4.53	-8.83	-1.20	-5.03	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.2	70.4	64.4	73.0	73.6
Medium Trucks:	68.2	66.7	60.3	58.8	67.2	67.5
Heavy Trucks:	71.3	69.8	60.8	62.1	70.4	70.5
Vehicle Noise:	76.6	74.9	71.2	67.1	75.6	76.0

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.2	70.4	64.4	73.0	73.6
Medium Trucks:	68.2	66.7	60.3	58.8	67.2	67.5
Heavy Trucks:	71.3	69.8	60.8	62.1	70.4	70.5
Vehicle Noise:	76.6	74.9	71.2	67.1	75.6	76.0

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	502	1,081	2,329	5,017

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
 Road Name: Encanto Dr.
 Lot No: PA-16 (Commercial)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS					
Highway Data		Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15					
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15					
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph		Vehicle Mix					
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily	
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%	
Barrier Height: 0.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dist. to Barrier: 60.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 60.0 feet		Autos:	0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks:	2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment:	0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet		Autos:	55.218				
Barrier Elevation: 0.0 feet		Medium Trucks:	55.057				
Road Grade: 0.0%		Heavy Trucks:	55.073				

FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	72.73	2.51	-0.75	-1.20	-4.69	0.000	0.000	
Medium Trucks:	79.85	-14.73	-0.73	-1.20	-4.88	0.000	0.000	
Heavy Trucks:	83.81	-18.69	-0.73	-1.20	-5.34	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.3	71.4	69.6	63.6	72.2	72.8	
Medium Trucks:	63.2	61.7	55.3	53.8	62.2	62.5	
Heavy Trucks:	63.2	61.8	52.7	54.0	62.3	62.5	
Vehicle Noise:	74.1	72.2	69.9	64.4	73.0	73.5	

Mitigated Noise Levels (with Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	73.3	71.4	69.6	63.6	72.2	72.8	
Medium Trucks:	63.2	61.7	55.3	53.8	62.2	62.5	
Heavy Trucks:	63.2	61.8	52.7	54.0	62.3	62.5	
Vehicle Noise:	74.1	72.2	69.9	64.4	73.0	73.5	

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	103	222	479	1,031

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
 Road Name: I-215
 Lot No: PA-3 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 145,200 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 14,520 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph		Vehicle Mix				
Near/Far Lane Distance: 120 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Height: 6.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Barrier: 670.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 680.0 feet		Autos: 0.000				
Barrier Distance to Observer: 10.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 677.385				
Barrier Elevation: 0.0 feet		Medium Trucks: 677.368				
Road Grade: 0.0%		Heavy Trucks: 677.361				

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	76.79	7.32	-17.08	-1.20	0.06	-5.600	-8.600
Medium Trucks:	82.53	-4.33	-17.08	-1.20	0.05	-5.500	-8.500
Heavy Trucks:	85.83	-4.53	-17.08	-1.20	0.05	-5.500	-8.500

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.8	63.9	62.2	56.1	64.7	65.3
Medium Trucks:	59.9	58.4	52.1	50.5	59.0	59.2
Heavy Trucks:	63.0	61.6	52.6	53.8	62.2	62.3
Vehicle Noise:	68.3	66.6	63.0	58.8	67.3	67.7

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.2	58.3	56.6	50.5	59.1	59.7
Medium Trucks:	54.4	52.9	46.6	45.0	53.5	53.7
Heavy Trucks:	57.5	56.1	47.1	48.3	56.7	56.8
Vehicle Noise:	62.8	61.1	57.4	53.3	61.8	62.2

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	481	1,035	2,231	4,806

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
Road Name: Encanto Dr.
Lot No: PA-3 (MDR)

Project Name: Legado
Job Number: 8728
Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS					
Highway Data		Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15					
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15					
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph		Vehicle Mix					
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily	
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%	
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dist. to Barrier: 530.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 540.0 feet		Autos:	0.000				
Barrier Distance to Observer: 10.0 feet		Medium Trucks:	2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment:	0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet		Autos:	539.540				
Barrier Elevation: 0.0 feet		Medium Trucks:	539.519				
Road Grade: 0.0%		Heavy Trucks:	539.510				

FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	72.73	2.51	-15.60	-1.20	0.06	-5.600	-8.600	
Medium Trucks:	79.85	-14.73	-15.60	-1.20	0.05	-5.500	-8.500	
Heavy Trucks:	83.81	-18.69	-15.60	-1.20	0.04	-5.400	-8.400	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	58.4	56.5	54.8	48.7	57.3	57.9	
Medium Trucks:	48.3	46.8	40.5	38.9	47.4	47.6	
Heavy Trucks:	48.3	46.9	37.9	39.1	47.5	47.6	
Vehicle Noise:	59.2	57.4	55.0	49.6	58.1	58.7	

Mitigated Noise Levels (with Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	52.8	50.9	49.2	43.1	51.7	52.3	
Medium Trucks:	42.8	41.3	35.0	33.4	41.9	42.1	
Heavy Trucks:	42.9	41.5	32.5	33.7	42.1	42.2	
Vehicle Noise:	53.6	51.8	49.4	44.0	52.6	53.1	

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	95	205	441	950

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
Road Name: I-215
Lot No: PA-18 (Sports Park)

Project Name: Legado
Job Number: 8728
Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 145,200 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 14,520 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph		Vehicle Mix				
Near/Far Lane Distance: 120 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Height: 0.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Barrier: 670.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 670.0 feet		Autos: 0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 667.327				
Barrier Elevation: 0.0 feet		Medium Trucks: 667.313				
Road Grade: 0.0%		Heavy Trucks: 667.315				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	76.79	7.32	-16.98	-1.20	-4.87	0.000	0.000
Medium Trucks:	82.53	-4.33	-16.98	-1.20	-4.89	0.000	0.000
Heavy Trucks:	85.83	-4.53	-16.98	-1.20	-4.93	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	64.0	62.3	56.2	64.8	65.4
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3
Heavy Trucks:	63.1	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	68.4	66.7	63.1	58.9	67.4	67.8

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	64.0	62.3	56.2	64.8	65.4
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3
Heavy Trucks:	63.1	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	68.4	66.7	63.1	58.9	67.4	67.8

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	481	1,035	2,231	4,806

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
 Road Name: Encanto Dr.
 Lot No: PA-18 (Sports Park)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 530.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 530.0 feet		Autos: 0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 529.480				
Barrier Elevation: 0.0 feet		Medium Trucks: 529.463				
Road Grade: 0.0%		Heavy Trucks: 529.465				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	72.73	2.51	-15.48	-1.20	-4.87	0.000	0.000
Medium Trucks:	79.85	-14.73	-15.48	-1.20	-4.89	0.000	0.000
Heavy Trucks:	83.81	-18.69	-15.48	-1.20	-4.94	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.6	56.7	54.9	48.8	57.5	58.1
Medium Trucks:	48.4	46.9	40.6	39.0	47.5	47.7
Heavy Trucks:	48.4	47.0	38.0	39.2	47.6	47.7
Vehicle Noise:	59.3	57.5	55.1	49.7	58.3	58.8

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.6	56.7	54.9	48.8	57.5	58.1
Medium Trucks:	48.4	46.9	40.6	39.0	47.5	47.7
Heavy Trucks:	48.4	47.0	38.0	39.2	47.6	47.7
Vehicle Noise:	59.3	57.5	55.1	49.7	58.3	58.8

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	95	205	441	950

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
 Road Name: Sherman Rd.
 Lot No: PA-2, 4, 5, 7, 10, & 12 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 60.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 70.0 feet		Autos:	0.000			
Barrier Distance to Observer: 10.0 feet		Medium Trucks:	2.297			
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment: 0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos:	65.367			
Barrier Elevation: 0.0 feet		Medium Trucks:	65.165			
Road Grade: 0.0%		Heavy Trucks:	65.077			

FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	69.34	3.38	-1.85	-1.20	0.17	-6.560	-9.560	
Medium Trucks:	77.62	-13.86	-1.83	-1.20	0.11	-6.080	-9.080	
Heavy Trucks:	82.14	-17.82	-1.82	-1.20	0.02	-5.200	-8.200	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	69.7	67.8	66.0	60.0	68.6	69.2	
Medium Trucks:	60.7	59.2	52.9	51.3	59.8	60.0	
Heavy Trucks:	61.3	59.9	50.8	52.1	60.5	60.6	
Vehicle Noise:	70.7	68.9	66.3	61.1	69.7	70.2	

Mitigated Noise Levels (with Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	63.1	61.2	59.4	53.4	62.0	62.6	
Medium Trucks:	54.7	53.1	46.8	45.2	53.7	53.9	
Heavy Trucks:	56.1	54.7	45.6	46.9	55.3	55.4	
Vehicle Noise:	64.4	62.6	59.8	54.8	63.3	63.8	

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	72	155	334	720

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
 Road Name: Antelope Rd.
 Lot No: PA-11, 13, 15 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 6.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 60.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 70.0 feet		Autos: 0.000				
Barrier Distance to Observer: 10.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 65.367				
Barrier Elevation: 0.0 feet		Medium Trucks: 65.165				
Road Grade: 0.0%		Heavy Trucks: 65.077				

FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	67.36	3.89	-1.85	-1.20	0.17	-6.560	-9.560	
Medium Trucks:	76.31	-13.35	-1.83	-1.20	0.11	-6.080	-9.080	
Heavy Trucks:	81.16	-17.31	-1.82	-1.20	0.02	-5.200	-8.200	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	68.2	66.3	64.5	58.5	67.1	67.7	
Medium Trucks:	59.9	58.4	52.1	50.5	59.0	59.2	
Heavy Trucks:	60.8	59.4	50.4	51.6	60.0	60.1	
Vehicle Noise:	69.4	67.7	64.9	59.8	68.4	68.9	

Mitigated Noise Levels (with Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	61.6	59.7	58.0	51.9	60.5	61.1	
Medium Trucks:	53.9	52.3	46.0	44.4	52.9	53.1	
Heavy Trucks:	55.6	54.2	45.2	46.4	54.8	54.9	
Vehicle Noise:	63.2	61.4	58.4	53.6	62.1	62.6	

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	59	127	274	591

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
 Road Name: Rouse Rd.
 Lot No: PA-1, 2, 8 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS					
Highway Data		Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 25,900 vehicles		Autos: 15					
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15					
Peak Hour Volume: 2,590 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 40 mph		Vehicle Mix					
Near/Far Lane Distance: 45 feet		VehicleType	Day	Evening	Night	Daily	
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%	
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dist. to Barrier: 50.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 60.0 feet		Autos:	0.000				
Barrier Distance to Observer: 10.0 feet		Medium Trucks:	2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment:	0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet		Autos:	55.103				
Barrier Elevation: 0.0 feet		Medium Trucks:	54.855				
Road Grade: 0.0%		Heavy Trucks:	54.746				

FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	67.36	2.69	-0.74	-1.20	0.20	-6.800	-9.800	
Medium Trucks:	76.31	-14.54	-0.71	-1.20	0.12	-6.160	-9.160	
Heavy Trucks:	81.16	-18.50	-0.69	-1.20	0.01	-5.100	-8.100	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	68.1	66.2	64.5	58.4	67.0	67.6	
Medium Trucks:	59.9	58.4	52.0	50.4	58.9	59.1	
Heavy Trucks:	60.8	59.3	50.3	51.6	59.9	60.0	
Vehicle Noise:	69.4	67.6	64.8	59.8	68.3	68.8	

Mitigated Noise Levels (with Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	61.3	59.4	57.7	51.6	60.2	60.8	
Medium Trucks:	53.7	52.2	45.8	44.3	52.7	53.0	
Heavy Trucks:	55.7	54.2	45.2	46.5	54.8	54.9	
Vehicle Noise:	62.9	61.2	58.2	53.3	61.9	62.4	

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	50	108	232	500

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Backyard With Wall
 Road Name: Chambers Av.
 Lot No: PA-6, 7, 14, 15 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,900 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,590 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph		Vehicle Mix				
Near/Far Lane Distance: 45 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 53.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 63.0 feet		Autos:	0.000			
Barrier Distance to Observer: 10.0 feet		Medium Trucks:	2.297			
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment: 0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos:	58.411			
Barrier Elevation: 0.0 feet		Medium Trucks:	58.180			
Road Grade: 0.0%		Heavy Trucks:	58.079			

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	2.69	-1.12	-1.20	0.19	-6.720	-9.720
Medium Trucks:	76.31	-14.54	-1.09	-1.20	0.12	-6.160	-9.160
Heavy Trucks:	81.16	-18.50	-1.08	-1.20	0.02	-5.200	-8.200

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.7	65.8	64.1	58.0	66.6	67.2
Medium Trucks:	59.5	58.0	51.6	50.1	58.5	58.8
Heavy Trucks:	60.4	59.0	49.9	51.2	59.5	59.7
Vehicle Noise:	69.0	67.2	64.5	59.4	67.9	68.4

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.0	59.1	57.4	51.3	59.9	60.5
Medium Trucks:	53.3	51.8	45.4	43.9	52.4	52.6
Heavy Trucks:	55.2	53.8	44.7	46.0	54.3	54.5
Vehicle Noise:	62.6	60.8	57.8	53.0	61.5	62.0

Centerline Distance to Noise Contour (in feet)	70 dBA	65 dBA	60 dBA	55 dBA
CNEL:	50	107	230	496

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: I-215
 Lot No: PA-16 (Commercial)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS					
Highway Data		Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 145,200 vehicles		Autos: 15					
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15					
Peak Hour Volume: 14,520 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 70 mph		Vehicle Mix					
Near/Far Lane Distance: 120 feet		VehicleType	Day	Evening	Night	Daily	
Site Data		Autos:	77.5%	12.9%	9.6%	88.20%	
Barrier Height: 0.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	6.04%	
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	5.76%	
Centerline Dist. to Barrier: 200.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 200.0 feet		Autos:	0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks:	2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment:	0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet		Autos:	190.853				
Barrier Elevation: 0.0 feet		Medium Trucks:	190.807				
Road Grade: 0.0%		Heavy Trucks:	190.812				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	76.79	7.32	-8.83	-1.20	-4.83	0.000	0.000
Medium Trucks:	82.53	-4.33	-8.83	-1.20	-4.89	0.000	0.000
Heavy Trucks:	85.83	-4.53	-8.83	-1.20	-5.03	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.2	70.4	64.4	73.0	73.6
Medium Trucks:	68.2	66.7	60.3	58.8	67.2	67.5
Heavy Trucks:	71.3	69.8	60.8	62.1	70.4	70.5
Vehicle Noise:	76.6	74.9	71.2	67.1	75.6	76.0

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.2	70.4	64.4	73.0	73.6
Medium Trucks:	68.2	66.7	60.3	58.8	67.2	67.5
Heavy Trucks:	71.3	69.8	60.8	62.1	70.4	70.5
Vehicle Noise:	76.6	74.9	71.2	67.1	75.6	76.0

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: Encanto Dr.
 Lot No: PA-16 (Commercial)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height: 0.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 60.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 60.0 feet		Autos:	0.000			
Barrier Distance to Observer: 0.0 feet		Medium Trucks:	2.297			
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006 Grade Adjustment: 0.0			
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos:	55.218			
Barrier Elevation: 0.0 feet		Medium Trucks:	55.057			
Road Grade: 0.0%		Heavy Trucks:	55.073			

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	72.73	2.51	-0.75	-1.20	-4.69	0.000	0.000
Medium Trucks:	79.85	-14.73	-0.73	-1.20	-4.88	0.000	0.000
Heavy Trucks:	83.81	-18.69	-0.73	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.3	71.4	69.6	63.6	72.2	72.8
Medium Trucks:	63.2	61.7	55.3	53.8	62.2	62.5
Heavy Trucks:	63.2	61.8	52.7	54.0	62.3	62.5
Vehicle Noise:	74.1	72.2	69.9	64.4	73.0	73.5

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.3	71.4	69.6	63.6	72.2	72.8
Medium Trucks:	63.2	61.7	55.3	53.8	62.2	62.5
Heavy Trucks:	63.2	61.8	52.7	54.0	62.3	62.5
Vehicle Noise:	74.1	72.2	69.9	64.4	73.0	73.5

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: I-215
 Lot No: PA-3 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS					
Highway Data		Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 145,200 vehicles		Autos: 15					
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15					
Peak Hour Volume: 14,520 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 70 mph		Vehicle Mix					
Near/Far Lane Distance: 120 feet		VehicleType	Day	Evening	Night	Daily	
Site Data		Autos:	77.5%	12.9%	9.6%	88.20%	
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	6.04%	
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	5.76%	
Centerline Dist. to Barrier: 670.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 690.0 feet		Autos:	0.000				
Barrier Distance to Observer: 20.0 feet		Medium Trucks:	2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment:	0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet		Autos:	687.360				
Barrier Elevation: 0.0 feet		Medium Trucks:	687.343				
Road Grade: 0.0%		Heavy Trucks:	687.336				

FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	76.79	7.32	-17.18	-1.20	0.03	-5.300	-8.300	
Medium Trucks:	82.53	-4.33	-17.18	-1.20	0.03	-5.300	-8.300	
Heavy Trucks:	85.83	-4.53	-17.18	-1.20	0.02	-5.200	-8.200	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL
Autos:	65.7	63.8	62.1	56.0	64.6		65.2
Medium Trucks:	59.8	58.3	52.0	50.4	58.9		59.1
Heavy Trucks:	62.9	61.5	52.5	53.7	62.1		62.2
Vehicle Noise:	68.2	66.5	62.9	58.7	67.2		67.6

Mitigated Noise Levels (with Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn		CNEL
Autos:	60.4	58.5	56.8	50.7	59.3		59.9
Medium Trucks:	54.5	53.0	46.7	45.1	53.6		53.8
Heavy Trucks:	57.7	56.3	47.3	48.5	56.9		57.0
Vehicle Noise:	63.0	61.3	57.6	53.4	62.0		62.4

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: Encanto Dr.
 Lot No: PA-3 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 6.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 530.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 550.0 feet		Autos: 0.000				
Barrier Distance to Observer: 20.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 549.515				
Barrier Elevation: 0.0 feet		Medium Trucks: 549.494				
Road Grade: 0.0%		Heavy Trucks: 549.485				

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	72.73	2.51	-15.72	-1.20	0.04	-5.400	-8.400
Medium Trucks:	79.85	-14.73	-15.72	-1.20	0.03	-5.300	-8.300
Heavy Trucks:	83.81	-18.69	-15.72	-1.20	0.02	-5.200	-8.200

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	56.4	54.6	48.6	57.2	57.8
Medium Trucks:	48.2	46.7	40.3	38.8	47.2	47.5
Heavy Trucks:	48.2	46.8	37.8	39.0	47.4	47.5
Vehicle Noise:	59.1	57.3	54.9	49.4	58.0	58.6

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.9	51.0	49.2	43.2	51.8	52.4
Medium Trucks:	42.9	41.4	35.0	33.5	41.9	42.2
Heavy Trucks:	43.0	41.6	32.6	33.8	42.2	42.3
Vehicle Noise:	53.7	51.9	49.5	44.1	52.6	53.2

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: I-215
 Lot No: PA-18 (Sports Park)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 145,200 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 14,520 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph		Vehicle Mix				
Near/Far Lane Distance: 120 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Height: 0.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Barrier: 670.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 670.0 feet		Autos: 0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 667.327				
Barrier Elevation: 0.0 feet		Medium Trucks: 667.313				
Road Grade: 0.0%		Heavy Trucks: 667.315				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	76.79	7.32	-16.98	-1.20	-4.87	0.000	0.000
Medium Trucks:	82.53	-4.33	-16.98	-1.20	-4.89	0.000	0.000
Heavy Trucks:	85.83	-4.53	-16.98	-1.20	-4.93	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	64.0	62.3	56.2	64.8	65.4
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3
Heavy Trucks:	63.1	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	68.4	66.7	63.1	58.9	67.4	67.8

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	64.0	62.3	56.2	64.8	65.4
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3
Heavy Trucks:	63.1	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	68.4	66.7	63.1	58.9	67.4	67.8

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: Encanto Dr.
 Lot No: PA-18 (Sports Park)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS					
Highway Data		Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15					
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15					
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 55 mph		Vehicle Mix					
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily	
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%	
Barrier Height: 0.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dist. to Barrier: 530.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 530.0 feet		Autos:	0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks:	2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment:	0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet		Autos:	529.480				
Barrier Elevation: 0.0 feet		Medium Trucks:	529.463				
Road Grade: 0.0%		Heavy Trucks:	529.465				

FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	72.73	2.51	-15.48	-1.20	-4.87	0.000	0.000	
Medium Trucks:	79.85	-14.73	-15.48	-1.20	-4.89	0.000	0.000	
Heavy Trucks:	83.81	-18.69	-15.48	-1.20	-4.94	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	58.6	56.7	54.9	48.8	57.5	58.1	
Medium Trucks:	48.4	46.9	40.6	39.0	47.5	47.7	
Heavy Trucks:	48.4	47.0	38.0	39.2	47.6	47.7	
Vehicle Noise:	59.3	57.5	55.1	49.7	58.3	58.8	

Mitigated Noise Levels (with Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	58.6	56.7	54.9	48.8	57.5	58.1	
Medium Trucks:	48.4	46.9	40.6	39.0	47.5	47.7	
Heavy Trucks:	48.4	47.0	38.0	39.2	47.6	47.7	
Vehicle Noise:	59.3	57.5	55.1	49.7	58.3	58.8	

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: Sherman Rd.
 Lot No: PA-2, 4, 5, 7, 10, & 12 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 6.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 60.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 80.0 feet		Autos: 0.000				
Barrier Distance to Observer: 20.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 75.342				
Barrier Elevation: 0.0 feet		Medium Trucks: 75.140				
Road Grade: 0.0%		Heavy Trucks: 75.052				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	69.34	3.38	-2.77	-1.20	0.16	-6.480	-9.480
Medium Trucks:	77.62	-13.86	-2.76	-1.20	0.09	-5.900	-8.900
Heavy Trucks:	82.14	-17.82	-2.75	-1.20	0.00	-4.900	-7.900

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.7	66.8	65.1	59.0	67.6	68.3
Medium Trucks:	59.8	58.3	51.9	50.4	58.9	59.1
Heavy Trucks:	60.4	59.0	49.9	51.2	59.5	59.6
Vehicle Noise:	69.8	68.0	65.4	60.2	68.7	69.3

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.3	60.4	58.6	52.5	61.2	61.8
Medium Trucks:	53.9	52.4	46.0	44.5	53.0	53.2
Heavy Trucks:	55.5	54.1	45.0	46.3	54.6	54.7
Vehicle Noise:	63.6	61.8	59.0	54.0	62.5	63.0

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: Antelope Rd.
 Lot No: PA-11, 13, 15 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 60.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 80.0 feet		Autos:	0.000			
Barrier Distance to Observer: 20.0 feet		Medium Trucks:	2.297			
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006 Grade Adjustment: 0.0			
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos:	75.342			
Barrier Elevation: 0.0 feet		Medium Trucks:	75.140			
Road Grade: 0.0%		Heavy Trucks:	75.052			

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	3.89	-2.77	-1.20	0.16	-6.480	-9.480
Medium Trucks:	76.31	-13.35	-2.76	-1.20	0.09	-5.900	-8.900
Heavy Trucks:	81.16	-17.31	-2.75	-1.20	0.00	-4.900	-7.900

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	65.4	63.6	57.6	66.2	66.8
Medium Trucks:	59.0	57.5	51.1	49.6	58.1	58.3
Heavy Trucks:	59.9	58.5	49.4	50.7	59.1	59.2
Vehicle Noise:	68.5	66.7	64.0	58.9	67.5	68.0

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.8	58.9	57.1	51.1	59.7	60.3
Medium Trucks:	53.1	51.6	45.2	43.7	52.2	52.4
Heavy Trucks:	55.0	53.6	44.5	45.8	54.2	54.3
Vehicle Noise:	62.4	60.6	57.6	52.8	61.3	61.8

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: Rouse Rd.
 Lot No: PA-1, 2, 8 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS					
Highway Data		Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 25,900 vehicles		Autos: 15					
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15					
Peak Hour Volume: 2,590 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 40 mph		Vehicle Mix					
Near/Far Lane Distance: 45 feet		VehicleType	Day	Evening	Night	Daily	
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%	
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dist. to Barrier: 50.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 70.0 feet		Autos:	0.000				
Barrier Distance to Observer: 20.0 feet		Medium Trucks:	2.297				
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment:			0.0
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet		Autos:	65.078				
Barrier Elevation: 0.0 feet		Medium Trucks:	64.830				
Road Grade: 0.0%		Heavy Trucks:	64.721				

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	2.69	-1.82	-1.20	0.20	-6.800	-9.800
Medium Trucks:	76.31	-14.54	-1.80	-1.20	0.11	-6.080	-9.080
Heavy Trucks:	81.16	-18.50	-1.78	-1.20	0.00	-4.900	-7.900

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.0	65.1	63.4	57.3	65.9	66.5
Medium Trucks:	58.8	57.3	50.9	49.4	57.8	58.1
Heavy Trucks:	59.7	58.3	49.2	50.5	58.8	58.9
Vehicle Noise:	68.3	66.5	63.8	58.7	67.2	67.7

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.2	58.3	56.6	50.5	59.1	59.7
Medium Trucks:	52.7	51.2	44.8	43.3	51.7	52.0
Heavy Trucks:	54.8	53.4	44.3	45.6	53.9	54.0
Vehicle Noise:	61.9	60.1	57.1	52.3	60.8	61.3

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: First Floor With Wall
 Road Name: Chambers Av.
 Lot No: PA-6, 7, 14, 15 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 25,900 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 2,590 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph		Vehicle Mix				
Near/Far Lane Distance: 45 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 53.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 73.0 feet		Autos:	0.000			
Barrier Distance to Observer: 20.0 feet		Medium Trucks:	2.297			
Observer Height (Above Pad): 5.0 feet		Heavy Trucks:	8.006	Grade Adjustment: 0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos:	68.386			
Barrier Elevation: 0.0 feet		Medium Trucks:	68.155			
Road Grade: 0.0%		Heavy Trucks:	68.054			

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	2.69	-2.14	-1.20	0.19	-6.720	-9.720
Medium Trucks:	76.31	-14.54	-2.12	-1.20	0.10	-6.000	-9.000
Heavy Trucks:	81.16	-18.50	-2.11	-1.20	0.00	-4.900	-7.900

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.7	64.8	63.0	57.0	65.6	66.2
Medium Trucks:	58.4	56.9	50.6	49.0	57.5	57.7
Heavy Trucks:	59.3	57.9	48.9	50.1	58.5	58.6
Vehicle Noise:	68.0	66.2	63.4	58.3	66.9	67.4

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.0	58.1	56.3	50.3	58.9	59.5
Medium Trucks:	52.4	50.9	44.6	43.0	51.5	51.7
Heavy Trucks:	54.4	53.0	44.0	45.2	53.6	53.7
Vehicle Noise:	61.6	59.9	56.8	52.0	60.6	61.1

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: I-215
 Lot No: PA-16 (Commercial)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 145,200 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 14,520 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph		Vehicle Mix				
Near/Far Lane Distance: 120 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Height: 0.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Barrier: 200.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 200.0 feet		Autos: 0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 14.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 191.301				
Barrier Elevation: 0.0 feet		Medium Trucks: 191.146				
Road Grade: 0.0%		Heavy Trucks: 190.882				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	76.79	7.32	-8.84	-1.20	-13.22	0.000	0.000
Medium Trucks:	82.53	-4.33	-8.84	-1.20	-13.38	0.000	0.000
Heavy Trucks:	85.83	-4.53	-8.83	-1.20	-13.77	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.2	70.4	64.3	73.0	73.6
Medium Trucks:	68.2	66.7	60.3	58.8	67.2	67.4
Heavy Trucks:	71.3	69.8	60.8	62.1	70.4	70.5
Vehicle Noise:	76.6	74.9	71.2	67.1	75.6	76.0

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.1	72.2	70.4	64.3	73.0	73.6
Medium Trucks:	68.2	66.7	60.3	58.8	67.2	67.4
Heavy Trucks:	71.3	69.8	60.8	62.1	70.4	70.5
Vehicle Noise:	76.6	74.9	71.2	67.1	75.6	76.0

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: Encanto Dr.
 Lot No: PA-16 (Commercial)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height: 0.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 60.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 60.0 feet		Autos:	0.000			
Barrier Distance to Observer: 0.0 feet		Medium Trucks:	2.297			
Observer Height (Above Pad): 14.0 feet		Heavy Trucks:	8.006	Grade Adjustment: 0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos:	56.745			
Barrier Elevation: 0.0 feet		Medium Trucks:	56.222			
Road Grade: 0.0%		Heavy Trucks:	55.317			

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	72.73	2.51	-0.93	-1.20	-12.12	0.000	0.000
Medium Trucks:	79.85	-14.73	-0.87	-1.20	-12.63	0.000	0.000
Heavy Trucks:	83.81	-18.69	-0.76	-1.20	-13.93	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.1	71.2	69.4	63.4	72.0	72.6
Medium Trucks:	63.1	61.5	55.2	53.6	62.1	62.3
Heavy Trucks:	63.2	61.7	52.7	54.0	62.3	62.4
Vehicle Noise:	73.9	72.1	69.7	64.2	72.8	73.4

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	73.1	71.2	69.4	63.4	72.0	72.6
Medium Trucks:	63.1	61.5	55.2	53.6	62.1	62.3
Heavy Trucks:	63.2	61.7	52.7	54.0	62.3	62.4
Vehicle Noise:	73.9	72.1	69.7	64.2	72.8	73.4

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: I-215
 Lot No: PA-3 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 145,200 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 14,520 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph		Vehicle Mix				
Near/Far Lane Distance: 120 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Height: 6.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Barrier: 670.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 690.0 feet		Autos: 0.000				
Barrier Distance to Observer: 20.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 14.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 687.529				
Barrier Elevation: 0.0 feet		Medium Trucks: 687.486				
Road Grade: 0.0%		Heavy Trucks: 687.412				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	76.79	7.32	-17.18	-1.20	-1.39	0.000	0.000
Medium Trucks:	82.53	-4.33	-17.18	-1.20	-1.42	0.000	0.000
Heavy Trucks:	85.83	-4.53	-17.18	-1.20	-1.48	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.7	63.8	62.1	56.0	64.6	65.2
Medium Trucks:	59.8	58.3	52.0	50.4	58.9	59.1
Heavy Trucks:	62.9	61.5	52.5	53.7	62.1	62.2
Vehicle Noise:	68.2	66.5	62.9	58.7	67.2	67.6

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.7	63.8	62.1	56.0	64.6	65.2
Medium Trucks:	59.8	58.3	52.0	50.4	58.9	59.1
Heavy Trucks:	62.9	61.5	52.5	53.7	62.1	62.2
Vehicle Noise:	68.2	66.5	62.9	58.7	67.2	67.6

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: Encanto Dr.
 Lot No: PA-3 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier: 530.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 550.0 feet		Autos:	0.000			
Barrier Distance to Observer: 20.0 feet		Medium Trucks:	2.297			
Observer Height (Above Pad): 14.0 feet		Heavy Trucks:	8.006	Grade Adjustment: 0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos:	549.654			
Barrier Elevation: 0.0 feet		Medium Trucks:	549.601			
Road Grade: 0.0%		Heavy Trucks:	549.509			

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	72.73	2.51	-15.72	-1.20	-1.37	0.000	0.000
Medium Trucks:	79.85	-14.73	-15.72	-1.20	-1.40	0.000	0.000
Heavy Trucks:	83.81	-18.69	-15.72	-1.20	-1.48	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	56.4	54.6	48.6	57.2	57.8
Medium Trucks:	48.2	46.7	40.3	38.8	47.2	47.5
Heavy Trucks:	48.2	46.8	37.7	39.0	47.4	47.5
Vehicle Noise:	59.1	57.3	54.9	49.4	58.0	58.6

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	56.4	54.6	48.6	57.2	57.8
Medium Trucks:	48.2	46.7	40.3	38.8	47.2	47.5
Heavy Trucks:	48.2	46.8	37.7	39.0	47.4	47.5
Vehicle Noise:	59.1	57.3	54.9	49.4	58.0	58.6

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: I-215
 Lot No: PA-18 (Sports Park)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 145,200 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 14,520 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 70 mph		Vehicle Mix				
Near/Far Lane Distance: 120 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 88.20%				
Barrier Height: 0.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 6.04%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 5.76%				
Centerline Dist. to Barrier: 670.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 670.0 feet		Autos: 0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 14.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 667.455				
Barrier Elevation: 0.0 feet		Medium Trucks: 667.411				
Road Grade: 0.0%		Heavy Trucks: 667.335				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	76.79	7.32	-16.99	-1.20	-13.55	0.000	0.000
Medium Trucks:	82.53	-4.33	-16.98	-1.20	-13.60	0.000	0.000
Heavy Trucks:	85.83	-4.53	-16.98	-1.20	-13.72	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	64.0	62.3	56.2	64.8	65.4
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3
Heavy Trucks:	63.1	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	68.4	66.7	63.1	58.9	67.4	67.8

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	64.0	62.3	56.2	64.8	65.4
Medium Trucks:	60.0	58.5	52.2	50.6	59.1	59.3
Heavy Trucks:	63.1	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	68.4	66.7	63.1	58.9	67.4	67.8

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: Encanto Dr.
 Lot No: PA-18 (Sports Park)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 55 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 0.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 530.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 530.0 feet		Autos: 0.000				
Barrier Distance to Observer: 0.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 14.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 529.641				
Barrier Elevation: 0.0 feet		Medium Trucks: 529.586				
Road Grade: 0.0%		Heavy Trucks: 529.490				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	72.73	2.51	-15.48	-1.20	-13.52	0.000	0.000
Medium Trucks:	79.85	-14.73	-15.48	-1.20	-13.58	0.000	0.000
Heavy Trucks:	83.81	-18.69	-15.48	-1.20	-13.72	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.6	56.7	54.9	48.8	57.5	58.1
Medium Trucks:	48.4	46.9	40.6	39.0	47.5	47.7
Heavy Trucks:	48.4	47.0	38.0	39.2	47.6	47.7
Vehicle Noise:	59.3	57.5	55.1	49.7	58.3	58.8

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.6	56.7	54.9	48.8	57.5	58.1
Medium Trucks:	48.4	46.9	40.6	39.0	47.5	47.7
Heavy Trucks:	48.4	47.0	38.0	39.2	47.6	47.7
Vehicle Noise:	59.3	57.5	55.1	49.7	58.3	58.8

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: Sherman Rd.
 Lot No: PA-2, 4, 5, 7, 10, & 12 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 45 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 6.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 60.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 80.0 feet		Autos: 0.000				
Barrier Distance to Observer: 20.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 14.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 77.589				
Barrier Elevation: 0.0 feet		Medium Trucks: 77.207				
Road Grade: 0.0%		Heavy Trucks: 76.550				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	69.34	3.38	-2.97	-1.20	-0.61	0.000	0.000
Medium Trucks:	77.62	-13.86	-2.93	-1.20	-0.79	0.000	0.000
Heavy Trucks:	82.14	-17.82	-2.88	-1.20	-1.32	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.6	66.7	64.9	58.8	67.5	68.1
Medium Trucks:	59.6	58.1	51.8	50.2	58.7	58.9
Heavy Trucks:	60.2	58.8	49.8	51.0	59.4	59.5
Vehicle Noise:	69.6	67.8	65.2	60.0	68.6	69.1

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.6	66.7	64.9	58.8	67.5	68.1
Medium Trucks:	59.6	58.1	51.8	50.2	58.7	58.9
Heavy Trucks:	60.2	58.8	49.8	51.0	59.4	59.5
Vehicle Noise:	69.6	67.8	65.2	60.0	68.6	69.1

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: Antelope Rd.
 Lot No: PA-11, 13, 15 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt): 34,100 vehicles		Autos: 15				
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15				
Peak Hour Volume: 3,410 vehicles		Heavy Trucks (3+ Axles): 15				
Vehicle Speed: 40 mph		Vehicle Mix				
Near/Far Lane Distance: 48 feet		VehicleType	Day	Evening	Night	Daily
Site Data		Autos: 77.5% 12.9% 9.6% 97.42%				
Barrier Height: 6.0 feet		Medium Trucks: 84.8% 4.9% 10.3% 1.84%				
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks: 86.5% 2.7% 10.8% 0.74%				
Centerline Dist. to Barrier: 60.0 feet		Noise Source Elevations (in feet)				
Centerline Dist. to Observer: 80.0 feet		Autos: 0.000				
Barrier Distance to Observer: 20.0 feet		Medium Trucks: 2.297				
Observer Height (Above Pad): 14.0 feet		Heavy Trucks: 8.006 Grade Adjustment: 0.0				
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)				
Road Elevation: 0.0 feet		Autos: 77.589				
Barrier Elevation: 0.0 feet		Medium Trucks: 77.207				
Road Grade: 0.0%		Heavy Trucks: 76.550				

FHWA Noise Model Calculations							
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	3.89	-2.97	-1.20	-0.61	0.000	0.000
Medium Trucks:	76.31	-13.35	-2.93	-1.20	-0.79	0.000	0.000
Heavy Trucks:	81.16	-17.31	-2.88	-1.20	-1.32	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.1	65.2	63.4	57.4	66.0	66.6
Medium Trucks:	58.8	57.3	51.0	49.4	57.9	58.1
Heavy Trucks:	59.8	58.4	49.3	50.6	58.9	59.0
Vehicle Noise:	68.3	66.6	63.8	58.7	67.3	67.8

Mitigated Noise Levels (with Topo and barrier attenuation)						
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.1	65.2	63.4	57.4	66.0	66.6
Medium Trucks:	58.8	57.3	51.0	49.4	57.9	58.1
Heavy Trucks:	59.8	58.4	49.3	50.6	58.9	59.0
Vehicle Noise:	68.3	66.6	63.8	58.7	67.3	67.8

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: Rouse Rd.
 Lot No: PA-1, 2, 8 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS					
Highway Data		Site Conditions (Hard = 10, Soft = 15)					
Average Daily Traffic (Adt): 25,900 vehicles		Autos: 15					
Peak Hour Percentage: 10%		Medium Trucks (2 Axles): 15					
Peak Hour Volume: 2,590 vehicles		Heavy Trucks (3+ Axles): 15					
Vehicle Speed: 40 mph		Vehicle Mix					
Near/Far Lane Distance: 45 feet		VehicleType	Day	Evening	Night	Daily	
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%	
Barrier Height: 6.0 feet		Medium Trucks:	84.8%	4.9%	10.3%	1.84%	
Barrier Type (0-Wall, 1-Berm): 0.0		Heavy Trucks:	86.5%	2.7%	10.8%	0.74%	
Centerline Dist. to Barrier: 50.0 feet		Noise Source Elevations (in feet)					
Centerline Dist. to Observer: 70.0 feet		Autos:	0.000				
Barrier Distance to Observer: 20.0 feet		Medium Trucks:	2.297				
Observer Height (Above Pad): 14.0 feet		Heavy Trucks:	8.006	Grade Adjustment:	0.0		
Pad Elevation: 0.0 feet		Lane Equivalent Distance (in feet)					
Road Elevation: 0.0 feet		Autos:	67.748				
Barrier Elevation: 0.0 feet		Medium Trucks:	67.311				
Road Grade: 0.0%		Heavy Trucks:	66.556				

FHWA Noise Model Calculations								
VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten	
Autos:	67.36	2.69	-2.08	-1.20	-0.50	0.000	0.000	
Medium Trucks:	76.31	-14.54	-2.04	-1.20	-0.69	0.000	0.000	
Heavy Trucks:	81.16	-18.50	-1.97	-1.20	-1.30	0.000	0.000	

Unmitigated Noise Levels (without Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.8	64.9	63.1	57.1	65.7	66.3	
Medium Trucks:	58.5	57.0	50.7	49.1	57.6	57.8	
Heavy Trucks:	59.5	58.1	49.0	50.3	58.6	58.8	
Vehicle Noise:	68.0	66.2	63.5	58.4	67.0	67.5	

Mitigated Noise Levels (with Topo and barrier attenuation)							
VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL	
Autos:	66.8	64.9	63.1	57.1	65.7	66.3	
Medium Trucks:	58.5	57.0	50.7	49.1	57.6	57.8	
Heavy Trucks:	59.5	58.1	49.0	50.3	58.6	58.8	
Vehicle Noise:	68.0	66.2	63.5	58.4	67.0	67.5	

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - 6/2/2013

Scenario: Second Floor With Wall
 Road Name: Chambers Av.
 Lot No: PA-6, 7, 14, 15 (MDR)

Project Name: Legado
 Job Number: 8728
 Analyst: A. Wolfe

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS				
Highway Data		Site Conditions (Hard = 10, Soft = 15)				
Average Daily Traffic (Adt):	25,900 vehicles	Autos: 15				
Peak Hour Percentage:	10%	Medium Trucks (2 Axles): 15				
Peak Hour Volume:	2,590 vehicles	Heavy Trucks (3+ Axles): 15				
Vehicle Speed:	40 mph	Vehicle Mix				
Near/Far Lane Distance:	45 feet	VehicleType	Day	Evening	Night	Daily
Site Data		Autos:	77.5%	12.9%	9.6%	97.42%
Barrier Height:	6.0 feet	Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Barrier Type (0-Wall, 1-Berm):	0.0	Heavy Trucks:	86.5%	2.7%	10.8%	0.74%
Centerline Dist. to Barrier:	53.0 feet	Noise Source Elevations (in feet)				
Centerline Dist. to Observer:	73.0 feet	Autos:	0.000			
Barrier Distance to Observer:	20.0 feet	Medium Trucks:	2.297			
Observer Height (Above Pad):	14.0 feet	Heavy Trucks:	8.006	Grade Adjustment: 0.0		
Pad Elevation:	0.0 feet	Lane Equivalent Distance (in feet)				
Road Elevation:	0.0 feet	Autos:	70.843			
Barrier Elevation:	0.0 feet	Medium Trucks:	70.425			
Road Grade:	0.0%	Heavy Trucks:	69.704			

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	67.36	2.69	-2.37	-1.20	-0.54	0.000	0.000
Medium Trucks:	76.31	-14.54	-2.33	-1.20	-0.72	0.000	0.000
Heavy Trucks:	81.16	-18.50	-2.27	-1.20	-1.30	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.5	64.6	62.8	56.8	65.4	66.0
Medium Trucks:	58.2	56.7	50.4	48.8	57.3	57.5
Heavy Trucks:	59.2	57.8	48.7	50.0	58.3	58.5
Vehicle Noise:	67.7	66.0	63.2	58.1	66.7	67.2

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.5	64.6	62.8	56.8	65.4	66.0
Medium Trucks:	58.2	56.7	50.4	48.8	57.3	57.5
Heavy Trucks:	59.2	57.8	48.7	50.0	58.3	58.5
Vehicle Noise:	67.7	66.0	63.2	58.1	66.7	67.2

APPENDIX 10.1:

OPERATIONAL STATIONARY-SOURCE NOISE CALCULATIONS

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STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R1

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	624.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	624.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	624.0	-41.9	-41.9	-41.9	-41.9	-41.9	-41.9
Shielding (Barrier Attenuation)	624.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		35.3	-41.9	-41.9	-41.9	-41.9	-41.9
39 Minute Hourly Adjustment		33.4	-43.8	-43.8	-43.8	-43.8	-43.8

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R1

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	624.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	624.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	624.0	-31.4	-31.4	-31.4	-31.4	-31.4	-31.4
Shielding (Barrier Attenuation)	624.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.7	-31.4	-31.4	-31.4	-31.4	-31.4
60 Minute Hourly Adjustment		28.7	-31.4	-31.4	-31.4	-31.4	-31.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R1

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,494.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	2,494.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,494.0	-54.0	-54.0	-54.0	-54.0	-54.0	-54.0
Shielding (Barrier Attenuation)	2,494.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		9.4	-54.0	-54.0	-54.0	-54.0	-54.0
60 Minute Hourly Adjustment		9.4	-54.0	-54.0	-54.0	-54.0	-54.0

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R1

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	4,296.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	4,296.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	4,296.0	-52.7	-52.7	-52.7	-52.7	-52.7	-52.7
Shielding (Barrier Attenuation)	4,296.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		5.0	-52.7	-52.7	-52.7	-52.7	-52.7
60 Minute Hourly Adjustment		5.0	-52.7	-52.7	-52.7	-52.7	-52.7

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R2

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,064.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	1,054.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,064.0	-46.6	-46.6	-46.6	-46.6	-46.6	-46.6
Shielding (Barrier Attenuation)	1,054.0	-5.3	-5.3	-5.3	-5.3	-5.3	-5.3
Raw (Distance + Barrier)		25.3	-51.9	-51.9	-51.9	-51.9	-51.9
39 Minute Hourly Adjustment		23.4	-53.8	-53.8	-53.8	-53.8	-53.8

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R2

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,064.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	1,054.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,064.0	-34.9	-34.9	-34.9	-34.9	-34.9	-34.9
Shielding (Barrier Attenuation)	1,054.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		19.7	-40.4	-40.4	-40.4	-40.4	-40.4
60 Minute Hourly Adjustment		19.7	-40.4	-40.4	-40.4	-40.4	-40.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R2

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,769.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	2,759.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,769.0	-54.9	-54.9	-54.9	-54.9	-54.9	-54.9
Shielding (Barrier Attenuation)	2,759.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		3.0	-60.4	-60.4	-60.4	-60.4	-60.4
60 Minute Hourly Adjustment		3.0	-60.4	-60.4	-60.4	-60.4	-60.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R2

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,850.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	3,840.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,850.0	-51.7	-51.7	-51.7	-51.7	-51.7	-51.7
Shielding (Barrier Attenuation)	3,840.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		0.5	-57.2	-57.2	-57.2	-57.2	-57.2
60 Minute Hourly Adjustment		0.5	-57.2	-57.2	-57.2	-57.2	-57.2

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R3

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,845.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	2,835.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,845.0	-55.1	-55.1	-55.1	-55.1	-55.1	-55.1
Shielding (Barrier Attenuation)	2,835.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
Raw (Distance + Barrier)		16.7	-60.5	-60.5	-60.5	-60.5	-60.5
39 Minute Hourly Adjustment		14.8	-62.4	-62.4	-62.4	-62.4	-62.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R3

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,845.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	2,835.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,845.0	-41.3	-41.3	-41.3	-41.3	-41.3	-41.3
Shielding (Barrier Attenuation)	2,835.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		13.3	-46.8	-46.8	-46.8	-46.8	-46.8
60 Minute Hourly Adjustment		13.3	-46.8	-46.8	-46.8	-46.8	-46.8

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R3

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,207.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	3,197.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,207.0	-56.1	-56.1	-56.1	-56.1	-56.1	-56.1
Shielding (Barrier Attenuation)	3,197.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		1.8	-61.6	-61.6	-61.6	-61.6	-61.6
60 Minute Hourly Adjustment		1.8	-61.6	-61.6	-61.6	-61.6	-61.6

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R3

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,372.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	1,362.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,372.0	-42.7	-42.7	-42.7	-42.7	-42.7	-42.7
Shielding (Barrier Attenuation)	1,362.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		9.5	-48.2	-48.2	-48.2	-48.2	-48.2
60 Minute Hourly Adjustment		9.5	-48.2	-48.2	-48.2	-48.2	-48.2

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R4

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	7,205.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	7,205.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	7,205.0	-63.2	-63.2	-63.2	-63.2	-63.2	-63.2
Shielding (Barrier Attenuation)	7,205.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		14.0	-63.2	-63.2	-63.2	-63.2	-63.2
39 Minute Hourly Adjustment		12.1	-65.1	-65.1	-65.1	-65.1	-65.1

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R4

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	7,205.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	7,205.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	7,205.0	-47.4	-47.4	-47.4	-47.4	-47.4	-47.4
Shielding (Barrier Attenuation)	7,205.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		12.7	-47.4	-47.4	-47.4	-47.4	-47.4
60 Minute Hourly Adjustment		12.7	-47.4	-47.4	-47.4	-47.4	-47.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R4

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	6,234.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	6,234.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	6,234.0	-61.9	-61.9	-61.9	-61.9	-61.9	-61.9
Shielding (Barrier Attenuation)	6,234.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		1.5	-61.9	-61.9	-61.9	-61.9	-61.9
60 Minute Hourly Adjustment		1.5	-61.9	-61.9	-61.9	-61.9	-61.9

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R4

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,857.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	2,857.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,857.0	-49.1	-49.1	-49.1	-49.1	-49.1	-49.1
Shielding (Barrier Attenuation)	2,857.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		8.6	-49.1	-49.1	-49.1	-49.1	-49.1
60 Minute Hourly Adjustment		8.6	-49.1	-49.1	-49.1	-49.1	-49.1

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R5

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	5,568.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	5,568.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	5,568.0	-60.9	-60.9	-60.9	-60.9	-60.9	-60.9
Shielding (Barrier Attenuation)	5,568.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		16.3	-60.9	-60.9	-60.9	-60.9	-60.9
39 Minute Hourly Adjustment		14.4	-62.8	-62.8	-62.8	-62.8	-62.8

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R5

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	5,568.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	5,568.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	5,568.0	-45.7	-45.7	-45.7	-45.7	-45.7	-45.7
Shielding (Barrier Attenuation)	5,568.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		14.4	-45.7	-45.7	-45.7	-45.7	-45.7
60 Minute Hourly Adjustment		14.4	-45.7	-45.7	-45.7	-45.7	-45.7

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R5

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	4,535.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	4,535.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	4,535.0	-59.2	-59.2	-59.2	-59.2	-59.2	-59.2
Shielding (Barrier Attenuation)	4,535.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		4.2	-59.2	-59.2	-59.2	-59.2	-59.2
60 Minute Hourly Adjustment		4.2	-59.2	-59.2	-59.2	-59.2	-59.2

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R5

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,817.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	2,817.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,817.0	-49.0	-49.0	-49.0	-49.0	-49.0	-49.0
Shielding (Barrier Attenuation)	2,817.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		8.7	-49.0	-49.0	-49.0	-49.0	-49.0
60 Minute Hourly Adjustment		8.7	-49.0	-49.0	-49.0	-49.0	-49.0

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R6

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,074.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	3,064.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,074.0	-55.8	-55.8	-55.8	-55.8	-55.8	-55.8
Shielding (Barrier Attenuation)	3,064.0	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
Raw (Distance + Barrier)		16.0	-61.2	-61.2	-61.2	-61.2	-61.2
39 Minute Hourly Adjustment		14.1	-63.1	-63.1	-63.1	-63.1	-63.1

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R6

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,074.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	3,064.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,074.0	-41.8	-41.8	-41.8	-41.8	-41.8	-41.8
Shielding (Barrier Attenuation)	3,064.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		12.8	-47.3	-47.3	-47.3	-47.3	-47.3
60 Minute Hourly Adjustment		12.8	-47.3	-47.3	-47.3	-47.3	-47.3

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R6

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,057.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	2,047.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,057.0	-52.3	-52.3	-52.3	-52.3	-52.3	-52.3
Shielding (Barrier Attenuation)	2,047.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		5.6	-57.8	-57.8	-57.8	-57.8	-57.8
60 Minute Hourly Adjustment		5.6	-57.8	-57.8	-57.8	-57.8	-57.8

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R6

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	2,659.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	2,649.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	2,659.0	-48.5	-48.5	-48.5	-48.5	-48.5	-48.5
Shielding (Barrier Attenuation)	2,649.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		3.7	-54.0	-54.0	-54.0	-54.0	-54.0
60 Minute Hourly Adjustment		3.7	-54.0	-54.0	-54.0	-54.0	-54.0

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R7

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,336.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	1,336.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,336.0	-48.5	-48.5	-48.5	-48.5	-48.5	-48.5
Shielding (Barrier Attenuation)	1,336.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.7	-48.5	-48.5	-48.5	-48.5	-48.5
39 Minute Hourly Adjustment		26.8	-50.4	-50.4	-50.4	-50.4	-50.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R7

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,336.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	1,336.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,336.0	-36.4	-36.4	-36.4	-36.4	-36.4	-36.4
Shielding (Barrier Attenuation)	1,336.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		23.7	-36.4	-36.4	-36.4	-36.4	-36.4
60 Minute Hourly Adjustment		23.7	-36.4	-36.4	-36.4	-36.4	-36.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R7

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	309.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	309.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	309.0	-35.8	-35.8	-35.8	-35.8	-35.8	-35.8
Shielding (Barrier Attenuation)	309.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		27.6	-35.8	-35.8	-35.8	-35.8	-35.8
60 Minute Hourly Adjustment		27.6	-35.8	-35.8	-35.8	-35.8	-35.8

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R7

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,735.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	3,735.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,735.0	-51.4	-51.4	-51.4	-51.4	-51.4	-51.4
Shielding (Barrier Attenuation)	3,735.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		6.3	-51.4	-51.4	-51.4	-51.4	-51.4
60 Minute Hourly Adjustment		6.3	-51.4	-51.4	-51.4	-51.4	-51.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R8

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,672.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	1,672.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,672.0	-50.5	-50.5	-50.5	-50.5	-50.5	-50.5
Shielding (Barrier Attenuation)	1,672.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		26.7	-50.5	-50.5	-50.5	-50.5	-50.5
39 Minute Hourly Adjustment		24.8	-52.4	-52.4	-52.4	-52.4	-52.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R8

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	1,672.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	1,672.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet		

20 = 6 dBA per doubling of distance
15 = 4.5 dBA per doubling of distance

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	1,672.0	-37.9	-37.9	-37.9	-37.9	-37.9	-37.9
Shielding (Barrier Attenuation)	1,672.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		22.2	-37.9	-37.9	-37.9	-37.9	-37.9
60 Minute Hourly Adjustment		22.2	-37.9	-37.9	-37.9	-37.9	-37.9

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R8

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	613.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	613.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	613.0	-41.8	-41.8	-41.8	-41.8	-41.8	-41.8
Shielding (Barrier Attenuation)	613.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		21.6	-41.8	-41.8	-41.8	-41.8	-41.8
60 Minute Hourly Adjustment		21.6	-41.8	-41.8	-41.8	-41.8	-41.8

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R8

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	3,970.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	3,970.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	3,970.0	-52.0	-52.0	-52.0	-52.0	-52.0	-52.0
Shielding (Barrier Attenuation)	3,970.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		5.7	-52.0	-52.0	-52.0	-52.0	-52.0
60 Minute Hourly Adjustment		5.7	-52.0	-52.0	-52.0	-52.0	-52.0

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R9

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	651.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	641.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	651.0	-42.3	-42.3	-42.3	-42.3	-42.3	-42.3
Shielding (Barrier Attenuation)	641.0	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2
Raw (Distance + Barrier)		29.7	-47.5	-47.5	-47.5	-47.5	-47.5
39 Minute Hourly Adjustment		27.8	-49.4	-49.4	-49.4	-49.4	-49.4

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R9

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	651.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	641.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	651.0	-31.7	-31.7	-31.7	-31.7	-31.7	-31.7
Shielding (Barrier Attenuation)	641.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		22.9	-37.2	-37.2	-37.2	-37.2	-37.2
60 Minute Hourly Adjustment		22.9	-37.2	-37.2	-37.2	-37.2	-37.2

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R9

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	85.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	75.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	85.0	-24.6	-24.6	-24.6	-24.6	-24.6	-24.6
Shielding (Barrier Attenuation)	75.0	-5.7	-5.7	-5.7	-5.7	-5.7	-5.7
Raw (Distance + Barrier)		33.1	-30.3	-30.3	-30.3	-30.3	-30.3
60 Minute Hourly Adjustment		33.1	-30.3	-30.3	-30.3	-30.3	-30.3

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R9

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	4,687.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	4,677.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	10.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	4,687.0	-53.4	-53.4	-53.4	-53.4	-53.4	-53.4
Shielding (Barrier Attenuation)	4,677.0	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
Raw (Distance + Barrier)		-1.2	-58.9	-58.9	-58.9	-58.9	-58.9
60 Minute Hourly Adjustment		-1.2	-58.9	-58.9	-58.9	-58.9	-58.9

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R10

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	233.0 feet	Barrier Height:	6.0 feet
Noise Distance to Barrier:	200.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	33.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	233.0	-33.4	-33.4	-33.4	-33.4	-33.4	-33.4
Shielding (Barrier Attenuation)	200.0	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
Raw (Distance + Barrier)		38.2	-39.0	-39.0	-39.0	-39.0	-39.0
39 Minute Hourly Adjustment		36.3	-40.9	-40.9	-40.9	-40.9	-40.9

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R10

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	83.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	83.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	83.0	-18.3	-18.3	-18.3	-18.3	-18.3	-18.3
Shielding (Barrier Attenuation)	83.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		41.8	-18.3	-18.3	-18.3	-18.3	-18.3
60 Minute Hourly Adjustment		41.8	-18.3	-18.3	-18.3	-18.3	-18.3

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R10

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	269.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	269.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	269.0	-34.6	-34.6	-34.6	-34.6	-34.6	-34.6
Shielding (Barrier Attenuation)	269.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		28.8	-34.6	-34.6	-34.6	-34.6	-34.6
60 Minute Hourly Adjustment		28.8	-34.6	-34.6	-34.6	-34.6	-34.6

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R10

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	5,079.0 feet	Barrier Height:	0.0 feet
Noise Distance to Barrier:	5,079.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	0.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	5,079.0	-54.1	-54.1	-54.1	-54.1	-54.1	-54.1
Shielding (Barrier Attenuation)	5,079.0	0.0	0.0	0.0	0.0	0.0	0.0
Raw (Distance + Barrier)		3.6	-54.1	-54.1	-54.1	-54.1	-54.1
60 Minute Hourly Adjustment		3.6	-54.1	-54.1	-54.1	-54.1	-54.1

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R11

Source: Roof-Top Air Conditioning Unit
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	415.0 feet	Barrier Height:	12.0 feet
Noise Distance to Barrier:	385.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	30.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	20.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	77.2	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	415.0	-38.4	-38.4	-38.4	-38.4	-38.4	-38.4
Shielding (Barrier Attenuation)	385.0	-8.6	-8.6	-8.6	-8.6	-8.6	-8.6
Raw (Distance + Barrier)		30.2	-47.0	-47.0	-47.0	-47.0	-47.0
39 Minute Hourly Adjustment		28.3	-48.9	-48.9	-48.9	-48.9	-48.9

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R11

Source: Parking Lot Vehicle Movements
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	415.0 feet	Barrier Height:	12.0 feet
Noise Distance to Barrier:	385.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	30.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	15.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	60.1	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	415.0	-28.8	-28.8	-28.8	-28.8	-28.8	-28.8
Shielding (Barrier Attenuation)	385.0	-9.8	-9.8	-9.8	-9.8	-9.8	-9.8
Raw (Distance + Barrier)		21.5	-38.6	-38.6	-38.6	-38.6	-38.6
60 Minute Hourly Adjustment		21.5	-38.6	-38.6	-38.6	-38.6	-38.6

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R11

Source: Sports Park Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	877.0 feet	Barrier Height:	12.0 feet
Noise Distance to Barrier:	847.0 feet	Noise Source Height:	4.0 feet
Barrier Distance to Observer:	30.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	5.0	63.4	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	877.0	-44.9	-44.9	-44.9	-44.9	-44.9	-44.9
Shielding (Barrier Attenuation)	847.0	-9.8	-9.8	-9.8	-9.8	-9.8	-9.8
Raw (Distance + Barrier)		8.7	-54.7	-54.7	-54.7	-54.7	-54.7
60 Minute Hourly Adjustment		8.7	-54.7	-54.7	-54.7	-54.7	-54.7

STATIONARY SOURCE NOISE PREDICTION MODEL

3/6/2018

Observer Location: R11

Source: Open Space Activity
Condition: Operational

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	5,407.0 feet	Barrier Height:	12.0 feet
Noise Distance to Barrier:	5,377.0 feet	Noise Source Height:	5.0 feet
Barrier Distance to Observer:	30.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	10.0	57.7	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	5,407.0	-54.7	-54.7	-54.7	-54.7	-54.7	-54.7
Shielding (Barrier Attenuation)	5,377.0	-9.7	-9.7	-9.7	-9.7	-9.7	-9.7
Raw (Distance + Barrier)		-6.7	-64.4	-64.4	-64.4	-64.4	-64.4
60 Minute Hourly Adjustment		-6.7	-64.4	-64.4	-64.4	-64.4	-64.4

APPENDIX 11.1:

TEMPORARY CONSTRUCTION NOISE BARRIER ATTENUATION

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STATIONARY SOURCE NOISE PREDICTION MODEL

3/14/2018

Observer Location: R7

Source: Highest Construction Activity
Condition: Construction Mitigation

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	200.0 feet	Barrier Height:	8.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	190.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	50.0	79.6	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	200.0	-12.0	-12.0	-12.0	-12.0	-12.0	-12.0
Shielding (Barrier Attenuation)	10.0	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9

STATIONARY SOURCE NOISE PREDICTION MODEL

3/14/2018

Observer Location: R9

Source: Highest Construction Activity
Condition: Construction Mitigation

Project Name: Legado

Job Number: 8728

Analyst: A. Wolfe

NOISE MODEL INPUTS

Noise Distance to Observer	200.0 feet	Barrier Height:	8.0 feet
Noise Distance to Barrier:	10.0 feet	Noise Source Height:	8.0 feet
Barrier Distance to Observer:	190.0 feet	Observer Height:	5.0 feet
Observer Elevation:	0.0 feet	Barrier Type (0-Wall, 1-Berm):	0
Noise Source Elevation:	0.0 feet	Drop Off Coefficient:	20.0
Barrier Elevation:	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq	L50	L25	L8	L2	Lmax
Reference (Sample)	50.0	79.6	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	200.0	-12.0	-12.0	-12.0	-12.0	-12.0	-12.0
Shielding (Barrier Attenuation)	10.0	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9

STATIONARY SOURCE NOISE PREDICTION MODEL

3/14/2018

Observer Location: R10**Project Name:** Legado**Source:** Highest Construction Activity**Job Number:** 8728**Condition:** Construction Mitigation**Analyst:** A. Wolfe

NOISE MODEL INPUTS

<i>Noise Distance to Observer</i>	200.0 feet	Barrier Height:	8.0 feet
<i>Noise Distance to Barrier:</i>	10.0 feet	<i>Noise Source Height:</i>	8.0 feet
<i>Barrier Distance to Observer:</i>	190.0 feet	<i>Observer Height:</i>	5.0 feet
<i>Observer Elevation:</i>	0.0 feet	<i>Barrier Type (0-Wall, 1-Berm):</i>	0
<i>Noise Source Elevation:</i>	0.0 feet	<i>Drop Off Coefficient:</i>	20.0
<i>Barrier Elevation:</i>	0.0 feet	20 = 6 dBA per doubling of distance 15 = 4.5 dBA per doubling of distance	

NOISE MODEL PROJECTIONS

<i>Noise Level</i>	<i>Distance (feet)</i>	<i>Leq</i>	<i>L50</i>	<i>L25</i>	<i>L8</i>	<i>L2</i>	<i>Lmax</i>
Reference (Sample)	50.0	79.6	0.0	0.0	0.0	0.0	0.0
Distance Attenuation	200.0	-12.0	-12.0	-12.0	-12.0	-12.0	-12.0
Shielding (Barrier Attenuation)	10.0	-4.9	-4.9	-4.9	-4.9	-4.9	-4.9

APPENDIX 11.2:

TEMPORARY CONSTRUCTION NOISE BARRIER EXAMPLE PHOTOS

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Temporary Construction Noise Barrier Examples



I-Beam & Acoustic Material 01



I-Beam & Acoustic Material 02



I-Beam & Acoustic Material 03



K-Rail Plywood & Acoustic Material



K-Rail Temporary Fence & Acoustic Material



K-Rail-Mounted Acoustic Material 01

Temporary Construction Noise Barrier Examples



Pillar & Acoustic Material



Straw Bales 01



Straw Bales 02



Temporary Fence & Acoustic Material 01



Temporary Fence & Acoustic Material 02