EXISTING TRAFFIC NOISE

EXISTING TRAFFIC NOISE LEVELS

Project Number: 2020-135.01
Project Name: Colton La Qunita Inn & Suites

Background Information

Model Description:	FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.		
Analysis Scenario(s):	Existing Conditions		
Source of Traffic Volumes:	Caltrans Census Program (2019)		
Community Noise Descriptor:	L_{dn}:	CNEL:	X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels - Existing Conditions

Analysis Condition														Traffic Volumes									
Roadway Segment	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor[1]	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hou dB(A) L_{eq}	24-Hour dB(A) CNEL	24-Hour Day	24-Hour Eve	24-Hour Night	Peak Hour MTp	Peak Hour HTp	24-Hour MTd	24-Hour HTd	24-Hour MTe	24-Hour HTe	24-Hour MTn	24-Hour HTn
Interstate 215	Project Site	8	5	13,900	155,000	65	200	0	0	1.8%	0.7%	78.0	77.7	120,435	19,685	14,880	219	87	2,439	967	141	31	210	87

[1] Distance is from the centerline of the roadway segment to the receptor location.

PROJECT CONSTRUCTION NOISE

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/26/2021
Case Description: Colton La Qunita - Demolition Noise

Description	**Affected Land Use**
Multi-Family Residences	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Backhoe	No	40		77.6	850	0
Backhoe	No	40		77.6	850	0
Backhoe	No	40		77.6	850	0
Concrete Saw	No	20		89.6	850	0
Dozer	No	40		81.7	850	0

Calculated (dBA)

Equipment		***Lmax**	**Leq**
Backhoe		53	49
Backhoe		53	49
Backhoe		53	49
Concrete Saw		65	58
Dozer		57.1	53.1
	Total	65	**60.3**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/26/2021
Case Description: Colton La Qunita - Site Preparation

Description	**Affected Land Use**
Multi-Family Residences	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Grader	No	40	85		850	0
Backhoe	No	40		77.6	850	0
Dozer	No	40		81.7	850	0

Calculated (dBA)

Equipment		***Lmax**	**Leq**
Grader		60.4	56.4
Backhoe		53	49
Dozer		57.1	53.1
	Total	60.4	**58.6**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/26/2021
Case Description: Colton La Quinta - Grading

Description	**Affected Land Use**
Multi-Family Residences	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Dozer	No	40		81.7	850	0
Backhoe	No	40		77.6	850	0
Grader	No	40	85		850	0

Calculated (dBA)

Equipment		***Lmax**	**Leq**
Dozer		57.1	53.1
Backhoe		53	49
Grader		60.4	56.4
	Total	60.4	**58.6**

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/26/2021
Case Description: Colton La Quinta - Building Construction, Paving

Description	**Affected Land Use**
Multi-Family Residences	Residential

Description	**Impact Device**	**Usage(%)**	**Equipment Spec Lmax (dBA)**	**Actual Lmax (dBA)**	**Receptor Distance (feet)**	**Estimated Shielding (dBA)**
Compressor (air)	No	40		77.7	850	0
Drum Mixer	No	50		80	850	0
Generator	No	50		80.6	850	0
Crane	No	16		80.6	850	0
Gradall	No	40		83.4	850	0
Paver	No	50		77.2	850	0
Roller	No	20		80	850	0
Backhoe	No	40		77.6	850	0
Tractor	No	40	84		850	0
Pavement Scarafier	No	20		89.5	850	0
Welder / Torch	No	40		74	850	0
Welder / Torch	No	40		74	850	0
Welder / Torch	No	40		74	850	0

Calculated (dBA)

Equipment	***Lmax**	**Leq**
Compressor (air)	53.1	49.1
Drum Mixer	55.4	52.4
Generator	56	53

Crane		55.9	48
Gradall		58.8	54.8
Paver		52.6	49.6
Roller		55.4	48.4
Backhoe		53	49
Tractor		59.4	55.4
Pavement Scarafier		64.9	57.9
Welder / Torch		49.4	45.4
Welder / Torch		49.4	45.4
Welder / Torch		49.4	45.4
	Total	64.9	**63.3**

*Calculated Lmax is the Loudest value.