



KUNZMAN ASSOCIATES, INC.

**VARIETY STORE PROJECT - MORONGO VALLEY**

**NOISE EVALUATION**

**December 16, 2016**



December 16, 2016

Mr. David Friedberg, Project Manager  
SIMONCRE ASHFORD, LLC  
6900 East 2nd Street  
Scottsdale, AZ 85251

Dear Mr. Friedberg:

## INTRODUCTION

The firm of Kunzman Associates, Inc. is pleased to provide this noise evaluation for the Variety Store Project - Morongo Valley. The proposed development consists of a 9,100 square foot variety store and is located adjacent to the northern side of Twentynine Palms Highway (SR-62) just northeast of Vale Drive in the Morongo Valley area of unincorporated San Bernardino County (see Figure 1). Figure 2 illustrates the project site plan.

Although this is a technical letter, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to noise analysis, a list of acronyms and a glossary of terms have been provided in Appendix A and Appendix B of this report, respectively.

## PROJECT DESCRIPTION AND NOISE SOURCES

1. *Describe the project with emphasis on all aspects of the project that may generate noise, including potential noise sources, times of day noises may occur, duration, if noises are restricted to indoor or outdoor areas and if there are plans to change the size or intensity of operations.*

The Variety Store Project - Morongo Valley is proposed to consist of a 9,100 square foot commercial building, installation of a lighted pylon sign, a delivery pad, 36 parking spaces, and a paved driveway. Hours of operation will be 8:00 AM to 10:00 PM daily. No size or intensity changes to the project are proposed.

Exterior noise sources associated with the project would include heating, ventilation and air conditioning unit(s), delivery trucks, unloading activities, and typical parking lot noise including vehicle start-up noise, doors closing, car alarms, conversation, and trash dumpsters. With the exception of HVAC, these typical noise commercial and parking lot noise sources are expected to occur for less than a minute at a time and are unlikely to occur simultaneously. The HVAC is expected to be in operation during business hours. Indoor activities associated with the proposed project would not be readily audible outside or at nearby sensitive receptors.

The proposed development is projected to generate approximately 583 daily vehicle trips, 35 of which occur during the morning peak hour and 62 of which occur during the evening peak hour<sup>1</sup>. Off-site project generated vehicle noise would not substantially increase ambient noise levels.

## ZONING AND CURRENT LAND USES

2. *The Identify the existing zoning designation for the project site properties to the north, south, east and west.*

### Land Uses North of the Project Site

The site's northern boundary is adjacent to zoned Multiple Residential (see Figure 3). The land is currently undeveloped.

### Land Uses South of the Project Site

The southern boundary of the project site abuts Twentynine Palms Highway (SR-62). Land just south of Twentynine Palms Highway (SR-62) is zoned General Commercial. There is currently a vacant and boarded up residential dwelling unit on this property.

### Land Uses East of the Project Site

Land east of the project site is zoned General Commercial and is currently vacant.

### Land Uses West of the Project Site

Land west of the project site is zoned General Commercial and is currently vacant.

3. *Distances to the adjacent properties from the adjacent or onsite noise sources.*

Distances to adjacent property lines from on-site noise sources are shown on Figure 4.

4. *Is the noise a fixed source (business, machinery, etc.) or a mobile source (roadway, rail line, etc.)?*

The proposed project is a commercial building and therefore is considered to be a fixed/stationary noise source.

5. *Are there any structures or other obstacles that may aid in reducing the noise exposure?*

The proposed building will shield land uses to the north from noise associated with parking areas. A six-foot high concrete masonry unit wall is proposed along the northern property boundary.

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<sup>1</sup> Source: Dollar General – Morongo Valley Focused Traffic Analysis, Kunzman Associates, Inc. (July 26, 2015).

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6. *Provide an area map (copy of Thomas Guide page or other map noting the location of the facility).*

Figure 1 shows the project location.

7. *Provide a facility map (hand drawn is adequate) noting the information in questions 2, 3, 4 and 5.*

The proposed site plan is provided on Figure 2. The surrounding existing land uses, proposed noise sources and dimensions are provided on Figure 4.

Kunzman Associates, Inc. is pleased to provide this noise evaluation. If you have questions or if we can be of further assistance, please do not hesitate to call at (714) 973-8383.

Sincerely,

KUNZMAN ASSOCIATES, INC.



Roma Stromberg, INCE/M.S.  
Senior Associate

JN 6675b



Figure 1  
Project Location Map



## Figure 2 Site Plan

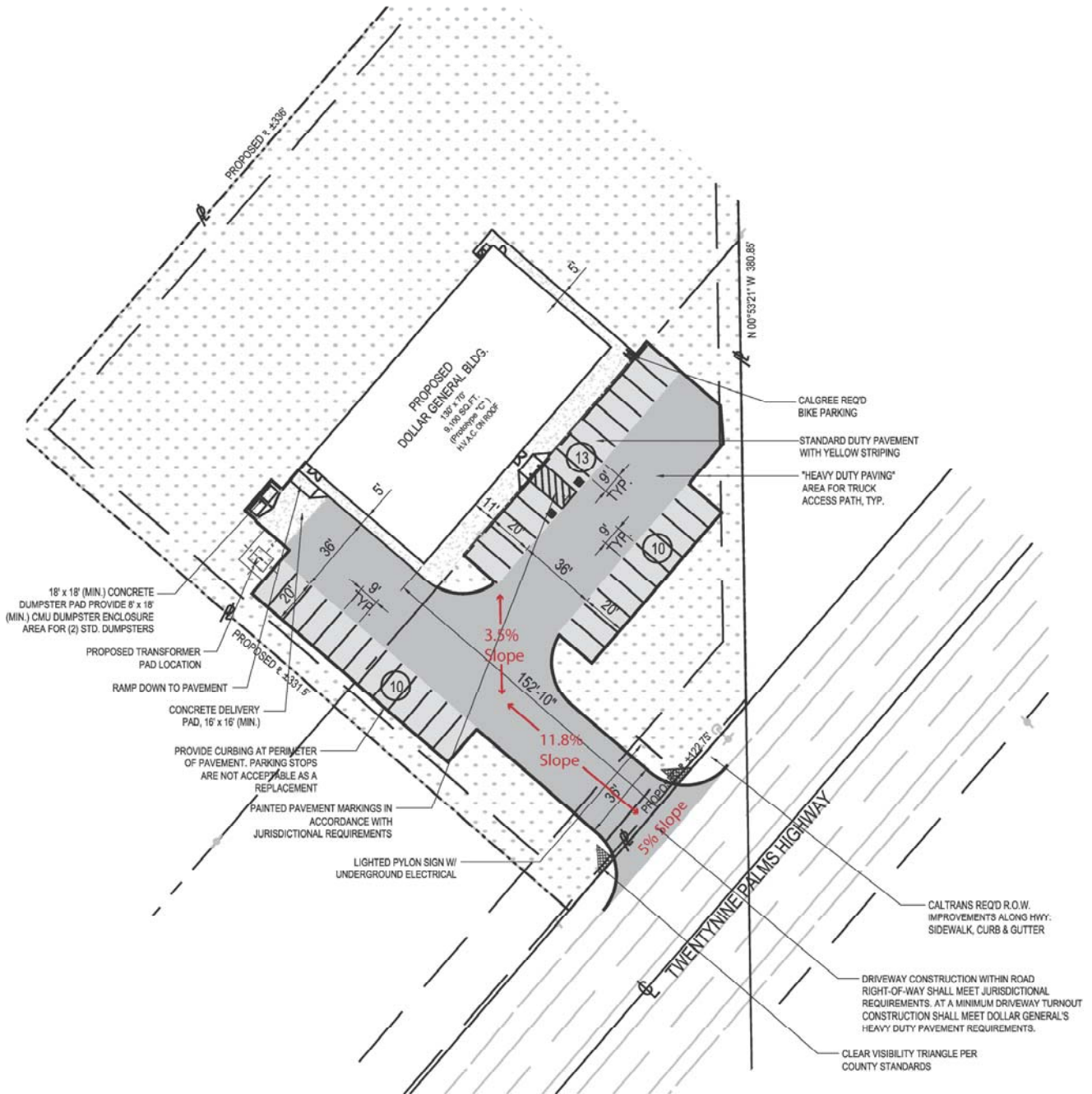
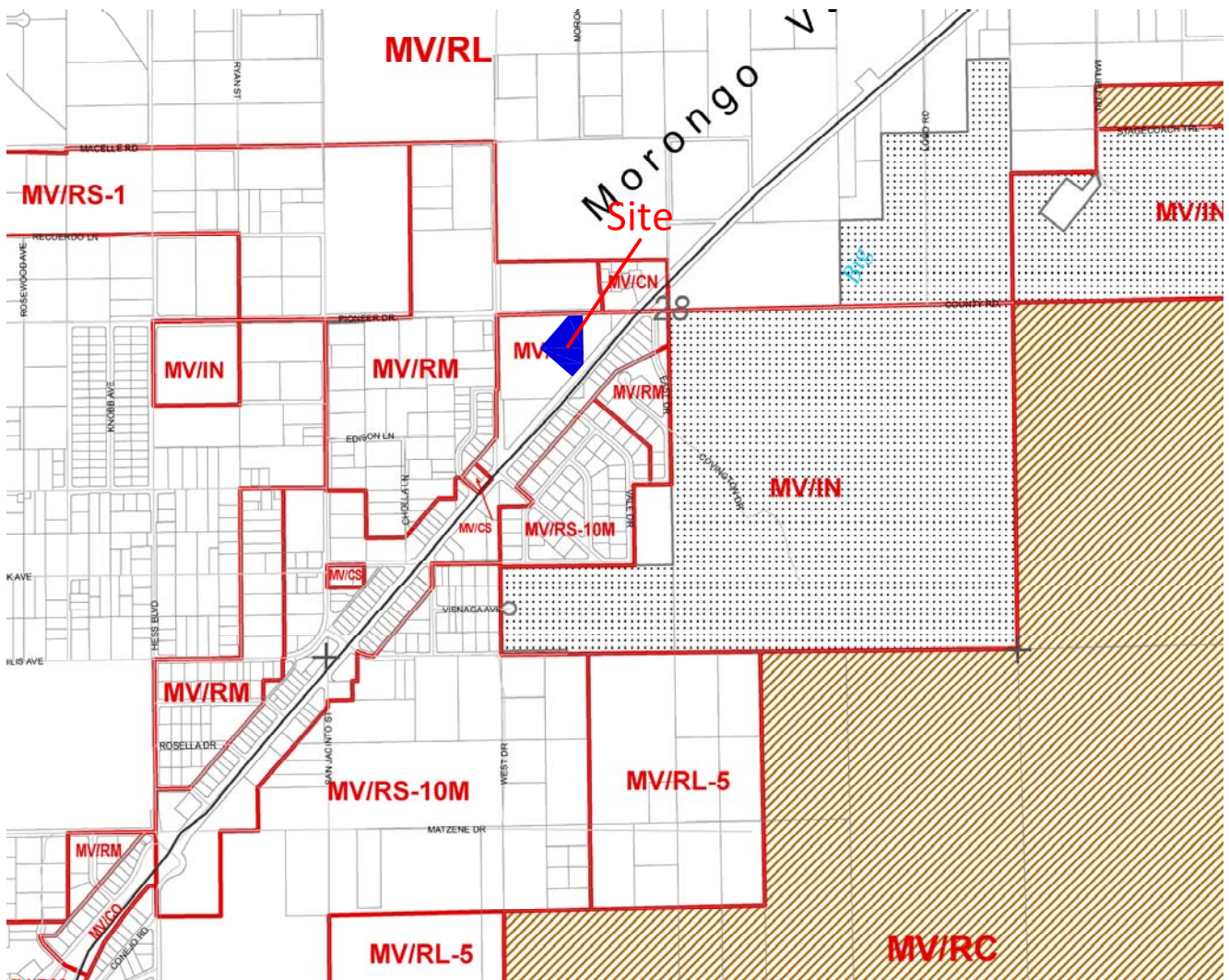




Figure 3  
Existing Zoning



AG – Agriculture  
CG – General Commercial  
CH – Highway Commercial  
CN – Neighborhood Commercial  
CO – Office Commercial  
CR – Rural Commercial

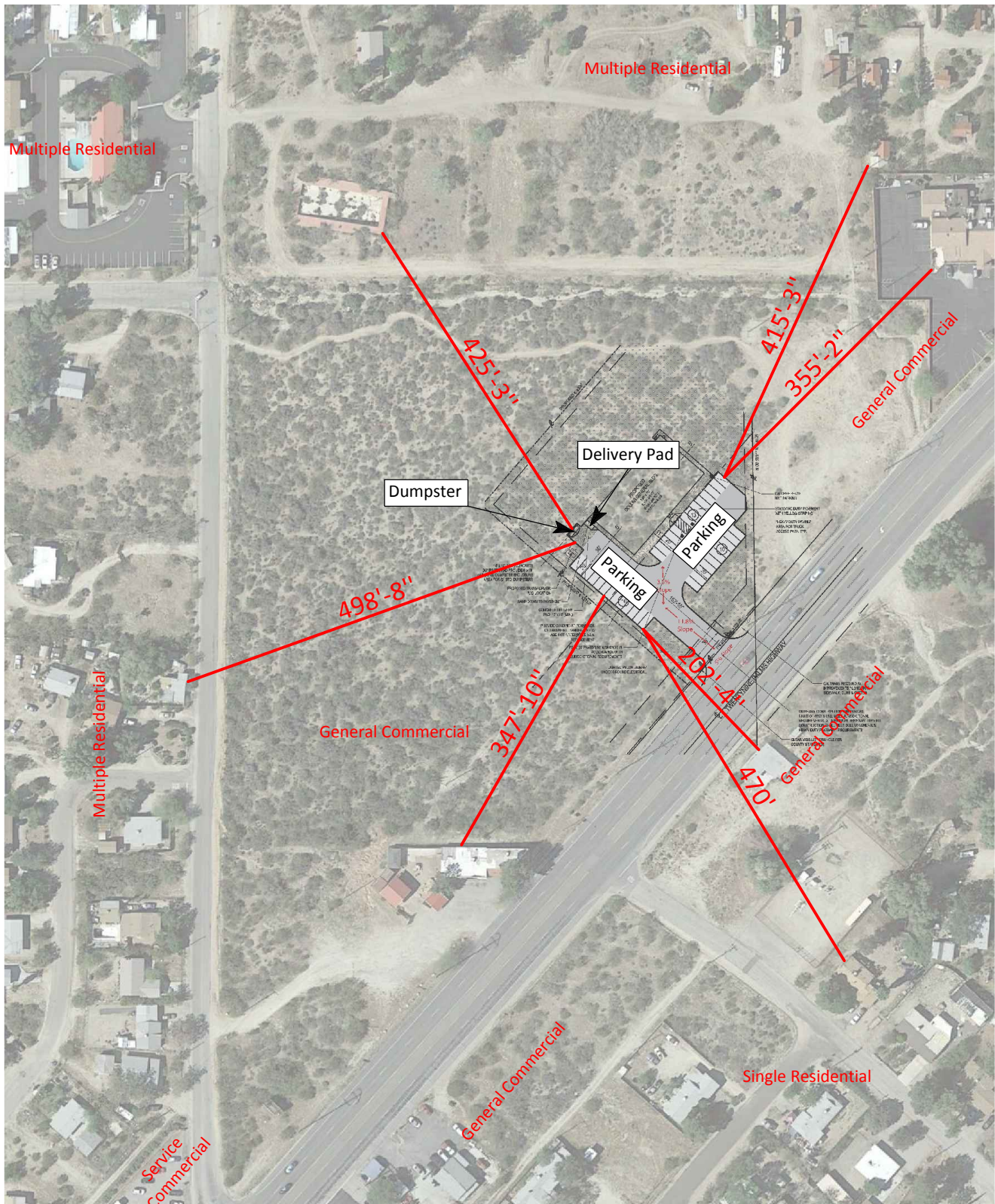
CS – Service Commercial  
FW – Floodway  
IC – Community Industrial  
IN – Institutional  
IR – Regional Industrial  
OS – Open Space

RC – Resource Conservation  
RL – Rural Living  
RM – Multiple Residential  
RS – Single Residential  
SD – Special Development  
SP – Specific Plan





Figure 4  
Existing and Proposed Noise Source Locations





## **APPENDIX A**

### **List of Acronyms**

Term	Definition
ADT	Average Daily Traffic
ANSI	American National Standard Institute
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
D/E/N	Day / Evening / Night
dB	Decibel
dBA or dB(A)	Decibel "A-Weighted"
dBA/DD	Decibel per Double Distance
dBA $L_{eq}$	Average Noise Level over a Period of Time
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
$L_{02}, L_{08}, L_{50}, L_{90}$	A-weighted Noise Levels at 2 percent, 8 percent, 50 percent, and 90 percent, respectively, of the time period
$L_{dn}$	Day-Night Average Noise Level
$L_{eq}(x)$	Equivalent Noise Level for "x" period of time
$L_{eq}$	Equivalent Noise Level
$L_{max}$	Maximum Level of Noise (measured using a sound level meter)
$L_{min}$	Minimum Level of Noise (measured using a sound level meter)
LOS C	Level of Service C
OPR	California Governor's Office of Planning and Research
PPV	Peak Particle Velocities
RCNM	Road Construction Noise Model
REMEL	Reference Energy Mean Emission Level
RMS	Root Mean Square

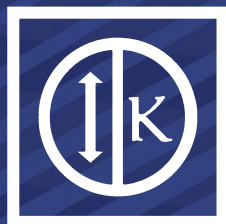


## **APPENDIX B**

### **Definitions of Acoustical Terms**

Term	Definition
Decibel, dB	A logarithmic unit of noise level measurement that relates the energy of a noise source to that of a constant reference level; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hertz	In a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., the number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear.
Root Mean Square (RMS)	A measure of the magnitude of a varying noise source quantity. The name derives from the calculation of the square root of the mean of the squares of the values. It can be calculated from either a series of lone values or a continuous varying function.
Fast/Slow Meter Response	The fast and slow meter responses are different settings on a sound level meter. The fast response setting takes a measurement every 100 milliseconds, while a slow setting takes one every second.
$L_{02}$ , $L_{08}$ , $L_{50}$ , $L_{90}$	The A-weighted noise levels that are equaled or exceeded by a fluctuating sound level, 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period, respectively.
Equivalent Continuous Noise Level, $L_{eq}$	A level of steady state sound that in a stated time period, and a stated location, has the same A-weighted sound energy as the time-varying sound.
$L_{max}$ , $L_{min}$	$L_{max}$ is the RMS (root mean squared) maximum level of a noise source or environment measured on a sound level meter, during a designated time interval, using fast meter response. $L_{min}$ is the minimum level.
Ambient Noise Level	The all-encompassing noise environment associated with a given environment, at a specified time, usually a composite of sound from many sources, at many directions, near and far, in which usually no particular sound is dominant.
Offensive/Offending/Intrusive Noise	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of sound depends on its amplitude, duration, frequency, and time of occurrence, and tonal information content as well as the prevailing ambient noise level.





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