

**From:** [Slater, Melvin](#)  
**To:** [Jose Macias](#)  
**Subject:** Cactus Redi-Mix  
**Date:** Wednesday, May 15, 2024 1:17:40 PM  
**Attachments:** [20240502152952052.pdf](#)  
[20240515125216551.pdf](#)  
[20240515130619473.pdf](#)

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**External Sender** - From: ("Slater, Melvin"  
<[melvin@amarkaz.com](mailto:melvin@amarkaz.com)>)

This message came from outside your organization.

Sample proposed batch plant

Sound examples

Attached surrounding properties look like mostly storage or vacant land and city waste treatment plant, I would presume they would all be vacant between 10pm and 6am.

Looking for approval at 85 decibels same as city traffic. Batch plants average 83 decibels, Mixer truck 85 decibels, Front end loader 80 decibels,

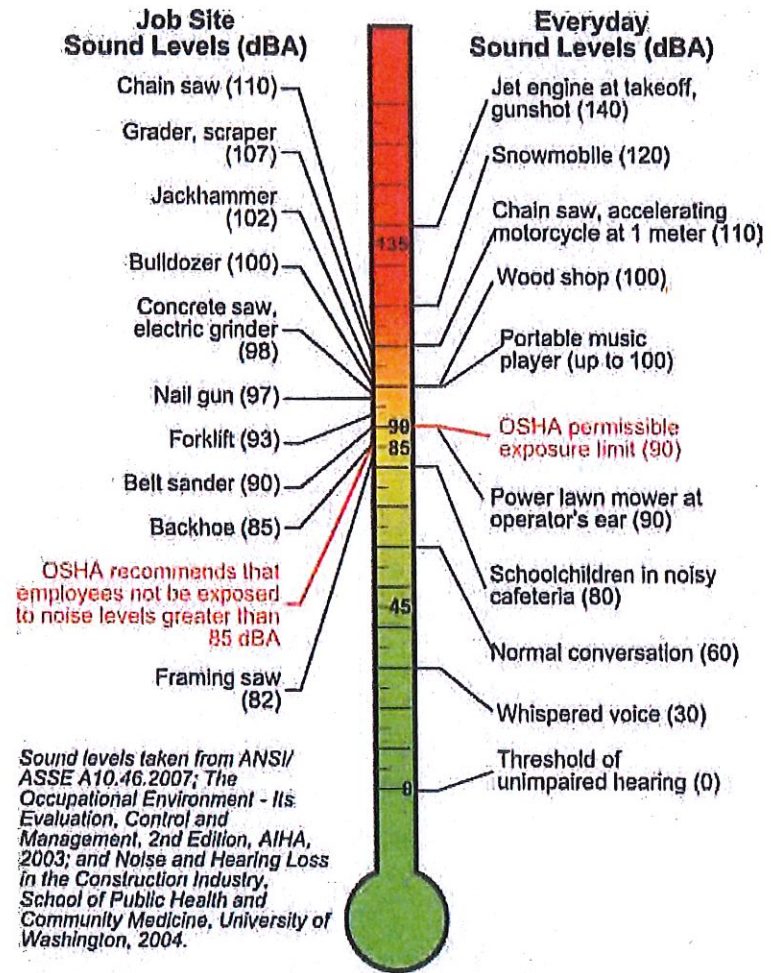
Closest residential Pueblo El Mirage RV resort is @ 1560 LF away. Attached APWRA chart shows at 800 LF at that distance sound would be 53 to 62 decibels at residential area.

Attached APWRA chart shows at 1600 LF at that distance sound would be 43 to 53 decibels at residential area. We are @ 1,560 LF away.

Melvin Slater  
Cactus Redi-mix  
Acoma Concrete LLC  
Amark Contracting  
623-581-8000  
7060 W. Augusta Ave  
Glendale Az 85303

### Sound Level Chart

Equipment and daily activities at construction job sites can expose workers to high levels of noise. Sound levels on the chart below are listed in decibels (dBA) – the larger the number, the higher the volume or decibel level. How loud the noise is (volume), how long the noise lasts, and how close you are to the noise are all important in determining the hazard.



### *Decibel Level Comparison Chart*

<b>Environmental Noise</b>	<i>dB</i> A
Jet engine at 100'	140
<b>Pain Begins</b>	<i>125</i>
Pneumatic chipper at ear	120
Chain saw at 3'	110
Power mower	107
Subway train at 200'	95
Walkman on 5/10	94
<i>Level at which sustained exposure may result in hearing loss</i>	<i>80-90</i>
City Traffic	85
Telephone dial tone	80
Chamber music, in a small auditorium	75-85
Vacuum cleaner	75
Normal conversation	60-70
Business Office	60-65
Household refrigerator	55
Suburban area at night	40
Whisper	25
Quiet natural area with no wind	20
Threshold of hearing	0

Note: dBA = Decibels, A weighted



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# NOISE



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- [Measurement](#)
- [Noise Barriers](#)
- [Noise Compatible Planning](#)
- [Noise Effect on Wildlife](#)
- [Regulation and Guidance](#)
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- [Tire Pavement Noise](#)
- [Traffic Noise Model](#)
- [Training](#)

**Contacts**

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Phone: 303-594-8556

## Construction Noise Handbook

### 9.0 Construction Equipment Noise Levels and Ranges

#### 9.1 Equipment Type Inventory and Related Emission Levels

Noise levels generated by individual pieces of construction equipment and specific construction operations form the basis for the prediction of construction-related noise levels. A variety of information exists related to sound emissions related to such equipment and operations data transcends the period beginning in the 1970s thru 2006. This information exists for stationary and mobile sources and for steady, intermittent, and impulse type generator noise.

##### 9.1.1 Stationary Equipment

Stationary equipment consists of equipment that generates noise from one general area; includes items such as pumps, generators, compressors, etc. These types of equipment operate at a constant noise level under normal operation and are classified as non-impulsive equipment. Other types of stationary equipment such as pile drivers, jackhammers, pile breakers, blasting operations, etc., produce variable and sporadic noise levels and often produce impact-type noises. Impact equipment is equipment that generates impulsive noise where impulsive noise is defined as noise of short duration (generally less than one second) of high intensity, abrupt onset, rapid decay, and often rapidly changing spectral composition. For impact equipment, the noise is produced by the impact of a mass on a surface, typically repeating over time.

##### 9.1.2 Mobile Equipment

Mobile equipment such as dozers, scrapers, graders, etc., may operate in a cyclic fashion in which a period of full power is followed by a period of reduced power. Other equipment such as compressors, although generally considered to be stationary when operating, can be relocated to another location for the next operation.

#### 9.2 Sources of Information

Construction-related equipment and operation noise level data may be provided by numerous sources.

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#### 9.3 Specifics of Construction Equipment and Operation Noise Inventories

Details included in each specific inventory of construction equipment and operation noise emission levels are often variable in terms of how data is represented. Some inventories include ranges of noise levels while others present single numbers for each equipment type. Others provide levels for specific models of each type of construction equipment. Often different noise descriptors are used, such as  $L_{Aeq}$ ,  $L_{max}$ ,  $L_{10}$ , sound power level, etc. As the array of data does not readily lend itself to being combined into a single table or easily compared. As such, this Handbook attempts to summarize a variety of such inventories and provide links to each, thereby providing the reader with a variety of sources from which to choose the appropriate levels for use in his or her respective analysis.

### 9.4 Summaries of Referenced Inventories

Included below are examples of several inventories of construction-related noise emission values. These and additional inventories are included on the companion CD-ROM.

#### 9.4.1 RCNM Inventory

Equipment and operation noise levels in this inventory are expressed in terms of  $L_{max}$  noise levels and are accompanied by a usage factor value. They have been recently updated and are based on extensive measurements taken in conjunction with the Central Artery/Tunnel (CA/T) Project. Table 9.1 summarizes the equipment noise emissions database used by the CA/T Project. While these values represent the "default" values for use in the RCNM, user-defined equipment and corresponding noise levels can be added.

**Table 9.1 RCNM Default Noise Emission Reference Levels and Usage Factors.**

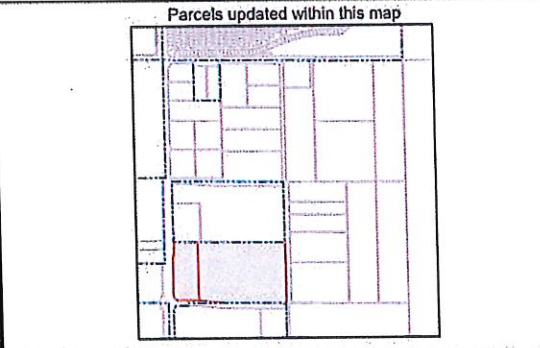
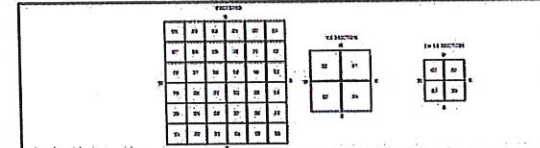
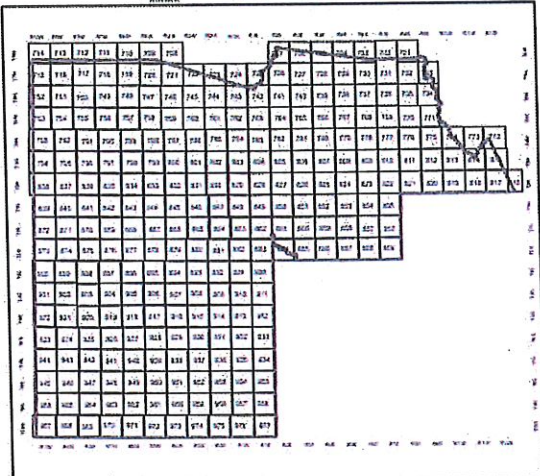
Equipment Description	Impact Device?	Acoustical Usage Factor (%)	Spec. 721.560 $L_{max}$ @ 50 feet (dBA, slow)	Actual Measured $L_{max}$ @ 50 feet (dBA, slow) (Samples Averaged)	Number of Actual Data Samples (Count)
All Other Equipment > 5 HP	No	50	85	N/A	0
Auger Drill Rig	No	20	85	84	36
Backhoe	No	40	80	78	372
Bar Bender	No	20	80	N/A	0
Blasting	Yes	N/A	94	N/A	0
Boring Jack Power Unit	No	50	80	83	1
Chain Saw	No	20	85	84	46
Clam Shovel (dropping)	Yes	20	93	87	4
Compactor (ground)	No	20	80	83	57
Compressor (air)	No	40	80	78	18
Concrete Batch Plant	No	15	83	N/A	0
Concrete Mixer Truck	No	40	85	79	40
Concrete Pump Truck	No	20	82	81	30
Concrete Saw	No	20	90	90	55
Crane	No	16	85	81	405
Dozer	No	40	85	82	55
Drill Rig Truck	No	20	84	79	22
Drum Mixer	No	50	80	80	1
Dump Truck	No	40	84	76	31
Excavator	No	40	85	81	170
Flat Bed Truck	No	40	84	74	4
Front End Loader	No	40	80	79	96
Generator	No	50	82	81	19

MARICOPA COUNTY

STATE OF ARIZONA

PT. SECTION 25 T03N R01W

803 - 25 - 02 - 00



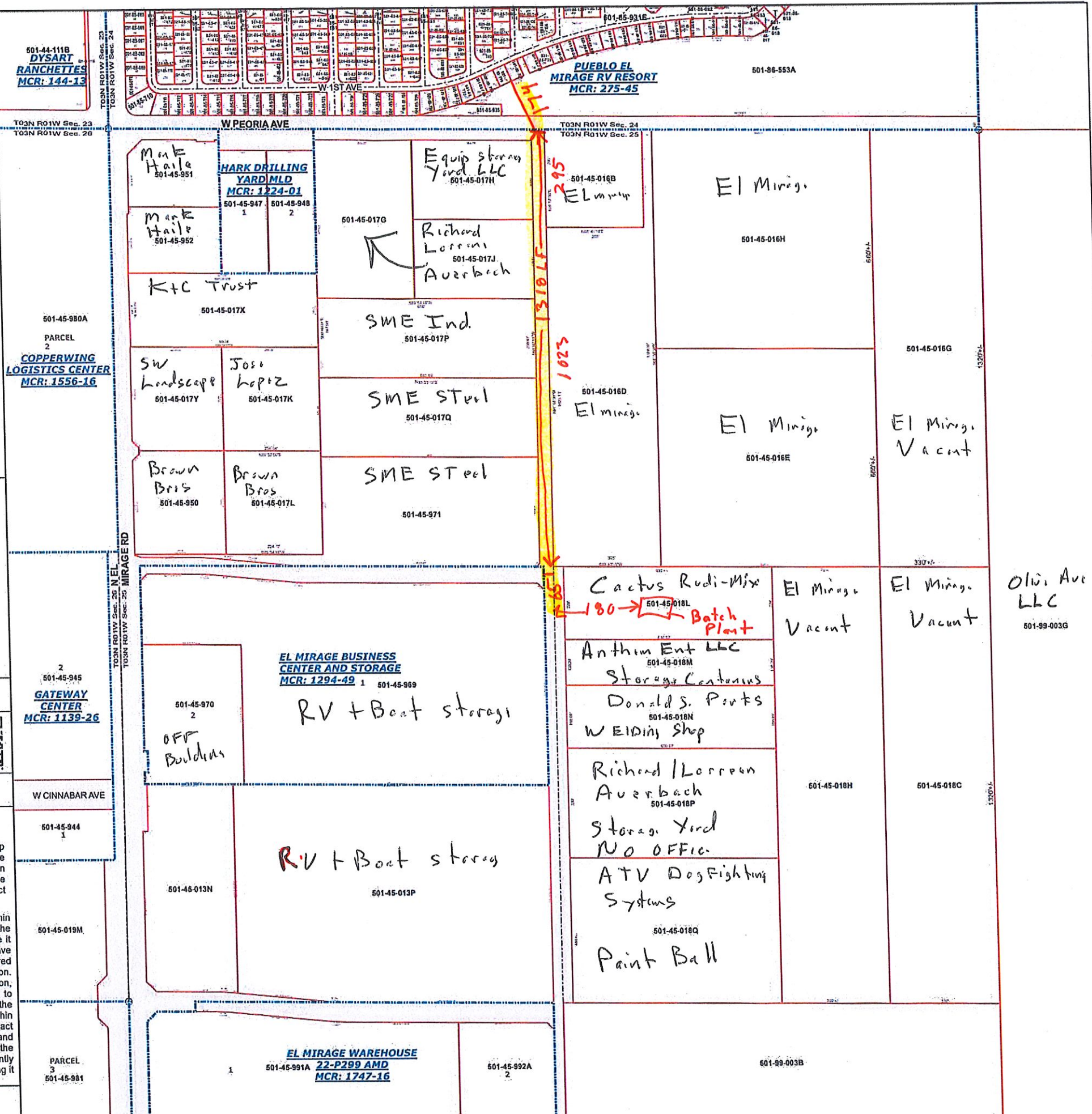
MARICOPA COUNTY ASSESSOR'S OFFICE  
301 W. Jefferson Street  
Phoenix, AZ 85003  
Date: 5/9/2024

LEGEND: Parcels, Sections, Centerlines, Lots, Section Corners, Subdivisions

Disclaimer - Indemnification  
CAUTION! USERS SHOULD INDEPENDENTLY RESEARCH AND VERIFY INFORMATION WITHIN THIS DATASET OR MAP BEFORE RELYING ON IT.

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1023'  
295'  
174'  
65'  
1557 LF  
From House Pueblo El Mirage RV Resort

Olivia Ave LLC  
501-99-003G

# el mirage

Pueblo  
EL Mirage RV Resort

1557 LF Away



Bath  
Plant

**APWRA**

**Construction Phase: WTG Foundations and Batch Plant**

**Noise-Generating Construction Equipment**

Equipment Type	Individual Equipment		Combined Equipment		
	SPL Lmax at 50 ft	Acoustic Usage Factor	No. of Pieces	SPL Lmax at 50 ft	SPL Leq at 50 ft
All Other Equipment > 5 HP	85	0.50			
Auger Drill Rig	84	0.20			
Backhoe	78	0.40			
Bar Bender	80	0.20			
Blasting	94	0.01	1	94	74.0
Boring Jack Power Unit	83	0.50			
Chain Saw	84	0.20			
Clam Shovel (dropping)	87	0.20			
Compactor (ground)	83	0.20	1	83	76.0
Compressor (air)	78	0.40			
Concrete Batch Plant	83	0.15			
Concrete Mixer Truck	79	0.40	1	79	75.0
Concrete Pump Truck	81	0.20			
Concrete Saw	90	0.20			
Crane	81	0.16			
Dozer	82	0.40	1	82	78.0
Drill Rig Truck	79	0.20			
Drum Mixer	80	0.50			
Dump Truck	76	0.40	1	76	72.0
Excavator	81	0.40	1	81	77.0
Flat Bed Truck	74	0.40	1	74	70.0
Front End Loader	79	0.40	1	79	75.0
Generator	81	0.50			
Generator (<25KVA, VMS signs)	73	0.50			
Gradall	83	0.40			
Grader	85	0.40	1	85	81.0
Grapple (on backhoe)	87	0.40			
Horizontal Boring Hydr. Jack	82	0.25			
Hydra Break Ram	90	0.10			
Impact Pile Driver	101	0.20			
Jackhammer	89	0.20			
Man Lift	75	0.20			
Mounted Impact Hammer (hoe ram)	90	0.20			
Pavement Scarifier	90	0.20			
Paver	77	0.50			
Pickup Truck	75	0.40			
Pneumatic Tools	85	0.50			
Pumps	81	0.50			
Refrigerator Unit	73	1.00			
Rivit Buster/chipping gun	79	0.20			
Rock Drill	81	0.20			
Roller	80	0.20			
Sand Blasting (Single Nozzle)	96	0.20			
Scraper	84	0.40			
Shears (on backhoe)	96	0.40			
Slurry Plant	78	1.00			
Slurry Trenching Machine	80	0.50			
Soil Mix Drill Rig	80	0.50			
Tractor	84	0.40			
Vacuum Excavator (Vac-truck)	85	0.40			
Vacuum Street Sweeper	82	0.10			
Ventilation Fan	79	1.00			
Vibrating Hopper	87	0.50			
Vibratory Concrete Mixer	80	0.20			
Vibratory Pile Driver	101	0.20			
Warning Horn	85	0.05			
Water Jet Deleading	83	0.20			
Welder / Torch	74	0.40			
<b>COMBINED EQUIPMENT (SPL AT 50 FEET)</b>	--	--	9	95.5	86.0

Acoustical measurement in FHWA Roadway Construction Noise Model User's Guide. FHWA-HEP-05-054. January 2006.

**Modeled Noise Levels at Varying Distances (Includes Hemispherical Spreading and Atmospheric Absorption)**

Molecular Absorption	0.0007	dBA
Anomalous Excess Attenuation	0.001	dBA
Ground Type (soft or hard)	soft	
Equivalent Source-Receiver Height (Hs+Hr)/2	6	feet
FTA Ground Attenuation Factor G	0.643	dBA

Distance from Construction Site (feet)	Noise Level with Attenuation		Noise Level with Barrier (Levees)	
	Outdoor Leq	Outdoor Lmax	Noise Reduction	Outdoor Leq
100	78	87	0	78
200	70	79	0	70
400	61	71	0	61
800	53	62	0	53
1,600	43	53	0	43
3,200	33	42	0	33
6,400	19	29	0	19

Sound propagation calcs by FTA Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06. May 2006.  
Acoustical measurement in FHWA Roadway Construction Noise Model User's Guide. FHWA-HEP-05-054. January 2006.