Construction Generated Noise

Building Type	Roads, Sewers, Trenches		**Distance (ft)**
Construction Noise at 50 Feet (dBA Leq)			50
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	84	84	
Excavation	88	78	
Foundation Construction	88	88	
Building Construction	79	78	
Finishing and Site Cleanup	84	84	

North - Residential			
Maximum Construction Noise (dBA Leq)			100
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	78	78	
Excavation (Site Preparation)	82	72	
Foundation Construction	82	82	
Building Construction	73	72	
Paving	78	78	
Average Construction Noise (dBA Leq)			1,200
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	56	56	
Excavation (Site Preparation)	60	50	
Foundation Construction	60	60	
Building Construction	51	50	
Paving	56	56	

West - Hotel			
Maximum Construction Noise (dBA Leq)			2,250
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	51	51	
Excavation (Site Preparation)	55	45	
Foundation Construction	55	55	
Building Construction	46	45	
Paving	51	51	
Average Construction Noise (dBA Leq)			2,610
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	50	50	
Excavation (Site Preparation)	54	44	
Foundation Construction	54	54	
Building Construction	45	44	
Paving	50	50	

South - Golf Course			
Maximum Construction Noise (dBA Leq)			120
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	76	76	
Excavation (Site Preparation)	80	70	
Foundation Construction	80	80	
Building Construction	71	70	
Paving	76	76	
Average Construction Noise (dBA Leq)			590
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	63	63	
Excavation (Site Preparation)	67	57	
Foundation Construction	67	67	
Building Construction	58	57	
Paving	63	63	

East - Light Industrial			
Maximum Construction Noise (dBA Leq)			1,640
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	54	54	
Excavation (Site Preparation)	58	48	
Foundation Construction	58	58	
Building Construction	49	48	
Paving	54	54	
Average Construction Noise (dBA Leq)			2,180
Construction Phase	**All Applicable Equipment in Use**[1]	**Minimum Required Equipment in Use**[1]	
Ground Clearing/Demolition	51	51	
Excavation (Site Preparation)	55	45	
Foundation Construction	55	55	
Building Construction	46	45	
Paving	51	51	

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA, December 31, 1971. Based on analysis for Office Building, Hotel, Hospital, School, and Public Works.

Construction Generated Vibration

North - Residential		Closest Distance (feet):	120
	Approximate RMS a	Approximate RMS	
	66	73.000	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.020	
Large bulldozer	0.089	0.008	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.003	
Loaded trucks	0.076	0.007	
	Criteria	0.250	1700
West - Hotel		Closest Distance (feet):	2,000
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.000	
Large bulldozer	0.089	0.000	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.000	
Loaded trucks	0.076	0.000	
	Criteria	0.250	
South - Golf Course		Closest Distance (feet):	2,100
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.000	
Large bulldozer	0.089	0.000	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.000	
Loaded trucks	0.076	0.000	
	Criteria	0.250	
East - Light Industrial		Closest Distance (feet):	1,600
	Approximate RMS a	Approximate RMS	
	Velocity at 25 ft,	Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.000	
Large bulldozer	0.089	0.000	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.000	
Loaded trucks	0.076	0.000	
	Criteria	0.250	

Based on distance to nearest structure

[1.] Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).