Appendix H Construction Noise

H1 RCNM Outputs for Construction Noise

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 12/03/2024

Grader

N/A

N/A

N/A

N/A

N/A

N/A

Case Description: Watt EV Construction

**** Receptor #1 ****

	**** Recept	or #1 ***	*					
Description		Baselines Daytime	Evening	Nig	Night			
Power Line Road Residence					50.0			
Equipment								
Estimated			Spec Ad	ctual	Receptor			
	Impact	Usage	Lmax Lr	nax	Distance			
Shielding Description (dBA)	Device	(%)	(dBA) (d	dBA)	(feet)			
Pile Driver (Solar Panel Sp 0.0	ecific Yes	20	84.0		400.0			
Grader 0.0	No	40	85.0		400.0			
	Result							
(dBA)	Noise Limit		e (dBA)		Noise Limits			
	Calculat ay Eve	 ed (dBA) ning 	Day Night		Evening			
•	Lmax max Leq L	Leq max Led	Lmax J Lmax	-	Lmax			
Pile Driver (Solar Panel Sp	ecific 65.9		N/A N/A	N/A N/A	 N/A			

66.9

66.9

N/A

N/A

N/A

N/A

Total

63.0

64.4

N/A

H2 Traffic Noise Model

TRAFFIC NOISE ANALYSIS TOOL



Project Name: Watt EV

Analysis Scenario: Baseline - Weekday AM Peak

Source of Traffic Volumes: Kimley Horn 2024

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)		Peak Hour Volume			Peak Hour	Noise Level	
			Auto	MT	нт	Auto	MT	нт	Noise Level (Leq(h) dBA)	dBA CNEL
Bayou Way between Airport Blvd. and Power Line Rd.	Hard	100	30	30	30	209	43	22	59.4	59.7
Bayou Way between Power Line Rd. and Mtro Air Pkwy.	Hard	100	30	30	30	124	26	13	57.1	57.4

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.

TRAFFIC NOISE ANALYSIS TOOL



Project Name: Watt EV

Analysis Scenario: Baseline + Project - Weekday AM Peak

Source of Traffic Volumes: Kimley Horn 2024

Roadway Segment	Ground Type	Distance from	Speed (mph)			Peak Hour Volume			Peak Hour	Noise Level
		Roadway to Receiver (feet)	Auto	MT	нт	Auto	MT	нт	Noise Level (Leq(h) dBA)	dBA CNEL
Bayou Way between Airport Blvd. and Power Line Rd.	Hard	100	30	30	30	229	43	24	59.6	59.9
Bayou Way between Power Line Rd. and Mtro Air Pkwy.	Hard	100	30	30	30	144	26	15	57.5	57.8

Model Notes:

The calculation is based on the methodology described in FHWA Traffic Noise Model Technical Manual (1998).

The peak hour noise level at 50 feet was validated with the results from FHWA Traffic Noise Model Version 2.5.

Accuracy of the calculation is within ±0.1 dB when comparing to TNM results.

Noise propagation greater than 50 feet is based on the following assumptions:

For hard ground, the propagation rate is 3 dB per doubling the distance.

For soft ground, the propagation rate is 4.5 dB per doubling the distance.

Vehicles are assumed to be on a long straight roadway with cruise speed.

Roadway grade is less than 1.5%.

CNEL levels were obtained based on Figure 2-19, on page 2-58 Caltran's TeNS 2013.