Appendix H
Noise Appendix

ESA

Project: Mt Etna Affordable Housing Project

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	8	Daytime hours (7 am to 7 pm)
	0	Evening hours (7 pm to 10 pm)
	0	Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3	

				ST-1					ST-2				
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Site Preparation and Demolition													
Demo/Grading					**71**	***69***				**67**	***64***		
Excavator	3	81	40%	150	71	67	70	5	320	65	61	64	5
Concrete Saw	1	90	20%	250	71	64	67	5	420	67	60	63	5
Dozer	2	82	40%	350	63	59	62	5	520	60	56	59	5
Site Preparation					**66**	***67***				**62**	***62***		
Generator Sets	1	81	50%	150	66	63	66	5	320	60	57	60	5
Graders	1	85	40%	250	66	62	65	5	420	62	58	61	5
Roller	1	80	20%	350	58	51	54	5	520	55	48	51	5
Rubber Tired Loader	1	79	40%	350	57	53	56	5	520	54	50	53	5
Scrapers	1	84	40%	450	60	56	59	5	620	57	53	56	5
Tractor/Loader/Backhoe	2	80	25%	450	59	53	56	5	720	55	49	52	5
Grading/Excavation					**70**	***69***				**64**	***63***		
Front End Loader	4	79	40%	150	70	66	69	5	320	64	60	63	5
Excavator	1	81	40%	250	62	58	61	5	420	58	54	57	5
Graders	1	85	40%	350	63	59	62	5	520	60	56	59	5
Compactor (ground)	2	83	20%	450	62	55	58	5	620	59	52	55	5
Roller	1	80	20%	100	69	62	65	5	720	52	45	48	5
Rubber Tired Loader	1	79	40%	350	57	53	56	5	520	54	50	53	5
Tractor/Loader/Backhoe	2	80	25%	350	61	55	58	5	520	58	52	55	5
Drainage/Utilities/Trenching					**67**	***66***				**63**	***61***		
Air Compressor	1	78	40%	150	63	59	62	5	320	57	53	56	5
Front End Loader	2	79	40%	250	63	59	62	5	420	59	55	58	5
Excavator	1	81	40%	450	57	53	56	5	420	58	54	57	5
Forklift	1	75	10%	100	64	54	57	5	420	52	42	45	5
Compactor (ground)	2	83	20%	250	67	60	63	5	420	63	56	59	5
Rubber Tired Loader	1	79	40%	350	57	53	56	5	520	54	50	53	5
Tractor/Loader/Backhoe	2	80	25%	350	61	55	58	5	520	58	52	55	5
Community Plan Amendment and Rezone													
Foundations/Concrete Pour					**68**	***64***				**62**	***58***		
Compactor (ground)	1	83	20%	150	68	61	64	5	320	62	55	58	5
Pumps	1	81	50%	250	62	59	62	5	420	58	55	58	5
Tractor/Loader/Backhoe	1	80	25%	250	61	55	58	5	420	57	50	53	5
Building Construction					**63**	***61***				**58**	***55***		
Air Compressor	1	78	40%	150	63	59	62	5	320	57	53	56	5
Cranes	1	81	16%	250	62	54	57	5	420	58	50	53	5
Forklift	1	75	10%	250	56	46	49	5	420	52	42	45	5
Vacuum Street Sweeper	1	82	10%	350	60	50	53	5	520	57	47	50	5
Paving					**75**	***70***				**69**	***64***		
Concrete Saw	1	90	20%	150	75	68	71	5	320	69	62	65	5
Graders	1	85	40%	250	66	62	65	5	420	62	58	61	5
Paver	1	77	50%	350	55	52	55	5	520	52	49	52	5
Other Equipment	1	85	50%	350	63	60	63	5	520	60	57	60	5
Roller	1	80	20%	350	58	51	54	5	520	55	48	51	5
Vacuum Street Sweeper	1	82	10%	350	60	50	53	5	520	57	47	50	5
Architectural Coating					**63**	***59***				**57**	***53***		
Air Compressor	1	78	40%	150	63	59	62	5	320	57	53	56	5
Maximum Noise Level (Overlapping Phases)						***71***					***65***		

Building Construction/Paving/Architectural Coating

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Mt Etna Affordable Housing Project

Construction Noise Impact on Sensitive Receptors

Parameters

Construction Hours:	8	Daytime hours (7 am to 7 pm)
	0	Evening hours (7 pm to 10 pm)
	0	Nighttime hours (10 pm to 7 am)
Leq to L10 factor	3	

				ST-3					ST-4					LT-1				
				Site Preparation and Demolition														
Construction Phase **Equipment Type**	**No. of Equip.**	**Reference Noise Level at 50ft, Lmax**	**Acoustical Usage Factor**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**	**Distance (ft)**	**Lmax**	**Leq**	**L10**	**Estimated Noise Shielding, dBA**
Demo/Grading					**70**	***68***				**64**	***61***				**71**	***69***		
Excavator	3	81	40%	175	70	66	69	5	450	62	58	61	5	150	71	67	70	5
Concrete Saw	1	90	20%	275	70	63	66	5	550	64	57	60	5	250	71	64	67	5
Dozer	2	82	40%	375	63	59	62	5	650	58	54	57	5	350	63	59	62	5
Site Preparation					**65**	***66***				**59**	***59***				**66**	***67***		
Generator Sets	1	81	50%	175	65	62	65	5	450	57	54	57	5	150	66	63	66	5
Graders	1	85	40%	275	65	61	64	5	550	59	55	58	5	250	66	62	65	5
Roller	1	80	20%	375	57	51	54	5	650	53	46	49	5	350	58	51	54	5
Rubber Tired Loader	1	79	40%	375	56	53	56	5	650	52	48	51	5	350	57	53	56	5
Scrapers	1	84	40%	475	59	55	58	5	750	55	51	54	5	450	60	56	59	5
Tractor/Loader/Backhoe	2	80	25%	575	57	51	54	5	850	53	47	50	5	550	57	51	54	5
Grading/Excavation					**69**	***67***				**61**	***61***				**70**	***68***		
Front End Loader	4	79	40%	175	69	65	68	5	450	61	57	60	5	150	70	66	69	5
Excavator	1	81	40%	275	61	57	60	5	550	55	51	54	5	250	62	58	61	5
Graders	1	85	40%	375	62	59	62	5	650	58	54	57	5	350	63	59	62	5
Compactor (ground)	2	83	20%	475	61	54	57	5	750	57	50	53	5	450	62	55	58	5
Roller	1	80	20%	575	54	47	50	5	850	50	43	46	5	550	54	47	50	5
Rubber Tired Loader	1	79	40%	275	59	55	58	5	550	53	49	52	5	250	60	56	59	5
Tractor/Loader/Backhoe	2	80	25%	375	61	54	57	5	650	56	50	53	5	350	61	55	58	5
Drainage/Utilities/Trenching					**66**	***65***				**56**	***58***				**67**	***66***		
Air Compressor	1	78	40%	175	62	58	61	5	450	54	50	53	5	150	63	59	62	5
Front End Loader	2	79	40%	275	62	58	61	5	550	56	52	55	5	250	63	59	62	5
Excavator	1	81	40%	475	56	52	55	5	650	54	50	53	5	450	57	53	56	5
Forklift	1	75	10%	100	64	54	57	5	750	46	36	39	5	100	64	54	57	5
Compactor (ground)	2	83	20%	275	66	59	62	5	850	56	49	52	5	250	67	60	63	5
Rubber Tired Loader	1	79	40%	375	56	53	56	5	550	53	49	52	5	350	57	53	56	5
Tractor/Loader/Backhoe	2	80	25%	375	61	54	57	5	650	56	50	53	5	350	61	55	58	5
				Community Plan Amendment and Rezone														
Foundations/Concrete Pour					**67**	***63***				**59**	***56***				**68**	***64***		
Compactor (ground)	1	83	20%	175	67	60	63	5	450	59	52	55	5	150	68	61	64	5
Pumps	1	81	50%	275	61	58	61	5	550	55	52	55	5	250	62	59	62	5
Tractor/Loader/Backhoe	1	80	25%	275	60	54	57	5	550	54	48	51	5	250	61	55	58	5
Building Construction					**62**	***60***				**55**	***53***				**63**	***61***		
Air Compressor	1	78	40%	175	62	58	61	5	450	54	50	53	5	150	63	59	62	5
Cranes	1	81	16%	275	61	53	56	5	550	55	47	50	5	250	62	54	57	5
Forklift	1	75	10%	275	55	45	48	5	550	49	39	42	5	250	56	46	49	5
Vacuum Street Sweeper	1	82	10%	375	59	49	52	5	650	55	45	48	5	350	60	50	53	5
Paving					**74**	***69***				**66**	***62***				**75**	***70***		
Concrete Saw	1	90	20%	175	74	67	70	5	450	66	59	62	5	150	75	68	71	5
Graders	1	85	40%	275	65	61	64	5	550	59	55	58	5	250	66	62	65	5
Paver	1	77	50%	375	54	51	54	5	650	50	47	50	5	350	55	52	55	5
Other Equipment	1	85	50%	380	62	59	62	5	550	59	56	59	5	350	63	60	63	5
Roller	1	80	20%	480	55	48	51	5	650	53	46	49	5	450	56	49	52	5
Vacuum Street Sweeper	1	82	10%	480	57	47	50	5	650	55	45	48	5	450	58	48	51	5
Architectural Coating					**62**	***58***				**54**	***50***				**68**	***64***		
Air Compressor	1	78	40%	175	62	58	61	5	450	54	50	53	5	150	68	64	67	0
Maximum Noise Level (Overlapping Phases)						***70***					***62***					***69***		

Building Construction/Paving/Architectural Coating

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Haul Trucks
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
Trips on Genessee Avenue	Hard	45	45	40	35	21	10	0	55.7
Trips on Balboa Avenue	Hard	45	45	40	35	21	10	0	55.7

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%.

Existing + Project		CNEL (dBA)			
Roadway Segment	**Existing Land Uses Located Along Roadway Segment**	**Existing**	**Existing with Project**	**Project Increment**	**Exceed Threshold?**
		(A)	**(B)**	**(B-A)**	
Genessee Avenue					
n/o Clairemont Mesa Boulevard	Residential/Commercial	71.9	71.9	0.1	No
between Clairemont Mesa Boulevard and Bannock Avenue	Residential/Commercial	71.4	71.4	0.1	No
between Bannock Avenue and Chateau Drive	Residential	71.6	71.7	0.1	No
between Chateau Drive and Mount Herbert Avenue	Residential	71.5	71.6	0.1	No
between Mount Herbert Avenue and Derrick Drive	Residential/Commercial	71.3	71.4	0.1	No
between Derrick Drive and Mount Etna Drive	Commercial	71.6	71.8	0.2	No
between Mount Etna Drive and Balboa Avenue	Commercial	71.7	71.9	0.3	No
between Balboa Avenue and Mount Alifan Drive	Residential/Commercial	71.1	71.1	0.1	No
s/o Mount Alifan Drive	Residential/Commercial/Educational	72.0	72.1	0.1	No
Mount Everest Drive					
s/o Mount Alifan Drive	Residential	62.2	63.9	1.7	No
Balboa Avenue					
between Clairemont Drive and Mount Everest Boulevard	Residential	73.1	73.1	0.1	No
between Mount Everest Boulevard and Genesee Avenue	Residential/Commercial	72.6	72.6	0.0	No
between Genesee Avenue and Shopping Center Driveway	Commercial	72.8	72.9	0.1	No
between Shopping Center Driveway and Mount Abernathy Avenue	Commercial	73.2	73.3	0.1	No
between Mount Abernathy Avenue and Cannington Drive	Residential/Commercial	73.7	73.8	0.1	No
between Cannington Drive and Charger Boulevard	Residential/Educational	73.9	74.0	0.1	No
between Charger Boulevard and I-805 Southbound Ramps	Residential/Religious	74.8	74.9	0.1	No
between I-805 Southbound Ramps and I-805 Northbound Ramps	Freeway Overpass	74.4	74.4	0.0	No
e/o I-805 Northbound Ramps	Commercial	74.6	74.6	0.0	No

Existing + Near Term (2021) Project		CNEL (dBA)			
Roadway Segment	**Existing Land Uses Located Along Roadway Segment**	**Future**	**Future with Project - 2021**	**Project Increment**	**Exceed Threshold?**
		(A)	**(B)**	**(B-A)**	
Genessee Avenue					
n/o Clairemont Mesa Boulevard	Residential/Commercial	71.9	72.0	0.1	No
between Clairemont Mesa Boulevard and Bannock Avenue	Residential/Commercial	71.4	71.5	0.1	No
between Bannock Avenue and Chateau Drive	Residential	71.7	71.8	0.1	No
between Chateau Drive and Mount Herbert Avenue	Residential	71.5	71.7	0.1	No
between Mount Herbert Avenue and Derrick Drive	Residential/Commercial	71.4	71.5	0.1	No
between Derrick Drive and Mount Etna Drive	Commercial	71.7	71.9	0.2	No
between Mount Etna Drive and Balboa Avenue	Commercial	71.8	72.0	0.3	No
between Balboa Avenue and Mount Alifan Drive	Residential/Commercial	71.6	71.7	0.1	No
s/o Mount Alifan Drive	Residential/Commercial/Educational	72.2	72.2	0.1	No
Mount Everest Drive					
s/o Mount Alifan Drive	Residential	62.2	63.9	1.7	No
Balboa Avenue					
between Clairemont Drive and Mount Everest Boulevard	Residential	73.2	73.3	0.1	No
between Mount Everest Boulevard and Genesee Avenue	Residential/Commercial	72.7	72.7	0.0	No
between Genesee Avenue and Shopping Center Driveway	Commercial	73.0	73.2	0.1	No
between Shopping Center Driveway and Mount Abernathy Avenue	Commercial	73.4	73.5	0.1	No
between Mount Abernathy Avenue and Cannington Drive	Residential/Commercial	74.0	74.1	0.1	No
between Cannington Drive and Charger Boulevard	Residential/Educational	74.1	74.2	0.1	No
between Charger Boulevard and I-805 Southbound Ramps	Residential/Religious	75.2	75.3	0.1	No
between I-805 Southbound Ramps and I-805 Northbound Ramps	Freeway Overpass	74.4	74.5	0.0	No
e/o I-805 Northbound Ramps	Commercial	74.6	74.6	0.0	No

Existing + Horizon (2050) Project		CNEL (dBA)			
Roadway Segment	**Existing Land Uses Located Along Roadway Segment**	**Future**	**Future with Project - 2050**	**Project Increment**	**Exceed Threshold?**
		(A)	**(B)**	**(B-A)**	
Genessee Avenue					
n/o Clairemont Mesa Boulevard	Residential/Commercial	73.0	73.0	0.0	No
between Clairemont Mesa Boulevard and Bannock Avenue	Residential/Commercial	72.0	72.1	0.1	No
between Bannock Avenue and Chateau Drive	Residential	72.2	72.2	0.1	No
between Chateau Drive and Mount Herbert Avenue	Residential	71.9	72.0	0.1	No
between Mount Herbert Avenue and Derrick Drive	Residential/Commercial	71.8	71.9	0.1	No
between Derrick Drive and Mount Etna Drive	Commercial	72.2	72.4	0.1	No
between Mount Etna Drive and Balboa Avenue	Commercial	72.4	72.6	0.2	No
between Balboa Avenue and Mount Alifan Drive	Residential/Commercial	71.7	71.7	0.1	No
s/o Mount Alifan Drive	Residential/Commercial/Educational	72.7	72.7	0.1	No
Mount Everest Drive					
s/o Mount Alifan Drive	Residential	63.4	64.8	1.4	No
Balboa Avenue					
between Clairemont Drive and Mount Everest Boulevard	Residential	73.7	73.7	0.1	No
between Mount Everest Boulevard and Genesee Avenue	Residential/Commercial	73.5	73.5	0.0	No
between Genesee Avenue and Shopping Center Driveway	Commercial	73.4	73.5	0.1	No
between Shopping Center Driveway and Mount Abernathy Avenue	Commercial	73.7	73.8	0.1	No
between Mount Abernathy Avenue and Cannington Drive	Residential/Commercial	74.1	74.2	0.1	No
between Cannington Drive and Charger Boulevard	Residential/Educational	74.1	74.2	0.1	No
between Charger Boulevard and I-805 Southbound Ramps	Residential/Religious	75.0	75.1	0.1	No
between I-805 Southbound Ramps and I-805 Northbound Ramps	Freeway Overpass	74.5	74.5	0.0	No
e/o I-805 Northbound Ramps	Commercial	74.8	74.8	0.0	No

Cumulative - 2021		CNEL (dBA)			
Roadway Segment	**Existing Land Uses Located Along Roadway Segment**	**Existing**	**Future with Project - 2021**	**Project Increment**	**Exceed Threshold?**
		(A)	**(B)**	**(B-A)**	
Genessee Avenue					
n/o Clairemont Mesa Boulevard	Residential/Commercial	71.9	72.0	0.2	No
between Clairemont Mesa Boulevard and Bannock Avenue	Residential/Commercial	71.4	71.5	0.2	No
between Bannock Avenue and Chateau Drive	Residential	71.6	71.8	0.2	No
between Chateau Drive and Mount Herbert Avenue	Residential	71.5	71.7	0.2	No
between Mount Herbert Avenue and Derrick Drive	Residential/Commercial	71.3	71.5	0.2	No
between Derrick Drive and Mount Etna Drive	Commercial	71.6	71.9	0.2	No
between Mount Etna Drive and Balboa Avenue	Commercial	71.7	72.0	0.4	No
between Balboa Avenue and Mount Alifan Drive	Residential/Commercial	71.1	71.7	0.6	No
s/o Mount Alifan Drive	Residential/Commercial/Educational	72.0	72.2	0.2	No
Mount Everest Drive					
s/o Mount Alifan Drive	Residential	62.2	63.9	1.7	No
Balboa Avenue					
between Clairemont Drive and Mount Everest Boulevard	Residential	73.1	73.3	0.3	No
between Mount Everest Boulevard and Genesee Avenue	Residential/Commercial	72.6	72.7	0.1	No
between Genesee Avenue and Shopping Center Driveway	Commercial	72.8	73.2	0.4	No
between Shopping Center Driveway and Mount Abernathy Avenue	Commercial	73.2	73.5	0.3	No
between Mount Abernathy Avenue and Cannington Drive	Residential/Commercial	73.7	74.1	0.4	No
between Cannington Drive and Charger Boulevard	Residential/Educational	73.9	74.2	0.4	No
between Charger Boulevard and I-805 Southbound Ramps	Residential/Religious	74.8	75.3	0.5	No
between I-805 Southbound Ramps and I-805 Northbound Ramps	Freeway Overpass	74.4	74.5	0.1	No
e/o I-805 Northbound Ramps	Commercial	74.6	74.6	0.1	No

Cumulative - 2050		CNEL (dBA)			
Roadway Segment	**Existing Land Uses Located Along Roadway Segment**	**Existing**	**Future with Project - 2050**	**Project Increment**	**Exceed Threshold?**
		(A)	**(B)**	**(B-A)**	
Genessee Avenue					
n/o Clairemont Mesa Boulevard	Residential/Commercial	71.9	73.0	1.2	No
between Clairemont Mesa Boulevard and Bannock Avenue	Residential/Commercial	71.4	72.1	0.7	No
between Bannock Avenue and Chateau Drive	Residential	71.6	72.2	0.6	No
between Chateau Drive and Mount Herbert Avenue	Residential	71.5	72.0	0.5	No
between Mount Herbert Avenue and Derrick Drive	Residential/Commercial	71.3	71.9	0.6	No
between Derrick Drive and Mount Etna Drive	Commercial	71.6	72.4	0.7	No
between Mount Etna Drive and Balboa Avenue	Commercial	71.7	72.6	1.0	No
between Balboa Avenue and Mount Alifan Drive	Residential/Commercial	71.1	71.7	0.7	No
s/o Mount Alifan Drive	Residential/Commercial/Educational	72.0	72.7	0.7	No
Mount Everest Drive					
s/o Mount Alifan Drive	Residential	62.2	64.8	2.5	No
Balboa Avenue					
between Clairemont Drive and Mount Everest Boulevard	Residential	73.1	73.7	0.7	No
between Mount Everest Boulevard and Genesee Avenue	Residential/Commercial	72.6	73.5	0.8	No
between Genesee Avenue and Shopping Center Driveway	Commercial	72.8	73.5	0.7	No
between Shopping Center Driveway and Mount Abernathy Avenue	Commercial	73.2	73.8	0.6	No
between Mount Abernathy Avenue and Cannington Drive	Residential/Commercial	73.7	74.2	0.5	No
between Cannington Drive and Charger Boulevard	Residential/Educational	73.9	74.2	0.4	No
between Charger Boulevard and I-805 Southbound Ramps	Residential/Religious	74.8	75.1	0.3	No
between I-805 Southbound Ramps and I-805 Northbound Ramps	Freeway Overpass	74.4	74.5	0.2	No
e/o I-805 Northbound Ramps	Commercial	74.6	74.8	0.3	No

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Existing
Source of Traffic Volumes: Chen Ryan, 2019

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,280	47	24	71.9
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,032	42	21	71.4
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,165	45	22	71.6
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,090	43	22	71.5
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,008	41	21	71.3
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,168	45	22	71.6
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,184	45	23	71.7
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	1,901	39	20	71.1
s/o Mount Alifan Drive	Hard	45	45	40	35	2,373	49	24	72.0
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	379	8	4	62.2
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	2,972	61	31	73.1
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	2,680	55	28	72.6
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	2,791	58	29	72.8
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,056	63	32	73.2
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,470	72	36	73.7
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,578	74	37	73.9
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,431	91	46	74.8
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,010	83	41	74.4
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,192	86	43	74.6

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Existing + Project
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,313	48	24	71.9
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,079	43	21	71.4
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,215	46	23	71.7
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,143	44	22	71.6
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,059	42	21	71.4
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,248	46	23	71.8
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,325	48	24	71.9
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	1,938	40	20	71.1
s/o Mount Alifan Drive	Hard	45	45	40	35	2,407	50	25	72.1
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	566	12	6	64
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,023	62	31	73.1
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	2,680	55	28	72.6
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	2,882	59	30	72.9
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,147	65	32	73.3
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,558	73	37	73.8
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,667	76	38	74.0
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,519	93	47	74.9
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,056	84	42	74.4
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,236	87	44	74.6

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Existing (Alternative 2)
Source of Traffic Volumes: Chen Ryan, 2019

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,303	47	24	71.9
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,060	42	21	71.4
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,195	45	23	71.7
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,121	44	22	71.5
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,039	42	21	71.4
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,213	46	23	71.7
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,255	47	23	71.8
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	1,924	40	20	71.1
s/o Mount Alifan Drive	Hard	45	45	40	35	2,393	49	25	72.1
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	469	10	5	63.1
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,002	62	31	73.1
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	2,685	55	28	72.6
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	2,848	59	29	72.9
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,110	64	32	73.3
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,522	73	36	73.8
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,631	75	37	73.9
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,483	92	46	74.8
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,037	83	42	74.4
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,219	87	43	74.6

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Existing (Alternative 3)
Source of Traffic Volumes: Chen Ryan, 2019

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,303	47	24	71.9
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,060	42	21	71.4
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,195	45	23	71.7
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,121	44	22	71.5
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,039	42	21	71.4
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,212	46	23	71.7
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,233	46	23	71.8
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	1,924	40	20	71.1
s/o Mount Alifan Drive	Hard	45	45	40	35	2,392	49	25	72.1
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	448	9	5	62.9
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,002	62	31	73.1
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	2,702	56	28	72.6
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	2,848	59	29	72.9
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,110	64	32	73.3
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,522	73	36	73.8
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,631	75	37	73.9
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,483	92	46	74.8
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,037	83	42	74.4
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,219	87	43	74.6

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Near Term 2021
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,330	48	24	71.9
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,069	43	21	71.4
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,201	45	23	71.7
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,126	44	22	71.5
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,044	42	21	71.4
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,209	46	23	71.7
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,232	46	23	71.8
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	2,151	44	22	71.6
s/o Mount Alifan Drive	Hard	45	45	40	35	2,451	51	25	72.2
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	379	8	4	62.2
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,101	64	32	73.2
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	2,749	57	28	72.7
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	2,956	61	30	73.0
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,191	66	33	73.4
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,688	76	38	74.0
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,808	79	39	74.1
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,906	101	51	75.2
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,085	84	42	74.4
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,213	87	43	74.6

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Near Term + Project 2021
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,363	49	24	72.0
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,116	44	22	71.5
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,250	46	23	71.8
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,179	45	22	71.7
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,095	43	22	71.5
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,289	47	24	71.9
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,373	49	24	72.0
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	2,180	45	22	71.7
s/o Mount Alifan Drive	Hard	45	45	40	35	2,485	51	26	72.2
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	566	12	6	63.9
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,153	65	33	73.3
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	2,749	57	28	72.7
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	3,047	63	31	73.2
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,282	68	34	73.5
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,776	78	39	74.1
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,896	80	40	74.2
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,971	103	51	75.3
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,130	85	43	74.5
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,256	88	44	74.6

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Near Term + Project 2021 (Alternative 2)
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,352	49	24	72.0
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,097	43	22	71.5
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,231	46	23	71.8
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,157	44	22	71.6
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,075	43	21	71.4
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,253	46	23	71.8
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,303	47	24	71.9
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	2,170	45	22	71.6
s/o Mount Alifan Drive	Hard	45	45	40	35	2,472	51	25	72.2
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	469	10	5	63.1
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,131	65	32	73.3
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	2,754	57	28	72.7
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	3,013	62	31	73.1
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,246	67	33	73.4
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,740	77	39	74.1
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,861	80	40	74.2
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,950	102	51	75.3
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,112	85	42	74.5
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,239	87	44	74.6

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Near Term + Project 2021 (Alternative 3)
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,352	49	24	72.0
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,097	43	22	71.5
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,231	46	23	71.8
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,157	44	22	71.6
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,075	43	21	71.4
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,252	46	23	71.8
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,280	47	24	71.9
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	2,170	45	22	71.6
s/o Mount Alifan Drive	Hard	45	45	40	35	2,471	51	25	72.2
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	448	9	5	62.9
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,131	65	32	73.3
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	2,771	57	29	72.8
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	3,013	62	31	73.1
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,246	67	33	73.4
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,740	77	39	74.1
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,861	80	40	74.2
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,950	102	51	75.3
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,112	85	42	74.5
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,239	87	44	74.6

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Horizon Year 2050
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,949	61	30	73.0
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,367	49	24	72.0
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,444	50	25	72.2
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,309	48	24	71.9
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,280	47	24	71.8
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,493	51	26	72.2
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,600	54	27	72.4
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	2,183	45	23	71.7
s/o Mount Alifan Drive	Hard	45	45	40	35	2,765	57	29	72.7
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	495	10	5	63.4
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,414	70	35	73.7
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	3,259	67	34	73.5
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	3,201	66	33	73.4
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,444	71	36	73.7
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,793	78	39	74.1
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,812	79	39	74.1
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,656	96	48	75.0
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,132	85	43	74.5
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,423	91	46	74.8

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Horizon Year + Project 2050
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,982	61	31	73.0
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,413	50	25	72.1
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,494	51	26	72.2
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,361	49	24	72.0
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,331	48	24	71.9
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,573	53	27	72.4
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,740	57	28	72.6
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	2,219	46	23	71.7
s/o Mount Alifan Drive	Hard	45	45	40	35	2,798	58	29	72.7
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	681	14	7	64.8
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,466	71	36	73.7
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	3,259	67	34	73.5
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	3,292	68	34	73.5
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,535	73	36	73.8
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,881	80	40	74.2
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,900	80	40	74.2
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,721	97	49	75.1
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,178	86	43	74.5
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,467	92	46	74.8

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Horizon Year + Project 2050 (Alternative 2)
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,971	61	31	73.0
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,395	49	25	72.1
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,474	51	26	72.2
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,340	48	24	72.0
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,311	48	24	71.9
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,538	52	26	72.3
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,670	55	28	72.5
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	2,205	45	23	71.7
s/o Mount Alifan Drive	Hard	45	45	40	35	2,785	57	29	72.7
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	585	12	6	64.1
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,444	71	36	73.7
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	3,264	67	34	73.5
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	3,258	67	34	73.5
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,498	72	36	73.8
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,845	79	40	74.2
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,864	80	40	74.2
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,700	97	48	75.1
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,159	86	43	74.5
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,449	92	46	74.8

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%.

TRAFFIC NOISE ANALYSIS TOOL

Project Name: SD Crime Lab Affordable Housing
Project Number: D150334.00
Analysis Scenario: Horizon Year + Project 2050 (Alternative 3)
Source of Traffic Volumes:

Roadway Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)
			Auto	MT	HT	Auto	MT	HT	
Genessee Avenue									
n/o Clairemont Mesa Boulevard	Hard	45	45	40	35	2,971	61	31	73.0
between Clairemont Mesa Boulevard and Bannock Avenue	Hard	45	45	40	35	2,395	49	25	72.1
between Bannock Avenue and Chateau Drive	Hard	45	45	40	35	2,474	51	26	72.2
between Chateau Drive and Mount Herbert Avenue	Hard	45	45	40	35	2,340	48	24	72.0
between Mount Herbert Avenue and Derrick Drive	Hard	45	45	40	35	2,311	48	24	71.9
between Derrick Drive and Mount Etna Drive	Hard	45	45	40	35	2,537	52	26	72.3
between Mount Etna Drive and Balboa Avenue	Hard	45	45	40	35	2,648	55	27	72.5
between Balboa Avenue and Mount Alifan Drive	Hard	45	45	40	35	2,205	45	23	71.7
s/o Mount Alifan Drive	Hard	45	45	40	35	2,784	57	29	72.7
Mount Etna Drive									
s/o Mount Alifan Drive	Hard	25	30	30	30	564	12	6	63.9
Balboa Avenue									
between Clairemont Drive and Mount Everest Boulevard	Hard	45	45	40	40	3,444	71	36	73.7
between Mount Everest Boulevard and Genesee Avenue	Hard	45	45	40	40	3,282	68	34	73.5
between Genesee Avenue and Shopping Center Driveway	Hard	45	45	40	40	3,258	67	34	73.5
between Shopping Center Driveway and Mount Abernathy Avenue	Hard	45	45	40	40	3,498	72	36	73.8
between Mount Abernathy Avenue and Cannington Drive	Hard	45	45	40	40	3,845	79	40	74.2
between Cannington Drive and Charger Boulevard	Hard	45	45	40	40	3,864	80	40	74.2
between Charger Boulevard and I-805 Southbound Ramps	Hard	45	45	40	40	4,700	97	48	75.1
between I-805 Southbound Ramps and I-805 Northbound Ramps	Hard	45	45	40	40	4,159	86	43	74.5
e/o I-805 Northbound Ramps	Hard	45	45	40	40	4,449	92	46	74.8

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%.