

**Appendix H:
Noise Supporting Information**

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H.1 - Noise Measurement Survey

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Project Number: 4859.0002
 Project Name: Baumgardner Ranch
 Test Personnel: J. Pacheco

Sheet 1 of 2

Noise Measurement Survey

Site Number: ST-1 Date: March 11, 2019 Time: From 2:51 pm To 3:03 pm.

Site Location:
Halfway between Sandholm Lane and Kelly Road, approximately 350 ft. from each road, and 110 ft. from treeline on northeastern portion of site.

Primary Noise Sources: Birds, nearby roadways

Measurement Results

	dBA
Leq	42.0
Lmax	46.1
Lmin	40.8
L5	43.1
L10	42.8
L50	41.8
L90	41.2
Ldn	
CNEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: Sunny, light breeze, low traffic

Equipment: LXT
 Settings: A-Weighted Other

Measured Difference: .08 dBA
 Slow Fast Windscreen

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)
5.0	1.8	70.8	
Comments:			

Project Number: 4859.0002
 Project Name: Baumgardner Ranch
 Test Personnel: J. Pacheco

Noise Measurement Survey

Site Number: ST-2 Date: March 11, 2019 Time: From 2:22 pm To 2:34 pm

Site Location:
Approximately 75 ft. northeast of corner of Sandholm Lane and
Foothill Boulevard, near stand of trees adjacent to Sandholm Lane.

Primary Noise Sources: Birds, traffic along roadway

Measurement Results

	dBA
Leq	53.8
Lmax	74.0
Lmin	36.1
L5	59.0
L10	55.5
L50	44.1
L90	38.4
Ldn	
CNEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: Sunny, no clouds, low traffic

Equipment: LxT
 Settings: A-Weighted Other

Measured Difference: .08 dBA
 Slow Fast Windscreen

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)
6.1	4.6	68.2	
Comments:			

H.2 - Federal Highway Administration Noise Level Analysis

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TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019

ROADWAY SEGMENT: Sandholm Lane - Foothill Boulevard to South Redwood Highway

NOTES: Baumgardner Ranch Development - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 620 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 48.65

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	0.0

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019

ROADWAY SEGMENT: Foothill Boulevard - Treadway Drive to Sandholm Lane

NOTES: Baumgardner Ranch Development - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 830 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	----	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 49.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	0.0

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019

ROADWAY SEGMENT: Treadway Boulevard - Foothill Boulevard to South Redwood Highway

NOTES: Baumgardner Ranch Development - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4000 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
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0.0	0.0	0.0	73.0

TABLE Existing + Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019

ROADWAY SEGMENT: Sandholm Lane - Foothill Boulevard to South Redwood Highway

NOTES: Baumgardner Ranch Development - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1800 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
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AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
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0.0	0.0	0.0	0.0

TABLE Existing + Project-02
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019
 ROADWAY SEGMENT: Foothill Boulevard - Treadway Drive to Sandholm Lane
 NOTES: Baumgardner Ranch Development - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1100 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 51.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	0.0

TABLE Existing + Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019

ROADWAY SEGMENT: Treadway Boulevard - Foothill Boulevard to South Redwood Highway

NOTES: Baumgardner Ranch Development - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4200 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
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AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 56.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	75.4

TABLE Future-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019
ROADWAY SEGMENT: Sandholm Lane - Foothill Boulevard to South Redwood Highway
NOTES: Baumgardner Ranch Development - Future

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 830 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 49.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	0.0

TABLE Future-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019
ROADWAY SEGMENT: Foothill Boulevard - Treadway Drive to Sandholm Lane
NOTES: Baumgardner Ranch Development - Future

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1200 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	----	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 51.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	0.0

TABLE Future-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019

ROADWAY SEGMENT: Treadway Boulevard - Foothill Boulevard to South Redwood Highway

NOTES: Baumgardner Ranch Development - Future

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5500 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
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AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	90.2

TABLE Future + Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019

ROADWAY SEGMENT: Sandholm Lane - Foothill Boulevard to South Redwood Highway

NOTES: Baumgardner Ranch Development - Future + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2000 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 53.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	0.0

TABLE Future + Project-02
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019

ROADWAY SEGMENT: Foothill Boulevard - Treadway Drive to Sandholm Lane

NOTES: Baumgardner Ranch Development - Future + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1400 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	----	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 52.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	0.0	0.0

TABLE Future + Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 05/07/2019

ROADWAY SEGMENT: Treadway Boulevard - Foothill Boulevard to South Redwood Highway

NOTES: Baumgardner Ranch Development - Future + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5600 SPEED (MPH): 25 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
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0.0	0.0	0.0	91.3