

**Appendix I:
Noise Supporting Information**

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE Background-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: MacArthur Drive - EB I-580 off-ramps to Pescadero Avenue

NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
136.8	291.1	625.4	1346.4

TABLE Background-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: MacArthur Drive - Pescadero Avenue to Grant Line Road
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20300 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
134.3	285.6	613.4	1320.5

TABLE Background-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: MacArthur Drive - Grant Line Road to Eleventh Street
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9400 SPEED (MPH): 41 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.98

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
84.8	176.9	378.3	813.6

TABLE Background-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - MacArthur Drive to Chrisman Road
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
152.0	322.3	691.9	1489.2

TABLE Background-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Chrisman Road to Paradise Avenue
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
110.3	230.5	493.2	1060.8

TABLE Background-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Paradise Road to Chabot Circle
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.84

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
149.0	317.6	682.7	1469.7

TABLE Background-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Chabot Circle to Best Buy Driveway
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
149.5	318.7	685.0	1474.8

TABLE Background-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Best Buy Driveway to Banta Road
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
148.5	316.6	680.3	1464.7

TABLE Background-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Paradise Avenue - Grant Line Road to Project Driveway 3
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2600 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	73.4	156.4	336.2

TABLE Background-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Project Driveway 3 to Project Driveway
4

NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2000 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	62.0	131.5	282.3

TABLE Background-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Project Driveway 4 to Project Driveway
5

NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1400 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	104.0	222.7

TABLE Background-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Paradise Avenue - north of Project Driveway 5
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1400 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	0.0	104.0	222.7

TABLE Background-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Chrisman Road - Eleventh Street to Grant Line Road
NOTES: Tracy Alliance Project - Background

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3100 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.90

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	82.3	175.8	378.0

TABLE Background Plus Full Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: MacArthur Drive - EB I-580 off-ramps to Pescadero Avenue

NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22600 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
143.9	306.6	658.9	1418.5

TABLE Background Plus Full Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: MacArthur Drive - Pescadero Avenue to Grant Line Road

NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21500 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
139.4	296.6	637.3	1372.1

TABLE Background Plus Full Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: MacArthur Drive - Grant Line Road to Eleventh Street

NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10500 SPEED (MPH): 41 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.46

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
90.8	190.2	407.1	875.8

TABLE Background Plus Full Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - MacArthur Drive to Chrisman Road
NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 75.25

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
168.7	358.9	771.0	1659.8

TABLE Background Plus Full Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Chrisman Road to Paradise Avenue
NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
129.5	273.0	585.4	1259.6

TABLE Background Plus Full Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Grant Line Road - Paradise Road to Chabot Circle

NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 75.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
163.1	348.4	749.0	1612.7

TABLE Background Plus Full Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Grant Line Road - Chabot Circle to Best Buy Driveway

NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 75.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
163.1	348.4	749.0	1612.7

TABLE Background Plus Full Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Grant Line Road - Best Buy Driveway to Banta Road

NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 75.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
156.4	333.7	717.4	1544.5

TABLE Background Plus Full Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Grant Line Road to Project Driveway 3

NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3600 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	90.8	194.1	417.5

TABLE Background Plus Full Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Project Driveway 3 to Project Driveway
4

NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	78.8	168.2	361.5

TABLE Background Plus Full Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Project Driveway 4 to Project Driveway
5

NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.78

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	60.0	127.1	272.8

TABLE Background Plus Full Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Paradise Avenue - north of Project Driveway 5
NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.78

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	60.0	127.1	272.8

TABLE Background Plus Full Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Chrisman Road - Eleventh Street to Grant Line Road
NOTES: Tracy Alliance Project - Background Plus Full Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3100 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.90

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
0.0	82.3	175.8	378.0

TABLE Cumulative-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: MacArthur Drive - EB I-580 off-ramps to Pescadero Avenue

NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20300 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
134.3	285.6	613.4	1320.5

TABLE Cumulative-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: MacArthur Drive - Pescadero Avenue to Grant Line Road
NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
132.6	281.8	605.4	1303.2

TABLE Cumulative-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: MacArthur Drive - Grant Line Road to Eleventh Street
NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15800 SPEED (MPH): 41 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
117.5	248.9	534.2	1149.8

TABLE Cumulative-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - MacArthur Drive to Chrisman Road
NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 75.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
166.4	353.8	760.0	1636.0

TABLE Cumulative-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Chrisman Road to Paradise Avenue
NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.31

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
126.9	267.2	572.6	1232.2

TABLE Cumulative-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Paradise Road to Chabot Circle
NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
136.3	289.9	622.8	1340.6

TABLE Cumulative-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Chabot Circle to Best Buy Driveway
NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.26

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
136.8	291.0	625.2	1345.9

TABLE Cumulative-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Best Buy Driveway to Banta Road
NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
135.7	288.8	620.3	1335.3

TABLE Cumulative-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Grant Line Road to Project Driveway 3

NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6500 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
63.1	133.9	287.5	618.8

TABLE Cumulative-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Project Driveway 3 to Project Driveway
4

NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6000 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	NIGHT -----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.77

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn -----	65 Ldn -----	60 Ldn -----	55 Ldn -----
59.9	127.0	272.6	586.7

TABLE Cumulative-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Project Driveway 4 to Project Driveway
5

NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5300 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
55.3	117.0	251.0	540.1

TABLE Cumulative-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Paradise Avenue - north of Project Driveway 5
NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5300 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
55.3	117.0	251.0	540.1

TABLE Cumulative-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Chrisman Road - Eleventh Street to Grant Line Road
NOTES: Tracy Alliance Project - Cumulative

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 75.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
139.6	299.9	645.7	1390.5

TABLE Cumulative Plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: MacArthur Drive - EB I-580 off-ramps to Pescadero Avenue

NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20300 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
134.3	285.6	613.4	1320.5

TABLE Cumulative Plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: MacArthur Drive - Pescadero Avenue to Grant Line Road

NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
132.6	281.8	605.4	1303.2

TABLE Cumulative Plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: MacArthur Drive - Grant Line Road to Eleventh Street
NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15800 SPEED (MPH): 41 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES	
DAY	NIGHT
---	-----
AUTOS	
82.40	9.60
M-TRUCKS	
1.50	1.50
H-TRUCKS	
2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
117.5	248.9	534.2	1149.8

TABLE Cumulative Plus Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - MacArthur Drive to Chrisman Road
NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 75.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
168.3	357.9	768.8	1655.0

TABLE Cumulative Plus Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Chrisman Road to Paradise Avenue
NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
137.4	290.3	622.7	1340.0

TABLE Cumulative Plus Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Grant Line Road - Paradise Road to Chabot Circle
NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
151.5	323.0	694.3	1494.9

TABLE Cumulative Plus Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Grant Line Road - Chabot Circle to Best Buy Driveway

NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
151.5	323.0	694.3	1494.9

TABLE Cumulative Plus Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Grant Line Road - Best Buy Driveway to Banta Road

NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
142.9	304.5	654.2	1408.5

TABLE Cumulative Plus Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Grant Line Road to Project Driveway 3

NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
77.3	164.9	354.4	763.0

TABLE Cumulative Plus Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Project Driveway 3 to Project Driveway
4

NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8400 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
74.4	158.7	341.0	734.2

TABLE Cumulative Plus Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - Project Driveway 4 to Project Driveway
5

NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7800 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.91

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
70.9	151.1	324.6	698.8

TABLE Cumulative Plus Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021

ROADWAY SEGMENT: Paradise Avenue - north of Project Driveway 5

NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7800 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.91

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn			
70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
70.9	151.1	324.6	698.8

TABLE Cumulative Plus Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 01/07/2021
ROADWAY SEGMENT: Chrisman Road - Eleventh Street to Grant Line Road
NOTES: Tracy Alliance Project - Cumulative Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23500 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	NIGHT
	---	-----
AUTOS	82.40	9.60
M-TRUCKS	1.50	1.50
H-TRUCKS	2.50	2.50

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

Ldn AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 75.70

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO Ldn

70 Ldn	65 Ldn	60 Ldn	55 Ldn
-----	-----	-----	-----
146.3	314.3	676.7	1457.5

Parking Lot activity

Receptor: At Project Boundary

No.	Equipment Description	Reference (dBA) 50 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy	
		Lmax						Leq			
1	parking lot activity	70	6	1	50	1	0	70.0	57.8	600000	
2	parking lot activity	70	6	1	75	1	0	66.5	52.5	177777.7778	
3	parking lot activity	70	6	1	100	1	0	64.0	48.8	75000	
4											
5											
6											
7											
8											
9											
10											
								Lmax[4]	70	Leq	59

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to terrain or structures
- [4] Calculated Lmax is the Loudest value.

Receptor: Nearest Residential Use (west of project site)

No.	Equipment Description	Reference (dBA) 50 ft	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy	
		Lmax						Leq			
1	parking lot activity	70	6	1	180	1	0	58.9	41.1	12860.0823	
2	parking lot activity	70	6	1	205	1	0	57.7	39.4	8705.619477	
3	parking lot activity	70	6	1	230	1	0	56.7	37.9	6164.214679	
4											
5											
6											
7											
8											
9											
10											
								Lmax[4]	59	Leq	44

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to terrain or structures
- [4] Calculated Lmax is the Loudest value.

Ldn Calculations at nearest project boundary					
	Time	Hourly Leq	Leq'	0.1*Leq	antiLog
Night	12:00 AM	44.0	54.0	5.4	251188.6432
	1:00 AM	44.0	54.0	5.4	251188.6432
	2:00 AM	44.0	54.0	5.4	251188.6432
	3:00 AM	44.0	54.0	5.4	251188.6432
	4:00 AM	44.0	54.0	5.4	251188.6432
	5:00 AM	44.0	54.0	5.4	251188.6432
Day	6:00 AM	44.0	54.0	5.4	251188.6432
	7:00 AM	44.0	44.0	4.4	25118.86432
	8:00 AM	44.0	44.0	4.4	25118.86432
	9:00 AM	44.0	44.0	4.4	25118.86432
	10:00 AM	44.0	44.0	4.4	25118.86432
	11:00 AM	44.0	44.0	4.4	25118.86432
	12:00 PM	44.0	44.0	4.4	25118.86432
	1:00 PM	44.0	44.0	4.4	25118.86432
	2:00 PM	44.0	44.0	4.4	25118.86432
	3:00 PM	44.0	44.0	4.4	25118.86432
	4:00 PM	44.0	44.0	4.4	25118.86432
	5:00 PM	44.0	44.0	4.4	25118.86432
	6:00 PM	44.0	44.0	4.4	25118.86432
	7:00 PM	44.0	44.0	4.4	25118.86432
8:00 PM	44.0	44.0	4.4	25118.86432	
Night	9:00 PM	44.0	44.0	4.4	25118.86432
	10:00 PM	44.0	54.0	5.4	251188.6432
	11:00 PM	44.0	54.0	5.4	251188.6432
Sum					2637480.753
Sum/24					109895.0314
Log10(Sum/24)					5.040978057
10*Log10(Sum/24)					50.40978057
24 Hour Ldn					50

Mechanical Equipment Noise Calculation

Receptor: Nearest Residential Use (west of project site)

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements											
No.	Equipment Description	Reference (dBA)	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy	
		25 ft						Lmax	Leq		
1	Commercial grade mechanical ventilation equipment	60	1	100	320	1	5	32.9	21.8	150.7891493	
2	Commercial grade mechanical ventilation equipment	60	1	100	340	1	5	32.3	21.0	125.7138928	
3	Commercial grade mechanical ventilation equipment	60	1	100	360	1	5	31.8	20.2	105.904039	
4	Commercial grade mechanical ventilation equipment	60	1	100	380	1	5	31.4	19.5	90.04699745	
5	Commercial grade mechanical ventilation equipment	60	1	100	400	1	5	30.9	18.9	77.20404444	
6	Commercial grade mechanical ventilation equipment	60	1	100	420	1	5	30.5	18.2	66.69175634	
7	Commercial grade mechanical ventilation equipment	60	1	100	440	1	5	30.1	17.6	58.00454128	
8	Commercial grade mechanical ventilation equipment	60	1	100	460	1	5	29.7	17.1	50.76291243	
9	Commercial grade mechanical ventilation equipment	60	1	100	480	1	5	29.3	16.5	44.67826646	
10	Commercial grade mechanical ventilation equipment	60	1	100	500	1	5	29.0	16.0	39.52847075	
								Lmax[4]	33	Leq	29

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding from rooftop parapet
- [4] Calculated Lmax is the Loudest value.

Ldn Calculations					
	Time	Hourly Leq	Leq'	0.1*Leq	antiLog
Night	12:00 AM	29.0	39.0	3.9	7943.282347
	1:00 AM	29.0	39.0	3.9	7943.282347
	2:00 AM	29.0	39.0	3.9	7943.282347
	3:00 AM	29.0	39.0	3.9	7943.282347
	4:00 AM	29.0	39.0	3.9	7943.282347
	5:00 AM	29.0	39.0	3.9	7943.282347
Day	6:00 AM	29.0	39.0	3.9	7943.282347
	7:00 AM	29.0	29.0	2.9	794.3282347
	8:00 AM	29.0	29.0	2.9	794.3282347
	9:00 AM	29.0	29.0	2.9	794.3282347
	10:00 AM	29.0	29.0	2.9	794.3282347
	11:00 AM	29.0	29.0	2.9	794.3282347
	12:00 PM	29.0	29.0	2.9	794.3282347
	1:00 PM	29.0	29.0	2.9	794.3282347
	2:00 PM	29.0	29.0	2.9	794.3282347
	3:00 PM	29.0	29.0	2.9	794.3282347
	4:00 PM	29.0	29.0	2.9	794.3282347
	5:00 PM	29.0	29.0	2.9	794.3282347
	6:00 PM	29.0	29.0	2.9	794.3282347
	7:00 PM	29.0	29.0	2.9	794.3282347
8:00 PM	29.0	29.0	2.9	794.3282347	
Night	9:00 PM	29.0	29.0	2.9	794.3282347
	10:00 PM	29.0	39.0	3.9	7943.282347
	11:00 PM	29.0	39.0	3.9	7943.282347
Sum					83404.46465
Sum/24					3475.186027
Log10(Sum/24)					3.540978057
10*Log10(Sum/24)					35.40978057
24 Hour Ldn					35

Loading/Unloading

Receptor: Nearest property line

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements											
No.	Equipment Description	Reference (dBA)	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy	
		50 ft						Lmax	Leq		
1	Loading/Unloading	80	6	5	100	1	0	74.0	65.7	3750000	
2	Loading/Unloading	80	6	5	150	1	0	70.5	60.5	1111111.111	
3	Loading/Unloading	80	6	5	200	1	0	68.0	56.7	468750	
4											
5											
6											
7											
8											
9											
10											
Notes:								Lmax[4]	74	Leq	67

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to terrain or structures
- [4] Calculated Lmax is the Loudest value.

Receptor: Nearest Residential Use (west of project site)

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements											
No.	Equipment Description	Reference (dBA)	Quantity	Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy	
		50 ft						Lmax	Leq		
1	Loading/Unloading	80	7	6	400	1	0	61.9	49.1	82031.25	
2	Loading/Unloading	80	7	6	450	1	0	60.9	47.6	57613.16872	
3	Loading/Unloading	80	7	6	500	1	0	60.0	46.2	42000	
4	Loading/Unloading	80	7	6	550	1	0	59.2	45.0	31555.22164	
5											
6											
7											
8											
9											
10											
Notes:								Lmax[4]	62	Leq	53

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to terrain or structures
- [4] Calculated Lmax is the Loudest value.

Ldn Calculations					
	Time	Hourly Leq	Leq'	0.1*Leq	antiLog
Night	12:00 AM	53.3	63.3	6.328786468	2131996.404
	1:00 AM	53.3	63.3	6.328786468	2131996.404
	2:00 AM	53.3	63.3	6.328786468	2131996.404
	3:00 AM	53.3	63.3	6.328786468	2131996.404
	4:00 AM	53.3	63.3	6.328786468	2131996.404
	5:00 AM	53.3	63.3	6.328786468	2131996.404
Day	6:00 AM	53.3	63.3	6.328786468	2131996.404
	7:00 AM	53.3	53.3	5.328786468	213199.6404
	8:00 AM	53.3	53.3	5.328786468	213199.6404
	9:00 AM	53.3	53.3	5.328786468	213199.6404
	10:00 AM	53.3	53.3	5.328786468	213199.6404
	11:00 AM	53.3	53.3	5.328786468	213199.6404
	12:00 PM	53.3	53.3	5.328786468	213199.6404
	1:00 PM	53.3	53.3	5.328786468	213199.6404
	2:00 PM	53.3	53.3	5.328786468	213199.6404
	3:00 PM	53.3	53.3	5.328786468	213199.6404
	4:00 PM	53.3	53.3	5.328786468	213199.6404
	5:00 PM	53.3	53.3	5.328786468	213199.6404
	6:00 PM	53.3	53.3	5.328786468	213199.6404
	7:00 PM	53.3	53.3	5.328786468	213199.6404
Night	8:00 PM	53.3	53.3	5.328786468	213199.6404
	9:00 PM	53.3	53.3	5.328786468	213199.6404
	10:00 PM	53.3	63.3	6.328786468	2131996.404
	11:00 PM	53.3	63.3	6.328786468	2131996.404
Sum					22385962.24
Sum/24					932748.4266
Log10(Sum/24)					5.969764525
10*Log10(Sum/24)					59.69764525
24 Hour Ldn					60