

**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

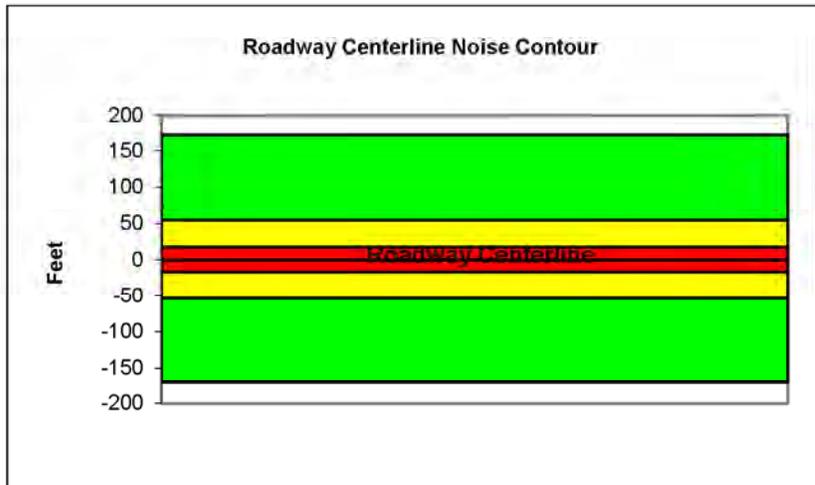
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Nevada City Highway
 Road Segment: Dorsey to Brunswick

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	9945			
Receiver Barrier Dist:	0	Peak Hour Traffic:	994.5			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.7	58.5	56.7	50.6	59.3	59.9
Medium Trucks:	59.4	51.4	45.0	43.4	51.9	52.1
Heavy Trucks:	64.7	52.7	43.7	44.9	54.8	54.9
Vehicle Noise:	67.1	60.5	57.3	52.6	61.2	61.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	171
65 dBA	54
70 dBA	17
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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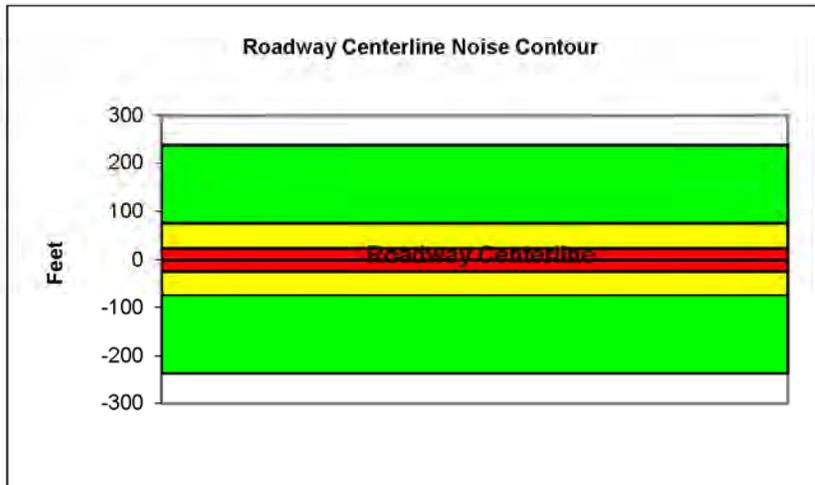
Project Name:	Nevada County Housing Element Rezone	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Nevada City Highway		
Road Segment:	North of Brunswick		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	13707			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1370.7			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View: -90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.1	59.9	58.1	52.0	60.7	61.3
Medium Trucks:	60.8	52.8	46.4	44.8	53.3	53.5
Heavy Trucks:	66.1	54.1	45.1	46.3	56.2	56.3
Vehicle Noise:	68.5	61.9	58.7	54.0	62.6	63.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	236
65 dBA	75
70 dBA	24
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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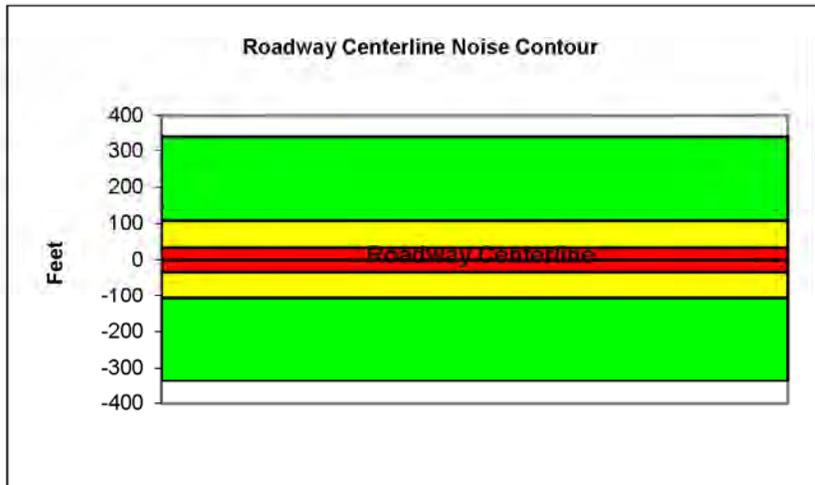
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: SB On-Ramp

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	19620			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1962			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.7	61.5	59.7	53.6	62.2	62.8
Medium Trucks:	62.4	54.3	47.9	46.4	54.9	55.1
Heavy Trucks:	67.6	55.7	46.6	47.8	57.7	57.9
Vehicle Noise:	70.1	63.4	60.2	55.5	64.1	64.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	338
65 dBA	107
70 dBA	34
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
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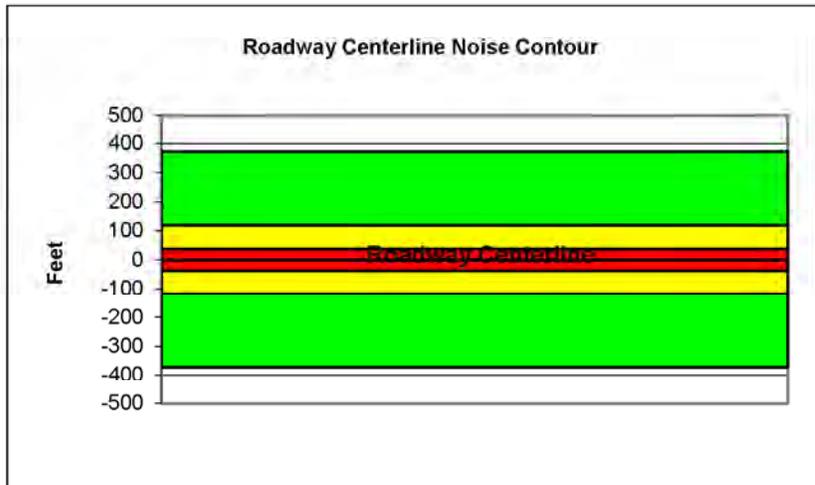
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: SR-20 to Sutton Way

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	21,618			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2161.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.0	61.7	59.9	53.9	62.5	63.1
Medium Trucks:	62.7	54.6	48.2	46.6	55.1	55.4
Heavy Trucks:	67.9	56.0	46.9	48.1	58.0	58.1
Vehicle Noise:	70.3	63.7	60.5	55.8	64.4	64.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	372
65 dBA	118
70 dBA	37
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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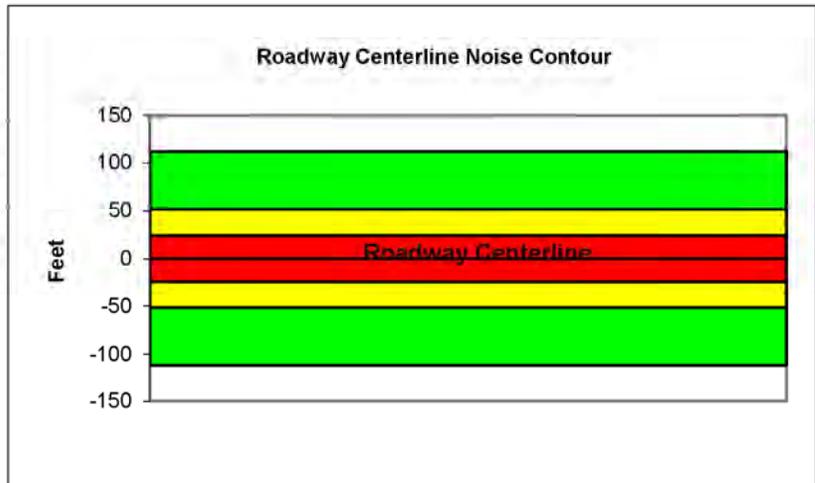
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: Sutton to Old Tunnel

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12654			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1265.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.5	56.3	54.5	48.4	57.0	57.7
Medium Trucks:	57.2	49.1	42.8	41.2	49.7	49.9
Heavy Trucks:	62.4	50.5	41.4	42.6	52.6	52.7
Vehicle Noise:	64.9	58.2	55.0	50.3	58.9	59.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	111
65 dBA	52
70 dBA	24
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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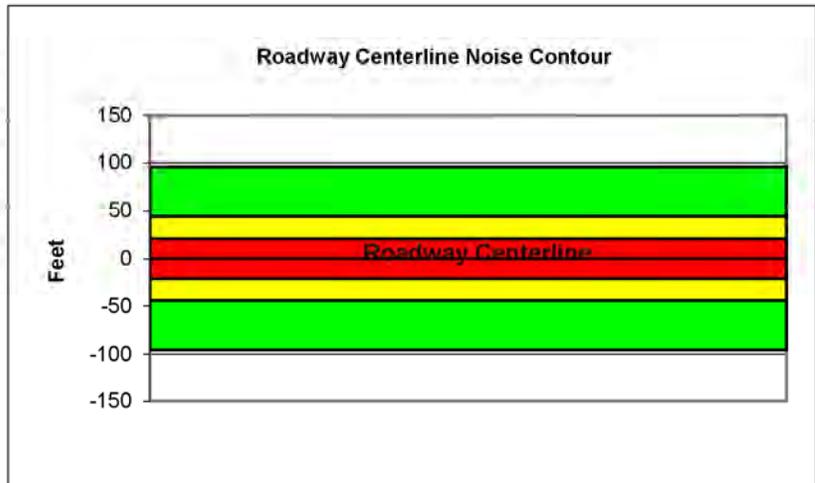
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: Old Tunnel to Idaho-Maryland Rd

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	10107			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1010.7			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.5	55.3	53.5	47.4	56.1	56.7
Medium Trucks:	56.2	48.2	41.8	40.2	48.7	48.9
Heavy Trucks:	61.4	49.5	40.5	41.7	51.6	51.7
Vehicle Noise:	63.9	57.2	54.1	49.4	57.9	58.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	96
65 dBA	44
70 dBA	21
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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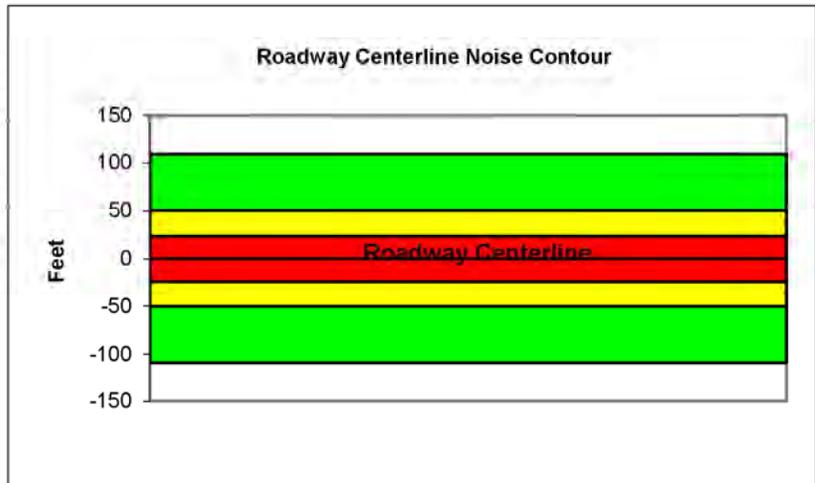
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: South of Idaho-Maryland Rd

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12240			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1224			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.3	56.1	54.3	48.3	56.9	57.5
Medium Trucks:	57.1	49.0	42.6	41.0	49.5	49.8
Heavy Trucks:	62.3	50.3	41.3	42.5	52.4	52.5
Vehicle Noise:	64.7	58.1	54.9	50.2	58.8	59.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	109
65 dBA	50
70 dBA	23
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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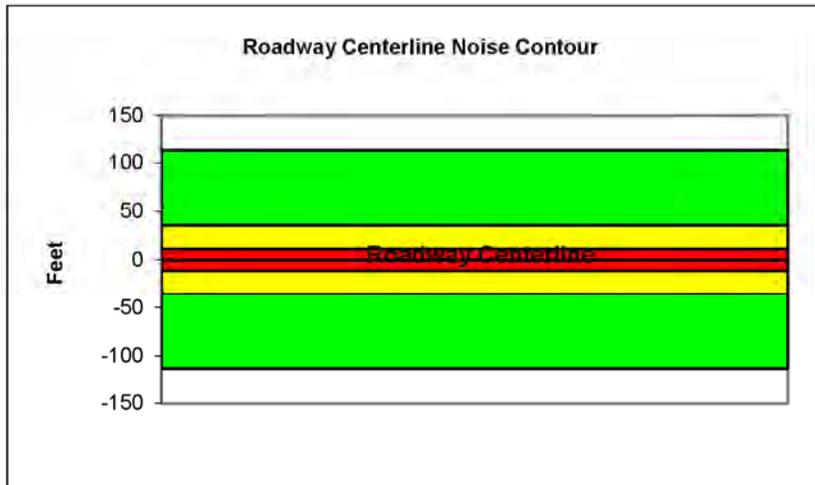
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Sutton Way
 Road Segment: North of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	6,561			
Receiver Barrier Dist:	0	Peak Hour Traffic:	656.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.8	56.6	54.8	48.7	57.3	57.9
Medium Trucks:	57.5	49.4	43.0	41.5	50.0	50.2
Heavy Trucks:	62.7	50.8	41.7	42.9	52.8	53.0
Vehicle Noise:	65.1	58.5	55.3	50.6	59.2	59.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	113
65 dBA	36
70 dBA	11
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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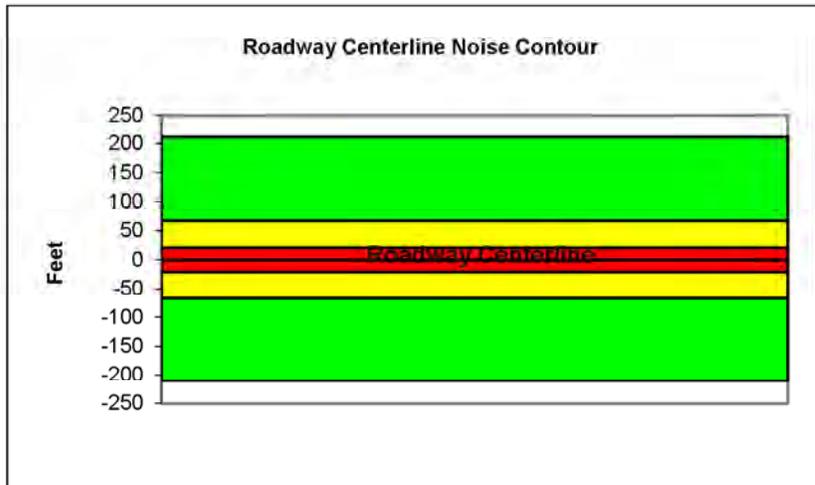
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Sutton Way
 Road Segment: South of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12,249			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1224.9			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.5	59.3	57.5	51.4	60.0	60.7
Medium Trucks:	60.2	52.1	45.8	44.2	52.7	52.9
Heavy Trucks:	65.4	53.5	44.4	45.6	55.6	55.7
Vehicle Noise:	67.9	61.2	58.0	53.3	61.9	62.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	211
65 dBA	67
70 dBA	21
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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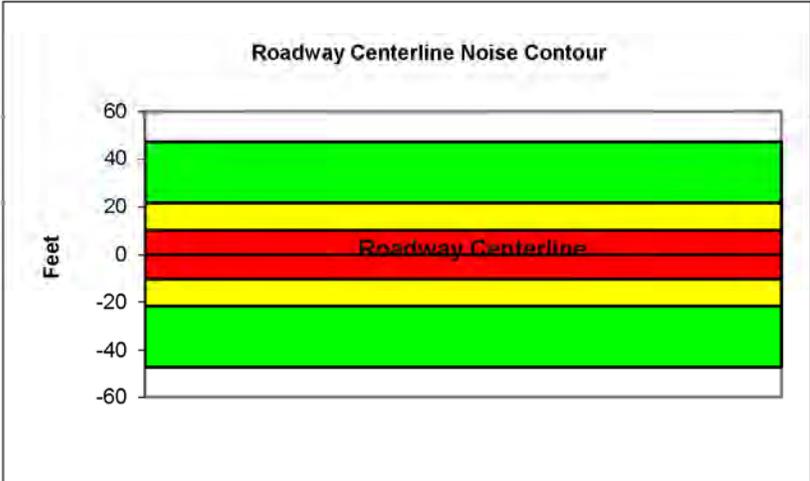
Project Name:	Nevada County Housing Element Rezone	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Idaho-Maryland Road		
Road Segment:	West of Brunswick Road		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	3465			
Receiver Barrier Dist:	0	Peak Hour Traffic:	346.5			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View: -90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	42.2	51.0	49.2	43.1	51.7	52.3
Medium Trucks:	51.9	43.8	37.4	35.9	44.4	44.6
Heavy Trucks:	57.1	45.2	36.1	37.3	47.2	47.4
Vehicle Noise:	59.6	52.9	49.7	45.0	53.6	54.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	47
65 dBA	22
70 dBA	10
Mitigated	
60 dBA	
65 dBA	
70 dBA	



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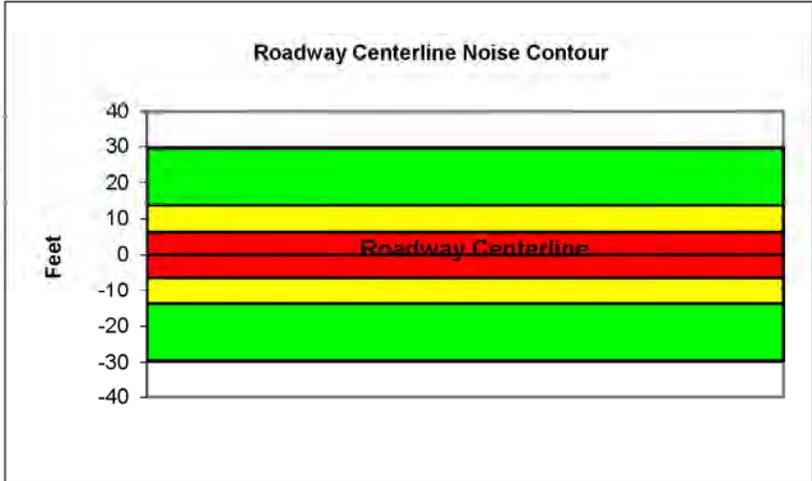
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Idaho-Maryland Road
 Road Segment: East of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	1737			
Receiver Barrier Dist:	0	Peak Hour Traffic:	173.7			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	39.2	48.0	46.2	40.1	48.7	49.3
Medium Trucks:	48.9	40.8	34.4	32.9	41.4	41.6
Heavy Trucks:	54.1	42.2	33.1	34.3	44.2	44.4
Vehicle Noise:	56.6	49.9	46.7	42.0	50.6	51.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	30
65 dBA	14
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

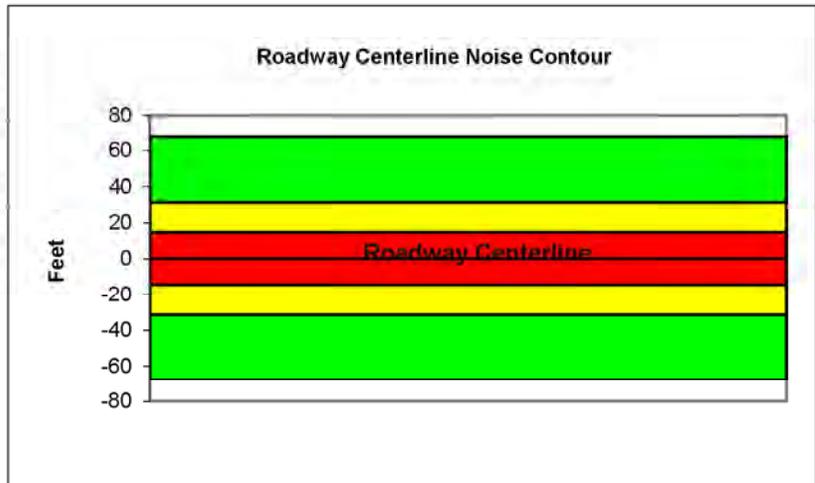
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McCourtney Road
 Road Segment: South of Personeni Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	6003			
Receiver Barrier Dist:	0	Peak Hour Traffic:	600.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.6	53.3	51.6	45.5	54.1	54.7
Medium Trucks:	54.3	46.2	39.8	38.3	46.8	47.0
Heavy Trucks:	59.5	47.6	38.5	39.7	49.6	49.8
Vehicle Noise:	61.9	55.3	52.1	47.4	56.0	56.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	68
65 dBA	31
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

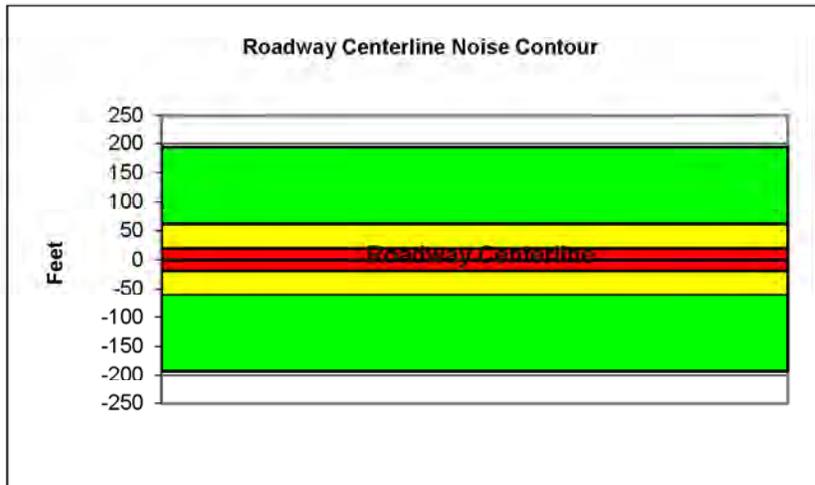
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McKnight Way
 Road Segment: East of SR-49

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	11,196			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1119.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.1	58.9	57.1	51.0	59.7	60.3
Medium Trucks:	59.8	51.7	45.4	43.8	52.3	52.5
Heavy Trucks:	65.0	53.1	44.0	45.3	55.2	55.3
Vehicle Noise:	67.5	60.8	57.6	53.0	61.5	62.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	193
65 dBA	61
70 dBA	19
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

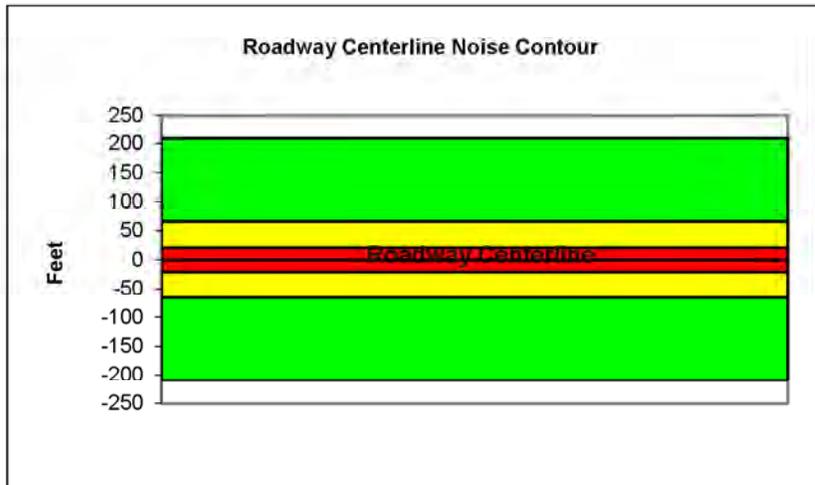
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McKnight Way
 Road Segment: SR-49 NB ramps to SB ramps

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12,159			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1215.9			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.5	59.2	57.4	51.4	60.0	60.6
Medium Trucks:	60.2	52.1	45.7	44.1	52.6	52.9
Heavy Trucks:	65.4	53.5	44.4	45.6	55.5	55.6
Vehicle Noise:	67.8	61.2	58.0	53.3	61.9	62.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	209
65 dBA	66
70 dBA	21
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

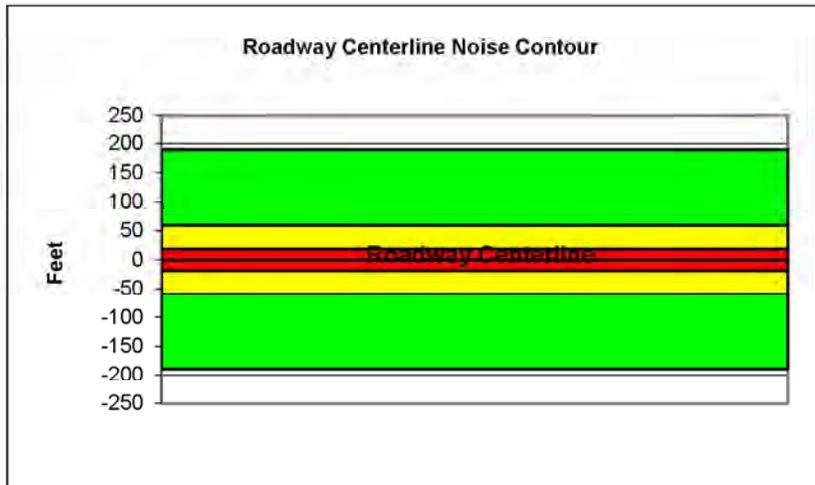
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McKnight Way
 Road Segment: SR-49 ramps to Auburn Street

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	10,980			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1098			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.0	58.8	57.0	50.9	59.6	60.2
Medium Trucks:	59.7	51.7	45.3	43.7	52.2	52.4
Heavy Trucks:	64.9	53.0	44.0	45.2	55.1	55.2
Vehicle Noise:	67.4	60.7	57.6	52.9	61.4	61.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	189
65 dBA	60
70 dBA	19
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

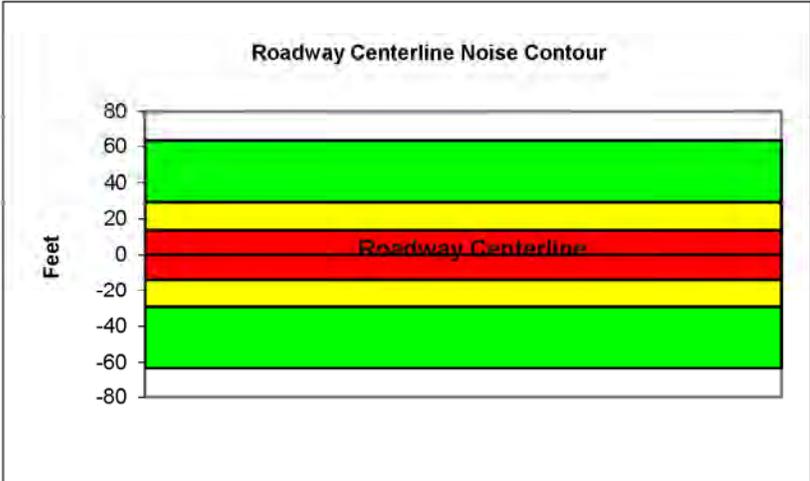
Project Name:	Nevada County Housing Element Rezone	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Auburn Street		
Road Segment:	North of McKnight		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	5436			
Receiver Barrier Dist:	0	Peak Hour Traffic:	543.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.0	52.8	51.0	45.0	53.6	54.2
Medium Trucks:	53.8	45.7	39.3	37.7	46.2	46.5
Heavy Trucks:	59.0	47.0	38.0	39.2	49.1	49.2
Vehicle Noise:	61.4	54.8	51.6	46.9	55.5	55.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	63
65 dBA	29
70 dBA	14
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

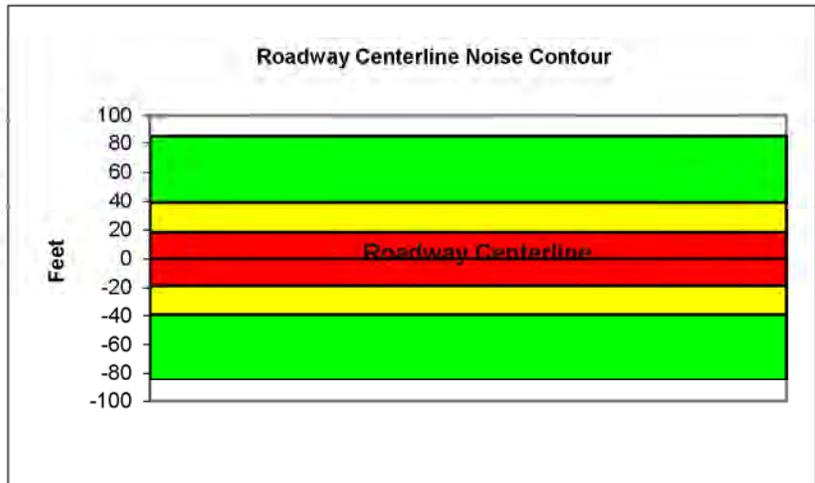
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: La Barr Meadows Road
 Road Segment: South of McKnight

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	8442			
Receiver Barrier Dist:	0	Peak Hour Traffic:	844.2			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.0	54.7	52.9	46.9	55.5	56.1
Medium Trucks:	55.7	47.6	41.2	39.6	48.1	48.4
Heavy Trucks:	60.9	49.0	39.9	41.1	51.0	51.1
Vehicle Noise:	63.3	56.7	53.5	48.8	57.4	57.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	85
65 dBA	39
70 dBA	18
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

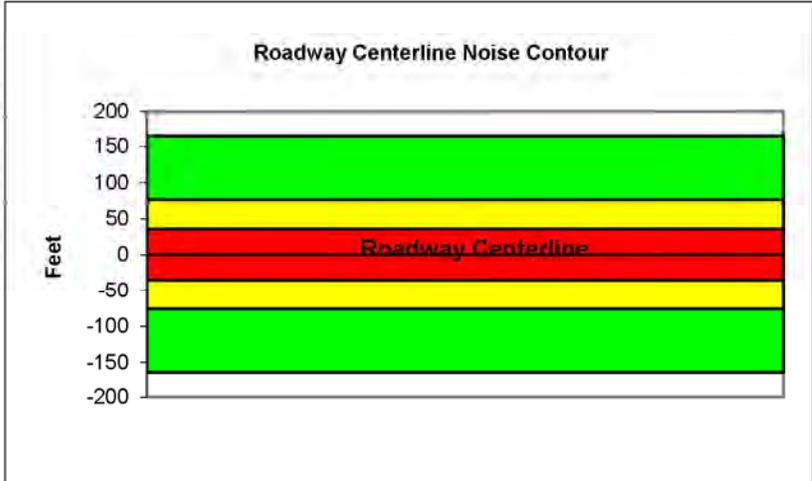
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: West of Pleasant Valley Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	7641			
Receiver Barrier Dist:	0	Peak Hour Traffic:	764.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.3	60.1	58.3	52.2	60.9	61.5
Medium Trucks:	58.4	50.4	44.0	42.4	50.9	51.1
Heavy Trucks:	62.4	50.4	41.4	42.6	51.9	52.0
Vehicle Noise:	64.7	61.0	58.5	53.1	61.7	62.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	164
65 dBA	76
70 dBA	35
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

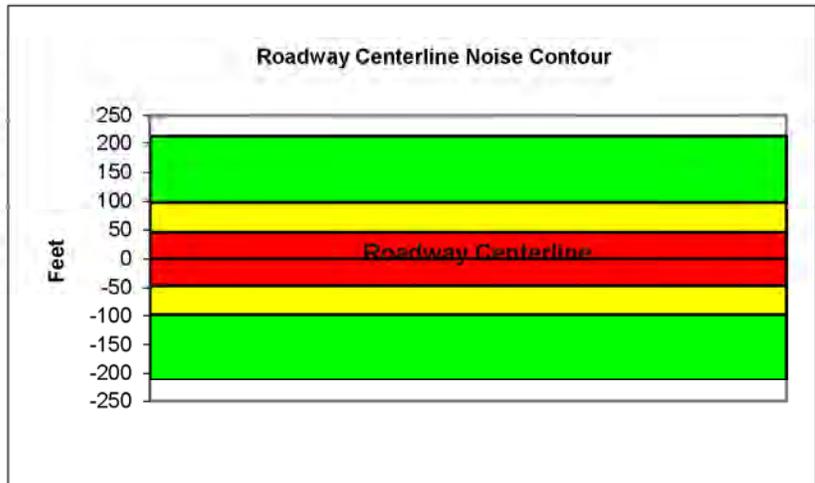
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: Pleasant Valley Road to Rough and Ready Hwy

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	11160			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1116			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.9	61.7	59.9	53.8	62.5	63.1
Medium Trucks:	60.1	52.0	45.6	44.0	52.5	52.8
Heavy Trucks:	64.0	52.1	43.0	44.3	53.5	53.6
Vehicle Noise:	66.3	62.7	60.2	54.8	63.4	63.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	212
65 dBA	98
70 dBA	46
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

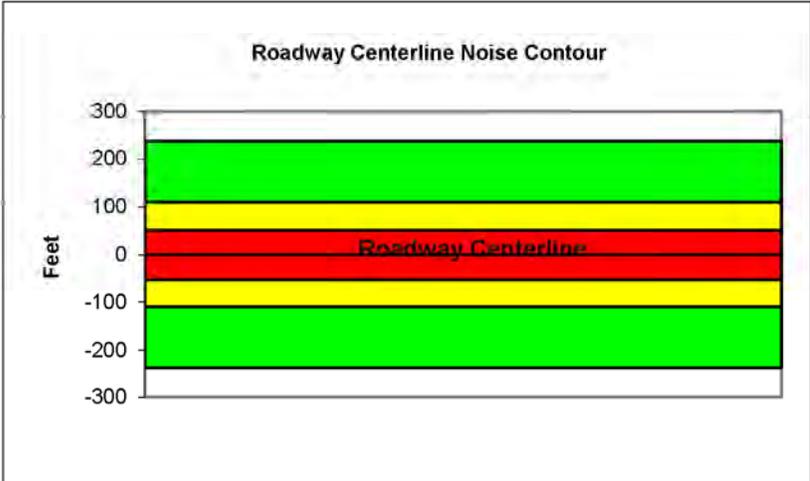
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: East of Rough and Ready Hwy

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	13140			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1314			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.6	62.4	60.6	54.6	63.2	63.8
Medium Trucks:	60.8	52.7	46.3	44.8	53.2	53.5
Heavy Trucks:	64.7	52.8	43.7	45.0	54.2	54.3
Vehicle Noise:	67.0	63.4	60.9	55.5	64.1	64.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	236
65 dBA	110
70 dBA	51
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

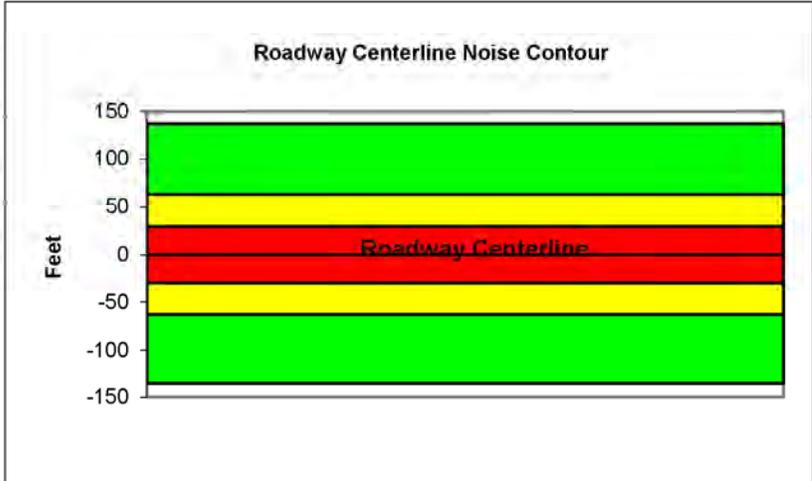
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Pleasant Valley Road
 Road Segment: North of SR-20

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	9495			
Receiver Barrier Dist:	0	Peak Hour Traffic:	949.5			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.7	58.5	56.7	50.6	59.3	59.9
Medium Trucks:	58.0	49.9	43.6	42.0	50.5	50.7
Heavy Trucks:	62.5	50.6	41.5	42.7	52.3	52.4
Vehicle Noise:	64.9	59.8	57.1	51.9	60.5	61.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	136
65 dBA	63
70 dBA	29
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

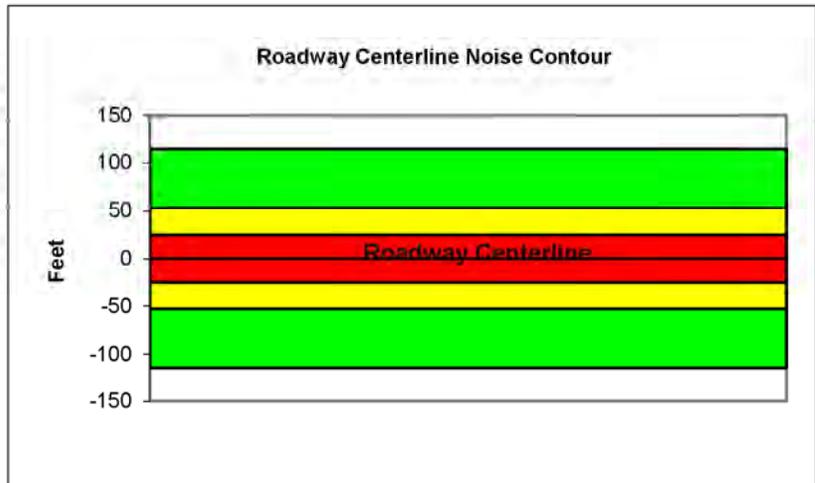
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Penn Valley Drive
 Road Segment: Pleasant Valley Road to Horton Street

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	7290			
Receiver Barrier Dist:	0	Peak Hour Traffic:	729			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.6	57.4	55.6	49.5	58.1	58.7
Medium Trucks:	56.9	48.8	42.4	40.8	49.3	49.6
Heavy Trucks:	61.4	49.4	40.4	41.6	51.1	51.3
Vehicle Noise:	63.7	58.7	55.9	50.8	59.4	59.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	114
65 dBA	53
70 dBA	25
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

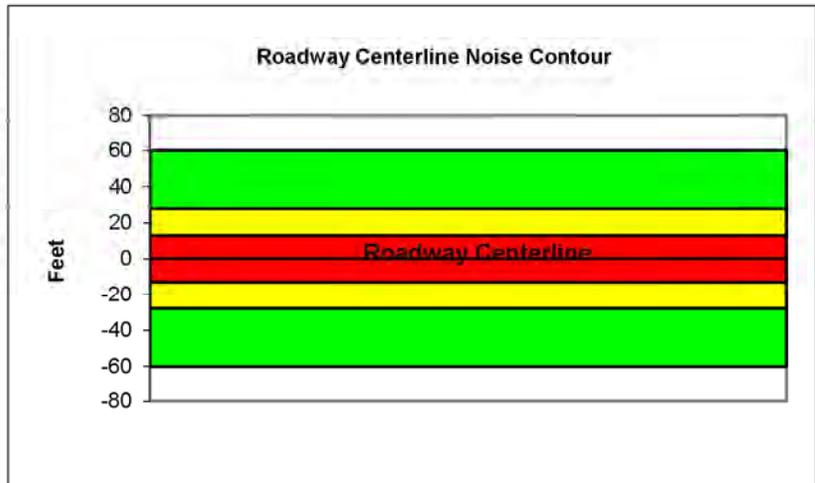
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Penn Valley Drive
 Road Segment: Horton Street to Broken Oak Court

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	2790			
Receiver Barrier Dist:	0	Peak Hour Traffic:	279			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.4	53.2	51.4	45.3	54.0	54.6
Medium Trucks:	52.7	44.6	38.2	36.7	45.1	45.4
Heavy Trucks:	57.2	45.3	36.2	37.4	47.0	47.1
Vehicle Noise:	59.5	54.5	51.8	46.6	55.2	55.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	60
65 dBA	28
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

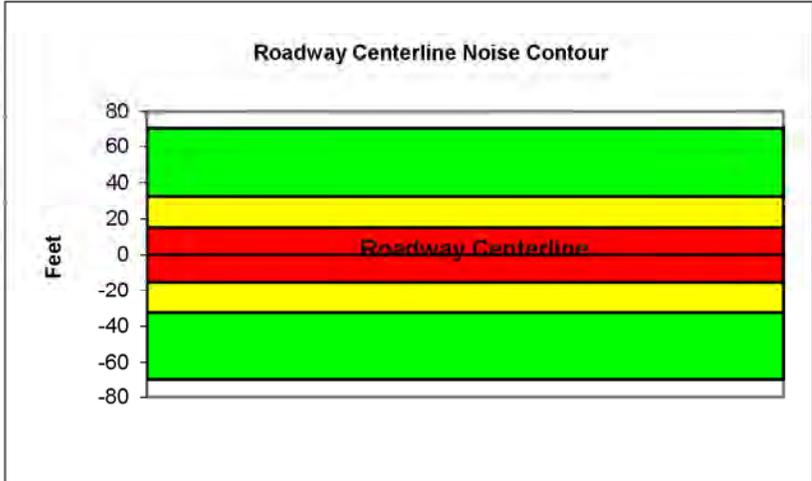
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Penn Valley Drive
 Road Segment: Broken Oak Court to Spenceville

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	3519			
Receiver Barrier Dist:	0	Peak Hour Traffic:	351.9			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.4	54.2	52.4	46.3	55.0	55.6
Medium Trucks:	53.7	45.6	39.2	37.7	46.2	46.4
Heavy Trucks:	58.2	46.3	37.2	38.4	48.0	48.1
Vehicle Noise:	60.5	55.5	52.8	47.6	56.2	56.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	70
65 dBA	33
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

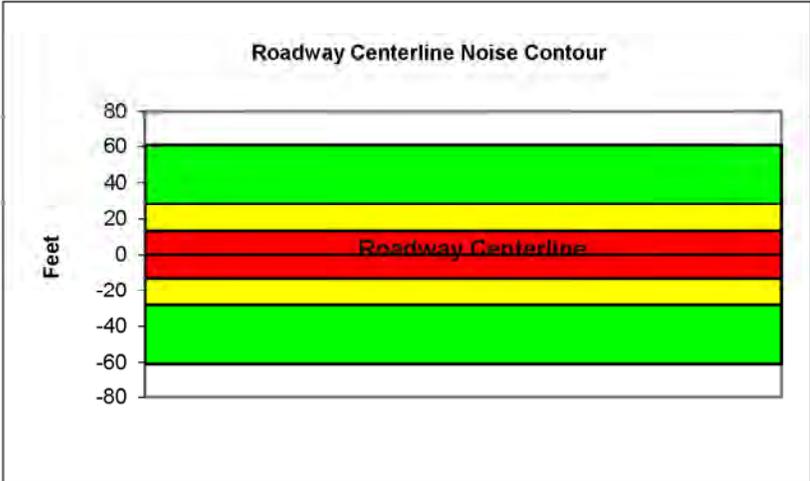
Project Name:	Nevada County Housing Element Rezone	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Rough and Ready Hwy		
Road Segment:	North of SR-20		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	2853			
Receiver Barrier Dist:	0	Peak Hour Traffic:	285.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	30			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.6	53.4	51.6	45.5	54.2	54.8
Medium Trucks:	52.9	44.8	38.5	36.9	45.4	45.6
Heavy Trucks:	57.4	45.5	36.4	37.7	47.2	47.3
Vehicle Noise:	59.8	54.7	52.0	46.8	55.4	55.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	61
65 dBA	28
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

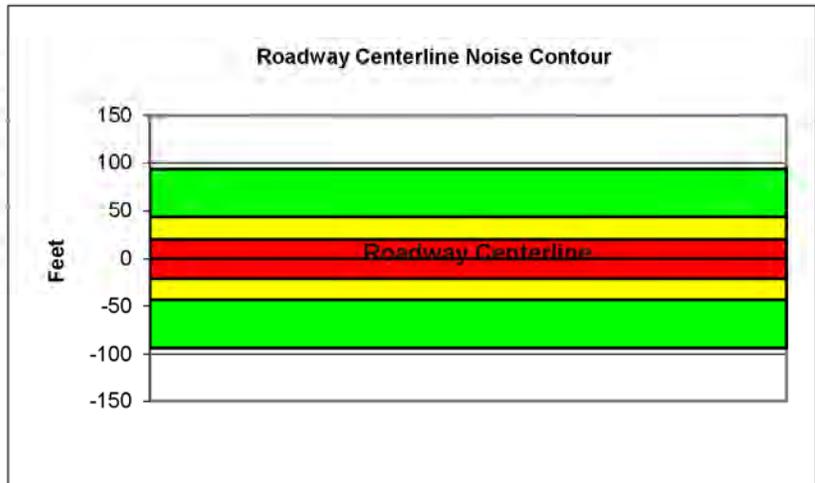
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Rough and Ready Hwy
 Road Segment: South of SR-20

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	5436			
Receiver Barrier Dist:	0	Peak Hour Traffic:	543.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	30			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.4	56.2	54.4	48.3	57.0	57.6
Medium Trucks:	55.7	47.6	41.3	39.7	48.2	48.4
Heavy Trucks:	60.2	48.3	39.2	40.4	50.0	50.1
Vehicle Noise:	62.6	57.5	54.8	49.6	58.2	58.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	94
65 dBA	43
70 dBA	20
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

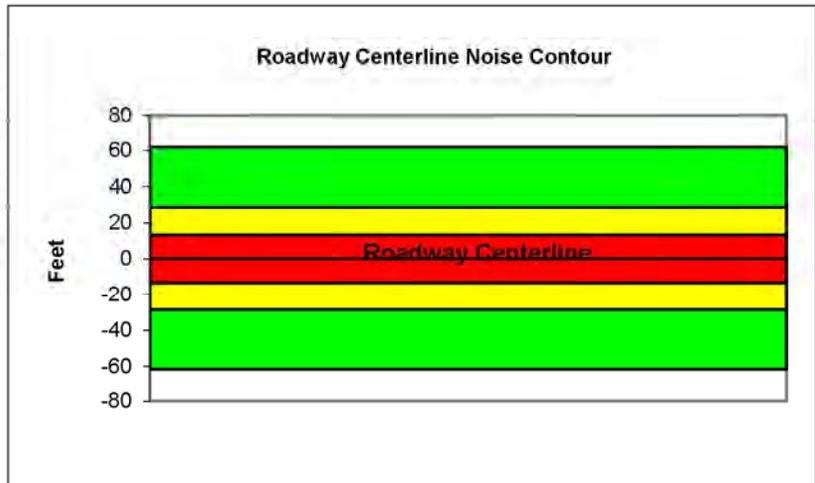
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Spenceville Road
 Road Segment: South of Penn Valley Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	3843			
Receiver Barrier Dist:	0	Peak Hour Traffic:	384.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	40			
Barrier Near Lane CL Dist:	0	Centerline Separation:	24			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.6	53.4	51.6	45.5	54.2	54.8
Medium Trucks:	53.6	45.5	39.1	37.5	46.0	46.3
Heavy Trucks:	58.4	46.5	37.4	38.6	48.3	48.5
Vehicle Noise:	60.8	55.0	52.0	47.1	55.7	56.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	62
65 dBA	29
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

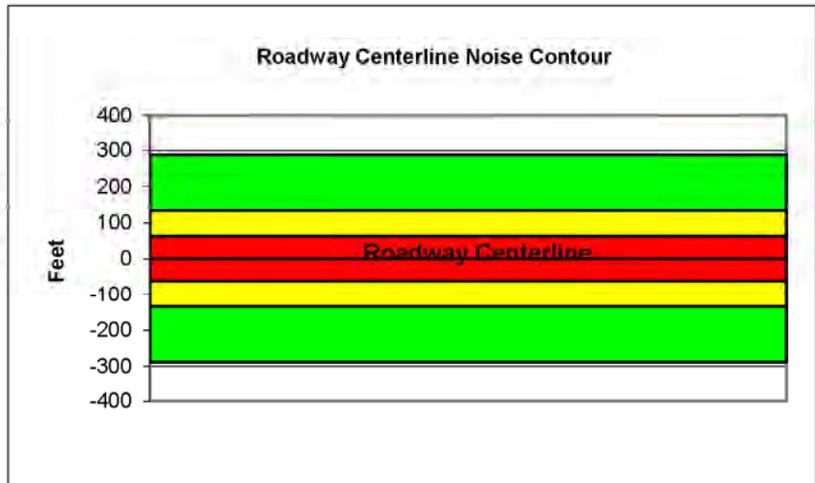
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: North of Cameo Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	17676			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1767.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.8	63.6	61.8	55.7	64.4	65.0
Medium Trucks:	61.9	53.9	47.5	45.9	54.4	54.6
Heavy Trucks:	65.9	54.0	44.9	46.1	55.4	55.5
Vehicle Noise:	68.2	64.5	62.1	56.7	65.3	65.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	288
65 dBA	134
70 dBA	62
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

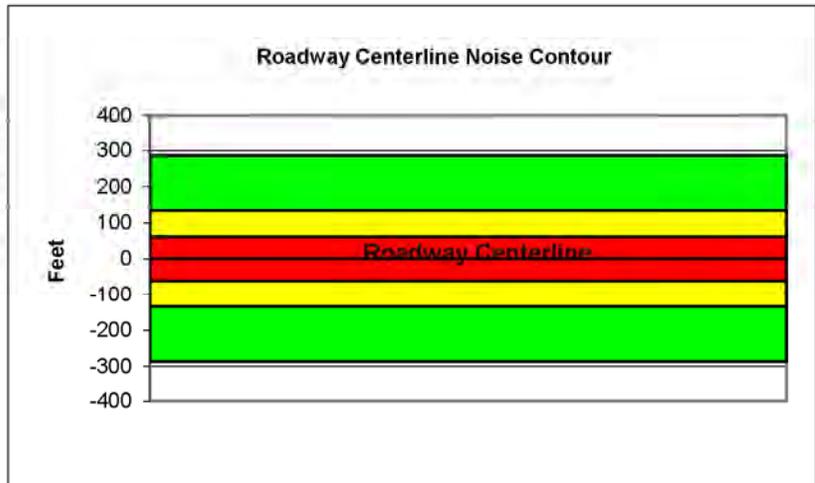
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: Cameo Drive to Combie Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	17604			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1760.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.8	63.6	61.8	55.7	64.4	65.0
Medium Trucks:	61.9	53.9	47.5	45.9	54.4	54.6
Heavy Trucks:	65.9	53.9	44.9	46.1	55.4	55.5
Vehicle Noise:	68.2	64.5	62.1	56.6	65.2	65.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	287
65 dBA	133
70 dBA	62
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

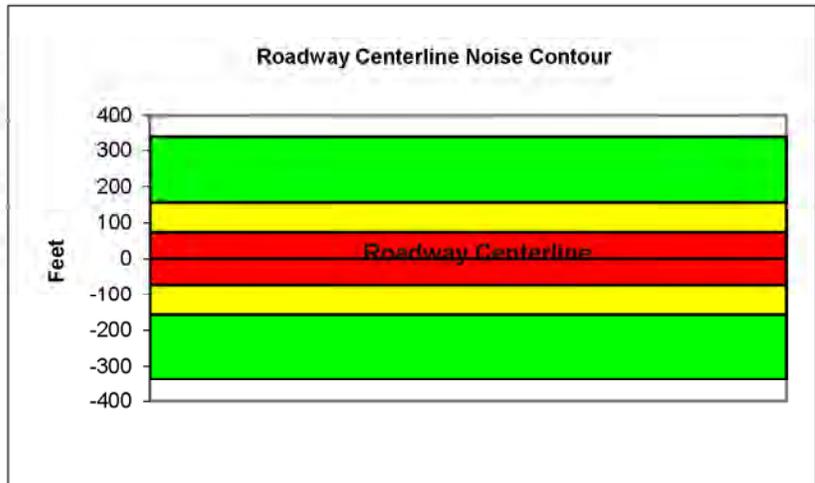
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: Combie Road to Woodridge Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	22410			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2241			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.8	64.6	62.8	56.8	65.4	66.0
Medium Trucks:	63.0	54.9	48.5	47.0	55.4	55.7
Heavy Trucks:	66.9	55.0	45.9	47.2	56.4	56.5
Vehicle Noise:	69.2	65.6	63.1	57.7	66.3	66.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	337
65 dBA	156
70 dBA	73
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

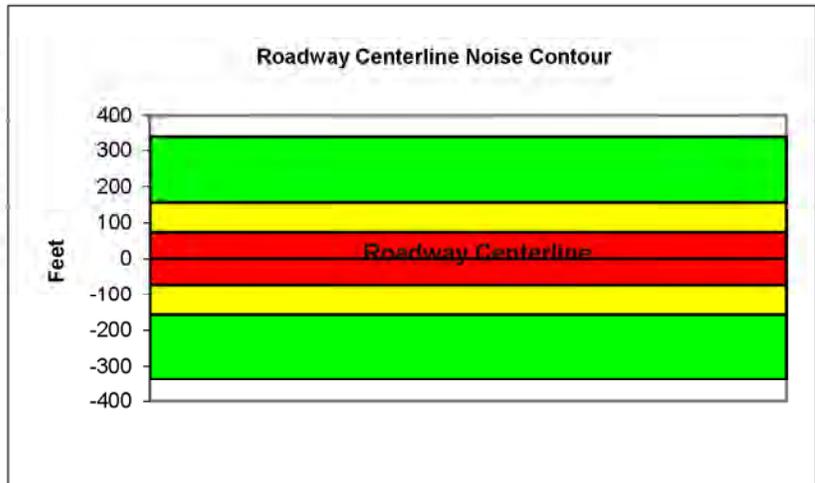
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: South of Woodridge Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	22482			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2248.2			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.9	64.6	62.9	56.8	65.4	66.0
Medium Trucks:	63.0	54.9	48.5	47.0	55.5	55.7
Heavy Trucks:	66.9	55.0	46.0	47.2	56.4	56.6
Vehicle Noise:	69.3	65.6	63.1	57.7	66.3	66.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	338
65 dBA	157
70 dBA	73
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

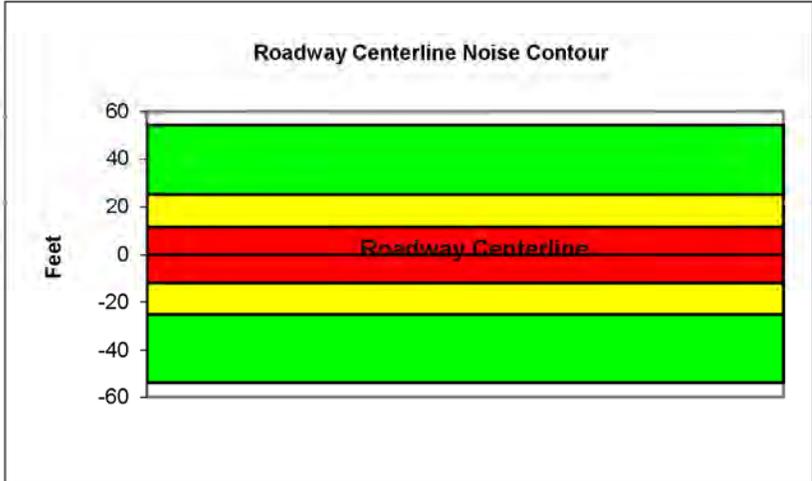
Project Name:	Nevada County Housing Element Rezone	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Combie Road		
Road Segment:	West of SR-49		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	4275			
Receiver Barrier Dist:	0	Peak Hour Traffic:	427.5			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.1	51.9	50.1	44.0	52.7	53.3
Medium Trucks:	52.8	44.8	38.4	36.8	45.3	45.5
Heavy Trucks:	58.1	46.1	37.1	38.3	48.2	48.3
Vehicle Noise:	60.5	53.9	50.7	46.0	54.5	55.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	54
65 dBA	25
70 dBA	12
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

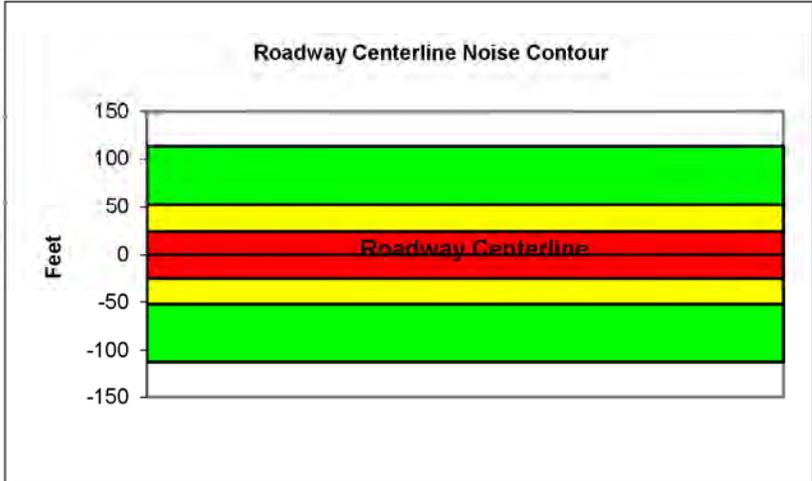
Project Name:	Nevada County Housing Element Rezone	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Combie Road		
Road Segment:	East of SR-49		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12861			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1286.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View: -90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.9	56.7	54.9	48.8	57.5	58.1
Medium Trucks:	57.6	49.6	43.2	41.6	50.1	50.3
Heavy Trucks:	62.8	50.9	41.8	43.1	53.0	53.1
Vehicle Noise:	65.3	58.6	55.5	50.8	59.3	59.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	112
65 dBA	52
70 dBA	24
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

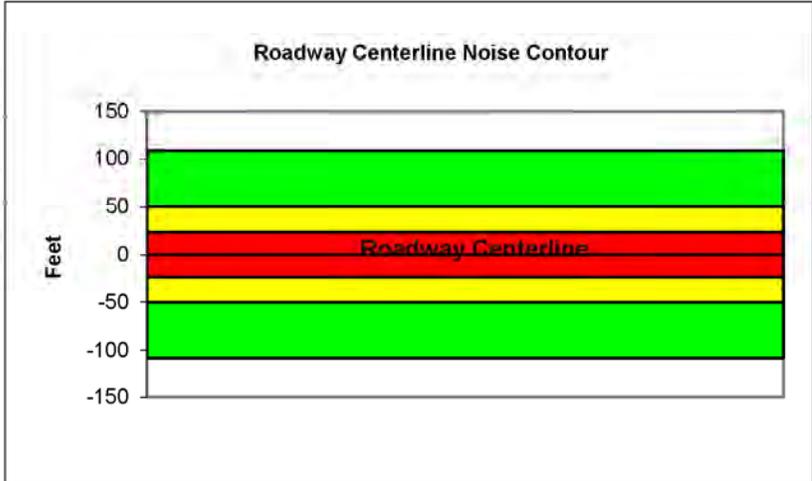
Project Name:	Nevada County Housing Element Rezone	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Combie Road		
Road Segment:	West of Rosewood Drive		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12150			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1215			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View: -90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.7	56.4	54.6	48.6	57.2	57.8
Medium Trucks:	57.4	49.3	42.9	41.3	49.8	50.1
Heavy Trucks:	62.6	50.7	41.6	42.8	52.7	52.8
Vehicle Noise:	65.0	58.4	55.2	50.5	59.1	59.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	108
65 dBA	50
70 dBA	23
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

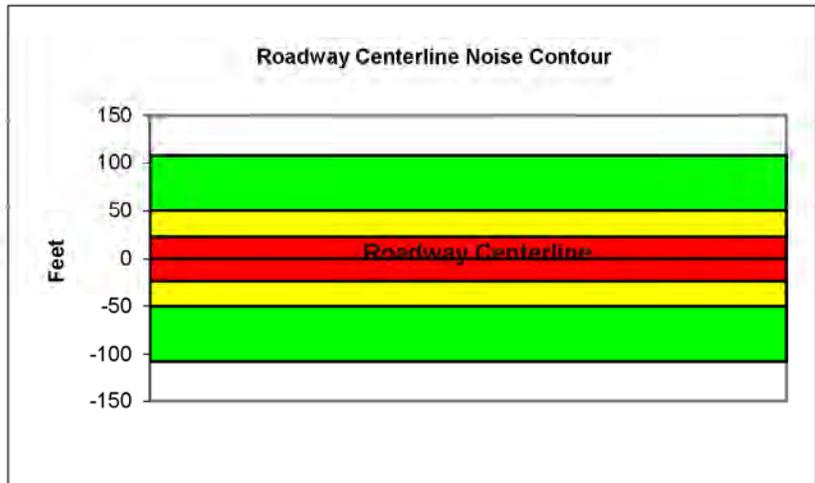
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Combie Road
 Road Segment: Rosewood Drive to Hacienda Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12051			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1205.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.6	56.4	54.6	48.5	57.2	57.8
Medium Trucks:	57.3	49.3	42.9	41.3	49.8	50.0
Heavy Trucks:	62.6	50.6	41.6	42.8	52.7	52.8
Vehicle Noise:	65.0	58.4	55.2	50.5	59.0	59.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	108
65 dBA	50
70 dBA	23
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

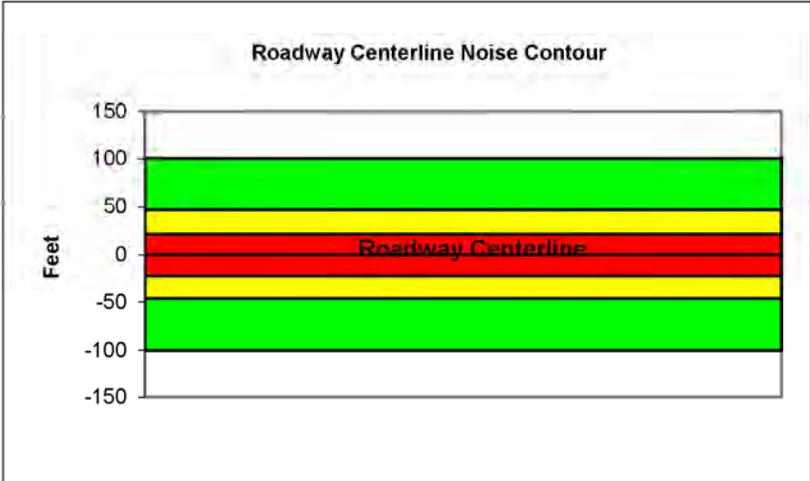
Project Name:	Nevada County Housing Element Rezone	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Combie Road		
Road Segment:	East of Hacienda Drive		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	10836			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1083.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View: -90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.2	55.9	54.1	48.1	56.7	57.3
Medium Trucks:	56.9	48.8	42.4	40.9	49.3	49.6
Heavy Trucks:	62.1	50.2	41.1	42.3	52.2	52.4
Vehicle Noise:	64.5	57.9	54.7	50.0	58.6	59.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	100
65 dBA	47
70 dBA	22
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

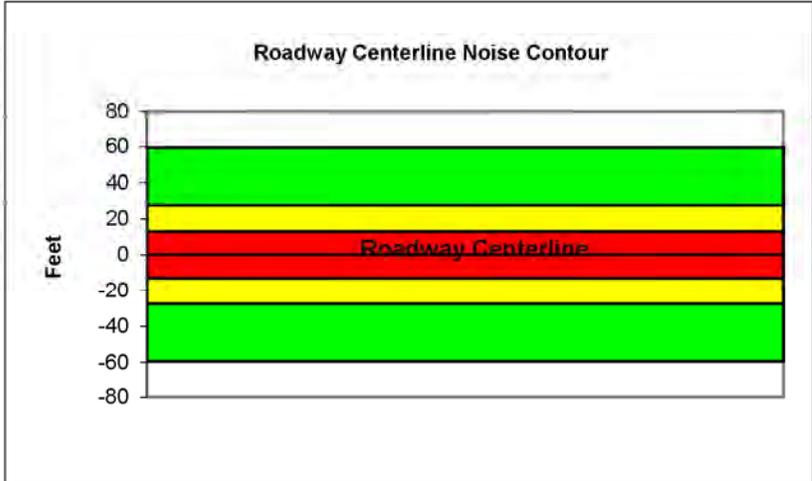
Project Name:	Nevada County Housing Element Rezone	Scenario:	Existing
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Combie Road		
Road Segment:	South of Magnolia		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	4959			
Receiver Barrier Dist:	0	Peak Hour Traffic:	495.9			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View: -90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.8	52.5	50.8	44.7	53.3	53.9
Medium Trucks:	53.5	45.4	39.0	37.5	45.9	46.2
Heavy Trucks:	58.7	46.8	37.7	38.9	48.8	49.0
Vehicle Noise:	61.1	54.5	51.3	46.6	55.2	55.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	60
65 dBA	28
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

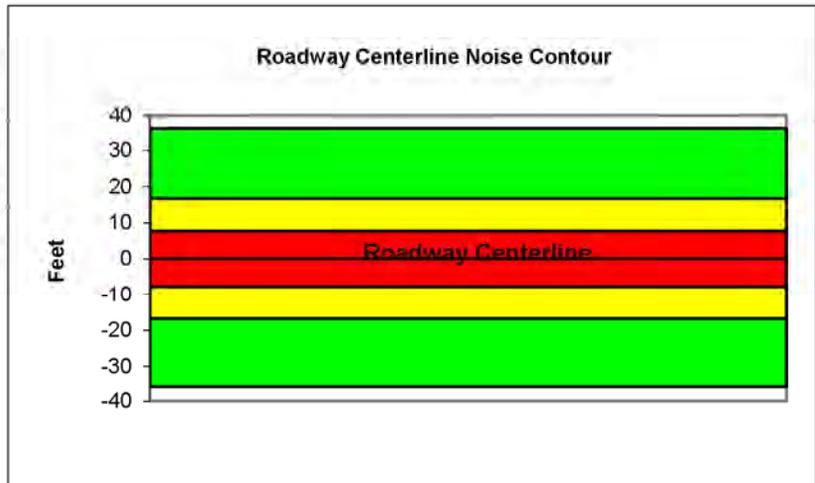
Project Name: Nevada County Housing Element Rezone Scenario: Existing
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Hacienda Drive
 Road Segment: North of Combie Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	2340			
Receiver Barrier Dist:	0	Peak Hour Traffic:	234			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	30			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	40.6	49.4	47.6	41.5	50.2	50.8
Medium Trucks:	50.3	42.3	35.9	34.3	42.8	43.0
Heavy Trucks:	55.6	43.6	34.6	35.8	45.7	45.8
Vehicle Noise:	58.0	51.4	48.2	43.5	52.1	52.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	36
65 dBA	17
70 dBA	8
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

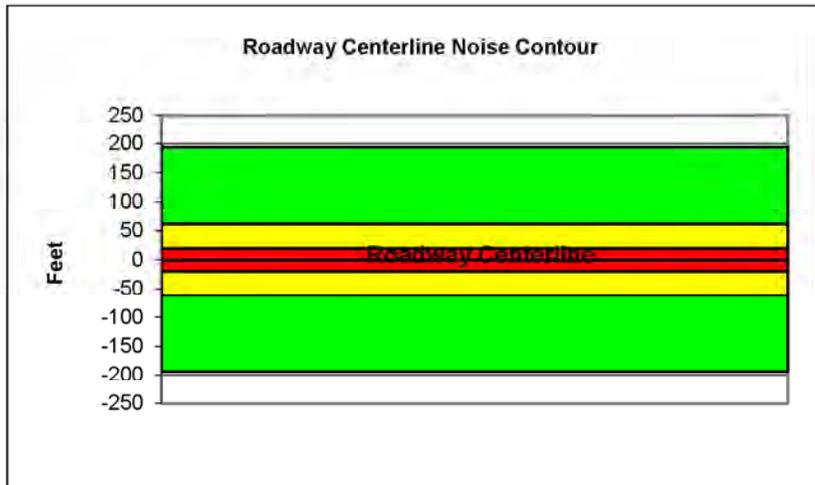
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Nevada City Highway
 Road Segment: Dorsey to Brunswick

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	11241			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1124.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.3	59.0	57.3	51.2	59.8	60.4
Medium Trucks:	60.0	51.9	45.5	44.0	52.4	52.7
Heavy Trucks:	65.2	53.3	44.2	45.4	55.3	55.5
Vehicle Noise:	67.6	61.0	57.8	53.1	61.7	62.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	194
65 dBA	61
70 dBA	19
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

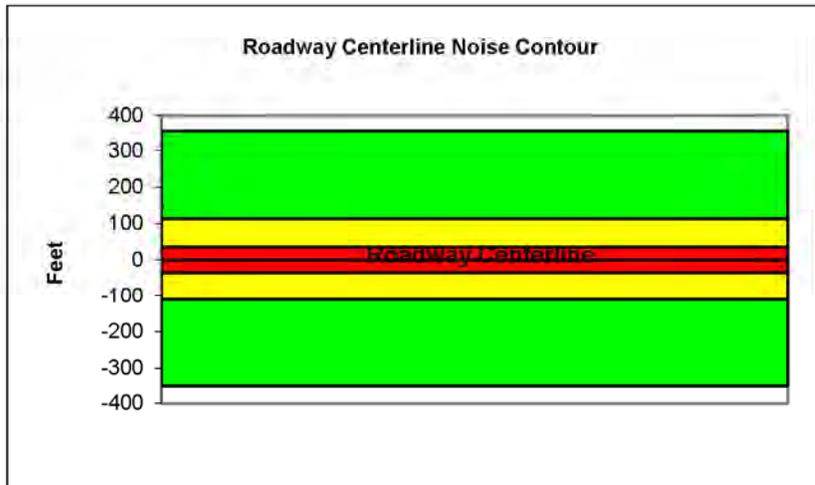
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Nevada City Highway
 Road Segment: North of Brunswick

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	20475			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2047.5			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.9	61.6	59.9	53.8	62.4	63.0
Medium Trucks:	62.6	54.5	48.1	46.6	55.0	55.3
Heavy Trucks:	67.8	55.9	46.8	48.0	57.9	58.1
Vehicle Noise:	70.2	63.6	60.4	55.7	64.3	64.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	353
65 dBA	112
70 dBA	35
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

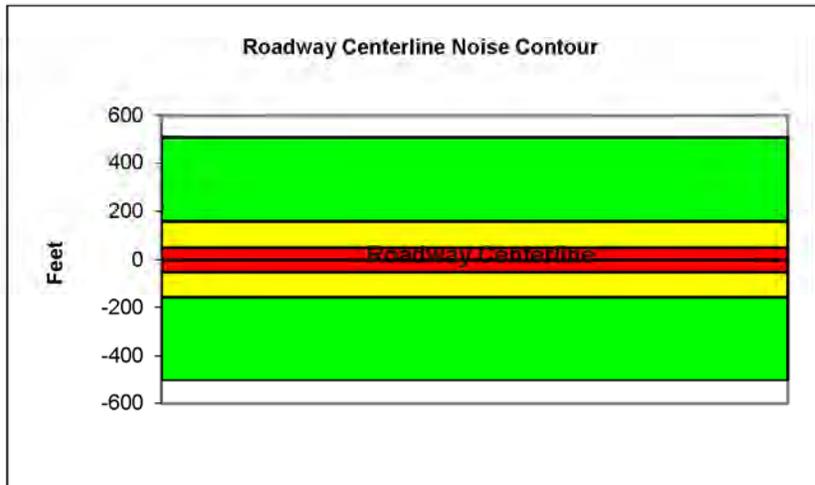
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: SB On-Ramp

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	29232			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2923.2			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.4	63.2	61.4	55.3	64.0	64.6
Medium Trucks:	64.1	56.1	49.7	48.1	56.6	56.8
Heavy Trucks:	69.3	57.4	48.4	49.6	59.5	59.6
Vehicle Noise:	71.8	65.1	62.0	57.3	65.8	66.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	504
65 dBA	159
70 dBA	50
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

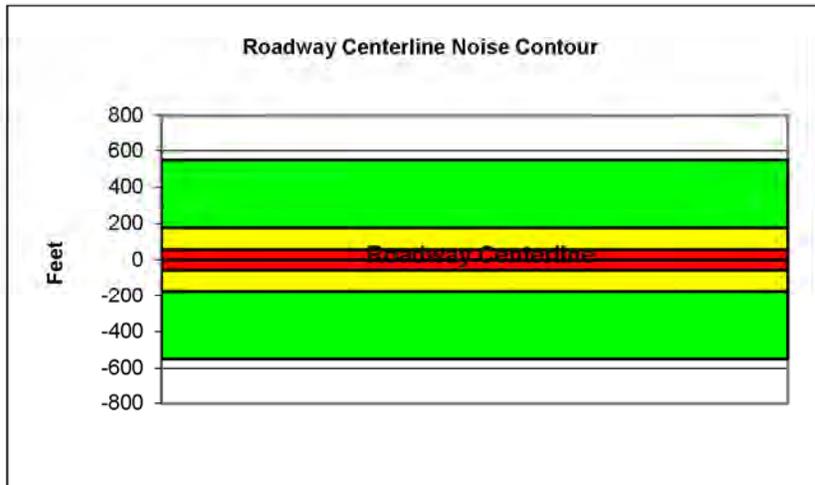
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: SR-20 to Sutton Way

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	31,914			
Receiver Barrier Dist:	0	Peak Hour Traffic:	3191.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.6	63.4	61.6	55.6	64.2	64.8
Medium Trucks:	64.4	56.3	49.9	48.3	56.8	57.1
Heavy Trucks:	69.6	57.6	48.6	49.8	59.7	59.8
Vehicle Noise:	72.0	65.4	62.2	57.5	66.1	66.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	551
65 dBA	174
70 dBA	55
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

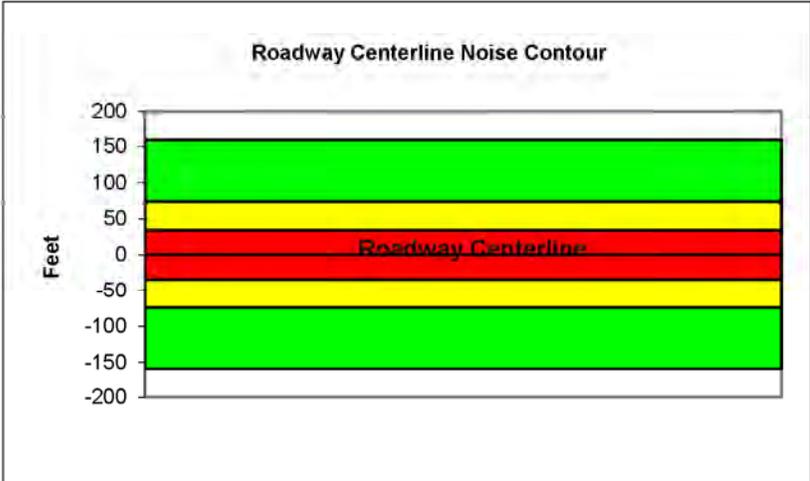
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: Sutton to Old Tunnel

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	21636			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2163.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.8	58.6	56.8	50.7	59.4	60.0
Medium Trucks:	59.5	51.5	45.1	43.5	52.0	52.2
Heavy Trucks:	64.8	52.8	43.8	45.0	54.9	55.0
Vehicle Noise:	67.2	60.6	57.4	52.7	61.2	61.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	159
65 dBA	74
70 dBA	34
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

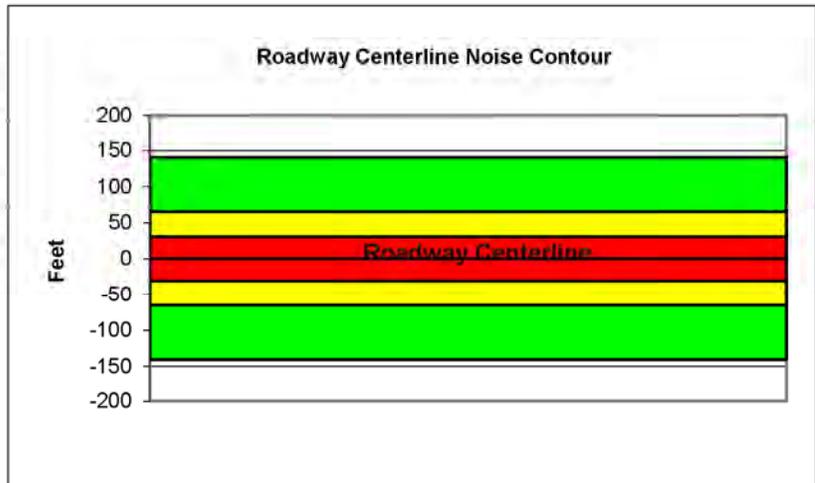
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: Old Tunnel to Idaho-Maryland Rd

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	17973			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1797.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.0	57.8	56.0	49.9	58.6	59.2
Medium Trucks:	58.7	50.7	44.3	42.7	51.2	51.4
Heavy Trucks:	63.9	52.0	43.0	44.2	54.1	54.2
Vehicle Noise:	66.4	59.7	56.6	51.9	60.4	60.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	140
65 dBA	65
70 dBA	30
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

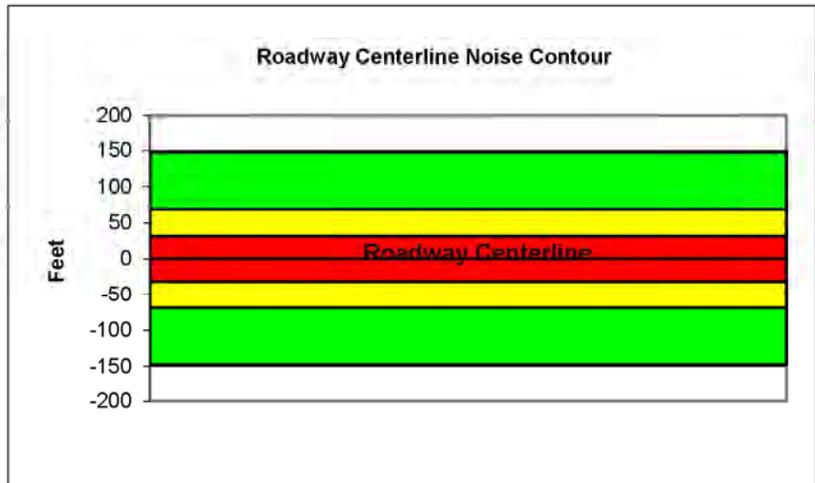
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: South of Idaho-Maryland Rd

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	19296			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1929.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.3	58.1	56.3	50.2	58.9	59.5
Medium Trucks:	59.0	51.0	44.6	43.0	51.5	51.7
Heavy Trucks:	64.3	52.3	43.3	44.5	54.4	54.5
Vehicle Noise:	66.7	60.1	56.9	52.2	60.7	61.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	147
65 dBA	68
70 dBA	32
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

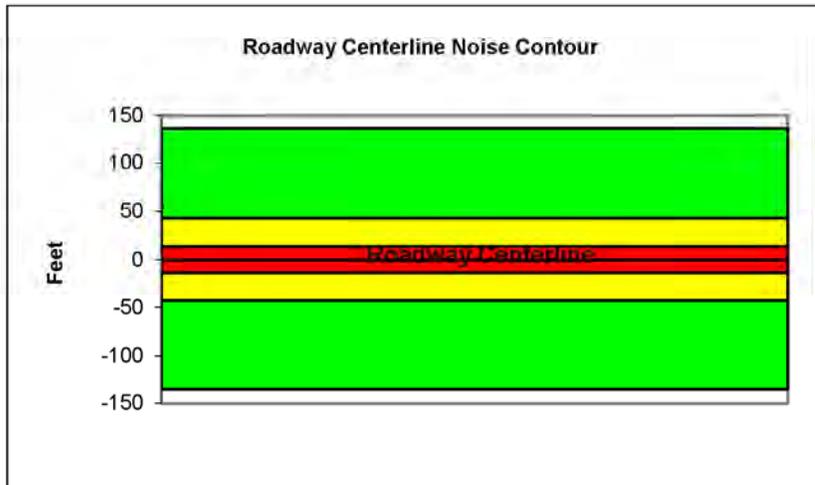
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Sutton Way
 Road Segment: North of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	7,857			
Receiver Barrier Dist:	0	Peak Hour Traffic:	785.7			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.6	57.3	55.5	49.5	58.1	58.7
Medium Trucks:	58.3	50.2	43.8	42.3	50.7	51.0
Heavy Trucks:	63.5	51.6	42.5	43.7	53.6	53.8
Vehicle Noise:	65.9	59.3	56.1	51.4	60.0	60.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	136
65 dBA	43
70 dBA	14
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

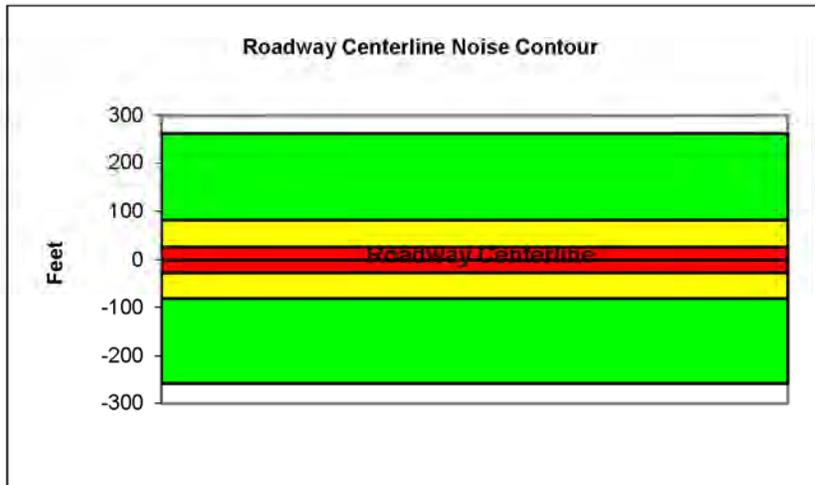
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Sutton Way
 Road Segment: South of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	15,084			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1508.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.4	60.2	58.4	52.3	60.9	61.6
Medium Trucks:	61.1	53.0	46.7	45.1	53.6	53.8
Heavy Trucks:	66.3	54.4	45.3	46.6	56.5	56.6
Vehicle Noise:	68.8	62.1	58.9	54.3	62.8	63.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	260
65 dBA	82
70 dBA	26
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

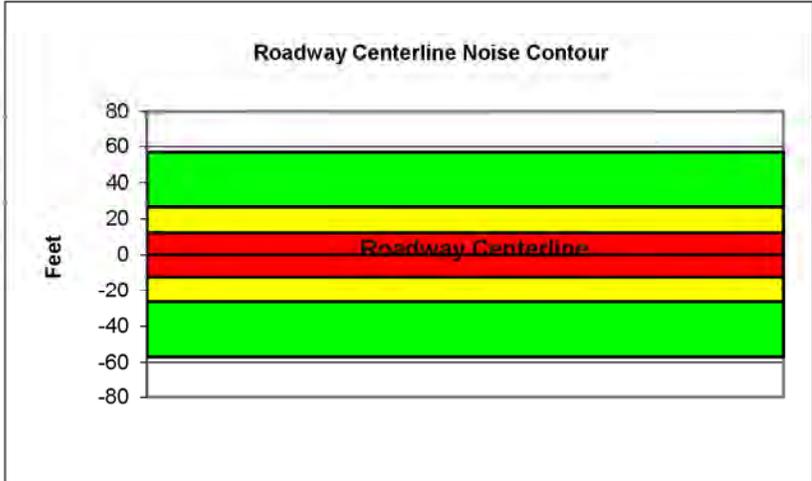
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Idaho-Maryland Road
 Road Segment: West of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	4653			
Receiver Barrier Dist:	0	Peak Hour Traffic:	465.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.5	52.2	50.5	44.4	53.0	53.6
Medium Trucks:	53.2	45.1	38.7	37.2	45.6	45.9
Heavy Trucks:	58.4	46.5	37.4	38.6	48.5	48.7
Vehicle Noise:	60.8	54.2	51.0	46.3	54.9	55.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	57
65 dBA	26
70 dBA	12
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

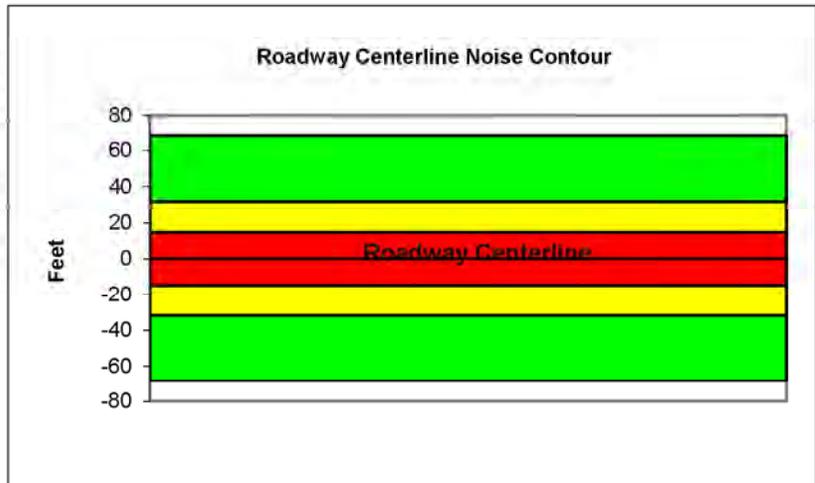
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Idaho-Maryland Road
 Road Segment: East of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	6102			
Receiver Barrier Dist:	0	Peak Hour Traffic:	610.2			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.6	53.4	51.6	45.5	54.2	54.8
Medium Trucks:	54.4	46.3	39.9	38.3	46.8	47.1
Heavy Trucks:	59.6	47.6	38.6	39.8	49.7	49.8
Vehicle Noise:	62.0	55.4	52.2	47.5	56.1	56.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	68
65 dBA	32
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

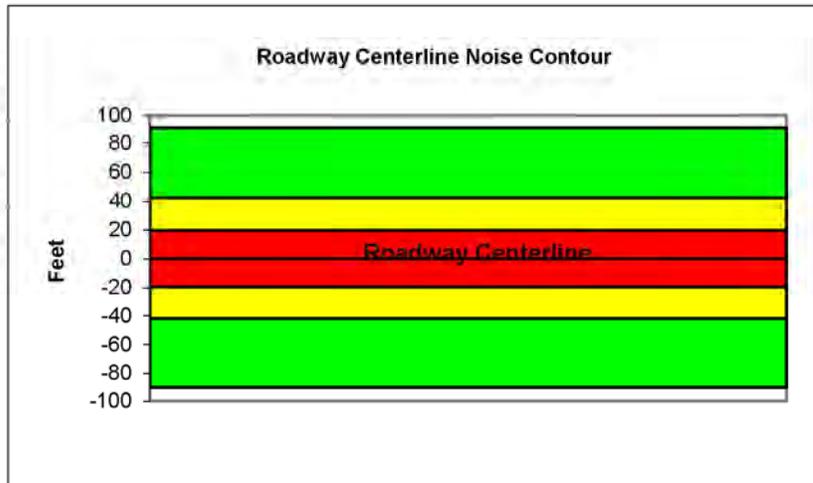
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McCourtney Road
 Road Segment: South of Personeni Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	9333			
Receiver Barrier Dist:	0	Peak Hour Traffic:	933.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.5	55.3	53.5	47.4	56.0	56.6
Medium Trucks:	56.2	48.1	41.8	40.2	48.7	48.9
Heavy Trucks:	61.4	49.5	40.4	41.6	51.6	51.7
Vehicle Noise:	63.9	57.2	54.0	49.3	57.9	58.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	91
65 dBA	42
70 dBA	20
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

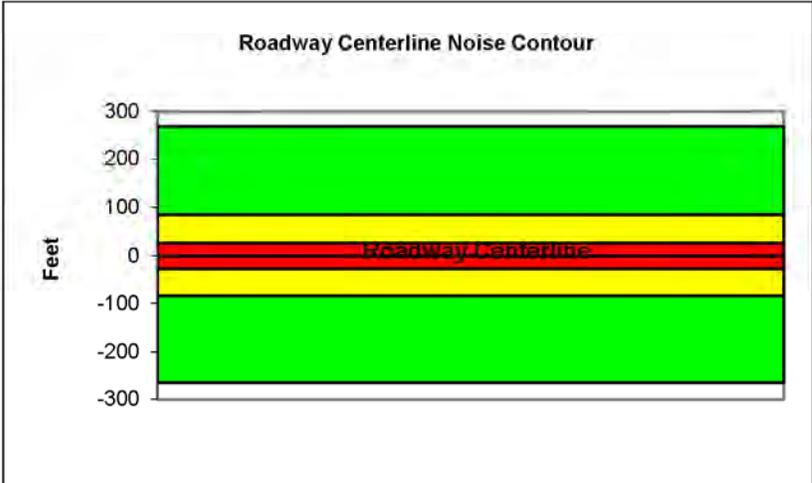
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McKnight Way
 Road Segment: East of SR-49

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	15,471			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1547.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.5	60.3	58.5	52.4	61.1	61.7
Medium Trucks:	61.2	53.1	46.8	45.2	53.7	53.9
Heavy Trucks:	66.4	54.5	45.4	46.7	56.6	56.7
Vehicle Noise:	68.9	62.2	59.1	54.4	62.9	63.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	267
65 dBA	84
70 dBA	27
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

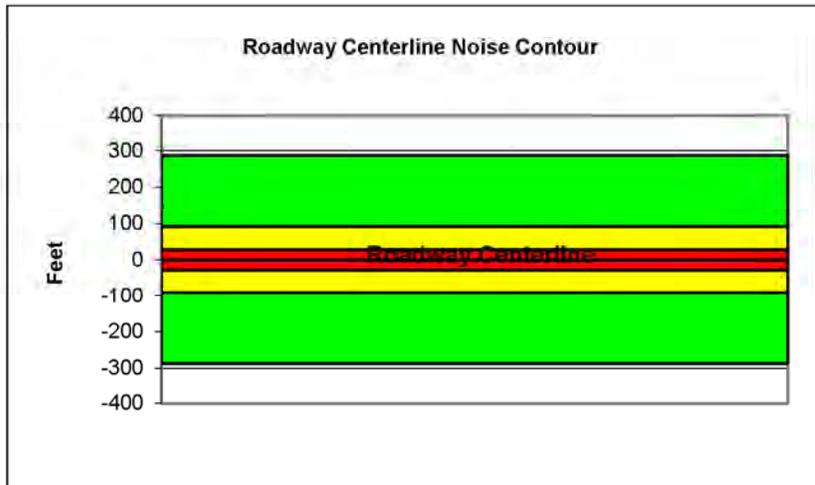
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McKnight Way
 Road Segment: SR-49 NB ramps to SB ramps

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	16,668			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1666.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.8	60.6	58.8	52.7	61.4	62.0
Medium Trucks:	61.5	53.5	47.1	45.5	54.0	54.2
Heavy Trucks:	66.8	54.8	45.8	47.0	56.9	57.0
Vehicle Noise:	69.2	62.6	59.4	54.7	63.3	63.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	287
65 dBA	91
70 dBA	29
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

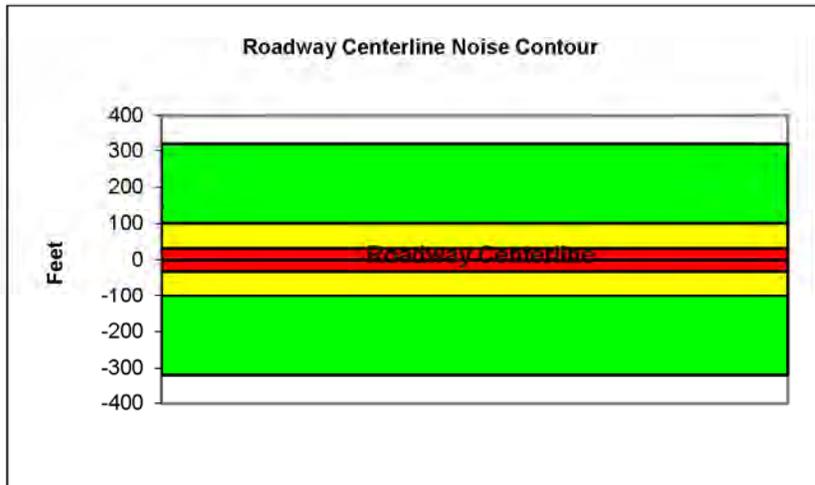
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McKnight Way
 Road Segment: SR-49 ramps to Auburn Street

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	18,504			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1850.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.3	61.1	59.3	53.2	61.8	62.4
Medium Trucks:	62.0	53.9	47.5	46.0	54.5	54.7
Heavy Trucks:	67.2	55.3	46.2	47.4	57.3	57.5
Vehicle Noise:	69.7	63.0	59.8	55.1	63.7	64.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	319
65 dBA	101
70 dBA	32
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

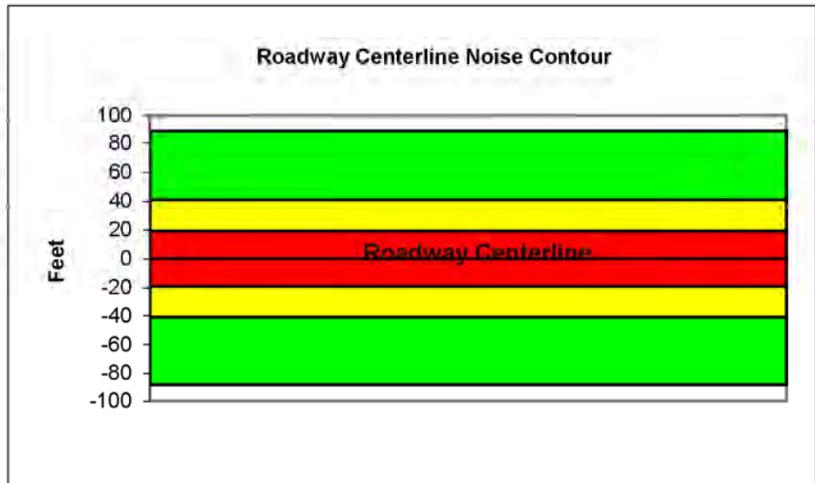
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Auburn Street
 Road Segment: North of McKnight

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	9000			
Receiver Barrier Dist:	0	Peak Hour Traffic:	900			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.2	55.0	53.2	47.1	55.8	56.4
Medium Trucks:	55.9	47.9	41.5	39.9	48.4	48.6
Heavy Trucks:	61.2	49.2	40.2	41.4	51.3	51.4
Vehicle Noise:	63.6	57.0	53.8	49.1	57.7	58.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	89
65 dBA	41
70 dBA	19
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

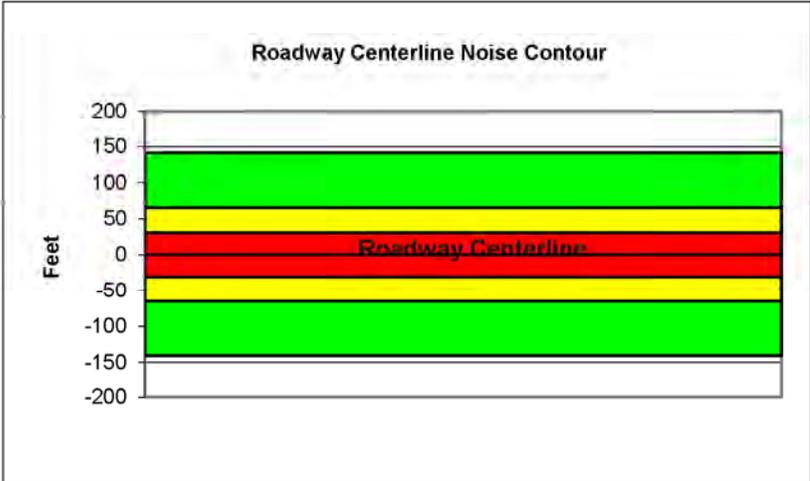
Project Name:	Nevada County Housing Element Rezone	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	La Barr Meadows Road		
Road Segment:	South of McKnight		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	18090			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1809			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.3	58.0	56.3	50.2	58.8	59.4
Medium Trucks:	59.0	50.9	44.5	43.0	51.4	51.7
Heavy Trucks:	64.2	52.3	43.2	44.4	54.3	54.5
Vehicle Noise:	66.6	60.0	56.8	52.1	60.7	61.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	141
65 dBA	65
70 dBA	30
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

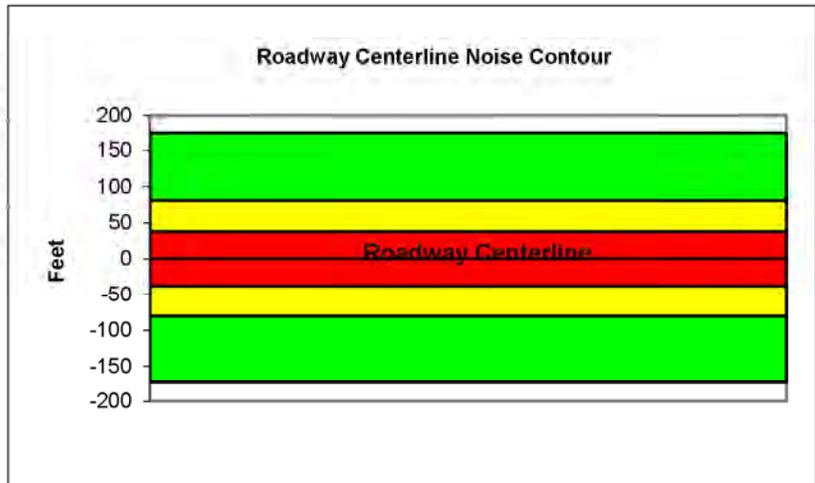
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: West of Pleasant Valley Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	8289			
Receiver Barrier Dist:	0	Peak Hour Traffic:	828.9			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.6	60.4	58.6	52.6	61.2	61.8
Medium Trucks:	58.8	50.7	44.3	42.7	51.2	51.5
Heavy Trucks:	62.7	50.8	41.7	43.0	52.2	52.3
Vehicle Noise:	65.0	61.4	58.9	53.5	62.1	62.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	174
65 dBA	81
70 dBA	37
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

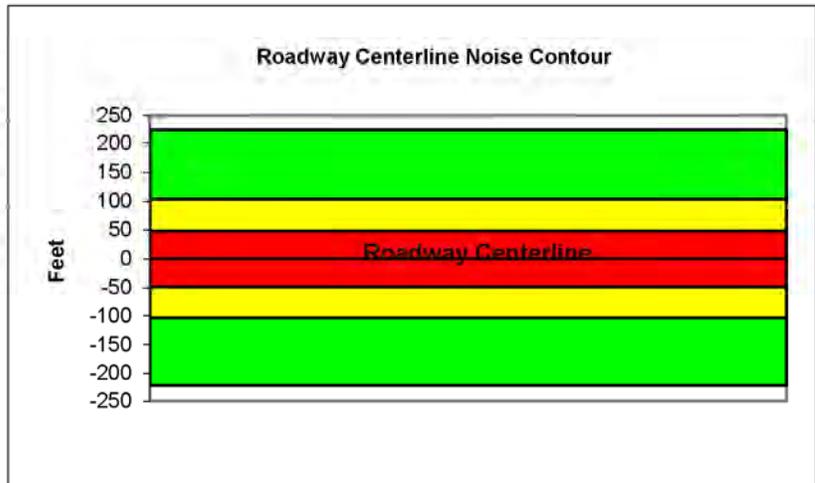
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: Pleasant Valley Road to Rough and Ready Hwy

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12078			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1207.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.3	62.1	60.3	54.2	62.8	63.4
Medium Trucks:	60.4	52.3	46.0	44.4	52.9	53.1
Heavy Trucks:	64.4	52.4	43.4	44.6	53.9	54.0
Vehicle Noise:	66.7	63.0	60.5	55.1	63.7	64.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	223
65 dBA	104
70 dBA	48
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

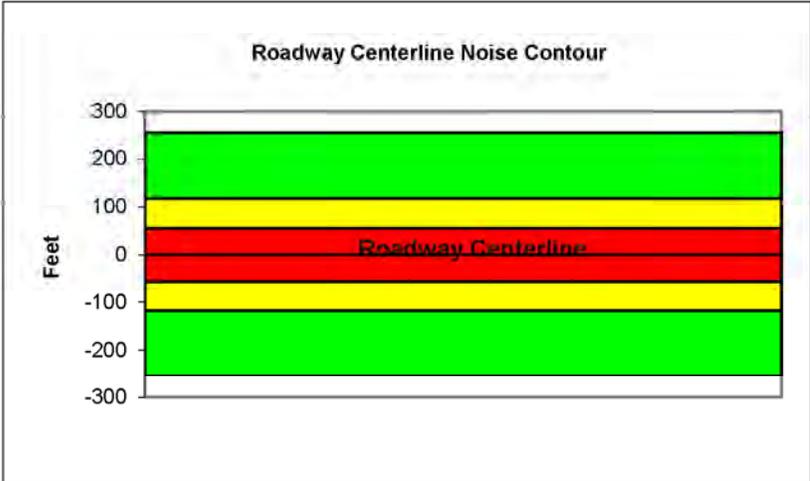
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: East of Rough and Ready Hwy

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	14634			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1463.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.1	62.9	61.1	55.0	63.7	64.3
Medium Trucks:	61.2	53.2	46.8	45.2	53.7	53.9
Heavy Trucks:	65.2	53.3	44.2	45.4	54.7	54.8
Vehicle Noise:	67.5	63.8	61.4	56.0	64.6	65.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	254
65 dBA	118
70 dBA	55
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

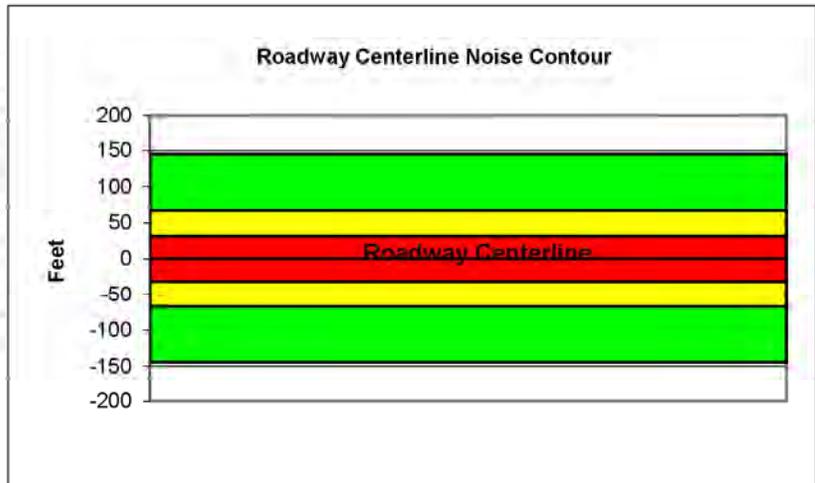
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Pleasant Valley Road
 Road Segment: North of SR-20

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	10404			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1040.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.1	58.9	57.1	51.0	59.7	60.3
Medium Trucks:	58.4	50.3	44.0	42.4	50.9	51.1
Heavy Trucks:	62.9	51.0	41.9	43.1	52.7	52.8
Vehicle Noise:	65.3	60.2	57.5	52.3	60.9	61.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	144
65 dBA	67
70 dBA	31
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

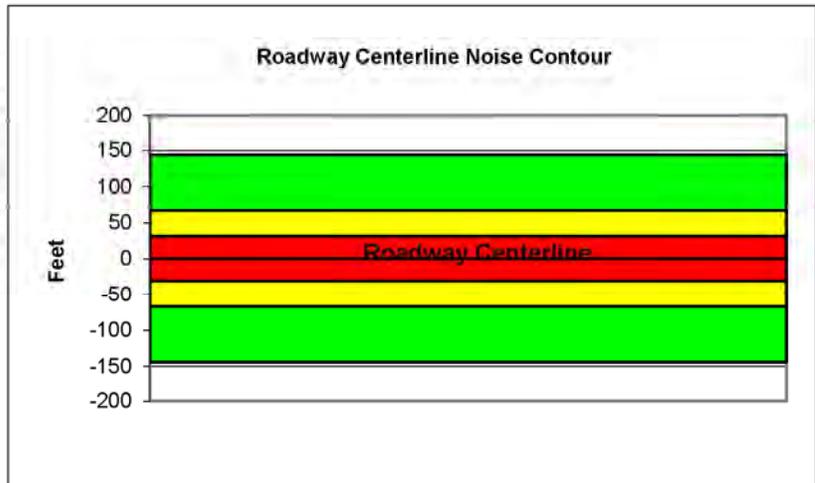
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Penn Valley Drive
 Road Segment: Pleasant Valley Road to Horton Street

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	10350			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1035			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.1	58.9	57.1	51.0	59.7	60.3
Medium Trucks:	58.4	50.3	43.9	42.4	50.8	51.1
Heavy Trucks:	62.9	51.0	41.9	43.1	52.7	52.8
Vehicle Noise:	65.2	60.2	57.5	52.3	60.9	61.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	144
65 dBA	67
70 dBA	31
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

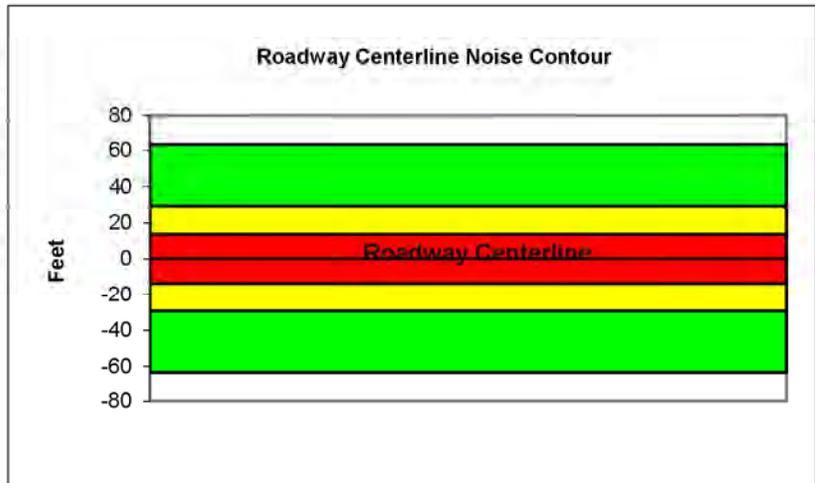
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Penn Valley Drive
 Road Segment: Horton Street to Broken Oak Court

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	3024			
Receiver Barrier Dist:	0	Peak Hour Traffic:	302.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.8	53.5	51.7	45.7	54.3	54.9
Medium Trucks:	53.0	45.0	38.6	37.0	45.5	45.7
Heavy Trucks:	57.6	45.6	36.6	37.8	47.3	47.5
Vehicle Noise:	59.9	54.8	52.1	47.0	55.6	56.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	63
65 dBA	29
70 dBA	14
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

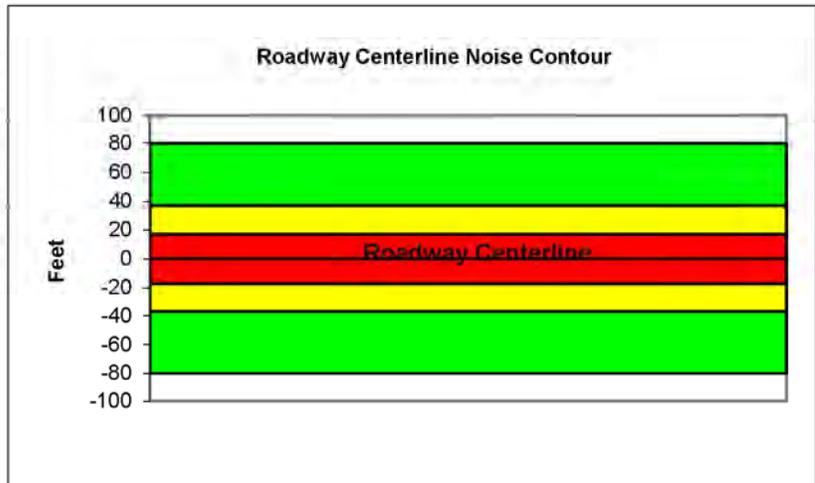
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Penn Valley Drive
 Road Segment: Broken Oak Court to Spenceville

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	4275			
Receiver Barrier Dist:	0	Peak Hour Traffic:	427.5			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.3	55.0	53.3	47.2	55.8	56.4
Medium Trucks:	54.5	46.5	40.1	38.5	47.0	47.2
Heavy Trucks:	59.1	47.1	38.1	39.3	48.8	49.0
Vehicle Noise:	61.4	56.3	53.6	48.5	57.1	57.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	80
65 dBA	37
70 dBA	17
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

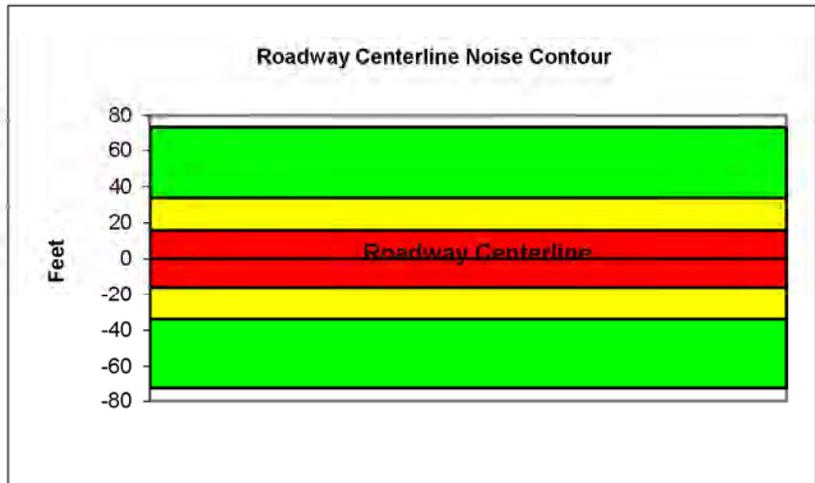
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Rough and Ready Hwy
 Road Segment: North of SR-20

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	3717			
Receiver Barrier Dist:	0	Peak Hour Traffic:	371.7			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	30			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.8	54.6	52.8	46.7	55.3	55.9
Medium Trucks:	54.1	46.0	39.6	38.0	46.5	46.8
Heavy Trucks:	58.6	46.6	37.6	38.8	48.3	48.5
Vehicle Noise:	60.9	55.9	53.1	48.0	56.6	57.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	73
65 dBA	34
70 dBA	16
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

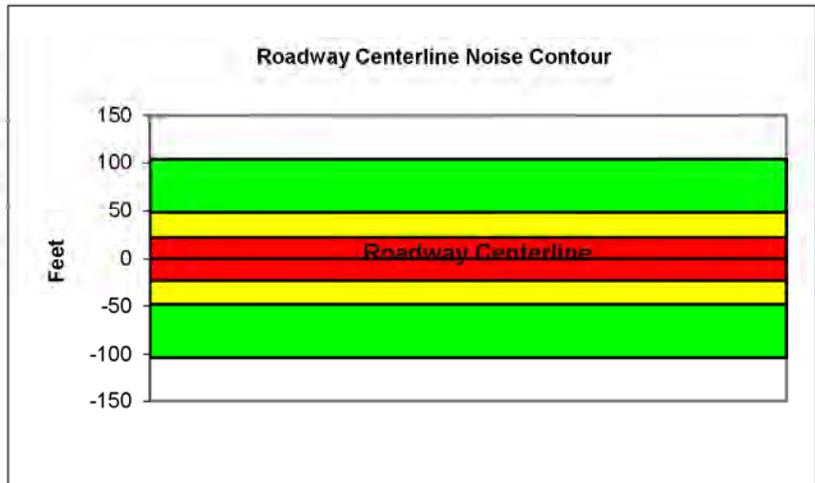
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Rough and Ready Hwy
 Road Segment: South of SR-20

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	6300			
Receiver Barrier Dist:	0	Peak Hour Traffic:	630			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	30			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.1	56.8	55.1	49.0	57.6	58.2
Medium Trucks:	56.3	48.3	41.9	40.3	48.8	49.0
Heavy Trucks:	60.9	48.9	39.9	41.1	50.6	50.8
Vehicle Noise:	63.2	58.1	55.4	50.3	58.9	59.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	104
65 dBA	48
70 dBA	22
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

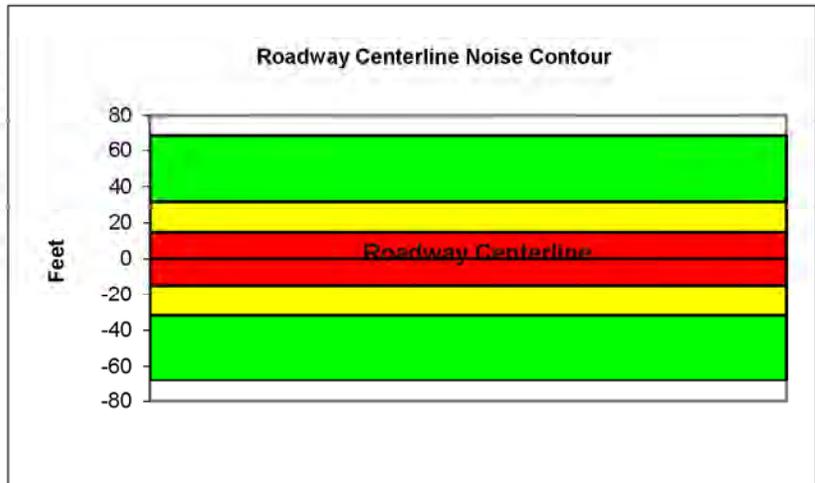
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Spenceville Road
 Road Segment: South of Penn Valley Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	4473			
Receiver Barrier Dist:	0	Peak Hour Traffic:	447.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	40			
Barrier Near Lane CL Dist:	0	Centerline Separation:	24			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.3	54.0	52.3	46.2	54.8	55.4
Medium Trucks:	54.2	46.1	39.8	38.2	46.7	46.9
Heavy Trucks:	59.1	47.1	38.1	39.3	49.0	49.1
Vehicle Noise:	61.4	55.6	52.7	47.7	56.3	56.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	68
65 dBA	32
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

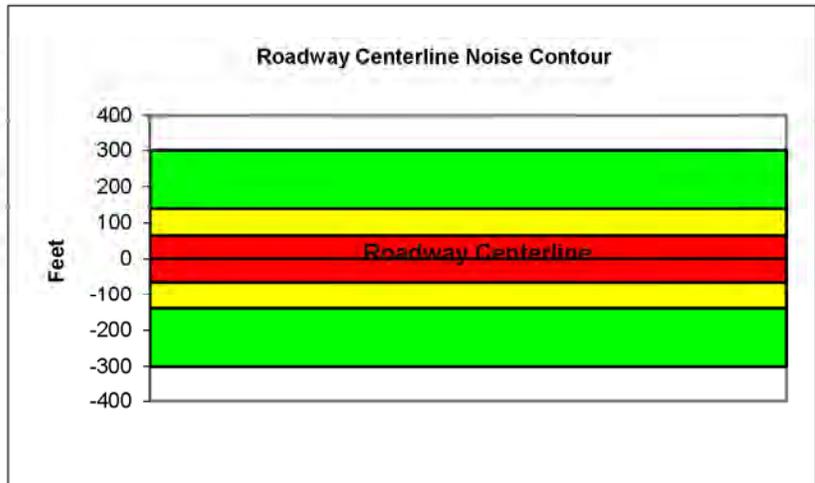
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: North of Cameo Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	18819			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1881.9			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.1	63.9	62.1	56.0	64.6	65.3
Medium Trucks:	62.2	54.1	47.8	46.2	54.7	54.9
Heavy Trucks:	66.2	54.2	45.2	46.4	55.7	55.8
Vehicle Noise:	68.5	64.8	62.3	56.9	65.5	66.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	300
65 dBA	139
70 dBA	65
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

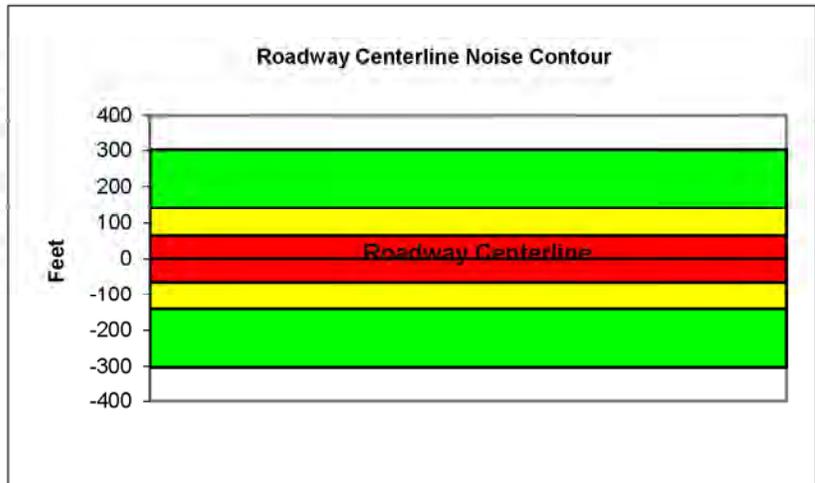
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: Cameo Drive to Combie Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	19071			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1907.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.1	63.9	62.1	56.1	64.7	65.3
Medium Trucks:	62.3	54.2	47.8	46.2	54.7	55.0
Heavy Trucks:	66.2	54.3	45.2	46.5	55.7	55.8
Vehicle Noise:	68.5	64.9	62.4	57.0	65.6	66.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	303
65 dBA	141
70 dBA	65
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

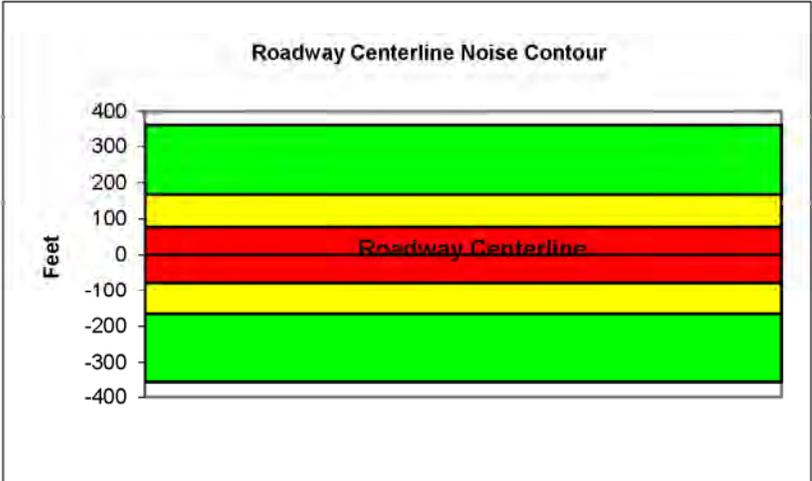
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: Combie Road to Woodridge Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	24624			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2462.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.3	65.0	63.2	57.2	65.8	66.4
Medium Trucks:	63.4	55.3	48.9	47.4	55.8	56.1
Heavy Trucks:	67.3	55.4	46.4	47.6	56.8	57.0
Vehicle Noise:	69.7	66.0	63.5	58.1	66.7	67.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	359
65 dBA	167
70 dBA	77
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

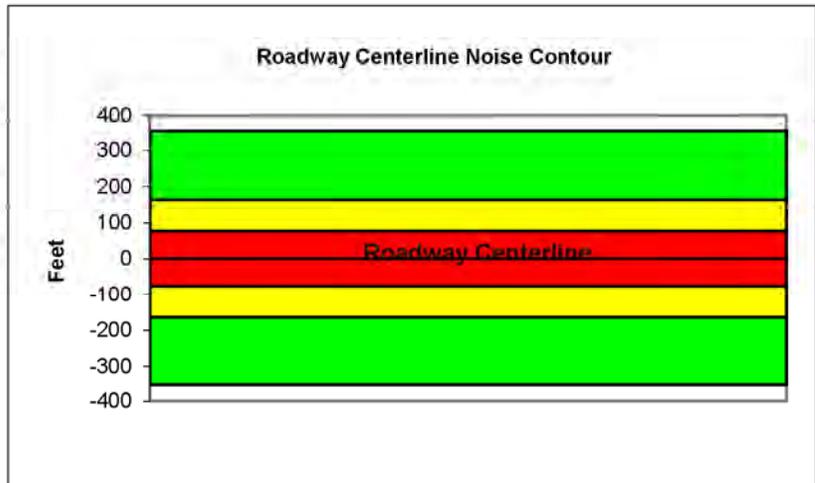
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: South of Woodridge Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	24111			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2411.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.2	64.9	63.2	57.1	65.7	66.3
Medium Trucks:	63.3	55.2	48.8	47.3	55.8	56.0
Heavy Trucks:	67.3	55.3	46.3	47.5	56.7	56.9
Vehicle Noise:	69.6	65.9	63.4	58.0	66.6	67.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	354
65 dBA	164
70 dBA	76
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

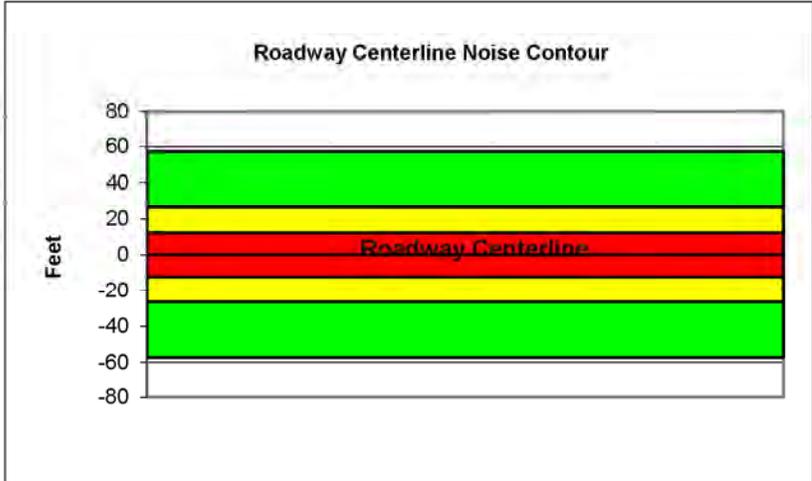
Project Name:	Nevada County Housing Element Rezone	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Combie Road		
Road Segment:	West of SR-49		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	4671			
Receiver Barrier Dist:	0	Peak Hour Traffic:	467.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View: -90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.5	52.3	50.5	44.4	53.1	53.7
Medium Trucks:	53.2	45.2	38.8	37.2	45.7	45.9
Heavy Trucks:	58.4	46.5	37.4	38.7	48.6	48.7
Vehicle Noise:	60.9	54.2	51.1	46.4	54.9	55.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	57
65 dBA	27
70 dBA	12
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

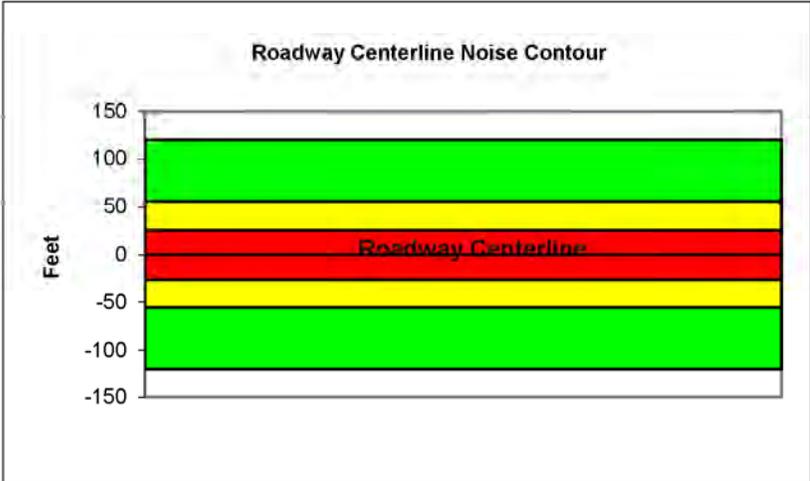
Project Name:	Nevada County Housing Element Rezone	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Combie Road		
Road Segment:	East of SR-49		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	14130			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1413			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View: -90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.3	57.1	55.3	49.2	57.9	58.5
Medium Trucks:	58.0	50.0	43.6	42.0	50.5	50.7
Heavy Trucks:	63.2	51.3	42.3	43.5	53.4	53.5
Vehicle Noise:	65.7	59.0	55.9	51.2	59.7	60.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	120
65 dBA	56
70 dBA	26
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

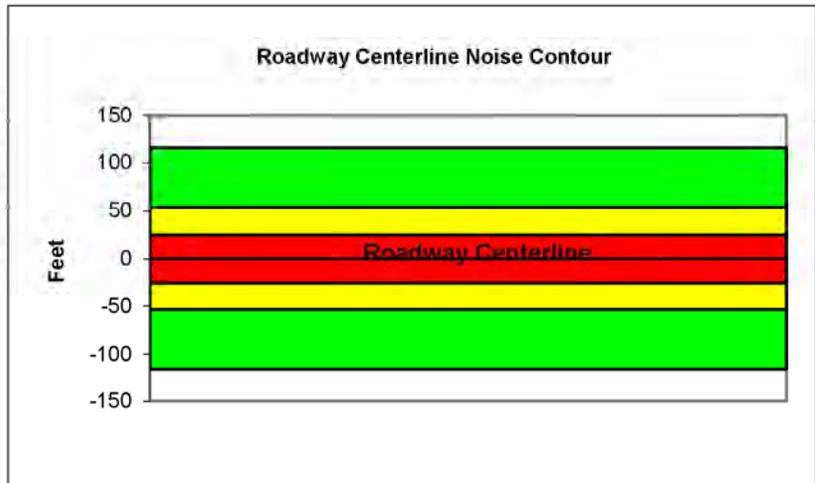
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Combie Road
 Road Segment: West of Rosewood Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	13374			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1337.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.1	56.8	55.1	49.0	57.6	58.2
Medium Trucks:	57.8	49.7	43.3	41.8	50.3	50.5
Heavy Trucks:	63.0	51.1	42.0	43.2	53.1	53.3
Vehicle Noise:	65.4	58.8	55.6	50.9	59.5	60.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	115
65 dBA	54
70 dBA	25
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

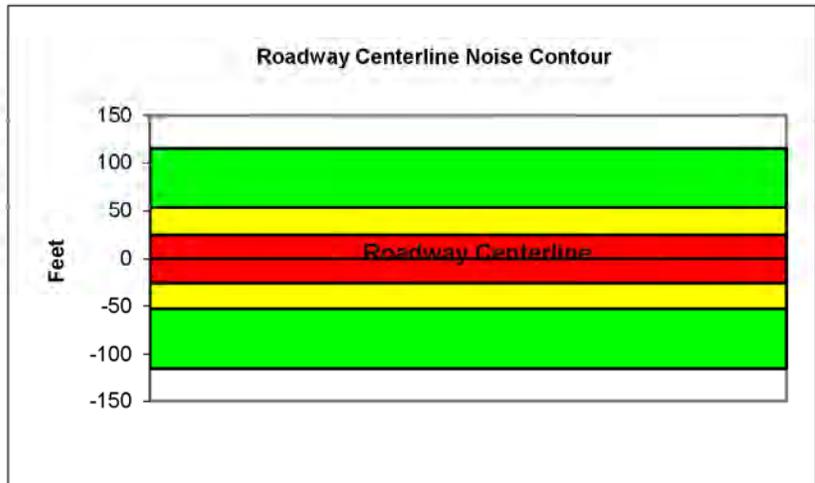
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Combie Road
 Road Segment: Rosewood Drive to Hacienda Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	13257			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1325.7			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.0	56.8	55.0	48.9	57.6	58.2
Medium Trucks:	57.8	49.7	43.3	41.7	50.2	50.4
Heavy Trucks:	63.0	51.0	42.0	43.2	53.1	53.2
Vehicle Noise:	65.4	58.8	55.6	50.9	59.5	59.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	115
65 dBA	53
70 dBA	25
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

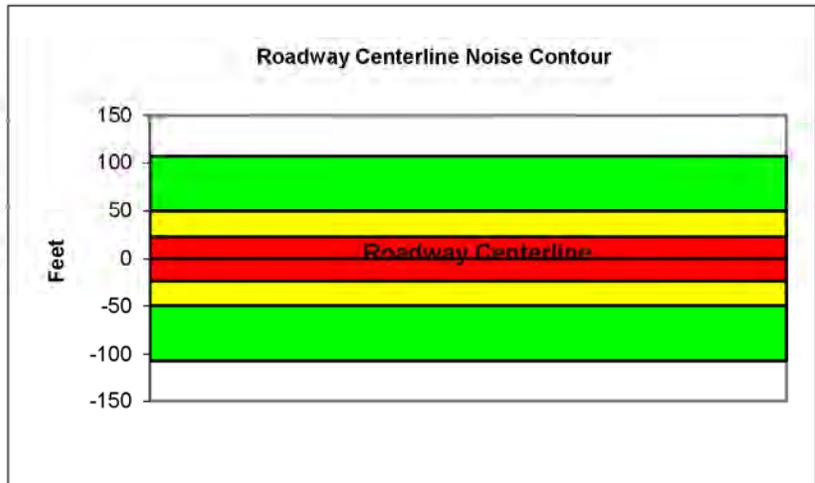
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Combie Road
 Road Segment: East of Hacienda Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	11889			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1188.9			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.6	56.3	54.6	48.5	57.1	57.7
Medium Trucks:	57.3	49.2	42.8	41.3	49.7	50.0
Heavy Trucks:	62.5	50.6	41.5	42.7	52.6	52.8
Vehicle Noise:	64.9	58.3	55.1	50.4	59.0	59.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	107
65 dBA	49
70 dBA	23
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

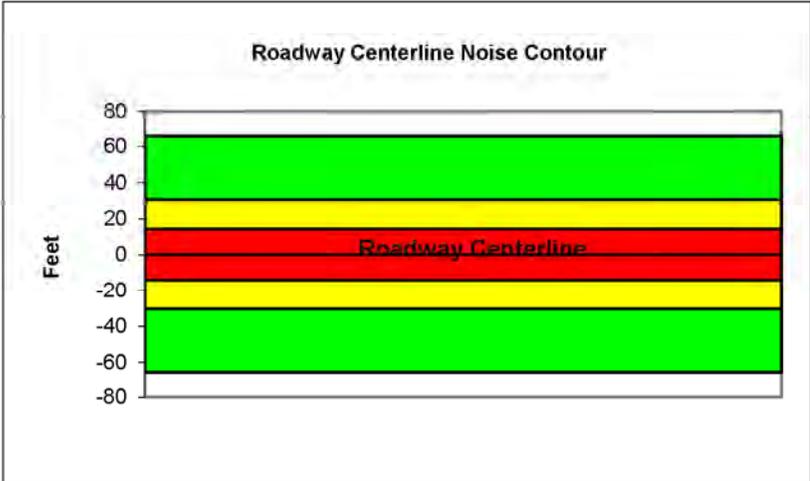
Project Name:	Nevada County Housing Element Rezone	Scenario:	Future
Analyst:	Achilles Malisos	Job #:	60100827
Roadway:	Combie Road		
Road Segment:	South of Magnolia		

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	5760			
Receiver Barrier Dist:	0	Peak Hour Traffic:	576			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90	Lft View: -90	Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.4	53.2	51.4	45.3	54.0	54.6
Medium Trucks:	54.1	46.1	39.7	38.1	46.6	46.8
Heavy Trucks:	59.3	47.4	38.4	39.6	49.5	49.6
Vehicle Noise:	61.8	55.1	52.0	47.3	55.8	56.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	66
65 dBA	31
70 dBA	14
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

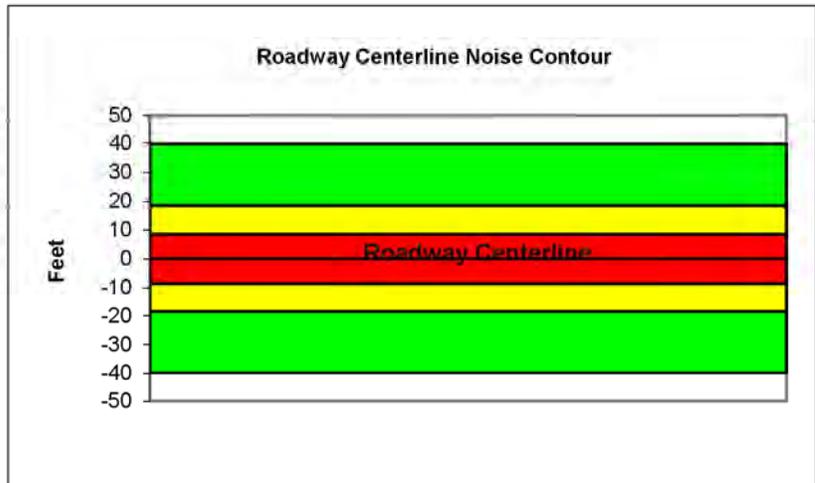
Project Name: Nevada County Housing Element Rezone Scenario: Future
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Hacienda Drive
 Road Segment: North of Combie Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	2700			
Receiver Barrier Dist:	0	Peak Hour Traffic:	270			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	30			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	41.2	50.0	48.2	42.2	50.8	51.4
Medium Trucks:	51.0	42.9	36.5	34.9	43.4	43.7
Heavy Trucks:	56.2	44.2	35.2	36.4	46.3	46.4
Vehicle Noise:	58.6	52.0	48.8	44.1	52.7	53.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	40
65 dBA	18
70 dBA	9
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

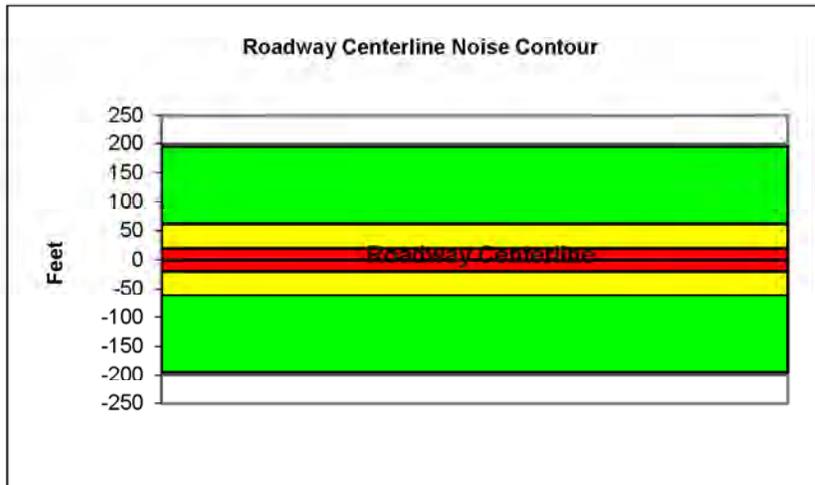
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Nevada City Highway
 Road Segment: Dorsey to Brunswick

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	11304			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1130.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.3	59.1	57.3	51.2	59.8	60.5
Medium Trucks:	60.0	51.9	45.6	44.0	52.5	52.7
Heavy Trucks:	65.2	53.3	44.2	45.4	55.4	55.5
Vehicle Noise:	67.7	61.0	57.8	53.1	61.7	62.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	195
65 dBA	62
70 dBA	19
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

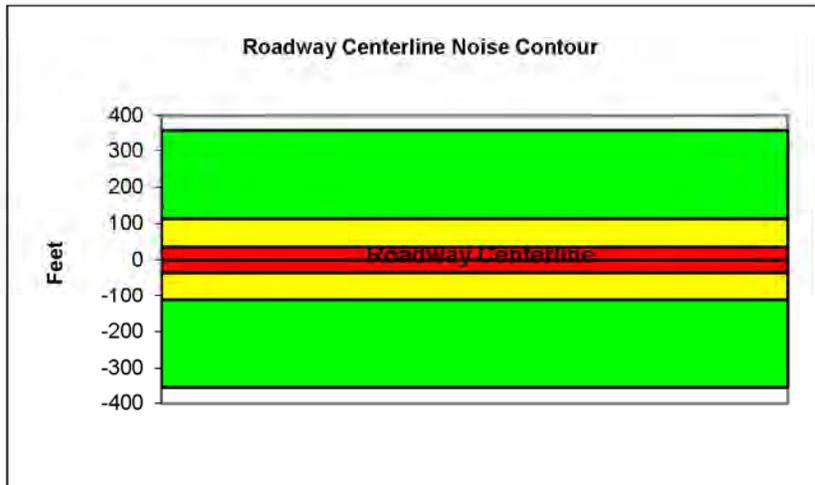
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Nevada City Highway
 Road Segment: North of Brunswick

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	20682			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2068.2			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.9	61.7	59.9	53.8	62.5	63.1
Medium Trucks:	62.6	54.6	48.2	46.6	55.1	55.3
Heavy Trucks:	67.8	55.9	46.9	48.1	58.0	58.1
Vehicle Noise:	70.3	63.6	60.5	55.8	64.3	64.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	357
65 dBA	113
70 dBA	36
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

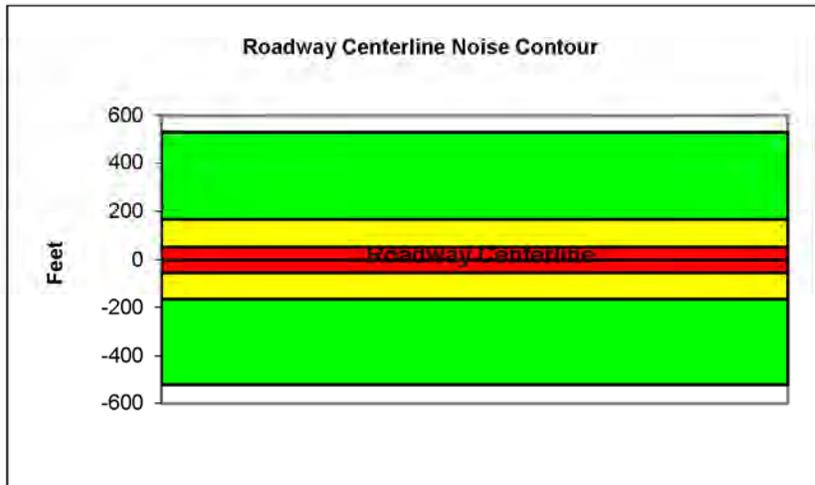
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: SB On-Ramp

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	30438			
Receiver Barrier Dist:	0	Peak Hour Traffic:	3043.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.6	63.4	61.6	55.5	64.1	64.8
Medium Trucks:	64.3	56.2	49.9	48.3	56.8	57.0
Heavy Trucks:	69.5	57.6	48.5	49.8	59.7	59.8
Vehicle Noise:	72.0	65.3	62.1	57.5	66.0	66.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	525
65 dBA	166
70 dBA	52
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

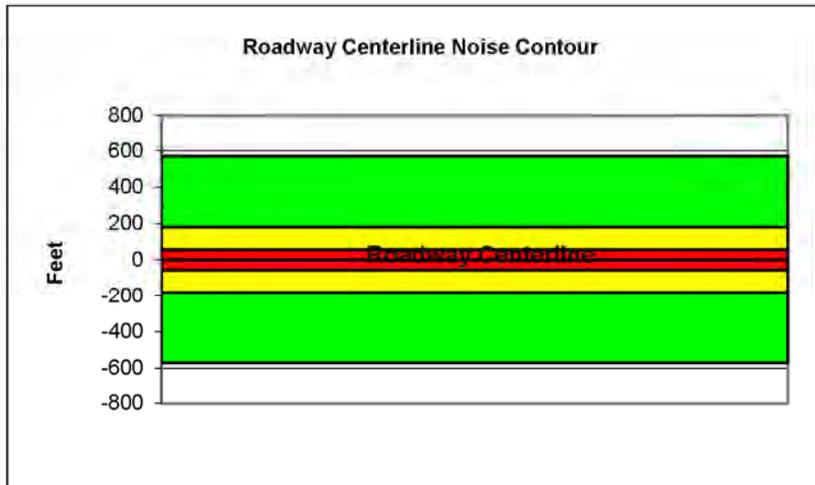
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: SR-20 to Sutton Way

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	33,183			
Receiver Barrier Dist:	0	Peak Hour Traffic:	3318.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.8	63.6	61.8	55.7	64.4	65.0
Medium Trucks:	64.5	56.5	50.1	48.5	57.0	57.2
Heavy Trucks:	69.7	57.8	48.8	50.0	59.9	60.0
Vehicle Noise:	72.2	65.5	62.4	57.7	66.2	66.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	572
65 dBA	181
70 dBA	57
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

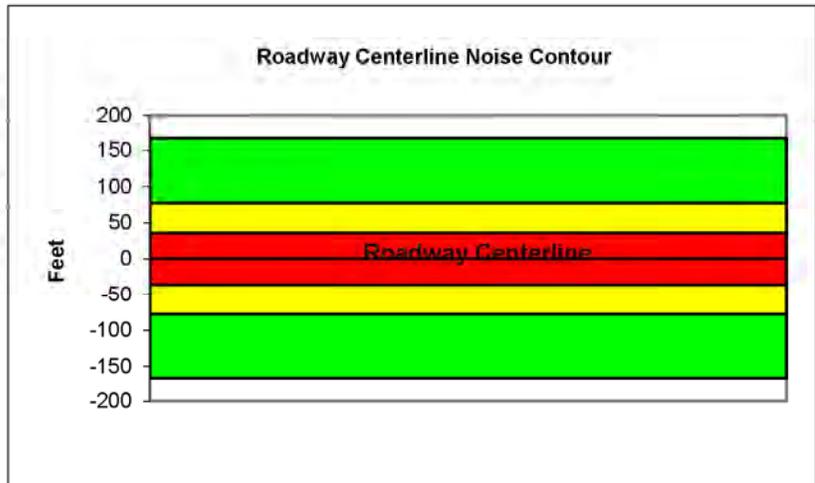
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: Sutton to Old Tunnel

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	23256			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2325.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.1	58.9	57.1	51.0	59.7	60.3
Medium Trucks:	59.8	51.8	45.4	43.8	52.3	52.5
Heavy Trucks:	65.1	53.1	44.1	45.3	55.2	55.3
Vehicle Noise:	67.5	60.9	57.7	53.0	61.6	62.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	167
65 dBA	77
70 dBA	36
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

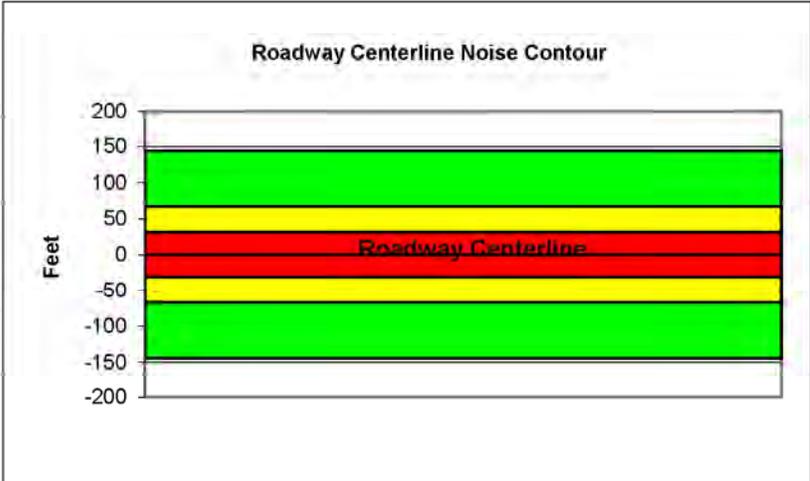
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: Old Tunnel to Idaho-Maryland Rd

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	18729			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1872.9			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.2	58.0	56.2	50.1	58.7	59.4
Medium Trucks:	58.9	50.8	44.5	42.9	51.4	51.6
Heavy Trucks:	64.1	52.2	43.1	44.4	54.3	54.4
Vehicle Noise:	66.6	59.9	56.7	52.1	60.6	61.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	144
65 dBA	67
70 dBA	31
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

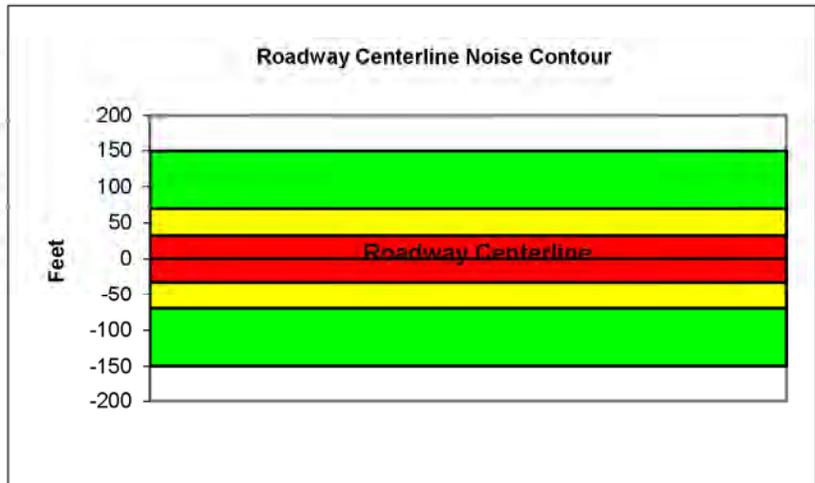
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Brunswick
 Road Segment: South of Idaho-Maryland Rd

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	19746			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1974.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.4	58.2	56.4	50.3	59.0	59.6
Medium Trucks:	59.1	51.1	44.7	43.1	51.6	51.8
Heavy Trucks:	64.4	52.4	43.4	44.6	54.5	54.6
Vehicle Noise:	66.8	60.2	57.0	52.3	60.8	61.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	150
65 dBA	69
70 dBA	32
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

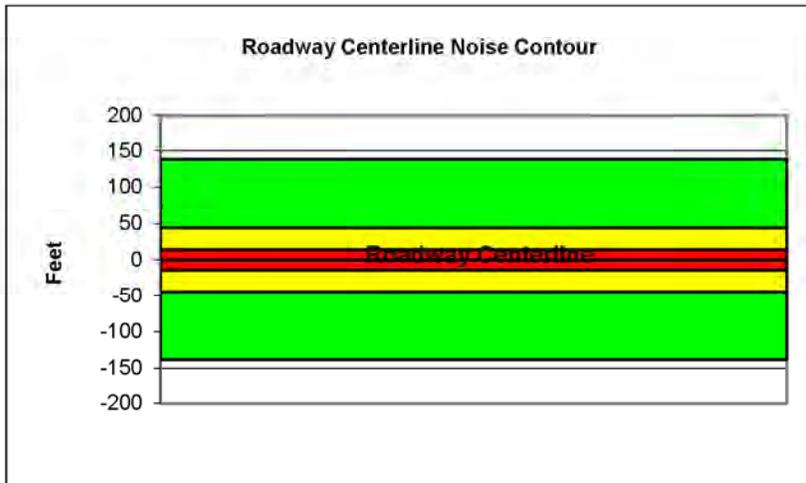
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Sutton Way
 Road Segment: North of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	8,001			
Receiver Barrier Dist:	0	Peak Hour Traffic:	800.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.6	57.4	55.6	49.5	58.2	58.8
Medium Trucks:	58.4	50.3	43.9	42.3	50.8	51.1
Heavy Trucks:	63.6	51.6	42.6	43.8	53.7	53.8
Vehicle Noise:	66.0	59.4	56.2	51.5	60.1	60.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	138
65 dBA	44
70 dBA	14
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

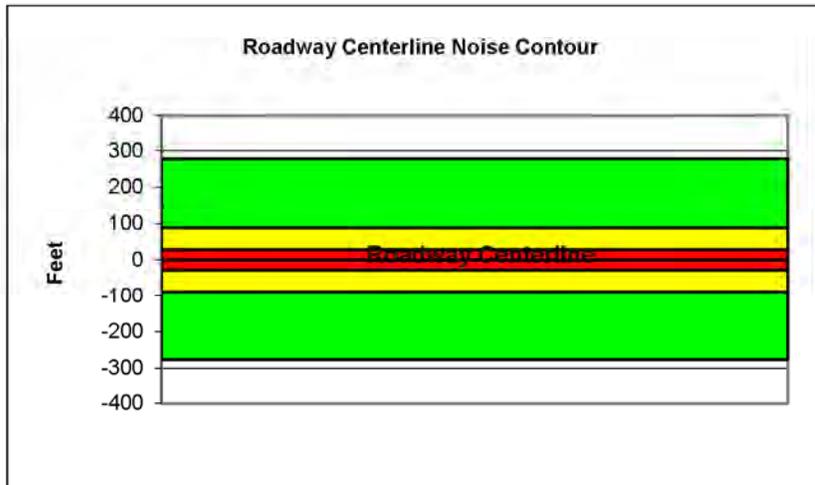
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Sutton Way
 Road Segment: South of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	16,092			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1609.2			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.7	60.4	58.7	52.6	61.2	61.8
Medium Trucks:	61.4	53.3	46.9	45.4	53.9	54.1
Heavy Trucks:	66.6	54.7	45.6	46.8	56.7	56.9
Vehicle Noise:	69.0	62.4	59.2	54.5	63.1	63.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	277
65 dBA	88
70 dBA	28
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

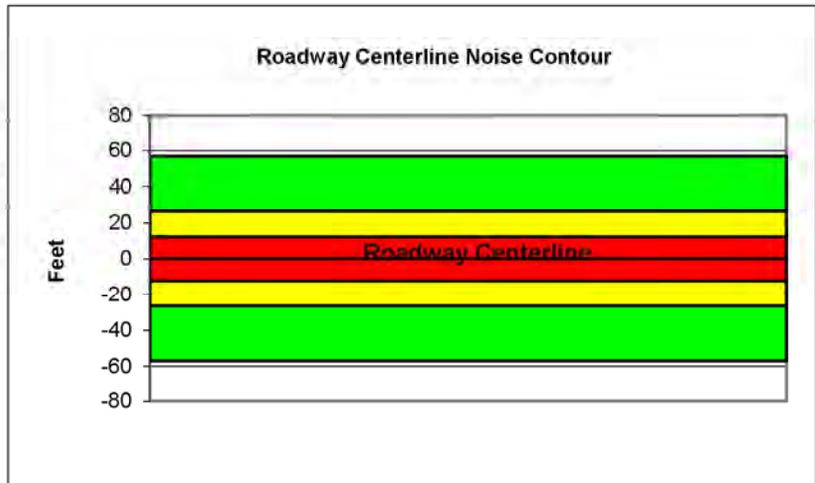
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Idaho-Maryland Road
 Road Segment: West of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	4653			
Receiver Barrier Dist:	0	Peak Hour Traffic:	465.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.5	52.2	50.5	44.4	53.0	53.6
Medium Trucks:	53.2	45.1	38.7	37.2	45.6	45.9
Heavy Trucks:	58.4	46.5	37.4	38.6	48.5	48.7
Vehicle Noise:	60.8	54.2	51.0	46.3	54.9	55.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	57
65 dBA	26
70 dBA	12
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

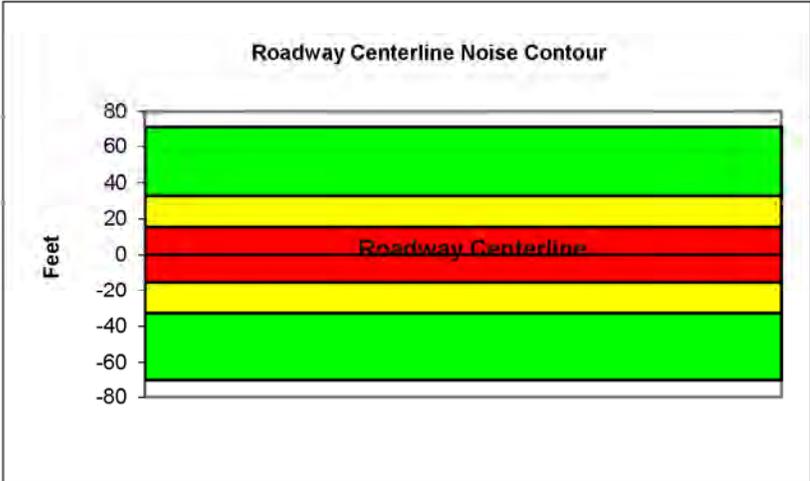
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
Analyst: Achilles Malisos Job #: 60100827
Roadway: Idaho-Maryland Road
Road Segment: East of Brunswick Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	6408			
Receiver Barrier Dist:	0	Peak Hour Traffic:	640.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.9	53.6	51.8	45.8	54.4	55.0
Medium Trucks:	54.6	46.5	40.1	38.5	47.0	47.3
Heavy Trucks:	59.8	47.8	38.8	40.0	49.9	50.0
Vehicle Noise:	62.2	55.6	52.4	47.7	56.3	56.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	71
65 dBA	33
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

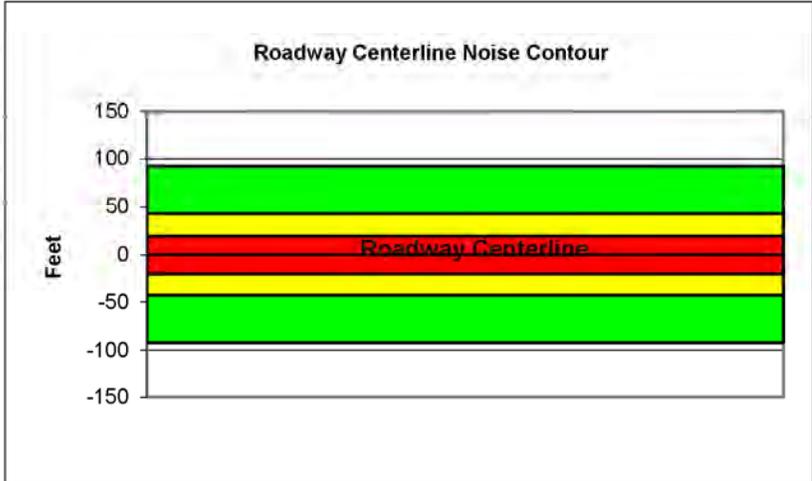
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McCourtney Road
 Road Segment: South of Personeni Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	9522			
Receiver Barrier Dist:	0	Peak Hour Traffic:	952.2			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	36			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.6	55.4	53.6	47.5	56.1	56.7
Medium Trucks:	56.3	48.2	41.8	40.3	48.8	49.0
Heavy Trucks:	61.5	49.6	40.5	41.7	51.6	51.8
Vehicle Noise:	63.9	57.3	54.1	49.4	58.0	58.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	92
65 dBA	43
70 dBA	20
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

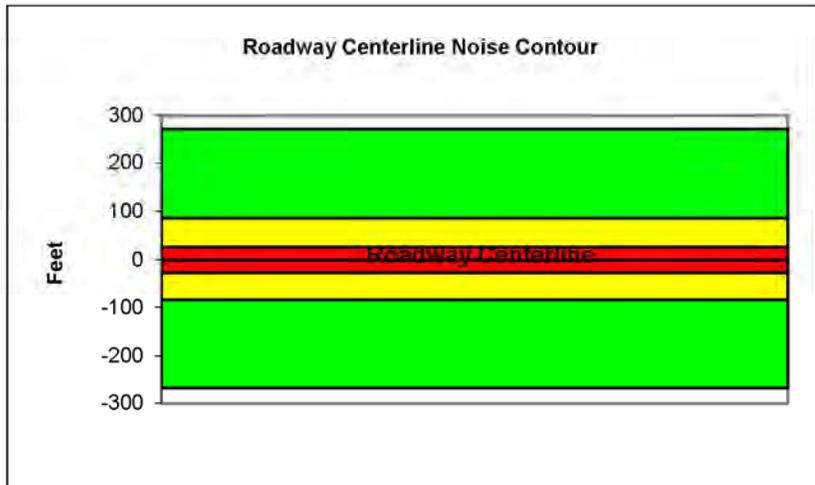
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McKnight Way
 Road Segment: East of SR-49

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	15,597			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1559.7			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.5	60.3	58.5	52.4	61.1	61.7
Medium Trucks:	61.3	53.2	46.8	45.2	53.7	54.0
Heavy Trucks:	66.5	54.5	45.5	46.7	56.6	56.7
Vehicle Noise:	68.9	62.3	59.1	54.4	63.0	63.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	269
65 dBA	85
70 dBA	27
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

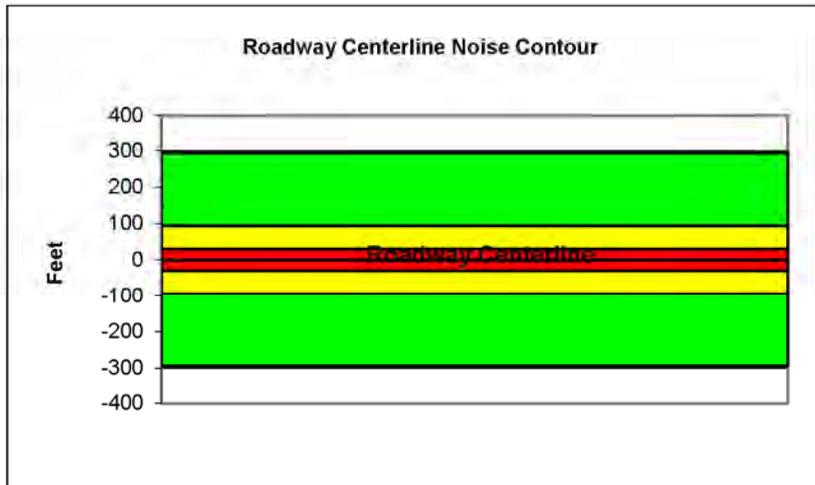
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McKnight Way
 Road Segment: SR-49 NB ramps to SB ramps

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	17,073			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1707.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.9	60.7	58.9	52.8	61.5	62.1
Medium Trucks:	61.6	53.6	47.2	45.6	54.1	54.3
Heavy Trucks:	66.9	54.9	45.9	47.1	57.0	57.1
Vehicle Noise:	69.3	62.7	59.5	54.8	63.4	63.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	295
65 dBA	93
70 dBA	29
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

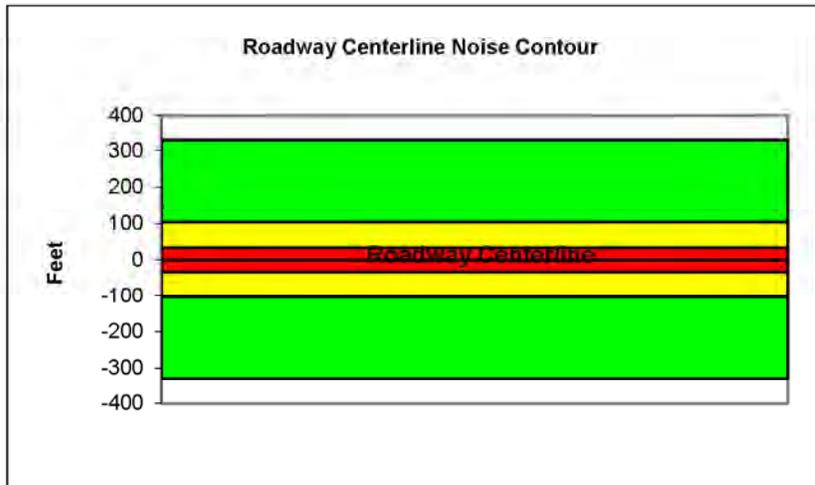
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: McKnight Way
 Road Segment: SR-49 ramps to Auburn Street

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	19,125			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1912.5			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	50			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions HARD SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	0	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.4	61.2	59.4	53.3	62.0	62.6
Medium Trucks:	62.1	54.1	47.7	46.1	54.6	54.8
Heavy Trucks:	67.4	55.4	46.4	47.6	57.5	57.6
Vehicle Noise:	69.8	63.2	60.0	55.3	63.8	64.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	330
65 dBA	104
70 dBA	33
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

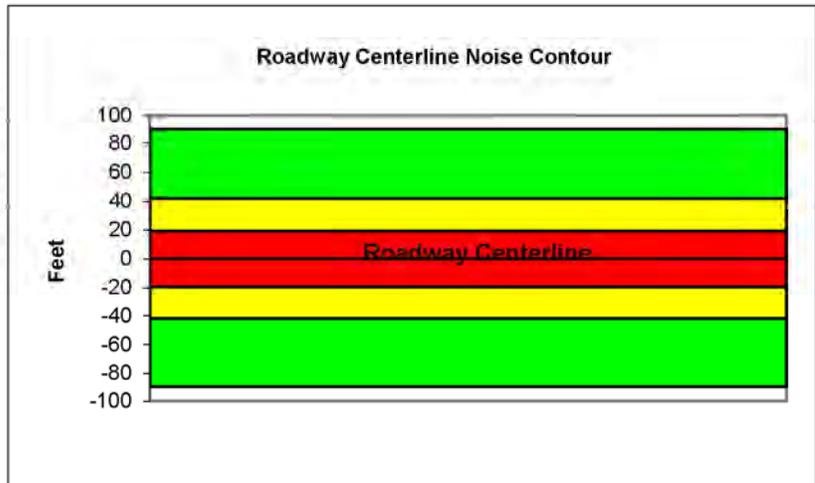
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Auburn Street
 Road Segment: North of McKnight

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	9198			
Receiver Barrier Dist:	0	Peak Hour Traffic:	919.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.3	55.1	53.3	47.2	55.9	56.5
Medium Trucks:	56.0	48.0	41.6	40.0	48.5	48.7
Heavy Trucks:	61.3	49.3	40.3	41.5	51.4	51.5
Vehicle Noise:	63.7	57.1	53.9	49.2	57.8	58.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	90
65 dBA	42
70 dBA	19
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

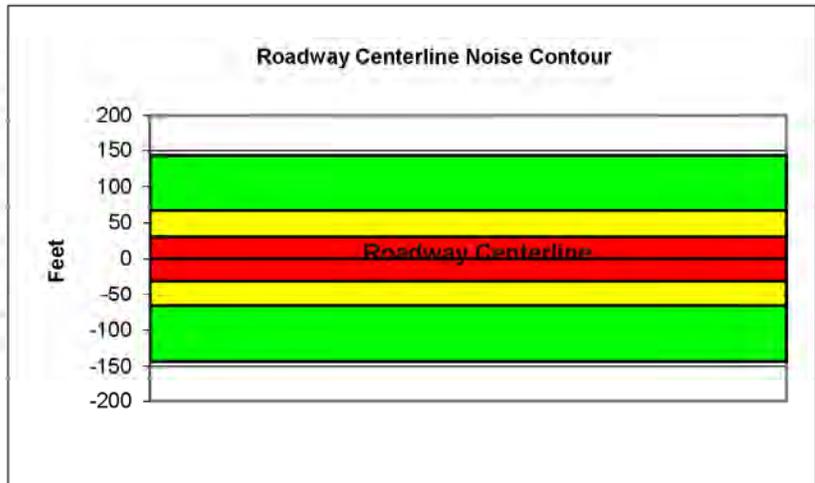
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
Analyst: Achilles Malisos Job #: 60100827
Roadway: La Barr Meadows Road
Road Segment: South of McKnight

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	18474			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1847.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.4	58.1	56.3	50.3	58.9	59.5
Medium Trucks:	59.1	51.0	44.6	43.0	51.5	51.8
Heavy Trucks:	64.3	52.4	43.3	44.5	54.4	54.5
Vehicle Noise:	66.7	60.1	56.9	52.2	60.8	61.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	143
65 dBA	66
70 dBA	31
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

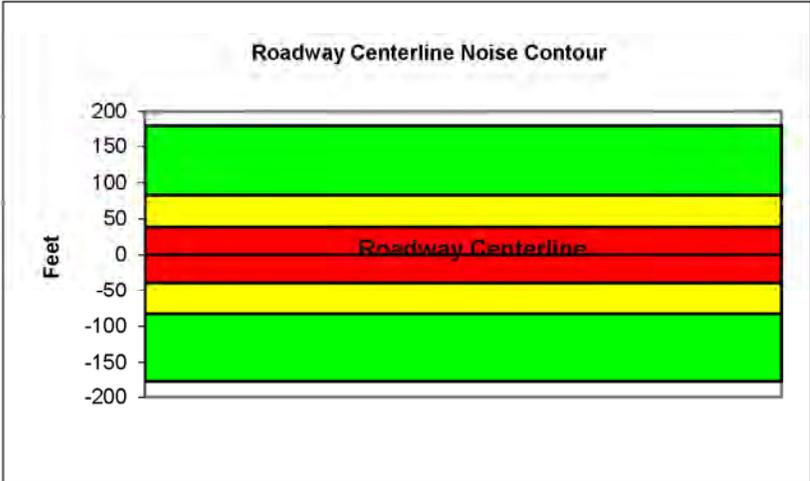
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: West of Pleasant Valley Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	8649			
Receiver Barrier Dist:	0	Peak Hour Traffic:	864.9			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	51.8	60.6	58.8	52.7	61.4	62.0
Medium Trucks:	59.0	50.9	44.5	42.9	51.4	51.7
Heavy Trucks:	62.9	51.0	41.9	43.1	52.4	52.5
Vehicle Noise:	65.2	61.5	59.1	53.7	62.3	62.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	179
65 dBA	83
70 dBA	38
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

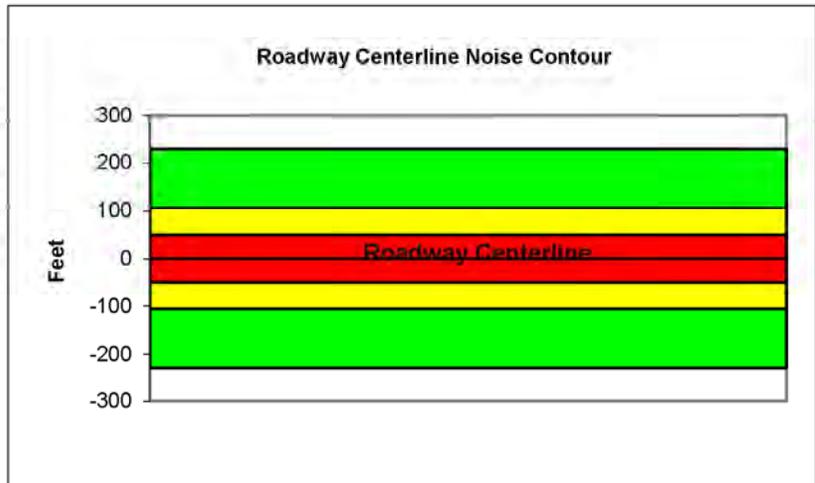
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: Pleasant Valley Road to Rough and Ready Hwy

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12,474			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1247.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.4	62.2	60.4	54.3	63.0	63.6
Medium Trucks:	60.5	52.5	46.1	44.5	53.0	53.2
Heavy Trucks:	64.5	52.6	43.5	44.7	54.0	54.1
Vehicle Noise:	66.8	63.1	60.7	55.3	63.9	64.4

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	228
65 dBA	106
70 dBA	49
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

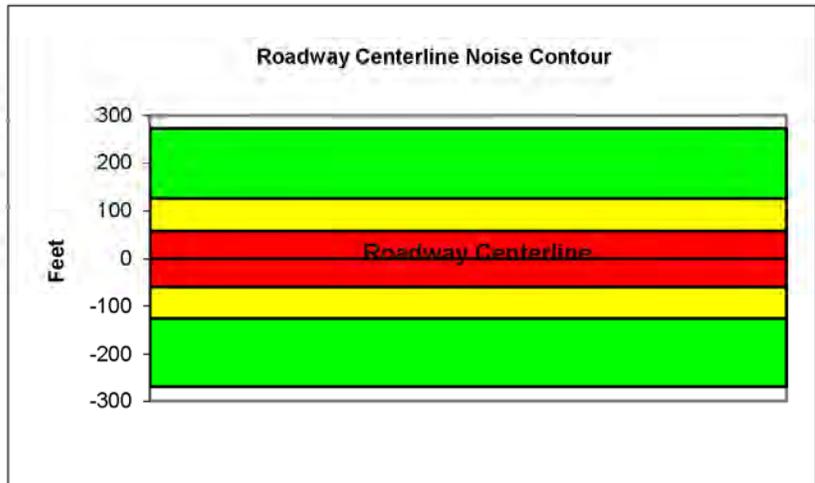
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-20
 Road Segment: East of Rough and Ready Hwy

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	16110			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1611			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.5	63.3	61.5	55.4	64.1	64.7
Medium Trucks:	61.7	53.6	47.2	45.6	54.1	54.4
Heavy Trucks:	65.6	53.7	44.6	45.8	55.1	55.2
Vehicle Noise:	67.9	64.2	61.8	56.4	65.0	65.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	270
65 dBA	125
70 dBA	58
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

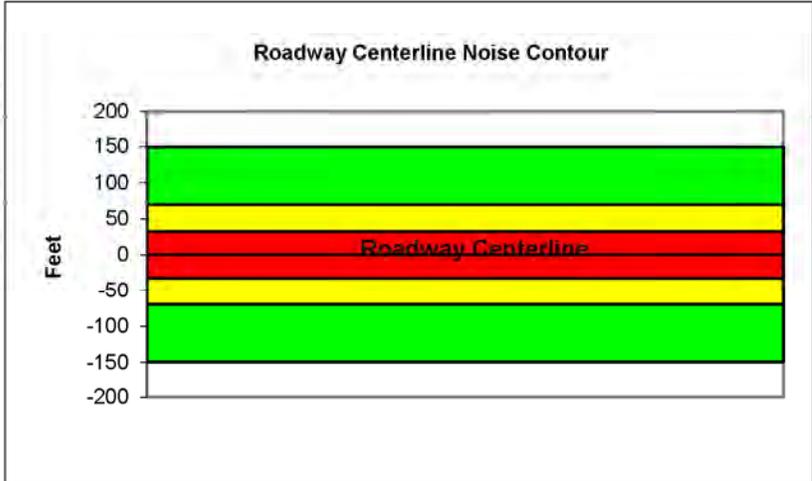
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Pleasant Valley Road
 Road Segment: North of SR-20

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	10926			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1092.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.3	59.1	57.3	51.2	59.9	60.5
Medium Trucks:	58.6	50.5	44.2	42.6	51.1	51.3
Heavy Trucks:	63.1	51.2	42.1	43.4	52.9	53.0
Vehicle Noise:	65.5	60.4	57.7	52.5	61.1	61.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	149
65 dBA	69
70 dBA	32
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

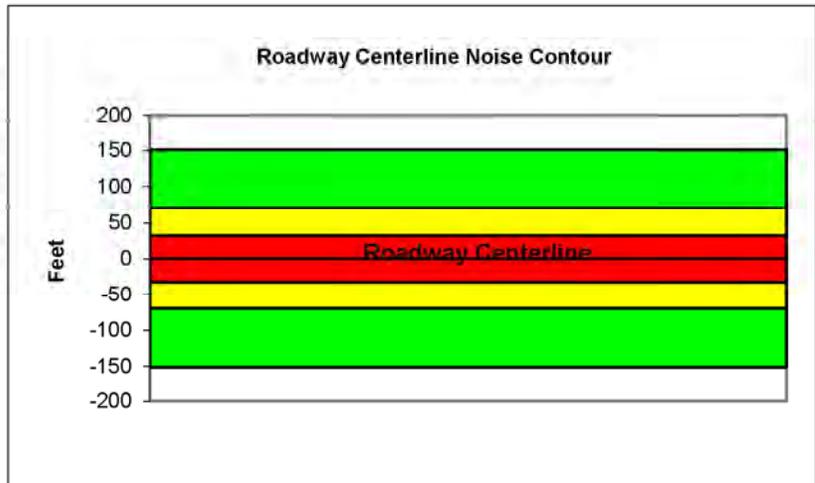
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Penn Valley Drive
 Road Segment: Pleasant Valley Road to Horton Street

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	11088			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1108.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	50.4	59.2	57.4	51.3	60.0	60.6
Medium Trucks:	58.7	50.6	44.2	42.7	51.1	51.4
Heavy Trucks:	63.2	51.3	42.2	43.4	53.0	53.1
Vehicle Noise:	65.5	60.5	57.8	52.6	61.2	61.7

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	151
65 dBA	70
70 dBA	32
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

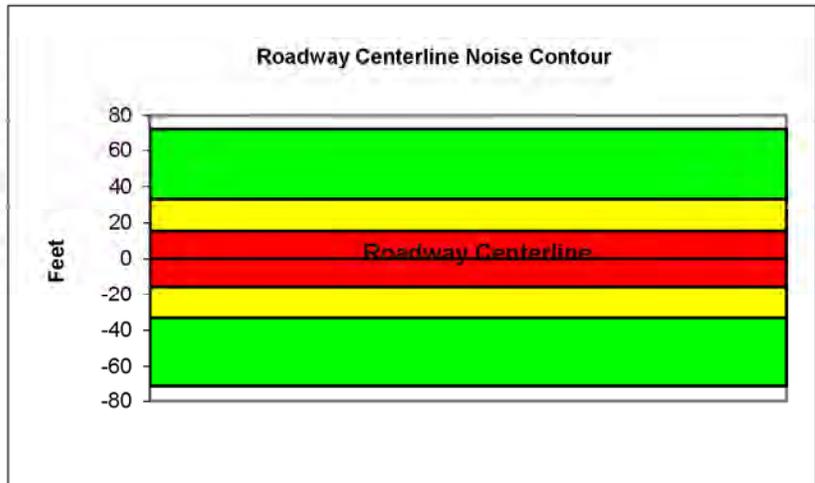
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Penn Valley Drive
 Road Segment: Horton Street to Broken Oak Court

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	3636			
Receiver Barrier Dist:	0	Peak Hour Traffic:	363.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.6	54.3	52.5	46.5	55.1	55.7
Medium Trucks:	53.8	45.8	39.4	37.8	46.3	46.5
Heavy Trucks:	58.4	46.4	37.4	38.6	48.1	48.3
Vehicle Noise:	60.7	55.6	52.9	47.8	56.4	56.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	72
65 dBA	33
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

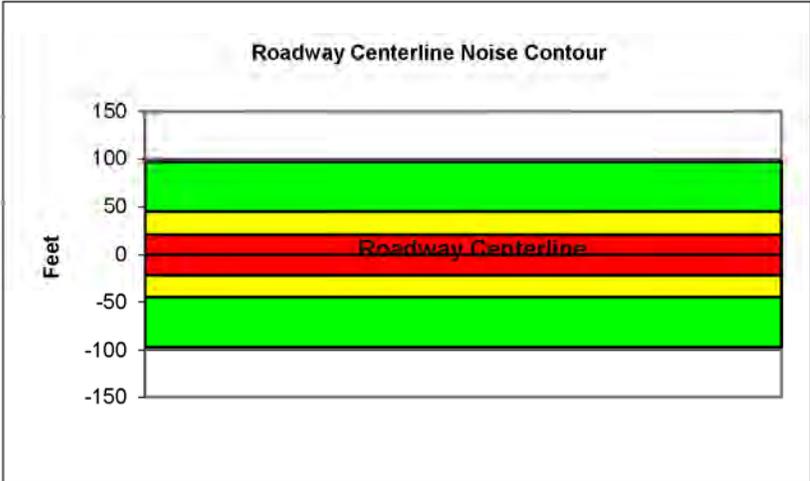
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Penn Valley Drive
 Road Segment: Broken Oak Court to Spenceville

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	5688			
Receiver Barrier Dist:	0	Peak Hour Traffic:	568.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.5	56.3	54.5	48.4	57.1	57.7
Medium Trucks:	55.8	47.7	41.3	39.8	48.2	48.5
Heavy Trucks:	60.3	48.4	39.3	40.5	50.1	50.2
Vehicle Noise:	62.6	57.6	54.9	49.7	58.3	58.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	97
65 dBA	45
70 dBA	21
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

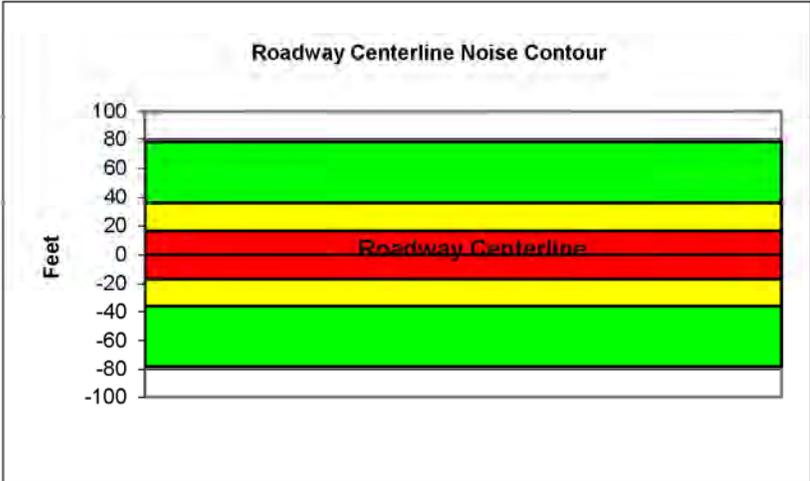
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Rough and Ready Hwy
 Road Segment: North of SR-20

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	4131			
Receiver Barrier Dist:	0	Peak Hour Traffic:	413.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	30			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.2	55.0	53.2	47.1	55.8	56.4
Medium Trucks:	54.5	46.4	40.1	38.5	47.0	47.2
Heavy Trucks:	59.0	47.1	38.0	39.3	48.8	48.9
Vehicle Noise:	61.4	56.3	53.6	48.4	57.0	57.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	78
65 dBA	36
70 dBA	17
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

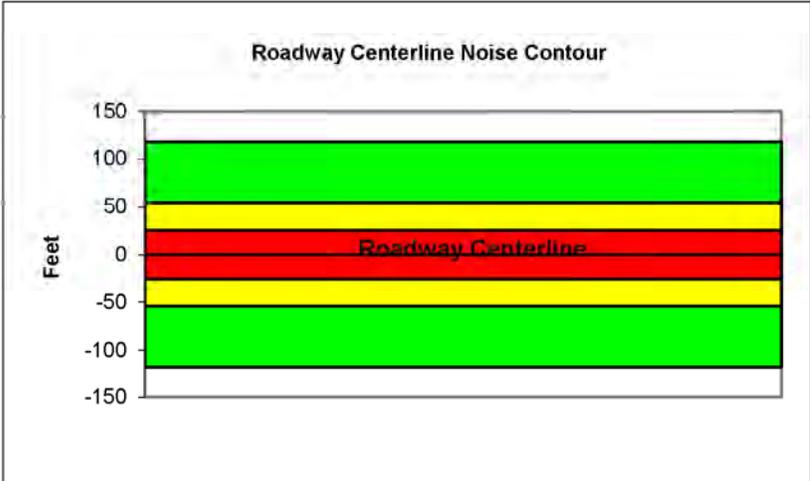
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Rough and Ready Hwy
 Road Segment: South of SR-20

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	7596			
Receiver Barrier Dist:	0	Peak Hour Traffic:	759.6			
Centerline Dist. To Observer:	100	Vehicle Speed:	45			
Barrier Near Lane CL Dist:	0	Centerline Separation:	30			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.9	57.7	55.9	49.8	58.4	59.0
Medium Trucks:	57.2	49.1	42.7	41.1	49.6	49.9
Heavy Trucks:	61.7	49.7	40.7	41.9	51.4	51.6
Vehicle Noise:	64.0	59.0	56.2	51.1	59.7	60.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	117
65 dBA	54
70 dBA	25
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

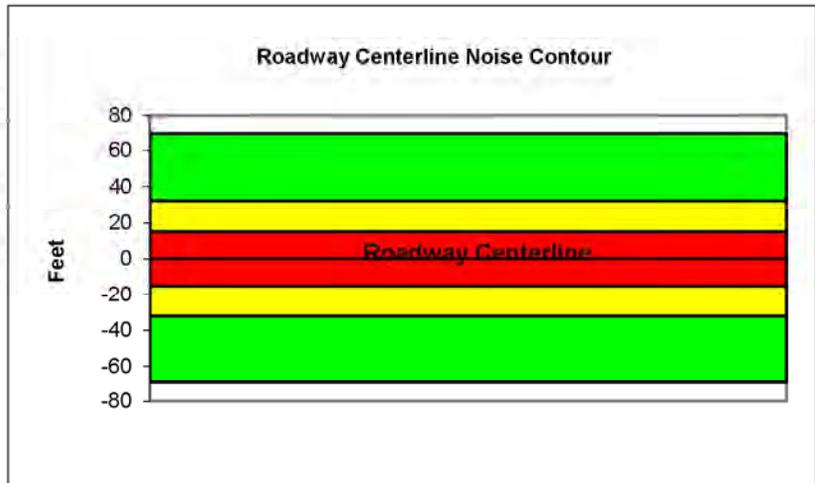
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Spenceville Road
 Road Segment: South of Penn Valley Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	4590			
Receiver Barrier Dist:	0	Peak Hour Traffic:	459			
Centerline Dist. To Observer:	100	Vehicle Speed:	40			
Barrier Near Lane CL Dist:	0	Centerline Separation:	24			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.4	54.2	52.4	46.3	54.9	55.5
Medium Trucks:	54.3	46.3	39.9	38.3	46.8	47.0
Heavy Trucks:	59.2	47.2	38.2	39.4	49.1	49.2
Vehicle Noise:	61.5	55.7	52.8	47.9	56.4	56.9

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	69
65 dBA	32
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

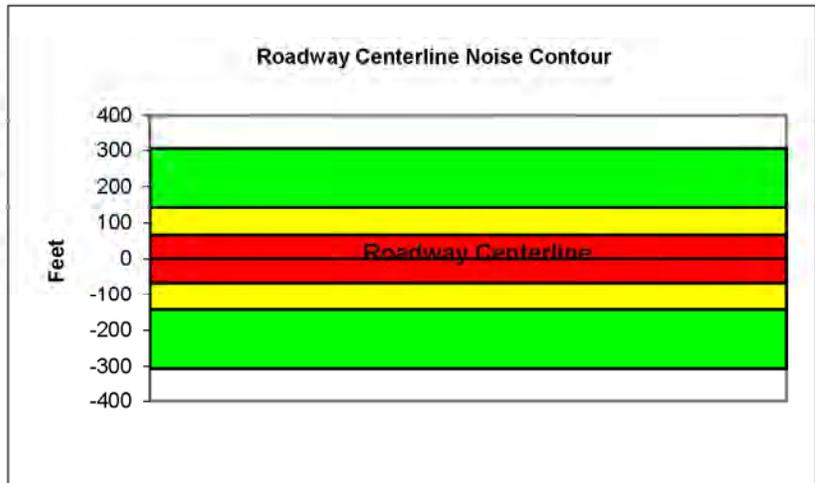
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: North of Cameo Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	19413			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1941.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.2	64.0	62.2	56.1	64.8	65.4
Medium Trucks:	62.4	54.3	47.9	46.3	54.8	55.0
Heavy Trucks:	66.3	54.4	45.3	46.5	55.8	55.9
Vehicle Noise:	68.6	64.9	62.5	57.1	65.7	66.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	307
65 dBA	142
70 dBA	66
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

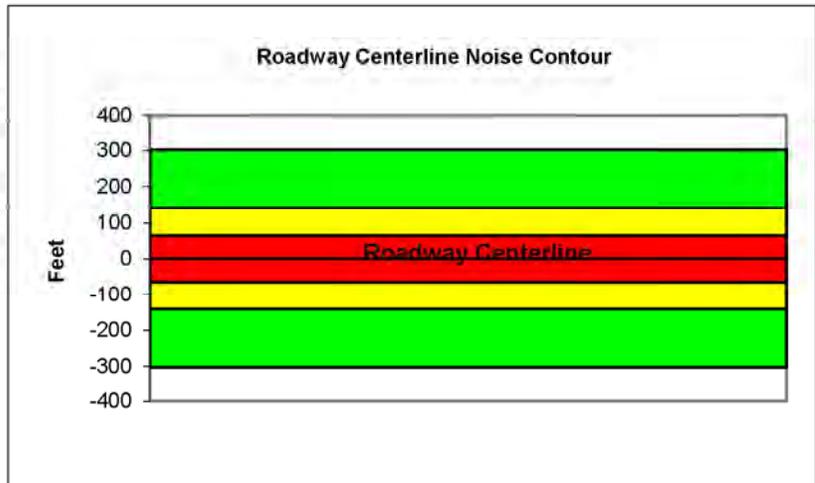
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: Cameo Drive to Combie Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	19071			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1907.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.1	63.9	62.1	56.1	64.7	65.3
Medium Trucks:	62.3	54.2	47.8	46.2	54.7	55.0
Heavy Trucks:	66.2	54.3	45.2	46.5	55.7	55.8
Vehicle Noise:	68.5	64.9	62.4	57.0	65.6	66.1

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	303
65 dBA	141
70 dBA	65
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

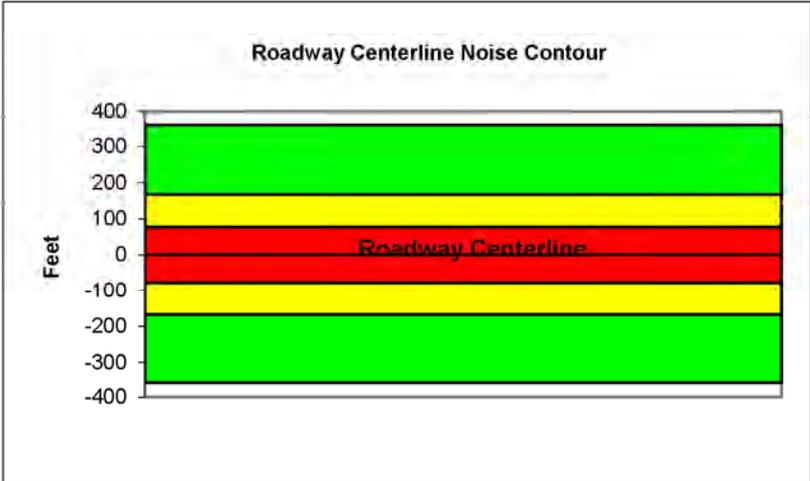
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: Combie Road to Woodridge Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	24678			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2467.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.3	65.0	63.3	57.2	65.8	66.4
Medium Trucks:	63.4	55.3	48.9	47.4	55.9	56.1
Heavy Trucks:	67.4	55.4	46.4	47.6	56.8	57.0
Vehicle Noise:	69.7	66.0	63.5	58.1	66.7	67.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	360
65 dBA	167
70 dBA	77
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

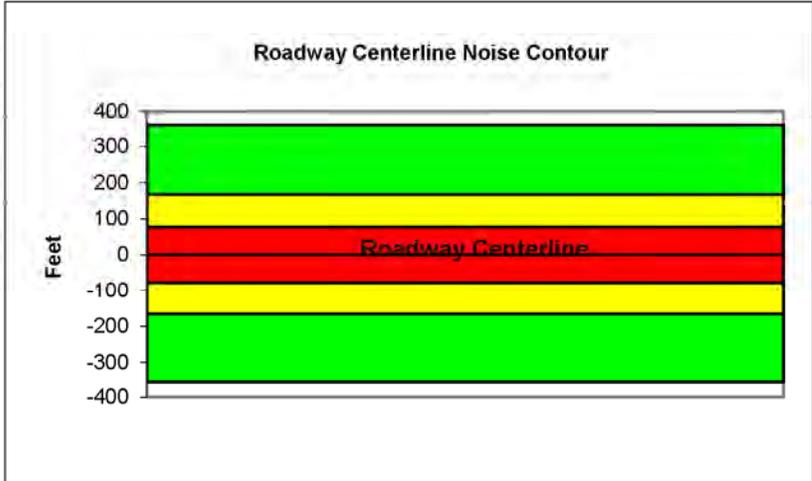
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: SR-49
 Road Segment: South of Woodridge Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	24642			
Receiver Barrier Dist:	0	Peak Hour Traffic:	2464.2			
Centerline Dist. To Observer:	100	Vehicle Speed:	55			
Barrier Near Lane CL Dist:	0	Centerline Separation:	40			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.3	65.0	63.3	57.2	65.8	66.4
Medium Trucks:	63.4	55.3	48.9	47.4	55.9	56.1
Heavy Trucks:	67.3	55.4	46.4	47.6	56.8	57.0
Vehicle Noise:	69.7	66.0	63.5	58.1	66.7	67.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	359
65 dBA	167
70 dBA	77
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

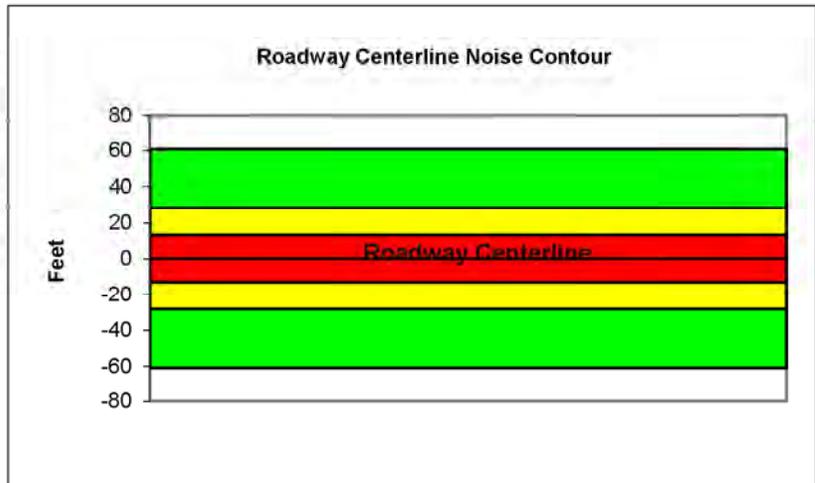
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Combie Road
 Road Segment: West of SR-49

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	5130			
Receiver Barrier Dist:	0	Peak Hour Traffic:	513			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.9	52.7	50.9	44.8	53.5	54.1
Medium Trucks:	53.6	45.6	39.2	37.6	46.1	46.3
Heavy Trucks:	58.8	46.9	37.9	39.1	49.0	49.1
Vehicle Noise:	61.3	54.6	51.5	46.8	55.3	55.8

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	61
65 dBA	28
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

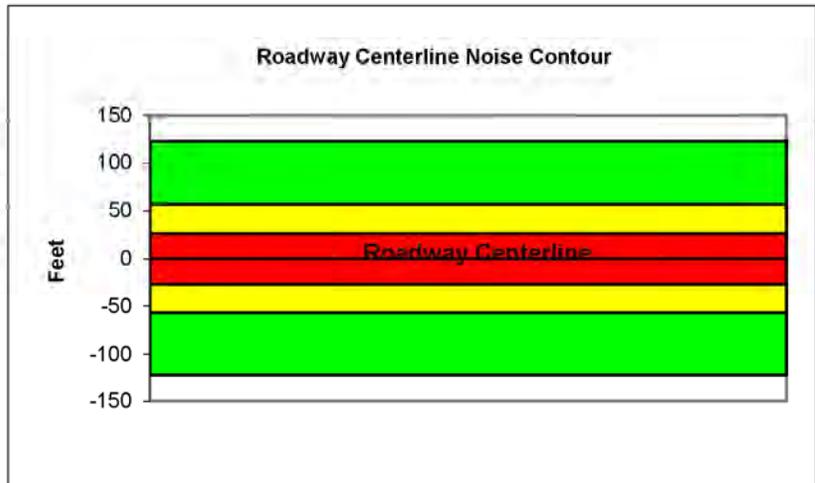
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Combie Road
 Road Segment: East of SR-49

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	14553			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1455.3			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.4	57.2	55.4	49.3	58.0	58.6
Medium Trucks:	58.2	50.1	43.7	42.1	50.6	50.9
Heavy Trucks:	63.4	51.4	42.4	43.6	53.5	53.6
Vehicle Noise:	65.8	59.2	56.0	51.3	59.9	60.3

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	122
65 dBA	57
70 dBA	26
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

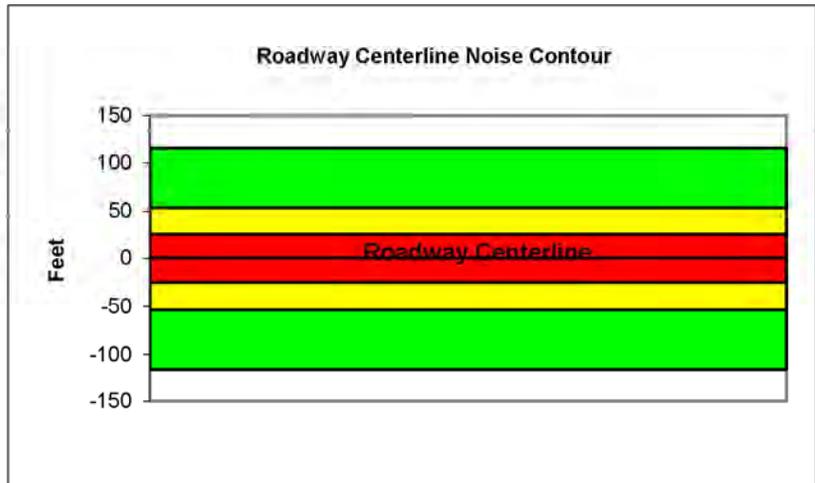
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Combie Road
 Road Segment: West of Rosewood Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	13374			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1337.4			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.1	56.8	55.1	49.0	57.6	58.2
Medium Trucks:	57.8	49.7	43.3	41.8	50.3	50.5
Heavy Trucks:	63.0	51.1	42.0	43.2	53.1	53.3
Vehicle Noise:	65.4	58.8	55.6	50.9	59.5	60.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	115
65 dBA	54
70 dBA	25
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

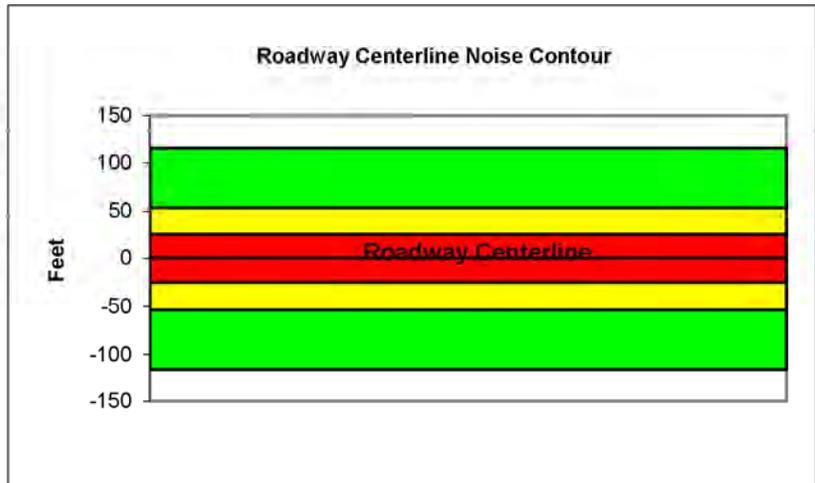
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Combie Road
 Road Segment: Rosewood Drive to Hacienda Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	13401			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1340.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.1	56.9	55.1	49.0	57.6	58.2
Medium Trucks:	57.8	49.7	43.3	41.8	50.3	50.5
Heavy Trucks:	63.0	51.1	42.0	43.2	53.1	53.3
Vehicle Noise:	65.5	58.8	55.6	50.9	59.5	60.0

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	115
65 dBA	54
70 dBA	25
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

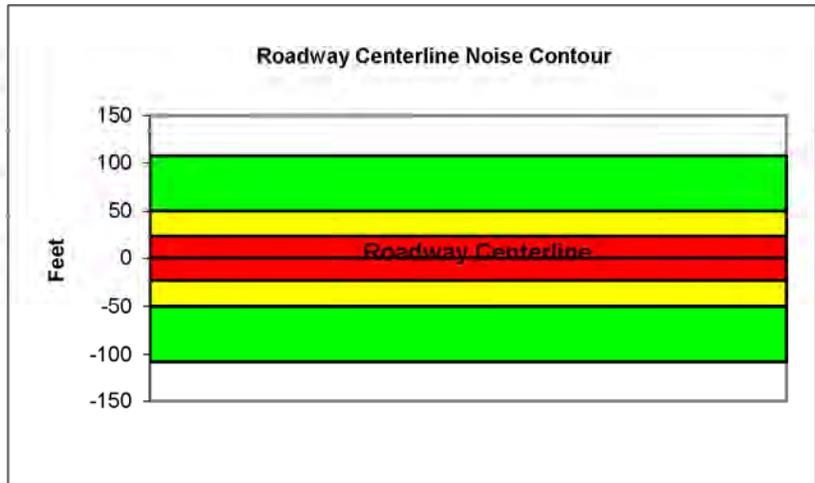
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Combie Road
 Road Segment: East of Hacienda Drive

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	12051			
Receiver Barrier Dist:	0	Peak Hour Traffic:	1205.1			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.6	56.4	54.6	48.5	57.2	57.8
Medium Trucks:	57.3	49.3	42.9	41.3	49.8	50.0
Heavy Trucks:	62.6	50.6	41.6	42.8	52.7	52.8
Vehicle Noise:	65.0	58.4	55.2	50.5	59.0	59.5

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	108
65 dBA	50
70 dBA	23
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

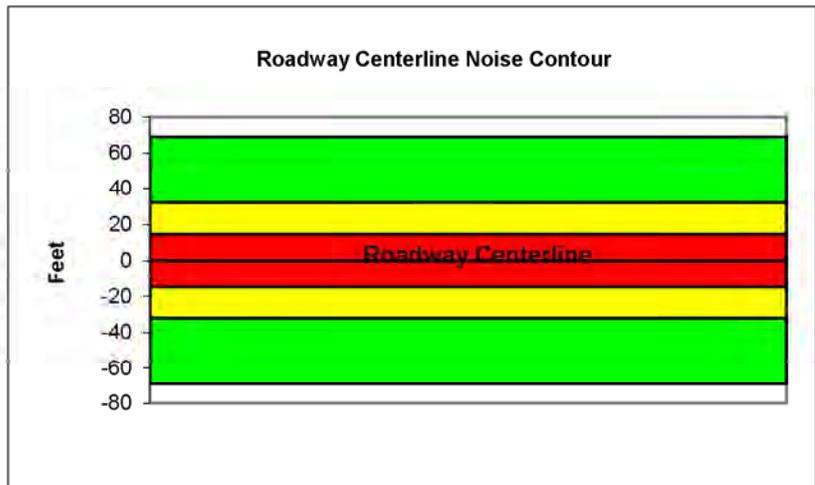
Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
Analyst: Achilles Malisos Job #: 60100827
Roadway: Combie Road
Road Segment: South of Magnolia

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	6192			
Receiver Barrier Dist:	0	Peak Hour Traffic:	619.2			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	35			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.7	53.5	51.7	45.6	54.3	54.9
Medium Trucks:	54.4	46.4	40.0	38.4	46.9	47.1
Heavy Trucks:	59.7	47.7	38.7	39.9	49.8	49.9
Vehicle Noise:	62.1	55.5	52.3	47.6	56.2	56.6

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	69
65 dBA	32
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



**Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)**

Project Name: Nevada County Housing Element Rezone Scenario: Future Plus Project
 Analyst: Achilles Malisos Job #: 60100827
 Roadway: Hacienda Drive
 Road Segment: North of Combie Road

PROJECT DATA		SITE DATA				
Centerline Dist to Barrier:	0	Road Grade:	0			
Barrier (0=wall, 1= berm):	0	Average Daily Traffic:	2718			
Receiver Barrier Dist:	0	Peak Hour Traffic:	271.8			
Centerline Dist. To Observer:	100	Vehicle Speed:	35			
Barrier Near Lane CL Dist:	0	Centerline Separation:	30			
Barrier Far lane CL Dist:	0	NOISE INPUTS				
Pad Elevation:	0.5	Site conditions: SOFT SITE				
Road Elevation:	0	FLEET MIX				
Observer Height (above grade):	5.5	Type	Day	Evening	Night	Daily
Barrier Height:	0	Auto	0.775	0.129	0.096	0.9742
Rt View: 90 Lft View: -90		Med. Truck	0.848	0.049	0.103	0.0184
NOISE SOURCE ELEVATIONS (Feet)		Heavy Truck	0.865	0.027	0.108	0.0074
Autos:	0					
Medium Trucks:	2.3					
Heavy Trucks:	8					

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	41.3	50.1	48.3	42.2	50.8	51.4
Medium Trucks:	51.0	42.9	36.5	35.0	43.5	43.7
Heavy Trucks:	56.2	44.3	35.2	36.4	46.3	46.5
Vehicle Noise:	58.6	52.0	48.8	44.1	52.7	53.2

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)						
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR	
Unmitigated	
60 dBA	40
65 dBA	19
70 dBA	9
Mitigated	
60 dBA	
65 dBA	
70 dBA	

