

APPENDIX B:
NOISE DATA



The discussion of natural hazards also relates to other elements of the *Envision General Plan*. The potential for land subsidence is directly related to the issues discussed in the Water Resources section, since land subsidence is caused from overdrafting the groundwater basin. The discussion of flooding hazards in this section is directly related to the planning for improved flood protection facilities discussed in the Facilities and Services section. This section also addresses man-made hazards, including noise, fire hazards and hazardous materials. Safety hazards associated with vehicular, rail and air transportation are addressed in the Transportation goals and policies.

In the event of a fire, geologic, or other hazardous occurrence, the City of San José's Emergency Plan provides comprehensive, detailed instructions and procedures regarding the responsibilities of City personnel and coordination with other agencies to ensure the safety of San José's citizens. The Emergency Plan includes evacuation procedures but does not delineate evacuation routes. Instead, procedures are outlined for different types of emergencies occurring in different locations of San José.

Noise and Vibration

Goal EC-1 – Community Noise Levels and Land Use Compatibility

Minimize the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies.

Policies – Community Noise Levels and Land Use Compatibility

- EC-1.1** Locate new development in areas where noise levels are appropriate for the proposed uses. Consider federal, state and City noise standards and guidelines as a part of new development review. Applicable standards and guidelines for land uses in San José include:

Interior Noise Levels

- The City's standard for interior noise levels in residences, hotels, motels, residential care facilities, and hospitals is 45 dBA DNL. Include appropriate site and building design, building construction and noise attenuation techniques in new development to meet this standard. For sites with exterior noise levels of 60 dBA DNL or more, an acoustical analysis following protocols in the City-adopted California Building Code is required to demonstrate that development projects can meet this standard. The acoustical analysis shall base required noise attenuation techniques on expected *Envision General Plan* traffic volumes to ensure land use compatibility and General Plan consistency over the life of this plan.

Exterior Noise Levels

- The City's acceptable exterior noise level objective is 60 dBA DNL or less for residential and most institutional land uses (Table EC-1). The acceptable exterior noise level objective is established for the City, except in the environs of the San José International Airport and the Downtown, as described below:



- For new multi-family residential projects and for the residential component of mixed-use development, use a standard of 60 dBA DNL in usable outdoor activity areas, excluding balconies and residential stoops and porches facing existing roadways. Some common use areas that meet the 60 dBA DNL exterior standard will be available to all residents. Use noise attenuation techniques such as shielding by buildings and structures for outdoor common use areas. On sites subject to aircraft overflights or adjacent to elevated roadways, use noise attenuation techniques to achieve the 60 dBA DNL standard for noise from sources other than aircraft and elevated roadway segments.
- For single family residential uses, use a standard of 60 dBA DNL for exterior noise in private usable outdoor activity areas, such as backyards.

Table EC-1: Land Use Compatibility Guidelines for Community Noise in San José

LAND USE CATEGORY	EXTERIOR NOISE EXPOSURE (DNL IN DECIBELS (DBA))					
	55	60	65	70	75	80
1. Residential, Hotels and Motels, Hospitals and Residential Care ¹						
2. Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
3. Schools, Libraries, Museums, Meeting Halls, Churches						
4. Office Buildings, Business Commercial, and Professional Offices						
5. Sports Arena, Outdoor Spectator Sports						
6. Public and Quasi-Public Auditoriums, Concert Halls, Amphitheaters						

¹Noise mitigation to reduce interior noise levels pursuant to Policy EC-1.1 is required.

Normally Acceptable:

- Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:

- Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.

Unacceptable:

- New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

- EC-1.2** Minimize the noise impacts of new development on land uses sensitive to increased noise levels (Categories 1, 2, 3 and 6) by limiting noise generation and by requiring use of noise attenuation measures such as acoustical enclosures and sound barriers, where feasible. The City considers significant noise impacts to occur if a project would:
- Cause the DNL at noise sensitive receptors to increase by five dBA DNL or more where the noise levels would remain “Normally Acceptable”; or
 - Cause the DNL at noise sensitive receptors to increase by three dBA DNL or more where noise levels would equal or exceed the “Normally Acceptable” level.
- EC-1.3** Mitigate noise generation of new nonresidential land uses to 55 dBA DNL at the property line when located adjacent to existing or planned noise sensitive residential and public/quasi-public land uses.
- EC-1.4** Include appropriate noise attenuation techniques in the design of all new General Plan streets projected to adversely impact noise sensitive uses.
- EC-1.5** Encourage the State Department of Transportation and County transportation agencies to provide visually pleasing sound attenuation devices on all new and existing freeways and expressways.
- EC-1.6** Regulate the effects of operational noise from existing and new industrial and commercial development on adjacent uses through noise standards in the City’s Municipal Code.
- EC-1.7** Require construction operations within San José to use best available noise suppression devices and techniques and limit construction hours near residential uses per the City’s Municipal Code. The City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would:
- Involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months.

For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses.

- EC-1.8** Allow commercial drive-through uses only when consistency with the City's exterior noise level guidelines and compatibility with adjacent land uses can be demonstrated.
- EC-1.9** Require noise studies for land use proposals where known or suspected loud intermittent noise sources occur which may impact adjacent existing or planned land uses. For new residential development affected by noise from heavy rail, light rail, BART or other single-event noise sources, implement mitigation so that recurring maximum instantaneous noise levels do not exceed 50 dBA Lmax in bedrooms and 55 dBA Lmax in other rooms.
- EC-1.10** Monitor Federal legislative and administrative activity pertaining to aircraft noise for new possibilities for noise-reducing modifications to aircraft engines beyond existing Stage 3 requirements. Encourage the use of quieter aircraft at the San José International Airport.
- EC-1.11** Require safe and compatible land uses within the Mineta International Airport noise zone (defined by the 65 CNEL contour as set forth in State law) and encourage aircraft operating procedures that minimize noise.
- EC-1.12** Encourage the Federal Aviation Administration to enforce current cruise altitudes that minimize the impact of aircraft noise on land use.

Actions – Community Noise Levels and Land Use Compatibility

- EC-1.13** Update noise limits and acoustical descriptors in the Zoning Code to clarify noise standards that apply to land uses throughout the City.
- EC-1.14** Require acoustical analyses for proposed sensitive land uses in areas with exterior noise levels exceeding the City's noise and land use compatibility standards to base noise attenuation techniques on expected Envision General Plan traffic volumes to ensure land use compatibility and General Plan consistency.

Goal EC-2 - Vibration

Minimize vibration impacts on people, residences, and business operations.

Policies - Vibration

- EC-2.1** Near light and heavy rail lines or other sources of ground-borne vibration, minimize vibration impacts on people, residences, and businesses through the use of setbacks and/or structural design features that reduce vibration to levels at or below the guidelines of the Federal Transit Administration. Require new development within 100 feet of rail lines to demonstrate prior to project approval that vibration experienced by residents and vibration sensitive uses would not exceed these guidelines.



- EC-2.2** Require new sources of ground-borne vibration, such as transit along fixed rail systems or the operation of impulsive equipment, to minimize vibration impacts on existing sensitive land uses to levels at or below the guidelines of the Federal Transit Administration.
- EC-2.3** Require new development to minimize vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV (peak particle velocity) will be used to minimize the potential for cosmetic damage to a building. A vibration limit of 0.20 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction.
- EC-2.4** Consider the effects of ground-borne vibration in the analysis for potential Land Use / Transportation Diagram changes.

Seismic Hazards

Goal EC-3 – Seismic Hazards

Minimize the risk of injury, loss of life, property damage, and community disruption from seismic shaking, fault rupture, ground failure (liquefaction and lateral spreading), earthquake-induced landslides, and other earthquake-induced ground deformation.

Policies – Seismic Hazards

- EC-3.1** Design all new or remodeled habitable structures in accordance with the most recent California Building Code and California Fire Code as amended locally and adopted by the City of San José, including provisions regarding lateral forces.
- EC-3.2** Within seismic hazard zones identified under the Alquist-Priolo Fault Zoning Act, California Seismic Hazards Mapping Act and/or by the City of San José, complete geotechnical and geological investigations and approve development proposals only when the severity of seismic hazards have been evaluated and appropriate mitigation measures are provided as reviewed and approved by the City of San José Geologist. State guidelines for evaluating and mitigating seismic hazards and the City-adopted California Building Code will be followed.
- EC-3.3** The City of San José Building Official shall require conformance with state law regarding seismically vulnerable unreinforced masonry structures within the City.
- EC-3.4** The City of San José will maintain up-to-date seismic hazard maps with assistance from the California Geological Survey (or other state agencies) under the Alquist-Priolo Earthquake Fault Zoning Act and the California Seismic Hazards Mapping Act.
- EC-3.5** Locate, design and construct vital public utilities, communication infrastructure, and transportation facilities in a manner that maximizes risk reduction and functionality during and after an earthquake.

City of San Jose Code of Ordinances

Chapter 10.16 - OFFENSES AGAINST PUBLIC PEACE

Part 1 - DISTURBING THE PEACE^[2]

- **10.16.010 - Disturbing the peace prohibited.**

No person shall disturb the peace, quiet and comfort of any neighborhood by creating therein any disturbing or unreasonably loud noise.

(Prior code § 4231; Ord. 24198.)

- **10.16.020 - Disturbing noises designated.**

A.

It is the intent of this chapter to prohibit all noises which are disturbing or unreasonably loud. The types of noises set out in subsection B. shall not be deemed or construed as in any way exclusive, but merely illustrative.

B.

The following types of noises are declared to be disturbing to the peace, quiet and comfort of the neighborhood in which they are heard, and persons creating such noises are in violation of [Section 10.16.010](#):

1.

The sounding of any horn, signal or noise device on any automobile, motorcycle, bus, truck or other vehicle, in any other manner or for any other purpose than allowed by the California Vehicle Code or other laws of the state;

2.

The noise from an exhaust system of any vehicle which is not equipped or constructed so as to prevent any disturbing or unreasonably loud noise;

3.

The revving of the engine of any motor vehicle while such vehicle is not in motion, except when done in the course of repairing, adjusting or testing it;

4.

Disturbing or unreasonably loud shouting or crying of peddlers, hawkers, vendors or newspaper carriers;

5.

The playing or operating of any radio, phonograph, orchestra or other musical device or instrument in a manner that is disturbing or unreasonably loud to a reasonable person outside the facility or unit from which the noise emanates; and

6.

Disturbing or unreasonably loud shouting, screaming, wailing or other vocalization that is disturbing or unreasonably loud to a reasonable person outside the facility or unit from which the noise emanates.

(Prior code § 4232; Ord. 24198.)

- **Part 2 - LOUDSPEAKERS AND SOUND AMPLIFIERS**

- **10.16.030 - Operation without permit prohibited.**

No person shall operate any loudspeaker or sound amplifier or similar device in such a manner as to cause any sound to be projected outside of any building or out-of-doors, except upon receipt of a permit from the chief of police as provided in [Section 10.16.040](#).

(Prior code § 4233; Ord. 24198.)

- **10.16.040 - Issuance of permit.**

A.

The chief of police shall make a decision to grant or deny an application for a loudspeaker permit within five working days after the date the application is received by the police department.

B.

The chief of police may deny the permit application for any of the following reasons:

1.

The applicant has been convicted of a crime related to disturbance of the peace within the past three years or has been found civilly liable for the creation of a public or private nuisance by means of unreasonably loud or disturbing noise.

2.

The applicant has knowingly made false statements in the application.

3.

The proposed location(s) and/or time(s) for the use of the loudspeaker, sound amplifier, or other similar equipment would be likely to create a disturbance of the peace as set out in Sections [10.16.010](#) and [10.16.020](#) of this Code.

C.

The permit shall be issued only after payment of the permit fee set forth in the schedule of fees established by resolution of the council.

D.

1.

The chief of police may set reasonable time, place, manner, sound level and duration restrictions on the use of loudspeakers, sound amplifiers and similar devices as a condition for the issuance of a loudspeaker permit.

2.

In setting reasonable time, place and manner restrictions, the chief of police may consider, but is not limited to consideration of, the following factors:

a.

Proximity of the proposed use to residential neighborhoods, medical facilities and schools;

b.

Other proposed applicants who wish to use the same or a nearby area during the same time period;

c.

The likelihood that the proposed use will create a disturbance of the peace;

d.

The applicant's history of compliance with the requirements of this chapter during the past three years.

(Prior code § 4234; Ords. 19764, 21289, 24198.)

- **10.16.050 - Summary suspension of permit.**

A.

The chief of police is authorized to summarily suspend a loudspeaker permit at any time if use of the permitted speaker, sound amplifier or other similar device of the permittee violates the permit conditions set forth under subsection [10.16.040 D.](#) or creates a disturbance of the peace as defined in Sections [10.16.010](#) and [10.16.020](#).

B.

The decision to suspend a loudspeaker permit shall take effect immediately.

C.

The decision to suspend the loudspeaker permit may be issued orally or in writing to the permittee or person controlling the loudspeaker. When the decision to suspend is delivered orally to the permittee, the decision to suspend shall be reduced to writing and be mailed to the permittee at the address stated on the application or permit within five days after delivery of the oral decision. Alternatively, the decision to suspend may be hand-delivered or mailed to the permittee or to the address given on the application or permit within five days after delivery of the oral decision.

D.

The written decision to suspend shall advise the permittee that he or she may request a hearing before the appeals hearing board. The request must be in writing and received by the secretary of the board within fifteen days of the date of hand-delivery or mailing of the decision to suspend.

E.

If the permittee does not request a hearing before the board, then the decision to suspend shall become a final decision to revoke the permit at the end of fifteen days after the hand-delivery or mailing of the decision to suspend.

(Ord. 24198.)

- **10.16.060 - Notice of decision to deny or revoke.**

A.

The chief of police shall provide a written notice of decision to deny or revoke a loudspeaker permit.

B.

The notice of decision shall state all the grounds and reasons upon which the denial or revocation is based. A permit may be revoked by the chief of police for any of the grounds for denial stated in [Section 10.16.040 B.](#), for violation of any restriction placed on the permit under authority of [Section 10.16.040 D.](#), or for creating a disturbance of the peace as set out in Sections [10.16.010](#) and [10.16.020](#) of this chapter.

C.

The notice of decision shall be mailed to the applicant or permittee at the address stated on the application or permit. Alternatively, the notice of decision may be delivered to the applicant, permittee or address given in the application or permit.

D.

The notice of decision shall advise the applicant or permittee that the denial or revocation shall become final unless the applicant or permittee requests a hearing before the appeals hearing board. The request must be in writing and received by the secretary of the board within fifteen days of the mailing of the notice of decision.

(Ord. 24198.)

- **10.16.070 - Expedited notice and hearing.**

A.

In the case of the denial of a permit application for an event scheduled to take place within five days of the filing of the application, the chief of police, at the applicant's request, shall provide the applicant with expedited notice, written or oral, of the notice of decision, within twenty-four hours of the time the applicant files the application.

B.

Within twenty-four hours of the applicant's receipt of the expedited notice of the decision to deny a permit, the chief of police shall hold a hearing as provided for in [Section 10.16.060](#).

C.

At the hearing before the chief of police, the applicant shall be given an opportunity to present witnesses and documentary and other evidence.

D.

The hearing will be conducted informally and technical rules of evidence shall not apply. Any and all evidence which the chief of police deems reliable, relevant and not unduly repetitious may be considered.

E.

The applicant may be represented by another person.

F.

The chief of police shall provide an oral or written decision to the applicant sustaining, reversing or modifying the initial decision to deny the permit at the close of the hearing.

G.

If the applicant is dissatisfied with the decision of the chief of police, he or she may file a request for an appeal hearing before the appeals hearing board. The request must be in writing and received by the secretary of the board within five days after the close of the hearing before the chief of police. If the applicant does not deliver the request for a hearing to the secretary within five days after the close of the hearing before the chief of police, then the decision of the chief of police shall be final.

(Ord. 24198.)

- **10.16.080 - Hearing before appeals hearing board.**

A.

The request for a hearing must be in writing and received by the secretary of the appeals hearing board within fifteen days of the date of the police chief's hearing decision.

B.

The appeal hearing shall be conducted in conformance with Part 29 of [Chapter 2.08](#) and the rules and regulations of the appeals hearing board.

C.

The decision of the appeals hearing board shall be final.

(Ord. 24198.)

- **10.16.090 - Private right of action.**

A.

An owner or occupant of any property who is affected by a violation or threatened violation of any provision of this chapter may bring an action for damages, injunctive or declaratory relief or any other appropriate action, in a court of competent jurisdiction to enforce the provisions of this chapter.

B.

An owner or occupant of any property who is affected by a violation or threatened violation of any provision of this chapter who prevails in such an action shall be entitled to recover damages and costs, including reasonable attorney fees; and such other relief as determined by the court. In addition to all other damages or other relief, the court may award the city or private party a civil penalty of up to one thousand dollars for each violation of this chapter.

C.

The remedies provided by this chapter are in addition to any other legal or equitable remedies and are not intended to be exclusive.

(Ord. 24198.)

- **Part 3 - COST RECOVERY FOR RESPONSES TO DISTURBANCES**

- **10.16.100 - Definitions.**

The definitions in this section apply to the following terms as used in this part:

A.

"Disturbance" shall include conduct creating any disturbing or loud noise or sound; any conduct which disrupts the peace and quiet of a neighborhood; and any conduct which interferes with the quiet enjoyment of neighboring property by persons lawfully thereon.

B.

"Response" shall mean the arrival of a police officer at the scene of a disturbance to render whatever service is reasonably required in order to stop a disturbance.

C.

"Responsible party" is any person who owns, leases or is lawfully in charge of the property where the disturbance takes place, or any person who organizes, controls or participates in a disturbance. If the responsible person is a minor, then the parent or guardian who has physical custody of the child at the time of the disturbance shall be the responsible person who is liable.

(Ord. 24314.)

- **10.16.110 - Responses to disturbances.**

A.

No responsible party shall cause, permit or tolerate a disturbance.

B.

Whenever a police officer at the scene warns any responsible party present to discontinue the disturbance, the responsible party shall be liable for the actual cost of each subsequent response required for a disturbance within twelve hours of the first response.

C.

At the first response, the responding police officer shall give an oral and/or written warning to one or more of the responsible parties present that the disturbance must cease immediately, and that if a second or subsequent response to the disturbance is required within twelve hours following such

notice, a response fee shall be charged to any responsible party for all responses after the first response.

D.

All responsible parties shall be jointly and severally liable for the response charge regardless of whether or not a responsible party received an oral or written warning pursuant to [Section 10.16.110](#) C.

(Ord. 24314.)

- **10.16.120 - Charging for responses.**

A.

The response charge shall be the actual cost of police services including, but not limited to, personnel and equipment, incurred for each subsequent response within the twelve-hour period following the first response.

B.

The bill or charges shall be served by the chief of police upon the responsible party within thirty days after the last response to a disturbance.

C.

The total amount of the response charge shall be deemed to be a civil debt to the city and the director of finance may take such action to recover the costs as the city is authorized to do by law for the recovery of a civil debt. The bill of charges shall state the response fee.

D.

The bill of charges and any other notices required by this part shall be served upon the responsible party in accordance with [Section 1.04.140](#) of this Code. If the responsible party has no last known business or residence address, then the scene of the disturbance shall be deemed to be the proper address for service of notice.

E.

The bill of charges shall include a notice of the right of the person being charged to request a hearing before the appeals hearing board within ten days of service of the bill to dispute the imposition of a response charge or the amount of the charge.

(Ord. 24314.)

- **10.16.130 - Hearing before appeals hearing board.**

A.

Any request for a hearing to dispute the imposition of a response charge or the amount of the charge must be in writing and received by the secretary of the appeals hearing board within ten days of the date of service of the bill of charges.

B.

The hearing shall be conducted in conformance with Part 29 of [Chapter 2.08](#) of [Title 2](#) and the rules and regulations of the appeals hearing board.

C.

The decision of the appeals hearing board shall be final.

(Ord. 24314.)

20.100.450 - Hours of construction within 500 feet of a residential unit.

A.

Unless otherwise expressly allowed in a development permit or other planning approval, no applicant or agent of an applicant shall suffer or allow any construction activity on a site located within 500 feet of a residential unit before 7:00 a.m. or after 7:00 p.m., Monday through Friday, or at any time on weekends.

B.

Without limiting the scope of [Section 20.100.310](#), no applicant or agent of an applicant shall suffer or allow any construction activity on a site subject to a development permit or other planning approval located within 500 feet of a residential unit at any time when that activity is not allowed under the development permit or planning approval.

C.

This section is applicable whenever a development permit or other planning approval is required for construction activity.

(Ords. 26248, 26594.)

Project: SCVT - ~~Amador~~ Cottle

ST-1.1

Location ID: ST-1.1

Location Details: Eastern site edge along Cottle Rd

Photos:

Date: Feb 15, 2017

Start Time: 9:31

Duration: 15 Min

Temp °F

%RH

Wind Speed

Wind (circle)

55

70

1.5 mph

Calm / Light / Moderate / Strong / Variable

Other:

SLM:

s/n:

Calibrator:

s/n:

Pre-cal: 93.8 dBA @ 1kHz

Post-cal:

dBA @ 1kHz

Settings (circle):

A-weight

Slow

Fast

Impulse

Windscreen:

Primary Noise Sources:

Ambient

Industrial

Traffic

Aircraft

Dogs

Kids

Rail

HVAC

Birds/bugs

Rustling Trees

Other:

Secondary Noise Sources:

Ambient

Industrial

Traffic

Aircraft

Dogs

Kids

Rail

HVAC

Birds/bugs

Rustling Trees

Other:

Other Noise Sources:

9:34 airplane

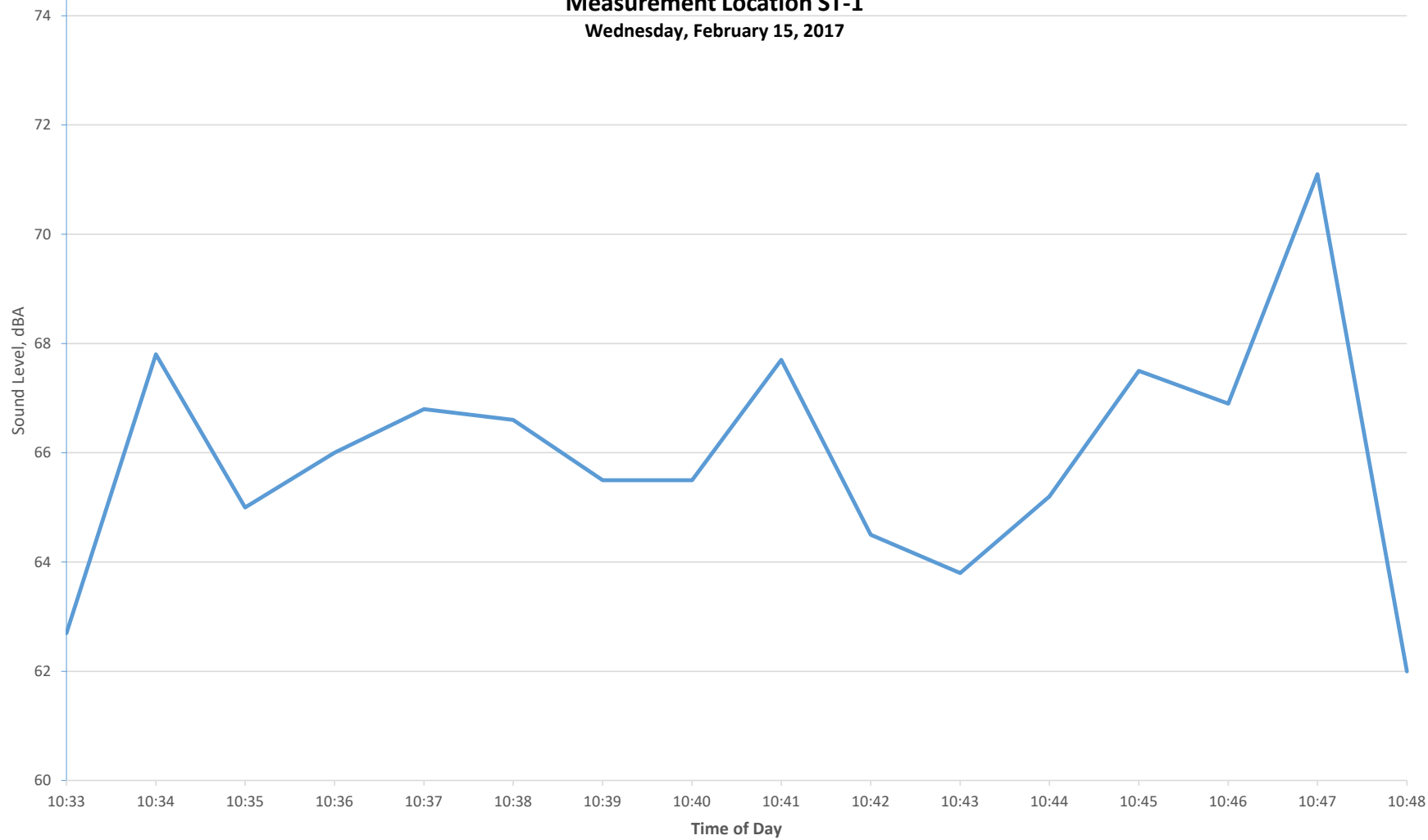
ST-1 Time History

Date	Time	Level	Lmax	SEL
15-Feb-17	10:33:25	62.7	69.2	80.5
15-Feb-17	10:34:25	67.8	72	85.6
15-Feb-17	10:35:25	65	71.4	82.8
15-Feb-17	10:36:25	66	69.8	83.7
15-Feb-17	10:37:25	66.8	73.5	84.6
15-Feb-17	10:38:25	66.6	71.7	84.3
15-Feb-17	10:39:25	65.5	72	83.2
15-Feb-17	10:40:25	65.5	69	83.2
15-Feb-17	10:41:25	67.7	76.3	85.5
15-Feb-17	10:42:25	64.5	71.1	82.3
15-Feb-17	10:43:25	63.8	68.3	81.5
15-Feb-17	10:44:25	65.2	70.4	83
15-Feb-17	10:45:25	67.5	75.3	85.3
15-Feb-17	10:46:25	66.9	73.5	84.7
15-Feb-17	10:47:25	71.1	82.3	88.9
15-Feb-17	10:48:25	62	62	79.8

15-min Leq 66.6

Date	Time	Duration	Leq	SEL	ST-1 Intervals							
					Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
15-Feb-17	10:33:25	900	66.6	96.2	82.3	54.5	72.5	70.1	69.7	67.9	64.8	58.2

VTA- Cottle Noise Study
Measurement Location ST-1
Wednesday, February 15, 2017



Project: SCUT - Cottage			ST-1.2		
Location ID: ST-1.2					
Location Details: N edge of Site along Hwy 85					Photos: <input type="checkbox"/>
Date: Feb 15, 2017		Start Time:		Duration: 15 Min	
Temp °F	%RH	Wind Speed	Wind (circle)		
55	70	1.5	Calm / (Light) / Moderate / Strong / Variable		
Other:					
SLM: _____ s/n: _____					
Calibrator: _____ s/n: _____ Pre-cal: _____ dBA @ 1kHz					
Post-cal: _____ dBA @ 1kHz					
Settings (circle):	A-weight	Slow	Fast	Impulse	Windscreen: <input checked="" type="checkbox"/>
Primary Noise Sources:					
Dogs	Kids	Rail	HVAC	(Traffic)	Aircraft
Other:					
Secondary Noise Sources:					
Dogs	Kids	Rail	HVAC	(Traffic)	(Aircraft)
Other:					
Other Noise Sources:					

Dominated by Fwy noise
 9:55 train bell

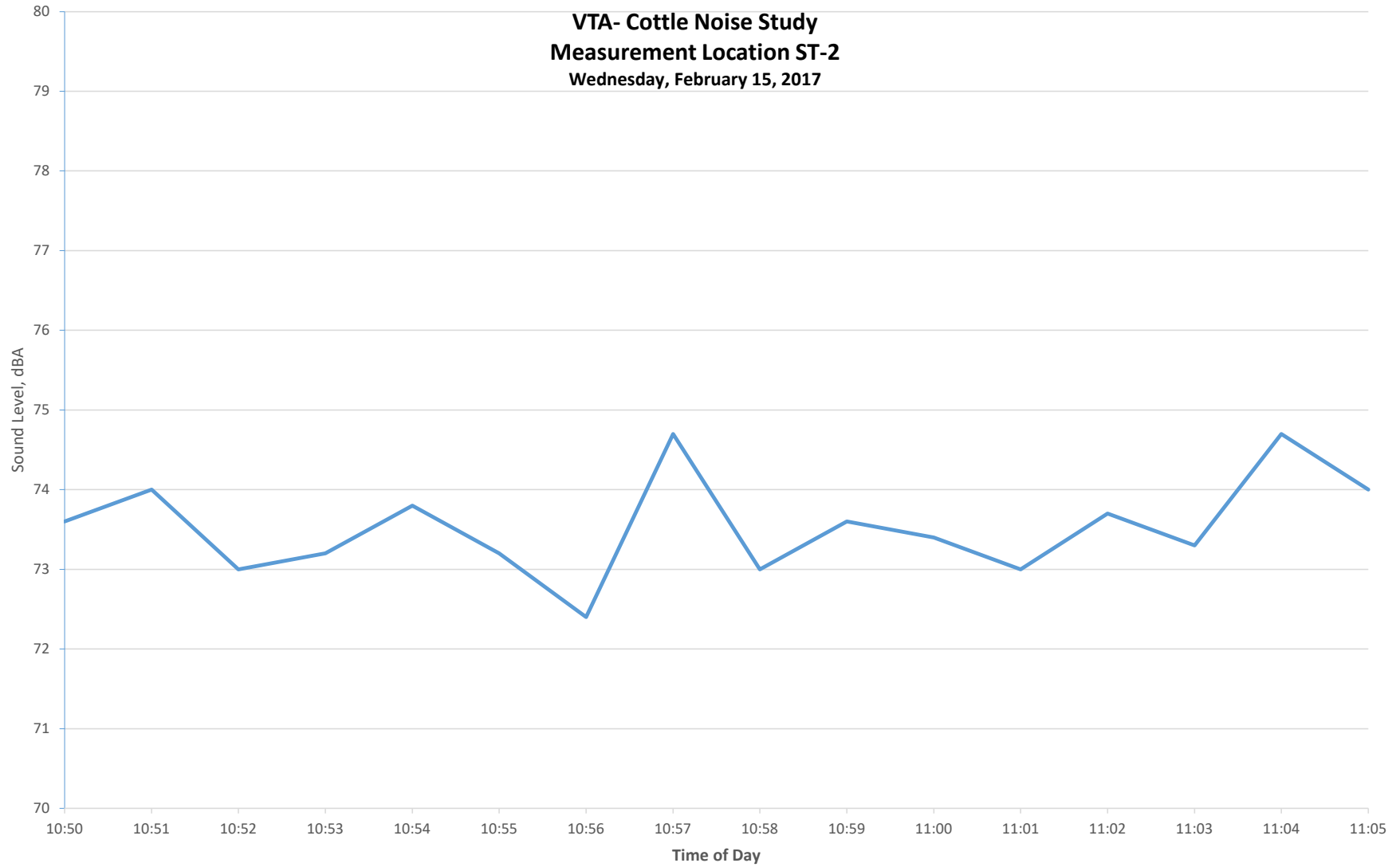
ST-2 Time History

Date	Time	Level	Lmax	SEL
15-Feb-17	10:50:09	73.6	77.9	91.3
15-Feb-17	10:51:09	74	77.5	91.8
15-Feb-17	10:52:09	73	77.4	90.8
15-Feb-17	10:53:09	73.2	77.3	91
15-Feb-17	10:54:09	73.8	78.6	91.6
15-Feb-17	10:55:09	73.2	77.6	91
15-Feb-17	10:56:09	72.4	76.9	90.2
15-Feb-17	10:57:09	74.7	78.1	92.5
15-Feb-17	10:58:09	73	75.9	90.8
15-Feb-17	10:59:09	73.6	76.4	91.4
15-Feb-17	11:00:09	73.4	76.8	91.2
15-Feb-17	11:01:09	73	78.8	90.8
15-Feb-17	11:02:09	73.7	78.9	91.5
15-Feb-17	11:03:09	73.3	77.3	91
15-Feb-17	11:04:09	74.7	81.2	92.5
15-Feb-17	11:05:09	74	74	91.8

15-min Leq 73.5

Date	Time	Duration	Leq	SEL	ST-2 Intervals							
					Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
15-Feb-17	10:50:09	900	73.5	103.1	81.2	60	77.7	76.4	76.1	74.9	73.1	68.2

VTA- Cottle Noise Study
Measurement Location ST-2
Wednesday, February 15, 2017



Project: SCVT - Cottle				ST- 1.3	
Location ID: ST-1.3					
Location Details: West tip of site				Photos: <input type="checkbox"/>	
Date: 02/15/17		Start Time:		Duration: 15 Min	
Temp °F	%RH	Wind Speed	Wind (circle)		
55	70	0.0	(Calm / Light) / Moderate / Strong / Variable		
Other:					
SLM:		s/n:			
Calibrator:		s/n:		Pre-cal: dBA @ 1kHz	
				Post-cal: dBA @ 1kHz	
Settings (circle):	A-weight	Slow	Fast	Impulse	Windscreen: <input checked="" type="checkbox"/>
Primary Noise Sources:		Ambient	Industrial	(Traffic)	Aircraft
Dogs	Kids	Rail	HVAC	Birds/bugs	Rustling Trees
Other:					
Secondary Noise Sources:		Ambient	Industrial	Traffic	(Aircraft)
Dogs	Kids	Rail	HVAC	(Birds/bugs)	(Rustling Trees)
Other:					
Other Noise Sources:					

ST-3 Time History

Date	Time	Level	Lmax	SEL
15-Feb-17	11:07:07	71.2	74.7	89
15-Feb-17	11:08:07	70.8	74.3	88.6
15-Feb-17	11:09:07	69.8	74.2	87.6
15-Feb-17	11:10:07	70.1	74.2	87.9
15-Feb-17	11:11:07	71.3	75.9	89.1
15-Feb-17	11:12:07	70.4	73.8	88.2
15-Feb-17	11:13:07	71.8	75.8	89.6
15-Feb-17	11:14:07	70.7	74.2	88.5
15-Feb-17	11:15:07	71.4	75.2	89.2
15-Feb-17	11:16:07	70.6	73.4	88.4
15-Feb-17	11:17:07	71.4	77.1	89.2
15-Feb-17	11:18:07	71.4	74.8	89.2
15-Feb-17	11:19:07	72.9	77.7	90.6
15-Feb-17	11:20:07	70.5	73.9	88.2
15-Feb-17	11:21:07	70	74.4	87.8
15-Feb-17	11:22:07	70.6	70.6	88.3

15-min Leq 71.0

Date	Time	Duration	Leq	ST-3 Intervals								
				SEL	Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
15-Feb-17	11:07:07	900	71	100.6	77.7	61.5	75	73.7	73.5	72.2	70.6	66.4

VTA- Cottle Noise Study
Measurement Location ST-3
Wednesday, February 15, 2017



Project: SCVT-Cottie			ST-14	
Location ID: ST-1.4				
Location Details: Southern edge of site			Photos: <input type="checkbox"/>	
Date: 02/15/17		Start Time:	Duration: 15	Min
Temp °F	%RH	Wind Speed	Wind (circle)	
55	70	0.8	Calm (<u>Light</u>) / Moderate / Strong / Variable	
Other:				
SLM:		s/n:		
Calibrator:		s/n:	Pre-cal:	dBA @ 1kHz
			Post-cal:	dBA @ 1kHz
Settings (circle):	A-weight	Slow	Fast	Impulse
Windscreen: <input type="checkbox"/>				
Primary Noise Sources:				
	Ambient	Industrial	<u>Traffic</u>	Aircraft
Dogs	Kids	Rail	HVAC	Birds/bugs
				Rustling Trees
Other:				
Secondary Noise Sources:				
	Ambient	Industrial	Traffic	Aircraft
Dogs	Kids	Rail	HVAC	<u>Birds/bugs</u>
				<u>Rustling Trees</u>
Other:				
Other Noise Sources:				

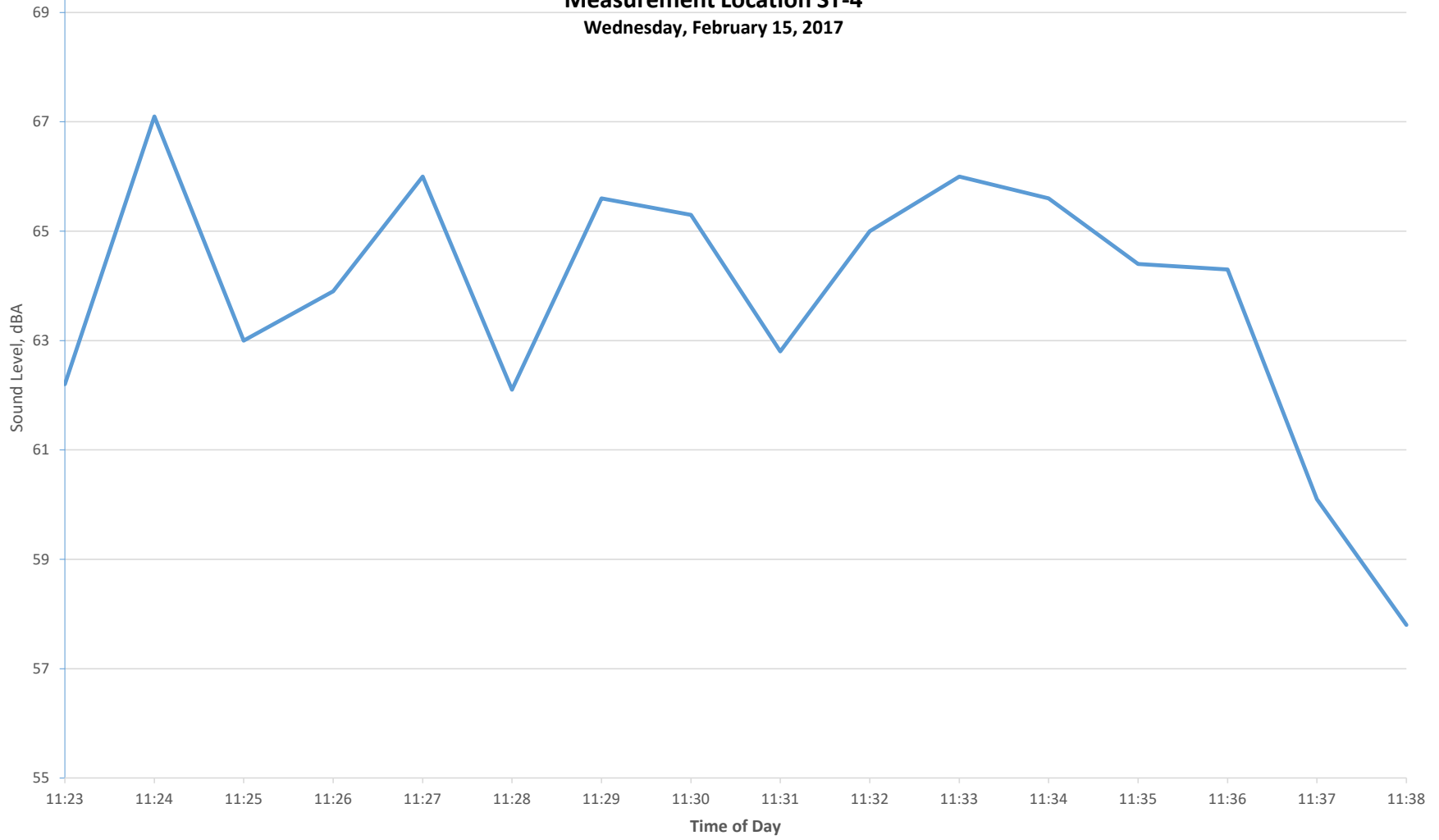
ST-4 Time History

Date	Time	Level	Lmax	SEL
15-Feb-17	11:23:31	62.2	70.3	80
15-Feb-17	11:24:31	67.1	74.2	84.9
15-Feb-17	11:25:31	63	68.7	80.7
15-Feb-17	11:26:31	63.9	71.7	81.7
15-Feb-17	11:27:31	66	71.9	83.8
15-Feb-17	11:28:31	62.1	68.9	79.9
15-Feb-17	11:29:31	65.6	74	83.4
15-Feb-17	11:30:31	65.3	74	83.1
15-Feb-17	11:31:31	62.8	72.4	80.6
15-Feb-17	11:32:31	65	72.4	82.8
15-Feb-17	11:33:31	66	74.3	83.7
15-Feb-17	11:34:31	65.6	72.9	83.4
15-Feb-17	11:35:31	64.4	72	82.2
15-Feb-17	11:36:31	64.3	71	82.1
15-Feb-17	11:37:31	60.1	69.8	77.9
15-Feb-17	11:38:31	57.8	57.8	75.6

15-min Leq 64.6

Date	Time	Duration	Leq	SEL	ST-4 Intervals							
					Lmax	Lmin	L(2)	L(8)	L(10)	L(25)	L(50)	L(90)
15-Feb-17	11:23:31	900	64.6	94.1	74.3	51.2	71.7	69	68.3	64.6	62.3	58.2

VTA- Cottle Noise Study
Measurement Location ST-4
Wednesday, February 15, 2017



**VTA- Cottle
EXISTING NO PROJECT**

#	ROADWAY	SEGMENT	ADT	POSTED	LANE	DISTANCE	SITE	LANES	GRADE	
				SPEED						
1	Lean Ave	Calero Ave to Santa Teresa Blvd	5,510	30	20	50	Soft	4D	0%	1
2	Lean Ave	Santa Teresa Blvd to Curie Dr	4,130	30	20	50	Soft	4D	0%	2
3	Santa Teresa Blvd	Lean Ave to Springer Way	20,940	45	70	50	Soft	4D	0%	3
4	Santa Teresa Blvd	Snell Ave to Lean Ave	20,880	45	70	50	Soft	4D	0%	4
5	Cottle Road	Larchmont Dr to Santa Teresa Blvd	27,850	40	65	50	Soft	4D	0%	5
6	Cottle Road	Santa Teresa Blvd to Curie Dr	13,490	40	50	50	Soft	4D	0%	6
7	Santa Teresa Blvd	Cottle Road to San Ignacio Ave	24,200	45	70	50	Soft	4D	0%	7
8	Santa Teresa Blvd	Springer Way to Cottle Road	21,800	45	70	50	Soft	4D	0%	8
9	Cottle Road	N of Hospital Pkwy	40,020	40	70	50	Soft	4D	0%	9
10	Cottle Road	Hospital Pkwy to Larchmont Dr	28,770	40	70	50	Soft	4D	0%	10
11	Hospital Pkwy	E of Cottle Road	11,020	30	50	50	Soft	4D	0%	11
12	Palma Drive	Palm Valley Blvd to Cottle Road	6,710	30	50	50	Soft	4D	0%	12
13	Cottle Road	N of 85 EB Ramp	37,910	40	70	50	Soft	4D	0%	13
14	Cottle Road	S of 85 EB Ramp	38,040	40	70	50	Soft	4D	0%	14
15	Driveway	E of Cottle Road	1,240	20	25	50	Soft	4D	0%	15
16	85 EB Ramp	W of Cottle Road	15,490	30	25	50	Soft	4D	0%	16
17	Cottle Road	Poughkeepsie Rd to 85 WB Ramps	34,120	40	70	50	Soft	4D	0%	17
18	Cottle Road	S of 85 WB Ramps	37,470	40	70	50	Soft	4D	0%	18
19	85 WB Ramps	E of Cottle Road	11,690	30	20	50	Soft	4D	0%	19
20	85 WB Ramps	W of Cottle Road	4,980	30	20	50	Soft	4D	0%	20
21	Cottle Road	Endicott Blvd to Blossom Hill Ramp	5,170	40	35	50	Soft	4D	0%	21
22	Cottle Road	Blossom Hill Ramp to Poughkeepsie Rd	11,590	40	35	50	Soft	4D	0%	22
23	Lowes Driveway	E of Cottle Road	1,490	20	20	50	Soft	4D	0%	23
24	Blossom Hill Ramp	W of Cottle Road	13,310	30	20	50	Soft	4D	0%	24

ROAD CLASSIFICATION	SPEED	LANE DISTANCE
2U	40	12
4U	40	36
4D	45	48
6D	45	84
2D	40	24

ANALYST

73.6 75.55%
 13.6 13.96%
 10.22 10.49%

1
0
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VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.42%	DAY	75.5%
% MT	1.84%	EVENING	14.0%
% HT	0.74%	NIGHT	10.5%

Source: Riverside, County of, Department of Public Health, Office of Industrial Hygiene. 2009, November. For Determining and M
 Riverside County Fleet Mix: Secondary, Collectors, or Smaller
 Vehicle Overall % Day (7 AM to Evening (7 Night (10 PM to 7 AM)
 Auto 97% 73.60 13.60 10.22
 Medium Truck 2% 0.90 0.04 0.90
 Heavy Truck 1% 0.35 0.04 0.35
 74.85 13.68 11.47

VTA- Cottle

EXISTING NO PROJECT
CONDITIONS NOISE CONTOURS RESULT SUMMARY TABLE

#	ROADWAY	SEGMENT	DAILY TRAFFIC VOLUMES	Distance to Reciever	Noise Level (dBA)			DISTANCE TO NOISE CONTOUR (FT.)		
					Leq	Ldn	CNEL	dBA CNEL	dBA CNEL	60 dBA CNEL
1	Lean Ave	Calero Ave to Santa Teresa Blvd	5,510	50	57.7	60.6	61.2	13	28	60
2	Lean Ave	Santa Teresa Blvd to Curie Dr	4,130	50	56.5	59.4	60.0	11	23	50
3	Santa Teresa Blvd	Lean Ave to Springer Way	20,940	50	68.2	71.1	71.7	65	139	300
4	Santa Teresa Blvd	Snell Ave to Lean Ave	20,880	50	68.2	71.0	71.7	65	139	300
5	Cottle Road	Larchmont Dr to Santa Teresa Blvd	27,850	50	68.1	71.0	71.6	64	137	296
6	Cottle Road	Santa Teresa Blvd to Curie Dr	13,490	50	64.8	67.7	68.3	38	83	178
7	Santa Teresa Blvd	Cottle Road to San Ignacio Ave	24,200	50	68.8	71.7	72.3	71	154	331
8	Santa Teresa Blvd	Springer Way to Cottle Road	21,800	50	68.3	71.2	71.9	66	143	308
9	Cottle Road	N of Hospital Pkwy	40,020	50	69.7	72.6	73.2	82	176	380
10	Cottle Road	Hospital Pkwy to Larchmont Dr	28,770	50	68.3	71.2	71.8	66	142	305
11	Hospital Pkwy	E of Cottle Road	11,020	50	60.9	63.8	64.4	21	46	99
12	Palmia Drive	Palm Valley Blvd to Cottle Road	6,710	50	58.8	61.6	62.3	15	33	71
13	Cottle Road	N of 85 EB Ramp	37,910	50	69.5	72.4	73.0	79	170	367
14	Cottle Road	S of 85 EB Ramp	38,040	50	69.5	72.4	73.0	79	171	368
15	Driveway	E of Cottle Road	1,240	50	47.5	50.4	51.0	3	6	13
16	85 EB Ramp	W of Cottle Road	15,490	50	62.2	65.1	65.7	26	56	121
17	Cottle Road	Poughkeepsie Rd to 85 WB Ramps	34,120	50	69.0	71.9	72.5	74	159	342
18	Cottle Road	S of 85 WB Ramps	37,470	50	69.4	72.3	72.9	78	169	364
19	85 WB Ramps	E of Cottle Road	11,690	50	61.0	63.9	64.5	22	46	100
20	85 WB Ramps	W of Cottle Road	4,980	50	57.3	60.2	60.8	12	26	57
21	Cottle Road	Endicott Blvd to Blossom Hill Ramp	5,170	50	60.5	63.4	64.0	20	43	92
22	Cottle Road	Blossom Hill Ramp to Poughkeepsie Rd	11,590	50	64.0	66.9	67.5	34	73	158
23	Lowes Driveway	E of Cottle Road	1,490	50	48.3	51.2	51.8	3	7	14
24	Blossom Hill Ramp	W of Cottle Road	13,310	50	61.6	64.4	65.1	23	51	109

Scenario: EXISTING NO PROJECT
 Roadway: Lean Ave
 Segment: Calero Ave to Santa Teresa Blvd

Project: VTA- Cottle
 Analyst: 0
 Date: 01-Mar-17

ROADWAY INPUTS	
ADT	5,510
SPEED (mph)	30
ROAD NEAR-FAR LN. DIST.	20
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	338	6	3	250	5	2	63	1	0
Speed in MPH	30	30	30	30	30	30	30	30	30
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	62.5	73.1	78.8	62.5	73.1	78.8	62.5	73.1	78.8
ADJUSTMENTS									
Flow	-4.8	-22.0	-26.0	-6.1	-23.3	-27.3	-12.1	-29.4	-33.3
Distance (reference)	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	57.7	51.0	52.7	56.3	49.7	51.4	50.3	43.7	45.4
VEHICULAR NOISE	DAY=	59.5	Leq	EVENING=	58.2	Leq	NIGHT=	52.2	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 57.7		
	Ldn= 60.6		
	CNEL= 61.2		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 12	25	55
	CNEL: 13	28	60

Scenario: **EXISTING NO PROJECT**
 Roadway: **Lean Ave**
 Segment: **Santa Teresa Blvd to Curie Dr**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	4,130
SPEED (mph)	30
ROAD NEAR-FAR LN. DIST.	20
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	253	5	2	187	4	1	47	1	0
Speed in MPH	30	30	30	30	30	30	30	30	30
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	62.5	73.1	78.8	62.5	73.1	78.8	62.5	73.1	78.8
ADJUSTMENTS									
Flow	-6.0	-23.3	-27.2	-7.4	-24.6	-28.5	-13.4	-30.6	-34.6
Distance (reference)	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	56.4	49.8	51.5	55.1	48.5	50.1	49.1	42.4	44.1
VEHICULAR NOISE	DAY=	58.3	Leq	EVENING=	57.0	Leq	NIGHT=	50.9	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 56.5		
	Ldn= 59.4		
	CNEL= 60.0		
	<u>70</u>	<u>65</u>	<u>60</u>
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 10	21	45
	CNEL: 11	23	50

Scenario: **EXISTING NO PROJECT**
 Roadway: **Santa Teresa Blvd**
 Segment: **Lean Ave to Springer Way**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	20,940
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1284	24	10	949	18	7	238	4	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.8	-18.0	-21.9	-2.1	-19.3	-23.3	-8.1	-25.3	-29.3
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.9	60.0	60.5	67.6	58.6	59.2	61.6	52.6	53.2
VEHICULAR NOISE	DAY=	70.0	Leq	EVENING=	68.6	Leq	NIGHT=	62.6	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 68.2		
	Ldn= 71.1		
	CNEL= 71.7		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn:	59	127
	CNEL:	65	139
		273	300

Scenario: **EXISTING NO PROJECT**
 Roadway: **Santa Teresa Blvd**
 Segment: **Snell Ave to Lean Ave**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	20,880
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1281	24	10	947	18	7	237	4	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.8	-18.0	-22.0	-2.1	-19.3	-23.3	-8.1	-25.3	-29.3
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.9	59.9	60.5	67.6	58.6	59.2	61.6	52.6	53.2
VEHICULAR NOISE	DAY=	69.9	Leq	EVENING=	68.6	Leq	NIGHT=	62.6	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 68.2		
	Ldn= 71.0		
	CNEL= 71.7		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn:	59	126
	CNEL:	65	139
		272	300

Scenario: **EXISTING NO PROJECT**
 Roadway: **Cottle Road**
 Segment: **Larchmont Dr to Santa Teresa Blvd**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	27,850
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	65
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1708	32	13	1263	24	10	316	6	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	1.0	-16.2	-20.2	-0.3	-17.6	-21.5	-6.3	-23.6	-27.5
Distance (reference)	-4.3	-4.3	-4.3	-4.3	-4.3	-4.3	-4.3	-4.3	-4.3
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.6	60.3	61.2	67.3	59.0	59.9	61.3	53.0	53.9
VEHICULAR NOISE	DAY=	69.9	Leq	EVENING=	68.5	Leq	NIGHT=	62.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 68.1		
	Ldn= 71.0		
	CNEL= 71.6		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 58	125	269
	CNEL: 64	137	296

Scenario: **EXISTING NO PROJECT**
 Roadway: **Cottle Road**
 Segment: **Santa Teresa Blvd to Curie Dr**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	13,490
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	50
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	827	16	6	612	12	5	153	3	1
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	-2.1	-19.4	-23.3	-3.5	-20.7	-24.7	-9.5	-26.7	-30.7
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	65.3	57.0	57.9	64.0	55.7	56.6	58.0	49.7	50.6
VEHICULAR NOISE	DAY=	66.6	Leq	EVENING=	65.2	Leq	NIGHT=	59.2	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 64.8		
	Ldn= 67.7		
	CNEL= 68.3		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 35	75	162
	CNEL: 38	83	178

Scenario: **EXISTING NO PROJECT**
 Roadway: **Santa Teresa Blvd**
 Segment: **Cottle Road to San Ignacio Ave**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	24,200
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1484	28	11	1097	21	8	275	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.1	-17.4	-21.3	-1.4	-18.7	-22.6	-7.4	-24.7	-28.6
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.5	60.6	61.1	68.2	59.3	59.8	62.2	53.3	53.8
VEHICULAR NOISE	DAY=	70.6	Leq	EVENING=	69.3	Leq	NIGHT=	63.3	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 68.8		
	Ldn= 71.7		
	CNEL= 72.3		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 65	139	300
	CNEL: 71	154	331

Scenario: **EXISTING NO PROJECT**
 Roadway: **Santa Teresa Blvd**
 Segment: **Springer Way to Cottle Road**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	21,800
SPEED (mph)	45
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1337	25	10	988	19	8	248	5	2
Speed in MPH	45	45	45	45	45	45	45	45	45
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	69.3	77.6	82.1	69.3	77.6	82.1	69.3	77.6	82.1
ADJUSTMENTS									
Flow	-0.6	-17.8	-21.8	-1.9	-19.1	-23.1	-7.9	-25.1	-29.1
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.1	60.1	60.7	67.8	58.8	59.4	61.8	52.8	53.4
VEHICULAR NOISE	DAY=	70.1	Leq	EVENING=	68.8	Leq	NIGHT=	62.8	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 68.3		
	Ldn= 71.2		
	CNEL= 71.9		
	<u>70</u>	<u>65</u>	<u>60</u>
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 60	130	280
	CNEL: 66	143	308

Scenario: **EXISTING NO PROJECT**
 Roadway: **Cottle Road**
 Segment: **N of Hospital Pkwy**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	40,020
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2455	46	19	1814	34	14	454	9	3
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	2.6	-14.7	-18.6	1.3	-16.0	-19.9	-4.8	-22.0	-25.9
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.3	62.0	62.9	68.9	60.7	61.5	62.9	54.6	55.5
VEHICULAR NOISE	DAY=	71.5	Leq	EVENING=	70.2	Leq	NIGHT=	64.2	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 69.7		
	Ldn= 72.6		
	CNEL= 73.2		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 74	160	345
	CNEL: 82	176	380

Scenario: **EXISTING NO PROJECT**
 Roadway: **Cottle Road**
 Segment: **Hospital Pkwy to Larchmont Dr**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	28,770
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	1765	33	13	1304	25	10	327	6	2
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	1.1	-16.1	-20.1	-0.2	-17.4	-21.4	-6.2	-23.4	-27.4
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	68.8	60.5	61.4	67.5	59.2	60.1	61.5	53.2	54.1
VEHICULAR NOISE	DAY=	70.1	Leq	EVENING=	68.7	Leq	NIGHT=	62.7	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 68.3		
	Ldn= 71.2		
	CNEL= 71.8		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 60	129	277
	CNEL: 66	142	305

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT**
 Roadway: **Hospital Pkwy**
 Segment: **E of Cottle Road**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	11,020
SPEED (mph)	30
ROAD NEAR-FAR LN. DIST.	50
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	676	13	5	500	9	4	125	2	1
Speed in MPH	30	30	30	30	30	30	30	30	30
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	62.5	73.1	78.8	62.5	73.1	78.8	62.5	73.1	78.8
ADJUSTMENTS									
Flow	-1.8	-19.0	-23.0	-3.1	-20.3	-24.3	-9.1	-26.3	-30.3
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	60.8	54.2	55.9	59.5	52.9	54.6	53.5	46.9	48.6
VEHICULAR NOISE	DAY=	62.7	Leq	EVENING=	61.4	Leq	NIGHT=	55.4	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 60.9		
	Ldn= 63.8		
	CNEL= 64.4		
NOISE CONTOUR:	70	65	60
	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 19	42	90
	CNEL: 21	46	99

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **Palmia Drive** Analyst: **0**
 Segment: **Palm Valley Blvd to Cottle Road** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	6,710
SPEED (mph)	30
ROAD NEAR-FAR LN. DIST.	50
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	412	8	3	304	6	2	76	1	1
Speed in MPH	30	30	30	30	30	30	30	30	30
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	62.5	73.1	78.8	62.5	73.1	78.8	62.5	73.1	78.8
ADJUSTMENTS									
Flow	-3.9	-21.2	-25.1	-5.2	-22.5	-26.4	-11.3	-28.5	-32.5
Distance (reference)	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4	-4.4
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	58.7	52.0	53.7	57.4	50.7	52.4	51.4	44.7	46.4
VEHICULAR NOISE	DAY=	60.6	Leq	EVENING=	59.2	Leq	NIGHT=	53.2	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 58.8		
	Ldn= 61.6		
	CNEL= 62.3		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 14	30	64
	CNEL: 15	33	71

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **Cottle Road** Analyst: **0**
 Segment: **N of 85 EB Ramp** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	37,910
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2325	44	18	1719	32	13	430	8	3
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	2.3	-14.9	-18.9	1.0	-16.2	-20.2	-5.0	-22.2	-26.2
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.0	61.7	62.6	68.7	60.4	61.3	62.7	54.4	55.3
VEHICULAR NOISE	DAY=	71.3	Leq	EVENING=	69.9	Leq	NIGHT=	63.9	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 69.5		
	Ldn= 72.4		
	CNEL= 73.0		
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 72	155	333
	CNEL: 79	170	367

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **Cottle Road** Analyst: **0**
 Segment: **S of 85 EB Ramp** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	38,040
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2333	44	18	1724	33	13	432	8	3
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	2.4	-14.9	-18.8	1.0	-16.2	-20.2	-5.0	-22.2	-26.2
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.0	61.7	62.6	68.7	60.4	61.3	62.7	54.4	55.3
VEHICULAR NOISE	DAY=	71.3	Leq	EVENING=	70.0	Leq	NIGHT=	63.9	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 69.5		
	Ldn= 72.4		
	CNEL= 73.0		
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 72	155	334
	CNEL: 79	171	368

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT**
 Roadway: **Driveway**
 Segment: **E of Cottle Road**

Project: **VTA- Cottle**
 Analyst: **0**
 Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	1,240
SPEED (mph)	20
ROAD NEAR-FAR LN. DIST.	25
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	76	1	1	56	1	0	14	0	0
Speed in MPH	20	20	20	20	20	20	20	20	20
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	55.7	68.6	75.4	55.7	68.6	75.4	55.7	68.6	75.4
ADJUSTMENTS									
Flow	-9.5	-26.7	-30.7	-10.8	-28.1	-32.0	-16.8	-34.1	-38.0
Distance (reference)	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	46.1	41.8	44.6	44.8	40.5	43.3	38.8	34.5	37.3
VEHICULAR NOISE	DAY= 49.3 Leq			EVENING= 48.0 Leq			NIGHT= 42.0 Leq		

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 47.5		
	Ldn= 50.4		
	CNEL= 51.0		
NOISE CONTOUR:	70	65	60
	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 2	5	11
	CNEL: 3	6	13

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **85 EB Ramp** Analyst: **0**
 Segment: **W of Cottle Road** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	15,490
SPEED (mph)	30
ROAD NEAR-FAR LN. DIST.	25
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	950	18	7	702	13	5	176	3	1
Speed in MPH	30	30	30	30	30	30	30	30	30
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	62.5	73.1	78.8	62.5	73.1	78.8	62.5	73.1	78.8
ADJUSTMENTS									
Flow	-0.3	-17.5	-21.5	-1.6	-18.9	-22.8	-7.6	-24.9	-28.8
Distance (reference)	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	62.2	55.5	57.2	60.8	54.2	55.9	54.8	48.2	49.9
VEHICULAR NOISE	DAY=	64.0	Leq	EVENING=	62.7	Leq	NIGHT=	56.7	Leq

RESULTS	FEET FROM CENTERLINE (dBA):			
NOISE LEVELS AT	Leq= 62.2			
	Ldn= 65.1			
	CNEL= 65.7			
NOISE CONTOUR:	70	65	60	
	70 dBA	65 dBA	60 dBA	
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn:	24	51	110
	CNEL:	26	56	121

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **Cottle Road** Analyst: **0**
 Segment: **Poughkeepsie Rd to 85 WB Ramps** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	34,120
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2093	40	16	1547	29	12	387	7	3
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	1.9	-15.4	-19.3	0.6	-16.7	-20.6	-5.4	-22.7	-26.6
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	69.6	61.3	62.2	68.2	60.0	60.9	62.2	54.0	54.8
VEHICULAR NOISE	DAY=	70.8	Leq	EVENING=	69.5	Leq	NIGHT=	63.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 69.0		
	Ldn= 71.9		
	CNEL= 72.5		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 67	144	310
	CNEL: 74	159	342

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **Cottle Road** Analyst: **0**
 Segment: **S of 85 WB Ramps** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	37,470
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	70
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	2298	43	17	1699	32	13	425	8	3
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	2.3	-15.0	-18.9	1.0	-16.3	-20.2	-5.0	-22.3	-26.2
Distance (reference)	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2	-4.2
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	70.0	61.7	62.6	68.7	60.4	61.3	62.6	54.4	55.2
VEHICULAR NOISE	DAY=	71.2	Leq	EVENING=	69.9	Leq	NIGHT=	63.9	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 69.4		
	Ldn= 72.3		
	CNEL= 72.9		
NOISE CONTOUR:	70	65	60
	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 71	153	331
	CNEL: 78	169	364

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **85 WB Ramps** Analyst: **0**
 Segment: **E of Cottle Road** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	11,690
SPEED (mph)	30
ROAD NEAR-FAR LN. DIST.	20
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	717	14	5	530	10	4	133	3	1
Speed in MPH	30	30	30	30	30	30	30	30	30
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	62.5	73.1	78.8	62.5	73.1	78.8	62.5	73.1	78.8
ADJUSTMENTS									
Flow	-1.5	-18.8	-22.7	-2.8	-20.1	-24.0	-8.8	-26.1	-30.0
Distance (reference)	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	60.9	54.3	56.0	59.6	53.0	54.7	53.6	47.0	48.6
VEHICULAR NOISE	DAY=	62.8	Leq	EVENING=	61.5	Leq	NIGHT=	55.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 61.0		
	Ldn= 63.9		
	CNEL= 64.5		
	70	65	60
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 20	42	91
	CNEL: 22	46	100

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **85 WB Ramps** Analyst: **0**
 Segment: **W of Cottle Road** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	4,980
SPEED (mph)	30
ROAD NEAR-FAR LN. DIST.	20
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	305	6	2	226	4	2	57	1	0
Speed in MPH	30	30	30	30	30	30	30	30	30
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	62.5	73.1	78.8	62.5	73.1	78.8	62.5	73.1	78.8
ADJUSTMENTS									
Flow	-5.2	-22.5	-26.4	-6.5	-23.8	-27.7	-12.6	-29.8	-33.7
Distance (reference)	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	57.2	50.6	52.3	55.9	49.3	51.0	49.9	43.3	44.9
VEHICULAR NOISE	DAY=	59.1	Leq	EVENING=	57.8	Leq	NIGHT=	51.8	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 57.3		
	Ldn= 60.2		
	CNEL= 60.8		
NOISE CONTOUR:	70	65	60
	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 11	24	51
	CNEL: 12	26	57

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **Cottle Road** Analyst: **0**
 Segment: **Endicott Blvd to Blossom Hill Ramp** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	5,170
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	35
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	317	6	2	234	4	2	59	1	0
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	-6.3	-23.6	-27.5	-7.6	-24.9	-28.8	-13.6	-30.9	-34.8
Distance (reference)	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	61.0	52.8	53.6	59.7	51.4	52.3	53.7	45.4	46.3
VEHICULAR NOISE	DAY=	62.3	Leq	EVENING=	61.0	Leq	NIGHT=	55.0	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 60.5		
	Ldn= 63.4		
	CNEL= 64.0		
NOISE CONTOUR:	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 18	39	84
	CNEL: 20	43	92

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **Cottle Road** Analyst: **0**
 Segment: **Blossom Hill Ramp to Poughkeeps** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	11,590
SPEED (mph)	40
ROAD NEAR-FAR LN. DIST.	35
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	711	13	5	525	10	4	132	2	1
Speed in MPH	40	40	40	40	40	40	40	40	40
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	67.4	76.3	81.2	67.4	76.3	81.2	67.4	76.3	81.2
ADJUSTMENTS									
Flow	-2.8	-20.0	-24.0	-4.1	-21.4	-25.3	-10.1	-27.4	-31.3
Distance (reference)	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5	-4.5
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	64.5	56.3	57.2	63.2	54.9	55.8	57.2	48.9	49.8
VEHICULAR NOISE	DAY=	65.8	Leq	EVENING=	64.5	Leq	NIGHT=	58.5	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 64.0		
	Ldn= 66.9		
	CNEL= 67.5		
NOISE CONTOUR:	70	65	60
	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 31	67	144
	CNEL: 34	73	158

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **Lowes Driveway** Analyst: **0**
 Segment: **E of Cottle Road** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	1,490
SPEED (mph)	20
ROAD NEAR-FAR LN. DIST.	20
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	91	2	1	68	1	1	17	0	0
Speed in MPH	20	20	20	20	20	20	20	20	20
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	55.7	68.6	75.4	55.7	68.6	75.4	55.7	68.6	75.4
ADJUSTMENTS									
Flow	-8.7	-25.9	-29.9	-10.0	-27.3	-31.2	-16.0	-33.3	-37.2
Distance (reference)	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	46.9	42.6	45.4	45.6	41.3	44.1	39.6	35.3	38.1
VEHICULAR NOISE	DAY=	50.1	Leq	EVENING=	48.8	Leq	NIGHT=	42.8	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 48.3		
	Ldn= 51.2		
	CNEL= 51.8		
NOISE CONTOUR:	70	65	60
	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 3	6	13
	CNEL: 3	7	14

FHWA RD-77-108 NOISE PREDICTION MODEL

Scenario: **EXISTING NO PROJECT** Project: **VTA- Cottle**
 Roadway: **Blossom Hill Ramp** Analyst: **0**
 Segment: **W of Cottle Road** Date: **01-Mar-17**

ROADWAY INPUTS	
ADT	13,310
SPEED (mph)	30
ROAD NEAR-FAR LN. DIST.	20
DISTANCE ROAD CL (ft)	100
SOFT/HARD CONDITIONS	Soft
GROUND ABSORPTION (α)	0.5
GRADE (%)	0%
LEFT VIEW	-90
RIGHT VIEW	90
Distance to Receiver	50

VEHICLE MIX INPUTS			
DAILY		HOURLY	
% A	97.4%	DAY	75.5%
% MT	1.8%	EVENING	14.0%
% HT	0.7%	NIGHT	10.5%

CALCULATION AREA									
	DAYTIME			EVENING			NIGHT		
	AUTOS	MT	HT	AUTOS	MT	HT	AUTOS	MT	HT
Vehicles per hour	816	15	6	603	11	5	151	3	1
Speed in MPH	30	30	30	30	30	30	30	30	30
Left angle	-90	-90	-90	-90	-90	-90	-90	-90	-90
Right angle	90	90	90	90	90	90	90	90	90
Reference levels (dBA)	62.5	73.1	78.8	62.5	73.1	78.8	62.5	73.1	78.8
ADJUSTMENTS									
Flow	-1.0	-18.2	-22.2	-2.3	-19.5	-23.5	-8.3	-25.5	-29.5
Distance (reference)	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6
Distance (Propagation)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Finite Roadway	0	0	0	0	0	0	0	0	0
Barrier	0	0	0	0	0	0	0	0	0
Grade	0	0	0	0	0	0	0	0	0
LEQ	61.5	54.8	56.5	60.2	53.5	55.2	54.2	47.5	49.2
VEHICULAR NOISE	DAY=	63.3	Leq	EVENING=	62.0	Leq	NIGHT=	56.0	Leq

RESULTS	FEET FROM CENTERLINE (dBA):		
NOISE LEVELS AT	Leq= 61.6		
	Ldn= 64.4		
	CNEL= 65.1		
NOISE CONTOUR:	70	65	60
	70 dBA	65 dBA	60 dBA
ROAD CENTERLINE DISTANCE TO NOISE CONTOUR (FEET):	Ldn: 21	46	99
	CNEL: 23	51	109