

# Appendix L. Simi Valley Double Track and Platform Project Noise and Vibration Technical Report

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# Noise and Vibration Technical Report

*Simi Valley Double Track and Platform  
Project*

March 2021



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## Acronyms

CEQA	California Environmental Quality Act
CP	control point
dB	decibel
dBA	A-weighted decibels
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
$L_{dn}$	day-night average sound level
$L_{eq}$	equivalent sound level
$L_{max}$	Maximum sound level
MP	mile post
PPV	peak particle velocity
Project	Simi Valley Double Track Project
ROW	right-of-way
SCRRA	Southern California Regional Rail Authority
UPRR	Union Pacific Railroad
VCL	Ventura County Line
VdB	vibration decibels

# 1 Introduction

At the request of the Southern California Regional Rail Authority (SCRRA), HDR and HMMH conducted noise and vibration analysis for the proposed Simi Valley Double Track and Platform Project (Project), within Metrolink's Ventura Subdivision. The purpose of this report is to analyze the potential for noise and vibration impacts on sensitive land uses as a result of the Project. The analysis areas for this report include the noise analysis area defined as the area within 750 feet of the commuter railroad, and vibration analysis area defined as the area within 200 feet of the commuter railroad.

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## 2 Project Description

### 2.1 Project Overview

SCRRA is proposing the Simi Valley Double Track and Platform Project to improve safety at the Simi Valley Station and to increase operational capacity on Metrolink's Ventura County Line (VCL). The Project includes at-grade crossing improvements and the construction of new rail infrastructure. The Project would occur primarily within existing railroad right-of-way (ROW) owned by SCRRA and Union Pacific Railroad (UPRR) from Sequoia Avenue east to the Arroyo Simi Railroad Bridge just south of Stearns Street in the City of Simi Valley, California. The Project would add 2.20 miles of main track and increase the passenger capacity at the Simi Valley Station by adding an additional platform and pedestrian undercrossing. In addition, an existing signal at Sycamore Drive would be relocated, and a new signal would be installed approximately 2,000 feet west of Erringer Road.

The objectives of the Project are to improve safety by adding pedestrian safety features and improve reliability by allowing more efficient train operations; allow for an hourly bidirectional service, a half-hourly regional train to dispatch in the peak direction, and an hourly express train in the peak direction along Metrolink's VCL, which operates on the Ventura Subdivision between Moorpark and Los Angeles Union Station; and include at-grade crossing improvements at Sequoia Avenue, Tapo Canyon Road, Tapo Street, East Los Angeles Avenue, and Hidden Ranch Drive in support of the city's future application with the Federal Railroad Administration (FRA) for quiet zone status along the alignment.

### 2.2 Goals and Objectives

The Project includes the following objectives:

- Objective 1: Improve safety and reliability of the existing rail system
- Objective 2: Increase operational capacity of the existing VCL passenger rail system and increase passenger capacity at the Simi Valley Station
- Objective 3: Implement infrastructural improvements that will support the city's future applications to FRA for quiet zone status along the alignment

### 2.3 Project Location

For the purposes of the environmental impact report, SCRRA defined a Project study area, which comprises the Project's physical footprint along the approximately 2.20-mile segment of SCRRA's Ventura Subdivision with a 500-foot buffer. The Project study area begins at its western terminus at Sequoia Avenue and ends east of Hidden Ranch Drive, just west of the Arroyo Simi Railroad Bridge, within the City of Simi Valley. Figure 2-1 shows the regional location of the Project. Figure 2-2 shows the Project's location in southern Simi Valley, the extent of the proposed improvements, and the Project study area. The Project study area is part of the Simi Land Grant on the United States Geological Survey *Simi Valley East, California* 7.5-minute series topographical quadrangle. As shown on Figure 2-2, the Project is located between Mile Post (MP) 436.20 and MP 438.40.

## 2.4 Project Components

As shown on Figure 2-3 (Sheet 1 through 9), the Project would include construction of a new side platform (south of the existing platform) and pedestrian underpass at the existing Simi Valley Station, the construction of a second main track along a 2.20-mile stretch of Metrolink's existing Ventura Subdivision from MP 436.20 to MP 438.40, and the implementation of two new control points (CP) at MP 436.30 (CP Sequoia) and MP 438.40 (CP Arroyo) (Figure 2-3). New intermediate signals would be installed at MP 433.96, MP 435.13, and MP 437.30. Additionally, Project improvements would include supplemental safety measures at the existing grade crossings at Sequoia Avenue, Tapo Canyon Street, Tapo Street, East Los Angeles Avenue, and Hidden Ranch Drive, which would support future applications by the city to FRA for quiet zone status along the alignment.<sup>1</sup> Existing wet and dry utilities (above and below grade) within the Project study area would also be protected in place or relocated pending final engineering design and final placement of the proposed infrastructure.

### 2.4.1 Physical Improvements

The Project would include multiple improvements to the existing Simi Valley Station, including construction of a second platform, a supporting pedestrian undercrossing (or underpass), and passenger emergency egress to enhance passenger safety. The existing platform would also be reconfigured to remove the curvature within the existing platform to the north side of the main line tracks. In conjunction with these station improvements, SCRRA proposes the installation of approximately 2.20 miles of new main track within existing rail ROW, new railroad signals and positive train control towers, and related supplemental safety measures at existing at-grade crossings. These improvements are described in more detail below.

#### Track and Civil

SCRRA proposes the construction of an approximately 2.20-mile segment of second mainline track, from Barnes Street in the west to Hidden Ranch Road in the east, to enhance operational capacity on Metrolink's VCL. The track improvements are described in further detail below:

- Approximately 900 feet of the main track would be reprofiled east of CP Sequoia.
- West of Tapo Street (to Barnes Street), a new second track would be placed within SCRRA ROW. The new track would be constructed north of the existing main line track and would connect to the existing track east of Tapo Street to form Main Track 1.
- Approximately 900 feet of existing track between East Los Angeles Avenue and Tapo Street would be shifted to accommodate the new tracks tying into the existing track. In addition, an existing UPRR spur track between East Los Angeles Avenue and Tapo Street, within SCRRA ROW, would be shifted to accommodate the second track on the north side.

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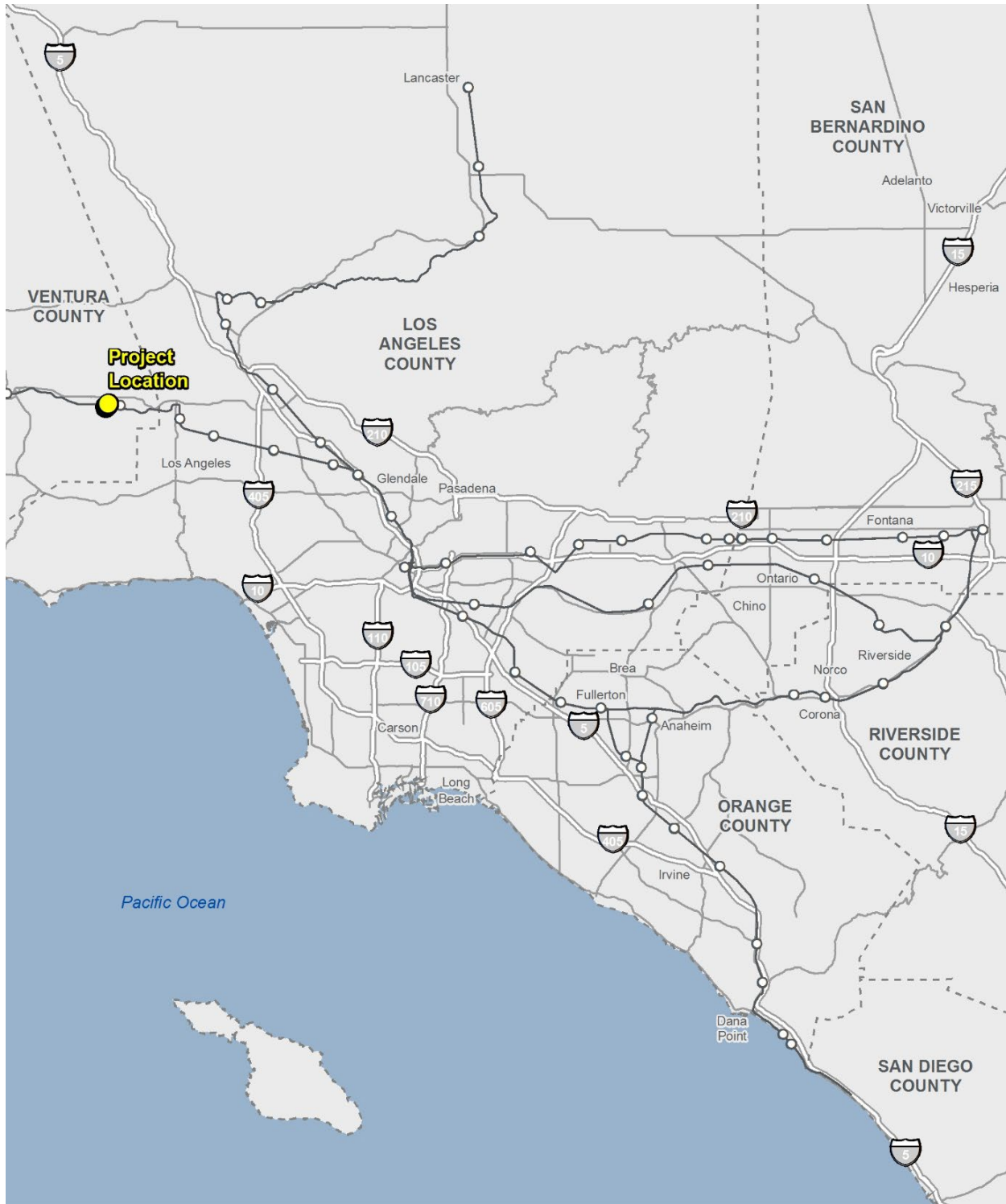
<sup>1</sup> Upon completion of the Project, the City of Simi Valley would be required to complete the Quiet Zone Creation Process in accordance with the regulations, policies, and procedures established by the Federal Railroad Administration (FRA) in its Train Horn Final Rule, as amended on August 17, 2006 (49 Code of Federal Regulations Part 222).

- Approximately 1,400 feet of existing track would be shifted between East Los Angeles Avenue to Simi Valley Station to accommodate the installation of a second track south of the existing track, within UPRR ROW. These two main tracks are shown and labeled as MT-1 and MT-2 on Figure 2-3 (Sheets 3 through 6). The new track on the south side of the ROW would connect to the existing track just east of Tapo Street, such that the new track east of Tapo Street and existing track west of Tapo Street form Main Track 2.

At the Simi Valley Station, the existing and proposed station platforms would be shifted eastward to maintain approximately 19-foot track centers for 150 feet beyond the platforms to accommodate the inter-track fence. The 19-foot track spacing through station limits would avoid placing track curvature within Hidden Ranch Drive, avoid the need to obtain more ROW through the station, and maintain clearance from the Arroyo Simi Bike Path. The 780-foot length of the existing platform would be maintained, and the new platform would be a minimum of 680 feet. The existing track alignment would be maintained at four of the at-grade crossings (Sequoia Avenue, Tapo Canyon Street, Tapo Street, and East Los Angeles Avenue), but the track alignment would be shifted approximately 6 inches south at the Hidden Ranch Drive crossing to eliminate curvature between the platform and the crossing.

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Figure 2-1. Regional Location



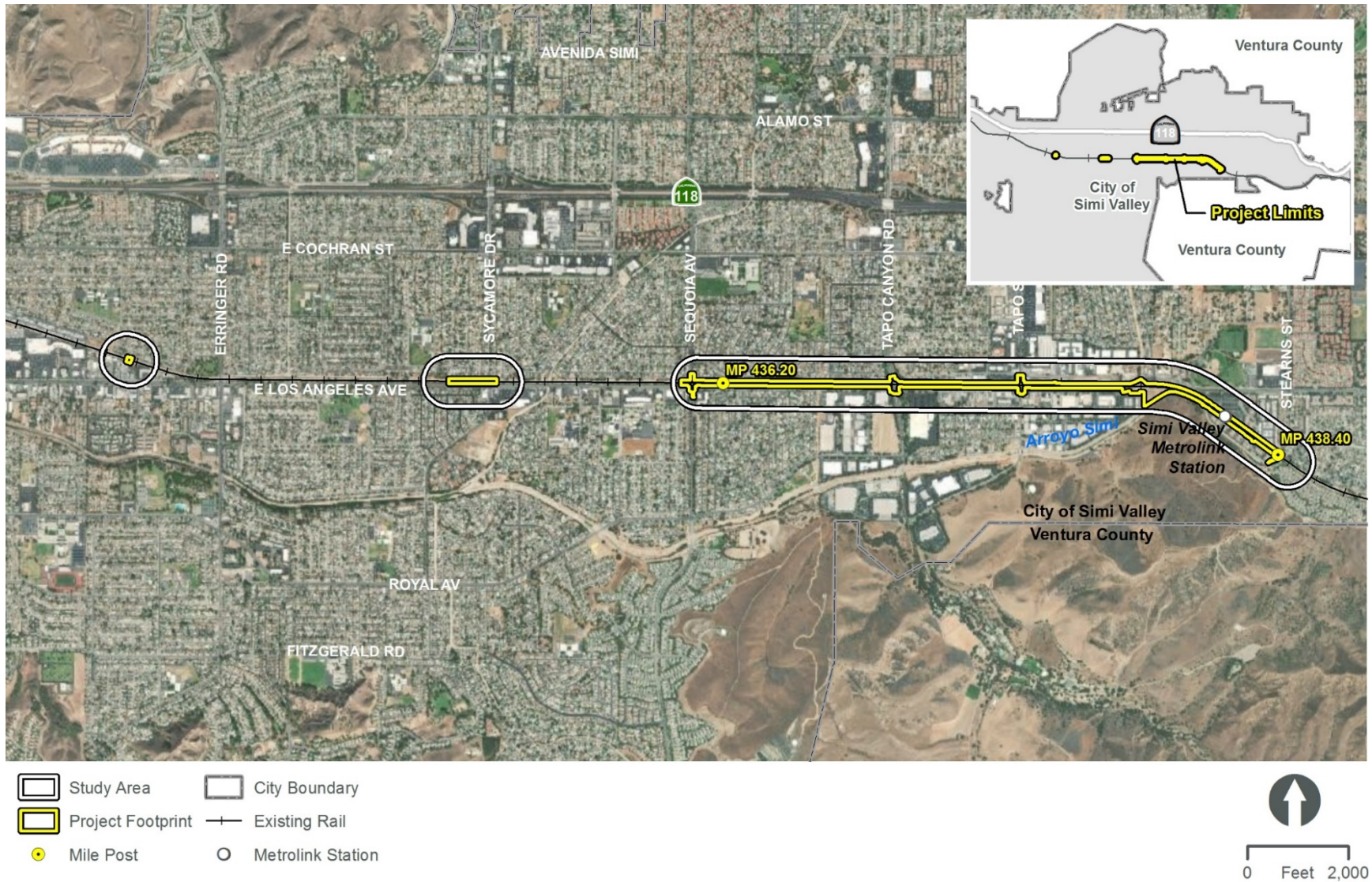
- Project Location
- County Boundary
- Metrolink Station
- Interstate
- Metrolink Line
- Highway



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Figure 2-2. Project Location









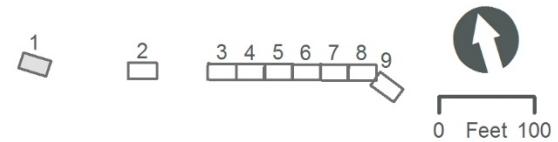
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Figure 2-3. Project Detail Map  
(Sheet 1 of 9)



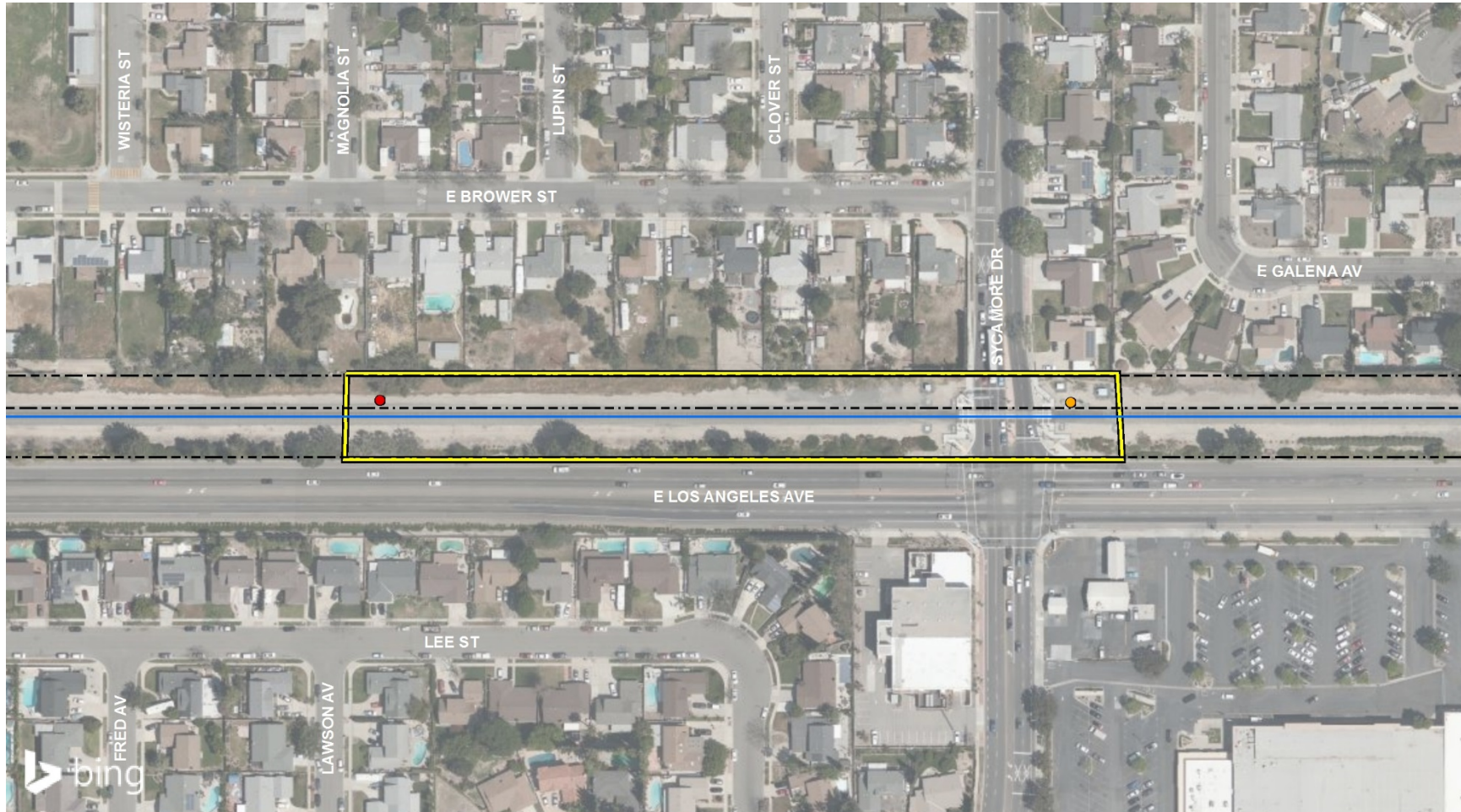
-  Project Footprint
-  Existing Track
-  Mile Post
-  Grade Crossing Design
-  Rail ROW
-  Proposed Signal Equipment



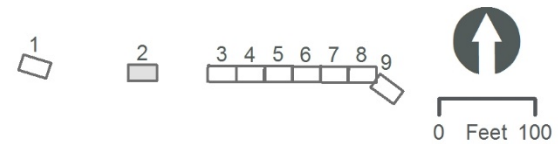
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Figure 2-3. Project Detail Map  
 (Sheet 2 of 9)



- Project Footprint
- Existing Track
- Mile Post
- Grade Crossing Design
- Rail ROW
- Proposed Signal Equipment
- Removal of Existing Signal Equipment



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Figure 2-3. Project Detail Map  
 (Sheet 3 of 9)



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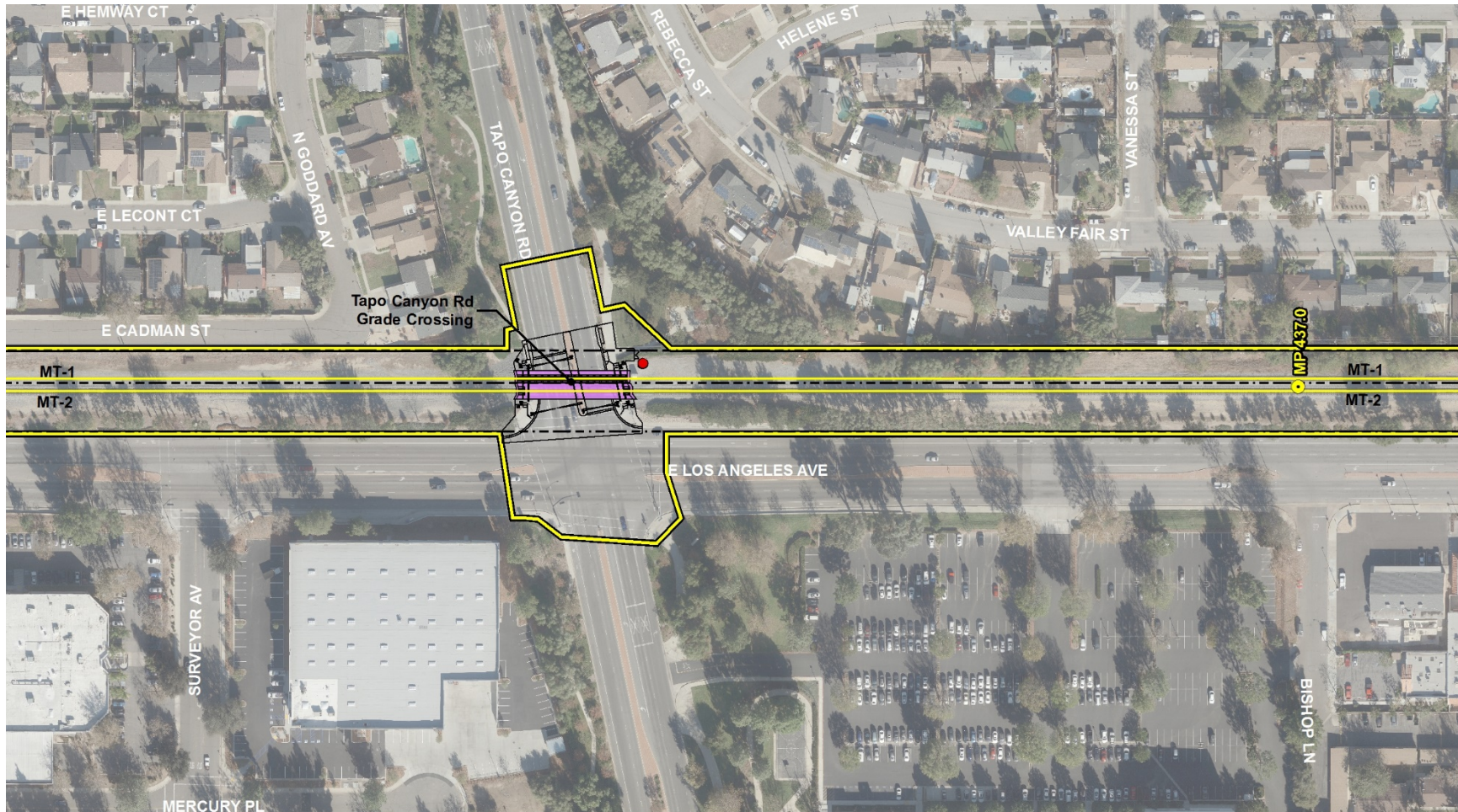
Figure 2-3. Project Detail Map  
(Sheet 4 of 9)



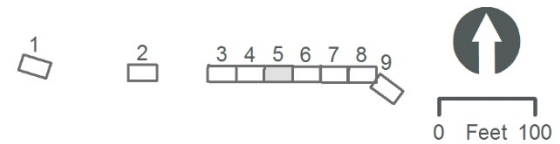
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Figure 2-3. Project Detail Map  
 (Sheet 5 of 9)



- Project Footprint
- Rail ROW
- Grade Crossing
- Mile Post
- Grade Crossing Design
- Proposed Track
- Proposed Signal Equipment



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Figure 2-3. Project Detail Map  
 (Sheet 6 of 9)



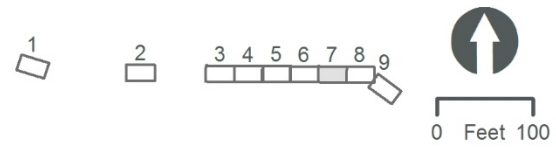
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Figure 2-3. Project Detail Map  
 (Sheet 7 of 9)



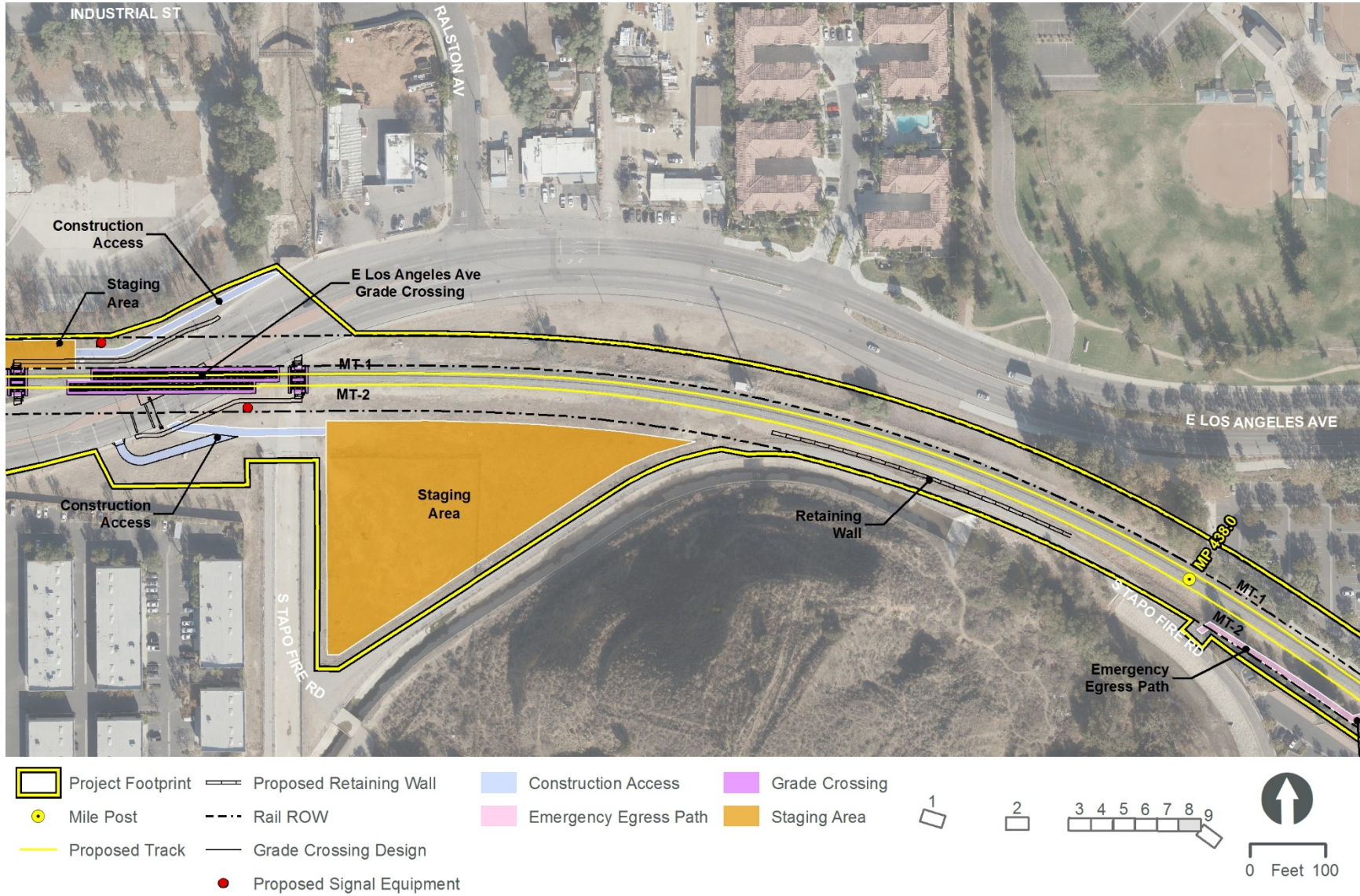
- |   |  |   |
|---|--|---|
|  Project Footprint     |  Rail ROW                 |  Proposed Signal Equipment |
|  Mile Post             |  Existing Track           |  Grade Crossing            |
|  Proposed Track        |  Existing Track - Removal |  Staging Area              |
|  Grade Crossing Design |  |   |



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Figure 2-3. Project Detail Map  
 (Sheet 8 of 9)



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Figure 2-3. Project Detail Map  
 (Sheet 9 of 9)



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## At-Grade Crossings

The Project would include improvements and related supplemental safety measures at existing at-grade crossings within the Project study area to facilitate future quiet zone implementation. These at-grade crossing improvements would generally include the accommodation of the second mainline track and related ancillary improvements, except for at the Sequoia at-grade crossing, where a second track would not be constructed. These improvements would include sidewalk and pavement reconstruction; installation of pedestrian gates and warning signals; roadway restriping; pedestrian channelization; construction, of or modification to, a raised roadway median; and installation/modification of the roadway gates. Each at-grade crossing is further described below.

- **Sequoia Avenue.** The improvements at Sequoia Avenue include those described above, except a second mainline track crossing would not be constructed. A new railroad signal house would also be installed at this location.
- **Tapo Canyon Street.** In addition to the improvements described above, a new signal house would also be constructed at Tapo Canyon Street.
- **Tapo Street.** In addition to the improvements described above, a new signal house would also be constructed at Tapo Street.
- **East Los Angeles Avenue.** In addition to the improvements described above, a new signal house would also be constructed at East Los Angeles Avenue. Additionally, the existing access roads leading from the Arroyo Simi Bike Path would be modified to accommodate the proposed pedestrian improvements and the existing retaining wall located in the southeast quadrant would be reconstructed.
- **Hidden Ranch Drive.** In addition to the improvements described above, a new signal house would also be constructed at Hidden Ranch Drive.

## Railroad Signals and Communications

The track improvements would require new track panels, signals, and warning devices at the existing at-grade crossings. At Sequoia Avenue, Tapo Canyon Road, and Tapo Street, the presignals on the southwest quadrants would be located outside of the exit gates to improve visibility for southbound traffic approaching the tracks. Additional safety improvements would include adding flashers to the warning devices for vehicles turning onto Tapo Canyon Road from East Los Angeles Avenue. Maintenance access to the new signal houses would also be added.

The Project would include two new CPs. At the western limit of the new track, CP Sequoia would be installed approximately 0.20 mile east of Sequoia Avenue. CP Arroyo would be installed directly west of Arroyo Simi. The existing signal at Tapo Street would be modified to accommodate the second track. In order to account for the proximity to the new CP Sequoia, the existing signal at Sycamore Drive would be relocated approximately 700 feet west. To reduce headway times to CP Strathern, an additional signal would be added approximately 2,000 feet west of Erringer Road.

At each new signal site, the following improvements would be installed:

- 6-foot by 8-foot signal house with a security fence
- Wayside signal
- 40-foot positive train control antenna tower



- 200-amp Southern California Edison power meter pedestal
- Underground railroad fiber optic cable with vault

## Simi Valley Station Enhancements

The existing Simi Valley Station consists of one side platform on the north side of the main line track with custom passenger canopies, a ticket vending machine, and an at-grade parking lot north of the platform. The existing path of travel to the station extends south from a bus stop at the platform entrance and from the adjacent parking lot. Station access would remain unchanged under the Project.

The Project would change the existing platform configuration by demolishing approximately 250 feet of the curved portion of the platform on the west end of the station. To maintain the 780-foot length of the existing platform, the remaining platform would be extended approximately 95 feet to the west and 155 feet to the east, so that the entire length of the platform is along tangent track (i.e., where the track is not curved). At the east end of the station, a pedestrian underpass would be installed with ramp and stair access. The new underpass would provide access to a new, second platform on the south side of the main line tracks, which would be a minimum of 680 feet long.

The Project would match the existing platform amenities (canopies, seating, signage, and lighting), and would include aesthetic treatments to the ramps, stairs, and underpass walls and ceiling. The Project would implement crime prevention through environmental design principles, which would include natural surveillance, natural access control, territorial reinforcement, and maintenance. The proposed station improvements would also meet National Fire Protection Association standards by providing passengers egress capabilities to vacate the platform within 4 minutes and to reach a point of safety within 6 minutes.

## Drainage Improvements

The Project would include the following drainage improvements:

- Underdrains at the at-grade crossings where ditches are infeasible, and between the tracks at the platforms with the subgrade sloping toward the underdrain
- Trackside ditches between at-grade crossings
- Storm drain extensions or encasements where existing drainage systems intersect the proposed track infrastructure
- A new pump station at the low point of the pedestrian underpass at Simi Valley Station

The proposed drainage improvements would be coordinated with the City of Simi Valley to provide the new track infrastructure with adequate flood protection and to maintain existing drainage patterns to the extent practical throughout the Project study area.

## Structures

The Project would construct a new pedestrian underpass, stairs, and ramps at the Simi Valley Station. The design of the pedestrian underpass would be in accordance with the most recent SCRRRA design criteria manual. The proposed structure type is a precast concrete box structure, composed of sections, selected to minimize construction track windows (i.e., minimize impacts on train schedules). The internal dimensions of the proposed structure would be 14 feet wide by 9 feet, 10 inches high. The depth of cover (i.e., amount of fill between the structure and the tracks) would be minimized to

facilitate construction and maintenance of the structure, as well as to reduce the length of approach ramps and the number of stairs needed to reach the station platform. The design of the approach ramp retaining wall would be in accordance with the most recent SCRRA design criteria manual.

## Utilities

Utilities within the Project study area include gas lines, electrical power lines, communications/fiber optic lines, and municipal water and sewer pipes. The Project would result in multiple utility conflicts, and impacted utilities would either be protected in place, extended, or relocated. Specifically, the Project may require relocation or casing extensions for the following utilities:

- Crimson Pipeline gasoline pipeline (6- to 12-inch pipeline) at East Los Angeles Avenue and Topo Canyon Road
- Southern California Edison electrical transmission and distribution (above and below ground) lines at Sequoia Avenue, East Los Angeles Avenue, Goddard Avenue, and Hidden Ranch Drive
- City of Simi Valley sewer and potable water lines at Sequoia Avenue, East Los Angeles Avenue, Tapo Canyon Road, and Hidden Ranch Drive
- Southern California Gas natural gas lines at Sequoia Avenue, East Los Angeles Avenue, Tapo Street, Arroyo lane, and Hidden Ranch Drive
- Golden State Water Company potable water lines at Sequoia Street, Goddard Avenue, Hietter Avenue, Tapo Street, and East Los Angeles Avenue
- Fiber optic cables parallel to the ROW owned by the following communications companies:
  - o Lumen Technologies (formerly CenturyLink)
  - o Verizon
  - o AT&T
  - o Sprint
  - o Wilshire Communication
  - o Charter Communications

Potholing would be implemented in conjunction with final design to verify the locations of all existing utilities within the Project study area and to determine which utilities would be protected in place and which utilities would require relocation or abandonment.

## Right-of-Way

The majority of proposed improvements (including the proposed pedestrian underpass at the Simi Valley Station) would be constructed within the railroad ROW (Figure 2-3, Sheet 1 through 9). The northern 40 feet of ROW are owned by SCRRA, while the southern 60 feet are owned by UPRR. The ramp and stair access from the undercrossing to the new platform would extend south of the existing UPRR ROW and require acquisition of a portion of the adjacent multifamily parcel.

Roadway improvements would generally be located outside of the railroad ROW and within the City of Simi Valley's roadway ROW. Improvements at Hidden Ranch Drive would require acquisition of portions of two adjacent multifamily parcels at the southern and western corners of the crossing. Additionally, potential sidewalk crossing improvements that would extend into unimproved areas of private properties near Hidden Ranch Drive would require temporary construction easements in order to access the proposed CP Arroyo area.

To connect with the Arroyo Simi Bike Path, the egress path from the new platform may also extend south of the ROW onto the Ventura County Flood Control District's property, or it could extend further west to connect to the bike path within UPRR ROW. Final ROW needs would be confirmed during final design.

### 2.4.2 Construction

Project construction would begin as early as April 2022 and last for approximately 19 months. The work would be accomplished over four phases, beginning with construction of the pedestrian underpass and new platform at the station, and ending with reconstruction of 250 feet of the existing station platform. Construction may involve multiple crews working simultaneously and would include equipment such as track stabilizers, excavators, front-end loaders, rubber-tired dozers, cranes, haul trucks, and water trucks.

Construction would generally proceed in the following four phases over the 19-month construction schedule:

- Phase 1:
  - A number of third-party utility lines would be relocated in order to make way for the improvements of the Project. These utilities include fiber optic lines that run parallel to the Project study area, as well as many crossing utilities, such as water, gas, electric, and others. The relocations are due to the addition of a second main track, added second platform, inadequate depth underneath the rail, or insufficient casing length that spans the entire railroad ROW.
- Phase 2:
  - Construct structures, including the pedestrian underpass and new platform at Simi Valley Station and the retaining wall near the Arroyo Simi Bike Path
  - Construct track work, including the new main track (Main Track 1) outside of grade crossing limits and new turnouts, while maintaining service on the existing track
  - Construct signal houses, signal foundations, grade crossing warning devices and associated conduits

- Phase 3:
  - o Construct track and roadway improvements at the at-grade crossings
  - o Transfer rail service onto the newly constructed Main Track 1; take the existing track out of service for the second main track (Main Track 2) improvements
  - o Finish installing signals at new CP Sequoia and CP Arroyo
- Phase 4:
  - o Construct Main Track 2 track and upgrade existing from timber to concrete ties
  - o Activate Main Track 2 track into service
  - o Remove and reconstruct 250 feet of the existing Simi Valley Station platform and finish upgrading any remaining timber ties to concrete ties

Material and equipment imports and construction personnel would access the Project study area via walking points from the nearest fence access or staging area. Potential construction access points and staging areas have been identified within the ROW and are shown on Figure 2-3 (Sheets 3, 6, 7, 8, and 9). An additional staging area outside the ROW was identified between East Los Angeles Avenue and Arroyo Simi, as shown on Figure 2-3. The final construction staging area locations would be confirmed during design development.

Construction activities would be scheduled during time frames that allow for exclusive track occupancy by construction crews to minimize effects on Metrolink operations. To the greatest extent possible, construction activities would be scheduled during the daytime; however, nighttime work would be required to maximize construction work windows. The Project would also include weekend work when Metrolink service is reduced.

Prior to construction, coordination would be needed with regard to the bike trail and potential temporary construction closures. Dewatering is expected to be necessary during construction of the pedestrian underpass at the station and would be completed in accordance with applicable regulations.

### 2.4.3 Operation

The Project would improve safety and reliability on the VCL and at the Simi Valley Station and adds capacity to accommodate growth of Metrolink commuter train operations through the Project study area. The Project would install safety improvements at four grade crossings and create a new 2.20-mile double track segment through southern Simi Valley, which would reduce the distance of single-track territory through the Project study area. Passenger trains running along the Ventura Subdivision on the Metrolink VCL would be able to use this double track segment to pass uninterrupted through the Project study area rather than idling at the nearest location with two tracks, waiting for trains in the opposite direction to cross the single-track segment.

Project operation is projected to start in 2025. The Project would also provide faster, more frequent, and more reliable service by increasing on-time performance. As the population of Southern California increases, it is likely that additional passenger rail service would be added to the Metrolink VCL in the future to ease traffic congestion on freeways and local streets.

With Project implementation, as well as completion of the other VCL projects, Metrolink service would increase, providing up to 48 revenue trains per day on the VCL (Table 2-1).

**Table 2-1. 2019 Schedules and Proposed Service Schedules: Ventura County Line**

Schedule	Existing Service (2019)			Proposed Service (2025)		
	To Los Angeles <sup>a</sup>	From Los Angeles <sup>a</sup>	All	To Los Angeles <sup>a</sup>	From Los Angeles <sup>a</sup>	All
Weekday (total VCL)	16	17	33	24	24	48
Weekday (extending through Project study area) <sup>b</sup>	7	7	14	19	19	38
Saturday	0	0	0	1 <sup>c</sup>	1 <sup>c</sup>	2 <sup>c</sup>
Sunday	0	0	0	0	0	0

Notes:

- <sup>a</sup> VCL trains to or from Los Angeles originate or terminate in Ventura, Moorpark, Chatsworth, or Burbank.
  - <sup>b</sup> Existing and proposed VCL train counts for the Project only consider train service extending to Moorpark and Ventura (i.e., traversing the Project study area).
  - <sup>c</sup> VCL Saturday service would operate between April and October only.
- VCL=Ventura County Line



## 3 Regulatory Framework

### 3.1 Noise

#### 3.1.1 Federal Regulations and Guidelines

Several federal laws and guidelines are relevant to the assessment of ground transportation noise and vibration impacts and apply to the Project:

- The Noise Control Act of 1972 (42 United States Code Section 4910) was the first comprehensive statement of national noise policy. It declared that “it is the policy of the United States to promote an environment for all Americans free from noise that jeopardizes their health or welfare.”
- The Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) provides the methodology and impact criteria applicable to conventional passenger rail and transit components associated with the Project.

FTA published a newly revised noise and vibration impact assessment manual in 2018. The impact criteria are based on the goal of maintaining a noise environment considered acceptable for land uses where noise may have an impact. The noise exposure is measured in terms of the day-night average sound level ( $L_{dn}$ ) for residential land uses or in terms of the hourly equivalent sound level ( $L_{eq}$ ) for other land uses.

FTA states that in cases where changes are proposed to an existing transit system, the cumulative noise criteria can be used (FTA 2018). In the case of this Project, the cumulative noise criteria are appropriate because the existing facility is being modified.

In FTA’s *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018), noise impact criteria for the operation of rail facilities are based on the change in outdoor noise exposure using a sliding scale with three land use categories and three degrees of impact. The criteria were established to reflect a heightened community annoyance caused by late-night or early morning service, as well as communities’ varying sensitivity to noise from projects during different ambient noise conditions.

For operational rail noise, FTA’s three land use categories are as follows:

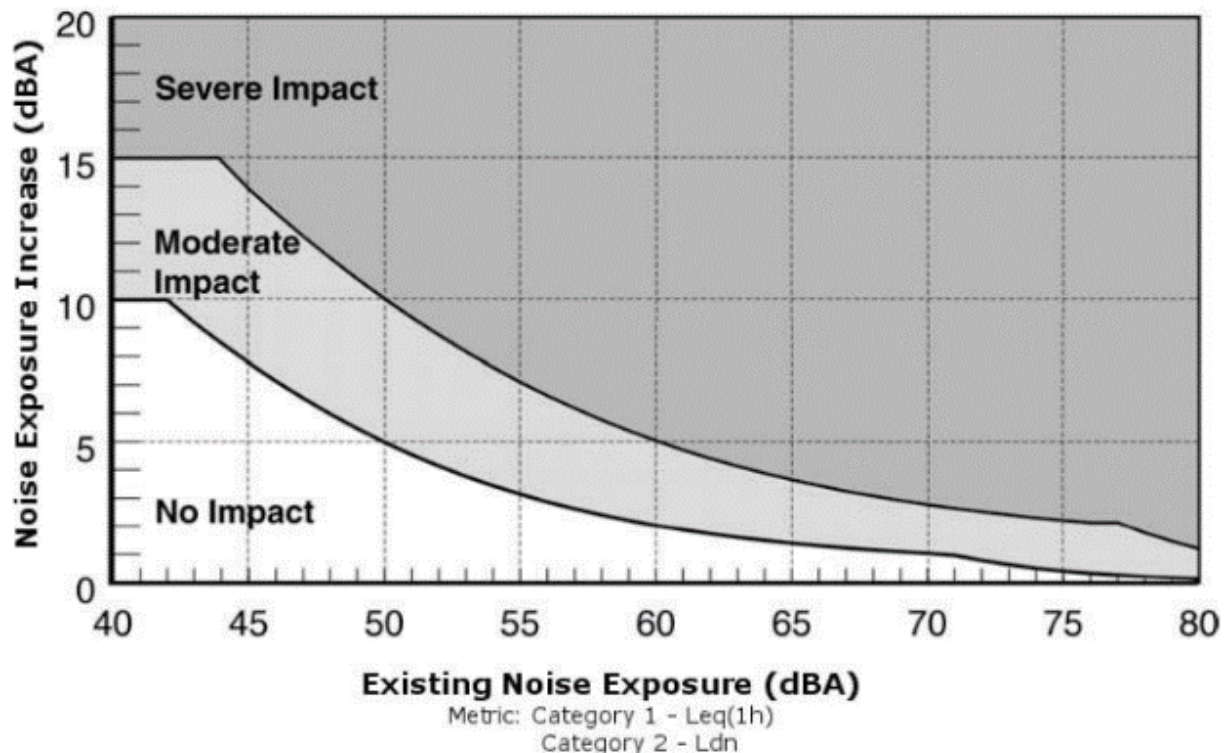
- **Noise Category 1** – Tracts of land where quiet is an essential element in their intended purpose, such as outdoor amphitheaters, concert pavilions, and national historic landmarks with significant outdoor use.
- **Noise Category 2** – Residences and buildings where people normally sleep, including homes, hospitals, and hotels.
- **Noise Category 3** – Institutional land uses (i.e., schools, places of worship, libraries) with use typically during the daytime and evening. Other uses in this category can include medical offices, conference rooms, recording studios, concert halls, cemeteries, monuments, museums, historical sites, parks, and recreational facilities.

The three categories are determined from general land use information about each receiver. No Category 1 receivers are located within 1 mile of the Project alignment, which is well beyond the typical FTA screening distance for noise or vibration impacts. Outdoor hourly  $L_{dn}$  applies to Category 2, whereas outdoor  $L_{eq}$  applies to Category 3.

Noise impacts on Category 2 and Category 3 land uses as a result of a project are assessed by comparing existing and future project-related outdoor noise levels. Figure 3-1 and Figure 3-2 illustrate the FTA noise impact criteria as they relate to each land use category. The criterion for each degree of impact is based on a sliding scale dependent on the existing noise exposure and the increase in noise exposure attributable to the project. Figure 3-1 and Figure 3-2 illustrate the cumulative noise impact criteria to be used on the Project. Based on FTA criteria, potential noise impacts fall into three types: no impact, moderate impact, and severe impact (FTA 2018). The impact categories are described further below:

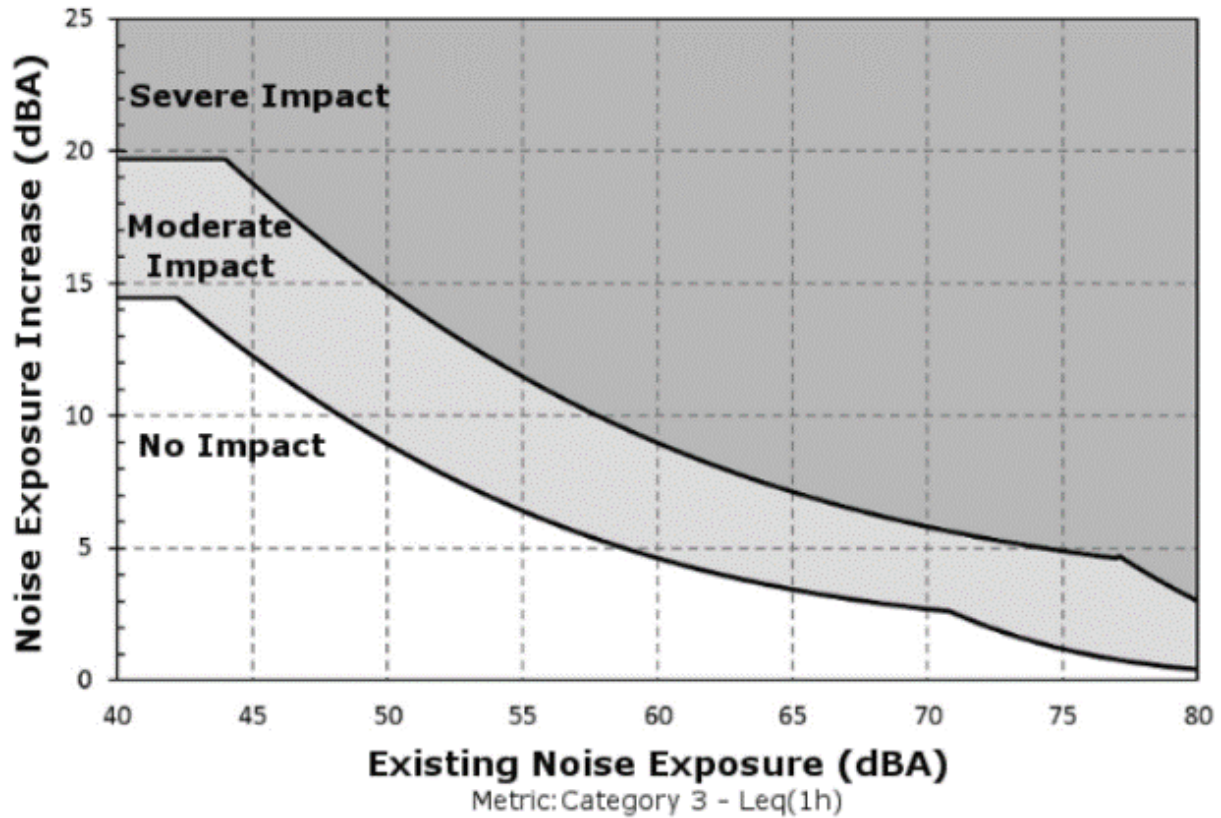
- **No impact** – A project on average would result in an insignificant increase in the number of instances where people are highly annoyed by new noise. This impact level would not require mitigation.
- **Moderate impact** – The change in cumulative noise is noticeable to most people but may not be enough to cause strong, adverse community reactions. The FTA manual indicates mitigation for this impact level should be considered but is not required.
- **Severe impact** – A significant percentage of people would be highly annoyed by the noise, possibly resulting in a strong, negative community reaction. The FTA manual indicates mitigation for this impact level is required.

Figure 3-1. Federal Transit Administration Cumulative Noise Levels Allowed by Criteria Category 2 Land Use



Source: FTA 2018

Figure 3-2. Federal Transit Administration Cumulative Noise Levels Allowed by Criteria Category 3 Land Use



Source: FTA 2018

Using FTA’s sliding impact criterion for Category 3 receivers, an existing environment of 50 A-weighted decibels (dBA)  $L_{eq}$  would experience a moderate impact if the rail project creates a noise exposure of approximately 53 to 59 dBA  $L_{dn}$  or if there is an increase of 9 to 15 decibels (dB) (Figure 3-1).

The FTA manual contains tables listing suggested construction noise impact criteria depending upon the level of detail/understanding of the construction phase (FTA 2018). For the more detailed approach applicable to the Project, the FTA’s guidelines for assessment of construction noise shown in Table 3-2 are suggested for use due to different noise levels for daytime and nighttime construction. Daytime is defined as 7:00 a.m. to 10:00 p.m., and nighttime is defined as 10:00 p.m. to 7:00 a.m.

**Table 3-1. Prescriptive Federal Transit Administration Construction Noise Assessment Guidelines**

Land Use	8-Hour $L_{eq}$ (dBA)		30-Day Average $L_{dn}$ (dBA)
	Day	Night	
Residential	80	70	75 <sup>a</sup>
Commercial	85	85	80 <sup>b</sup>
Industrial	90	90	85 <sup>b</sup>

Source: FTA 2018

Notes:

<sup>a</sup> In urban areas with very high ambient noise levels ( $L_{dn}$  greater than 65 dB),  $L_{dn}$  from construction operations should not exceed existing ambient + 10 dB.

<sup>b</sup> 24-hour  $L_{eq}$ , not  $L_{dn}$

dB=decibel; dBA=A-weighted decibel;  $L_{eq}$ =equivalent noise level;  $L_{dn}$ =day-night average sound level

### 3.1.2 State Regulations

At the state level, the California Noise Control Act was enacted in 1973 (Health and Safety Code Section 46010, et seq.). It allows the Department of Health Services' Office of Noise Control to offer assistance to local communities that are developing local noise control programs and work with the Office of Planning and Research to provide guidance for the preparation of the required noise elements in city and county general plans, pursuant to Government Code Section 65302(f).

The California Environmental Quality Act (CEQA; Public Resources Code, section 21000, et seq.) is a state statute passed in 1970. CEQA requires state and local agencies to identify the significant environmental impacts of their actions, including potential impacts from noise and vibration, and avoid or mitigate those impacts when feasible.

The State of California has established land use compatibility criteria that provide guidance on the compatibility of different types of land uses based upon the existing community noise level. These guidelines are often adopted by city and county agencies for land use planning purposes. The State of California has not adopted specific noise criteria that are applicable to rail projects; therefore, the noise impact assessment is based on the guidelines provided by FTA.

### 3.1.3 Local Regulations

The Project traverses the City of Simi Valley, which has regulations that pertain to construction noise; however, the city does not have authority to regulate noise from railroads. Specifically, the City of Simi Valley controls construction noise via Title 5, Chapter 16, Section 16.02 of its Code of Ordinances (City of Simi Valley 2019). This ordinance allows for the erection, excavation, demolition, alteration, construction, or repair of any structure or building between the hours of 7:00 a.m. and 7:00 p.m. The consent of the city engineer is required for activities outside of this time frame. Pile drivers, hammers, and the like are not permitted between the hours of 7:00 p.m. and 7:00 a.m. Section 16.03 provides an exemption of any governmental agency, private, or public utility from these regulations for emergency purposes to perform work and/or provide at any time supplies, materials, equipment, and labor for the repair, erection, restoration, maintenance, and alteration of its services and facilities.

## 3.2 Vibration

### 3.2.1 Federal Regulations

The evaluation of vibration-impact levels, stated as vibration decibels (VdB), is based on the land use category and the number of vibration events per day. The impact level also depends on the type of analysis being conducted (i.e., ground-borne vibration or ground-borne noise).

The FTA manual provides guidelines to assess human response to different levels of ground-borne noise and vibration, as shown in Table 3-2. There are no Category 1 land uses considered within screening distance (Section 4.3) of the Project. The majority of vibration-sensitive land uses in the Project study area are Category 2 land uses. Frequent events are defined as more than 70 vibration events per day, while occasional events are defined as between 30 and 70 vibration events per day. Infrequent events are defined as being fewer than 30 events per day.

For areas where there are vibration events, such as those along existing shared railroad corridors, FTA defines a corridor as being heavily used if there are more than 12 trains per day, moderately used if there are 5 to 12 trains per day, and infrequently used if there are less than 5 trains per day. The Project rail corridor would be classified as being heavily used. For these conditions, an impact would occur if there were either a doubling of rail traffic with the addition of the Project or if existing vibration levels were to exceed the thresholds provided in Table 3-2 with the addition of the Project. FTA has identified that a potential impact would occur if the Project-related vibration levels resulted in an increase of 3 VdB or more.

Ground-borne noise is normally not a consideration when trains are at grade (i.e., not underground or where there are basements or human activity in spaces underground). In these situations, the air-borne noise is the major consideration. Ground-borne noise generally becomes an important consideration for subways or other projects in which part of the alignment includes a tunnel.

FTA construction-related vibration guidelines call for an investigation of the potential for vibration-induced damage to fragile or extremely fragile buildings (FTA 2018). Damage to a building is possible (but not necessarily probable) if ground-vibration levels exceed the following criteria:

- Exceeds 0.20-inch-per-second peak particle velocity (PPV; approximately 100 VdB) for fragile buildings
- Exceeds 0.12-inch-per-second PPV (approximately 95 VdB) for extremely fragile buildings

No fragile or extremely fragile buildings are located within screening distance (Section 4.4) of the Project study area. Table 3-2 presents the ground-borne vibration and noise impact criteria.

Construction vibration is assessed based on the potential for damage and the likelihood of annoyance. FTA indicates engineered concrete and masonry structures have damage criteria of 0.3 PPV (inches per second). To assess the potential for construction-vibration annoyance, the same vibration thresholds as those identified in Table 3-2 for operational vibration are applied.



### 3.2.2 State Regulations

Ground-borne vibration criteria pursuant to CEQA are provided in Section 6.

### 3.2.3 Local Regulations

The City of Simi Valley does not identify vibration standards or thresholds in their municipal code or other ordinances.

**Table 3-2. Ground-borne Vibration and Noise Impact Criteria**

Land Use Category	Ground-borne Vibration Impact Levels (VdB re 1 micro inch/second)			Ground-borne Noise Impact Levels (dB re 20 micropascals)		
	Frequent Events <sup>a</sup>	Occasional Events <sup>b</sup>	Infrequent Events <sup>c</sup>	Frequent Events <sup>a</sup>	Occasional Events <sup>b</sup>	Infrequent Events <sup>c</sup>
<b>Category 1:</b> Buildings where vibration would interfere with interior operations	65 VdB <sup>c</sup>	65 VdB <sup>c</sup>	65 VdB <sup>c</sup>	__ <sup>d</sup>	__ <sup>d</sup>	__ <sup>d</sup>
<b>Category 2:</b> Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
<b>Category 3:</b> Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Source: FTA 2018

Notes:

- <sup>a</sup> Frequent events is defined as more than 70 vibration events per day.
- <sup>b</sup> Occasional events is defined as between 30 and 70 vibration events of the same source per day.
- <sup>c</sup> Infrequent events is defined as fewer than 30 vibration events per day.
- <sup>d</sup> This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilation, and air-conditioning systems and stiffened floors. Vibration-sensitive equipment is not sensitive to ground-borne noise.

dB=decibel; dBA=A-weighted decibel; VdB=vibration decibels

## 4 Approach

This section describes the overall approach to preparing the noise and vibration analysis for construction and operation. The approach includes acoustic terminology description; vibration terminology description; and methods for assessing operational noise sources, operational vibration, construction noise, and construction vibration.

FTA's *Transit Noise and Vibration Impact Assessment* (FTA 2018), was followed to evaluate the environmental impacts of the Project. Noise and vibration impacts were assessed using procedures followed by the FTA for regional/intercity rail improvements because FRA defers to FTA procedures for this type of evaluation.

### 4.1 Acoustic Terminology

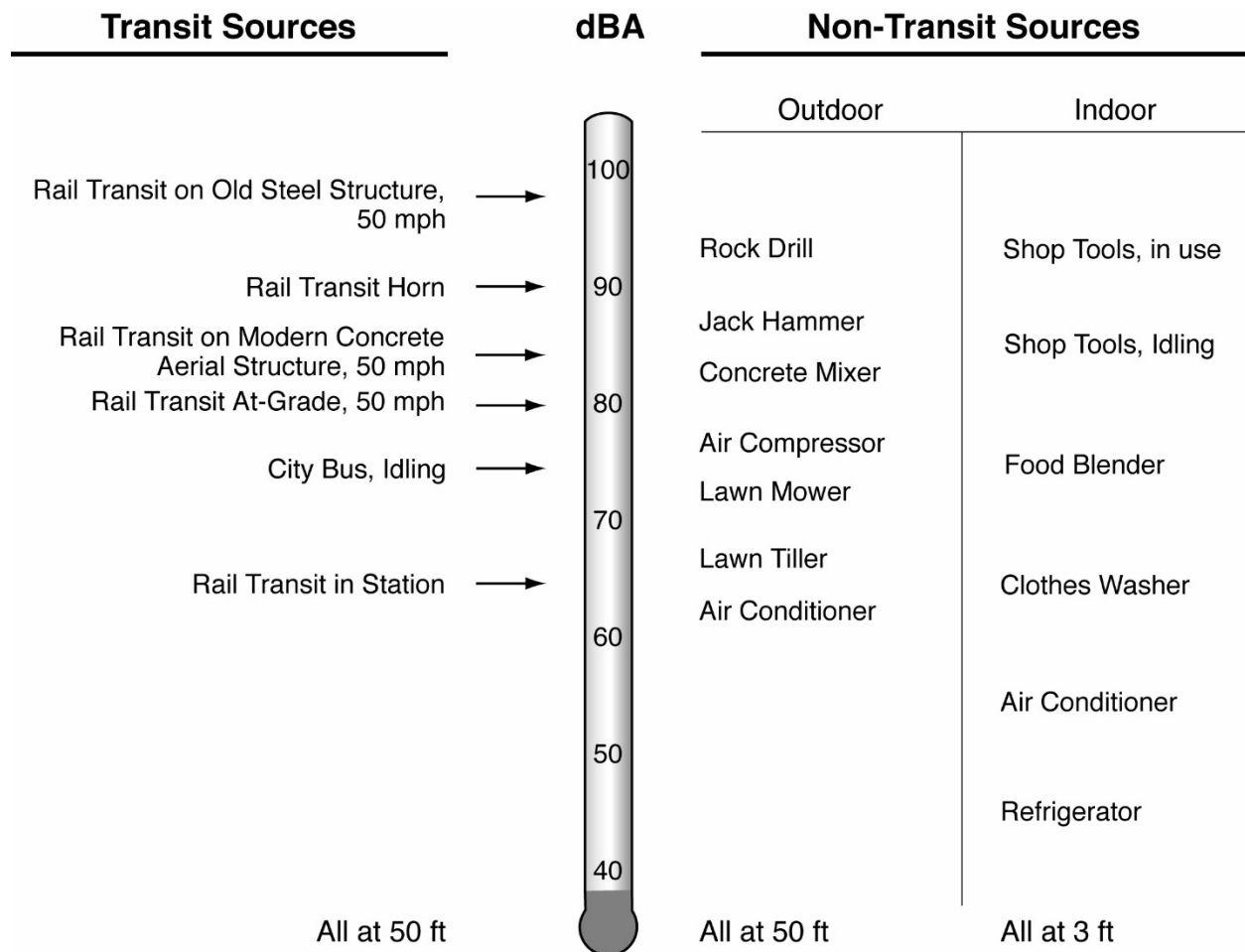
Noise levels are presented on a logarithmic scale to account for the large pressure response range of the human ear. This logarithmic scale is expressed in units of dB. A dB is defined as the ratio between a measured value and a reference value, usually corresponding to the lower threshold of human hearing. The lower threshold of human hearing is defined as 20 micropascals. Typically, a noise analysis examines 11 octave (or 33 1/3 octave) bands ranging from 16 hertz (low) to 16,000 hertz (high). This octave band encompasses the human audible frequency range. Because the human ear does not perceive every frequency with equal loudness, spectrally varying sounds are often adjusted with a weighting filter. The A-weighted filter is applied to compensate for the frequency response of the human auditory system, known as a dBA.

An inherent property of the logarithmic dB scale is that the sound pressure levels of two separate sources are not directly additive. For example, if a sound of 50 dBA is added to another sound of 50 dBA in the proximity, the result is a 3-dB increase, which is a total of 53 dBA and not an arithmetic doubling to 100 dBA. The human ear perceives changes in sound-pressure level relative to changes in loudness. Scientific research demonstrates the following general relationships between sound level and human perception for two sound levels with the same or very similar frequency characteristics:

- One dBA is the practical limit of accuracy for sound measurement systems and corresponds to an approximate 10 percent variation in the sound pressure level. A 1-dBA increase or decrease is a nonperceptible change in sound.
- A 3-dBA increase or decrease is a doubling (or halving) of acoustic pressure level, and it corresponds to the threshold of change in loudness perceptible in a laboratory environment. In practice, the average person is not able to distinguish a 3-dBA difference in environmental sound outdoors.
- A 5-dBA increase or decrease is described as a perceptible change in sound level and is a discernible change in an outdoor environment.
- A 10-dBA increase or decrease is a tenfold increase or decrease in acoustic pressure level but is perceived as a doubling or halving in loudness (e.g., the average person would judge a 10-dBA change in sound level to be twice or half as loud).

Figure 4-1 depicts the estimations of common noise sources and outdoor acoustic environments. It provides a comparison of relative loudness for each of these sources.

Figure 4-1. Relative Loudness



Source: FTA 2018

Noise levels can be measured, modeled, and presented in various formats. The noise metrics that were employed in this analysis have the following definitions:

- $L_{eq}$ :** Conventionally expressed in dBA, the  $L_{eq}$  is the energy-averaged, A-weighted sound level over a specified time period. It is defined as the steady, continuous sound level over a specified time, which has the same acoustic energy as the actual varying sound levels over the specified period. The daytime  $L_{eq}$  is the energy averaged sound level for the daytime period (7:00 a.m. to 10:00 p.m.), and the nighttime  $L_{eq}$  is the energy averaged sound level for the nighttime period (10:00 p.m. to 7:00 a.m.).
- $L_{dn}$ :** The  $L_{dn}$  is the average, hourly A-weighted  $L_{eq}$  for a 24-hour period, with a 10-dB penalty added to sound levels occurring during the nighttime hours (10:00 p.m. to 7:00 a.m.) to account for individuals' increased sensitivity to noise levels during nighttime hours.

- **Community noise equivalent level:** Community noise equivalent level is another average A-weighted  $L_{eq}$  sound level measured over a 24-hour period; however, this noise scale is adjusted to account for some individuals' increased sensitivity to noise levels during the evening and nighttime hours. A community noise equivalent level noise measurement is obtained after adding 5 dB to sound levels occurring during evening hours (7:00 p.m. to 10:00 p.m.) and 10 dB to noise levels occurring during nighttime hours (10:00 p.m. to 7:00 a.m.).

## 4.2 Vibration Terminology

As noted in the FTA's *Noise and Vibration Impact Assessment* (FTA 2018), both train operation and construction activities can be a source of ground-borne vibration. During the construction phase, activities such as driving piles and operating heavy equipment may cause ground-borne vibration. Due to the weight of train equipment, the operation of trains can also cause ground-borne vibration. Vibration is an oscillatory motion, which can be described in terms of displacement, velocity, or acceleration. Velocity or acceleration is typically used to describe vibration. The following two descriptors are frequently used when discussing quantification of vibration:

- **PPV:** the maximum instantaneous positive or negative peak of the vibration signal
- **Root mean square:** the square root of the average of the squared amplitude of the vibration signal, which is typically calculated over a 1-second period

## 4.3 Methods for Assessing Operational Noise Sources

### 4.3.1 Rail Noise

The steps described in FTA's *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) were followed to evaluate the potential noise and vibration impacts of the Project. FTA methodology identifies a noise screening procedure, a general noise assessment, and a detailed noise assessment, which are outlined below.

- **Noise Screening Procedure** – Following the FTA noise screening procedure, the Project type was identified (e.g., commuter rail main line). The Project-to-receiver screening distance is provided in the manual for this Project. Adjustments to the generic screening distances are made to suit a particular project using the methodology in Section 5 of the FTA manual (FTA 2018). For the Project, the Project-to-receiver screening distance identified is associated with the commuter rail main line activity. FTA indicated that the potential for noise impacts beyond 750 feet is minimal for commuter rail main line activity (FTA 2018). Receivers outside of this distance do not require further noise analysis. Receivers within the screening distance are carried forward for either the general noise assessment or detailed noise assessment. In this case, the Project was evaluated using the detailed noise assessment methods.
- **Detailed Noise Assessment** – Following FTA's detailed noise assessment methodology, the noise impacts associated with the Project were quantified through an in-depth analysis. The methodologies outlined in Section 4.5 of the FTA manual (FTA 2018) were used to calculate the noise levels attributable to train operation on the rail alignment under the existing, future-no-project, and future-with-project scenarios (Project-related contribution). Receivers of interest (i.e., noise-sensitive receptors) were selected using the guidance provided in Section 4.5 of the FTA manual.

The noise modeling effort associated with the detailed noise assessment accounted for the construction fleet and duration to construct the Project, as well as the number of train movements anticipated to pass along the railroad during daytime and nighttime hours throughout operation. The following assumptions were made as part of the detailed noise assessment.

- The typical train speed along the alignments through the Project study area is 50 miles per hour.
- Future train movements and consists (e.g., the number of locomotives and cars per train movement) is one locomotive and four passenger cars for the VCL.
- Other train consists used for existing train movements to assess quiet zone effectiveness included 2 locomotives and 10 passenger cars for the Amtrak Coast Starlight, 1 locomotive and 7 passenger cars for the Amtrak Surfliner, 2 locomotives and 100 railcars for freight trains, and the same consist listed previously for the VCL.
- Locomotive horn use is included in this assessment at grade crossings.
- The future noise exposure would be the combination of the existing noise exposure and the additional Project-related noise exposure.
  - o Due to Project environmental permit scheduling requirements, it was necessary to monitor existing sound levels during COVID-19 pandemic conditions. Under these conditions, passenger rail operates under a reduced schedule. To account for the reduced passenger rail activity the difference between the reduced passenger rail schedule and the typical weekday schedule were calculated in the noise model for the Project. The difference between the two conditions was logarithmically added to the monitored sound levels to identify a more accurate representation of typical nonpandemic noise conditions.
  - o Train movement volumes are projected to increase in the future, as identified in Section 2.3.3. These train movements are incorporated into the noise modeling and the Project levels are logarithmically added to the existing levels, then the difference between the cumulative with Project conditions is compared with the existing levels to identify impact conditions.
- Peak daytime hour noise level ( $L_{eq}$ ) for daytime use only noise-sensitive land uses, such as parks and schools, are calculated based on the peak hour of anticipated railroad activity.
- For construction-related impacts, the anticipated construction equipment mix and phases were used to identify potential impacts.

Appendix A provides the noise model input assumptions for the rail noise analysis.



### 4.3.2 Three-Dimensional Predictive Model

Operational sound levels can be assessed using the FTA spreadsheet models; however, efficiencies can be gained by implementing off-the-shelf acoustic modeling software that implements the calculation methods of the FTA spreadsheets. For this assessment, the three-dimensional off-the-shelf predictive model (i.e., SoundPLAN) was used to calculate rail noise levels implementing the FTA methods for regional/intercity rail. This modeling program conforms to the FTA standard for rail noise sources. The SoundPLAN model includes an array of data inputs, such as sound sources, topography, buildings, and ground characteristics, such as paved areas and vegetated areas. The following steps were taken to implement the FTA standard for rail noise sources in SoundPLAN:

- Each train configuration and the number of train movements on a given track location were entered into SoundPLAN.
- Each source term was applied to specific rail lines based on estimates of train volumes.
- Modeling included terrain contours to capture terrain changes.
- Buildings were modeled as three-dimensional shapes to capture attenuation impacts.
- Ground type is assumed to be hard ground (i.e., acoustically reflective).

Operational noise levels were compared with the relevant noise impact criteria identified in Section 3.1. Noise levels associated with special track work, such as crossovers, were also included in this assessment for sensitive receptors.

### 4.3.3 Wheel/Rail Noise

There are no tight radius curves in the Project study area; therefore, wheel squeal is not a factor requiring consideration in the analysis.

### 4.3.4 Traffic Noise

Based on anticipated low trip generation during construction, no modeling of vehicular traffic noise during construction was undertaken as part of this analysis.

## 4.4 Operational Vibration

The FTA procedures for a general operational vibration assessment (as outlined in Section 6 of the FTA manual) were used for this analysis (FTA 2018). The FTA assessment procedure requires the following data:

- **Number of daily vibration events** – The number of daily events was classified as occasional because there would be over 30 but less than 70 vibration events of the same kind per day.
- **Receiver land use designation (categories specified above)** – Category 2 (for the residences) and no Category 1 or 3 land uses are present.
- **Vibration source levels** – The source levels were derived from Figure 6-4 of the FTA manual using the curve for locomotive-powered passenger or freight.

- **Measured vibration source levels** – Near the Tapo Canyon Road at-grade crossing, vibration source levels were measured, and the results were used for neighborhoods in this portion of the Project study area (Section 5.2).
- **Distance from source to receiver (building) footprints** – The distance between the source (i.e., rail centerline) and the receiver was measured using a geographic information system.
- **Train speed, suspension, wheel condition (worn or flat-spots), and track condition** – Train speed estimates would be the same for vibration as stated for noise and the train's wheels were assumed to be in good condition (i.e., no flat spots).
- **Soil characteristics of ground between the vibration source and receiver** – Soil propagation characteristics were assumed to be normal (rather than efficient).
- **Receiver construction/foundation type and description, including whether it is fragile or extremely fragile** – Using the generalized ground surface vibration curve, the root mean square velocity level data at the receiver distance of interest were adjusted based on the factors affecting the source, factors affecting the vibration path, and factors affecting the receiver. Structure types and associated adjustments were also obtained from the FTA manual.

The potential for damage to adjacent sensitive resources because of Project-related operational vibration was analyzed in addition to the modeled noise- and vibration-sensitive receivers. Following FTA methodology, the potential for vibration damage and annoyance was assessed at sensitive land uses.

## 4.5 Construction Noise

Noise from construction activity is generated by the broad array of powered, noise-producing mechanical equipment used in the construction process. This equipment ranges from hand-held pneumatic tools to excavators, loaders, a variety of trucks, and tie and rail handling equipment. To assess potential noise impacts from construction, this noise analysis used the methodology in Section 7 of the FTA manual (FTA 2018).

The noise exposure at a receiver location was calculated from the dB addition of all operating construction equipment using the equations and methodology described in the FTA manual (FTA 2018). For example, the attenuation rate used as a point source was 6 dB per doubling of distance. The intervening ground was hard-surfaced; therefore, any additional reduction from ground effects was negligible. Shielding effects from intervening structures were ignored.

Construction equipment used in the analysis included compressors, welding machines, mobile cranes, front end loaders, rollers, dozers, graders, and excavators. The range in noise levels typically generated by the equipment assumed for the analysis ranges from 67 dBA  $L_{eq}$  (e.g., compressor) to 87 dBA  $L_{eq}$  (e.g., excavator) at a distance of 50 feet, based on source levels from the Federal Highway Administration Roadway Construction Noise Model, Version 2.0 (Table 4-1).

**Table 4-1. Typical Construction Equipment Noise Levels**

Equipment/Source	dBA L <sub>max</sub> at 50 Feet
Compressor	67
Welding machine	72
Crane	76
Excavator	87
Front end loader	81
Dozer	86
Grader	78

Source: Federal Highway Administration 2019

Notes:

dBA=A-weighted decibel; L<sub>max</sub>=maximum sound level

## 4.6 Construction Vibration

To assess potential vibration impacts from construction, this vibration analysis used the methodology contained in Section 7.2 of the FTA manual (FTA 2018). The potential for damage to structures from Project-related construction vibration was analyzed for the sensitive receivers discussed above. Vibration source levels for a variety of typical construction equipment types are outlined in Table 7-4 of the FTA manual (reproduced in this report as Table 4-2) in terms of PPV in inches per second at a reference distance of 25 feet from the source and VdB at 25 feet (FTA 2018). For this analysis, the source of typical vibration levels for a vibratory roller (0.210 inch per second PPV) and a large bulldozer (0.089 inch per second PPV) was utilized.

**Table 4-2. Typical Construction Equipment Vibration Levels**

Equipment/Source		PPV at 25 Feet (inch/second)	Approximate Vibration Velocity Level at 25 Feet <sup>a</sup>
Pile driver (impact)	Upper range	1.518	112
	Typical	0.644	104
Pile driver (vibratory)	Upper range	0.734	105
	Typical	0.170	93
Clam shovel drop (slurry wall)	—	0.202	94
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75

**Table 4-2. Typical Construction Equipment Vibration Levels**

Equipment/Source		PPV at 25 Feet (inch/second)	Approximate Vibration Velocity Level at 25 Feet <sup>a</sup>
Vibratory roller	—	0.210	94
Hoe ram	—	0.089	87
Large bulldozer	—	0.089	87
Caisson drilling	—	0.089	87
Loaded trucks	—	0.076	86
Jackhammer	—	0.035	79
Small bulldozer	—	0.003	58

Source: FTA 2018

Notes:

<sup>a</sup> Root mean square VdB reference 1 microinch per second

PPV=peak particle velocity; VdB=vibration decibels

## 5 Existing Conditions

Noise and vibration measurements were conducted to document existing conditions.

### 5.1 Noise Measurements

Noise measurements were conducted to identify existing sound levels throughout the analysis area and establish FTA impact thresholds. Table 5-1 provides the measured existing noise levels within the Project study area. Multiple residences are within the noise analysis study area. Due to the Project schedule, sound-level measurements occurred during COVID-19 pandemic conditions. To reduce the possibility of contracting or spreading the virus, measurements were completed from public ROWs that were representative of the residential areas in the Project study area. Measurements at noise-sensitive land uses were taken on May 26, 2020 (SVDT-B), and October 8 and 9, 2020 (SVDT-A). Appendix B provides the calibration sheets for the equipment used in the monitoring effort.

**Table 5-1. Existing Noise Levels**

Site Identification	Location	Noise Levels (dBA)	
		L <sub>dn</sub>	L <sub>eq</sub> (peak hour)
SVDT-A	ROW	65.6	72.3
SVDT-B	Simi Valley Transit Station	51.9	56.7

Notes:

dBA=A-weighted decibel; L<sub>dn</sub>=day-night average sound level; L<sub>eq</sub>=equivalent noise level; ROW=right-of-way

#### 5.1.1 Monitoring Location – SVDT-A

Monitoring location SVDT-A was located northeast of where Tapo Canyon Road crosses the existing railroad near a grass, park-like pedestrian area in roadway ROW. The measurement was completed using Option 2 from the FTA Manual, which includes deploying a noise monitor for at least 24-hours left out unattended. A Brüel and Kjaer 2270 meter was calibrated before and after the measurement to ensure that it operated within tolerances. The microphone was affixed to a tripod and positioned at a height of approximately 5 feet above the ground. Several observed sounds could be heard, including train wheels as they operate on the track, horn blowing as trains approach crossings, and roadway traffic noise. Secondary observed sound sources included periodic sounds of bird chirping (Figure 5-1 and Figure 5-2).



### 5.1.2 Monitoring Location – SVDT-B

Monitoring location SVDT-B was at the Simi Valley Transit Station, at 5050 East Los Angeles Avenue, at the same distance from the tracks as an adjacent apartment complex. The measurement was completed using Option 3 from the FTA Manual. A Brüel and Kjær 2245 meter was calibrated before and after the measurement to ensure that it operated within tolerances. The sound-level meter was affixed to a tripod with the microphone positioned at a height of approximately 5 feet above the ground (Figure 5-3 and Figure 5-4). Several observed sounds could be heard, including rolling trains, crossing bells, and their wheels on the track. Secondary sources of noise included parking lot traffic, pedestrians and cyclists, and frequent train announcements on station speakers.

Figure 5-1. Monitoring Location SVDT-A – Noise Meter Location



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Figure 5-2. Monitoring Location SVDT-A – Noise Meter Location



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Figure 5-3. Monitoring Location SVDT-B – Noise Meter Location





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Figure 5-4. Monitoring Location SVDT-B – Noise Meter Location





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## 5.2 Vibration Measurements

Vibration measurements were completed to document vibration levels from existing train pass-by events. Measurements were completed with Brüel and Kjær 2270 data loggers paired with seismic accelerometers. Appendix B includes monitoring equipment calibration sheets. The measurement data was used to develop a vibration source curve for trains that operate along the Project corridor. An array of vibration sensors was set up near the noise monitoring location SVDT-A on October 8, 2020, at distances of 65 feet, 115 feet, 215 feet, and 315 feet from the existing track. On October 9, 2020, the vibration array was redeployed 15 feet closer to the tracks to represent conditions for passenger rail operating on the Project track, which would be 15 feet closer to the vibration-sensitive uses north of the tracks in this area. Table 5-2 provides the vibration measurement results.

**Table 5-2. Existing Vibration Levels**

Time	Train Pass-by Event	Speed (miles per hour)	Distance from Existing Track (feet)	Measured VdB
<b>Date: 10/08/2020</b>				
6:07:00 AM	VCL Inbound	72	65	86
			115	80
			215	74
			315	71
6:45:00 AM	VCL Inbound	76	65	84
			115	78
			215	69
			315	69
7:23:00 AM	VCL Inbound	75	65	87
			115	83
			215	76
			315	74
7:54:00 AM	VCL Outbound	65	65	84
			115	78
			215	74
			315	73
8:20:00 AM	Surfliner Inbound	75	65	83
			115	79
			215	70
			315	68
10:09:00 AM	Surfliner Outbound	68	65	83
			115	77
			215	69
			315	Malfunction



**Table 5-2. Existing Vibration Levels**

Time	Train Pass-by Event	Speed (miles per hour)	Distance from Existing Track (feet)	Measured VdB
10:54:00 AM	Surfliner Inbound	75	65	84
			115	79
			215	69
			315	Malfunction
11:12:00 AM	Coast Starlight	67	65	83
			115	77
			215	76
			315	Malfunction
1:44:00 PM	VCL Outbound	58	65	84
			115	79
			215	72
			315	Malfunction
2:01:00 PM	Freight Train	46	65	88
			115	84
			215	79
			315	Malfunction
<b>Date: 10/09/2020</b>				
6:06:00 AM	VCL Inbound	72	50	87
			100	80
			200	72
			300	Malfunction
8:44:00 AM	VCL Inbound (broken train)	45	50	83
			100	75
			200	70
			300	69
9:14:00 AM	VCL Outbound	65	50	85
			100	80
			200	72
			300	71
9:24:00 AM	Surfliner Inbound	73	50	87
			100	79
			200	71
			300	70

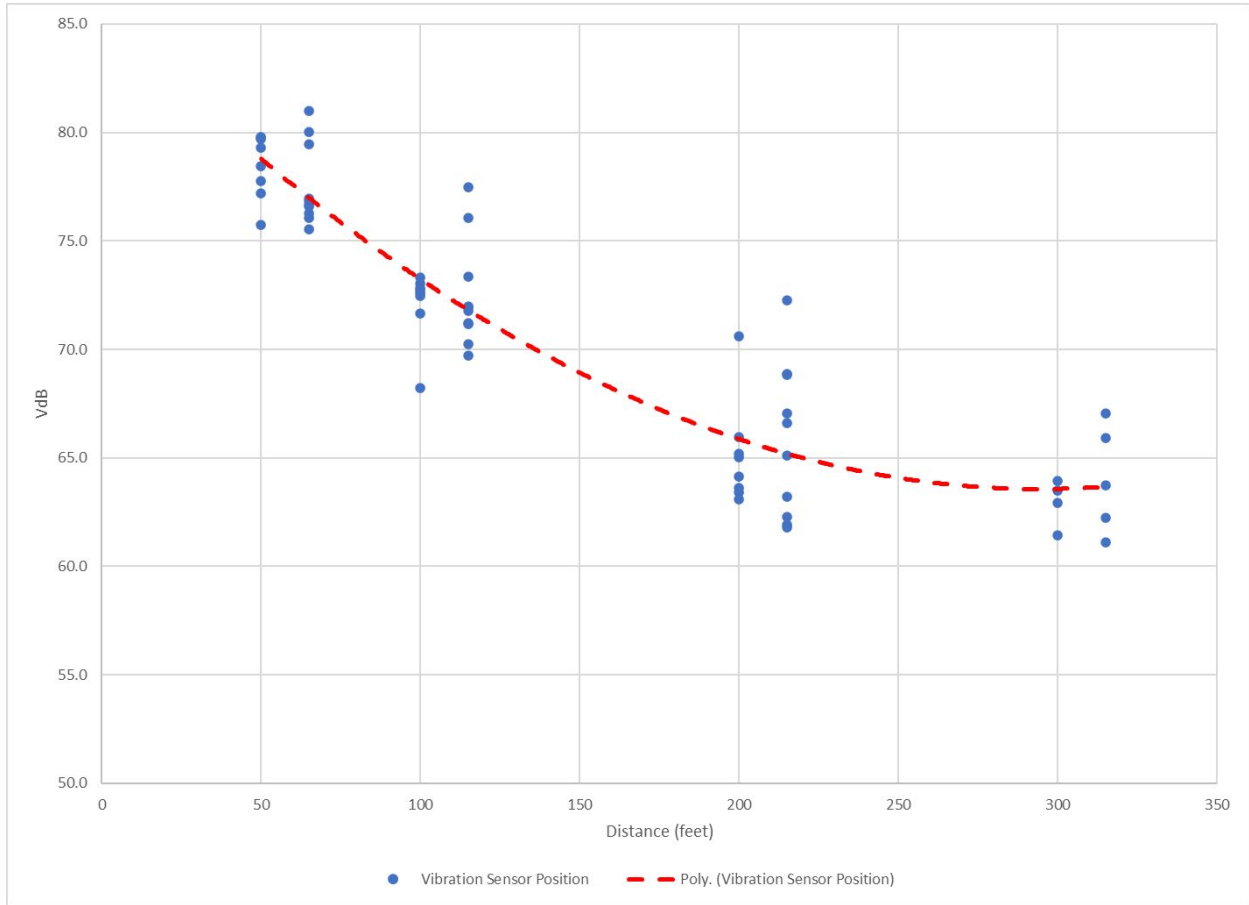
**Table 5-2. Existing Vibration Levels**

Time	Train Pass-by Event	Speed (miles per hour)	Distance from Existing Track (feet)	Measured VdB
9:46:00 AM	VCL Inbound	75	50	85
			100	80
			200	73
			300	70
10:10:00 AM	Surfliner Outbound	63	50	84
			100	79
			200	70
			300	68
11:00:00 AM	Surfliner Inbound	71	50	87
			100	80
			200	71
			300	70
11:13:00 AM	Coast Starlight Inbound	72	50	86
			100	80
			200	78
			300	77

Notes:  
 VCL=Ventura County Line; VdB=Vibration decibels

Using methods provided in the FTA manual, the measured vibration data were normalized to 50 miles per hour and plotted on an x/y scatterplot chart, shown on Figure 5-5. A third order polynomial was generated from the measurement data to represent the vibration source curve for trains in this area. Where appropriate, such as at residential areas near the Tapo Canyon Road at-grade crossing, this curve was substituted to provide more detailed calculations of railroad vehicle vibration.

Figure 5-5. Vibration-Source Curve for SVDT-A



## 6 California Environmental Quality Act Thresholds of Significance

For the purposes of this noise and vibration study, the Project would have a significant impact on noise and vibration if:

- A. Project construction and operation would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- B. Project construction and operation would generate excessive groundborne vibration or groundborne noise levels.
- C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the Project would expose people residing or working in the Project study area to excessive noise levels.

These thresholds of significance are considered in the noise and vibration impact assessment.

### 6.1 Issues Requiring No Further Consideration

Threshold C does not apply to the Project because no noise-sensitive land uses would be located within an airport land use plan or in the vicinity of a private airstrip. Therefore, the Project would not expose people residing or working in the Project study area to excessive noise levels, and there would be no impact. No further discussion is required.

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## 7 Noise- and Vibration-Sensitive Land Uses and Sensitive Receptors

The following discussion provides a description of the noise- and vibration-sensitive land uses where sensitive receptors (Category 2 and 3 land uses) in the Project study area occur. The receiver locations are used for predictions and either represent an individual sensitive receptor or a cluster of sensitive receptors, which is consistent with the FTA guidance and regulations. The noise analysis area includes those noise-sensitive areas within screening distance (750 feet unobstructed and 375 feet obstructed) of the Project double tracking effort. Only construction noise and vibration impacts were analyzed for noise- and vibration-sensitive land uses near the signal improvements west of the double-tracking effort since operation of Metrolink trains would not change vibration levels and would only increase noise levels negligibly, by 1 dB to 2 dB. Additionally, because vibration attenuates more quickly with distance, the vibration analysis area is substantially smaller; therefore, it includes only those vibration-sensitive land uses and structures within 200 feet of the Project.

Noise- and vibration-sensitive land uses include low- to medium-density residential areas. No schools are located adjacent to the Project corridor.

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## 8 Environmental Consequences

Operation and construction noise and vibration impacts for the No Build Alternative are described in Section 8.1, and impacts for the Build Alternative are described in Sections 8.2 through 8.5.

### 8.1 Community Noise and Vibration – No Build Alternative

Under the No Build Alternative, the Project would not be constructed; therefore, no operational enhancements would result on the VCL. Under the No Build Alternative, trains would operate on existing track alignments, similar to existing conditions. For this reason, there would be no construction or operational noise and vibration impacts associated with the No Build Alternative.

### 8.2 Operational Noise

<b>CRITERIA A</b>	Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
-----------------------	---

The results of the rail noise impact assessment are summarized in Table 8-1 and the locations are depicted on Figure 8-1. For the future Project conditions, Metrolink trains would operate on any tracks available to them to move most efficiently through the analysis area. In some cases, this would mean that trains would operate in closer proximity to sensitive receptors than they currently do, which is in addition to increases in rail traffic on the VCL. As shown in Table 8-1, the Project is predicted to result in no severe impacts and moderate impacts at 33 Category 2 land uses (residences) in the absence of mitigation.

**Table 8-1. Project Operational Noise Conditions**

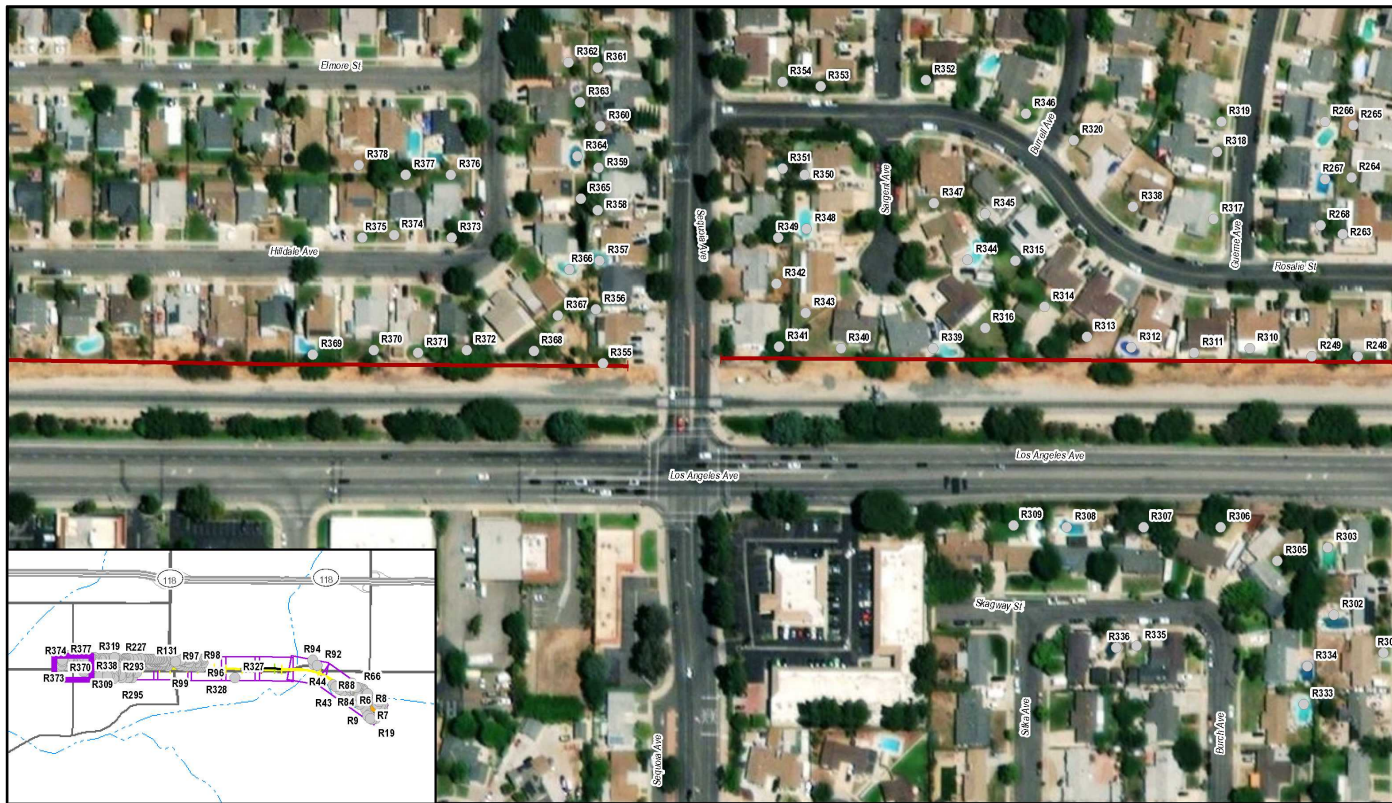
Impact Type	Number of Category 2 Land Use Impacts
Severe	0
Moderate	33
No impact	632

The highest increases in sound levels are predicted at residences southeast of the Simi Valley Metrolink Station with the largest increase of 3.6 dB, resulting in a moderate impact. Other moderate impacts would occur at sensitive receptors near the station due to increases in noise ranging from 1.4 dB to 3.5 dB from the Project, at first row receptors located closest to the railroad. Impacts are more pronounced at the existing at-grade crossing at Hidden Ranch Road where trains use their horns. All of the moderate impacts are within approximately 0.25 mile of the existing at-grade crossing associated with the activation of locomotive warning devices (e.g., horns). The moderate impacts are considered significant in the absence of mitigation. Section 9 identifies mitigation measures that would minimize and/or avoid these impacts. Detailed noise calculation results are provided in Appendix C.

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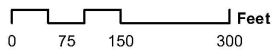
**Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts**

(Sheet 1 of 10)



- No Impact
- Existing Sound/Privacy Walls

**Metrolink SCORE Program**  
 Simi Valley Double Track





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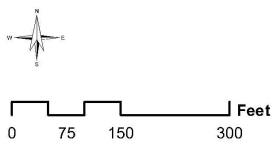
Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts

(Sheet 2 of 10)



- No Impact
- Proposed Track
- Existing Sound/Privacy Walls

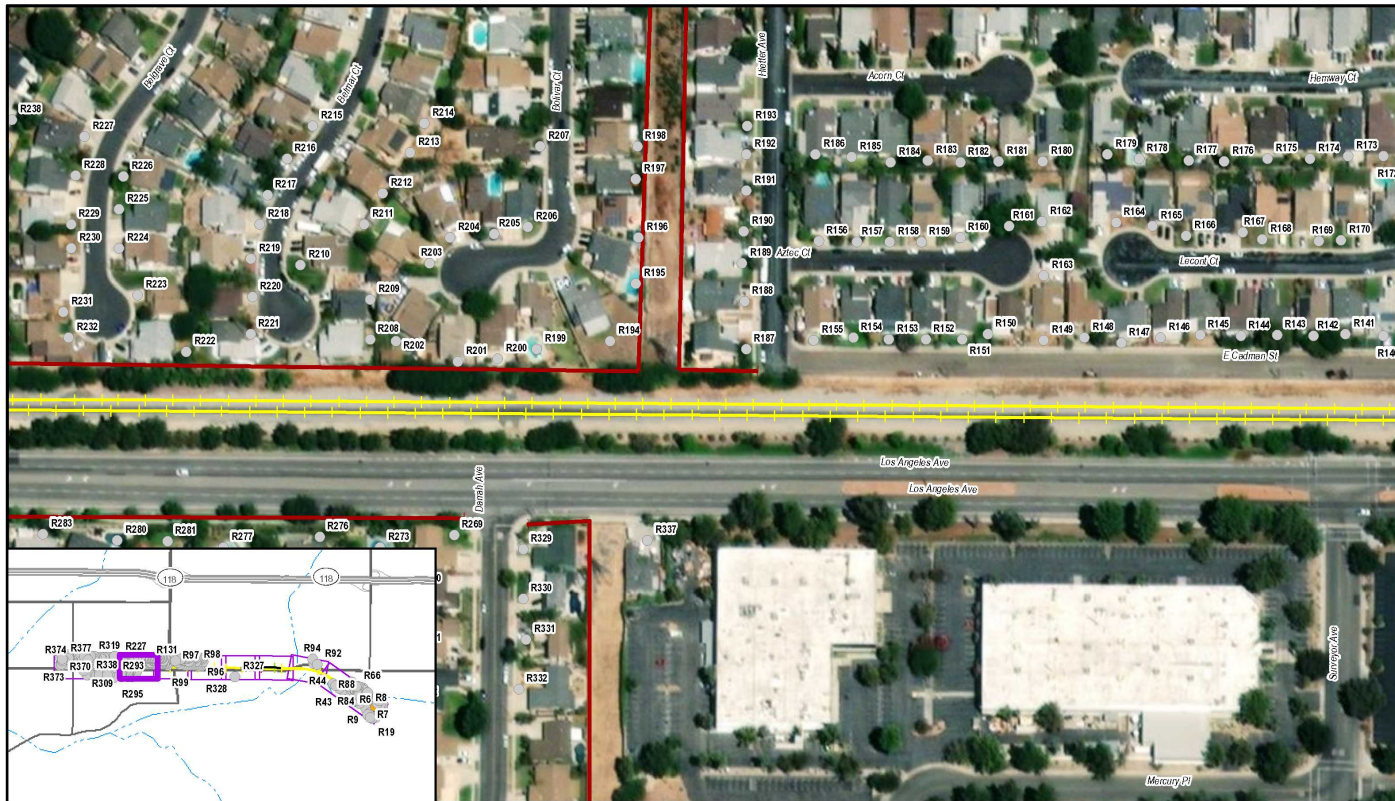
**Metrolink SCORE Program**  
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Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts

(Sheet 3 of 10)



**Metrolink SCORE Program**  
 Simi Valley Double Track

- No Impact
- Proposed Track
- Existing Sound/Privacy Walls



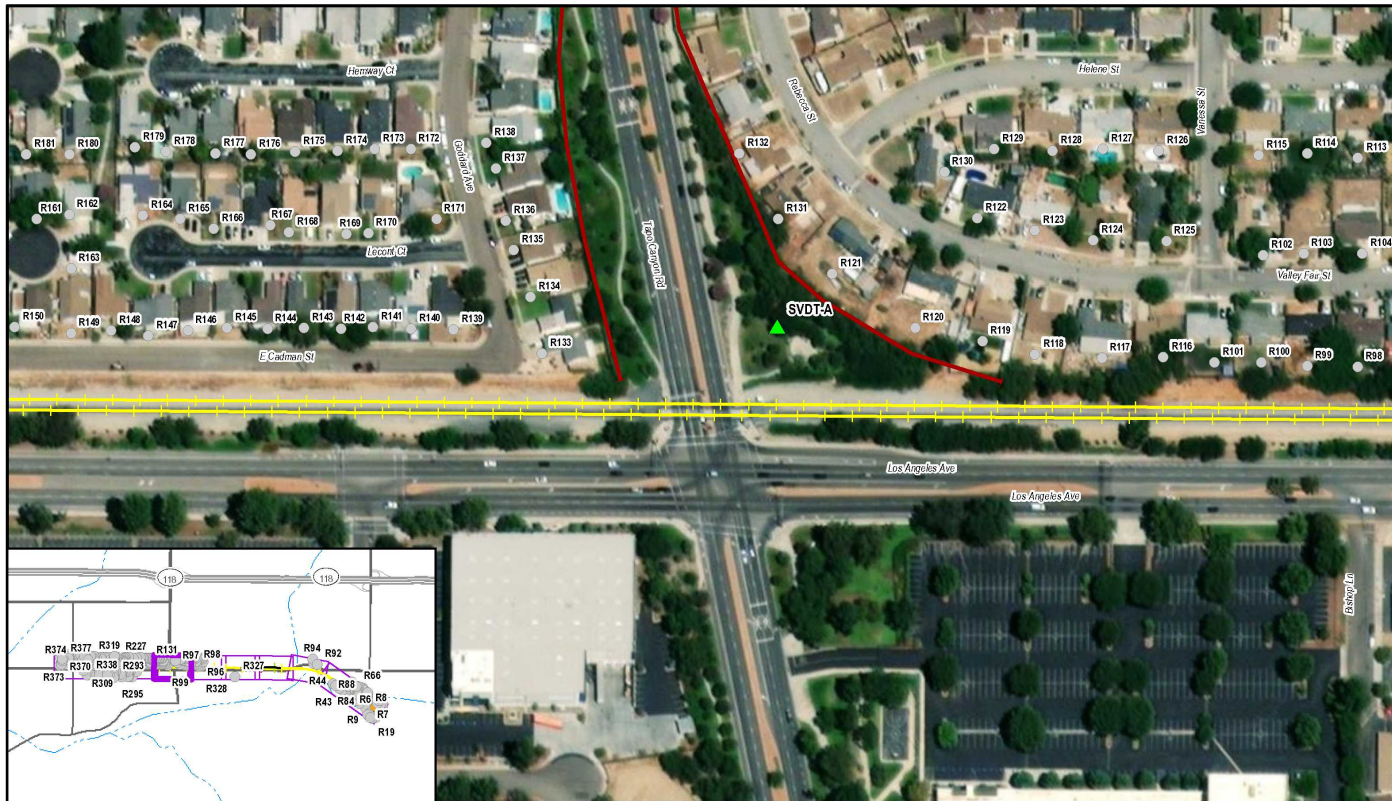
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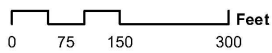
Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts

(Sheet 4 of 10)



**Metrolink SCORE Program**  
 Simi Valley Double Track

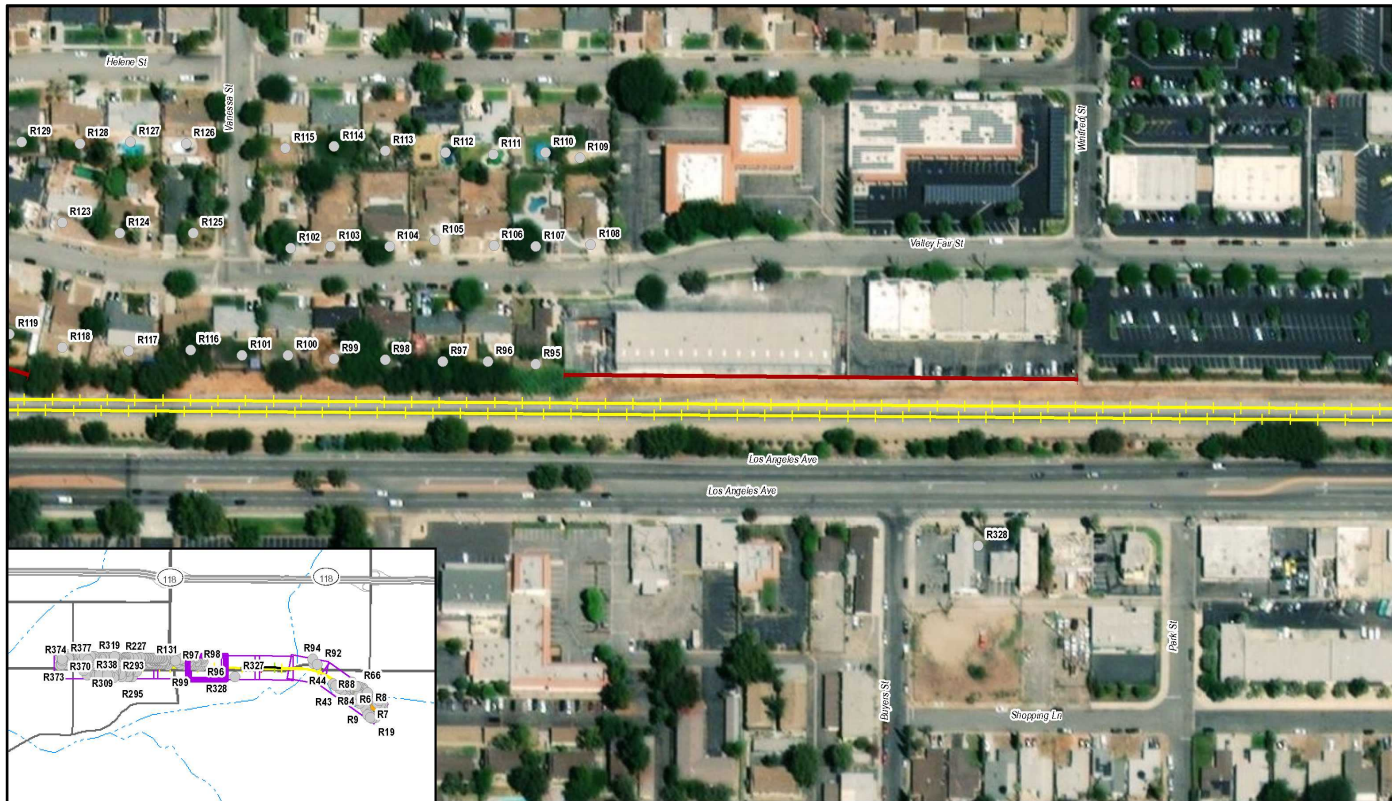
- No Impact
- Proposed Track
- Existing Sound/Privacy Walls
- ▲ Measurement Location



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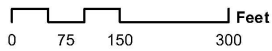
**Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts**

(Sheet 5 of 10)



- No Impact
- Proposed Track
- Existing Sound/Privacy Walls

**Metrolink SCORE Program**  
 Simi Valley Double Track

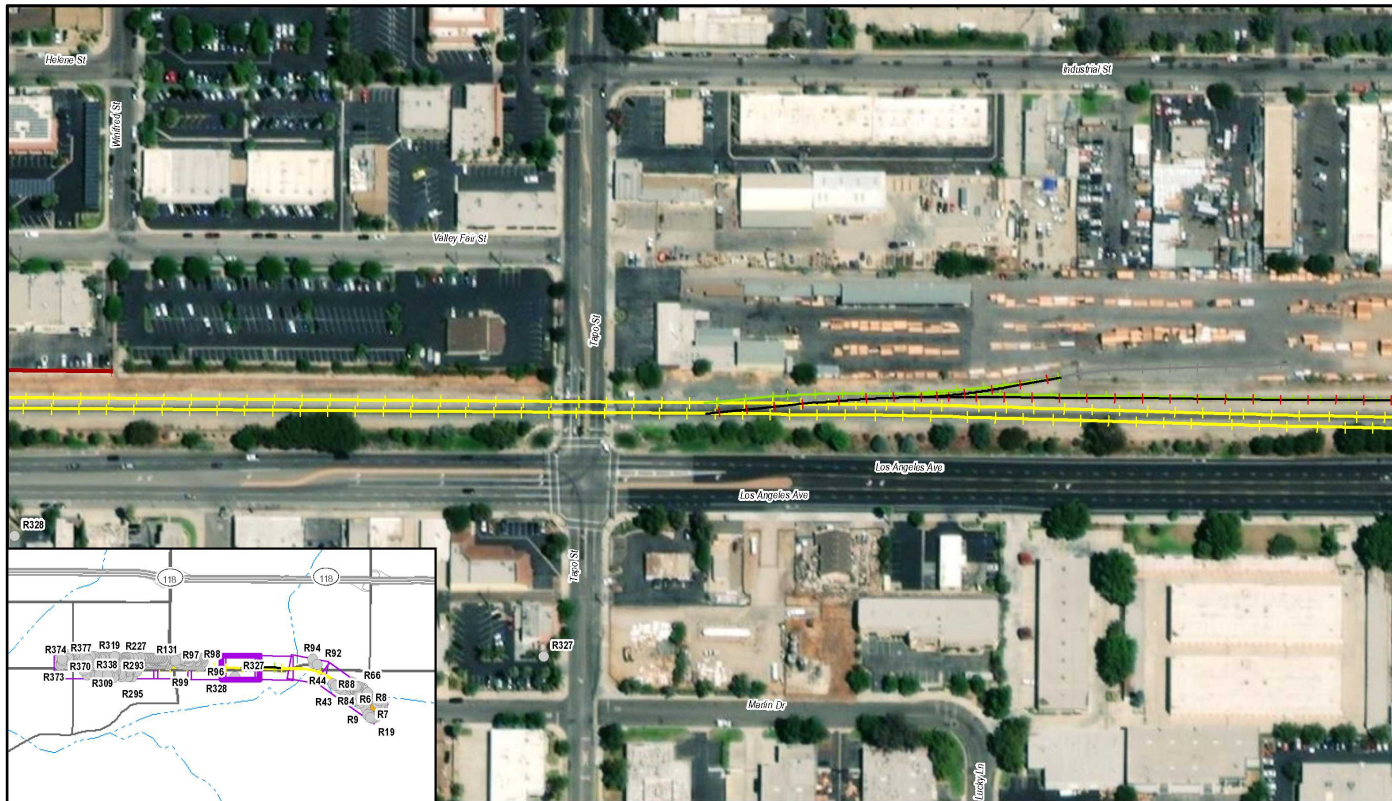


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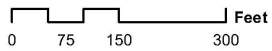
Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts

(Sheet 6 of 10)



- No Impact
- + Existing Track - Removal
- + Proposed Siding Track
- + Existing Track
- + Proposed Track
- Existing Sound/Privacy Walls

**Metrolink SCORE Program**  
 Simi Valley Double Track

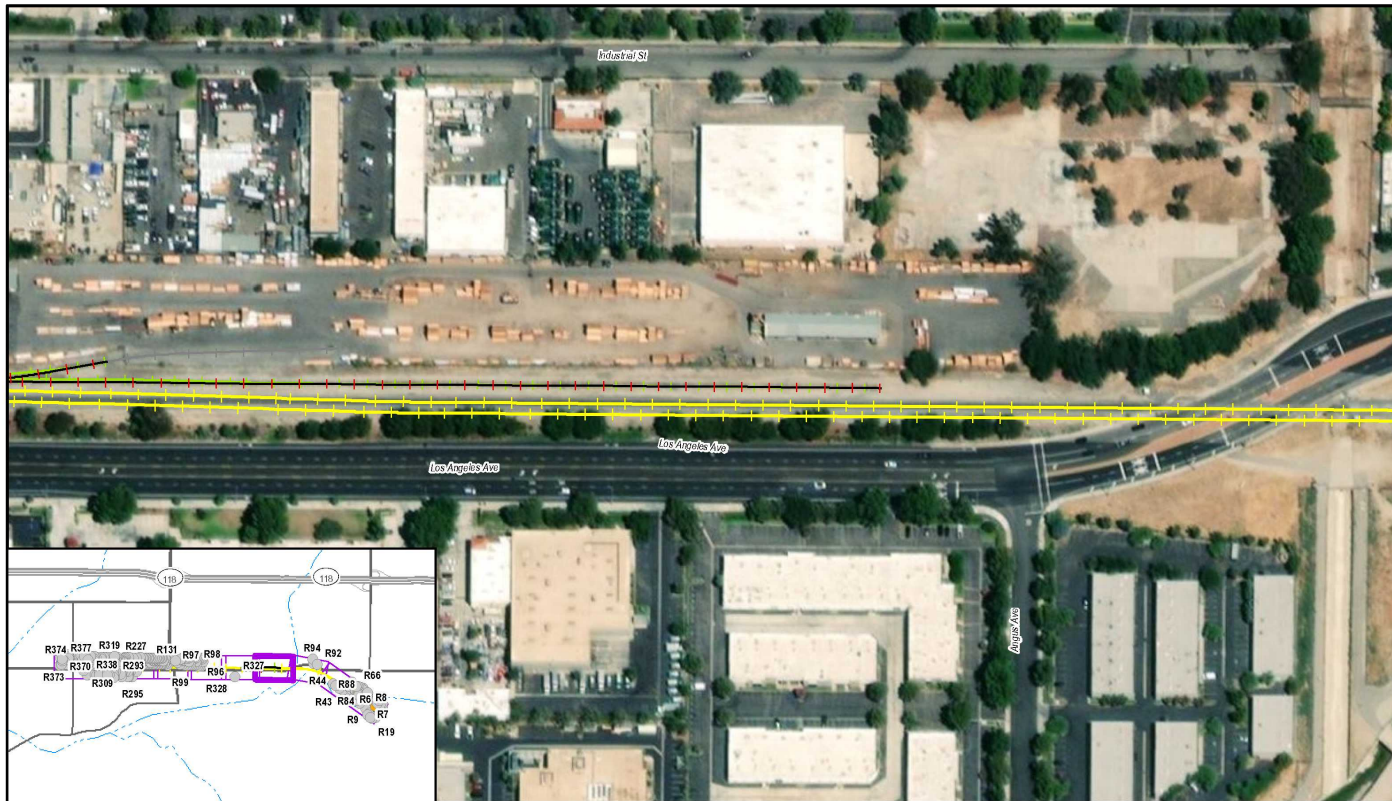




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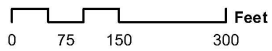
**Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts**

(Sheet 7 of 10)



- +— Existing Track - Removal
- +— Existing Track
- +— Proposed Siding Track
- +— Proposed Track
- Existing Sound/Privacy Walls

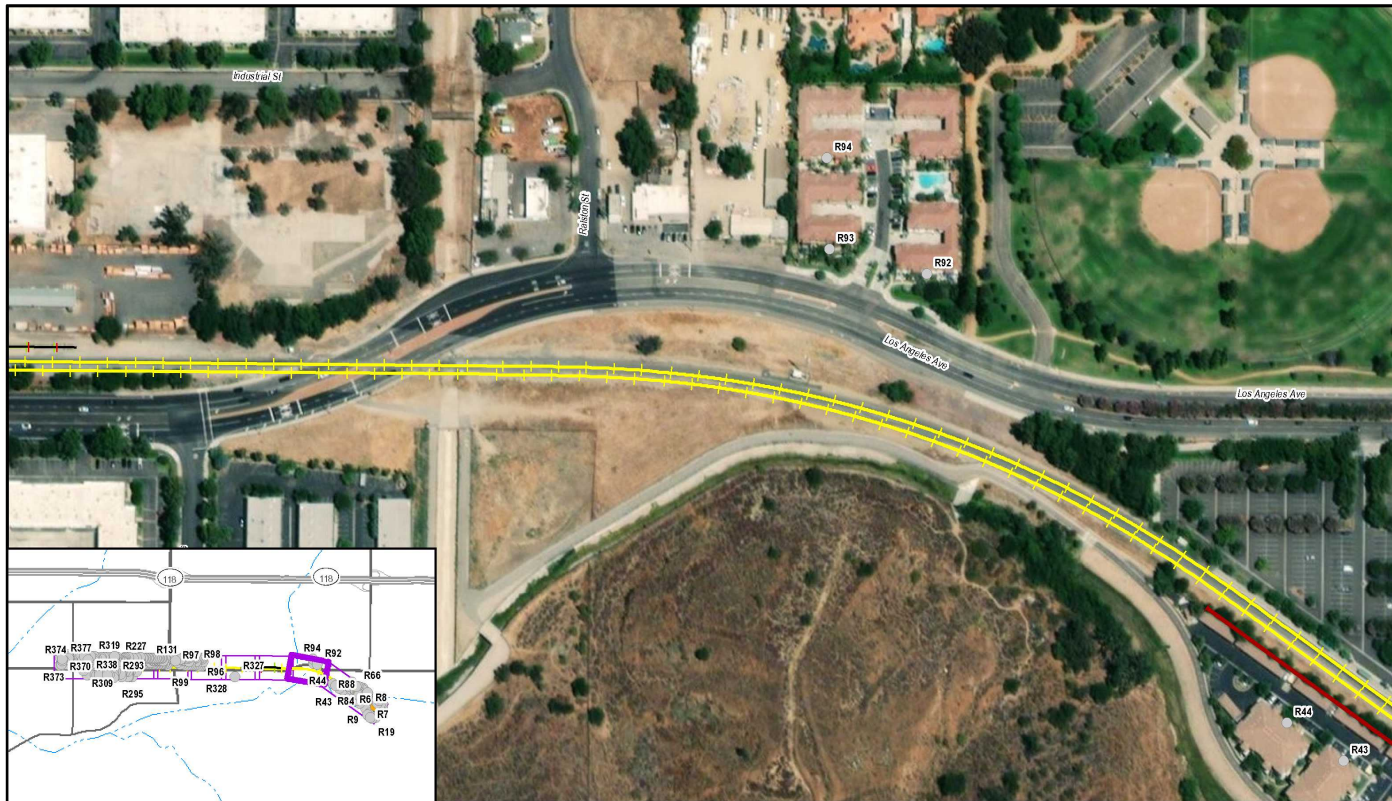
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 Simi Valley Double Track



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Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts

(Sheet 8 of 10)



- No Impact
- ➡ Proposed Track
- Existing Sound/Privacy Walls

**Metrolink SCORE Program**  
Simi Valley Double Track



0 75 150 300 Feet

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Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts

(Sheet 9 of 10)



**Metrolink SCORE Program**  
 Simi Valley Double Track

- Moderate Operational Noise Impact
- No Impact
- Proposed Track
- Existing Sound/Privacy Walls
- ▲ Measurement Location

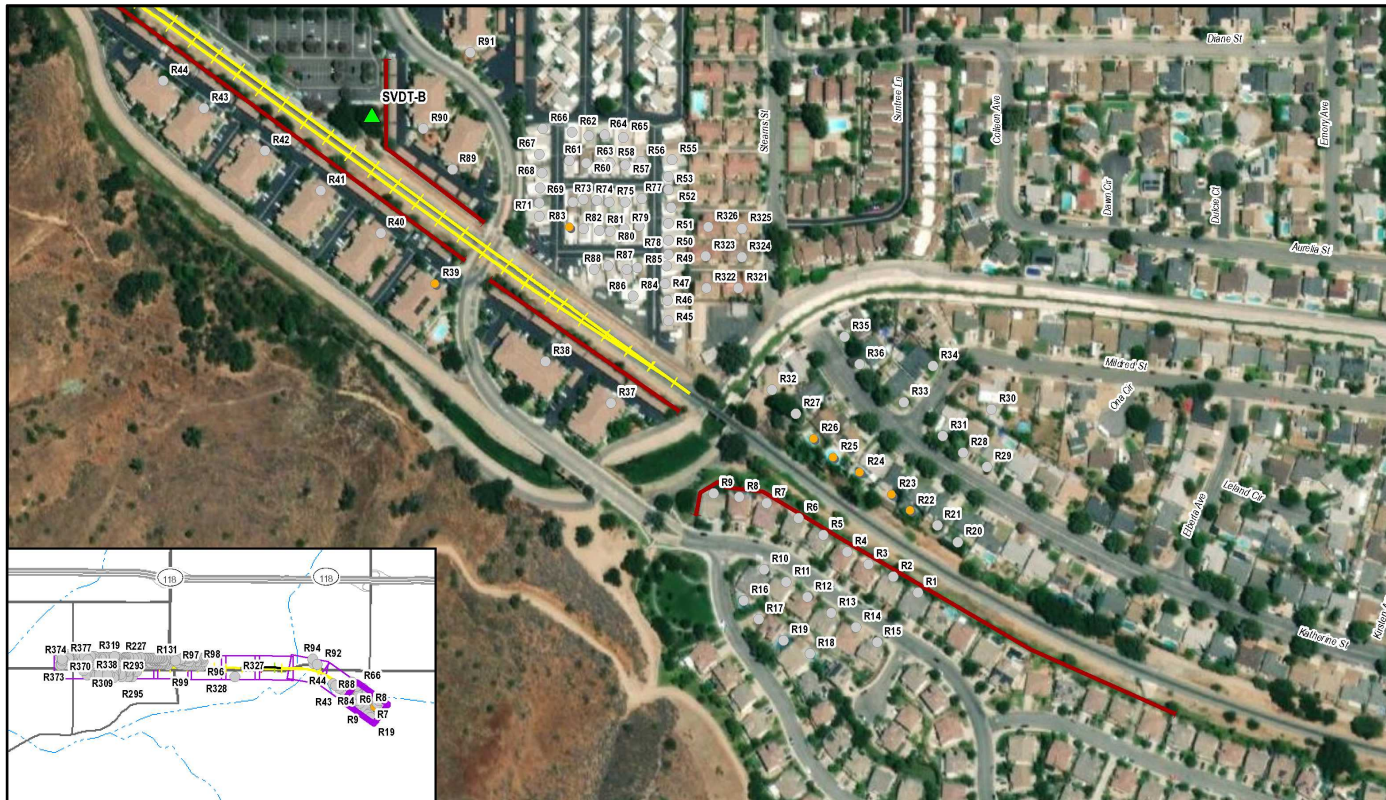


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Figure 8-1. Noise- and Vibration-Sensitive Land Uses, Community Noise and Vibration Monitoring Locations, and Operational Impacts

(Sheet 10 of 10)



- Moderate Operational Noise Impact
- No Impact
- Proposed Track
- Existing Sound/Privacy Walls

**Metrolink SCORE Program**  
 Simi Valley Double Track



0 75 150 300 Feet

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### 8.3 Operational Vibration

<b>CRITERION B</b>	Exposure of persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels during operations?
------------------------	--

Vibration levels were predicted for operation of the new track and realigned track associated with the Project. The Project corridor would be characterized as one that is occasionally used, per FTA. Vibration levels under the existing conditions are estimated to be above the FTA vibration impact criteria at many of the sensitive uses; therefore, for these cases, the FTA impact criteria of 3-dB increase or greater over existing conditions is appropriate. For other locations where the existing vibration level does not exceed the FTA criteria, the Project vibration levels are evaluated against the FTA criteria for occasionally used railroad lines (75 VdB).

No vibration impacts are predicted from the Project based on the detailed vibration measurements collected along the Project corridor and presented in Table 5-2. Table 8-2 provides the predicted vibration levels for the sensitive areas with the highest predicted levels based on the proposed double track configuration proposed as part of the Project. As shown in Table 8-2, the Projects increase in vibration levels would be limited to 2 VdB or less and would not exceed FTA’s criteria. Appendix C provides detailed results for each analysis location.

Ground-borne noise levels were also analyzed for the Project. Based on the predicted ground-borne noise levels for the Project, there would be no ground-borne noise impacts.

**Table 8-2. Operational Ground-borne Vibration and Noise Results**

Vibration-Sensitive Receptors <sup>a</sup>	FTA Category	Distance from Track (feet)	Existing VdB	Project VdB	Change in VdB	Project Ground-Borne Noise (dBA)
R98	2	59	76	78	2	28
R99	2	59	76	78	2	28
R100	2	63	75	77	2	27
R101	2	63	75	77	2	27
R116	2	70	75	76	2	26
R117	2	67	75	77	2	27
R118	2	69	75	76	2	26
R133	2	69	75	76	2	26



**Table 8-2. Operational Ground-borne Vibration and Noise Results**

Vibration-Sensitive Receptors <sup>a</sup>	FTA Category	Distance from Track (feet)	Existing VdB	Project VdB	Change in VdB	Project Ground-Borne Noise (dBA)
R200	2	61	76	77	2	27
R222	2	67	75	77	2	27

Notes:

<sup>a</sup> See Appendix C for detailed results at all receptors.

Special track work (crossover) located within 100 to 200 feet from the vibration-sensitive use; 5 dB adjustment included in calculation.

dB=decibel; FTA=Federal Transit Administration; VdB=vibration decibels

## 8.4 Construction Noise

<b>CRITERIA C</b>	Generation of a substantial temporary increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
-----------------------	---

Construction noise levels were predicted using each piece of equipment planned for each phase of construction. The maximum equipment noise levels ( $L_{max}$ ) at 50 feet, obtained from the Federal Highway Administration’s Roadway Construction Noise Model 2.0, were used in the predictions.

Project construction would be conducted during daytime hours to the maximum extent practicable. The range of predicted construction noise levels for each phase of construction and the associated impact type are provided in Table 8-3. Since the local noise regulations do not pertain to daytime construction noise, no significant noise impacts would result. Appendix C provides detailed construction noise calculations at each receptor along the double tracking effort for the Project. Construction noise levels for signal installation (Phase 1C) outside of the double tracking effort, south of Alviso Street and approximately 1,200 feet northwest of Citrus Grove Park, would be approximately 87 dBA  $L_{eq}$  at the closest noise sensitive land uses.

Given the need to maximize construction work windows, nighttime construction would likely be required for the Project. The predicted noise levels would carry the potential to exceed local nighttime construction restrictions during the hours of hours of 7:00 p.m. to 7:00 a.m., as specified in the City of Simi Valley’s Noise Ordinance, based on the thresholds provided in Table 3-1. Figure 8-1 depicts the construction noise impact at the receptors analyzed during nighttime construction.

Project construction would result in noise impacts that would temporarily exceed FTA’s nighttime construction noise criteria of 70 dBA  $L_{eq}$  at residential uses adjacent to the construction work area. An exceedance of the nighttime construction standards would be considered a significant impact in the absence of mitigation. Section 9 identifies mitigation measures that would minimize these construction-related noise impacts.

**Table 8-3. Construction Noise Results**

Construction		Equipment	dBA L <sub>max</sub> at 50 feet	Composite dBA L <sub>eq</sub> at 50 feet	Range of Sound Levels (dBA L <sub>eq</sub> )	Potential Impact Type			
Main-Phase	Sub-Phase								
1	a	Compressor	67	78	37-87	FTA Nighttime			
		Welding machine	72						
		Crane	76						
	b	Excavator	87	90					
		Front end loader (cyclical)	81						
		Dozer	86						
		Crane	76						
	c	Excavator	87	91					
		Front end loader (cyclical)	81						
		Dozer	86						
		Grader (pass by)	78						
		Compactor (roller)	82						
	2	a	Compressor	67			78	37-73	FTA Nighttime
			Welding machine	72					
			Crane	76					
b		None	—	—					
c		None	—	—					

**Table 8-3. Construction Noise Results**

Construction		Equipment	dBA L <sub>max</sub> at 50 feet	Composite dBA L <sub>eq</sub> at 50 feet	Range of Sound Levels (dBA L <sub>eq</sub> )	Potential Impact Type
Main-Phase	Sub-Phase					
3	a	Compressor	67	78	37-88	FTA Nighttime
		Welding machine	72			
		Crane	76			
	c	Excavator	87	91		
		Front end loader (cyclical)	81			
		Dozer	86			
		Grader (pass by)	78			
		Compressor	67			
		Compactor (roller)	82			
		Crane	76			
		Welding machine	72			

Notes:

dBA=A-weighted decibels; FTA=Federal Transit Administration; L<sub>eq</sub>=equivalent sound level; L<sub>max</sub>=maximum sound level

## 8.5 Construction Vibration

<b>CRITERION D</b>	Exposure of persons to, or generation of, excessive ground-borne vibration or ground-borne noise levels during construction?
------------------------	--

Vibration levels were analyzed at sensitive-receptor locations where the new main line track would be installed in closer proximity and existing track relocated. To be conservative, the vibration-damage analysis assumes the most vibration-sensitive structures are FTA Category III structures, which are nonengineered timber and masonry buildings (Table 3-2). For vibration annoyance, the land use category most sensitive to construction vibration includes places where people typically sleep, such as residences.

Construction of the new main line track includes activities that have the potential to cause construction vibration impacts. These activities include the use of vibratory rollers and bulldozers to place track ballast and lay down railroad ties and tracks. Out of the two main pieces of equipment, vibratory rollers produce the highest levels of vibration; therefore, Category III structures located within 25 feet of vibratory roller activities would be the most susceptible to vibration impacts. However, based on the existing setback between these Category III structure locations and the proposed track alignment, the highest vibration levels are predicted at 0.068 PPV at the nearest receptor to construction. This level is below the damage impact criteria; therefore, no significant damage impact is predicted from the Project. Construction vibration levels for signal installation (Phase 1C) outside of the double tracking effort, south of Alviso Street and approximately 1,200 feet northwest, would use less vibration intensive equipment at distances further away than those listed in Table 8-4; therefore, construction vibration levels would remain below the damage impact criteria.

Vibration annoyance predictions were also calculated at each receptor and assessed against the threshold for Category 2 uses of 80 VdB because construction vibration would not be present in any location for extended periods of time. Construction vibration annoyances can be anticipated at sensitive receptors located within approximately 73 feet of the proposed construction. Nineteen of the receptors analyzed are predicted to experience annoyances from vibration during construction activities, and a maximum vibration level of 84 VdB is predicted at the nearest receptor. As with the damage assessment, construction vibration annoyance is not anticipated for the signal replacement since those efforts would use less vibration intensive equipment and at greater distances away than 73 feet. Table 8-4 provides the vibration levels for the three closest receptors to construction, and Appendix C provides detailed calculations at the remaining receptors analyzed. Figure 8-1 (Sheets 1 through 10) are maps that show the locations of each construction vibration annoyance impact. In the absence of mitigation, these construction vibration levels would be significant. Section 9 identifies mitigation measures that would minimize these construction-related vibration impacts.

**Table 8-4. Construction Vibration Annoyance Results**

Vibration-Sensitive Receptor <sup>a</sup>	FTA Category	Distance from Vibratory Roller (feet) <sup>b</sup>	PPV (inch/second)	VdB
R95	2	53	0.068	84
R96	2	57	0.061	83
R97	2	57	0.062	83

Notes:

<sup>s</sup> See Appendix C for detailed results at all receptors.

<sup>b</sup> Vibratory roller source level at 25 feet is 0.21 PPV and 94 VdB.

FTA=Federal Transit Administration; VdB=vibration decibels, PPV=peak particle velocity in inches per second



## 9 Mitigation

### 9.1 Operational Noise Mitigation

Moderate noise impacts are predicted from operation of the Project. FTA's guidance requires that mitigation be implemented for severe impacts and considered for moderate impacts. Implementation of the following mitigation measures would reduce the potentially significant impacts as a result of Project operation and construction to a level less than significant.

**NV-1 Quiet zone implementation.** At-grade crossings will be designed and constructed to be compatible with the formation of quiet zones. Prior to the operation, SCRRA will coordinate with the City of Simi Valley to construct and establish quiet zones at the following grade crossings:

- Sequoia Avenue
- Tapo Canyon Road
- Tapo Street
- East Los Angeles Avenue
- Hidden Ranch Drive

With implementation of quiet zones, Project operational noise levels would be reduced, and all impacts would be eliminated. Appendix C provides detailed calculations at each of the sensitive receptors.

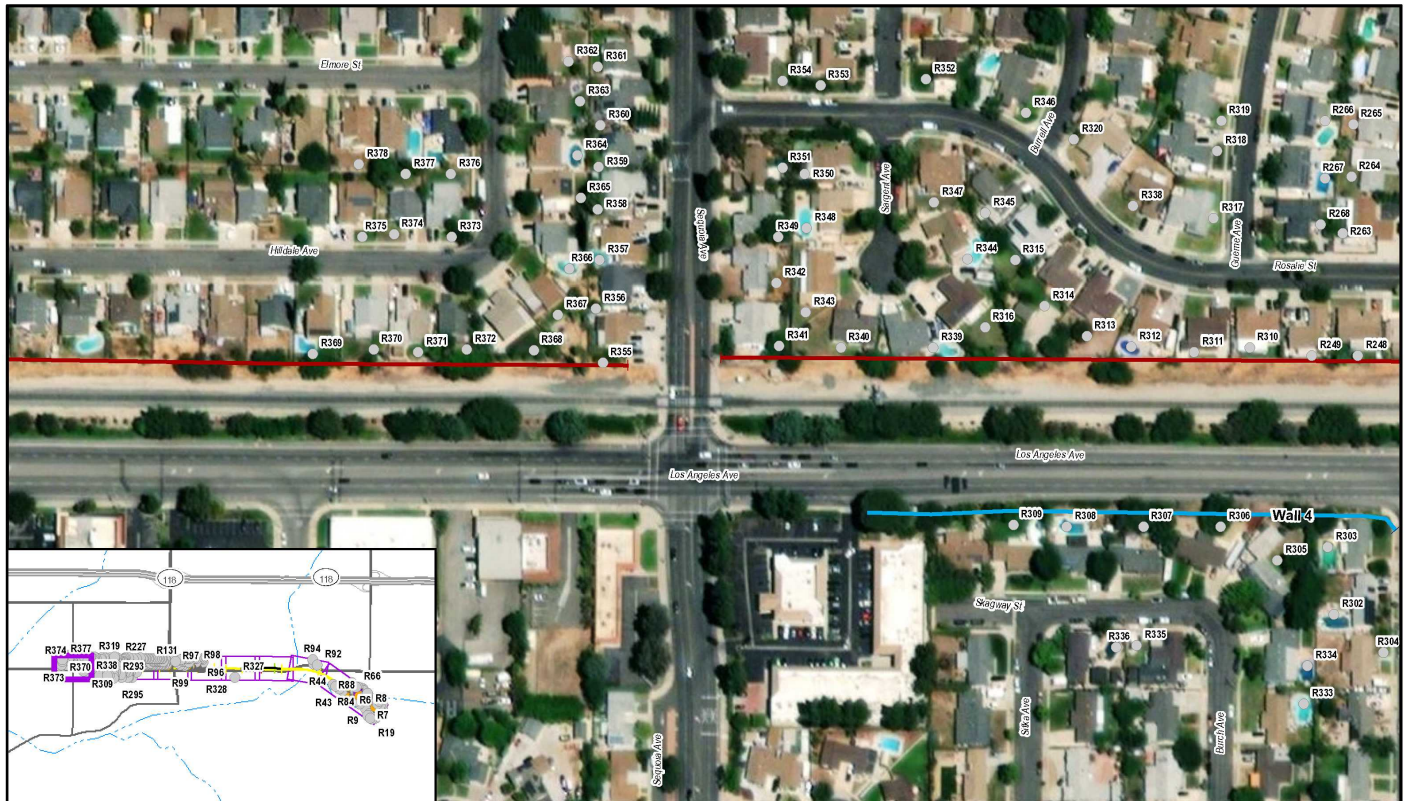
**NV-2 Wayside horns.** If the City of Simi Valley's application for quiet zone status at the Project's at-grade crossings (i.e., Sequoia Avenue, Tapo Canyon Road, Tapo Street, East Los Angeles Avenue, and Hidden Ranch Drive) is not approved by FRA, the use of wayside horns at the at-grade crossings will be implemented instead of a quiet zone. Wayside horns would be used instead of locomotive horns to warn roadway vehicles, pedestrians, and bicyclists of an oncoming train. A plan to use wayside horns in place of the locomotive horn at public grade crossings would be coordinated with the City of Simi Valley and the local agency having responsibility for traffic control and law enforcement on the road crossings, and the state agency responsible for railroad safety (e.g., California Public Utilities Commission), any railroads that share the ROW, and FRA prior to Project approval.

**NV-3 Installation of sound barriers.** This mitigation scenario assumes that the quiet zone is not implemented and instead a noise wall is constructed along the railroad ROW where feasible. The noise wall would be 16 feet in height and would be installed along the property line of the mobile home park and the railroad, continuing along Hidden Ranch Drive, see Figure 9-1.

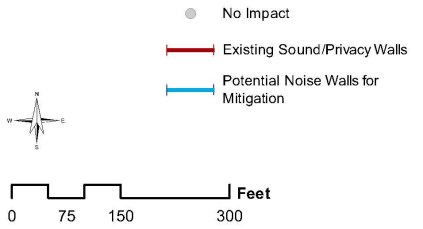
Operational noise impact conditions under this scenario would be reduced to 30 moderate residential impacts and no severe impacts. Increases at the remaining moderate impacts would be up to 4 dB, a level that is barely perceptible.

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Figure 9-1. Sound Wall Locations (Only if NV-1 or NV-2 Cannot be Implemented)  
 (Sheet 1 of 6)



Metrolink SCORE Program  
 Simi Valley Double Track



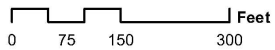
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Figure 9-1. Sound Wall Locations (Only if NV-1 or NV-2 Cannot be Implemented)  
 (Sheet 2 of 6)



- No Impact
- +— Proposed Track
- Existing Sound/Privacy Walls
- Potential Noise Walls for Mitigation

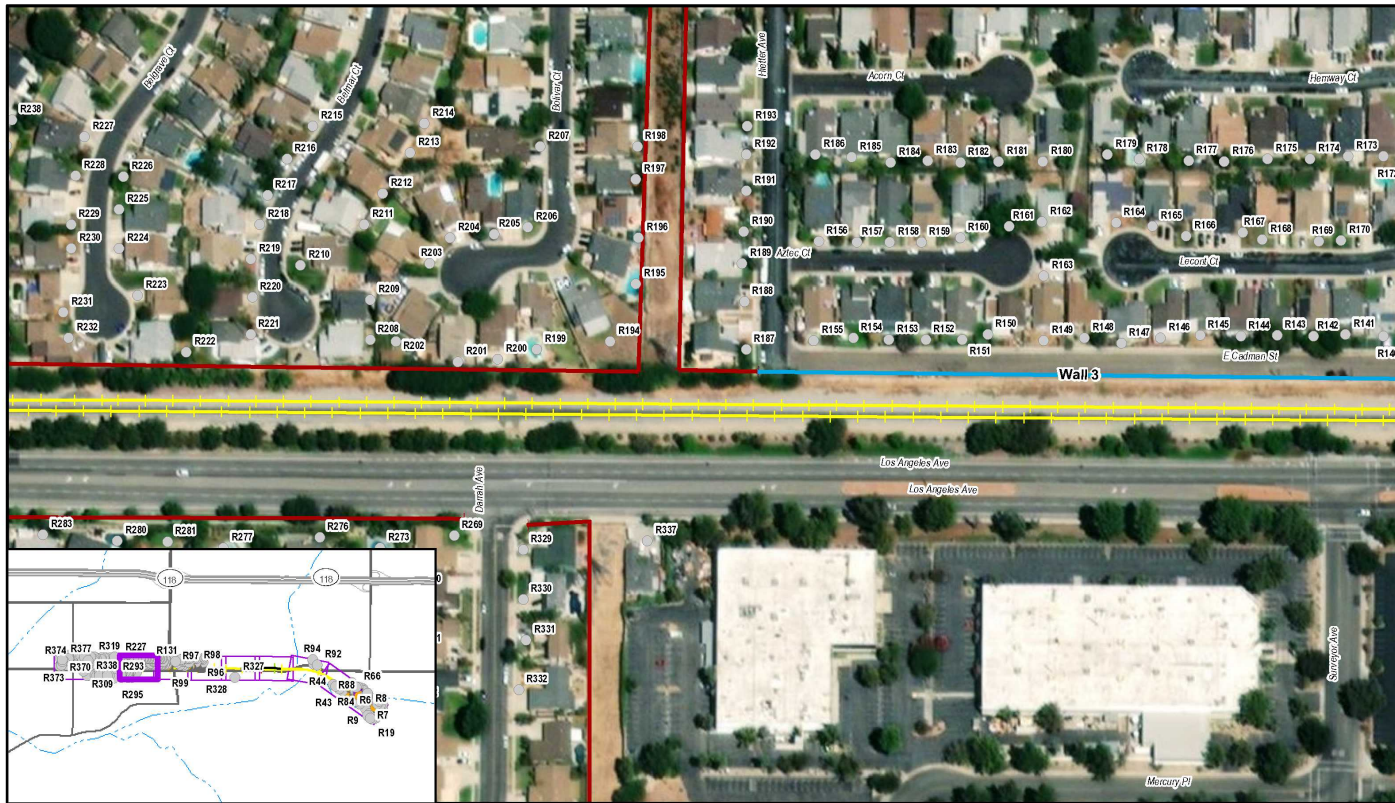


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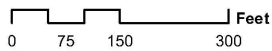


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Figure 9-1. Sound Wall Locations (Only if NV-1 or NV-2 Cannot be Implemented)  
 (Sheet 3 of 6)



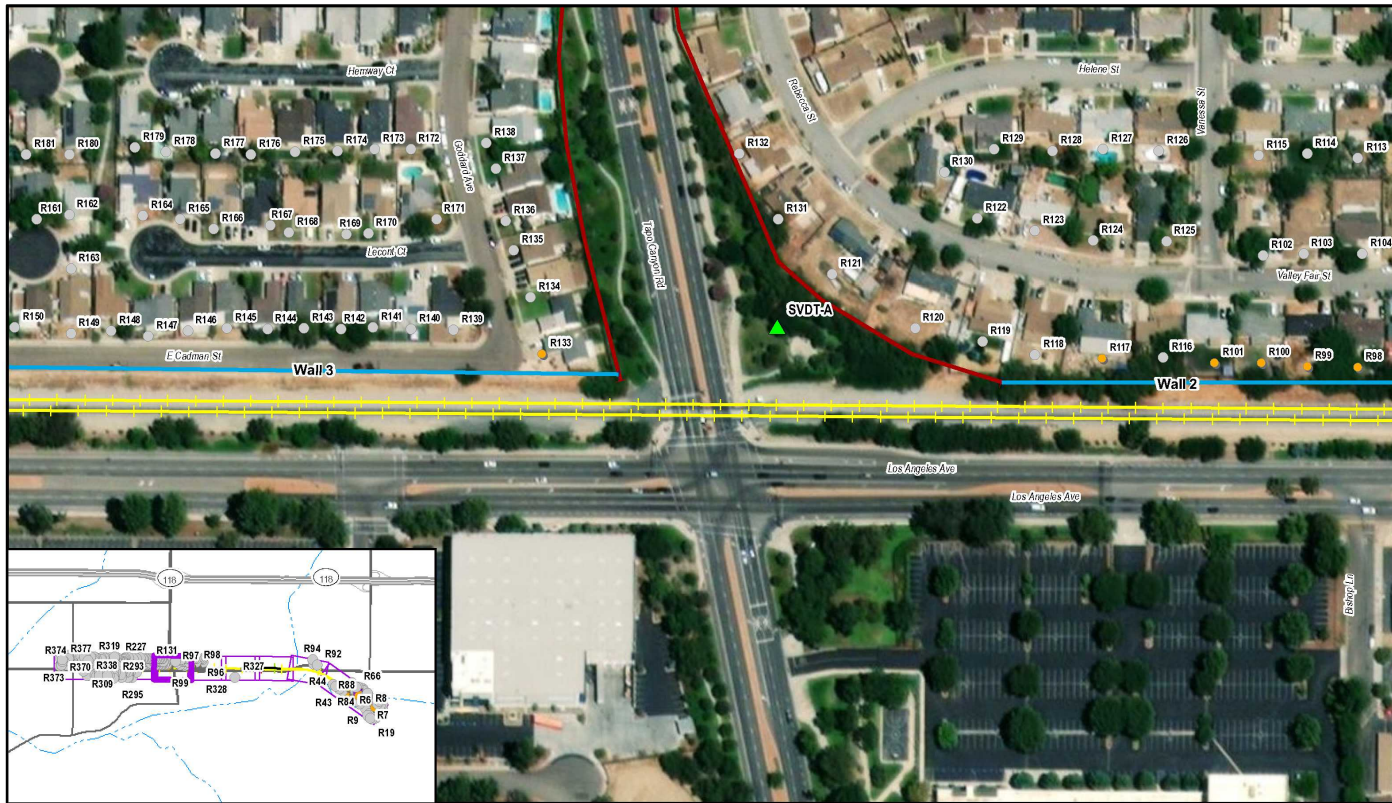
- No Impact
- Proposed Track
- Existing Sound/Privacy Walls
- Potential Noise Walls for Mitigation



**Metrolink SCORE Program**  
 Simi Valley Double Track

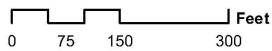
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Figure 9-1. Sound Wall Locations (Only if NV-1 or NV-2 Cannot be Implemented)  
 (Sheet 4 of 6)



**Metrolink SCORE Program**  
 Simi Valley Double Track

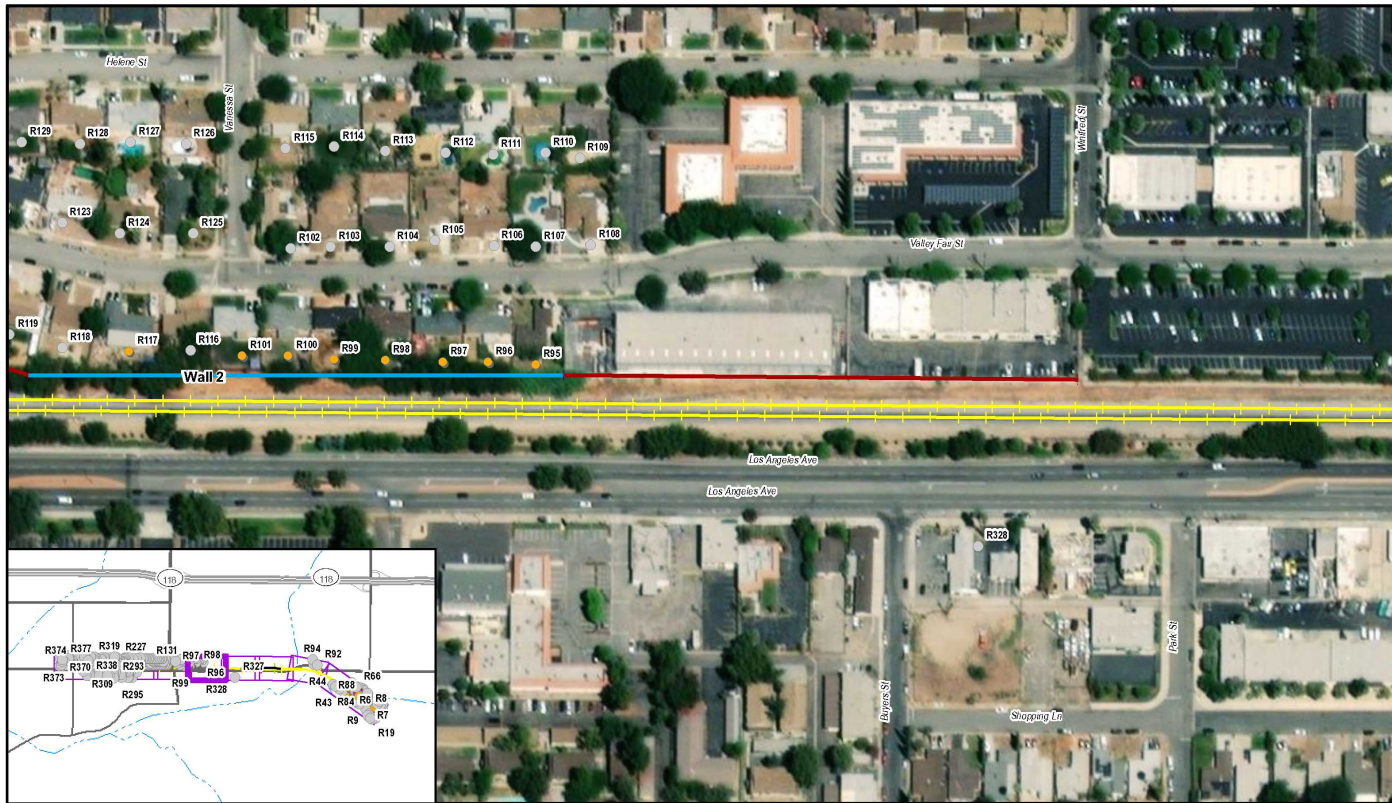
- Moderate Operational Noise Impact
- No Impact
- Proposed Track
- Existing Sound/Privacy Walls
- ▲ Measurement Location
- Potential Noise Walls for Mitigation



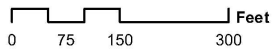
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Figure 9-1. Sound Wall Locations (Only if NV-1 or NV-2 Cannot be Implemented)  
 (Sheet 5 of 6)



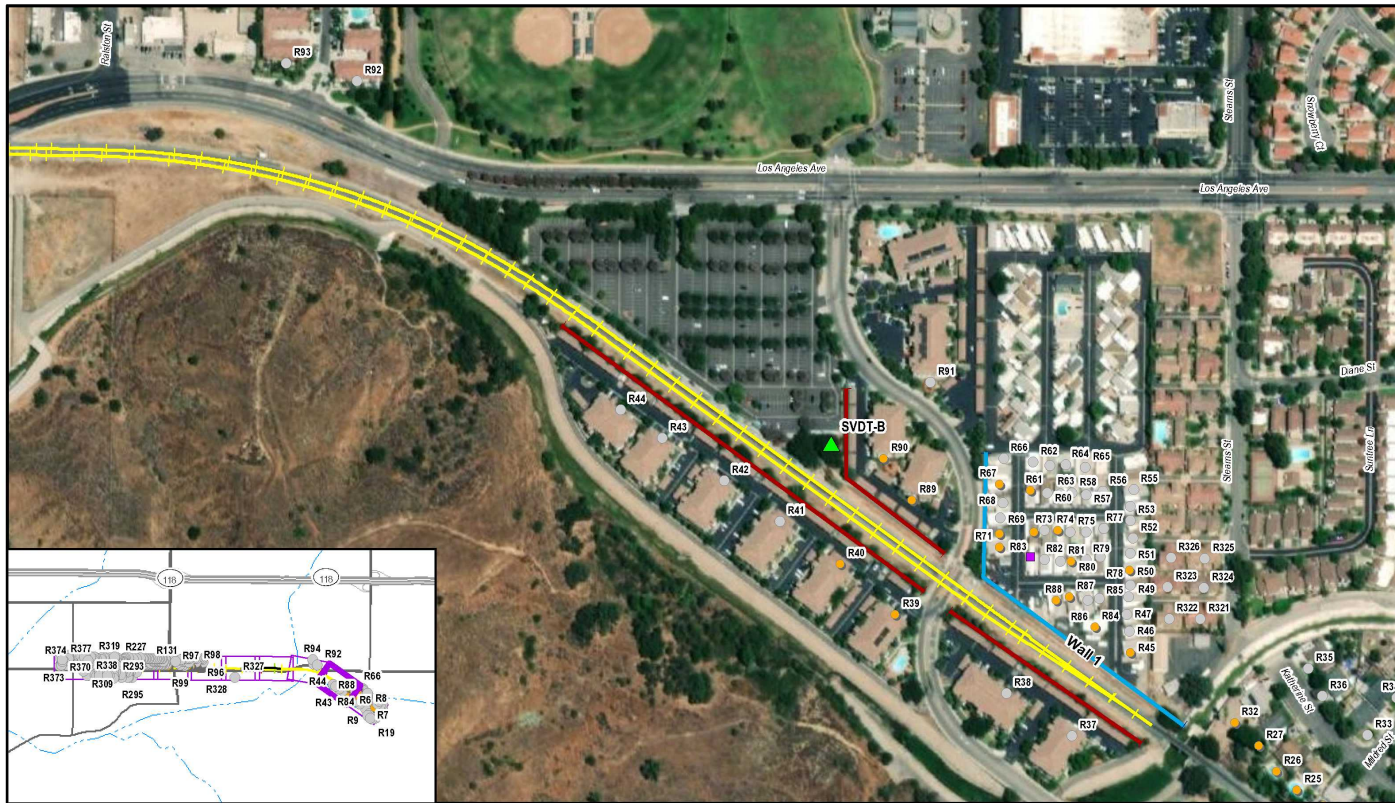
- Moderate Operational Noise Impact
- No Impact
- Proposed Track
- Existing Sound/Privacy Walls
- Potential Noise Walls for Mitigation



**Metrolink SCORE Program**  
 Simi Valley Double Track

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Figure 9-1. Sound Wall Locations (Only if NV-1 or NV-2 Cannot be Implemented)  
 (Sheet 6 of 6)



**Metrolink SCORE Program**  
 Simi Valley Double Track

- Moderate Operational Noise Impact
- No Impact
- Proposed Track
- Existing Sound/Privacy Walls
- ▲ Measurement Location
- Potential Noise Walls for Mitigation



0 75 150 300 Feet

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## 9.2 Construction Noise and Vibration Mitigation

General Project construction noise and vibration would exceed the FTA's construction guidelines at receptors nearest to the proposed action elements. The following mitigation is proposed to reduce construction-related noise impacts:

**NV-4 Employ noise- and vibration-reducing measures during construction.** The construction contractor will employ measures to minimize and reduce construction noise and vibration. Noise and vibration reduction measures that would be implemented include, but are not limited to, the following:

- Design considerations and Project layout:
  - o Construct temporary noise walls between noisy activities and noise-sensitive receivers
  - o Place site equipment on the construction site as far away from noise-sensitive sites as possible
  - o Construct walled enclosures around especially noisy activities or clusters of noisy equipment
- Sequence of operations:
  - o Combine noisy operations to have them occur in the same time period
    - The total noise level produced would not be significantly greater than the level produced if the operations were performed separately
  - o Avoid nighttime construction adjacent to noise-sensitive receptors to the maximum extent feasible
    - Sensitivity to noise increases during the nighttime hours in residential neighborhoods
- Alternative construction methods:
  - o Use specially quieted equipment, such as quieted and enclosed air compressors and properly working mufflers on all engines
  - o Select quieter demolition methods, where feasible

To keep construction noise levels below the applicable FTA's construction noise or vibration criteria, the Project contractor under Metrolink supervision will monitor noise and vibration during the loudest and most vibration intensive types of construction activities. Monitors will be deployed closest to the construction activity because demonstration of compliance with the construction thresholds at the nearest locations guarantees compliance further away. If applicable, FTA construction noise or vibration criteria are exceeded, the contractor will be alerted and directed by Metrolink to incorporate additional noise and vibration reduction methods (examples above).



**NV-5 Prepare a community notification plan for Project construction.** To proactively address community concerns related to construction noise and vibration, prior to construction, SCRRA and/or the construction contractor will prepare and maintain a community notification plan. Components of the plan will include initial information packets prepared and mailed to all residences within a 500-foot radius of Project construction. Updates to the plan will be prepared as necessary to indicate changes to the construction schedule or other processes. SCRRA will identify a Project liaison to be available to respond to questions from the community or other interested groups.

## 9.3 Impacts after Mitigation

### 9.3.1 Operational Noise

Mitigation is required for severe impacts and considered for the moderate operational noise impacts, per FTA. Implementation of a quiet zone along the Project study area alignment is the most effective means for eliminating the moderate impacts. Noise walls would have limited success at reducing noise in the area due to limitations on where they can be installed from the presence of roadways, waterways, and access points that would allow noise to flank around the ends of barriers. If quiet zones are not possible, wayside horns would be implemented at the crossings to eliminate the need for trains to sound their horns at crossings. Either approach would eliminate the moderate impacts. For these reasons, after mitigation, no long-term significant impacts would result with the proposed mitigation.

### 9.3.2 Construction

Implementation of the construction noise and vibration mitigation measures, including restricting the loudest activities to daytime periods, noise levels would be maintained below the FTA's guidelines. By implementing the noise reduction measures and nighttime compliance monitoring, no residual significant impact or adverse effect would remain. Similarly, implementing the construction vibration mitigation measures would reduce impacts to less than significant.

## 10 References

- California Department of Transportation. 2020. Noise and Vibration.  
<https://dot.ca.gov/programs/environmental-analysis/noise-vibration>.
- City of Simi Valley. 2019. Simi Valley Municipal Code.  
[https://library.municode.com/ca/simi\\_valley/codes/code\\_of\\_ordinances?nodetid=TIT5PUWE\\_CH16NO](https://library.municode.com/ca/simi_valley/codes/code_of_ordinances?nodetid=TIT5PUWE_CH16NO).
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[https://www.fhwa.dot.gov/Environment/noise/construction\\_noise/rcnm/rcnm00.cfm](https://www.fhwa.dot.gov/Environment/noise/construction_noise/rcnm/rcnm00.cfm).
- Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment*.  
[https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123\\_0.pdf](https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf).
- Southern California Regional Rail Authority (SCRRA). 2014. *SCRRA Design Criteria Manual*.  
[https://metrolinktrains.com/globalassets/about/engineering/scrra\\_design\\_criteria\\_manual.pdf](https://metrolinktrains.com/globalassets/about/engineering/scrra_design_criteria_manual.pdf).

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# Appendix A. Federal Transit Administration Acoustic Modeling Input Data

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	51.5	-	
	0			4	1	89	203	-	55.4	51.6	
	0			9	1	89	125	-	57.6	50.3	
	0			1	1	64	1742	-	60.7	62.9	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
0+000	1935921.312	585690.439	300.00	-	-	-	day	night			
							-	-			
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	51.5	-	
	0			5	0	89	203	-	56.4	-	
	0			6	3	89	125	-	55.9	55.1	
	0			1	1	64	1742	-	60.7	62.9	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
0+000	1931888.762	585882.514	278.74	-	-	-	day	night			
							-	-			
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	51.5	-	
	0			4	1	89	203	-	55.4	51.6	
	0			9	1	89	125	-	57.6	50.3	
	0			1	1	64	1742	-	60.7	62.9	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
0+000	1933962.049	585864.973	291.00	-	-	-	day	night			
							-	-			

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1932738.625	585873.817	287.31	-	-	-	-	-	-	-	

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	4	1	89	203	-	72.7	68.9
				0	9	1	89	125	-	63.5	56.2
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1932792.378	585873.444	287.69	-	-	-	-	-	-	-	

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1932814.874	585873.289	287.73	-	-	-	-	-	-	-	

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Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000		1932837.362	585873.133	287.78	-	-	-	-	-	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day		night		
0		1	0	89	301	yes	66.8	-		
0		4	1	89	203	-	72.7	68.9		
0		9	1	89	125	-	63.5	56.2		
0		1	1	64	1742	-	66.8	69.1		
0+000		1932998.975	585872.013	288.69	-	-	-	-		
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day		night		
0		1	0	89	301	yes	51.5	-		
0		4	1	89	203	-	55.4	51.6		
0		9	1	89	125	-	57.6	50.3		
0		1	1	64	1742	-	60.7	62.9		
0+000		1933052.151	585871.645	288.90	-	-	-	-		
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day		night		
0		1	0	89	301	yes	66.8	-		
0		4	1	89	203	-	72.7	68.9		
0		9	1	89	125	-	63.5	56.2		
0		1	1	64	1742	-	66.8	69.1		

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type					Number of trains		Speed	Length per train	Max	Emission level	
					day	night	km/h	m		day	night
										dB(A)	dB(A)
					0	0	89	301	yes	51.5	-
					0	1	89	203	-	55.4	51.6
					0	1	89	125	-	57.6	50.3
					0	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
X	Y	Z							day	night	
0+000	1933213.020	585870.481	289.02	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type					Number of trains		Speed	Length per train	Max	Emission level	
					day	night	km/h	m		day	night
										dB(A)	dB(A)
					0	0	89	301	yes	66.8	-
					0	1	89	203	-	72.7	68.9
					0	1	89	125	-	63.5	56.2
					0	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
X	Y	Z							day	night	
0+000	1933265.945	585870.092	288.97	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type					Number of trains		Speed	Length per train	Max	Emission level	
					day	night	km/h	m		day	night
										dB(A)	dB(A)
					0	0	89	301	yes	66.8	-
					0	1	89	203	-	72.7	68.9
					0	1	89	125	-	63.5	56.2
					0	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
X	Y	Z							day	night	
0+000	1934828.673	585858.290	295.71	-		-		-		-	-

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Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
		Y						day	night		
0+000	1935043.462	585856.802		296.60	-	-	-	-	-		

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level					
	day	night				day dB(A)	night dB(A)				
0	1	0	89	301	yes	66.8	-				
0	4	1	89	203	-	72.7	68.9				
0	9	1	89	125	-	63.5	56.2				
0	1	1	64	1742	-	66.8	69.1				

Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	
		Y						day	night
0+000	1934783.689	585858.601		295.25	-	-	-	-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level					
	day	night				day dB(A)	night dB(A)				
0	1	0	89	301	yes	51.5	-				
0	4	1	89	203	-	55.4	51.6				
0	9	1	89	125	-	57.6	50.3				
0	1	1	64	1742	-	60.7	62.9				

Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	
		Y						day	night
0+000	1934039.103	585864.160		291.00	-	-	-	-	-

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-	-	-	-	day	night	
	1934223.204	585862.885	291.18								
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-	-	-	-	day	night	
	1934384.658	585861.733	292.24								
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	4	1	89	203	-	72.7	68.9
				0	9	1	89	125	-	63.5	56.2
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-	-	-	-	day	night	
	1934061.592	585864.005	291.00								

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	66.8	-	
	0			4	1	89	203	-	72.7	68.9	
	0			9	1	89	125	-	63.5	56.2	
	0			1	1	64	1742	-	66.8	69.1	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
0+000	1934276.380	585862.517	291.97	-	-	-		day	night		
								-	-		
From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	66.8	-	
	0			4	1	89	203	-	72.7	68.9	
	0			9	1	89	125	-	63.5	56.2	
	0			1	1	64	1742	-	66.8	69.1	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
0+000	1934490.175	585860.963	293.33	-	-	-		day	night		
								-	-		
From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	66.8	-	
	0			4	1	89	203	-	72.7	68.9	
	0			9	1	89	125	-	63.5	56.2	
	0			1	1	64	1742	-	66.8	69.1	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
0+000	1934016.608	585864.316	291.00	-	-	-		day	night		
								-	-		

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1934490.175	585860.963	293.33	-	-	-	-	-	-		
From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1935043.462	585856.802	296.60	-	-	-	-	-	-		
From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	4	1	89	203	-	72.7	68.9
				0	9	1	89	125	-	63.5	56.2
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1935204.335	585856.122	296.98	-	-	-	-	-	-		

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1934990.286	585857.170	296.48	-	-	-	-	-	-	-	
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1934806.185	585858.445	295.44	-	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1935482.856	585853.660	297.76	-	-	-	-	-	-	-	

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## Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	66.8	-
					0	5	0	89	203	-	73.7	-
					0	6	3	89	125	-	61.7	60.9
					0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level			
X	Y	Z							day	night		
0+000	1935429.986	585854.138	298.00	-	-	-	-	-	-	-		
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	66.8	-
					0	5	0	89	203	-	73.7	-
					0	6	3	89	125	-	61.7	60.9
					0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level			
X	Y	Z							day	night		
0+000	1935504.281	585853.316	297.99	-	-	-	-	-	-	-		
From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level			
X	Y	Z							day	night		
0+000	1935523.022	585852.749	298.00	-	-	-	-	-	-	-		

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	4	1	89	203	-	72.7	68.9
				0	9	1	89	125	-	63.5	56.2
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935689.626	585823.275	299.00	-	-	-	-	-	-	-	
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935738.625	585804.757	299.24	-	-	-	-	-	-	-	
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	4	1	89	203	-	72.7	68.9
				0	9	1	89	125	-	63.5	56.2
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935879.825	585720.490	300.00	-	-	-	-	-	-	-	

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Noise emissions of railway traffic

From LAUS																																																																									
Rail track:			Direction:		Section: 1			Km: 0+000																																																																	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Emission level																																																																		
	X	Y	Z				day dB(A)	night dB(A)	Corrected Emission level																																																																
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	X	Y	Z				day dB(A)	night dB(A)	Corrected Emission level																																																																
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From LAUS																																																																									
Rail track:			Direction:		Section: 1			Km: 0+000																																																																	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level																																																																			
	day	night				day dB(A)	night dB(A)																																																																		
0	1	0	89	301	yes	51.5	-																																																																		
0	4	1	89	203	-	55.4	51.6																																																																		
0	9	1	89	125	-	57.6	50.3																																																																		
0	1	1	64	1742	-	60.7	62.9																																																																		
0+000	1936570.889	585250.242	306.04	-	-	-	-	-	-																																																																
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	day	night				day dB(A)	night dB(A)																																																																		
0	1	0	89	301	yes	66.8	-																																																																		
0	4	1	89	203	-	72.7	68.9																																																																		
0	9	1	89	125	-	63.5	56.2																																																																		
0	1	1	64	1742	-	66.8	69.1																																																																		
0+000	1936523.962	585272.298	306.33	-	-	-	-	-	-																																																																
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Rail track:			Direction:		Section: 1			Km: 0+000																																																																	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level																																																																			
	day	night				day dB(A)	night dB(A)																																																																		
0	1	0	89	301	yes	51.5	-																																																																		
0	4	1	89	203	-	55.4	51.6																																																																		
0	9	1	89	125	-	57.6	50.3																																																																		
0	1	1	64	1742	-	60.7	62.9																																																																		
0+000	1936382.506	585357.503	303.69	-	-	-	-	-	-																																																																

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day	night	
				0	1	0	89	301	yes	66.8	-
				0	4	1	89	203	-	72.7	68.9
				0	9	1	89	125	-	63.5	56.2
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
X	Y	Z						day	night		
0+000	1936337.126	585389.714	302.99		-	-		-		-	
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day	night	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
X	Y	Z						day	night		
0+000	1936209.636	585481.722	301.18		-	-		-		-	
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day	night	
				0	1	0	89	301	yes	66.8	-
				0	4	1	89	203	-	72.7	68.9
				0	9	1	89	125	-	63.5	56.2
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
X	Y	Z						day	night		
0+000	1936190.329	585495.654	301.00		-	-		-		-	

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1936169.150	585510.939	301.00	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	4	1	89	203	-	72.7	68.9
				0	9	1	89	125	-	63.5	56.2
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1936129.420	585539.681	302.00	-		-		-		-	-

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1936115.611	585549.685	301.61	-		-		-		-	-

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000																																																																																																																																																																																																																							
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	Emission level																																																																																																																																																																																																																								
		Y							day dB(A)	night dB(A)																																																																																																																																																																																																																							
0+000	1936072.260	585581.089		300.23	-	-	-	-	-	-																																																																																																																																																																																																																							
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Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level																																																																																																																																																																																																																										
day	night	day	night				day dB(A)	night dB(A)																																																																																																																																																																																																																									
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3/8/2021



Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
		Y						day	night		
Train type					Number of trains		Speed	Length per train	Max	Emission level	
					day	night	km/h	m		day dB(A)	night dB(A)
0+000	1935903.036	585703.678		300.00	-	-	-	-	-	-	-
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type					Number of trains		Speed	Length per train	Max	Emission level	
					day	night	km/h	m		day dB(A)	night dB(A)
0+000	1935860.241	585734.547		300.00	-	-	-	-	-	-	-
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type					Number of trains		Speed	Length per train	Max	Emission level	
					day	night	km/h	m		day dB(A)	night dB(A)
0+000	1935719.095	585812.780		299.00	-	-	-	-	-	-	-

3/8/2021

Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	Emission level		
		Y							day dB(A)	night dB(A)	
0+000	1935673.009	585828.497		298.83	-	-	-	-	-	-	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night	km/h	m	day dB(A)		night dB(A)			
	0	1	0	89	301	yes	66.8	-			
	0	5	0	89	203	-	73.7	-			
	0	6	3	89	125	-	61.7	60.9			
	0	1	1	64	1742	-	66.8	69.1			
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night	km/h	m	day dB(A)		night dB(A)			
	0	1	0	89	301	yes	51.5	-			
	0	5	0	89	203	-	56.4	-			
	0	6	3	89	125	-	55.9	55.1			
	0	1	1	64	1742	-	60.7	62.9			
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
0+000	1935368.343	585854.680		298.00	-	-	-	day	night		
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night	km/h	m	day dB(A)		night dB(A)			
	0	1	0	89	301	yes	66.8	-			
	0	5	0	89	203	-	73.7	-			
	0	6	3	89	125	-	61.7	60.9			
	0	1	1	64	1742	-	66.8	69.1			
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
0+000	1935313.446	585855.163		297.73	-	-	-	day	night		

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## Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Emission level			
	X	Y	Z				day dB(A)	night dB(A)		
Train type					Number of trains		Speed	Length per train	Max	
					day	night	km/h	m		
0+000	1935292.281	585855.349	297.43	-	-	-	-	-	-	-
Train type					Number of trains		Speed	Length per train	Max	
					day	night	km/h	m		
0+000	1935269.781	585855.547	297.17	-	-	-	-	-	-	-
Train type					Number of trains		Speed	Length per train	Max	
					day	night	km/h	m		
0+000	1935107.400	585856.974	296.76	-	-	-	-	-	-	-

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## Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	5	0	89	203	-	73.7	-
				0	6	3	89	125	-	61.7	60.9
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935054.814	585857.446	296.60	-	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1934893.089	585858.407	296.16	-	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	5	0	89	203	-	73.7	-
				0	6	3	89	125	-	61.7	60.9
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1934840.500	585858.660	295.87	-	-	-	-	-	-	-	

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000																																																				
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	Emission level																																																					
		Y							day dB(A)	night dB(A)																																																				
0+000	1934700.453	585859.543		295.02	-	-	-	-	-	-																																																				
<table border="1"> <thead> <tr> <th colspan="2">Train type</th> <th colspan="2">Number of trains</th> <th rowspan="2">Speed km/h</th> <th rowspan="2">Length per train m</th> <th rowspan="2">Max</th> <th colspan="2">Emission level</th> </tr> <tr> <th>day</th> <th>night</th> <th>day</th> <th>night</th> <th>day dB(A)</th> <th>night dB(A)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>89</td> <td>301</td> <td>yes</td> <td>51.5</td> <td>-</td> </tr> <tr> <td>0</td> <td>5</td> <td>0</td> <td>0</td> <td>89</td> <td>203</td> <td>-</td> <td>56.4</td> <td>-</td> </tr> <tr> <td>0</td> <td>6</td> <td>3</td> <td>3</td> <td>89</td> <td>125</td> <td>-</td> <td>55.9</td> <td>55.1</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>64</td> <td>1742</td> <td>-</td> <td>60.7</td> <td>62.9</td> </tr> </tbody> </table>												Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level		day	night	day	night	day dB(A)	night dB(A)	0	1	0	0	89	301	yes	51.5	-	0	5	0	0	89	203	-	56.4	-	0	6	3	3	89	125	-	55.9	55.1	0	1	1	1	64	1742	-	60.7	62.9
Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level																																																							
day	night	day	night				day dB(A)	night dB(A)																																																						
0	1	0	0	89	301	yes	51.5	-																																																						
0	5	0	0	89	203	-	56.4	-																																																						
0	6	3	3	89	125	-	55.9	55.1																																																						
0	1	1	1	64	1742	-	60.7	62.9																																																						
To LAUS																																																														
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000																																																				
0+000	1934644.894	585859.951		294.49	-	-	-	-	-	-																																																				
<table border="1"> <thead> <tr> <th colspan="2">Train type</th> <th colspan="2">Number of trains</th> <th rowspan="2">Speed km/h</th> <th rowspan="2">Length per train m</th> <th rowspan="2">Max</th> <th colspan="2">Emission level</th> </tr> <tr> <th>day</th> <th>night</th> <th>day</th> <th>night</th> <th>day dB(A)</th> <th>night dB(A)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>89</td> <td>301</td> <td>yes</td> <td>66.8</td> <td>-</td> </tr> <tr> <td>0</td> <td>5</td> <td>0</td> <td>0</td> <td>89</td> <td>203</td> <td>-</td> <td>73.7</td> <td>-</td> </tr> <tr> <td>0</td> <td>6</td> <td>3</td> <td>3</td> <td>89</td> <td>125</td> <td>-</td> <td>61.7</td> <td>60.9</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>64</td> <td>1742</td> <td>-</td> <td>66.8</td> <td>69.1</td> </tr> </tbody> </table>												Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level		day	night	day	night	day dB(A)	night dB(A)	0	1	0	0	89	301	yes	66.8	-	0	5	0	0	89	203	-	73.7	-	0	6	3	3	89	125	-	61.7	60.9	0	1	1	1	64	1742	-	66.8	69.1
Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level																																																							
day	night	day	night				day dB(A)	night dB(A)																																																						
0	1	0	0	89	301	yes	66.8	-																																																						
0	5	0	0	89	203	-	73.7	-																																																						
0	6	3	3	89	125	-	61.7	60.9																																																						
0	1	1	1	64	1742	-	66.8	69.1																																																						
0+000	1934622.125	585860.119		294.24	-	-	-	-	-	-																																																				
<table border="1"> <thead> <tr> <th colspan="2">Train type</th> <th colspan="2">Number of trains</th> <th rowspan="2">Speed km/h</th> <th rowspan="2">Length per train m</th> <th rowspan="2">Max</th> <th colspan="2">Emission level</th> </tr> <tr> <th>day</th> <th>night</th> <th>day</th> <th>night</th> <th>day dB(A)</th> <th>night dB(A)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>89</td> <td>301</td> <td>yes</td> <td>51.5</td> <td>-</td> </tr> <tr> <td>0</td> <td>5</td> <td>0</td> <td>0</td> <td>89</td> <td>203</td> <td>-</td> <td>56.4</td> <td>-</td> </tr> <tr> <td>0</td> <td>6</td> <td>3</td> <td>3</td> <td>89</td> <td>125</td> <td>-</td> <td>55.9</td> <td>55.1</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>64</td> <td>1742</td> <td>-</td> <td>60.7</td> <td>62.9</td> </tr> </tbody> </table>												Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level		day	night	day	night	day dB(A)	night dB(A)	0	1	0	0	89	301	yes	51.5	-	0	5	0	0	89	203	-	56.4	-	0	6	3	3	89	125	-	55.9	55.1	0	1	1	1	64	1742	-	60.7	62.9
Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level																																																							
day	night	day	night				day dB(A)	night dB(A)																																																						
0	1	0	0	89	301	yes	51.5	-																																																						
0	5	0	0	89	203	-	56.4	-																																																						
0	6	3	3	89	125	-	55.9	55.1																																																						
0	1	1	1	64	1742	-	60.7	62.9																																																						

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
		Y						day	night		
Train type					Number of trains		Speed	Length per train	Max	Emission level	
					day	night	km/h	m		day dB(A)	night dB(A)
0+000	1934601.496	585860.270		294.14	-	-	-	-	-	-	-
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type					Number of trains		Speed	Length per train	Max	Emission level	
					day	night	km/h	m		day dB(A)	night dB(A)
0+000	1934439.039	585861.465		292.88	-	-	-	-	-	-	-
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type					Number of trains		Speed	Length per train	Max	Emission level	
					day	night	km/h	m		day dB(A)	night dB(A)
0+000	1934224.185	585863.045		291.20	-	-	-	-	-	-	-

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## Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	5	0	89	203	-	73.7	-
				0	6	3	89	125	-	61.7	60.9
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934171.789	585863.430	291.00	-	-	-	-	-			

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933929.636	585865.211	291.00	-	-	-	-	-			

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	5	0	89	203	-	73.7	-
				0	6	3	89	125	-	61.7	60.9
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933876.054	585865.605	290.66	-	-	-	-	-			

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1933849.263	585865.802		290.36	-	-	-	-	-	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day		night		
		0	1	0	89	301	yes	51.5	-	
		0	5	0	89	203	-	56.4	-	
		0	6	3	89	125	-	55.9	55.1	
		0	1	1	64	1742	-	60.7	62.9	
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day		night		
		0	1	0	89	301	yes	66.8	-	
		0	5	0	89	203	-	73.7	-	
		0	6	3	89	125	-	61.7	60.9	
		0	1	1	64	1742	-	66.8	69.1	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1933829.090	585865.950		290.23	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day		night		
		0	1	0	89	301	yes	51.5	-	
		0	5	0	89	203	-	56.4	-	
		0	6	3	89	125	-	55.9	55.1	
		0	1	1	64	1742	-	60.7	62.9	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1933666.368	585867.147		289.75	-	-	-	-	-	

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	Emission level		
		Y							day dB(A)	night dB(A)	
0+000	1933613.130	585867.538		289.35	-	-	-	-	-	-	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night	km/h	m	day dB(A)		night dB(A)			
		0	1	0	89	301	yes	66.8	-		
		0	5	0	89	203	-	73.7	-		
		0	6	3	89	125	-	61.7	60.9		
		0	1	1	64	1742	-	66.8	69.1		
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	Emission level		
		Y							day dB(A)	night dB(A)	
0+000	1933451.733	585868.725		289.06	-	-	-	-	-	-	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night	km/h	m	day dB(A)		night dB(A)			
		0	1	0	89	301	yes	51.5	-		
		0	5	0	89	203	-	56.4	-		
		0	6	3	89	125	-	55.9	55.1		
		0	1	1	64	1742	-	60.7	62.9		
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	Emission level		
		Y							day dB(A)	night dB(A)	
0+000	1933398.829	585869.114		289.00	-	-	-	-	-	-	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night	km/h	m	day dB(A)		night dB(A)			
		0	1	0	89	301	yes	66.8	-		
		0	5	0	89	203	-	73.7	-		
		0	6	3	89	125	-	61.7	60.9		
		0	1	1	64	1742	-	66.8	69.1		

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## Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932718.664	585873.993	287.00	-	-	-	-	-			

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	5	0	89	203	-	73.7	-
				0	6	3	89	125	-	61.7	60.9
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932664.057	585874.554	286.49	-	-	-	-	-			

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932640.131	585874.800	286.18	-	-	-	-	-			

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## Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	5	0	89	203	-	73.7	-
				0	6	3	89	125	-	61.7	60.9
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1932617.899	585875.028	286.00	-	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1932456.766	585876.682	284.79	-	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	66.8	-
				0	5	0	89	203	-	73.7	-
				0	6	3	89	125	-	61.7	60.9
				0	1	1	64	1742	-	66.8	69.1
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1932403.578	585877.229	284.34	-	-	-	-	-	-	-	

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000																																																				
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	Emission level																																																					
		Y							day dB(A)	night dB(A)																																																				
0+000	1932241.653	585878.891		283.20	-	-	-	-	-	-																																																				
<table border="1"> <thead> <tr> <th colspan="2">Train type</th> <th colspan="2">Number of trains</th> <th rowspan="2">Speed km/h</th> <th rowspan="2">Length per train m</th> <th rowspan="2">Max</th> <th colspan="2">Emission level</th> </tr> <tr> <th>day</th> <th>night</th> <th>day</th> <th>night</th> <th>day dB(A)</th> <th>night dB(A)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>89</td> <td>301</td> <td>yes</td> <td>51.5</td> <td>-</td> </tr> <tr> <td>0</td> <td>5</td> <td>0</td> <td>0</td> <td>89</td> <td>203</td> <td>-</td> <td>56.4</td> <td>-</td> </tr> <tr> <td>0</td> <td>6</td> <td>3</td> <td>3</td> <td>89</td> <td>125</td> <td>-</td> <td>55.9</td> <td>55.1</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>64</td> <td>1742</td> <td>-</td> <td>60.7</td> <td>62.9</td> </tr> </tbody> </table>												Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level		day	night	day	night	day dB(A)	night dB(A)	0	1	0	0	89	301	yes	51.5	-	0	5	0	0	89	203	-	56.4	-	0	6	3	3	89	125	-	55.9	55.1	0	1	1	1	64	1742	-	60.7	62.9
Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level																																																							
day	night	day	night				day dB(A)	night dB(A)																																																						
0	1	0	0	89	301	yes	51.5	-																																																						
0	5	0	0	89	203	-	56.4	-																																																						
0	6	3	3	89	125	-	55.9	55.1																																																						
0	1	1	1	64	1742	-	60.7	62.9																																																						
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Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level																																																							
day	night	day	night				day dB(A)	night dB(A)																																																						
0	1	0	0	89	301	yes	66.8	-																																																						
0	5	0	0	89	203	-	73.7	-																																																						
0	6	3	3	89	125	-	61.7	60.9																																																						
0	1	1	1	64	1742	-	66.8	69.1																																																						
0+000	1932188.866	585879.433		282.74	-	-	-	-	-	-																																																				
From LAUS																																																														
<table border="1"> <thead> <tr> <th colspan="2">Train type</th> <th colspan="2">Number of trains</th> <th rowspan="2">Speed km/h</th> <th rowspan="2">Length per train m</th> <th rowspan="2">Max</th> <th colspan="2">Emission level</th> </tr> <tr> <th>day</th> <th>night</th> <th>day</th> <th>night</th> <th>day dB(A)</th> <th>night dB(A)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>89</td> <td>301</td> <td>yes</td> <td>66.8</td> <td>-</td> </tr> <tr> <td>0</td> <td>4</td> <td>1</td> <td>1</td> <td>89</td> <td>203</td> <td>-</td> <td>72.7</td> <td>68.9</td> </tr> <tr> <td>0</td> <td>9</td> <td>1</td> <td>1</td> <td>89</td> <td>125</td> <td>-</td> <td>63.5</td> <td>56.2</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>64</td> <td>1742</td> <td>-</td> <td>66.8</td> <td>69.1</td> </tr> </tbody> </table>												Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level		day	night	day	night	day dB(A)	night dB(A)	0	1	0	0	89	301	yes	66.8	-	0	4	1	1	89	203	-	72.7	68.9	0	9	1	1	89	125	-	63.5	56.2	0	1	1	1	64	1742	-	66.8	69.1
Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level																																																							
day	night	day	night				day dB(A)	night dB(A)																																																						
0	1	0	0	89	301	yes	66.8	-																																																						
0	4	1	1	89	203	-	72.7	68.9																																																						
0	9	1	1	89	125	-	63.5	56.2																																																						
0	1	1	1	64	1742	-	66.8	69.1																																																						
0+000	1934437.249	585861.353		292.86	-	-	-	-	-	-																																																				

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
		Y						day	night			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	66.8	-
					0	4	1	89	203	-	72.7	68.9
					0	9	1	89	125	-	63.5	56.2
					0	1	1	64	1742	-	66.8	69.1
0+000	1935523.022	585852.749		298.00	-	-	-	-	-	-	-	
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
		Y						day	night			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
0+000	1935498.032	585853.442		297.80	-	-	-	-	-	-	-	
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
		Y						day	night			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	66.8	-
					0	4	1	89	203	-	72.7	68.9
					0	9	1	89	125	-	63.5	56.2
					0	1	1	64	1742	-	66.8	69.1
0+000	1935473.034	585853.759		297.74	-	-	-	-	-	-	-	

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Noise emissions of railway traffic

From LAUS	Rail track:			Direction:		Section: 1		Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level			
	day	night				day dB(A)	night dB(A)		
0	1	0	89	301	yes	51.5	-		
0	4	1	89	203	-	55.4	51.6		
0	9	1	89	125	-	57.6	50.3		
0	1	1	64	1742	-	60.7	62.9		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
X	Y	Z	day				night		
0+000	1935436.945	585854.077	298.00	-	-	-	-	-	

		3/8/2021
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Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level		
		X	Y	Z	day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level				
0+000	1935921.312	585690.439	300.00	-	-	-		day	night			
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level		
		X	Y	Z	day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	5	0	89	203	-	56.4	-
					0	6	3	89	125	-	55.9	55.1
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level				
0+000	1931888.762	585882.514	278.74	-	-	-		day	night			
From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level		
		X	Y	Z	day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level				
0+000	1933962.049	585864.973	291.00	-	-	-		day	night			

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1932738.625	585873.817	287.31	-	-	-	-	-	-		
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1932792.378	585873.444	287.69	-	-	-	-	-	-		
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1932814.874	585873.289	287.73	-	-	-	-	-	-		

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day	night	
										dB(A)	dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
X	Y	Z								day	night	
0+000	1932837.362	585873.133	287.78		-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day	night	
										dB(A)	dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
X	Y	Z								day	night	
0+000	1932998.975	585872.013	288.69		-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day	night	
										dB(A)	dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
X	Y	Z								day	night	
0+000	1933052.151	585871.645	288.90		-		-		-		-	-

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1933213.020	585870.481	289.02	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1933265.945	585870.092	288.97	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1934828.673	585858.290	295.71	-		-		-		-	-

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1935043.462	585856.802	296.60	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1934783.689	585858.601	295.25	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1934039.103	585864.160	291.00	-		-		-		-	-

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934223.204	585862.885	291.18	-	-	-	-	-			

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934384.658	585861.733	292.24	-	-	-	-	-			

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934061.592	585864.005	291.00	-	-	-	-	-			

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From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1934276.380	585862.517	291.97	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1934490.175	585860.963	293.33	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1934016.608	585864.316	291.00	-		-		-		-	-

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Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1934490.175	585860.963		293.33	-	-	-	-	-	

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level				
	day	night				day dB(A)	night dB(A)			
0	1	0	89	301	yes	51.5	-			
0	4	1	89	203	-	55.4	51.6			
0	9	1	89	125	-	57.6	50.3			
0	1	1	64	1742	-	60.7	62.9			

Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	
		Y						day	night
0+000	1935043.462	585856.802		296.60	-	-	-	-	-

From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level				
	day	night				day dB(A)	night dB(A)			
0	1	0	89	301	yes	51.5	-			
0	4	1	89	203	-	55.4	51.6			
0	9	1	89	125	-	57.6	50.3			
0	1	1	64	1742	-	60.7	62.9			

Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	
		Y						day	night
0+000	1935204.335	585856.122		296.98	-	-	-	-	-

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### Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
		Y						day	night			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
0+000		1934990.286	585857.170	296.48	-	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
		Y						day	night			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
0+000		1934806.185	585858.445	295.44	-	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
		Y						day	night			
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	5	0	89	203	-	56.4	-
					0	6	3	89	125	-	55.9	55.1
					0	1	1	64	1742	-	60.7	62.9
0+000		1935482.856	585853.660	297.76	-	-	-	-	-	-	-	

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## Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day	night	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
0+000	1935429.986	585854.138	298.00	-	-	-		day	night		
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day	night	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
0+000	1935504.281	585853.316	297.99	-	-	-		day	night		
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day	night	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
0+000	1935523.022	585852.749	298.00	-	-	-		day	night		

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1935689.626	585823.275	299.00	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1935738.625	585804.757	299.24	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1935879.825	585720.490	300.00	-		-		-		-	-

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1936570.889	585250.242	306.04	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1936523.962	585272.298	306.33	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1936382.506	585357.503	303.69	-		-		-		-	-

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z							day	night	
0+000	1936337.126	585389.714	302.99							-	-	

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z							day	night	
0+000	1936209.636	585481.722	301.18							-	-	

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	4	1	89	203	-	55.4	51.6
					0	9	1	89	125	-	57.6	50.3
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z							day	night	
0+000	1936190.329	585495.654	301.00							-	-	

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## Noise emissions of railway traffic

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1936169.150	585510.939	301.00	-		-		-		-	-

From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1936129.420	585539.681	302.00	-		-		-		-	-

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]		Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level	
0+000	X	Y	Z							day	night
0+000	1936115.611	585549.685	301.61	-		-		-		-	-

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## Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-	-	-	-	day	night	
	1936072.260	585581.089	300.23	-	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-	-	-	-	day	night	
	1936053.290	585594.831	300.45	-	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	5	0	89	203	-	56.4	-
				0	6	3	89	125	-	55.9	55.1
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-	-	-	-	day	night	
	1936035.206	585607.932	301.00	-	-	-	-	-	-	-	

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To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	Emission level		
		Y							day dB(A)	night dB(A)	
0+000	1935903.036	585703.678		300.00	-	-	-	-	-	-	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night	km/h	m	day dB(A)		night dB(A)			
		0	1	0	89	301	yes	51.5	-		
		0	5	0	89	203	-	56.4	-		
		0	6	3	89	125	-	55.9	55.1		
		0	1	1	64	1742	-	60.7	62.9		
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night	km/h	m	day dB(A)		night dB(A)			
		0	1	0	89	301	yes	51.5	-		
		0	5	0	89	203	-	56.4	-		
		0	6	3	89	125	-	55.9	55.1		
		0	1	1	64	1742	-	60.7	62.9		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
0+000	1935860.241	585734.547		300.00	-	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night	km/h	m	day dB(A)		night dB(A)			
		0	1	0	89	301	yes	51.5	-		
		0	5	0	89	203	-	56.4	-		
		0	6	3	89	125	-	55.9	55.1		
		0	1	1	64	1742	-	60.7	62.9		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
0+000	1935719.095	585812.780		299.00	-	-	-	-	-	-	

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	51.5	-	
	0			5	0	89	203	-	56.4	-	
	0			6	3	89	125	-	55.9	55.1	
	0			1	1	64	1742	-	60.7	62.9	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
0+000	1935673.009	585828.497	298.83	-	-	-	day	night			
							-	-			
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	51.5	-	
	0			5	0	89	203	-	56.4	-	
	0			6	3	89	125	-	55.9	55.1	
	0			1	1	64	1742	-	60.7	62.9	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
0+000	1935368.343	585854.680	298.00	-	-	-	day	night			
							-	-			
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	51.5	-	
	0			5	0	89	203	-	56.4	-	
	0			6	3	89	125	-	55.9	55.1	
	0			1	1	64	1742	-	60.7	62.9	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
0+000	1935313.446	585855.163	297.73	-	-	-	day	night			
							-	-			

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000																																																				
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	Emission level																																																					
		Y							day dB(A)	night dB(A)																																																				
0+000	1935292.281	585855.349		297.43	-	-	-	-	-	-																																																				
<table border="1"> <thead> <tr> <th colspan="2">Train type</th> <th colspan="2">Number of trains</th> <th rowspan="2">Speed km/h</th> <th rowspan="2">Length per train m</th> <th rowspan="2">Max</th> <th colspan="2">Emission level</th> </tr> <tr> <th>day</th> <th>night</th> <th>day</th> <th>night</th> <th>day dB(A)</th> <th>night dB(A)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>89</td> <td>301</td> <td>yes</td> <td>51.5</td> <td>-</td> </tr> <tr> <td>0</td> <td>5</td> <td>0</td> <td>0</td> <td>89</td> <td>203</td> <td>-</td> <td>56.4</td> <td>-</td> </tr> <tr> <td>0</td> <td>6</td> <td>3</td> <td>3</td> <td>89</td> <td>125</td> <td>-</td> <td>55.9</td> <td>55.1</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>64</td> <td>1742</td> <td>-</td> <td>60.7</td> <td>62.9</td> </tr> </tbody> </table>												Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level		day	night	day	night	day dB(A)	night dB(A)	0	1	0	0	89	301	yes	51.5	-	0	5	0	0	89	203	-	56.4	-	0	6	3	3	89	125	-	55.9	55.1	0	1	1	1	64	1742	-	60.7	62.9
Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level																																																							
day	night	day	night				day dB(A)	night dB(A)																																																						
0	1	0	0	89	301	yes	51.5	-																																																						
0	5	0	0	89	203	-	56.4	-																																																						
0	6	3	3	89	125	-	55.9	55.1																																																						
0	1	1	1	64	1742	-	60.7	62.9																																																						
To LAUS																																																														
0+000	1935269.781	585855.547		297.17	-	-	-	-	-	-																																																				
<table border="1"> <thead> <tr> <th colspan="2">Train type</th> <th colspan="2">Number of trains</th> <th rowspan="2">Speed km/h</th> <th rowspan="2">Length per train m</th> <th rowspan="2">Max</th> <th colspan="2">Emission level</th> </tr> <tr> <th>day</th> <th>night</th> <th>day</th> <th>night</th> <th>day dB(A)</th> <th>night dB(A)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1</td> <td>0</td> <td>0</td> <td>89</td> <td>301</td> <td>yes</td> <td>51.5</td> <td>-</td> </tr> <tr> <td>0</td> <td>5</td> <td>0</td> <td>0</td> <td>89</td> <td>203</td> <td>-</td> <td>56.4</td> <td>-</td> </tr> <tr> <td>0</td> <td>6</td> <td>3</td> <td>3</td> <td>89</td> <td>125</td> <td>-</td> <td>55.9</td> <td>55.1</td> </tr> <tr> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>64</td> <td>1742</td> <td>-</td> <td>60.7</td> <td>62.9</td> </tr> </tbody> </table>												Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level		day	night	day	night	day dB(A)	night dB(A)	0	1	0	0	89	301	yes	51.5	-	0	5	0	0	89	203	-	56.4	-	0	6	3	3	89	125	-	55.9	55.1	0	1	1	1	64	1742	-	60.7	62.9
Train type		Number of trains		Speed km/h	Length per train m	Max	Emission level																																																							
day	night	day	night				day dB(A)	night dB(A)																																																						
0	1	0	0	89	301	yes	51.5	-																																																						
0	5	0	0	89	203	-	56.4	-																																																						
0	6	3	3	89	125	-	55.9	55.1																																																						
0	1	1	1	64	1742	-	60.7	62.9																																																						
0+000	1935107.400	585856.974		296.76	-	-	-	-	-	-																																																				

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1935054.814	585857.446		296.60	-	-	-	-	-	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day		night		
		0	1	0	89	301	yes	51.5	-	
		0	5	0	89	203	-	56.4	-	
		0	6	3	89	125	-	55.9	55.1	
		0	1	1	64	1742	-	60.7	62.9	
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day		night		
		0	1	0	89	301	yes	51.5	-	
		0	5	0	89	203	-	56.4	-	
		0	6	3	89	125	-	55.9	55.1	
		0	1	1	64	1742	-	60.7	62.9	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1934893.089	585858.407		296.16	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day		night		
		0	1	0	89	301	yes	51.5	-	
		0	5	0	89	203	-	56.4	-	
		0	6	3	89	125	-	55.9	55.1	
		0	1	1	64	1742	-	60.7	62.9	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1934840.500	585858.660		295.87	-	-	-	-	-	

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Noise emissions of railway traffic

To LAUS									
Rail track:			Direction:			Section: 1		Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level			
	day	night				day dB(A)	night dB(A)		
0	1	0	89	301	yes	51.5	-		
0	5	0	89	203	-	56.4	-		
0	6	3	89	125	-	55.9	55.1		
0	1	1	64	1742	-	60.7	62.9		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
X	Y	Z	day				night		
0+000	1934700.453	585859.543	295.02	-	-	-	-	-	
To LAUS									
Rail track:			Direction:			Section: 1		Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level			
	day	night				day dB(A)	night dB(A)		
0	1	0	89	301	yes	51.5	-		
0	5	0	89	203	-	56.4	-		
0	6	3	89	125	-	55.9	55.1		
0	1	1	64	1742	-	60.7	62.9		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
X	Y	Z	day				night		
0+000	1934644.894	585859.951	294.49	-	-	-	-	-	
To LAUS									
Rail track:			Direction:			Section: 1		Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level			
	day	night				day dB(A)	night dB(A)		
0	1	0	89	301	yes	51.5	-		
0	5	0	89	203	-	56.4	-		
0	6	3	89	125	-	55.9	55.1		
0	1	1	64	1742	-	60.7	62.9		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
X	Y	Z	day				night		
0+000	1934622.125	585860.119	294.24	-	-	-	-	-	

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Noise emissions of railway traffic

To LAUS									
Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Emission level		
	X	Y	Z				day dB(A)	night dB(A)	Corrected Emission level
To LAUS									
Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Emission level		
	X	Y	Z				day dB(A)	night dB(A)	Corrected Emission level
0+000	1934601.496	585860.270	294.14	-	-	-	-	-	-
To LAUS									
Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Emission level		
	X	Y	Z				day dB(A)	night dB(A)	Corrected Emission level
0+000	1934439.039	585861.465	292.88	-	-	-	-	-	-
To LAUS									
Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Emission level		
	X	Y	Z				day dB(A)	night dB(A)	Corrected Emission level
0+000	1934224.185	585863.045	291.20	-	-	-	-	-	-

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level		
		X	Y	Z	day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	5	0	89	203	-	56.4	-
					0	6	3	89	125	-	55.9	55.1
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level					
0+000	1934171.789	585863.430	291.00	-	-	-	day	night				
							-	-				
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level		
		X	Y	Z	day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	5	0	89	203	-	56.4	-
					0	6	3	89	125	-	55.9	55.1
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level					
0+000	1933929.636	585865.211	291.00	-	-	-	day	night				
							-	-				
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000			
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level		
		X	Y	Z	day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	5	0	89	203	-	56.4	-
					0	6	3	89	125	-	55.9	55.1
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level					
0+000	1933876.054	585865.605	290.66	-	-	-	day	night				
							-	-				

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1933849.263	585865.802		290.36	-	-	-	-	-	

To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level				
	day	night				day dB(A)	night dB(A)			
0	1	0	89	301	yes	51.5	-			
0	5	0	89	203	-	56.4	-			
0	6	3	89	125	-	55.9	55.1			
0	1	1	64	1742	-	60.7	62.9			

Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	
		Y						day	night
0+000	1933829.090	585865.950		290.23	-	-	-	-	-

To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type	Number of trains		Speed km/h	Length per train m	Max	Emission level				
	day	night				day dB(A)	night dB(A)			
0	1	0	89	301	yes	51.5	-			
0	5	0	89	203	-	56.4	-			
0	6	3	89	125	-	55.9	55.1			
0	1	1	64	1742	-	60.7	62.9			

Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level	
		Y						day	night
0+000	1933666.368	585867.147		289.75	-	-	-	-	-

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1933613.130	585867.538		289.35	-	-	-	-	-	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day dB(A)		night dB(A)		
	0	1	0	89	301	yes	51.5	-		
	0	5	0	89	203	-	56.4	-		
	0	6	3	89	125	-	55.9	55.1		
	0	1	1	64	1742	-	60.7	62.9		
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day dB(A)		night dB(A)		
	0	1	0	89	301	yes	51.5	-		
	0	5	0	89	203	-	56.4	-		
	0	6	3	89	125	-	55.9	55.1		
	0	1	1	64	1742	-	60.7	62.9		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1933451.733	585868.725		289.06	-	-	-	-	-	
To LAUS		Rail track:			Direction:		Section: 1		Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level		
		day	night	km/h	m	day dB(A)		night dB(A)		
	0	1	0	89	301	yes	51.5	-		
	0	5	0	89	203	-	56.4	-		
	0	6	3	89	125	-	55.9	55.1		
	0	1	1	64	1742	-	60.7	62.9		
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
		Y						day	night	
0+000	1933398.829	585869.114		289.00	-	-	-	-	-	

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
		Y						day	night		
0+000	1932718.664	585873.993		287.00	-	-	-	-	-		

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
		Y						day	night		
0+000	1932664.057	585874.554		286.49	-	-	-	-	-		

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Track Station km	X	Coordinates of track axis		Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level			
		Y						day	night		
0+000	1932640.131	585874.800		286.18	-	-	-	-	-		

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Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	5	0	89	203	-	56.4	-
					0	6	3	89	125	-	55.9	55.1
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level				
	X	Y	Z					day	night			
0+000	1932617.899	585875.028	286.00	-	-	-	-	-	-			
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	5	0	89	203	-	56.4	-
					0	6	3	89	125	-	55.9	55.1
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level				
	X	Y	Z					day	night			
0+000	1932456.766	585876.682	284.79	-	-	-	-	-	-			
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000		
Train type					Number of trains		Speed	Length per train	Max	Emission level		
					day	night	km/h	m		day dB(A)	night dB(A)	
					0	1	0	89	301	yes	51.5	-
					0	5	0	89	203	-	56.4	-
					0	6	3	89	125	-	55.9	55.1
					0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level				
	X	Y	Z					day	night			
0+000	1932403.578	585877.229	284.34	-	-	-	-	-	-			

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## Noise emissions of railway traffic

To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	51.5	-	
	0			5	0	89	203	-	56.4	-	
	0			6	3	89	125	-	55.9	55.1	
	0			1	1	64	1742	-	60.7	62.9	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
0+000	1932241.653	585878.891	283.20	-	-	-	day	night			
							-	-			
To LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	51.5	-	
	0			5	0	89	203	-	56.4	-	
	0			6	3	89	125	-	55.9	55.1	
	0			1	1	64	1742	-	60.7	62.9	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
0+000	1932188.866	585879.433	282.74	-	-	-	day	night			
							-	-			
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Coordinates of track axis			Number of trains		Speed	Length per train	Max	Emission level	
Track Station km	X	Y	Z	day	night	km/h	m	day dB(A)		night dB(A)	
	0			1	0	89	301	yes	51.5	-	
	0			4	1	89	203	-	55.4	51.6	
	0			9	1	89	125	-	57.6	50.3	
	0			1	1	64	1742	-	60.7	62.9	
Track Station km	X	Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
0+000	1934437.249	585861.353	292.86	-	-	-	day	night			
							-	-			

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From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day	night	
Track Station km	X	Coordinates of track axis		Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
				day	night			day	night		
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
0+000	1935523.022	585852.749	298.00	-	-	-	-	-	-	-	-
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day	night	
Track Station km	X	Coordinates of track axis		Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
				day	night			day	night		
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
0+000	1935498.032	585853.442	297.80	-	-	-	-	-	-	-	-
From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day	night	
Track Station km	X	Coordinates of track axis		Y	Z	Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level		
				day	night			day	night		
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
0+000	1935473.034	585853.759	297.74	-	-	-	-	-	-	-	-

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From LAUS		Rail track:			Direction:		Section: 1		Km: 0+000		
Train type				Number of trains		Speed	Length per train	Max	Emission level		
				day	night	km/h	m		day dB(A)	night dB(A)	
				0	1	0	89	301	yes	51.5	-
				0	4	1	89	203	-	55.4	51.6
				0	9	1	89	125	-	57.6	50.3
				0	1	1	64	1742	-	60.7	62.9
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1935436.945	585854.077	298.00	-	-	-	-	-	-		

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z			day	night					
0+000	1935918.727	585692.311	300.00	-	-	-	-	-	-		
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z			day	night					
0+000	1936111.294	585545.661	301.37	-	-	-	-	-	-		
Proposed Siding Track		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z			day	night					
0+000	1934766.630	585863.628	295.23	-	-	-	-	-	-		
Proposed Siding Track		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z			day	night					
0+000	1934856.754	585867.537	296.02	-	-	-	-	-	-		

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Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932738.383	585874.014	287.31	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936696.223	585202.459	307.40	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932791.200	585873.582	287.70	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932813.529	585873.383	287.73	-	-	-	-	-			

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Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	0	89	125	yes	63.5	-
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932836.472	585873.211	287.78	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	0	89	125	yes	57.6	-
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933120.873	585871.158	289.01	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	0	89	125	yes	57.6	-
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932998.701	585872.040	288.69	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	0	89	125	yes	63.5	-
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933051.516	585871.659	288.90	-	-	-	-	-			

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1933120.873	585871.158	289.01	-	-		-		-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1933213.125	585874.128	289.23	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	60.9	53.6	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1933120.873	585871.158	289.01	5.0	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1933398.617	585869.116	289.00	-	-		-		-	-	

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Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933451.320	585868.728	289.06	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933613.927	585867.533	289.35	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933666.833	585867.144	289.75	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933829.287	585865.949	290.23	-	-	-	-	-			

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## Noise emissions of railway traffic

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-		-		day	night	
	1933847.814	585865.813	290.34						-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-		-		day	night	
	1933876.388	585865.602	290.67						-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-		-		day	night	
	1933265.704	585874.653	289.17						-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z	-	-		-		day	night	
	1933963.177	585869.536	291.00						-	-	

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934016.095	585869.147	291.00	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934038.840	585868.980	291.00	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934062.126	585868.809	291.00	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934172.728	585867.995	291.00	-	-	-	-	-			

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1934228.029	585867.589	291.27	-	-		-		-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1934384.666	585866.437	292.28	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1933929.306	585865.213	291.00	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1934226.708	585863.026	291.23	-	-		-		-	-	

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Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night		km/h	m		day	night		
								dB(A)	dB(A)		
		0	9	1	89	125	yes	57.6	50.3		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1934275.989	585862.664	291.97	-	-	-	-	-	-		
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night		km/h	m		day	night		
								dB(A)	dB(A)		
		0	9	1	89	125	yes	63.5	56.2		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1934438.048	585861.472	292.87	-	-	-	-	-	-		
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night		km/h	m		day	night		
								dB(A)	dB(A)		
		0	9	1	89	125	yes	57.6	50.3		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1934490.298	585861.088	293.33	-	-	-	-	-	-		
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night		km/h	m		day	night		
								dB(A)	dB(A)		
		0	9	1	89	125	yes	63.5	56.2		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
X	Y	Z						day	night		
0+000	1934602.079	585860.266	294.14	-	-	-	-	-	-		

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## Noise emissions of railway traffic

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934621.931	585860.120	294.24	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934649.049	585859.921	294.53	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934437.050	585866.052	292.90	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934770.230	585863.602	295.25	-	-	-	-	-			

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
										day	night
0+000	1934729.076	585863.904	295.19	-	-	-	-	-	-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	64.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
										day	night
0+000	1934764.785	585863.642	295.22	5.0	-	-	-	-	-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
										day	night
0+000	1934783.651	585863.503	295.32	-	-	-	-	-	-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
										day	night
0+000	1934806.546	585863.334	295.50	-	-	-	-	-	-	-	

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
				X	Y	Z			day	night	
0+000	1934829.405	585863.139	295.77	-	-		-		-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
				X	Y	Z			day	night	
0+000	1934991.002	585859.089	296.51	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
				X	Y	Z			day	night	
0+000	1934703.960	585859.517	295.06	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
				X	Y	Z			day	night	
0+000	1934840.198	585858.381	295.86	-	-		-		-	-	

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Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934891.466	585857.304	296.14	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935054.654	585852.952	296.55	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935043.171	585857.793	296.61	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935203.940	585856.125	296.98	-	-	-	-	-			

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Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935107.329	585852.402	296.70	-	-	-	-	-			

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935271.702	585850.957	297.11	-	-	-	-	-			

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935292.867	585850.771	297.39	-	-	-	-	-			

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935316.144	585850.567	297.71	-	-	-	-	-			

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935256.862	585855.660	297.12	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935430.949	585854.130	298.00	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935506.959	585853.253	298.00	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935485.534	585853.629	297.76	-	-	-	-	-			

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935525.699	585852.640	298.00	-	-		-		-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935669.502	585829.513	298.77	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935360.080	585850.181	298.00	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935683.681	585819.505	298.34	-	-		-		-	-	

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935719.095	585812.780	299.00	-	-	-	-	-	-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935871.137	585726.760	300.00	-	-	-	-	-	-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935735.022	585800.216	299.02	-	-	-	-	-	-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935854.451	585731.555	300.00	-	-	-	-	-	-	-	

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Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935900.860	585698.103	300.00	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936026.855	585606.830	301.00	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936044.090	585594.345	300.93	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936065.166	585579.077	300.11	-	-	-	-	-			

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1936129.420	585539.681	302.00	-	-	-	-	-	-		
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1936163.681	585514.893	301.00	-	-	-	-	-	-		
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1936183.979	585500.236	301.00	-	-	-	-	-	-		
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	60.9	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1936254.036	585449.673	302.00	5.0	-	-	-	-	-		

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936204.379	585485.516	301.16	-	-		-		-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	60.9	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936246.561	585455.079	301.51	5.0	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	60.9	53.6	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936246.425	585454.891	301.53	5.0	-		-		-	-	
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936330.878	585393.978	302.85	-	-		-		-	-	

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Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936376.785	585360.983	303.24	-	-		-		-	-	
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936519.438	585275.368	306.27	-	-		-		-	-	
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	63.5	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936567.454	585251.987	306.03	-	-		-		-	-	
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1932198.678	585877.715	282.74	-	-		-		-	-	

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## Noise emissions of railway traffic

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936696.223	585202.459	307.40	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933120.873	585871.158	289.01	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	60.9	53.6
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936254.036	585449.673	302.00	5.0	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936330.878	585393.978	302.85	-	-	-	-	-			

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## Noise emissions of railway traffic

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936376.785	585360.983	303.24	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936519.438	585275.368	306.27	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936567.454	585251.987	306.03	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	63.5	56.2
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932715.495	585874.014	287.00	-	-	-	-	-			

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## Noise emissions of railway traffic

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932667.043	585874.359	286.52	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932645.913	585874.510	286.28	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932624.466	585874.662	286.00	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932463.141	585875.755	284.80	-	-	-	-	-			

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## Noise emissions of railway traffic

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932410.723	585876.085	284.37	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	63.5	56.2	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932248.973	585877.275	283.26	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933124.788	585871.311	289.04	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933124.792	585871.145	289.03	-	-	-	-	-			

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1935918.727	585692.311	300.00	-	-	-		-	-		
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1936111.294	585545.661	301.37	-	-	-		-	-		
Proposed Siding Track		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934766.630	585863.628	295.23	-	-	-		-	-		
Proposed Siding Track		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934856.754	585867.537	296.02	-	-	-		-	-		

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Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	0	89	125	yes	57.6	-
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932738.383	585874.014	287.31	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	0	89	125	yes	57.6	-
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936696.223	585202.459	307.40	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	0	89	125	yes	57.6	-
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932791.200	585873.582	287.70	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	0	89	125	yes	57.6	-
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932813.529	585873.383	287.73	-	-	-	-	-			

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## Noise emissions of railway traffic

Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932836.472	585873.211	287.78	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933120.873	585871.158	289.01	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932998.701	585872.040	288.69	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933051.516	585871.659	288.90	-	-	-	-	-			

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1933120.873	585871.158	289.01	-	-	-	-	-	-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1933213.125	585874.128	289.23	-	-	-	-	-	-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	60.9	53.6	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1933120.873	585871.158	289.01	5.0	-	-	-	-	-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
0+000	X	Y	Z						day	night	
0+000	1933398.617	585869.116	289.00	-	-	-	-	-	-	-	

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## Noise emissions of railway traffic

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933451.320	585868.728	289.06	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933613.927	585867.533	289.35	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933666.833	585867.144	289.75	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933829.287	585865.949	290.23	-	-	-	-	-			

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Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933847.814	585865.813	290.34	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933876.388	585865.602	290.67	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933265.704	585874.653	289.17	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933963.177	585869.536	291.00	-	-	-	-	-			

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934016.095	585869.147	291.00	-	-	-	-	-	-		
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934038.840	585868.980	291.00	-	-	-	-	-	-		
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934062.126	585868.809	291.00	-	-	-	-	-	-		
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934172.728	585867.995	291.00	-	-	-	-	-	-		

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1934228.029	585867.589	291.27	-	-		-		-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1934384.666	585866.437	292.28	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1933929.306	585865.213	291.00	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1934226.708	585863.026	291.23	-	-		-		-	-	

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Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934275.989	585862.664	291.97	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934438.048	585861.472	292.87	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934490.298	585861.088	293.33	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934602.079	585860.266	294.14	-	-	-	-	-			

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## Noise emissions of railway traffic

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934621.931	585860.120	294.24	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934649.049	585859.921	294.53	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934437.050	585866.052	292.90	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934770.230	585863.602	295.25	-	-	-	-	-			

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934729.076	585863.904	295.19	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	60.9	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934764.785	585863.642	295.22	5.0	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934783.651	585863.503	295.32	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1934806.546	585863.334	295.50	-	-	-	-	-			

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934829.405	585863.139	295.77	-	-	-	-	-	-		
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934991.002	585859.089	296.51	-	-	-	-	-	-		
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934703.960	585859.517	295.06	-	-	-	-	-	-		
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1934840.198	585858.381	295.86	-	-	-	-	-	-		

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## Noise emissions of railway traffic

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1934891.466	585857.304	296.14	-	-		-		-	-	

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935054.654	585852.952	296.55	-	-		-		-	-	

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935043.171	585857.793	296.61	-	-		-		-	-	

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935203.940	585856.125	296.98	-	-		-		-	-	

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Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935107.329	585852.402	296.70	-	-	-	-	-			

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935271.702	585850.957	297.11	-	-	-	-	-			

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935292.867	585850.771	297.39	-	-	-	-	-			

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935316.144	585850.567	297.71	-	-	-	-	-			

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Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935256.862	585855.660	297.12	-	-		-		-	-	

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935430.949	585854.130	298.00	-	-		-		-	-	

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935506.959	585853.253	298.00	-	-		-		-	-	

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935485.534	585853.629	297.76	-	-		-		-	-	

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935525.699	585852.640	298.00	-	-		-		-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935669.502	585829.513	298.77	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935360.080	585850.181	298.00	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935683.681	585819.505	298.34	-	-		-		-	-	

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935719.095	585812.780	299.00	-	-		-		-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935871.137	585726.760	300.00	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935735.022	585800.216	299.02	-	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1935854.451	585731.555	300.00	-	-		-		-	-	

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## Noise emissions of railway traffic

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1935900.860	585698.103	300.00	-	-	-	-	-			

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936026.855	585606.830	301.00	-	-	-	-	-			

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936044.090	585594.345	300.93	-	-	-	-	-			

Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936065.166	585579.077	300.11	-	-	-	-	-			

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1936129.420	585539.681	302.00	-	-	-	-	-	-		
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1936163.681	585514.893	301.00	-	-	-	-	-	-		
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1936183.979	585500.236	301.00	-	-	-	-	-	-		
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	60.9	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]		Corrected Emission level			
	X	Y	Z					day	night		
0+000	1936254.036	585449.673	302.00	5.0	-	-	-	-	-		

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## Noise emissions of railway traffic

Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936204.379	585485.516	301.16	-	-		-		-	-	
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	60.9	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936246.561	585455.079	301.51	5.0	-		-		-	-	
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	60.9	53.6	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936246.425	585454.891	301.53	5.0	-		-		-	-	
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]		Multiple reflections [dB]		Corrected Emission level		
	X	Y	Z						day	night	
0+000	1936330.878	585393.978	302.85	-	-		-		-	-	

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## Noise emissions of railway traffic

Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night		km/h	m		day	night		
								dB(A)	dB(A)		
		0	9	0	89	125	yes	57.6	-		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
X	Y	Z					day	night			
0+000	1936376.785	585360.983	303.24	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night		km/h	m		day	night		
								dB(A)	dB(A)		
		0	9	0	89	125	yes	57.6	-		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
X	Y	Z					day	night			
0+000	1936519.438	585275.368	306.27	-	-	-	-	-			
Existing Track From LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night		km/h	m		day	night		
								dB(A)	dB(A)		
		0	9	0	89	125	yes	57.6	-		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
X	Y	Z					day	night			
0+000	1936567.454	585251.987	306.03	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type		Number of trains			Speed	Length per train	Max	Emission level			
		day	night		km/h	m		day	night		
								dB(A)	dB(A)		
		0	9	1	89	125	yes	57.6	50.3		
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
X	Y	Z					day	night			
0+000	1932198.678	585877.715	282.74	-	-	-	-	-			

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## Noise emissions of railway traffic

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936696.223	585202.459	307.40	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933120.873	585871.158	289.01	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	60.9	53.6
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936254.036	585449.673	302.00	5.0	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936330.878	585393.978	302.85	-	-	-	-	-			

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## Noise emissions of railway traffic

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936376.785	585360.983	303.24	-	-	-	-	-			

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936519.438	585275.368	306.27	-	-	-	-	-			

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1936567.454	585251.987	306.03	-	-	-	-	-			

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932715.495	585874.014	287.00	-	-	-	-	-			

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## Noise emissions of railway traffic

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932667.043	585874.359	286.52	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932645.913	585874.510	286.28	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932624.466	585874.662	286.00	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
				0	9	1	89	125	yes	57.6	50.3
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932463.141	585875.755	284.80	-	-	-	-	-			

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## Noise emissions of railway traffic

Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932410.723	585876.085	284.37	-	-	-	-	-			
Existing Track to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1932248.973	585877.275	283.26	-	-	-	-	-			
Proposed from LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	0	89	125	yes	57.6	-	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933124.788	585871.311	289.04	-	-	-	-	-			
Proposed to LAUS		Rail track:			Direction:		Section: 1			Km: 0+000	
Train type				Number of trains		Speed km/h	Length per train m	Max	Emission level		
				day	night				day dB(A)	night dB(A)	
0				9	1	89	125	yes	57.6	50.3	
Track Station km	Coordinates of track axis			Track type [dB]	Curve radius [dB]	Multiple reflections [dB]	Corrected Emission level				
	X	Y	Z				day	night			
0+000	1933124.792	585871.145	289.03	-	-	-	-	-			

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# Appendix B. Monitoring Equipment Calibration Certificates

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## MANUFACTURER'S CERTIFICATE OF CONFORMANCE

We certify that Brüel & Kjær ~~-2245---~~ Serial No. **2245-100486** has been tested and passed all production tests, confirming compliance with the manufacturer's published specification at the date of the test.

The final test has been performed using calibrated equipment, traceable to national or international standards or by ratio measurements.

Brüel & Kjær is certified under ISO 9001 assuring that all test data is retained on file and is available for inspection upon request.

Nærum 29-apr-2020

A handwritten signature in blue ink, appearing to read 'Torben Bjørn'.

Torben Bjørn  
Vice President, Operations

Please note that this document is not a calibration certificate.  
For information on our calibration services please go to [www.bksv.com/service](http://www.bksv.com/service).





## MANUFACTURER'S CERTIFICATE OF CONFORMANCE

We certify that Brüel & Kjær ~~-2245---~~ Serial No. **2245-100485** has been tested and passed all production tests, confirming compliance with the manufacturer's published specification at the date of the test.

The final test has been performed using calibrated equipment, traceable to national or international standards or by ratio measurements.

Brüel & Kjær is certified under ISO 9001 assuring that all test data is retained on file and is available for inspection upon request.

Nærum 29-apr-2020

A handwritten signature in blue ink, appearing to read 'Torben Bjørn'.

Torben Bjørn  
Vice President, Operations

Please note that this document is not a calibration certificate.  
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**Scantek, Inc.**  
 CALIBRATION LABORATORY

ISO 17025: 2005, ANSI/NCSL Z540:1994 Part 1  
 ACCREDITED by NVLAP (an ILAC MRA signatory)

**NVLAP**<sup>®</sup>  
 CALIBRATION  
 NVLAP Lab Code: 200625-0

## Calibration Certificate No.44453

<b>Instrument:</b>	<b>Sound Level Meter</b>	<b>Date Calibrated:</b>	<b>3/9/2020</b>	<b>Cal Due:</b>	
<b>Model:</b>	<b>2270</b>	<b>Status:</b>	<b>Received</b>	<b>Sent</b>	
<b>Manufacturer:</b>	<b>Brüel and Kjær</b>	<b>In tolerance:</b>	<b>X</b>	<b>X</b>	
<b>Serial number:</b>	<b>3024719_KIT#3</b>	<b>Out of tolerance:</b>			
<b>Tested with:</b>	<b>Microphone 4189 s/n 2578556</b>	<b>See comments:</b>			
	<b>4189 s/n 2021340</b>				
	<b>Preamplifier ZC0032 s/n 6630</b>				
	<b>ZC0032 s/n 29400</b>				
<b>Type (class):</b>	<b>1</b>	<b>Contains non-accredited tests:</b>	<b>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></b>		
<b>Customer:</b>	<b>Harris Miller Miller &amp; Hanson Inc.</b>	<b>Calibration service:</b>	<b>Basic <input type="checkbox"/> Standard <input checked="" type="checkbox"/></b>		
<b>Tel/Fax:</b>	<b>781-229-0707 x3148 / 781-859-8940</b>	<b>Address:</b>	<b>700 District Avenue, Suite 800, Burlington, MA 01803</b>		

Tested in accordance with the following procedures and standards:  
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 SLM & Dosimeters – Acoustical Tests, Scantek Inc., Rev. 7/6/2011

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Oct 31, 2019	Scantek, Inc./ NVLAP	Oct 31, 2020
DS-360-SRS	Function Generator	33584	Oct 23, 2019	ACR Env./ A2LA	Oct 23, 2021
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Oct 22, 2019	ACR Env. / A2LA	Oct 22, 2020
HM30-Thommen	Meteo Station	1040170/39633	Oct 24, 2019	ACR Env./ A2LA	Oct 24, 2020
PC Program 1019 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1251-Norsonic	Calibrator	30878	Oct 23, 2019	Scantek, Inc./ NVLAP	Oct 23, 2020

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK).

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
23.7	101.42	42.3

<b>Calibrated by:</b>	<i>Lydon Dawkins</i>	<b>Authorized signatory:</b>	Steven E. Marshall
Signature	<i>Lydon Dawkins</i>	Signature	<i>Steven E. Marshall</i>
Date	<i>3/9/2020</i>	Date	<i>3/10/2020</i>

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 CALIBRATION  
 NVLAP Lab Code: 200625-0

## Calibration Certificate No.44438

<b>Instrument:</b>	<b>Acoustical Calibrator</b>	<b>Date Calibrated:</b>	<b>2/27/2020</b>	<b>Cal Due:</b>					
<b>Model:</b>	<b>4231</b>	<b>Status:</b>	<table border="1"><tr><td>Received</td><td>Sent</td></tr><tr><td>X</td><td>X</td></tr></table>	Received	Sent	X	X		
Received	Sent								
X	X								
<b>Manufacturer:</b>	<b>Brüel and Kjær</b>	<b>In tolerance:</b>	<table border="1"><tr><td>X</td><td>X</td></tr></table>	X	X				
X	X								
<b>Serial number:</b>	<b>2579292</b>	<b>Out of tolerance:</b>	<table border="1"><tr><td></td><td></td></tr></table>						
<b>Class (IEC 60942):</b>	<b>1</b>	<b>See comments:</b>	<table border="1"><tr><td></td><td></td></tr></table>						
<b>Barometer type:</b>		<b>Contains non-accredited tests:</b>	<b>Yes</b>	<b>X</b>	<b>No</b>				
<b>Barometer s/n:</b>									
<b>Customer:</b>	<b>Harris Miller Miller &amp; Hanson Inc.</b>	<b>Address:</b>	<b>700 District Avenue, Suite 800, Burlington, MA 01803</b>						
<b>Tel/Fax:</b>	<b>781-229-0707 x3148 / 781-859-8940</b>								

**Tested in accordance with the following procedures and standards:**  
 Calibration of Acoustical Calibrators, Scantek Inc., Rev. 10/1/2010

**Instrumentation used for calibration:** Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Oct 31, 2019	Scantek, Inc./ NVLAP	Oct 31, 2020
DS-360-SRS	Function Generator	33584	Oct 23, 2019	ACR Env./ A2LA	Oct 23, 2021
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Oct 22, 2019	ACR Env. / A2LA	Oct 22, 2020
HM30-Thommen	Meteo Station	1040170/39633	Oct 24, 2019	ACR Env./ A2LA	Oct 24, 2020
140-Norsonic	Real Time Analyzer	1406423	Oct 31, 2019	Scantek / NVLAP	Oct 31, 2020
PC Program 1018 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
4134-Brüel&Kjær	Microphone	173368	Oct 23, 2019	Scantek, Inc. / NVLAP	Oct 23, 2020
1203-Norsonic	Preamplifier	14059	Feb 28, 2019	Scantek, Inc./ NVLAP	Feb 28, 2020

**Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK)**

<b>Calibrated by:</b>	Lydon Dawkins	<b>Authorized signatory:</b>	Steven E. Marshall
Signature	<i>Lydon Dawkins</i>	Signature	<i>Steven E. Marshall</i>
Date	2/27/2020	Date	3/3/2020

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 CALIBRATION  
 NVLAP Lab Code: 200625-0

## Calibration Certificate No.44459

<b>Instrument:</b>	<b>Sound Level Meter</b>	<b>Date Calibrated:</b>	<b>3/10/2020</b>	<b>Cal Due:</b>	
<b>Model:</b>	<b>2270</b>	<b>Status:</b>	<b>Received</b>	<b>Sent</b>	
<b>Manufacturer:</b>	<b>Brüel and Kjær</b>	<b>In tolerance:</b>	<b>X</b>	<b>X</b>	
<b>Serial number:</b>	<b>3024729_KIT#5</b>	<b>Out of tolerance:</b>			
<b>Tested with:</b>	<b>Microphone 4189 s/n 2616506</b>	<b>See comments:</b>			
	<b>4189 s/n 2386155</b>				
	<b>Preamplifier ZC0032 s/n 11159</b>	<b>Contains non-accredited tests:</b>	<b>Yes X No</b>		
	<b>ZC0032 s/n 29416</b>	<b>Calibration service:</b>	<b>Basic X Standard</b>		
<b>Type (class):</b>	<b>1</b>	<b>Customer:</b>	<b>Harris Miller Miller &amp; Hanson Inc.</b>		
<b>Tel/Fax:</b>	<b>781-229-0707 x3148 / 781-859-8940</b>	<b>Address:</b>	<b>700 District Avenue, Suite 800, Burlington, MA 01803</b>		

Tested in accordance with the following procedures and standards:  
 Calibration of Sound Level Meters, Scantek Inc., Rev. 6/26/2015  
 SLM & Dosimeters – Acoustical Tests, Scantek Inc., Rev. 7/6/2011

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	
				Cal. Lab / Accreditation	Cal. Due
483B-Norsonic	SME Cal Unit	31052	Oct 31, 2019	Scantek, Inc./ NVLAP	Oct 31, 2020
DS-360-SRS	Function Generator	33584	Oct 23, 2019	ACR Env./ A2LA	Oct 23, 2021
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Oct 22, 2019	ACR Env. / A2LA	Oct 22, 2020
HM30-Thommen	Meteo Station	1040170/39633	Oct 24, 2019	ACR Env./ A2LA	Oct 24, 2020
PC Program 1019 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1251-Norsonic	Calibrator	30878	Oct 23, 2019	Scantek, Inc./ NVLAP	Oct 23, 2020

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK).

Environmental conditions:

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
24.4	100.57	40.6

<b>Calibrated by:</b>	Lydon Dawkins	<b>Authorized signatory:</b>	Steven E. Marshall
Signature	<i>Lydon Dawkins</i>	Signature	<i>Steven E. Marshall</i>
Date	3/10/2020	Date	3/10/2020

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 CALIBRATION  
 NVLAP Lab Code: 200625-0

## Calibration Certificate No.44441

<b>Instrument:</b>	<b>Acoustical Calibrator</b>	<b>Date Calibrated:</b>	<b>2/27/2020</b>	<b>Cal Due:</b>					
<b>Model:</b>	<b>4231</b>	<b>Status:</b>	<table border="1"><tr><td>Received</td><td>Sent</td></tr><tr><td>X</td><td>X</td></tr></table>	Received	Sent	X	X		
Received	Sent								
X	X								
<b>Manufacturer:</b>	<b>Brüel and Kjær</b>	<b>In tolerance:</b>	<table border="1"><tr><td>X</td><td>X</td></tr></table>	X	X				
X	X								
<b>Serial number:</b>	<b>2579294</b>	<b>Out of tolerance:</b>	<table border="1"><tr><td></td><td></td></tr></table>						
<b>Class (IEC 60942):</b>	<b>1</b>	<b>See comments:</b>	<table border="1"><tr><td></td><td></td></tr></table>						
<b>Barometer type:</b>		<b>Contains non-accredited tests:</b>	<table border="1"><tr><td>Yes</td><td>X</td><td>No</td></tr></table>	Yes	X	No			
Yes	X	No							
<b>Barometer s/n:</b>									
<b>Customer:</b>	<b>Harris Miller Miller &amp; Hanson Inc.</b>	<b>Address:</b>	<b>700 District Avenue, Suite 800, Burlington, MA 01803</b>						
<b>Tel/Fax:</b>	<b>781-229-0707 x3148 / 781-859-8940</b>								

**Tested in accordance with the following procedures and standards:**  
 Calibration of Acoustical Calibrators, Scantek Inc., Rev. 10/1/2010

**Instrumentation used for calibration:** Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Oct 31, 2019	Scantek, Inc. / NVLAP	Oct 31, 2020
DS-360-SRS	Function Generator	33584	Oct 23, 2019	ACR Env. / A2LA	Oct 23, 2021
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Oct 22, 2019	ACR Env. / A2LA	Oct 22, 2020
HM30-Thommen	Meteo Station	1040170/39633	Oct 24, 2019	ACR Env. / A2LA	Oct 24, 2020
140-Norsonic	Real Time Analyzer	1406423	Oct 31, 2019	Scantek / NVLAP	Oct 31, 2020
PC Program 1018 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
4134-Brüel&Kjær	Microphone	173368	Oct 23, 2019	Scantek, Inc. / NVLAP	Oct 23, 2020
1203-Norsonic	Preamplifier	14059	Feb 28, 2019	Scantek, Inc. / NVLAP	Feb 28, 2020

**Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK)**

<b>Calibrated by:</b>	Lydon Dawkins	<b>Authorized signatory:</b>	Steven E. Marshall
Signature	<i>Lydon Dawkins</i>	Signature	<i>Steven E. Marshall</i>
Date	2/27/2020	Date	3/3/2020

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 NVLAP Lab Code: 200625-0

## Calibration Certificate No.44462

<b>Instrument:</b>	<b>Sound Level Meter</b>	<b>Date Calibrated:</b>	<b>3/10/2020</b>	<b>Cal Due:</b>					
<b>Model:</b>	<b>2270</b>	<b>Status:</b>	<table border="1"><tr><td>Received</td><td>Sent</td></tr><tr><td>X</td><td>X</td></tr></table>	Received	Sent	X	X		
Received	Sent								
X	X								
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<b>Serial number:</b>	<b>3024993_KIT#6</b>	<b>Out of tolerance:</b>							
<b>Tested with:</b>	<b>Microphone 4189 s/n 2616507</b>	<b>See comments:</b>							
	<b>4189 s/n 3180986</b>								
	<b>Preamplifier ZC0032 s/n 18967</b>	<b>Contains non-accredited tests:</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
	<b>ZC0032 s/n 29417</b>	<b>Calibration service:</b>	<input type="checkbox"/> Basic <input checked="" type="checkbox"/> Standard						
<b>Type (class):</b>	<b>1</b>	<b>Customer:</b>	<b>Harris Miller Miller &amp; Hanson Inc.</b>						
<b>Customer:</b>	<b>Harris Miller Miller &amp; Hanson Inc.</b>	<b>Address:</b>	<b>700 District Avenue, Suite 800, Burlington, MA 01803</b>						
<b>Tel/Fax:</b>	<b>781-229-0707 x3148 / 781-859-8940</b>								

Tested in accordance with the following procedures and standards:  
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 SLM & Dosimeters – Acoustical Tests, Scantek Inc., Rev. 7/6/2011

Instrumentation used for calibration: Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Oct 31, 2019	Scantek, Inc./ NVLAP	Oct 31, 2020
DS-360-SRS	Function Generator	33584	Oct 23, 2019	ACR Env./ A2LA	Oct 23, 2021
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Oct 22, 2019	ACR Env. / A2LA	Oct 22, 2020
HM30-Thommen	Meteo Station	1040170/39633	Oct 24, 2019	ACR Env./ A2LA	Oct 24, 2020
PC Program 1019 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
1251-Norsonic	Calibrator	30878	Oct 23, 2019	Scantek, Inc./ NVLAP	Oct 23, 2020

Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK).

**Environmental conditions:**

Temperature (°C)	Barometric pressure (kPa)	Relative Humidity (%)
23.0	100.28	49.5

<b>Calibrated by:</b>	Lydon Dawkins	<b>Authorized signatory:</b>	Steven E. Marshall
Signature	<i>Lydon Dawkins</i>	Signature	<i>Steven E. Marshall</i>
Date	3/10/2020	Date	3/10/2020

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 NVLAP Lab Code: 200625-0

## Calibration Certificate No.44437

<b>Instrument:</b>	<b>Acoustical Calibrator</b>	<b>Date Calibrated:</b>	<b>2/27/2020</b>	<b>Cal Due:</b>					
<b>Model:</b>	<b>4231</b>	<b>Status:</b>	<table border="1"><tr><td>Received</td><td>Sent</td></tr><tr><td>X</td><td>X</td></tr></table>	Received	Sent	X	X		
Received	Sent								
X	X								
<b>Manufacturer:</b>	<b>Brüel and Kjær</b>	<b>In tolerance:</b>							
<b>Serial number:</b>	<b>2579295</b>	<b>Out of tolerance:</b>							
<b>Class (IEC 60942):</b>	<b>1</b>	<b>See comments:</b>							
<b>Barometer type:</b>		<b>Contains non-accredited tests:</b>	<u>Yes</u> <u>X</u> <u>No</u>						
<b>Barometer s/n:</b>									
<b>Customer:</b>	<b>Harris Miller Miller &amp; Hanson Inc.</b>	<b>Address:</b>	<b>700 District Avenue, Suite 800,</b>						
<b>Tel/Fax:</b>	<b>781-229-0707 x3148 / 781-229-7939</b>		<b>Burlington, MA 01803</b>						

**Tested in accordance with the following procedures and standards:**  
 Calibration of Acoustical Calibrators, Scantek Inc., Rev. 10/1/2010

**Instrumentation used for calibration:** Nor-1504 Norsonic Test System:

Instrument - Manufacturer	Description	S/N	Cal. Date	Traceability evidence	Cal. Due
				Cal. Lab / Accreditation	
483B-Norsonic	SME Cal Unit	31052	Oct 31, 2019	Scantek, Inc. / NVLAP	Oct 31, 2020
DS-360-SRS	Function Generator	33584	Oct 23, 2019	ACR Env. / A2LA	Oct 23, 2021
34401A-Agilent Technologies	Digital Voltmeter	MY47011118	Oct 22, 2019	ACR Env. / A2LA	Oct 22, 2020
HM30-Thommen	Meteo Station	1040170/39633	Oct 24, 2019	ACR Env. / A2LA	Oct 24, 2020
140-Norsonic	Real Time Analyzer	1406423	Oct 31, 2019	Scantek / NVLAP	Oct 31, 2020
PC Program 1018 Norsonic	Calibration software	v.6.1T	Validated Nov 2014	Scantek, Inc.	-
4134-Brüel&Kjær	Microphone	173368	Oct 23, 2019	Scantek, Inc. / NVLAP	Oct 23, 2020
1203-Norsonic	Preamplifier	14059	Feb 28, 2019	Scantek, Inc. / NVLAP	Feb 28, 2020

**Instrumentation and test results are traceable to SI (International System of Units) through standards maintained by NIST (USA) and NPL (UK)**

<b>Calibrated by:</b>	Lydon Dawkins	<b>Authorized signatory:</b>	Steven E. Marshall
Signature	<i>Lydon Dawkins</i>	Signature	<i>Steven E. Marshall</i>
Date	2/27/2020	Date	3/3/2020

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## Appendix C. Detailed Modeling Results

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**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R1	2	1	65.0	1.4	3.6	48.5	65.1	0.1	No Impact	46.9	59.9	-5.1	No Impact	48.4	65.1	0.1	No Impact
R2	2	1	65.0	1.4	3.6	50.1	65.1	0.1	No Impact	48.4	59.2	-5.8	No Impact	50.1	65.1	0.1	No Impact
R3	2	1	65.0	1.4	3.6	50.2	65.1	0.1	No Impact	48	58	-7	No Impact	50.1	65.1	0.1	No Impact
R4	2	1	65.0	1.4	3.6	51.7	65.2	0.2	No Impact	49.2	57.4	-7.6	No Impact	51.7	65.2	0.2	No Impact
R5	2	1	65.0	1.4	3.6	50.7	65.2	0.2	No Impact	46.8	55.1	-9.9	No Impact	50.6	65.2	0.2	No Impact
R6	2	1	65.0	1.4	3.6	50.1	65.1	0.1	No Impact	45.6	54.4	-10.6	No Impact	50.0	65.1	0.1	No Impact
R7	2	1	65.0	1.4	3.6	49.4	65.1	0.1	No Impact	44.3	54.4	-10.6	No Impact	49.4	65.1	0.1	No Impact
R8	2	1	60.0	2.0	5.0	47.9	60.3	0.3	No Impact	43.5	51	-9	No Impact	47.9	60.3	0.3	No Impact
R9	2	1	60.0	2.0	5.0	47.1	60.2	0.2	No Impact	43.6	52	-8	No Impact	47.1	60.2	0.2	No Impact
R10	2	1	60.0	2.0	5.0	46.6	60.2	0.2	No Impact	42.5	50.7	-9.3	No Impact	46.6	60.2	0.2	No Impact
R11	2	1	60.0	2.0	5.0	45.9	60.2	0.2	No Impact	42.2	50.6	-9.4	No Impact	45.9	60.2	0.2	No Impact
R12	2	1	60.0	2.0	5.0	46.5	60.2	0.2	No Impact	44.1	52.9	-7.1	No Impact	46.5	60.2	0.2	No Impact
R13	2	1	60.0	2.0	5.0	46.3	60.2	0.2	No Impact	43.9	53.2	-6.8	No Impact	46.3	60.2	0.2	No Impact
R14	2	1	60.0	2.0	5.0	45.5	60.2	0.2	No Impact	43.6	54.3	-5.7	No Impact	45.5	60.2	0.2	No Impact
R15	2	1	60.0	2.0	5.0	45.0	60.1	0.1	No Impact	43.3	54.4	-5.6	No Impact	45.0	60.1	0.1	No Impact
R16	2	1	55.0	3.2	7.1	43.0	55.3	0.3	No Impact	40.9	49.1	-5.9	No Impact	43.0	55.3	0.3	No Impact
R17	2	1	55.0	3.2	7.1	43.9	55.3	0.3	No Impact	41.7	48.9	-6.1	No Impact	43.9	55.3	0.3	No Impact
R18	2	1	55.0	3.2	7.1	43.5	55.3	0.3	No Impact	41.5	49.2	-5.8	No Impact	43.5	55.3	0.3	No Impact
R19	2	1	55.0	3.2	7.1	43.7	55.3	0.3	No Impact	41.3	48.7	-6.3	No Impact	43.7	55.3	0.3	No Impact
R20	2	1	65.0	1.4	3.6	60.8	66.4	1.4	No Impact	60.4	65.4	0.4	No Impact	60.8	66.4	1.4	No Impact
R21	2	1	65.0	1.4	3.6	60.7	66.4	1.4	No Impact	60.3	65.3	0.3	No Impact	60.7	66.4	1.4	No Impact
R22	2	1	65.0	1.4	3.6	60.9	66.4	1.4	Moderate	60.5	65.2	0.2	No Impact	60.9	66.4	1.4	No Impact
R23	2	1	65.0	1.4	3.6	60.9	66.4	1.4	Moderate	60.2	64.4	-0.6	No Impact	60.9	66.4	1.4	No Impact
R24	2	1	65.0	1.4	3.6	61.3	66.5	1.5	Moderate	60	63.5	-1.5	No Impact	61.3	66.5	1.5	Moderate
R25	2	1	65.0	1.4	3.6	61.7	66.7	1.7	Moderate	59.9	63.1	-1.9	No Impact	61.6	66.6	1.6	Moderate
R26	2	1	65.0	1.4	3.6	61.5	66.6	1.6	Moderate	59.9	63.4	-1.6	No Impact	61.5	66.6	1.6	Moderate
R27	2	1	65.0	1.4	3.6	59.7	66.1	1.1	No Impact	58.6	63.8	-1.2	No Impact	59.5	66.1	1.1	No Impact
R28	2	1	55.0	3.2	7.1	51.3	56.5	1.5	No Impact	49.6	52.6	-2.4	No Impact	51.2	56.5	1.5	No Impact
R29	2	1	55.0	3.2	7.1	49.9	56.2	1.2	No Impact	48.2	52.1	-2.9	No Impact	49.8	56.1	1.1	No Impact
R30	2	1	55.0	3.2	7.1	50.5	56.3	1.3	No Impact	49.1	53	-2	No Impact	50.5	56.3	1.3	No Impact
R31	2	1	55.0	3.2	7.1	51.2	56.5	1.5	No Impact	49.4	52.3	-2.7	No Impact	51.1	56.5	1.5	No Impact
R32	2	1	65.0	1.4	3.6	58.6	65.9	0.9	No Impact	57.9	64	-1	No Impact	58.1	65.8	0.8	No Impact
R33	2	1	55.0	3.2	7.1	50.2	56.2	1.2	No Impact	47.5	50.6	-4.4	No Impact	50.2	56.2	1.2	No Impact
R34	2	1	55.0	3.2	7.1	47.2	55.7	0.7	No Impact	45.3	50.2	-4.8	No Impact	47.2	55.7	0.7	No Impact

**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R35	2	1	55.0	3.2	7.1	51.5	56.6	1.6	No Impact	49.3	52.3	-2.7	No Impact	50.8	56.4	1.4	No Impact
R36	2	27	55.0	3.2	7.1	50.9	56.4	1.4	No Impact	48.1	51	-4	No Impact	50.6	56.3	1.3	No Impact
R37	2	27	60.0	2.0	5.0	49.7	60.4	0.4	No Impact	47.8	53.8	-6.2	No Impact	49.7	60.4	0.4	No Impact
R38	2	27	60.0	2.0	5.0	51.6	60.6	0.6	No Impact	46.9	52.1	-7.9	No Impact	51.5	60.6	0.6	No Impact
R39	2	27	60.0	2.0	5.0	58.7	62.4	2.4	Moderate	56.4	58	-2	No Impact	58.6	62.4	2.4	Moderate
R40	2	27	60.0	2.0	5.0	54.6	61.1	1.1	No Impact	49.1	52.1	-7.9	No Impact	54.6	61.1	1.1	No Impact
R41	2	27	60.0	2.0	5.0	52.6	60.7	0.7	No Impact	46.6	52.6	-7.4	No Impact	52.6	60.7	0.7	No Impact
R42	2	27	60.0	2.0	5.0	49.9	60.4	0.4	No Impact	46.2	52.9	-7.1	No Impact	49.9	60.4	0.4	No Impact
R43	2	27	60.0	2.0	5.0	50.9	60.5	0.5	No Impact	45.9	51.9	-8.1	No Impact	50.9	60.5	0.5	No Impact
R44	2	1	60.0	2.0	5.0	53.8	60.9	0.9	No Impact	45.9	49.2	-10.8	No Impact	53.8	60.9	0.9	No Impact
R45	2	1	65.0	1.4	3.6	58.4	65.9	0.9	No Impact	58	64.4	-0.6	No Impact	52.4	65.2	0.2	No Impact
R46	2	1	60.0	2.0	5.0	52.1	60.7	0.7	No Impact	50.6	56.8	-3.2	No Impact	49.4	60.4	0.4	No Impact
R47	2	1	60.0	2.0	5.0	54.1	61.0	1.0	No Impact	53.2	58.7	-1.3	No Impact	50.1	60.4	0.4	No Impact
R48	2	1	60.0	2.0	5.0	52.2	60.7	0.7	No Impact	50.6	57.1	-2.9	No Impact	49.9	60.4	0.4	No Impact
R49	2	1	60.0	2.0	5.0	52.8	60.8	0.8	No Impact	50.5	55.7	-4.3	No Impact	50.5	60.5	0.5	No Impact
R50	2	1	55.0	3.2	7.1	52.1	56.8	1.8	No Impact	49.4	52.2	-2.8	No Impact	50.2	56.2	1.2	No Impact
R51	2	1	55.0	3.2	7.1	50.5	56.3	1.3	No Impact	47.4	50.8	-4.2	No Impact	49.4	56.1	1.1	No Impact
R52	2	1	55.0	3.2	7.1	50.5	56.3	1.3	No Impact	46.7	49.9	-5.1	No Impact	49.6	56.1	1.1	No Impact
R53	2	1	55.0	3.2	7.1	50.0	56.2	1.2	No Impact	45.1	48.2	-6.8	No Impact	49.3	56.0	1.0	No Impact
R54	2	1	55.0	3.2	7.1	50.0	56.2	1.2	No Impact	45.7	48.9	-6.1	No Impact	49.2	56.0	1.0	No Impact
R55	2	1	55.0	3.2	7.1	49.2	56.0	1.0	No Impact	45.4	48.8	-6.2	No Impact	48.4	55.9	0.9	No Impact
R56	2	1	55.0	3.2	7.1	48.7	55.9	0.9	No Impact	45.5	49.5	-5.5	No Impact	47.8	55.8	0.8	No Impact
R57	2	1	55.0	3.2	7.1	51.3	56.5	1.5	No Impact	47.6	50.2	-4.8	No Impact	50.4	56.3	1.3	No Impact
R58	2	1	55.0	3.2	7.1	50.3	56.3	1.3	No Impact	46.6	49.9	-5.1	No Impact	49.4	56.1	1.1	No Impact
R59	2	1	55.0	3.2	7.1	49.9	56.2	1.2	No Impact	46.9	50.5	-4.5	No Impact	48.8	55.9	0.9	No Impact
R60	2	1	55.0	3.2	7.1	48.8	55.9	0.9	No Impact	45.6	49.5	-5.5	No Impact	48.1	55.8	0.8	No Impact
R61	2	1	55.0	3.2	7.1	53.3	57.2	2.2	No Impact	49.4	51.6	-3.4	No Impact	50.6	56.3	1.3	No Impact
R62	2	1	55.0	3.2	7.1	51.4	56.6	1.6	No Impact	46.1	49.1	-5.9	No Impact	49.8	56.1	1.1	No Impact
R63	2	1	55.0	3.2	7.1	48.7	55.9	0.9	No Impact	43.8	48	-7	No Impact	47.6	55.7	0.7	No Impact
R64	2	1	55.0	3.2	7.1	46.7	55.6	0.6	No Impact	42.4	47.4	-7.6	No Impact	46.4	55.6	0.6	No Impact
R65	2	1	55.0	3.2	7.1	48.3	55.8	0.8	No Impact	44.3	48.7	-6.3	No Impact	47.8	55.8	0.8	No Impact
R66	2	1	55.0	3.2	7.1	48.8	55.9	0.9	No Impact	44.1	48.4	-6.6	No Impact	48.4	55.9	0.9	No Impact
R67	2	1	55.0	3.2	7.1	55.2	58.1	3.1	No Impact	51.6	52.9	-2.1	No Impact	50.5	56.3	1.3	No Impact
R68	2	1	60.0	2.0	5.0	52.9	60.8	0.8	No Impact	49.3	54.4	-5.6	No Impact	50.8	60.5	0.5	No Impact

**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R69	2	1	60.0	2.0	5.0	53.9	61.0	1.0	No Impact	50.7	55.4	-4.6	No Impact	51.6	60.6	0.6	No Impact
R70	2	1	60.0	2.0	5.0	55.0	61.2	1.2	No Impact	52.2	56.1	-3.9	No Impact	52.2	60.7	0.7	No Impact
R71	2	1	60.0	2.0	5.0	55.8	61.4	1.4	No Impact	53.5	57.1	-2.9	No Impact	52.3	60.7	0.7	No Impact
R72	2	1	60.0	2.0	5.0	56.2	61.5	1.5	No Impact	53.6	56.9	-3.1	No Impact	52.3	60.7	0.7	No Impact
R73	2	1	60.0	2.0	5.0	50.7	60.5	0.5	No Impact	46.9	53.6	-6.4	No Impact	49.8	60.4	0.4	No Impact
R74	2	1	55.0	3.2	7.1	52.2	56.8	1.8	No Impact	49.2	51.9	-3.1	No Impact	50.7	56.4	1.4	No Impact
R75	2	1	55.0	3.2	7.1	51.9	56.7	1.7	No Impact	48.2	50.6	-4.4	No Impact	50.7	56.4	1.4	No Impact
R76	2	1	55.0	3.2	7.1	50.1	56.2	1.2	No Impact	46.4	49.7	-5.3	No Impact	49.2	56.0	1.0	No Impact
R77	2	1	55.0	3.2	7.1	51.0	56.5	1.5	No Impact	47.5	50.6	-4.4	No Impact	49.9	56.2	1.2	No Impact
R78	2	1	55.0	3.2	7.1	50.3	56.3	1.3	No Impact	48.1	52.1	-2.9	No Impact	48.8	55.9	0.9	No Impact
R79	2	1	60.0	2.0	5.0	53.5	60.9	0.9	No Impact	50.7	55.5	-4.5	No Impact	51.4	60.6	0.6	No Impact
R80	2	1	60.0	2.0	5.0	54.8	61.1	1.1	No Impact	52.5	56.6	-3.4	No Impact	51.8	60.6	0.6	No Impact
R81	2	1	60.0	2.0	5.0	52.5	60.7	0.7	No Impact	50.1	55.6	-4.4	No Impact	50.2	60.4	0.4	No Impact
R82	2	1	60.0	2.0	5.0	54.2	61.0	1.0	No Impact	51.9	56.3	-3.7	No Impact	50.9	60.5	0.5	No Impact
R83	2	1	60.0	2.0	5.0	61.0	63.5	3.5	Moderate	59.1	60.5	0.5	No Impact	54.1	61.0	1.0	No Impact
R84	2	1	65.0	1.4	3.6	59.2	66.0	1.0	No Impact	57.9	63	-2	No Impact	53.3	65.3	0.3	No Impact
R85	2	1	60.0	2.0	5.0	52.6	60.7	0.7	No Impact	50.8	56.8	-3.2	No Impact	50.1	60.4	0.4	No Impact
R86	2	1	60.0	2.0	5.0	54.3	61.0	1.0	No Impact	51.7	55.7	-4.3	No Impact	51.3	60.5	0.5	No Impact
R87	2	1	60.0	2.0	5.0	57.6	62.0	2.0	No Impact	55.7	58.6	-1.4	No Impact	52.4	60.7	0.7	No Impact
R88	2	1	65.0	1.4	3.6	59.6	66.1	1.1	No Impact	57.6	62.2	-2.8	No Impact	53.2	65.3	0.3	No Impact
R89	2	27	65.0	1.4	3.6	58.6	65.9	0.9	No Impact	53.5	57	-8	No Impact	58.1	65.8	0.8	No Impact
R90	2	27	60.0	2.0	5.0	57.0	61.8	1.8	No Impact	49.7	52.2	-7.8	No Impact	57.0	61.8	1.8	No Impact
R91	2	8	55.0	3.2	7.1	51.9	56.7	1.7	No Impact	47.6	50.5	-4.5	No Impact	51.5	56.6	1.6	No Impact
R92	2	8	65.0	1.4	3.6	55.3	65.4	0.4	No Impact	52.8	61.3	-3.7	No Impact	55.3	65.4	0.4	No Impact
R93	2	8	65.0	1.4	3.6	55.1	65.4	0.4	No Impact	53.1	61.7	-3.3	No Impact	55.1	65.4	0.4	No Impact
R94	2	8	62.7	1.7	4.2	52.3	63.1	0.4	No Impact	49.5	58.8	-3.9	No Impact	52.3	63.1	0.4	No Impact
R95	2	1	70.7	1.0	2.7	63.1	71.4	0.7	No Impact	61	68.1	-2.6	No Impact	51.5	70.8	0.1	No Impact
R96	2	1	70.5	1.0	2.7	63.6	71.3	0.8	No Impact	60.5	66.7	-3.8	No Impact	53.0	70.6	0.1	No Impact
R97	2	1	70.5	1.0	2.7	63.9	71.4	0.9	No Impact	60.7	66.5	-4	No Impact	52.8	70.6	0.1	No Impact
R98	2	1	70.4	1.0	2.7	63.8	71.3	0.9	No Impact	60.6	66.6	-3.8	No Impact	52.4	70.5	0.1	No Impact
R99	2	1	70.4	1.0	2.7	63.0	71.1	0.7	No Impact	60.3	66.9	-3.5	No Impact	51.3	70.5	0.1	No Impact
R100	2	1	70.1	1.0	2.7	62.5	70.8	0.7	No Impact	60.2	67.1	-3	No Impact	51.3	70.2	0.1	No Impact
R101	2	1	70.1	1.0	2.7	61.8	70.7	0.6	No Impact	60.3	67.9	-2.2	No Impact	50.3	70.1	0.0	No Impact
R102	2	1	61.3	1.8	4.6	50.8	61.7	0.4	No Impact	45.8	53.4	-7.9	No Impact	49.1	61.6	0.3	No Impact

**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R103	2	1	61.5	1.8	4.6	51.1	61.9	0.4	No Impact	45.4	52.9	-8.6	No Impact	49.6	61.8	0.3	No Impact
R104	2	1	61.5	1.8	4.6	51.6	61.9	0.4	No Impact	45.6	52.7	-8.8	No Impact	50.2	61.8	0.3	No Impact
R105	2	1	61.7	1.8	4.5	51.8	62.1	0.4	No Impact	45.8	53.3	-8.4	No Impact	50.4	62.0	0.3	No Impact
R106	2	1	61.9	1.8	4.4	52.1	62.3	0.4	No Impact	46.9	54.4	-7.5	No Impact	50.4	62.2	0.3	No Impact
R107	2	1	61.0	1.9	4.7	51.4	61.5	0.5	No Impact	47.6	55.5	-5.5	No Impact	49.6	61.3	0.3	No Impact
R108	2	1	61.3	1.8	4.6	51.6	61.7	0.4	No Impact	49	57.5	-3.8	No Impact	48.8	61.5	0.2	No Impact
R109	2	1	57.2	2.6	6.1	46.9	57.6	0.4	No Impact	41.5	48.4	-8.8	No Impact	46.4	57.5	0.3	No Impact
R110	2	1	57.7	2.5	5.9	47.6	58.1	0.4	No Impact	42	48.8	-8.9	No Impact	47.0	58.1	0.4	No Impact
R111	2	1	58.6	2.3	5.5	48.2	59.0	0.4	No Impact	42.3	49.2	-9.4	No Impact	47.4	58.9	0.3	No Impact
R112	2	1	58.9	2.2	5.4	48.8	59.3	0.4	No Impact	43.1	50.6	-8.3	No Impact	47.6	59.2	0.3	No Impact
R113	2	1	58.7	2.3	5.5	48.2	59.1	0.4	No Impact	41.8	48.5	-10.2	No Impact	47.4	59.0	0.3	No Impact
R114	2	1	59.0	2.2	5.4	48.5	59.4	0.4	No Impact	42.5	49.4	-9.6	No Impact	47.5	59.3	0.3	No Impact
R115	2	1	58.7	2.3	5.5	47.9	59.0	0.3	No Impact	42.5	49.6	-9.1	No Impact	46.8	59.0	0.3	No Impact
R116	2	1	69.8	1.1	2.8	60.9	70.3	0.5	No Impact	60	68.4	-1.4	No Impact	49.5	69.8	0.0	No Impact
R117	2	1	69.9	1.1	2.8	61.2	70.4	0.5	No Impact	60.5	68.8	-1.1	No Impact	49.9	69.9	0.0	No Impact
R118	2	1	69.7	1.1	2.8	60.5	70.2	0.5	No Impact	59.7	68.3	-1.4	No Impact	52.1	69.8	0.1	No Impact
R119	2	1	66.8	1.3	3.3	56.8	67.2	0.4	No Impact	54.8	62.8	-4	No Impact	53.3	67.0	0.2	No Impact
R120	2	1	64.5	1.5	3.8	54.0	64.9	0.4	No Impact	50.1	55.9	-8.6	No Impact	52.8	64.8	0.3	No Impact
R121	2	1	62.8	1.6	4.2	52.6	63.2	0.4	No Impact	48.5	53.7	-9.1	No Impact	52.2	63.2	0.4	No Impact
R122	2	1	62.2	1.7	4.4	51.8	62.6	0.4	No Impact	48	54.3	-7.9	No Impact	51.2	62.5	0.3	No Impact
R123	2	1	62.3	1.7	4.3	51.2	62.6	0.3	No Impact	47.9	56.2	-6.1	No Impact	49.5	62.5	0.2	No Impact
R124	2	1	61.5	1.8	4.6	50.9	61.9	0.4	No Impact	48.4	57	-4.5	No Impact	48.5	61.7	0.2	No Impact
R125	2	1	59.8	2.1	5.1	49.4	60.2	0.4	No Impact	46.1	54.4	-5.4	No Impact	47.4	60.0	0.2	No Impact
R126	2	1	59.7	2.1	5.1	48.4	60.0	0.3	No Impact	43.4	50.9	-8.8	No Impact	47.3	59.9	0.2	No Impact
R127	2	1	58.9	2.2	5.4	47.7	59.2	0.3	No Impact	43.7	51.1	-7.8	No Impact	46.8	59.2	0.3	No Impact
R128	2	1	59.0	2.2	5.4	47.7	59.3	0.3	No Impact	42.9	50	-9	No Impact	47.1	59.3	0.3	No Impact
R129	2	1	59.4	2.1	5.2	48.3	59.7	0.3	No Impact	43.3	49.3	-10.1	No Impact	47.9	59.7	0.3	No Impact
R130	2	1	59.5	2.1	5.2	48.1	59.8	0.3	No Impact	43.5	50.2	-9.3	No Impact	47.6	59.8	0.3	No Impact
R131	2	1	60.2	2.0	5.0	50.4	60.6	0.4	No Impact	46.6	51.7	-8.5	No Impact	50.0	60.6	0.4	No Impact
R132	2	1	58.7	2.3	5.5	48.1	59.1	0.4	No Impact	44.1	49.6	-9.1	No Impact	47.9	59.0	0.3	No Impact
R133	2	1	69.8	1.1	2.8	61.7	70.4	0.6	No Impact	59.2	67.3	-2.5	No Impact	50.7	69.9	0.1	No Impact
R134	2	1	65.5	1.4	3.5	56.6	66.0	0.5	No Impact	54.4	63.1	-2.4	No Impact	50.1	65.6	0.1	No Impact
R135	2	1	64.2	1.5	3.8	55.3	64.7	0.5	No Impact	52.3	61.1	-3.1	No Impact	49.7	64.4	0.2	No Impact
R136	2	1	61.3	1.8	4.6	52.2	61.8	0.5	No Impact	49.1	58	-3.3	No Impact	48.2	61.5	0.2	No Impact

**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R137	2	1	60.1	2.0	5.0	50.9	60.6	0.5	No Impact	48	56.6	-3.5	No Impact	47.6	60.3	0.2	No Impact
R138	2	1	59.4	2.1	5.2	50.0	59.9	0.5	No Impact	46.7	55.4	-4	No Impact	47.1	59.6	0.2	No Impact
R139	2	1	66.4	1.3	3.4	57.6	66.9	0.5	No Impact	53.1	60	-6.4	No Impact	50.9	66.5	0.1	No Impact
R140	2	1	66.8	1.3	3.3	57.6	67.3	0.5	No Impact	53.5	60.6	-6.2	No Impact	50.8	66.9	0.1	No Impact
R141	2	1	66.4	1.3	3.4	57.2	66.9	0.5	No Impact	54.2	61.7	-4.7	No Impact	50.0	66.5	0.1	No Impact
R142	2	1	67.3	1.2	3.2	57.5	67.7	0.4	No Impact	56.1	65.6	-1.7	No Impact	48.9	67.4	0.1	No Impact
R143	2	1	67.0	1.2	3.2	57.0	67.4	0.4	No Impact	55.7	65.4	-1.6	No Impact	48.2	67.1	0.1	No Impact
R144	2	1	67.6	1.2	3.1	57.4	68.0	0.4	No Impact	56.3	66.4	-1.2	No Impact	48.5	67.7	0.1	No Impact
R145	2	1	66.8	1.3	3.3	56.5	67.2	0.4	No Impact	55.3	65.4	-1.4	No Impact	48.7	66.9	0.1	No Impact
R146	2	1	66.5	1.3	3.3	56.9	67.0	0.5	No Impact	54.8	63	-3.5	No Impact	49.1	66.6	0.1	No Impact
R147	2	1	66.9	1.2	3.3	57.3	67.4	0.5	No Impact	54.5	62.8	-4.1	No Impact	49.8	67.0	0.1	No Impact
R148	2	1	67.5	1.2	3.2	58.2	68.0	0.5	No Impact	55	62.9	-4.6	No Impact	50.6	67.6	0.1	No Impact
R149	2	1	66.6	1.3	3.3	57.3	67.1	0.5	No Impact	52.4	59.8	-6.8	No Impact	51.0	66.7	0.1	No Impact
R150	2	1	66.1	1.3	3.4	57.2	66.6	0.5	No Impact	50.7	57.5	-8.6	No Impact	51.6	66.3	0.2	No Impact
R151	2	1	66.3	1.3	3.4	57.6	66.8	0.5	No Impact	50.4	57.2	-9.1	No Impact	52.2	66.5	0.2	No Impact
R152	2	1	66.3	1.3	3.4	57.4	66.8	0.5	No Impact	50.8	57.7	-8.6	No Impact	52.1	66.5	0.2	No Impact
R153	2	1	66.1	1.3	3.4	56.8	66.6	0.5	No Impact	51.1	58.5	-7.6	No Impact	51.3	66.2	0.1	No Impact
R154	2	1	65.3	1.4	3.6	55.8	65.8	0.5	No Impact	51.7	59.4	-5.9	No Impact	49.9	65.4	0.1	No Impact
R155	2	1	65.0	1.4	3.6	54.7	65.4	0.4	No Impact	51	59.6	-5.4	No Impact	49.1	65.1	0.1	No Impact
R156	2	1	60.6	1.9	4.8	51.1	61.1	0.5	No Impact	49	58.2	-2.4	No Impact	48.5	60.9	0.3	No Impact
R157	2	1	59.8	2.1	5.1	50.6	60.3	0.5	No Impact	47.3	55.5	-4.3	No Impact	48.8	60.1	0.3	No Impact
R158	2	1	60.0	2.0	5.0	50.6	60.5	0.5	No Impact	46.3	54.3	-5.7	No Impact	49.3	60.4	0.4	No Impact
R159	2	1	60.3	2.0	4.9	50.9	60.8	0.5	No Impact	45.6	53.4	-6.9	No Impact	49.8	60.7	0.4	No Impact
R160	2	1	60.3	2.0	4.9	51.0	60.8	0.5	No Impact	45.3	53.1	-7.2	No Impact	49.8	60.7	0.4	No Impact
R161	2	1	60.5	2.0	4.9	51.1	61.0	0.5	No Impact	45.8	53.7	-6.8	No Impact	49.5	60.8	0.3	No Impact
R162	2	1	58.2	2.4	5.7	48.8	58.7	0.5	No Impact	43.9	52	-6.2	No Impact	47.8	58.6	0.4	No Impact
R163	2	1	60.0	2.0	5.0	48.8	60.3	0.3	No Impact	44.6	54.1	-5.9	No Impact	48.1	60.3	0.3	No Impact
R164	2	1	57.9	2.4	5.8	48.4	58.4	0.5	No Impact	45	53.2	-4.7	No Impact	47.3	58.3	0.4	No Impact
R165	2	1	57.2	2.6	6.1	47.3	57.6	0.4	No Impact	43.5	52	-5.2	No Impact	46.3	57.5	0.3	No Impact
R166	2	1	58.3	2.4	5.7	48.6	58.7	0.4	No Impact	45.3	53.6	-4.7	No Impact	47.2	58.6	0.3	No Impact
R167	2	1	58.1	2.4	5.7	48.5	58.6	0.5	No Impact	45.4	53.4	-4.7	No Impact	47.0	58.4	0.3	No Impact
R168	2	1	58.5	2.3	5.6	48.9	59.0	0.5	No Impact	45.8	54	-4.5	No Impact	47.1	58.8	0.3	No Impact
R169	2	1	58.8	2.3	5.5	48.9	59.2	0.4	No Impact	45	53.1	-5.7	No Impact	47.5	59.1	0.3	No Impact
R170	2	1	59.4	2.1	5.2	49.5	59.8	0.4	No Impact	46	54.1	-5.3	No Impact	47.7	59.7	0.3	No Impact



**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action		Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative		Increase (dB)	Impact Category
				Moderate	Severe						(L <sub>dn</sub> /L <sub>eq</sub> )	(L <sub>dn</sub> /L <sub>eq</sub> )				(L <sub>dn</sub> /L <sub>eq</sub> )	(L <sub>dn</sub> /L <sub>eq</sub> )		
R171	2	1	61.8	1.8	4.5	52.5	62.3	0.5	No Impact	48.6	57.2	-4.6	No Impact	49.3	62.0	0.2	No Impact		
R172	2	1	58.2	2.4	5.7	48.5	58.6	0.4	No Impact	44.9	53.4	-4.8	No Impact	46.9	58.5	0.3	No Impact		
R173	2	1	56.4	2.8	6.4	46.5	56.8	0.4	No Impact	42.4	50.3	-6.1	No Impact	45.9	56.8	0.4	No Impact		
R174	2	1	56.5	2.8	6.4	46.4	56.9	0.4	No Impact	42.6	50.7	-5.8	No Impact	45.7	56.8	0.3	No Impact		
R175	2	1	55.5	3.0	6.9	45.6	55.9	0.4	No Impact	42.3	50.2	-5.3	No Impact	45.3	55.9	0.4	No Impact		
R176	2	1	55.0	3.2	7.1	45.2	55.4	0.4	No Impact	42	50.1	-4.9	No Impact	44.8	55.4	0.4	No Impact		
R177	2	1	55.0	3.2	7.1	44.6	55.4	0.4	No Impact	41.4	50.4	-4.6	No Impact	44.3	55.4	0.4	No Impact		
R178	2	1	55.2	3.1	7.0	45.7	55.7	0.5	No Impact	42.3	50.4	-4.8	No Impact	45.1	55.6	0.4	No Impact		
R179	2	1	55.6	3.0	6.8	46.0	56.1	0.5	No Impact	41.8	49.9	-5.7	No Impact	45.7	56.0	0.4	No Impact		
R180	2	1	56.3	2.8	6.5	46.9	56.8	0.5	No Impact	42.6	50.6	-5.7	No Impact	46.4	56.7	0.4	No Impact		
R181	2	1	55.5	3.0	6.9	46.1	56.0	0.5	No Impact	42.5	50.5	-5	No Impact	45.8	55.9	0.4	No Impact		
R182	2	1	56.3	2.8	6.5	46.9	56.8	0.5	No Impact	43	51.1	-5.2	No Impact	46.6	56.7	0.4	No Impact		
R183	2	1	55.8	2.9	6.7	46.5	56.3	0.5	No Impact	43	51.3	-4.5	No Impact	46.2	56.3	0.5	No Impact		
R184	2	1	56.0	2.9	6.6	46.6	56.5	0.5	No Impact	43.3	51.5	-4.5	No Impact	46.5	56.5	0.5	No Impact		
R185	2	1	55.7	3.0	6.8	46.2	56.2	0.5	No Impact	42.8	51.2	-4.5	No Impact	45.6	56.1	0.4	No Impact		
R186	2	1	56.8	2.7	6.3	47.3	57.3	0.5	No Impact	44.6	53.5	-3.3	No Impact	46.1	57.2	0.4	No Impact		
R187	2	1	66.3	1.3	3.4	56.1	66.7	0.4	No Impact	54	63.5	-2.8	No Impact	48.2	66.4	0.1	No Impact		
R188	2	1	65.5	1.4	3.5	55.2	65.9	0.4	No Impact	53.3	63.5	-2	No Impact	49.1	65.6	0.1	No Impact		
R189	2	1	63.0	1.6	4.1	53.1	63.4	0.4	No Impact	52	62.1	-0.9	No Impact	47.8	63.1	0.1	No Impact		
R190	2	1	60.3	2.0	4.9	50.6	60.7	0.4	No Impact	49	58.7	-1.6	No Impact	47.1	60.5	0.2	No Impact		
R191	2	1	60.5	2.0	4.9	50.7	60.9	0.4	No Impact	48.8	58.5	-2	No Impact	47.5	60.7	0.2	No Impact		
R192	2	1	59.8	2.1	5.1	50.1	60.2	0.4	No Impact	48.3	58.1	-1.7	No Impact	46.8	60.0	0.2	No Impact		
R193	2	1	58.7	2.3	5.5	49.1	59.2	0.5	No Impact	47.4	56.9	-1.8	No Impact	45.9	58.9	0.2	No Impact		
R194	2	1	65.0	1.4	3.6	48.3	65.1	0.1	No Impact	44.5	59.2	-5.8	No Impact	48.2	65.1	0.1	No Impact		
R195	2	1	60.0	2.0	5.0	46.2	60.2	0.2	No Impact	43.8	56	-4	No Impact	46.1	60.2	0.2	No Impact		
R196	2	1	55.3	3.1	7.0	45.8	55.8	0.5	No Impact	43.3	51.9	-3.4	No Impact	45.8	55.8	0.5	No Impact		
R197	2	1	55.0	3.2	7.1	45.0	55.4	0.4	No Impact	42.6	51.5	-3.5	No Impact	44.9	55.4	0.4	No Impact		
R198	2	1	55.0	3.2	7.1	44.6	55.4	0.4	No Impact	42.2	51.6	-3.4	No Impact	44.5	55.4	0.4	No Impact		
R199	2	1	65.0	1.4	3.6	50.0	65.1	0.1	No Impact	44.7	57.5	-7.5	No Impact	50.0	65.1	0.1	No Impact		
R200	2	1	65.0	1.4	3.6	50.6	65.2	0.2	No Impact	45.3	57.7	-7.3	No Impact	50.6	65.2	0.2	No Impact		
R201	2	1	65.0	1.4	3.6	50.2	65.1	0.1	No Impact	44	56.4	-8.6	No Impact	50.2	65.1	0.1	No Impact		
R202	2	1	65.0	1.4	3.6	51.1	65.2	0.2	No Impact	44.4	56.5	-8.5	No Impact	51.1	65.2	0.2	No Impact		
R203	2	1	60.0	2.0	5.0	48.8	60.3	0.3	No Impact	43.6	52.8	-7.2	No Impact	48.7	60.3	0.3	No Impact		
R204	2	1	59.0	2.2	5.4	49.4	59.5	0.5	No Impact	43.4	51.6	-7.4	No Impact	49.3	59.4	0.4	No Impact		

**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R205	2	1	58.8	2.3	5.5	49.2	59.3	0.5	No Impact	43.4	52	-6.8	No Impact	49.1	59.2	0.4	No Impact
R206	2	1	58.0	2.4	5.8	48.3	58.4	0.4	No Impact	43.3	51.7	-6.3	No Impact	48.2	58.4	0.4	No Impact
R207	2	1	56.1	2.9	6.6	46.4	56.5	0.4	No Impact	41.6	50.1	-6	No Impact	46.2	56.5	0.4	No Impact
R208	2	1	65.0	1.4	3.6	51.3	65.2	0.2	No Impact	44.5	56.7	-8.3	No Impact	51.3	65.2	0.2	No Impact
R209	2	1	60.1	2.0	5.0	50.4	60.5	0.4	No Impact	43.6	52.1	-8	No Impact	50.4	60.5	0.4	No Impact
R210	2	1	60.0	2.0	5.0	46.9	60.2	0.2	No Impact	42.9	54.6	-5.4	No Impact	46.9	60.2	0.2	No Impact
R211	2	1	58.0	2.4	5.8	48.2	58.4	0.4	No Impact	42.9	51.1	-6.9	No Impact	48.1	58.4	0.4	No Impact
R212	2	1	56.1	2.9	6.6	46.3	56.5	0.4	No Impact	42.2	50.8	-5.3	No Impact	46.3	56.5	0.4	No Impact
R213	2	1	56.5	2.8	6.4	46.5	56.9	0.4	No Impact	41.8	50.4	-6.1	No Impact	46.4	56.9	0.4	No Impact
R214	2	1	55.3	3.1	7.0	45.5	55.7	0.4	No Impact	41.1	49.7	-5.6	No Impact	45.4	55.7	0.4	No Impact
R215	2	1	55.0	3.2	7.1	44.1	55.3	0.3	No Impact	40.6	50.2	-4.8	No Impact	44.1	55.3	0.3	No Impact
R216	2	1	55.0	3.2	7.1	44.5	55.4	0.4	No Impact	41.4	50.6	-4.4	No Impact	44.5	55.4	0.4	No Impact
R217	2	1	56.2	2.8	6.5	46.0	56.6	0.4	No Impact	41.8	51	-5.2	No Impact	46.0	56.6	0.4	No Impact
R218	2	1	57.3	2.6	6.1	46.8	57.7	0.4	No Impact	42.4	51.3	-6	No Impact	46.7	57.7	0.4	No Impact
R219	2	1	60.0	2.0	5.0	46.9	60.2	0.2	No Impact	42.6	53.8	-6.2	No Impact	46.9	60.2	0.2	No Impact
R220	2	1	60.0	2.0	5.0	47.7	60.2	0.2	No Impact	43.5	54	-6	No Impact	47.6	60.2	0.2	No Impact
R221	2	1	65.0	1.4	3.6	48.2	65.1	0.1	No Impact	43.8	58.6	-6.4	No Impact	48.2	65.1	0.1	No Impact
R222	2	1	65.0	1.4	3.6	46.2	65.1	0.1	No Impact	43.7	60.2	-4.8	No Impact	46.2	65.1	0.1	No Impact
R223	2	1	60.0	2.0	5.0	46.6	60.2	0.2	No Impact	42.6	52.3	-7.7	No Impact	46.6	60.2	0.2	No Impact
R224	2	1	60.0	2.0	5.0	46.0	60.2	0.2	No Impact	41.6	51.7	-8.3	No Impact	46.0	60.2	0.2	No Impact
R225	2	1	57.1	2.6	6.1	44.6	57.3	0.2	No Impact	40.7	49.7	-7.4	No Impact	44.6	57.3	0.2	No Impact
R226	2	1	56.0	2.9	6.6	43.9	56.3	0.3	No Impact	39.8	48.5	-7.5	No Impact	43.9	56.3	0.3	No Impact
R227	2	1	55.5	3.0	6.9	43.3	55.8	0.3	No Impact	39.8	49	-6.5	No Impact	43.3	55.8	0.3	No Impact
R228	2	1	55.5	3.0	6.9	43.5	55.8	0.3	No Impact	40	49.1	-6.4	No Impact	43.5	55.8	0.3	No Impact
R229	2	1	56.7	2.7	6.3	44.7	57.0	0.3	No Impact	41	49.7	-7	No Impact	44.7	57.0	0.3	No Impact
R230	2	1	60.0	2.0	5.0	45.0	60.1	0.1	No Impact	41.4	52.8	-7.2	No Impact	45.0	60.1	0.1	No Impact
R231	2	1	60.0	2.0	5.0	47.5	60.2	0.2	No Impact	43	51.9	-8.1	No Impact	47.5	60.2	0.2	No Impact
R232	2	1	65.0	1.4	3.6	47.0	65.1	0.1	No Impact	43.4	58	-7	No Impact	47.0	65.1	0.1	No Impact
R233	2	1	65.0	1.4	3.6	49.0	65.1	0.1	No Impact	43	54.9	-10.1	No Impact	49.0	65.1	0.1	No Impact
R234	2	1	60.0	2.0	5.0	46.9	60.2	0.2	No Impact	41.9	50.9	-9.1	No Impact	46.9	60.2	0.2	No Impact
R235	2	1	59.5	2.1	5.2	46.8	59.7	0.2	No Impact	41.6	50.2	-9.3	No Impact	46.7	59.7	0.2	No Impact
R236	2	1	57.8	2.5	5.8	45.0	58.0	0.2	No Impact	40.3	49.1	-8.7	No Impact	45.0	58.0	0.2	No Impact
R237	2	1	57.5	2.5	6.0	44.5	57.7	0.2	No Impact	39.6	48.7	-8.8	No Impact	44.5	57.7	0.2	No Impact
R238	2	1	57.3	2.6	6.1	44.2	57.5	0.2	No Impact	39.3	48.6	-8.7	No Impact	44.2	57.5	0.2	No Impact

**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action		Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe						(L <sub>dn</sub> /L <sub>eq</sub> )	(L <sub>dn</sub> /L <sub>eq</sub> )						
R239	2	1	65.0	1.4	3.6	48.8	65.1	0.1	No Impact	44	56.5	-8.5	No Impact	48.8	65.1	0.1	No Impact	
R240	2	1	65.0	1.4	3.6	45.7	65.1	0.1	No Impact	44.4	61.3	-3.7	No Impact	45.7	65.1	0.1	No Impact	
R241	2	1	65.0	1.4	3.6	45.9	65.1	0.1	No Impact	44.8	61.9	-3.1	No Impact	45.9	65.1	0.1	No Impact	
R242	2	1	65.0	1.4	3.6	45.4	65.0	0.0	No Impact	44.4	62.1	-2.9	No Impact	45.4	65.0	0.0	No Impact	
R243	2	1	65.0	1.4	3.6	44.9	65.0	0.0	No Impact	43.5	60.5	-4.5	No Impact	44.9	65.0	0.0	No Impact	
R244	2	1	65.0	1.4	3.6	46.1	65.1	0.1	No Impact	44.9	60.6	-4.4	No Impact	46.1	65.1	0.1	No Impact	
R245	2	1	65.0	1.4	3.6	46.7	65.1	0.1	No Impact	44.9	59.3	-5.7	No Impact	46.7	65.1	0.1	No Impact	
R246	2	1	65.0	1.4	3.6	47.4	65.1	0.1	No Impact	44.7	57.4	-7.6	No Impact	47.4	65.1	0.1	No Impact	
R247	2	1	65.0	1.4	3.6	48.5	65.1	0.1	No Impact	45	56.1	-8.9	No Impact	48.5	65.1	0.1	No Impact	
R248	2	1	65.0	1.4	3.6	48.4	65.1	0.1	No Impact	44.9	56.2	-8.8	No Impact	48.4	65.1	0.1	No Impact	
R249	2	1	65.0	1.4	3.6	47.6	65.1	0.1	No Impact	45.6	58.9	-6.1	No Impact	47.6	65.1	0.1	No Impact	
R250	2	1	57.3	2.6	6.1	45.1	57.6	0.3	No Impact	41.9	50.4	-6.9	No Impact	45.1	57.6	0.3	No Impact	
R251	2	1	57.6	2.5	5.9	44.8	57.8	0.2	No Impact	41.1	49.7	-7.9	No Impact	44.8	57.8	0.2	No Impact	
R252	2	1	57.2	2.6	6.1	44.4	57.4	0.2	No Impact	40.9	49.6	-7.6	No Impact	44.4	57.4	0.2	No Impact	
R253	2	1	56.2	2.8	6.5	43.4	56.4	0.2	No Impact	39.9	49.1	-7.1	No Impact	43.4	56.4	0.2	No Impact	
R254	2	1	57.2	2.6	6.1	44.5	57.4	0.2	No Impact	41.8	50.7	-6.5	No Impact	44.5	57.4	0.2	No Impact	
R255	2	1	55.1	3.1	7.1	43.2	55.4	0.3	No Impact	40.9	49.8	-5.3	No Impact	43.1	55.4	0.3	No Impact	
R256	2	1	55.0	3.2	7.1	42.6	55.2	0.2	No Impact	40.4	49.6	-5.4	No Impact	42.6	55.2	0.2	No Impact	
R257	2	1	60.0	2.0	5.0	42.9	60.1	0.1	No Impact	40.3	53.7	-6.3	No Impact	42.9	60.1	0.1	No Impact	
R258	2	1	56.1	2.9	6.6	43.8	56.3	0.2	No Impact	41.3	50	-6.1	No Impact	43.8	56.3	0.2	No Impact	
R259	2	1	55.0	3.2	7.1	41.9	55.2	0.2	No Impact	39.6	49.3	-5.7	No Impact	41.9	55.2	0.2	No Impact	
R260	2	1	55.8	2.9	6.7	44.1	56.1	0.3	No Impact	41.9	50.2	-5.6	No Impact	44.1	56.1	0.3	No Impact	
R261	2	1	55.5	3.0	6.9	43.5	55.8	0.3	No Impact	41.2	49.8	-5.7	No Impact	43.5	55.8	0.3	No Impact	
R262	2	1	55.0	3.2	7.1	42.7	55.2	0.2	No Impact	40.9	50.2	-4.8	No Impact	42.7	55.2	0.2	No Impact	
R263	2	1	58.3	2.4	5.7	45.9	58.5	0.2	No Impact	41.7	49.2	-9.1	No Impact	45.9	58.5	0.2	No Impact	
R264	2	1	56.3	2.8	6.5	44.2	56.6	0.3	No Impact	41.1	48.9	-7.4	No Impact	44.2	56.6	0.3	No Impact	
R265	2	1	55.5	3.0	6.9	43.5	55.8	0.3	No Impact	40.5	48.4	-7.1	No Impact	43.5	55.8	0.3	No Impact	
R266	2	1	56.6	2.7	6.4	44.0	56.8	0.2	No Impact	40.5	48.5	-8.1	No Impact	44.0	56.8	0.2	No Impact	
R267	2	1	57.0	2.6	6.2	44.6	57.2	0.2	No Impact	41.1	48.9	-8.1	No Impact	44.6	57.2	0.2	No Impact	
R268	2	1	58.0	2.4	5.8	45.0	58.2	0.2	No Impact	40.8	48.8	-9.2	No Impact	45.0	58.2	0.2	No Impact	
R269	2	1	64.1	1.5	3.9	55.1	64.6	0.5	No Impact	52	60.6	-3.5	No Impact	55.1	64.6	0.5	No Impact	
R270	2	1	61.2	1.9	4.6	51.3	61.6	0.4	No Impact	45.5	54.3	-6.9	No Impact	51.3	61.6	0.4	No Impact	
R271	2	1	58.3	2.4	5.7	48.3	58.7	0.4	No Impact	43.9	52.6	-5.7	No Impact	48.4	58.7	0.4	No Impact	
R272	2	1	57.9	2.4	5.8	47.6	58.3	0.4	No Impact	42.4	50.9	-7	No Impact	47.6	58.3	0.4	No Impact	

**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R273	2	1	62.3	1.7	4.3	52.1	62.7	0.4	No Impact	46.2	54.4	-7.9	No Impact	52.1	62.7	0.4	No Impact
R274	2	1	58.5	2.3	5.6	48.7	58.9	0.4	No Impact	43.2	51.5	-7	No Impact	48.7	58.9	0.4	No Impact
R275	2	1	57.8	2.5	5.8	47.8	58.2	0.4	No Impact	41.9	50.3	-7.5	No Impact	47.8	58.2	0.4	No Impact
R276	2	1	61.8	1.8	4.5	51.0	62.1	0.3	No Impact	45.9	55.1	-6.7	No Impact	51.0	62.1	0.3	No Impact
R277	2	1	62.7	1.7	4.2	50.3	62.9	0.2	No Impact	45.9	55.1	-7.6	No Impact	50.3	62.9	0.2	No Impact
R278	2	1	57.8	2.5	5.8	46.0	58.1	0.3	No Impact	42.4	51.2	-6.6	No Impact	46.0	58.1	0.3	No Impact
R279	2	1	56.6	2.7	6.4	45.8	56.9	0.3	No Impact	42.6	51.2	-5.4	No Impact	45.8	56.9	0.3	No Impact
R280	2	1	62.3	1.7	4.3	49.1	62.5	0.2	No Impact	44	52.9	-9.4	No Impact	49.1	62.5	0.2	No Impact
R281	2	1	61.0	1.9	4.7	49.6	61.3	0.3	No Impact	45.3	54.4	-6.6	No Impact	49.6	61.3	0.3	No Impact
R282	2	1	58.3	2.4	5.7	47.7	58.7	0.4	No Impact	43.8	52.7	-5.6	No Impact	47.7	58.7	0.4	No Impact
R283	2	1	61.8	1.8	4.5	49.0	62.0	0.2	No Impact	44	52.4	-9.4	No Impact	49.0	62.0	0.2	No Impact
R284	2	1	62.3	1.7	4.3	49.5	62.5	0.2	No Impact	44.1	52.3	-10	No Impact	49.5	62.5	0.2	No Impact
R285	2	1	61.3	1.8	4.6	48.5	61.5	0.2	No Impact	44.3	52.9	-8.4	No Impact	48.6	61.5	0.2	No Impact
R286	2	1	61.2	1.9	4.6	48.4	61.4	0.2	No Impact	44.7	53.6	-7.6	No Impact	48.4	61.4	0.2	No Impact
R287	2	1	61.3	1.8	4.6	48.3	61.5	0.2	No Impact	45.3	54.3	-7	No Impact	48.4	61.5	0.2	No Impact
R288	2	1	60.3	2.0	4.9	48.4	60.6	0.3	No Impact	46.2	54.8	-5.5	No Impact	48.3	60.6	0.3	No Impact
R289	2	1	62.6	1.7	4.2	49.9	62.8	0.2	No Impact	46.9	55.3	-7.3	No Impact	49.7	62.8	0.2	No Impact
R290	2	1	62.3	1.7	4.3	50.4	62.6	0.3	No Impact	47.8	55.8	-6.5	No Impact	50.3	62.6	0.3	No Impact
R291	2	1	63.1	1.6	4.1	51.6	63.4	0.3	No Impact	48.8	56.6	-6.5	No Impact	51.5	63.4	0.3	No Impact
R292	2	1	59.1	2.2	5.3	46.1	59.3	0.2	No Impact	41.6	50.1	-9	No Impact	46.1	59.3	0.2	No Impact
R293	2	1	58.6	2.3	5.5	45.6	58.8	0.2	No Impact	40.8	49.5	-9.1	No Impact	45.6	58.8	0.2	No Impact
R294	2	1	59.2	2.2	5.3	46.5	59.4	0.2	No Impact	41.5	50.2	-9	No Impact	46.5	59.4	0.2	No Impact
R295	2	1	58.9	2.2	5.4	45.8	59.1	0.2	No Impact	40.8	49.4	-9.5	No Impact	45.8	59.1	0.2	No Impact
R296	2	1	59.2	2.2	5.3	46.6	59.4	0.2	No Impact	43.1	51.9	-7.3	No Impact	46.5	59.4	0.2	No Impact
R297	2	1	59.6	2.1	5.2	47.1	59.8	0.2	No Impact	43.6	52.2	-7.4	No Impact	47.1	59.8	0.2	No Impact
R298	2	1	59.8	2.1	5.1	47.3	60.0	0.2	No Impact	44	52.5	-7.3	No Impact	47.2	60.0	0.2	No Impact
R299	2	1	60.3	2.0	4.9	47.7	60.5	0.2	No Impact	44.5	53	-7.3	No Impact	47.6	60.5	0.2	No Impact
R300	2	1	60.5	2.0	4.9	48.5	60.8	0.3	No Impact	46	54.5	-6	No Impact	47.9	60.7	0.2	No Impact
R301	2	1	63.4	1.6	4.0	51.6	63.7	0.3	No Impact	49.6	58.8	-4.6	No Impact	50.7	63.6	0.2	No Impact
R302	2	1	62.4	1.7	4.3	51.7	62.8	0.4	No Impact	50.7	60.2	-2.2	No Impact	45.5	62.5	0.1	No Impact
R303	2	1	66.2	1.3	3.4	56.7	66.7	0.5	No Impact	55.5	63.5	-2.7	No Impact	47.7	66.3	0.1	No Impact
R304	2	1	62.8	1.6	4.2	51.0	63.1	0.3	No Impact	49	58.3	-4.5	No Impact	49.8	63.0	0.2	No Impact
R305	2	1	65.5	1.4	3.5	54.0	65.8	0.3	No Impact	52.2	61	-4.5	No Impact	46.6	65.6	0.1	No Impact
R306	2	1	66.9	1.2	3.3	58.3	67.5	0.6	No Impact	57.6	65.6	-1.3	No Impact	45.7	66.9	0.0	No Impact

**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R307	2	1	66.9	1.2	3.3	57.8	67.4	0.5	No Impact	57.1	65.7	-1.2	No Impact	45.7	66.9	0.0	No Impact
R308	2	1	66.9	1.2	3.3	58.1	67.4	0.5	No Impact	57.2	65.2	-1.7	No Impact	47.2	66.9	0.0	No Impact
R309	2	1	66.9	1.2	3.3	58.7	67.5	0.6	No Impact	57.5	64.9	-2	No Impact	48.7	67.0	0.1	No Impact
R310	2	1	65.0	1.4	3.6	47.4	65.1	0.1	No Impact	45.7	59	-6	No Impact	47.5	65.1	0.1	No Impact
R311	2	1	65.0	1.4	3.6	47.1	65.1	0.1	No Impact	45.5	59.5	-5.5	No Impact	47.2	65.1	0.1	No Impact
R312	2	1	65.0	1.4	3.6	47.3	65.1	0.1	No Impact	45.5	59.2	-5.8	No Impact	47.3	65.1	0.1	No Impact
R313	2	1	65.0	1.4	3.6	48.9	65.1	0.1	No Impact	46	56.4	-8.6	No Impact	48.8	65.1	0.1	No Impact
R314	2	1	62.4	1.7	4.3	49.4	62.6	0.2	No Impact	45.6	53.5	-8.9	No Impact	49.3	62.6	0.2	No Impact
R315	2	1	62.0	1.7	4.4	49.3	62.2	0.2	No Impact	44.8	52.1	-9.9	No Impact	49.2	62.2	0.2	No Impact
R316	2	1	65.0	1.4	3.6	48.5	65.1	0.1	No Impact	44.6	55.8	-9.2	No Impact	48.4	65.1	0.1	No Impact
R317	2	1	57.5	2.5	6.0	45.2	57.7	0.2	No Impact	42.3	50.3	-7.2	No Impact	45.2	57.7	0.2	No Impact
R318	2	1	56.7	2.7	6.3	44.4	56.9	0.2	No Impact	41.1	49	-7.7	No Impact	44.4	56.9	0.2	No Impact
R319	2	1	55.0	3.2	7.1	42.9	55.3	0.3	No Impact	40.2	48.4	-6.6	No Impact	42.9	55.3	0.3	No Impact
R320	2	1	55.4	3.0	6.9	43.6	55.7	0.3	No Impact	40.1	47.5	-7.9	No Impact	43.6	55.7	0.3	No Impact
R321	2	1	55.0	3.2	7.1	46.4	55.6	0.6	No Impact	43.8	49.1	-5.9	No Impact	46.2	55.5	0.5	No Impact
R322	2	1	60.0	2.0	5.0	52.6	60.7	0.7	No Impact	50.7	55.9	-4.1	No Impact	51.4	60.6	0.6	No Impact
R323	2	1	55.0	3.2	7.1	46.2	55.5	0.5	No Impact	44.1	50.4	-4.6	No Impact	46.0	55.5	0.5	No Impact
R324	2	1	55.0	3.2	7.1	45.2	55.4	0.4	No Impact	42.7	48.7	-6.3	No Impact	45.2	55.4	0.4	No Impact
R325	2	1	55.0	3.2	7.1	43.4	55.3	0.3	No Impact	40.9	49.1	-5.9	No Impact	43.4	55.3	0.3	No Impact
R326	2	1	55.0	3.2	7.1	45.0	55.4	0.4	No Impact	41.3	47.7	-7.3	No Impact	44.9	55.4	0.4	No Impact
R327	2	0	57.5	2.5	6.0	48.6	58.0	0.5	No Impact	44.2	51.4	-6.1	No Impact	48.6	58.0	0.5	No Impact
R328	2	1	66.6	1.3	3.3	58.0	67.2	0.6	No Impact	55.2	63.1	-3.5	No Impact	58.0	67.2	0.6	No Impact
R329	2	1	65.2	1.4	3.6	55.3	65.6	0.4	No Impact	52.3	62.3	-2.9	No Impact	55.3	65.6	0.4	No Impact
R330	2	1	64.7	1.4	3.7	54.8	65.1	0.4	No Impact	51.3	61.2	-3.5	No Impact	54.8	65.1	0.4	No Impact
R331	2	1	62.7	1.7	4.2	52.7	63.1	0.4	No Impact	49.5	59.4	-3.3	No Impact	52.7	63.1	0.4	No Impact
R332	2	1	61.3	1.8	4.6	51.4	61.7	0.4	No Impact	48	57.8	-3.5	No Impact	51.4	61.7	0.4	No Impact
R333	2	1	60.2	2.0	5.0	48.6	60.5	0.3	No Impact	46.8	56.3	-3.9	No Impact	44.8	60.3	0.1	No Impact
R334	2	1	61.9	1.8	4.4	50.6	62.2	0.3	No Impact	49.2	58.7	-3.2	No Impact	45.7	62.0	0.1	No Impact
R335	2	1	59.5	2.1	5.2	48.7	59.8	0.3	No Impact	47.6	57.2	-2.3	No Impact	44.9	59.6	0.1	No Impact
R336	2	1	59.3	2.2	5.3	48.0	59.6	0.3	No Impact	46.5	56.1	-3.2	No Impact	44.7	59.4	0.1	No Impact
R337	2	1	66.6	1.3	3.3	56.5	67.0	0.4	No Impact	55	65.1	-1.5	No Impact	56.4	67.0	0.4	No Impact
R338	2	1	56.9	2.7	6.2	45.1	57.2	0.3	No Impact	42.6	50.5	-6.4	No Impact	45.1	57.2	0.3	No Impact
R339	2	1	65.0	1.4	3.6	48.5	65.1	0.1	No Impact	45.3	56	-9	No Impact	48.5	65.1	0.1	No Impact
R340	2	1	65.0	1.4	3.6	51.0	65.2	0.2	No Impact	47.2	55.1	-9.9	No Impact	51.1	65.2	0.2	No Impact

**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R341	2	1	65.0	1.4	3.6	51.5	65.2	0.2	No Impact	47.3	54.3	-10.7	No Impact	51.5	65.2	0.2	No Impact
R342	2	1	62.4	1.7	4.3	51.5	62.7	0.3	No Impact	46.3	51.8	-10.6	No Impact	51.5	62.7	0.3	No Impact
R343	2	1	68.0	1.2	3.1	52.3	68.1	0.1	No Impact	47.5	55.8	-12.2	No Impact	52.3	68.1	0.1	No Impact
R344	2	1	66.0	1.3	3.4	49.3	66.1	0.1	No Impact	45.3	56.4	-9.6	No Impact	49.2	66.1	0.1	No Impact
R345	2	1	64.8	1.4	3.7	46.3	64.9	0.1	No Impact	42.7	55.7	-9.1	No Impact	46.2	64.9	0.1	No Impact
R346	2	1	63.0	1.6	4.1	44.3	63.1	0.1	No Impact	40.1	53.1	-9.9	No Impact	44.3	63.1	0.1	No Impact
R347	2	1	64.6	1.4	3.7	47.1	64.7	0.1	No Impact	42.5	54.4	-10.2	No Impact	47.1	64.7	0.1	No Impact
R348	2	1	65.2	1.4	3.6	49.3	65.3	0.1	No Impact	44.4	54.5	-10.7	No Impact	49.2	65.3	0.1	No Impact
R349	2	1	65.4	1.4	3.6	50.7	65.5	0.1	No Impact	44.9	53.8	-11.6	No Impact	50.7	65.5	0.1	No Impact
R350	2	1	64.0	1.5	3.9	48.9	64.1	0.1	No Impact	43.7	53.6	-10.4	No Impact	48.9	64.1	0.1	No Impact
R351	2	1	63.9	1.5	3.9	48.4	64.0	0.1	No Impact	43.4	53.9	-10	No Impact	48.4	64.0	0.1	No Impact
R352	2	1	62.5	1.7	4.3	44.4	62.6	0.1	No Impact	39.2	51.7	-10.8	No Impact	44.4	62.6	0.1	No Impact
R353	2	1	62.6	1.7	4.2	46.8	62.7	0.1	No Impact	41.1	50.7	-11.9	No Impact	46.8	62.7	0.1	No Impact
R354	2	1	62.6	1.7	4.2	46.6	62.7	0.1	No Impact	41.2	52.8	-9.8	No Impact	46.6	62.7	0.1	No Impact
R355	2	1	71.6	0.9	2.6	57.4	71.8	0.2	No Impact	51.7	60.9	-10.7	No Impact	57.4	71.8	0.2	No Impact
R356	2	1	67.9	1.2	3.1	56.8	68.2	0.3	No Impact	48.3	56	-11.9	No Impact	56.8	68.2	0.3	No Impact
R357	2	1	66.1	1.3	3.4	52.9	66.3	0.2	No Impact	45.8	55.4	-10.7	No Impact	52.9	66.3	0.2	No Impact
R358	2	1	64.8	1.4	3.7	50.3	65.0	0.2	No Impact	44.4	55	-9.8	No Impact	50.3	65.0	0.2	No Impact
R359	2	1	63.9	1.5	3.9	50.0	64.1	0.2	No Impact	43.3	53.5	-10.4	No Impact	50.0	64.1	0.2	No Impact
R360	2	1	63.2	1.6	4.1	48.0	63.3	0.1	No Impact	42.4	53.7	-9.5	No Impact	48.0	63.3	0.1	No Impact
R361	2	1	62.4	1.7	4.3	46.7	62.5	0.1	No Impact	40.6	52.6	-9.8	No Impact	46.7	62.5	0.1	No Impact
R362	2	1	62.3	1.7	4.3	46.4	62.4	0.1	No Impact	40.8	52.9	-9.4	No Impact	46.4	62.4	0.1	No Impact
R363	2	1	62.9	1.6	4.2	47.8	63.0	0.1	No Impact	42	53.3	-9.6	No Impact	47.8	63.0	0.1	No Impact
R364	2	1	63.7	1.5	4.0	49.1	63.8	0.1	No Impact	42.7	53.8	-9.9	No Impact	49.0	63.8	0.1	No Impact
R365	2	1	64.6	1.4	3.7	50.7	64.8	0.2	No Impact	44	54	-10.6	No Impact	50.7	64.8	0.2	No Impact
R366	2	1	66.4	1.3	3.4	54.4	66.7	0.3	No Impact	46.2	54.8	-11.6	No Impact	54.4	66.7	0.3	No Impact
R367	2	1	68.2	1.2	3.0	57.9	68.6	0.4	No Impact	48.7	55.7	-12.5	No Impact	57.9	68.6	0.4	No Impact
R368	2	1	70.6	1.0	2.7	57.1	70.8	0.2	No Impact	49.7	58.5	-12.1	No Impact	57.1	70.8	0.2	No Impact
R369	2	1	71.0	1.0	2.6	50.2	71.0	0.0	No Impact	47.2	64.6	-6.4	No Impact	50.2	71.0	0.0	No Impact
R370	2	1	70.6	1.0	2.7	51.7	70.7	0.1	No Impact	47.7	62.5	-8.1	No Impact	51.7	70.7	0.1	No Impact
R371	2	1	70.8	1.0	2.7	55.0	70.9	0.1	No Impact	48	59.8	-11	No Impact	55.0	70.9	0.1	No Impact
R372	2	1	70.5	1.0	2.7	56.5	70.7	0.2	No Impact	48.9	58.7	-11.8	No Impact	56.5	70.7	0.2	No Impact
R373	2	1	65.5	1.4	3.5	51.3	65.7	0.2	No Impact	44.6	55.6	-9.9	No Impact	51.3	65.7	0.2	No Impact
R374	2	1	65.4	1.4	3.6	49.9	65.5	0.1	No Impact	44.8	56.9	-8.5	No Impact	49.9	65.5	0.1	No Impact



**Table C-1. Detailed Operational Noise Analysis Results**

Receptor	Land Use Category	Units	Existing L <sub>dn</sub> /L <sub>eq</sub>	Impact Threshold		Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Quiet Zone (L <sub>dn</sub> /L <sub>eq</sub> )	Quiet Zone Cumulative Reductions for Existing and Proposed Action (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category	Proposed Action with Noise Wall (L <sub>dn</sub> /L <sub>eq</sub> )	Proposed Action with Noise Wall Cumulative (L <sub>dn</sub> /L <sub>eq</sub> )	Increase (dB)	Impact Category
				Moderate	Severe												
R375	2	1	65.5	1.4	3.5	50.1	65.6	0.1	No Impact	45.1	57.4	-8.1	No Impact	50.1	65.6	0.1	No Impact
R376	2	1	64.1	1.5	3.9	47.5	64.2	0.1	No Impact	42.2	55.4	-8.7	No Impact	47.5	64.2	0.1	No Impact
R377	2	1	64.1	1.5	3.9	46.6	64.2	0.1	No Impact	42.2	56.6	-7.5	No Impact	46.6	64.2	0.1	No Impact
R378	2	1	63.9	1.5	3.9	47.4	64.0	0.1	No Impact	43.2	56.5	-7.4	No Impact	47.4	64.0	0.1	No Impact

Notes:  
 dB=decibel; L<sub>eq</sub>=equivalent noise level; L<sub>dn</sub>=day-night average sound level



Table C-2. Operational Vibration Analysis Results

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R1	2	75	3	38	80	80	55	73.9	73.8	0.0	24	No Impact	No Impact
R2	2	75	3	38	78	79	55	74.1	74.1	0.0	24	No Impact	No Impact
R3	2	75	3	38	87	87	55	73.0	73.0	0.0	23	No Impact	No Impact
R4	2	75	3	38	89	89	55	72.6	72.6	0.0	23	No Impact	No Impact
R5	2	75	3	38	89	87	55	72.7	72.9	0.2	23	No Impact	No Impact
R6	2	75	3	38	90	89	55	72.6	72.7	0.1	23	No Impact	No Impact
R7	2	75	3	38	105	104	55	70.9	71.0	0.1	21	No Impact	No Impact
R8	2	75	3	38	130	129	55	68.5	68.6	0.1	19	No Impact	No Impact
R9	2	75	3	38	159	159	55	71.4	71.4	0.0	21	No Impact	No Impact
R10	2	75	3	38	237	236	55	62.1	62.2	0.1	12	No Impact	No Impact
R11	2	75	3	38	230	229	55	62.5	62.5	0.0	13	No Impact	No Impact
R12	2	75	3	38	231	231	55	62.4	62.5	0.1	13	No Impact	No Impact
R13	2	75	3	38	230	230	55	62.5	62.5	0.0	13	No Impact	No Impact
R14	2	75	3	38	228	228	55	62.6	62.6	0.0	13	No Impact	No Impact
R15	2	75	3	38	231	232	55	62.4	62.3	0.0	12	No Impact	No Impact
R16	2	75	3	38	324	323	55	53.9	54.1	0.2	4	No Impact	No Impact
R17	2	75	3	38	341	339	55	51.3	51.5	0.2	2	No Impact	No Impact
R18	2	75	3	38	339	339	55	51.6	51.5	0.0	2	No Impact	No Impact
R19	2	75	3	38	349	348	55	49.9	49.9	0.0	0	No Impact	No Impact
R20	2	75	3	38	71	71	55	75.1	75.1	0.0	25	No Impact	No Impact
R21	2	75	3	38	79	78	55	73.9	74.1	0.2	24	No Impact	No Impact
R22	2	75	3	38	76	75	55	74.5	74.5	0.0	25	No Impact	No Impact
R23	2	75	3	38	83	84	55	73.4	73.4	0.0	23	No Impact	No Impact
R24	2	75	3	38	84	86	55	73.3	73.1	0.0	23	No Impact	No Impact
R25	2	75	3	38	78	78	55	74.2	74.1	0.0	24	No Impact	No Impact
R26	2	75	3	38	86	86	55	73.1	73.0	0.0	23	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R27	2	75	3	38	109	110	55	70.3	70.3	0.0	20	No Impact	No Impact
R28	2	75	3	38	258	257	55	60.7	60.7	0.0	11	No Impact	No Impact
R29	2	75	3	38	261	261	55	60.4	60.4	0.0	10	No Impact	No Impact
R30	2	75	3	38	383	382	55	42.5	42.5	0.0	0	No Impact	No Impact
R31	2	75	3	38	266	266	55	60.1	60.1	0.0	10	No Impact	No Impact
R32	2	75	3	38	121	121	55	74.3	74.2	0.0	24	No Impact	No Impact
R33	2	75	3	38	280	282	55	58.9	58.8	0.0	9	No Impact	No Impact
R34	2	75	3	38	391	392	55	40.4	40.2	0.0	0	No Impact	No Impact
R35	2	75	3	38	326	326	55	53.7	53.5	0.0	4	No Impact	No Impact
R36	2	75	3	38	292	293	55	54.7	54.6	0.0	5	No Impact	No Impact
R37	2	75	3	38	128	125	55	75.6	75.9	0.3	26	No Impact	No Impact
R38	2	75	3	38	140	127	55	69.7	70.8	1.1	21	No Impact	No Impact
R39	2	75	3	38	143	124	55	64.5	66.0	1.5	16	No Impact	No Impact
R40	2	75	3	38	122	103	55	66.1	68.0	1.9	18	No Impact	No Impact
R41	2	75	3	38	124	105	55	65.9	67.8	1.9	18	No Impact	No Impact
R42	2	75	3	38	124	105	55	66.0	67.9	1.9	18	No Impact	No Impact
R43	2	75	3	38	128	109	55	65.7	67.4	1.7	17	No Impact	No Impact
R44	2	75	3	38	132	113	55	68.3	70.0	1.7	20	No Impact	No Impact
R45	2	75	3	38	111	111	55	80.1	80.1	0.0	30	No Impact	No Impact
R46	2	75	3	38	149	149	55	77.1	77.1	0.0	27	No Impact	No Impact
R47	2	75	3	38	178	178	55	70.3	70.3	0.0	20	No Impact	No Impact
R48	2	75	3	38	214	214	55	68.4	68.4	0.0	18	No Impact	No Impact
R49	2	75	3	38	239	239	55	66.9	66.9	0.0	17	No Impact	No Impact
R50	2	75	3	38	266	266	55	60.1	60.1	0.0	10	No Impact	No Impact
R51	2	75	3	38	300	300	55	57.0	57.0	0.0	7	No Impact	No Impact
R52	2	75	3	38	332	332	55	52.6	52.6	0.0	3	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R53	2	75	3	38	363	363	55	46.9	46.9	0.0	0	No Impact	No Impact
R54	2	75	3	38	390	390	55	40.7	40.7	0.0	0	No Impact	No Impact
R55	2	75	3	38	425	425	55	29.6	29.6	0.0	0	No Impact	No Impact
R56	2	75	3	38	379	379	55	43.3	43.3	0.0	0	No Impact	No Impact
R57	2	75	3	38	351	351	55	49.3	49.3	0.0	0	No Impact	No Impact
R58	2	75	3	38	334	334	55	52.4	52.4	0.0	2	No Impact	No Impact
R59	2	75	3	38	317	317	55	54.8	54.8	0.0	5	No Impact	No Impact
R60	2	75	3	38	300	300	55	56.9	56.9	0.0	7	No Impact	No Impact
R61	2	75	3	38	283	283	55	58.7	58.7	0.0	9	No Impact	No Impact
R62	2	75	3	38	339	339	55	51.5	51.5	0.0	2	No Impact	No Impact
R63	2	75	3	38	355	355	55	48.5	48.5	0.0	0	No Impact	No Impact
R64	2	75	3	38	381	381	55	43.0	43.0	0.0	0	No Impact	No Impact
R65	2	75	3	38	401	401	55	37.3	37.3	0.0	0	No Impact	No Impact
R66	2	75	3	38	305	305	55	56.3	56.3	0.0	6	No Impact	No Impact
R67	2	75	3	38	251	251	55	61.2	61.2	0.0	11	No Impact	No Impact
R68	2	75	3	38	220	220	55	63.1	63.1	0.0	13	No Impact	No Impact
R69	2	75	3	38	187	187	55	64.8	64.8	0.0	15	No Impact	No Impact
R70	2	75	3	38	157	157	55	66.5	66.5	0.0	17	No Impact	No Impact
R71	2	75	3	38	132	132	55	68.3	68.3	0.0	18	No Impact	No Impact
R72	2	75	3	38	206	206	55	63.8	63.8	0.0	14	No Impact	No Impact
R73	2	75	3	38	226	226	55	62.7	62.7	0.0	13	No Impact	No Impact
R74	2	75	3	38	243	243	55	61.7	61.7	0.0	12	No Impact	No Impact
R75	2	75	3	38	257	257	55	60.7	60.7	0.0	11	No Impact	No Impact
R76	2	75	3	38	280	280	55	59.0	59.0	0.0	9	No Impact	No Impact
R77	2	75	3	38	310	310	55	55.7	55.7	0.0	6	No Impact	No Impact
R78	2	75	3	38	253	253	55	61.1	61.1	0.0	11	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R79	2	75	3	38	227	227	55	62.7	62.7	0.0	13	No Impact	No Impact
R80	2	75	3	38	202	202	55	64.0	64.0	0.0	14	No Impact	No Impact
R81	2	75	3	38	189	189	55	64.7	64.7	0.0	15	No Impact	No Impact
R82	2	75	3	38	170	170	55	65.8	65.8	0.0	16	No Impact	No Impact
R83	2	75	3	38	155	155	55	66.7	66.7	0.0	17	No Impact	No Impact
R84	2	75	3	38	109	109	55	80.3	80.3	0.0	30	No Impact	No Impact
R85	2	75	3	38	170	170	55	70.7	70.7	0.0	21	No Impact	No Impact
R86	2	75	3	38	152	152	55	71.8	71.8	0.0	22	No Impact	No Impact
R87	2	75	3	38	132	132	55	73.3	73.3	0.0	23	No Impact	No Impact
R88	2	75	3	38	106	106	55	72.6	72.6	0.0	23	No Impact	No Impact
R89	2	75	3	38	100	100	55	68.3	68.3	0.0	18	No Impact	No Impact
R90	2	75	3	38	139	139	55	64.7	64.7	0.0	15	No Impact	No Impact
R91	2	75	3	38	351	351	55	46.5	46.5	0.0	0	No Impact	No Impact
R92	2	75	3	38	254	254	55	57.9	57.9	0.0	8	No Impact	No Impact
R93	2	75	3	38	252	252	55	58.1	58.1	0.0	8	No Impact	No Impact
R94	2	75	3	38	406	406	55	32.8	32.8	0.0	0	No Impact	No Impact
R95	2	75	3	38	68	53	55	75.6	78.1	2.5	28	No Impact	No Impact
R96	2	75	3	38	72	57	55	75.0	77.4	2.4	27	No Impact	No Impact
R97	2	75	3	38	72	57	55	75.1	77.6	2.5	28	No Impact	No Impact
R98	2	75	3	38	74	59	55	75.8	77.6	2.4	28	No Impact	No Impact
R99	2	75	3	38	74	59	55	75.8	77.6	2.3	28	No Impact	No Impact
R100	2	75	3	38	78	63	55	75.3	77.1	2.3	27	No Impact	No Impact
R101	2	75	3	38	78	63	55	75.3	77.0	2.3	27	No Impact	No Impact
R102	2	75	3	38	227	212	55	62.6	63.5	0.9	14	No Impact	No Impact
R103	2	75	3	38	229	214	55	62.5	63.3	0.8	13	No Impact	No Impact
R104	2	75	3	38	231	216	55	62.5	63.3	0.8	13	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R105	2	75	3	38	239	224	55	61.9	62.8	0.9	13	No Impact	No Impact
R106	2	75	3	38	233	218	55	62.3	63.2	0.9	13	No Impact	No Impact
R107	2	75	3	38	231	216	55	62.4	63.2	0.8	13	No Impact	No Impact
R108	2	75	3	38	235	220	55	62.2	63.1	0.9	13	No Impact	No Impact
R109	2	75	3	38	355	340	55	48.5	51.3	2.8	1	No Impact	No Impact
R110	2	75	3	38	363	348	55	47.1	50.1	3.0	0	No Impact	No Impact
R111	2	75	3	38	359	344	55	47.7	50.6	2.9	1	No Impact	No Impact
R112	2	75	3	38	361	346	55	47.5	50.4	2.9	0	No Impact	No Impact
R113	2	75	3	38	363	348	55	47.1	50.1	3.0	0	No Impact	No Impact
R114	2	75	3	38	368	353	55	45.8	48.9	3.1	0	No Impact	No Impact
R115	2	75	3	38	365	350	55	46.5	49.5	3.0	0	No Impact	No Impact
R116	2	75	3	38	85	70	55	74.5	76.3	2.1	26	No Impact	No Impact
R117	2	75	3	38	82	67	55	74.8	76.6	2.2	27	No Impact	No Impact
R118	2	75	3	38	84	69	55	74.6	76.4	2.1	26	No Impact	No Impact
R119	2	75	3	38	105	90	55	70.9	72.6	1.7	23	No Impact	No Impact
R120	2	75	3	38	123	108	55	69.1	70.5	1.4	21	No Impact	No Impact
R121	2	75	3	38	197	182	55	64.3	65.1	0.8	15	No Impact	No Impact
R122	2	75	3	38	276	261	55	59.3	60.5	1.2	11	No Impact	No Impact
R123	2	75	3	38	260	245	55	60.6	61.6	1.0	12	No Impact	No Impact
R124	2	75	3	38	246	231	55	61.5	62.4	0.9	12	No Impact	No Impact
R125	2	75	3	38	246	231	55	61.5	62.4	0.9	12	No Impact	No Impact
R126	2	75	3	38	371	356	55	45.2	48.3	3.1	0	No Impact	No Impact
R127	2	75	3	38	373	358	55	44.7	47.9	3.2	0	No Impact	No Impact
R128	2	75	3	38	370	355	55	45.4	48.5	3.1	0	No Impact	No Impact
R129	2	75	3	38	371	356	55	45.2	48.3	3.1	0	No Impact	No Impact
R130	2	75	3	38	339	324	55	51.5	53.8	2.3	4	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R131	2	75	3	38	272	257	55	59.7	60.8	1.1	11	No Impact	No Impact
R132	2	75	3	38	362	347	55	47.1	50.1	3.0	0	No Impact	No Impact
R133	2	75	3	38	84	69	55	74.7	76.4	2.2	26	No Impact	No Impact
R134	2	75	3	38	162	147	55	66.2	67.2	1.0	17	No Impact	No Impact
R135	2	75	3	38	227	212	55	62.7	63.5	0.8	14	No Impact	No Impact
R136	2	75	3	38	267	252	55	60.0	61.1	1.1	11	No Impact	No Impact
R137	2	75	3	38	340	325	55	51.3	53.7	2.4	4	No Impact	No Impact
R138	2	75	3	38	376	361	55	44.2	47.5	3.3	0	No Impact	No Impact
R139	2	75	3	38	116	101	55	69.7	71.3	1.6	21	No Impact	No Impact
R140	2	75	3	38	116	101	55	69.7	71.2	1.5	21	No Impact	No Impact
R141	2	75	3	38	118	103	55	69.5	71.0	1.5	21	No Impact	No Impact
R142	2	75	3	38	115	100	55	69.7	71.3	1.6	21	No Impact	No Impact
R143	2	75	3	38	117	102	55	69.7	71.2	1.5	21	No Impact	No Impact
R144	2	75	3	38	115	100	55	69.8	71.4	1.6	21	No Impact	No Impact
R145	2	75	3	38	116	101	55	69.7	71.3	1.6	21	No Impact	No Impact
R146	2	75	3	38	111	96	55	70.1	71.8	1.7	22	No Impact	No Impact
R147	2	75	3	38	104	89	55	71.0	72.7	1.7	23	No Impact	No Impact
R148	2	75	3	38	110	95	55	70.2	71.9	1.7	22	No Impact	No Impact
R149	2	75	3	38	107	92	55	70.6	72.4	1.8	22	No Impact	No Impact
R150	2	75	3	38	115	100	55	69.8	71.4	1.6	21	No Impact	No Impact
R151	2	75	3	38	107	92	55	70.5	72.2	1.7	22	No Impact	No Impact
R152	2	75	3	38	107	92	55	70.5	72.2	1.7	22	No Impact	No Impact
R153	2	75	3	38	107	92	55	70.6	72.4	1.8	22	No Impact	No Impact
R154	2	75	3	38	109	94	55	70.4	72.1	1.7	22	No Impact	No Impact
R155	2	75	3	38	104	89	55	70.9	72.6	1.7	23	No Impact	No Impact
R156	2	75	3	38	242	227	55	61.7	62.6	0.9	13	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R157	2	75	3	38	241	226	55	61.9	62.7	0.8	13	No Impact	No Impact
R158	2	75	3	38	242	227	55	61.7	62.6	0.9	13	No Impact	No Impact
R159	2	75	3	38	242	227	55	61.7	62.6	0.9	13	No Impact	No Impact
R160	2	75	3	38	248	233	55	61.4	62.3	0.9	12	No Impact	No Impact
R161	2	75	3	38	265	250	55	60.1	61.2	1.1	11	No Impact	No Impact
R162	2	75	3	38	271	256	55	59.7	60.8	1.1	11	No Impact	No Impact
R163	2	75	3	38	196	181	55	64.3	65.1	0.8	15	No Impact	No Impact
R164	2	75	3	38	271	256	55	59.7	60.8	1.1	11	No Impact	No Impact
R165	2	75	3	38	267	252	55	60.1	61.2	1.1	11	No Impact	No Impact
R166	2	75	3	38	253	238	55	61.1	62.0	0.9	12	No Impact	No Impact
R167	2	75	3	38	259	244	55	60.7	61.7	1.0	12	No Impact	No Impact
R168	2	75	3	38	249	234	55	61.3	62.2	0.9	12	No Impact	No Impact
R169	2	75	3	38	247	232	55	61.4	62.3	0.9	12	No Impact	No Impact
R170	2	75	3	38	248	233	55	61.4	62.3	0.9	12	No Impact	No Impact
R171	2	75	3	38	268	253	55	59.9	61.0	1.1	11	No Impact	No Impact
R172	2	75	3	38	365	350	55	46.5	49.5	3.0	0	No Impact	No Impact
R173	2	75	3	38	366	351	55	46.5	49.5	3.0	0	No Impact	No Impact
R174	2	75	3	38	362	347	55	47.3	50.2	2.9	0	No Impact	No Impact
R175	2	75	3	38	361	346	55	47.5	50.4	2.9	0	No Impact	No Impact
R176	2	75	3	38	357	342	55	48.3	51.1	2.8	1	No Impact	No Impact
R177	2	75	3	38	357	342	55	48.1	50.9	2.8	1	No Impact	No Impact
R178	2	75	3	38	359	344	55	47.7	50.6	2.9	1	No Impact	No Impact
R179	2	75	3	38	365	350	55	46.5	49.5	3.0	0	No Impact	No Impact
R180	2	75	3	38	355	340	55	48.7	51.5	2.8	2	No Impact	No Impact
R181	2	75	3	38	354	339	55	48.7	51.5	2.8	2	No Impact	No Impact
R182	2	75	3	38	352	337	55	49.1	51.8	2.7	2	No Impact	No Impact



**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R183	2	75	3	38	354	339	55	48.7	51.5	2.8	2	No Impact	No Impact
R184	2	75	3	38	352	337	55	49.1	51.8	2.7	2	No Impact	No Impact
R185	2	75	3	38	359	344	55	47.9	50.8	2.9	1	No Impact	No Impact
R186	2	75	3	38	362	347	55	47.1	50.1	3.0	0	No Impact	No Impact
R187	2	75	3	38	91	76	55	72.4	74.4	2.0	24	No Impact	No Impact
R188	2	75	3	38	157	142	55	66.5	67.5	1.0	18	No Impact	No Impact
R189	2	75	3	38	210	195	55	63.6	64.3	0.7	14	No Impact	No Impact
R190	2	75	3	38	255	240	55	60.9	61.9	1.0	12	No Impact	No Impact
R191	2	75	3	38	311	296	55	55.7	57.4	1.7	7	No Impact	No Impact
R192	2	75	3	38	361	346	55	47.3	50.2	2.9	0	No Impact	No Impact
R193	2	75	3	38	401	386	55	37.3	41.5	4.2	0	No Impact	No Impact
R194	2	75	3	38	101	86	55	71.2	73.0	1.8	23	No Impact	No Impact
R195	2	75	3	38	181	166	55	65.1	65.9	0.8	16	No Impact	No Impact
R196	2	75	3	38	246	231	55	61.6	62.5	0.9	13	No Impact	No Impact
R197	2	75	3	38	326	311	55	53.5	55.6	2.1	6	No Impact	No Impact
R198	2	75	3	38	371	356	55	45.2	48.3	3.1	0	No Impact	No Impact
R199	2	75	3	38	89	74	55	72.6	74.7	2.1	25	No Impact	No Impact
R200	2	75	3	38	76	61	55	75.6	77.3	2.4	27	No Impact	No Impact
R201	2	75	3	38	72	57	55	75.1	77.6	2.5	28	No Impact	No Impact
R202	2	75	3	38	99	84	55	71.4	73.3	1.9	23	No Impact	No Impact
R203	2	75	3	38	207	192	55	63.7	64.5	0.8	15	No Impact	No Impact
R204	2	75	3	38	243	228	55	61.7	62.6	0.9	13	No Impact	No Impact
R205	2	75	3	38	249	234	55	61.4	62.3	0.9	12	No Impact	No Impact
R206	2	75	3	38	259	244	55	60.6	61.6	1.0	12	No Impact	No Impact
R207	2	75	3	38	370	355	55	45.4	48.5	3.1	0	No Impact	No Impact
R208	2	75	3	38	101	86	55	71.2	73.0	1.8	23	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R209	2	75	3	38	156	141	55	66.5	67.6	1.1	18	No Impact	No Impact
R210	2	75	3	38	204	189	55	63.9	64.7	0.8	15	No Impact	No Impact
R211	2	75	3	38	260	245	55	60.5	61.6	1.1	12	No Impact	No Impact
R212	2	75	3	38	304	289	55	56.5	58.1	1.6	8	No Impact	No Impact
R213	2	75	3	38	360	345	55	47.5	50.4	2.9	0	No Impact	No Impact
R214	2	75	3	38	401	386	55	37.3	41.5	4.2	0	No Impact	No Impact
R215	2	75	3	38	396	381	55	39.1	43.0	3.9	0	No Impact	No Impact
R216	2	75	3	38	351	336	55	49.5	52.1	2.6	2	No Impact	No Impact
R217	2	75	3	38	300	285	55	56.9	58.4	1.5	8	No Impact	No Impact
R218	2	75	3	38	259	244	55	60.6	61.6	1.0	12	No Impact	No Impact
R219	2	75	3	38	212	197	55	63.5	64.2	0.7	14	No Impact	No Impact
R220	2	75	3	38	158	143	55	66.4	67.4	1.0	17	No Impact	No Impact
R221	2	75	3	38	107	92	55	70.5	72.2	1.7	22	No Impact	No Impact
R222	2	75	3	38	82	67	55	74.8	76.6	2.2	27	No Impact	No Impact
R223	2	75	3	38	160	145	55	66.4	67.4	1.0	17	No Impact	No Impact
R224	2	75	3	38	225	210	55	62.8	63.6	0.8	14	No Impact	No Impact
R225	2	75	3	38	279	264	55	59.0	60.2	1.2	10	No Impact	No Impact
R226	2	75	3	38	325	310	55	53.8	55.8	2.0	6	No Impact	No Impact
R227	2	75	3	38	379	364	55	43.5	46.9	3.4	0	No Impact	No Impact
R228	2	75	3	38	326	311	55	53.7	55.7	2.0	6	No Impact	No Impact
R229	2	75	3	38	257	242	55	60.7	61.7	1.0	12	No Impact	No Impact
R230	2	75	3	38	224	209	55	62.8	63.6	0.8	14	No Impact	No Impact
R231	2	75	3	38	136	122	55	67.9	69.2	1.3	19	No Impact	No Impact
R232	2	75	3	38	101	86	55	71.3	73.1	1.8	23	No Impact	No Impact
R233	2	75	3	38	109	95	55	70.4	71.9	1.5	22	No Impact	No Impact
R234	2	75	3	38	216	203	55	63.2	64.0	0.8	14	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R235	2	75	3	38	267	253	55	60.1	61.0	0.9	11	No Impact	No Impact
R236	2	75	3	38	319	305	55	54.6	56.3	1.7	6	No Impact	No Impact
R237	2	75	3	38	367	353	55	46.3	49.1	2.8	0	No Impact	No Impact
R238	2	75	3	38	402	388	55	37.3	41.2	3.9	0	No Impact	No Impact
R239	2	75	3	38	80	68	55	78.9	80.7	1.8	31	No Impact	No Impact
R240	2	75	3	38	68	60	55	85.7	87.0	1.3	37	No Impact	No Impact
R241	2	75	3	38	70	64	55	85.4	86.2	0.8	36	No Impact	No Impact
R242	2	75	3	38	75	72	55	84.7	85.1	0.4	35	No Impact	No Impact
R243	2	75	3	38	72	72	55	85.0	85.0	0.0	35	No Impact	No Impact
R244	2	75	3	38	79	79	55	84.1	84.1	0.0	34	No Impact	No Impact
R245	2	75	3	38	76	76	55	84.4	84.4	0.0	34	No Impact	No Impact
R246	2	75	3	38	73	73	55	79.8	79.8	0.0	30	No Impact	No Impact
R247	2	75	3	38	75	75	55	79.5	79.5	0.0	30	No Impact	No Impact
R248	2	75	3	38	72	72	55	75.0	75.0	0.0	25	No Impact	No Impact
R249	2	75	3	38	72	72	55	75.1	75.1	0.0	25	No Impact	No Impact
R250	2	75	3	38	246	237	55	61.6	62.1	0.5	12	No Impact	No Impact
R251	2	75	3	38	302	293	55	56.6	57.6	1.0	8	No Impact	No Impact
R252	2	75	3	38	351	342	55	49.5	51.1	1.6	1	No Impact	No Impact
R253	2	75	3	38	399	389	55	38.2	40.7	2.5	0	No Impact	No Impact
R254	2	75	3	38	251	250	55	66.2	66.2	0.0	16	No Impact	No Impact
R255	2	75	3	38	328	326	55	53.4	53.5	0.1	4	No Impact	No Impact
R256	2	75	3	38	386	384	55	41.8	42.0	0.2	0	No Impact	No Impact
R257	2	75	3	38	235	235	55	67.2	67.2	0.0	17	No Impact	No Impact
R258	2	75	3	38	320	320	55	54.4	54.4	0.0	4	No Impact	No Impact
R259	2	75	3	38	388	388	55	41.2	41.2	0.0	0	No Impact	No Impact
R260	2	75	3	38	253	253	55	66.1	66.1	0.0	16	No Impact	No Impact

Table C-2. Operational Vibration Analysis Results

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R261	2	75	3	38	316	316	55	55.0	55.0	0.0	5	No Impact	No Impact
R262	2	75	3	38	382	382	55	42.8	42.8	0.0	0	No Impact	No Impact
R263	2	75	3	38	241	241	55	61.8	61.8	0.0	12	No Impact	No Impact
R264	2	75	3	38	319	319	55	54.6	54.6	0.0	5	No Impact	No Impact
R265	2	75	3	38	392	392	55	40.2	40.2	0.0	0	No Impact	No Impact
R266	2	75	3	38	397	397	55	38.8	38.8	0.0	0	No Impact	No Impact
R267	2	75	3	38	317	317	55	54.9	54.9	0.0	5	No Impact	No Impact
R268	2	75	3	38	253	252	55	61.1	61.1	0.0	11	No Impact	No Impact
R269	2	75	3	38	169	169	55	65.8	65.8	0.0	16	No Impact	No Impact
R270	2	75	3	38	245	245	55	61.6	61.6	0.0	12	No Impact	No Impact
R271	2	75	3	38	306	306	55	56.2	56.2	0.0	6	No Impact	No Impact
R272	2	75	3	38	387	387	55	41.5	41.5	0.0	0	No Impact	No Impact
R273	2	75	3	38	188	188	55	64.8	64.8	0.0	15	No Impact	No Impact
R274	2	75	3	38	303	303	55	56.6	56.6	0.0	7	No Impact	No Impact
R275	2	75	3	38	378	378	55	43.5	43.5	0.0	0	No Impact	No Impact
R276	2	75	3	38	173	173	55	65.5	65.5	0.0	16	No Impact	No Impact
R277	2	75	3	38	189	189	55	64.7	64.7	0.0	15	No Impact	No Impact
R278	2	75	3	38	297	297	55	57.3	57.3	0.0	7	No Impact	No Impact
R279	2	75	3	38	378	378	55	43.8	43.8	0.0	0	No Impact	No Impact
R280	2	75	3	38	181	181	55	65.1	65.1	0.0	15	No Impact	No Impact
R281	2	75	3	38	181	181	55	65.1	65.1	0.0	15	No Impact	No Impact
R282	2	75	3	38	274	274	55	59.5	59.5	0.0	10	No Impact	No Impact
R283	2	75	3	38	173	173	55	65.6	65.6	0.0	16	No Impact	No Impact
R284	2	75	3	38	169	169	55	65.8	65.8	0.0	16	No Impact	No Impact
R285	2	75	3	38	168	168	55	70.9	70.9	0.0	21	No Impact	No Impact
R286	2	75	3	38	172	172	55	70.6	70.6	0.0	21	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R287	2	75	3	38	169	169	55	75.8	75.8	0.0	26	No Impact	No Impact
R288	2	75	3	38	171	171	55	75.7	75.7	0.0	26	No Impact	No Impact
R289	2	75	3	38	175	174	55	75.5	75.5	0.0	26	No Impact	No Impact
R290	2	75	3	38	169	169	55	70.8	70.8	0.0	21	No Impact	No Impact
R291	2	75	3	38	166	166	55	70.9	70.9	0.0	21	No Impact	No Impact
R292	2	75	3	38	334	334	55	52.3	52.3	0.0	2	No Impact	No Impact
R293	2	75	3	38	407	407	55	35.5	35.5	0.0	0	No Impact	No Impact
R294	2	75	3	38	334	334	55	52.3	52.3	0.0	2	No Impact	No Impact
R295	2	75	3	38	414	414	55	33.3	33.3	0.0	0	No Impact	No Impact
R296	2	75	3	38	307	307	55	56.0	56.0	0.0	6	No Impact	No Impact
R297	2	75	3	38	312	312	55	55.4	55.4	0.0	5	No Impact	No Impact
R298	2	75	3	38	314	314	55	55.2	55.2	0.0	5	No Impact	No Impact
R299	2	75	3	38	311	311	55	55.6	55.6	0.0	6	No Impact	No Impact
R300	2	75	3	38	312	312	55	55.6	55.4	0.0	5	No Impact	No Impact
R301	2	75	3	38	307	307	55	56.0	56.0	0.0	6	No Impact	No Impact
R302	2	75	3	38	284	284	55	58.5	58.5	0.0	9	No Impact	No Impact
R303	2	75	3	38	192	192	55	64.5	64.5	0.0	15	No Impact	No Impact
R304	2	75	3	38	337	337	55	52.0	52.0	0.0	2	No Impact	No Impact
R305	2	75	3	38	211	211	55	63.6	63.6	0.0	14	No Impact	No Impact
R306	2	75	3	38	164	164	55	66.1	66.1	0.0	16	No Impact	No Impact
R307	2	75	3	38	165	165	55	66.0	66.0	0.0	16	No Impact	No Impact
R308	2	75	3	38	166	166	55	66.0	65.9	0.0	16	No Impact	No Impact
R309	2	75	3	38	164	164	55	66.1	66.1	0.0	16	No Impact	No Impact
R310	2	75	3	38	82	82	55	73.5	73.5	0.0	24	No Impact	No Impact
R311	2	75	3	38	76	76	55	74.5	74.5	0.0	25	No Impact	No Impact
R312	2	75	3	38	83	83	55	73.4	73.5	0.1	24	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R313	2	75	3	38	97	97	55	71.6	71.6	0.0	22	No Impact	No Impact
R314	2	75	3	38	138	138	55	67.9	67.9	0.0	18	No Impact	No Impact
R315	2	75	3	38	202	201	55	64.0	64.0	0.0	14	No Impact	No Impact
R316	2	75	3	38	108	107	55	70.5	70.5	0.0	21	No Impact	No Impact
R317	2	75	3	38	260	260	55	60.5	60.6	0.1	11	No Impact	No Impact
R318	2	75	3	38	354	354	55	48.9	48.9	0.0	0	No Impact	No Impact
R319	2	75	3	38	396	395	55	39.1	39.1	0.0	0	No Impact	No Impact
R320	2	75	3	38	368	368	55	45.8	46.0	0.2	0	No Impact	No Impact
R321	2	75	3	38	271	271	55	64.7	64.7	0.0	15	No Impact	No Impact
R322	2	75	3	38	228	228	55	67.6	67.6	0.0	18	No Impact	No Impact
R323	2	75	3	38	288	288	55	63.1	63.1	0.0	13	No Impact	No Impact
R324	2	75	3	38	336	336	55	52.1	52.1	0.0	2	No Impact	No Impact
R325	2	75	3	38	392	392	55	40.2	40.2	0.0	0	No Impact	No Impact
R326	2	75	3	38	348	348	55	50.1	50.1	0.0	0	No Impact	No Impact
R327	2	75	3	38	341	341	55	51.1	51.1	0.0	1	No Impact	No Impact
R328	2	75	3	38	178	178	55	65.3	65.3	0.0	15	No Impact	No Impact
R329	2	75	3	38	189	189	55	64.7	64.7	0.0	15	No Impact	No Impact
R330	2	75	3	38	257	257	55	60.7	60.7	0.0	11	No Impact	No Impact
R331	2	75	3	38	314	314	55	55.3	55.3	0.0	5	No Impact	No Impact
R332	2	75	3	38	383	383	55	42.5	42.5	0.0	0	No Impact	No Impact
R333	2	75	3	38	408	408	55	35.2	35.2	0.0	0	No Impact	No Impact
R334	2	75	3	38	355	356	55	48.5	48.5	0.0	0	No Impact	No Impact
R335	2	75	3	38	329	329	55	53.1	53.1	0.0	3	No Impact	No Impact
R336	2	75	3	38	332	332	55	52.7	52.7	0.0	3	No Impact	No Impact
R337	0	78	3	43	174	174	55	65.5	65.5	0.0	16	No Impact	No Impact
R338	0	78	3	43	277	277	55	59.1	59.2	0.1	9	No Impact	No Impact

**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R339	0	78	3	43	79	79	55	73.9	73.9	0.0	24	No Impact	No Impact
R340	0	78	3	43	78	78	55	74.1	74.2	0.1	24	No Impact	No Impact
R341	0	78	3	43	80	80	55	73.8	73.9	0.1	24	No Impact	No Impact
R342	0	78	3	43	168	167	55	65.9	65.9	0.0	16	No Impact	No Impact
R343	0	78	3	43	128	127	55	68.7	68.7	0.0	19	No Impact	No Impact
R344	0	78	3	43	202	201	55	64.0	64.0	0.0	14	No Impact	No Impact
R345	0	78	3	43	266	266	55	60.1	60.1	0.0	10	No Impact	No Impact
R346	0	78	3	43	405	405	55	36.5	36.5	0.0	0	No Impact	No Impact
R347	0	78	3	43	281	280	55	58.9	58.9	0.0	9	No Impact	No Impact
R348	0	78	3	43	243	243	55	61.7	61.7	0.0	12	No Impact	No Impact
R349	0	78	3	43	231	230	55	62.5	62.5	0.0	13	No Impact	No Impact
R350	0	78	3	43	318	318	55	54.6	54.8	0.2	5	No Impact	No Impact
R351	0	78	3	43	326	325	55	53.5	53.7	0.2	4	No Impact	No Impact
R352	0	78	3	43	450	449	55	20.2	20.2	0.0	0	No Impact	No Impact
R353	0	78	3	43	440	440	55	23.9	24.3	0.4	0	No Impact	No Impact
R354	0	78	3	43	445	445	55	21.9	22.3	0.4	0	No Impact	No Impact
R355	0	78	3	43	56	56	55	77.7	77.7	0.0	28	No Impact	No Impact
R356	0	78	3	43	129	130	55	68.5	68.5	0.0	19	No Impact	No Impact
R357	0	78	3	43	196	197	55	64.3	64.3	0.0	14	No Impact	No Impact
R358	0	78	3	43	266	266	55	60.1	60.1	0.0	10	No Impact	No Impact
R359	0	78	3	43	325	325	55	53.7	53.7	0.0	4	No Impact	No Impact
R360	0	78	3	43	383	383	55	42.5	42.3	0.0	0	No Impact	No Impact
R361	0	78	3	43	463	464	55	14.0	14.0	0.0	0	No Impact	No Impact
R362	0	78	3	43	470	470	55	11.1	10.6	0.0	0	No Impact	No Impact
R363	0	78	3	43	415	415	55	33.3	33.0	0.0	0	No Impact	No Impact
R364	0	78	3	43	341	341	55	51.3	51.1	0.0	1	No Impact	No Impact



**Table C-2. Operational Vibration Analysis Results**

Receptor	FTA Category	GBV Impact Threshold (VdB)	Significant Increase Threshold (dB)	GBN Impact Threshold (dBA)	Distance to Existing Track (feet)	Distance to Project Track (feet)	Speed (mph)	Existing VdB	Project VdB	Increase over Existing	Project GBN (dBA)	GBV Impact	GBN Impact
R365	0	78	3	43	282	282	55	58.8	58.7	0.0	9	No Impact	No Impact
R366	0	78	3	43	184	184	55	65.0	64.9	0.0	15	No Impact	No Impact
R367	0	78	3	43	121	121	55	69.3	69.2	0.0	19	No Impact	No Impact
R368	0	78	3	43	71	71	55	75.3	75.1	0.0	25	No Impact	No Impact
R369	0	78	3	43	64	65	55	76.4	76.0	0.0	26	No Impact	No Impact
R370	0	78	3	43	70	71	55	75.4	75.1	0.0	25	No Impact	No Impact
R371	0	78	3	43	68	69	55	75.7	75.6	0.0	26	No Impact	No Impact
R372	0	78	3	43	71	72	55	75.1	75.1	0.0	25	No Impact	No Impact
R373	0	78	3	43	226	227	55	62.7	62.6	0.0	13	No Impact	No Impact
R374	0	78	3	43	230	231	55	62.5	62.5	0.0	13	No Impact	No Impact
R375	0	78	3	43	225	227	55	62.7	62.7	0.0	13	No Impact	No Impact
R376	0	78	3	43	314	315	55	55.3	55.2	0.0	5	No Impact	No Impact
R377	0	78	3	43	313	314	55	55.3	55.2	0.0	5	No Impact	No Impact
R378	0	78	3	43	326	327	55	53.7	53.4	0.0	3	No Impact	No Impact

Notes:  
 dBA=A-weighted decibels; FTA=Federal Transit Administration; GBN=ground-borne noise; GBV=ground-borne vibration; mph=miles per hour; VdB=vibration decibels

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**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R1	793	41	56	57	41	41	57
R2	724	44	59	60	44	44	60
R3	661	46	61	61	46	46	61
R4	604	48	63	63	48	48	63
R5	535	47	62	62	47	47	62
R6	466	46	61	62	46	46	62
R7	388	49	63	64	49	49	64
R8	339	50	64	65	50	50	65
R9	304	51	66	66	51	51	66
R10	518	48	63	64	48	48	64
R11	571	47	62	62	47	47	62
R12	626	46	61	61	46	46	62
R13	689	45	60	60	45	45	61
R14	752	43	58	59	43	43	59
R15	810	42	57	58	42	42	58
R16	567	44	59	59	44	44	60
R17	621	45	60	60	45	45	60
R18	746	43	58	58	43	43	58
R19	691	44	59	59	44	44	59
R20	802	49	64	64	49	49	65
R21	740	50	65	65	50	50	65
R22	667	51	65	66	51	51	66
R23	610	52	66	67	52	52	67
R24	518	53	68	68	53	53	68
R25	446	54	69	70	54	54	70
R26	384	56	70	71	56	56	71
R27	325	57	72	72	57	57	72
R28	733	49	63	64	49	49	64
R29	798	47	61	62	47	47	62
R30	782	48	63	63	48	48	63
R31	677	50	64	65	50	50	65
R32	257	59	74	74	59	59	74
R33	573	50	65	66	50	50	66
R34	639	47	62	63	47	47	63
R35	439	54	69	69	54	54	70
R36	464	53	68	68	53	53	69

**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R37	125	59	74	75	59	59	75
R38	127	59	74	75	59	59	75
R39	124	64	79	79	64	64	79
R40	103	63	77	78	63	63	78
R41	105	61	76	76	61	61	77
R42	105	61	76	77	61	61	77
R43	109	61	75	76	61	61	76
R44	113	62	77	78	62	62	78
R45	111	66	81	81	66	66	81
R46	149	60	75	75	60	60	75
R47	178	60	75	75	60	60	75
R48	214	57	72	73	57	57	73
R49	239	58	72	73	58	58	73
R50	266	57	72	73	57	57	73
R51	300	55	70	71	55	55	71
R52	332	55	69	70	55	55	70
R53	363	55	70	70	55	55	70
R54	390	54	69	69	54	54	69
R55	425	53	68	68	53	53	68
R56	379	53	67	68	53	53	68
R57	351	56	70	71	56	56	71
R58	334	55	69	70	55	55	70
R59	317	54	69	69	54	54	69
R60	300	53	68	68	53	53	68
R61	283	58	72	73	58	58	73
R62	339	55	70	71	55	55	71
R63	355	52	67	68	52	52	68
R64	381	50	65	66	50	50	66
R65	401	52	66	67	52	52	67
R66	305	53	68	69	53	53	69
R67	251	59	74	75	59	59	75
R68	220	59	73	74	59	59	74
R69	187	60	75	75	60	60	75
R70	157	62	76	77	62	62	77
R71	132	62	77	77	62	62	77
R72	206	61	76	76	61	61	76

**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R73	226	56	71	72	56	56	72
R74	243	57	72	73	57	57	73
R75	257	58	72	73	58	58	73
R76	280	55	70	71	55	55	71
R77	310	56	70	71	56	56	71
R78	253	55	69	70	55	55	70
R79	227	59	74	75	59	59	75
R80	202	61	76	76	61	61	76
R81	189	59	74	74	59	59	74
R82	170	61	75	76	61	61	76
R83	155	63	78	79	63	63	79
R84	109	66	81	82	66	66	82
R85	170	59	73	74	59	59	74
R86	152	61	76	77	61	61	77
R87	132	65	80	80	65	65	80
R88	106	67	81	82	67	67	82
R89	100	67	82	82	67	67	82
R90	139	64	79	80	64	64	80
R91	351	56	71	71	56	56	71
R92	254	59	74	74	59	59	75
R93	252	59	74	74	59	59	75
R94	406	55	70	70	55	55	70
R95	53	73	87	88	73	73	88
R96	57	72	87	87	72	72	88
R97	57	72	87	87	72	72	88
R98	59	72	87	87	72	72	87
R99	59	72	87	87	72	72	87
R100	63	71	86	87	71	71	87
R101	63	71	86	86	71	71	87
R102	212	58	72	73	58	58	73
R103	214	58	72	73	58	58	73
R104	216	57	72	73	57	57	73
R105	224	57	72	72	57	57	72
R106	218	57	72	73	57	57	73
R107	216	57	71	72	57	57	72
R108	220	56	71	72	56	56	72

**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R109	340	51	66	66	51	51	66
R110	348	51	66	67	51	51	67
R111	344	53	67	68	53	53	68
R112	346	53	67	68	53	53	68
R113	348	53	67	68	53	53	68
R114	353	53	68	68	53	53	68
R115	350	52	67	68	52	52	68
R116	70	70	85	86	70	70	86
R117	67	71	85	86	71	71	86
R118	72	70	85	85	70	70	86
R119	90	66	81	82	66	66	82
R120	108	63	78	79	63	63	79
R121	182	59	74	74	59	59	75
R122	261	57	72	72	57	57	72
R123	245	57	72	72	57	57	73
R124	231	57	71	72	57	57	72
R125	231	55	70	70	55	55	71
R126	356	53	68	69	53	53	69
R127	358	52	67	68	52	52	68
R128	355	53	67	68	53	53	68
R129	356	53	68	68	53	53	68
R130	324	53	68	68	53	53	69
R131	257	55	70	70	55	55	70
R132	347	52	67	67	52	52	67
R133	69	71	85	86	71	71	86
R134	147	62	77	78	62	62	78
R135	212	60	75	75	60	60	76
R136	252	56	71	72	56	56	72
R137	325	54	69	69	54	54	70
R138	361	53	68	68	53	53	69
R139	101	67	81	82	67	67	82
R140	101	67	82	82	67	67	83
R141	103	67	81	82	67	67	82
R142	100	67	81	82	67	67	82
R143	102	66	81	82	66	66	82
R144	100	67	82	82	67	67	82

**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R145	101	66	81	81	66	66	82
R146	96	67	82	82	67	67	83
R147	89	68	83	83	68	68	83
R148	95	68	82	83	68	68	83
R149	92	67	82	83	67	67	83
R150	100	66	81	82	66	66	82
R151	92	67	82	82	67	67	82
R152	92	67	82	82	67	67	82
R153	92	67	82	82	67	67	82
R154	94	66	81	81	66	66	81
R155	89	66	81	81	66	66	81
R156	227	56	71	72	56	56	72
R157	226	56	71	71	56	56	72
R158	227	56	71	72	56	56	72
R159	227	57	72	72	57	57	72
R160	233	57	72	72	57	57	72
R161	250	57	71	72	57	57	72
R162	256	54	69	69	54	54	70
R163	181	56	70	71	56	56	71
R164	256	54	68	69	54	54	69
R165	252	53	68	68	53	53	68
R166	238	55	69	70	55	55	70
R167	244	54	69	69	54	54	70
R168	234	55	69	70	55	55	70
R169	232	55	70	70	55	55	70
R170	233	55	70	71	55	55	71
R171	253	57	72	73	57	57	73
R172	350	52	67	67	52	52	68
R173	351	51	65	66	51	51	66
R174	347	51	65	66	51	51	66
R175	346	50	64	65	50	50	65
R176	342	49	64	65	49	49	65
R177	342	48	63	64	48	48	64
R178	344	50	64	65	50	50	65
R179	350	50	65	65	50	50	65
R180	340	51	66	66	51	51	66



**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R181	339	50	65	65	50	50	65
R182	337	51	66	66	51	51	66
R183	339	50	65	65	50	50	66
R184	337	50	65	66	50	50	66
R185	344	50	65	65	50	50	65
R186	347	51	66	66	51	51	66
R187	76	68	83	83	68	68	84
R188	142	63	78	79	63	63	79
R189	195	59	73	74	59	59	74
R190	240	55	70	70	55	55	71
R191	296	55	69	70	55	55	70
R192	346	53	68	68	53	53	69
R193	386	52	66	67	52	52	67
R194	86	60	75	75	60	60	76
R195	166	54	68	69	54	54	69
R196	231	51	66	67	51	51	67
R197	311	49	64	64	49	49	64
R198	356	48	63	63	48	48	63
R199	74	61	76	77	61	61	77
R200	61	62	76	77	62	62	77
R201	57	61	76	77	61	61	77
R202	84	61	76	77	61	61	77
R203	192	55	70	71	55	55	71
R204	228	56	70	71	56	56	71
R205	234	55	70	71	55	55	71
R206	244	54	69	69	54	54	69
R207	355	51	65	66	51	51	66
R208	86	62	77	77	62	62	78
R209	141	59	74	74	59	59	74
R210	189	54	69	70	54	54	70
R211	245	54	69	69	54	54	70
R212	289	51	66	67	51	51	67
R213	345	51	66	66	51	51	66
R214	386	49	64	65	49	49	65
R215	381	48	63	63	48	48	63
R216	336	49	64	64	49	49	64

**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R217	285	52	66	67	52	52	67
R218	244	53	68	69	53	53	69
R219	197	55	70	70	55	55	70
R220	143	57	72	73	57	57	73
R221	92	61	75	76	61	61	76
R222	67	60	75	75	60	60	76
R223	145	57	72	72	57	57	72
R224	210	55	69	70	55	55	70
R225	264	52	67	67	52	52	67
R226	310	50	65	66	50	50	66
R227	364	49	64	64	49	49	64
R228	311	50	64	65	50	50	65
R229	242	52	67	67	52	52	67
R230	209	53	68	68	53	53	68
R231	122	58	72	73	58	58	73
R232	86	58	73	73	58	58	73
R233	95	60	74	75	60	60	75
R234	203	55	70	70	55	55	71
R235	253	54	69	70	54	54	70
R236	305	52	67	67	52	52	67
R237	353	51	66	66	51	51	66
R238	388	50	65	66	50	50	66
R239	68	62	76	77	62	62	77
R240	60	60	74	75	60	60	75
R241	64	59	74	74	59	59	74
R242	72	58	72	73	58	58	73
R243	73	58	72	73	58	58	73
R244	113	55	69	70	55	55	70
R245	166	52	67	67	52	52	67
R246	252	47	62	63	47	47	63
R247	309	47	61	62	47	47	62
R248	371	45	60	60	45	45	60
R249	434	43	58	58	43	43	58
R250	237	53	67	68	53	53	68
R251	293	52	66	67	52	52	67
R252	342	51	65	66	51	51	66

**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R253	389	49	64	64	49	49	64
R254	250	52	67	67	52	52	67
R255	326	49	63	64	49	49	64
R256	384	47	62	63	47	47	63
R257	242	50	65	65	50	50	65
R258	324	50	64	65	50	50	65
R259	391	46	61	62	46	46	62
R260	298	49	64	64	49	49	64
R261	352	48	63	63	48	48	64
R262	411	46	61	61	46	46	61
R263	456	48	63	63	48	48	63
R264	492	46	61	62	46	46	62
R265	541	45	60	61	45	45	61
R266	572	46	61	61	46	46	62
R267	519	47	61	62	47	47	62
R268	487	47	62	62	47	47	62
R269	169	61	75	76	61	61	76
R270	245	57	72	72	57	57	72
R271	306	53	68	68	53	53	68
R272	387	52	66	67	52	52	67
R273	188	59	74	74	59	59	75
R274	303	54	68	69	54	54	69
R275	378	52	67	67	52	52	67
R276	173	59	74	74	59	59	74
R277	189	59	74	74	59	59	74
R278	297	52	67	67	52	52	67
R279	378	50	65	65	50	50	65
R280	181	59	73	74	59	59	74
R281	181	58	73	73	58	58	73
R282	274	54	68	69	54	54	69
R283	173	58	73	73	58	58	74
R284	169	59	74	74	59	59	74
R285	168	58	73	73	58	58	73
R286	172	58	73	73	58	58	73
R287	169	58	73	73	58	58	73
R288	171	57	72	72	57	57	73

**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R289	178	59	74	74	59	59	75
R290	222	57	71	72	57	57	72
R291	269	55	70	71	55	55	71
R292	334	53	67	68	53	53	68
R293	407	51	66	67	51	51	67
R294	334	53	68	68	53	53	68
R295	414	52	66	67	52	52	67
R296	307	53	68	69	53	53	69
R297	312	54	68	69	54	54	69
R298	314	54	69	69	54	54	69
R299	315	54	69	69	54	54	69
R300	339	54	68	69	54	54	69
R301	380	55	70	70	55	55	70
R302	486	51	66	66	51	51	67
R303	447	54	69	70	54	54	70
R304	468	53	68	68	53	53	69
R305	518	53	68	68	53	53	68
R306	576	52	67	67	52	52	67
R307	679	51	65	66	51	51	66
R308	782	49	64	65	49	49	65
R309	854	49	63	64	49	49	64
R310	520	43	58	58	43	43	59
R311	595	42	57	57	42	42	57
R312	682	41	56	57	41	41	57
R313	745	44	58	59	44	44	59
R314	809	45	60	60	45	45	60
R315	862	45	60	61	45	45	61
R316	886	41	56	56	41	41	57
R317	622	45	59	60	45	45	60
R318	662	45	59	60	45	45	60
R319	682	43	57	58	43	43	58
R320	843	42	56	57	42	42	57
R321	272	53	67	68	53	53	68
R322	228	59	74	74	59	59	74
R323	288	51	66	66	51	51	66
R324	336	50	65	66	50	50	66

**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R325	392	48	62	63	48	48	63
R326	348	50	65	66	50	50	66
R327	341	51	66	66	51	51	67
R328	178	62	77	77	62	62	78
R329	189	61	76	76	61	61	77
R330	257	59	74	74	59	59	74
R331	314	57	72	72	57	57	72
R332	383	55	69	70	55	55	70
R333	597	49	64	64	49	49	65
R334	559	51	65	66	51	51	66
R335	743	45	60	60	45	45	61
R336	770	45	60	60	45	45	60
R337	174	62	77	78	62	62	78
R338	731	43	58	58	43	43	58
R339	954	38	52	53	38	38	53
R340	1081	38	53	54	38	38	54
R341	1166	37	52	53	37	37	53
R342	1180	42	57	57	42	42	57
R343	1134	46	61	61	46	46	62
R344	926	48	63	63	48	48	63
R345	919	48	63	63	48	48	63
R346	919	48	63	63	48	48	63
R347	992	47	62	63	47	47	63
R348	1153	46	61	61	46	46	61
R349	1188	46	60	61	46	46	61
R350	1174	46	61	61	46	46	61
R351	1206	46	60	61	46	46	61
R352	1063	47	61	62	47	47	62
R353	1193	46	60	61	46	46	61
R354	1244	45	60	61	45	45	61
R355	1408	44	59	60	44	44	60
R356	1423	44	59	59	44	44	60
R357	1426	44	59	59	44	44	60
R358	1440	44	59	59	44	44	59
R359	1451	44	59	59	44	44	59
R360	1463	44	59	59	44	44	59

**Table C-3. Construction Noise Analysis Results**

Receptor	Distance to Construction (feet)	dBA L <sub>eq</sub>					
		Phase 1a	Phase 1b	Phase 1c	Phase 2a	Phase 3a	Phase 3c
R361	1491	44	58	59	44	44	59
R362	1531	44	58	59	44	44	59
R363	1499	44	58	59	44	44	59
R364	1484	44	59	59	44	44	59
R365	1466	44	59	59	44	44	59
R366	1465	44	59	59	44	44	59
R367	1474	44	59	59	44	44	59
R368	1504	44	58	59	44	44	59
R369	1808	42	57	57	42	42	57
R370	1725	43	57	58	43	43	58
R371	1664	43	58	58	43	43	58
R372	1597	43	58	58	43	43	59
R373	1632	43	58	58	43	43	58
R374	1712	43	57	58	43	43	58
R375	1754	42	57	58	42	42	58
R376	1649	43	58	58	43	43	58
R377	1710	43	57	58	43	43	58
R378	1776	42	57	58	42	42	58

Notes:

dBA=A-weighted decibel; L<sub>eq</sub>=equivalent sound level

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**Table C-4. Construction Vibration Analysis Results**

Receptor	Distance (feet)	Roller PPV	Roller VdB	Dozer PPV	Dozer VdB	Loaded Truck PPV	Loaded Truck VdB	Damage Threshold PPV	Annoyance Threshold VdB	Roller Damage Impact	Roller Annoyance Impact	Dozer Damage Impact	Dozer Annoyance Impact	Loaded Truck Damage Impact	Loaded Truck Annoyance Impact
R75	257	0.006	64	0.003	57	0.002	56	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R76	280	0.006	63	0.002	56	0.002	55	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R77	310	0.005	61	0.002	54	0.002	53	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R78	253	0.007	64	0.003	57	0.002	56	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R79	227	0.008	65	0.003	58	0.003	57	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R80	202	0.009	67	0.004	60	0.003	59	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R81	189	0.010	68	0.004	61	0.004	60	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R82	170	0.012	69	0.005	62	0.004	61	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R83	155	0.014	70	0.006	63	0.005	62	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R84	109	0.023	75	0.010	68	0.008	67	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R85	170	0.012	69	0.005	62	0.004	61	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R86	152	0.014	70	0.006	63	0.005	62	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R87	132	0.017	72	0.007	65	0.006	64	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R88	106	0.024	75	0.010	68	0.009	67	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R89	100	0.026	76	0.011	69	0.009	68	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R90	139	0.016	72	0.007	65	0.006	64	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R91	351	0.004	60	0.002	53	0.001	52	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R92	254	0.006	64	0.003	57	0.002	56	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R93	252	0.007	64	0.003	57	0.002	56	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R94	406	0.003	58	0.001	51	0.001	50	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R95	53	0.068	84	0.029	77	0.024	76	0.2	80	No Impact	Impact	No Impact	No Impact	No Impact	No Impact
R96	57	0.061	83	0.026	76	0.022	75	0.2	80	No Impact	Impact	No Impact	No Impact	No Impact	No Impact
R97	57	0.062	83	0.026	76	0.022	75	0.2	80	No Impact	Impact	No Impact	No Impact	No Impact	No Impact
R98	59	0.058	83	0.025	76	0.021	75	0.2	80	No Impact	Impact	No Impact	No Impact	No Impact	No Impact
R99	59	0.058	83	0.025	76	0.021	75	0.2	80	No Impact	Impact	No Impact	No Impact	No Impact	No Impact



























**Table C-4. Construction Vibration Analysis Results**

Receptor	Distance (feet)	Roller PPV	Roller VdB	Dozer PPV	Dozer VdB	Loaded Truck PPV	Loaded Truck VdB	Damage Threshold PPV	Annoyance Threshold VdB	Roller Damage Impact	Roller Annoyance Impact	Dozer Damage Impact	Dozer Annoyance Impact	Loaded Truck Damage Impact	Loaded Truck Annoyance Impact
R375	1754	0.000	39	0.000	32	0.000	31	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R376	1649	0.000	39	0.000	32	0.000	31	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R377	1710	0.000	39	0.000	32	0.000	31	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
R378	1776	0.000	38	0.000	31	0.000	30	0.2	80	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact

Notes:  
 PPV=peak particle velocity; VdB=vibration decibels