

Transport for NSW

Kingswood Station Upgrade Noise and Vibration Impact Assessment

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

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1. Introduction

1.1 Overview

The NSW Government is committed to facilitating and encouraging the use of public transport, such as trains, by upgrading stations to make them more accessible, and improving interchanges around stations with other modes of transport such as bicycles, buses and cars.

The Transport Access Program is a NSW Government initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure where it is needed most.

Kingswood Station does not currently meet key requirements of the *Disability Standards for Accessible Public Transport* (DSAPT) or the Commonwealth *Disability Discrimination Act 1992* (DDA).

The non-compliant access points and stairs to the Kingswood Station concourse and platforms do not facilitate access for people with reduced mobility, parents/carers with prams or passengers with luggage. There are no lift facilities and inadequate amenities and tactile surfacing to stairs, platforms and interchange facilities.

The Proposal would involve upgrade works to Kingswood Station, interchange facilities and surrounding footpaths. The station is located 52 kilometres west of the Sydney Central Business District (CBD) in the suburb of Kingswood and is serviced by the T1 Western Line.

Platform 1 provides train services east to the CBD and Platform 2 provides train services west to Penrith. The Proposal is located within Penrith local government area adjacent to the Great Western Highway, Kingswood.

The key features of the Proposal are summarised as follows:

- new station entries at the eastern end of each station platform at the corner of Park Avenue and Richmond Road and the Great Western Highway
- installation of a new lift, canopy and concrete suspended landing on each station platform to the east of the concourse
- installation of new access stairs and new landing at the eastern end of each station platform
- installation of new roof and guttering at the eastern end of the station concourse to allow for the new access stairs and pedestrian access to and from the new lifts
- installation of about 35 solar panels on the new roof of the concourse
- regrade existing platform/concourse surfaces to provide DDA compliant pedestrian routes between new lifts and station entry/exit
- modification of pedestrian access to provide a DDA compliant accessible path of travel from the station concourse to the interchange facilities
- installation of a new 75 kVA high voltage transformer, underground cabling of existing 33 kVA power supply and installation of a new power pole to the north east of the station; upgrade of low voltage systems to account for new infrastructure including aboveground and underground cable containment
- removal of existing landscaping, kerb edge and fencing near Park Avenue and Richmond Road and the Great Western Highway

- internal reconfiguration of existing station building layout (within concourse) to allow for a new communications room, family accessible toilet, ambulant toilet, staff toilet, storage room and cleaner's storeroom. Works would also increase space within the concourse for movement of customers
- ancillary works including adjustments to lighting and ticketing machines, new anti-throw screens, handrails and fencing, minor drainage works on both side of the rail corridor, landscaping, improvements to the station communications systems including closed circuit TV (CCTV) cameras, hearing loops, public announcement (PA system), wayfinding signage, emergency help points, and installation of tactile ground surface indicators (TGSIs).

Subject to planning approval, construction is expected to commence in early 2019 and take around 18 months to complete.

1.2 Scope of work

The scope of work for the NVIA include:

- conduct long term noise monitoring at two locations representative of the area surrounding the train station
- identification of surrounding sensitive receivers potentially impacted by construction noise
- determination of the rating background level (RBL) for the Proposal from the noise monitoring data
- a quantitative assessment of construction noise and vibration
- review the potential noise impacts due to construction traffic generation
- provide construction noise and vibration mitigation measures to minimise impacts on the community.

This report has been prepared with consideration to the following documents:

- Construction Noise and Vibration Strategy (TfNSW, 2018) (CNVS)
- Road Noise Policy (DECCW, 2011) (RNP)
- Assessing Vibration: a technical guideline (EPA, 2006) (AVTG)
- Interim Construction Noise Guideline (EPA, 2009) (ICNG)
- Noise Policy for Industry (EPA, 2017) (NPI)

1.3 Report structure

The report is comprised of the following sections:

- Section 1 Introduction: provides the background and an overview of the proposal and the assessment
- Section 2 Existing environment: summarises the existing noise conditions and details the noise monitoring methodology
- Section 3 Compliance criteria: provides an overview of the construction noise, construction vibration and operational noise criteria
- Section 4 Construction impacts assessment: presents a summary of the noise modelling and identifies potential noise and vibration impacts during construction
- Section 5 Operational impacts assessment: presents a summary of the noise modelling and identifies potential noise impacts during operation

- Section 6 Mitigation measures: provides an overview of the proposed noise and vibration mitigation measures during the construction and operational phases of the proposal
- Section 7 Conclusion: presents a summary of the NVIA findings and sets out the principal conclusions for the assessment.

1.4 Limitations

This report: has been prepared by GHD for Transport for NSW and may only be used and relied on by Transport for NSW for the purpose agreed between GHD and the Transport for NSW as set out of this report.

GHD otherwise disclaims responsibility to any person other than Transport for NSW arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

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2. Existing environment

2.1 Proposal location

The proposal is located about 52 kilometres west of the Sydney Central Business District and 4 kilometres east of Penrith. The train station is in an east to west orientation and is fronted by the Great Western Highway A44 to the south and Park Avenue, Richmond Road and Cox Avenue to the north. The surrounding area is a mix of residential to the north and south, industrial to the north-west/west and commercial to the south-west/west. The Nepean Hospital is located to the west of the proposal site whilst St Joseph's Primary School lies to the north. The general site and local zoning are shown in Figure 2-1.

The noise environment is dominated by road traffic noise emanating from the Great Western Highway A44. The site is also influenced by rail traffic noise from the train line passing through the station alongside intermittent PA system announcements from the station.

2.2 Sensitive receivers and land uses

Noise and vibration sensitive receivers are defined based upon the type of occupancy and the activities performed within the land parcel. The receivers are classified within the following categories:

- residential premises
- educational institutes
- hospitals and medical facilities
- places of worship
- passive and active recreation areas
- commercial or industrial premises.

The modelled sensitive receivers are shown in Figure 2-1.

2.2.1 Residential receivers

Residential receivers in the streets listed in Table 2-1 were identified near the proposal site and may experience noise impacts from the proposed station upgrade.

Table 2-1 Residential receiver locations

Residential street	Approximate distance from train station
Park Avenue	50 m north
Richmond Road	50 m north
Joseph Street	240 m north
Victoria Street	340 m north
College Street	350 m north
Conway Avenue	480 m north
Raschke Street	600 m north
Norfolk Road	600 m north

Residential street	Approximate distance from train station			
Sandringham Avenue	400 m north-east			
Guildford Road	500 m north-east			
Walter Street	550 m east			
Great Western Highway	50 m south			
Bringelly Road	75 m south			
Wainwright Lane	100 m south			
Rodgers Street	160 m south			
Santley Crescent	175 m south			
First Street	240 m south-east			
Orth Street	275 m south			
Hargrave Street	390 m south			
Derby Street	470 m south			
Somerset Street	370 m west			

2.2.2 Non-residential sensitive land uses

Non-residential sensitive land uses in the vicinity of the Proposal area have been listed below in Table 2-2.

	Table 2-2	Non-residential	sensitive	receiver	locations
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Description	Address	Receiver Type	Distance from station
Industrial precinct	Cox Avenue	Industrial	400 m
Industrial precinct	Phillip Avenue	Industrial	460 m
Industrial precinct	Copeland Street	Industrial	370 m
Commercial precinct	Great Western Highway	n Commercial	
Commercial precinct	Bringelly Road	Commercial	280 m
Domino's Pizza Kingswood	1 Bringelly Road	Commercial	140 m
Subway Restaurant	Cnr Great Western Highway and Bringelly Road	Commercial	80 m
Dr Marie	33 Stantley Crescent	Commercial	150 m
Australia Post	1 Bringelly Road	Commercial	250 m

Description	Address	Receiver Type	Distance from station
Shakeshaft	45 Orth Street	Commercial	440 m
Milestone Hotel	180 Great Western Highway	Commercial	65 m
Nepean Hospital	Derby Street	Medical facility	570 m
St Joseph's Primary School	90-94 Joseph Street	Educational institute	240 m
KU Penrith Preschool	27 Bringelly Road	Child care centre	390 m
Tresillian Family Care Centre - Nepean	1B Barber Avenue	Child care centre	560 m
Kingswood Sports Club	2 Stantley Crescent	Active recreation	420 m
Kingswood Cemetery	27 Cox Avenue	Passive recreation	250 m
St Philip's Anglican Church	Second Avenue	Place of Worship	530 m
Grace Bible Church	80 Joseph Street	Place of Worship	380 m
Kingswood Neighbourhood Centre	19 Bringelly Road	Community centre	350 m



Figure 2-1: Sensitive noise receivers & noise monitoring locations

2.3 Unattended noise monitoring

2.3.1 Noise monitoring methodology

Long term monitoring was undertaken at two locations for a period of seven days between 27 July to 3 August 2018 at following locations.

- Location 1: Background noise monitoring location located about 180 m south of the proposal site. This location is located to the south of the Great Western Highway. The monitoring location was set-back approximately 130 m from the Great Western Highway and is suitably shielded from road traffic noise from the highway to represent background noise levels typical of the most affected receivers.
- Location 2: Background noise monitoring location located about 430 m north-east of the proposal site. This location is located to the north of the Great Western Highway. The monitoring location was set-back approximately 200 m from the Great Western Highway and 180 m from the rail line and is suitably shielded from road traffic noise from the highway and railway noise to represent background noise levels typical of the most affected receivers.

It is understood that the selected noise monitoring locations are situated within 3 metres from a reflective surface and hence inconsistent with the noise monitoring methodology outlined in the NPI. This is due to a lack of available noise monitoring locations it must be noted that an available location consistent with the methodology outlined in the NPI is preferential.

The methodology of the unattended noise monitoring data was:

- The noise loggers were set to record L_{A90}, L_{A10}, L_{Aeq} and L_{Amax} noise descriptors. The instrument was programmed to accumulate environmental noise data continuously over a sampling period of 15 minutes over the entire monitoring period
- A calibration check was performed on the noise monitoring equipment using a sound level calibrator with a sound pressure level of 94 dBA at 1 kHz. At completion of the measurements, the meter's calibration was re-checked to ensure the sensitivity of the noise monitoring equipment had not varied. The noise loggers were found to be within the acceptable tolerance of ± 0.5 dBA
- Meteorological data for the monitoring period was sourced from the Bureau of Meteorology (BoM) Penrith Lakes Automatic Weather Station (AWS) (station number: 067113). The AWS is located about 5.8 km north-west of the proposal site
- Noise levels were excluded during periods of extraneous noise, periods where average wind speeds were greater than 5 m/s or when rainfall occurred.

A summary of the noise monitoring locations and details of the noise loggers are provided in Table 2-3.

Table 2-3 Unattended noise logger details

Parameter	Value		
Location 1			
Monitoring location	10 Rodgers Street, Kingswood		
Logger Type / Serial No.	Rion NL-22 / SN: 773193		
Measurement started	11:15 am, 27 th July		

Parameter	Value
Measurement ceased	12:15 pm, 3 rd August
Pre/Post calibration	93.7 / 93.7 @ 1 kHz
Freq. weighting	A
Time response	Fast



Photograph

Location 2				
Monitoring location	70 Joseph Street, Kingswood			
Logger Type / Serial No.	Rion NL-52 / SN: 131632			
Measurement started	1:00 pm, 27 th July			
Measurement ceased	12:45 pm, 3 rd August			
Pre/Post calibration	94.4 / 94.4 @ 1 kHz			
Freq. weighting	A			
Time response	Fast			



Photograph

2.3.2 Noise monitoring results

The measured noise monitoring data was used to determine the Rating Background Levels (RBL) for the assessment during the day, evening and night-time periods in accordance with the NPI (EPA, 2017). A summary of the measured rating background levels and ambient noise levels is provided in Table 2-4. Daily noise level charts are provided in Appendix B.

The monitoring data from Location 2 is the more conservative of the two locations and has been used for this assessment. This is likely due to the greater set-back distance from the main transportation corridor.

At location 1 the evening background noise levels are greater than the day-time background noise levels. This is likely to be attributed to transportation noise during the evening period, noting that the evening period has fewer sample points, which inherently makes it more susceptible to variance using the NPI 90th percentile method.

	Rating background level, L_{A30}		Ambient level, L _{Aeq}			
Location	Day 7 am to 6 pm	Evening 6 pm to 10 pm	Night 10 pm to 7 am	Day 7 am to 6 pm	Evening 6 pm to 10 pm	Night 10 pm to 7 am
Location 1	37	40	32	50	50	45
Location 2	33	33	28	55	41	39

Table 2-4 Summary of measured noise levels, dBA

3. Compliance criteria

3.1 Construction noise

3.1.1 Proposed construction hours

Construction noise management levels for the Proposal are based on the *Interim Construction Noise Guideline* (ICNG) (DECCW, 2009) and the *Construction Noise and Vibration Strategy* (CNVS) (TfNSW, 2018). Construction is expected to commence in early 2019 and would take around 18 months to complete.

Construction works would be conducted during standard construction hours and out-of-hours works are anticipated for track possessions. Works outside standard construction hours should only be conducted when it is not feasible or reasonable to work within standard hours. Any decisions to work outside of the standard construction hours shall be documented and assessed in the OOHW Application to justify the requirement.

The construction hours for the Proposal are provided in Table 3-1.

Table 3-1 Construction hours

Construction hours	Monday to Friday	Saturday	Sunday/Public holiday
Standard hours	7 am to 6 pm	8 am to 1 pm	No work
OOHW Period 1	6 pm to 10 pm	7 am to 8 am 1 pm to 10 pm	8 am to 6 pm
OOHW Period 2	10 pm to 7 am	10 pm to 7 am	6 pm to 8 am

The ICNG acknowledges that the following activities have justification to be undertaken outside the standard construction hours assuming all feasible and reasonable mitigation measures are implemented to minimise the impacts to the surrounding sensitive land uses:

- the delivery of oversized plant, equipment and materials that police or other authorities determine require special arrangements to transport along public roads
- emergency work to avoid the loss of life or damage to property, or to prevent environmental harm
- maintenance and repair of public infrastructure where disruption to essential services or considerations of worker safety do not allow work within standard hours
- public infrastructure works that shorten the length of the Proposal and are supported by the affected community
- works where a proponent demonstrates and justifies a need to operate outside the recommended standard construction hours
- works which maintain noise levels below the noise management levels outside of the recommended standard construction hours.

Works required outside standard construction hours would be identified during construction planning and nearby residents would be notified before possession work is expected.

3.1.2 Construction noise management levels

Construction noise management levels for residential premises and other sensitive land uses are provided in the CNVS and based on the ICNG.

The method to determine the noise management levels for residential receivers in accordance with the CNVS is outlined in Table 3-2.

Time of day	Noise management level, L _{Aeq(15 min)}	Application notes
Recommended standard hours	Noise affected: RBL + 10 dBA	 The noise affected level represents the point above which there may be some community reaction to noise. where the predicted or measured L_{Aeq(15 min)} is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level the proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly noise affected: 75 dBA	The highly noise affected level represents the point above which there may be strong community reaction to noise. Where noise is above this level, the proponent should consider very carefully if there is any other feasible and reasonable way to reduce noise to below this level. If no quieter work method is feasible and reasonable, and the works proceed, the proponent should communicate with the impacted residents by clearly explaining the duration and noise level of the works, and by describing any respite periods that will be provided.
Outside recommended standard hours	Noise affected: RBL + 5 dBA	A strong justification would typically be required for works outside the recommended standard hours. The proponent should apply all feasible and reasonable work practices to meet the noise affected level. Where all feasible and reasonable measures have been applied and noise is more than 5 dBA above the noise affected level, the proponent should consult with the community. For guidance on negotiating agreements see Section 7.2.2 of the <i>Interim Construction Noise Guideline</i> .

Table 3-2 Noise management levels for residential receivers

Noise management levels for other sensitive land uses are provided in Table 3-3 and only apply when the properties are in use.

Table 3-3 Noise management I	evels for other sensitive land uses
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Land use	Noise management level, L _{Aeq(15 min)}
Commercial premises	70 dBA (external)
Industrial premises	75 dBA (external)
Educational institutes	45 dBA (internal)
Hospital wards and operating theatres	45 dBA (internal)
Places of worship	45 dBA (internal)
Active recreation areas	65 dBA (external)
Passive recreation areas	60 dBA (external)

3.1.3 Sleep disturbance

The ICNG recommends that maximum noise level events and the frequency of maximum noise level events exceeding the RBL should be assessed where construction works are planned to extend over two or more consecutive nights.

The *Noise Policy for Industry* (NPI) (EPA, 2017) provides the most updated guidance for the assessment of sleep disturbance. The NPI recommends a maximum noise level assessment to assess the potential for sleep disturbance impacts which include awakenings and disturbance to sleep stages. An initial screening test for the maximum noise levels events should be assessed to the following levels.

- L_{Aeq(15 min)} 40 dBA or the prevailing RBL plus 5 dB, whichever is greater, and/or
- LAFmax 52 dBA or the prevailing RBL plus 15 dB, whichever is greater.

If the screening test indicates there is a potential for sleep disturbance then a detailed maximum noise level assessment should be undertaken. The detailed assessment should cover the maximum noise level, the extent to which the maximum noise level exceeds the rating background noise level, and the number of times this happens during the night-time period.

3.1.4 Proposal noise management levels

A summary of the proposal construction noise management levels for each identified sensitive receiver type is provided in Table 3-4. The noise levels from location two has been used for a conservative assessment

Table 3-4 Proposal construction noise management levels, dBA

Receiver Type	Time of day	Management level
	Recommended standard	Noise affected: 45 ²
	hours	Highly affected: 75
Residential		Day: 40 ²
	Outside recommended standard hours ¹	Evening: 38
		Night: 35 ³
Commercial		70 dBA (external)
Industrial	When in use	75 dBA (external)
Educational institutes		45 dBA (internal)
Medical facility		45 dBA (internal)
Places of worship		45 dBA (internal)
Active recreation areas		65 dBA (external)
Passive recreation areas		60 dBA (external)

Note 1: The Noise Policy for Industry (EPA, 2018) defines day, evening and night time periods as:

• Day: the period from 7 am to 6 pm Monday to Saturday or 8 am to 6 pm on Sundays and public holidays.

- Evening: the period from 6 pm to 10 pm.
- Night: the remaining periods.

Note 2: Measured background levels during the day were below the minimum background noise level from the *Noise Policy for Industry* (EPA, 2017). The minimum background level of 35 dBA has been used to calculate the noise management levels during the day-time period

Note 3: Measured background levels during the night were below the minimum background noise level from the *Noise Policy for Industry* (EPA, 2017). The minimum background level of 30 dBA has been used to calculate the noise management levels during the night-time period

3.2 Construction traffic

The *Road Noise Policy* (RNP) (DECCW, 2011) provides road traffic noise criteria for residential land uses affected by construction traffic on the public road network.

The *Road Noise Policy application notes* state that any increase in the total noise level at existing residences and other sensitive land uses affected by traffic generation on existing roads should be limited to 2 dBA above current levels. This limit only applies when the noise level without the development is within 2 dBA or exceeds the road traffic noise criterion provided in the RNP.

This has been used to identify potential impacts as a result of noise produced by construction traffic. If road traffic noise increases as a result of construction works within 2 dBA of current levels then the objectives of the RNP are considered to be met and no specific mitigation measures would be required.

Where construction traffic increases the existing road traffic noise levels by more than 2 dBA then further assessment against the road traffic noise criteria in Table 3-5 is required.

Table 3-5 Road traffic noise criteria, dBA

Type of development	Day 7 am to 10 pm	Night 10 pm to 7 am
Existing residence affected by additional traffic on arterial roads generated by land use developments	60 LAeq(15 hour)	55 LAeq(9 hour)
Existing residence affected by additional traffic on local roads generated by land use developments	55 LAeq(1 hour)	50 LAeq(1 hour)

3.3 Construction vibration

3.3.1 Human comfort

Acceptable vibration levels for human comfort have been set with consideration to Assessing Vibration: a technical guideline (DEC, 2006) which is based on the guidelines contained in British Standard *BS 6472 – 1992, Guide to Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz).*

Typically, construction activities generate ground vibration of an intermittent nature. Intermittent vibration is assessed using the vibration dose value. Acceptable values of vibration dose are presented in Table 3-6 for sensitive receivers.

Intermittent vibration dose value (m/s^{1.75}) Receiver type Period Preferred value Maximum value Day 0.2 0.4 (7 am and 10 pm) Residential Night 0.13 0.26 (10 pm and 7 am) Offices, schools, educational institutes When in use 0.4 0.8 and places of worship

Table 3-6 Human comfort intermittent vibration limits (BS 6472-1992)

Whilst the assessment of response to vibration in *BS 6472:1992* is based on vibration dose value (refer to Table 3-6) and weighted acceleration, for construction related vibration, it is considered more appropriate to provide guidance in terms of a peak value, since this parameter is likely to be more routinely measured based on the more usual concern over potential building damage.

Humans are capable of detecting vibration at levels which are well below those causing risk of damage to a building. The degrees of perception for humans are suggested by the vibration level categories given in British Standard, BS 5228.2 – 2009, Code of Practice Part 2 Vibration for noise and vibration on construction and open sites – Part 2: Vibration and are shown below in Table 3-7.

Table 3-7 Guidance on effects of vibration levels for human comfort

	Effect
0.14 mm/s	Vibration might be just perceptible in the most sensitive situations for most vibration frequencies associated with construction.
0.3 mm/s	Vibration might be just perceptible in residential environments.
1.0 mm/s	It is likely that vibration at this level in residential environments will cause complaints, but can be tolerated if prior warning and explanation has been given to residents.
10 mm/s	Vibration is likely to be intolerable for any more than a very brief exposure.

3.3.2 Guidelines for general structures

The effects of transient vibration on structures is considered in *BS 7385 Part 2 – 1993 Evaluation and measurement for vibration in buildings*. The criteria provided in BS 7385 are presented in Table 3-8.

Table 3-8 Transient vibration guide values – minimal risk of cosmetic damage

Type of building	Peak component particle velocity in frequency range of predominant pulse		
	4 Hz to 15 Hz	15 Hz and above	
Reinforced or framed structures. Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	50 mm/s at 4 Hz and above	
Unreinforced or light framed structures. Residential or light commercial type buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above.	

The guide values in Table 3-8 relate predominantly to transient vibration which does not give rise to resonant responses in structures and low-rise buildings. Where the dynamic loading caused by continuous vibration may give rise to dynamic magnification due to resonance, especially at lower frequencies, then the guide values may need to be reduced by up to 50 per cent.

The predominant vibration for most construction activities involving intermittent vibration sources such as rock breakers, piling rigs, vibratory rollers and excavators occur at frequencies greater than 4 Hz (and usually in the 10 Hz to 100 Hz range). On this basis, a conservative vibration damage screening level per receiver type is given below:

- reinforced or framed structures: 25.0 mm/s
- Unreinforced or light framed structures: 7.5 mm/s.

3.3.3 Guidelines for vibration sensitive structures

Heritage buildings and structures would be assessed using the guide values in Table 3-8. A heritage building or structure should not be assumed to be more sensitive to vibration unless they are found to be structurally unsound. If a heritage building or structure is found to be structurally unsound (following inspection) a more conservative cosmetic damage criterion of 2.5 mm/s peak component particle velocity (from DIN 4150) should be considered.

3.4 Operational noise criteria

Operational noise is assessed in accordance with the *Rail Infrastructure Noise Guideline* (RING) (EPA, 2013). The RING refers to the *NSW Industrial Noise Policy* (INP) (EPA, 2000) for the assessment of fixed facilities including railway stations. The INP has since been superseded by the *Noise Policy for Industry* (NPI) (EPA, 2017).

Operational noise is assessed in accordance with the *Noise Policy for Industry* (NPI) (EPA, 2017). The NPI addresses noise emanating from fixed facilities through assessing its intrusiveness based on the rating background noise level, and is presented below in Table 3-9.

Table 3-9 NPI Noise intrusiveness criteria

Time of Day	RBL (L _{A90,15min}), dBA	Intrusiveness trigger level
7 am to 6 pm (daytime)	35	40 (BG + 5 dB)
6 pm to 10 pm (evening)	33	38 (BG + 5 dB)
10 pm to 7 am (night time)	30	35 (BG + 5 dB)

Table 3-10 presents the recommended amenity noise levels from the NPI.

Table 3-10 Amenity noise levels

Receiver	Noise amenity area	Time of day	L _{Aeq} , dBA
	Suburban	Day	55
Residential		Evening	45
		Night	40
Commercial	All	When in use	65
Industrial	All	When in use	70
Educational	All	Noisiest 1 hour	35 (internal)
Hospital/Medical	All	When in use	35 (internal) 50 (external)
Place of Worship	All	When in use	40 (internal)
Passive recreation	All	When in use	50
Active recreation	All	When in use	55

4. Construction impacts assessment

4.1 Construction noise assessment

4.1.1 Construction works program

The plant and equipment likely to be required throughout each proposed stage of construction have been used to predict the noise levels that would be expected during construction works. The predicted noise levels were assessed against the construction noise management levels identified in Section 3.1.4.

Construction scenarios have been created based on construction equipment operating simultaneously at any given time. All works are located within or adjacent to the Proposal site. It is unlikely that construction machinery would be operating at the same time (as the modelling assumes), but analysing the 'worse-case' scenario helps to identify where noise impacts could be a concern and assists in the formulation of mitigation areas.

Construction activities

The Proposal is anticipated to involve the following work methodology and staging provided in Table 4-1.

Table 4-1 Construction	methodology
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Stage	Activities	Timeframe	Hours
	Site establishment	January 2019	Standard hours OOHW Period 1 OOHW Period 2
Demolition	Vegetation clearing	to	
	Services relocation	February 2020	
	Piling works	January 2019	Standard hours OOHW Period 1 OOHW Period 2
Main works	Civil / footpath works	to	
	Underground HV	February 2020	
	Lift structure installation		Standard hours OOHW Period 1 OOHW Period 2
	Stair installation		
Platform works	Furniture installation	WE10, 33, 46 (2018/2019)	
	Roofing works	WE 10, 33 (2013/2020)	
	Platform resurfacing		
Platform works	Lift pit excavation	January 2019	January 2019 Standard hours to OOHW Period 1 February 2020 OOHW Period 2
	Station fit out	to	
	Station commissioning	February 2020	

The presented construction methodology has been simplified into the following construction scenarios, which will used to assess the potential construction noise impacts due to the proposed station upgrades. The resulting construction scenarios are presented in Table 4-2.

Table 4-2 Construction scenario staging

Construction scenario	Construction phase	Time frame
CS01	Site establishment and relocation of services	Standard hours OOHW Period 1 OOHW Period 2
CS02	Vegetation	Standard hours
CS03	Piling works	Standard hours
CS04	Stairs and lift upgrades	Standard hours OOHW Period 1 OOHW Period 2
CS05	Station fit out and systems	Standard hours OOHW Period 1 OOHW Period 2
CS06	Platform level works	Standard hours OOHW Period 1 OOHW Period 2
CS07	Compound operations	Standard hours OOHW Period 1 OOHW Period 2

Noise generating equipment

Plant and equipment needed for the Proposal would be determined during the construction planning phase. Noise level data has been obtained from the Australian Standards *AS2436* – *Guide to noise and vibration control on construction, demolition and maintenance sites* and the *Construction Noise and Vibration Strategy* (CNVS) (TfNSW, 2018). Other equipment may be used, however, it is anticipated that they would produce similar net noise emissions when used concurrently with the equipment listed.

The magnitude of off-site noise impacts associated with construction is dependent upon a number of factors:

- the intensity and location of construction activities
- the type of equipment used
- existing background noise levels
- intervening terrain and structures
- the prevailing weather conditions.

Construction machinery would likely move about the Proposal site altering the received noise for individual receivers. During any given period, the machinery items to be used would operate at maximum sound power levels for only brief stages. At other times, the machinery would produce lower sound levels while carrying out activities not requiring full power. It is highly unlikely that all construction equipment would be operating at their maximum sound power levels at any one

time. Certain types of construction machinery would be present in the study area for only brief periods during construction. Therefore, noise predictions are considered conservative.

Table 4-3 below presents the number of construction equipment proposed for each construction scenario. The activity sound power level has been calculated based on the two noisiest plant to determine the worst-case noise impacts during construction. The activity noise levels have been used to predict the noise levels that would be expected during construction works.

Sound		Construction scenario						
Plant description	level	CS01	CS02	CS03	CS04	CS05	CS06	CS07
Activity Sound Power	Level	109	109	113	112	115	118	99
Cherry picker	105		1					
Concrete agitator truck	109			1	1			
Concrete pump truck	108			1	1			
Concrete saw (5 mins)	117					1	1	
Crane (mobile)	104	1	1	1	1			
Crane (tower)	105				1			
Excavator	107	1	1	1			1	
Hand tools (electric)	102	1			1	1		
Piling Rig (bored)	111			1				
Roller	107						1	
Truck (> 20 tonne)	107	1		1				
Truck (dump)	117						1	
Welder	105					1		

Table 4-3 Construction equipment and sound power levels, dBA

4.1.2 Noise modelling inputs

Noise modelling was undertaken using SoundPlan Version 7.4. SoundPlan is a computer program for the calculation, assessment and prognosis of noise exposure. SoundPlan calculates environmental noise propagation according to *ISO 9613-2 'Acoustics – Attenuation of sound during propagation outdoors'.*

The following noise modelling assumptions were made:

- surrounding land was modelled assuming a mix of 25% soft and 75% hard ground with a ground absorption coefficient of 0.25
- atmospheric absorption was based on an average temperature of 10°C and an average humidity of 70%

- atmospheric propagation conditions were modelled with noise enhancing wind conditions for noise propagation (downwind conditions) or an equivalently well-developed moderate ground based temperature inversions
- modelled scenarios take into account the shielding effect from surrounding buildings and structures on and adjacent to the site. Building heights derived from LiDAR elevation data were applied to the modelling buildings
- noise sources for each scenario are in some cases modelled at different locations. As such the noise modelling assesses the noise source at multiple locations and takes the maximum L_{Aeq} received noise level.

4.1.3 Construction noise impacts

Predicted noise levels from the construction scenarios outlined in Table 4-2 are presented in Appendix C. Construction noise contours for each modelled scenario is provided in Appendix D. A summary of the number of exceedances of the noise management levels for sensitive receivers is presented in Table 4-4 for residential receivers and Table 4-5 for non-residential receivers. Exceedances of the construction noise management levels are typical for construction projects of this scale. The noise impacts would be limited to the construction period only and would not have lasting effects on the community. The maximum noise impacts would be expected during works at the platform level involving the use of a concrete saw.

Impacts during standard hours

Residences located within 400 m of the proposal site are expected to be noise impacted at some point during construction. The noise management level is predicted to be exceeded by up to 21 dBA due to the low background noise levels and the receiver's proximity to the proposed construction. The CNVS considers this level of exceedance as 'highly intrusive' and the additional mitigation measures discussed in Section 6.1.2 should be implemented at the affected receivers.

Impacts outside standard hours

Works outside standard construction hours are expected during rail possessions to complete installation works for the lift, stairs, roofing and anti-throw screens. Works during the rail possession have been assessed for all modelled scenarios during the day, evening and night-time assessment periods. The rail possessions would be required to limit the effect on normal rail operations and to improve worker safety.

Residences located within 900 m of the Proposal site are expected to be noise impacted at some stage during construction. The noise impacts would be experienced over a short term period limited to the proposed rail possession periods. Approximately six rail possessions are anticipated in order to complete the proposed construction.

The predicted exceedance of the OOHW noise management levels are:

- 26 dBA during OOHW Period 1 (day)
- 28 dBA during OOHW Period 1 (evening)
- 31 dBA during OOHW Period 2 (night).

The CNVS considers the level of exceedances as 'highly intrusive' and the additional mitigation measures discussed in Section 6.1.2 should be implemented at the affected receivers.

Table 4-4 Residential exceedance summary

	Construction scenario						
	CS01	CS02	CS03	CS04	CS05	CS06	CS07
Sun	nmary du	ring stan	dard cons	struction	hours		
Number of exceedances	37	36	61	45	118	235	19
Highest noise level	59	61	63	61	63	66	53
Highest exceedance	14	16	18	16	18	21	8
Worst affected receiver	R332, R384	R332, R393	R332	R332	R332	R278, R332	R332
	Summary	during C	OHW Pe	riod 1 (Da	ıy)		
Number of exceedances	95	88	178	137	320	409	45
Highest noise level	59	61	63	61	63	66	53
Highest exceedance	19	21	23	21	23	26	13
Worst affected receiver	R332, R384	R332, R393	R332	R332	R332	R278, R332	R332
Sı	ımmary d	uring OO	HW Perio	d 1 (Ever	ning)		
Number of exceedances	129	129	280	213	388	443	68
Highest noise level	59	61	63	61	63	66	53
Highest exceedance	21	23	25	23	25	28	15
Worst affected receiver	R332, R384	R332, R393	R332	R332	R332	R278, R332	R332
٤	Summary	during O	OHW Per	iod 2 (Nig	lht)		
Number of exceedances	258	251	383	353	443	486	125
Highest noise level	59	61	63	61	63	66	53
Highest exceedance	24	26	28	26	28	31	18
Worst affected receiver	R332, R384	R332, R393	R332	R332	R332	R278, R332	R332

Table 4-5	Non-residential	receiver	summary

		Construction scenario					
	CS01	CS02	CS03	CS04	CS05	CS06	CS07
		Com	mercial				
Number of exceedances	0	0	0	0	0	0	0
Highest noise level	64	63	66	63	66	69	61
Highest exceedance	-	-	-	-	-	-	-
Worst affected receiver	R388	R388	R388	R388	R384	R384	R388
		Ind	ustrial				
Number of exceedances	0	0	0	0	0	0	0
Highest noise level	65	65	63	61	71	74	59
Highest exceedance	-	-	-	-	-	-	-
Worst affected receiver	R314	R314	R314	R314	R314	R314	R278
		Medica	al facility				
Number of exceedances	0	0	0	0	0	0	0
Highest noise level	38	37	41	40	46	50	41
Highest exceedance	-	-	-	-	-	-	-
Worst affected receiver	R445	R445	R445	R343	R343	R343	R343
		Educatio	nal institu	ite			
Number of exceedances	0	0	0	0	2	5	0
Highest noise level	50	50	54	53	55	58	42
Highest exceedance	-	-	-	-	0	3	-
Worst affected receiver	R259	R259	R259	R259	R246	R246	R246
		Place o	f worship)			
Number of exceedances	0	0	0	0	0	0	0
Highest noise level	29	29	33	30	34	37	28
Highest exceedance	-	-	-	-	-	-	-
Worst affected receiver	R264	R264	R264	R264	R264	R264	R264
		Passive	recreatio	n			
Number of exceedances	0	0	0	0	0	0	0

			Const	ruction sc	enario		
	CS01	CS02	CS03	CS04	CS05	CS06	CS07
Highest noise level	34	37	39	37	49	53	36
Highest exceedance	-	-	-	-	-	-	-
Worst affected receiver	R207	R207	R207	R207	R207	R207	R207
		Active I	recreation	I			
Number of exceedances	0	0	0	0	0	0	0
Highest noise level	38	37	42	41	43	46	35
Highest exceedance	-	-	-	-	-	-	-
Worst affected receiver	R574	R574	R574	R574	R574	R574	R574

4.1.4 Sleep disturbance impacts

Construction activities are expected outside standard construction hours to minimise the impacts on rail traffic during construction. There is the potential for maximum noise level events if the predicted maximum noise level is above the screening criteria of 52 dBA.

The screening criteria of 52 dBA is exceeded at 46 residential receivers. Therefore a detailed maximum noise level assessment has been undertaken. The RNP states that maximum internal noise levels between 50 to 55 dBA are unlikely to awaken people from sleep. Typically a window will provide a 10 dBA reduction when partially open and a 20 dBA reduction when closed. For a conservative assessment, the windows have been assumed to be partially open to assess sleep disturbance impacts.

The properties in Table 4-6 have the potential to experience sleep disturbance impacts.

Receiver ID	Criteria	Predicted noise level (external)	Predicted noise level (internal)
R288	50 dBA internal	63	53
R297	50 dBA internal	62	52
R303	50 dBA internal	62	52
R311	50 dBA internal	64	54
R330	50 dBA internal	60	50
R332	50 dBA internal	66	56
R333	50 dBA internal	63	53
R342	50 dBA internal	62	52
R402	50 dBA internal	61	51

Table 4-6 Potential sleep disturbance impacted residences

Receiver ID	Criteria	Predicted noise level (external)	Predicted noise level (internal)
R406	50 dBA internal	62	52
R411	50 dBA internal	62	52

4.2 Construction traffic impacts

The RNP recommends that "*any increase in the total traffic noise level should be limited to 2 dB above that of the corresponding 'without construction' scenario.*" Construction would generate heavy vehicle movements associated with the transportation of construction machinery, equipment and materials to the site. Light vehicle movements would be associated with employees and smaller deliveries. Construction traffic movements would be limited to along the Great Western Highway A44 and Richmond Road which have significant existing traffic flows.

A significant increase in traffic volume would be needed in order to increase road traffic noise by 2 dBA (a doubling in traffic corresponds to about a 3 dBA increase). The construction traffic impacts on these roads would be less than 2 dBA and further assessment of construction traffic noise is not required.

4.3 Construction vibration impacts

4.3.1 Assessment methodology

The methodology for the construction vibration assessment included:

- vibration from surface construction plant and equipment was predicted and assessed with consideration to Assessing Vibration: a Technical Guideline and German Standard DIN 4150-3: 1999 Structural Vibration Part 3: Effects of vibration on structures
- where noise and vibration levels were predicted to exceed the construction noise management levels, appropriate construction noise and vibration mitigation measures were provided to minimise impacts from each construction phase.

Energy from construction equipment is transmitted into the ground and transformed into vibrations, which attenuates with distance. The magnitude and attenuation of ground vibration is dependent on the following:

- the efficiency of the energy transfer mechanism of the equipment (impulsive; reciprocating, rolling or rotating equipment)
- the frequency content
- the impact medium stiffness
- the type of wave (surface or body)
- the ground type and topography.

Construction and demolition works have the potential to impact human comfort and / or cause structural damage to buildings. Potential vibration inducing activities identified during construction and demolition works include:

- piling, grinding and cutting will generate impulsive vibration emissions
- bulk earthworks, construction traffic movements and demolition works will be a source of intermittent or continuous vibration.

Safe working buffer distances to comply with the human comfort, cosmetic damage and heritage structural damage criteria were taken from the CNVS are provided in Table 4-7. Safe working buffer distances for heritage buildings were estimated by doubling the buffer distance for standard structures.

		Structural damage			
Activity	Human comfort	Heritage building/structure	Standard dwellings		
Piling rig – Bored	N/A	4 m (nominal)	2 m (nominal)		
Piling rig - Hammer	50 m	30 m	15 m		
Vibratory roller (>18 tonnes)	100 m	50 m	25 m		
Vibratory roller (13-18 tonnes)	100 m	40 m	20 m		
Vibratory roller (7-13 tonnes)	100 m	30 m	15 m		
Vibratory roller (4-6 tonnes)	40 m	24 m	12 m		
Vibratory roller (2-4 tonnes)	20 m	12 m	6 m		
Vibratory roller (1-2 tonnes)	15 m	10 m	5 m		
Small hydraulic hammer	7 m	4 m	2 m		
Jackhammer	Avoid contact with structure	2 m (nominal)	1 m (nominal)		

Table 4-7 Vibration safe working buffer distances, m

4.3.2 Construction vibration impacts

Impacts for standard structures

The CNVS specifies a safe working buffer distance of 25 m for standard structures. The following standard structures have been identified within 25 meters of the construction area:

• 8 – 16 Cox Avenue

The following residential structures have been identified within 100 m of the construction activities and could potentially experience human comfort impacts:

- 78 80 Park Avenue
- 8 10 Richmond Road
- 174 176 Great Western Highway

Refer to Section 6.2 for mitigation measures concerning construction vibration.

5. Operational impact assessment

The proposed station upgrades will not increase the operations of the rail line and there will be no increase from the rail noise of Kingswood station due to the operation of the station upgrades. All other operational noise impacts from the station (lift, plant, PA systems) are not expected to increase noise levels past the operational noise criteria presented in Section 3.4.

6. Mitigation measures

6.1 Construction noise

6.1.1 Standard mitigation measures

The following mitigation recommendations are provided in Table 6-1 to reduce the noise levels from the construction activities.

Table 6-1 Construction noise mitigation measures

Action required	Details
Management measures	
Implementation of any project specific mitigation measures required	In addition to the measures set out in this table, any project specific mitigation measures identified in the EIA documentation (e.g. REF, submissions or representations report) or approval or licence conditions must be implemented.
Implement stakeholder consultation measures	 Periodic notification (monthly letterbox drop and website notification) detailing all upcoming construction activities delivered to sensitive receivers at least 7 days prior to commencement of relevant works. In addition to Periodic Notification, the following strategies may be adopted on a case-by-case basis: Project specific Website Project Infoline Construction Response Line Email Distribution List Web-based Surveys Social Media Community and Stakeholder Meetings and Community Based Forums (if required by approval conditions)
Register of noise and vibration sensitive receivers	 A register of most affected noise and vibration sensitive receivers (NVSRs) would be kept on site. The register would include the following details for each NVSR: Address of receiver Category of receiver Contact name and phone number The register may be included as part of the Proposal's Community Liaison Plan or similar document and maintained in accordance with the requirements of this plan.
Construction hours and scheduling	Where feasible and reasonable, construction should be carried out during the standard daytime working hours. Work generating noise with special audible characteristics and/or vibration levels should be scheduled during less sensitive time periods.
Construction respite period	Noise with special audible characteristics and vibration generating activities (including jack and rock hammering, sheet and pile driving, rock breaking and vibratory rolling) may only be carried out in continuous blocks, not exceeding 3 hours each, with a minimum respite period of one hour between each block. 'Continuous' includes any period during which there is less than 1 hour respite between ceasing and recommencing any of the work. No more than two consecutive nights of noise with special audible characteristics and/or vibration generating work may be undertaken in the same Noise Catchment Area (NCA) over any 7-day period, unless otherwise approved by the relevant authority.

Action required	Details
Site inductions	 All employees, contractors and subcontractors are to receive an environmental induction. The induction must at least include: All relevant project specific and standard noise and vibration mitigation measures Relevant licence and approval conditions Permissible hours of work Any limitations on noise generating activities with special audible characteristics Location of nearest sensitive receivers Construction employee parking areas Designated loading/unloading areas and procedures Site opening/closing times (including deliveries) Environmental incident procedures.
Behavioural practices	No swearing or unnecessary shouting or loud stereos/radios on site. No dropping of materials from height, throwing of metal items and slamming of doors. No excessive revving of plant and vehicle engines. Controlled release of compressed air.
Monitoring	A noise monitoring program should be carried out for the duration of works in accordance with the Construction Noise and Vibration Management Plan and any approval and licence conditions.
Attended vibration measurements	Attended vibration measurements shall be undertaken at all buildings within 25 m of vibration generating activities when these activities commence to confirm that vibration levels are within the acceptable range to prevent cosmetic building damage.
Update Construction Environmental Management Plans	The Construction Environmental Management Plan (CEMP) must be regularly updated to account for changes in noise and vibration management issues and strategies.
Building condition surveys	Undertake building dilapidation surveys on all buildings located within the buffer zone prior to major project construction activities with the potential to cause property damage.
Source control measures	
Plan worksites and activities to minimise noise and vibration	Plan traffic flow, parking and loading/unloading areas to minimise reversing movements within the site.
Equipment selection	Use quieter and less vibration emitting construction methods where feasible and reasonable.
	For example, when piling is required, bored piles rather than impact- driven piles will minimise noise and vibration impacts. Similarly, diaphragm wall construction techniques, in lieu of sheet piling, will have significant noise and vibration benefits.
Maximum noise levels	The noise of plant and equipment must have operating Sound Power or Sound Pressure Levels compliant with the allowable noise levels in Section 4.1 or Appendix C of the CNVS (TfNSW, 2018).
Use and siting of plant	Simultaneous operation of noisy plant within discernible range of a sensitive receiver is to be avoided. The offset distance between noisy plant and adjacent sensitive receivers is to be maximised. Plant used intermittently to be throttled down or shut down. Noise-emitting plant to be directed away from sensitive receivers.
Non-tonal reversing alarms	Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out of hours work, including delivery vehicles.

Action required	Details
Minimise disturbance arising from delivery of goods to construction sites	Loading and unloading of materials/deliveries is to occur as far as possible from sensitive receivers. Select site access points and roads as far as possible away from
	Sensitive receivers. Dedicated loading/unloading areas to be shielded if close to sensitive receivers.
	Delivery vehicles to be fitted with straps rather than chains for unloading, wherever possible.
Construction related traffic	Schedule and route vehicle movements away from sensitive receivers and during less sensitive times.
	Limit the speed of vehicles and avoid the use of engine compression brakes.
	Maximise on-site storage capacity to reduce the need for truck movements during sensitive times.
Silencers on mobile plant	Where possible reduce noise from mobile plant through additional fittings including:Residential grade mufflers
	Damped hammers such as "City" Model Rammer HammersAir parking brake engagement is silenced.
Prefabrication of materials off-site	Where practicable, pre-fabricate and/or prepare materials off-site to reduce noise with special audible characteristics occurring on site. Materials can then be delivered to site for installation.
Engine compression brakes	Limit the use of engine compression brakes at night and in residential areas.
	Ensure vehicles are fitted with a maintained original equipment manufacturer exhaust silencer that complies with the National Transport Commissions 'in-service test procedure' and standard.
Path control measures	
Shield stationary noise sources such as pumps	Stationary noise sources should be enclosed or shielded whilst ensuring that the occupational health and safety of workers is maintained. Appendix F of AS 2436:1981 lists materials suitable for shielding
Shield sensitive receivers from noisy activities	Use structures to shield residential receivers from noise such as site shed placement; earth bunds; fencing; erection of operational stage noise barriers (where practicable) and consideration of site topography when situating plant.

6.1.2 Additional mitigation measures

The CNVS (TfNSW) provides the following information regarding further mitigation measures for certain receivers exceeding noise management levels, and are presented below in Table 6-2. The Additional Mitigation Measures Matrices (AMMM) shall be used to determine the additional measures after the application of standard mitigation measures where reasonable and feasible.

Measure	Description	Abbreviation
Periodic Notification	For each I&S project, a notification entitled 'Project Update' or 'Construction Update' is produced and distributed to stakeholders via letterbox drop and distributed to the Proposal postal and/or email mailing lists. Periodic notifications provide an overview of current and upcoming works across the Proposal and other topics of interest. The objective is to engage, inform and provide project-specific messages. Advanced warning of potential disruptions (e.g. traffic changes or noisy works) can assist in reducing the impact on stakeholders. The	PN

Table 6-2 Additional management measures

Measure	Description	Abbreviation	
	approval conditions for projects specify requirements for notification to sensitive receivers where works may impact on them.		
	Content and length is determined on a project-by-project basis and must be approved by TfNSW prior to distribution.		
	Most projects distribute notifications on a monthly basis. Each notification is graphically designed within a branded template. In certain circumstances media advertising may also be used to supplement Periodic Notifications, where considered effective.		
	Periodic Notification may be advised by the I&S Community Engagement Team in cases where AMMM are not triggered as shown in Tables 9 to 11, for example where community impacts extend beyond noise and vibration (traffic, light spill, parking etc). In these circumstances the I&S Community Engagement Team will determine the community engagement strategy on a case-by-case basis.		
	Verification monitoring of noise and/or vibration during construction may be conducted at the affected receiver(s) or a nominated representative location (typically the nearest receiver where more than one receiver has been identified). Monitoring can be in the form of either unattended logging (i.e. for vibration provided there is an immediate feedback mechanism such as SMS capabilities) or operator attended surveys (i.e. for specific periods of construction noise).		
Verification	The purpose of monitoring is to confirm that:	V	
Monitoring	 Construction noise and vibration from the Proposal are consistent with the predictions in the noise assessment 	v	
	 Mitigation and management of construction noise and vibration is appropriate for receivers affected by the works 		
	Where noise monitoring finds that the actual noise levels exceed those predicted in the noise assessment then immediate refinement of mitigation measures may be required and the Construction Noise and Vibration Impact Statement (CNVIS) amended.		
Specific Notification	Specific notifications are in the form of a personalised letter or phone call to identified stakeholders no later than seven calendar days ahead of construction activities that are likely to exceed the noise objectives. Alternatively (or in addition to), communications representatives from the contractor would visit identified stakeholders at least 48 hours ahead of potentially disturbing construction activities and provide an individual briefing.		
	Letters may be letterbox dropped or hand distributed	SN	
	 Phone calls provide affected stakeholders with personalised contact and tailored advice, with the opportunity to provide comments on the proposed work and their specific needs 		
	 Individual briefings are used to inform stakeholders about the impacts of noisy activities and mitigation measures that will be implemented. Individual briefings provide affected stakeholders with personalised contact and tailored advice, with the opportunity to comment on the Proposal 		
	Specific notifications are used to support periodic notifications, or to advertise unscheduled works and must be approved by TfNSW prior to implementation/distribution.		
Respite Offer	The purpose of a project specific respite offer is to provide residents subjected to lengthy periods of noise or vibration respite from an ongoing impact. The offer could comprise prepurchased movie tickets, bowling activities, meal vouchers or similar offer. This measure is determined on a case-by-case basis, and may not be applicable to all I&S projects.	RO	

Measure	Description	Abbreviation
Alternative Accommodation	Alternative accommodation options may be provided for residents living in close proximity to construction works that are likely to incur unreasonably high impacts. Alternative accommodation will be determined on a case-by-case basis and should provide a like-for- like replacement for permanent residents, including provisions for pets, where reasonable and feasible.	AA
Alternative construction methodology	Where the vibration assessment identifies that the proposed construction method has a high risk of causing structural damage to buildings near the works, the proponent will need to consider alternative construction options that achieve compliance with the Vibration Management Level (VMLs) for building damage. For example, replace large rock breaker with smaller rock breakers or rock saws.	AC
Respite Period	OOHW during evening and night periods will be restricted so that receivers are impacted for no more than 3 consecutive evenings and no more than 2 consecutive nights in the same NCA in any one week. A minimum respite period of 4 evenings/5 nights shall be implemented between periods of consecutive evening and/or night works. Strong justification must be provided where it is not reasonable and feasible to implement these period restrictions (e.g. to minimise impacts to rail operations), and approval must be given by TfNSW through the OOHW Approval Protocol. Note; this management measure does not apply to OOHW Period 1 – Days.	RP
Duration Reduction	Where Respite Periods (see management measure above) are considered to be counterproductive to reducing noise and vibration impacts to the community it may be beneficial to increase the number of consecutive evenings and/or nights through Duration Reduction to minimise the duration of the activity. This measure is determined on a project-by-project basis, and may not be applicable to all I&S projects. Impacted receivers must be consulted and evidence of community support for the Duration Reduction must be provided as justification for the Duration Reduction. A community engagement strategy must be agreed with and implemented in consultation with I&S Community Engagement Representatives.	DR

The CNVS outlines the various trigger levels to warrant these mitigation measures, and such is presented below in Table 6-3.

The predicted noise levels for each receiver, and hence any additional noise mitigation measures, are presented in Appendix B. Construction noise management zones have been mapped and are provided in Appendix E to Appendix H.

The predicted construction noise levels in Section 4.1 have been categorised into the noise perception categories to determine the additional mitigation measures required in accordance with the CNVS. The number of residential receivers that require additional mitigation measures for each modelled construction scenario is provided in Table 6-4.

Construction hours	Receiver perception	dBA above RBL	dBA above NML	Additional management measures
Standard hours Monday – Friday (7 am – 6 pm) Saturday (8 am – 1 pm)	Noticeable	5 to 10	0	-
	Clearly audible	> 10 to 20	< 10	-
	Moderately intrusive	> 20 to 30	> 10 to 20	PN, V
	Highly intrusive	> 30	> 30	PN, V
	75 dBA or greater	N/A	N/A	PN, V, SN
OOHW Period 1	Noticeable	0 to 10	< 5	-
Monday – Friday (6 pm – 10 pm)	Clearly audible	> 10 to 20	5 to 15	PN
Saturday (7 am – 8 am	Moderately intrusive	> 20 to 30	> 15 to 25	PN, V, SN, RO
(7 am – 8 am, 1 pm – 10 pm) Sunday/PH (8 am – 6 pm)	Highly intrusive	> 30	> 25	PN, V, SN, RO, RP ¹ , DR ¹
OOHW Period 2	Noticeable	0 to 10	< 5	PN
Monday – Saturday	Clearly audible	> 10 to 20	5 to 15	PN, V
(12 am – 7 am, 10 pm – 12 am) Sunday/PH	Moderately intrusive	> 20 to 30	> 15 to 25	PN, V, SN, RP, DR
(12 am – 8 am, 6 pm – 12 am)	Highly intrusive	> 30	> 25	PN, V, SN, AA, RP, DR

Table 6-3 Triggers for Additional Mitigation Measures - Airborne Noise

Note 1: Respite periods and duration reduction are not applicable when works are carried out during OOHW Period 1 Day only.
	Description -	Standard	l constructi	ion houro			оонw	Period 1	OOHW Period 2					
		Stanuart		ion nours	Day			Evening			Night			
		МІ	н	HNA	СА	МІ	HI	СА	МІ	HI	Ν	СА	МІ	н
		11-20 dBA	> 20 dBA	≥ 75 dBA	6-15 dBA	16-25 dBA	> 25 dBA	6-15 dBA	16-25 dBA	> 25 dBA	0-5 dBA	6-15 dBA	16-25 dBA	> 25 dBA
CS01	Site establishment	2	0	0	26	2	0	34	5	0	174	50	11	0
CS02	Vegetation	6	0	0	25	6	0	31	9	0	162	52	13	1
CS03	Piling works	11	0	0	35	11	0	53	15	0	245	105	21	1
CS04	Stairs and lift upgrades	8	0	0	31	8	0	39	13	0	239	83	15	1
CS05	Station fit out and systems	14	0	0	61	14	0	115	19	0	183	219	27	2
CS06	Footpath works	20	1	0	147	20	1	227	29	2	103	328	42	9
CS07	Platform level works	0	0	0	13	0	0	23	0	0	77	32	5	0

Table 6-4 Number of receivers identified for additional mitigation measures

Notes:

Notes. N refers to Noticeable CA refers to Clearly Audible MI refers to Moderately Intrusive HI refers to Highly Intrusive HNA refers to Highly Noise Affected

6.2 Construction vibration

Where construction is required within the safe working buffer distance alternative work methods are required, such as using smaller equipment. If no alternative work method is feasible or reasonable, then compliance vibration monitoring should be undertaken where works are required within the safe working buffer distance and include:

- Site tests to review the measured frequency content in order to determine the structural damage criteria as per Table 3-8 for standard dwellings.
- Continuous vibration monitoring with a visual alarm installed to warn the equipment operator when the structural damage vibration criteria (considering frequency content) is exceeded.

These mitigation measures pertain to the structures identified within the safe working buffer distance as outlined in Section 4.3.2.

6.3 **Operational noise**

Operational noise levels are expected to comply with the operational noise criteria at the worst affected receiver. No specific operational mitigation measures are recommended.

7. Conclusion

Noise and vibration impacts for the construction and operational phases of the Proposal have been assessed. Existing noise levels were identified through unattended noise measurements and used to establish construction and operational noise management levels.

7.1 Construction noise

Construction for the proposal is expected to commence in early 2019 and would take around 18 months to complete. Construction activities are proposed to be undertaken during and outside standard construction hours and have been developed based on the proposal construction staging.

The predicted noise levels are expected to exceed the noise management levels during standard construction hours, and some residential receivers are expected to experience noise levels above the highly affected noise level of 75 dBA during these hours. Any construction activities undertaken outside standard construction hours would impact the surrounding environment due to low existing background noise levels.

Traffic noise impact due to construction are not expected as noise levels along the construction traffic routes are not predicted to significantly increase road traffic noise levels.

It is typical for construction projects to exceed the construction noise management levels. Any impacts due to construction works are temporary in nature and would not represent a permanent impact on the community and surrounding environment. The predicted noise levels are generally conservative and would only be experienced for limited periods during construction. Impacts may be reduced through the introduction of feasible and reasonable mitigation measures which have been recommended. However, these mitigation measures are unlikely to reduce noise levels below the construction noise management levels.

7.2 Construction vibration

Safe working distances for vibration activities have been identified for standard structures and heritage listed structures. Site specific safe working distances are to be established on-site prior to vibration generating works commencing.

Residential buildings have been identified within the safe working distances. A dilapidation survey and vibration monitoring is recommended for any structure that is located within the safe working distances.

No heritage listed structures have been identified in the vicinity of the site.

7.3 **Operational noise**

As stated in Section 6.3 the operation of the upgraded station is expected to comply with the operational noise criteria at the worst affected receiver, and therefore no operational specific mitigation measures are recommended.

8. References

Australian Standards (1997), AS1055.1:1997 Acoustics – Description and measurement of environmental noise

Australian Standards (2010), AS2436:2010 Guide to noise and vibration control on construction, demolition and maintenance sites

British Standards (1993), BS7385-2:1993 Evaluation and measurement for vibration in buildings

DECC (2009), Interim Construction Noise Guideline

DECCW (2011), Road Noise Policy

EPA (2017), Noise Policy for Industry

EPA (2013), Rail Infrastructure Noise Guideline

German Standards (1999), DIN 4150-3 Structural Vibration Part 3: Effects of vibration on structures

Transport for NSW (2018), Construction Noise and Vibration Strategy

Appendices

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Appendix A – Glossary

Abbreviation	Definition
Ambient noise	The all-encompassing noise associated within a given environment. It is the composite
Ambient holde	of sounds from many sources, both near and far.
ANMM	Additional Mitigation Measures Matrices
	The underlying level of noise present in the ambient noise, excluding the noise source
Background noise	under investigation, when extraneous noise is removed. This is described using the L_{A90} descriptor.
CNVS	Construction Noise and Vibration Strategy (TfNSW, 2018)
dB	Decibel is the logarithmic unit used for expressing the sound pressure level (SPL) or power level (SWL) in acoustics.
dB(A)	Frequency weighting filter used to measure 'A-weighted' sound pressure levels, which conforms approximately to the human ear response, as our hearing is less sensitive at very low and very high frequencies.
dB(C)	Frequency weighting filter used to measure 'C-weighted' sound pressure levels, which is designed to be more response to low frequency noise
DECCW	Department of Environment, Climate Change and Water
EPA	Environment Protection Authority
ICNG	Interim Construction Noise Guideline (DECCW, 2009)
(recip)	Equivalent sound pressure level: the steady sound level that, over a specified period of
L _{Aeq} (perioa)	actually occurring.
LA90(period)	The sound pressure level exceeded for 90% of the measurement period.
L _{Amax}	The maximum sound level recorded during the measurement period.
L _{Aeq(15hr})	The LAeq noise level for the period 7 am to 10 pm.
LAeq(9hr)	The LAeq noise level for the period 10 pm to 7 am.
LAeq(1hr)	The highest hourly LAeq noise level during the day and night periods.
Noise sensitive receiver	An area or place potentially affected by noise including residential dwellings, schools, child care centres, places of worship, health care institutions and active or passive recreational areas.
NPI	Noise Policy for Industry (EPA, 2017)
Rating background	The overall single-figure background level representing each assessment period
level (RBL)	(day/evening/night) over the whole monitoring period.
RNP	Road Noise Policy (DECWW, 2011)
TfNSW	Transport for New South Wales

Appendix B – Noise monitoring charts

























Appendix C – Predicted construction noise levels, dBA

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures				
	Residential: Noticeable / Clearly audible Moderately intrusive Highly intrusive Bold Highly noise affected												
			Non-re	sidential:	Exceeds no	oise manage	ment level						
R001	Residential	29	29	33	32	36	39	28	-				
R002	Residential	29	29	33	32	38	41	28	-				
R003	Residential	33	32	36	35	37	40	29	-				
R004	Residential	32	32	36	35	39	42	31	-				
R005	Residential	33	33	36	35	40	43	31	-				
R006	Residential	29	28	32	31	36	40	27	-				
R007	Residential	32	32	36	35	38	41	30	-				
R008	Residential	33	33	37	35	38	41	31	-				
R009	Residential	34	34	37	36	40	43	31	-				
R010	Residential	33	32	36	35	38	42	31	-				
R011	Residential	31	30	34	33	37	40	30	-				
R012	Residential	33	32	36	35	38	42	30	-				
R013	Residential	33	33	37	36	39	43	31	-				
R014	Residential	31	31	35	33	37	40	28	-				
R015	Residential	31	31	35	34	36	40	28	-				
R016	Residential	31	31	35	34	36	41	29	-				
R017	Residential	33	33	36	35	38	41		-				
R018	Residential	32	32	37	36	38	41	31	-				
R019	Residential	31	31	35	34	38	41	30	-				
R020	Residential	28	28	32	31	35	38	26	-				
R021	Residential	20	20	33	32	35	38	20					
P022	Posidential	30	20	33	32	35	39	20					
P022	Posidential	24	25	30	20	30	33	20					
R024	Residential	24	20	20	29	21	24	22	-				
R024	Residential	20	20	29	20	31	34	22	-				
R025	Residential	33	33	37	30	39	42	32	-				
R020	Residential	33	33	37	30	40	43	31	-				
R027	Residential	33	34	37	36	41	44	31	-				
R028	Residential	31	31	35	33	38	41	31	-				
R029	Residential	32	32	35	34	41	44	30	-				
R030	Residential	32	32	36	35	39	43	32	-				
RU31	Residential	24	24	20	27	30	33	22	-				
R032	Residential	33	34	37	30	39	42	31	-				
R033	Residential	34	34	37	36	41	44	32	-				
R034	Residential	31	31	35	34	38	41	31	-				
R035	Residential	23	23	26	25	30	33	21	-				
R036	Residential	34	34	37	36	40	44	32	-				
R037	Residential	34	34	38	37	40	43	32	-				
R038	Residential	33	30	34	33	38	41	28	-				
R039	Residential	35	35	39	37	41	45	34	-				
R040	Residential	34	34	38	37	40	44	32	-				
R041	Residential	34	34	38	37	41	44	32	-				
R042	Residential	34	34	38	37	41	44	33	-				
R043	Residential	34	34	38	36	40	44	32	-				
R044	Residential	34	34	38	37	40	44	32	-				
R045	Residential	26	27	31	30	32	35	23	-				
R046	Residential	33	33	37	35	39	42	31	-				
R047	Residential	34	34	38	36	40	44	32	-				
R048	Residential	34	34	38	36	39	42	32	-				
R049	Residential	34	33	37	36	39	42	32	-				
R050	Residential	34	34	37	36	39	43	31	-				
R051	Residential	34	34	37	36	39	42	32	-				
R052	Residential	34	34	37	36	39	42	32	-				
R053	Residential	30	33	37	35	36	40	30	-				
R054	Residential	33	33	37	36	39	42	30	-				
R055	Residential	33	33	37	36	39	42	31	-				
R056	Residential	29	28	32	31	37	41	27	-				
R057	Residential	35	35	38	37	40	44	32	-				
R058	Residential	35	35	39	37	41	45	33	-				
R059	Residential	33	33	37	36	39	42	30	-				
R060	Residential	34	33	37	36	41	45	32	-				

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures				
	Residential: Noticeable / Clearly audible Moderately intrusive Highly intrusive Bold Highly noise affected												
			Non-re	sidential:	Exceeds no	oise manage	ment level						
R061	Residential	35	35	39	38	41	45	33	-				
R062	Industrial	32	31	35	32	41	44	34	-				
R063	Residential	34	34	37	36	39	42	30	-				
R064	Residential	31	31	34	31	37	40	25	-				
R065	Residential	34	34	38	37	40	43	32	-				
R066	Residential	32	31	35	34	37	40	25	-				
R067	Residential	34	34	38	37	40	43	32	-				
R068	Residential	32	31	33	32	38	41	27	-				
R069	Residential	34	34	38	37	39	43	30	-				
R070	Residential	24	24	27	25	32	36	19	-				
R071	Residential	34	34	38	37	40	43	32	-				
R072	Residential	33	32	35	34	38	42	27	-				
R073	Residential	36	36	40	39	42	46	34	-				
R074	Residential	27	26	30	29	35	38	21	-				
R075	Residential	35	35	38	37	41	44	30	-				
R076	Industrial	34	34	37	36	41	44	34	-				
R077	Residential	34	35	38	37	40	43	32	-				
R078	Industrial	36	36	40	38	42	46	34	-				
R079	Residential	27	25	29	28	35	38	20	-				
R080	Residential	34	33	36	35	40	43	27	-				
R081	Residential	26	25	28	28	35	30	21					
P082	Residential	20	25	20	20	40	43	21					
P083	Industrial	36	36	40	30	40	43	34					
D094	Residential	20	20	40	25	40	47	20	-				
R084	Industrial	32	32	30	35	30	41	30	-				
R085	Industrial	33	32	30	35	41	44	34	-				
RU00	Desidential	34	33	37	30	40	43	30	-				
R087	Residential	35	35	39	38	41	44	29	-				
R066	Desidential	35	33	30	30	39	44	32	-				
R009	Residential	32	32	35	33	39	42	25	-				
R090	Residential	34	34	37	36	40	43	31	-				
RU91	Residential	34	31	35	34	40	43	24	-				
R092	Residential	30	30	39	38	41	44	27	-				
R093	Industrial	35	35	39	38	41	44	32	-				
R094	Residential	26	25	29	27	36	39	27	-				
R095	Industrial	38	38	42	41	43	46	35	-				
R096	Residential	36	30	40	39	42	45	34	-				
R097	Residential	32	30	34	33	38	41	24	-				
R098	Industrial	37	37	41	40	42	47	35	-				
R099	Residential	32	32	35	34	40	43	24	-				
R100	Industrial	32	33	37	36	38	41	31	-				
R101	Residential	32	31	34	33	38	41	24	-				
R102	Industrial	19	19	22	21	26	30	22	-				
R103	Industrial	36	37	40	38	41	46	34	-				
R104	Residential	31	30	33	32	37	41	24	-				
R105	Industrial	29	28	33	31	35	39	30	-				
R106	Industrial	36	36	40	38	42	47	34	-				
R107	Residential	31	29	33	32	37	40	24	-				
R108	Residential	28	27	30	29	38	41	24	-				
R109	Residential	32	31	31	30	37	41	23	-				
R110	Residential	25	25	28	25	30	34	20	-				
R111	Residential	35	34	38	37	40	43	31	-				
R112	Residential	31	30	33	32	40	43	22	-				
R113	Residential	24	24	26	25	31	34	20	-				
R114	Residential	24	22	25	24	30	33	19	-				
R115	Industrial	36	37	40	39	42	47	34	-				
R116	Residential	25	25	29	26	34	37	21	-				
R117	Residential	33	33	37	36	39	42	29	-				
R118	Residential	31	30	33	32	40	42	24	-				
R119	Residential	30	26	30	29	35	39	23	-				
R120	Residential	34	34	37	35	40	43	26	-				

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures				
	Residential: Noticeable / Clearly audible Moderately intrusive Highly intrusive Bold Highly noise affected												
			Non-re	sidential:	Exceeds no	oise manage	ment level						
R121	Residential	32	32	34	33	38	42	26	-				
R122	Residential	32	31	34	33	39	42	24	-				
R123	Residential	31	30	32	31	37	40	24	-				
R124	Residential	29	28	32	31	37	41	24	-				
R125	Residential	28	27	31	29	36	39	23	-				
R126	Industrial	32	33	35	34	40	41	32	-				
R127	Residential	36	36	39	38	44	48	33	-				
R128	Residential	30	28	32	31	37	40	24	-				
R129	Residential	30	29	33	32	36	39	24	-				
R130	Residential	35	32	35	35	42	45	29	-				
R131	Residential	29	29	31	28	35	39	23	-				
R132	Residential	29	29	30	28	35	38	23	-				
R133	Residential		37	36	35	43	46	30					
R134	Residential	33	33	36	35	42	45	31	-				
R135	Residential	20	26	20	28	35	30	23					
P136	Residential	40	40	43	42	45	40	37					
R130	Residential	40	40	40	42	40	49	22	-				
R137	Residential	29	20	20	40	35	30	23	-				
R138	Residential	39	39	43	42	45	48	37	-				
R139	Residential	29	25	28	27	34	37	23	-				
R140	Residential	31	33	35	34	38	41	28	-				
R141	Residential	30	30	34	33	36	39	28	-				
R142	Residential	29	26	28	27	35	38	23	-				
R143	Industrial	32	32	35	33	40	43	32	-				
R144	Residential	28	24	26	25	34	38	23	-				
R145	Residential	30	30	32	31	35	39	24	-				
R146	Residential	37	36	38	37	42	45	30	-				
R147	Residential	40	40	44	43	46	49	37	-				
R148	Residential	27	26	30	29	33	36	22	-				
R149	Residential	31	31	35	34	37	40	28	-				
R150	Industrial	32	33	36	33	40	44	30	-				
R151	Residential	27	27	31	29	34	37	24	-				
R152	Residential	28	28	32	30	34	37	23	-				
R153	Residential	24	24	27	26	31	33	20	-				
R154	Residential	29	28	31	30	35	38	24	-				
R155	Residential	28	27	31	30	33	36	23	-				
R156	Residential	27	26	29	28	34	37	22	-				
R157	Residential	34	32	36	35	41	45	30	-				
R158	Residential	28	28	30	28	34	37	23	-				
R159	Residential	41	41	44	43	47	50	38	-				
R160	Residential	28	28	29	28	34	38	23	-				
R161	Residential	29	28	29	27	35	38	23	-				
R162	Residential	27	27	30	29	35	38	23	-				
R163	Residential	33	33	37	35	41	44	34	-				
R164	Residential	41	42	45	43	47	50	38	-				
R165	Residential	27	26	28	27	34	37	23	-				
R166	Residential	34	34	38	36	41	44	24	-				
R167	Industrial	33	31	33	32	40	43	34	-				
R168	Industrial	35	34	38	35	42	45	36	-				
R169	Residential	41	41	45	44	47	50	38	-				
R170	Residential	39	39	42	41	44	48	36	-				
R171	Residential	37	37	41	40	43	46	35	-				
R172	Residential	37	36	40	39	42	46	27	-				
R173	Residential	28	28	31	29	35	36	23	_				
D174	Posidential	20	20	33	23	40	46	25	-				
R1/4	Residential	30	30	33	31	43	40	25	-				
R1/5	Posidontial	33	32	35	34	40	43	32	-				
R176	Residential	28	27	30	29	33	30	23	-				
R177	Residential	28	25	29	27	30	38	23	-				
R178	Residential	24	23	27	26	31	34	22	-				
R179	Residential	23	24	25	24	28	31	20	-				
R180	Residential	24	23	26	25	30	33	21	-				

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures				
	Residential: Noticeable / Clearly audible Moderately intrusive Highly intrusive Bold Highly noise affected												
			Non-re	sidential:	Exceeds no	oise manage	ment level						
R181	Residential	26	25	29	28	32	35	22	-				
R182	Residential	19	20	23	22	25	28	17	-				
R183	Residential	20	22	24	23	28	31	18	-				
R184	Residential	24	23	26	25	29	33	21	-				
R185	Residential	26	26	30	28	32	35	23	-				
R186	Residential	22	23	26	25	29	32	21	-				
R187	Residential	25	25	29	28	31	34	22	-				
R188	Residential	27	26	30	27	33	36	22	-				
R189	Residential	22	22	26	24	30	33	19	-				
R190	Residential	28	30	30	30	36	39	24	-				
R191	Residential	28	26	29	27	33	37	22	-				
R192	Residential	23	22	26	25	31	35	20	-				
R193	Residential	27	29	29	29	35	38	23	-				
P104	Posidential	25	25	20	23	31	34	23					
P105	Residential	25	25	20	27	22	27	23	-				
R 195	Residential	20	20	29	21	33	37	24	-				
R 190	Residential	22	23	25	24	29	32	20	-				
R 197	Residential	27	25	20	27	34	37	23	-				
R198	Residential	23	23	26	25	30	33	21	-				
R199	Residential	28	26	29	28	34	36	24	-				
R200	Residential	25	24	28	27	32	35	22	-				
R201	Residential	25	26	27	25	35	37	22	-				
R202	Residential	31	30	34	34	39	42	34	-				
R203	Residential	27	25	28	27	34	37	22	-				
R204	Residential	22	22	27	23	26	29	20	-				
R205	Residential	24	25	27	26	35	38	22	-				
R206	Residential	24	26	27	26	31	34	21	-				
R207	Passive recreation	34	37	39	37	49	53	36	-				
R208	Residential	24	28	27	26	30	33	21	-				
R209	Residential	25	30	30	27	33	36	22	-				
R210	Industrial	34	31	36	34	42	45	37	-				
R211	Industrial	33	33	37	35	42	45	36	-				
R212	Residential	25	25	26	25	33	36	20	-				
R213	Residential	24	26	28	24	33	34	23	-				
R214	Industrial	30	28	32	31	38	41	32	-				
R215	Residential	28	28	32	25	28	31	24	-				
R216	Educational institute	43	43	46	45	48	51	37	-				
R217	Residential	26	25	28	27	32	35	22	-				
R218	Educational institute	28	28	30	28	34	37	24	-				
R219	Residential	26	26	29	27	32	35	23	-				
R220	Residential	30	30	34	32	32	35	28	-				
R221	Industrial	33	33	37	37	42	45	37	-				
R222	Educational institute	33	33	34	32	38	42	26	-				
R223	Residential	26	25	29	27	32	35	23	-				
R224	Industrial	27	27	31	30	36	39	30	-				
R225	Educational institute	25	25	29	28	31	34	23	-				
R226	Industrial	33	33	37	35	42	45	37	-				
R227	Industrial	26	25	29	28	39	44	31	-				
R228	Industrial	35	.34	39		44	48	39	-				
R229	Residential	27	27	30	29	33	36	25					
P230	Residential	24	26	28	25	28	32	20					
R231	Residential	25	26	20	23	31	34	23					
R237	Residential	25	20	30	29	20	31	23					
D000	Desidential	20	20	30	20	29	31	23	-				
R233	Residential	25	24	29	27	30	33	23	-				
R234		36	36	40	40	47	50	41	-				
R235	Place of worship	27	28	31	28	31	33	25	-				
R236	Residential	25	25	29	27	31	33	23	-				
R237	Industrial	37	36	40	40	47	51	42	-				
R238	Residential	22	22	26	25	27	30	19	-				
R239	Residential	23	23	27	26	29	32	20	-				
R240	Residential	24	26	28	26	29	32	21	-				

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures				
	Residential: Noticeable / Clearly audible Moderately intrusive Highly intrusive Bold Highly noise affected												
			Non-re	sidential:	Exceeds no	oise manage	ment level						
R241	Residential	23	21	25	24	29	32	20	-				
R242	Industrial	38	37	41	40	50	53	44	-				
R243	Residential	23	22	25	23	29	34	20	-				
R244	Residential	24	24	28	27	29	31	21	-				
R245	Residential	26	27	29	27	30	33	24	-				
R246	Educational institute	49	50	50	49	55	58	42	-				
R247	Residential	26	24	28	27	32	34	22	-				
R248	Educational institute	42	42	46	44	47	50	33	-				
R249	Residential	27	27	31	30	36	39	25	-				
R250	Industrial	40	37	42	41	50	54	44	-				
R251	Educational institute	33	33	34	33	41	44	29	-				
R252	Educational institute	33	31	33	32	40	42	28	-				
R253	Residential	24	24	27	26	29	32	21					
R254	Industrial	40	38	42	41	54	57	48	-				
P255	Posidontial	26	27	31	28	31	34	24					
R255	Industrial	20	20	42	41	47	50	24 52	-				
R230	Decidential	39	30	42	41	47	30		-				
R207	Residential	20	20	30	29	32	35	24	-				
R258	Residential	28	26	29	28	34	34	23	-				
R259	Educational institute	50	50	54	53	55	58	40	-				
R260	Residential	29	25	29	28	35	39	23	-				
R261	Medical facility	35	35	38	37	44	46	37	-				
R262	Residential	25	32	29	28	32	35	23	-				
R263	Residential	27	24	27	26	33	36	22	-				
R264	Place of worship	29	29	33	30	34	37	28	-				
R265	Residential	29	33	33	31	34	37	28	-				
R266	Medical facility	35	35	39	38	44	48	39	-				
R267	Educational institute	48	49	44	42	53	56	36	-				
R268	Industrial	45	43	46	46	56	60	53	-				
R269	Residential	27	31	31	29	32	35	25	-				
R270	Educational institute	32	36	36	35	39	43	29	-				
R271	Residential	29	23	26	25	34	37	21	-				
R272	Residential	28	24	28	27	34	37	22	-				
R273	Industrial	47	45	50	47	58	62	56	-				
R274	Residential	28	29	33	32	32	35	26	-				
R275	Medical facility	32	32	35	34	44	47	34	-				
R276	Educational institute	32	31	36	33	37	40	28	-				
R277	Industrial	45	45	45	43	64	68	55	-				
R278	Industrial	50	48	51	49	62	66	59	-				
R279	Educational institute	33	35	36	34	37	40	30	-				
R280	Residential	31	33	35	34	39	41	30	-				
R281	Medical facility	32	31	35	34	44	47	34	-				
R282	Residential	32	35	37	34	39	42	30	-				
R283	Residential	25	24	28	27	30	33	22	-				
R284	Educational institute	46	46	50	49	52	55	39	-				
R285	Residential	19	20	23	22	25	28	18	-				
R286	Residential	36	37	37	34	41	45	31	-				
R287	Residential	25	25	29	27	30	33	24	-				
R288	Residential	55	56	59	57	60	63	50	N. V				
R289	Educational institute	46	46	50	47	51	55	36					
R290	Residential	.34	27	29	28	40	43	22	-				
R291	Medical facility	33	31	35	34	.0	43	.33	_				
R292	Residential	25	25	29	28	31	34	24	_				
R202	Residential	25	25	20	20	30	32	24	_				
P204	Industrial	£1	£0	£3 E2	E2	60	72	E5	-				
R294	Educational institut	20	50	55	52	69	13	55	-				
R295	Peridential	30	41	40	40	42	40	41	-				
R296	Residential	23	23	27	20	30	32	21	-				
R297	Residential	55	07	59	57	59	62	50	IN, V				
R298	Residential	37	37	35	33	42	45	29	-				
R299	Residential	23	23	27	26	30	33	22	-				
R300	Residential	38	34	38	36	43	46	33	-				

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures				
	Residential: Noticeable / Clearly audible Moderately intrusive Highly intrusive Bold Highly noise affected												
			Non-re	sidential:	Exceeds no	oise manage	ment level						
R301	Industrial	52	45	48	47	66	69	42	-				
R302	Residential	45	47	49	48	51	55	43	N, V				
R303	Residential	55	56	58	55	59	62	45	N, V				
R304	Residential	23	26	27	26	31	35	25	-				
R305	Industrial	54	53	55	54	71	74	52	-				
R306	Residential	49	49	43	41	53	56	38	N, V				
R307	Residential	24	24	28	27	30	33	22	-				
R308	Residential	50	49	52	50	54	57	33	N, V				
R309	Medical facility	18	18	18	17	25	28	18	-				
R310	Residential	40	41	44	37	44	47	35	-				
R311	Residential	57	58	61	59	61	64	51	N, V				
R312	Residential	29	32	33	32	35	38	27	-				
R314	Industrial	65	65	63	61	71	74	52	-				
R315	Medical facility	20	20	23	22	27	30	17	-				
R316	Residential	41	44	44	43	50	53	36	-				
R317	Residential	46	46	50	49	51	54	37	-				
R318	Residential	33	33	37	36	39	42	31	-				
R320	Residential	31	31	35	34	35	38	28	-				
R321	Residential	25	25	29	27	30	33	22	-				
R322	Residential	25	25	29	28	31	35	23	-				
R323	Residential	32	33	36	35	37	40	31	-				
R324	Residential	47	49	51	50	52	55	44	N. V				
R325	Residential	20	21	24	23	26	29	19	-				
R326	Residential	22	22	26	25	28	31	21	-				
R327	Residential	41	41	45	42	44	47	39	-				
R328	Residential	32	32	36	35	38	41	30	-				
R330	Residential	51	54	56	54	57	60	49	N V				
R331	Medical facility	33	33	36	36	40	43	33	-				
R332	Residential	59	61	63	61	63	66	53	N V				
R333	Residential	54	56	59	58	60	63	52	N V				
R334	Residential	32	32	36	34	38	41	30	-				
R335	Residential	22	22	26	22	24	27	21					
R336	Medical facility	34	34	37	36	42	45	35					
R337	Residential	51	52	55	54	56	59	44	N V				
R338	Residential	40	40	44	42	45	48	36	-				
P330	Posidential	40	25	20	42 28	4J 31	40	22					
P340	Posidential	25	25	20	20	31	34	24					
P241	Commorcial	20	20	42	41	50	54	24	-				
R341	Bosidential	59	59	42	41 57	50	55	44 51	- N 1/				
R342	Medical facility	03	07	30		40	02 50	31	IN, V				
R343	Decidential	50	57	41	40	40	50	41	-				
R344	Residential	50	52	20	24	57	59	49	IN, V				
R345	Nedical facility	35	35	39	38	44	47	37	-				
R346	Residential	31	31	35	34	37	40	25	-				
R347	Residential	45	46	50	48	51	54	44	-				
R348	Residential	24	24	28	27	30	32	23	-				
R349	Residential	23	23	27	24	28	30	21	-				
R350	Medical facility	32	31	35	34	39	42	33	-				
R351	Residential	37	38	42	41	38	41	30	-				
R352	Residential	43	44	47	44	47	50	40	-				
R353	Commercial	41	41	44	45	56	59	51	-				
R354	Commercial	41	41	44	43	54	57	48	-				
R355	Residential	41	43	45	42	45	48	39	-				
R356	Commercial	44	43	47	46	61	63	54	-				
R357	Residential	37	40	41	40	43	46	36	-				
R358	Residential	24	24	28	27	30	33	23	-				
R359	Commercial	45	43	47	46	58	61	53	-				
R360	Residential	40	39	43	43	45	48	37	-				
R361	Residential	37	37	41	40	43	50	43	-				
R362	Commercial	48	45	49	48	64	67	51	-				
R363	Residential	37	38	41	40	43	45	36	-				

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures				
	Residential: Noticeable / Clearly audible Moderately intrusive Highly intrusive Bold Highly noise affected												
			Non-re	sidential:	Exceeds no	oise manage	ment level						
R364	Residential	37	38	41	38	40	43	35	-				
R365	Residential	34	35	39	31	34	37	33	-				
R366	Medical facility	24	24	28	26	31	34	23	-				
R368	Commercial	50	47	50	50	64	67	49	-				
R369	Medical facility	33	33	36	35	42	45	34	-				
R370	Commercial	47	45	48	47	62	65	53	-				
R371	Residential	26	27	29	29	31	34	23	-				
R372	Medical facility	33	32	35	34	44	48	38	-				
R373	Residential	25	26	29	28	27	34	24	-				
R374	Residential	37	37	41	40	44	47	34	-				
R375	Medical facility	28	28	31	30	38	41	32	-				
R376	Commercial	51	49	53	51	65	68	48	-				
R377	Residential	37	38	41	39	42	45	36	-				
R378	Residential	33	34	37	36	39	42	32	-				
R379	Commercial	54	51	54	53	65	68	48	-				
R380	Commercial	47	43	47	46	58	61	41					
R381	Residential	33	32	36	35	42	46	38					
R382	Residential	34	33	37	37	41	44	34					
R383	Medical facility	32	32	35	34	40	43	33	-				
R384	Commercial	59	55	59	58	66	69	51					
R385	Residential	35	34	30	38	41	44	35					
P386	Modical facility	34	34	33	36	41	44	36					
R300	Medical facility	25	25	20	30	44	47	24	-				
R307	Commorpial	64	62	55	62	42	40	61	-				
R300	Desidential	40	47	54	40	55	50	45	-				
R369	Residential	40	47	31	49	33	50	40	IN, V				
R390	Residential	39	30	41	40	47	50	30	-				
R391	Desidential	33	33	30	30	39	42	34	-				
R392	Residential	37	40	39	38	47	50	30	-				
R393	Desidential	59	01	54	50	63	60	57	-				
R394		49	47	51	50	55	57	40	N, V				
R395	Desidential	30	30	39	30	42	40	30	-				
R396	Residential	42	44	46	44	51	55	40	N, V				
R397	Residential	51	53	55	54	56	59	49	N, V				
R398	Residential	50	51	54	53	56	59	45	N, V				
R399	Residential	39	40	44	43	45	48	37	-				
R400	Residential	38	39	42	41	43	46	37	-				
R401	Residential	34	34	38	36	39	42	33	-				
R402	Residential	52	54	57	55	58	61	50	N, V				
R403	Residential	48	46	50	49	53	55	44	N, V				
R404	Residential	37	35	39	38	45	49	32	-				
R405	Residential	36	36	40	37	43	46	35	-				
R406	Residential	54	57	58	57	59	62	53	N, V				
R407	Residential	36	37	39	34	36	40	34	-				
R408	Residential	48	49	53	52	54	57	46	N, V				
R409	Residential	39	39	43	38	47	51	38	-				
R410	Residential	33	34	38	36	39	42	27	-				
R411	Residential	53	53	57	56	58	62	52	N, V				
R412	Residential	48	50	52	50	53	56	39	N, V				
R413	Residential	45	46	50	48	51	54	44	-				
R414	Residential	30	30	34	31	45	49	34	-				
R415	Residential	43	43	46	45	48	51	39	-				
R416	Residential	40	42	45	44	46	48	35	-				
R417	Residential	34	34	38	37	45	48	34	-				
R418	Residential	42	42	46	46	47	50	40	-				
R419	Residential	41	42	45	44	47	50	39	-				
R420	Commercial	49	51	51	50	54	57	44	-				
R421	Residential	37	37	41	40	45	48	35	-				
R422	Residential	44	44	48	46	48	51	41	-				
R423	Residential	40	41	44	43	46	49	38	-				
R424	Residential	42	42	46	44	49	51	41	-				

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures		
Residential: Noticeable / Clearly audible Moderately intrusive Highly intrusive Bold Highly noise affected											
			Non-re	esidential:	Exceeds no	oise manage	ment level				
R425	Residential	37	36	39	38	44	47	34	-		
R426	Residential	44	44	47	46	49	52	41	-		
R427	Residential	45	46	49	49	50	53	43	-		
R428	Residential	36	36	38	34	44	47	32	-		
R429	Residential	36	36	40	38	46	49	34	-		
R430	Residential	41	39	43	41	46	49	35	-		
R431	Commercial	50	51	54	52	55	58	49	-		
R432	Residential	33	34	37	36	40	44	36	-		
R433	Residential	40	40	44	42	47	49	36	-		
R434	Residential	44	44	48	47	50	53	41	-		
R435	Residential	49	47	50	48	52	55	42	N, V		
R436	Residential	36	36	40	39	46	49	32	-		
R437	Residential	48	48	52	49	52	55	45	N. V		
R438	Residential	33	33	37	36	46	49	36	,		
R439	Residential	45	44	48	47	51	54	42	-		
R440	Residential	39	40	43	42	44	46	35	-		
R441	Residential	46	45	49	48	51	54	42	-		
R442	Residential	41	40	43	41	47	50	37	-		
R//3	Residential	36	33	36	35	44	47	31			
P444	Posidential	41	40	44	43	47	51	39			
P//5	Medical facility	29	37	41	40	45	48	37			
D446	Basidential	20	40	41	40	45	40	27	-		
D447	Residential	42	40	45	42	43	40 50	27	-		
R447	Residential	42	41	40	42	47 54	50	37	-		
R440	Residential	40	40	49	47	51	54	42	-		
R449	Residential	30	30	40	37	44	40	33	-		
R450	Residential	47	44	49	47	52	55	42	N, V		
R451	Residential	44	44	48	46	50	53	41	-		
R452	Residential	37	38	40	39	42	45	34	-		
R453	Residential	39	39	44	43	45	48	37	-		
R454	Residential	38	38	42	41	44	47	35	-		
R400	Residential	43	47	49	47	51	54	40	-		
R456	Residential	39	39	43	41	44	47	36	-		
R457	Residential	38	38	42	41	44	47	33	-		
R458	Residential	37	38	41	42	45	48	33	-		
R459	Residential	30	30	34	33	45	48	31	-		
R460	Residential	40	40	44	43	46	49	39	-		
R461	Residential	37	37	41	41	44	46	33	-		
R462	Residential	43	42	45	44	49	52	38	-		
R463	Residential	37	37	40	39	42	45	33	-		
R464	Residential	32	32	36	35	39	42	34	-		
R465	Residential	33	32	36	35	42	45	32	-		
R466	Residential	33	32	36	35	40	44	32	-		
R467	Residential	40	36	41	40	48	51	33	-		
R468	Residential	43	42	46	45	48	51	40	-		
R469	Residential	41	42	44	44	48	51	37	-		
R470	Residential	33	36	38	37	42	45	32	-		
R471	Residential	32	35	35	33	43	46	32	-		
R472	Residential	34	35	38	35	38	42	31	-		
R473	Residential	36	39	39	37	44	47	31	-		
R474	Residential	36	37	40	39	42	45	33	-		
R475	Residential	44	42	37	35	50	53	31	-		
R476	Residential	44	37	39	38	50	53	29	-		
R477	Residential	37	36	40	39	43	46	35	-		
R478	Residential	37	37	41	41	43	46	34	-		
R479	Residential	35	35	39	38	41	44	33	-		
R480	Residential	40	39	43	42	48	51	32	-		
R481	Residential	39	38	41	40	45	48	35	-		
R482	Residential	40	44	44	42	47	51	34	-		
R483	Residential	41	41	45	43	46	49	37	-		
R484	Residential	34	34	38	37	40	43	32	-		

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeab	le / Clearly a	udible M	oderately int	rusive Hi	ghly intrusiv	e <mark>Bold</mark> Highly	y noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R485	Residential	36	36	40	39	43	46	34	-
R486	Residential	45	47	51	49	51	54	44	-
R487	Residential	36	36	40	37	40	44	35	-
R488	Residential	43	42	46	45	48	51	39	-
R489	Residential	41	33	38	38	48	51	29	-
R490	Residential	37	37	41	40	43	46	33	-
R491	Residential	32	32	36	34	40	41	27	-
R492	Residential	48	48	52	50	53	56	45	N, V
R493	Residential	43	42	46	44	48	51	39	-
R494	Residential	36	36	40	38	43	47	33	-
R495	Residential	42	41	45	44	47	50	36	-
R496	Residential	40	38	34	36	45	48	29	-
R497	Residential	35	35	39	38	43	47	34	-
R498	Residential	40	39	38	37	44	48	30	-
R499	Residential	42	41	43	42	48	51	36	-
R500	Residential	45	45	49	47	50	53	42	-
R501	Residential	37	37	41	39	42	45	34	-
R502	Medical facility	36	35	39	38	43	46	37	-
R503	Residential	37	37	39	37	45	49	31	-
R504	Residential	33	33	37	36	41	45	30	-
R505	Residential	36	35	39	38	42	46	33	-
R506	Residential	36	36	40	39	42	45	33	-
R507	Residential	39	37	42	40	44	47	34	-
R508	Residential	33	33	37	37	39	42	26	-
R509	Residential	35	35	39	37	40	43	33	-
R510	Residential	35	34	38	37	42	45	32	-
R511	Medical facility	37	36	40	38	44	47	36	-
R512	Residential	42	37	40	40	47	49	30	-
R513	Residential	28	29	32	32	34	37	25	-
R514	Residential	36	36	40	39	42	45	27	-
R515	Residential	32	32	35	34	41	44	32	-
R516	Residential	35	36	39	38	40	44	34	-
R517	Residential	36	36	39	38	42	46	31	-
R518	Medical facility	32	32	36	34	39	42	31	-
R519	Residential	34	34	38	37	42	45	33	-
R520	Medical facility	30	31	34	31	36	40	28	-
R521	Residential	34	35	38	37	39	43	34	-
R522	Residential	39	39	43	42	45	48	33	-
R523	Residential	35	35	39	38	41	44	33	-
R524	Residential	39	40	43	42	45	48	31	-
R525	Commercial	46	45	40	48	40	54	42	
R526	Residential	35	35	39	38	40	46	33	
R527	Residential	36	37	40	39	42	46	34	
R528	Residential	35	34	38	37	40	40	33	
R529	Medical facility	32	32	36	33	40	43	32	
R530	Residential	37	38	42	41	45	48	36	
R531	Residential	35	35	30	38	40	45	32	
R532	Medical facility	32	32	36	33	37	43	31	-
P533	Posidontial	30	30	43	41	45	49	34	
R333	Residential	39	29	43	41	40	40	24	-
DE2E	Medical facility	40	20	42	24	45	40	27	-
R000		31	30	35	34	37	41 E2	42	-
R030	Desidential	45	45	49	40	40	55	43	-
R537	Residential	34	33	37	30	40	44	31	-
R538	Residential	39	39	43	42	45	48	35	-
R539	Residential	35	36	40	39	41	45	33	-
R540	Residential	36	36	40	39	42	45	33	-
R541	Résidential	40	37	38	37	45	49	32	-
R542	Commercial	42	42	46	45	45	51	40	-
R543	Residential	36	36	40	39	42	45	34	-
R544	Residential	35	35	39	38	41	45	30	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeab	le / Clearly a	udible M	oderately int	rusive Hi	ghly intrusiv	e <mark>Bold</mark> Highly	/ noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R545	Residential	35	35	39	38	42	45	33	-
R546	Residential	39	38	42	41	44	47	35	-
R547	Medical facility	32	32	36	34	37	40	30	-
R548	Residential	37	37	41	40	43	46	34	-
R549	Medical facility	26	26	30	29	32	36	25	-
R550	Residential	39	39	43	41	45	48	33	-
R551	Residential	35	35	39	37	40	43	33	-
R552	Residential	39	38	41	41	44	46	34	-
R553	Residential	41	38	42	41	46	50	36	-
R554	Residential	37	37	41	39	45	48	32	-
R555	Commercial	42	42	46	44	45	49	40	-
R556	Residential	35	34	38	37	41	44	33	-
R557	Residential	35	34	38	37	41	44	32	-
R558	Residential	30	30	34	33	38	41	28	-
R559	Residential	38	38	42	41	44	47	35	-
R560	Residential	37	36	40	38	44	46	33	-
R561	Residential	40	38	42	41	45	47	34	-
R562	Residential	35	35	39	38	42	45	34	-
R563	Residential	35	35	39	37	41	45	33	-
R564	Residential	40	40	43	42	45	48	38	-
R565	Residential	35	35	39	38	41	45	31	-
R566	Residential	41	41	45	44	45	49	39	-
R567	Residential	35	.34	39	37	41	44	31	-
R568	Residential	37	37	41	40	43	46	35	-
R569	Residential	39	38	42	41	44	47	36	
R570	Residential	38	36	37	36	46	48	31	
R571	Residential	36	36	40	39	40	45	34	
R572	Medical facility	33	33	37	36	40	43	32	
R573	Residential	37	36	40	30	40	45	31	
R574		38	37	40	41	42	46	35	
P575	Posidontial	41	41	42	41	43	40	40	
D576	Residential	20	27	40	40	44	40	40	-
R3/0	Residential	30	37	41	40	44	47	30	-
R0//	Residential	33	33	37	30	40	43	31	-
R578	Residential	37	36	40	39	43	46	33	-
R579	Residential	33	31	36	35	39	43	30	-
R580	Residential	36	30	40	39	42	45	34	-
R581	Residential	33	32	37	35	39	43	30	-
R582	Residential	34	34	38	37	40	43	32	-
R583	Residential	38	38	42	40	43	46	36	-
R584	Residential	37	37	41	40	43	46	35	-
R585	Commercial	40	45	45	44	45	49	39	-
R586	Residential	29	31	33	32	40	43	27	-
R587	Residential	32	32	36	35	40	43	30	-
R588	Residential	40	40	44	43	44	48	39	-
R589	Residential	37	37	40	39	42	45	33	-
R590	Residential	33	33	37	36	39	42	31	-
R591	Residential	34	34	38	37	40	43	33	-
R592	Residential	36	36	39	39	42	45	33	-
R593	Residential	38	36	40	39	43	46	32	-
R594	Residential	33	33	37	35	38	41	31	-
R595	Residential	35	35	39	38	41	44	33	-
R596	Educational institute	37	38	39	38	45	48	32	-
R597	Residential	36	36	39	39	42	44	32	-
R598	Residential	36	36	40	39	42	45	33	-
R599	Residential	35	35	38	37	41	45	30	-
R600	Educational institute	37	39	41	39	45	48	35	-
R601	Residential	40	40	44	43	45	48	39	-
R602	Residential	34	33	37	36	40	44	31	-
R603	Residential	37	35	39	38	43	46	34	-
R604	Residential	34	34	39	38	40	43	31	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeab	le / Clearly a	udible M	oderately int	rusive Hi	ghly intrusiv	e <mark>Bold</mark> Highly	noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R605	Residential	37	37	41	40	43	46	34	-
R606	Residential	36	36	39	38	42	45	33	-
R607	Residential	38	37	39	38	43	46	33	-
R608	Residential	33	33	36	35	39	43	29	-
R609	Residential	35	37	38	37	43	46	31	-
R610	Residential	37	38	40	39	45	48	34	-
R611	Residential	37	39	42	41	42	45	35	-
R612	Residential	39	39	43	42	45	48	37	-
R613	Residential	36	35	39	38	43	46	34	-
R614	Residential	40	40	43	43	45	48	39	-
R615	Residential	35	35	38	38	40	43	30	-
R616	Residential	38	37	41	40	42	46	35	-
R617	Residential	37	35	39	38	43	45	33	-
R618	Residential	34	34	38	36	39	42	32	-
P610	Posidential	36	35	30	39	41	42	30	
P620	Posidential	40	40	44	43	45	49	30	
R020	Residential	40	40	27	45	40	40	20	-
R021	Residential	33	33	37	30	39	43	30	-
R622	Residential	39	36	39	38	44	47	32	-
R623	Residential	30	35	39	38	41	44	34	-
R624	Residential	33	34	38	37	40	44	30	-
R625	Residential	34	34	37	36	40	43	29	-
R626	Residential	33	33	37	36	39	42	32	-
R627	Residential	37	37	37	36	43	46	33	-
R628	Residential	36	35	39	37	41	45	29	-
R629	Residential	36	38	41	41	41	44	34	-
R630	Residential	35	34	38	37	41	44	31	-
R631	Residential	31	31	35	34	39	42	30	-
R632	Residential	31	34	36	33	38	41	30	-
R633	Residential	37	38	41	41	44	46	37	-
R634	Residential	30	30	34	32	35	39	29	-
R635	Residential	35	37	39	38	44	47	31	-
R636	Residential	33	34	37	36	42	45	31	-
R637	Residential	35	36	40	38	42	44	33	-
R638	Residential	31	30	34	33	36	39	28	-
R639	Residential	35	38	41	40	40	43	34	-
R640	Residential	25	25	29	28	31	34	23	-
R641	Residential	35	35	38	37	41	44	33	-
R642	Residential	35	33	36	36	42	45	29	-
R643	Residential	33	33	37	36	39	42	30	-
R644	Residential	35	35	39	38	42	45	33	-
R645	Residential	35	34	38	37	41	44	33	-
R646	Residential	37	37	41	40	43	46	36	-
R647	Residential	36	36	40	39	42	44	33	-
R648	Residential	32	31	35	34	37	40	24	-
R649	Residential	33	33	36	35	39	42	30	-
R650	Residential	33	37	40	40	41	44	32	-
R651	Residential	34	33	37	36	40	43	31	-
R652	Residential	32	32	36	35	38	41	31	-
R653	Residential	34	34	38	37	40	43	31	-
R654	Residential	36	37	40	40	42	45	36	-
R655	Residential	38	35	38	37	42	45	33	-
R656	Residential	36	36	40	38	41	44	34	-
R657	Residential	36	36	40	38	41	44	34	
R659	Residential	36	37	40	30	42	45	35	
P650	Residential	36	34	39	33	42	45	33	
Peeo	Residential	35	35	38	37	42	45	31	
Dee4	Posidontial	33	30	30	20	42	40	22	-
Deep	Posidontial	37	30	39	30	43	40	22	-
Deep	Residential	35	35	39	30	41	44	33	-
Roba	Residential	36	30	40	39	41	44	34	-
K064	Residential	35	36	38	31	41	44	32	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures		
	Residential:	Noticeab	le / Clearly a	udible M	oderately int	derately intrusive Highly intrusive Bold Highly noise affected					
Non-residential: Exceeds noise management level											
R665	Residential	35	35	39	37	40	43	32	-		
R666	Residential	34	34	38	37	40	43	31	-		
R667	Residential	33	32	36	35	39	42	30	-		
R668	Residential	34	34	38	37	40	43	30	-		
R669	Residential	31	31	35	34	38	41	26	-		
R670	Residential	30	30	34	33	36	39	25	-		
R674	Commercial	39	43	47	46	44	48	39	-		

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R001	Residential	29	29	33	32	36	39	28	-
R002	Residential	29	29	33	32	38	41	28	-
R003	Residential	33	32	36	35	37	40	29	-
R004	Residential	32	32	36	35	39	42	31	-
R005	Residential	33	33	36	35	40	43	31	-
R006	Residential	29	28	32	31	36	40	27	-
R007	Residential	32	32	36	35	38	41	30	-
R008	Residential	33	33	37	35	38	41	31	-
R009	Residential	34	34	37	36	40	43	31	-
R010	Residential	33	32	36	35	38	42	31	-
R011	Residential	31	30	34	33	37	40	30	
R012	Residential	33	32	36	35	38	12	30	
R012	Residential	33	32	27	35	20	42	30	-
R013	Residential	33	33	37	30	39	43	20	-
R014	Residential	31	31	35	33	37	40	20	-
R015	Residential	31	31	35	34	30	40	28	-
R016	Residential	31	31	35	34	36	41	29	-
R017	Residential	33	33	36	35	38	41	30	-
R018	Residential	32	32	37	36	38	41	31	-
R019	Residential	31	31	35	34	38	41	30	-
R020	Residential	28	28	32	31	35	38	26	-
R021	Residential	29	29	33	32	35	38	28	-
R022	Residential	30	29	33	32	35	38	28	-
R023	Residential	24	26	30	29	30	33	22	-
R024	Residential	25	25	29	28	31	34	22	-
R025	Residential	33	33	37	36	39	42	32	-
R026	Residential	33	33	37	36	40	43	31	-
R027	Residential	33	34	37	36	41	44	31	-
R028	Residential	31	31	35	33	38	41	31	-
R029	Residential	32	32	35	34	41	44	30	-
R030	Residential	32	32	36	35	39	43	32	-
R031	Residential	24	24	28	27	30	33	22	-
R032	Residential	33	34	37	36	39	42	31	-
R033	Residential	34	34	37	36	41	44	32	-
R034	Residential	31	31	35	34	38	41	31	-
R035	Residential	23	23	26	25	30	33	21	-
R036	Residential	34	34	37	36	40	44	32	-
R037	Residential	34	34	38	37	40	43	32	-
R038	Residential	33	30	34	33	38	41	28	-
R039	Residential	35	35	39	37	41	45	34	PN
R040	Residential	34	34	38	37	40	44	32	-
R041	Residential	34	34	38	37	41	44	32	-
R042	Residential	34	34	38	37	41	44	33	-
R043	Residential	34	34	38	36	40	44	32	-
R044	Residential	34	34	38	37	40	44	32	-
P045	Residential	26	27	31	30	32	35	22	
P046	Residential	20	21	37	35	30	42	20	
R040	Residential	24	33	20	35	40	42	20	-
R047	Residential	34	34	30	30	40	44	32	-
R040	Posidontial	24	34	30	30	39	42	32	-
R049	Residential	34	33	37	36	39	42	32	-
R050	Residential	34	34	37	36	39	43	31	-
R051	Residential	34	34	37	36	39	42	32	-
R052	Residential	34	34	37	36	39	42	32	-
R053	Residential	30	33	37	35	36	40	30	-
R054	Residential	33	33	37	36	39	42	30	-
R055	Residential	33	33	37	36	39	42	31	-
R056	Residential	29	28	32	31	37	41	27	-
R057	Residential	35	35	38	37	40	44	32	-
R058	Residential	35	35	39	37	41	45	33	PN
R059	Residential	33	33	37	36	39	42	30	-
R060	Residential	34	33	37	36	41	45	32	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R061	Residential	35	35	39	38	41	45	33	PN
R062	Industrial	32	31	35	32	41	44	34	-
R063	Residential	34	34	37	36	39	42	30	-
R064	Residential	31	31	34	31	37	40	25	-
R065	Residential	34	34	38	37	40	43	32	-
R066	Residential	32	31	35	34	37	40	25	-
R067	Residential	34	34	38	37	40	43	32	-
R068	Residential	32	31	33	32	38	41	27	-
R069	Residential	34	34	38	37	39	43	30	-
R070	Residential	24	24	27	25	32	36	19	-
R071	Residential	34	34	38	37	40	43	32	-
R072	Residential	33	32	35	34	38	42	27	-
R073	Residential	36	36	40	39	42	46	34	PN
R074	Residential	27	26	30	29	35	38	21	-
R075	Residential	35	35	38	37	41	44	30	-
R076	Industrial	34	34	37	36	41	44	34	-
R077	Residential	34	35	38	37	40	43	32	-
R078	Industrial	36	36	40	38	42	46	34	-
R079	Residential	27	25	29	28	35	38	20	-
R080	Residential	34	33	36	35	40	43	27	-
R081	Residential	26	25	28	28	35	39	21	-
R082	Residential	35	35	38	37	40	43	30	-
R083	Industrial	36	36	40	39	43	47	34	-
R084	Residential	32	32	36	35	38	41	30	-
R085	Industrial	33	32	36	35	41	44	34	-
R086	Industrial	34	33	37	35	40	43	35	-
R087	Residential	35	35	39	38	41	44	29	-
R088	Industrial	35	33	38	36	39	44	32	
R089	Residential	32	32	35	33	39	42	25	
R090	Residential	34	34	37	36	40	43	31	
R091	Residential	34	31	35	34	40	43	24	
R092	Residential	36	36	30	38	41	10	27	
R093	Industrial	35	35	30	38	41	44	32	
R094	Residential	26	25	29	27	36	39	27	-
R095	Industrial	38	38	42	41	43	46	35	-
R096	Residential	36	36	40	39	40	45	34	PN
R097	Residential	32	30	34	33	38	43	24	-
R098	Industrial	37	37	41	40	42	47	35	
P000	Posidontial	32	32	35	40	42	47	24	
P100	Industrial	32	32	37	36	40	43	24	
R100	Posidential	32	21	24	22	20	41	24	-
R102	Industrial	10	10	22	21	26	30	24	_
P102	Industrial	36	37	40	21	41	46	24	
R104	Residential	30	30	40	30	37	40	24	_
P105	Industrial	20	28	33	31	35	30	24	
P106	Industrial	29	20	33	31	30	39	30	
R100	Desidential	30	30	40	30	42	47	34	-
R 107	Residential		29	33	32	37	40	24	-
R 100	Residential	20	21	30	29	30	41	24	-
R109	Residential	32	31	31	30	37	41	23	-
R110	Residential	25	25	28	25	30	34	20	-
R111	Residential	35	34	38	37	40	43	31	-
R112	Residential	31	30	33	32	40	43	22	-
R113	Residential	24	24	26	25	31	34	20	-
R114	Residential	24	22	25	24	30	33	19	-
R115	Industrial	36	37	40	39	42	47	34	-
R116	Residential	25	25	29	26	34	37	21	-
R117	Residential	33	33	37	36	39	42	29	-
R118	Residential	31	30	33	32	40	42	24	-
R119	Residential	30	26	30	29	35	39	23	-
R120	Residential	34	34	37	35	40	43	26	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R121	Residential	32	32	34	33	38	42	26	-
R122	Residential	32	31	34	33	39	42	24	-
R123	Residential	31	30	32	31	37	40	24	-
R124	Residential	29	28	32	31	37	41	24	-
R125	Residential	28	27	31	29	36	39	23	-
R126	Industrial	32	33	35	34	40	41	32	-
R127	Residential	36	36	39	38	44	48	33	PN
R128	Residential	30	28	32	31	37	40	24	-
R129	Residential	30	29	33	32	36	39	24	-
R130	Residential	35	32	35	35	42	45	29	PN
R131	Residential	29	29	31	28	35	39	23	-
R132	Residential	29	29	30	28	35	38	23	
R133	Residential		37	36	35	43	46	30	PN
R134	Residential	33	33	36	35	42	45	31	PN
R135	Residential	29	26	29	28	35	39	23	-
R136	Residential	40	40	43	42	45	49	37	PN
P127	Residential	20	40	28	42	45	49	22	F IN
D120	Residential	29	20	42	42	35	40	23	
R130	Residential	39	39	43	42	40	40	37	FN
R139	Residential	29	25	28	27	34	37	23	-
R140	Residential	31	33	35	34	38	41	28	-
R141	Residential	30	30	34	33	36	39	28	-
R142	Residential	29	26	28	27	35	38	23	-
R143	Industrial	32	32	35	33	40	43	32	-
R144	Residential	28	24	26	25	34	38	23	-
R145	Residential	30	30	32	31	35	39	24	-
R146	Residential	37	36	38	37	42	45	30	PN
R147	Residential	40	40	44	43	46	49	37	PN
R148	Residential	27	26	30	29	33	36	22	-
R149	Residential	31	31	35	34	37	40	28	-
R150	Industrial	32	33	36	33	40	44	30	-
R151	Residential	27	27	31	29	34	37	24	-
R152	Residential	28	28	32	30	34	37	23	-
R153	Residential	24	24	27	26	31	33	20	-
R154	Residential	29	28	31	30	35	38	24	-
R155	Residential	28	27	31	30	33	36	23	-
R156	Residential	27	26	29	28	34	37	22	-
R157	Residential	34	32	36	35	41	45	30	PN
R158	Residential	28	28	30	28	34	37	23	-
R159	Residential	41	41	44	43	47	50	38	PN
R160	Residential	28	28	29	28	34	38	23	-
R161	Residential	29	28	29	27	35	38	23	-
R162	Residential	27	27	30	29	35	38	23	-
R163	Residential	33	33	37	35	41	44	34	-
R164	Residential	41	42	45	43	47	50	38	PN
R165	Residential	27	26	28	27	34	37	23	-
R166	Residential	34	34	38	36	41	44	24	-
R167	Industrial	33	31	33	32	40	43	34	-
R168	Industrial	35	34	38	35	42	45	36	-
R169	Residential	41	41	45	44	47	50	38	PN
R170	Residential	39	39	42	41	44	48	36	PN
R171	Residential	37	37	41	40	43	46	35	PN
R172	Residential	37	36	40	39	42	46	27	PN
R173	Residential	28	28	31	29	35	36	23	-
R174	Residential	30	30	33	31	43	46	25	PN
R175	Industrial	33	32	35	34	40	43	32	-
R176	Residential	28	27	30	29	33	36	23	-
R177	Residential	28	25	29	27	36	38	23	-
R178	Residential	24	23	27	26	31	34	22	-
R179	Residential	23	24	25	24	28	31	20	-
R180	Residential	24	23	26	25	30	33	21	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R181	Residential	26	25	29	28	32	35	22	-
R182	Residential	19	20	23	22	25	28	17	-
R183	Residential	20	22	24	23	28	31	18	-
R184	Residential	24	23	26	25	29	33	21	-
R185	Residential	26	26	30	28	32	35	23	-
R186	Residential	22	23	26	25	29	32	21	-
R187	Residential	25	25	29	28	31	34	22	-
R188	Residential	27	26	30	27	33	36	22	-
R189	Residential	22	22	26	24	30	33	19	-
R190	Residential	28	30	30	30	36	39	24	-
R191	Residential	28	26	29	27	33	37	22	-
R192	Residential	23	22	26	25	31	35	20	-
R193	Residential	27	29	29	29	35	38	23	-
R194	Residential	25	25	28	27	31	34	23	-
R195	Residential	26	25	29	27	33	37	24	-
R196	Residential	22	23	25	24	29	32	20	
R197	Residential	27	25	28	27	.34	37	23	
R198	Residential	23	23	26	25	30	33	21	
R199	Residential	28	26	29	28	34	36	24	
R200	Residential	25	20	28	20	32	35	27	
P201	Posidential	25	24	20	25	35	37	22	
P202	Posidential	23	20	2/	2.5	30	42	22	
R202	Residential	27	25	20	27	24	42	27	-
R203	Residential	21	20	20	21	34	37	22	-
R204	Residential	22	22	27	23	20	29	20	-
R205	Residential	24	25	27	20	35	30	22	-
R206	Residential	24	26	27	20	31	34	21	-
R207	Passive recreation	34	37	39	37	49	53	36	-
R208	Residential	24	28	27	26	30	33	21	-
R209	Residential	25	30	30	27	33	30	22	-
R210	Industrial	34	31	36	34	42	45	37	-
RZII	Industrial	33	33	37	35	42	40	30	-
R212	Residential	25	25	26	25	33	36	20	-
R213	Residential	24	26	28	24	33	34	23	-
R214	Industrial	30	28	32	31	38	41	32	-
R215	Residential	28	28	32	25	28	31	24	-
R216	Educational institute	43	43	46	45	48	51	37	-
R217	Residential	26	25	28	27	32	35	22	-
R218	Educational institute	28	28	30	28	34	37	24	-
R219	Residential	26	26	29	27	32	35	23	-
R220	Residential	30	30	34	32	32	35	28	-
R221	Industrial	33	33	37	37	42	45	37	-
R222	Educational institute	33	33	34	32	38	42	26	-
R223	Residential	26	25	29	27	32	35	23	-
R224	Industrial	27	27	31	30	36	39	30	-
R225	Educational institute	25	25	29	28	31	34	23	-
R226	Industrial	33	33	37	35	42	45	37	-
R227	Industrial	26	25	29	28	39	44	31	-
R228	Industrial	35	34	39	38	44	48	39	-
R229	Residential	27	27	30	29	33	36	25	-
R230	Residential	24	26	28	25	28	32	23	-
R231	Residential	25	26	28	27	31	34	23	-
R232	Residential	25	26	30	28	29	31	23	-
R233	Residential	25	24	29	27	30	33	23	-
R234	Industrial	36	36	40	40	47	50	41	-
R235	Place of worship	27	28	31	28	31	33	25	-
R236	Residential	25	25	29	27	31	33	23	-
R237	Industrial	37	36	40	40	47	51	42	-
R238	Residential	22	22	26	25	27	30	19	-
R239	Residential	23	23	27	26	29	32	20	-
R240	Residential	24	26	28	26	29	32	21	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R241	Residential	23	21	25	24	29	32	20	-
R242	Industrial	38	37	41	40	50	53	44	-
R243	Residential	23	22	25	23	29	34	20	-
R244	Residential	24	24	28	27	29	31	21	-
R245	Residential	26	27	29	27	30	33	24	-
R246	Educational institute	49	50	50	49	55	58	42	-
R247	Residential	26	24	28	27	32	34	22	-
R248	Educational institute	42	42	46	44	47	50	33	-
R249	Residential	27	27	31	30	36	39	25	-
R250	Industrial	40	37	42	41	50	54	44	-
R251	Educational institute	33	33	34	33	41	44	29	-
R252	Educational institute	33	31	33	32	40	42	28	-
R253	Residential	24	24	27	26	29	32	21	-
R254	Industrial	40	38	42	41	54	57	48	-
R255	Residential	26	27	31	28	31	34	24	-
R256	Industrial	39	38	42	41	47	50	53	-
R257	Residential	26	28	30	29	32	35	24	
R258	Residential	28	26	29	28	34	34	23	
R250	Educational institute	50	50	54	53	55	58	40	
P260	Posidential	20	25	20	28	35	30	40	
R200	Medical facility	29	25	29	20	35	39	23	-
R201	Decidential	35	30	30	37	44	40	37	-
R202	Residential	25	32	29	20	32	30	23	-
R203	Residential	27	24	27	20	33	30	22	-
R264	Place of worship	29	29	33	30	34	37	28	-
R265	Residential	29	33	33	31	34	37	28	-
R266		35	35	39	38	44	48	39	-
R267	Educational institute	48	49	44	42	53	56	36	-
R268	Industrial	45	43	46	46	56	60	53	-
R269	Residential	27	31	31	29	32	35	25	-
R270	Educational institute	32	36	36	35	39	43	29	-
R271	Residential	29	23	26	25	34	37	21	-
R272	Residential	28	24	28	27	34	37	22	-
R273	Industrial	47	45	50	47	58	62	56	-
R274	Residential	28	29	33	32	32	35	26	-
R275	Medical facility	32	32	35	34	44	47	34	-
R276	Educational institute	32	31	36	33	37	40	28	-
R277	Industrial	45	45	45	43	64	68	55	-
R278	Industrial	50	48	51	49	62	66	59	-
R279	Educational institute	33	35	36	34	37	40	30	-
R280	Residential	31	33	35	34	39	41	30	-
R281	Medical facility	32	31	35	34	44	47	34	-
R282	Residential	32	35	37	34	39	42	30	-
R283	Residential	25	24	28	27	30	33	22	-
R284	Educational institute	46	46	50	49	52	55	39	-
R285	Residential	19	20	23	22	25	28	18	-
R286	Residential	36	37	37	34	41	45	31	-
R287	Residential	25	25	29	27	30	33	24	-
R288	Residential	55	56	59	57	60	63	50	PN, V, SN, RO
R289	Educational institute	46	46	50	47	51	55	36	-
R290	Residential	34	27	29	28	40	43	22	-
R291	Medical facility	33	31	35	34	39	43	33	-
R292	Residential	25	25	29	28	31	34	24	-
R293	Residential	25	25	29	27	30	32	24	-
R294	Industrial	51	50	53	52	69	73	55	-
R295	Educational institute	38	41	45	40	42	45	41	-
R296	Residential	23	23	27	26	30	32	21	-
R297	Residential	55	56	59	57	59	62	50	PN, V, SN, RO
R298	Residential	37	37	35	33	42	45	29	PN
R299	Residential	23	23	27	26	30	33	22	-
R300	Residential	38	34	38	36	43	46	33	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible M	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R301	Industrial	52	45	48	47	66	69	42	-
R302	Residential	45	47	49	48	51	55	43	PN, V, SN, RO
R303	Residential	55	56	58	55	59	62	45	PN, V, SN, RO
R304	Residential	23	26	27	26	31	35	25	-
R305	Industrial	54	53	55	54	71	74	52	-
R306	Residential	49	49	43	41	53	56	38	PN, V, SN, RO
R307	Residential	24	24	28	27	30	33	22	-
R308	Residential	50	49	52	50	54	57	33	PN, V, SN, RO
R309	Medical facility	18	18	18	17	25	28	18	-
R310	Residential	40	41	44	37	44	47	35	PN
R311	Residential	57	58	61	59	61	64	51	PN, V, SN, RO
R312	Residential	29	32	33	32	35	38	27	-
R314	Industrial	65	65	63	61	71	74	52	-
R315	Medical facility	20	20	23	22	27	30	17	-
R316	Residential	41	44	44	43	50	53	36	PN
R317	Residential	46	46	50	40	51	54	37	PN
D219	Residential	40	40	37	43	30	42	31	
R310	Residential	21	21	25	24	25	42	20	-
R320	Residential	25	31	30	34	30	30	20	-
R321	Residential	25	25	29	27	30	33	22	-
R322	Residential	25	25	29	28	31	35	23	-
R323	Residential	32	33	36	35	37	40	31	-
R324	Residential	47	49	51	50	52	55	44	PN, V, SN, RO
R325	Residential	20	21	24	23	26	29	19	-
R326	Residential	22	22	26	25	28	31	21	-
R327	Residential	41	41	45	42	44	47	39	PN
R328	Residential	32	32	36	35	38	41	30	-
R330	Residential	51	54	56	54	57	60	49	PN, V, SN, RO
R331	Medical facility	33	33	36	36	40	43	33	-
R332	Residential	59	61	63	61	63	66	53	PN, V, SN, RO, RP, DR
R333	Residential	54	56	59	58	60	63	52	PN, V, SN, RO
R334	Residential	32	32	36	34	38	41	30	-
R335	Residential	22	22	26	22	24	27	21	-
R336	Medical facility	34	34	37	36	42	45	35	-
R337	Residential	51	52	55	54	56	59	44	PN, V, SN, RO
R338	Residential	40	40	44	42	45	48	36	PN
R339	Residential	25	25	29	28	31	34	22	-
R340	Residential	26	26	30	28	31	34	24	-
R341	Commercial	39	39	42	41	50	53	44	-
R342	Residential	53	56	58	57	60	62	51	PN, V, SN, RO
R343	Medical facility	37	37	41	40	46	50	41	-
R344	Residential	50	52	55	54	57	59	49	PN, V, SN, RO
R345	Medical facility	35	35	39	38	44	47	37	-
R346	Residential	31	31	35	34	37	40	25	-
R347	Residential	45	46	50	48	51	54	44	PN
R348	Residential	24	24	28	27	30	32	23	-
R349	Residential	23	23	27	24	28	30	21	-
R350	Medical facility	32	31	35	34	39	42	33	-
R351	Residential	37	38	42	41	38	41	30	-
R352	Residential	43	44	47	44	47	50	40	PN
R353	Commercial	41	41	44	45	56	59	51	-
R354	Commercial	41	41	44	43	54	57	48	-
R355	Residential	41	43	45	42	45	48	39	PN
R356	Commercial	44	43	47	46	61	63	54	-
R357	Residential	37	40	41	40	43	46	36	PN
R358	Residential	24	24	28	27	30	33	23	-
R359	Commercial	45	43	47	46	58	61	53	-
R360	Residential	40	39	43	43	45	48	37	PN
R361	Residential	37	37	41	40	43	50	43	PN
R362	Commercial	48	45	49	48	64	67	51	-
R363	Residential	37	38	41	40	43	45	36	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R364	Residential	37	38	41	38	40	43	35	-
R365	Residential	34	35	39	31	34	37	33	-
R366	Medical facility	24	24	28	26	31	34	23	-
R368	Commercial	50	47	50	50	64	67	49	-
R369	Medical facility	33	33	36	35	42	45	34	-
R370	Commercial	47	45	48	47	62	65	53	-
R371	Residential	26	27	29	29	31	34	23	-
R372	Medical facility	33	32	35	34	44	48	38	-
R373	Residential	25	26	29	28	27	34	24	-
R374	Residential	37	37	41	40	44	47	34	PN
R375	Medical facility	28	28	31	30	38	41	32	-
R376	Commercial	51	49	53	51	65	68	48	-
R377	Residential	37	38	41	39	42	45	36	PN
R378	Residential	33	34	37	36	39	42	32	-
R379	Commercial	54	51	54	53	65	68	48	-
R380	Commercial	47	43	47	46	58	61	41	-
R381	Residential	33	32	36	35	42	46	38	PN
R382	Residential	34	33	37	37	41	44	34	-
R383	Medical facility	32	32	35	34	40	43	33	
R384	Commercial	59	55	59	58	66	69	51	
R385	Residential	35	34	39	38	41	44	35	
R386	Medical facility	34	34	37	36	44	47	36	
R387	Medical facility	35	35	30	36	42	45	34	
R388	Commercial	64	63	66	63	66	68	61	
P390	Posidential	48	47	51	40	55	58	45	
P300	Posidential	40	-+7	41	49	47	50	45	
R390	Medical facility	39	30	41	40	47	30	30	FN
R391	Pasidontial	27	40	30	20	39	42	34	
R392	Commorcial	50	40 61	59	30	47	50	57	FN
R393	Bosidential	10	47	51	50	55	57	57	
R394	Residential	49	47	20	50	22	57	45	PN, V, SN, RO
R395	Decidential	30	30	39	30	42	43	30	
R396	Residential	42	44	46	44	51	55	40	PN, V, SN, RO
R397	Residential	51	53	55	54	56	59	49	PN, V, SN, RO
R398	Residential	50	51	54	53	56	59	45	PN, V, SN, RO
R399	Residential	39	40	44	43	45	48	37	PN
R400	Residential	38	39	42	41	43	46	37	PN
R401	Residential	34	34	38	36	39	42	33	-
R402	Residential	52	54	57	55	58	61	50	PN, V, SN, RO
R403	Residential	48	46	50	49	53	55	44	PN, V, SN, RO
R404	Residential	37	35	39	38	45	49	32	PN
R405	Residential	36	36	40	37	43	46	35	PN
R406	Residential	54	57	58	57	59	62	53	PN, V, SN, RO
R407	Residential	36	37	39	34	36	40	34	-
R408	Residential	48	49	53	52	54	57	46	PN, V, SN, RO
R409	Residential	39	39	43	38	47	51	38	PN
R410	Residential	33	34	38	36	39	42	27	-
R411	Residential	53	53	57	56	58	62	52	PN, V, SN, RO
R412	Residential	48	50	52	50	53	56	39	PN, V, SN, RO
R413	Residential	45	46	50	48	51	54	44	PN
R414	Residential	30	30	34	31	45	49	34	PN
R415	Residential	43	43	46	45	48	51	39	PN
R416	Residential	40	42	45	44	46	48	35	PN
R417	Residential	34	34	38	37	45	48	34	PN
R418	Residential	42	42	46	46	47	50	40	PN
R419	Residential	41	42	45	44	47	50	39	PN
R420	Commercial	49	51	51	50	54	57	44	-
R421	Residential	37	37	41	40	45	48	35	PN
R422	Residential	44	44	48	46	48	51	41	PN
R423	Residential	40	41	44	43	46	49	38	PN
R424	Residential	42	42	46	44	49	51	41	PN

R483

R484

Residential

Residential

R/25	Residential	37	36	30	38	44	47			
R426	Residential	44	44	47	46	49	52	41		
R427	Residential	45	46	49	49	50	53	43		
R428	Residential	36	36	38	34	44	47			
R429	Residential	36	36	40	38	46	49			
R430	Residential	41	39	43	41	46	49			
			I							
R432	Residential	33	34	37	36	40	44			
R433	Residential	40	40	44	42	47	49			
R434	Residential	44	44	48	47	50	53	41		
R435	Residential	49	47	50	48	52	55	42	RO	
R436	Residential	36	36	40	39	46	49	1		
R437	Residential	48	48	52	49	52	55	45	RO	
R438	Residential	33	33	37	36	46	49			
R439	Residential	45	44	48	47	51	54	42		
R440	Residential	39	40	43	42	44	46			
R441	Residential	46	45	49	48	51	54	42		
R442	Residential	41	40	43	41	47	50			
R443	Residential	36	33	36	35	44	47			
R444	Residential	41	40	44	43	47	51			
							1			
R446	Residential	38	40	43	42	45	48			
R447	Residential	42	41	45	42	47	50			
R448	Residential	46	45	49	47	51	54	42		
R449	Residential	36	36	40	37	44	48			
R450	Residential	47	44	49	47	52	55	42	RO	
R451	Residential	44	44	48	46	50	53	41		
R452	Residential	37	38	40	39	42	45			
R453	Residential	39	39	44	43	45	48			
R454	Residential	38	38	42	41	44	47			
R455	Residential	43	47	49	47	51	54	40		
R456	Residential	39	39	43	41	44	47			
R457	Residential	38	38	42	41	44	47			
R458	Residential	37	38	41	42	45	48			
R459	Residential	30	30	34	33	45	48			
R460	Residential	40	40	44	43	46	49			
R461	Residential	37	37	41	41	44	46			
R462	Residential	43	42	45	44	49	52			
R463	Residential	37	37	40	39	42	45			
R464	Residential	32	32	36	35	39	42			
R465	Residential	33	32	36	35	42	45			
R466	Residential	33	32	36	35	40	44			
R467	Residential	40	36	41	40	48	51			
R468	Residential	43	42	46	45	48	51	40		
R469	Residential	41	42	44	44	48	51			
R470	Residential	33	36	38	37	42	45			
R471	Residential	32	35	35	33	43	46			
R472	Residential	34	35	38	35	38	42			
R473	Residential	36	39	39	37	44	47			
R474	Residential	36	37	40	39	42	45			
R475	Residential	44	42	37	35	50	53			
R476	Residential	44	37	39	38	50	53			
R477	Residential	37	36	40	39	43	46			
R478	Residential	37	37	41	41	43	46			
R479	Residential	35	35	39	38	41	44			
R480	Residential	40	39	43	42	48	51			
R481	Residential	39	38	41	40	45	48			
R482	Residential	40	44	44	42	47	51			

ment measures

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible M	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R485	Residential	36	36	40	39	43	46	34	PN
R486	Residential	45	47	51	49	51	54	44	PN
R487	Residential	36	36	40	37	40	44	35	-
R488	Residential	43	42	46	45	48	51	39	PN
R489	Residential	41	33	38	38	48	51	29	PN
R490	Residential	37	37	41	40	43	46	33	PN
R491	Residential	32	32	36	34	40	41	27	-
R492	Residential	48	48	52	50	53	56	45	PN, V, SN, RO
R493	Residential	43	42	46	44	48	51	39	PN
R494	Residential	36	36	40	38	43	47	33	PN
R495	Residential	42	41	45	44	47	50	36	PN
R496	Residential	40	38	34	36	45	48	29	PN
R497	Residential	35	35	39	38	43	47	34	PN
R498	Residential	40	39	38	37	44	48	30	PN
R499	Residential	42	41	43	42	48	51	36	PN
R500	Residential	45	45	49	47	50	53	42	PN
R501	Residential	37	37	41	39	42	45	34	PN
R502	Medical facility	36	35	39	38	43	46	37	-
R503	Residential	37	37	39	37	45	49	31	PN
R504	Residential	33	33	37	36	41	45	30	-
R505	Residential	36	35	39	38	42	46	33	PN
R506	Residential	36	36	40	39	42	45	33	PN
R507	Residential	39	37	42	40	44	47	34	PN
R508	Residential	33	33	37	37	39	42	26	-
R509	Residential	35	35	39	37	40	43	33	-
R510	Residential	35	34	38	37	42	45	32	PN
R511	Medical facility	37	36	40	38	44	47	36	-
R512	Residential	42	37	40	40	47	49	30	PN
R513	Residential	28	29	32	32	34	37	25	-
R514	Residential	36	36	40	39	42	45	27	PN
R515	Residential	32	32	35	34	41	44	32	-
R516	Residential	35	36	39	38	40	44	34	-
R517	Residential	36	36	39	38	42	46	31	PN
R518	Medical facility	32	32	36	34		42	31	-
R519	Residential	34	34	38	37	42	45	33	PN
R520	Medical facility	30	31	34	31	36	40	28	-
R521	Residential	34	35	38	37	39	43	34	-
R522	Residential	39	39	43	42	45	48	33	PN
R523	Residential	35	35	39	38	41	44	33	-
R524	Residential	39	40	43	42	45	48	31	PN
R525	Commercial	46	45	40	48	40	54	42	-
R526	Residential	35	35	30	38	43	46	33	PN
R527	Residential	36	37	40	30	42	46	34	PN
P528	Posidential	35	34	38	37	40	40	33	-
P520	Modical facility	30	34	36	37	40	44	33	
R529	Posidential	32	20	42	41	40	40	32	- DN
R330	Residential	25	25	42	20	40	40	30	
R331	Medical facility	30	30	39	30	41	40	32	FN
R002	Desidential	32	32	30	33	37	41	31	-
R533	Residential	39	39	43	41	45	48	34	
R034		40	30	42	41	40	40	34	PN
R535	iviedical facility	31	30	35	34	37	41	27	-
R536	Commercial	45	45	49	48	48	53	43	-
R537	Residential	34	33	37	36	40	44	31	-
R538	Residential	39	39	43	42	45	48	35	PN
R539	Residential	35	36	40	39	41	45	33	PN
R540	Residential	36	36	40	39	42	45	33	PN
R541	Residential	40	37	38	37	45	49	32	PN
R542	Commercial	42	42	46	45	45	51	40	-
R543	Residential	36	36	40	39	42	45	34	PN
R544	Residential	35	35	39	38	41	45	30	PN
Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
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	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R545	Residential	35	35	39	38	42	45	33	PN
R546	Residential	39	38	42	41	44	47	35	PN
R547	Medical facility	32	32	36	34	37	40	30	-
R548	Residential	37	37	41	40	43	46	34	PN
R549	Medical facility	26	26	30	29	32	36	25	-
R550	Residential	39	39	43	41	45	48	33	PN
R551	Residential	35	35	39	37	40	43	33	-
R552	Residential	39	38	41	41	44	46	34	PN
R553	Residential	41	38	42	41	46	50	36	PN
R554	Residential	37	37	41	39	45	48	32	PN
R555	Commercial	42	42	46	44	45	49	40	-
R556	Residential	35	34	38	37	41	44	33	-
R557	Residential	35	34	38	37	41	44	32	-
R558	Residential	30	30	34	33	38	41	28	-
R559	Residential	38	38	42	41	44	47	35	PN
R560	Residential	37	36	40	38	44	46	33	PN
R561	Residential	40	38	42	41	45	47	34	PN
R562	Residential	35	35	39	38	42	45	34	PN
R563	Residential	35	35	39	37	41	45	33	PN
R564	Residential	40	40	43	42	45	48	38	PN
R565	Residential	35	35	39	38	41	45	31	PN
R566	Residential	41	41	45	44	45	49	39	PN
R567	Residential	35	34	39	37	41	44	31	-
R568	Residential	37	37	41	40	43	46	35	PN
R569	Residential	39	38	42	41	44	47	36	PN
R570	Residential	38	36	37	36	46	48	31	PN
R571	Residential	36	36	40	39	42	45	34	PN
R572	Medical facility	33	33	37	36	40	43	32	-
R573	Residential	37	36	40	39	42	45	31	PN
R574	Active recreation	38	37	42	41	43	46	35	-
R575	Residential	41	41	45	43	40	48	40	PN
R576	Residential	38	37	41	40	44	47	35	PN
R577	Residential	33	33	37	36	40	43	31	-
R578	Residential	37	36	40	39	43	46	33	PN
R579	Residential	33	31	36	35	39	43	30	-
R580	Residential	36	36	40	39	42	45	34	PN
R581	Residential	33	32	37	35	30	43	30	-
R582	Residential	34	34	38	37	40	43	32	
R583	Residential	38	38	42	40	40	46	36	PN
P594	Residential	30	37	42	40	43	40	35	PN
P595	Commorcial	40	45	41	40	45	40	30	
RJ0J DE96	Posidential	40	40	40	44	40	49	39	-
R300	Residential	29	20	33	32	40	43	20	-
R307	Residential	32	32	30	30	40	43	30	
R300	Residential	40	40	44	43	44	40	39	
R309	Residential	37	37	40	39	42	40	33	PN
R590	Residential	33	33	37	30	39	42	31	-
R591	Residential	34	34	38	37	40	43	33	-
R592	Residential	36	36	39	39	42	45	33	PN
R593	Residential	38	36	40	39	43	46	32	PN
R594	Residential	33	33	37	35	38	41	31	-
R595	Residential	35	35	39	38	41	44	33	-
R596	Educational institute	37	38	39	38	45	48	32	-
R597	Residential	36	36	39	39	42	44	32	-
R598	Residential	36	36	40	39	42	45	33	PN
R599	Residential	35	35	38	37	41	45	30	PN
R600	Educational institute	37	39	41	39	45	48	35	-
R601	Residential	40	40	44	43	45	48	39	PN
R602	Residential	34	33	37	36	40	44	31	-
R603	Residential	37	35	39	38	43	46	34	PN
R604	Residential	34	34	39	38	40	43	31	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R605	Residential	37	37	41	40	43	46	34	PN
R606	Residential	36	36	39	38	42	45	33	PN
R607	Residential	38	37	39	38	43	46	33	PN
R608	Residential	33	33	36	35	39	43	29	-
R609	Residential	35	37	38	37	43	46	31	PN
R610	Residential	37	38	40	39	45	48	34	PN
R611	Residential	37	39	42	41	42	45	35	PN
R612	Residential	39	39	43	42	45	48	37	PN
R613	Residential	36	35	39	38	43	46	34	PN
R614	Residential	40	40	43	43	45	48	39	PN
R615	Residential	35	35	38	38	40	43	30	-
R616	Residential	38	37	41	40	42	46	35	PN
R617	Residential	37	35	39	38	43	45	33	PN
R618	Residential	34	34	38	36	39	42	32	-
R619	Residential	36	35	39	38	41	44	30	-
R620	Residential	40	40	44	43	45	48	39	PN
R621	Residential	33	33	37	36	39	43	30	-
R622	Residential	39	36	39	38	44	47	32	PN
R623	Residential	36	35	39	38	41	44	34	-
R624	Residential	33	34	38	37	40	44	30	
P625	Posidential	34	34	37	36	40	43	20	
P626	Posidential	34	34	37	36	30	43	23	
P627	Posidential	33	33	37	36	43	42	32	- PN
R027	Residential	31	25	37	27	43	40	33	
R020	Residential	30	20	39	37	41	40	29	FN
R029	Residential	25	24	20	27	41	44	21	-
R030	Residential	30	34	30	37	41	44	31	-
R031	Residential	31	31	35	34	39	42	30	-
R032	Residential	31	34	30	33	30	41	30	-
R033	Residential	37	30	41	41	44	40	37	PN
R634	Residential	30	30	34	32	35	39	29	-
R635	Residential	35	37	39	38	44	47	31	PN
R636	Residential	33	34	37	36	42	45	31	-
R637	Residential	35	36	40	38	42	44	33	-
R638	Residential	31	30	34	33	36	39	28	-
R639	Residential	35	38	41	40	40	43	34	-
R640	Residential	25	25	29	28	31	34	23	-
R641	Residential	35	35	38	37	41	44	33	-
R642	Residential	35	33	36	36	42	45	29	PN
R643	Residential	33	33	37	36	39	42	30	-
R644	Residential	35	35	39	38	42	45	33	PN
R645	Residential	35	34	38	37	41	44	33	-
R646	Residential	37	37	41	40	43	46	36	PN
R647	Residential	36	36	40	39	42	44	33	-
R648	Residential	32	31	35	34	37	40	24	-
R649	Residential	33	33	36	35	39	42	30	-
R650	Residential	33	37	40	40	41	44	32	-
R651	Residential	34	33	37	36	40	43	31	-
R652	Residential	32	32	36	35	38	41	31	-
R653	Residential	34	34	38	37	40	43	31	-
R654	Residential	36	37	40	40	42	45	36	PN
R655	Residential	38	35	38	37	42	45	33	PN
R656	Residential	36	36	40	38	41	44	34	-
R657	Residential	36	36	40	38	41	44	34	-
R658	Residential	36	37	40	39	42	45	35	PN
R659	Residential	36	34	38	37	42	45	32	PN
R660	Residential	35	35	38	37	42	45	31	PN
R661	Residential	37	35	39	38	43	46	33	PN
R662	Residential	35	35	39	38	41	44	33	-
R663	Residential	36	36	40	39	41	44	34	-
R664	Residential	35	36	38	37	41	44	32	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	Clearly	audible	Moderately in	ntrusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	esidential:	Exceeds no	oise manage	ment level		
R665	Residential	35	35	39	37	40	43	32	-
R666	Residential	34	34	38	37	40	43	31	-
R667	Residential	33	32	36	35	39	42	30	-
R668	Residential	34	34	38	37	40	43	30	-
R669	Residential	31	31	35	34	38	41	26	-
R670	Residential	30	30	34	33	36	39	25	-
R674	Commercial	39	43	47	46	44	48	39	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Noderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R001	Residential	29	29	33	32	36	39	28	-
R002	Residential	29	29	33	32	38	41	28	-
R003	Residential	33	32	36	35	37	40	29	-
R004	Residential	32	32	36	35	39	42	31	-
R005	Residential	33	33	36	35	40	43	31	PN
R006	Residential	29	28	32	31	36	40	27	-
R007	Residential	32	32	36	35	38	41	30	-
R008	Residential	33	33	37	35	38	41	31	-
R009	Residential	34	34	37	36	40	43	31	PN
R010	Residential	33	32	36	35	38	42	31	-
R011	Residential	31	30	34	33	37	40	30	
R012	Residential	33	32	36	35	38	40	30	
P013	Posidential	33	32	37	36	30	42	31	- PN
P014	Posidential	31	31	35	33	33	40	28	
R014	Residential	21	21	35	33	37	40	20	-
RUID	Residential	31	31	35	34	30	40	20	-
R010	Residential	31	31	35	34	30	41	29	-
R017	Residential	33	33	30	35	38	41	30	-
R018	Residential	32	32	37	36	38	41	31	-
R019	Residential	31	31	35	34	38	41	30	-
R020	Residential	28	28	32	31	35	38	26	-
R021	Residential	29	29	33	32	35	38	28	-
R022	Residential	30	29	33	32	35	38	28	-
R023	Residential	24	26	30	29	30	33	22	-
R024	Residential	25	25	29	28	31	34	22	-
R025	Residential	33	33	37	36	39	42	32	-
R026	Residential	33	33	37	36	40	43	31	PN
R027	Residential	33	34	37	36	41	44	31	PN
R028	Residential	31	31	35	33	38	41	31	-
R029	Residential	32	32	35	34	41	44	30	PN
R030	Residential	32	32	36	35	39	43	32	PN
R031	Residential	24	24	28	27	30	33	22	-
R032	Residential	33	34	37	36	39	42	31	-
R033	Residential	34	34	37	36	41	44	32	PN
R034	Residential	31	31	35	34	38	41	31	-
R035	Residential	23	23	26	25	30	33	21	-
R036	Residential	34	34	37	36	40	44	32	PN
R037	Residential	34	34	38	37	40	43	32	PN
R038	Residential	33	30	34	33	38	41	28	-
R039	Residential	35	35	39	37	41	45	34	PN
R040	Residential	34	34	38	37	40	44	32	PN
R041	Residential	34	34	38	37	41	44	32	PN
R042	Residential	34	34	38	37	41	44	33	PN
R043	Residential	34	34	38	36	40	44	32	PN
R044	Residential	34	34	38	37	40	44	32	PN
R045	Residential	26	27	31	30	32	35	23	-
R046	Residential	33	33	37	35	39	42	31	-
R047	Residential	34	34	38	36	40	44	32	PN
R048	Residential	34	34	38	36	39	42	32	-
R049	Residential	34	33	37	36	39	42	32	-
R050	Residential	34	34	37	36	39	43	31	PN
R051	Residential	34	34	37	36	39	42	32	-
R052	Residential	34	34	37	36	39	42	32	-
R053	Residential	30	33	37	35	36	40	30	-
R054	Residential	33	33	37	36	39	42	30	
R055	Residential	33	33	37	36	30	42	31	_
R056	Residential	20	28	32	31	37	41	27	
R057	Residential	35	35	38	37	40	44	32	PN
R059	Residential	35	35	30	37	40	44	32	DN
P050	Residential	33	33	37	36	30	43	30	F IN
POGO	Residential	34	33	37	36	41	42	30	DN
1000	Residential	34	33	51	50	41	40	52	FIN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	ighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R061	Residential	35	35	39	38	41	45	33	PN
R062	Industrial	32	31	35	32	41	44	34	-
R063	Residential	34	34	37	36	39	42	30	-
R064	Residential	31	31	34	31	37	40	25	-
R065	Residential	34	34	38	37	40	43	32	PN
R066	Residential	32	31	35	34	37	40	25	-
R067	Residential	34	34	38	37	40	43	32	PN
R068	Residential	32	31	33	32	38	41	27	-
R069	Residential	34	34	38	37	39	43	30	-
R070	Residential	24	24	27	25	32	36	19	-
R071	Residential	34	34	38	37	40	43	32	PN
R072	Residential	33	32	35	34	38	42	27	-
R073	Residential	36	36	40	39	42	46	34	PN
R074	Residential	27	26	30	29	35	38	21	-
R075	Residential	35	35	38	37	41	44	30	PN
R076	Industrial	34	34	37	36	41	44	34	-
R077	Residential	34	35	38	37	40	43	32	PN
R078	Industrial	36	36	40	38	42	46	34	-
R079	Residential	27	25	29	28	35	38	20	-
R080	Residential	34	33	36	35	40	43	27	PN
R081	Residential	26	25	28	28	35	39	21	-
R082	Residential	35	35	38	37	40	43	30	PN
R083	Industrial	36	36	40	39	43	47	34	-
R084	Residential	32	32	36	35	38	41	30	-
R085	Industrial	33	32	36	35	41	44	34	-
R086	Industrial	34	33	37	35	40	43	35	-
R087	Residential	35	35	39	38	41	44	29	PN
R088	Industrial	35	33	38	36	39	44	32	-
R089	Residential	32	32	35	33	39	42	25	-
R090	Residential	34	34	37	36	40	43	31	PN
R091	Residential	34	31	35	34	40	43	24	PN
R092	Residential	36	36	39	38	41	44	27	PN
R093	Industrial	35	35	39	38	41	44	32	-
R094	Residential	26	25	29	27	36	39	27	-
R095	Industrial	38	38	42	41	43	46	35	-
R096	Residential	36	36	40	39	40	45	34	PN
R097	Residential	32	30	34	33	38	43	24	-
R098	Industrial	37	37	41	40	42	47	35	
R099	Residential	32	32	35	34	40	43	24	PN
P100	Industrial	32	32	37	36	38	43	24	-
P101	Posidontial	32	31	34	33	39	41	24	
P102	Industrial	10	10	22	21	26	30	24	
R 102	Industrial	19	19	40	21	20	30	22	-
P104	Residential	30	30	40	30	37	40	24	
R 104	Industrial	20	20	33	32	37	30	24	-
R 105	Industrial	29	20	33	31	30	39	30	-
R 100	Posidontial	30	30	40	30	42	47	34	-
R 107	Residential	31	29	33	32	37	40	24	-
R108	Residential	28	27	30	29	38	41	24	-
R109	Residential	32	31	31	30	37	41	23	-
R110	Residential	25	25	28	25	30	34	20	-
R111	Residential	35	34	38	37	40	43	31	PN
R112	Residential	31	30	33	32	40	43	22	PN
R113	Residential	24	24	26	25	31	34	20	-
R114	Residential	24	22	25	24	30	33	19	-
R115	Industrial	36	37	40	39	42	47	34	-
R116	Residential	25	25	29	26	34	37	21	-
R117	Residential	33	33	37	36	39	42	29	-
R118	Residential	31	30	33	32	40	42	24	-
R119	Residential	30	26	30	29	35	39	23	-
R120	Residential	34	34	37	35	40	43	26	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R121	Residential	32	32	34	33	38	42	26	-
R122	Residential	32	31	34	33	39	42	24	-
R123	Residential	31	30	32	31	37	40	24	-
R124	Residential	29	28	32	31	37	41	24	-
R125	Residential	28	27	31	29	36	39	23	-
R126	Industrial	32	33	35	34	40	41	32	-
R127	Residential	36	36	39	38	44	48	33	PN
R128	Residential	30	28	32	31	37	40	24	-
R129	Residential	30	29	33	32	36	39	24	-
R130	Residential	35	32	35	35	42	45	29	PN
R131	Residential	29	29	31	28	35	39	23	-
R132	Residential	29	29	30	28	35	38	23	-
R133	Residential	38	37	36	35	43	46	30	PN
R134	Residential	33	33	36	35	42	45	31	PN
R135	Residential	29	26	29	28	35	39	23	-
R136	Residential	40	40	43	42	45	49	37	PN
R137	Residential	29	25	28	27	35	38	23	-
R138	Residential	39	39	43	42	45	48	37	PN
R139	Residential	29	25	28	27	34	37	23	-
R140	Residential	31	33	35	34	38	41	28	-
R141	Residential	30	30	34	33	36	39	28	-
R142	Residential	29	26	28	27	35	38	23	-
R143	Industrial	32	32	35	33	40	43	32	-
R144	Residential	28	24	26	25	34	38	23	-
R145	Residential	30	30	32	31	35	39	24	-
R146	Residential	37	36	38	37	42	45	30	PN
R147	Residential	40	40	44	43	46	49	37	PN
R148	Residential	27	26	30	29	33	36	22	-
R149	Residential	31	31	35	34	37	40	28	-
R150	Industrial	32	33	36	33	40	44	30	-
R151	Residential	27	27	31	29	34	37	24	-
R152	Residential	28	28	32		34	37	23	-
R153	Residential	24	20	27	26	31	33	20	-
R154	Residential	29	28	31	30	35	38	20	-
R155	Residential	28	20	31	30	33	36	23	-
R156	Residential	20	26	29	28	34	37	20	
R157	Residential	34	32	36	35	41	45	30	PN
R158	Residential	28	28	30	28	3/	37	23	-
P150	Residential	41	41	44	43	47	50	20	PN
P160	Residential	28	28	20	-+5	47	39	22	
P161	Residential	20	20	29	20	35	30	23	
D162	Residential	23	20	29	20	35	20	23	-
P162	Residential	21	21	30	29	35	30	23	- DN
P164	Residential	33	42	51	42	41	50	34	
P165	Posidontial	97	42	40	43	47	30	20	FN
R 100	Residential	21	20	20	21	34	37	23	-
R 100	Residential	34	34	30	30	41	44	24	PN
R107	Industrial	33	31	33	32	40	43	34	-
R168	Industrial	35	34	38	35	42	45	36	-
R169	Residential	41	41	45	44	47	50	38	PN
R170	Residential	39	39	42	41	44	48	36	PN
R171	Residential	37	37	41	40	43	46	35	PN
R172	Residential	37	36	40	39	42	46	27	PN
R173	Residential	28	28	31	29	35	36	23	-
R174	Residential	30	30	33	31	43	46	25	PN
R175	Industrial	33	32	35	34	40	43	32	-
R176	Residential	28	27	30	29	33	36	23	-
R177	Residential	28	25	29	27	36	38	23	-
R178	Residential	24	23	27	26	31	34	22	-
R179	Residential	23	24	25	24	28	31	20	-
R180	Residential	24	23	26	25	30	33	21	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible M	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R181	Residential	26	25	29	28	32	35	22	-
R182	Residential	19	20	23	22	25	28	17	-
R183	Residential	20	22	24	23	28	31	18	-
R184	Residential	24	23	26	25	29	33	21	-
R185	Residential	26	26	30	28	32	35	23	-
R186	Residential	22	23	26	25	29	32	21	-
R187	Residential	25	25	29	28	31	34	22	-
R188	Residential	27	26	30	27	33	36	22	-
R189	Residential	22	22	26	24	30	33	19	-
R190	Residential	28	30	30	30	36	39	24	-
R191	Residential	28	26	29	27	33	37	22	-
R192	Residential	23	22	26	25	31	35	20	-
R193	Residential	27	29	29	29	35	38	23	-
R194	Residential	25	25	28	27	31	34	23	
R195	Residential	26	25	29	27	33	37	24	
R196	Residential	22	23	25	24	29	32	20	
R107	Residential	27	25	28	27	34	37	23	
P108	Posidential	21	23	20	25	30	33	20	
R190	Residential	20	25	20	20	24	35	21	-
R 199	Residential	20	20	29	20	34	30	24	-
R200	Residential	25	24	28	27	32	35	22	-
R201	Residential	25	26	27	25	35	37	22	-
R202	Residential	31	30	34	34	39	42	34	-
R203	Residential	27	25	28	27	34	37	22	-
R204	Residential	22	22	27	23	26	29	20	-
R205	Residential	24	25	27	26	35	38	22	-
R206	Residential	24	26	27	26	31	34	21	-
R207	Passive recreation	34	37	39	37	49	53	36	-
R208	Residential	24	28	27	26	30	33	21	-
R209	Residential	25	30	30	27	33	36	22	-
R210	Industrial	34	31	36	34	42	45	37	-
R211	Industrial	33	33	37	35	42	45	36	-
R212	Residential	25	25	26	25	33	36	20	-
R213	Residential	24	26	28	24	33	34	23	-
R214	Industrial	30	28	32	31	38	41	32	-
R215	Residential	28	28	32	25	28	31	24	-
R216	Educational institute	43	43	46	45	48	51	37	-
R217	Residential	26	25	28	27	32	35	22	-
R218	Educational institute	28	28	30	28	34	37	24	-
R219	Residential	26	26	29	27	32	35	23	-
R220	Residential	30	30	34	32	32	35	28	-
R221	Industrial	33	33	37	37	42	45	37	-
R222	Educational institute	33	33	34	32	38	42	26	-
R223	Residential	26	25	29	27	32	35	23	-
R224	Industrial	27	27	31	30	36	39	30	-
R225	Educational institute	25	25	29	28	31	34	23	-
R226	Industrial	33	33	37	35	42	45	37	-
R227	Industrial	26	25	29	28	39	44	31	-
R228	Industrial	35	34	39	38	44	48	39	-
R229	Residential	27	27	30	29	33	36	25	-
R230	Residential	24	26	28	25	28	32	23	-
R231	Residential	25	26	28	27	31	34	23	-
R232	Residential	25	26	30	28	29	31	23	-
R233	Residential	25	24	29	27	30	33	23	-
R234	Industrial	36	36	40	40	47	50	41	-
R235	Place of worship	27	28	31	28	31	33	25	-
R236	Residential	25	25	29	27	31	33	23	-
R237	Industrial	37	36	40	40	47	51	42	-
R238	Residential	22	22	26	25	27	30	19	-
R239	Residential	23	23	27	26	29	32	20	-
R240	Residential	24	26	28	26	29	32	21	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible M	Noderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R241	Residential	23	21	25	24	29	32	20	-
R242	Industrial	38	37	41	40	50	53	44	-
R243	Residential	23	22	25	23	29	34	20	-
R244	Residential	24	24	28	27	29	31	21	-
R245	Residential	26	27	29	27	30	33	24	-
R246	Educational institute	49	50	50	49	55	58	42	-
R247	Residential	26	24	28	27	32	34	22	-
R248	Educational institute	42	42	46	44	47	50	33	-
R249	Residential	27	27	31	30	36	39	25	-
R250	Industrial	40	37	42	41	50	54	44	-
R251	Educational institute	33	33	34	33	41	44	29	-
R252	Educational institute	33	31	33	32	40	42	28	
R253	Residential	24	24	27	26	29	32	20	
R254	Industrial	40	38	42	41	54	57	48	
D255	Posidential	40	27	42	20	24	24	40	-
R200	Industrial	20	21	40	20	47	50	52	-
R200	Desidential	39	30	42	41	47	50	53	-
R257	Residential	26	28	30	29	32	35	24	-
R258	Residential	28	26	29	28	34	34	23	-
R259	Educational institute	50	50	54	53	55	58	40	-
R260	Residential	29	25	29	28	35	39	23	-
R261	Medical facility	35	35	38	37	44	46	37	-
R262	Residential	25	32	29	28	32	35	23	-
R263	Residential	27	24	27	26	33	36	22	-
R264	Place of worship	29	29	33	30	34	37	28	-
R265	Residential	29	33	33	31	34	37	28	-
R266	Medical facility	35	35	39	38	44	48	39	-
R267	Educational institute	48	49	44	42	53	56	36	-
R268	Industrial	45	43	46	46	56	60	53	-
R269	Residential	27	31	31	29	32	35	25	-
R270	Educational institute	32	36	36	35	39	43	29	-
R271	Residential	29	23	26	25	34	37	21	-
R272	Residential	28	24	28	27	34	37	22	-
R273	Industrial	47	45	50	47	58	62	56	-
R274	Residential	28	29	33	32	32	35	26	-
R275	Medical facility	32	32	35	34	44	47	34	-
R276	Educational institute	32	31	36	33	37	40	28	-
R277	Industrial	45	45	45	43	64	68	55	-
R278	Industrial	50	48	51	49	62	66	59	-
R279	Educational institute	33	35	36	34	37	40	30	-
R280	Residential	31	33	35	34	39	41	30	-
R281	Medical facility	32	31	35	34	44	47	34	-
R282	Residential	32	35	37	34	39	42	30	-
R283	Residential	25	24	28	27	30	33	22	-
R284	Educational institute	46	46	50	49	52	55		
R285	Residential	19	20	23	22	25	28	18	<u>.</u>
R286	Residential	36	37	37	34	41	45	31	PN
R287	Residential	25	25	20	27	30	33	24	-
P288	Posidential	55	56	50	57	60	63	50	
D 280	Educational institute	46	46	50	47	51	55	36	
R209	Educational Institute	40	40	50	47	51	55	30	-
R290	Modical facility	34	21	29	20	40	43	22	PN
R291	Desidential	33	31	35	34	39	43	33	-
R292	Residential	25	25	29	28	31	34	24	-
R293	Residential	25	25	29	27	30	32	24	-
R294	Industrial	51	50	53	52	69	73	55	-
R295	Educational institute	38	41	45	40	42	45	41	-
R296	Residential	23	23	27	26	30	32	21	-
R297	Residential	55	56	59	57	59	62	50	PN, V, SN, RO
R298	Residential	37	37	35	33	42	45	29	PN
R299	Residential	23	23	27	26	30	33	22	-
R300	Residential	38	34	38	36	43	46	33	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R301	Industrial	52	45	48	47	66	69	42	-
R302	Residential	45	47	49	48	51	55	43	PN, V, SN, RO
R303	Residential	55	56	58	55	59	62	45	PN, V, SN, RO
R304	Residential	23	26	27	26	31	35	25	-
R305	Industrial	54	53	55	54	71	74	52	-
R306	Residential	49	49	43	41	53	56	38	PN, V, SN, RO
R307	Residential	24	24	28	27	30	33	22	-
R308	Residential	50	49	52	50	54	57	33	PN V SN RO
R309	Medical facility	18	18	18	17	25	28	18	-
R310	Residential	40	41	44	37	44	47	35	PN
R311	Residential	57	58	61	59	61	64	51	
D212	Residential	20	20	22	22	25	20	27	
R312	Industrial	29	52	55	52	71	74	52	-
R314	Madical facility	00	00	03	01	07	20	32	-
R315		20	20	23	22	27	30	17	-
R316	Residential	41	44	44	43	50	53	36	PN, V, SN, RO
R317	Residential	46	46	50	49	51	54	37	PN, V, SN, RO
R318	Residential	33	33	37	36	39	42	31	-
R320	Residential	31	31	35	34	35	38	28	-
R321	Residential	25	25	29	27	30	33	22	-
R322	Residential	25	25	29	28	31	35	23	-
R323	Residential	32	33	36	35	37	40	31	-
R324	Residential	47	49	51	50	52	55	44	PN, V, SN, RO
R325	Residential	20	21	24	23	26	29	19	-
R326	Residential	22	22	26	25	28	31	21	-
R327	Residential	41	41	45	42	44	47	39	PN
R328	Residential	32	32	36	35	38	41	30	-
R330	Residential	51	54	56	54	57	60	49	PN, V, SN, RO
R331	Medical facility	33	33	36	36	40	43	33	-
R332	Residential	59	61	63	61	63	66	53	PN, V, SN, RO, RP, DR
R333	Residential	54	56	59	58	60	63	52	PN, V, SN, RO, RP, DR
R334	Residential	32	32	36	34	38	41	30	-
R335	Residential	22	22	26	22	24	27	21	-
R336	Medical facility	34	34	37	36	42	45	35	-
R337	Residential	51	52	55	54	56	59	44	PN, V, SN, RO
R338	Residential	40	40	44	42	45	48	36	PN
R339	Residential	25	25	29	28	31	34	22	-
R340	Residential	26	26	30	28	31	34	24	-
R341	Commercial	39	39	42	41	50	53	44	-
R342	Residential	53	56	58	57	60	62	51	PN, V, SN, RO
R343	Medical facility	37	37	41	40	46	50	41	-
R344	Residential	50	52	55	54	57	59	49	PN, V, SN, RO
R345	Medical facility	35	35	39	38	44	47	37	-
R346	Residential	31	31	35	34	37	40	25	-
R347	Residential	45	46	50	48	51	54	44	PN. V. SN. RO
R348	Residential	24	24	28	27	30	32	23	-
R349	Residential	23	23	27	24	28	30	21	
R350	Medical facility	32	31	35	34	39	42	33	
R351	Residential	37	38	42	41	38	41	30	
R352	Residential	43	44	47	44	47	50	40	PN
D252	Commercial	43	44	47	44	41 56	50	40 51	FIN
P354	Commorcial	41	41	44	43	50	57	19	
R304	Posidential	41	41	44	43	04 45	40	40	- DN
R355		41	43	40	42	40	40	39	PN
R356	Commercial	44	43	47	46	61	63	54	-
R357	Residential	37	40	41	40	43	46	36	PN
R358	Residential	24	24	28	27	30	33	23	-
R359	Commercial	45	43	47	46	58	61	53	-
R360	Residential	40	39	43	43	45	48	37	PN
R361	Residential	37	37	41	40	43	50	43	PN
R362	Commercial	48	45	49	48	64	67	51	-
R363	Residential	37	38	41	40	43	45	36	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	ighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R364	Residential	37	38	41	38	40	43	35	PN
R365	Residential	34	35	39	31	34	37	33	-
R366	Medical facility	24	24	28	26	31	34	23	-
R368	Commercial	50	47	50	50	64	67	49	-
R369	Medical facility	33	33	36	35	42	45	34	-
R370	Commercial	47	45	48	47	62	65	53	-
R371	Residential	26	27	29	29	31	34	23	-
R372	Medical facility	33	32	35	34	44	48	38	-
R373	Residential	25	26	29	28	27	34	24	-
R374	Residential	37	37	41	40	44	47	34	PN
R375	Medical facility	28	28	31	30	38	41	32	-
R376	Commercial	51	49	53	51	65	68	48	-
R377	Residential	37	38	41	39	42	45	36	PN
R378	Residential	33	34	37	36	39	42	32	-
R379	Commercial	54	51	54	53	65	68	48	-
R380	Commercial	47	43	47	46	58	61	41	-
R381	Residential	33	32	36	35	42	46	38	PN
R382	Residential	34	33	37	37	41	44	34	PN
R383	Medical facility	32	32	35	34	40	43	33	-
R384	Commercial	59	55	59	58	66	69	51	-
R385	Residential	35	34	39	38	41	44	35	PN
R386	Medical facility	34	34	37	36	44	47	36	-
R387	Medical facility	35	35	39	36	42	45	34	-
R388	Commercial	64	63	66	63	66	68	61	-
R389	Residential	48	47	51	49	55	58	45	PN, V, SN, RO
R390	Residential	39	38	41	40	47	50	36	PN
R391	Medical facility	33	33	36	35	39	42	34	-
R392	Residential	37	40	39	38	47	50	36	PN
R393	Commercial	59	61	63	60	63	65	57	-
R394	Residential	49	47	51	50	55	57	45	PN, V, SN, RO
R395	Medical facility	36	36	39	38	42	45	36	-
R396	Residential	42	44	46	44	51	55	40	PN V SN RO
R397	Residential	51	53	55	54	56	59	40	PN V SN RO
R398	Residential	50	51	54	53	56	59	45	PN V SN RO
R399	Residential	39	40	44	43	45	48	37	PN
R400	Residential	38	30	42	43	43	46	37	PN
R401	Residential	34	34	38	36	30	40	33	-
P402	Posidential	52	54	57	55	58	61	50	
P402	Posidential	18	46	50	40	53	55	30	
P404	Posidential	40	40	30	49	45	40	32	
R404	Residential	31	30	39	27	40	49	32	
R405	Residential	50	50	40 59	57	43	40	50	
R400	Residential	26	37	20	24	29	40	24	
R407	Residential	30	37	39	52	50	40	34	
R406	Residential	40	49	53	52	04	57	40	PN, V, SN, RO
R409	Residential	39	39	43	30	47	51	30	PN
R410	Residential	33	34	38	36	39	42	27	
R411	Residential	53	53	57	56	58	62	52	PN, V, SN, RO
R412	Residential	48	50	52	50	53	56	39	PN, V, SN, RO
R413	Residential	45	46	50	48	51	54	44	PN, V, SN, RO
R414	Residential	30	30	34	31	45	49	34	PN
R415	Residential	43	43	46	45	48	51	39	PN
R416	Residential	40	42	45	44	46	48	35	PN
R417	Residential	34	34	38	37	45	48	34	PN
R418	Residential	42	42	46	46	47	50	40	PN
R419	Residential	41	42	45	44	47	50	39	PN
R420	Commercial	49	51	51	50	54	57	44	-
R421	Residential	37	37	41	40	45	48	35	PN
R422	Residential	44	44	48	46	48	51	41	PN
R423	Residential	40	41	44	43	46	49	38	PN
R424	Residential	42	42	46	44	49	51	41	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R425	Residential	37	36	39	38	44	47	34	PN
R426	Residential	44	44	47	46	49	52	41	PN
R427	Residential	45	46	49	49	50	53	43	PN, V, SN, RO
R428	Residential	36	36	38	34	44	47	32	PN
R429	Residential	36	36	40	38	46	49	34	PN
R430	Residential	41	39	43	41	46	49	35	PN
R431	Commercial	50	51	54	52	55	58	49	-
R432	Residential	33	34	37	36	40	44	36	PN
R433	Residential	40	40	44	42	47	49	36	PN
R434	Residential	44	44	48	47	50	53	41	PN
R435	Residential	49	47	50	48	52	55	42	PN, V, SN, RO
R436	Residential	36	36	40	39	46	49	32	PN
R437	Residential	48	48	52	49	52	55	45	PN, V, SN, RO
R438	Residential	33	33	37	36	46	49	36	PN
R439	Residential	45	44	48	47	51	54	42	PN V SN RO
R440	Residential	30	40	43	42	44	46	35	PN
R//1	Residential	46	40	40	42	51	54	42	PN V SN RO
P441	Posidential	40	40	43	40	47	50	42	PN, V, SN, KO
R442	Residential	41	40	43	41	47	30	37	
R443	Residential	30	33	30	30	44	47	31	PN
R444	Residential	41	40	44	43	47	51	38	PN
R445	Medical facility	38	37	41	40	45	48	37	-
R446	Residential	38	40	43	42	45	48	37	PN
R447	Residential	42	41	45	42	47	50	37	PN
R448	Residential	46	45	49	47	51	54	42	PN, V, SN, RO
R449	Residential	36	36	40	37	44	48	33	PN
R450	Residential	47	44	49	47	52	55	42	PN, V, SN, RO
R451	Residential	44	44	48	46	50	53	41	PN, V, SN, RO
R452	Residential	37	38	40	39	42	45	34	PN
R453	Residential	39	39	44	43	45	48	37	PN
R454	Residential	38	38	42	41	44	47	35	PN
R455	Residential	43	47	49	47	51	54	40	PN, V, SN, RO
R456	Residential	39	39	43	41	44	47	36	PN
R457	Residential	38	38	42	41	44	47	33	PN
R458	Residential	37	38	41	42	45	48	33	PN
R459	Residential	30	30	34	33	45	48	31	PN
R460	Residential	40	40	44	43	46	49	39	PN
R461	Residential	37	37	41	41	44	46	33	PN
R462	Residential	43	42	45	44	49	52	38	PN
R463	Residential	37	37	40	39	42	45	33	PN
R464	Residential	32	32	36	35	39	42	34	-
R465	Residential	33	32	36	35	42	45	32	PN
R466	Residential	33	32	36	35	40	44	32	PN
R467	Residential	40	36	41	40	48	51	33	PN
R468	Residential	43	42	46	45	48	51	40	PN
R469	Residential	41	42	44	44	48	51	37	PN
R470	Residential	33	36	38	37	42	45	32	PN
R471	Residential	32	35	35	33	43	46	32	PN
R472	Residential	34	35	38	35	38	42	31	-
R473	Residential	36	39	39	37	44	47	31	PN
R474	Residential	36	37	40	39	42	45	33	PN
R475	Residential	44	42	37	35	50	53	31	PN, V, SN, RO
R476	Residential	44	37	39	38	50	53	29	PN, V, SN, RO
R477	Residential	37	36	40	39	43	46	35	PN
R478	Residential	37	37	41	41	43	46	34	PN
R479	Residential	35	35	39	38	41	44	33	PN
R480	Residential	40	39	43	42	48	51	32	PN
R481	Residential	39	38	41	40	45	48	35	PN
R482	Residential	40	44	44	42	47	51	34	PN
R483	Residential	41	41	45	43	46	49	37	PN
R484	Residential	34	34	38	37	40	43	32	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible M	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise managei	ment level		
R485	Residential	36	36	40	39	43	46	34	PN
R486	Residential	45	47	51	49	51	54	44	PN, V, SN, RO
R487	Residential	36	36	40	37	40	44	35	PN
R488	Residential	43	42	46	45	48	51	39	PN
R489	Residential	41	33	38	38	48	51	29	PN
R490	Residential	37	37	41	40	43	46	33	PN
R491	Residential	32	32	36	34	40	41	27	-
R492	Residential	48	48	52	50	53	56	45	PN, V, SN, RO
R493	Residential	43	42	46	44	48	51	39	PN
R494	Residential	36	36	40	38	43	47	33	PN
R495	Residential	42	41	45	44	47	50	36	PN
R496	Residential	40	38	34	36	45	48	29	PN
R497	Residential	35	35	39	38	43	47	34	PN
R498	Residential	40	39	38	37	44	48	30	PN
R499	Residential	42	41	43	42	48	51	36	PN
R500	Residential	45	45	40	42	50	53	42	PN V SN RO
P501	Posidential	37	37	43	30	42	45	34	
P502	Medical facility	36	35	30	39	42	45	34	
R302	Desidential	30	33	39	30	43	40	37	
R503	Residential	37	37	39	37	40	49	31	PN
R504	Residential	33	33	37	36	41	45	30	PN
R505	Residential	36	35	39	38	42	46	33	PN
R506	Residential	36	36	40	39	42	45	33	PN
R507	Residential	39	37	42	40	44	47	34	PN
R508	Residential	33	33	37	37	39	42	26	-
R509	Residential	35	35	39	37	40	43	33	PN
R510	Residential	35	34	38	37	42	45	32	PN
R511	Medical facility	37	36	40	38	44	47	36	-
R512	Residential	42	37	40	40	47	49	30	PN
R513	Residential	28	29	32	32	34	37	25	-
R514	Residential	36	36	40	39	42	45	27	PN
R515	Residential	32	32	35	34	41	44	32	PN
R516	Residential	35	36	39	38	40	44	34	PN
R517	Residential	36	36	39	38	42	46	31	PN
R518	Medical facility	32	32	36	34	39	42	31	-
R519	Residential	34	34	38	37	42	45	33	PN
R520	Medical facility	30	31	34	31	36	40	28	-
R521	Residential	34	35	38	37	39	43	34	PN
R522	Residential	39	39	43	42	45	48	33	PN
R523	Residential	35	35	39	38	41	44	33	PN
R524	Residential	39	40	43	42	45	48	31	PN
R525	Commercial	46	45	49	48	49	54	42	-
R526	Residential	35	35	39	38	42	46	33	PN
R527	Residential	36	37	40	39	42	46	34	PN
R528	Residential	35	34	38	37	40	44	33	PN
R529	Medical facility	32	32	36	33	40	43	32	-
R530	Residential	37	38	42	41	45	48	36	PN
R531	Residential	35	35	39	38	41	45	32	PN
R532	Medical facility	32	32	36	33	37	41	31	-
R533	Residential	39	39	43	41	45	48	34	PN
R534	Residential	40	38	42	41	45	48	34	PN
R535	Medical facility	31	30	35	34	37	41	27	-
R536	Commercial	45	45	49	48	48	53	43	-
R537	Residential	34	33	37	36	40	44	31	PN
R538	Residential	39	39	43	42	45	48	35	PN
R539	Residential	35	36	40	39	41	45	33	PN
R540	Residential	36	36	40	39	42	45	33	PN
R541	Residential	40	37	38	37	45	49	32	PN
R542	Commercial	42	42	46	45	45	51	40	-
R543	Residential	36	36	40	39	42	45	34	PN
R544	Residential	35	35	39	38	41	45	30	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible M	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R545	Residential	35	35	39	38	42	45	33	PN
R546	Residential	39	38	42	41	44	47	35	PN
R547	Medical facility	32	32	36	34	37	40	30	-
R548	Residential	37	37	41	40	43	46	34	PN
R549	Medical facility	26	26	30	29	32	36	25	-
R550	Residential	39	39	43	41	45	48	33	PN
R551	Residential	35	35	39	37	40	43	33	PN
R552	Residential	39	38	41	41	44	46	34	PN
R553	Residential	41	38	42	41	46	50	36	PN
R554	Residential	37	37	41	39	45	48	32	PN
R555	Commercial	42	42	46	44	45	49	40	-
R556	Residential	35	34	38	37	41	44	33	PN
R557	Residential	35	34	38	37	41	44	32	PN
R558	Residential	30	30	34	33	38	41	28	-
R559	Residential	38	38	42	41	44	47	35	PN
R560	Residential	37	36	40	38	44	46	33	PN
P561	Posidential	40	38	40	41	45	40	34	PN
P562	Residential	35	35	30	29	43	47	34	PN
R302	Residential	35	35	39	30	42	40	34	
R563	Residential	35	35	39	37	41	45	33	PN
R564	Residential	40	40	43	42	45	48	38	PN
R565	Residential	35	35	39	38	41	45	31	PN
R566	Residential	41	41	45	44	45	49	39	PN
R567	Residential	35	34	39	37	41	44	31	PN
R568	Residential	37	37	41	40	43	46	35	PN
R569	Residential	39	38	42	41	44	47	36	PN
R570	Residential	38	36	37	36	46	48	31	PN
R571	Residential	36	36	40	39	42	45	34	PN
R572	Medical facility	33	33	37	36	40	43	32	-
R573	Residential	37	36	40	39	42	45	31	PN
R574	Active recreation	38	37	42	41	43	46	35	-
R575	Residential	41	41	45	43	44	48	40	PN
R576	Residential	38	37	41	40	44	47	35	PN
R577	Residential	33	33	37	36	40	43	31	PN
R578	Residential	37	36	40	39	43	46	33	PN
R579	Residential	33	31	36	35	39	43	30	PN
R580	Residential	36	36	40	39	42	45	34	PN
R581	Residential	33	32	37	35	39	43	30	PN
R582	Residential	34	34	38	37	40	43	32	PN
R583	Residential	38	38	42	40	43	46	36	PN
R584	Residential	37	37	41	40	43	46	35	PN
R585	Commercial	40	45	45	44	45	49	39	-
R586	Residential	29	31	33	32	40	43	27	PN
R587	Residential	32	32	36	35	40	43	30	PN
R588	Residential	40	40	44	43	44	48	39	PN
R589	Residential	37	37	40	39	42	45	33	PN
R590	Residential	33	33	37	36	39	42	31	-
R591	Residential	34	34	38	37	40	43	33	PN
R592	Residential	36	36	39	39	42	45	33	PN
R593	Residential	38	36	40	39	43	46	32	PN
R594	Residential	33	33	37	35	38	41	31	-
R595	Residential	35	35	39	38	41	44	33	PN
R596	Educational institute	37	38	39	38	45	48	32	-
R597	Residential	36	36	39	39	42	44	32	PN
R598	Residential	36	36	40	39	42	45	33	PN
R599	Residential	35	35	38	37	41	45	30	PN
R600	Educational institute	37	39	41	39	45	48	35	-
R601	Residential	40	40	44	43	45	48	39	PN
R602	Residential	34	33	37	36	40	44	31	PN
R603	Residential	37	35	39	38	43	46	34	PN
R604	Residential	34	34	39	38	40	43	31	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible M	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R605	Residential	37	37	41	40	43	46	34	PN
R606	Residential	36	36	39	38	42	45	33	PN
R607	Residential	38	37	39	38	43	46	33	PN
R608	Residential	33	33	36	35	39	43	29	PN
R609	Residential	35	37	38	37	43	46	31	PN
R610	Residential	37	38	40	39	45	48	34	PN
R611	Residential	37	39	42	41	42	45	35	PN
R612	Residential	39	39	43	42	45	48	37	PN
R613	Residential	36	35	39	38	43	46	34	PN
R614	Residential	40	40	43	43	45	48	39	PN
R615	Residential	35	35	38	38	40	43	30	PN
R616	Residential	38	37	41	40	42	46	35	PN
R617	Residential	37	35	39	38	43	45	33	PN
R618	Residential	34	34	38	36	39	42	32	-
R619	Residential	36	35	39	38	41	44	30	PN
R620	Residential	40	40	44	43	45	48	39	PN
R621	Residential	33	33	37	36	39	43	30	-
R622	Residential	39	36	39	38	44	40	32	PN
R623	Residential	36	35	30	38	41	41	34	PN
P624	Posidential	33	34	39	37	41	44	30	PN
R024	Residential	24	24	27	37	40	44	30	
R020	Residential	34	34	37	30	40	43	29	FN
R020	Residential	33	33	27	30	39	42	32	
R027	Residential	37	37	37	30	43	40	33	
R020	Residential	30	35	39	37	41	40	29	PN
R629	Residential	36	38	41	41	41	44	34	PN
R630	Residential	35	34	38	37	41	44	31	PN
R631	Residential	31	31	35	34	39	42	30	-
R632	Residential	31	34	36	33	38	41	30	-
R633	Residential	37	38	41	41	44	46	37	PN
R634	Residential	30	30	34	32	35	39	29	-
R635	Residential	35	37	39	38	44	47	31	PN
R636	Residential	33	34	37	36	42	45	31	PN
R637	Residential	35	36	40	38	42	44	33	PN
R638	Residential	31	30	34	33	36	39	28	-
R639	Residential	35	38	41	40	40	43	34	PN
R640	Residential	25	25	29	28	31	34	23	-
R641	Residential	35	35	38	37	41	44	33	PN
R642	Residential	35	33	36	36	42	45	29	PN
R643	Residential	33	33	37	36	39	42	30	-
R644	Residential	35	35	39	38	42	45	33	PN
R645	Residential	35	34	38	37	41	44	33	PN
R646	Residential	37	37	41	40	43	46	36	PN
R647	Residential	36	36	40	39	42	44	33	PN
R648	Residential	32	31	35	34	37	40	24	-
R649	Residential	33	33	36	35	39	42	30	-
R650	Residential	33	37	40	40	41	44	32	PN
R651	Residential	34	33	37	36	40	43	31	PN
R652	Residential	32	32	36	35	38	41	31	-
R653	Residential	34	34	38	37	40	43	31	PN
R654	Residential	36	37	40	40	42	45	36	PN
R655	Residential	38	35	38	37	42	45	33	PN
R656	Residential	36	36	40	38	41	44	34	PN
R657	Residential	36	36	40	38	41	44	34	PN
R658	Residential	36	37	40	39	42	45	35	PN
R659	Residential	36	34	38	37	42	45	32	PN
R660	Residential	35	35	38	37	42	45	31	PN
R661	Residential	37	35	39	38	43	46	33	PN
R662	Residential	35	35	39	38	41	44	33	PN
R663	Residential	36	36	40	39	41	44	34	PN
R664	Residential	35	36	38	37	41	44	32	PN

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures	
	Residential:	Noticeable	e Clearly	audible	Noderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected	
			Non-re	esidential:	Exceeds noise management level					
R665	Residential	35	35	39	37	40	43	32	PN	
R666	Residential	34	34	38	37	40	43	31	PN	
R667	Residential	33	32	36	35	39	42	30	-	
R668	Residential	34	34	38	37	40	43	30	PN	
R669	Residential	31	31	35	34	38	41	26	-	
R670	Residential	30	30	34	33	36	39	25	-	
R674	Commercial	39	43	47	46	44	48	39	-	

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Noderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise managei	ment level		
R001	Residential	29	29	33	32	36	39	28	PN
R002	Residential	29	29	33	32	38	41	28	PN, V
R003	Residential	33	32	36	35	37	40	29	PN, V
R004	Residential	32	32	36	35	39	42	31	PN, V
R005	Residential	33	33	36	35	40	43	31	PN, V
R006	Residential	29	28	32	31	36	40	27	PN, V
R007	Residential	32	32	36	35	38	41	30	PN. V
R008	Residential	33	33	37	35	38	41	31	PN. V
R009	Residential	34	34	37	36	40	43	31	PN V
R010	Residential	33	32	36	35	38	42	31	PN V
P011	Residential	31	30	34	33	37	40	30	
P012	Residential	22	30	26	25	20	42	30	
R012	Residential	33	32	30	35	30	42	30	
R013	Residential	33	33	37	30	39	43	31	PN, V
R014	Residential	31	31	35	33	37	40	28	PN, V
R015	Residential	31	31	35	34	36	40	28	PN, V
R016	Residential	31	31	35	34	36	41	29	PN, V
R017	Residential	33	33	36	35	38	41	30	PN, V
R018	Residential	32	32	37	36	38	41	31	PN, V
R019	Residential	31	31	35	34	38	41	30	PN, V
R020	Residential	28	28	32	31	35	38	26	PN
R021	Residential	29	29	33	32	35	38	28	PN
R022	Residential	30	29	33	32	35	38	28	PN
R023	Residential	24	26	30	29	30	33	22	-
R024	Residential	25	25	29	28	31	34	22	-
R025	Residential	33	33	37	36	39	42	32	PN, V
R026	Residential	33	33	37	36	40	43	31	PN, V
R027	Residential	33	34	37	36	41	44	31	PN, V
R028	Residential	31	31	35	33	38	41	31	PN, V
R029	Residential	32	32	35	34	41	44	30	PN, V
R030	Residential	32	32	36	35	39	43	32	PN, V
R031	Residential	24	24	28	27	30	33	22	-
R032	Residential	33	34	37	36	39	42	31	PN, V
R033	Residential	34	34	37	36	41	44	32	PN. V
R034	Residential	31	31	35	34	38	41	31	PN. V
R035	Residential	23	23	26	25	30	33	21	-
R036	Residential	34	34	37	36	40	44	32	PN V
R037	Residential	34	34	38	37	40	43	32	PN V
P038	Residential	33	30	34	33	39	40	28	
P030	Residential	35	35	30	37	41	45	20	
R039	Residential	30	33	39	37	41	40	34	
R040	Residential	34	34	30	37	40	44	32	
R041	Residential	34	34	30	37	41	44	32	
R042	Residential	34	34	38	37	41	44	33	PN, V
R043	Residential	34	34	38	36	40	44	32	PN, V
R044	Residential	34	34	38	37	40	44	32	PN, V
R045	Residential	26	27	31	30	32	35	23	PN
R046	Residential	33	33	37	35	39	42	31	PN, V
R047	Residential	34	34	38	36	40	44	32	PN, V
R048	Residential	34	34	38	36	39	42	32	PN, V
R049	Residential	34	33	37	36	39	42	32	PN, V
R050	Residential	34	34	37	36	39	43	31	PN, V
R051	Residential	34	34	37	36	39	42	32	PN, V
R052	Residential	34	34	37	36	39	42	32	PN, V
R053	Residential	30	33	37	35	36	40	30	PN, V
R054	Residential	33	33	37	36	39	42	30	PN, V
R055	Residential	33	33	37	36	39	42	31	PN, V
R056	Residential	29	28	32	31	37	41	27	PN, V
R057	Residential	35	35	38	37	40	44	32	PN, V
R058	Residential	35	35	39	37	41	45	33	PN, V
R059	Residential	33	33	37	36	39	42	30	PN, V
R060	Residential	34	33	37	36	41	45	32	PN, V

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R061	Residential	35	35	39	38	41	45	33	PN, V
R062	Industrial	32	31	35	32	41	44	34	-
R063	Residential	34	34	37	36	39	42	30	PN, V
R064	Residential	31	31	34	31	37	40	25	PN, V
R065	Residential	34	34	38	37	40	43	32	PN, V
R066	Residential	32	31	35	34	37	40	25	PN, V
R067	Residential	34	34	38	37	40	43	32	PN, V
R068	Residential	32	31	33	32	38	41	27	PN, V
R069	Residential	34	34	38	37	39	43	30	PN, V
R070	Residential	24	24	27	25	32	36	19	PN
R071	Residential	34	34	38	37	40	43	32	PN, V
R072	Residential	33	32	35	34	38	42	27	PN, V
R073	Residential	36	36	40	39	42	46	34	PN, V
R074	Residential	27	26	30	29	35	38	21	PN
R075	Residential	35	35	38	37	41	44	30	PN, V
R076	Industrial	34	34	37	36	41	44	34	-
R077	Residential	34	35	38	37	40	43	32	PN, V
R078	Industrial	36	36	40	38	42	46	34	-
R079	Residential	27	25	29	28	35	38	20	PN
R080	Residential	34	33	36	35	40	43	27	PN. V
R081	Residential	26	25	28	28	35	39	21	PN
R082	Residential	35	35	38	37	40	43	30	PN. V
R083	Industrial	36	36	40	39	43	47	34	
R084	Residential	32	32	36	35	38	41	30	PN, V
R085	Industrial	33	32	36	35	41	44	34	-
R086	Industrial	34	33	37	35	40	43	35	-
R087	Residential	35	35	39	38	41	44	29	PN V
R088	Industrial	35	33	38	36	39	44	32	-
R089	Residential	32	32	35	33	39	42	25	PN V
R090	Residential	34	34	37	36	40	43	31	PN V
R091	Residential	34	31	35	34	40	43	24	PN V
R092	Residential	36	36	39	38	41	44	27	PN V
R093	Industrial	35	35	30	38	41	44	32	
R094	Residential	26	25	29	27	36	30	27	PN
P.005	Industrial	20	20	42	21 41	43	46	27	
P006	Posidontial	36	36	42	30	43	40	34	
R030	Residential	20	20	40	22	42	4J	24	
R097	Industrial	32	30	34	33	30	41	24	FIN, V
R090	Posidential	37	37	25	40	42	47	33	
R099	Residential	32	32	30	34	40	43	24	PN, V
R 100	Desidential	32	33	37	30	30	41	31	
RIUI	Residential	32	31	34	33	30	41	24	PN, V
R102	Industrial	19	19	22	21	26	30	22	-
R103	Desidential	36	37	40	38	41	40	34	
R104	Residential	31	30	33	32	37	41	24	PN, V
R105	Industrial	29	28	33	31	35	39	30	-
R106	Industrial	36	36	40	38	42	47	34	-
R107	Residential	31	29	33	32	37	40	24	PN, V
R108	Residential	28	27	30	29	38	41	24	PN, V
R109	Residential	32	31	31	30	37	41	23	PN, V
R110	Residential	25	25	28	25	30	34	20	-
R111	Residential	35	34	38	37	40	43	31	PN, V
R112	Residential	31	30	33	32	40	43	22	PN, V
R113	Residential	24	24	26	25	31	34	20	-
R114	Residential	24	22	25	24	30	33	19	-
R115	Industrial	36	37	40	39	42	47	34	-
R116	Residential	25	25	29	26	34	37	21	PN
R117	Residential	33	33	37	36	39	42	29	PN, V
R118	Residential	31	30	33	32	40	42	24	PN, V
R119	Residential	30	26	30	29	35	39	23	PN
R120	Residential	34	34	37	35	40	43	26	PN, V

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R121	Residential	32	32	34	33	38	42	26	PN, V
R122	Residential	32	31	34	33	39	42	24	PN, V
R123	Residential	31	30	32	31	37	40	24	PN, V
R124	Residential	29	28	32	31	37	41	24	PN, V
R125	Residential	28	27	31	29	36	39	23	PN
R126	Industrial	32	33	35	34	40	41	32	-
R127	Residential	36	36	39	38	44	48	33	PN, V
R128	Residential	30	28	32	31	37	40	24	PN. V
R129	Residential	30	29	33	32	36	39	24	PN
R130	Residential	35	32	35	35	42	45	29	PN V
R131	Residential	20	20	31	28	35	30	23	PN
P122	Residential	20	20	20	20	25	20	20	DN
D122	Residential	29	23	30	20	42	46	20	
R133	Residential	30	37	30	35	43	40	30	PN, V
R134	Residential	33	33	36	35	42	45	31	PN, V
R135	Residential	29	26	29	28	35	39	23	PN
R136	Residential	40	40	43	42	45	49	37	PN, V
R137	Residential	29	25	28	27	35	38	23	PN
R138	Residential	39	39	43	42	45	48	37	PN, V
R139	Residential	29	25	28	27	34	37	23	PN
R140	Residential	31	33	35	34	38	41	28	PN, V
R141	Residential	30	30	34	33	36	39	28	PN
R142	Residential	29	26	28	27	35	38	23	PN
R143	Industrial	32	32	35	33	40	43	32	-
R144	Residential	28	24	26	25	34	38	23	PN
R145	Residential	30	30	32	31	35	39	24	PN
R146	Residential	37	36	38	37	42	45	30	PN, V
R147	Residential	40	40	44	43	46	49	37	PN, V
R148	Residential	27	26	30	29	33	36	22	PN
R149	Residential	31	31	35	34	37	40	28	PN, V
R150	Industrial	32	33	36	33	40	44	30	-
R151	Residential	27	27	31	29	34	37	24	PN
R152	Residential	28	28	32	30	34	37	23	PN
R153	Residential	24	24	27	26	31	33	20	-
R154	Residential	29	28	31	30	35	38	24	PN
R155	Residential	28	27	31	30	33	36	23	PN
R156	Residential	27	26	29	28	34	37	22	PN
R157	Residential	34	32	36	35	41	45	30	PN V
D159	Residential	29	20	20	20	-+1	40	22	
R150	Residential	20	20	44	42	47	50	20	
R 159	Residential	41	41	44	43	47	50	30	PN, V, SN, RP, DR
R160	Residential	28	28	29	28	34	38	23	PN
R161	Residential	29	28	29	27	35	38	23	PN
R162	Residential	27	27	30	29	35	38	23	PN
R163	Residential	33	33	37	35	41	44	34	PN, V
R164	Residential	41	42	45	43	47	50	38	PN, V, SN, RP, DR
R165	Residential	27	26	28	27	34	37	23	PN
R166	Residential	34	34	38	36	41	44	24	PN, V
R167	Industrial	33	31	33	32	40	43	34	-
R168	Industrial	35	34	38	35	42	45	36	-
R169	Residential	41	41	45	44	47	50	38	PN, V, SN, RP, DR
R170	Residential	39	39	42	41	44	48	36	PN, V
R171	Residential	37	37	41	40	43	46	35	PN, V
R172	Residential	37	36	40	39	42	46	27	PN, V
R173	Residential	28	28	31	29	35	36	23	PN
R174	Residential	30	30	33	31	43	46	25	PN, V
R175	Industrial	33	32	35	34	40	43	32	-
R176	Residential	28	27	30	29	33	36	23	PN
R177	Residential	28	25	29	27	36	38	23	PN
R178	Residential	24	23	27	26	31	34	22	-
R179	Residential	23	24	25	24	28	31	20	-
R180	Residential	24	23	26	25	30	33	21	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R181	Residential	26	25	29	28	32	35	22	PN
R182	Residential	19	20	23	22	25	28	17	-
R183	Residential	20	22	24	23	28	31	18	-
R184	Residential	24	23	26	25	29	33	21	-
R185	Residential	26	26	30	28	32	35	23	-
R186	Residential	22	23	26	25	29	32	21	-
R187	Residential	25	25	29	28	31	34	22	-
R188	Residential	27	26	30	27	33	36	22	PN
R189	Residential	22	22	26	24	30	33	19	-
R190	Residential	28	30	30	30	36	39	24	PN
R191	Residential	28	26	29	27	33	37	22	PN
R192	Residential	23	22	26	25	31	35	20	PN
R193	Residential	27	29	29	29	35	38	23	PN
R194	Residential	25	25	28	27	31	34	23	-
R195	Residential	26	25	29	27	33	37	24	PN
R196	Residential	22	23	25	24	29	32	20	-
R197	Residential	27	25	28	27	34	37	23	PN
R198	Residential	23	23	26	25	30	33	21	-
R199	Residential	28	26	29	28	34	36	24	PN
R200	Residential	25	24	28	20	32	35	27	PN
P201	Posidential	25	24	20	25	35	37	22	PN
P202	Residential	23	20	2/	2.5	30	42	22	
P202	Residential	27	25	28	27	34	42	22	PN
R203	Residential	21	20	20	21	34	37	22	FN
R204	Residential	22	22	27	23	20	29	20	
R203	Residential	24	20	27	20	21	30	22	FN
R200		24	20	21	20	31	52	21	-
R207	Passive recreation	34	37	39	37	49	23	30	-
R200	Residential	24	20	21	20	30	33	21	
R209	Industrial	20	21	30	21	33	30	22	FN
R210	Industrial	34	31	30	34	42	40	37	-
R211	Desidential	33	33	37	35	42	45	30	-
R212	Residential	25	25	26	25	33	36	20	PN
R213	Residential	24	26	28	24	33	34	23	-
R214	Desidential	30	20	32	31	30	41	32	-
R215	Residential	28	28	32	25	28	31	24	-
R210	Educational Institute	43	43	40	40	40	51	37	-
R217	Residential	26	25	28	27	32	35	22	PN
R218	Educational institute	28	28	30	28	34	37	24	-
R219	Residential	26	26	29	27	32	35	23	-
R220	Residential	30	30	34	32	32	35	28	PN
R221		33	33	37	37	42	45	37	-
R222	Educational institute	33	33	34	32	38	42	26	-
R223	Residential	26	25	29	27	32	35	23	PN
R224		27	27	31	30	36	39	30	-
R225	Educational institute	25	25	29	28	31	34	23	-
R226	Industrial	33	33	37	35	42	45	37	-
R227	Industrial	26	25	29	28	39	44	31	-
R228	Industrial	35	34	39	38	44	48	39	-
R229	Residential	27	27	30	29	33	36	25	PN
R230	Residential	24	26	28	25	28	32	23	-
R231	Residential	25	26	28	27	31	34	23	-
R232	Residential	25	26	30	28	29	31	23	-
R233	Residential	25	24	29	27	30	33	23	-
R234	Industrial	36	36	40	40	47	50	41	-
R235	Place of worship	27	28	31	28	31	33	25	-
R236	Residential	25	25	29	27	31	33	23	-
R237	Industrial	37	36	40	40	47	51	42	-
R238	Residential	22	22	26	25	27	30	19	-
R239	Residential	23	23	27	26	29	32	20	-
R240	Residential	24	26	28	26	29	32	21	-

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R241	Residential	23	21	25	24	29	32	20	-
R242	Industrial	38	37	41	40	50	53	44	-
R243	Residential	23	22	25	23	29	34	20	-
R244	Residential	24	24	28	27	29	31	21	-
R245	Residential	26	27	29	27	30	33	24	-
R246	Educational institute	49	50	50	49	55	58	42	-
R247	Residential	26	24	28	27	32	34	22	-
R248	Educational institute	42	42	46	44	47	50	33	-
R249	Residential	27	27	31	30	36	39	25	PN
R250	Industrial	40	37	42	41	50	54	44	-
R251	Educational institute	33	33	34	33	41	44	29	-
R252	Educational institute	33	31	33	32	40	42	28	-
R253	Residential	24	24	27	26	29	32	21	
R254	Industrial	40		42	41	54	57	48	
R255	Residential	26	27	31	28	31	34	24	
R256	Industrial	39	38	42	41	47	50	53	
R257	Residential	26	28	30	29	32	35	24	PN
R258	Residential	20	20	29	23	34	34	24	-
R250	Educational instituto	50	50	23 54	52	54	54	40	-
R239	Pasidantial	20	25	20	20	25	20	40	- DN
R200	Medical facility	29	25	29	20	30	39	23	FN
R201	Desidential	30	30	30	37	44	40	37	-
R202	Residential	20	32	29	20	32	30	23	
R203	Residential	27	24	27	20	33	30	22	PN
R264	Place of worship	29	29	33	30	34	37	28	-
R200		29	33	33	31	34	37	20	PN
R266	Iviedical facility	35	35	39	38	44	48	39	-
R267	Educational institute	48	49	44	42	53	56	36	-
R268	Industrial	45	43	46	46	56	60	53	-
R269	Residential	27	31	31	29	32	35	25	PN
R270	Educational Institute	32	36	36	35	39	43	29	-
R271	Residential	29	23	26	25	34	37	21	PN
R2/2	Residential	28	24	28	27	34	37	22	PN
R273	Industrial	47	45	50	47	58	62	56	-
R274	Residential	28	29	33	32	32	35	26	PN
R275	Medical facility	32	32	35	34	44	47	34	-
R276	Educational institute	32	31	36	33	37	40	28	-
R277	Industrial	45	45	45	43	64	68	55	-
R278	Industrial	50	48	51	49	62	66	59	-
R279	Educational institute	33	35	36	34	37	40	30	-
R280	Residential	31	33	35	34	39	41	30	PN, V
R281	Medical facility	32	31	35	34	44	47	34	-
R282	Residential	32	35	37	34	39	42	30	PN, V
R283	Residential	25	24	28	27	30	33	22	-
R284	Educational institute	46	46	50	49	52	55	39	-
R285	Residential	19	20	23	22	25	28	18	-
R286	Residential	36	37	37	34	41	45	31	PN, V
R287	Residential	25	25	29	27	30	33	24	-
R288	Residential	55	56	59	57	60	63	50	PN, V, SN, AA, RP, DR
R289	Educational institute	46	46	50	47	51	55	36	-
R290	Residential	34	27	29	28	40	43	22	PN, V
R291	Medical facility	33	31	35	34	39	43	33	-
R292	Residential	25	25	29	28	31	34	24	-
R293	Residential	25	25	29	27	30	32	24	-
R294	Industrial	51	50	53	52	69	73	55	-
R295	Educational institute	38	41	45	40	42	45	41	-
R296	Residential	23	23	27	26	30	32	21	-
R297	Residential	55	56	59	57	59	62	50	PN, V, SN, AA, RP, DR
R298	Residential	37	37	35	33	42	45	29	PN, V
R299	Residential	23	23	27	26	30	33	22	-
R300	Residential	38	34	38	36	43	46	33	PN, V

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R301	Industrial	52	45	48	47	66	69	42	-
R302	Residential	45	47	49	48	51	55	43	PN, V, SN, RP, DR
R303	Residential	55	56	58	55	59	62	45	PN, V, SN, AA, RP, DR
R304	Residential	23	26	27	26	31	35	25	-
R305	Industrial	54	53	55	54	71	74	52	-
R306	Residential	49	49	43	41	53	56	38	PN, V, SN, RP, DR
R307	Residential	24	24	28	27	30	33	22	-
R308	Residential	50	49	52	50	54	57	33	PN, V, SN, RP, DR
R309	Medical facility	18	18	18	17	25	28	18	-
R310	Residential	40	41	44	37	44	47	35	PN, V
R311	Residential	57	58	61	59	61	64	51	PN, V, SN, AA, RP, DR
R312	Residential	29	32	33	32	35	38	27	PN
R314	Industrial	65	65	63	61	71	74	52	-
R315	Medical facility	20	20	23	22	27	30	17	-
R316	Residential	41	44	44	43	50	53	36	PN, V, SN, RP, DR
R317	Residential	46	46	50	49	51	54	37	PN, V, SN, RP, DR
R318	Residential	33	33	37	36	39	42	31	PN, V
R320	Residential	31	31	35	34	35	38	28	PN
R321	Residential	25	25	29	27	30	33	22	-
R322	Residential	25	25	29	28	31	35	23	-
R323	Residential	32	33	36	35	37	40	31	PN, V
R324	Residential	47	49	51	50	52	55	44	PN, V, SN, RP, DR
R325	Residential	20	21	24	23	26	29	19	-
R326	Residential	22	22	26	25	28	31	21	-
R327	Residential	41	41	45	42	44	47	39	PN. V
R328	Residential	32	32	36	35	38	41	30	PN. V
R330	Residential	51	54	56	54	57	60	49	PN, V. SN, AA, RP, DR
R331	Medical facility	33	33	36	36	40	43	33	-
R332	Residential	59	61	63	61	63	66	53	PN, V. SN, AA, RP, DR
R333	Residential	54	56	59	58	60	63	52	PN, V. SN, AA, RP, DR
R334	Residential	32	32	36	34	38	41	30	PN V
R335	Residential	22	22	26	22	24	27	21	-
R336	Medical facility	.34		37	36	42	45	35	
R337	Residential	51	52	55	54	56	59	44	PN V SN RP DR
R338	Residential	40	40	44	42	45	48	36	PN V
R339	Residential	25	25	29	28	31	34	22	-
R340	Residential	26	26	30	28	31	34	24	
R341	Commercial	39	39	42	41	50	53	44	
R342	Residential	53	56	58	57	60	62	51	PN V SN AA RP DR
R343	Medical facility	37	37	41	40	46	50	41	-
R344	Residential	50	52	55	54	57	59	41	PN V SN RP DR
R345	Medical facility	35	35	30	38	44	47	37	-
P346	Posidontial	31	31	35	34	37	40	25	
P347	Posidential	45	46	50	18	51	54	23	
P3/8	Posidential	45	40	28	40	30	32	22	FN, V, SN, KF, DK
R340	Residential	24	24	20	24	20	20	23	-
R349 R250	Medicel facility	23	23	27	24	20	30	21	-
R330	Decidential	32	20	30	34	39	42	33	
R301	Residential	37	30	42	41	30	41	30	
R352	Residential	43	44	47	44	47	50	40	PN, V, SN, RP, DR
R353	Commercial	41	41	44	45	56	59	51	-
R354	Commercial	41	41	44	43	54	57	48	-
R355	Résidential	41	43	45	42	45	48	39	PN, V
R356	Commercial	44	43	47	46	61	63	54	-
R357	Residential	37	40	41	40	43	46	36	PN, V
R358	Residential	24	24	28	27	30	33	23	-
R359	Commercial	45	43	47	46	58	61	53	-
R360	Residential	40	39	43	43	45	48	37	PN, V
R361	Residential	37	37	41	40	43	50	43	PN, V, SN, RP, DR
R362	Commercial	48	45	49	48	64	67	51	-
R363	Residential	37	38	41	40	43	45	36	PN, V

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R364	Residential	37	38	41	38	40	43	35	PN, V
R365	Residential	34	35	39	31	34	37	33	PN
R366	Medical facility	24	24	28	26	31	34	23	-
R368	Commercial	50	47	50	50	64	67	49	-
R369	Medical facility	33	33	36	35	42	45	34	-
R370	Commercial	47	45	48	47	62	65	53	-
R371	Residential	26	27	29	29	31	34	23	-
R372	Medical facility	33	32	35	34	44	48	38	-
R373	Residential	25	26	29	28	27	34	24	-
R374	Residential	37	37	41	40	44	47	34	PN, V
R375	Medical facility	28	28	31	30	38	41	32	<u> </u>
R376	Commercial	51	49	53	51	65	68	48	
R377	Residential	37	38	41	39	42	45	36	PN V
R378	Residential	33	34	37	36	39	42	32	PN V
R379	Commercial	54	51	54	53	65	68	48	-
P380	Commercial	47	43	47	46	58	61	40	
P391	Posidontial	47	40	47	40	42	46	39	
D202	Residential	24	32	27	27	42	40	24	
R302	Residential	34	33	37	37	41	44	34	PIN, V
R383		32	32	35	34	40	43	33	-
R384	Commercial	59	55	59	58	66	69	51	-
R385	Residential	35	34	39	38	41	44	35	PN, V
R386	Medical facility	34	34	37	36	44	47	36	-
R387	Medical facility	35	35	39	36	42	45	34	-
R388	Commercial	64	63	66	63	66	68	61	-
R389	Residential	48	47	51	49	55	58	45	PN, V, SN, RP, DR
R390	Residential	39	38	41	40	47	50	36	PN, V, SN, RP, DR
R391	Medical facility	33	33	36	35	39	42	34	-
R392	Residential	37	40	39	38	47	50	36	PN, V, SN, RP, DR
R393	Commercial	59	61	63	60	63	65	57	-
R394	Residential	49	47	51	50	55	57	45	PN, V, SN, RP, DR
R395	Medical facility	36	36	39	38	42	45	36	-
R396	Residential	42	44	46	44	51	55	40	PN, V, SN, RP, DR
R397	Residential	51	53	55	54	56	59	49	PN, V, SN, RP, DR
R398	Residential	50	51	54	53	56	59	45	PN, V, SN, RP, DR
R399	Residential	39	40	44	43	45	48	37	PN, V
R400	Residential	38	39	42	41	43	46	37	PN, V
R401	Residential	34	34	38	36	39	42	33	PN, V
R402	Residential	52	54	57	55	58	61	50	PN, V, SN, AA, RP, DR
R403	Residential	48	46	50	49	53	55	44	PN, V, SN, RP, DR
R404	Residential	37	35	39	38	45	49	32	PN, V
R405	Residential	36	36	40	37	43	46	35	PN, V
R406	Residential	54	57	58	57	59	62	53	PN, V, SN, AA, RP, DR
R407	Residential	36	37	39	34	36	40	34	PN, V
R408	Residential	48	49	53	52	54	57	46	PN, V, SN, RP, DR
R409	Residential	39	39	43	38	47	51	38	PN, V, SN, RP, DR
R410	Residential	33	34	38	36	39	42	27	PN, V
R411	Residential	53	53	57	56	58	62	52	PN, V, SN, AA, RP, DR
R412	Residential	48	50	52	50	53	56	39	PN, V, SN, RP, DR
R413	Residential	45	46	50	48	51	54	44	PN, V, SN, RP, DR
R414	Residential	30	30	34	31	45	49	34	PN, V
R415	Residential	43	43	46	45	48	51	39	PN, V, SN, RP. DR
R416	Residential	40	42	45	44	46	48	35	PN, V
R417	Residential	34	34	38	37	45	48	34	PN. V
R418	Residential	42	42	46	46	47	50	40	PN V SN RP DR
R419	Residential	41	42	45	44	47	50	39	PN V SN RP DR
R420	Commercial	49	51	51	50	54	57	44	-
R/21	Residential	37	37	41	40	45	/8	35	
R/22	Residential	44	44	48	46	49	51	/1	PN V SN RD DD
P422	Residential	44	44	40	40	40	40	39	
P423	Residential	40	41	44	43	40	43 51	11	DN V SN DD DD
11424	Residential	42	42	40		43	51	41	

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	ighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R425	Residential	37	36	39	38	44	47	34	PN, V
R426	Residential	44	44	47	46	49	52	41	PN, V, SN, RP, DR
R427	Residential	45	46	49	49	50	53	43	PN, V, SN, RP, DR
R428	Residential	36	36	38	34	44	47	32	PN, V
R429	Residential	36	36	40	38	46	49	34	PN, V
R430	Residential	41	39	43	41	46	49	35	PN. V
R431	Commercial	50	51	54	52	55	58	49	-
R432	Residential	33	34	37	36	40	44	36	PN V
R433	Residential	40	40	44	42	47	49	36	PN V
R434	Residential	44	44	48	47	50	53	41	PN V SN RP DR
P/35	Posidential	40	47	50	41	52	55	42	
D 426	Residential		26	40	20	32	40	22	
R430	Residential	30	30	40	39	40	49	32	
R437	Residential	40	40	52	49	52	55	45	PN, V, SN, RP, DR
R438	Residential	33	33	37	36	46	49	36	PN, V
R439	Residential	45	44	48	47	51	54	42	PN, V, SN, RP, DR
R440	Residential	39	40	43	42	44	46	35	PN, V
R441	Residential	46	45	49	48	51	54	42	PN, V, SN, RP, DR
R442	Residential	41	40	43	41	47	50	37	PN, V, SN, RP, DR
R443	Residential	36	33	36	35	44	47	31	PN, V
R444	Residential	41	40	44	43	47	51	38	PN, V, SN, RP, DR
R445	Medical facility	38	37	41	40	45	48	37	-
R446	Residential	38	40	43	42	45	48	37	PN, V
R447	Residential	42	41	45	42	47	50	37	PN, V, SN, RP, DR
R448	Residential	46	45	49	47	51	54	42	PN, V, SN, RP, DR
R449	Residential	36	36	40	37	44	48	33	PN, V
R450	Residential	47	44	49	47	52	55	42	PN, V, SN, RP, DR
R451	Residential	44	44	48	46	50	53	41	PN, V, SN, RP, DR
R452	Residential	37	38	40	39	42	45	34	PN, V
R453	Residential	39	39	44	43	45	48	37	PN, V
R454	Residential	38	38	42	41	44	47	35	PN, V
R455	Residential	43	47	49	47	51	54	40	PN, V, SN, RP, DR
R456	Residential	39	39	43	41	44	47	36	PN, V
R457	Residential	38	38	42	41	44	47	33	PN, V
R458	Residential	37	38	41	42	45	48	33	PN, V
R459	Residential	30	30	34	33	45	48	31	PN, V
R460	Residential	40	40	44	43	46	49	39	PN, V
R461	Residential	37	37	41	41	44	46	33	PN, V
R462	Residential	43	42	45	44	49	52	38	PN, V, SN, RP, DR
R463	Residential	37	37	40	39	42	45	33	PN, V
R464	Residential	32	32	36	35	39	42	34	PN, V
R465	Residential	33	32	36	35	42	45	32	PN. V
R466	Residential	33	32	36	35	40	44	32	PN, V
R467	Residential	40	36	41	40	48	51	33	PN, V. SN. RP. DR
R468	Residential	43	42	46	45	48	51	40	PN, V, SN, RP, DR
R469	Residential	41	42	44	44	48	51	37	PN, V. SN, RP, DR
R470	Residential	33	36	38	37	42	45	32	PN V
R471	Residential	32	35	35	33	43	46	32	PN V
R472	Residential	34	35	38	35	38	42	31	PN V
R/72	Residential	36	30	30	37	44	17	31	
P473	Residential	36	37	40	30	44	47	33	
D/75	Posidontial	44	42	27	35	42 E0	40 E2	31	
R475	Residential	44	42	37	30	50	53		
R476	Residential	44	37	39	38	50	53	29	
R477	Residential	37	36	40	39	43	46	35	PN, V
R478	Residential	37	37	41	41	43	46	34	PN, V
R479	Residential	35	35	39	38	41	44	33	PN, V
R480	Residential	40	39	43	42	48	51	32	PN, V, SN, RP, DR
R481	Residential	39	38	41	40	45	48	35	PN, V
R482	Residential	40	44	44	42	47	51	34	PN, V, SN, RP, DR
R483	Residential	41	41	45	43	46	49	37	PN, V
R484	Residential	34	34	38	37	40	43	32	PN, V

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible I	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R485	Residential	36	36	40	39	43	46	34	PN, V
R486	Residential	45	47	51	49	51	54	44	PN, V, SN, RP, DR
R487	Residential	36	36	40	37	40	44	35	PN, V
R488	Residential	43	42	46	45	48	51	39	PN, V, SN, RP, DR
R489	Residential	41	33	38	38	48	51	29	PN, V, SN, RP, DR
R490	Residential	37	37	41	40	43	46	33	PN, V
R491	Residential	32	32	36	34	40	41	27	PN, V
R492	Residential	48	48	52	50	53	56	45	PN, V, SN, RP, DR
R493	Residential	43	42	46	44	48	51	39	PN, V, SN, RP, DR
R494	Residential	36	36	40	38	43	47	33	PN, V
R495	Residential	42	41	45	44	47	50	36	PN, V, SN, RP, DR
R496	Residential	40	38	34	36	45	48	29	PN, V
R497	Residential	35	35	39	38	43	47	34	PN, V
R498	Residential	40	39	38	37	44	48	30	PN, V
R499	Residential	42	41	43	42	48	51	36	PN, V, SN, RP, DR
R500	Residential	45	45	49	47	50	53	42	PN, V, SN, RP, DR
R501	Residential	37	37	41	39	42	45	34	PN, V
R502	Medical facility	36	35	39	38	43	46	37	-
R503	Residential	37	37	39	37	45	49	31	PN, V
R504	Residential	33	33	37	36	41	45	30	PN. V
R505	Residential	36	35	39	38	42	46	33	PN. V
R506	Residential	36	36	40	39	42	45	33	PN, V
R507	Residential	39	37	42	40	44	47	34	PN, V
R508	Residential	33	33	37	37	39	42	26	PN, V
R509	Residential	35	35	39	37	40	43	33	PN. V
R510	Residential	35		38	37	42	45	32	PN V
R511	Medical facility	37	36	40	38	44	47	36	-
R512	Residential	42	37	40	40	47	49	30	PN V
R513	Residential	28	29	32	32	34	37	25	PN
R514	Residential	36	36	40	39	42	45	20	PN V
R515	Residential	32	32	35	34	41	44	32	PN V
R516	Residential	35	36	30	38	40	44	34	PN V
R517	Residential	36	36	30	38	40	46	31	PN V
R518	Medical facility	32	32	36	34	30	40	31	-
R519	Residential	34	34	38	37	42	45	33	PN V
R520	Medical facility	30	31	34	31	36	40	28	-
R521	Residential	34	35	38	37	30	40	34	PN V
R522	Residential	30	30	43	42	45	43	33	PN V
P523	Residential	35	35	30	38	45	40	33	
P524	Residential	30	40	43	42	41	44	31	
P525	Commorcial	46	40	43	42	40	-+0 54	42	
RJ2J DE26	Bosidential	40	40	49	40	49	- J4 - 46	42	
R320	Residential	30	33	39	20	42	40	24	
R327	Residential	30	37	40	39	42	40	34	
R320	Residential	30	34	30	37	40	44	33	PN, V
R329	Desidential	32	32	30	33	40	43	32	-
R530	Residential	37	38	42	41	45	48	36	PN, V
R531	Residential	35	35	39	38	41	45	32	PN, V
R532	Medical facility	32	32	36	33	37	41	31	-
R533	Residential	39	39	43	41	45	48	34	PN, V
R534	Residential	40	38	42	41	45	48	34	PN, V
R535	Medical facility	31	30	35	34	37	41	27	-
R536	Commercial	45	45	49	48	48	53	43	-
R537	Residential	34	33	37	36	40	44	31	PN, V
R538	Residential	39	39	43	42	45	48	35	PN, V
R539	Residential	35	36	40	39	41	45	33	PN, V
R540	Residential	36	36	40	39	42	45	33	PN, V
R541	Residential	40	37	38	37	45	49	32	PN, V
R542	Commercial	42	42	46	45	45	51	40	-
R543	Residential	36	36	40	39	42	45	34	PN, V
R544	Residential	35	35	39	38	41	45	30	PN, V

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R545	Residential	35	35	39	38	42	45	33	PN, V
R546	Residential	39	38	42	41	44	47	35	PN, V
R547	Medical facility	32	32	36	34	37	40	30	-
R548	Residential	37	37	41	40	43	46	34	PN, V
R549	Medical facility	26	26	30	29	32	36	25	-
R550	Residential	39	39	43	41	45	48	33	PN, V
R551	Residential	35	35	39	37	40	43	33	PN, V
R552	Residential	39	38	41	41	44	46	34	PN, V
R553	Residential	41	38	42	41	46	50	36	PN, V, SN, RP, DR
R554	Residential	37	37	41	39	45	48	32	PN, V
R555	Commercial	42	42	46	44	45	49	40	-
R556	Residential	35	34	38	37	41	44	33	PN, V
R557	Residential	35	34	38	37	41	44	32	PN, V
R558	Residential	30	30	34	33	38	41	28	PN, V
R559	Residential	38	38	42	41	44	47	35	PN, V
R560	Residential	37	36	40	38	44	46	33	PN, V
R561	Residential	40	38	42	41	45	47	34	PN, V
R562	Residential	35	35	39	38	42	45	34	PN, V
R563	Residential	35	35	39	37	41	45	33	PN, V
R564	Residential	40	40	43	42	45	48	38	PN. V
R565	Residential	35	35	39	38	41	45	31	PN. V
R566	Residential	41	41	45	44	45	49	39	PN. V
R567	Residential	35	34	39	37	41	44	31	PN. V
R568	Residential	37	37	41	40	43	46	35	PN. V
R569	Residential	39	38	42	41	44	47	36	PN. V
R570	Residential	38	36	37	36	46	48	31	PN. V
R571	Residential	36	36	40	39	42	45	34	PN. V
R572	Medical facility	33	33	37	36	40	43	32	-
R573	Residential	37	36	40	39	42	45	31	PN V
R574	Active recreation	38	37	42	41	43	46	35	-
R575	Residential	41	41	45	43	44	48	40	PN V
R576	Residential	38	37	41	40	44	47	35	PN V
R577	Residential	33	33	37	36	40	43	31	PN V
R578	Residential	37	36	40	39	43	46	33	PN V
R579	Residential	33	31	36	35	39	43	30	PN V
R580	Residential	36	36	40	39	42	45	34	PN V
R581	Residential	33	32	37	35	39	43	30	PN V
R582	Residential	34	34	38	37	40	43	32	PN V
R583	Residential	38	38	42	40	43	46	36	PN V
R584	Residential	37	37	41	40	43	46	35	PN V
R585	Commercial	40	45	45	40	45	40	30	-
R586	Residential	20	31	33	32	40	43	27	PN V
P597	Residential	23	32	36	35	40	43	30	
P599	Residential	40	40	44	43	40	43	30	
DE90	Residential	40	40	44	40	44	40	22	
R309	Residential	22	22	40	39	42	40	21	
R390	Residential	24	24	20	27	39	42	22	
R391	Residential	34	34	30	37	40	43	33	
R392	Residential	30	30	39	39	42	40	33	
R593	Residential	30	30	40	39	43	40	32	
R594	Residential	33	33	37	35	38	41	31	PN, V
R595		35	35	39	38	41	44	33	PN, V
R596	Educational institute	37	38	39	38	45	48	32	-
R597	Residential	36	36	39	39	42	44	32	PN, V
R598	Residential	36	36	40	39	42	45	33	PN, V
R599	Residential	35	35	38	37	41	45	30	PN, V
R600	Educational institute	37	39	41	39	45	48	35	-
R601	Residential	40	40	44	43	45	48	39	PN, V
R602	Residential	34	33	37	36	40	44	31	PN, V
R603	Residential	37	35	39	38	43	46	34	PN, V
R604	Residential	34	34	39	38	40	43	31	PN, V

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	e Clearly	audible M	Moderately in	trusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	sidential:	Exceeds no	oise manage	ment level		
R605	Residential	37	37	41	40	43	46	34	PN, V
R606	Residential	36	36	39	38	42	45	33	PN, V
R607	Residential	38	37	39	38	43	46	33	PN, V
R608	Residential	33	33	36	35	39	43	29	PN, V
R609	Residential	35	37	38	37	43	46	31	PN, V
R610	Residential	37	38	40	39	45	48	34	PN, V
R611	Residential	37	39	42	41	42	45	35	PN. V
R612	Residential	39	39	43	42	45	48	37	PN V
R613	Residential	36	35	30	38	43	46	34	PN V
P614	Residential	40	40	43	43	45	40	30	PN V
DC14	Residential	40	40	40	40	40	40	39	
R013	Residential	30	33	30	30	40	43	30	
R616	Residential	38	37	41	40	42	46	35	PN, V
R617	Residential	37	35	39	38	43	45	33	PN, V
R618	Residential	34	34	38	36	39	42	32	PN, V
R619	Residential	36	35	39	38	41	44	30	PN, V
R620	Residential	40	40	44	43	45	48	39	PN, V
R621	Residential	33	33	37	36	39	43	30	PN, V
R622	Residential	39	36	39	38	44	47	32	PN, V
R623	Residential	36	35	39	38	41	44	34	PN, V
R624	Residential	33	34	38	37	40	44	30	PN, V
R625	Residential	34	34	37	36	40	43	29	PN, V
R626	Residential	33	33	37	36	39	42	32	PN, V
R627	Residential	37	37	37	36	43	46	33	PN, V
R628	Residential	36	35	39	37	41	45	29	PN. V
R629	Residential	36	38	41	41	41	44	34	PN V
R630	Residential	35	34	38	37	41	44	31	PN V
R631	Residential	31	31	35	3/	30	12	30	PN V
Pead	Residential	21	24	26	22	20	41	30	
R032	Residential	07	20	30	33	30	41	30	
R033	Residential	37	30	41	41	44	40	37	
R634	Residential	30	30	34	32	35	39	29	PN
R635	Residential	35	37	39	38	44	47	31	PN, V
R636	Residential	33	34	37	36	42	45	31	PN, V
R637	Residential	35	36	40	38	42	44	33	PN, V
R638	Residential	31	30	34	33	36	39	28	PN
R639	Residential	35	38	41	40	40	43	34	PN, V
R640	Residential	25	25	29	28	31	34	23	-
R641	Residential	35	35	38	37	41	44	33	PN, V
R642	Residential	35	33	36	36	42	45	29	PN, V
R643	Residential	33	33	37	36	39	42	30	PN, V
R644	Residential	35	35	39	38	42	45	33	PN, V
R645	Residential	35	34	38	37	41	44	33	PN, V
R646	Residential	37	37	41	40	43	46	36	PN, V
R647	Residential	36	36	40	39	42	44	33	PN, V
R648	Residential	32	31	35	34	37	40	24	PN, V
R649	Residential	33	33	36	35	39	42	30	PN, V
R650	Residential	33	37	40	40	41	44	32	PN, V
R651	Residential	34	33	37	36	40	43	31	PN. V
R652	Residential	32	32	36	35	38	41	31	PN V
R653	Residential	34	34	38	37	40	/3	31	PN V
D654	Residential	26	27	40	40	42	45	26	
R034	Residential	30	37	40	40	42	40	30	
CC07	Desidential	30	35	30	37	42	45	33	
R656	Residential	36	36	40	38	41	44	34	PN, V
R657	Residential	36	36	40	38	41	44	34	PN, V
R658	Residential	36	37	40	39	42	45	35	PN, V
R659	Residential	36	34	38	37	42	45	32	PN, V
R660	Residential	35	35	38	37	42	45	31	PN, V
R661	Residential	37	35	39	38	43	46	33	PN, V
R662	Residential	35	35	39	38	41	44	33	PN, V
R663	Residential	36	36	40	39	41	44	34	PN, V
R664	Residential	35	36	38	37	41	44	32	PN, V

Receiver ID	Receiver Type	CS01	CS02	CS03	CS04	CS05	CS06	CS07	Additional management measures
	Residential:	Noticeable	Clearly	audible	Moderately in	ntrusive H	lighly intrusi	ve <mark>Bold</mark> High	ly noise affected
			Non-re	esidential:	Exceeds noise management level				
R665	Residential	35	35	39	37	40	43	32	PN, V
R666	Residential	34	34	38	37	40	43	31	PN, V
R667	Residential	33	32	36	35	39	42	30	PN, V
R668	Residential	34	34	38	37	40	43	30	PN, V
R669	Residential	31	31	35	34	38	41	26	PN, V
R670	Residential	30	30	34	33	36	39	25	PN
R674	Commercial	39	43	47	46	44	48	39	-

 $\label{eq:predicted} \textbf{Appendix} \ \textbf{D} - \text{Predicted construction noise contours}$



Scenario 1 Predicted construction noise levels, dBA Figure D-1





Scenario 3 Predicted construction noise levels, dBA Figure D-3



Scenario 4 Predicted construction noise levels, dBA Figure D-4







Scenario 7 Predicted construction noise levels, dBA Figure D-7

Appendix E – Construction noise management zones, standard construction hours


Scenario 1 Day construction noise management zones, standard construction hours Figure E-1



Scenario 2 Day construction noise management zones, standard construction hours Figure E-2



Scenario 3 Day construction noise management zones, standard construction hours Figure E-3



Scenario 4 Day construction noise management zones, standard construction hours Figure E-4



Scenario 5 Day construction noise management zones, standard construction hours Figure E-5



Scenario 6 Day construction noise management zones, standard construction hours Figure E-6



Scenario 7 Day construction noise management zones, standard construction hours Figure E-7

Appendix F – Construction noise management zones, OOHW Period 1 (Day)











Scenario 7 Construction noise management zones, OOHW Period 1 (Day) Figure F-5

Appendix G – Construction noise management zones, OOHW Period 1 (Evening)



Scenario 1 Construction noise management zones, OOHW Period 1 (Evening) Figure G-1

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Scenario 4 Construction noise management zones, OOHW Period 1 (Evening) Figure G-2



Scenario 5 Construction noise management zones, OOHW Period 1 (Evening) Figure G-3



Scenario 6 Construction noise management zones, OOHW Period 1 (Evening) Figure G-4



Figure G-5 Scenario 7 Construction noise management zones, OOHW Period 1 (Evening)

Appendix H – Construction noise management zones, OOHW Period 2 (Night)



Scenario 1 Construction noise management zones, OOHW Period 2 (Night) Figure H-1



Figure H-2 Scenario 4 Construction noise management zones, OOHW Period 2 (Night)



Scenario 5 Construction noise management zones, OOHW Period 2 (Night) Figure H-3



Scenario 6 Construction noise management zones, OOHW Period 2 (Night) Figure H-4



Figure H-5 Scenario 7 Construction noise management zones, OOHW Period 2 (Night)

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