

**E1.3 Community Agreement Report:  
Bridge 18 and 19 Retaining Walls –  
EPL 21766**  
Revision A - Coffs Harbour Bypass

FERROVIAL GAMUDA JOINT VENTURE

## VERSION CONTROL

Revision	Date	Description
A	14/03/2024	Submission to EPA
B	15/03/2024	Redacted version for website with receiver addresses removed.
C	5/04/2024	Update to include Bridge 18 Works. Re-submission to EPA.
D	1/05/2024	Redacted version for website with receiver addresses removed.
E		

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# 1 PURPOSE

This report details the consultation undertaken by Ferrovial Gamuda Joint Venture (FGJV) to obtain community agreement for out of hours works (OOHW) for the Bridge 18 and 19 retaining walls in the future Korora Hill Interchange.

This report has been prepared in accordance with EPL Condition E1.3 as detailed in Table 1 below.

TABLE 1: EPL REQUIREMENTS

Ref	Condition Requirement	Where Addressed
E1.3	The licensee must report to the EPA the community consultation and agreement process that was undertaken with the Community Affected Catchments.  This report to the EPA must be:	This Report
	a) prepared in writing;	
	b) detail the steps taken to fulfil the requirements of condition E1.2;	Section 4
	c) demonstrate that the Noise Sensitive Receivers understood the nature of the works and any predicted impacts, including that consideration was made of additional requirements relevant to the needs of culturally and linguistically diverse Noise Sensitive Receivers;	Section 4
	d) provide the script used during the community consultation with Noise Sensitive Receivers;	Section 4 Attachment A
	e) report community response and consent rates (including where no contact could be made) against the total community affected catchments, and must be broken down into response and consent rates based on sub-catchments that are delineated by affectation levels;	Section 5
	f) include a noise validation monitoring plan as required by E2.1; and	Section 6 Attachment D
	g) be submitted to the EPA at least 15 business days prior to any works that are the subject of the agreement being undertaken unless prior arrangements have been made with the EPA.	Noted.
A copy of the report must be:	Noted. Following EPA agreement, a copy of this report will be uploaded to the Project website.	
a) kept by the licensee for the duration of this licence including on the premises, and made available to an EPA authorised officer on request; and  b) be made available on the licensee's project website or another website approved in writing by the EPA for the duration of the OOHWs permitted under condition E1.1. (Personal details of Noise Sensitive Receivers must be omitted).		

## 2 PROPOSED OOHW

In accordance with EPL Condition E1, FGJV has sought community agreement from noise sensitive receivers to undertake OOHW to construct the retaining walls at Bridge 18 and 19 on Saturdays between 7am and 8am, and 1pm to 6pm.

Construction activities associated with the proposed retaining walls at Bridge 18 and 19 includes:

- Material backfill and compaction using a front end loader, skid steer, plate compactor and smooth drum roller. A water cart will also be intermittently used during compaction and to suppress dust.
- Installation of retaining wall pre-cast panels with a franna crane
- Securing of panels and straps with hand tools.

### 2.1 JUSTIFICATION

The bridge works described above are the critical path for the opening completion of the CHB Project. It must be completed on time to enable the first traffic switch (Stage 1B), which will divert local traffic from Bruxner Park Road and unlock the critical path plug works for the new Northbound off ramp. These critical path plug works in turn drives the first major critical path traffic switch (Stage 2A).

Currently the construction of Bridge 18 and 19 has slipped in program due mainly to wet weather over the past few months. Therefore, extended working hours on Saturdays will help FGJV to complete these works and switch traffic on time without delaying future major traffic switches and the overall Project program.

## 3 NOISE SENSITIVE RECEIVERS

Detailed noise impact assessments were undertaken using the Project's Noise Model Noisecheck to identify noise sensitive receivers predicted to experience noise levels above the daytime OOH noise management level (NML) and agreement would need to be sought from. Works at both bridge locations were modelled together to represent worst-case cumulative impacts.

Two scenarios were modelled and found that worst-case noise impacts are predicted to occur during backfill and compaction works. The Noise Assessment Reports for this scenario is provided in Attachment A.

*Note: Three residential receivers located on Bruxer Park Road currently do not show up in NoiseCheck. For these properties, the TfNSW Noise Estimator Tool was used to predicted noise impacts for the proposed OOHW.*

Worst-case noise impacts are summarised in Table 2 and a more detailed breakdown at each receiver address is provided in Table 4.

TABLE 2: PREDICTED NOISE IMPACT SUMMARY

Noise Category	dBA above NML	Northern portal affected receivers	Mitigation
Noticeable	<5	5	-
Clearly Audible	5 to 15	11	N, R1, DR
Moderately Intrusive	15 to 25	0	V, N, R1, DR
Highly Intrusive	>25	0	V, IB, N, R1, DR, PC, SN

## 4 CONSULTATION SUMMARY

All noise sensitive receivers were doorknocked and/or contacted via email which detailed the Project's request for community agreement (refer to Attachment B). This written agreement also formed the script used during the consultation and included the following details:

- Description of the different construction activities proposed consistent with Section 2 above;
- Proposal for OOHW on Saturdays between 7am and 8am, and 1pm and 6pm;
- Map showing the location of the proposed works;
- Summary of the noise levels predicted consistent with Section 3 above;
- Mitigation measures to minimise impacts;
- Receiver’s ability to withdraw agreement at any stage during the works; and
- Project contact details.

Eleven of the 16 noise sensitive receivers responded to the Project regarding this Agreement. Of these, only one chose not to sign the Agreement. Despite three attempts to make contact, five receivers did not respond. For one of those receivers (i.e. the occupier of the house), agreement was received from the owner of the property.

## 5 COMMUNITY RESPONSE & CONSENT RATES

Contact was made and consultation undertaken with 13 of the 16 noise sensitive receivers (81 percent). Three attempts to contact the remaining three receivers was made, however no response was able to be obtained. Note: The property owner of one of the houses that did not respond did provide their agreement.

As detailed in Table 3, agreement to undertake proposed Bridge 19 OOHW was 63 percent, which constitutes a substantial majority.

A more detailed breakdown of the consultation undertaken with each receiver and their response is provided in Table 4

TABLE 3: COMMUNITY AGREEMENT SUMMARY

Work Area	Total Affected Receivers	Agreement Received		Agreement Not Received		No Response Received (Occupier)	
		No.	%	No.	%	No.	%
Bridge 18 and 19	16	10	63	1	6	5	31

## 6 NOISE VALIDATION MONITORING PLAN

Noise validation monitoring of the proposed OOHW will be undertaken in accordance with the Project’s approved Construction Noise and Vibration Monitoring Program (Appendix 7 of the Construction Noise and Vibration Management Plan).

As detailed in Revision A of this report, noise monitoring was proposed during OOHW at Bridge 19 at a location/s representative of the worst-affected sensitive receivers. Indicative monitoring locations (yellow circles) are shown in Figure 1 below.

Following approval of Revision A of this report, verification monitoring was completed on 23/03/2024 (refer to Attachment C). Results showed that actual noise levels for backfill and compaction works are below the approved noise impacts predicted by the model and detailed within this report. No additional monitoring is proposed.

TABLE 4: NOISE SENSITIVE RECEIVER CONSULTATION AND CONSENT

No.	NCA	NML	Work Area	Worst-Case Impacts			Consultation Summary		
				Prediction (dBA)	Exceedance	Noise Category	Contact Made?	Consultation Undertaken	Agreement Obtained?
1	23	48	Bridge 18 and 19	58	10	Clearly Audible	Yes	Phone call (did not want to meet)	Yes (Verbally)
2	20	40	Bridge 18 and 19	54	14	Clearly Audible	Yes	Email and SMS (did not want to meet)	No
3	23	48	Bridge 18 and 19	57	9	Clearly Audible	No	Email, two doorknocks, two letterbox drops and two emails with the Agreement to property manager	No response from tenant Received Yes agreement from property owner
4	23	48	Bridge 18 and 19	58	10	Clearly Audible	Yes	Email, Doorknock	Yes
5	23	48	Bridge 18 and 19	54	6	Clearly Audible	Yes	Email	Yes
6	23	48	Bridge 18 and 19	51	3	Noticeable	Yes	Phone call and email	Yes
7	23	48	Bridge 18	52	4	Noticeable	Yes	Two emails and one phone call	No response
8	24	53	Bridge 18	57	4	Noticeable	Yes	Email, Doorknock and phone call	Yes (Verbally)
9	24	53	Bridge 18	56	3	Noticeable	No	Two doorknocks, email and phone call.	No response
10	23	48	Bridge 18	51	3	Noticeable	Yes	Email	Yes
11	24	53	Bridge 18	55	2	Noticeable	No	Email and two doorknocks	No response
12	24	53	Bridge 18	55	2	Noticeable	Yes	Email and doorknock	Yes (via email)
13	20	40	Bridge 18	42	2	Noticeable	Yes	Three emails and one phone call	No response
14	24	53	Bridge 18	54	1	Noticeable	Yes	Doorknock	Yes
15	24	53	Bridge 18	54	1	Noticeable	Yes	Three Doorknocks	Yes (verbally)
16	24	53	Bridge 18	54	1	Noticeable	Yes	Email, Doorknock	Yes (via email)



FIGURE 1: PROPOSED MONITORING LOCATIONS

# **ATTACHMENT A – NOISE ASSESSMENT REPORTS**



# Noise Assessment Report - Bridge 18 & 19 Retaining Walls, Day OOH

Date: 07/03/24

Created by: Anna Burke

## 1. Introduction

This report presents a noise assessment of bridge 18 & 19 retaining walls construction activity which is proposed to occur during the day ooh period (RMS CNVG OOHW1). This report presents the proposed activities, noise prediction results, an assessment against RMS CNVG requirements and details proposed noise management and mitigation measures.

## 2. Method

NoiseCheck is a 'front-end' 3-D noise prediction platform which adopts a database of predictions that are generated in third party proprietary software which conforms to ISO9613 Acoustics - Attenuation of Sound During Propagation Outdoors - Part 2: General Method of Calculation implemented to ISO/TR 17534-3:2015 requirements. The predictions consider source to receiver distance and height and the noise attenuation provided by ground and air absorption, topography, surrounding buildings and other solid objects and permanent noise barriers (where applicable). The typical height of plant and equipment is 2m. The noise predictions at surrounding single and double storey properties apply at 1.5m at the most affected facade. Predictions for apartment buildings with greater than two storeys apply at the worst affected floor and facade. This assessment presents the total LAeq noise level from all activities.

## 3. Works description

The work activities that have been assessed are shown in Figure 1. Details of the activities are provided in Table 1. All noise levels referenced are in dBA, Leq,15minutes.

Figure 1. Location of modelled plant and equipment



Table 1. Summary of modelled plant and equipment

Name	List of equipment	Duration	Sound power level	Annoyance penalty	Mitigation	Mitigation reduction	Notes
BR19 Backfill	Smooth drum roller , Water cart, Front end loader	75%	114 dBA	0, 0, 0 dBA		0 dBA	
BR19 Compaction	Vibratory Plate (Petrol)	50%	111 dBA	0 dBA		0 dBA	
BR18 Panel Install	Franna crane 20t, Hand tools (electric)	60%	101 dBA	0, 0 dBA		0 dBA	
BR18 Backfill	Skidsteer Loaders (approx. 1 tonne) , Smooth drum roller	75%	111 dBA	0, 0 dBA		0 dBA	
BR18 Compaction	Vibratory Plate (Petrol)	50%	111 dBA	0 dBA		0 dBA	

Static noise   
 Moving noise (continuous)   
 Moving noise (staged)

## 4. Results

OOHW1

Based on the activities detailed above, noise levels above the NMLs have been predicted at several properties. The number of properties which exceed the NML for each land use surrounding the site are provided in the table below.

Table 2. Summary of predicted potential impacts at all surrounding land uses

Land use	Noticeable	Clearly audible	Moderately intrusive	Highly intrusive
	-	N, R1, DR	V, N, R1, DR	V, N, R1, DR
Residential	67	7	0	0



Transport for NSW

Noise Estimator (Individual Plant)

Please input information into yellow cells	
Please pick from drop-down list in orange cells	
Project name	Coffs Harbour Bypass
Scenario name	Bridge Retaining Walls
Receiver address	
Select area ground type	Developed settlements (urban and suburban areas)
Select type of background noise level input	User Input

Noise area category	Representative Noise Environment	User Input
RBL or LA90 Background level (dB(A))	Day	43
	Evening	38
	Night	34
LAeq(15minute) Noise management level (dB(A))	Day	53
	Day (OOHW)	48
	Evening	43
Night	39	

Is all plant at the same representative distance to the receiver? Y/N	N	
Representative distance (m)	39	Using Individual Distances!

**Steps:**

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e.g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (where noise monitoring data is available):
  - (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
  - (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24):
  - (a) where Y is selected - enter the representative distance in cell C25.
  - (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
  - (a) enter quantity for each selected plant in cells D28 to D47.
  - (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
  - (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing:
  - (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
  - (b) background noise levels.
  - (c) noise management levels.
  - (d) predicted noise levels for each time period.
  - (e) sleep disturbance affected distance for night works.
  - (f) mitigation measures.
  - (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL LAeq (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Front End Loader	113	88	0.75	345	Yes	-1	0	345	47
Vibratory Roller	107	82	0.75	345	Yes	-1	0	345	41
Water cart	108	83	0.75	345	Yes	-1	0	345	42
Vibroplates	114	89	0.5	345	Yes	-3	0	345	46
Light vehicles	103	78	0.2	332	Yes	-7	0	332	31
Light vehicles	103	78	0.2	332	Yes	-7	0	332	31
					Yes	0	0		-888
Mobile Crane	113	88	0.6	184	Yes	-2	0	184	53
Roller	111	86	0.75	184	Yes	-1	0	184	52
Vibroplates	114	89	0.5	190	Yes	-3	0	190	53
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL LAeq(15minute) (dB(A))	58
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	Residential receiver	Non-residential receivers							
		Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets	
Noise Management Level (dB(A))	Standard hours	53	55	65	55	65	60	75	70
	Day (OOHW)	48	55	65	55	65	60	75	70
	OOHW Period 1	43		65	55	65	60	75	70
	OOHW Period 2	39		65	55			75	70
Level above background (dB(A))	Standard hours	15							
	Day (OOHW)	15							
	OOHW Period 1	20							
Level above NML (dB(A))	Standard hours	5	3		3				
	Day (OOHW)	10	3		3				
	OOHW Period 1	15			3				
	OOHW Period 2	19			3				
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	N, R1, DR							
	OOHW Period 1	V, N, R1, DR							
	OOHW Period 2	V, IB, N, PC, SN, R2, DR			N				

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for NSW

Noise Estimator (Individual Plant)

<b>Please input information into yellow cells</b>	
Please pick from drop-down list in orange cells	
Project name	Coffs Harbour Bypass
Scenario name	Bridge Retaining Walls
Receiver address	
Select area ground type	Developed settlements (urban and suburban areas)
Select type of background noise level input	User Input

Noise area category	Representative Noise Environment	User Input
RBL or LA90 Background level (dB(A))	Day	43
	Evening	38
	Night	34
LAeq(15minute) Noise management level (dB(A))	Day (OOHW)	53
	Evening	48
	Night	43

Is all plant at the same representative distance to the receiver? Y/N	N
Representative distance (m)	Using Individual Distances!

**Steps:**

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e.g. urban and suburban areas).
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (where noise monitoring data is available):
  - (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
  - (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24):
  - (a) where Y is selected - enter the representative distance in cell C25.
  - (b) where N is selected - go to step #7
7. For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
  - (a) enter quantity for each selected plant in cells D28 to D47.
  - (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
  - (c) Is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing:
  - (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
  - (b) background noise levels.
  - (c) noise management levels.
  - (d) predicted noise levels for each time period.
  - (e) sleep disturbance affected distance for night works.
  - (f) mitigation measures.
  - (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL LAeq (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Front End Loader	113	88	0.75	376	Yes	-1	0	376	46
Vibratory Roller	107	82	0.75	376	Yes	-1	0	376	40
Water cart	108	83	0.75	376	Yes	-1	0	376	41
Vibroplates	114	89	0.5	376	Yes	-3	0	376	45
Light vehicles	103	78	0.2	361	Yes	-7	0	361	30
Light vehicles	103	78	0.2	361	Yes	-7	0	361	30
					Yes	0	0		-888
Mobile Crane	113	88	0.6	216	Yes	-2	0	216	51
Roller	111	86	0.75	206	Yes	-1	0	206	51
Vibroplates	114	89	0.5	206	Yes	-3	0	206	52
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL LAeq(15minute) (dB(A))	57
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		Residential receiver	Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
Noise Management Level (dB(A))	Standard hours	53	55	65	55	65	60	75	70
	Day (OOHW)	48	55	65	55	65	60	75	70
	OOHW Period 1	43		65	55	65	60	75	70
	OOHW Period 2	39		65	55			75	70
Level above background (dB(A))	Standard hours	14							
	Day (OOHW)	14							
	OOHW Period 1	19							
	OOHW Period 2	23							
Level above NML (dB(A))	Standard hours	4	2		2				
	Day (OOHW)	9	2		2				
	OOHW Period 1	14			2				
	OOHW Period 2	18			2				
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	N, R1, DR	-	-	-	-	-	-	-
	OOHW Period 1	N, R1, DR	-	-	-	-	-	-	-
	OOHW Period 2	V, IB, N, PC, SH, R2, DR	-	-	N	-	-	-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

Transport for  
NSW

### Noise Estimator (Individual Plant)

Please input information into yellow cells  
Please pick from drop-down list in orange cells

Project name	Coffs Harbour Bypass
Scenario name	Bridge Retaining Walls
Receiver address	
Select area ground type	Developed settlements (urban and suburban areas)
Select type of background noise level input	User Input

Noise area category	Representative Noise Environment	User Input
RBL or LA90 Background level (dB(A))	Day	43
	Evening	38
	Night	34
LAeq(15minute) Noise management level (dB(A))	Day (OOHW)	53
	Evening	48
	Night	39

Is all plant at the same representative distance to the receiver? Y/N	N
Representative distance (m)	Using Individual Distances!

**Steps:**

1. Enter project name (cell C9).
2. Enter scenario name (cell C10).
3. Enter receiver address (cell C11).
4. Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e.g. urban and suburban areas)
5. Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (where noise monitoring data is available):
  - (a) where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
  - (b) where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
6. Is all plant at the same representative distance to the receiver? Select Y or N (cell C24):
  - (a) where Y is selected - enter the representative distance in cell C25.
  - (b) where N is selected - go to step #7
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  - (a) enter quantity for each selected plant in cells D28 to D47.
  - (b) where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
  - (c) is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
8. Identify the level above background and/or noise management level (see rows 57 to 62).
9. Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
10. Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
11. Document a summary report detailing:
  - (a) project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
  - (b) background noise levels.
  - (c) noise management levels.
  - (d) predicted noise levels for each time period.
  - (e) sleep disturbance affected distance for night works.
  - (f) mitigation measures.
  - (g) team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL LAeq (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Front End Loader	113	88	0.75	400	Yes	-1	0	400	45
Vibratory Roller	107	82	0.75	400	Yes	-1	0	400	39
Water cart	108	83	0.75	400	Yes	-1	0	400	40
Vibroplates	114	89	0.5	400	Yes	-3	0	400	44
Light vehicles	103	78	0.2	390	Yes	-7	0	390	29
Light vehicles	103	78	0.2	390	Yes	-7	0	390	29
					Yes	0	0		-888
Mobile Crane	113	88	0.6	295	Yes	-2	0	295	48
Roller	111	86	0.75	295	Yes	-1	0	295	47
Vibroplates	114	89	0.5	265	Yes	-3	0	265	49
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

<b>Total SPL LAeq(15minute) (dB(A))</b>	<b>54</b>
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	Residential receiver	Non-residential receivers							
		Classroom at schools and other educational institutions	Hospital wards and operating theatres	Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets	
Noise Management Level (dB(A))	Standard hours	53	55	65	55	65	60	75	70
	Day (OOHW)	48	55	65	55	65	60	75	70
	OOHW Period 1	43		65	55	65	60	75	70
	OOHW Period 2	39		65	55			75	70
Level above background (dB(A))	Standard hours	11							
	Day (OOHW)	11							
	OOHW Period 1	16							
Level above NML (dB(A))	Standard hours	1							
	Day (OOHW)	6							
	OOHW Period 1	11							
Additional mitigation measures	Standard Hours	-	-	-	-	-	-	-	-
	Day (OOHW)	N, R1, DR	-	-	-	-	-	-	-
	OOHW Period 1	N, R1, DR	-	-	-	-	-	-	-
	OOHW Period 2	V, IB, N, PC, SH, R2, DR	-	-	-	-	-	-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification

# ATTACHMENT B – COMMUNITY AGREEMENT LETTER

Coffs Harbour bypass



Resident  
Address  
Korora NSW 2450



Re: Agreement for work outside of approved construction hours on the Coffs Harbour bypass

14 March 2024



Dear Resident

The Australian and NSW Governments are funding the \$2.2 billion, 14-kilometre Coffs Harbour bypass project. The bypass will boost the regional economy and improve connectivity, road transport efficiency and safety for local and interstate motorists.

As part of major construction, the Coffs Harbour bypass project is building two bridge structures at Korora Hill between Bruxner Park Road and the Pacific Highway, Korora. Our approved construction hours are Monday to Friday from 7am to 6pm, and Saturday from 8am to 1pm. We are seeking your agreement to allow us to work outside of our approved construction hours on Saturdays from 7am to 8am and from 1pm to 6pm from 16 March to mid-June 2024.

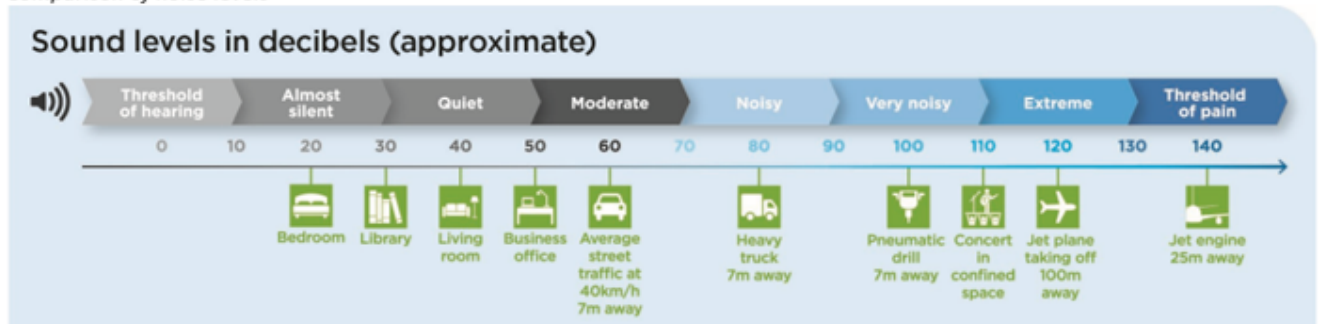
The work outside of our approved construction hours will include:

- → Backfill and compaction of retaining walls
- → Bridge retaining wall panel installation

Equipment to be used for this work will be a loader to move material from stockpile to the bridge site, a skid steer to place material behind the retaining wall, a compactor, a smooth drum roller and a water cart for dust suppression. Panels will be installed using a franna crane and hand tools.

We have assessed the potential environmental impacts of this work and have determined that the key potential impacts are associated with increased noise levels and dust generation. This work should not be overly intrusive to your outdoor amenity. The predicted noise levels are expected to be between quiet to moderate. The illustration below is provided to help explain these noise levels.

## Comparison of noise levels



To ensure compliance and mitigate impacts of this work, we will:

- consult with directly impacted residents and obtain agreement from a substantive majority ahead of the work starting and during work
- monitor noise, dust and vibration levels
- turn off plant and machinery when not in use
- position plant and equipment as far from nearby neighbours as possible
- instruct workers to keep noise to a minimum
- use water carts and soil binders to reduce dust where possible, focusing on high traffic areas within the project boundary.

#### Location of work



¶  
¶  
¶

#### Contact

If you have any questions or a complaint, please contact the project team on 1800-550-621 or [community@chbteam.com.au](mailto:community@chbteam.com.au)

#### Translating and interpreting service



If you need help understanding this information, please contact the Translating and Interpreting Service on 131-450 and ask them to call us on 1800-550-621

¶

**Conditions-of-agreement** ¶

This program of work is a proposal. We are seeking your agreement to allow us to work outside of our approved construction hours. By signing this document, you confirm that you agree to the work described within this correspondence. At any point you can withdraw this agreement by contacting the project team. The Project team will continue to engage with you during this period to ensure your continuing agreement. ¶

**Agreement-bridge-work-outside-of-approved-construction-hours**¶

Name: \_\_\_\_\_ ¶

As the resident of ADDRESS, I agree to the Coffs Harbour bypass project’s request to work outside of approved construction hours on Saturdays from 7am to 8am and from 1pm to 6pm. ¶

This agreement covers the period from March 2024 to June 2024. ¶

I agree/do not agree to a copy of this document being provided to the NSW Environmental Protection Agency. I understand that I can withdraw this agreement at any time. ¶

¶

Signature \_\_\_\_\_ Date: \_\_\_\_\_ ¶


¶

Once this signed agreement is provided to you by the Coffs Harbour bypass team, it will serve as the official notification of work. ¶



# **ATTACHMENT C – NOISE VERIFICATION MONITORING FOR BRIDGE 19**

# NOISE MONITORING FIELD SHEET

<b>Date:</b>	23/03/2024	<b>Conducted by:</b>	Anna
<b>Purpose:</b> (OOHW Permit No. if applicable)	Community Agreement Validation (OOWP #92)		
<b>Monitoring Location:</b> (Attach map or mark up as required)	 <p>MP1: 55dBA at 254m, MP2: 69dBA at 70m, MP3: 62dBA at 134m</p>		
	<b>NCA:</b>	20 / 23	<b>NML:</b> 40 / 48 dBA
<b>Monitoring Set Up</b> (take photo if possible)	<input checked="" type="checkbox"/> Field Field (>3.5m away from wall) <input type="checkbox"/> 1m from Façade (*deduct 2.5dB from all measurements)		
<b>Weather:</b>	Fine, sunny, no wind (0m/s)		
<b>Activities / Works:</b> (Note distance from the noise source)	RSW Works → Front End Loader (FEL) on access track and Posi at BR19 operating <b>Modelled Noise Prediction:</b> 53 dBA [REDACTED], 52 dBA [REDACTED]		
<b>Instrumentation</b> (model and S/N):	SVAN 971 SN: 124741		
<b>Field Calibration Measurement:</b>	<b>Before:</b>	113.97	<b>After:</b> 114.00
<b>Monitoring Event Notes:</b>			
<b>Time Started:</b>	7:30 AM	<b>Duration:</b>	15
Please include <b>duration category</b> (i.e. constant, intermittent, one-off) and actual duration (i.e. 5 mins) <ul style="list-style-type: none"> <li>7:30am: 70-73dBA – FEL sheeting access track (approx. 25-30m from monitor)</li> <li>64-67dBA – FEL engine noise</li> <li>69-70dBA – FEL scraping bucket along ground / spreading gravel</li> <li>7:32am: FEL heading to stockpile (approx. 170m away)</li> <li>58-60dBA – Posi spreading material at BR19 &amp; highway traffic</li> <li>56-57dBA – Posi dominant during lull in traffic &amp; FEL engine in distance</li> <li>7:34am: 67-68dBA – FEL engine noise on access track</li> <li>71-73dBA – FEL scraping bucket on ground / spreading gravel</li> <li>7:35am: FEL moving out of work area</li> <li>60-62dBA – FEL reversing squawker &amp; Posi engine</li> <li>7:36am: 56dBA – Posi moving and placing material</li> </ul>			

- 53dBA – pause in works, only traffic on highway
- 57-58dBA – Posi working at BR19, FEL at laydown
- 7:37am: 58-59dBA - FEL coming back to access track & Posi at BR19
- 68-70dBA – FEL sheeting access track
- 7:39am: 58-59dBA – Posi dominant, FEL engine idle
- 69-70dBA – FEL engine accelerating
  - Short peaks at 72-74dBA (approx). 2-4s during FEL operations
- 7:43am: 62-63 – Posi and workers shovelling gravel dominant, FEL engine in distance
- 7:44am: 57-60dBA – Posi placing material


#### Total Sound Levels (nearest whole dB)

<b>LAeq*</b>	67	<b>LAF90*</b>	56
<b>LAFmax*</b>	88	<b>LAF10*</b>	70

#### Summary

<b>Dominant Noise Source:</b>	Construction – FEL sheeting access track was the dominant noise source. Posi was barely audible during FEL operation.
<b>Estimated Construction Contribution (dBA):</b>	<ul style="list-style-type: none"> <li>• 67dBA – all construction</li> <li>• 59dBA – Posi at BR19</li> </ul>
<b>Monitoring Conclusion:</b>	Works in line approved impact as agreed to with affected residents.
<b>Additional mitigation / management required?</b>	N/A

# NOISE MONITORING FIELD SHEET

<b>Date:</b>	23/03/2024	<b>Conducted by:</b>	Anna
<b>Purpose:</b> (OOHW Permit No. if applicable)	Community Agreement Validation (OOWP #92)		
<b>Monitoring Location:</b> (Attach map or mark up as required)	 <p>MP1: 55dBA at 254m, MP2: 69dBA at 70m, MP3: 62dBA at 134m</p>		
	<b>NCA:</b>	20 / 23	<b>NML:</b> 40 / 48 dBA
<b>Monitoring Set Up</b> (take photo if possible)	<input checked="" type="checkbox"/> Field Field (>3.5m away from wall) <input type="checkbox"/> 1m from Façade (*deduct 2.5dB from all measurements)		
<b>Weather:</b>	Fine, sunny, no wind (0m/s)		
<b>Activities / Works:</b> (Note distance from the noise source)	RSW Works → Compaction works w/ Posi, plate compactor, vibratory roller, Loading operations with moxy & Front End Loader (FEL). Steel fixing on adjacent abutment. <b>Modelled Noise Prediction:</b> 53 dBA at [REDACTED], 52 dBA at 1 [REDACTED]		
<b>Instrumentation</b> (model and S/N):	SVAN 971 SN: 124741		
<b>Field Calibration Measurement:</b>	<b>Before:</b>	113.97	<b>After:</b> 114.00
<b>Monitoring Event Notes:</b>			
<b>Time Started:</b>	8:33 AM	<b>Duration:</b>	15
Please include <b>duration category</b> (i.e. constant, intermittent, one-off) and actual duration (i.e. 5 mins)			
<ul style="list-style-type: none"> <li>• 8:33am: 57-58dBA – Posi, roller and compactor             <ul style="list-style-type: none"> <li>◦ Jumps to 60dBA with roller squawker reversing alarm</li> </ul> </li> <li>• 62-63dBA – Posi, roller and compactor</li> <li>• 8:36am: 66-70dBA – moxy reversing squawker</li> <li>• 61dBA – general hum of BR19 compaction works</li> <li>• 8:36am: 68dBA – FEL loading moxy (noisy short peak ~2-3s when first loaded dropped into back of truck)</li> <li>• 61-62dBA – FEL reversing squawker, BR19 compaction works</li> <li>• 8:39am: 63dBA – FEL loading moxy (much quieter after first load went in). <i>Note: moxy engine idle not audible during loading or bridge works.</i></li> <li>• 8:40am: 63-65dBA FEL manoeuvring to load moxy &amp; BR19 compaction works</li> <li>• 62-63dBA – noise from gravel dropping into back of moxy.&amp; BR19 compaction works</li> </ul>			

- 8:43am: 63-64dBA – plate compactor audible/BR19 compaction works, FEL engine noise.
- 8:45am: 64-66 – FEL engine idling + BR19 compaction works
- 8:46am: moxy still idle and being loaded
- 8:47am: 59-61dBA – BR19 compaction works only (no roller). Short peaks of 63dBA


**Total Sound Levels (nearest whole dB)**

<b>L<sub>Aeq</sub>*</b>	63	<b>L<sub>AF90</sub>*</b>	61
<b>L<sub>AFmax</sub>*</b>	75	<b>L<sub>AF10</sub>*</b>	65

**Summary**

<b>Dominant Noise Source:</b>	Construction – RSW works <i>Note: Bridge compaction works are generally a continuous noise source (i.e. hum) and FEL/Moxy works are more intermittent.</i>
<b>Estimated Construction Contribution (dBA):</b>	63dBA
<b>Monitoring Conclusion:</b>	Works in line approved impact as agreed to with affected residents.
<b>Additional mitigation / management required?</b>	N/A

# NOISE MONITORING FIELD SHEET

<b>Date:</b>	23/03/2024	<b>Conducted by:</b>	Anna
<b>Purpose:</b> (OOHW Permit No. if applicable)	Community Agreement Validation (OOWP #92)		
<b>Monitoring Location:</b> (Attach map or mark up as required)	 <p>MP1: 55dBA at 254m, MP2: 69dBA at 70m, MP3: 62dBA at 134m</p>		
	<b>NCA:</b>	20 / 23	<b>NML:</b> 40 / 48 dBA
<b>Monitoring Set Up</b> (take photo if possible)	<input checked="" type="checkbox"/> Field Field (>3.5m away from wall) <input type="checkbox"/> 1m from Façade (*deduct 2.5dB from all measurements)		
<b>Weather:</b>	Fine, sunny, no wind (0m/s)		
<b>Activities / Works:</b> (Note distance from the noise source)	RSW Works → Compaction works w/ Posi, plate compactor, vibratory roller, Loading operations with moxy & Front End Loader (FEL). Steel fixing on adjacent abutment. <b>Modelled Noise Prediction:</b> 53 dBA at 53 BPR, 52 dBA at 15 BPR		
<b>Instrumentation</b> (model and S/N):	SVAN 971 SN: 124741		
<b>Field Calibration Measurement:</b>	<b>Before:</b>	113.97	<b>After:</b> 114.00
<b>Monitoring Event Notes:</b>			
<b>Time Started:</b>	9:03 AM	<b>Duration:</b>	15
Please include <b>duration category</b> (i.e. constant, intermittent, one-off) and actual duration (i.e. 5 mins)			
<ul style="list-style-type: none"> <li>9:03am: 50-51dBA – BR19 works (roller, Posi, plate compactor) &amp; traffic</li> <li>51-52dBA – BR19 works &amp; loader manoeuvring on site (at laydown area) <i>Note: BR19 works are hardly discernible from traffic noise</i></li> <li>9:05am: 49-50dBA – BR19 works with light traffic on highway</li> <li>53-55dBA – loader engine accelerating near BR18</li> <li>9:09am: 51-52dBA – Loader, Posi and traffic</li> <li>9:10am: 56-59dBA – 70t excavator tracking at Cut16 (louder than bridge works)             <ul style="list-style-type: none"> <li>○ Jumps to 60-64dBA with traffic on highway</li> </ul> </li> <li>9:13am: 51-52dBA – BR19 compaction works (Posi, WC) and traffic</li> <li>9:14am: 55-60dBA – excavator tracking again at Cut 16 &amp; roller on BR19</li> <li>9:16am: 51-52dBA – BR19 vibratory rolling &amp; traffic</li> </ul>			

- 9:16am: 51dBA – BR19 plate compactor and vibratory roller
- 9:17am: pause in bridge works, traffic only at 49-50dBA

**Total Sound Levels (nearest whole dB)**

<b>L<sub>Aeq</sub>*</b>	54	<b>L<sub>AF90</sub>*</b>	50
<b>L<sub>AFmax</sub>*</b>	63	<b>L<sub>AF10</sub>*</b>	57

**Summary**

<b>Dominant Noise Source:</b>	Construction (RSW works) and traffic
<b>Estimated Construction Contribution (dBA):</b>	<ul style="list-style-type: none"> <li>• 54dBA – construction and traffic</li> <li>• 52dBA – construction only</li> </ul>
<b>Monitoring Conclusion:</b>	Works in line approved impact as agreed to with affected residents.
<b>Additional mitigation / management required?</b>	Reversing alarm on Coates water cart to be swapped out for squawker only.