Technical Memo

Our Ref:	ATP241202-TM-01
Enquiries to:	Sasho Temelkoski
Date:	17 December 2024
Project:	Clay Gully Road Estate – Stage 5
Client:	Urbex Pty Ltd

Re: Clay Gully Road Estate in Victoria Point – Stage 5 – Acoustic Letter Addendum to Approved Noise Impact Assessment Report

1. Introduction

ATP Consulting Engineers (ATP) was engaged by Urbex to provide an acoustic letter explaining the implications of the amendments to the development layout of Stage 5 of the Clay Gully Road Estate residential subdivision in Victoria Point. This acoustic letter is provided as an addendum to the approved acoustic report for this development in support of the Operational Works Application to Redland City Council (RCC).

A Noise Impact Assessment report (ref. *RB/16-720.R01.Rev2* dated 9 November 2017) has previously been prepared by *Acoustics RB Pty Ltd* considering the potential noise impacts on the residential subdivision from the adjoining noise generating premises.

The acoustic report have identified and assessed two (2) noise generating premises with the potential to impact the acoustic amenity within the development as follows:

- Victoria Point Baptist Church located on Lot 7 on RP802223, directly north of the development; and
- Chicken farm located on Lot 1 on RP86773, directly south of the development.

This acoustic letter is an addendum to the approved Noise Impact Assessment by *Acoustics RB Pty Ltd* considering the latest development layout.

2. Subject Site

The development is located over Lot 4 on RP57455, Lot 1 on RP95513 and Lot 1 on RP72635, Victoria Point. The land has a total area of 22.793ha and is located within the Redland City Council Local Government Area.

The development layout, as considered in the approved acoustic report, is presented in Figure 2.1.

YIELD AND MIX

	12.5m 29-31m 401sqm		14m 29-31m 435sqm		16m 29-31m 505sqm		14m 28m 411sqm		16m 28m 459sqm		20-25m 31-42m 725sqm		Vendor Lots 2949sqm		TOTAL
Average width Average depth Average size															
STAGE 1	1	3%	7	18%	3	8%	11	28%	6	15%	8	20%	4	10%	40
STAGE 2	7	15%	21	0%	9	19%	6	13%	2	4%	0	0%	2	4%	47
STAGE 3	2	6%	4	12%	4	12%	4	12%	10	29%	10	29%	0	0%	34
STAGE 4	5	14%	11	31%	17	49%	0	0%	1	3%	1	3%	0	0%	35
STAGE 5	6	17%	10	28%	5	14%	8	22%	6	17%	1	3%	0	0%	36
STAGE 6	0	0%	16	47%	10	29%	7	21%	1	3%	0	0%	0	0%	34
STAGE 7	10	59%	4	24%	2	12%	0	0%	0	0%	0	0%	1	6%	17
STAGE 8	7	26%	3	11%	4	15%	7	26%	5	19%	1	4%	0	0%	27
YIELD	38	14%	76	28%	54	20%	43	16%	31	11%	21	8%	7	3%	270

Figure 2.1 Approved Development Layout

The amended layout of Stage 5 of the Clay Gully Road Estate development is presented in Figure 2.2.

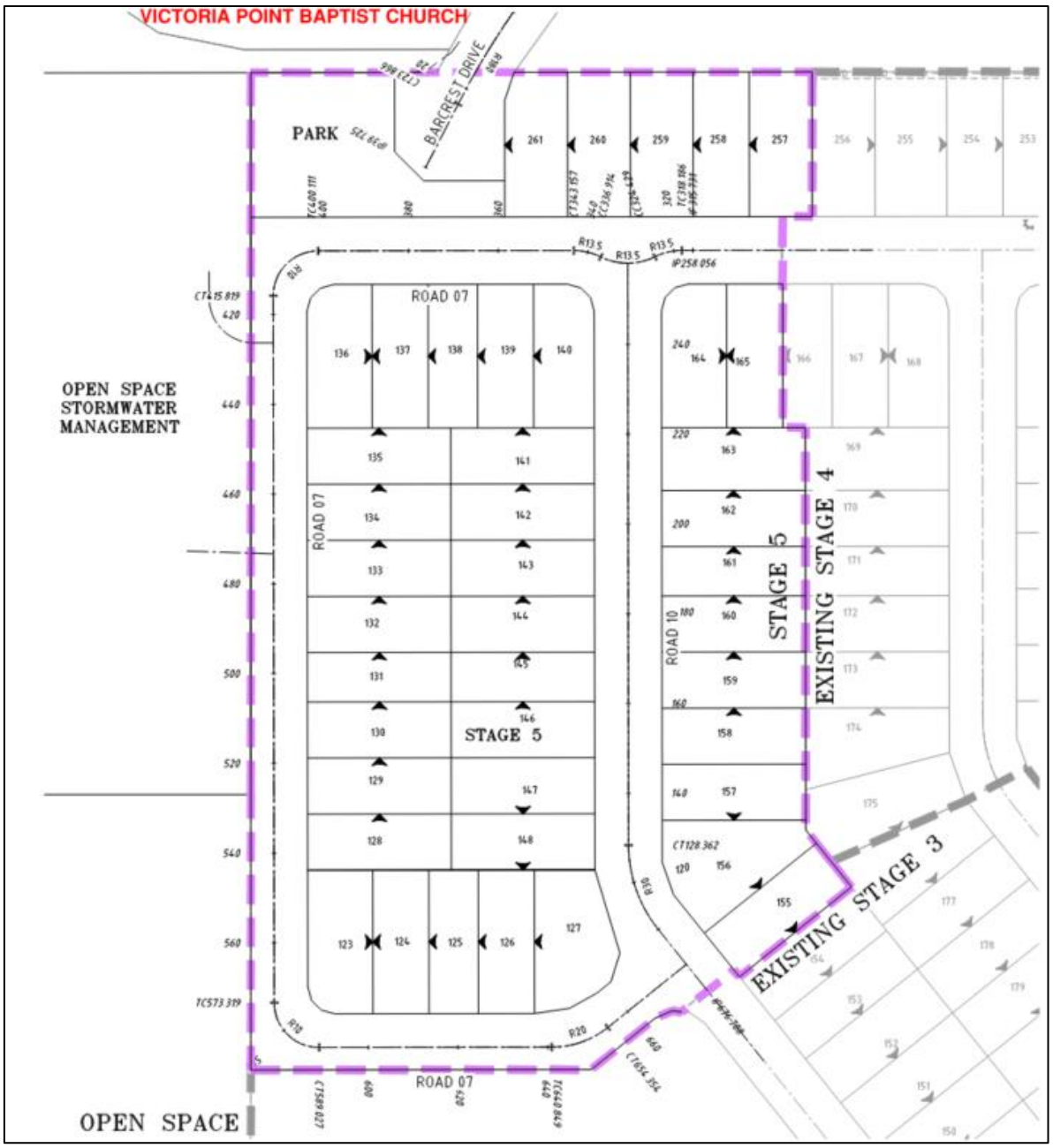

Figure 2.2 Amended layout of Stage 5

3. Acoustic Report Requirements

The approved acoustic report (ref. *RB/16-720.R01.Rev2* dated 9 November 2017) by *Acoustics RB Pty Ltd* has identified that only the Victoria Point Baptist Church has the potential to cause noise impacts on the uses within the proposed development.

To prevent noise impacts, it has been recommended that seven (7) of the residences should be acoustically upgraded to prevent noise intrusion. Further to this it has been recommended that, the upgraded residences (seven in total), as well as additional seven (7) residences be provided with air conditioning or mechanical ventilation to enable windows and doors to remain closed when desired.

The noise impacted lots which require acoustic upgrades and air conditioning, or mechanical ventilation are as follows (refer to Figure 2.1 for location):

- Lot 22;
- Lot 23;
- Lot 24;
- Lot 25;
- Lot 26;
- Lot 27; and
- Lot 28.

The following lots require air conditioning or mechanical ventilation are as follows (refer to Figure 2.1 for location):

- Lot 34;
- Lot 35;
- Lot 36;
- Lot 37;
- Lot 38;
- Lot 167; and
- Lot 168.

The future dwellings on the allotments where acoustic upgrade is recommended, require the following:

An acoustical design review of each of the seven residences constructed on Lots 22-28 shall be undertaken to ensure that the internal noise limits for continuous noise sources set by Planning Scheme Part 11 Planning Scheme Policy 5 Environmental Emissions (Code) are met in all habitable spaces of these residences. These limits are as follows:-

- *Bedrooms (10:00pm – 7:00am): 30dBA $L_{Aeq,adj,1hr}$*
- *Bedrooms (7:00am – 10:00pm): 35dBA $L_{Aeq,adj,1hr}$*
- *All other habitable spaces: 35dBA $L_{Aeq,adj,1hr}$*

For the lots which require air conditioning or mechanical ventilation, the proposed system must be designed in accordance with the requirements of AS1668.2 and Part 3.8.5 Ventilation of the Building Code of Australia and installed in each habitable room of the residences.

4. Recommendations

The amended layout of Stage 5 uses a different lot numbering scheme to that used in the approved acoustic report and has fewer lots directly adjacent to Victoria Point Baptist Church. Additionally, the residential lots to the west of the Barcrest Drive cul-de-sac have been replaced with a park.

Under the new lot numbering scheme (refer to Figure 2.2) the lots of Stage 5 which require acoustic upgrades and air conditioning or mechanical ventilation are as follows:

- Lot 259;
- Lot 260; and
- Lot 261.

The lots of Stage 5 which will require air conditioning or mechanical ventilation are as follows:

- Lot 136;
- Lot 137;
- Lot 138;
- Lot 139; and
- Lot 140.

An acoustical design review of each of the residences constructed on Lots 259-261 must be undertaken to ensure that the internal noise limits for continuous noise sources set by Planning Scheme Part 11 Planning Scheme Policy 5 Environmental Emissions (Code) are met in all habitable spaces of these residences. These limits are as follows:

- Bedrooms (10:00pm – 7:00am): 30dB(A) $L_{Aeq,adj,1hr}$
- Bedrooms (7:00am – 10:00pm): 35dB(A) $L_{Aeq,adj,1hr}$
- All other habitable spaces: 35dB(A) $L_{Aeq,adj,1hr}$

For the lots which require air conditioning or mechanical ventilation, the proposed system must be designed in accordance with the requirements of AS1668.2 and Part 3.8.5 Ventilation of the Building Code of Australia and installed in each habitable room of the residences.

5. Discussions and Conclusions

ATP Consulting Engineers (ATP) was engaged by Urbex to provide an acoustic letter for Stage 5 of the proposed Clay Gully Road Estate residential subdivision in Victoria Point in support of the Operational Works Application to Redland City Council (RCC). This acoustic letter is provided as an addendum to the approved acoustic report for this development in support of the Operational Works Application to Redland City Council (RCC).

A Noise Impact Assessment report (ref. *RB/16-720.R01.Rev2* dated 9 November 2017) has previously been prepared by *Acoustics RB Pty Ltd* considering the potential noise impacts on the residential subdivision from the adjoining noise generating premises.

The layout of Stage 5 of the subdivision has undergone significant layout changes since the Noise Impact Assessment was prepared. ATP has carried out review of the layout to determine the necessary mitigation measures to prevent noise impacts on the proposed residences.

To ensure suitable noise amenity within the proposed residences, the following noise mitigation measures are recommended:

- An acoustical design review of each of the residences constructed on Lots 259-261 must be undertaken to ensure that the internal noise limits for continuous noise sources set by Planning Scheme Part 11 Planning Scheme Policy 5 Environmental Emissions (Code) are met in all habitable spaces of these residences. These limits are as follows:
    - Bedrooms (10:00pm – 7:00am): 30dB(A) $L_{Aeq,adj,1hr}$
    - Bedrooms (7:00am – 10:00pm): 35dB(A) $L_{Aeq,adj,1hr}$
    - All other habitable spaces: 35dB(A) $L_{Aeq,adj,1hr}$
- Lots 259-261 and Lots 136-140 must be provided with air conditioning or mechanical ventilation to enable windows and doors to remain closed when desired. The proposed mechanical ventilation system must be designed in accordance with the requirements of AS1668.2 and Part 3.8.5 Ventilation of the Building Code of Australia and installed in each habitable room of the residences.

Provided the noise mitigation measures recommended in this report, are fully implemented in the design and construction, there will be no further acoustic constraints on the establishment of Stage 5 of the Clay Gully Road Estate in Victoria Point.

Yours faithfully,

Sasho Temelkoski MIEAust CPEng RPEQ MAAS
Managing Director and Principal Engineer
ATP Consulting Engineers