MATTHEW PALAVIDIS
VICTOR FATTORETTO
MATTHEW SHIELDS

1 Brighton Road, St Kilda

Acoustic Assessment - Planning Permit Condition 23

MELBOURNE
41 Cobden St
NORTH MELBOURNE VIC 3051
(03) 9272 6800

ABN 98 145 324 714
www.acousticlogic.com.au

Project ID	20210758.1
Document Title	Acoustic Assessment - Planning Permit Condition
Attention To	Twenty20 Property Group Pty Ltd

Revision	Date	Document Reference	Prepared By	Checked By	Approved By
0	13/07/2021	20210758.1/1307A/R0/BAW	BAW		
1	1/09/2021	20210758.1/0109A/R1/BAW	BAW		

TABLE OF CONTENTS

1 INTRODUCTION

Acoustic Logic Pty Ltd (AL) has been engaged by Twenty20 Property Group Pty Ltd to undertake an acoustic assessment for the proposed mixed-use development located at 1 Brighton Road, St Kilda. The assessment has been conducted to address Condition 23 of Planning Permit No. 665/2016/B prepared by City of Port Phillip dated 5 July 2021.

The following documents have been referenced for the acoustic assessment.

Table 1 – Referenced Documents

Company	Document Reference	Date
City of Port Phillip	Planning Permit No. 665/2016/B	5 July 2021
Bruce Henderson Architects	Preliminary issue for Coordination (Rev P1)	27 August 2021

2 PROJECT DESCIRPTION

The proposed mixed-use development is a 7-storey building which incorporate a basement carpark, retail tenancies on the ground level, and residential apartments from level 1 to 6. The subject site is bounded by Brighton Road / Nepean Highway to the east, Blessington Street to the north, Moroney Street to the west and an existing 4-storey residential development to the south.

Figure 1 below indicate the subject site, surrounding environments and measurement locations.

Figure 1 – Subject site, surrounding environments and measurement locations (source: Google Maps)

2.1 LOCAL NOISE SOURCES

The inspection on site indicates that the dominant noise level at the subject site is the traffic noise levels from Brighton Road / Nepean Highway which carries a high level of traffic volume and include a tram track.

3 PLANNING PERMIT

Condition 23 of Planning Permit No. 665/2016/B by City of Port Phillip contains the following:

Acoustic report

23 Before development starts, an acoustic report is to be submitted indicating that no dwelling as permitted would be subject to excessive external noise effects, particularly in the form of Traffic noise from Brighton Road.

4 ENVIRONMENTAL NOISE DESCRIPTORS

Environmental noise constantly varies in level, due to fluctuations in local noise sources including road traffic. Accordingly, a 15-minute measurement interval is normally utilised. Over this period, noise levels are monitored on a continuous basis and statistical and integrating techniques are used to determine noise description parameters.

In the case of environmental noise three principle measurement parameters are used, namely L_{10}, L_{90} and L_{eq}.

The L_{10} and L_{90} measurement parameters are statistical levels that represent the average maximum and average minimum noise levels respectively, over the measurement intervals.

The L_{10} parameter is commonly used to measure noise produced by a particular intrusive noise source since it represents the average of the loudest noise levels produced by the source.

Conversely, the L_{90} level (which is commonly referred to as the background noise level) represents the noise level heard in the quieter periods during a measurement interval. The L_{90} parameter is used to set the allowable noise level for new, potentially intrusive noise sources since the disturbance caused by the new source depends on how audible it is above the pre-existing noise environment, particularly during quiet periods, as represented by the L_{90} level.

The L_{eq} parameter represents the average noise energy during a measurement period. This parameter is derived by integrating the noise levels measured over the measurement period. L_{ea} is important in the assessment of traffic noise impact as it closely corresponds with human perception of a changing noise environment; such is the character of industrial noise.

5 TRAFFIC NOISE LEVEL CRITERIA

It has been advised to AL that the Standard D16 / Clause 58.04- is not applicable for this development. This is based on the formal advised by Ratio attached in Appendix 2 of this report.

Australian Standard AS/NZS2107:2016 "Recommended Design Sound Levels and Reverberation Times for Building Interiors" sets out recommended design sound levels for residential developments depending on locality to minor or major roads. Table 2 below details the internal traffic noise level criteria for this development.

Table 2 – Internal Traffic Noise Level Criteria

Location	**Internal Design Noise Level[1]**	
	Day (7am – 10pm) dB(A) L_{eq}	Night (10pm – 7am) dB(A) L_{eq}
Apartment Bedroom	35 - 45	35 - 40
Apartment Living Room	35 - 45	N/A

Note 1 - Noise level within furnished room ready for occupation with external windows and doors closed.

6 NOISE LEVEL MEASUREMENTS

This section details the noise level measurements conducted at the subject site.

6.1 MEASUREMENT LOCATIONS

The noise level measurements were conducted on the following locations as indicated in Figure 1:

- Measurement location 1: an unattended noise monitor was installed facing Brighton Road / Nepean Highway. The monitor was installed in-line with the eastern façade of the proposed development with the microphone located approximately 1.5 metres above grade with full view of the road and free field.

- Measurement location 2: attended traffic noise measurements facing Brighton Road / Nepean Highway with the microphone of the sound level meter located approximately 1.5 above grade. Note that the measurements had full view of the road and free field.

- Measurement location 3: attended traffic noise measurements facing Blessing Street with the microphone of the sound level meter located approximately 1.5 above grade. Note that the measurements had full view of the road and free field.

6.2 TIME OF MEASUREMENTS

The unattended noise monitor on location 1 was installed on site between 8 and 13 July 2021.

The attended traffic noise level measurements at location 2 and 3 was conducted on 8 July 2021 between 4pm and 5pm.

6.3 MEASUREMENT EQUIPMENT

An ARL-315 noise monitor was used for the unattended traffic noise level measurements. The noise monitor was programmed to store continuous 15-minute statistical noise levels through the monitoring period. Equipment was calibrated at the beginning and the end of the measurements; no significant drift was detected. All measurements were taken on fast response mode.

A Norsonic Nor140 Sound Level Analyser was used for the attended measurements. Equipment was calibrated at the beginning and the end of the measurement using a B&K Type 4231 calibrator; no significant drift was detected. All measurements were taken on fast response mode.

6.4 MEASURED NOISE LEVELS

The measured noise levels are presented in the tables below.

Table 3 – Un-attended Traffic Noise Level Measurements

Measurement Location	Period	Measured Noise Levels
Location 1 – Brighton Road / Nepean Highway	6am to 7am	72 dB(A)$L_{eq,1hr}$
	Day (7am to 10pm)	69 dB(A)$L_{eq,15hr}$
	Night (10pm to 7am)	66 dB(A)$L_{eq,9hr}$

Table 4 – Attended Traffic Noise Level Measurements

Date	Measurement Time	Measurement Location	Noise Levels dB(A) $L_{eq,15min}$
8 July 2021	4:00pm – 4:15pm	Location 2	71
	4:16pm – 4:31pm	Location 3	66

7 EVALUATION OF EXTERNAL NOISE INTRUSION

Internal noise levels will primarily be as a result of noise transfer through the windows, doors and roof as these are relatively light building elements that offer less resistance to the transmission of sound. Walls that are proposed to be precast / heavy masonry elements will not require upgrading acoustically.

The predicted noise levels through the windows, doors and roof are discussed below. The predicted noise levels have been based on the expected level and spectral characteristics of the external noise, the area of building elements exposed to rail noise, the absorption characteristics of the rooms and the noise reduction performance of the building elements.

The constructions set out below are necessary for the satisfactory control of external noise.

7.1 RECOMMENDED GLAZING

The minimum glazing requirements schedule for this development is detailed in **Appendix 1 – Markup**. The glass thicknesses shown in the schedule do not take into account thermal, structural, safety or any other requirements other than acoustic requirements and thus may require upgrading in some instances. In these instances, increasing the glass thickness beyond the acoustic requirement will be acceptable. Where the glazing thickness has not been specified, standard glazing will be acceptable.

Table 5 below details the minimum Rw performance requirements for the glazing assembly installed. Where open-able windows or sliding doors are installed, the total Rw performance of the system shall not be lower than the values listed in Table 5**.** It is noted that the system supplied shall meet the overall minimum Rw ratings nominated based on a laboratory test report for the system. If an alternative system is proposed the system shall be reviewed and will require approval by a suitably qualified acoustic consultant to ensure that the proposed system is acceptable and will ensure compliance with the nominated internal noise design criteria.

Table 5 – Minimum External Glazing Requirements / Performance

Glazing Location	Required Glazing Construction[1]	Minimum Rw of Installed Window System	Acoustic Seals[2]
Refer Appendix 1 – Markup	6mm or 6/12/6 IGU	29	Yes
	6.38mm lam or 6/12/6.38mm lam IGU	31	Yes
	10.38mm lam or 6/12/10.38 lam IGU	35	Yes
	12.76mm lam or 6/12/12.76 lam IGU	37	Yes
	8.38mm lam / 12mm airgap / 12.76mm lam	39	Yes

Note 1 – or as approved by a suitable qualified acoustic consultant.
Note 2 - Mohair Seals in windows and doors are not acceptable where acoustic seals are required. Seals in these instances shall be equal to Schlegel Q-lon.

7.2 ROOF CONSTRUCTION

The roof construction of the proposal is to be a combination between concrete construction which will not require upgrading acoustically.

Penetrations in ceilings (such as for light fittings etc.) must be sealed gap free with a flexible sealant. Any ventilation openings in the ceilings would need to be acoustically treated to maintain the acoustic performance of the ceiling construction.

7.3 EXTERNAL WALL CONSTRUCTION

Apartment external walls that incorporate concrete or masonry elements will not require upgrading acoustically. Refer Appendix 1 for the minimum requirement for lightweight external wall construction.

Penetrations in walls must be sealed gap free with a flexible sealant. Any ventilation openings in the walls would need to be acoustically treated to ensure compliance with the nominated design criteria.

8 CONCLUSION

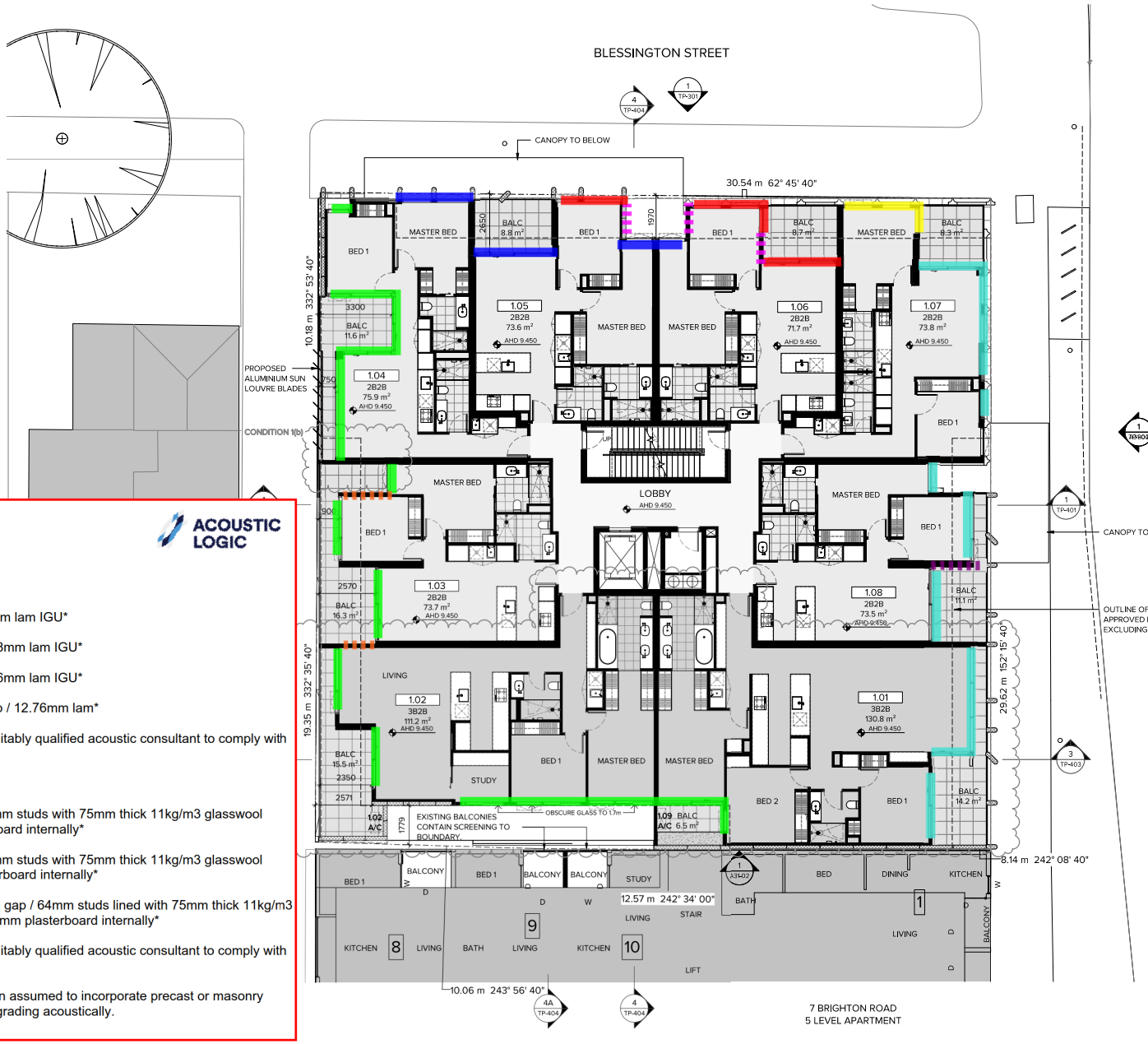
This report presents our acoustic assessment with respect to the proposed mixed-use development located at 1 Brighton Road, St Kilda. Provided the acoustic treatment recommendations detailed in this report is implemented, compliance with the internal traffic noise level criteria will be achieved and therefore will satisfy Condition 23 of Planning Permit No. 665/2016/B by City of Port Phillip.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

Acoustic Logic Pty Ltd
Barli Wibisono

APPENDIX 1 – MARKUP



NOTES
- ALL BALCONIES TO HAVE TAPS AND FLOOR WASTES - **CONDITION 6**
- WATER TANKS CONNECTED TO ALL TOILETS FOR FLUSHING - **CONDITION 1(e)**
- ALL PLANT, EQUIPMENT AND DOMESTIC SERVICES ARE LOCATED EXTERNALLY - **CONDITION 1(f)**

79 BLESSINGTON STREET

7 BRIGHTON ROAD

Rev: 1
Date: 1/09/2021

ACOUSTIC LOGIC

Minimum Glazing Thickness

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38mm lam IGU*
- 10.38mm lam or 6/12/10.38mm lam IGU*
- 12.76mm lam or 6/12/12.76mm lam IGU*
- 8.38mm lam / 12mm airgap / 12.76mm lam*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

External Wall Construction

- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 13mm plasterboard internally*
- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*
- 75mm Hebel panel / 20mm gap / 64mm studs lined with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

All unmarked external walls have been assumed to incorporate precast or masonry construction which will not require upgrading acoustically.

BRUCE HENDERSON ARCHITECTS

MELBOURNE
LONDON
HANOI

162 TOORAK ROAD
SOUTH YARRA VICTORIA 3141

T: +61 3 9860 4000
ARBV REG. NO. 50072
www.bh-architects.com

NOTES:
Do not scale. All drawings, layouts and area calculations are indicative only and are subject to approval by the relevant Authorities and alterations due to Design Development. Drawings are not to be used for construction. All apartment and balcony areas are calculated as Gross Floor Area in accordance with the Method of Measurement for Residential Property as published by the Property Council of Australia.

CHECKED: BHA

REV	DATE	DESCRIPTION
A	24.06.20	ISSUED FOR INFORMATION
B	26.06.20	ISSUED FOR REVIEW
C	31.07.20	ISSUED FOR REVIEW
D	03.08.20	ISSUED FOR REVIEW
E	27.08.21	ISSUED FOR ENDORSEMENT

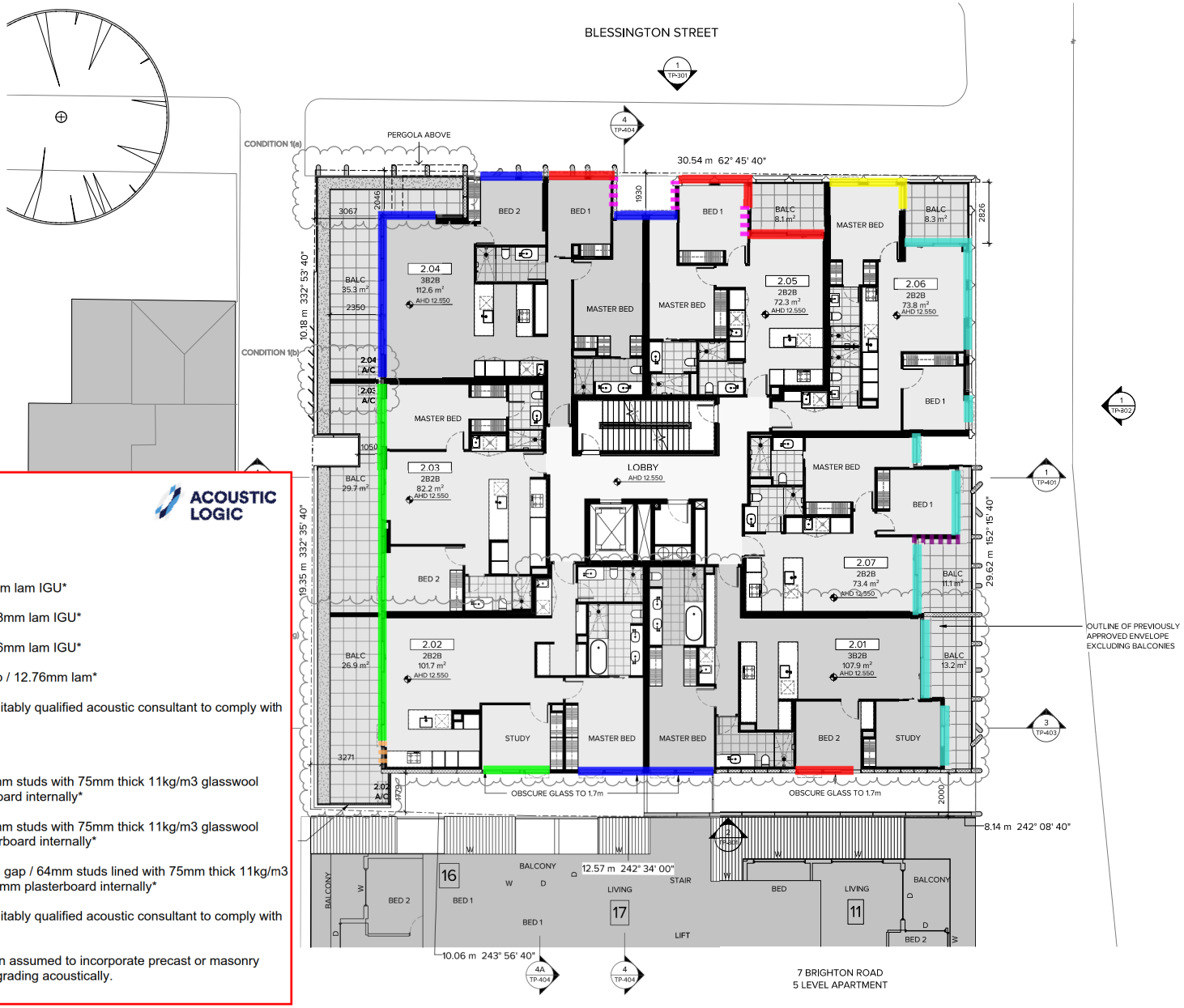
REV	DATE	DESCRIPTION

0 0.5 1.0 2.0 4.0m

PROJECT:
1 BRIGHTON ROAD, ST KILDA

DRAWING TITLE:
PROPOSED LEVEL 01 PLAN

DATE:	24.11.20	JOB N°:	40020
SCALE:	1:100@A1	REVISION N°:	E
DRAWN:	BHA		
DRAWING STATUS:	TOWN PLANNING	DRAWING N°:	TP-206



NOTES
- ALL BALCONIES TO HAVE TAPS AND FLOOR WASTES - **CONDITION 6**
- WATER TANKS CONNECTED TO ALL TOILETS FOR FLUSHING - **CONDITION 1(e)**
- ALL PLANT, EQUIPMENT AND DOMESTIC SERVICES ARE LOCATED EXTERNALLY - **CONDITION 1(f)**

Rev: 1
Date: 1/09/2021

ACOUSTIC LOGIC

Minimum Glazing Thickness

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38mm lam IGU*
- 10.38mm lam or 6/12/10.38mm lam IGU*
- 12.76mm lam or 6/12/12.76mm lam IGU*
- 8.38mm lam / 12mm airgap / 12.76mm lam*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

External Wall Construction

- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 13mm plasterboard internally*
- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*
- 75mm Hebel panel / 20mm gap / 64mm studs lined with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

All unmarked external walls have been assumed to incorporate precast or masonry construction which will not require upgrading acoustically.

BRUCE HENDERSON ARCHITECTS
MELBOURNE
LONDON
HANOI
162 TOORAK ROAD
SOUTH YARRA VICTORIA 3141
T: +61 3 9860 4000
ARBV REG. NO. 50072
www.bh-architects.com

NOTES:
Do not scale. All drawings, layouts and area calculations are indicative only and are subject to approval by the relevant Authorities and alterations due to Design Development. Drawings are not to be used for construction. All apartment and balcony areas are calculated as Gross Floor Area in accordance with the Method of Measurement for Residential Property as published by the Property Council of Australia.

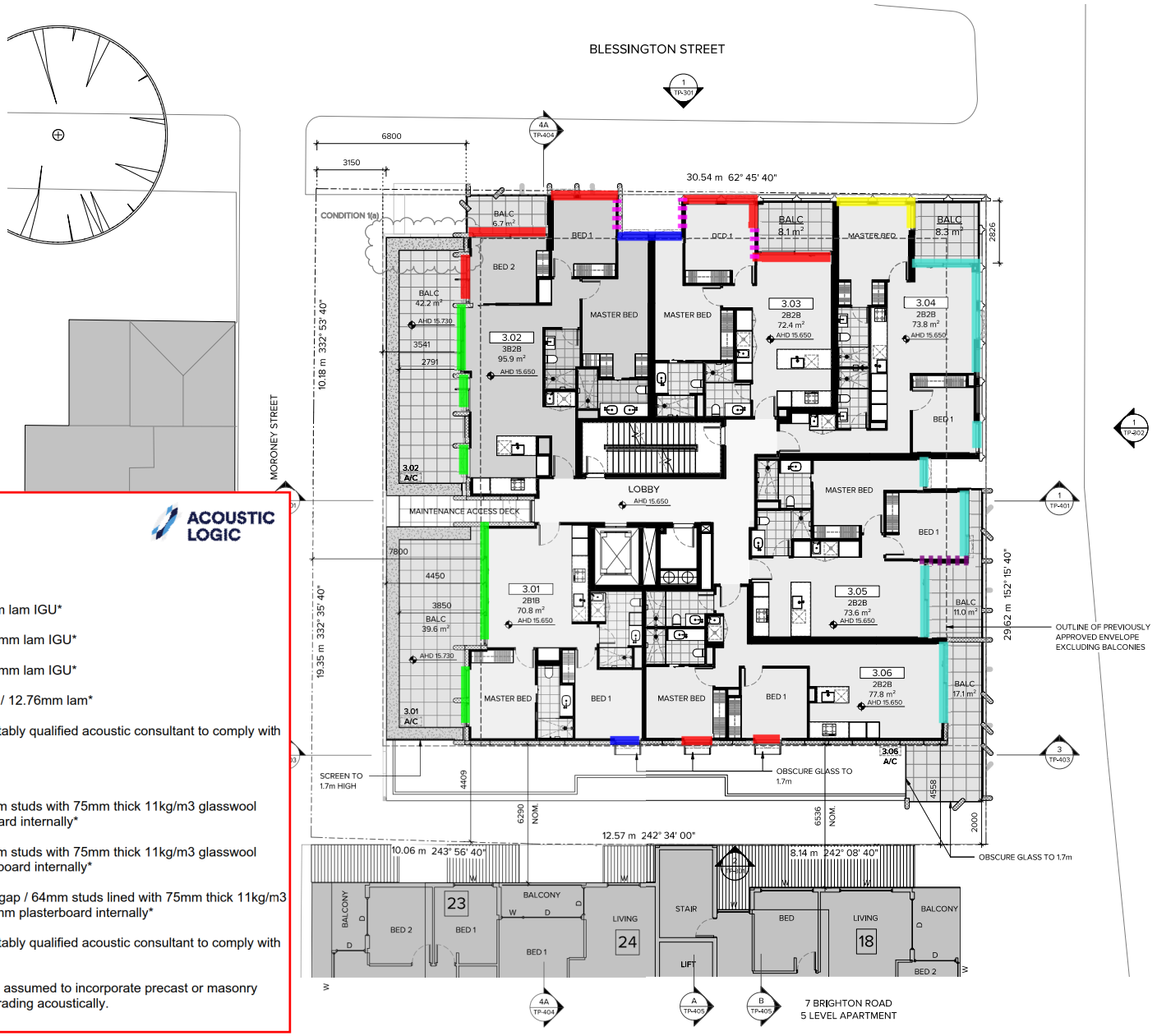
CHECKED: BHA

REV	DATE	DESCRIPTION
A	24.06.20	ISSUED FOR INFORMATION
B	26.06.20	ISSUED FOR REVIEW
C	31.07.20	ISSUED FOR REVIEW
D	03.08.20	ISSUED FOR REVIEW
E	27.08.21	ISSUED FOR ENDORSEMENT

PROJECT:
1 BRIGHTON ROAD, ST KILDA

DRAWING TITLE:
PROPOSED LEVEL 02 PLAN

DATE: 24.11.20
JOB N°: 40020
SCALE: 1:100@A1
REVISION N°: E
DRAWN: BHA
DRAWING STATUS: TOWN PLANNING
DRAWING N°: TP-207



NOTES
- ALL BALCONIES TO HAVE TAPS AND FLOOR WASTES - **CONDITION 6**
- WATER TANKS CONNECTED TO ALL TOILETS FOR FLUSHING - **CONDITION 1(e)**
- ALL PLANT, EQUIPMENT AND DOMESTIC SERVICES ARE LOCATED EXTERNALLY - **CONDITION 1(f)**

Rev: 1
Date: 1/09/2021

ACOUSTIC LOGIC

Minimum Glazing Thickness

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38mm lam IGU*
- 10.38mm lam or 6/12/10.38mm lam IGU*
- 12.76mm lam or 6/12/12.76mm lam IGU*
- 8.38mm lam / 12mm airgap / 12.76mm lam*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

External Wall Construction

- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 13mm plasterboard internally*
- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*
- 75mm Hebel panel / 20mm gap / 64mm studs lined with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

All unmarked external walls have been assumed to incorporate precast or masonry construction which will not require upgrading acoustically.

BRUCE HENDERSON ARCHITECTS
MELBOURNE
LONDON
HANOI
162 TOORAK ROAD
SOUTH YARRA VICTORIA 3141
T: +61 3 9860 4000
ARBV REG. NO. 50072
www.bh-architects.com

NOTES:
Do not scale. All drawings, layouts and area calculations are indicative only and are subject to approval by the relevant Authorities and alterations due to Design Development. Drawings are not to be used for construction. All apartment and balcony areas are calculated as Gross Floor Area in accordance with the Method of Measurement for Residential Property as published by the Property Council of Australia.

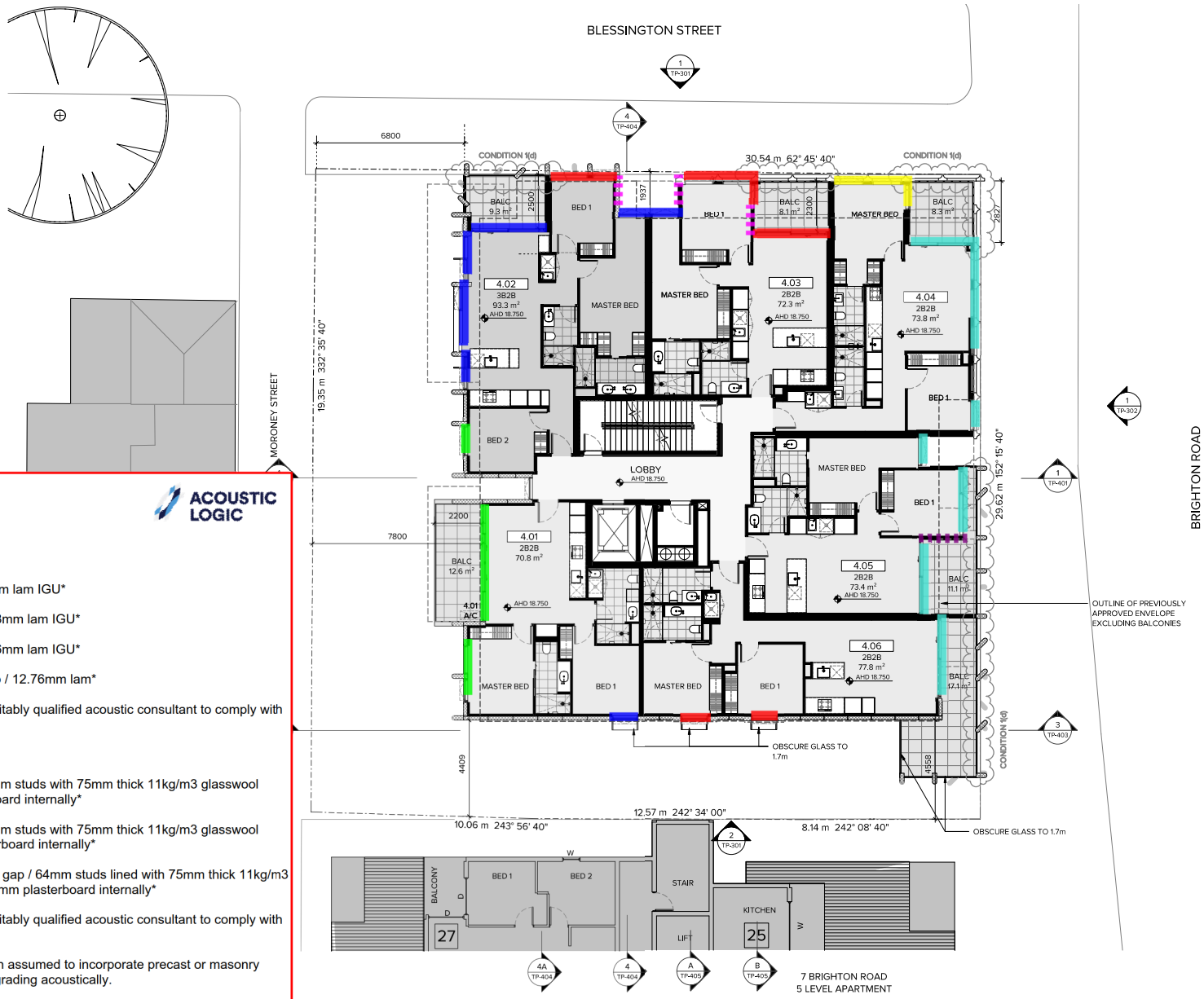
CHECKED BHA

REV	DATE	DESCRIPTION
A	24.06.20	ISSUED FOR INFORMATION
B	26.06.20	ISSUED FOR REVIEW
C	31.07.20	ISSUED FOR REVIEW
D	03.08.20	ISSUED FOR REVIEW
E	24.11.20	URBAN DESIGN REVIEW
F	27.08.21	ISSUED FOR ENDORSEMENT

PROJECT:
1 BRIGHTON ROAD, ST KILDA

DRAWING TITLE:
PROPOSED LEVEL 03 PLAN

DATE: 24.11.20
JOB N°: 40020
SCALE: 1:100@A1
REVISION N°: F
DRAWN: BHA
DRAWING STATUS: TOWN PLANNING
DRAWING N°: TP-208



NOTES
- ALL BALCONIES TO HAVE TAPS AND FLOOR WASTES - **CONDITION 6**
- WATER TANKS CONNECTED TO ALL TOILETS FOR FLUSHING - **CONDITION 1(e)**
- ALL PLANT, EQUIPMENT AND DOMESTIC SERVICES ARE LOCATED EXTERNALLY - **CONDITION 1(f)**

Rev: 1
Date: 1/09/2021

ACOUSTIC LOGIC

Minimum Glazing Thickness

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38mm lam IGU*
- 10.38mm lam or 6/12/10.38mm lam IGU*
- 12.76mm lam or 6/12/12.76mm lam IGU*
- 8.38mm lam / 12mm airgap / 12.76mm lam*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

External Wall Construction

- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 13mm plasterboard internally*
- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*
- 75mm Hebel panel / 20mm gap / 64mm studs lined with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

All unmarked external walls have been assumed to incorporate precast or masonry construction which will not require upgrading acoustically.

BRUCE HENDERSON ARCHITECTS
MELBOURNE
LONDON
HANOI
162 TOORAK ROAD
SOUTH YARRA VICTORIA 3141
T: +61 3 9860 4000
ARBV REG. NO. 50072
www.bh-architects.com

NOTES:
Do not scale. All drawings, layouts and area calculations are indicative only and are subject to approval by the relevant Authorities and alterations due to Design Development. Drawings are not to be used for construction. All apartment and balcony areas are calculated as Gross Floor Area in accordance with the Method of Measurement for Residential Property as published by the Property Council of Australia.

CHECKED: BHA

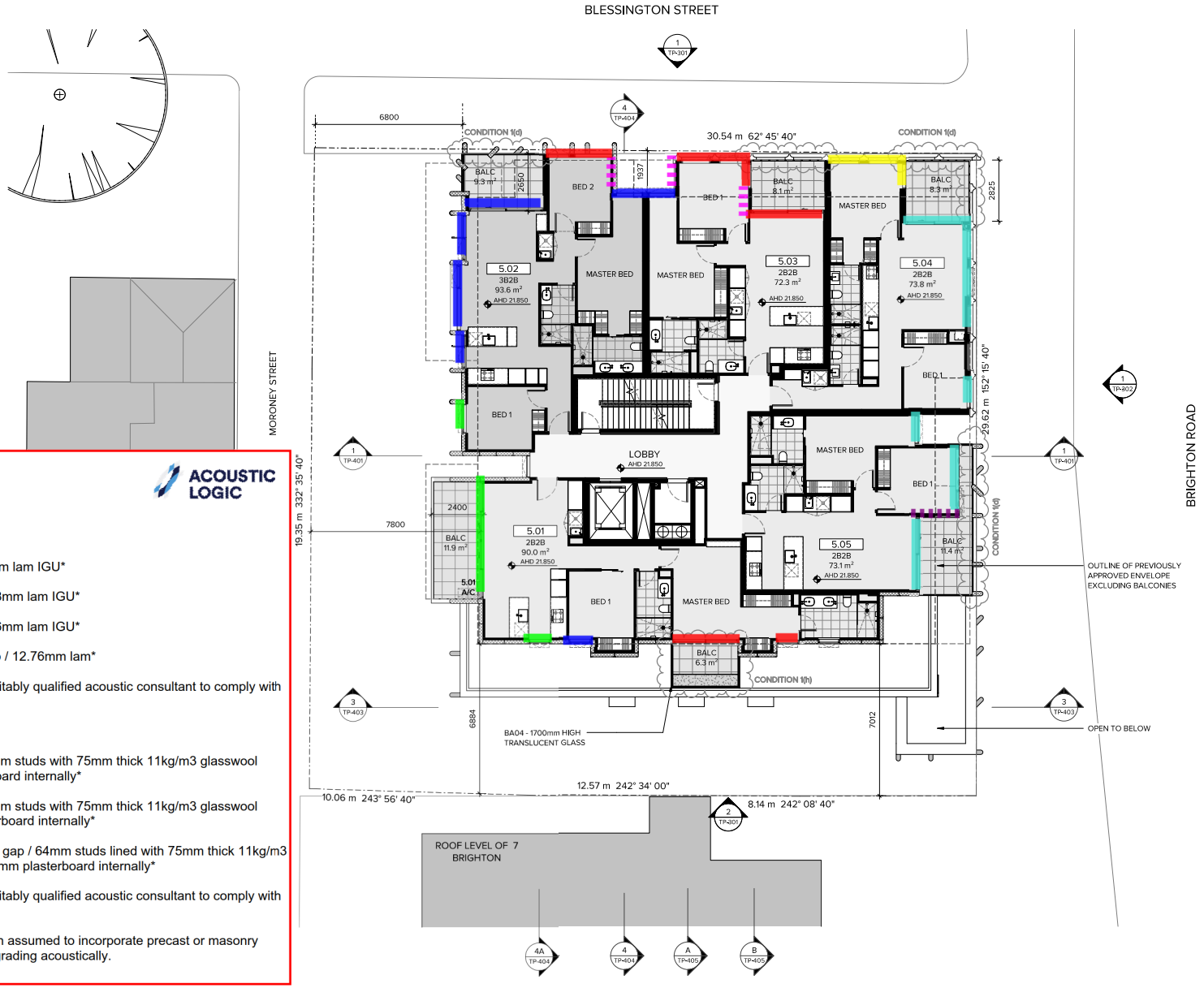
REV	DATE	DESCRIPTION
A	24.06.20	ISSUED FOR INFORMATION
B	26.06.20	ISSUED FOR REVIEW
C	31.07.20	ISSUED FOR REVIEW
D	03.08.20	ISSUED FOR REVIEW
E	24.11.20	URBAN DESIGN REVIEW
F	27.08.21	ISSUED FOR ENDORSEMENT

PROJECT:
1 BRIGHTON ROAD, ST KILDA

DRAWING TITLE:
PROPOSED LEVEL 04 PLAN

DATE: 24.11.20
JOB N°: 40020
SCALE: 1:100@A1
REVISION N°: F
DRAWN: BHA
DRAWING STATUS: TOWN PLANNING
DRAWING N°: TP-209

NOTES
- ALL BALCONIES TO HAVE TAPS AND FLOOR WASTES - **CONDITION 6**
- WATER TANKS CONNECTED TO ALL TOILETS FOR FLUSHING - **CONDITION 1(e)**
- ALL PLANT, EQUIPMENT AND DOMESTIC SERVICES ARE LOCATED EXTERNALLY - **CONDITION 1(f)**



Rev: 1
Date: 1/09/2021

ACOUSTIC LOGIC

Minimum Glazing Thickness

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38mm lam IGU*
- 10.38mm lam or 6/12/10.38mm lam IGU*
- 12.76mm lam or 6/12/12.76mm lam IGU*
- 8.38mm lam / 12mm airgap / 12.76mm lam*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

External Wall Construction

- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 13mm plasterboard internally*
- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*
- 75mm Hebel panel / 20mm gap / 64mm studs lined with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

All unmarked external walls have been assumed to incorporate precast or masonry construction which will not require upgrading acoustically.

BRUCE HENDERSON ARCHITECTS
MELBOURNE
LONDON
HANOI
162 TOORAK ROAD
SOUTH YARRA VICTORIA 3141
T: +61 3 9860 4000
ARBV REG. NO. 50072
www.bh-architects.com

NOTES:
Do not scale. All drawings, layouts and area calculations are indicative only and are subject to approval by the relevant Authorities and alterations due to Design Development. Drawings are not to be used for construction. All apartment and balcony areas are calculated as Gross Floor Area in accordance with the Method of Measurement for Residential Property as published by the Property Council of Australia.

CHECKED: BHA

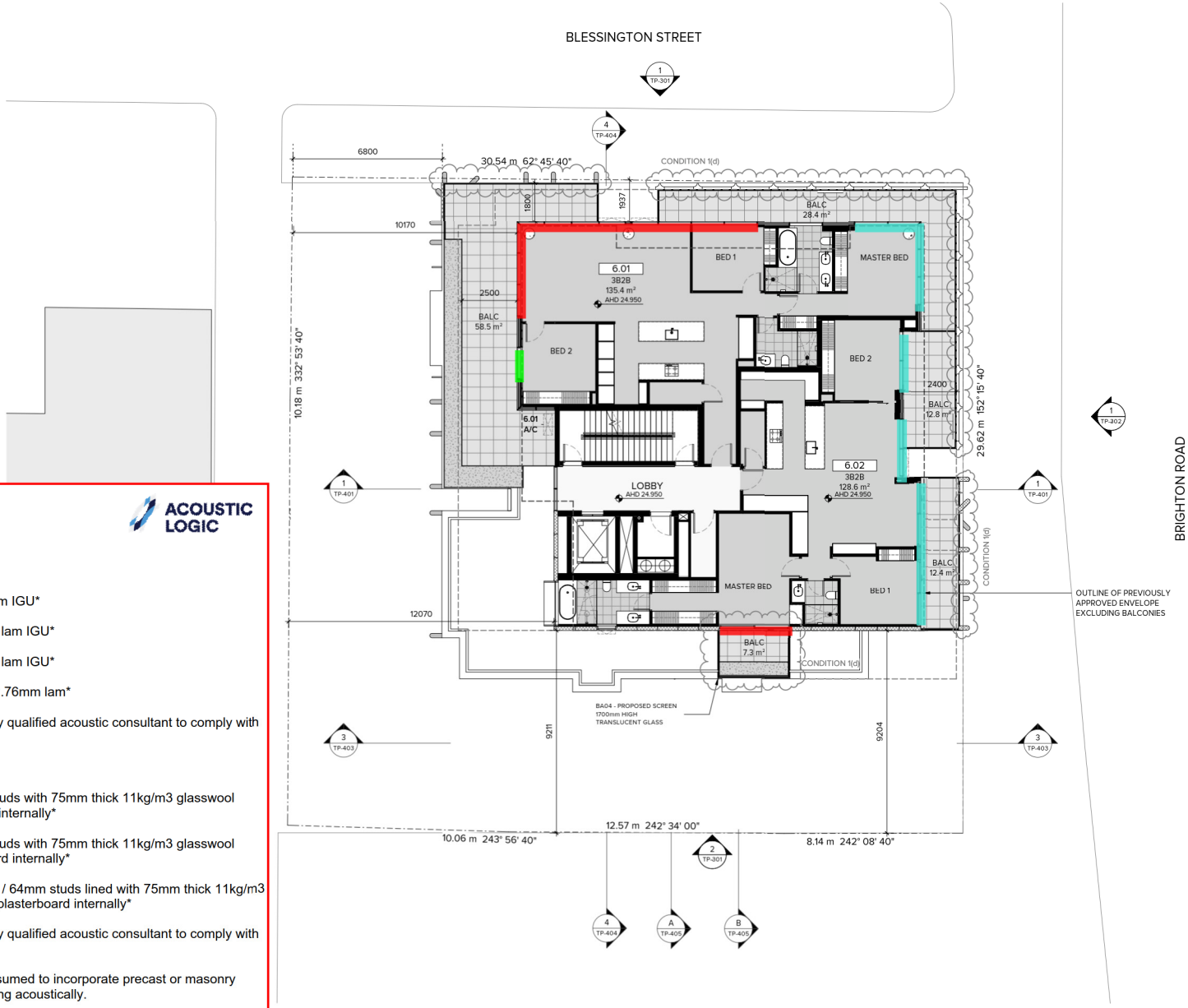
REV	DATE	DESCRIPTION
A	24.06.20	ISSUED FOR INFORMATION
B	26.06.20	ISSUED FOR REVIEW
C	31.07.20	ISSUED FOR REVIEW
D	03.08.20	ISSUED FOR REVIEW
E	24.11.20	URBAN DESIGN REVIEW
F	27.08.21	ISSUED FOR ENDORSEMENT

PROJECT: 1 BRIGHTON ROAD, ST KILDA

DRAWING TITLE: PROPOSED LEVEL 05 PLAN

DATE: 24.11.20 | JOB N°: 40020
SCALE: 1:100@A1 | REVISION N°: F
DRAWN: BHA
DRAWING STATUS: TOWN PLANNING | DRAWING N°: TP-210

NOTES
- ALL BALCONIES TO HAVE TAPS AND FLOOR WASTES - **CONDITION 6**
- WATER TANKS CONNECTED TO ALL TOILETS FOR FLUSHING - **CONDITION 1(e)**
- ALL PLANT, EQUIPMENT AND DOMESTIC SERVICES ARE LOCATED EXTERNALLY - **CONDITION 1(f)**



Rev: 1
Date: 1/09/2021

ACOUSTIC LOGIC

Minimum Glazing Thickness

- 6mm or 6/12/6 IGU*
- 6.38mm lam or 6/12/6.38mm lam IGU*
- 10.38mm lam or 6/12/10.38mm lam IGU*
- 12.76mm lam or 6/12/12.76mm lam IGU*
- 8.38mm lam / 12mm airgap / 12.76mm lam*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

External Wall Construction

- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 13mm plasterboard internally*
- 9mm FC sheet / nom 100mm studs with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*
- 75mm Hebel panel / 20mm gap / 64mm studs lined with 75mm thick 11kg/m3 glasswool insulation / 2x13mm plasterboard internally*

Note*: or approved equivalent by a suitably qualified acoustic consultant to comply with the traffic internal noise levels.

All unmarked external walls have been assumed to incorporate precast or masonry construction which will not require upgrading acoustically.

BRUCE HENDERSON ARCHITECTS
MELBOURNE
LONDON
HANOI
162 TOORAK ROAD
SOUTH YARRA VICTORIA 3141
T: +61 3 9860 4000
ARBV REG. NO. 50072
www.bh-architects.com

NOTES:
Do not scale. All drawings, layouts and area calculations are indicative only and are subject to approval by the relevant Authorities and alterations due to Design Development. Drawings are not to be used for construction. All apartment and balcony areas are calculated as Gross Floor Area in accordance with the Method of Measurement for Residential Property as published by the Property Council of Australia.

CHECKED: BHA

REV	DATE	DESCRIPTION
A	24.06.20	ISSUED FOR INFORMATION
B	31.07.20	ISSUED FOR REVIEW
C	03.08.20	ISSUED FOR REVIEW
D	24.11.20	URBAN DESIGN REVIEW
E	27.08.21	ISSUED FOR ENDORSEMENT

PROJECT:
1 BRIGHTON ROAD, ST KILDA

DRAWING TITLE:
PROPOSED LEVEL 06 PLAN

DATE: 24.11.20
JOB N°: 40020
SCALE: 1:100@A1
REVISION N°: E
DRAWN: BHA
DRAWING STATUS: TOWN PLANNING
DRAWING N°: TP-211

APPENDIX 2 – FORMAL LETTER BY RATIO

ratio:consultants

8 Gwynne Street
Cremorne VIC 3121
ABN 93 983 380 225

ratio.com.au

T +61 3 9429 3111
F +61 3 9429 3011
E mail@ratio.com.au

Dear Richard

22 July 2021

Mr Richard Merlino
Merbo Project Management
PO Box 3349
DONCASTER EAST VIC 3109

Planning Permit No. 665/2016/A
1 Brighton Road, St Kilda

We confirm that Planning Permit No. 665/2016/A issued on 18 July 2017 and that planning permit application was originally submitted to Council on 22 July 2016.

Clause 34.01-4 of the Port Phillip Planning Scheme states:

> *Clause 58 does not apply to:*
> - *An application for a planning permit lodged before the approval date of Amendment VC136.*
> - *An application for an amendment of a permit under section 72 of the Act, if the original permit application was lodged before the approval date of Amendment VC136.*

As the permit was most recently amended under Section 72 and the original permit application was lodged prior to the approval date of Amendment VC136 (being 13 April 2017), Clause 58 does not apply. This means that Standard D16 / Clause 58.04-3 is not a relevant test for the acoustic report.

Condition 23 requires:

> *Before development starts, an acoustic report is to be submitted indicating that no dwelling as permitted would be subject to excessive external noise effects, particularly in the form of Traffic noise from Brighton Road.*

Yours sincerely

Alice Maloney
Senior Associate
ratio: