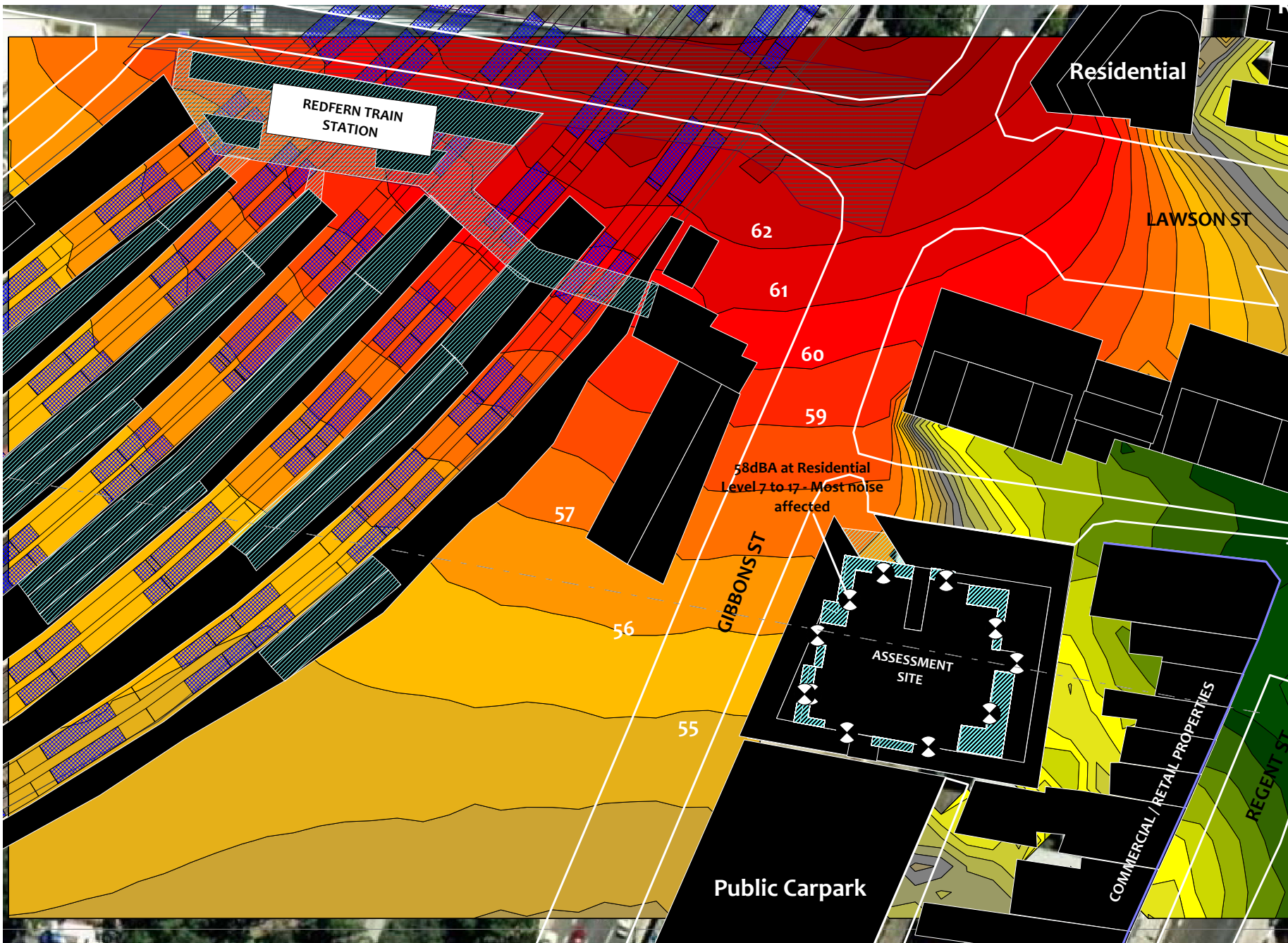


**APPENDIX C**

**A  
P  
P  
E  
N  
D  
I  
X  
  
C**

**APPENDIX C**



**\*\* NOISE SOURCES \*\***

~ RAIL NOISE  
 \* 174 rail movements over all tracks during peak hour rail traffic  
 \* Noise levels shown are LAeq 1hr

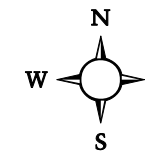
NOTE: Noise level contours shown are at the height of the most noise affected residential receiver (as labelled) at approximately 29m above the ground

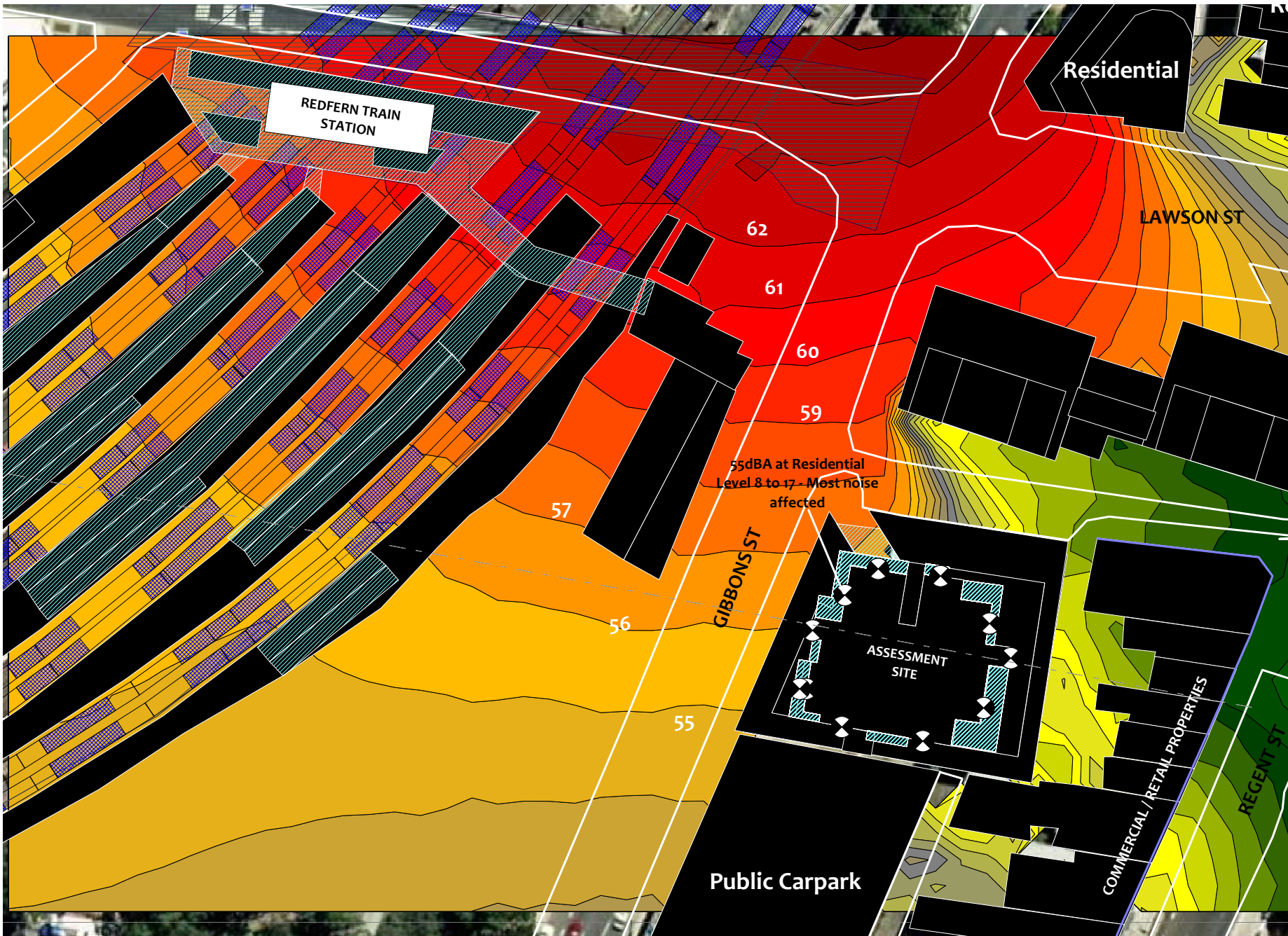
PRINT DATE: 28th May 2009

VERSION: Rail 2

- Railway
- Building
- Barrier
- 3D-Reflector
- Bridge
- Ground Absorption
- Contour Line
- Receiver
- Calculation Area
- Vertical Grid

- > -99.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB





**\*\* NOISE SOURCES \*\***

~ RAIL NOISE  
 \* 129 rail movements over all tracks during peak hour rail traffic  
 \* Noise levels shown are LAeq 1hr  
 NOTE: Noise level contours shown are at the height of the most noise affected residential receiver (as labelled) at approximately 29m above the ground

PRINT DATE: 28th May 2009

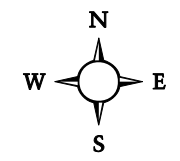
VERSION: Rail 2

- Railway
- Building
- Barrier
- 3D-Reflector
- Bridge
- Ground Absorption
- Contour Line
- Receiver
- Calculation Area
- Vertical Grid

- > -99.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

**KOIKAS ACOUSTICS PTY LTD**  
 CONSULTANTS IN NOISE & VIBRATION  
 ABN 12 058 524 771 Commercial 1 (Unit 27), 637 - 645 Forest Road, Bexley 2207  
 E-mail: [Nick@KoikasAcoustics.com](mailto:Nick@KoikasAcoustics.com) F (02) 9587 5337 P (02) 9587 9702

JOB NUMBER: 1769 [NIGHT]  
 CLIENT: DeiCorp  
 SITE ADDRESS: 157 Redfern Street, REDFERN  
 ASSESSED TO: State Rail Authority - Guidelines for Councils - Rail Noise  
 LIMITING CRITERIA: LAeq 1hr Indoors (windows closed) 40dBA  
 LAeq 1hr Indoors (windows open) 50dBA



**\*\* NOISE SOURCES \*\***

~ Noise levels based on 22215 vehicles using Regent St from 7am to 10pm. This information is from the RTA Traffic Volume Data.

~ Monitoring survey 1 used to determine the traffic noise levels of Gibbons Street

~ Lawson and Redfern St have approx 1/2 the traffic volumes of Regent St

~ All other roads have an insignificant effect on the traffic noise levels at the residential receivers

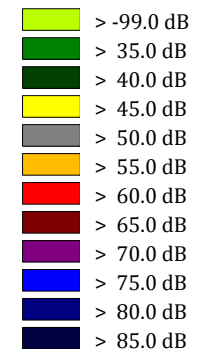
~ Noise levels shown are LAeq 15hr and at the height of the most noise affected facade. Approximately 23m above the ground.

NOTE 1: 65dBA is above the maximum 55dBA noise criteria.

PRINT DATE: 26th May 2009  
VERSION: Road 2



- Line Source
- Building
- Barrier
- 3D-Reflector
- Bridge
- Ground Absorption
- Contour Line
- Receiver
- Calculation Area
- Vertical Grid



**REDFERN TRAIN STATION**

GIBBONS ST

REGENT ST

ASSESSMENT SITE

Public Carpark

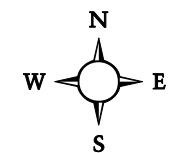
COMMERCIAL / RETAIL PROPERTIES

61 62 64 64 65 66 59 59 6

65 at Residential Level 6 - Most noise affected facade.  
\*\* Refer to Note 1 in border.

**KOIKAS ACOUSTICS PTY LTD**  
CONSULTANTS IN NOISE & VIBRATION  
ABN 12 058 524 771 Commercial 1 (Unit 27), 637 - 645 Forest Road, Bexley 2207  
E-mail: Nick@KolkasAcoustics.com F (02) 9587 5337 P (02) 9587 9702

JOB NUMBER: 1769 [DAY]  
CLIENT: DeiCorp  
SITE ADDRESS: 157 Redfern Street, REDFERN  
ASSESSED TO: ECRTN  
LIMITING CRITERIA: LAeq 15hr 55dBA Daytime  
LAeq 9hr 50dBA Nighttime



**\*\* NOISE SOURCES \*\***

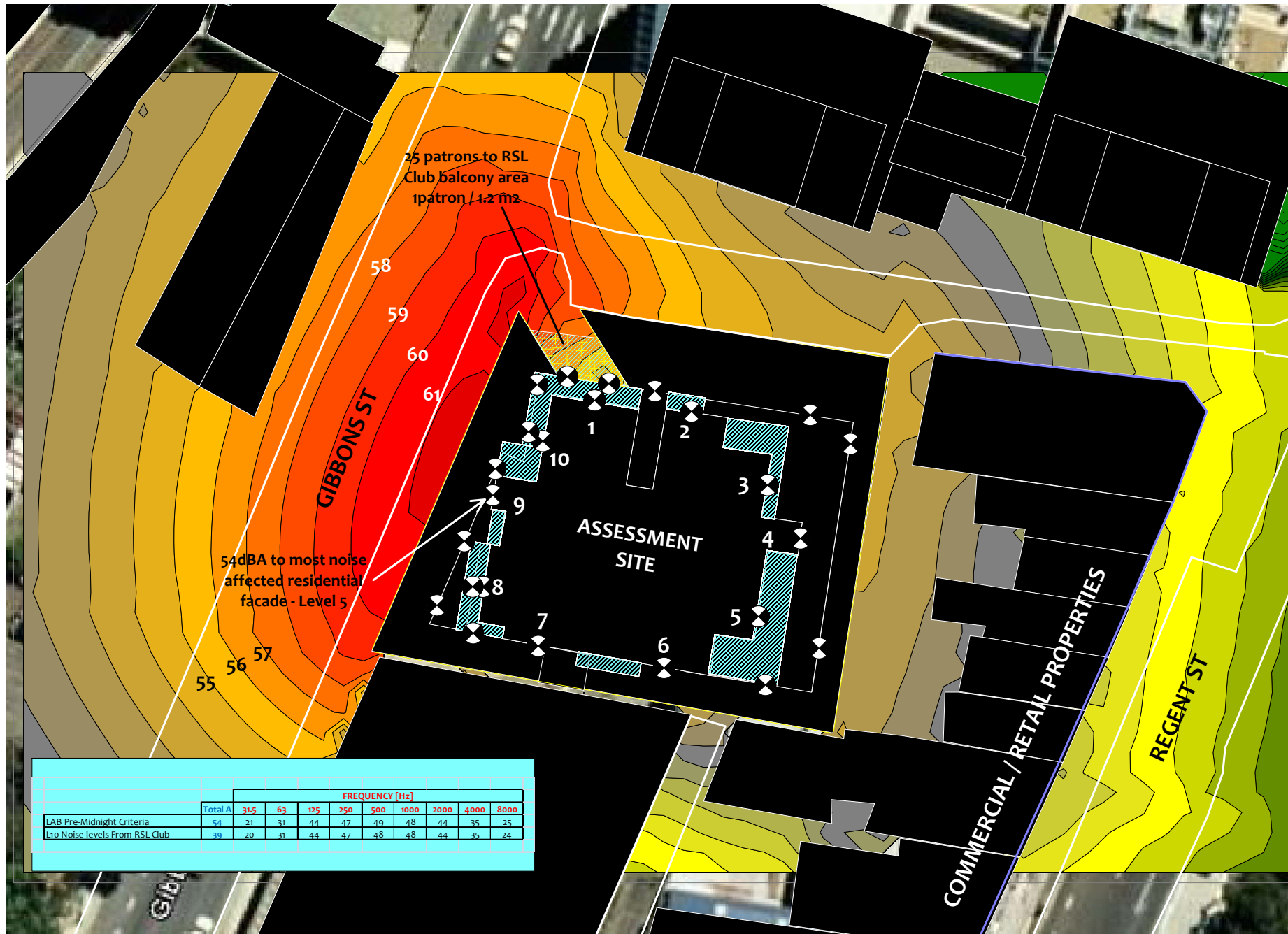
~ 25 patrons to the RSL Club external balcony area / smoking area

~ Noise egress of live entertainment through the external building envelope

NOTE: Noise level contours shown at the most noise affected floor level.

PRINT DATE: 18th June 2009

VERSION: LAB 1



25 patrons to RSL Club balcony area  
1 patron / 1.2 m<sup>2</sup>

54dBA to most noise affected residential facade - Level 5

GIBBONS ST

ASSESSMENT SITE

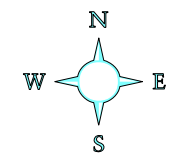
COMMERCIAL / RETAIL PROPERTIES

REGENT ST

	Total A	FREQUENCY [Hz]								
		31.5	63	125	250	500	1000	2000	4000	8000
LAB Pre-Midnight Criteria	54	21	31	44	47	49	48	44	35	25
Lab Noise levels From RSL Club	39	20	31	44	47	48	48	44	35	24

- + Point Source
- vert. Area Source
- Building
- Barrier
- ▨ 3D-Reflector
- ▤ Bridge
- Ground Absorption
- Contour Line
- ⊙ Receiver
- Calculation Area

- > -99.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB



**\*\* NOISE SOURCES \*\***

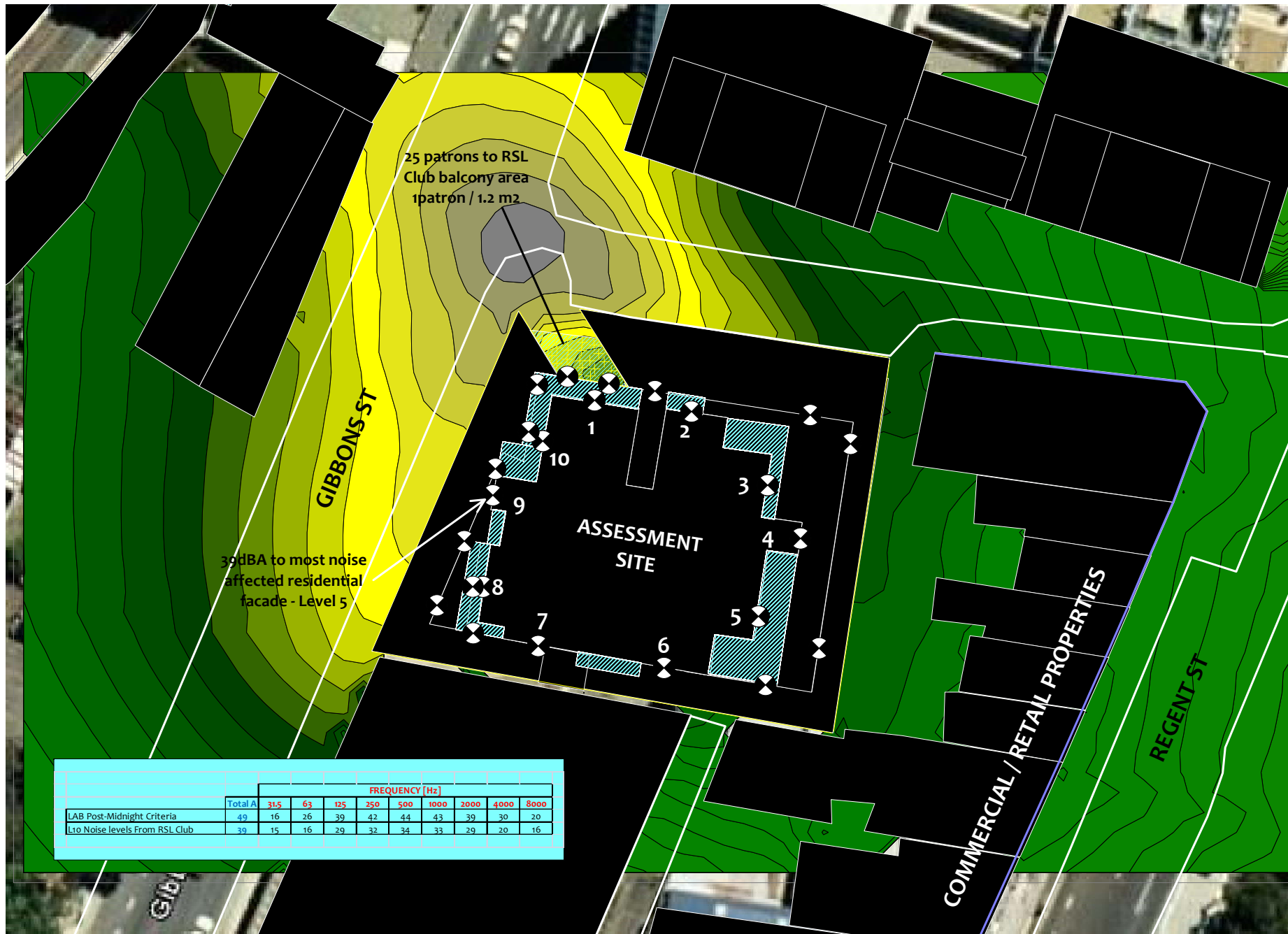
~ 25 patrons to the RSL Club external balcony area / smoking area

~ Noise egress of live entertainment through the external building envelope

NOTE: Noise level contours shown at the most noise affected floor level.

PRINT DATE: 18th June 2009

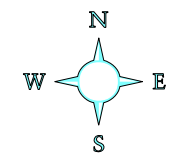
VERSION: LAB 1

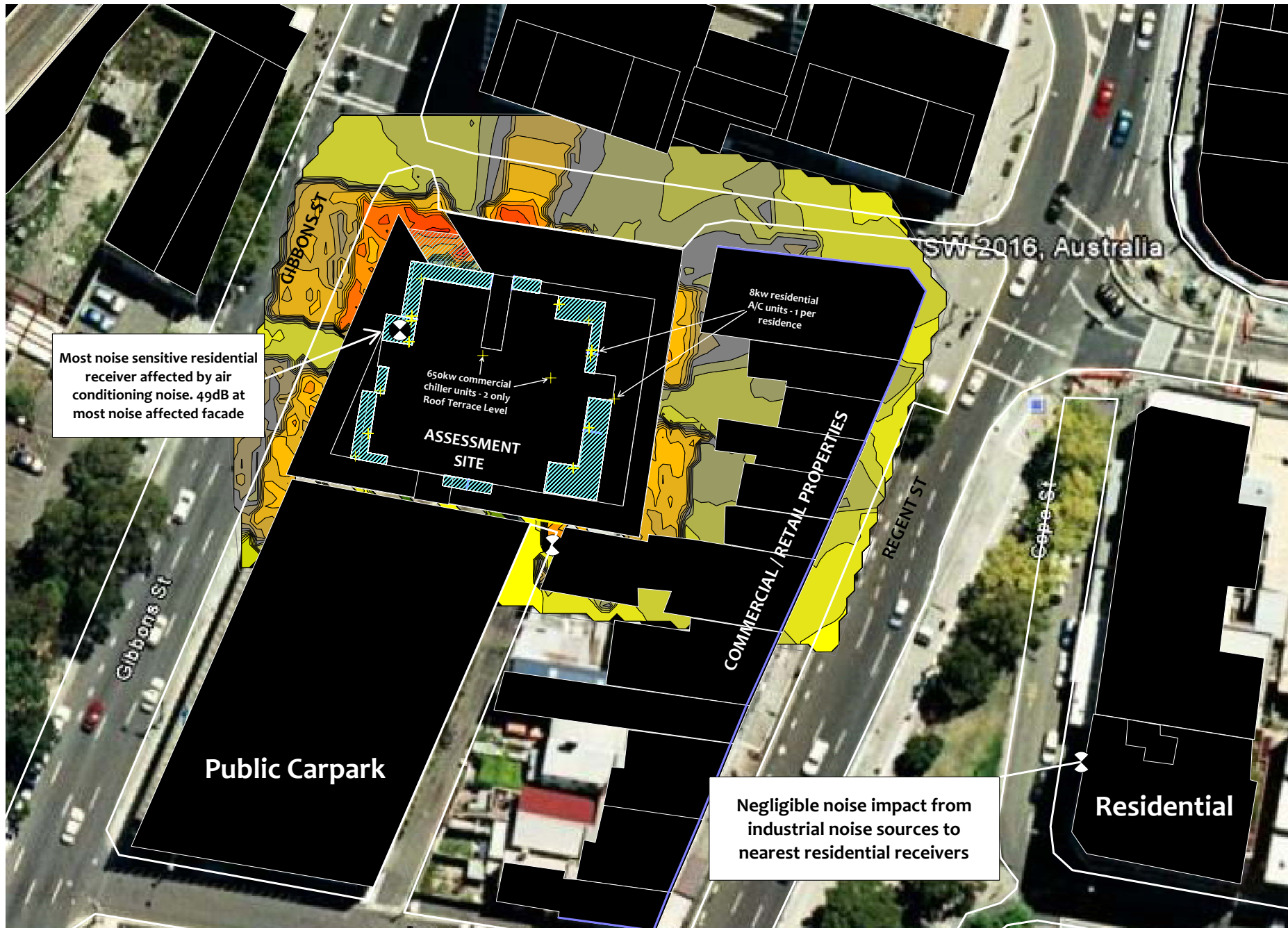


- Point Source
- vert. Area Source
- Building
- Barrier
- 3D-Reflector
- Bridge
- Ground Absorption
- Contour Line
- Receiver
- Calculation Area

- > -99.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

	Total A	FREQUENCY [Hz]									
		31.5	63	125	250	500	1000	2000	4000	8000	
LAB Post-Midnight Criteria	49	16	26	39	42	44	43	39	30	20	
L10 Noise Levels From RSL Club	39	15	16	29	32	34	33	29	20	16	





**\*\* NOISE SOURCES \*\***

~ 8kw residential air conditioning units - 1 per residence

~ 650kw commercial chiller units - 2 only located on roof terrace

NOTE: Noise level contours shown at the most noise affected receiver from the air conditioning noise. This is at approximately 62m above the natural ground height, however noise levels are similar at each floor level for the same location as nominated on the layout

PRINT DATE: 19th June 2009

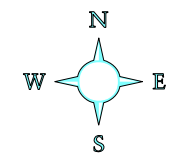
VERSION: DECC 2

- + Point Source
- vert. Area Source
- Building
- Barrier
- ▨ 3D-Reflector
- Bridge
- Ground Absorption
- Contour Line
- ⊗ Receiver
- Calculation Area

- > -99.0 dB
- > 35.0 dB
- > 40.0 dB
- > 45.0 dB
- > 50.0 dB
- > 55.0 dB
- > 60.0 dB
- > 65.0 dB
- > 70.0 dB
- > 75.0 dB
- > 80.0 dB
- > 85.0 dB

Most noise sensitive residential receiver affected by air conditioning noise. 49dB at most noise affected facade

Negligible noise impact from industrial noise sources to nearest residential receivers



**\*\* NOISE SOURCES \*\***

~ 8kw residential air conditioning units - 1 per residence

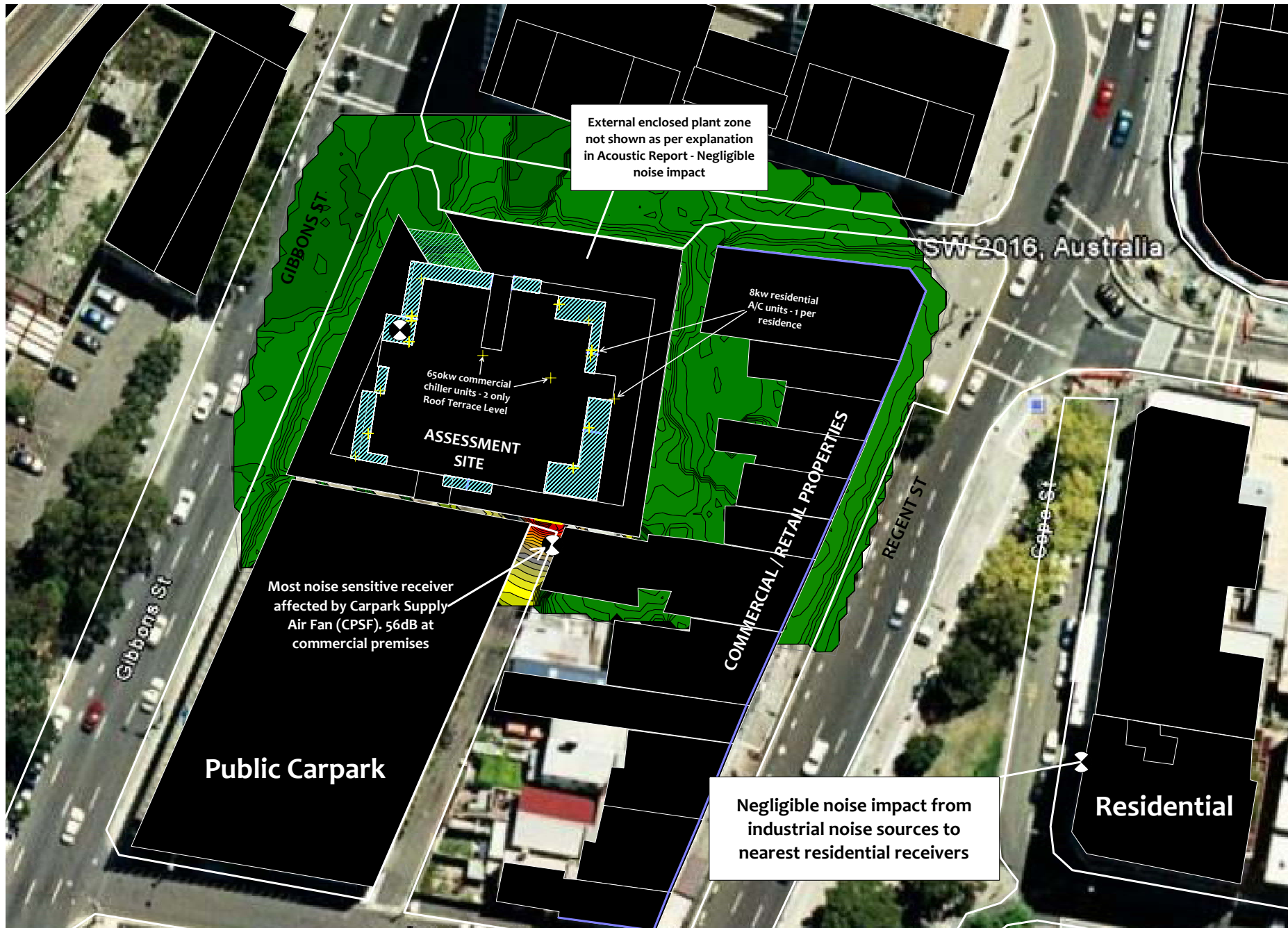
~ 650kw commercial chiller units - 2 only located on roof terrace

~ Carpark Supply Air Fan

NOTE: Noise level contours shown at the most noise affected receiver from the carpark inlet fan noise. This is at approximately 5.7m above the natural ground height in the southern laneway

PRINT DATE: 19th June 2009

VERSION: DECC 1



- + Point Source
- vert. Area Source
- Building
- Barrier
- ▨ 3D-Reflector
- Bridge
- Ground Absorption
- Contour Line
- ⊗ Receiver
- Calculation Area

