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Prepared for: Chase Property Group

FIGTREES ON THE MANNING
PITT STREET, TAREE

ACOUSTIC ASSESSMENT OF MASTER PLAN FOR PROPOSED MIXED USE DEVELOPMENT

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TABLE OF CONTENTS

1. INTRODUCTION

This report presents our assessment of potential noise impacts associated with the proposed Figtrees on the Manning mixed use development at Pitt Street, Taree. This report is based on the plans and proposed use of the site as described in the Masterplan prepared by Suters Architects dated

In this report we will:

- Identify noise emissions which will be generated by the site (primarily traffic generation, mechanical plant noise and marina noise) and recommend acoustic and management controls in order to reduce noise impacts on nearby properties to levels complying with relevant acoustic criteria, or if necessary identify issues which should be the subject of further assessments in subsequent Development Applications as the site is developed.

- Identify environmental noise sources (traffic noise, aircraft noise) which may impact the site and recommend acoustic treatments to reduce these impacts to acceptable levels.

In each case, we will identify acoustic criteria to be used for assessment.

2. SITE DESCRIPTION / PROPOSAL

2.1 SITE DESCRIPTION

The site is located on the northern bank of the Manning River, between Nelson Street (the western boundary of the site) and Gregory Place (the eastern boundary of the site).

Existing development on the site consists of:

- Industrial and commercial use (concrete batching plant, hardware/agricultural equipment retail) on the southern side of Pitt Street.

- Existing residential development on the northern side of Pitt Street (at the eastern end of Pitt Street).

- Vacant/undeveloped land (in the centre of the site).

- Commercial development (vehicle retail and repair) on Bligh Street, at the eastern end of the site.

Development in the vicinity of the site is as follows:

- To the north:

    - The site will generally be bounded by residential development. At the western end of the site the development will be bounded by Pitt and Pioneer Streets. More residential development lies opposite the site, on the far side of the street.

    - At the eastern end of the northern property boundary, the development is adjoined by Chatham Avenue.

- To the east by residential development (fronting onto Gregory Place).

- To the west by Nelson Street. More residential development lies further to the west, across Nelson Street.

- The Manning River forms the southern boundary of the site.

The development is accessed by Nelson, Lyndhurst, Pioneer and Bligh Streets which run between the site and Chatham Avenue, the nearest arterial road.

2.2 PROPOSED DEVELOPMENT / NOISE SENSITIVE RECEIVERS

The proposed mixed use development will divided into five precincts (see page 37 of the Local Area Plan/Masterplan – attached, appendix 1):

- The Gateway Residential Precinct – this will consist primarily of three storey residential development. This precinct has relatively few concerns in respect to acoustics. The potential for distant traffic noise impacts on the upper levels of the new apartments should be considered and any mechanical plant serving the apartments should comply with relevant noise emission guidelines at nearby properties (to the north and west of the site).

- The Figtree Commercial Precinct – this will consist of three to four storey commercial and retail developments. Mechanical plant serving the commercial/retail units should comply with relevant noise emission guidelines at nearby properties (to the north of the site). In addition, noise from restaurants (in particular outdoor dining areas) should be considered.

- The Dairy Heritage Precinct – this area consists of both new development and re-use of existing heritage buildings. Acoustic issues which should be considered are as follows:

    - Noise from restaurants and/or hotels.

    - Noise form the use of the Pool/Stage.

    - Noise from mechanical plant.

- The Riverpark Village Precinct -– this will consist primarily of two to three storey residential development. Like the Gateway Residential Precinct, this precinct has relatively few concerns in respect to acoustics. The potential for distant traffic noise impacts on the upper levels of the new apartments should be considered and any mechanical plant serving the apartments should comply with relevant noise emission guidelines at nearby properties.

- The Marina Commercial Precinct. This will consist of four storey commercial buildings and marina for 80-100 berths. Acoustic issues which should be considered are as follows:

    - Traffic noise impacts from Chatham Avenue.

    - Noise from the Marina, in particular the boat crane and boat ramp, and the possible impact on the residential properties to the east on Gregory Place.

    - Noise from the outdoor car park (approximately 50 cars) located on the eastern property boundary) and its possible impact on residences on Gregory Place.

    - Noise from mechanical plant.

In addition, the following will be considered for the site as a whole:

- Potential traffic noise generation on public roads.
- Potential aircraft noise impact from the nearby Taree Airport.

3. NOISE DESCRIPTORS

Environmental noise constantly varies. Accordingly, it is not possible to accurately determine prevailing environmental noise conditions by measuring a single, instantaneous noise level.

To accurately determine the environmental noise a 15-20 minute measurement interval is 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 analysing 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 will depend 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 15 minute period. L_{eq} 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 environmental noise.

4. BACKGROUND NOISE MONITORING

Ambient noise levels in the vicinity of the site were determined sing a combination of long term, unattended noise logging and hand held measurements conducted at a number of locations around the site.

Unattended noise monitoring was conducted between 9 and 21 January 2009 using an Acoustic Research Laboratories monitor set on A-weighted fast response mode. The monitor was calibrated before and after the measurements using a Rion Type NC-73 calibrator. No significant drift was recorded.

The long term noise logger was installed at the rear of the commercial development at the eastern end of the site, as marked on the photograph in appendix 2. This was the closest, secure location to install a monitor to the residences of Gregory Place, which are the properties most potentially affected by the development.

Hand hand measurements were also taken at a number of locations around the site to ensure that the long term noise logging data was also indicative of other parts of the site.

Measured background noise levels from both long term logging and the hand held measurements are presented below. Refer to Appendix 2 for unmanned noise monitoring data.

Table 1 – Measured Background Noise Levels – Long Term Noise Logging

Location	Background noise level dB(A)L_{90}			
Unattended noise logger	Daytime (7am-6pm)	Evening (6pm-10pm)	Late Evening (10pm-12am)	Night time (10pm-7am)
	35	37	36	33

Table 2 – Measured Background Noise Levels – Hand Held Measurements - Daytime

Location	Background noise level dB(A)L_{90}
Manned Measurement Location 1	39
Manned Measurement Location 2	44*
Manned Measurement Location 3	39
Manned Measurement Location 4	39
Handheld Measurement at Long Term Logger	39

*Noise levels at this location were affected by noise from the nearby concrete batching plant. This data will not be used in assessment.

Background noise levels measured at a number of locations around the site are consistent with the levels measured at the long term monitoring location. Use of the long term data for other locations around the site will therefore be reasonable. Background noise levels as presented in table 2 will therefore be used for assessment in this report.

5. NOISE EMISSIONS

Noise emissions from the site will be assessed to ensure that the amenity of nearby land users is not adversely affected.

The site has the potential to create the following noise sources:

- Noise from mechanical plant serving the residential and commercial buildings.
- Noise from the marina, in particular, noise from the boat crane, boat ramp and general activity noise from the marina.
- Noise from outdoor car parks.
- Entertainment noise from restaurants (outdoor dining) and from the Swimming Pool/Stage.
- Noise from increased traffic generation on local roads as a result of the development.

5.1 ACOUSTIC OBJECTIVES

Acoustic objectives for each of the noise sources referred to above will be presented below. Noise emission goals are determined with reference to the background noise levels presented in section 4.

There are no noise emission guidelines presented in the Greater Taree City Council Draft Development Control Plan. In the absence of this, noise emission goals will be determined with reference to DECC and Liquor Administration Board acoustic guidelines.

5.1.1 DECC Industrial Noise Policy – Marina, Mechanical Plan, Car Park and Stage Noise

Noise from mechanical plant, the marina, the outdoor car park and from the proposed stage/swimming pool should comply with the DECC Industrial Noise Policy, Intrusiveness and Amenity Criteria when received at nearby residential properties.

DECC Intrusiveness Criteria

The Intrusiveness guideline is intended to limit the audibility of noise emissions at a residential property and requires that noise emissions measured using the $L_{eq(15min)}$ descriptor not exceed the background noise level by more than 5 dB(A) (.i.e- noise from a particular noise source, when averaged over a 15 minute period, must not exceed background noise levels by more than 5dB(A).

The allowable noise level for all times of day is set out below.

Table 3 - Intrusiveness Criteria

PERIOD/TIME	BACKGROUND NOISE LEVEL dB(A)L_{90}	ACCEPTABLE LEVEL dB(A)$L_{eq(15min)}$
Daytime (7am-6pm)	35	40
Evening (6pm-10pm)	37	42
Night (10pm-7am)	33	38

Amenity Objectives

Noise emission objectives for "suburban" receivers based on the Industrial Noise Policy "Amenity Criteria" are presented below. Amenity criteria are assessed using the $L_{eq(Period)}$ descriptor – ie noise from the a particular noise source is average over the entire daytime/evening/night time period. Acoustic criteria are as follows:

Table 4 - Amenity Objectives

Location	Time of Day	Amenity Noise Objective dB(A)$L_{eq(Period)}$
All Potentially Affected Neighbouring Boundaries	Day Time (7am – 6pm)	55
	Evening (6pm – 10pm)	45
	Night (10pm-7am)	40

5.1.2 Liquor Administration Board (LAB) Acoustic Guidelines (Entertainment Noise from Licensed Premises)

Noise from licensed premises (patron and music noise from hotels or restaurants, particularly outdoor dining/smoking areas) should comply with LAB noise emission guidelines.

The guidelines are:

- Before midnight, the L_{10} noise emissions should not exceed the background noise level by more than 5 dB in the octave bands from 31.5Hz to 8kHz at any residential premises.
- After midnight, the L_{10} noise emissions should not exceed background noise level in the octave bands from 31.5Hz to 8kHz at any residential premises.
- After midnight, noise emissions are to be inaudible within any residential premises.

Background noise levels were determined based on long term monitoring and were presented in table 2. The background noise spectrum for the site was recorded using hand held measurements.

The noise emission objectives for any hotel/outdoor dining area are presented below:

Table 5 - LAB Noise Objectives

Time	31.5Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	A-wt
Up to 10pm (BG+5dB Acoustic Criteria)	55	50	42	39	39	37	33	32	30	42
10pm-Midnight (BG+5dB Acoustic Criteria)	54	49	41	38	38	36	32	31	29	41
After Midnight (BG+0dB Acoustic Criteria)	46	41	33	30	30	28	24	23	21	33

5.1.3 DECC Environmental Criteria for Road Traffic Noise

The proposed development has the potential to create additional traffic on the public road system.

For land use developments with the potential to create additional traffic on public roads the development should comply with the requirements of the DECC Environmental Criteria for Road Traffic Noise. Criteria as detailed below. It is noted that the surrounding streets are deemed as local roads.

Table 6 - Criteria for Traffic Noise for New Developments

Time of day	Criteria for Acceptable Traffic Noise Level dB(A)
Day (7am to 10pm)	55dB(A)$L_{eq(1hr)}$
Night (10pm to 7am)	50 dB(A)$L_{eq(1hr)}$

5.2 NOISE EMISSION ASSESSMENT

5.2.1 Mechanical Plant (Generally)

Detailed review of all external mechanical plant should be undertaken at construction certificate stage (once plant selections and locations are finalised). Acoustic treatments should be determined in order to control plant noise emissions to the levels set out in section 5.1 of this report. External plant (generally air-conditioning or refrigeration plant) can be satisfactorily attenuated to levels complying with Industrial Noise Policy through appropriate location and (if necessary) acoustic screens or enclosures.

5.2.2 Eastern Car Park Noise

The open car park in the Marina Commercial Precinct on the eastern property boundary of the site will potentially impact the adjacent residential property to the east (on Gregory Place).

Noise emissions should comply with the DECC Industrial Noise Policy. Noise emissions from the car park will be predicted based on the following assumptions:

- The entire car park empties over a one hour period (to simulate a peak period of car park operation).
- The peak period occurs during a daytime or evening period (between 7am and 10pm).
- The average noise level per car is 84dB(A)L_{eq}.
- That cars move at 10km/h in the car park.
- That the 1.8m high boundary fence as recommended in section 7 of this report is adopted.

Predicted noise level is presented below.

Table 7 – Car Park Noise Emission

Location	Time of Day	Predicted Noise Level	Allowable Noise Level	Complies
Residential Dwelling on Eastern Property Boundary	Daytime/Evening	40dB(A)L_{eq}	40dB(A)$L_{eq(15min)}$*	Yes

*Strictest applicable criteria, refer to tables 3 and 4.

5.2.3 Marina Noise

The primary noise sources from the use of the marina are as follows:

- Use of the Boat Crane.
- Use of the Boat Ramp.

Noise from the marina will potentially impact the residential properties on Gregory Place, on the eastern property boundary of the site.

Boat Crane

Noise levels from the operation of a crane should comply with DECC noise emission criteria as presented in tables 3 and 4.

Noise levels generated by a boat crane will be primarily dependant on the crane motor, and will therefore be specific to make/model of crane used. In order to achieve satisfactory noise levels it is likely that enclosure of the lift motor, in addition to a noise screen along the eastern edge of the marina hardstand area will be required.

Detailed assessment of any boat crane should be undertaken and CC stage and operational controls and acoustic treatments determined to ensure satisfactory noise levels will be achieved.

Use of equipment such as high pressure hoses (used in cleaning of boat hulls) should be restricted by a marina plan of management to daytime periods only, and any associated air-compressor acoustically treated to achieve the noise levels set out in tables 3 and 4.

Use of Boat Ramp

Noise levels from the operation of the boat ramp should comply with DECC noise emission criteria as presented in tables 3 and 4.

Noise generated by the boat ramp will primarily consist of:

- Noise from trailer mounted winches with a sound power level of approximately 80dB(A).
- Engine noise as boats accelerate momentarily during loading onto trailers from the water, with a sound power level of 100dB(A)L_{eq}.

Noise emissions will be predicted based on the assumption that:

- The momentary acceleration during loading of the boat onto the trailer occurs for approximately 20 seconds, and that there are up to four loading movements in any 15minute period.

- A noise screen as recommended in section 7 is installed.

Table 8 – Boat Ramp Noise Emission

Location	Time of Day	Predicted Noise Level	Allowable Noise Level	Complies
Residential Dwelling on Eastern Property Boundary	Daytime/Evening	38dB(A)L_{eq}	40dB(A)$L_{eq(15min)}$*	Yes

*Strictest applicable criteria, refer to tables 3 and 4.

5.2.4 Restaurant and Hotel Noise

Noise from music and patrons of new hotels and licensed restaurants, particularly noise from outdoor dining/smoking areas, has the potential to disturb both existing residents and residents of the proposed development.

Detailed assessment of these potential noise sources is not possible without information regarding position of the outdoor spaces, numbers of patrons, operating hours and use of music.

Noise emissions complying with LAB acoustic criteria will be achievable through appropriate control of patron numbers, music noise levels and operating times. If necessary, additional acoustic treatments such as noise absorptive linings and screens may be incorporated. Detailed review of noise emissions should be requested at DA stage of any restaurant/hotel located close to residential properties to determine if acoustic treatments and management controls are required.

5.2.5 Traffic Generation on Public Roads

Access to the site is via Lyndhurst, Pitt, Pioneer and Bligh Streets. The site will create additional traffic on these streets, and therefore potential noise generation will be assessed at the residential properties on these roads.

Predicted noise levels as received at the property boundary of the residences on the nearby roads is presented below. The prediction is made based on the following assumptions:

- A sound power level per car of 84dB(A)L_{eq}.
- There are up to 550 vehicle movements per hour during a peak period (refer to traffic report – Pitt Street Waterfront Rezoning – Transport Review by Taree Council, table 5.2 page 17).
- Cars travel at approximately 40km/h on public roads.
- It is assumed that all 550 vehicle movements occur on the one road (and hence represents a worst case scenario assessment, as in reality, the vehicle movements will be distributed amongst the hour possible access roads).
- During night time periods, it is assumed that the peak hourly movement will be no more than 70%of the daytime peak.

Predicted noise levels are assessed below against DECC Environmental Criteria for Road Traffic Noise..

Table 9 – Noise Associated with Traffic Generation

Location	Time of Day	Predicted Noise Level*	Allowable Noise Level (DECC Road Traffic Noise Policy Guideline)	Complies
Nelson, Lyndhurst, Pioneer, Pitt and Bligh Streets	Daytime (7am-6pm)	50dB(A)L_{eq}	55dB(A)L_{eq}	Yes
	Night time (10pm-7am)	49dB(A)L_{eq}	50dB(A)L_{eq}	Yes

6. EXTERNAL NOISE INTRUSION

The following noise sources will be assessed in order to determine their impact on the development:

- Traffic noise from Chatham Avenue.
- Aircraft Noise.

6.1 TRAFFIC NOISE ASSESSMENT

6.1.1 Traffic Noise Criteria

Acoustic objectives to be adopted for the proposed development are shown below. These requirements have been determined with reference to Australian Standard 2107 "Acoustics-Recommended Design Sound Levels and Reverberation Times for Building Interiors".

Table 10 –Traffic Noise Criteria

Space type	Time	Criteria
Sleeping Areas	Night time only - 10pm-7am	$L_{eq(Worst\ 1\ hour)}$ 35-40dB(A)
Sleeping Areas and Habitable Rooms	Daytime – 7am-10pm	$L_{eq(Worst\ 1\ hour)}$ 40-45dB(A)
General Office Space	Any time	$L_{eq(Worst\ 1\ hour)}$ 45dB(A)

6.2 TRAFFIC NOISE MEASUREMENTS

Measurements were conducted on Chatham Avenue on January 2009. A Norsonics 118 Type 1 Sound Analyser was used for the noise measurements. The meter was set to fast response and calibrated before and after the measurements. No significant drift was noted.

Traffic noise levels at a distance of 6m from the kerb were measured (approximately in line with the building façade of the proposed commercial building in the Marina Commercial Precinct). In addition, the noise level at the level 3 apartments in the Riverpark Village precinct (the residential apartments most potentially affected as they will potentially have line of sight to the roadway) were predicted using the CORTN prediction model. Traffic noise levels are presented below.

Table 11 – Measured Noise Levels

Location	Measured Level – dB(A)$L_{eq\ (Worst\ 1\ hour)}$	
	Daytime	Night time
Chatham Ave – 6m from Road	67	64
Riverpark Precinct - Level 3 Apartments – North Facade	51	48

6.3 RECOMMENDED TREATMENTS

Compliance with the internal noise level criteria detailed in section 4.2 is both possible and practical:

- Residential buildings – standard glazing will be acceptable in achieving satisfactory noise levels.
- Commercial buildings adjacent to Chatham Avenue. Upgraded glazing, indicatively 6.38mm laminated glass (or 6.38mm laminated/12mm airgap/6mm glass if an insulated glazed system is used) will be satisfactory in achieving the required noise levels for office spaces.

Masonry walls and other high mass elements of the façade will not require additional acoustic treatments.

6.4 AIRCRAFT NOISE ASSESSMENT

Aircraft noise intrusion into the proposed development will assessed in accordance with AS 2021-2000 "Aircraft Noise Intrusion - Building Siting and Construction".

There is no Aircraft Noise Exposure Forecast available for Taree Airport. In the absence of this, it is necessary to assess potential impacts using table D1 of Appendix D to AS2021.

While there are a maximum of twelve commercial passenger aircraft movements at the airport per day, the number of general aviation movements is not known.

Assuming that there are a total of more than 20 movements per day, table D1 states provided that external noise level form an aircraft movement is less than 75dB(A)L_{max}, aircraft noise impact is deemed to be acceptable without further assessment.

Aircraft noise levels at the site were determined using the methodology in AS 2021. The Standard gives noise levels at the site for aircraft landing and taking off based on the distance from the site to the runway (determined from aerial photographs).

AS 2021 predicts that the loudest typical aircraft movement will be 66dB(A)L_{max} assuming a flight which takes off from the airport in a westerly direction and flies in a straight line. This noise level therefore complies with Table D1 and no further assessment is required.

Further, even assuming that a plane takes a curved take off path, taking the flight directly over the site, the predicted L_{max} noise level is 75dB(A), which is still acceptable without any further assessment.

Noise additional building treatments are need in order to comply with AS2021 acoustic requirements.

7. RECOMMENDATIONS

Recommendations to ensure compliance with noise emission goals are as follows:

- External Noise Impacts (Traffic)

Satisfactory control of external noise impacts (primarily traffic noise) on residential and commercial occupants of the development will be achievable through standard building constructions, with some upgraded single glazing necessary to the commercial buildings located adjacent to Chatham Avenue. Indicative treatments have been presented in section 6.3 of this report.

- Mechanical Plant

Noise emission objectives for all mechanical plant have been presented in section 5.1 of this report. Detailed review of all plant items should be undertaken at CC stage and acoustic treatments (plant enclosures, screens, in-duct treatments) determined in order to ensure noise emission objectives are met. Compliance with noise emission goals is achievable through appropriate plant selection and standard acoustic treatments.

- Car Park on the Eastern Property Boundary.

Indicatively, we recommend the construction of a 1.8m high fence along the eastern property boundary of the site to prevent excessive vehicle noise impact on the adjacent residential development. Fence should be imperforate (ie – no holes) and may be constructed using lapped and capped timber, Colorbond or masonry. Note – requirement for fence (to act as noise screen to adjacent properties) may be removed following re-planning of the marina/car park and/or other ameliorative treatment to be determined at DA stage such that noise emissions will comply with DECC Industrial Noise Policy acoustic criteria.

- Boat Ramp

We recommend the construction of a 1.8m high fence along the eastern edge of the hardstand area at the boat ramp to prevent excessive noise impact on the adjacent residential development. Fence should be imperforate (ie – no holes) and may be constructed using lapped and capped timber, Colorbond or masonry.

- Marina

  Noise from the marina should comply with the acoustic criteria set out in section 5.1.1. A plan of management of marina should be developed. Indicatively, the plan of management should address hours of use for power tools (high pressure hoses, compressors, hand tools) in the marina/dry dock area in the south-eastern corner of the site. In addition, the following details assessment should be conducted as design of the marina is developed:

  - Detailed acoustic assessment of proposed Boat Crane and plant items such as compressors should be conducted at CC stage after selection of plant. Acoustic treatment to crane engine and management controls (restriction of times of use) to be determined as required to meet acoustic criteria.

  - Separate DA should be required for any boat building facility. DA should include an acoustic assessment demonstrating compliance with the noise emission goals set out in section 5.1.1 of this report.

- Restaurants / Bar

Separate DA should be required for any restaurant or bar with either amplified music or outdoor dining/smoking areas. DA should include an acoustic assessment demonstrating compliance with Liquor Administration Board noise emission goals set out in section 5.1.2 of this report.

- Stage/Swimming Pool

Noise form the use of the stage should comply with the acoustic criteria set out in section 5.1.1 of this report. Performances without amplified music will comply without the need for acoustic treatments.

If amplified music is to be played, sound power levels of any speakers positioned on the stage should not exceed 95dB(A)L_{eq}. If speakers are to be located at other positions in the development (other than on stage), or if higher noise levels are required, detailed review of the PA system should be undertaken at CC stage to ensure satisfactory noise levels are achieved.

8. CONCLUSION

Potential noise impacts from the Figtrees on the Manning mixed used development have been assessed.

Operational noise emissions from the site have been assessed against relevant DECC and Liquor Administration Board acoustic guidelines to ensure that noise emissions do not adversely affect the amenity of nearby land users. Acoustic treatments and the necessary additional acoustic assessments (either at CC stage, or in subsequent DA's submitted by future tenants) have been presented in section 7 of this report.

Noise impacts from nearby noise sources (traffic noise) on future occupants of the development have been assessed in accordance with relevant Australian Standards. Indicative acoustic treatments to achieve these standards have been set out in section 6.3.

Assessment of acoustic impacts indicates that compliance with acoustic objectives can be achieved through appropriate acoustic treatments.

Report prepared by

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APPENDIX 1
SITE PLAN
(EXTRACT OF MASTERPLAN BY SUTERS ARCHITECTS, PAGE 37)

07.1 Five Precincts

The proposal is for five main precincts, all with their own distinctive character and identity. The precincts are linked by road, pedestrian paths and cycleways.

01. Gateway Residential Precinct
02. Figtree Commercial Precinct
03. The Dairy Heritage Precinct
04. Riverpark Village Precinct
05. Marina Commercial Precinct

Mixed Use Definition

Mixed Use allows for a combination of Residential and Commercial uses.

- Commercial component could include: general office; general retail; cafes and; restaurants.
- Residential component is preferred to be incorporated in all Mixed Use areas and includes: permanent residential dwellings; serviced apartments and; short to medium term accommodation.

Commercial Definition

Commercial allows for a variety of more specific commercial activities and could include: retail; office; hotels; motels; boatels; pubs, clubs; night clubs; function centres; cinemas; function spaces; cafes; restaurants; take-aways; markets; health and fitness facilities; cultural facilities and; community facilities.

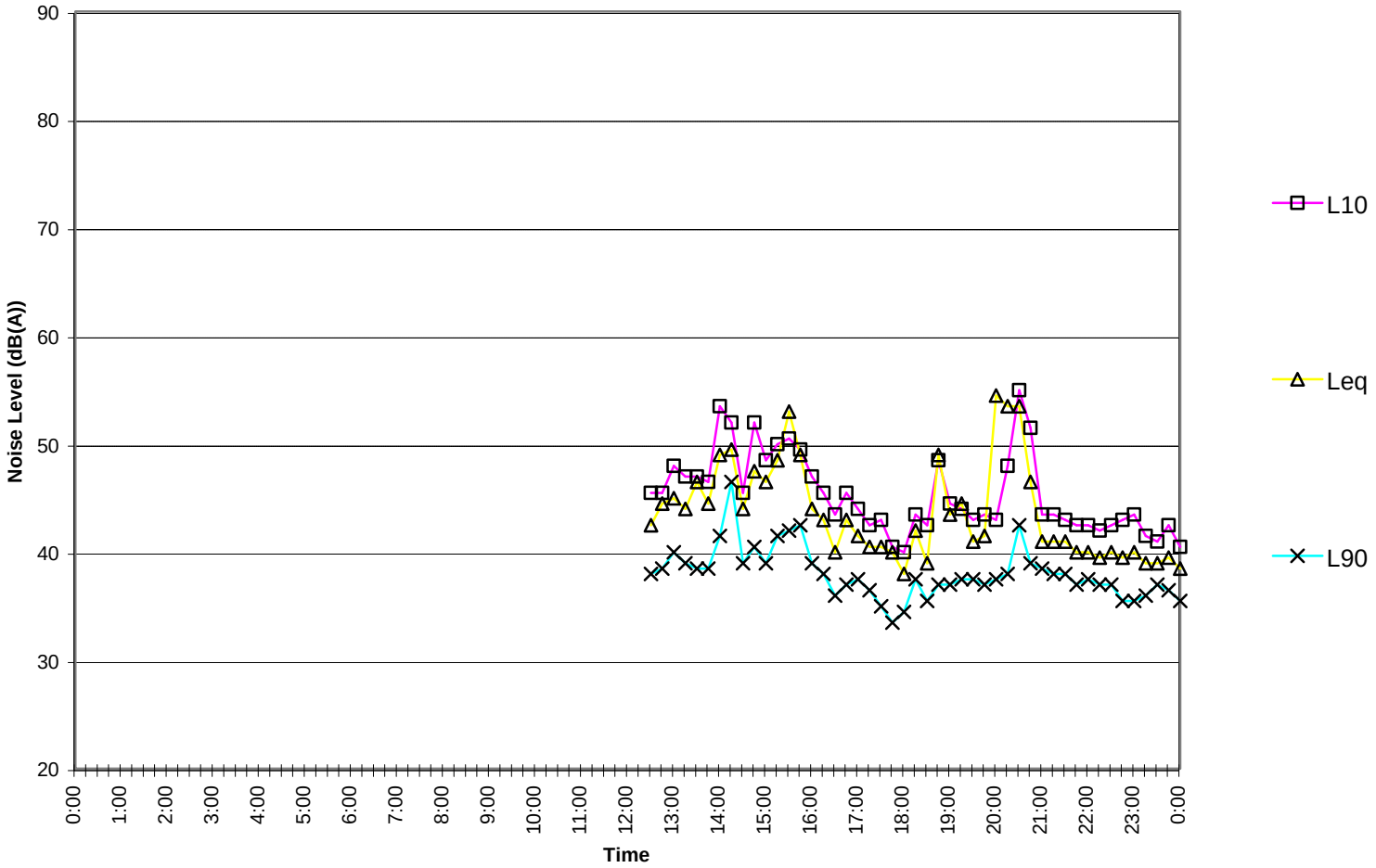
APPENDIX 2
NOISE MEASUREMENT LOCATIONS


Manned Measurement of Traffic Noise
Long term noise monitor
Cowper St
Gipps St
Bill St
Manning River Dr
McRae Ave
Plover St
Park Ln
Milligan St
Chatham Ave
Oxley St
Mackay St
Queens Pl
Atkins Ln
Railway Pde
Pitt St
Nelson St
Newtons Rd
Hand held measurement – Location 1
Hand held measurement – Location 2
Hand held measurement – Location 3
Hand held measurement – Location 4

APPENDIX 3
NOISE LOGGING DATA

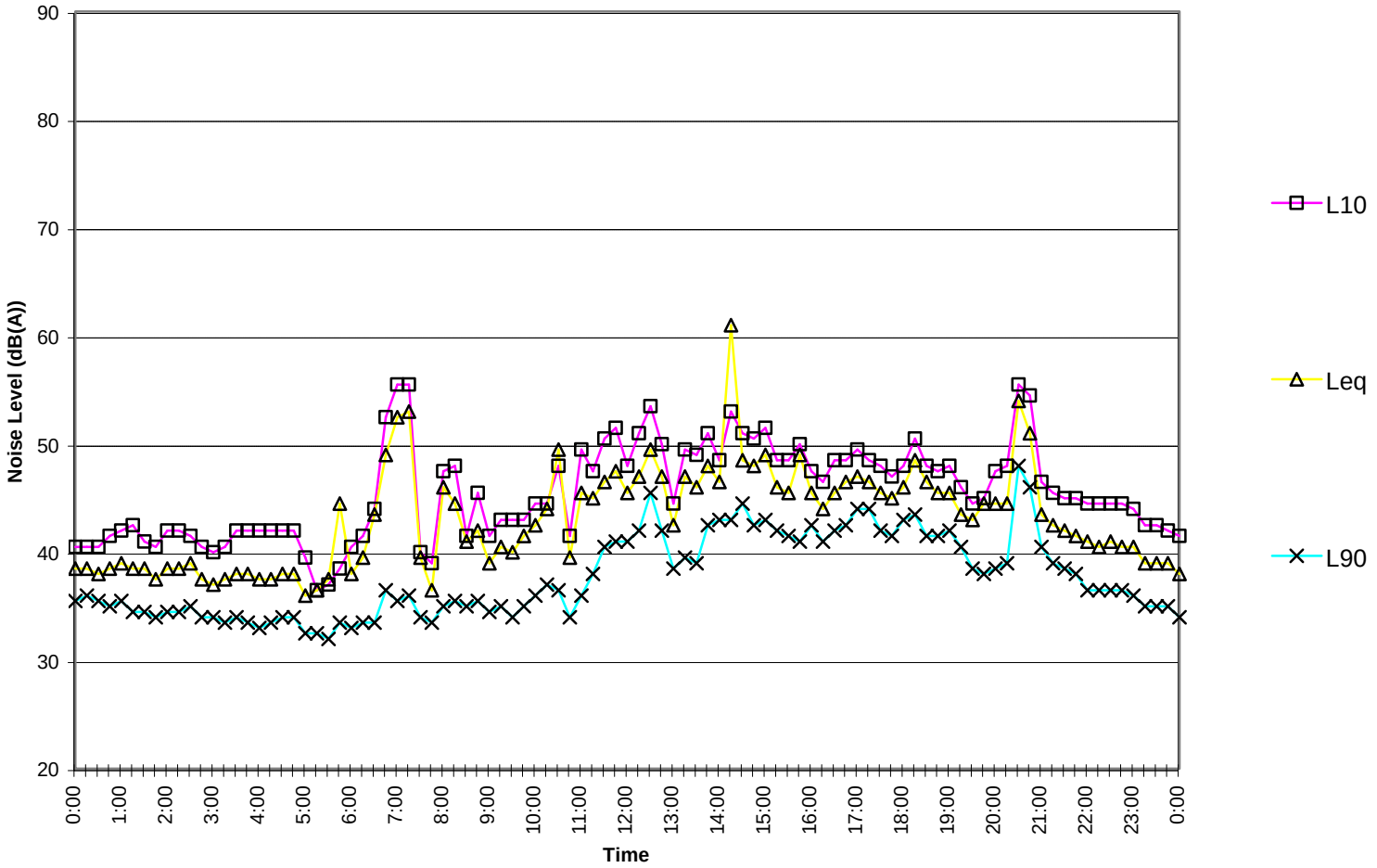
Gregory Place, Taree

Wednesday January 9,2008



Gregory Place, Taree

Thursday January 10,2008



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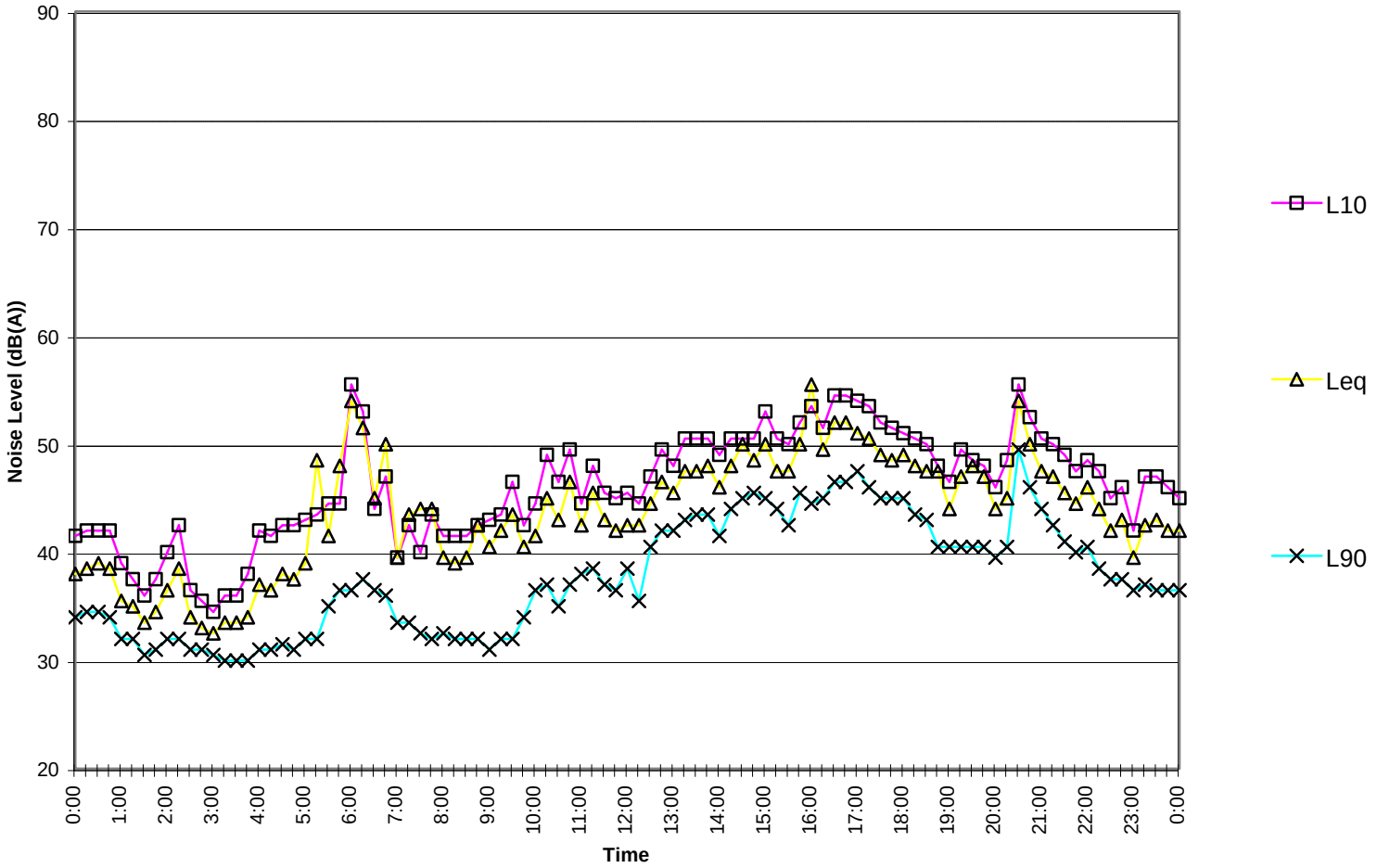

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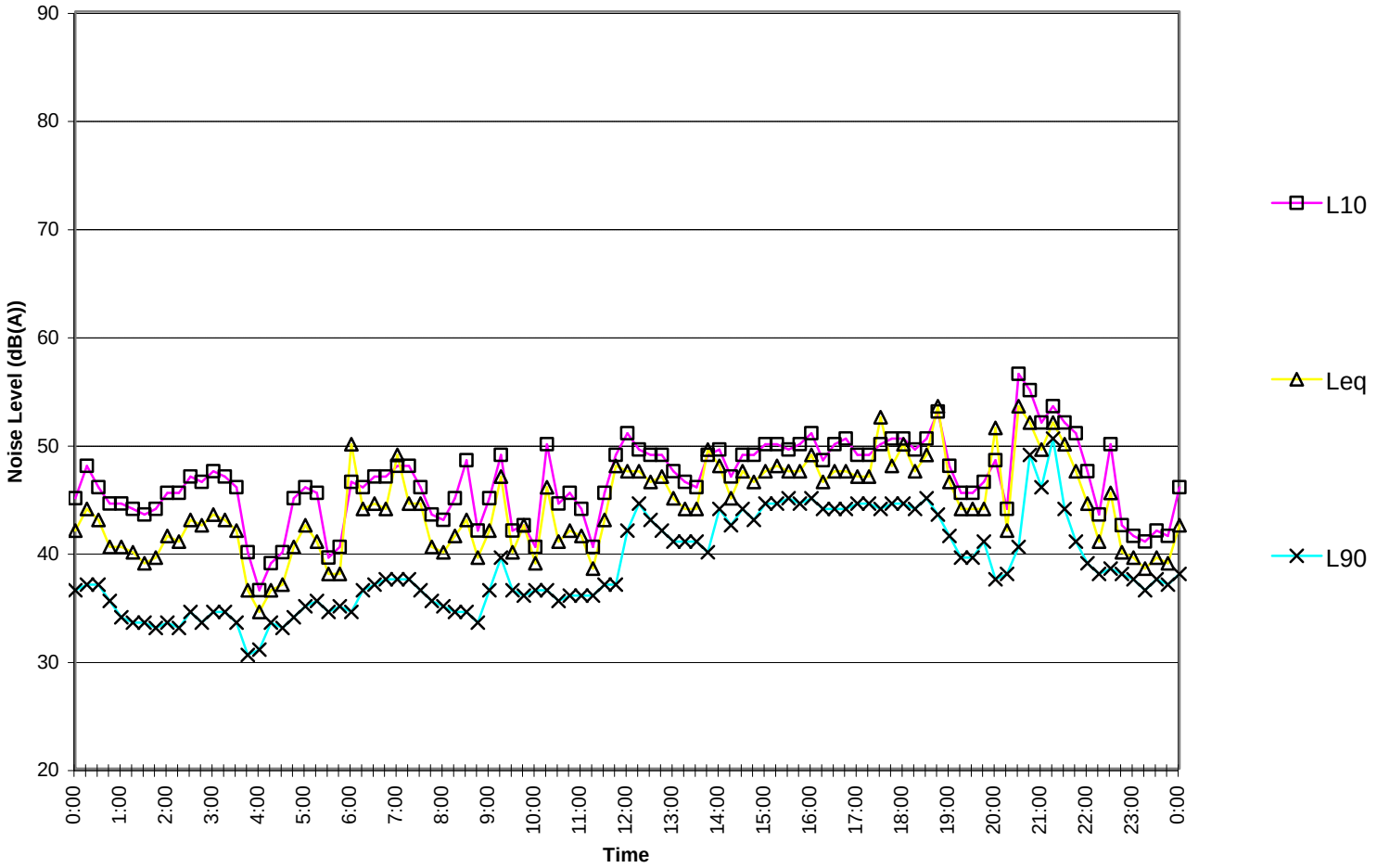
Saturday January 12,2008



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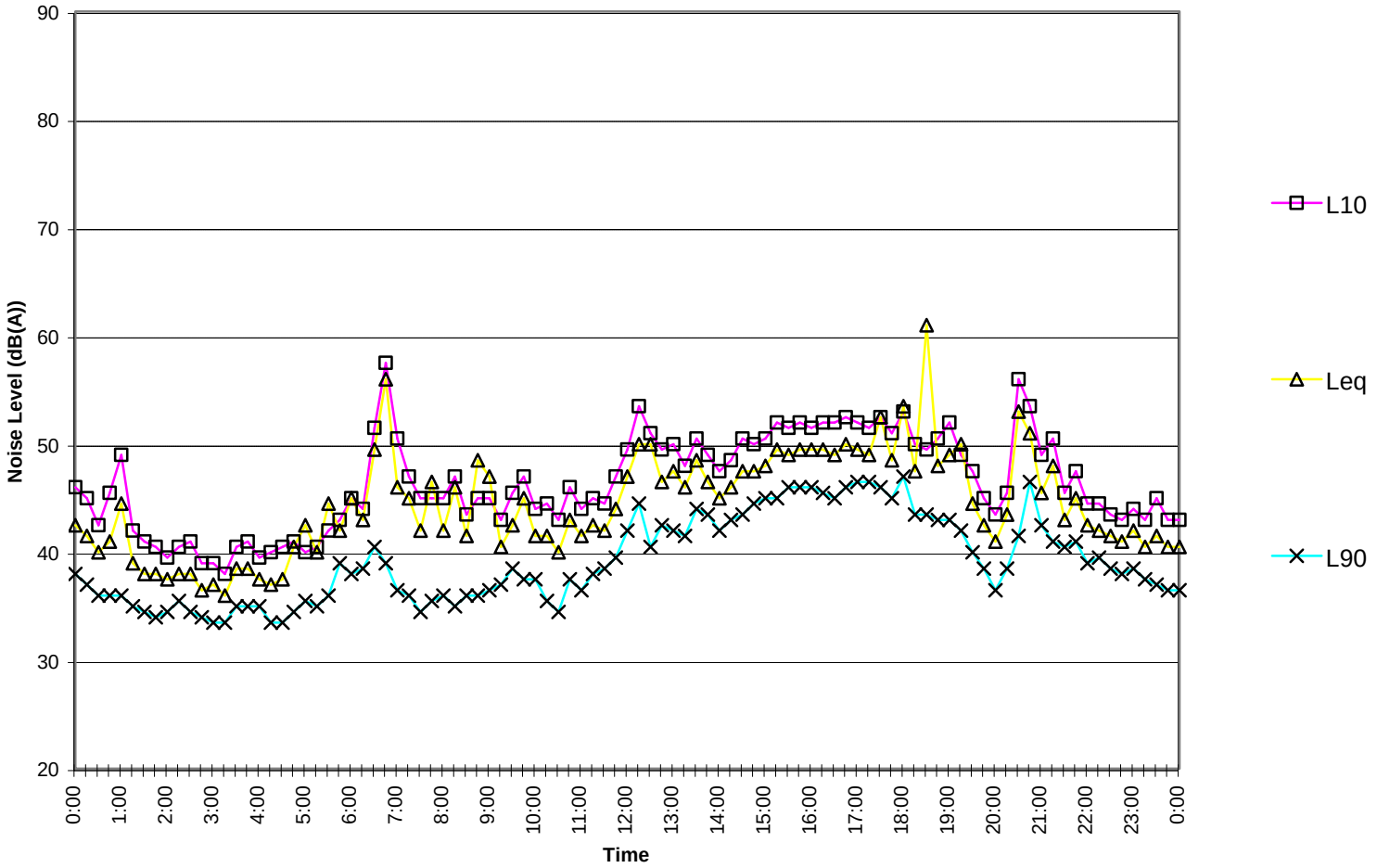
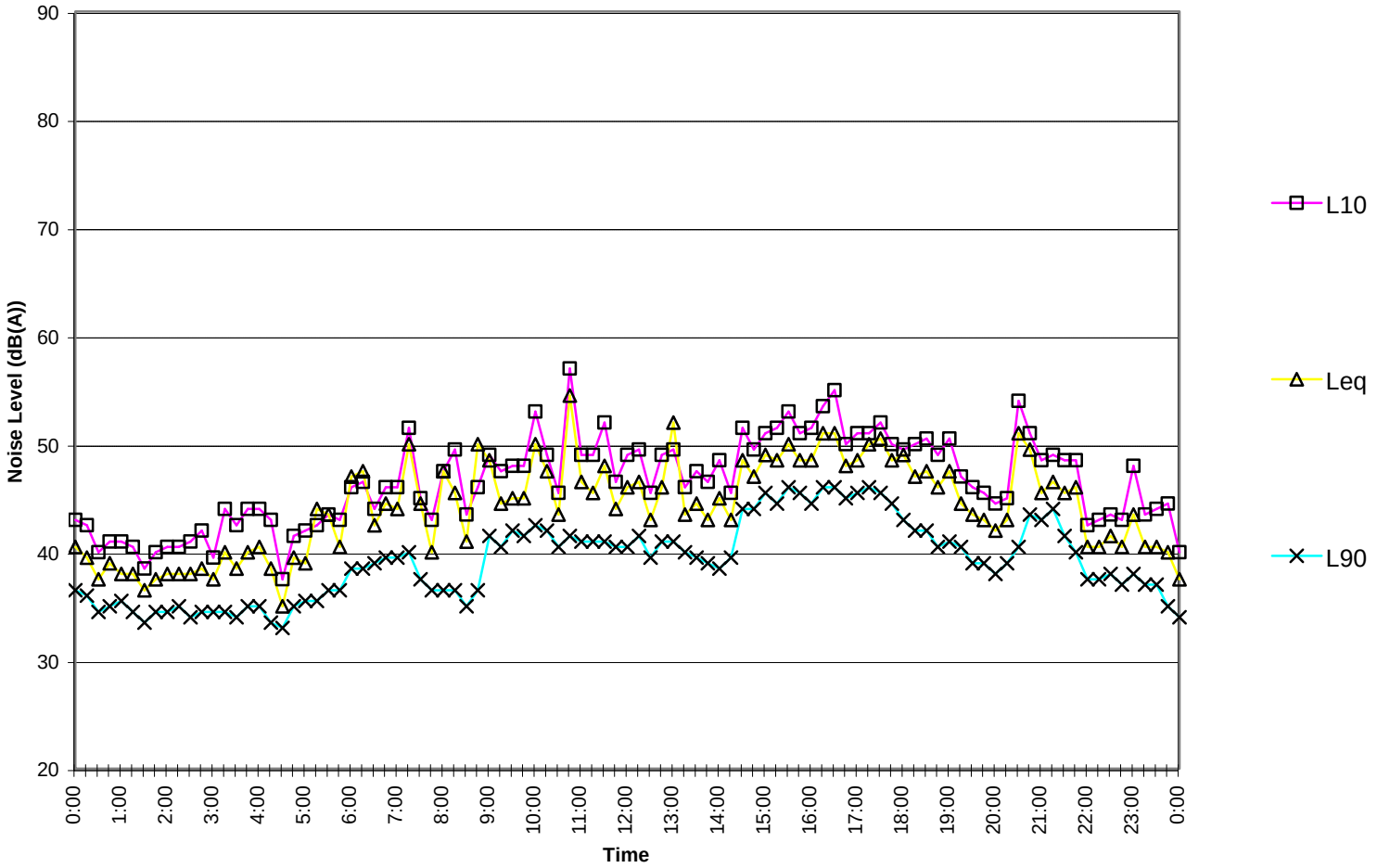


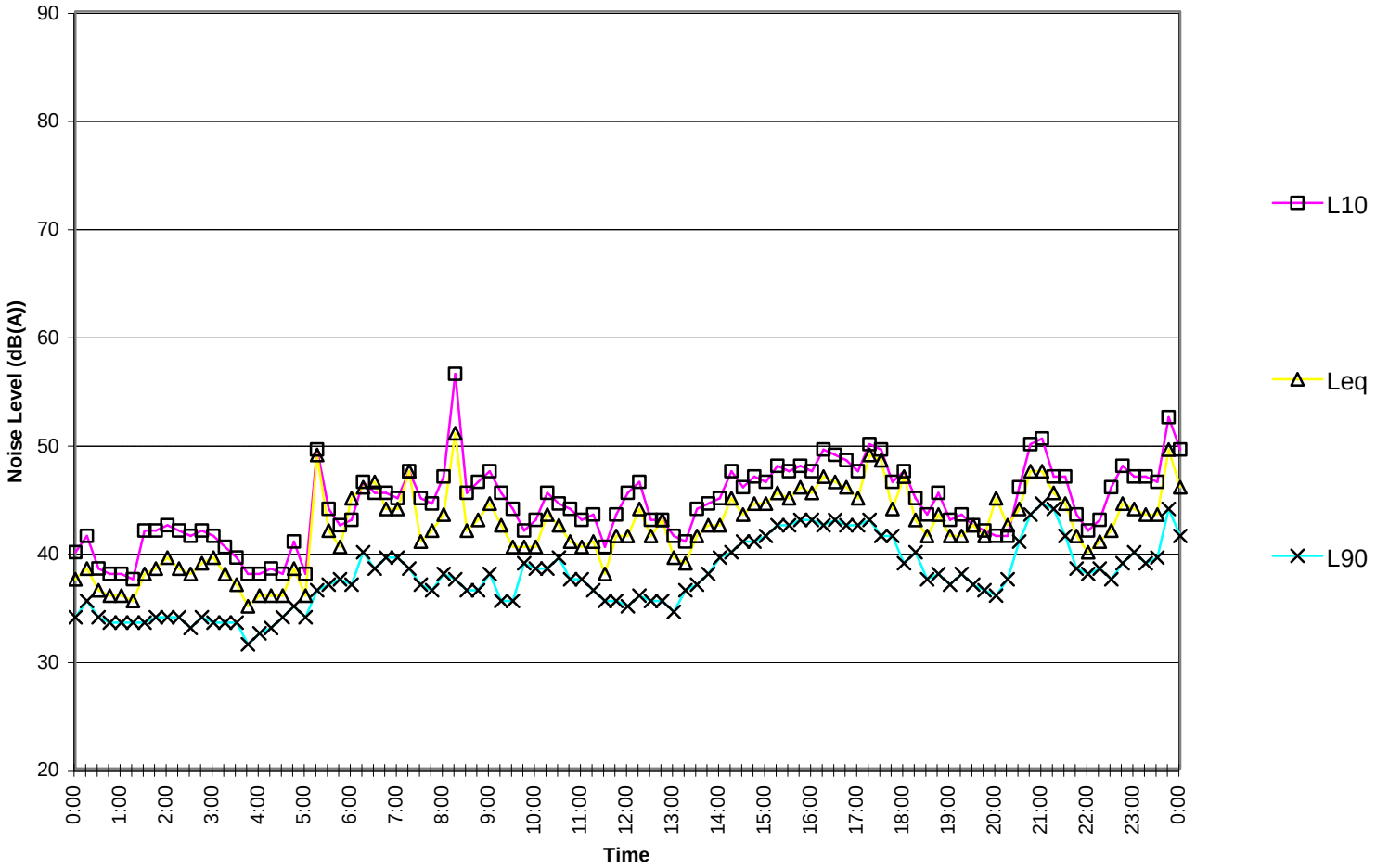
Gregory Place, Taree

Monday January 14,2008



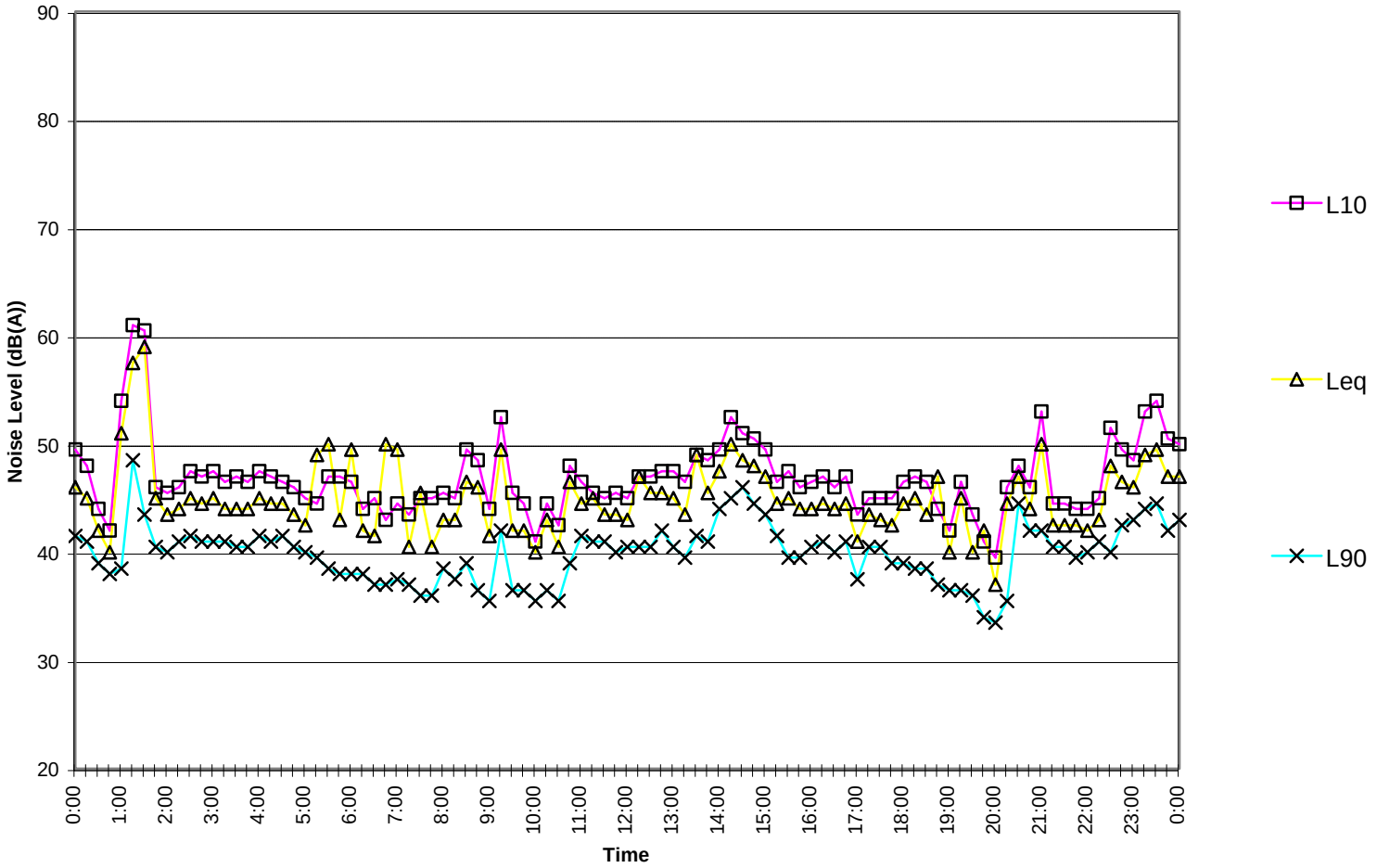
Gregory Place, Taree

Tuesday January 15,2008



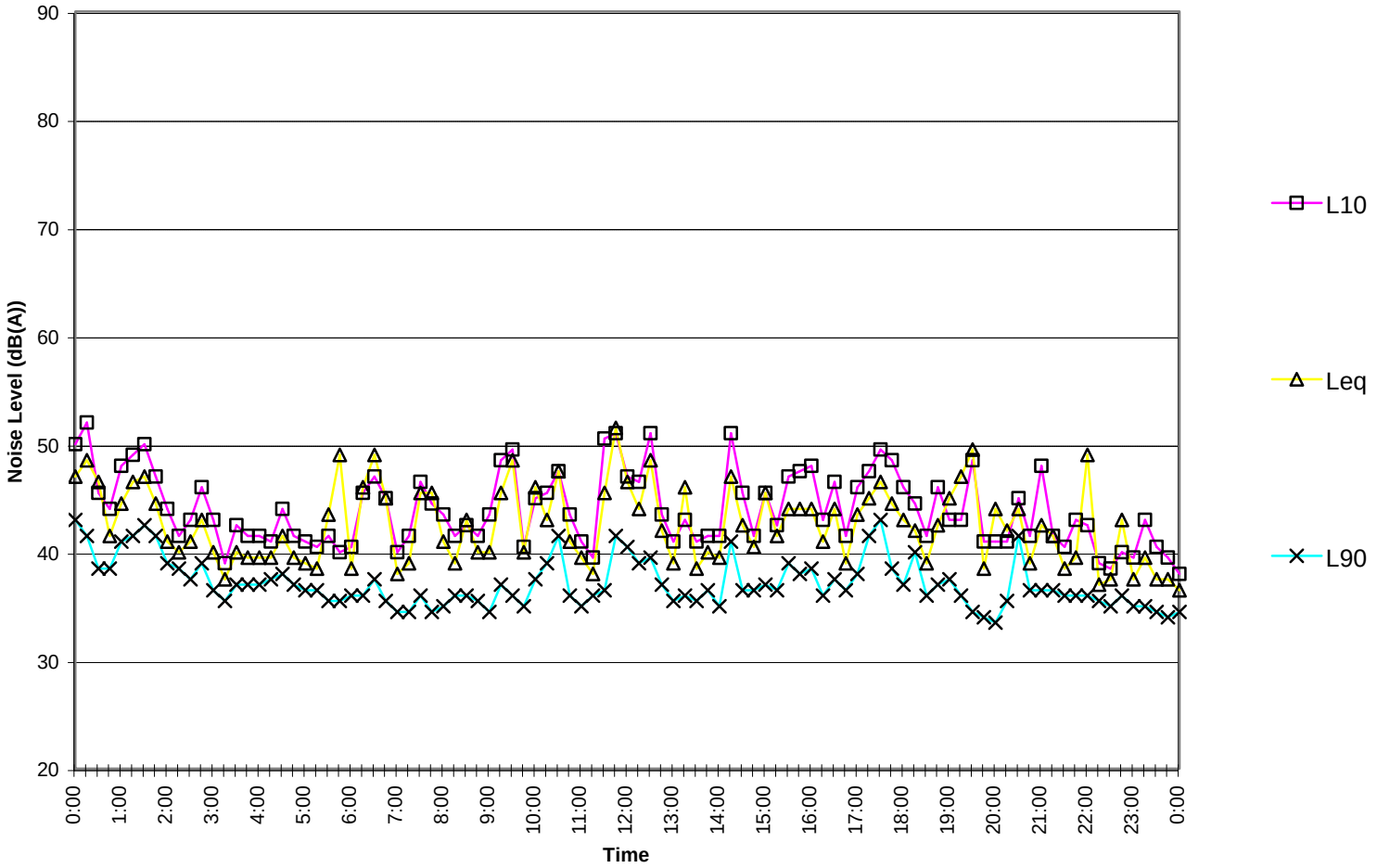
Gregory Place, Taree

Wednesday January 16,2008



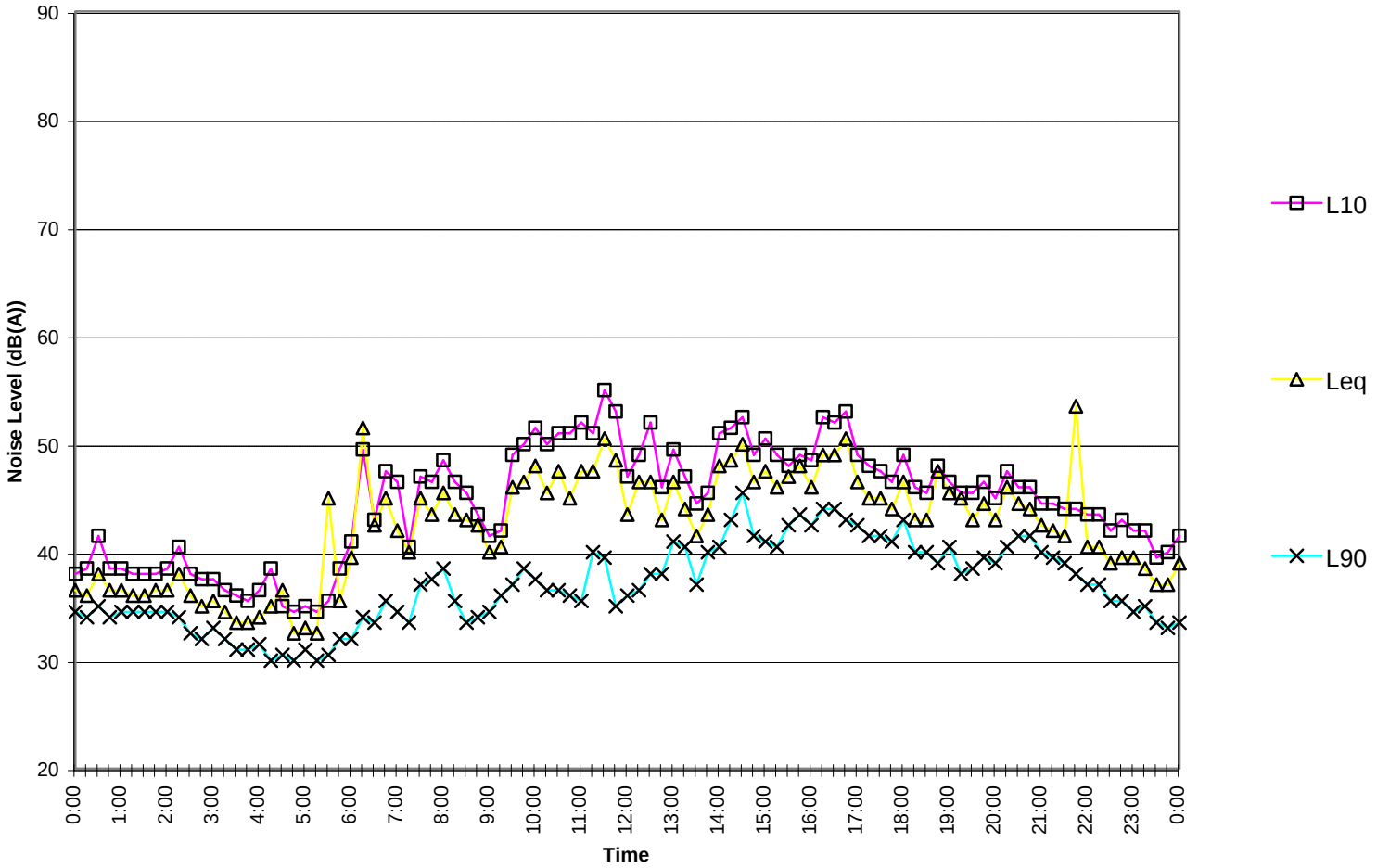
Gregory Place, Taree

Thursday January 17,2008



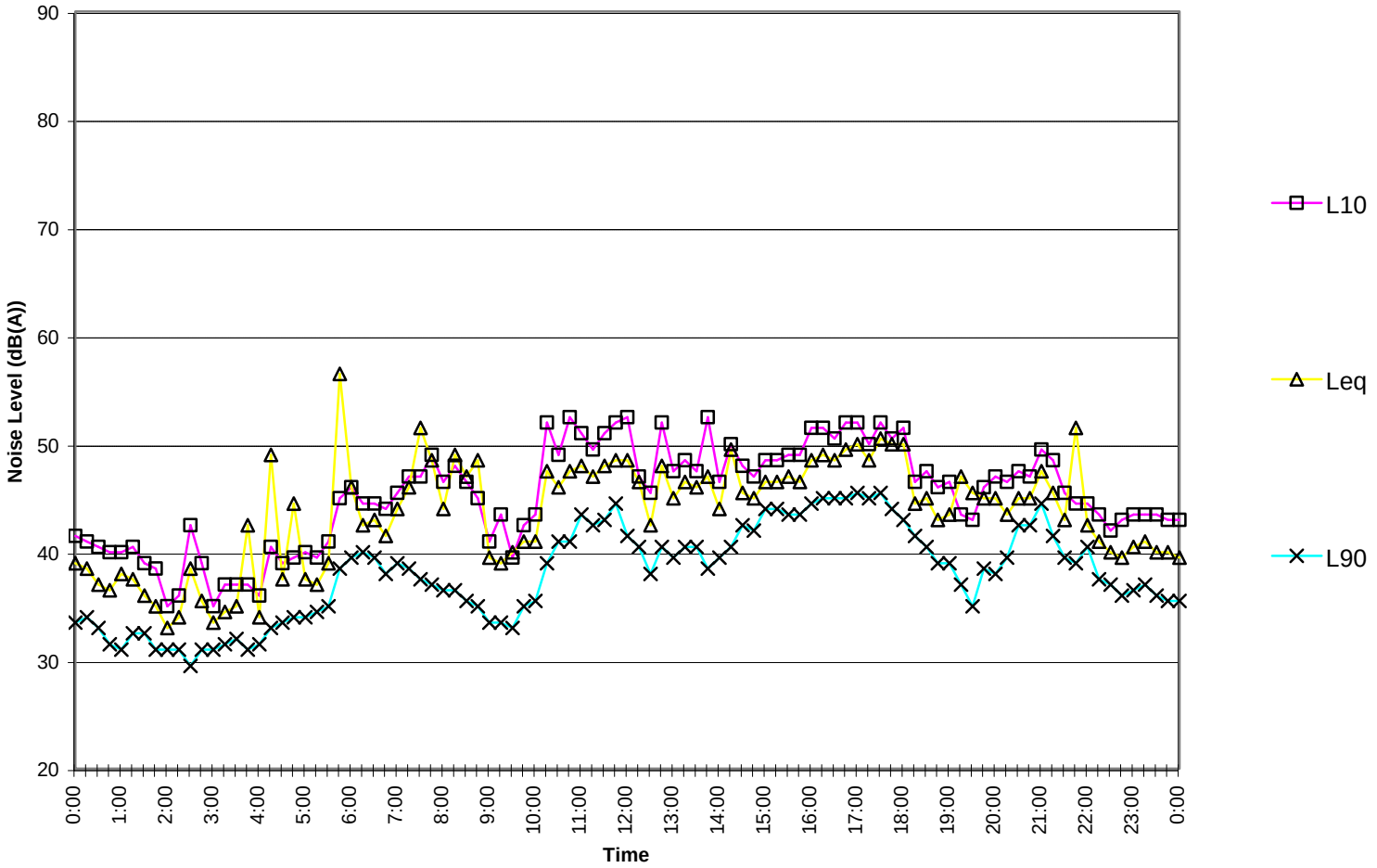
Gregory Place, Taree

Friday January 18,2008



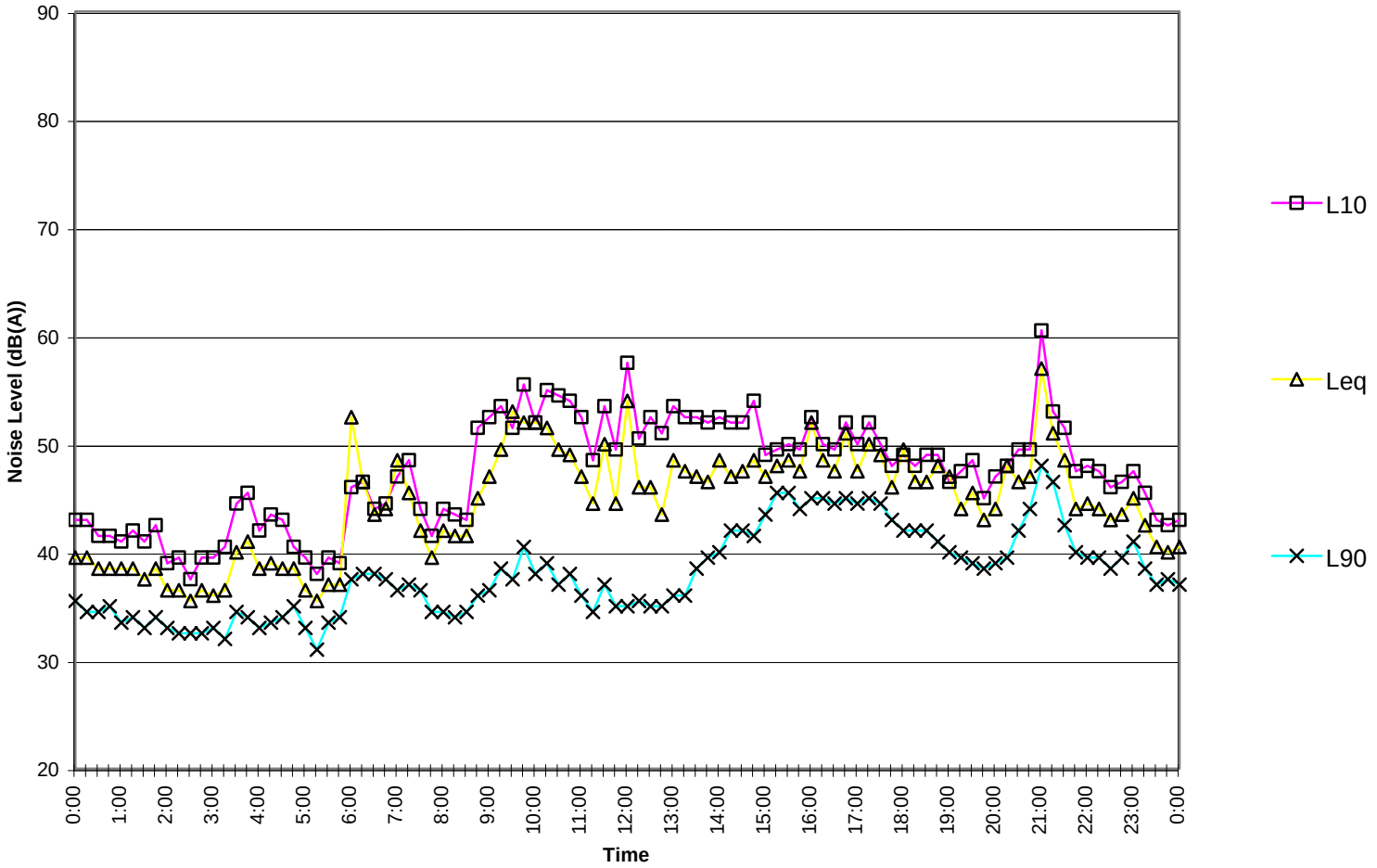
Gregory Place, Taree

Saturday January 19,2008



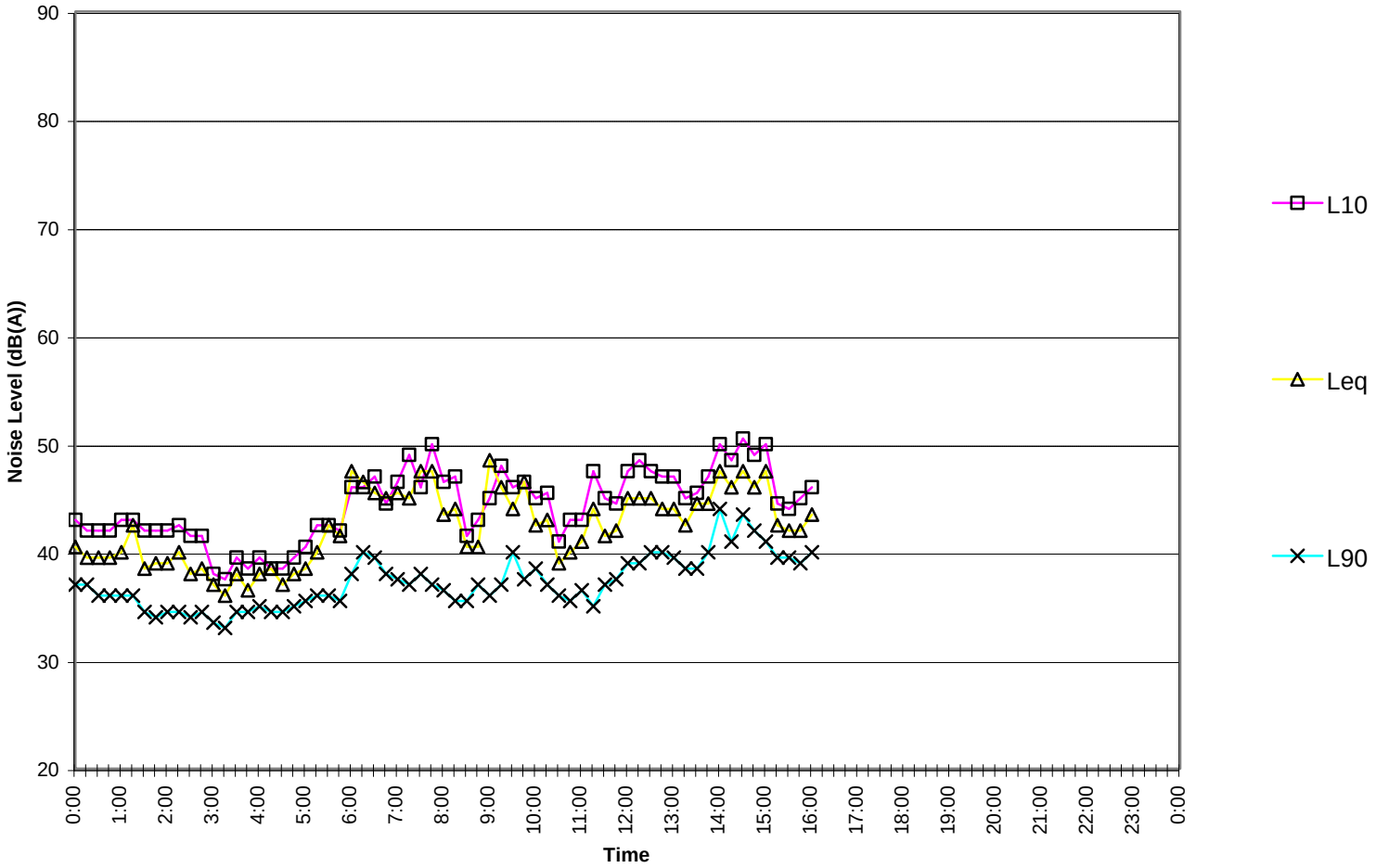
Gregory Place, Taree

Sunday January 20,2008

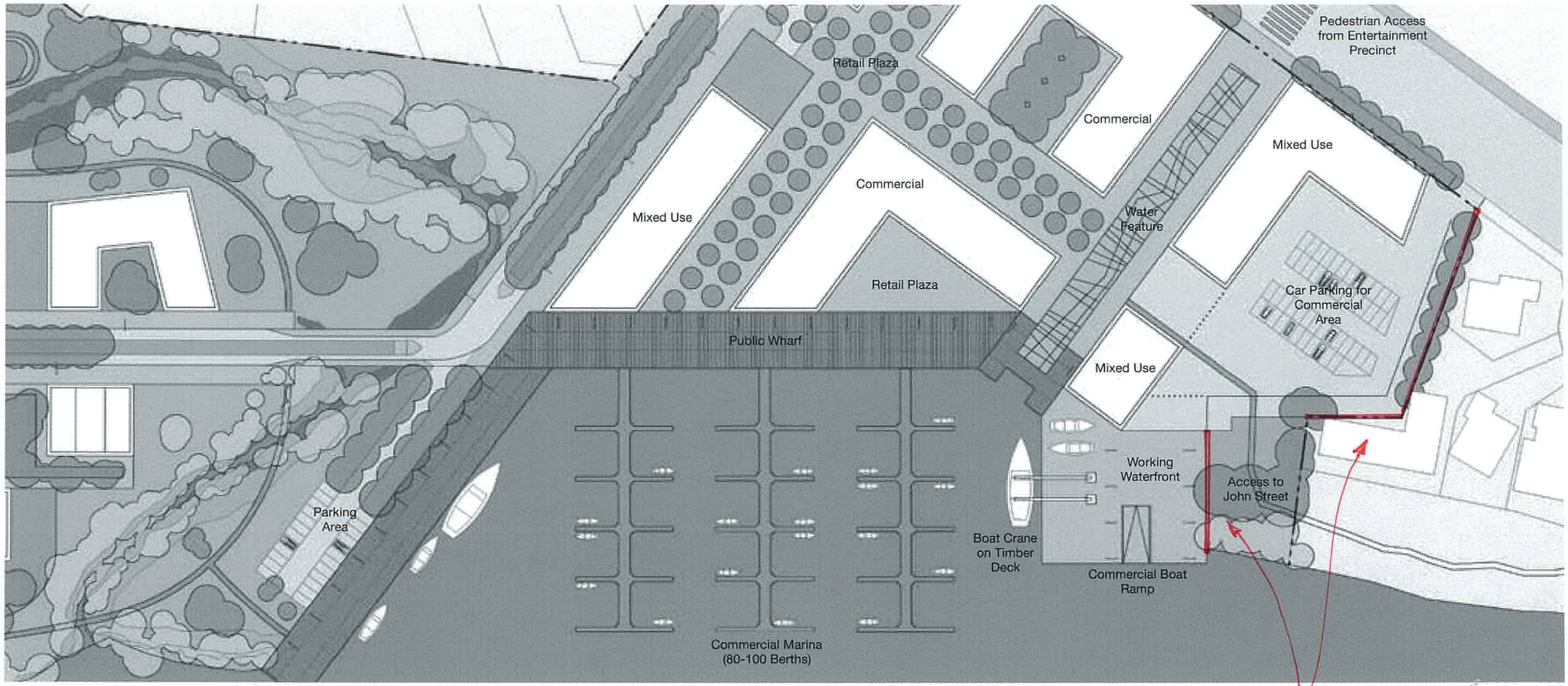


Gregory Place, Taree

Monday January 21,2008



APPENDIX 4
NOISE SCREEN MARK UP
(EXTRACT OF MASTERPLAN
BY SUTERS ARCHITECTS, PAGE 63)



- Working waterfront is the character of the marina. It is a commercial and recreational precinct.
- Establish first in existing buildings and later in new buildings a range of uses such as administration for sailing/yachts/house boats/ fishing and whale watching tours, fitness club, cycling centre yoga/ health and lifestyle centre.
- Establish a marina with facilities such as: landing stage, maintenance areas, dry dock, dry storage and boat building facility on the big oyster site.
- A water feature from the east provides the gateway to the site andguides pedestrians from Chatham Avenue to the marina and the Manning River.
- Access around the commercial marina site ensures continuity of public access along the waterfront.