

Monday, 28 October 2019



Ref: D19/537456

Claire Ryan
Principal Planner
Northern Beaches Council
725 Pittwater Rd
Dee Why NSW 2099

24-28 Campbell St
Sydney NSW 2000
All mail to
GPO Box 4009
Sydney NSW 2001
T +61 2 131 525
ausgrid.com.au

By email

CC Michael Stanton
Lighthouse Group
By email ms@lighthousepm.com.au

Dear Claire,

Development Application DA2019/0645 26 Whistler St Manly

Further to our letter of 19 August 2019 ref D19/430414 Ausgrid has met with the developer and their design team and obtained further information which is now attached to this letter.

An updated EMF report has been provided and Ausgrid has no further comments on the information contained within the report. Ausgrid does wish to highlight that the report is based on measurements at a point in time and as stated in the report the load on the substation and hence the EMF levels may increase in the future as Ausgrid provides safe and reliable power to Manly and the surrounding suburbs from this location.

Attachments to this letter and form part of this update to Ausgrid's requirements.

1. Architectural 3D Render Views PDF dated 24/10/19
2. Updated Architectural Plans PDF plot date 10/10/19
3. Revised EMF report PDF dated 06/09/19
4. Preliminary Craneage Plan Rev 2 date 12/09/19

Further comments regarding the development;

- The existing building is located on the adjoining boundary to the Ausgrid substation. Demolition of this building is to be programmed in a manner designed to ensure no damage occurs to the Ausgrid structure.

Demolition works shall not commence until written endorsement of the demolition plan and the engineering calculations demonstrating the safety of the Ausgrid substation.

Ausgrid has no further comments on the demolition plan attached.

It has been agreed that the works will occur as a staged process as there are geotechnical and site specific issues that can not be considered by the designers until the existing building is demolished.

Updated condition

The Principal Certifying Authority shall

1. Issue a Demolition only approval and;
 2. Not issue a Construction Certificate until Ausgrid's written endorsement of the demolition plan has been obtained.
- The pile wall that is located on the adjoining boundary to the Ausgrid substation shall be designed to ensure no damage occurs to the Ausgrid structure.

Piling works shall not commence until written endorsement of the structural drawings and the engineering calculations showing the expected lateral deflections of the piles has been obtained from Ausgrid. A full Geotechnical report is to be submitted with the lateral deflection calculations. The Principal Certifying Authority shall not issue the Construction Certificate until Ausgrid's written endorsement of the structural drawings has been obtained.

Updated condition and refer point above.

- A Dilapidation report shall be completed by a qualified structural engineer on the exterior and interior of the substation along the side of the substation that adjoins the proposed development prior to demolition of the existing structure. Any damage found during or at the completion of works shall be repaired at the cost of the developer.

No Change to this condition Developer to co-ordinate site access with Ausgrid.

- If the contractor needs to dewater the site they shall provide a dewatering strategy that shows that the water table below the substation will not be affected or will not affect the soil saturation parameters which may induce short term and long-term settlement beneath the footings of the Ausgrid substation.

No change to this condition

Note: the developer advises that the current designs do not require excavation at a depth that interacts with the water table.

- No ground anchors are to be constructed beneath Ausgrid's substation.

No change to this condition.

Note: the developer is not proposing to use ground anchors at this date.

- The design shall be modified to ensure no openings are within a 3m fire separation zone, this shall be done in accordance with Ausgrid Network Standard NS113.

Site works shall not commence until written endorsement of the architectural drawings has been obtained from Ausgrid. The Principal Certifying Authority shall not issue the Construction Certificate until Ausgrid's written endorsement of the architectural drawings has been obtained.

This condition has been satisfied by the updated drawings attached.

- The design shall be modified so that there is no climbable access from the development onto the roof or other trafficable areas on the site:
 - The design shall include:
 - A wall between the Ausgrid Substation and the proposed development that prevents unauthorised access onto the substation premises. The wall shall be a minimum height of 2.4m from the finished floor level of the adjoining deck and provided a minimum of 4 metres from the top of the wall to either the substation roof or substation roof deck at the location of the wall. A 550mm concertina razor coil will be required to be fixed to the substation side of the wall (300mm from the top of the wall).

- Remove all proposed openings for the development where they are on boundary with the substation.
- Securing of the balconies near the substation roof to ensure they do not provide any access to Ausgrid's property.

Site works shall not commence until written endorsement of the architectural drawings has been obtained from Ausgrid. The Principal Certifying Authority shall not issue the Construction Certificate until Ausgrid's written endorsement of the architectural drawings has been obtained.

This condition has been satisfied by the updated drawings attached.

- Deflections and vibrations shall be monitored and "live" information shall be provided to Ausgrid. Vibration monitoring to be at the developers cost. A deflection and vibration management plan shall be submitted to Ausgrid for review. The plan shall ensure that vibrations do not exceed 7.2mm/s (peak particle velocity) at the boundary to mitigate tripping of electrical equipment and damage to the structure.

No Change to this condition Developer to co-ordinate site access with Ausgrid.

- Separation between ventilation openings. The new development shall not provide any ventilation openings onto Ausgrid's property and shall not enclose any existing ventilation from Ausgrid's property.
 - The substation ventilation openings, including substation duct openings and louvered panels, must be separated from the new developments building air intake and exhaust openings, natural ventilation openings and boundaries of adjacent allotments, by separation distances which meet the requirements of all relevant authorities, building regulations, BCA and Australian Standards including AS 1668.2: The use of ventilation and air-conditioning in buildings - Mechanical ventilation in buildings.
 - In addition to above, Ausgrid requires the substation ventilation openings, including duct openings and louvered panels, to be separated from building ventilation system air intake and exhaust openings, including those on buildings on adjacent allotments, by not less than 6 metres. Note: 6 metres is measured by the shortest string line between substation ventilation openings and building ventilation system air intake and exhaust openings. This separation requirement

by Ausgrid applies irrespective of whether the building or substation ventilation is mechanical or natural and irrespective of whether dampers are installed in the building and/or substation ventilation systems. Where the dimensions of the allotment make the 6 metre separation from ventilation system openings on an adjacent allotment impossible to achieve the proposal must be submitted to Ausgrid and approval must be obtained before design proceeds.

Note: For the purposes of this Section, Ausgrid does not regard openable windows, that provide natural ventilation to a sole occupancy unit only, as a building ventilation system opening.

Site works shall not commence until written endorsement of the architectural drawings has been obtained from Ausgrid. The Principal Certifying Authority shall not issue the Construction Certificate until Ausgrid's written endorsement of the architectural drawings has been obtained.

This condition has been satisfied by the updated drawings attached.

- The following items are to be submitted to Ausgrid for review and endorsement prior to the commencement of any works:
 - Scaffolding plan that includes identifies location of scaffolding parallel to the substation , this scaffolding should be connected to earth via electrode with an earth impedance of 30ohm or less to bleed off any capacitive charge that may otherwise deliver a shock.
 - A work site safety plan that identifies the clearances required from the power line for excavation equipment.
 - Machinery to be used during excavation/construction
 - An electrical safety plan including but not limited to:
 - instrumentation and the monitoring regime
 - testing of the scaffold bleed resistor.
 - Material storage plan identifying storage areas as long metallic materials such as pipes or steel reinforcing should not be stored in close parallel orientation to the feeder as they present an induced voltage shock hazard during handling.
- No works are to commence until written confirmation from Ausgrid that this condition has been complied with has been obtained.

No change to this condition

- The applicant is to obtain Ausgrid's endorsement prior to the installation of any hoarding or scaffolding adjacent to the Ausgrid boundary.

Updated condition

- As there is a risk that rubble/debris may fall from the construction site onto the substation during demolition/excavation and or construction, a reliable method of prevention of such incidents must be provided to Ausgrid for its endorsement prior to the issue of a construction certificate.

No change to this condition

- Prior to the issue of a Construction Certificate a Risk Assessment/Management Plan and detailed Safe Work Method Statements (SWMS) for the proposed works are to be submitted to Ausgrid for review and comment on the impacts on electrical infrastructure / easement / substation. The Principal Certifying Authority is not to issue the Construction Certificate until written confirmation has been received from Ausgrid confirming that this condition has been satisfied.
- Prior to the issuing of the Construction Certificate the Applicant is to submit to Ausgrid a plan showing all the craneage and other aerial operations for the development and must comply with all Ausgrid requirements. Ausgrid does not permit any load to be lifted over the power lines. Nor shall any part of the crane jib/boom be above the transmission power line whilst lifting a load. The Principal Certifying Authority is not to issue the Construction Certificate until written confirmation has been received from the Ausgrid confirming that this condition has been satisfied.

This condition has been satisfied by the updated drawings attached.

- Given the potential of objects being dropped or thrown onto the electrical infrastructure / easement from balconies, windows and other external features (e.g. roof terraces and external fire escapes) that face and are also within 20m of the electrical infrastructure / easement, the Applicant is required to install measures (e.g. awning windows, louvres, enclosed balconies etc.) which prevent the throwing of objects onto the electrical substation. The Principal Certifying Authority shall not issue the Construction Certificate until written endorsement from Ausgrid has been obtained and that the Ausgrid endorsed measures have been indicated on the Construction Drawings.

This condition has been satisfied by the updated drawings attached.

- The Applicant must provide a plan of how future maintenance of the development facing the electrical infrastructure / easement is to be undertaken. The maintenance plan is to be submitted to Ausgrid prior to the issuing of the Occupancy Certificate.

No change to this condition

- The Principal Certifying Authority is not to issue an Occupation Certificate until written confirmation has been received from Ausgrid advising that the maintenance plan has been prepared to its satisfaction.

No change to this condition

The developer should be advised that Ausgrid fees are applicable to the items listed above and will be billed in accordance with the Ausgrid Ancillary Network Services policy and will be invoiced directly.

Please address correspondence to myself or development@ausgrid.com.au.

Yours sincerely,



James Hunkin
Area Development Manager
Ausgrid
Phone 9269 7379
jhunkin@ausgrid.com.au



For the exact colours proposed and colours of the adjoining building, refer to finishes schedule.



For the exact colours proposed and colours of the adjoining building, refer to finishes schedule.



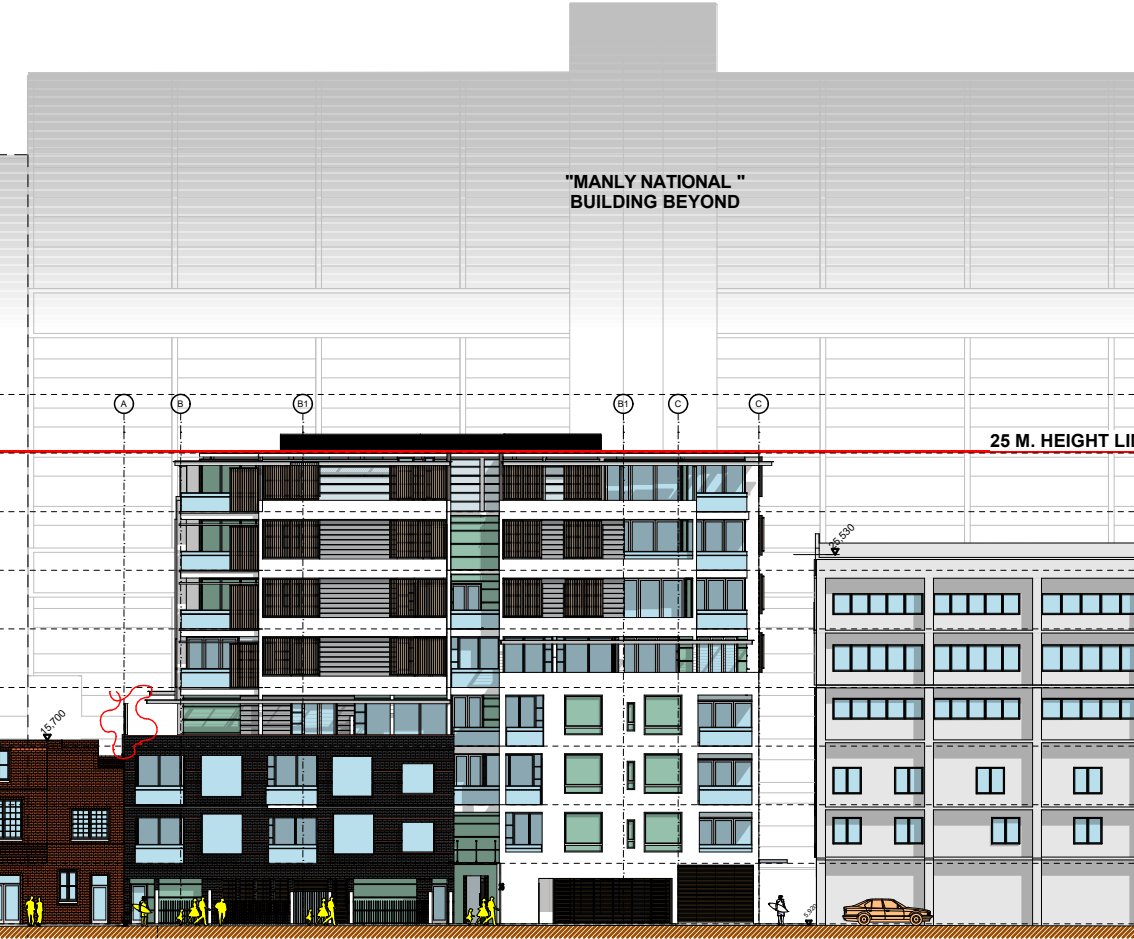
For the exact colours proposed and colours of the adjoining building, refer to finishes schedule.



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26 WHISTLER STREET
MANLY

Locality Map

NOT TO SCALE

DA SUBMISSION JUNE 2019

FILE PATH

BIM Server: BIMSRV01 - BIM Server 20/21806 26 Whistler St Manly

PLOT DATE:

10/10/2019

DEVELOPMENT
APPLICATION

26 Whistler Street
MANLY

DRAWING LIST

ARCHITECTURAL DRAWINGS

- DA00 COVER / LOCATION PLAN
- DA01 BASEMENT
- DA02 GROUND
- DA03 LEVEL 1
- DA04 LEVEL 2
- DA05 LEVEL 3
- DA06 LEVEL 4
- DA07 LEVEL 5
- DA08 LEVEL 6
- DA09 LEVEL 7
- DA10 ROOF
- DA11 WEST ELEVATION
- DA12 EAST ELEVATION
- DA13 SOUTH ELEVATION
- DA14 NORTH ELEVATION
- DA15 LONG SECTION
- DA16 SECTION WITH SUBSTATION

COMPLIANCE DRAWINGS

- C01 SITE ANALYSIS
- C02 DEMOLITION PLAN
- C03.0 SHADOW DIAGRAMS (21 MARCH)
- C03.1 SHADOW DIAGRAMS (21 MARCH)
- C03.2 SHADOW DIAGRAMS (21 JUNE)
- C03.3 SHADOW DIAGRAMS (21 JUNE)
- C04.0 SCHEDULE OF FINISHES (EAST)
- C04.1 SCHEDULE OF FINISHES (WEST)
- C04.2 SCHEDULE OF FINISHES (NORTH)
- C04.3 SCHEDULE OF FINISHES (SOUTH)
- C05.0 ADAPTABLE UNIT PLANS (503-603)
- C05.1 ADAPTABLE UNIT PLANS (403-703)
- C06.0 CROSS VENTILATION
- C07.0 VIEW LOSS ANALYSIS 01
- C07.1 VIEW LOSS ANALYSIS 02

ARCHITECT:

WOLSKI . COPPIN

ARCHITECTURE

SUITE 3, LEVEL 1, 507 MILITARY ROAD MOSMAN NSW 2088

T: 9953 8477 E: info@wolskicoppin.com.au

DAVID WOLSKI NSW ARB No. 5297

CONSULTANTS

ACCESS	Access Building Solutions
ACOUSTIC	Acoustic Logic
BASIX	Senica
GEOTECH	JK Geotechnics
BCA	Private Certifiers Australia
HERITAGE	Heritage 21
HYDRAULICS	Wood & Grieve
LANDSCAPE ARCHITECT	Paul Scrievner
SOLAR	Walsh
SURVEY	Bee & Lethbridge
PLANNER	Boston Blyth Fleming Pty. Ltd
TRAFFIC	Transport & Traffic Planning Associates

BASIX COMMITMENTS

Project summary		
Project name	26 Whistler Street MANLY	
Street address	26 Whistler Street MANLY 2095	
Local Government Area	Northern Beaches Council	
Plan type and plan number	strata 15752	
Lot no.	-	
Section no.	-	
No. of residential flat buildings	1	
No. of units in residential flat buildings	41	
No. of multi-dwelling houses	0	
No. of single dwelling houses	0	
Project score		
Water	 41	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 35	Target 25
Certificate Prepared by		
Name / Company Name: Senica Consultancy Group Pty Ltd		
ABN (if applicable): 48612864249		

BASIXCertificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 1001320M

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

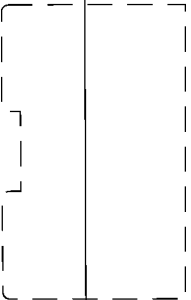
Secretary
Date of issue: Thursday, 06 June 2019
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW Planning & Environment



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TN



SCALE: 1:200@A3		PLOT DATE: 10/10/2019
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BIM Server: BIMSrv01 - BIM Server 20/21806 26 Whistler St Marlv 050419

NORTH POINT:
TN



<div>NOTES:</div> <div>FIGURED DIMENSIONS ARE TO BE TAKEN IN PREFERENCE TO SCALED DIMENSIONS.</div> <div>THE CONTRACTOR IS TO CHECK AND VERIFY FIGURED DIMENSIONS PRIOR TO ANY COMMENCEMENT OF WORK ON SITE.</div> <div>THIS DRAWING IS COPYRIGHT AND SHALL REMAIN THE PROPERTY OF WOLSKI COPPIN ARCHITECTURE.</div>	DATE	REV	DESCRIPTION	DATE	REV	DESCRIPTION	DATE	REV	DESCRIPTION	<div>ARCHITECT:</div> <div><div><div></div></div><div><div>WOLSKI . COPPIN</div><div>A R C H I T E C T U R E</div><div>LEVEL 1, 507 MILITARY ROAD, MOSMAN NSW 2088</div><div>T: 9953 8477 E: info@wolskicoppin.com.au</div><div>DAVID WOLSKI NSW A/RB No. 5297</div></div></div>	<div>PROJECT TITLE:</div> <div>PROPOSED RESIDENTIAL REDEVELOPMENT</div> <div>PROJECT ADDRESS:</div> <div>26 Whistler Street</div> <div>MANLY</div>	<div>CLIENT:</div> <div>DAP Woodland Pty Limited</div> <div>DRAWING TITLE:</div> <div>North Elevation</div>	PROJECT No:	DRAWING No:	REVISION:	NORTH POINT:
	07/06/19	A	DA SUBMISSION													
	09/09/19	B	GLASS LOUVRES ADDED TO NORTH PARAPET- AUSGRID REQ													
											SCALE:	PLOT DATE:				
											1:200@A3	10/10/2019				
													BIM Server: BIMSRV01 - BIM Server 20/21806 26 Whistler St Manly 050419			





www.emrsurveys.com.au
6 Sept 2019

DAP Woodland Pty Ltd
c/o Lighthouse Project Group
L2, 56 Berry Street,
NORTH SYDNEY NSW 2060

Attn: David Allen

Dear David

26 Whistler Street, Manly NSW

Thank you for the opportunity to conduct an electromagnetic survey at 26 Whistler Street Manly.

Following review of the Ausgrid referral response dated 19th August 2019, the report now references the time and date of measurements and takes into account the current load provided by Ausgrid. The expected EMF exposure by the residents of the development is clearly addressed in this report and concludes there is no risk to residents within the proposed building.

In this survey, we have measured the magnetic fields from the adjoining electricity sub-station (Manly Zone No. 15009), underground cables external to the property, and local wiring within the existing car-parking area, at ground level and the residential open space, on the 1st level..

These measurements are provided, together with relevant recommendations on attached sheets.

Subsequent to our original measurements and reporting we have been provided, from Ausgrid, current loading data for two 11kV transformers within the sub-station. This has permitted us to estimate the likely magnetic fields over the long term.

Power frequency electromagnetic fields (ELF)

Power frequency electromagnetic fields are emitted by electrical wiring and equipment such as power lines, household wiring, and electrical appliances which operate at frequencies of 50 Hertz (Hz). That frequency is within the range of extra low frequencies (ELF). It consists of both an electric field and a magnetic field.

The magnetic field is created by electric current flowing along a conductor such as a power line. It is measured in units of milligauss (mG) and is present whenever an appliance is turned on.

The electric field is created by voltage on an active line, irrespective of whether current is flowing or not. It is measured in units of Volts per metre (V/m). There were no significant electric fields measured and these have not been recorded.

Safe levels.

The International Commission for Non-Ionising Radiation and Protection Guidelines (ICNIRP) endorsed by World Health Organisation allow general public exposure to magnetic fields of 2000 milligauss (mG) and electric fields of 5000 Volts/metre (V/m) for short-term exposure. The Australian guidelines of the National Health and Medical Research Council (NHMRC) allow general public exposure to 1000 mG and 5000 V/m for short-term exposure.

However, many studies have found increased risks of childhood leukaemia at exposures of 4 milligauss and above, and the International Agency for Research on Cancer (IARC) has classified power frequency magnetic fields as possible carcinogens. In my experience over more than 25 years, some adverse health effects may be observed after continuous daily exposure of six to eight hours per day, every day, for at least a year in the case of children, and many more years in the case of adults.

We would recommend spot day-time levels be not more than 3 milligauss for continuous exposure in living and frequently habited areas. Levels above 5 milligauss would require investigation and rectification.

Test method.

Magnetic fields were measured at all accessible locations on the ground and first floors taking particular notice at the electricity sub-station boundaries.

The magnetic fields were measured with a magnetic field meter at floor level, 1 metre and 2 metre heights.

Data provided by Ausgrid was used to estimate the daily and long term current loadings at the sub-station.

For the two 11kV transformers electric currents were provided in regular intervals for 5 days and 1 year periods. Minimum, average and maximum currents were then determined for each of the four sets of data.

A summary of these results is attached.

It was noted that both transformers operated together simultaneously.

Our measurements were taken on 24th May 2018 while both transformers were apparently operating at normal levels.

Both transformers were operating at approximately average levels during the day with peaks in the evening around 5 and 6pm and with minimums around 2;30am. This is considered normal operation for most electricity sub-stations with a predominantly residential base.

Results.

ELF (power frequency).

The highest magnetic field levels were measured external to 26 Whistler Street at the footpath outside the front of the sub-station and on Whistler Street roadway adjacent to the footpath. Those fields would be generated by underground cables distributing electricity to the surrounding suburbs. The fields decreased by a factor of ten moving towards the property boundary of 26 Whistler Street.

Measurements taken within the existing car-park at ground level, showed moderately elevated fields along the boundary wall of the sub-station decreasing in strength proceeding away from the wall. At 5 metres from the sub-station wall the level of magnetic fields was insignificant.

At level 1 of the existing residential level, the magnetic fields were even lower, with one exception. At approximately the centre of the sub-station wall the magnetic fields at a single location, were 12.4 milligauss, however these also decreased to insignificant levels within the proposed residential area of the property.

The time of each of our measurements was known within a few minutes and the current of Tx1 was determined for each of those times. This current was compared to the 5 day average current and the measured fields were adjusted in proportion. An additional conservative safety factor of 20% was applied to cover any likely load increases in subsequent years. Ausgrid have advised that the sub-station has capacity in excess of 30% which can be used at any time. In the event that the average long-term load does increase by that amount, further testing should be made to ensure there are no significant increased magnetic fields within the proposed development.

The measured and resultant fields are shown on the attached Table 2. The line numbers for that table are shown in red on the original floor plans, Plan 1 and Plan 2.

Comments.

Despite the proximity to the electricity sub-station there were no significant magnetic fields measured within the area of the proposed development. It was only possible to take measurements up to the height of the existing sub-station, level 1, whereas the proposed property will extend to 7 levels. Any fields, at distance, decrease with approximately the square of the distance. There is therefore no possibility the sub-station fields will have any effect at levels two to six.

At ground and level one, there were a few locations where the magnetic fields were in excess of 3 milligauss and those areas would be quite suitable for car-parking as planned.

At level 1 there were no habitable areas with magnetic fields significantly in excess of 3 milligauss.

The sub-station is an early design where there was sufficient space to keep the electric currents, and therefore the resultant electric and magnetic fields, away from external walls. There are much higher fields on the roadway away from the sub-station.

Yours sincerely



WJ Lincoln B.E. Elect.

EMR Surveys Pty Ltd.

Magnetic field measurements at 26 Whistler Street, Manly.

All measurements on the attached sketches are in milligauss.

Key:

(xx, yy, zz) x



Location of measurement.

2 metres above floor level

1 metre above floor level

At ground (floor) level

Attachments:

Plan 1 Measured fields, Ground level.

Plan 2 Measured fields, Level 1

Table 1 Current log summary

Table 2 Site Readings and adjustments

Top

Project:
Project number:
Customer:
HUTCHINSON BUILDERS
Contact Partner:
Guy Hickson

Street:
26 Whistler Street
City:
MANLY
Telephone:
0402 325 271
Facsimile:

**HUTCHINSON
BUILDERS****12/09/2019**