# ATTACHMENT 1 - DRAFT CONDITIONS OF APPROVAL

Council has imposed the following conditions under the relevant planning instruments and policies.

# A. THE DEVELOPMENT

# **Approved Plans**

1. Development the subject of this determination notice must be carried out by a by a Social Housing Provider, as defined in the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 or its tenants (see condition 99) strictly in accordance with the following approved plans/reports marked as follows, except where modified by the undermentioned conditions.

Plan Name	Dwg ref.	Date	Revision	Prepared By
Site Analysis & Demolition Plan	0102	09/04/19	13	Allen Jack + Cottier
Ground Floor Site Plan	1001	09/04/19	16	Allen Jack + Cottier
Basement Level Site Plan	1002	09/04/19	4	Allen Jack + Cottier
Roof Level Site Plan	1003	09/04/19	4	Allen Jack + Cottier
Boundary Elevations	1011	09/04/19	7	Allen Jack + Cottier
Internal Street Elevations	1012	09/04/19	8	Allen Jack + Cottier
Longitudinal Sections	1013	09/04/19	4	Allen Jack + Cottier
B1- Basement	1100	09/04/19	5	Allen Jack + Cottier
B1- Ground Floor	1101	09/04/19	5	Allen Jack + Cottier
B1- First Floor	1102	09/04/19	5	Allen Jack + Cottier
B1- Second Floor	1103	09/04/19	5	Allen Jack + Cottier
B1- Roof Plan	1105	09/04/19	4	Allen Jack + Cottier
B1- Elevations 1	1121	09/04/19	5	Allen Jack + Cottier
B1- Elevations 2 & Section	1122	09/04/19	6	Allen Jack + Cottier
B2- Basement	1200	09/04/19	4	Allen Jack + Cottier
B2- Ground Floor	1201	09/04/19	5	Allen Jack + Cottier



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B2- First Floor	1202	09/04/19	5	Allen Jack + Cottier
B2- Second Floor	1203	09/04/19	5	Allen Jack + Cottier
B2- Roof Plan	1204	09/04/19	4	Allen Jack + Cottier
B2- Elevations 1	1221	09/04/19	6	Allen Jack + Cottier
B2- Elevations 2 & Section	1222	09/04/19	6	Allen Jack + Cottier
B3- Basement	1300	09/04/19	4	Allen Jack + Cottier
B3- Ground Floor	1301	09/04/19	5	Allen Jack + Cottier
B3- First Floor	1302	09/04/19	4	Allen Jack + Cottier
B3- Second Floor	1303	09/04/19	4	Allen Jack + Cottier
B3- Roof Plan	1304	09/04/19	4	Allen Jack + Cottier
B3- Elevations 1	1321	09/04/19	6	Allen Jack + Cottier
B3- Elevations 2 & Section	1322	09/04/19	5	Allen Jack + Cottier
B4- Basement	1400	09/04/19	4	Allen Jack + Cottier
B4- Ground Floor	1401	09/04/19	5	Allen Jack + Cottier
B4- First Floor	1402	09/04/19	5	Allen Jack + Cottier
B4- Second Floor	1403	09/04/19	4	Allen Jack + Cottier
B4- Roof Plan	1404	09/04/19	3	Allen Jack + Cottier
B4- Elevations 1	1421	09/04/19	6	Allen Jack + Cottier
B4- Elevations 2 & Section	1422	09/04/19	5	Allen Jack + Cottier
B5- Basement	1500	09/04/19	4	Allen Jack + Cottier
B5- Ground Floor	1501	09/04/19	5	Allen Jack + Cottier
B5- First Floor	1502	09/04/19	5	Allen Jack + Cottier
B5- Second Floor	1503	09/04/19	5	Allen Jack + Cottier
B5- Third Floor	1504	09/04/19	5	Allen Jack + Cottier
B5- Roof Plan	1505	09/04/19	4	Allen Jack + Cottier



B5- Elevations 1	1521	09/04/19	6	Allen Jack + Cottier
B5- Elevations 2	1522	09/04/19	6	Allen Jack + Cottier
B5- Section	1523	09/04/19	4	Allen Jack + Cottier
B6- Basement	1600	09/04/19	3	Allen Jack + Cottier
B6- Ground Floor	1601	09/04/19	4	Allen Jack + Cottier
B6- First Floor	1602	09/04/19	4	Allen Jack + Cottier
B6- Second Floor	1603	09/04/19	4	Allen Jack + Cottier
B6- Third Floor	1604	09/04/19	4	Allen Jack + Cottier
B6- Roof Plan	1605	09/04/19	3	Allen Jack + Cottier
B6- Elevations 1	1621	09/04/19	5	Allen Jack + Cottier
B6- Elevations 2	1622	09/04/19	5	Allen Jack + Cottier
B6- Section	1623	09/04/19	4	Allen Jack + Cottier
B7- Basement	1700	09/04/19	3	Allen Jack + Cottier
B7- Ground Floor	1701	09/04/19	4	Allen Jack + Cottier
B7- First Floor	1702	09/04/19	4	Allen Jack + Cottier
B7- Second Floor	1703	09/04/19	4	Allen Jack + Cottier
B7- Roof Plan	1705	09/04/19	3	Allen Jack + Cottier
B7- Elevations 1	1721	09/04/19	5	Allen Jack + Cottier
B7- Elevations 2	1722	09/04/19	5	Allen Jack + Cottier
B7- Section	1723	09/04/19	4	Allen Jack + Cottier
B8- Basement	1800	09/04/19	4	Allen Jack + Cottier
B8- Ground Floor	1801	09/04/19	5	Allen Jack + Cottier
B8- First Floor	1802	09/04/19	5	Allen Jack + Cottier
B8- Second Floor	1803	09/04/19	5	Allen Jack + Cottier
B8- Third Floor	1804	09/04/19	5	Allen Jack + Cottier
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B8- Roof Plan	1805	09/04/19	4	Allen Jack + Cottier
B8- Elevations 1	1821	09/04/19	6	Allen Jack + Cottier
B8- Elevations 2	1822	09/04/19	6	Allen Jack + Cottier
B8- Section	1823	09/04/19	4	Allen Jack + Cottier
Building B- Ground Floor	1900	09/04/19	3	Allen Jack + Cottier
Building B- Elevations	1921	09/04/19	3	Allen Jack + Cottier
Height Compliance Natural Ground	3201	09/04/19	13	Allen Jack + Cottier
Height Compliance Elevations	3202	09/04/19	13	Allen Jack + Cottier
Height Compliance Existing Ground	3203	09/04/19	13	Allen Jack + Cottier
Apartment Types Sheet 1	5101	21/08/17	3	Allen Jack + Cottier
Apartment Types Sheet 2	5102	21/08/17	3	Allen Jack + Cottier
Apartment Schedule	5103	14/05/18	3	Allen Jack + Cottier
Pre-Post Adaption Layout Type 1	5104	21/08/17	1	Allen Jack + Cottier
Pre-Post Adaption Layout Type 2	5106	21/08/17	1	Allen Jack + Cottier
GFA Buildings 1 & 2-4	9801	21/08/17	7	Allen Jack + Cottier
GFA Buildings 5-7 & 8	9802	14/05/18	8	Allen Jack + Cottier
Site Calculation	9811	09/04/19	7	Allen Jack + Cottier
Landscape Concept Plan- Overview	L-SD-01	20/05/2019	С	Arterra Design Pty Ltd
Landscape- Central Gathering Space	L-SD-04	20/05/2019	С	Arterra Design Pty Ltd
Landscape Consent Plan-	L-SD-03	20/05/2019	С	Arterra Design Pty Ltd



East				
Landscape Consent Plan- West	L-SD-02	20/05/2019	С	Arterra Design Pty Ltd

Report Name	Date	Reference	Prepared By
Arboricultural Impact Appraisal and Method Statement	17 August 2017	RSL Tobruk_AIA and MS REV 2017	Naturally Trees Arboricultural Consulting
BASIX Certificate	25 August 2017	716531M_02	Wood and Grieve Engineers
Acoustic Development Application	11 August 2017	Version: Draft 2- 2017-08-09 Acoustic DA assessment - RSLLC Austral Tobruk	Pulse Acoustic Consultancy
Statement of Compliance Access for People with a Disability	21 August 2017	217181	Accessible Building Solutions
Geotechnical Investigation	August 2017	76725.00	Douglass Partners
Detailed Site Investigation and Stockpile Assessment	January 2017	76725.01	Douglass Partners
Remediation Action Plan	October 2018	76725.02	Douglass Partners
Waste Management Plan	18/10/2018	Rev. H	Elephants Foot
Assessment of Traffic and Parking Implications	May 2019	Rev. D Ref 15286	Transport and Traffic Planning Associates
Stormwater Management Report	9 May 2018	(Ref: Tobruk Independent Living Units - Stormwater Strategy	Warren Smith & Partners Pty Ltd



Report, Revision: E,	
dated:	
09/05/2018).	

#### Works at no cost to Council

2. All roadworks, drainage works and dedications, required to effect the consented development shall be undertaken at no cost to Liverpool City Council.

# **Endeavour Energy Requirements**

3. All the requirements/advice of Endeavour Energy, shall be complied with prior, during, and at the completion of construction, as required in accordance with its correspondence. A copy of the Endeavour Energy's requirements are attached to this decision notice.

#### **Sydney Water Requirements**

4. All the requirements/advice of Sydney Water, shall be complied with prior, during, and at the completion of construction, as required in accordance with its correspondence. A copy of the Sydney Water's requirements are attached to this decision notice.

#### Roads & Maritime Service (RMS) Advice

5. All the requirements/advice of RMS, shall be complied with prior, during, and at the completion of construction, as required in accordance with its correspondence. A copy of the Sydney Water's requirements are attached to this decision notice.

#### **General Requirements**

- 6. The requirements and provisions of the *Environmental Planning & Assessment Act 1979* and *Environmental Planning & Assessment Regulation 2000*, must be fully complied with at all times. Failure to comply with these legislative requirements is an offence and may result in the commencement of legal proceedings, issuing of 'on-the-spot' penalty infringements or service of a notice and order by Council.
- 7. In accordance with Section 4.17 of the Environmental Planning & Assessment Act 1979 and clause 98 of the Environmental Planning & Assessment Regulation 2000, it is a prescribed condition that all building work must be carried out in accordance with the applicable Performance Requirements of the National Construction Code. Compliance with the Performance Requirements can only be achieved by:
  - (a) Complying with the Deemed to Satisfy Provisions; or



- (b) Formulating an Alternative Solution, which complies with the Performance Requirements or is shown to be at least equivalent to the Deemed to Satisfy Provision, or a combination of (a) and (b).
- 8. Long Service Levy payment is applicable on building work having a value of \$25,000 or more, at the rate of 0.35% of the cost of the works. The required Long Service Levy payment, under the Building and Construction Industry Long Service Payments Act 1986, is to be forwarded to the Long Service Levy Corporation or the Council, prior to the issuing of a Construction Certificate, in accordance with Section 6.8 of the Environmental Planning & Assessment Act 1979.
- Access must be provided to the building for people with a disability in accordance with the relevant requirements of the Building Code of Australia, Disability (Access to Premises – Buildings) Standard 2010 and Australian Standard – AS1428.1 (2009), Design for Access and Mobility – General requirements for new building work, to the satisfaction of the Certifying Authority
- 10. For all buildings of Type A and B construction having finishes or claddings other than concrete or masonry, a fire safety report prepared by an accredited C10 fire engineer, must be submitted to the PCA prior to issue of the relevant construction certificate, demonstrating that the proposed external wall cladding material and system for the building complies with the NCC and relevant Australian Standards. The fire safety report is to include evidence of suitability of all proposed external wall cladding materials as per clause A2.2 of the NCC.

# **B. PRIOR TO ISSUE OF A CONSTRUCTION CERTIFICATE**

The following conditions are to be complied with or addressed prior to the issue of the relevant Construction Certificate by the Principal Certifying Authority.

#### **Amendments**

11. The approved architectural plans shall be amended to incorporate a minimum 1.6m high louvred privacy screens on all balconies on the western elevation for buildings 7 and 8 secured to prevent views downward. The required amendments shall be submitted to and approved by principal certifying authority prior to the issue of the relevant construction certificate.

#### **Special Infrastructure Contribution (SIC)**

12. The applicant is to make a special infrastructure contribution in accordance with any determination made by the Minister administering the Environmental Planning and Assessment Act 1979 under Section 7.23 of that Act and is in force on the date of this consent, and must obtain a certificate to that effect from the Department of Planning



(Growth Centres Commission) before a subdivision certificate, is issued in relation to any part of the development to which this consent relates.

# S138 Roads Act – Minor Works in the public road

- 13. Prior to the issue of a Construction Certificate a S138 Roads Act application/s, including payment of fees shall be lodged with Liverpool City Council, as the Roads Authority for any works required in a public road caused by the proposed development. These works may include but are not limited to the following:
  - Vehicular crossings (including kerb reinstatement of redundant vehicular crossings)
  - Road opening for utilities and stormwater (including stormwater connection to Council infrastructure)
  - Road occupancy or road closures

All works shall be carried out in accordance with the Roads Act approval, the development consent including the stamped approved plans, and Liverpool City Council's specifications.

Note: Approvals may also be required from the Roads and Maritime Service (RMS) for classified roads.

# **Retaining Walls on Boundary**

14. All retaining walls shall be of masonry construction and must be wholly within the property boundary, including footings and agricultural drainage lines. Construction of retaining walls or associated drainage works along common boundaries shall not compromise the structural integrity of any existing structures.

Where a retaining wall exceeds 600mm in height, the wall shall be designed by a practicing structural engineer and the relevant construction certificate must be obtained prior to commencement of works on the retaining wall.

# Infrastructure Bond

15. An Infrastructure Restoration Bond is to be lodged with Liverpool City Council for development involving works around Council's Public Infrastructure Assets. The bond is to be lodged with Council prior to the issue of a Construction Certificate. The bond is based upon the estimated value of the works with a bond of TBA payable for the subject development.

The bond is refundable once a final inspection has been carried out by Council's Works Department and the works have been completed to Council's satisfaction. The bond may be used to repair or reinstate any damage that occurs to Council's Public Infrastructure Assets as a result of the development works.



#### **On-Site Detention**

16. On-Site Detention shall be provided generally in accordance with the concept plan/s lodged for development approval, prepared by prepared by Warren Smith & Partners, reference number 5307000, revision C, dwg. no. C1.01, C1.02, C2.01, C2.02, C3.01, C3.02, C3.03, C3.11, C3.12 and C3.13, dated 17.08.2017.

The proposed development and stormwater drainage system shall be designed to ensure that stormwater runoff from upstream properties is conveyed through the site without adverse impact on the development or adjoining properties.

Engineering plans and supporting calculations for the on-site detention system are to be prepared by a suitably qualified person and shall accompany the application for a Construction Certificate.

Prior to the issue of a Construction Certificate the Certifying Authority shall ensure that the on-site detention system has been designed in accordance with Liverpool City Council's Design Guidelines and Liverpool City Council's On-Site Stormwater Detention policy and Technical Specification.

#### No loading on easements

17. Prior to the issue of the relevant Construction Certificate the Certifying Authority shall ensure that the foundations of proposed structures adjoining the drainage and/ or services easement have been designed clear of the zone of influence.

# **Water Quality**

18. Prior to the issue of a Construction Certificate the Certifying Authority shall ensure that details of a stormwater pre-treatment system have been provided on the stormwater plans and that the design meets pollutant retention criteria in accordance Council's Development Control Plan.

The Construction Certificate must be supported by:

- Specification & installation details of the stormwater pre-treatment system
- The approval of an operation and maintenance manual/ schedule for the stormwater pre-treatment system

A copy of the approved operation and maintenance manual/ schedule shall be submitted to Liverpool City Council with notification of the Construction Certificate issue.

# Access, Car Parking and Manoeuvring – General

19. Prior to the issue of the relevant Construction Certificate the Certifying Authority shall ensure that vehicular access, circulation, manoeuvring, pedestrian and parking areas associated with the subject development are in accordance with AS 2890.1, AS2890.2, AS2890.6 and Liverpool City Council's Development Control Plan.



#### Access, Car Parking and Manoeuvring

- 20. Prior to the issue of the relevant Construction Certificate the Certifying Authority shall ensure that:
  - a) Off street access and parking complies with AS2890.1.
  - b) Sight Distance at the street frontage has been provided in accordance with AS 2890.1.
  - c) All cars can enter and exit the site in a forward direction

# **Recommendations of Acoustic Report**

21. The recommendations provided in the approved acoustic report shall be implemented and incorporated into the design and construction of the development and shall be shown on plans accompanying the relevant Construction Certificate application.

#### **Stormwater Plans**

22. Prior to the issue of any Construction Certificate, stormwater drainage plans must be amended to include a formed emergency overland flow path along the full length of the western boundary of the site from proposed Pit 6/3 through to the existing easement to drain water on Lot 2 DP 1146302. The flow path must be sized to cater for all storm events in the event the stormwater system fails or becomes blocked. Details must be submitted to and approved by Council's Land Development Engineering Section.

#### **Detailed Landscape Plan**

23. Prior to the issue of a Construction Certificate, a fully detailed Landscape Plan, consistent with the approved Concept Landscaping Plan is to be provided to and proved by Council which includes the planting of appropriate street trees for the site.

#### Overland flow

24. Existing overland flows running through the site shall be captured and managed into the stormwater system of the proposed development as indicated in the stormwater plan by Henry & Hymas Pty Ltd (Ref: Drawing number: 13668\_CC\_C100, Revision: A, dated: 14/04/2014) and stormwater management report by Warren Smith & Partners Pty Ltd (Ref: Tobruk Independent Living Units - Stormwater Strategy Report, Revision: E, dated: 09/05/2018).

#### Flow attenuation

25. Proposed onsite detention (OSD) basin shall provide adequate flow attenuation to ensure that downstream peak post-development discharges do not exceed peak predevelopment discharges for 20%, 5% and 1% storm events (Ref: Tobruk Independent Living Units - Stormwater Strategy Report, Revision: E, dated: 09/05/2018). The OSD basin cannot be removed without Council's written consent.



# **On-site Water Quality Control**

26. Temporary on-site water quality control measures shall be provided and maintained until downstream regional water quality basin is constructed and operational.

# **Traffic Management Plan**

- 27. A traffic management plan is to be submitted to Liverpool City Council's Traffic Committee for approval. Works within the road reserve shall not commence until the traffic management plan has been approved.
- 28. The traffic management plan is to be prepared by an accredited designer and submitted to and stamp approved by Council via a standard Section 138 Roads Act Permit application available at Council's customer service counter. The stamped approved Roads Act Permit is to be obtained by the PCA. A copy of the stamped approved Roads Act Permit and traffic management plan is to be available on the works site for inspection at any time by an authorised Council officer.

# **Traffic Management**

- 29. Detailed design plans for parking, access driveways and car parking including swept path analysis, line markings and sign posting in accordance with the DCP and AS2890 are to be submitted to Council's Traffic and Transport Section for review.
- 30. A Construction Traffic Management Plan (CTMP) detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council's Traffic and Transport Section for approval prior to the issue of the relevant Construction Certificate.
  - The CTMP is to outline the need for a Road Occupancy Permit issued by Council or Road Occupancy Permit issued by the Transport Management Centre.
- 31. Public lighting design brief in accordance with Council's and Endeavour Energy specifications along the road frontage of the development site is to be submitted to Council Traffic and Transport Section for review.

#### **Endevour Energy Easement**

32. Prior to the issue of a Construction Certificate, submission to Council of documentary evidence from Endeavour Energy confirming that satisfactory arrangements have been made for the connection of electricity and the asset relocation of padmount substation no.27129.

#### **Garbage Services**

33. On site collection of waste and recycling must be provided and integrated with the design of high density residential development (RFBs and MUDs). This must comply with the specifications detailed in the Fact Sheet: Waste Management Services for Residential Flat Buildings and Multi Dwelling Housing, attached to this notice.



- 34. The following restriction as to user must be registered on the title of the property at the developers/owners expense:
  - a) 240 litre green waste bins will not be provided to this development, the garden areas around the site will be managed by a contractor who will be responsible for green waste disposal.
  - b) The restriction as to user may not be extinguished or altered except with the consent of Liverpool City Council.

#### **Fee Payments - Land Development**

35. Unless otherwise prescribed by this consent, all relevant fees or charges must be paid. Where Council does not collect these payments, copies of receipts must be provided. For the calculation of payments such as Long Service Levy, the payment must be based on the value specified with the Development Application/Construction Certificate.

The following fees are applicable and payable:

- 1. Damage Inspection Fee relevant where the cost of building work is \$20,000 or more, or a swimming pool is to be excavated by machinery,
- 2. Fee associated with Application for Permit to Carry Out Work Within a Road, Park and Drainage Reserve, and
- 3. Long Service Levy payment is applicable on building work having a value of \$25,000 or more, at the rate of 0.35% of the cost of the works. The required Long Service Levy payment, under the Building and Construction Industry Long Service Payments Act 1986, is to be forwarded to the Long Service Levy Corporation or the Council, prior to the relevant Construction Certificate, in accordance with Section 6.8 of the Environmental Planning & Assessment Act 1979.

These fees are reviewed annually and will be calculated accordingly.

# C. PRIOR TO WORKS COMMENCING

The following conditions are to be complied with or addressed prior to works commencing on the subject site/s:

#### Requirements

- 36. Prior to the commencement of any building works, the following requirements must be complied with:
  - a) The relevant Construction Certificate must be obtained from the Council or an accredited certifier, in accordance with the provisions of the *Environmental Planning* & Assessment Act 1979.



- b) Where a Construction Certificate is obtained from an Accredited Certifier, the applicant shall advise Council of the name, address and contact number of the Accredited Certifier, in accordance with 4.19 of the Act.
- c) A copy of the relevant Construction Certificate, the approved development consent plans and consent conditions must be kept on the site at all times and be made available to the Council officers and all building contractors for assessment.
- d) A Principal Certifying Authority (PCA) must be appointed to carry out the necessary building inspections and to issue the relevant occupation certificate; and
- e) The PCA must advise Council of the intended date to commence work which is the subject of this consent by completing a notice of commencement of building works or subdivision works form, available from Council's Customer Service Centre. A minimum period of two (2) working days' notice must be given.

# **Residential Building Work**

37. Building work that involves residential building work (within the meaning of the *Home Building Act 1989*) must not be commenced unless the principal certifying authority for the development to which the work relates (not being the council) has given the council written notice of the name and licence number of the principal contractor; and the name of the insurer by which the work is insured under Part 6 of that Act,

#### **Sediment & Erosion Control**

38. Prior to commencement of works sediment and erosion control measures shall be installed in accordance with the relevant approved Construction Certificate and to ensure compliance with the Protection of the Environment Operations Act 1997 and Landcom's publication "Managing Urban Stormwater – Soils and Construction (2004)" – also known as "The Blue Book". The erosion and sediment control measures shall remain in place and be maintained until all disturbed areas have been rehabilitated and stabilised.

#### **Dilapidation Report**

39. Prior to the Commencement of Works a dilapidation report of all infrastructure fronting the development in Tenth Avenue and Edmondson Avenue is to be submitted to Liverpool City Council. The report is to include, but not limited to, the road pavement, kerb and gutter, footpath, services and street trees and is to extend 10m either side of the development.

# **Waste Classification and Disposal of Contaminated Soil and Material**

40. All soils and material(s), liquid and solid, to be removed from the site must be analysed and classified by an appropriately qualified and certified consultant, in accordance with the Protection of the Environment Operations (Waste) Regulation 2014 and related guidelines, in particular the NSW EPA Waste Classification Guidelines, prior to off-site disposal. All Waste material(s) must be disposed of at an appropriately licensed waste



facility for the specific waste. Receipts for the disposal of the waste must be submitted to the Principal Certifying Authority within 30 days of the waste being disposed of.

All waste must be transported by a contractor licensed to transport the specific waste, and in vehicles capable of carting the waste without spillage, and meeting relevant requirements and standards. All loads must be covered prior to vehicles leaving the site.

# D. DURING CONSTRUCTION

The following conditions are to be complied with or addressed during construction:

Building Works

- 41. The building works must be inspected by the *Principal Certifying Authority*, in accordance with sections 6.5 of the *Environmental Planning & Assessment Act 1979* and clause 162A of the *Environmental Planning & Assessment Regulation 2000*, to monitor compliance with the relevant standards of construction, Council's development consent and the relevant construction certificate.
- 42. The *Principal Certifying Authority* must specify the relevant stages of construction to be inspected and a satisfactory inspection must be carried out, to the satisfaction of the *Principal Certifying Authority*, prior to proceeding to the subsequent stages of construction or finalisation of the works.
- 43. The building and external walls are not to proceed past ground floor/reinforcing steel level until such time as the PCA has been supplied with an identification survey report prepared by a registered surveyor certifying that the floor levels and external wall locations to be constructed, comply with the approved plans, finished floor levels and setbacks to boundary/boundaries. The slab shall not be poured, nor works continue, until the PCA has advised the builder/developer that the floor level and external wall setback details shown on the submitted survey are satisfactory. In the event that Council is not the PCA, a copy of the survey shall be provided to Council within three (3) working days.
- 44. On placement of the concrete, works again shall not continue until the PCA has issued a certificate stating that the condition of the approval has been complied with and that the slab has been poured at the approved levels.

#### **Notification Sign**

45. A sign must be erected and maintained in a prominent position on the site, which contains the following details:



- a) name, address, contractor licence number and telephone number of the *principal contractor*, including a telephone number at which the person may be contacted outside working hours, or *owner-builder* permit details (as applicable)
- b) name, address and telephone number of the Principal Certifying Authority
- c) a statement stating that 'unauthorised entry to the work site is prohibited".

#### **Excavation Works**

- 46. In the event the development involves an excavation that extends below the level of the base of the footings of a building on adjoining land, the following is to be undertaken at full cost to the developer:
  - a) Protect and support the adjoining premises from possible damage from the excavation, and
  - b) where necessary, underpin the adjoining premises to prevent any such damage.
  - c) Retaining walls or other approved methods necessary to prevent the movement of excavated or filled ground, together with associated subsoil drainage and surface stormwater drainage measures, shall be designed strictly in accordance with the manufacturers details or by a practising structural engineer.

#### **Toilet Facilities**

- 47. Toilet facilities must be available or provided at the work site and must be maintained until the works are completed at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site. Each toilet must:
  - a) Be a standard flushing toilet connected to a public sewer, or
  - b) Have an on-site effluent disposal system approved under the *Local Government Act* 1993, or
  - c) Be a temporary chemical closet approved under the *Local Government Act 1993*.

#### Hoarding

48. If the work is likely to cause pedestrian or vehicular traffic in a public area to be obstructed or rendered inconvenient; or if craning of materials is to occur across a public area or road reserve area a construction hoarding must be erected to prevent any substance from, or in connection with the construction site, falling onto a public area as follows:

Such hoarding or barrier must be designed and erected in accordance with Council's guidelines on hoarding construction. Relevant application under the Roads Act approval



must be completed and fees paid prior to the construction of a hoarding on Council road reserve area.

# **Lifting/ Craning Materials**

49. Lifting or craning materials over a public footway or roadway is not permitted unless a "B" class construction hoarding has been installed in compliance with Work Cover authority requirements.

### **Refuse Disposal**

50. Adequate refuse disposal methods and builders storage facilities shall be installed on the site. Builders' wastes, materials or sheds are not to be placed on any property other than that which this approval relates to.

# **Security Fence**

51. A temporary security fence to WorkCover Authority requirements is to be provided to the property during the course of construction. Note. Fencing is not to be located on Council's reserve area.

#### **Erosion and sediment control**

52. Erosion and sediment control measures shall remain in place and be maintained until all disturbed areas have been rehabilitated and stabilised.

#### Removal of dangerous and/or hazardous waste

53. All dangerous and/or hazardous material shall be removed by a suitably qualified and experienced contractor licensed by SafeWork NSW. The removal of such material shall be carried out in accordance with the requirements of SafeWork NSW and the material shall be transported and disposed of in accordance with NSW Environment Protection Authority requirements.

#### Contamination

54. The development, including all civil works and demolition, must comply with the requirements of the Contaminated Land Management Act, 1997, State Environmental Planning Policy No. 55 – Remediation of Land, and Managing Land Contamination – Planning Guidelines (Planning NSW/EPA 1998).

#### Imported Fill Material

55. Filling material must be limited to the following:



- a) Virgin excavated natural material (VENM)
- b) Excavated natural material (ENM) certified as such in accordance with Protection of the Environment Operations (Waste) Regulation 2014; and/or
- c) Material subject to a Waste Exemption under Clause 91 and 92 Protection of the Environment Operations (Waste) Regulation 2014 and recognised by the NSW Environment Protection Authority as being "fit for purpose" with respect to the development subject of this application. Certificates proving that the material imported is ENM or VENM must be provided to the Principal Certifying Authority prior to filling. Certificates are to be provided to Council officers if and when requested.

Fill imported on to the site must be compatible with the existing soil characteristic for site drainage purposes.

### **Record Keeping of Imported Fill**

- 56. Records of the following accepted waste derived fill material must be submitted to the Principal Certifying Authority at the completion of earth works:
  - a) The course (including the address and owner of the source site), nature and quantity of all incoming loads including the date, the name of the carrier, and the vehicle registration.
  - b) Documentation confirming the results of the waste classification assessment carried out on the fill material used in the development, and
  - c) The results of any chemical testing undertaken on fill material.

#### **Site Remediation Works**

- 57. The site must be remediated in accordance with;
  - a) Remediation Action Plan 76725.02 prepared by Douglas Partners, dated 18 October 2018;
  - b) State Environmental Planning Policy No. 55 Remediation of Land;
  - c) National Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM, 1999 as amended 2013); and
  - d) The guidelines in force under the Contaminated Land Management Act 1997.

The applicant must engage an appropriately qualified and experienced environmental consultant to supervise all aspects of site remediation and validation works in accordance with the approved Remedial Action Plan. Council must be informed in writing of any



proposed variation to the remediation works. Council must approve these variations in writing prior to commencement/ recommencement of works.

#### **Unidentified Contamination**

58. Any new information which comes to light during remediation, demolition or construction works which has the potential to alter previous conclusions about site contamination and remediation must be immediately notified to Council and the Principal Certifying Authority in writing. A Section 4.55 Application under the EP&A Act shall be made for any proposed works outside the scope of the approved development consent.

# **Air Quality - Dust Screens**

59. Dust screens shall be erected and maintained in good repair around the perimeter of the subject land during land clearing, demolition, and construction works.

# Air Quality - Stabilisation

60. Where operations involve excavation, filling or grading of land, or removal of vegetation, including ground cover, dust is to be suppressed by regular watering until such time as the soil is stabilised to prevent airborne dust transport. Where wind velocity exceeds five knots the Principal Certifying Authority may direct that such work is not to proceed.

# Air Quality - Vehicle movement

61. All vehicles involved in the delivery, demolition or construction process departing from the property shall have their loads fully covered before entering the public roadway.

#### **Erosion Control - Measures**

62. Erosion and sediment control measures shall remain in place and be maintained until all disturbed areas have been rehabilitated and stabilised.

#### **Erosion Control - Maintenance**

63. Sediment and erosion control measures are to be adequately maintained during the works until the establishment of grass.

#### **Erosion Control**

64. Vehicular access to the site shall be controlled through the installation of wash down bays or shaker ramps to prevent tracking of sediment or dirt onto adjoining roadways. Where any sediment is deposited on adjoining roadways is shall be removed by means other than washing. All material is to be removed as soon as possible and the collected material is to be disposed of in a manner which will prevent its mobilisation.



# **Water Quality**

65. All topsoil, sand, aggregate, spoil or any other material shall be stored clear of any drainage line, easement, water body, stormwater drain, footpath, kerb or road surface and there shall be measures in place in accordance with the approved erosion and sediment control plan.

# **Pollution Control - Site Operations**

66. Building operations such as brick cutting, mixing mortar and the washing of tools, paint brushes, form-work, concrete trucks and the like shall not be performed on the public footway or any other locations which may lead to water pollution.

#### **Pollution Control - Truck Movements**

67. The loading and unloading of all vehicles associated with the development must be undertaken within the property boundary of the premises subject to this consent. Measures must be implemented to prevent tracking of sediment by vehicles onto roads. Vehicle loads must be covered when entering and exiting the site with material.

#### Ventilation

68. The premises shall be ventilated in accordance with the requirements of the BCA (if using deemed to satisfy provisions: AS 1668, Parts 1 & 2).

# **Car Parking Areas**

- 69. Car parking spaces and driveways must be constructed of a minimum of two coat finish seal or better. The spaces must be clear of obstructions and columns, permanently line marked and provided with adequate manoeuvring facilities. The design of these spaces must comply with Council's relevant DCP, and Australian Standard 2890.1 Parking Facilities Off Street Car Parking.
- 70. All car parking areas to be appropriately line marked and sign posted in accordance with the approved plans. All customer/visitor/staff parking areas are to be clearly signposted limiting car parking for customers/visitors/staff only. The applicant is to cover the costs of installation and maintenance of the signage.
- 71. The on-site parking spaces shown in the approved plans must be identified in accordance with A.S.2890.1 Parking Facilities Off-Street Car Parking.
- 72. Directional signage indicating the location of customer parking, "in" and "out" crossings and directional arrows are to be provided in accordance with the approved plans.

#### **Traffic Management**

73. All works the related to the development road reserve are to be at the applicant cost and all signage is to be in accordance with the RTA's Traffic Control at Worksites Manual and the RTA's Interim Guide to Signs and Markings.



- 74. If a works zone is required, an application must be made to Council's Transport Planning section. The application is to indicate the exact location required and the applicable fee is to be included. If parking restrictions are in place, an application to have the restrictions moved, will need to be made.
- 75. Notice must be given to Council's Transport Planning section of any interruption to pedestrian or vehicular traffic within the road reserve, caused by the construction of this development. A Traffic Control Plan, prepared by an accredited practitioner must be submitted for approval, 48 hours to prior to implementation. This includes temporary closures for delivery of materials, concrete pours etc.
- 76. Applications must be made to Council's Transport Planning section for any road closures. The applicant is to include a Traffic Control Plan, prepared by a suitably qualified person, which is to include the date and times of closures and any other relevant information.
- 77. The endorsed CTMP is to be implemented during construction.

# **Waste Management Plan**

78. The Waste Management Plan submitted to and approved by Council must be adhered to at all times throughout all stages of the development. Supporting documentation (receipts/dockets) of waste/recycling/disposal methods carried out, is to be kept and must be produced upon the request of Council or any other authorised officer. Note: Any non-compliance with this requirement will result in penalties being issued.

# E. PRIOR TO ISSUE OF AN OCCUPATION CERTIFICATE

The following conditions are to be complied with or addressed prior to issue of the relevant Occupation Certificate by the Principal Certifier (PC):

#### Cladding

79. Prior to issuing of the relevant Occupation Certificate the Principal Certifying Authority must be satisfied that suitable evidence has been provided to demonstrate that the external wall cladding material and system is consistent with the consent documentation, NCC and relevant Australian Standards.

#### **Section 73 Compliance Certificate**

80. A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained for submission to the PCA prior to issue of Occupation Certificate.

#### Certificates

81. Each premises must not be utilised until an Occupation Certificate is issued by the Principal Certifying PCA. Copies of all documents relied upon for the issue of the relevant



- Occupation Certificate must be attached to the Occupation Certification and registered with Council.
- 82. A single and complete *Fire Safety Certificate*, certifying the installation and operation of all of the fire safety measures within the relevant building must be submitted to Council with the relevant *Occupation Certificate*.
- 83. Details of *critical stage* inspections carried out by the principal certifying authority together with any other certification relied upon must be provided to Council with the relevant occupation certificate.

# Liverpool City Council clearance – Roads Act/ Local Government Act

84. Prior to the issue of any Occupation Certificate, the Principal Certifying Authority shall ensure that all works associated with a S138 Roads Act approval or S68 Local Government Act approval have been inspected and signed off by Liverpool City Council.

#### Works as executed - General

85. Prior to the issue the relevant Occupation Certificate, works-as-executed drawings and compliance documentation shall be submitted to the Principal Certifying Authority in accordance with Liverpool City Council's Design Guidelines and Construction Specification for Civil Works. An original set of works-as-executed drawings and copies of compliance documentation shall also be submitted to Liverpool City Council with notification of the issue of the relevant Occupation Certificate where Council is not the Principal Certifying Authority.

# **On-site Detention System**

- 86. Prior to the issue of any Occupation Certificate the Principal Certifying Authority shall ensure that the:
  - a) On-site detention system/s
  - b) Stormwater pre-treatment system/s
  - c) Overland flowpath works
  - d) Basement Carpark pump-out system
  - Have been satisfactorily completed in accordance with the approved Construction Certificate and the requirements of this consent.
  - Have met the design intent with regard to any construction variations to the approved design.
  - Any remedial works required to been undertaken have been satisfactorily completed.

Details of the approved and constructed system/s shall be provided as part of the Works-As-Executed drawings.



#### **Restriction as to User and Positive Covenant**

87. Prior to the issue of the relevant Occupation Certificate a restriction as to user and positive covenant relating to the On-site detention system/s and Basement carpark pump-out system shall be registered on the title of the property. The restriction as to user and positive covenant shall be in Liverpool City Council's standard wording as detailed in Liverpool City Council's Design and Construction Guidelines and Construction Specification for Civil Works.

# **Rectification of Damage**

88. Prior to the issue of the relevant Occupation Certificate any damage to Council infrastructure not identified in the dilapidation report, as a result of the development shall be rectified at no cost to Liverpool City Council. Any rectification works as result of the development within Tenth Avenue & Edmondson Avenue will require a Roads Act application. The application is to be submitted and approved by Liverpool City Council prior to such works commencing.

# Pump-out system

- 89. Stormwater runoff from the proposed driveway to the underground garage shall be via a pump-out system subject to the following conditions:
  - (a) The pump-out system shall be independent of any gravity drainage lines except at the site property boundary inspection pit where a surface grated inlet pit shall be constructed, from which a connection may be permitted to the gravity stormwater system.
  - (b) Engineering details and manufacturer's specifications for pumps and switching system shall be submitted for approval prior to issue of the relevant construction certificate.
  - (c) An 88B positive covenant shall be placed on the property title. This requires the property owner to be responsible for the proper maintenance and repair of the abovementioned pumps, pipes and pit system. Council is the Authority benefited and the property owner is burdened by this restriction. Evidence of the creation of the positive covenant shall be forwarded to Council prior to the issue of the relevant Occupation Certificate.

#### **Footpaths**

90. Construction of 1.5m wide by 100mm thick (with one layer of SL72 reinforcing mesh) concrete path paving on one side of all residential access roads and both sides of all collector and distributor roads. Path paving will not be required in minor cul-de-sac with less than fifteen lots.



#### **Dilapidation Report**

91. Any rectification works as a result of the development required by Council regarding the condition of Council infrastructure shall be undertaken, at full cost to the developer.

# **Recommendations of Acoustic Report**

- 92. A Compliance Certificate or other documentation deemed suitable demonstrating compliance with the following is to be submitted to the Principal Certifying Authority:
  - a) The building has been constructed to meet the relevant noise criteria's in accordance with the approved acoustic report; and
  - b) All recommendations within the approved acoustic report have been adopted.

#### **Validation Report**

- 93. Prior to issue of an occupation certificate a detailed Validation report for the relevant part of the development must be submitted to Council and the Principal Certifying Authority. The Report must be prepared in accordance with:
  - 1. NSW Contaminated Land Planning Guidelines (1998);
  - 2. Relevant EPA guidelines, noting in particular the NSW OEH (2011) Guidelines for Consultants Reporting on Contaminated Sites; and
  - 3. National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).

The Validation Report must be prepared, or reviewed and approved by an appropriately qualified and certified environmental consultant. The front cover of the report must include details of the consultant's certification. The Validation report must verify that the land is suitable for the purposed use(s), and that the remediation and validation of the site has been undertaken in accordance with the RAP.

#### Landscaping

94. Upon completion of the approved landscape works associated with the development and prior to the issue of any Occupation Certificate, an Implementation Report is to be submitted to the PCA attesting to the satisfactory completion of the related part of the landscape works in accordance with the approved landscape plan. The report is to be prepared by a suitably qualified person.

#### **Overland Flow**

95. Prior to the issuing of an Occupation Certificate for any part of the development, a certificate of compliance is to be submitted to the Principal Certifying Authority to the effect



that the Stormwater Management Report by Warren Smith Partners has been complied with as relevant for that part of the development.

# **Garbage Services**

- 96. Prior to the issue of an Occupation Certificate, if onsite waste and recycling collection is required the following restriction as to user must be registered on the title of the property:
  - a) the owner/applicant of any property requiring on-site collection of waste and recycling is to enter into a legally binding indemnity with council to control the access and operation of the waste and recycling service. This shall be inclusive on successive owners in perpetuity. All costs involved are to be borne by the applicant/owner
  - b) the restriction as to user may not be extinguished or altered except with the consent of Liverpool City Council
- 97. The developer/owner of the site is to contact Liverpool City Council Waste Management Section to determine the required number of waste and recycle bins for the residential component of the development as well as servicing requirements. These waste and recycle bins are to be kept at all times within the residential storage areas except before and after collection days. Waste and recycle bins are to be returned to the storage areas within 24 hours of collection.

#### Restriction on Title for Use

- 98. Prior to the issue of any Occupation Certificate, a covenant is to be registered on the title of the property that:
  - a) Limits the use of any accommodation erected upon the property to:
    - 1. Seniors or people who have a disability
    - 2. People who live within the same household with seniors or people who have a disability
    - 3. Staff employed to assist in the administration of a provision of services associated with this development.

Note: Seniors are people aged 55 years or more. People with disability are people of any age who, as a result of an intellectual, physical, psychiatric or sensory impairment, either permanently or extended period, have substantially limited opportunities to enjoy a full or active life.

b) Notes that the development contributions associated with the development consent DA-757/2017 have not been paid for the site due to an exemption arising under Ministerial Direction dated 14 September 2007 relating to "development applications to carry out development under the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004", such that use of the property by any entity other than a social housing provider as defined within the State Environmental Planning Policy (Housing for Seniors or People with a



- Disability) 2004 or its tenants will require further development which may require payment of developer contributions..
- c) Restricts the use of the land as permitted by this development consent to a social housing provider as defined within the *State Environmental Planning Policy* (Housing for Seniors or People with a Disability) 2004 or its tenants.

The restriction as to user may not be extinguished or altered except with the consent of Liverpool City Council.

# F. CONDITIONS RELATING TO USE

The following conditions relate to the ongoing use of the premises:

# **Social Housing Provider**

99. The approved development may only to be conducted by a Social Housing Provider, as defined in the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 or its tenants. Further development consent will be required for use of the development by any other person which may require the payment of developer contributions which have not been paid in relation to the development the subject of this development consent due to an exemption arising from Ministerial Direction dated 17 September 2007.

#### **Unreasonable Noise and Vibration**

100. The industry, including but not limited to the operation of vehicles, mechanical plant and equipment shall be conducted so as to avoid unreasonable noise or vibration and cause no interference to adjoining or nearby occupations. Special precautions must be taken to avoid nuisance in neighbouring areas, particularly from machinery, vehicles, warning sirens, public address systems and the like. In the event of a noise or vibration problem arising at the time, the person in charge of the premises shall when instructed by Council, cause to be carried out, an acoustic investigation by an appropriate acoustical consultant and submit the results to Council. If required by Council, the person in charge of the premises shall implement any or all of the recommendations of the consultant and any additional requirements to Liverpool City Council's satisfaction.

# **Waste Management**

101. All waste materials generated as a result of the development are to be disposed at a facility licensed to receive such waste.



102. Waste and recyclable material generated from the operations of the premises shall be managed in a satisfactory manner that does not give rise to offensive odour or encourage pest activity. All waste material shall be regularly removed from the premises. Waste shall not be permitted to accumulate near the waste storage bins.

#### **Waste Storage Area**

103. Waste bins must be stored in designated garbage/ trade refuse areas, which must be kept tidy at all times. Bins must not be stored or allowed to overflow in parking or landscaping areas, must not obstruct the exit of the building, and must not leave the site onto neighbouring public or private properties. Operation, maintenance and cleaning of the garbage compactor and associated equipment is the responsibility of the strata management or body corporate. Maximum compaction ratio is 2:1. Operation, maintenance and cleaning of the garbage chutes and associated waste cupboards, rooms, or equipment is the responsibility of the strata management or body corporate.

Signage is to be prominently displayed in each waste storage area, or waste service room, as appropriate, indicating that: Garbage is to be placed wholly within the garbage bins provided, only recyclable materials accepted by Council are to be placed within the recycling bins, the area it to be kept tidy, a phone number for arranging disposal of bulky items, and Graphic illustrative content to be 50%.

#### Noise

- 104. The use of the premises including music and other activities shall not give rise to any one or more of the following:
  - a) Transmission of vibration to any place of different occupancy greater than specified in AS 2670,
  - b) An indoor sound pressure level in any place of different occupancy (and/ or public place) greater than 3dB(A) above the L90 background level or greater than 5db(A) at the boundary of any affected property in any octave band from 31.5Hz to 8,000 Hz centre frequencies inclusive between the hours of 7.00am to midnight daily and 0dB(A) above the L90 background between 12 midnight and 7.00 a.m. the following morning. However, when the L90 background levels in frequencies below 63 Hz are equal to or below the threshold of hearing, as specified by the equal loudness contours for octave bands of noise, this subclause does not apply to any such frequencies,



- c) During the period of 12 midnight to 7.00a.m. the use shall be inaudible in any habitable room of any residential premises, and
- d) The emission of an "offensive noise" as defined under the POEO Act.

The method of measurement of vibration in (a) and sound levels in (b), (c) and (d) shall be carried out in accordance with AS 2973 for vibration measurements, AS 1055 for outdoor sound level measurements, and AS 2107 for indoor sound level measurements.

#### **Noise - Mechanical Plant**

- 105. Noise associated with the use of the premises, including mechanical plant and equipment, shall not give rise to any one or more of the following:
  - a) Transmission of vibration to any place of different occupancy greater than specified in AS 2670:
  - b) An indoor sound pressure level in any place of different occupancy (and/ or public place) greater than 3dB(A) above the L90 background level or greater than 5db(A) at the boundary of any affected property in any octave band from 31.5Hz to 8,000 Hz centre frequencies inclusive between the hours of 7.00a.m to 10.00p.m daily and 0dB(A) above the L90 background between 10.00pm and 7.00 a.m. the following morning. However, when the L90 background levels in frequencies below 63 Hz are equal to or below the threshold of hearing, as specified by the equal loudness contours for octave bands of noise, this subclause does not apply to any such frequencies; and
  - c) The emission of an "offensive noise" as defined under the POEO Act.

The method of measurement of vibration in (a) and sound levels in (b) and (c) shall be carried out in accordance with AS 2973 for vibration measurements, AS1055 for outdoor sound level measurements, and AS 2107 for indoor sound level measurements.

#### **Environment**

106. The use of the premises shall not give rise to the emission into the surrounding environment of gases, vapours, dusts or other impurities that are a nuisance, injurious or prejudicial to health.

#### **Site Access**

107. The proposed access from Edmondson Avenue shall be restricted for use by emergency vehicles only who may only turn left in and left out of the subject site.



#### **Parking**

- 108. All parking areas shown on the approved plans must be used solely for this purpose.
- 109. The operator of the development must not permit the reversing of vehicles onto or away from the road reserve, with the exception of garbage and recycling collection vehicles. All vehicles must be driven forward onto and away from the development and adequate space must be provided and maintained on the land to permit all vehicles to turn in accordance with AS 2890.1 Parking Facilities Off Street Car Parking.

# **Car Parking & Bicycle Spaces**

110. A total of 175 off street car parking spaces must be provided in accordance with Council's relevant development control plan including 22 spaces for disabled parking bays. Additionally, the provision of 26 bicycle spaces is to be provided.

#### **Waste Storage Area**

- 111. All waste products associated with the use of the development are to be placed within the identified storage areas.
- 112. Waste bins must be stored in designated garbage/ trade refuse areas, which must be kept tidy at all times. Bins must not be stored or allowed to overflow in parking or landscaping areas, must not obstruct the exit of the building, and must not leave the site onto neighbouring public or private properties.
- 113. Bins must be moved to the kerbside frontage of the building for collection by agents of the body corporate or strata management, or individual owners. The bins shall be collected and returned as soon as possible after collection by the same persons.
- 114. A separate storage area is to be allocated for the holding of bulk waste prior to collection.
- 115. Any bin bays must be:
  - (d) Allocated with sufficient space within the bin bay to allow for access to all required bins by residents and waste collectors, as well as manoeuvring of bins within the bay and for the removal and return of bins by the waste collector;
  - (e) Provided with signage to be prominently displayed in each bin bay, or waste service room, as appropriate indicating that:
  - (g) Only recyclable materials accepted by Council are to be placed within the recycling bins:
  - (i) A phone number for arranging disposal of bulky items;



116. After the use of the occupation certificate, but prior to residents starting to move in, Liverpool City Council must be contacted to arrange delivery of the waste bins.

# **Workshop Operational Hours**

117. The workshop shall not operate any noise generating equipment and/or tools from 8.00am to 5.30pm Monday-Saturday.

### **Washing on Balconies**

118. The hanging of washing, including any clothing, towels, bedding or other article of a similar type on any balcony is not to be visible from any street.

# G. ADVISORY

- a) Section 8.2, 8.3, 8.4 & 8.5 allows Council to reconsider your proposal. Should you wish to have the matter reconsidered you should make an application under that section with the appropriate fee.
- b) Under Section 8.7 & 8.10 of the Act applicants who are dissatisfied with the outcome of a consent authority have a right of appeal to the Land and Environment Court. This right must be exercised within six (6) months from the date of this notice. The Court's Office is situated at Level 1, 225 Macquarie Street, Sydney (Telephone 9228 8388), and the appropriate form of appeal is available from the Clerk of your Local Court.
- c) In accordance with Section 4.53 of the Environmental Planning and Assessment Act 1979, unless otherwise stated by a condition of this consent, this consent will lapse unless the development is commenced within five years of the date of this notice.
- d) To confirm the date upon which this consent becomes effective, refer to Section 4.20 of the Environmental Planning and Assessment Act, 1979. Generally the consent becomes effective from the determination date shown on the front of this notice. However if unsure applicants should rely on their own enquiries.
- e) To confirm the likelihood of consent lapsing, refer to Section 4.53 of the Act. Generally consent lapses if the development is not commenced within five years of the date of approval. However if a lesser period is stated in the conditions of consent, the lesser period applies. If unsure applicants should rely on their own enquiries.
- f) In accordance with Section 8.8 and 8.10 of the Environmental Planning and Assessment Act 1979, an objector who is dissatisfied with the determination of a consent authority to grant consent to a development application for designated development (including designated development that is integrated development), may, within 28 days after the date on which the application is taken to have been determined, appeal to the Land and Environment Court.
- g) The approval of this application does not imply or infer compliance with the Disability Discrimination Act and that the developer should investigate their liability under the Act.



- h) The requirements of all authorities including the Environmental Protection Authority and the Work Cover Authority shall be met in regards to the operation of the building.
- i) "DIAL BEFORE YOU DIG"

Underground assets may exist in the area that is subject to your application. In the interest of health and safety and in order to protect damage to third party assets please contact Dial before you dig at www.1100.com.au or telephone 1100 before excavating or erecting structures (This is the law in NSW). If alterations are required to the configuration, size, form or design of the development upon contact the Dial before You Dig service, an amendment to the development consent (or a new development application) may be necessary. Individuals owe asset owners a duty of care that must be observed when working in the vicinity of plant or assets. It is the individual's responsibility to anticipate and request the nominal location of plant or assets on the relevant property via contacting the Dial before you dig service in advance of any construction or planning activities.

j) TELECOMMUNICATIONS ACT 1997 (COMMONWEALTH)

Telstra (and its authorised contractors) are the only companies that are permitted to conduct works on Telstra's network and assets. Any person interfering with a facility or installation owned by Telstra is committing an offence under the Criminal Code Act 1995 (Cth) and is liable for prosecution. Furthermore, damage to Telstra's infrastructure may result in interruption to the provision of essential services and significant costs. If you are aware of any works or proposed works which may affect or impact on Telstra's assets in any way, you are required to contact: Telstra's Network Integrity Team on Phone Number 1800 810 443.

- k) The Liverpool City Council Local Government area soils and ground water may be subject to varying levels of Salinity. Whilst Council may require applicants to obtain Salinity reports relating to some developments, no assessment may be made by Council in that regard. Soil and ground water salinity levels can change over time due to varying factors. It is recommended that all applicants make their own independent inquiries as to appropriate protection against the current and future potential affect of Salinity to ensure the ongoing structural integrity of any work undertaken. Liverpool City Council will not accept any liability for damage occurring to any construction of any type affected by soil and or ground water Salinity.
- Care shall be taken by the applicant and the applicant's agents to prevent any damage to adjoining properties. The applicant or applicant's agents may be liable to pay compensation to any adjoining owner if, due to construction works, damage is caused to such an adjoining property.
- m) Letter boxes must be provided in accordance with the requirements of Australia Post. In this regard, the developer is required to obtain approval from Australia Post for address numbering, and letter box positioning and dimensions.
- n) The cost of any necessary adjustments to utility mains and services affected by the development shall be borne by the applicant.





# ATTACHMENT 1 – WASTE MANAGEMENT FACT SHEET

# WASTE MANAGEMENT SERVICES FOR RESIDENTIAL FLAT BUILDINGS AND MULTI DWELLING HOUSING



# Purpose

This Fact Sheet outlines changes to Council's Waste Management Strategy for Residential Apartment Buildings (RFB's) and Multi Dwelling developments. The new strategy means that Council can now provide bulk waste and increased collection services for RFB's and other similar high density residential development.

#### **Definitions**

Residential Flat Building – a building containing 3 or more dwellings, but does not include an attached dwelling or multi dwelling housing (as defined by the Liverpool Local Environmental Plan 2008).

# Objectives of the new Waste Strategy

In light of the growing number of high rise developments in the Liverpool City Centre and other areas earmarked for high density development within the LGA, there is a growing demand for Liverpool Council to provide services which adequately manage the large volumes of waste generated from these developments. Council can now provide a suitable waste collection service, including a variety of bin sizes along with increased collection (maximum of two collections per week), to cater for all scales of high density development.

# Waste Specifications

While a new Waste Services Policy is yet to be implemented, a Waste Services Specifications sheet has been developed, endorsed by Council and is currently in effect. The design specifications summarise the variety of bin sizes available, frequency of pick-ups, method of waste collection and storage requirements.

# Determining suitable waste management arrangements

The most appropriate waste management arrangement for each development should be determined by the Applicant and described in the Development Application and its supporting documentation. The Development Application should indicate the number and size of bins required for the development (which will determine the frequency of waste collection services per week); and identify a designated and clearly labelled waste storage area that is capable of accommodating the number of proposed bins and can be accessed by the appropriate waste collection vehicle, without impeding on the amenity of the future occupants of the development or the wider locality.

Any Development Application for a residential flat building seeking a waste collection arrangement with Council that falls outside of the attached design specifications; requires the Applicant to consult with Council's Waste Planning & Policy Department prior to the determination of a Development Application, to confirm whether alternative arrangements can be accommodated.

Generally, a residential flat building application must make arrangements for the bulk storage and collection of waste, to minimise the number of individual bins for a development, which ensures convenient waste disposal services for future occupants; and to minimise the number of bins along the street frontage.



# WASTE MANAGEMENT SERVICES FOR RESIDENTIAL FLAT BUILDINGS AND MULTI DWELLING HOUSING



# **Design Specifications**

Currently Liverpool Council provides the following allowance:

Garbage 120 litres/unit/week

Garbage Bin Types	Bin Allocation for Proposed Units-Weekly Service	Bin Allocation for Proposed Units- Twice weekly Service	Truck Required
240 litre mobile bin*	1 per 2 units	1 per 4 units	Side lift
660 litre bulk plastic bin	1 per 6 units	1 per 12 units	Rear Lift

<sup>\*</sup>Mobile bins must be presented to kerb for collection

#### Recycling 120 litres/unit/week

Recycling Bin Types	Bin Allocation for Proposed Units-Weekly Service	Bin Allocation for Proposed Units- Twice weekly Service	Truck Required
240 litre mobile bin (i)	1 per 2 units	1 per 4 units	Side lift
660 litre bulk plastic bin (ii)	1 per 6 units	1 per 12 units	Rear Lift

<sup>(</sup>i) Mobile bins must be presented to kerb for collection

Waste Storage areas or enclosures must be of sufficient size to cater for the required number of bins.

Below are the dimensions and footprint for each type of bin available. When designing waste storage areas, consideration needs to be made for accessing and manoeuvring of bins.

Bin Receptacle	Length (mm)	Width (mm)	Height (mm)	Bin Footprint (m2/bin)
140L	640	535	920	0.27
240L	730	580	1060	0.42
660L	1420	780	1210	1.16

For onsite collection of bulk bins, below are collection vehicle specifications:



<sup>(</sup>ii) 660L onsite collection refer to conditions on page 3 of 3 in this document

# WASTE MANAGEMENT SERVICES FOR RESIDENTIAL FLAT BUILDINGS AND MULTI DWELLING HOUSING



Note: Static compaction units will not be supplied nor maintained by Council. Any proposal seeking to utilise

Vehicle	Length	Width	Height	Servicing height	Weight (loading)	Tuming Radius
Side	9.5m	2.5m	3.5m	3.5m	23.0t	Kerb to kerb 10.3m Wall to Wall 11.0m
Rear	9.9m	2.5m	3.4m	3.4m	22.5t	Kerb to kerb 10.5m Wall to Wall 11.5m

#### Conditions:

- All buildings requiring onsite vehicle collection of waste and recyclables must have vehicle access and loading facilities designed in accordance with the above specifications.
- All buildings requiring onsite vehicle collection of waste and recyclables must have bin storage areas located at ground level or first underground level for safe and easy access by waste collection vehicles.
- The bin storage area opening and access path for onsite collection must have clearance of all other vehicles and obstacles for safe and easy access by waste collection vehicles. Signage to this effect is necessary.
- All buildings requiring onsite vehicle collection of waste and recyclables must have access
  driveways to be of a thickness and structural integrity to withstand the weight loading of the relevant
  vehicle as specified above.
- Waste collection vehicles must be off the road at all times for collection of bins onsite.
- Waste collection vehicles must be able to enter and leave the site in a forward direction with minimal or no need for reversing.
- Agreement must be made to indemnify, and keep indemnified Council and its contractors from and against all actions, claims, demands and other proceedings which may be made or recovered in respect of any damage to property, personal injury or death which relates to carrying out the service on site.
- Static compaction units should be considered for larger units to reduce the number of bins required.
  Typically the compaction ratio is set at 2:1; however, provision of such units is not the responsibility
  of Council. It should also be noted that if compaction units are used this will be on a weekly service
  only.

a static compaction unit is required to be provided and maintained privately. This requirement would be imposed by way of a restriction on the title of the land.



# ATTACHMENT 2 – SYDNEY WATER REQUIREMENTS



Our Ref: 169030

9 February 2018 Rodger Roppolo Senior Development Planner Development Assessment Liverpool City Council Locked Bag 7064 Liverpool BC NSW 1871

RE: 120 Tenth Avenue, Austral DA-757/2017

Dear Mr Roppolo,

Thank you for notifying Sydney Water of the development application listed above. We have reviewed the application and provide the following comments for your consideration.

#### Water

 Our servicing investigation shows that the trunk drinking water system has adequate capacity to service the proposed development. The proposed development can be serviced via the existing 150mm water main on Tenth Avenue.

#### Wastewater

- Sydney Water advises that 225mm/300mm lead-in wastewater mains will need to be constructed connecting the proposed development to the existing Sewer Plant 1183.
- Extensions will be required to provide a point of connection inside the boundary of the development.

This advice is not a formal approval of our servicing requirements. Detailed requirements including any potential extensions or amplifications will be provided once the development is referred to Sydney Water for a Section 73 application.

More information about the Section 73 application process is available on our web page in the <u>Land</u> <u>Development Manual</u>.

#### Sydney Water e-Planning

Sydney Water has an email address for planning authorities to submit statutory or strategic planning documents for review. This email address is <a href="mailto:urbangrowth@sydneywater.com.au">urbangrowth@sydneywater.com.au</a>

Further advice and requirements for this proposal are in the attachments. If you require any further information, please contact Lulu Huang of Growth Planning and Development on the second of the se





#### Attachment 1

#### Sydney Water Servicing

A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water prior to development commencement. It is recommended that the Council includes this term as a Condition of the DA approval.

The proponent is advised to make an early application for the certificate, as there may be water and wastewater pipes to be built that can take some time. This can also impact on other services and buildings, driveways or landscape designs.

Applications must be made through an authorised Water Servicing Coordinator. For help either visit <a href="https://www.sydneywater.com.au">www.sydneywater.com.au</a> > Plumbing, building and developing > Developing > Land development or telephone 13 20 92.

#### **Building Plan Approval**

The approved plans must be submitted to the Sydney Water <u>Tap in™</u> online service to determine whether the development will affect any Sydney Water sewer or water main, stormwater drains and/or easement, and if further requirements need to be met.

The Sydney Water Tap in™ online self-service replaces our Quick Check Agents as of 30 November 2015.

The Tap in™ service provides 24/7 access to a range of services, including:

- building plan approvals
- · connection and disconnection approvals
- diagrams
- · trade waste approvals
- pressure information
- water meter installations
- pressure boosting and pump approvals
- changes to an existing service or asset, e.g. relocating or moving an asset.

Sydney Water's Tap in™ online service is available at:

https://www.sydneywater.com.au/SW/plumbing-building-developing/building/sydney-water-tap-in/index.htm



#### ATTACHMENT 3 – ENDEVOUR ENERGY REQUIREMENTS

Hello Zeliha

I have been in contact with Arcangelo Antoniazzi from Ethos Urban regarding the proposed relocation of Endeavour Energy's padmount substation no. 27129 under Development Application DA-757/2017 at 120 & 130 TENTH AVENUE, AUSTRAL.

As indicated in my below email of 30 November 2018 the proposed relocation of padmount substation no. 27129 and the associated underground cabling 'in theory would be possible'.

Endeavour Energy's Asset Strategy & Planning Branch has since reviewed the attached copy of Ground Level Site Plan 1001 (dated 14 May 2018) prepared by Allen Jack + Cottier which identifies the proposed asset relocation of padmount substation no. 27129 from the north-west corner of proposed Building A to the western side of the site's existing internal access road, from Tenth Avenue and provided the following advice:

'This substation also supplies other customers in Tenth Avenue and in Edmondson Avenue. Asset Strategy & Planning have no objection to the proposed relocation / augmentation of the substation. Unless the applicant / developer (or Council) have a specific need to locate the padmount substation within the development, it is recommend relocating the padmount substation to the Tenth Avenue front property boundary if possible to properly comply with 24/7 access requirements. A suitable location such as in green space to either side of the existing access driveway could be utilised for the new padmount substation'.

Based on the foregoing, Endeavour Energy 'in principle' agreement to the proposed asset relocation of padmount substation no. 27129 is provided. Please note however that the foregoing is in no way intended to be final or binding upon Endeavour Energy. Any electrical design and release / variation of easement is subject to Endeavour Energy's normal applicable policies and procedures.

The release of the existing easement for padmount substation no. 27129 and the associated underground cabling will be dealt with as part of Endeavour Energy's application for connection of load process for the new development. Endeavour Energy's Network Connections Branch will have made the developer / ASP aware of Endeavour Energy's requirements for the release / variation of easement. However the certification of the design does not constitute an agreement to release / variation of the easement and no works should be undertaken to decommission the existing infrastructure within the easement until release / variation of the easement has been resolved and approved by Endeavour Energy. This is particularly important given that as previously mentioned padmount substation no. 27129 provides supply to other customers and appropriate arrangements need to be made for continuity of electricity supply to all the sites before the padmount substation can be decommissioned.

As a condition of the Development Application consent Council should request the submission of documentary evidence from Endeavour Energy confirming that satisfactory arrangements have been made for the connection of electricity and the asset relocation of padmount substation no. 27129, prior to the release of the Construction Certificate / commencement of works.

I trust this addresses Council's concerns in regards to the proposed asset relocation of padmount substation no. 27129. Should you wish to discuss this matter, or have any questions, please do not hesitate to contact me. Due to the high number of development application / planning proposal notifications submitted to Endeavour Energy, to ensure a response contact by email to <a href="mailto:property.development@endeavourenergy.com.au">property.development@endeavourenergy.com.au</a> is preferred.

Kind regards

Development Application Specialist Network Environment & Assessment

51 Huntingwood Drive, Huntingwood NSW 2148

www.endeavourenergy.com.au







Use of Fencing for security and the reduction of visual impact of a Padmount substation:

- Appropriate screening made of metal, timber, plastic or masonry fencing is allowable <u>outside</u> the easement.
- No sail clothes, covers or tarps of any kind are allowable in the easement.
- Carport posts, metallic clothes hoists poles or posts cannot be located inside the padmount substation easement area nor encroach into it.
- Dial before You Dig (DBYD) service plans are required prior to any property excavation. Contact 1100. Note: DBYD service plans do not indicate underground electrical service mains.
- Ground excavation must be done manually or by a toothless mechanical scraping device within the
  easement with an approved safety observer at all times.
- Easement dimensions must not be reduced by any structures e.g. fences, retaining walls, brick walls, terrace work or vegetation etc.
- Ongoing clear entry and exit access around the substation easement area is paramount for Work Health & Safety (WH&S) requirements.
- No trees, shrubs or bushes nor planter boxes or pot plants or decorative features are allowed in the easement.
- . No slip or trip hazards allowed in the easement. Tree stumps must be cut to ground level or below.
- · Ventilation is required around and through the base of the substation.
- No placing of Council bins or stock piling of any materials is allowed in the easement.
- If the substation is fenced out or gated, ongoing maintenance of the easement area is still the
  responsibility of the owner of the property.
- If the substation is enclosed and gated and locked, it must open outwards towards the street, and have an Endeavour Energy locking system installed for 24hr 7days access. Contact Integrity locking on 1300 366 488 for assistance.
- . Endeavour Energy will provide the appropriate reflective signage for the asset when contacted.

**NOTE:** The easement must be maintained on a regular basis for work health and safety WH&S regulations. The following suggestions are provided to property owners who may find it onerous to maintain the easement on a regular basis. The property owner may install the following within the easement at their cost:

- Remove or spray all vegetation with a non-toxic grass and weed deterrent;
- · Remove all foreign objects leaving the easement in an approved and level state;
- · Form up the easement perimeter with treated timber minimum 75-100mm deep;
- · Followed with the laying of a suitable porous weed mat; and
- Then covering the easement with 20mm min. size blue metal or coloured stones, wood bark/chips, asphalt or install pavers that are easily lifted. Alternately, lay lawn and maintain periodically.

The above suggestions, if employed correctly, will require less ongoing maintenance ensuring a clear firm footing for staff to carry out electrical maintenance or emergency works. This will also ensure an approved aesthetic state for your local community.

#### Retaining Walls

The final height of a retaining wall should comply with the Local Council and not exceed 1m.

The finished ground surface of the uphill of the retaining wall should batter down and finish below the top of the wall's capping to mitigate direct water flow into the substation easement.

The finished wall should be completely constructed in the same type of brick or concrete blocks / material for safety as well as aesthetic reasons.

The finished wall should not trap or promote pooling of water in the easement.

The wall should comply with all relevant building and council codes e.g. drainage material inclusion behind the retaining wall to include min. 100mm ag-line, aggregate and geo tech fabric.

The side walls can be extended minimally in order to accommodate a raised surrounding ground level. Any future wall extension would need to be properly footed.

Dial before You Dig (DBYD) service plans are required <u>before</u> excavating for retaining wall footings and fence posts. Contact DBYD on 1100 for assistance.

Retaining walls must be constructed outside of and not encroach the electricity easement.

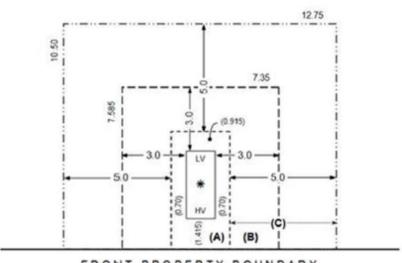
51 Huntingwood Drive, Huntingwood NSW 2148 Postal Address: PO Box 811, Seven Hills NSW 1730. DX 8148 Blacktown Telephone: 131 081 Facsimile: (02) 9853 6000

NSW 2170





# Easement and Restriction Sites for Padmount Substations - Common Earthing, Residential -



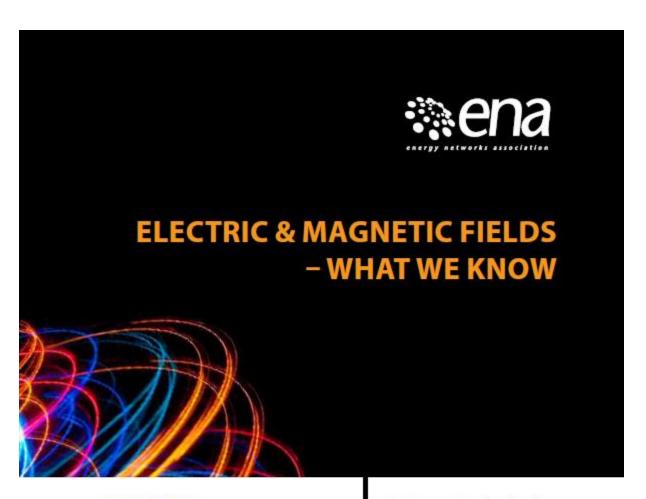
- FRONT PROPERTY BOUNDARY
- . No building must be erected or permitted to remain within the restriction site marked (B) unless:
  - the external surface of the building erected within 1.5 metres from the substation footing has a 120/120/120 fire rating; and
  - the external surface of the building erected between 1.5 metres and 3.0 metres from the substation footing has a 60/60/60 fire rating; and
  - o the owner provides Endeavour Energy with an engineer's certificate to this effect.
- . No swimming pool or spa must be erected or permitted to remain within the restriction site marked (C).

The foregoing easement and restrictions apply to a padmount substation with a common earth system where the high voltage and low voltage equipment, the local neutral and other metallic parts are electrically bonded together and connected to one earth grid. Common earthing must be used where a new earthing installation is being established and interconnected to 5 or more other substations through the neutral conductor. If the conditions for a common earthing system cannot be achieved economically eg. in non-urban areas, then two separate and distinct earthing systems, one for the high voltage and the other for low voltage must be used. Substation separate earthing changes the dimensions of the restriction sites.

- · No fencing must be erected or permitted to remain within 4 metres from the substation footing.
- No swimming pool or spa must be erected or permitted to remain within 30 metres from the substation footing.

For further details refer to Endeavour Energy's Mains Design Instruction Document No: MDI 0044 'Easements and Property Tenure' or contact Endeavour Energy's Head Office enquiries on telephone: 133 718 or (02) 9853 6666 from 8am - 5:30pm.

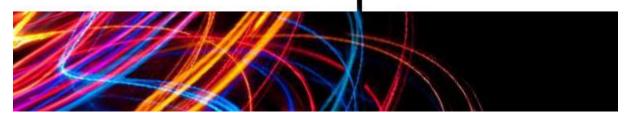




#### ABOUT EMFS

ELECTRIC AND MAGNETIC FIELDS –
OR EMFS – ARE FOUND EVERYWHERE
THERE IS ELECTRICITY. THEY ARE
INVISIBLE.

For many years, questions have been raised about whether EMFs affect people's health. It remains a controversial issue although research over more than 40 years has greatly increased our understanding. There have been thousands of studies – some suggesting a link, others not, and some raising further questions. As electricity is so widespread in our society, questions about electricity and health are important to people. The purpose of this brochure is to inform the public about the issue – what we know, and what we are doing about it.





Customer Service Centre Ground floor, 33 Moore Street, Liverpool NSW 2170

All correspondence to Locked Bag 7064 Liverpool BC NSW 1871

Call Centre 1300 36 2170 Email Icc@liverpool.nsw.gov.au

Web www.liverpool.nsw.gov.au NRS 13 36 77 ABN 84 181 182 471

# WHAT ARE ELECTRIC FIELDS?

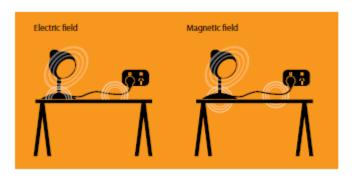
An electric field is a region where electric charges experience an invisible force. The strength of this force is related to the voltage, or the pressure which forces electricity along wires. Electric fields can be present in any appliance plugged into a power point which is switched on. Even if the appliance itself is turned off, if the power point is on, an electric field will be present.

Electric fields are strongest close to their source, and their strength diminishes rapidly as we move away from the source, in much the same way as the warmth of a fire decreases as we move away from it. Many common materials such as brickwork or metal will block electric fields. As such, walls, tables and bench tops can act as a shield.

# WHAT ARE MAGNETIC FIELDS?

A magnetic field is a region where magnetic materials experience an invisible force produced by the flow of electricity, commonly known as current. Unlike electric fields, magnetic fields are only present when electric current is flowing. In other words, if an appliance is operating, a magnetic field is produced. For most appliances, once the appliance is switched off, the current stops flowing and there is no magnetic field. However, for an increasing number of appliances, particularly electronic equipment, some current flows even when they are switched off, but on standby. For these appliances, a magnetic field is present unless the appliance is switched off at the wall

The strength of a magnetic field depends on the size of the current (measured in amps), and decreases rapidly once we move away from the source. While electric fields are blocked by many common materials (see illustration), this is not the case with magnetic fields. This is one reason why power lines may contribute to magnetic fields in the home and why burying power lines will not eliminate them.



# DO EMFS CAUSE ADVERSE HEALTH EFFECTS?

Research on EMFs and possible health effects has been conducted for over 40 years. This includes over 2,900 studies at a cost of more than \$490 million internationally. Many questions have been answered but not all questions.

The research has generally focused on the magnetic field component as this has raised more issues than electric fields. There have been two main areas of research, epidemiology and laboratory studies. Both areas would need to provide links between EMFs and adverse health effects for causality to be accepted by health authorities.

Epidemiology is about people's health. This research looks at statistics to see if there are patterns of disease in large groups of people. The difficulty with large statistical studies is that they take several years to produce meaningful results, and even then, there are different opinions about how the results should be interpreted. There may be other factors in the study (such as how EMFs are measured or patient histories) which could complicate the interpretation of the results. Some studies have reported statistical links between EMFs and cancer while others have not. Scientists generally agree that the epidemiological studies aren't strong enough by themselves to establish that adverse health effects exist.

In the laboratory researchers have studied living cells as well as animals and human volunteers to see if EMFs have any effects.



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There have been many hundreds of these studies reported, and scientists examine them for results which can be successfully repeated in different laboratories. In over 40 years of research there have been no such reproducible results. Hence the evidence from the laboratory is that low level EMFs of the type experienced by the public do not cause the health effects that some have claimed. Lack of consistency in the results of the laboratory studies is one reason why scientists treat the weak positive results from some epidemiological studies with scepticism.

#### SCIENTIFIC REVIEWS

It is well accepted by scientists that no one study considered in isolation will provide a meaningful answer to the question of whether or not EMF can contribute to adverse health effects. In order to make an informed conclusion from all of the research, it is necessary to consider the science in its totality. All of the research is reviewed periodically by expert panels which are established by national or international bodies with the purpose of trying to determine whether or not human exposure to EMF is related to adverse health effects.

The most recent extensive review was carried out by the World Health Organisation (WHO) in 2007 which found:

"Scientific evidence suggesting that everyday, chronic lowintensity (above 0.3-0.4 uT) power-frequency magnetic field exposure poses a health risk is based on epidemiological studies demonstrating a consistent pattern of increased risk for childhood leukaemia. Uncertainties in the hazard assessment include the role that control selection bias and exposure misclassification might have on the observed relationship between magnetic fields and childhood leukaemia. In addition, virtually all of the laboratory evidence and the mechanistic evidence fail to support a relationship between low-level ELF magnetic fields and changes in biological function or disease status. Thus, on balance, the evidence is not strong enough to be considered causal, but sufficiently strong to remain a concern."

# WHAT DO HEALTH AUTHORITIES ADVISE?

In Australia, the relevant health authority is the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), an arm of the Commonwealth Department of Health and Aging. ARPANSA (in their Fact Sheet 19 Electricity and Health) advise that:

"The scientific evidence does not firmly establish that exposure to 50 Hz electric and magnetic fields found around the home, the office or near power lines is a hazard to human health."

"At the present time there is no proven evidence that exposure to low level electric fields is a health hazard (excluding of course electric shock)." The WHO advises that:

"Despite the feeling of some people that more research needs to be done, scientific knowledge in this area is now more extensive than for most chemicals. Based on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields."

# ARE THERE EMF GUIDELINES FOR ESTABLISHED HEATH EFFECTS?

The Australian electricity industry follows the "Interim guidelines on limits of exposure to 50/60 Hz electric and magnetic fields" as developed by the National Health and Medical Research Council (NHMRC) in 1989. The NHMRC Guidelines suggest a magnetic field public exposure limit of 1,000mG. These Guidelines are currently recommended by ARPANSA pending finalisation of their new Guideline.

The two internationally recognised exposure limit guidelines originate from the

- Institute of Electrical and Electronics Engineers (IEEE) of the USA, and
- » International Commission on Non-Ionizing Radiation Protection (ICNIRP), an expert advisory body to the WHO.

Under the IEEE Standard of 2002 the recommended magnetic field public exposure limit is 9,040 milligauss.

Under the ICNIRP guidelines of 2010 the recommended magnetic field public exposure limit is 2,000 milligauss.



# GUIDE TO COMMON EMFS

These days it is relatively easy to measure magnetic fields using a gaussmeter.

The fields are measured in a unit of milligauss (mG) or microtesla ( $\mu$ T). 1 microtesla ( $\mu$ T) equals 10 milligauss (mG).

To give you an idea of the relative strengths of EMFs, the following guide shows the typical magnetic fields close to appliances and under power lines.

Note that owing to variations in the design of electrical appliances and the loadings on power lines, the levels of magnetic fields can vary. The following table is based on a consistent set of measurements undertaken by power authorities in Australia using similar techniques and protocols to overseas measurements. Due to the difference in appliance design and voltages overseas, the field levels shown in overseas publications can often be different from those in the table.

Typical magnetic field measurements and ranges associated with various appliances and power lines are outlined below: Localised EMFs may also be encountered in specific situations such as near substations, underground cables, specialised electrical equipment, or at elevated locations near lines. Note that the strengths of EMFs decrease rapidly with distance from the source.

FIGURE 1: TYPICAL MAGNETIC FIELD MEASUREMENTS AND RANGES

	Typical Measurement (mG)	Range of Measurement (mG)
Stove	6	2-30
PC	5	2-20
TV	1	0.2-2
Electric blanket	20	5-30
Hair dryer	25	1-70
Refrigerator	2	2-5
Toaster	3	2-10
Kettle	3	2-10
Fan	1	0.2-2
Overhead distribution line (under the line)	10	2-20
Overhead transmission line  under line  edge of easement	20 10	10-200 2-50

Appliance Measurements taken at normal user distance



# WHAT IS THE BEST RESPONSE?

Electricity utilities continually review scientific developments related to EMFs and are guided by relevant health authorities. In Australia, ENA recommends that electricity utilities provide balanced and accurate information to the community and design and operate electrical power systems prudently within relevant health guidelines. This includes such actions as:

- » providing training to staff;
- informing the community;
- measuring field levels for the public and employees;
- ensuring that fields are within established guidelines set by health authorities; and
- » practising "prudent avoidance" when building new electrical facilities.

Prudent avoidance involves reducing magnetic field exposure where this is practicable and can be done at modest cost. If utilities can easily keep people out of fields or in lower fields, then that, the industry believes, is a common sense thing to do.

So what can you as an individual do to reduce exposure to EMFs? There are some things you can do very easily. Since EMFs drop off rapidly as you move away from their source, you can modify your use of electrical appliances such as clock radios. You can locate beds away from a wall that has a switchboard outside and you can switch off your electric blanket before you get into bed. These actions will reduce exposure to EMFs but remember that no-one knows if doing any of these things will improve health outcomes at all.

Organisations which can provide further information about EMFs include:

- your local electricity utility or the Energy Networks Association (ENA);
- » the Radiation Safety Unit of your state Health Department;
- » the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) www.arpansa.gov.au
- » the World Health Organisation (WHO) – www.who.int

#### **Energy Networks Association Ltd**

P +61 2 6272 1555 E info@ena.asn.au Level 1, 110 Giles St, Kingston ACT 2604 www.ena.asn.au



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#### ATTACHMENT 4 – RMS ADVICE



27 November 2017

Our Reference: SYD17/01446/01 (A19987221)

Council Ref: DA-757/2017

The General Manager Liverpool City Council Locked Bag 7064 LIVERPOOL BC NSW 1871

Attention: Rodger Roppolo

Dear Sir/Madam,

# CONSTRUCTION OF SENIORS HOUSING DEVELOPMENT, STAGE 3 – 120 TENTH AVENUE, AUSTRAL

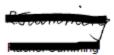
Reference is made to Council's correspondence dated 17 October 2017, regarding the abovementioned application which was referred to Roads and Maritime Services (Roads and Maritime) for comment.

Roads and Maritime has reviewed the submitted application and raises no objection to the Application.

Please note that any future development applications for traffic signal controls at the Edmondson Avenue/Tenth Avenue intersection will require consent from Roads and Maritime in accordance with section 87 of the *Roads Act 1993*, and will need to provide traffic modelling and satisfy warrants.

Any inquiries in relation to this Application can be directed to Melay Comes on Maria or by email at development.sydney@rms.nsw.gov.au

Yours sincerely



Senior Land Use Assessment Coordinator Network Sydney North West Precinct

