2016SSH003 - 24-38 Flora Street Kirrawee

DA16/1668

ASSESSMENT REPORT APPENDICES

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DRAFT CONDITIONS OF CONSENT

Development Application No. 16/1810

1. Approved Plans and Documents (UNI2005)

The development must be undertaken substantially in accordance with the details and specifications set out on the Plan / Drawings:

Plan number	*Reference*	*Prepared by*	*Date*
DA.00 (Revision 1)	Cover & Schedules	Bickerton Masters	20/12/2016
DA.02 (Revision 1)	Site Plan	Bickerton Masters	20/12/2016
DA.03 (Revision 1)	Site Analysis	Bickerton Masters	20/12/2016
DA.06 (Revision 2)	Shadow Diagrams	Bickerton Masters	13/04/2017
DA.07 (Revision 1)	Part Site Plan	Bickerton Masters	20/12/2016
DA.08 (Revision 1)	Street Elevations	Bickerton Masters	20/12/2016
DA.09 (Revision 3)	Ground Floor & Landscape	Bickerton Masters	13/04/2017
DA.10 (Revision 5)	Floor Plan - Basement	Bickerton Masters	13/04/2017
DA.11 (Revision 5)	Floor Plan - Ground Level	Bickerton Masters	13/04/2017
DA.12 (Revision 3)	Floor Plan - Level 1	Bickerton Masters	13/04/2017
DA.13 (Revision 2)	Floor Plan - Level 2	Bickerton Masters	13/04/2017
DA.14 (Revision 2)	Floor Plan - Level 3	Bickerton Masters	13/04/2017
DA.15 (Revision 4)	Floor Plan - Level 4	Bickerton Masters	13/04/2017
DA.16 (Revision 1)	Roof Plan	Bickerton Masters	20/12/2016
DA.19 (Revision 2)	External Elevations - South	Bickerton Masters	13/04/2017
DA.20 (Revision 2)	External Elevations - East	Bickerton Masters	13/04/2017
DA.21 (Revision 2)	External Elevations - North	Bickerton Masters	13/04/2017
DA.22 (Revision 2)	External Elevations - West	Bickerton Masters	13/04/2017
DA.27 (Revision 2)	Apartment Types A + B	Bickerton Masters	13/04/2017
DA.28 (Revision 2)	Apartment Types C	Bickerton Masters	13/04/2017
DA.29 (Revision 2)	Apartment Types D1 + D2	Bickerton Masters	13/04/2017
DA.30 (Revision 2)	Apartment Types E + F	Bickerton Masters	13/04/2017
DA.31 (Revision 2)	Apartment Types G + H	Bickerton Masters	13/04/2017
DA.32 (Revision 1)	External Finishes	Bickerton Masters	20/12/2016
DA.33 (Revision 1)	Area Schedules	Bickerton Masters	20/12/2016
DA.34 to DA.38 Revision 1)	BASIX Commitments	Bickerton Masters	20/12/2016
SK.170208 (Revision 1)	External Access	Bickerton Masters	06/02/2017
2638-GE-001 (Revision 2)	Locality Plan and Drawing Index	Complete	13/04/2017
2638-MF-001 (Revision 2)	Materials and Finishes Plan	Complete	13/04/2017

2638-PP-001 (Revision 2)	Planting Plan	Complete	13/04/2017
2638-DE-001 (Revision 2)	Typical Details	Complete	13/04/2017
2638-DA-005 (Revision 2)	Whole Site Landscape Strategy - Outdoor Activities and Pedestrian Circulation	Complete	13/04/2017
MMD-378541-C-DR-XX-0010 (Revision 2)	Concept Soil and Water Management Plan	Mott MacDonald	20/12/2016
MMD-378541-C-DR-XX-0100 (Revision 2)	Drains Catchment Plan	Mott MacDonald	20/12/2016
MMD-378541-C-DR-XX-0005 (Revision 1)	General Arrangement Plan	Mott MacDonald	20/12/2016
MMD-378541-C-DR-XX-0130 (Revision 1)	MUSIC Catchment Plan	Mott MacDonald	16/12/2016
MMD-378541-C-DR-XX-0030 (Revision 1)	Site Works and Stormwater Management Plan - Basement	Mott MacDonald	20/12/2016
MMD-378541-C-DR-XX-0020 (Revision 1)	Site Works and Stormwater Management Plan - Ground	Mott MacDonald	20/12/2016
MMD-378541-C-DR-XX-0041 (Revision 1)	Site Works Details Sheet 2	Mott MacDonald	20/12/2016
MMD-378541-C-DR-XX-0050 (Revision 1)	Stormwater Detention Tank Plan, Section and Details	Mott MacDonald	20/12/2016
MMD-378541-C-DR-XX-0040 (Revision 1)	Stormwater Drainage Details	Mott MacDonald	20/12/2016

and any details on the application form and on any supporting information received with the application except as amended by the following conditions.

Note: The following must be submitted to Sutherland Shire Council prior to the commencement of any building or subdivision work.)

i) A Construction Certificate.
ii) Notification of the appointment of a Principal Certifying Authority and a letter of acceptance from that Principal Certifying Authority.)
iii) Notification of the commencement of building and/or subdivision works with a minimum of 2 days' notice of such commencement.

2. Design Changes Required (UNI2020)

A. Before Construction

The following design changes must be implemented:

i. The west wing of the development comprising the garden terrace (north) /lounge/theatre/associated rooms and all units above must be repositioned away from Bellingara Road so the external wall, footings and the like are set back no less than 5.6m from the trunk of "Tree 6 *Eucalyptus sp*." as identified in Appendix E - Site Plan A - Survey of Subject Trees from the report titled "Arboricultural Impact Assessment, 19 Kiama Street, Miranda NSW" prepared by Redgum Horticultural (Ref: 2682) dated 1 December 2016.

Changes required to satisfy the above shall ensure forty (40) parking spaces (36 residential and four visitor spaces) must be provided for the development.

Reason: to ensure that the cluster of trees (referred to as Trees 3 to 7 inclusive) identified in the above report are preserved for the life of the development.

The “Northern Garden” must be converted into communal open space with a community garden and associated facilities located over the basement carpark slab in the western corner of the site adjoining the terraces of Apartments 3 and 4. Provide raised garden beds, storage area, shade structure, BBQ, basic kitchen facilities and accessible toilet over the basement slab to increase the deep soil landscape area. Provide screening or hedge planting between these amenities and the adjoining private terraces. (Note: the “vegetable patch” as shown on the plan titled "Whole Site Landscape Strategy - Outdoor Activities and Pedestrian Circulation" prepared by Complete Urban (Dwg No.: 2638-DA-005, Revision 2, dated 13/04/17) shall be deleted).

Reason: to ensure compliance with Section 3D of the Apartment Design Guide issued by The NSW Department of Planning and Environment (July 2015).

ii. To facilitate access to the northern communal open space and the community garden area over the basement slab in the western corner, access from the ground floor of the building shall be provided. The access must be the shortest path of travel from the lobby area within the ground floor to the communal open space area.

The access must be an accessible pathway in accordance with the requirements of AS1428. Prior to the issue of any Occupation Certificate, an Accessibility Consultant must certify that the access is an accessible path in accordance with AS1428.

Reason: to ensure that residents of the development have easy access to the communal open space facility.

iii. Dividing walls and doors to all study rooms throughout the development must be removed to ensure access to natural lighting and ventilation requirements in accordance with the Building Code of Australia.

iv. The pedestrian crossing between Stage 2 and 3A must be designed to clearly reinforce pedestrian movements and for traffic calming. The crossing must be paved with unit pavers of contrasting colour to the road surface, not coloured asphalt.

Details of these design changes must be included in documentation submitted with the application for a Construction Certificate.

3. Requirements of Authorities (UNI2030)

A. Requirements from Other Authorities

The development must be undertaken in accordance with the requirements of Ausgrid in their referral dated 7 February 2017.

A copy of their referral and any further requirements of the Approval Authority(s) are attached to this development consent. These requirements must be incorporated in the application for Construction Certificate where required.

4. Notice of Modification to Masterplan Development Consent

A. Prior to the issue of any Construction Certificate

This development consent will become valid and may be acted upon subject to satisfying the following requirements:

1) In accordance with Clause 97(1) of Environmental Planning and Assessment Regulations 2000, the persons or entity having the benefit of this consent shall pursuant to Section 80A(1)(b), Section 80A(5) and Section 83D of Environmental Planning and Assessment Act 1979, issue a notice of modification advising that Development Consent DA08/0808 has been amended so as to avoid any inconsistency between this consent and the Masterplan approval.

The Masterplan Development Consent DA08/0808 is superseded for Stage 3A only by the approved plans subject of Condition 1 in this consent.

5. Disposal of Site Soils (ENV3015)

A. During Works

All soils excavated from the subject site are to be classified under the NSW Department of Environment and Climate Change Waste Classification Guidelines (2009). Testing is required prior to off site disposal.

In accordance with DECC Waste Classification Guidelines (2009) materials identified for off site disposal must be removed by a suitably qualified contractor to an appropriately licensed waste facility

Note: Attention is drawn to Part 4 of the NSW DECC Waste Classification Guidelines (2009) which makes particular reference to the management and disposal of Acid & Potential Acid Sulfate Soils.

B. Prior to Occupation or Commencement of Use

Evidence that the requirements specified in 'A' above have been satisfied must be provided to the Principle Certifying Authority prior to the issue of an Occupation Certificate. Where an Occupation Certificate is not required this evidence must be provided to the satisfaction of Council's Manager Environmental Science.

6. Public Place Environmental, Damage & Performance Security Bond (FIN1015)

A. Before Issuing of any Construction Certificate

Prior to the issue of a Construction Certificate or the commencement of any works on site, whichever occurs first, the person acting on this consent must provide security to Sutherland Shire Council against damage that may be caused to any Council property and/or the environment as a consequence of the implementation of this consent. The security may be provided by way of a deposit with Council or a bank guarantee. A non refundable inspection/administration fee is included in the bond value.

It is the responsibility of the person acting on this consent to notify Sutherland Shire Council of any existing damage to public areas in the vicinity of the development site by the submission of a current dilapidation report supported by photographs. This information must be submitted to Council at least 2 days prior to the commencement of works.

In the event that the dilapidation report is not submitted 2 days prior to commencement and the public area sustains damage the person acting on this consent may be held liable.

Should any public property and/or the environment sustain damage as a result of the works associated with this consent, or if the works put Council's assets or the environment at risk, Council may carry out any works necessary to repair the damage and/or remove the risk. The costs incurred must be deducted from the bond.

The value of the bond is $10,210.00.

Note: Bond amount includes a non refundable administration fee which must be paid separately if security is provided by way of a deposit with Council or a bank guarantee.

Use of Bank Guarantee - As bond releases may occur under different timeframes only one bond amount/bond purpose is permitted on a Bank Guarantee. Multiple bonds will require multiple bank guarantees to be lodged.

B. After Occupation

A request for release of the bond may be made to Sutherland Shire Council after all works relating to this consent have been completed. Such a request must be submitted to Council on the 'Bond Release Request Form' signed by the owner or any person entitled to act on the consent and must be accompanied by a current dilapidation report including photographs.

7. Approvals Required under Roads Act or Local Government Act (ENG1005)

A. Before Construction

No occupation or works are to be carried out on public land (including a road or footpath) or access provided over a public reserve adjacent to the development site without approval being obtained from Sutherland Shire Council and the necessary fee paid under the Roads Act 1993 and/or the Local Government Act 1993. These approvals must be to the satisfaction of Council for the required development works and may include but are not limited to the following:

- Detailed Frontage Works including construction of a driveway, footpath, etc.
- Road openings and restoration to provide services to the development.
- Work Zones and Hoardings.
- Skip Bins.
- Shoring / Anchoring.
- Standing of cranes, concrete pumps, etc.

Note: All Plans and Permits are required to be on site, at all times and may be requested by council officers at any time.

Note: Approval under the Roads Act or Local Government Act cannot be granted by a Principal Certifying Authority or by a Private Certifier. Failure to obtain approval may result in fines or prosecution.

8. Site Management Plan (ENG2010)

A. Before Commencement of Works including Demolition

An Environmental Site Management Plan must accompany the application for a Construction Certificate. If demolition is to commence prior to the issue of a Construction Certificate the applicant must submit to Sutherland Shire Council a separate Demolition Site Management Plan. These plans must satisfy the Objectives and Controls of Sutherland Shire (Draft) Development Control Plan 2015 relating to environmental site management and must incorporate the following throughout demolition and construction:

i) Safe access to and from the site during construction and demolition.
ii) Safety and security of the site, road and footpath area including details of proposed fencing, hoarding and lighting.
iii) Method of loading and unloading excavation machines, building materials.
iv) How and where, construction materials, excavated and waste materials will be stored.
v) Methods to prevent material being tracked off the site onto surrounding roadways.
vi) Erosion and sediment control measures.

B. During Works

The site management measures set out in the above plan must remain in place and be maintained throughout the period of works and until the site has been stabilised and landscaped.

9. Supervising Engineer (ENG4005)

A. Before Construction

The applicant must engage an Accredited Certifier in civil engineering works or a Charter Civil Engineer to supervise construction of any:

i) Road frontage works.
ii) Construction / installation of stormwater drainage.
iii) Rainwater harvesting & reuse.
iv) All other works that form part of a subdivision.

B. During Construction

The engineer must supervise the works as listed above to ensure compliance with:

i) All relevant conditions of development consent.
ii) Any Consent issued under the Roads Act for this development.

C. Before Occupation

The supervising engineer must certify the works required in "A" above were undertaken and completed in accordance with the requirements of this Development Consent and to their satisfaction.

10. Internal Driveway Profile (ENG4015)

A. Before Construction

An Access Application must be made to Council to obtain footpath crossing and boundary alignment levels before commencing the final design of internal driveways, paths and car park area.

B. Design

The internal driveway profile must be designed to:

i) Provide adequate sight distance for the safety of pedestrians using the footpath area.
ii) Comply with AS2890.1(2004) in relation to the design of vehicular access, parking and general manoeuvring for the B85 vehicle.
iii) The maximum longitudinal grade of the driveway must not exceed 25%.

Certification by an appropriately qualified person to the effect that these design requirements have been met must accompany the application for a Construction Certificate.

11. Parking Areas and Access (ENG4020)

A. Design

All vehicular access, parking and manoeuvring areas including loading areas must be designed and constructed to comply with AS2890.1 & AS2890.6.

The following specific requirements must be incorporated into the design:

i) All "one way" traffic aisles in the car parking area must be clearly identified by signposting and pavement marking.
ii) The ingress and egress crossing must be clearly identified by signage.
iii) The proposed loading and delivery area must be clearly defined with suitable signposting and pavement markings.
iv) The car park must be line marked to accommodate 3 vehicles and 1 adaptable vehicle.
v) The internal basement driveway and car parking area must be constructed of a suitable all weather pavement e.g. concrete or asphalt.

B. Before Construction

Certification of the above must accompany the application for a Construction Certificate.

12. Basement Car Park Design (ENG4025)

A. Design

The basement car park must be designed in accordance with AS 2890 and must incorporate the following:

i) A minimum headroom of 2.2m measured from the parking floor to the underside of any beam, ventilation duct or service conduit, or to the underside of any door including a security door and fittings when those doors are in an open position.
ii) The proposed security door fitted to the car parking area entrance must be independently mounted on rubber pads to prevent vibration noise transmission through the concrete walls and / or columns.

B. Before Construction

Certification of the above must accompany the application for a Construction Certificate.

13. Drainage Design - Detailed Requirements (ENG5015)

A. Design

The stormwater drainage system must be designed in accordance with the approved stormwater drainage design drawing, Australian Standard AS3500.3:2003 and the BASIX Certificate issued for this development. Except where modified by the following:

i) Provide an on-site detention tank with a minimum volume of 113m^3.
ii) The rate of discharge of stormwater from the site to a drainage system under Council's control must be controlled so that it does not exceed the pre-development rate of discharge.
iii) The rainwater tank/s must have a minimum capacity of 25m^3. The overflow from the rainwater tanks must be connected to the on-site detention system.
iv) All levels reduced to Australian Height Datum.
v) Harvested rainwater must be used for irrigation purposes.
vi) The discharge pipeline from the on-site detention tank must be connected into the existing internal drainage system.

vii) Where required the existing internal drainage system must be upgraded to cater for the additional flows from the proposed development.

B. Before Construction

i) Certification from an Accredited Certifier in Civil Engineering or a Chartered Civil Engineer, to the effect that the drainage design is to their satisfaction and satisfies the design requirements in "A" above must accompany the application for a Construction Certificate.

ii) Certification from an Accredited Certifier for stormwater design or a Chartered Civil Engineer, to the effect that the basement pump-out system has been prepared having regard to Sections 5 and 9 and Appendix L of AS/NZS3500.3:2003, shall accompany the application for the Construction Certificate.

C. Before Occupation

Prior to the issue of an Occupation Certificate:

i) A Works-As-Executed drawing (WAED) of the stormwater drainage system must be prepared by a Registered Surveyor. This drawing must detail the alignment of pipelines, pits, the rainwater tanks, basement pump and the detention facilities. An original or a colour copy must be submitted to Sutherland Shire Council.

ii) The Supervising Engineer must certify the WAED of the stormwater drainage system that the stormwater drainage works, rainwater harvesting facility and rainwater reuse systems were constructed to their satisfaction and in accordance with the Development Consent. Prior to the occupation or use of the building the Applicant / Owner must submit to Council a copy of the aforementioned letter of certification.

D. Ongoing

i) The operation of all devices or appliances installed within the development approved by this consent as required by conditions pertinent to rainwater harvesting and rainwater reuse must be maintained in good operating order at all times.

ii) The stormwater detention facility must be:

- Kept clean and free from silt, rubbish and debris.
- Be maintained so that it functions in a safe and efficient manner.
- Not be altered without prior consent in writing of the Council.

Note: Upon submission of the Works-As-Executed drawing for the stormwater drainage system a notation will be added to the section 149(5) certificate advising future owners that their property is burdened by a stormwater detention facility.

14. Stormwater Treatment (ENG5025)

A. Before Construction

An appropriate stormwater treatment measure, selected from the Environment Protection Authority's document "Managing Urban Stormwater - Treatment Techniques, November 1997", must be provided as part of the permanent site stormwater (water quality) management system. Details must accompany the application for a Construction Certificate.

B. Before Occupation

The above work must be completed in accordance with 'A' above to the satisfaction of the supervising engineer before the issue of any Occupation Certificate.

C. Ongoing

The stormwater treatment measure must be maintained in accordance with the manufacturers' specification.

Note: Upon approval of the stormwater management designs a notation will be added to the 149 certificate in relation to any required detention facility or stormwater treatment device.

15. Damage to Adjoining Properties (ENG6015)

A. Before Works

To minimise vibration damage and loss of support to buildings / structures and properties in close proximity to the development site, a Geotechnical Engineers Report must be prepared detailing constraints to be placed on earth moving and building plant and equipment and the method of excavation, shoring, underpinning and support. This report must be provided to the person undertaking the excavation and the Principal Certifying Authority.

B. During Works

The constraints and recommendations of the Geotechnical Engineers Report must be implemented.

16. Public Utilities (ENG7005)

This condition is imposed to facilitate the provision of services to the development and reduce conflicts between services and lot boundaries, buildings or associated facilities.

A. Before Construction

Suitable arrangements must be made with all relevant utility service providers to ensure the development is appropriately serviced by electricity, gas, telecommunications and the like, and any necessary underground conduits are provided.

Note: Should these requirements result in any significant change to the approved design an application must be made to modify the consent under s.96 of the Environmental Planning and Assessment Act.

17. Approved Landscape Plan (ENV2005)

A. Design Changes

The landscape works on the site must be carried out in accordance with the approved Landscape Plan except as amended by the following:

i. Amend the layout of the theatre, lounge, northern and southern gardens in the Landscape Plans in accordance with the approved Architectural Plans.
ii. Show the detailed layout and design of the communal open space and community garden over the basement slab in the western corner of the site including the disabled access path, raised garden beds (including soil depths), equipment storage area, shade structure, BBQ, basic kitchen facilities and accessible toilet. Provide screening or planting between these facilities and the adjoining private terraces.
iii. Tree Protection Zones (TPZ) must be shown on plan for all existing trees to be retained and protected.
iv. The communal open space areas and all planter boxes on slab must be provided with a water-efficient irrigation system, connected to a pump and the rainwater tank to enable effective landscape maintenance.
v. The private terraces of each ground floor dwelling must be provided with one tap connected to mains water.
vi. Ensure that the mature heights of all proposed tree species under high voltage wires comply with the requirements of Ausgrid.
vii. As the subject site is identified as being within a Greenweb Restoration area, all new tree plantings must be indigenous species and 50% of understorey plants must be indigenous species. All indigenous species must be selected from Council's 'Native Plant Selector' available on Council's website (www.sutherlandshire.nsw.gov.au and search for Native Plant Selector).

The applicant must engage a suitably qualified Landscape Designer or Landscape Architect to oversee any design changes to the approved Landscape Plan and amendments required above. Details of these design changes must be included in the documentation submitted with the application for a Construction Certificate.

Notes:

A Landscape Designer is a person eligible for membership of the Australian Landscape Designers and Managers and a Landscape Architect is a person eligible for membership of the Australian Institute of Landscape Architects as a Registered Landscape Architect.

If demolition works to occur prior to the Construction Certificate being issued, tree protection measures must be installed prior to commencement of demolition.

B. Prior to Occupation/Occupation Certificate

The landscape works must be completed in accordance with the approved Landscape Plan and amendments required by 'A' above. A Final Landscape Inspection must be carried out and a certificate issued by Council's landscape officer prior to occupation or the issue of an occupation certificate (interim

or final). This certificate is required to ensure that all landscaping works and the deep soil percentage requirements have been carried out in accordance with 'A' above, and that all new indigenous plants on the site and within the road reserve are the correct species.

To arrange a Final Landscape Inspection please phone 9710-0333 48 hours prior to the required inspection date. An inspection fee of $225 is required to be paid, prior to the inspection. Additional inspections will be charged at a rate of $150 each.

C. Ongoing

All landscaping works required by 'A' above must be maintained for 12 months following the final landscape inspection date.

Any plants found faulty, damaged, diseased or dead shall be replaced with the same species in the same sized container within one month with all costs borne by the owner.

Note: If difficulty is experienced sourcing suitable indigenous plants from other suppliers, plants grown from locally provenance seed may be available from:

Sutherland Shire Council Nursery
345 The Boulevarde, Gymea
Ph: 02 9524-5672

18. Trees on Private Land

A. Tree Removal

The removal of the following trees is approved:

i) Trees as listed below and as identified in Appendix E - Site Plan A - Survey of Subject Trees from the report titled "Arboricultural Impact Assessment, 19 Kiama Street, Miranda NSW" prepared by Redgum Horticultural (Ref: 2682) dated 1 December 2016.:

Tree No.	Tree Species (botanical and common name)	Location
2	*Eucalyptus* spp.	In the proposed Garden Terrace (South) adjacent to theatre entrance
8	*Eucalyptus* spp.	Bellingara Road front setback

ii) Any declared noxious plant. The applicant is to ensure that all noxious plants are properly identified and controlled/removed.

iii) Any tree species exempted by the Sutherland Shire Local Environmental Plan 2015.

All other vegetation that would require approval to be removed must be protected.

19. Tree Retention and Protection (ENV2040)

A. Before Works

Prior to the commencement of any demolition, excavation or construction works on site the applicant shall engage a suitably qualified and experienced supervising Arborist to oversee the measures for the protection of existing trees as listed below.

Note: An Arborist is a person with a current membership of the National Arborist's Association of Australia at a grade of General Member, Affiliate Member or Life Member, or alternatively a person who has obtained an Australian Qualifications Framework AQF Level 5 in Arboriculture.

Prior to the commencement of any works, including demolition, the supervising Arborist must oversee the protection of all trees not approved for removal.
The trees identified for retention must be protected by the following measures:

i) Protective fencing constructed of 1.8m high chain wire mesh supported by robust posts must be installed in accordance with the advice of the supervising Arborist. Signage must be erected on the fence with the following words clearly displayed "TREE PROTECTION ZONE, DO NOT ENTER".
ii) The tree protection zone within the protective fencing must be mulched with a maximum depth 75mm of suitable organic mulch (woodchips or composted leaf chip mulch) and kept regularly watered for the duration of the works subject to this consent.
iii) No development or associated activity is permitted within the fenced tree protection zone for the duration of works subject to this consent. This includes vehicular or pedestrian access, sheds, washout areas, excavations, backfilling, installation of services (including stormwater), removal of top soil, stockpiling of soil or building materials.
iv) Where site access/egress is required over the roots of trees identified for retention and protection, provide hardwood rumble boards over a 200mm thick layer of wood chip.

B. During Construction

i) The tree protection measures detailed in 'A' above must be maintained during construction.
ii) The supervising Arborist must be present during any approved hand excavation or under boring works within the Tree Protection Zone (TPZ) of any tree identified for retention and protection and have the authority to direct works to ensure the trees long term preservation.
iii) The supervising Arborist must strictly supervise that there is no disturbance or severing of roots greater than 30mm diameter and to cleanly cut those roots between 10-30mm in diameter.
iv) If the trees identified for retention in 'A' above are damaged or destabilised during construction then works must cease and Council's Tree Assessment Officer (ph. 9710 0333) must be contacted to assess the trees and recommend action to be taken.

20. Protection for a Potential Item of Aboriginal Heritage (ENV4050)

A. During Construction

Development consent from Council does not imply consent to destroy an Aboriginal site or object issued under the National Parks and Wildlife Act.

Should any Aboriginal objects be unearthed/exposed during the project, works must temporarily cease within the immediate vicinity and the Office of Environment and Heritage be contacted to advise on the appropriate course of action.

Requirements of National Parks and Wildlife Act 1974

The National Parks and Wildlife Act is the primary legislation for the protection of Aboriginal cultural heritage in NSW. Under the National Parks and Wildlife Act 1974 it is an offence to desecrate or harm an Aboriginal object without having obtained an Aboriginal Heritage Impact Permit (AHIP) under section 90 or without having exercised due diligence in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (NSW Department of Environment, Climate Change & Water (DECCW)).

21. Potential Contaminated Land - Unexpected Finds

A. During Works

If unexpected soil contaminants are discovered during any works; all work must cease and Sutherland Shire Council, Manager Environmental Science, notified immediately.

The contaminated land situation is to then be promptly evaluated by an appropriately qualified and experience environmental consultant. The contaminated land must then be remediated and/or managed under the supervision of the environmental consultant in accordance with relevant NSW EPA Guidelines.

Note: Council may also request that a NSW EPA accredited site auditor is involved to assist with the assessment of the contaminated land situation and review any contamination information. The applicant must also adhere to any additional conditions which may be imposed by the accredited site auditor.

B. Prior to recommencement of works

If unexpected soil or groundwater contaminants were encountered during works and subsequently assessed, remediated and/or managed onsite; then the appropriately qualified and experienced environmental consultant must certify that the contaminated land situation has been appropriately managed in accordance with the requirements of relevant NSW EPA guidelines.

This Certification must be provided to the satisfaction of the Principal Certifying Authority (PCA) and Sutherland Shire Council, Manager Environmental Science, prior to the recommencement of works.

Note: An appropriately qualified and experienced environmental consultant shall be certified by one of the following certification schemes; or equivalent:

- Environment Institute of Australia & New Zealand (EIANZ) 'Certified Environmental Practitioner (CEnvP) Scheme.
- Soil Science Australia (SSA) 'Certified Professional Soil Scientist (CPSS) scheme.
- Site Contamination Practitioners Australia (SCP Australia), 'Certified Practitioner'.

22. (ENV9002)Management of Site Soil / Fill Material (ENV3011)

A. During Works

i) Disposal of site soils

Any soils to be excavated and disposed of from the site must be analysed and classified by an appropriately qualified and experienced environmental consultant, in accordance with relevant NSW EPA guidelines including the *"Waste Classification Guidelines" 2014*, prior to off-site disposal.

Excavated material is to be transported to an appropriately licensed waste facility by an EPA licensed waste contractor in accordance with relevant NSW EPA guidelines.

ii) Reused soils

Any existing soils excavated to be reused on the site must be analysed and classified by an appropriately qualified and experienced environmental consultant, in accordance with relevant NSW EPA guidelines including the *"Waste Classification Guidelines" 2014*, prior to reuse.

Existing soils excavated to be reused on the site must comprise Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM) or other suitable material in accordance with the relevant Resource Recovery Exemption issued under the *Protection of the Environment Operations (Waste) Regulation 2014.*

iii) Importation of fill material

Any fill material that is imported onto the site must comprise Virgin Excavated Natural Material (VENM), Excavated Natural Material (ENM) or other suitable material in accordance with the relevant Resource Recovery Exemption issued under the *Protection of the Environment Operations (Waste) Regulation 2014.*

23. Garbage, Recycling and Green-waste Storage Area (HLT3015)

To ensure the proper storage of waste from the premises:

A. Design

The garbage and recycling storage area must have a smooth impervious floor that is graded to a floor waste. A tap and hose must be provided to facilitate regular cleaning of the bins and all waste water must be discharged to the sewer in accordance with the requirements of Sydney Water. Garbage bins must be designed to prevent the escape of any liquid leachate and must be fitted with a lid to prevent the entry of vermin.

B. Before Construction

Details of compliance with 'A' above must form part of the documentation accompanying the applications for a Construction Certificate.

C. Before Occupation

The works must be completed prior to the issue of any Occupation Certificate.

D. Ongoing

All waste and recycling bins must be stored wholly within the approved waste storage area. The bins must only be put out for collection in the evening prior to pick-up and returned to the storage area as soon as possible after pick-up.

24. External Lighting - (Amenity) (HLT3025)

To ensure that any lighting on the site does not cause a nuisance to neighbours or motorists on nearby roads:

A. Design

All lighting must be designed in accordance with Australian Standard AS4282 - Control of the Obtrusive Effects of Outdoor Lighting.

B. Ongoing

All lighting must be operated and maintained in accordance with the Standard above.

25. Noise Control - Residential Air Conditioning Unit / Heat Pump Water Heater (HLT4005)

To minimise the noise impact on the surrounding environment:

A. Design

The unit must be designed and/or located so that noise generated does not cause an LAeq (15min) sound pressure level in excess of 5 dB(A) above the ambient background level when measured on or within any residential property.

B. Ongoing

i) The unit must be operated in accordance with 'A' above.

ii) Between the hours of 10.00pm and 8.00am on weekends and public holidays and 10.00pm and 7.00am any other day, noise emitted must not be heard within any residence with its windows and/or doors open or closed.

26. Noise Control - Design of Plant and Equipment (General Use) (HLT4010)

To minimise the impact of noise from the development, all sound producing plant, equipment, machinery, mechanical ventilation system or refrigeration systems:

A. Design

All plant and equipment must be designed and / or located so that the noise emitted does not exceed an LAeq sound pressure level of 5dB above the ambient background level when measured at the most affected point on or within any residential property boundary.

Note: The method of measurement of sound must be carried out in accordance with Australian Standard 1055.1.

B. Before Occupation

Certification must be provided by a qualified acoustic engineer that all work associated with the installation of the acoustic measures has been carried out in accordance with 'A' above.

C. Ongoing

All plant and equipment must be operated and maintained in accordance with 'A' above.

27. Noise and Vibration Control - Residential Car Park (HLT4060

To minimise noise and vibration from use of the security door in the car park:

A. Design

The proposed security door fitted to the car parking area entrance must be independently mounted on rubber pads or otherwise installed to prevent vibration noise transmission through the concrete walls and / or columns.

B. Before Occupation

The Principal Certifying Authority must be satisfied that 'A' above has been complied with.

28. Building Ventilation (HLT5005)

To ensure adequate ventilation for the building:

A. Design

The building mechanical and / or natural ventilation systems must be designed, in accordance with the provisions of:

i) The Building Code of Australia;
ii) AS 1668 Part 1 - 1998;
iii) AS 1668 Part 2 - 1991;

B. Before Construction

Details of compliance with the above must form part of the documentation accompanying the application for a Construction Certificate.

C. Before Occupation

i) Certification must be provided by a qualified mechanical ventilation engineer that the installation of the ventilation system has been carried out in accordance with 'A' above.

D. Ongoing

The ventilation system must be operated and maintained in accordance with 'A' above.

29. Car-Park Ventilation - Alternate System (HLT5010)

To ensure adequate ventilation for the car park:

A. Design

As the basement car-park does not appear to comply with the natural ventilation requirements of Section 4 of Australian Standards AS1668.2 -1991, the car-park must be either mechanically ventilated by a system complying with AS1668.2 -1991 or alternatively, the natural ventilation system must be certified by a qualified mechanical ventilation engineer to the effect that the system is adequate. The certification shall confirm that the system will protect the health of occupants of the car park at anytime it is used and satisfies the atmospheric contaminate exposure rates specified in the Worksafe Australia document: Workplace Exposure Standards for Airborne Contaminants.

B. Before Construction

Details of compliance with 'A' above must form part of the application for a Construction Certificate.

C. Before Occupation

Certification must be provided by a qualified mechanical ventilation engineer that the installation of the ventilation system has been carried out in accordance with 'A' above.

D. Ongoing

The ventilation system must be operated and maintained in accordance with 'A' above.

30. Demolition Work (HLT5015)

To ensure that demolition of structures is carried out in an environmentally acceptable and safe manner:

A. Before Commencement

If works involve the removal of more than 10 square metres of asbestos material, a bonded asbestos licence is required. A friable asbestos licence is required to remove, repair or disturb any amount of friable asbestos. For further information contact SafeWork NSW.

B. During Works

i) The demolition of the existing building must be carried out strictly in accordance with Australian Standard 2601 - The Demolition of Structures.

ii) The applicant must ensure that the demolition contractor has a current public risk insurance coverage for a minimum of $5 million. A copy of the Policy must be submitted to the Council prior to demolition.

To ensure that the removal and transportation of any asbestos material, regardless of the quantity, is carried out in an environmentally acceptable and safe manner, all work must comply with the following:

a) Work Health and Safety Act 2011;
b) Work Health and Safety Regulation 2011;
c) Safe Work Australia Code of Practice - How to Manage and Control Asbestos in the Workplace;
d) Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC:2002(2005)];
e) SafeWork NSW 'Working with Asbestos - Guide 2008';
f) Protection of the Environment Operations Act 1997; and
g) Protection of the Environment Operations (Waste) Regulation 2005.

Asbestos waste in any form must be disposed of at a waste facility licensed by the NSW EPA to accept asbestos waste. Any asbestos waste load over 100kg (including asbestos contaminated soil) or 10m² or more of asbestos sheeting must be registered with the EPA on-line reporting tool WasteLocate. More information can be found at <https://wastelocate.epa.nsw.gov.au>.

31. Design Requirements for Disabled Access (ORD4005)

A. Design

A report prepared by a suitably qualified Access Consultant must be submitted with the Construction Certificate, demonstrating that the development complies with the requirements of AS1428 - Design for Access and Mobility.

32. Design Requirements for Adaptable Housing (ORD4010)

A. Design

A report prepared by a suitably qualified Adaptable Housing Specialist must be submitted with the Construction Certificate, demonstrating that the development complies with the requirements of AS4299 - Adaptable Housing. The report must contain a completed checklist (Appendix A - AS4299) demonstrating compliance with the requirements of a Class C Adaptable House.

33. Verification of Design for Construction - SEPP 65 (ORD4015)

A. Design

Design verification must be provided by a registered Architect pursuant to SEPP 65 stating that the design intent approved by the Development Consent has been maintained in the building / architectural plans submitted with the Construction Certificate. This must accompany the application for a Construction Certificate.

B. Before Occupation

Prior to the issue of the final Occupation Certificate design verification must be provided in accordance with SEPP 65.

34. Certification Requirement of Levels (ORD4035)

A. During Construction

At the following stages of construction:

i) Prior to the pouring of each floor or roof slab,
ii) Upon completion of the roof frame.
iii) Prior to the pouring / installation of the swimming pool shell *(### delete if there is no pool)*

A registered surveyor must provide the Principal Certifying Authority with Certification that the stage of structure complies with the development consent in respect of levels.

B. Before Occupation

The certification referred to above must form part of the application for an Occupation Certificate.

35. Sydney Water Requirements & Section 73 Compliance Certificate (ORD4040)

A. Before Any Works

Prior to the commencement of any works on site, including demolition or excavation, the plans approved as part of the Construction Certificate must also be approved by Sydney Water. This allows Sydney Water to determine if sewer, water or stormwater mains or easements will be affected by any part of your development. Customers will receive an approval receipt which must be included in the Construction Certificate documentation.

Please refer to the web site www.sydneywater.com.au.

B. Before Occupation / Subdivision Certificate

Prior to the issue of an Occupation Certificate or a Subdivision Certificate a Compliance Certificate under Section 73 of the Sydney Water Act, 1994, must be submitted to Council by the Principal Certifying Authority. Sydney Water may require the construction of works and/or the payment of developer charges. This assessment will determine the availability of water and sewer services, which may require extension, adjustment or connection to the mains.

Sydney Water Advice on Compliance Certificates:

Sydney Water will assess the development and if required will issue a Notice of Requirements letter detailing all requirements that must be met. Applications can be made either directly to Sydney Water or through a Sydney Water accredited Water Servicing Coordinator. Please make early contact with the Coordinator, since building of water / sewer extensions can be time-consuming and may impact on other services as well as building, driveway or landscaping design.

Go to www.sydneywater.com.au/section73 or call 1300 082 746 to learn more about applying through an authorised WSC or Sydney Water.

36. Dial Before You Dig (ORD4050)

A. Before Construction

Underground assets may exist in the area that is subject to your application. In the interests 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 on 1100 before excavating or erecting structures (this is the law in NSW).

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.

37. Noise Control and Permitted Hours for Building and Demolition Work (ORD5005)

A. During Works

To minimise the noise impact on the surrounding environment:

i) The LAeq sound pressure level measured over a period of 15 minutes when the construction or demolition site is in operation, must not exceed the ambient background level (LA90 15min) by more than 10dB(A) when measured at the nearest affected premises.

ii) All building and demolition work must be carried out only between the hours of 7.00am and 6.00pm Monday to Friday inclusive, 8.00am and 3.00pm Saturdays. No work must be carried out on Sundays and Public Holidays.

38. Toilet Facilities (ORD5010)

A. During Works

Toilet facilities must be available or provided at the work site at a ratio of one toilet plus one additional toilet for every 20 persons employed at the site before works begin and must be maintained until the works are completed.

Each toilet must:

i) be a standard flushing toilet connected to a public sewer, or

ii) have an on-site effluent disposal system approved under the Local Government Act 1993, or

iii) be a temporary chemical closet approved under the Local Government Act 1993

39. Street Numbering and Provision of Letter Box Facilities (ORD6005)

A. Before Occupation

i) Street / unit / shop numbers must be clearly displayed.

ii) Suitable letterbox facilities must be provided in accordance with Australia Post specifications.

iii) The dwellings must have the following street address format: #### (officer to insert address format)

40. Car parking Areas (ORD7015)

A. Ongoing

To ensure that the car parking area satisfies the demands of the development:

i) it must be made available on an unrestricted basis and free of charge at all times for employees' and visitors' vehicles
ii) any parking nominated as visitor parking or common property must be continually available as common property.

41. Housing for Seniors or People with a Disability - Restriction as to User (ORD7040)

A. Before Occupation

A Restriction as to User must be registered against the title of the property in accordance with section 88E of the Conveyancing Act 1919. This restriction must limit the use of the approved accommodation to the kinds of people referred to under State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004.

B. Ongoing

Specifically, only those people who meet the following criteria may occupy this accommodation:

i) seniors or people who have a disability,
ii) people who live within the same household with seniors or people who have a disability,
iii) staff employed to assist in the administration of and provision of services to housing provided under this Policy.

“Seniors” are any of the following:

a) people aged 55 or more years,
b) people who are resident at a facility at which residential care (within the meaning of the Aged Care Act 1997 of the Commonwealth) is provided,
c) people who have been assessed as being eligible to occupy housing for aged persons provided by a social housing provider.

“People with a disability” are people of any age who have, either permanently or for an extended period, one or more impairments, limitations or activity restrictions that substantially affect their capacity to participate in everyday life.

Attached are the prescribed conditions that must be complied with under the Environmental Planning and Assessment Regulations 2000.

PRESCRIBED CONDITIONS

Division 8A of the Environmental Planning and Assessment Regulation Prescribes the following conditions of development consent

S98 Compliance with Building Code of Australia and insurance requirements under the Home Building Act 1989

(cf clauses 78 and 78A of EP&A Regulation 1994)

(1) For the purposes of section 80A (11) of the Act, the following conditions are prescribed in relation to a development consent for development that involves any building work:

(a) that the work must be carried out in accordance with the requirements of the Building Code of Australia,

(b) in the case of residential building work for which the Home Building Act 1989 requires there to be a contract of insurance in force in accordance with Part 6 of that Act, that such a contract of insurance is in force before any building work authorised to be carried out by the consent commences.

(1A) For the purposes of section 80A (11) of the Act, it is prescribed as a condition of a development consent for a temporary structure that is used as an entertainment venue, that the temporary structure must comply with Part B1 and NSW Part H102 of Volume One of the Building Code of Australia.

(2) This clause does not apply:

(a) to the extent to which an exemption is in force under clause 187 or 188, subject to the terms of any condition or requirement referred to in clause 187 (6) or 188 (4), or

(b) to the erection of a temporary building, other than a temporary structure to which subclause (1A) applies.

(3) In this clause, a reference to the Building Code of Australia is a reference to that Code as in force on the date the application is made for the relevant:

(a) development consent, in the case of a temporary structure that is an entertainment venue, or

(b) construction certificate, in every other case.

Note. There are no relevant provisions in the *Building Code of Australia* in respect of temporary structures that are not entertainment venues.

S98A Erection of signs

(1) For the purposes of section 80A (11) of the Act, the requirements of subclauses (2) and (3) are prescribed as conditions of a development consent for development that involves any building work, subdivision work or demolition work.

(2) A sign must be erected in a prominent position on any site on which building work, subdivision work or demolition work is being carried out:

(a) showing the name, address and telephone number of the principal certifying authority for the work, and

(b) showing the name of the principal contractor (if any) for any building work and a telephone number on which that person may be contacted outside working hours, and

(c) stating that unauthorised entry to the work site is prohibited.

(3) Any such sign is to be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.

(4) This clause does not apply in relation to building work, subdivision work or demolition work that is carried out inside an existing building that does not affect the external walls of the building.

(5) This clause does not apply in relation to Crown building work that is certified, in accordance with section 109R of the Act, to comply with the technical provisions of the State's building laws.

(6) This clause applies to a development consent granted before 1 July 2004 only if the building work, subdivision work or demolition work involved had not been commenced by that date.

Note. Principal certifying authorities and principal contractors must also ensure that signs required by this clause are erected and maintained (see clause 227A which currently imposes a maximum penalty of $1,100).

S98B Notification of Home Building Act 1989 requirements

(1) For the purposes of section 80A (11) of the Act, the requirements of this clause are prescribed as conditions of a development consent for development that involves any residential building work within the meaning of the Home Building Act 1989.

(2) Residential building work within the meaning of the Home Building Act 1989 must not be carried out 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 following information:

(a) the case of work for which a principal contractor is required to be appointed:

(i) the name and licence number of the principal contractor, and

(ii) the name of the insurer by which the work is insured under Part 6 of that Act,

(b) in the case of work to be done by an owner-builder:

(i) the name of the owner-builder, and

(ii) if the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

(3) If arrangements for doing the residential building work are changed while the work is in progress so that the information notified under subclause (2) becomes out of date, further work must not be carried out 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 updated information.

(4) This clause does not apply in relation to Crown building work that is certified, in accordance with section 109R of the Act, to comply with the technical provisions of the State's building laws.

S98E Condition relating to shoring and adequacy of adjoining property

(1) For the purposes of section 80A (11) of the Act, it is a prescribed condition of development consent that if the development involves an excavation that extends below the level of the base of the footings of a building on adjoining land, the person having the benefit of the development consent must, at the person's own expense:

(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.

(2) The condition referred to in subclause (1) does not apply if the person having the benefit of the development consent owns the adjoining land or the owner of the adjoining land has given consent in writing to that condition not applying.

Please be advised if this consent is for an entertainment venue, then there are further prescribed conditions that apply under clauses 98C and 98D of the Environmental Planning and Assessment Regulation.

Architectural Review Advisory Panel

Proposal: Stage 3 of construction of an aged care facility being the erection of a 5 storey building containing 33 self contained seniors housing units and amendment to Stage 1 Masterplan Development Consent DA08/0808

Property: 19 Kiama Street MIRANDA NSW 2228

Applicant: Hammondcare

File Number: DA16/1810

The following is the report of the Architectural Review Advisory Panel Meeting held on Thursday, 2 February 2017 at the Administration Centre, Sutherland Shire Council, Eton Street, Sutherland. The report documents the Panel's consideration of the proposed development described above.

"4. DA16/1810 – Stage 3 of construction of an aged care facility being the erection of a 5 storey building containing 33 self contained seniors housing units and amendment to Stage 1 Masterplan Development Consent DA08/0808 at 19 Kiama Street, Miranda

Council's Peter Brooker, Frances Beasley, Bismark Opoku-Ware and Barbara Buchanan outlined the proposal for the Panel, including providing details of Council's relevant codes and policies

Andrew Masters (architect); Michael Cooney (Manager- property) and Liz Fuggle (architect) addressed the Panel regarding the aims of the proposal and the constraints of the site.

Description of the Site and Proposal

Proposal: Stage 3 of construction of an aged care facility being the erection of a 5 storey building containing 33 self contained seniors housing units and amendment to Stage 1 Master plan Development Consent DA08/0808

Project Address: 19 Kiama Street, Miranda

Zoning: R3 Medium Density Residential

Meeting Date: 02 February 2017

PAD: Yes (PAD16/0114)

ARAP Pre-DA: Yes (DA16/1508)

Responsible Officer/ Team Leader: Frances Beasley/ Luke Murtas

Consent Authority: Sydney South Planning Panel

Key Controls

- Sutherland Shire Local Environmental Plan 2015 (SSLEP 2015).
- Sutherland Shire Council Draft Development Control Plan 2015 (SSDDCP 2015)

- Apartment Design Guide (ADG)
- State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

Applicant's Submission

The Development Application was considered in the context of an Architectural Review Advisory Panel report that was prepared following a Pr-DA meeting on 08 December 2016. The recommendations of that meeting were:

- *An updated, comprehensive master plan for the entire site that incorporates the remaining stages is prepared.*
- *The road corridor is developed as a connective spine with safe, well-designed crossings.*
- *Built form relationship to future Respite Facility is further considered.*
- *ADG compliance requirements are incorporated into a DA submission.*
- *The existing mature tree on the site is retained and incorporated into the entry courtyard.*

SEPP65/ADG Design Quality Principles

The previous Panel Report also addressed the nine SEPP65/ADG Design Quality Principles. The comments below provide advice in relation to the revised proposal and other related to issues identified during the meeting with the Applicant.

PRINCIPLE 1 – CONTEXT AND NEIGHBOURHOOD CHARACTER

In response to the Panel's previous Report, the Applicant submitted an indicative layout drawing of future development anticipated within the 4.9ha site. This includes Stage 3A (the subject of the DA), a proposed single storey, Social Club and Respite Facility to the east (Stage 3B), and development of a two level aged care facility (Stage 3C). The above should form the basis of an amended Master plan for the site, together with built form outlines and an apportionment of GFA over the remainder of the site. The new site drawing is helpful, however it is not considered to be sufficient to act as an amended master plan for the site as required in the SEE.

In general terms, the Stage 3A building itself is well considered, however the ground plane and public domain within and adjacent to the site (Bellingara Rd) is in need of considerable further refinement. The previous ARAP Report noted:

'The (internal street) corridor presents important urban design issues, and an overall site master plan that develops the corridor and adjacent roadway as a coherent public/pedestrian street with well resolved cross-links and strong landscape is highly recommended. The site master plan should also demonstrate relative scales of development, site and building entry points, vehicle and pedestrian circulation, and how the new open spaces can effectively contribute to the overall spatial open space typologies across the site.'

The applicant has stated that the intention is for the development to be accessible for the wider public and to engage with the surrounding context, however pedestrian permeability along the Stage 2 Bellingara Rd frontage is limited and not particularly inviting. This frontage needs further

consideration and resolution, with as much care taken in the detail and quality of built elements as is invested in the buildings. The frontage to Stage 2 has poor entry sequences, weak landscape, inadequate privacy without shutting screens, and an unrelenting, low quality fence that belies any intent to introduce the fine grained residential street character that Bellingara Rd deserves.

Consequently the Panel recommends that this current application provides a greater design effort to present a well-mannered, high quality interface with the street, including details of quality fencing, gates, integrated landscape and other built elements. The long walled services enclosure shown along the frontage (not shown on the landscape plan) must be designed to be unobtrusive and integrated as possible.

The new site drawing highlights the importance of providing safe pedestrian connections across the two one-way road systems to connect these stages to the completed parts of the development. The design approach seeks to minimise the visual impact of the existing overhead high voltage transmission easement, however there is much more that could be done to achieve this.

The Panel had previously recommended that the internal road corridor be developed in a more cohesive manner to emphasise its east-west alignment. However it is now clear that this corridor is actually two separated cul-de-sacs connected via a meandering one-way east-west lane. The Panel therefore suggests that the existing and proposed north-south pedestrian links across the corridor should have stronger visual primacy, as this will be the main pattern of pedestrian movement. It is imperative that these connections are designed for safety, amenity and to minimise the impact of the overhead transmission infrastructure. In this respect an experienced urban designer is recommended for the detailed design of these elements, as well as the Bellingara streetscape.

It is noted that the 'Ground Floor and Landscape Plan' in the architectural submission is not co-ordinated with the landscape plan.

PRINCIPLE 2 – SCALE AND BUILT FORM

The proposed scale and built form of the five-storey building above a partially submerged car-park level is generally compatible with scale of the existing Stage 2 development. Overshadowing of open space to the south is an issue however, and landscape should be designed to be appropriately responsive.

The juxtaposition with the proposed single storey Stage 3B Social Club and Respite Facility remains unresolved, given a single storey future building set against what is effectively a six storey building. Solar studies suggest significant impacts of the subject Stage 3A development on Stage 3B. ADG separation distances between Stage 3A and Stage 3B should be provided, given the plans for Stage 3B indicate that bedrooms will be located in the northern and eastern wings.

Proposed setbacks from the northern boundary appear to be less than the 6m (9m on upper level) required under ADG separation requirements, and this should be complied with. In addition to this

the Panel questions the allocation of the open space of the setback for communal use, as this is likely to create conflicts with the many units facing north into it.

PRINCIPLE 3 – DENSITY

The information provided to the Panel is confusing and contradictory. A summary of floor space ratio calculations is set out in the Statement of Environmental Effects. The approach identifies the maximum permissible GFA for the total site and the figures for existing stages of development as well as both Stage 3A and future Stage 3B. There is inconsistency in the 'Response' document submitted at the meeting and the SEE regarding GFA - the Response nominates 7,400m^2 GFA for Stage 3C with a residual 3,767m^2 unused, the SEE notes that 11,167m2 is available for Stage3C, but not expected to be achieved. The Masterplan should clarify the implications on design and built form of this. and nominate envelopes and GFA's for all future stages.

PRINCIPLE 4 – SUSTAINABILITY

The Applicant's response to the ARAP report (8 December 2016) refers to a drawing (DA.33) that was not part of the submitted documentation received by the Panel. The response indicated that the proposed development met ADG solar access and ventilation requirements.

The submitted DA documentation did not identify any active ESD provisions such as rainwater recycling, solar power or solar hot water.

PRINCIPLE 5 – LANDSCAPE

The material submitted at the 8 December meeting showed the mature trees at the north-west of the site as being retained. However the Applicant's amended advice is that the mature on-site vegetation will now be removed, despite the importance of their retention and the need to ensure their long-term health by maintaining existing levels within the Tree Protection Zones.

The north-west wing of the proposed development should be re-organised to retain these trees, particularly as the single tree referred to in the previous Report is now to be removed due to poor health. The amount of excavation should be reduced with minimal impact on the development and increased amenity, improved streetscape and environmental benefits.

The role and programming of the landscape in this stage of the development is not clear. It must have a considered program of use that complements and supports the existing external areas as well as those associated with future stages. A landscape master plan for all stages of the development should be prepared to address:

- both passive and active recreation opportunities
- balance and privacy between private and shared open spaces
- access and circulation within landscape areas
- the retention and use of existing vegetation for amenity
- landscape character areas, legibility and way-finding
- the requirements of visiting families and friends for, example dedicated play areas for children

The elevated planter to the south of apartment 6 should be set back to allow room for planting at ground level in front of the planter wall.

The site is located within a green web restoration zone, and more design effort is required to retain and integrate existing mature vegetation.

PRINCIPLE 6 – AMENITY

Apartments are generously proportioned and well planned. The study areas cannot be enclosed rooms without windows, and should be open to Living areas. The typical floor lobby screen seems unnecessary and wasteful of space.

The location of the theatre and its ambiguous access through the main lobby and the southern garden terrace should be re-visited to better separate this communal activity from the more private residential parts of the building. As a minimum Apartment 1 and the Theatre should be reversed, which would have the benefit of the unit being more private and having its own separate entry from the street. This would also improve the identity of the theatre, framing the street entry and more logically situated across from the Stage 2 café. The courtyard could also be logically used for spill out space without interfering with residents in other parts of the building.

Consideration should be given to locating A/C condenser units away from private balconies.

PRINCIPLE 7 – SAFETY

The location of security fencing to provide a protected garden terrace and landscape areas to the west and to the north of the building complex is not clear (refer Principle 1 – Context and Neighbourhood Character).

PRINCIPLE 8 – HOUSING DIVERSITY AND SOCIAL INTERACTION

The development provides for 33 dwellings in a mix of large two and three bedroom apartments. The two bedroom apartments range from 107² to 112m², while the three-bedroom apartments range from 167m² to 186m². Whilst this may be responsive to market demand, it offers little by way of housing choice and affordability.

The development provides for a good measure of social interaction with the theatre and supporting terrace lounge and garden terrace, as well as a communal sky lounge located on Level 4.

PRINCIPLE 9 – AESTHETICS

Whilst the architectural expression of the building generally draws upon the pattern of materials and forms that have been developed in Stage 2, it appears to demonstrate sufficient divergence to ensure that there is sufficient aesthetic diversity across the development.

The Panel noted that a number of changes recommended in the previous ARAP report had been introduced, including modifications to the roof form, the northern elevation and the vertical stair cores.

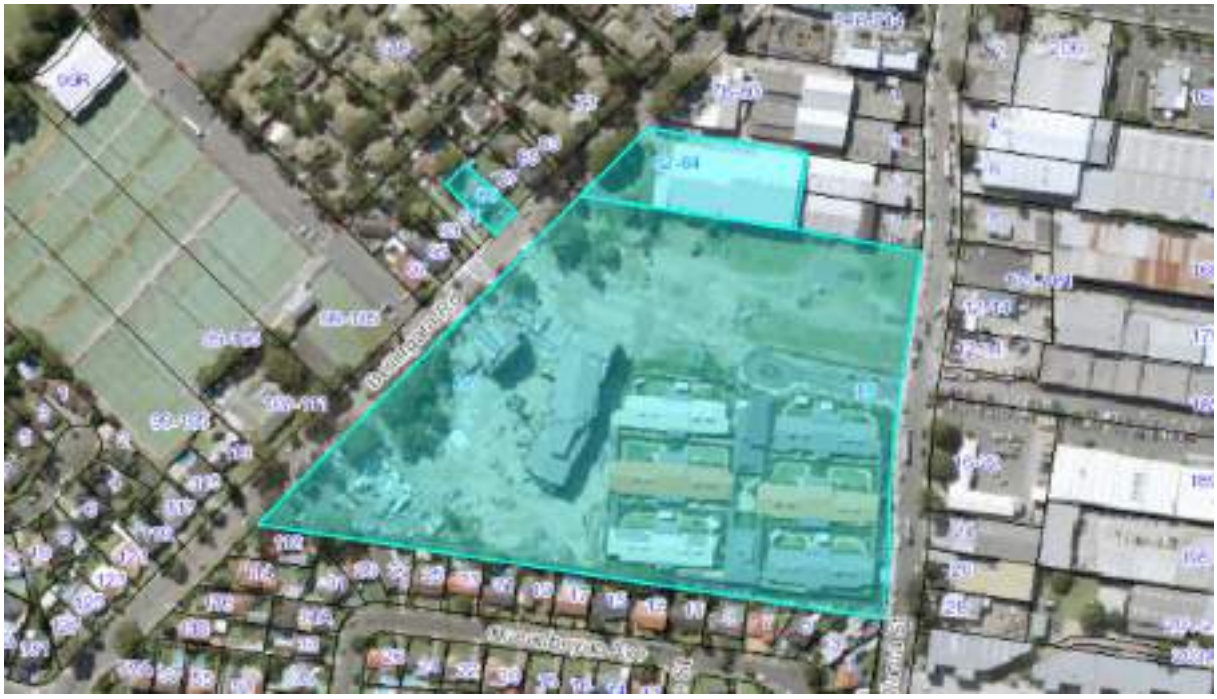
RECOMMENDATIONS

The Panel makes the following recommendations:

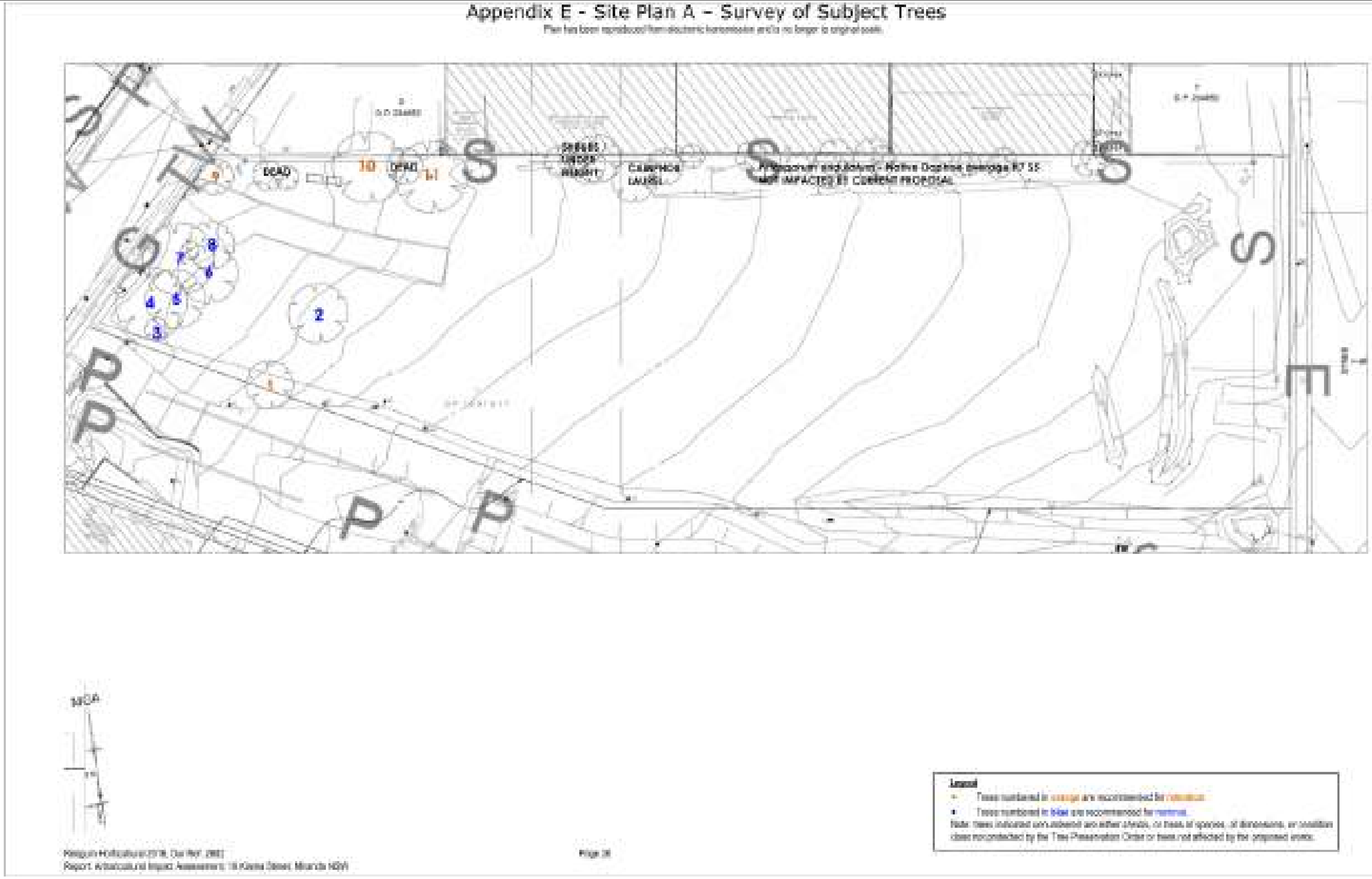
- A detailed master plan is prepared as noted in this Report.
- ADG separation requirements to boundaries and between buildings within the site are achieved.
- The road corridor crossings are designed to reinforce pedestrian movement, reduce the ability for the spine road to be used as a 'rat-run' and to mitigate the visual impact of the HV transmission infrastructure.
- That retention and ongoing health of existing mature trees in the NW of the site is achieved.
- Unit plans are amended to avoid habitable rooms without windows.
- The theatre is relocated to better relate to the public domain within the site and avoid privacy conflicts with units.

The detailed design of the frontage to Bellingara Rd is considered as described in this Report."

Tony Caro
ARAP Chairman
15 February 2017



Map showing the location of the objector's place of residence



Appendix E - Site Plan A – Survey of Subject Trees
DEAD
10
DEAD
11
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CAMPHOR LAUREL
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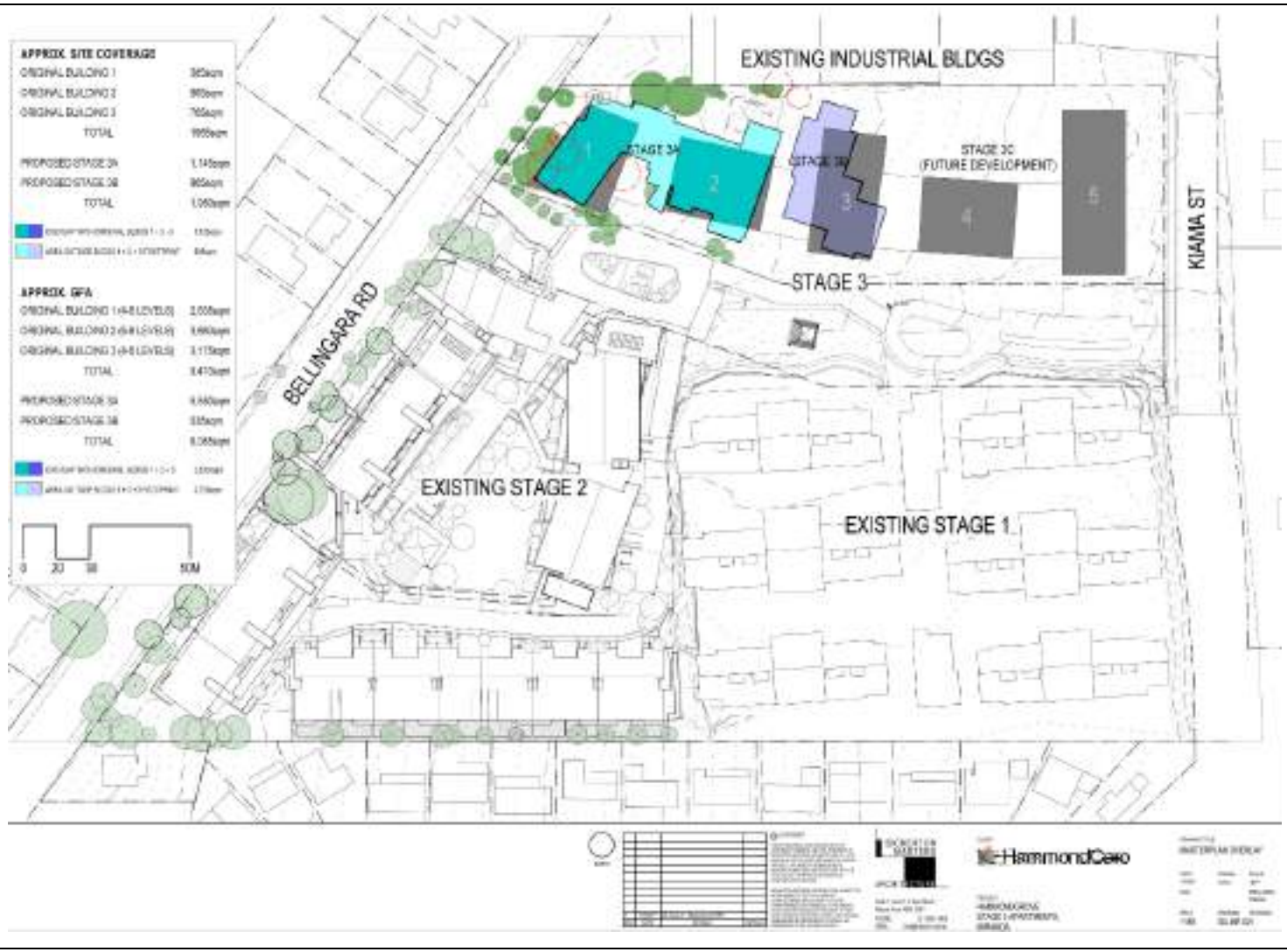
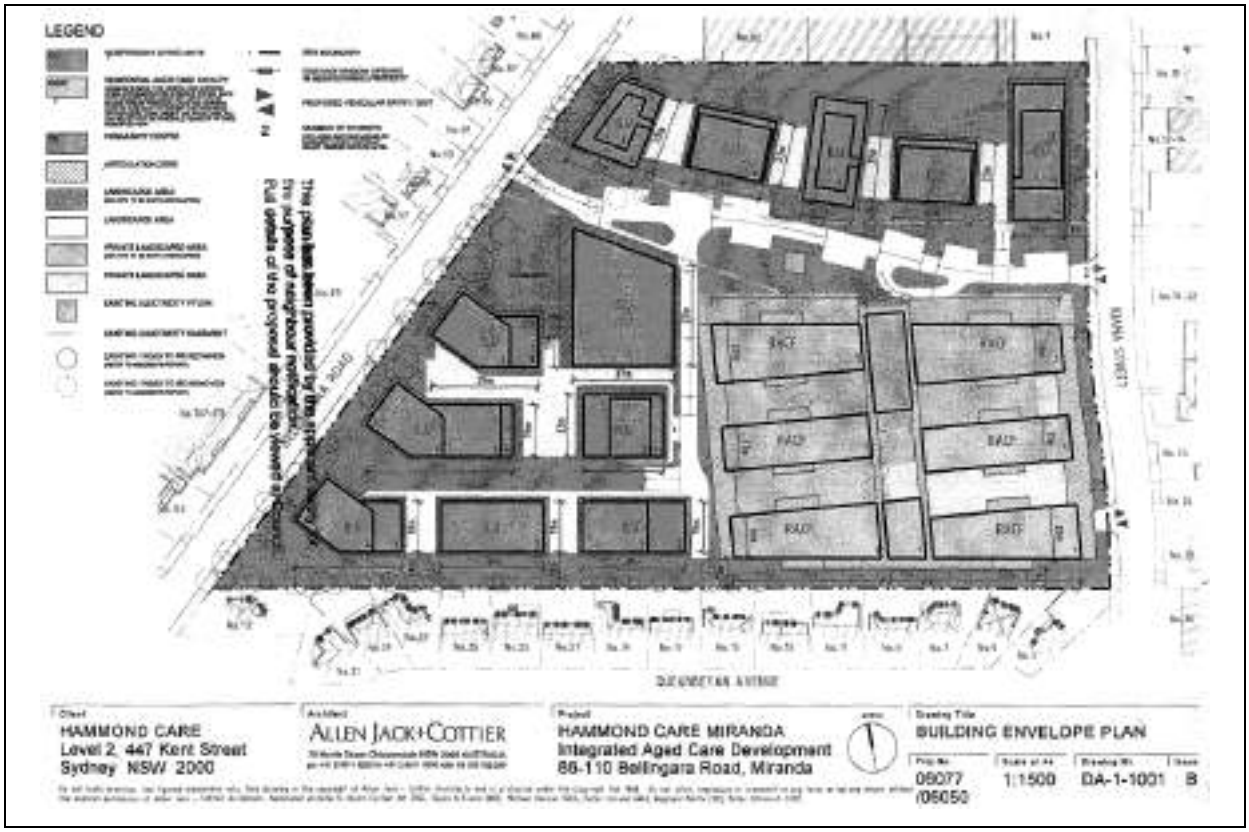
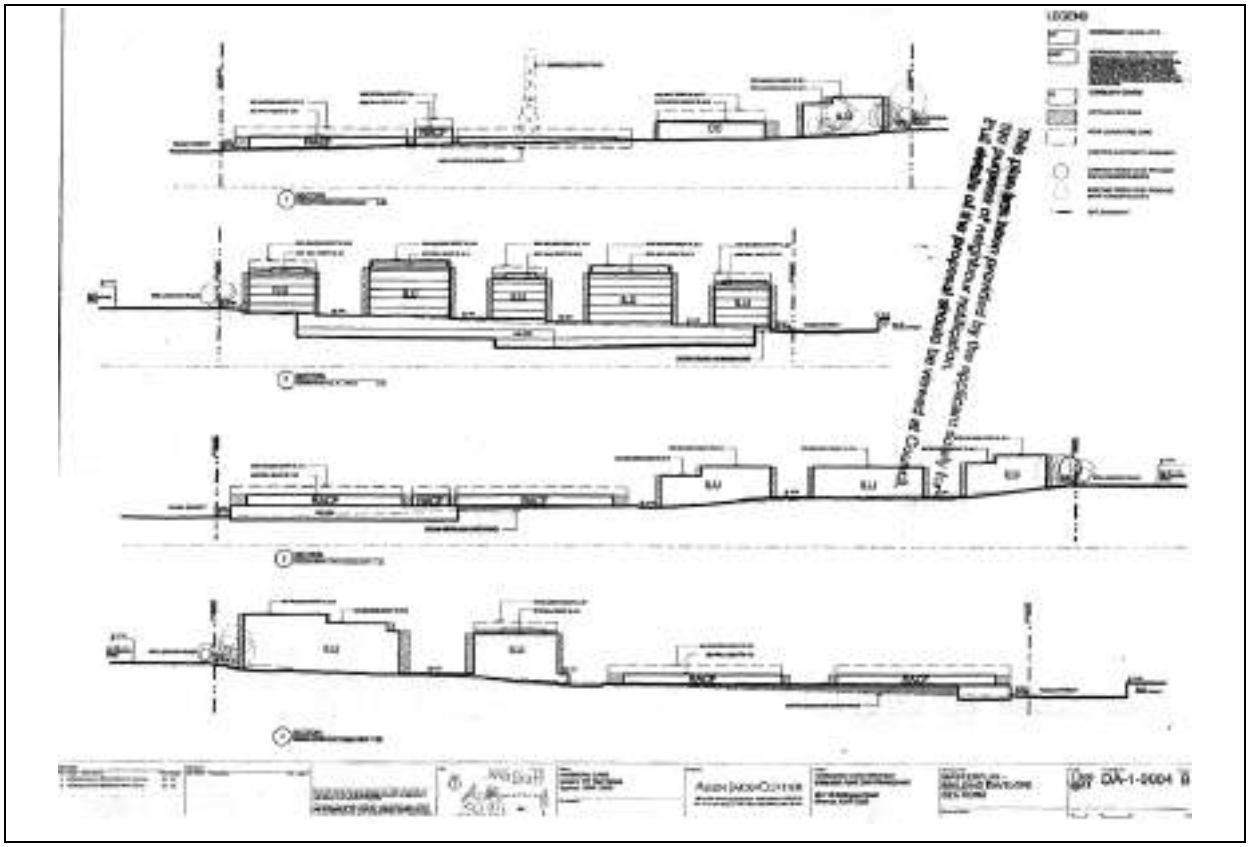
MGA
Legend


APPROX. SITE COVERAGE
APPROX. GFA
EXISTING INDUSTRIAL BLDGS
STAGE 3A
STAGE 3B
STAGE 3C
(FUTURE DEVELOPMENT)
STAGE 3
KIAMA ST
BELLINGARA RD
EXISTING STAGE 2
EXISTING STAGE 1
HammondCare


LEGEND
HAMMOND CARE
Level 2, 447 Kent Street
Sydney NSW 2000
ALLEN JACK+COTTIER
HAMMOND CARE MIRANDA
Integrated Aged Care Development
88-110 Bellingara Road, Miranda
BUILDING ENVELOPE PLAN
09077
/06050
1:1500
DA-1-1001
B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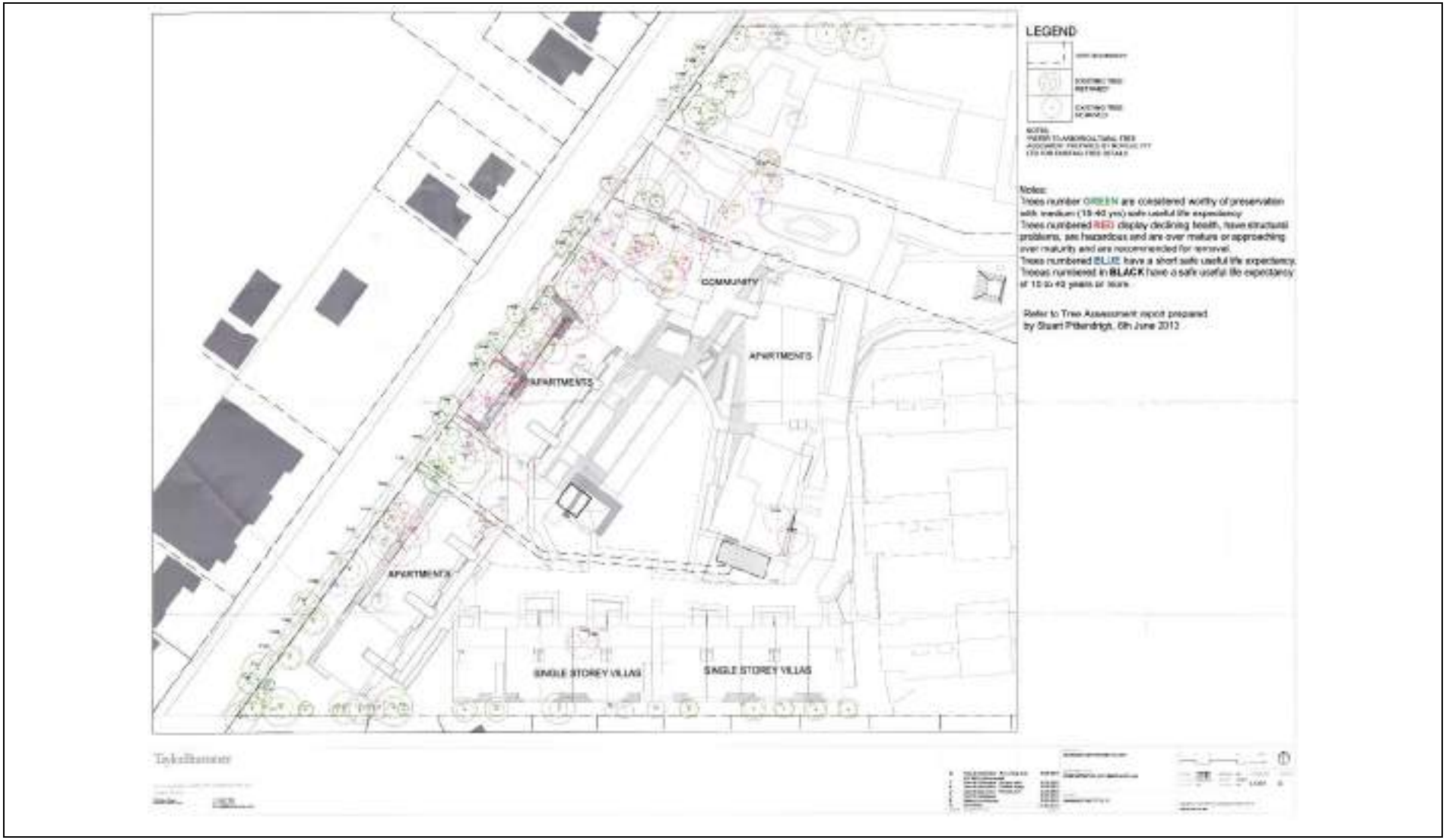
LEGEND
Notes:
Trees numbered GREEN are considered worthy of preservation with medium (15-40 yrs) safe useful life expectancy
Trees numbered RED display declining health, have structural problems, are hazardous and are over mature or approaching over maturity and are recommended for removal.
Trees numbered BLUE have a short safe useful life expectancy.
Trees numbered in BLACK have a safe useful life expectancy of 15 to 40 years or more.
Refer to Tree Assessment report prepared by Stuart Pittendrigh, 6th June 2012
COMMUNITY
APARTMENTS
APARTMENTS
APARTMENTS
SINGLE STOREY VILLAS
SINGLE STOREY VILLAS

HAMMONDCARE MIRANDA STAGE 3 APARTMENTS

BELLINGARA ROAD, MIRANDA NSW 2228

Drawing List			
Sheet Number	Sheet Name	Sheet Issue Date	Current Revision
DA.00	COVER & SCHEDULES	20/12/16	1
DA.01	EXISTING SITE	20/12/16	1
DA.02	SITE PLAN	20/12/16	1
DA.03	SITE ANALYSIS - VIEWS	20/12/16	1
DA.04	SITE ANALYSIS - SITE CONTEXT	20/12/16	1
DA.05	SITE ANALYSIS - SITE CONTEXT	20/12/16	1
DA.06	SHADOW DIAGRAMS	20/12/16	1
DA.07	PART SITE PLAN	20/12/16	1
DA.08	STREET ELEVATIONS	20/12/16	1
DA.09	GROUND FLOOR & LANDSCAPE	20/12/16	1
DA.10	FLOOR PLAN - BASEMENT	20/12/16	1
DA.11	FLOOR PLAN - GROUND LEVEL	20/12/16	1
DA.12	FLOOR PLAN - LEVEL 1	20/12/16	1
DA.13	FLOOR PLAN - LEVEL 2	20/12/16	1
DA.14	FLOOR PLAN - LEVEL 3	20/12/16	1
DA.15	FLOOR PLAN - LEVEL 4	20/12/16	1
DA.16	ROOF PLAN	20/12/16	1
DA.17	BUILDING SECTIONS	20/12/16	1
DA.18	BUILDING SECTIONS	20/12/16	1
DA.19	EXTERNAL ELEVATIONS - SOUTH	11/22/16	1
DA.20	EXTERNAL ELEVATIONS - EAST	20/12/16	1
DA.21	EXTERNAL ELEVATIONS- NORTH	20/12/16	1
DA.22	EXTERNAL ELEVATION - WEST (STREET)	20/12/16	1
DA.23	DRAFT RENDER	20/12/16	1
DA.24	DRAFT RENDER	20/12/16	1
DA.25	SKETCHES	20/12/16	1
DA.26	PERSPECTIVE VIEWS	20/12/16	1
DA.27	APARTMENT TYPES A + B	20/12/16	1
DA.28	APARTMENT TYPE C	20/12/16	1
DA.29	APARTMENT TYPES D1 + D2	20/12/16	1
DA.30	APARTMENT TYPES E + F	20/12/16	1
DA.31	APARTMENT TYPE G + H	20/12/16	1
DA.32	EXTERNAL FINISHES	20/12/16	1
DA.33	AREA SCHEDULES	20/12/16	1
DA.A4.01	SITE PLAN	20/12/16	1
DA.A4.02	GROUND FLOOR & LANDSCAPE	20/12/16	1
DA.A4.03	BASEMENT	20/12/16	1
DA.A4.04	GROUND	20/12/16	1
DA.A4.05	LEVEL 1	20/12/16	1
DA.A4.06	LEVEL 2	20/12/16	1
DA.A4.07	LEVEL 3	20/12/16	1
DA.A4.08	LEVEL 4	20/12/16	1
DA.A4.09	ROOF PLAN	20/12/16	1
DA.A4.10	EXTERNAL ELEVATION - SOUTH	20/12/16	1
DA.A4.11	EXTERNAL ELEVATION - EAST	20/12/16	1
DA.A4.12	EXTERNAL ELEVATION - NORTH	20/12/16	1
DA.A4.13	EXTERNAL ELEVATION - WEST (STREET)	20/12/16	1
DA.MP.01	STAGE 3 MASTERPLAN CONCEPT + STREETSCAPE	20/12/16	1

NORTH

REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE

Suite 1, Level 1, 2 Glen Street
Milsons Point NSW 2061
PHONE: 02 9959 4555
EMAIL: bma@bmarch.com.au

CLIENT: HammondCare

PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS, MIRANDA

DRAWING TITLE: COVER & SCHEDULES

DATE:	DRAWN:	SCALE:
161222	Author	@A1
FILE:		PROJ ARCH: Checker
PROJ: 1165	DRAWING: DA.00	REVISION: 1

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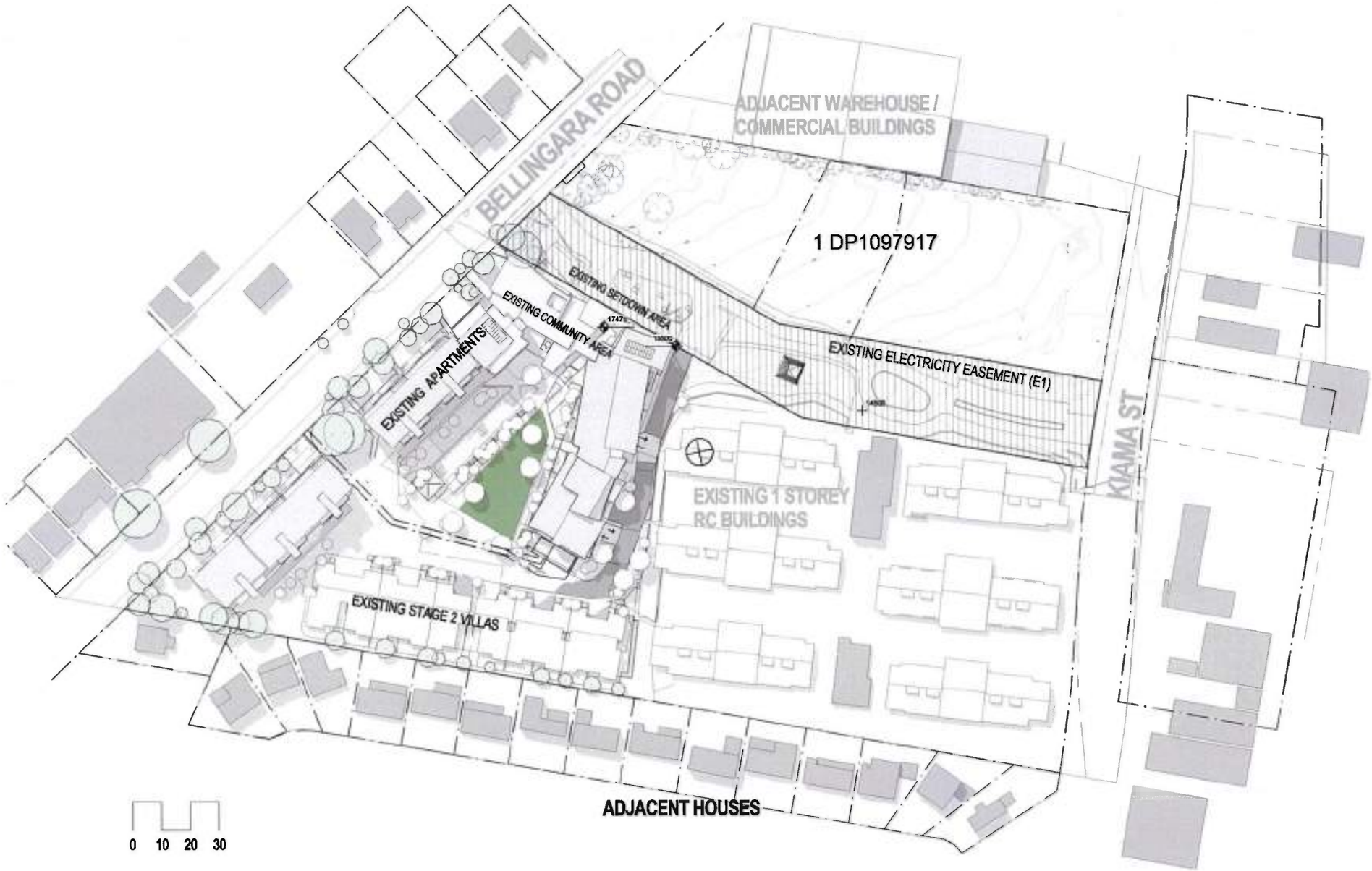

NORTH

REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE

Suite 1, Level 1, 2 Glen Street
Milsons Point NSW 2061
PHONE: 02 9959 4855
EMAIL: brms@bmarch.com.au

CLIENT: HammondCare

PROJECT:
HAMMONDGROVE
STAGE 3 APARTMENTS,
MIRANDA

DRAWING TITLE:
EXISTING SITE

DATE:	DRAWN:	SCALE:
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FILE:		PROJ ARCH:
PROJ:	DRAWING:	REVISION:
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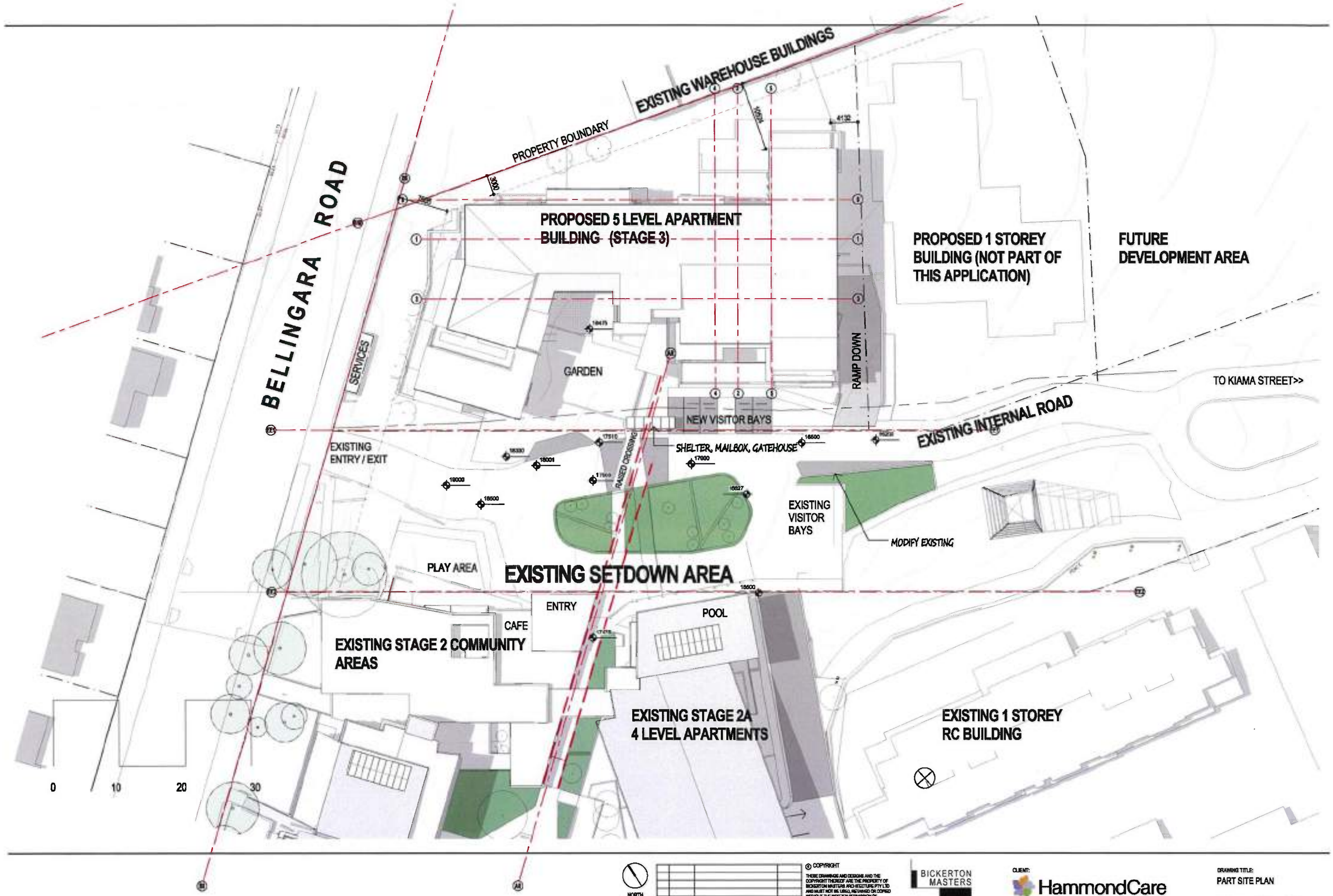
20/12/2016 12:40:43



NORTH

REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE
Suite 1, Level 1, 2 Glen Street
Milsons Point NSW 2061
PHONE: 02 9959 4855
EMAIL: bma@bmarch.com.au

CLIENT: HammondCare

PROJECT:
HAMMONDGROVE
STAGE 3 APARTMENTS,
MIRANDA

DRAWING TITLE:
PART SITE PLAN

DATE:	DRAWN:	SCALE:
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PROJ:	DRAWING:	REVISION:
1165	DA.07	1

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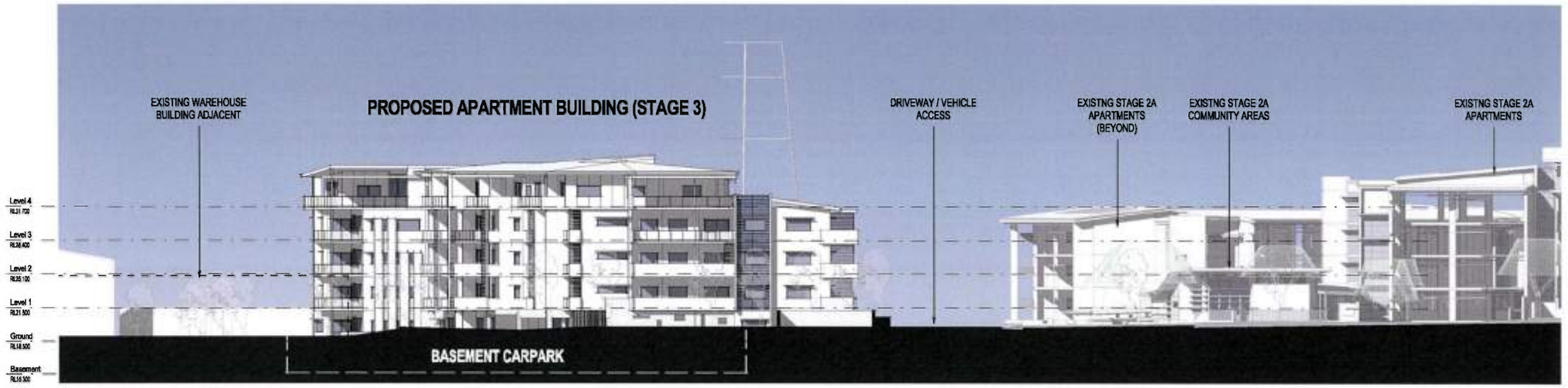
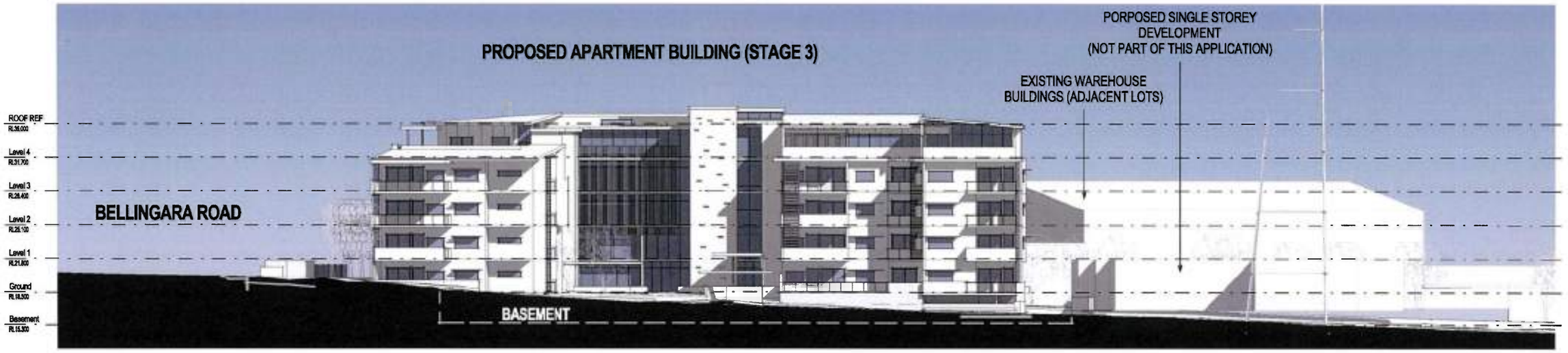


1 STREET ELEVATION - BELLINGARA ROAD
1 : 200



2 STREET ELEVATION - INTERNAL ACCESS ROAD
1 : 200

0 2 4 10M

NORTH

REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE
Suite 1, Level 1, 2 Glen Street
Milsons Point NSW 2061
PHONE: 02 9959 4555
EMAIL: bma@bmarch.com.au

CLIENT: HammondCare

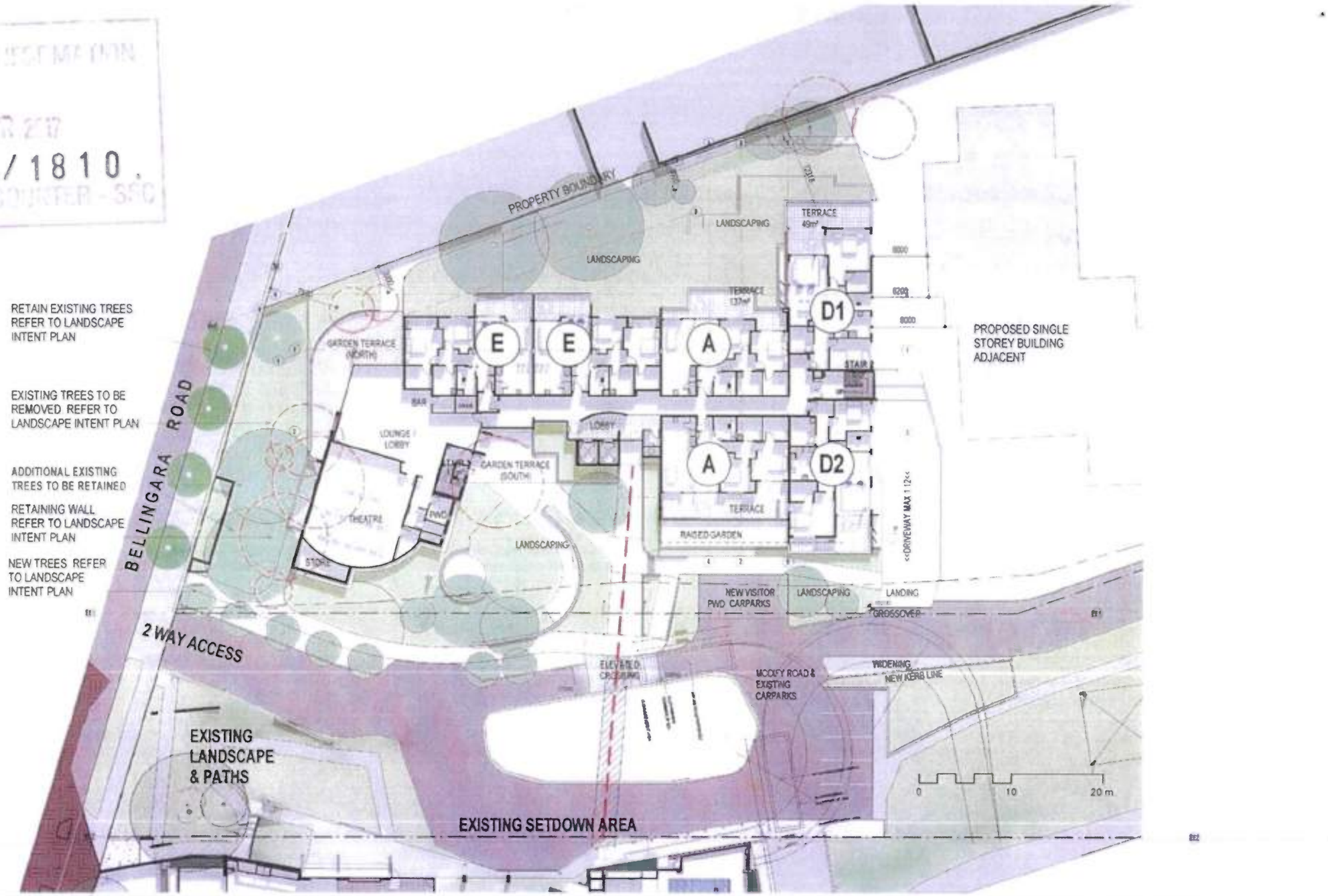
PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS, MIRANDA

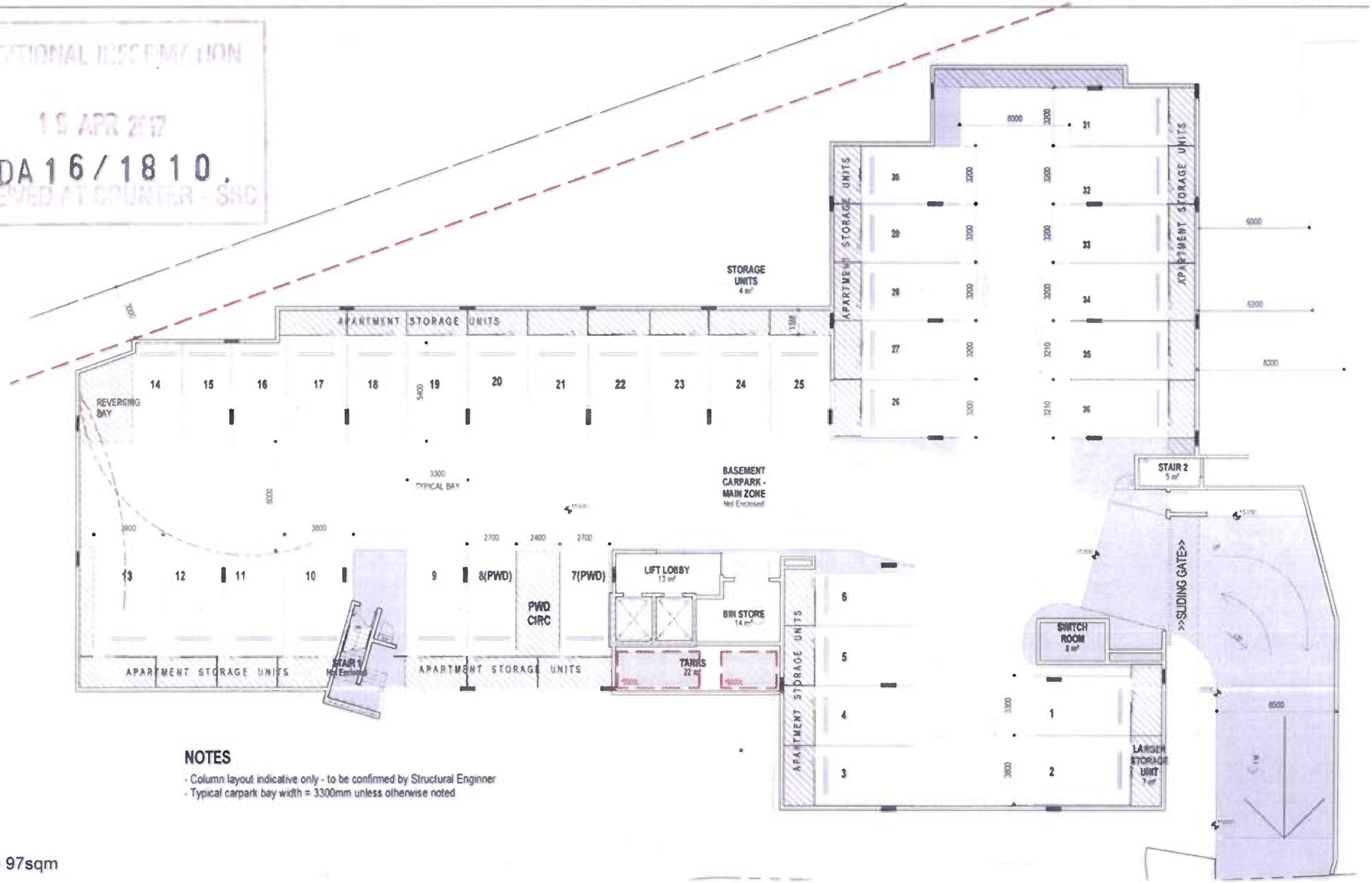
DRAWING TITLE: STREET ELEVATIONS

DATE:	DRAWN:	SCALE:
181222		1 : 200@A1
FILE:		PROJ ARCH:
PROJ:	DRAWING:	REVISION:
1165	DA.08	1

20/12/2016 12:48:10

ADDITIONAL INFORMATION
19 APR 2017
DA16/1810.
RECEIVED AT COUNTER - SSC

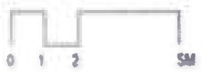




NOTES

- Column layout indicative only - to be confirmed by Structural Enginner
- Typical carpark bay width = 3300mm unless otherwise noted

GFA = 97sqm



REV	DATE	DETAILS	INITIALS
5	19/06/17	DA Issue 2 - Response to RFIs	
4	11/06/17	REVISED NOTATIONS	
3	10/04/17	REVISED SETBACKS	
2	08/04/17	REVISED CAR PARK LAYOUT	
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE

CLIENT: HammondCare

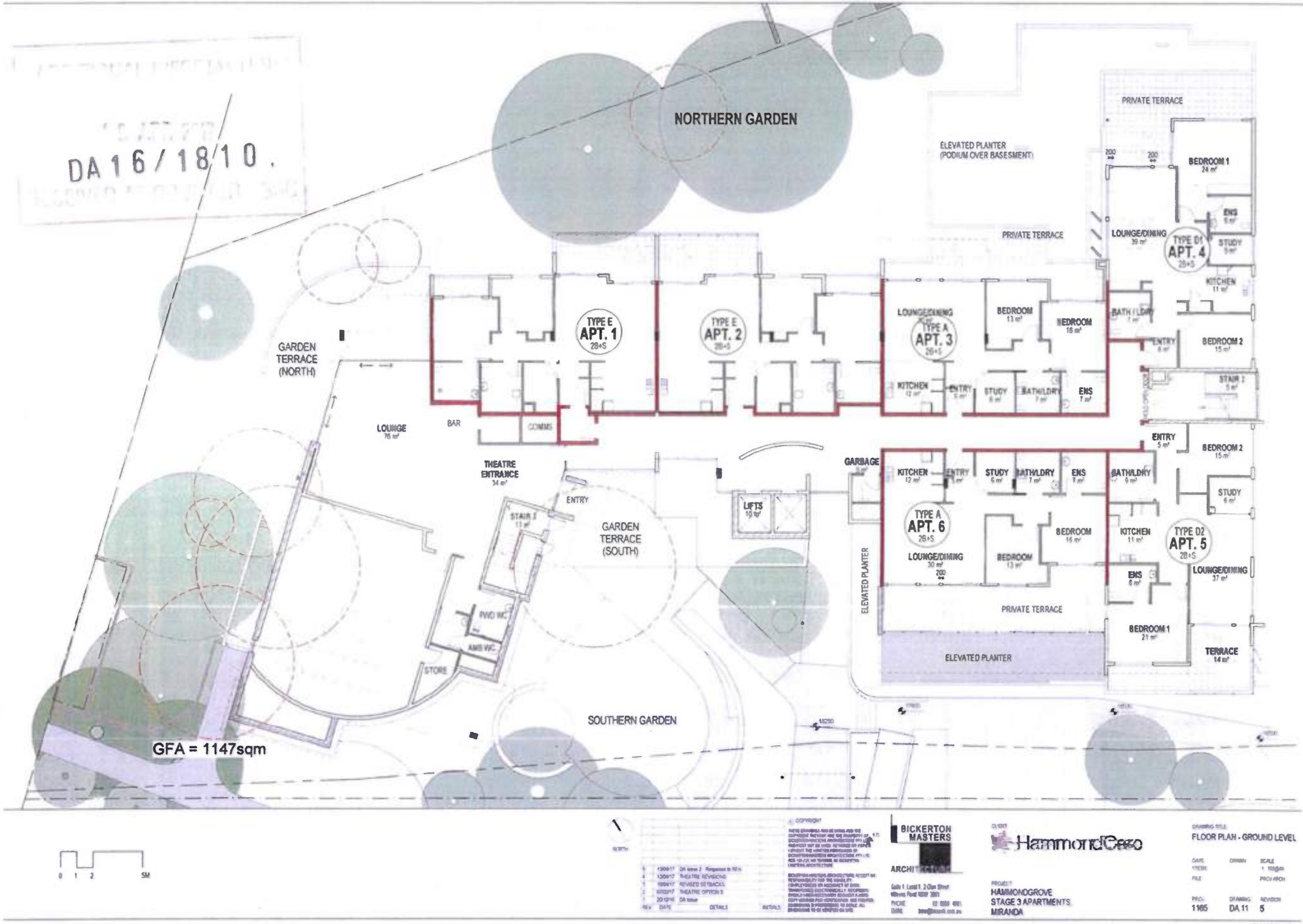
PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS MIRANDA

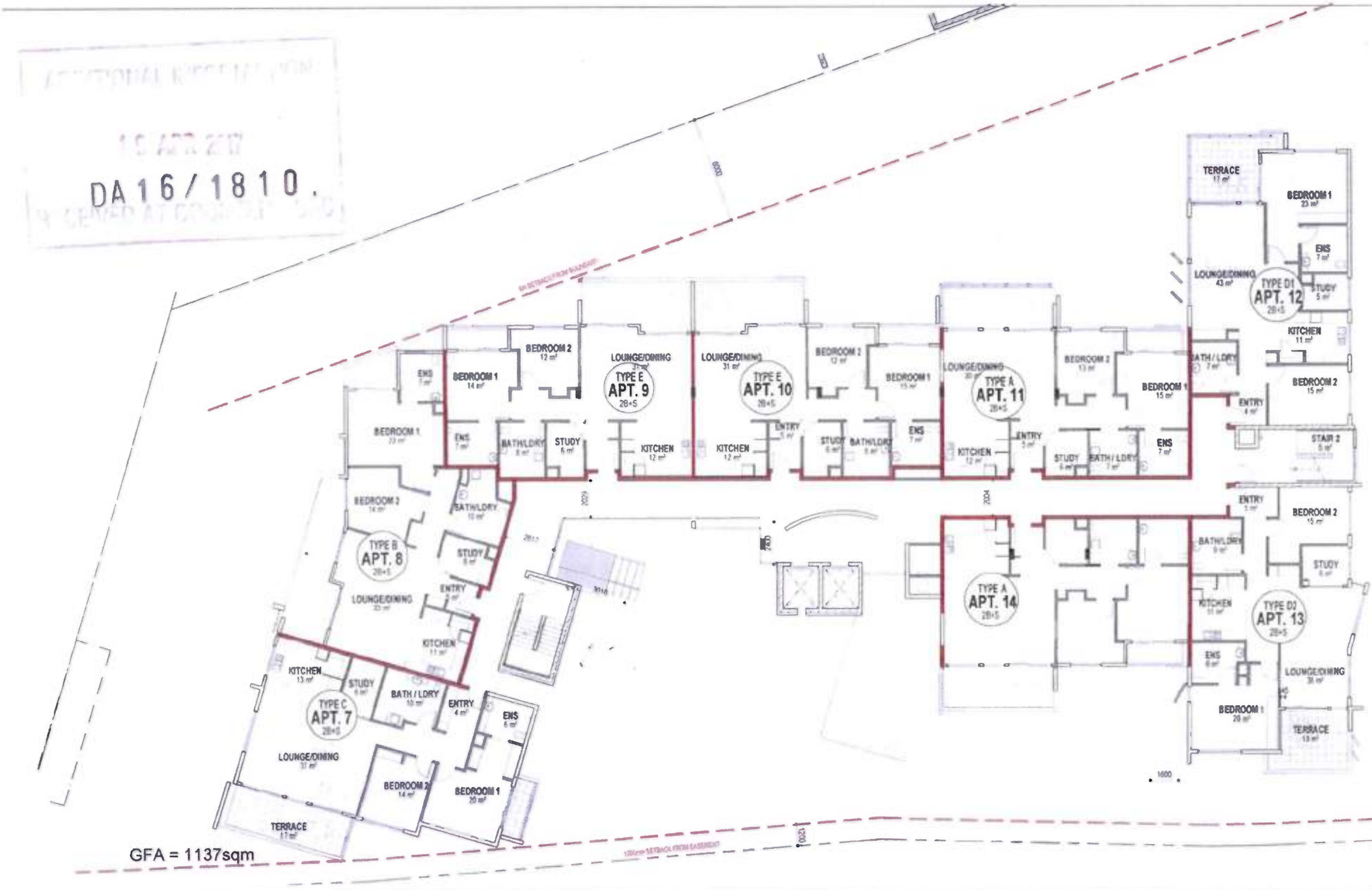
DRAWING TITLE: FLOOR PLAN - BASEMENT

SCALE: 1:100@A1

PROJECT: 1165 DRAWING: DA 10 REVISION: 5

DA16/1810.


NORTHERN GARDEN
ELEVATED PLANTER (PODIUM OVER BASESMENT)
PRIVATE TERRACE
BEDROOM 1
24 m²
ENS
6 m²
LOUNGE/DINING
39 m²
TYPE D1
APT. 4
2B+S
STUDY
9 m²
KITCHEN
11 m²
PRIVATE TERRACE
GARDEN TERRACE (NORTH)
TYPE E
APT. 1
2B+S
TYPE E
APT. 2
2B+S
LOUNGE/DINING
30 m²
TYPE A
APT. 3
2B+S
BEDROOM
13 m²
BEDROOM
16 m²
BATH / LDRY
7 m²
ENTRY
5 m²
BEDROOM 2
15 m²
STAIR 2
5 m²
KITCHEN
12 m²
ENTRY
5 m²
STUDY
6 m²
BATH/LDRY
7 m²
ENS
7 m²
LOUNGE
76 m²
BAR
COMMS
THEATRE ENTRANCE
34 m²
ENTRY
STAIR 1
11 m²
GARDEN TERRACE (SOUTH)
LIFTS
10 m²
GARBAGE
KITCHEN
12 m²
ENTRY
5 m²
STUDY
6 m²
BATH/LDRY
7 m²
ENS
7 m²
BATH/LDRY
9 m²
ENTRY
5 m²
BEDROOM 2
15 m²
STUDY
6 m²
TYPE A
APT. 6
2B+S
LOUNGE/DINING
30 m²
BEDROOM
13 m²
BEDROOM
16 m²
KITCHEN
11 m²
TYPE D2
APT. 5
2B+S
ENS
6 m²
LOUNGE/DINING
37 m²
ELEVATED PLANTER
PRIVATE TERRACE
BEDROOM 1
21 m²
TERRACE
14 m²
ELEVATED PLANTER
PWD WC
AMB WC
STORE
SOUTHERN GARDEN
GFA = 1147sqm
0 1 2 5M
BICKERTON MASTERS
ARCHITECTS
HammondCare
HAMMONDGROVE
STAGE 3 APARTMENTS
MIRANDA
FLOOR PLAN - GROUND LEVEL
PROJ ARCH
1165
DA 11
5



BICKERTON MASTERS

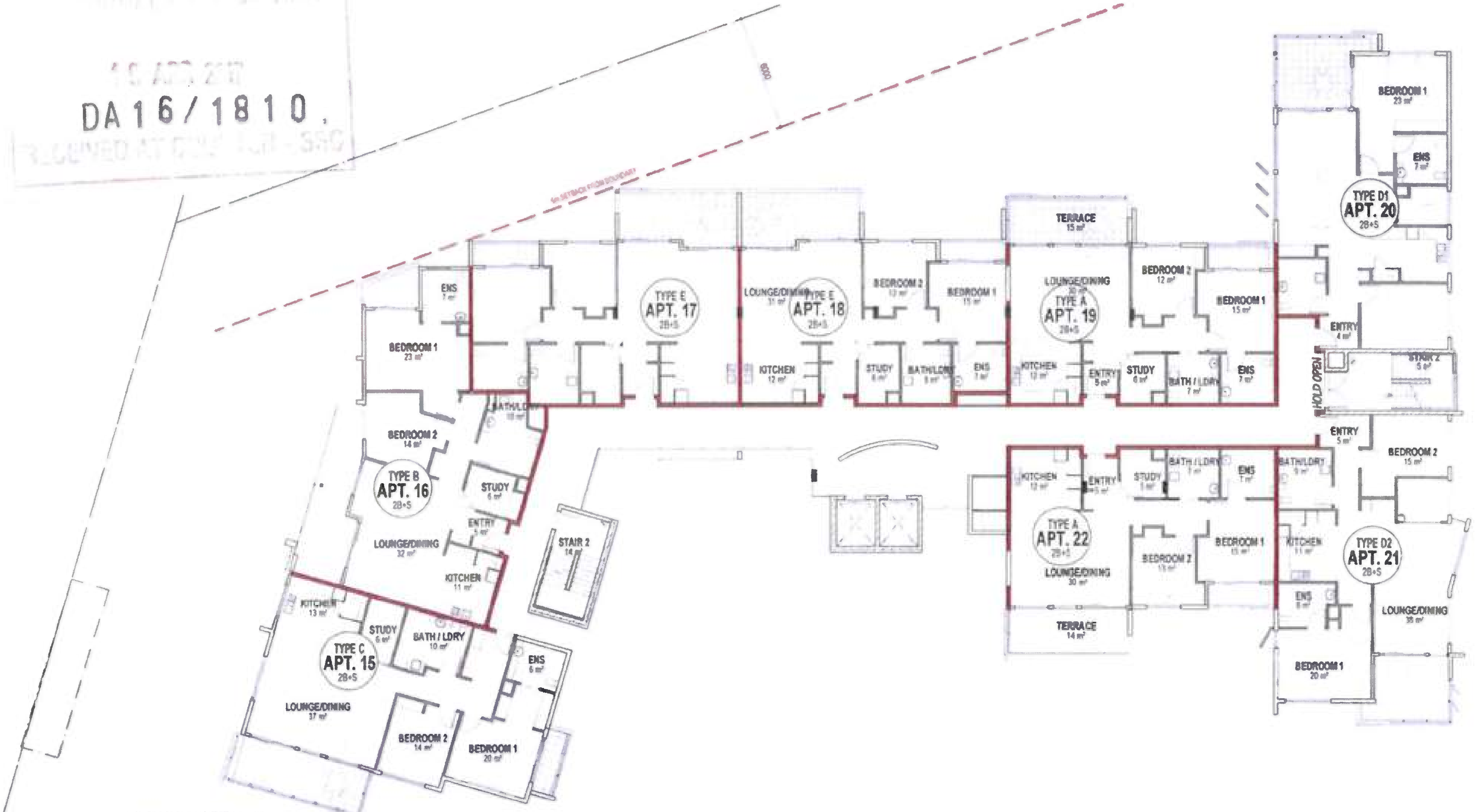
HammondCare

HAMMONDGROVE
STAGE 3 APARTMENTS
MIRANDA

FLOOR PLAN - LEVEL 1

PROJ 1165 | DRAWING DA 12 | REVISION 3

DA16/1810



GFA = 1137sqm

0 1 2 5M

NORTH

REV	DATE	DETAILS	INITIALS
2	13/04/17	DA Issue 2 - Response to RFIs	
1	20/12/16	DA Issue	

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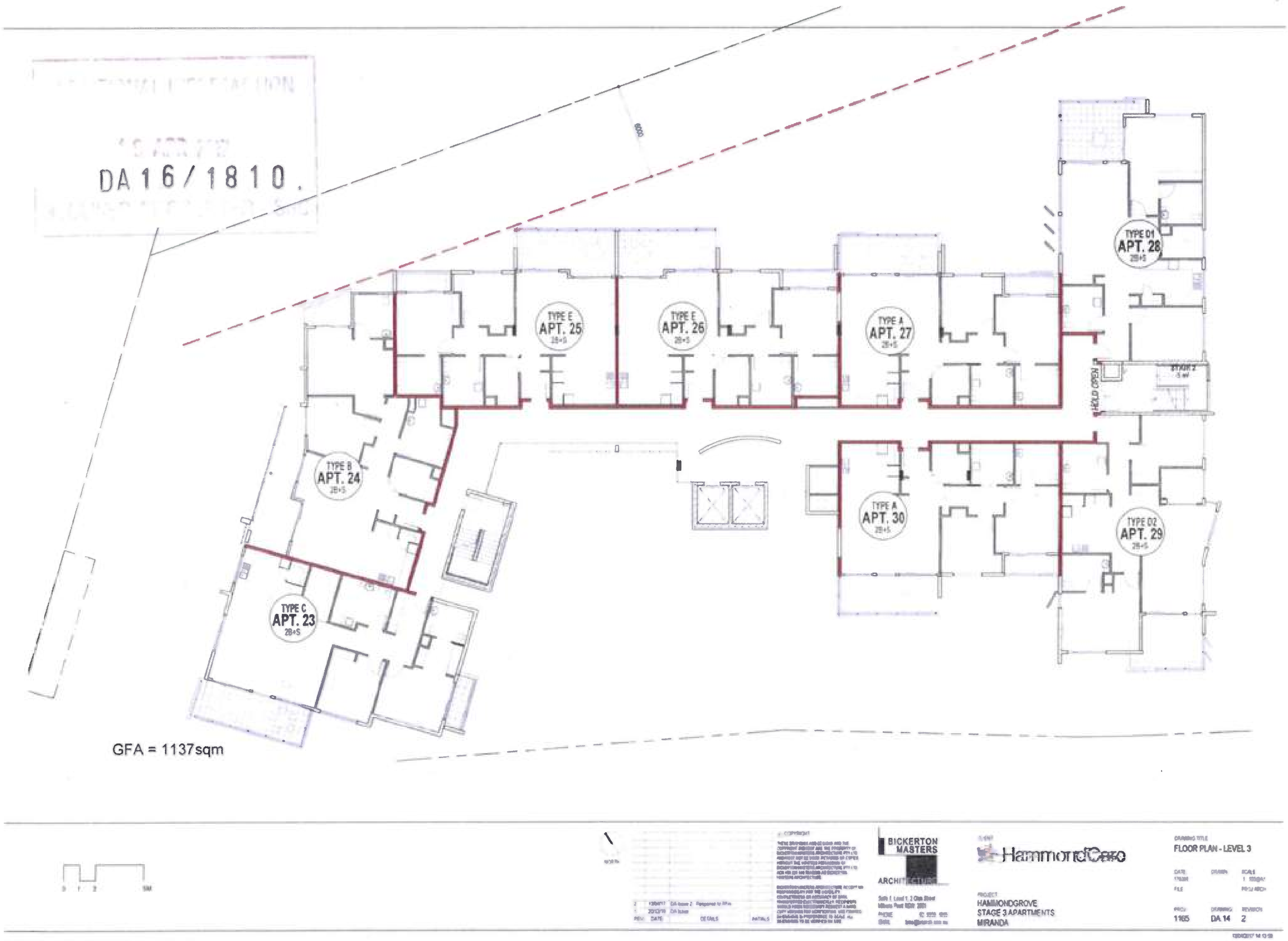
CLIENT: HammondCare

PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS MIRANDA

DRAWING TITLE: FLOOR PLAN - LEVEL 2

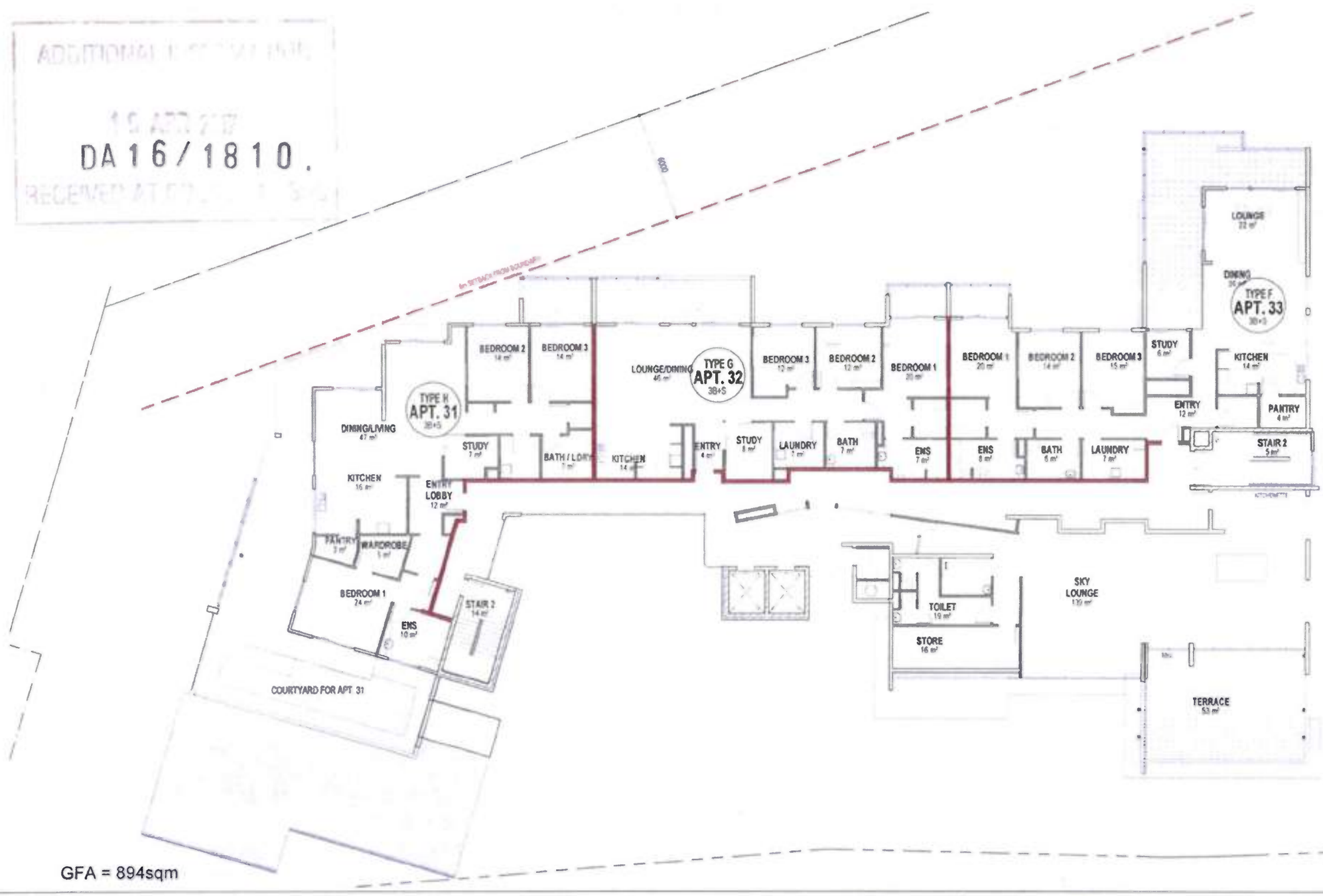
SCALE: 1:100@A1

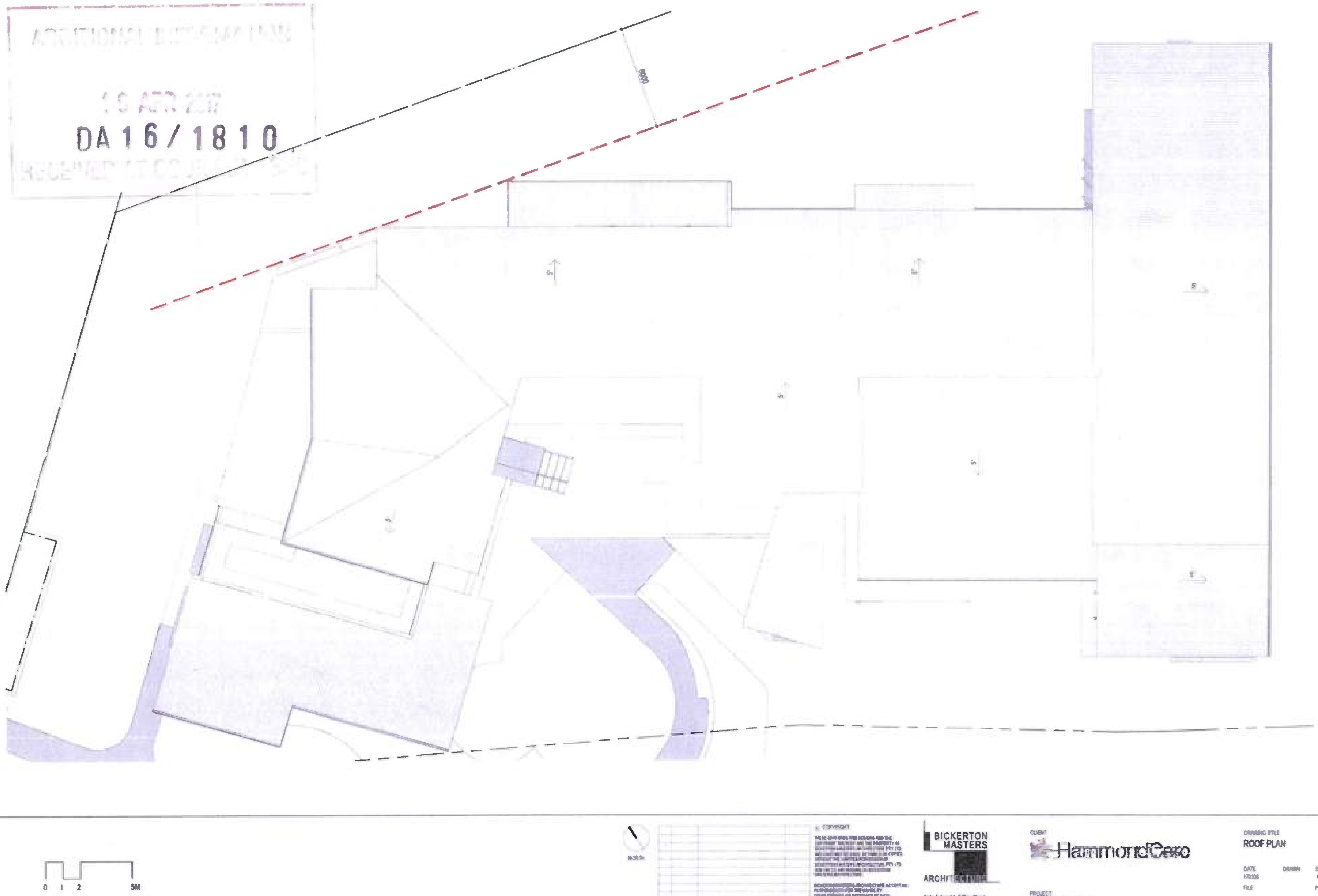
PROJ: 1165 DRAWING: DA 13 REVISION: 2



DA 16/1810.
TYPE E
APT. 25
2B+S
TYPE E
APT. 26
2B+S
TYPE A
APT. 27
2B+S
TYPE D1
APT. 28
2B+S
HOLD OPEN
TYPE B
APT. 24
2B+S
TYPE A
APT. 30
2B+S
TYPE D2
APT. 29
2B+S
TYPE C
APT. 23
2B+S
GFA = 1137sqm
BICKERTON MASTERS
ARCHITECTURE
HammondCare
PROJECT
HAMMONDGROVE
STAGE 3 APARTMENTS
MIRANDA
FLOOR PLAN - LEVEL 3
1165
DA 14
2

ADDITIONAL INFORMATION RECEIVED ON
15 AUG 17
DA16/1810.
RECEIVED AT COUNCIL OFFICES





REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE

CLIENT
HammondCare

PROJECT
HAMMONDGROVE
STAGE 3 APARTMENTS,
MIRANDA

DRAWING TITLE
ROOF PLAN

PROJ	DRAWING	REVISION
1165	DA 16	1

0 1 2 5M

NORTH

REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE
Suite 1, Level 1, 2 Glen Street
Milsons Point NSW 2061
PHONE: 02 9959 4555
EMAIL: bma@bmarch.com.au

CLIENT: HammondCare

PROJECT:
HAMMONDGROVE
STAGE 3 APARTMENTS,
MIRANDA

DRAWING TITLE:
BUILDING SECTIONS

DATE:	DRAWN:	SCALE:
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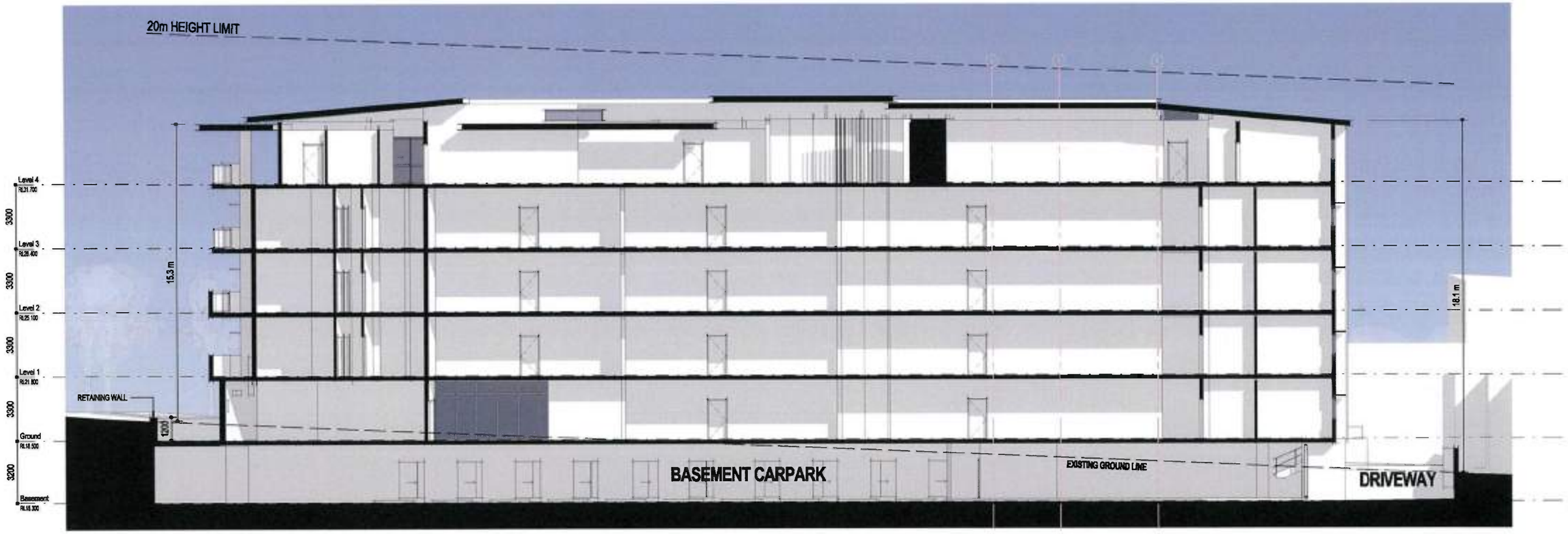
FILE:		PROJ ARCH:
PROJ:	DRAWING:	REVISION:
1165	DA.17	1

20/12/2016 12:50:18



2 SECTION B
1 : 100

0 1 2 5M

NORTH

REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE
Suite 1, Level 1, 2 Glen Street
Milsons Point NSW 2061
PHONE: 02 9959 4655
EMAIL: bma@bmarch.com.au

CLIENT:
HammondCare

PROJECT:
HAMMONDGROVE
STAGE 3 APARTMENTS,
MIRANDA

DRAWING TITLE:
BUILDING SECTIONS

DATE:	DRAWN:	SCALE:
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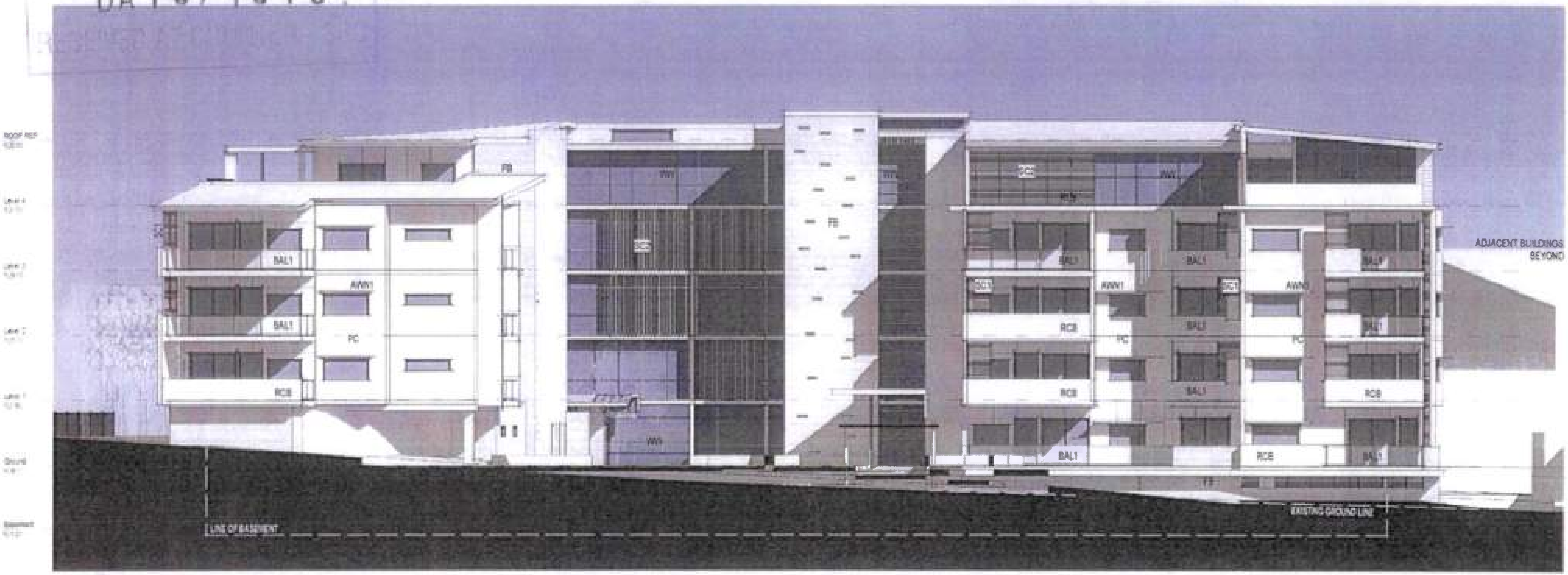
FILE:		PROJ ARCH:
PROJ:	DRAWING:	REVISION:
1165	DA.18	1

20/12/2016 12:50:23

ADDITIONAL INFORMATION

19 APR 2017

DA16/1810



1 South Elevation

EXTERNAL FINISHES

WALLS (GEN)	PC	PANEL CLADDING WITH EXPRESSED JOINTS (PREFINISHED)	WINDOWS		ALUMINIUM FRAMED WITH ANODIZED OR POWDERCOATED FRAME (GREY TINT TO WEST FACING)
	FB	FACEBRICK	SCREENS	SC1	HORIZONTAL ALUMINIUM BLADE - ADJUSTABLE (PRIVACY, SECURITY, WEATHER PROTECTION)
	RCB	CONCRETE /CONCRETE BLOCK WITH APPLIED FINISH (RENDERED)		SC2	VERTICAL ALUMINIUM BATTEN (DECORATIVE/PRIVACY)
	MC	LOW PROFILE METAL CLADDING WITH COLOURBOND FINISH		SC3	TIMBER BATTEN SCREEN (DECORATIVE / PRIVACY)
	WW	ALUMINIUM FRAMED GLAZED WINDOW WALL WITH CLEAR & OPAQUE			
PANELS	ZNC	METAL CLADDING (ZINC FINISH)	AWNINGS	AWN1	SOLID ANODIZED ALUMINIUM WINDOW AWNINGS FOR SHADING
RET. WALLS	FB	FACEBRICK	BALUSTRADES	BAL1	ALUMINIUM FRAMED GLAZED BALUSTRADE
	RCB	CONCRETE /CONCRETE BLOCK WITH APPLIED FINISH (RENDERED)		BAL2	ALUMINIUM FRAMED BALUSTRADE WITH SOLID PANELS
ROOFS		COLORBOND METAL WITH COLORBOND GUTTERS & FASCIAS			

0 1 2 5M

NORTH

REV	DATE	DETAILS	INITIALS
2	13/04/17	DA Issue 2 - Response to RFI's	
1	20/12/16	DA Issue	

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BICKERTON MASTERS ARCHITECTURE

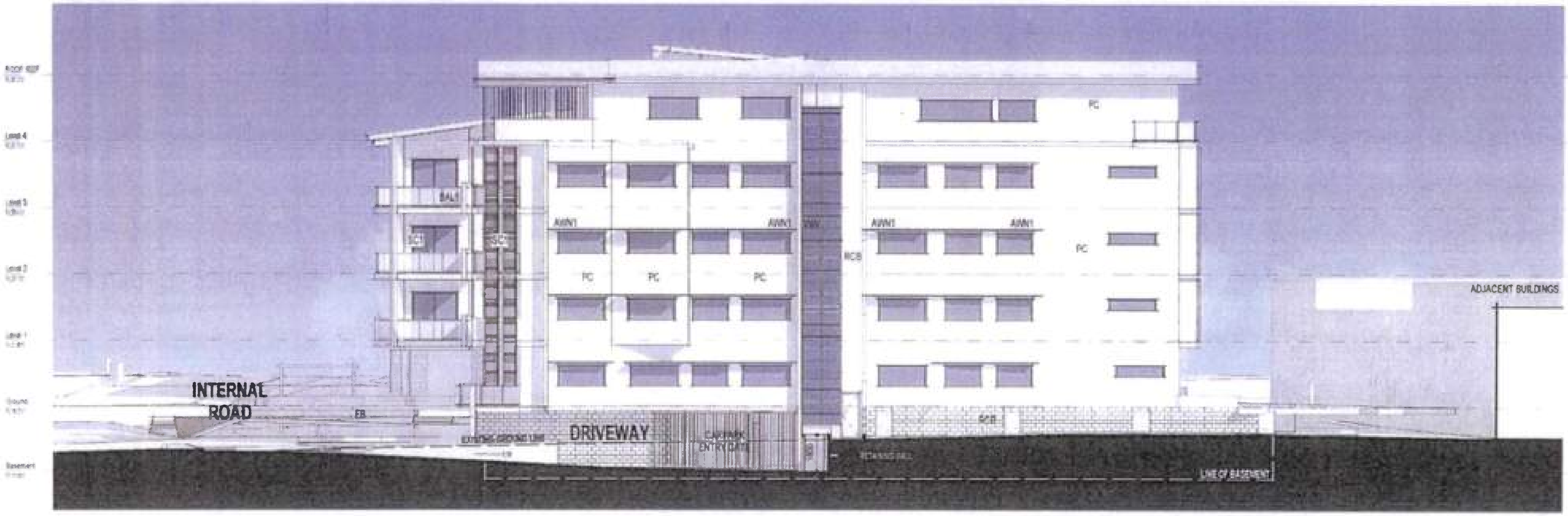
CLIENT: HammondCare

PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS MIRANDA

DRAWING TITLE: EXTERNAL ELEVATIONS - SOUTH

SCALE: As indicated@A1

PROJ: 1165 | DRAWING: DA 19 | REVISION: 2



1 East Elevation

EXTERNAL FINISHES

WALLS (GEN)	PC	PANEL CLADDING WITH EXPRESSED JOINTS (PREFINISHED)	WINDOWS		ALUMINIUM FRAMED WITH ANODIZED OR POWDERCOATED FRAME (GREY TINT TO WEST FACING)
	FB	FACEBRICK			
	RCB	CONCRETE /CONCRETE BLOCK WITH APPLIED FINISH (RENDERED)	SCREENS	SC1	HORIZONTAL ALUMINIUM BLADE - ADJUSTABLE (PRIVACY, SECURITY, WEATHER PROTECTION)
	MC	LOW PROFILE METAL CLADDING WITH COLOURBOND FINISH		SC2	VERTICAL ALUMINIUM BATTEN (DECORATIVE/PRIVACY)
	WW	ALUMINIUM FRAMED GLAZED WINDOW WALL WITH CLEAR & OPAQUE		SC3	TIMBER BATTEN SCREEN (DECORATIVE / PRIVACY)
PANELS					
	ZNC	METAL CLADDING (ZINC FINISH)	AWNINGS	AWN1	SOLID ANODIZED ALUMINIUM WINDOW AWNINGS FOR SHADING
RET. WALLS	FB	FACEBRICK	BALUSTRADES	BAL1	ALUMINIUM FRAMED GLAZED BALUSTRADE
	RCB	CONCRETE /CONCRETE BLOCK WITH APPLIED FINISH (RENDERED)		BAL2	ALUMINIUM FRAMED BALUSTRADE WITH SOLID PANELS
ROOFS		COLORBOND METAL WITH COLORBOND GUTTERS & FASCIAS			

0 1 2 5M

DA 16/1810

SSC

BICKERTON MASTERS ARCHITECTURE

CLIENT HammondCare

PROJECT
HAMMONDGROVE
STAGE 3 APARTMENTS
MIRANDA

DRAWING TITLE
EXTERNAL ELEVATIONS - EAST

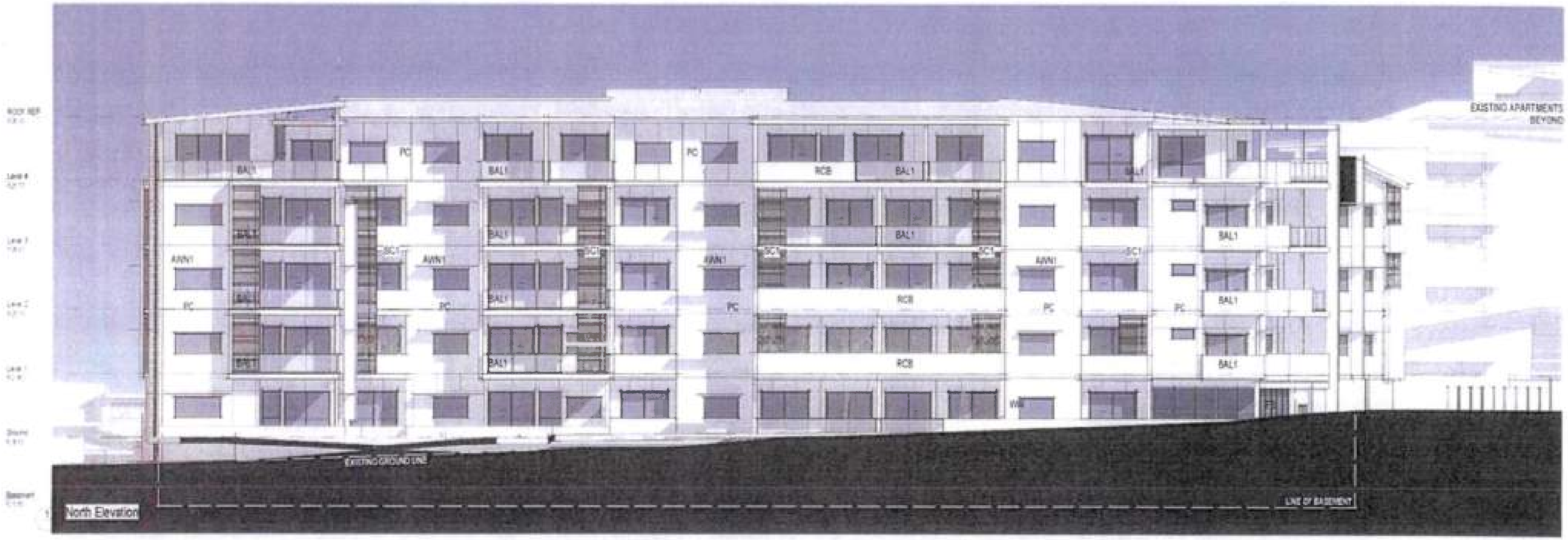
PROJ	DRAWING	REVISION
1165	DA 20	2

ADDITIONAL INFORMATION

19 APR 2017

DA16/1810.

RECEIVED



EXTERNAL FINISHES

WALLS (GEN)	PC	PANEL CLADDING WITH EXPRESSED JOINTS (PREFINISHED)	WINDOWS		ALUMINIUM FRAMED WITH ANODIZED OR POWDERCOATED FRAME (GREY TINT TO WEST FACING)
	FB	FACEBRICK			
	RCB	CONCRETE (CONCRETE BLOCK WITH APPLIED FINISH (RENDERED)	SCREENS	SC1	HORIZONTAL ALUMINIUM BLADE - ADJUSTABLE (PRIVACY, SECURITY, WEATHER PROTECTION)
	MC	LOW PROFILE METAL CLADDING WITH COLOURBOND FINISH		SC2	VERTICAL ALUMINIUM BATTEN (DECORATIVE/PRIVACY)
	WW	ALUMINIUM FRAMED GLAZED WINDOW WALL WITH CLEAR & OPAQUE		SC3	TIMBER BATTEN SCREEN (DECORATIVE / PRIVACY)
PANELS	ZINC	METAL CLADDING (ZINC FINISH)	AWNINGS	AWN1	SOLID ANODIZED ALUMINIUM WINDOW AWNINGS FOR SHADING
RET. WALLS	FB	FACEBRICK	BALUSTRADES	BAL1	ALUMINIUM FRAMED GLAZED BALUSTRADE
	RCB	CONCRETE (CONCRETE BLOCK WITH APPLIED FINISH (RENDERED)		BAL2	ALUMINIUM FRAMED BALUSTRADE WITH SOLID PANELS
ROOFS		COLORBOND METAL WITH COLORBOND GUTTERS & FASCIAS			

0 1 2 5M

BICKERTON MASTERS ARCHITECTURE

HammondCare

PROJECT
HAMMONDGROVE
STAGE 3 APARTMENTS
MIRANDA

DRAWING TITLE
EXTERNAL ELEVATIONS - NORTH

PROJ. 1165 | DRAWING DA.21 | REVISION 2

EXTERNAL FINISHES

WALLS (GEN)	PC	PANEL CLADDING WITH EXPRESSED JOINTS (PREFINISHED)	WINDOWS		ALUMINIUM FRAMED WITH ANODIZED OR POWDERCOATED FRAME (GREY TINT TO WEST FACING)
	FB	FACEBRICK	SCREENS	SC1	HORIZONTAL ALUMINIUM BLADE - ADJUSTABLE (PRIVACY, SECURITY, WEATHER PROTECTION)
	RCB	CONCRETE /CONCRETE BLOCK WITH APPLIED FINISH (RENDERED)		SC2	VERTICAL ALUMINIUM BATTEN (DECORATIVE/PRIVACY)
	MC	LOW PROFILE METAL CLADDING WITH COLOURBOND FINISH		SC3	TIMBER BATTEN SCREEN (DECORATIVE / PRIVACY)
	WW	ALUMINIUM FRAMED GLAZED WINDOW WALL WITH CLEAR & OPAQUE			
PANELS	ZNC	METAL CLADDING (ZINC FINISH)	AWNINGS	AWN1	SOLID ANODIZED ALUMINIUM WINDOW AWNINGS FOR SHADING
RET. WALLS	FB	FACEBRICK	BALUSTRADES	BAL1	ALUMINIUM FRAMED GLAZED BALUSTRADE
	RCB	CONCRETE /CONCRETE BLOCK WITH APPLIED FINISH (RENDERED)		BAL2	ALUMINIUM FRAMED BALUSTRADE WITH SOLID PANELS
ROOFS		COLORBOND METAL WITH COLORBOND GUTTERS & FASCIAS			

0 1 2 5M

DA 16/1810

BICKERTON MASTERS ARCHITECTURE

HammondCare

DRAWING TITLE: EXTERNAL ELEVATION - WEST (STREET)

PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS MIRANDA

PROJ: 1165 DRAWING: DA.22 REVISION: 2

AREA SCHEDULE (APARTMENT TYPES)		
APARTMENT TYPE	DESCRIPTION	INTERNAL AREA (ZONE)
Type A	2Bed+Study	107 m²
Type B	2Bed+Study	121 m²
Type C	2Bed+Study	124 m²
Type D1	2Bed+Study	119 m²
Type D2	2Bed+Study	119 m²
Type E	2Bed+Study	107 m²
Type F	3Bed+Study	182 m²
Type G	3Bed+Study	160 m²
Type H	3Bed+Study	184 m²

1 Apartment - Type C

LEGEND

CT COOKTOP WITH ISOLATING SWITCH
DRY CLOTHES DRYER
DW DISHWASHER
GPO DOUBLE GENERAL PURPOSE POWER OUTLET IN ACCORDANCE WITH AS 4299
LINEN LINEN STORAGE SHELVES IN ACCORDANCE WITH AS 4299
OV OVEN
REF REFRIGERATOR
TEL TELEPHONE OUTLET
WM WASHING MACHINE
COND A/C CONDENSER
- LIGHTING TO LIVING/DINING AND BED 1 TO ALLOW FOR POTENTIAL LUMINANCE OF 300 LUX

0 0.5 1.0 2.5M

BICKERTON MASTERS ARCHITECTURE

CLIENT HammondCare

PROJECT
HAMMONDGROVE
STAGE 3 APARTMENTS
MIRANDA

DRAWING TITLE
APARTMENT TYPE C

PROJ 1165
DRAWING DA.28
REVISION 2

AREA SCHEDULE (APARTMENT TYPES)

APARTMENT TYPE	DESCRIPTION	INTERNAL AREA (ZONE)
Type A	2Bed+Study	107 m²
Type B	2Bed+Study	121 m²
Type C	2Bed+Study	124 m²
Type D1	2Bed+Study	119 m²
Type D2	2Bed+Study	119 m²
Type E	2Bed+Study	107 m²
Type F	3Bed+Study	182 m²
Type G	3Bed+Study	160 m²
Type H	3Bed+Study	184 m²

1 Apartment - Type A

2 Apartment - Type B

0 0.5 1.0 2.5M

LEGEND

CT COOKTOP WITH ISOLATING SWITCH
DRY CLOTHES DRYER
DW DISHWASHER
GPO DOUBLE GENERAL PURPOSE POWER OUTLET IN ACCORDANCE WITH AS 4299
LINEN LINEN STORAGE SHELVES IN ACCORDANCE WITH AS 4299
OV OVEN
REF REFRIGERATOR
TEL TELEPHONE OUTLET
WM WASHING MACHINE
COND A/C CONDENSER
LIGHTING TO LIVING/DINING AND BED 1 TO ALLOW FOR POTENTIAL LUMINANCE OF 300 LUX

REV	DATE	DETAILS	INITIALS
2	13/04/17	DA Issue 2 Response to RFIs	
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE

HammondCare

DRAWING TITLE: APARTMENT TYPES A + B

SCALE: 1:50@A1

PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS MIRANDA

PROJ: 1165 DRAWING: DA.27 REVISION: 2

AREA SCHEDULE (APARTMENT TYPES)		
APARTMENT TYPE	DESCRIPTION	INTERNAL AREA (ZONE)
Type A	2Bed+Study	107 m²
Type B	2Bed+Study	124 m²
Type C	2Bed+Study	129 m²
Type D	2Bed+Study	117 m²
Type E	2Bed+Study	112 m²
Type F	3Bed+Study	186 m²
Type G	**3Bed+Study**	**167 m²**
Type H	3Bed+Study	**184 m²**

1 Apartment - Type C
1:50

0 0.5 1.0 2.5M

LEGEND

CT	COOKTOP WITH ISOLATING SWITCH
DRY	CLOTHES DRYER
DW	DISHWASHER
GPO	DOUBLE GENERAL PURPOSE POWER OUTLET IN ACCORDANCE WITH AS.4299
LINEN	LINEN STORAGE SHELVES IN ACCORDANCE WITH AS.4299
OV	OVEN
REF	REFRIGERATOR
TEL	TELEPHONE OUTLET
WM	WASHING MACHINE

- LIGHTING TO LIVING/DINING AND BED 1 TO ALLOW FOR POTENTIAL ILLUMINANCE OF 300 LUX.

NORTH

REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE
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Milsons Point NSW 2061
PHONE: 02 9959 4855
EMAIL: bma@bmarch.com.au

CLIENT: HammondCare

PROJECT:
HAMMONDGROVE
STAGE 3 APARTMENTS,
MIRANDA

DRAWING TITLE:
APARTMENT TYPE C

DATE:	DRAWN:	SCALE:
161223		1 : 50@A1
FILE:		PROJ ARCH:
PROJ: 1165	DRAWING: DA.28	REVISION: 1

20/12/2016 12:53:45

DA16/1810.

AREA SCHEDULE (APARTMENT TYPES)

APARTMENT TYPE	DESCRIPTION	INTERNAL AREA (ZONE)
Type A	2Bed+Study	107 m²
Type B	2Bed+Study	121 m²
Type C	2Bed+Study	124 m²
Type D1	2Bed+Study	119 m²
Type D2	2Bed+Study	119 m²
Type E	2Bed+Study	107 m²
Type F	3Bed+Study	182 m²
Type G	3Bed+Study	160 m²
Type H	3Bed+Study	184 m²

1 Apartment - Type D1

2 Apartment - Type D2

LEGEND

CT COOKTOP WITH ISOLATING SWITCH
DRY CLOTHES DRYER
DW DISHWASHER
GPO DOUBLE GENERAL PURPOSE POWER OUTLET IN ACCORDANCE WITH AS 4298
LINEN LINEN STORAGE SHELVES IN ACCORDANCE WITH AS 4299
OV OVEN
REF REFRIGERATOR
TEL TELEPHONE OUTLET
WM WASHING MACHINE
COND A/C CONDENSER
LIGHTING TO LIVING/DINING AND BED 1 TO ALLOW FOR POTENTIAL LUMINANCE OF 300 LUX

0 0.5 1.0 2.5m

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CLIENT HammondCare

PROJECT HAMMONDGROVE STAGE 3 APARTMENTS MIRANDA

DRAWING TITLE APARTMENT TYPES D1 + D2

DATE 17/03/16 DRAWN SCALE 1:100@A1 FILE PROJ ARCH

PROJ 1165 DRAWING DA.29 REVISION 2

AREA SCHEDULE (APARTMENT TYPES)		
APARTMENT TYPE	DESCRIPTION	INTERNAL AREA (ZONE)
Type A	2Bed+Study	107 m²
Type B	2Bed+Study	121 m²
Type C	2Bed+Study	124 m²
Type D1	2Bed+Study	119 m²
Type D2	2Bed+Study	119 m²
Type E	2Bed+Study	107 m²
Type F	3Bed+Study	182 m²
Type G	3Bed+Study	160 m²
Type H	3Bed+Study	184 m²

DA 16 / 1810.

1 Apartment - Type E

2 Apartment - Type F

0 0.5 1.0 2.5M

LEGEND

CT COOKTOP WITH ISOLATING SWITCH
DRY CLOTHES DRYER
DW DISHWASHER
GPO DOUBLE GENERAL PURPOSE POWER OUTLET IN ACCORDANCE WITH AS
LINEN LINEN STORAGE SHELVES IN ACCORDANCE WITH AS
OV OVEN
REF REFRIGERATOR
TEL TELEPHONE OUTLET
WM WASHING MACHINE
COND A/C CONDENSER
- LIGHTING TO LIVING/DINING AND BED 1 TO ALLOW FOR POTENTIAL LUMINANCE OF 300 LUX

BICKERTON MASTERS ARCHITECTURE

CLIENT HammondCare

PROJECT HAMMONDGROVE STAGE 3 APARTMENTS MIRANDA

DRAWING TITLE APARTMENT TYPES E + F

PROJ 1165 DRAWING DA.30 REVISION 2

2 Apartment - Type H

1 Apartment - Type G

AREA SCHEDULE (APARTMENT TYPES)

APARTMENT TYPE	DESCRIPTION	INTERNAL AREA (ZONE)
Type A	2Bed+Study	107 m²
Type B	2Bed+Study	121 m²
Type C	2Bed+Study	124 m²
Type D1	2Bed+Study	119 m²
Type D2	2Bed+Study	119 m²
Type E	2Bed+Study	107 m²
Type F	3Bed+Study	182 m²
Type G	3Bed+Study	160 m²
Type H	3Bed+Study	184 m²

LEGEND

CT COOKTOP WITH ISOLATING SWITCH
DRY CLOTHES DRYER
DW DISHWASHER
GPO DOUBLE GENERAL PURPOSE POWER OUTLET IN ACCORDANCE WITH AS 4299
LINEN LINEN STORAGE SHELVES IN ACCORDANCE WITH AS 4299
OV OVEN
REF REFRIGERATOR
TEL TELEPHONE OUTLET
WM WASHING MACHINE
COND A/C CONDENSER
- LIGHTING TO LIVING/DINING AND BED 1 TO
ALLOW FOR POTENTIAL LUMINANCE OF 300 LUX

0 0.5 1.0 2.5M

BICKERTON MASTERS ARCHITECTURE

CLIENT: HammondCare

PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS MIRANDA

DRAWING TITLE: APARTMENT TYPE G + H

PROJ 1165 | DRAWING DA.31 | REVISION 2

APARTMENT STATISTICS

Level	APARTMENT NUMBER	APARTMENT TYPE	DESCRIPTION	INTERNAL AREA (ZONE)	COMPLIANCE - VENTILATION	COMPLIANCE - SOLAR
Ground	1	Type E2	2Bed+Study	105 m²	Yes	Yes
Ground	2	Type D1	2Bed+Study	119 m²	No	Yes
Ground	3	Type A	2Bed+Study	107 m²	No	Yes
Ground	4	Type E	2Bed+Study	107 m²	Yes	Yes
Ground	5	Type D2	2Bed+Study	119 m²	Yes	No
Ground	6	Type A	2Bed+Study	107 m²	Yes	No
Level 1	7	Type C	2Bed+Study	124 m²	Yes	Yes
Level 1	8	Type B	2Bed+Study	121 m²	Yes	Yes
Level 1	9	Type E2	2Bed+Study	105 m²	No	Yes
Level 1	10	Type E	2Bed+Study	107 m²	No	Yes
Level 1	11	Type A	2Bed+Study	106 m²	No	Yes
Level 1	12	Type D	2Bed+Study	119 m²	Yes	Yes
Level 1	13	Type D	2Bed+Study	119 m²	Yes	No
Level 1	14	Type A	2Bed+Study	107 m²	Yes	No
Level 2	15	Type C	2Bed+Study	124 m²	Yes	Yes
Level 2	16	Type B	2Bed+Study	121 m²	Yes	Yes
Level 2	17	Type E	2Bed+Study	105 m²	No	Yes
Level 2	18	Type E	2Bed+Study	107 m²	No	Yes
Level 2	19	Type A	2Bed+Study	106 m²	No	Yes
Level 2	20	Type D	2Bed+Study	119 m²	Yes	Yes
Level 2	21	Type D	2Bed+Study	119 m²	Yes	No
Level 2	22	Type A	2Bed+Study	107 m²	Yes	No
Level 3	23	Type C	2Bed+Study	124 m²	Yes	Yes
Level 3	24	Type B	2Bed+Study	121 m²	Yes	Yes
Level 3	25	Type E	2Bed+Study	106 m²	No	Yes
Level 3	26	Type E	2Bed+Study	107 m²	No	Yes
Level 3	27	Type A	2Bed+Study	106 m²	No	Yes
Level 3	28	Type D	2Bed+Study	119 m²	Yes	Yes
Level 3	29	Type D	2Bed+Study	119 m²	Yes	No
Level 3	30	Type A	2Bed+Study	106 m²	Yes	No
Level 4	31	Type H	3Bed+Study	184 m²	Yes	Yes
Level 4	32	Type G	3Bed+Study	160 m²	Yes	Yes
Level 4	33	Type F	3Bed+Study	182 m²	Yes	Yes
TOTALS					22 (67%)	25 (76%)

Area Schedule (Gross Building)	
Level	Area
Basement	97 m²
Ground	1147 m²
Level 1	1137 m²
Level 2	1137 m²
Level 3	1137 m²
Level 4	894 m²
Grand total	5548 m²

Car Parking Facilites

Basement = 36 carparking bays (includes 2 PWD bays)
Ground Floor = 3 visitor carparking bays (includes 1 PWD bay)

DA 16/1810

BICKERTON MASTERS ARCHITECTURE

CLIENT HammondCare

PROJECT
HAMMONDGROVE
STAGE 3 APARTMENTS
MIRANDA

DRAWING TITLE
AREA SCHEDULES

PROJ 1165 DRAWING DA33 REVISION 2

BASIX®Certificate

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

Multi Dwelling

Certificate number: 779714M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 18/09/2014 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Wednesday, 21 December 2016
To be valid, this certificate must be lodged within 3 months of the date of issue

NSW Planning & Environment

Project summary		
Project name	1714 - 19 Kiama Street, Miranda_02	
Street address	19 Kiama Street Miranda 2228	
Local Government Area	Sutherland Shire Council	
Plan type and plan number	deposited 1097917	
Lot no.	1	
Section no.	-	
No. of residential flat buildings	1	
No. of units in residential flat buildings	33	
No. of multi-dwelling houses	0	
No. of single dwelling houses	0	
Project score		
Water	✔ 42	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 61	Target 30

Certificate Prepared by
Name / Company Name: BCA Energy Pty Ltd
ABN (if applicable): 72 159 518 260

Description of project

Project address	
Project name	1714 - 19 Kiama Street, Miranda_02
Street address	19 Kiama Street Miranda 2228
Local Government Area	Sutherland Shire Council
Plan type and plan number	deposited 1097917
Lot no.	1
Section no.	-
Project type	
No. of residential flat buildings	1
No. of units in residential flat buildings	33
No. of multi-dwelling houses	0
No. of single dwelling houses	0
Site details	
Site area (m²)	3551.47
Roof area (m²)	2796.4
Non-residential floor area (m²)	0.0
Residential car spaces	36
Non-residential car spaces	0

Common area landscape		
Common area lawn (m²)	[illegible]	
Common area garden (m²)	[illegible]	
Area of indigenous or low water use species (m²)	[illegible]	
Assessor details		
Assessor number	[illegible]	
Certificate number	[illegible]	
Climate zone	[illegible]	
Project score		
Water	✔ [illegible]	[illegible]
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ [illegible]	[illegible]

Description of project

The tables below describe the dwellings and common areas within the project

Residential flat buildings - Building1, 33 dwellings, 5 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	117.0	0.0	0.0	0.0
9	2	112.0	0.0	0.0	0.0
13	2	117.0	0.0	0.0	0.0
17	2	112.0	0.0	0.0	0.0
21	2	117.0	0.0	0.0	0.0
25	2	112.0	0.0	0.0	0.0
29	2	117.0	0.0	0.0	0.0
33	3	166.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
2	[illegible]	[illegible]	[illegible]	0.0	0.0
6	2	107.0	0.0	0.0	0.0
10	2	112.0	0.0	0.0	0.0
14	2	107.0	0.0	0.0	0.0
18	2	112.0	0.0	0.0	0.0
22	2	107.0	0.0	0.0	0.0
26	2	112.0	0.0	0.0	0.0
30	2	107.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	124.0	0.0	0.0	0.0
12	2	117.0	0.0	0.0	0.0
16	2	124.0	0.0	0.0	0.0
20	[illegible]	117.0	0.0	0.0	0.0
24	[illegible]	124.0	0.0	0.0	0.0
28	2	117.0	0.0	0.0	0.0
32	[illegible]	167.0	0.0	0.0	0.0

Description of project

The tables below describe the dwellings and common areas within the project

Common areas of unit building - Building1

Common area	Floor area (m²)
Car park area (Basement)	1293.0
Switch room (Basement)	8.0
Lift lobby (Basement)	13.0
Sky lounge (Level 4)	134.0
PWD (Ground)	8.0
Lobby (Level 1)	170.31
Lobby (Level 4)	139.75

Common area	Floor area (m²)
Lift car (No.1)	-
Tank/services (Basement)	22.0
Theatre (Ground)	128.0
Toilet (Level 4)	17.0
Store (Ground)	8.0
Lobby (Level 2)	170.31

Common area	Floor area (m²)
Lift car (No.2)	-
Bin Store (Basement)	14.0
Comms Room (Ground)	9.0
Store (Level 4)	14.0
Lobby and terrace lounge (Ground)	187.59
Lobby (Level 3)	170.31

0 1 2 5M

NORTH

REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS
ARCHITECTURE
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CLIENT: HammondCare

PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS, MIRANDA

DRAWING TITLE: BASIX COMMITMENTS

DATE:	DRAWN:	SCALE:
161220		1 : 100@A1
FILE:		PROJ ARCH
PROJ: 1165	DRAWING: DA 34	REVISION: 1

20/12/2016 12:58:39

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building1
   - (a) Dwellings
     - (i) Water
     - (ii) Energy
     - (iii) Thermal Comfort
   - (b) Common areas and central systems/facilities
     - (i) Water
     - (ii) Energy
2. Commitments for multi-dwelling houses
3. Commitments for single dwelling houses
4. Commitments for common areas and central systems/facilities for the development (non-building specific)
     - (i) Water
     - (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for Residential flat buildings - Building1

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✔	✔	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✔	✔
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✔	✔
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✔	✔
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✔	✔
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✔	✔	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✔	
(g) The pool or spa must be located as specified in the table.	✔	✔	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✔	✔	✔

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All kitchen washers	All bath-washers	Volume (litres volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star	no	-	-	-	-	-	-	-	-	-

Alternative water source								
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection (-)	Laundry connection	Pool top-up	Spa top-up
All dwellings	central water tank (no 1)	See central systems	See central systems	no	yes	no	no	no
None	-	-	-	-	-	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✔	✔	✔
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✔	✔
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✔	✔
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✔	✔

(i) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✔	✔	✔
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump, and		✔	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✔	
(h) The applicant must install in the dwelling			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✔	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✔	✔
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✔	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✔	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	interlocked to light	individual fan, ducted to façade or roof	interlocked to light

NORTH

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REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	BAS X

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CLIENT: HammondCare

PROJECT:
HAMMONDGROVE
STAGE 3 APARTMENTS,
MIRANDA

DRAWING TITLE:
BASIX COMMITMENTS

DATE: 161220 | DRAWN: | SCALE: 1 100@A1
FILE: | PROJ ARCH

PROJ: 1165 | DRAWING: DA 35 | REVISION: 1

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	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
7	1-phase airconditioning 4.5 Star (new rating) (zoned)	1-phase airconditioning 4.5 Star (new rating) (zoned)	1-phase airconditioning 4 Star (new rating) (zoned)	1-phase airconditioning 4 Star (new rating) (zoned)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
8, 12	1-phase airconditioning 4.5 Star (new rating) (zoned)	1-phase airconditioning 4.5 Star (new rating) (zoned)	1-phase airconditioning 4 Star (new rating) (zoned)	1-phase airconditioning 4 Star (new rating) (zoned)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes
5, 6, 13, 14	1-phase airconditioning 4.5 Star (new rating) (zoned)	1-phase airconditioning 4.5 Star (new rating) (zoned)	1-phase airconditioning 4 Star (new rating) (zoned)	1-phase airconditioning 4 Star (new rating) (zoned)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes
1, 2, 3, 4, 9, 10, 11, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33	1-phase airconditioning 4.5 Star (new rating) (zoned)	1-phase airconditioning 4.5 Star (new rating) (zoned)	1-phase airconditioning 4 Star (new rating) (zoned)	1-phase airconditioning 4 Star (new rating) (zoned)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Individual pool		Individual spa		Appliances & other efficiency measures						
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Wall mantounard fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	-	-	-	no	no

[H] Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.			
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.			
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✔	✔
(g) Where there is an in-slab heating or cooling system, the applicant must (aa) install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab, or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✔	✔	✔
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✔	✔	✔

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
1	36.0	31.0
2	19.0	15.0
3	24.0	17.0
5	43.0	33.0
6	53.0	22.0
7	25.0	33.0
9	20.0	16.0
11	17.0	19.0
12	19.0	52.0
13	32.0	36.0
14	43.0	24.0
15	26.0	32.0
17	13.0	18.0
19	17.0	18.0
21	33.0	36.0
22	44.0	23.0
23	42.0	28.0
24	12.0	30.0
25	16.0	15.0
26	16.0	14.0
27	20.0	15.0
28	23.0	43.0
29	37.0	31.0
30	48.0	20.0
31	37.0	21.0
32	35.0	21.0
33	51.0	29.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
4, 20	19.0	51.0
8, 16	12.0	31.0
All other dwellings	13.0	17.0

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NORTH

REV	DATE	DETAILS	INITIALS
1	20/12/16	DA Issue	

BICKERTON MASTERS ARCHITECTURE
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CLIENT: HammondCare

PROJECT:
HAMMONDGROVE
STAGE 3 APARTMENTS,
MIRANDA

DRAWING TITLE:
BASIX COMMITMENTS

DATE:	DRAWN:	SCALE:
161220		1 : 100@A1
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(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	not specified

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	5000.0	To collect run-off from at least: - 2796.4 square metres of roof area of buildings in the development - 0.0 square metres of impervious area in the development - 1534.6 square metres of garden/lawn area in the development - 0.0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 1534.6 square metres of common landscaped area on the site - car washing in 1 car washing bays on the site
Fire sprinkler system (No. 1)	-	-	-

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(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✔	✔
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✔	✔	✔

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park area (Basement)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	time clock and motion sensors	No
Lift car (No.1)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No 2)	-	-	light-emitting diode	connected to lift call button	No
Switch room (Basement)	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Tank/services (Basement)	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Bin Store (Basement)	no mechanical ventilation	-	fluorescent	motion sensors	No
Lift lobby (Basement)	no mechanical ventilation	-	light-emitting diode	motion sensors	No
Theatre (Ground)	air conditioning system	time clock or BMS controlled	light-emitting diode	motion sensors	No
Comms Room (Ground)	no mechanical ventilation	-	light-emitting diode	manual on / manual off	No
Sky lounge (Level 4)	air conditioning system	time clock or BMS controlled	light-emitting diode	motion sensors	No
Toilet (Level 4)	ventilation exhaust only	time clock or BMS controlled	light-emitting diode	manual on / manual off	No
Store (Level 4)	no mechanical ventilation	-	light-emitting diode	manual on / manual off	No
PWD (Ground)	no mechanical ventilation	-	light-emitting diode	manual on / manual off	No
Store (Ground)	no mechanical ventilation	-	light-emitting diode	manual on / manual off	No
Lobby and terrace lounge (Ground)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	No

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	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Lobby (Level 1)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	No
Lobby (Level 2)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	No
Lobby (Level 3)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	No
Lobby (Level 4)	no mechanical ventilation	-	light-emitting diode	time clock and motion sensors	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	gas-fired boiler	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm), (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 5
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 5

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4. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table		✔	✔
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table	✔	✔	✔
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✔	✔	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✔	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table		✔	✔
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table		✔	✔

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	not specified

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified		✔	✔
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified		✔	✔
(c) The applicant must install the systems and [illegible] column of the table below. In each case, the system or fixture must be of the [illegible] listed for it in the table.	✔	✔	✔

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1	20/12/16	DA Issue	

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PROJECT: HAMMONDGROVE STAGE 3 APARTMENTS, MIRANDA

DRAWING TITLE: BASIX COMMITMENTS

DATE: 161220 | DRAWN: | SCALE: 1 : 100@A1
FILE: | PROJ ARCH.
PROJ: 1165 | DRAWING: DA.37 | REVISION: 1

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Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (kW) not less than 0.5 kW

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building)
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply

Legend

1. Commitments identified with a "✔" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✔" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✔" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled)

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NORTH

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HAMMONDGROVE
STAGE 3 APARTMENTS,
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DATE:	DRAWN:	SCALE:
161220		1 : 100@A1
FILE :		PROJ ARCH:

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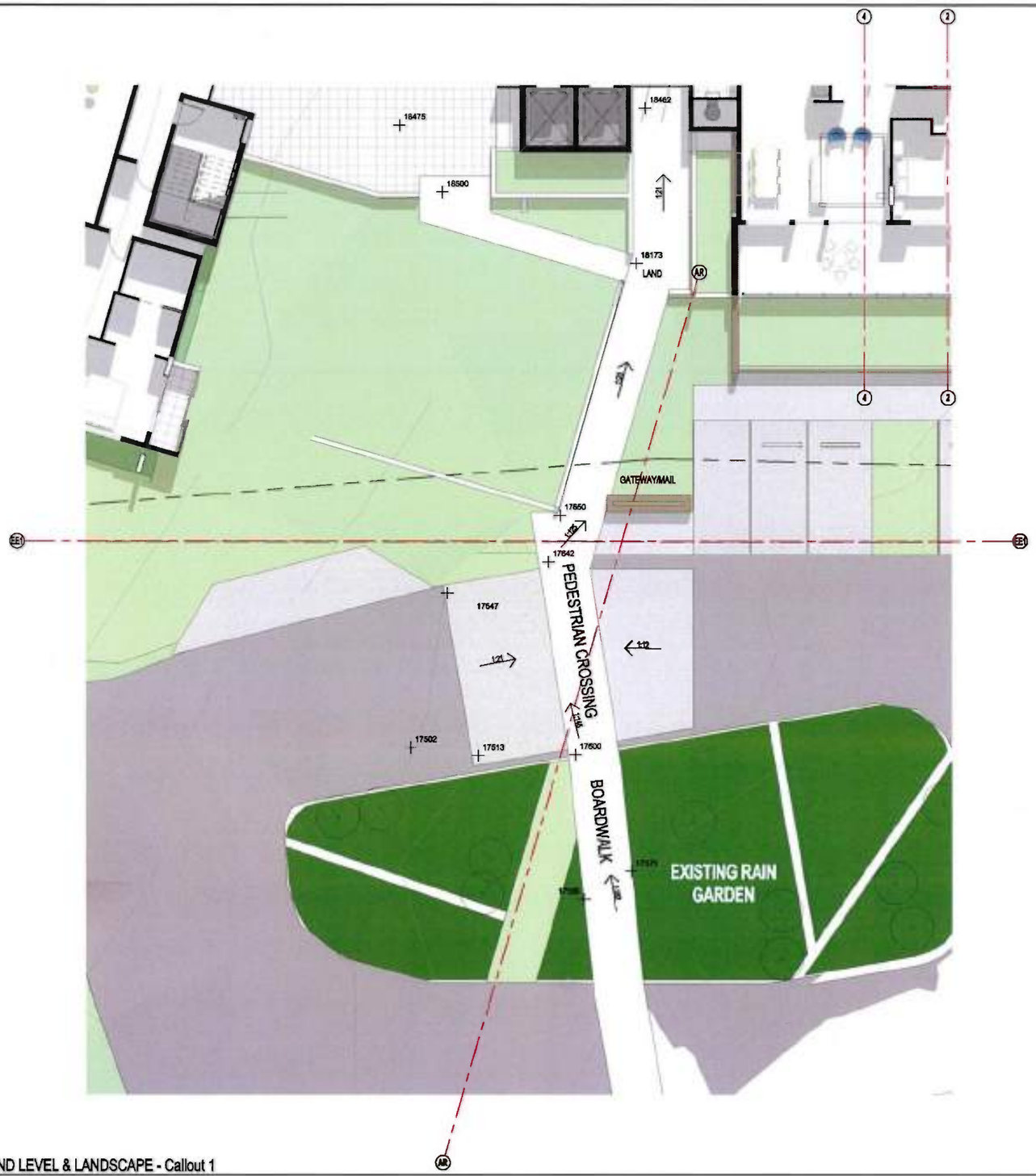

1 DA.09 FLOOR PLAN - GROUND LEVEL & LANDSCAPE - Callout 1
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NORTH

REV	DATE	DETAILS	INITIALS
1	09/02/17	EXTERNAL ACCESS SKETCH	

BICKERTON MASTERS ARCHITECTURE

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PROJECT:
HAMMONDGROVE
STAGE 3 APARTMENTS,
MIRANDA

DRAWING TITLE:
EXTERNAL ACCESS

DATE:	DRAWN:	SCALE:
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APPROX. SITE COVERAGE

ORIGINAL BUILDING 1	585sqm
ORIGINAL BUILDING 2	665sqm
ORIGINAL BUILDING 3	705sqm
TOTAL	1955sqm
PROPOSED STAGE 3A	1,145sqm
PROPOSED STAGE 3B	805sqm
TOTAL	1,950sqm
OVERLAP WITH ORIGINAL BLDGS 1 + 2 +3	1,125sqm
AREA OUTSIDE BLDGS 1 + 2 + 3 FOOTPRINT	825sqm

APPROX. GFA

ORIGINAL BUILDING 1 (4-5 LEVELS)	2,635sqm
ORIGINAL BUILDING 2 (5-6 LEVELS)	3,660sqm
ORIGINAL BUILDING 3 (4-5 LEVELS)	3,175sqm
TOTAL	9,470sqm
PROPOSED STAGE 3A	5,550sqm
PROPOSED STAGE 3B	535sqm
TOTAL	6,085sqm
OVERLAP WITH ORIGINAL BLDGS 1 + 2 + 3	3,520 sqm
AREA OUTSIDE BLDGS 1 + 2 +3 FOOTPRINT	2,725sqm

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EXISTING INDUSTRIAL BLDGS

STAGE 3A

STAGE 3B

STAGE 3C
(FUTURE DEVELOPMENT)

1 2 3 4 5

STAGE 3

BELLINGARA RD

KIAMA ST

EXISTING STAGE 2

EXISTING STAGE 1

DA16/1810

BICKERTON MASTERS ARCHITECTS

HammondCare

HAMMONDGROVE
STAGE 3 APARTMENTS
MIRANDA

MASTERPLAN OVERLAY

1165 DA MP 021

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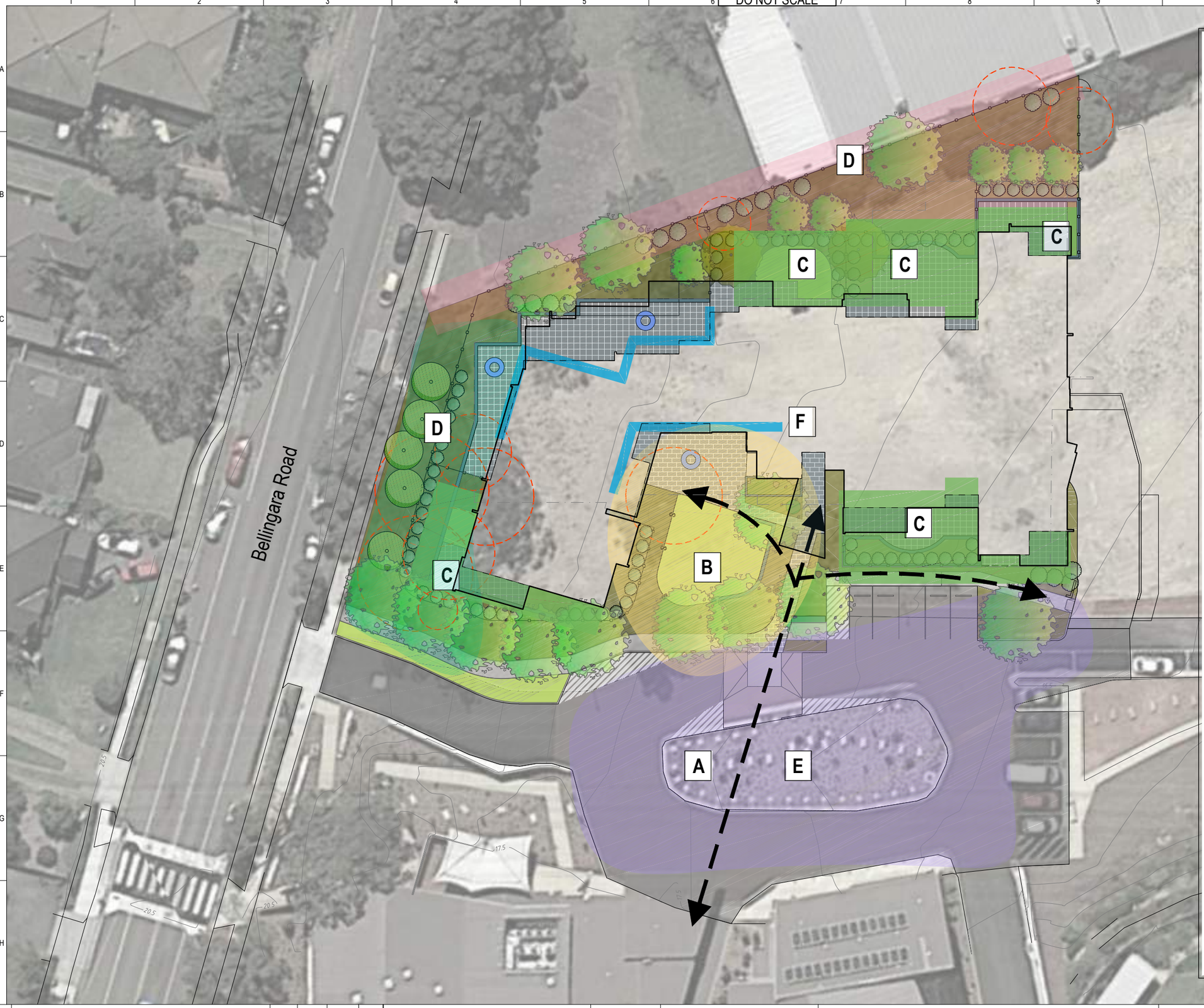

LANDSCAPE PRINCIPLES

General
The overall landscape design intent is to provide a garden setting to the proposed apartment building which will provide residents with pleasure and delight, comfortable and convenient paths of movement around the larger site and a strong sense of familiarity with garden settings that they would likely have experienced in earlier life. The landscape is designed with the needs of people with decreasing levels of mobility, flexibility, and possible reducing cognition, in mind.

Tree retention/compensation
There are a number of existing trees on the site, including Eucalypts, Casuarina, Pittosporum and Camphor Laurels (refer Arborist's report). In addition, there are four Melaleuca quinquenervia on the Bellingara Road footpath directly in front of the site.

Trees to be removed are -
The eucalypts to the Bellingara Road side of the proposed building. These are to be removed because the excavation proposed for the building and basement, plus the additional groundworks required to provide an external ground level below internal floor level, will impact on the critical root zones to an extent that will mean that they are no longer viable in the short-mid term.
Existing vegetation along the northern boundary. Weed species (Camphor Laurel) will be removed. The Pittosporum will be retained. Of two Casuarina in this area, it is proposed to retain the specimen to the west, which will be located within a communal area. The specimen to the east is proposed for removal because it is judged to be an unsuitable tree to accommodate in a small private garden.
Trees to the south of the proposed building. In this area there are two Casuarina. One is directly impacted by the building footprint, and so will be removed. A second Casuarina close to the roadway will be retained.
A number of new trees in excess of those being removed - and of species which will be more appropriate to the new development - will be planted as part of the development. Refer to the Landscape Plan.

A Strong connection
The ability of the residents in the new apartments to access the existing facilities in Stage Two - and in the proposed Social Club to be built to the east - will be supported with accessibly graded, firm pavements, clear lines of sight and improved safety in road crossings. These routes will also be lit and shaded by new tree planting.

B Communal spaces
On approach to the new apartment building, a communal garden will be located to the north-west of the main entry. The garden components include lawn, high quality pavement, furniture, planting and a water feature. The style is relaxed and quietly traditional. Glazed doors and windows provide access and a visual connection through to interior communal spaces. This spatial continuity continues through the building to a second terrace on the northern side, which will suit social gatherings in a more enclosed setting.

C Appropriate private gardens
Ground floor apartments will have gardens, with planting and areas of pavement for the placement of outdoor furniture. The gardens have been designed with the aim of them being generous in size, but not so large that their maintenance will become onerous. Staff on site will assist in aspects of garden maintenance as necessary.
In part these ground floor apartment gardens occur directly above the basement carpark, so soil levels will have to be built up over the structure. The walls which will contain these raised garden beds will be approximately 600-700 mm high and so will provide comfortable gardening opportunities for people with reduced mobility and flexibility.

D Planted boundaries
Boundary planting to the north and west of the proposed building is part of the overall landscape approach. To the north the planting will provide visual privacy and enhancement of the views on to the industrial landuses in that direction. Plant selection will incorporate evergreen large shrubs/small trees for a year-round screening, with taller, deciduous trees for scale, higher level summer screening and summer shade, and access to winter sunshine.
To the west the planting approach will be based on a palette of native species. The reasons for this include the re-instatement of the Eucalypts which will have been removed, theme continuity with other plantings existing on site and the Melaleuca on the footpath, provision of habitat and year-round protection from western sun.

E Supporting existing WSUD
The existing rain garden which forms a central road island will be retained. Minor adjustments to the kerb and re-arrangement of planting will be undertaken to enable construction of a path which will provide pedestrian access between the major destinations south and north. The path will take the form of a low level boardwalk, enabling retention of the rain garden conditions beneath. Seating will be provided mid-way along this path as a resting opportunity for those walking between the facilities.

F Planting integrated with the building
Containerised planting is to be incorporated into a section of the building's south elevation to provide an attractive emphasis to the building entrance.

No.	Revision - Revise on CAD do not amend by hand	Checked	Approved	Date	M/Film
A	ISSUED FOR DA	PP	PK	15/12/16	

Status: ISSUED FOR DA
A1 UNREDUCED

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Drawn	NB/CN	Designed	PK
Drafting Check	PK	Design Check	PP
Approved	NOT FOR CONSTRUCTION		

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Client and Job: HammondCare
HammondCare Miranda Stage 3 Apartments Landscape Works

Title: Landscape Principles

Drg. No. 2638-DA/L-001 70

Size: A1

Rev: A

DO NOT SCALE

PLANTING PALETTE

Street Trees and Feature Entry Trees	
Up	Ulmus parvifolia - Chinese Elm
Gb	Ginkgo biloba - Ginkgo

Deciduous Trees	
DT	Ulmus parvifolia - Chinese Elm
	Ginkgo biloba - Ginkgo
	Nyssa sylvatica - Tupelo
	Pistacia chinense - Pistacia

Native Trees	
NT	Angophora costata - Sydney Red Gum
	Elaeocarpus reticulatus - Blueberry Ash
	Eucalyptus haemastoma - Scribbly Bark

Hedging	
H	Acmena smithii "Hot Flush"- Lili Pili
	Camellia sasanqua cultivars - Camellia

Large Shrubs	
LS	Banksia ericolia - Banksia
	Cordyline australis - Cabbage Tree
	Syzigium luemannii - Lili Pili
	Strelitzia nicolai - Bird of Paradise

Small Shrubs, Groundcover and Climbers
Private Gardens
Acanthus mollis - Bears Breeches
Convolvulus mauritanicus - Morning Glory
Hypericum calycinum - Hypericum
Parthenocissus tricuspidata - Boston Ivy
Lavandula stoechas - Lavender
Rosmarinus offcianalis - Rosemary
Rosa cultivars - Rose
Cilvea miniata - Clivea
Agapanthus orientalis - Agapanthus
Liriope muscari - Muscari
Public Area Gardens
Agapanthus orientalis - Agapanthus
Convolvulus mauritanicus - Morning Glory
Rosmarinus offcianalis - Rosemary
Cordyline fruticosa - Palm Lily

Small Shrubs, Groundcover and Climbers	
Feature Entry Planting	**North Screen Planting**
Rosa cultivars - Rose	Lomandra "Tanika"- Lomandra
Cilvea miniata - Clivea	Melaleuca hypericifolia - Melaleuca
Agapanthus orientalis - Agapanthus	Westringia fruicosa - Coast Rosemary
Begonia spp - Begonia	Agapanthus orientalis - Agapanthus
Agave attenuata - Agave	Strelitzia juncea - Bird of Paradise
Strelitzia juncea - Bird of Paradise	Parthenocissus tricuspidata - Boston Ivy
Native Planting	
Lomandra "Tanika"- Lomandra	
Melaleuca hypericifolia - Melaleuca	
Westringia fruicosa - Coast Rosemary	

LEGEND

- Irrigated Lawn
- Mass Planted Areas
- Steel Garden Edge
- Proposed Shrub as indicated
- Proposed Tree as indicated
- Existing Tree to be Retained*
- Existing Tree to be Removed*
- Tree Protection Zone*
- Concrete Pavement - Reinforced, Coloured, Broom Finished
- Precast Concrete Pavers Over Concrete Base
- Stone or Ceramic Tiled Over Concrete Base
- Composite Fibre Deck Surface
- Concrete Road Surface to Match Existing
- Asphalt Vehicular Pavement
- Proposed Kerb and Gutter
- Timber/Faux Timber Garden Fencing
- Retaining Wall - Stone Faced to Public Face, Rendered and Painted to Private Face
- Seats with Central Planter
- Bench Seats with Back

* Refer to Arborist's Report

No.	Revision - Revise on CAD do not amend by hand	Checked	Approved	Date	M/Film
B	ISSUED FOR DA	PP	PK	19/12/16	-
A	ISSUED FOR DA				

SCALE 1:150

A1 UNREDUCED

Status: ISSUE FOR DA

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Scale 1:150 @ A1

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Drafting Check PK | Design Check PP

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Client and Job: HammondCare
HammondCare Miranda Stage 3 Apartments Landscape Works

Title: Materials, Finishes and Planting

Drg. No. 2638-DA/L-002 | Size A1 | Rev B

DO NOT SCALE

MATERIALS, FURNITURE AND PLANTING IMAGES

Ground Surfaces

Grey Tile

Concrete Paver

Concrete Pavement

Suspended Bridge

Walls

Rendered / Capped

Stone Veneer

Furniture

Seats

Planting

Native Species

No.	Revision - Revise on CAD do not amend by hand	Checked	Approved	Date	M/Film	
A	ISSUED FOR DA	PP	PK	15/12/16	-	ISSUED FOR DA

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Drawn	NB/CN	Designed	PK
Drafting Check	PK	Design Check	PP

Approved

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Client and Job: HammondCare
HammondCare Miranda Stage 3 Apartments Landscape Works

Title: Images

Drg. No. 2638-DA/L-003 72

Size A1

Rev A

Soil and Water Managenent Legend

- Construct temporary sediment fence
- Install sandbag sediment traps
- Install sediment trap for drop inlet
- Construct temporary stabilised site entry with shaker grid
- Construct temporary sediment basin

Refer to Landscape architect's plans for tree removal

Construct temporary stabilised site entrance with shaker grid at existing site entrance location. Refer detail on drawing 0011 (typ)

Construct temporary sediment fence around perimeter of site. Refer detail on drawing 0011 (typ)

Provide temporary sediment trap for drop inlet (geotextile filter fabric). Refer detail on drawing 0011 (typ)

Indicative location of temporary sediment basin. Details to be confirmed during detailed design stage.

Provide temporary sandbag sediment trap on-grade. Refer detail on drawing 0011 (typ)

Provide temporary sandbag sediment trap. Refer detail on drawing 0011 (typ)

Preliminary - Not for Construction

Rev	Date	Drawn	Description	Ch'k'd	App'd
P2	20.12.16	DRC	Re--Issued for Development Application	CFK	JG
P1	16.12.16	DRC	Issued for Development Application	CFK	JG

1:200 0 10m 20m

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Client
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Level 2
447 Kent Street
Sydney, NSW 2000

Title
HammondGrove Miranda
Stage 3a Apartments

Concept Soil and Water Management Plan

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	
Scale at A1 1:200	Status APR		Rev P2	Security STD	

Drawing Number
MMD-378541-C-DR-CV-XX-0010

Legend

- Catchment Boundary
- A1 / 0.0842ha / 100% — Catchment Node / Catchment Area / % Impervious

B2
0.1049ha
20%

B1
0.0082ha
10%

R3
0.0135ha
100%

R4
0.0539ha
100%

R2
0.0372ha
100%

R1
0.0372ha
100%

C1
0.0141ha
100%

A5
0.0128ha
40%

A6
0.0286ha
30%

A4
0.0204ha
50%

A7
0.0115ha
0%

FFL 16.200

External site area drains to the southern catchment drainage system as per the existing scenario

Plan
1:250

Preliminary - Not for Construction

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P2	20.12.16	DRC	Re--Issued for Development Application	CFK	JG
P1	16.12.16	DRC	Issued for Development Application	CFK	JG

1:200 0 10m 20m

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Sydney, NSW 2000

Title
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Stage 3a Apartments

DRAINS Catchment Plan

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	

Scale at A1	Status	Rev	Security
1:250	APR	P2	STD

Drawing Number
MMD-378541-C-DR-CV-XX-0100

Locality Plan

Drawing List Table

Drawing Number	Drawing Title
0001	Cover Sheet
0002	General Civil Notes
0003	General Civil Legends
0005	General Arrangement Plan
0010	Concept Soil and Water Management Plan
0011	Soil and Water Management Details and Notes
0020	Siteworks and Stormwater Management Plan - Ground Level
0030	Siteworks and Stormwater Management Plan - Basement
0040	Stormwater Drainage Details
0041	Siteworks Details
0050	Stormwater Detention Tank Plan, Sections and Details
0100	DRAINS Catchment Plan
0110	MUSIC Catchment Plan

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Stage 3a Apartments
HammondGrove Miranda
86-110 Bellingara Road
Miranda, NSW 2228

Development Application Drawings

MMD-378541-C-DR-CV-XX-0001 P1
Date: 20.12.16

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cha60503

Sheet 0010 - Soil and Water Management Plan

Sheet 0020 - Siteworks Grading Plan - Ground Floor

Sheet 0030 - Siteworks Grading Plan - Basement

Building
FFL 18.50

Proposed Stage 2
DA by others

Plan
1:400

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P1	20.12.16	DRC	Issued for Development Application	CFK	JG

1:200 0 10m 20m

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Title
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Stage 3a Apartments

General Arrangement Plan

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	
Scale at A1	Status		Rev	Security	
1:400	APR		P1	STD	

Drawing Number
MMD-378541-C-DR-CV-XX-0005

Survey Legend

268 02' 198.12	Existing boundary, bearing and distance
PINE	Existing road name
SHED	Existing building
23.45	Existing kerb and spot levels
BLOCK WALL	Existing block wall
MESH FENCE	Existing fence
+23.25	Existing spot level
	Existing earth batter
TREE D:3.0 H: 4.5	Existing tree, level, trunk diameter, height and spread
ee	Existing electricity (underground)
ee	Existing electricity (overhead)
eg	Existing gas
es	Existing sewer
750mm DIA. PIPE INV.12.4	Existing stormwater drainage
ew	Existing water
et	Existing telecommunications (underground)
	Existing electricity pit, pole, pole with light and light pole
	Existing gas valve
	Existing sewer pit and maintenance hole
	Existing stormwater grate, maintenance hole and pit
	Existing water hydrant, stop valve and valve
	Existing telecommunications pit and pillar
	Existing maintenance hole (unspecified)
	Existing pole (unspecified)
	Existing pit (unspecified)
	Existing traffic signal

Civil Grading Legend

	Construct surface to level..
●G10.00	Grate level
●IL10.00	Invert level
●P10.00	Proposed level
10.00	Major contour
9.50	Minor contour
XX % Fall	Construct finished surface to grade
Batter 1 / 1	Construct batter slope

Stormwater Drainage Legend

A1	Stormwater drainage structure / pit number Refer to pit schedule
	Surface inlet pit
	Junction pit
	Surface inlet surcharge pit
SRM	Stormwater rising main
	Grass lined swale
GD	Construct grated drain
SW	Stormwater drainage line
USIL 20.00 Ø300 1.0 % 10.0 m DSIL 10.00	Upstream invert level Pipe size / class Grade Length Downstream invert level
	OSD tank
	Jellyfish

Civil Works Legend

ROAD No1	Road name / number
KO	Construct kerb only
FK	Construct flush kerb
IK	Construct integral kerb
PR	Construct kerb pram ramp
VC	Construct kerb vehicular crossing in accordance with Sutherland Shire Councill requirements
RC	Construct raised pedestrian crossing
	Construct batter
WS	Construct wheel stop
	Transition kerb profile over 2.5m
❖B	Install bollard in flexible pavement
	Line of basement under
RW	Wall by others

Soil and Water Management Legend

X	Construct temporary sediment fence
	Install sandbag sediment traps
	Install sediment trap for drop inlet
	Construct temporary stabilised site entry with shaker grid
	Construct temporary sediment basin
	Construct diversion bank

Pavement Legend

	Pavement Type 1 - Stenciled Concrete Details to be confirmed by Geotechnical Engineer during detailed design stage
	Pavement Type 2 - Asphaltic Concrete Details to be confirmed by Geotechnical Engineer during detailed design stage
	Pavement Type 3 - Concrete Ramp Pavement Details to be confirmed by Geotechnical Engineer during detailed design stage
	Pavement Type 3 - Pedestrian Footpath Details to be confirmed by Geotechnical Engineer during detailed design stage
	Pavement Deeplift Refer to detail on drawing 0041
	Landscaping Refer to Landscape Architect's plans for details.

All pavements are indicative only. To be confirmed by Geotechnical / Structural Engineer.

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Title
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Stage 3a Apartments

General Civil Legends

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	
Scale at A1: NA	Status: APR		Rev: P1	Security: STD	

Drawing Number
MMD-378541-C-DR-CV-XX-0003

General Notes

GN1 All workmanship and materials shall comply with the National Construction Code of Australia and the relevant current Australian Standards.

GN2 Any discrepancies, omissions or errors shall be reported to the Superintendent for clarification before proceeding with the work.

GN3 Do NOT scale measurements from the drawings.

Siteworks Notes

SN1 Datum : Australian Height Datum (AHD)
Origin of levels : SSM 87459 RL 19.885
Origin of co-ordinates : Mapping Grid Of Australia (MGA)
Survey prepared by : LTS Lockley
810 Pacific Hwy, Gordon, NSW 2072
PH 1300 587 000 (www.ltls.com.au)

SN2 The contractor must verify all dimensions and existing levels on site prior to commencement of work, and report any discrepancies to the superintendent.

SN3 All existing services (including any not shown on the plans) must be accurately located in position and level prior to any excavation. Any discrepancies shall be reported to the superintendent. minimum service clearances shall be maintained from the relevant service authority.

SN4 The contractor shall arrange for all setting out by a registered surveyor.

SN5 It is the contractors responsibility to notify the Department of Land and Property Information NSW, of any survey marks that will be destroyed in the construction of works.
Contact Head Office on 1300 052 637 www.lpi.nswgov.au and http://scims.lpi.nsw.gov.au/status_report_frames.html

SN6 The contractor shall obtain all regulatory authority approvals at their own expense.

SN7 Where new works abut existing, the contractor must ensure that a smooth and even profile, free from abrupt changes is obtained.

SN8 All disturbed areas shall be restored to their original condition, unless specified otherwise.

SN9 Excavated trenches shall be compacted to the same density as the adjacent natural material. Any subsidence's during the period to be rectified as directed by the superintendent.

SN10 Any existing trees which form part of the final landscaping plan will be protected from construction activities in accordance with the landscape architect's details and / or by -

Protecting them with barrier fencing or similar materials installed outside the drip line, ensuring that nothing is nailed to them, prohibiting paving, grading, sediment wash or placing of stockpiles within the drip line except under the following conditions -
Encroachment only occurs on one side and no closer to the trunk than either 1.5m or half the distance between the outer edge of the drip line and the trunk, which ever is the greater, a drainage system that allows air and water to circulate through the root zone (eg a gravel bed) is placed under all fill layers of more than 300mm care is taken not to cut roots unnecessarily nor to compact the soil around them.

SN11 Receptors for concrete and mortar slurries, paints, acid washings, light-weight waste materials and litter are to be emptied as necessary. Disposal of waste shall be in a manner approved by the superintendent or as specified in the works contract.

Existing Services Notes

ES1 Existing services have been plotted from supplied data and as such their accuracy cannot be guaranteed. It is the responsibility of the contractor to establish the location and level of all existing services prior to the commencement of any work. Any discrepancies shall be reported to the superintendent.

ES2 The contractor shall allow for the capping off, excavation and removal if required of all redundant existing services in areas affected by works within the contract area, as shown on the drawings unless directed otherwise by the superintendent.

ES3 The contractor shall ensure that at all times services to all buildings not affected by the works are not disrupted.

ES4 If required, the contractor shall construct temporary services to maintain existing supply to buildings remaining in operation during works to the satisfaction and approval of the superintendent. Once diversion is complete and commissioned the contractor shall remove all such temporary services and make good to the satisfaction of the superintendent and the relevant service authority.

ES5 Interruption to supply of existing services shall be done so as not to cause any inconvenience to the principal. The contractor is to gain approval from the superintendent for time of interruption - the contractor is responsible for all liaison.

ES6 All branch gas and water services under driveways and brick paving shall be located in Ø80mm uPVC sewer grade conduits extending a minimum of 500mm beyond the edge of paving.

ES7 Clearance and cover requirements shall be obtained from the relevant service authority before commencement of works and shall be adhered to at all times.

ES8 Care is to be taken when excavating near existing services. No mechanical excavations are to be undertaken over telecom or electrical services. Hand excavate in these areas only.

Linemarking Notes

LM1 All linemarking works to be in accordance with either the current Australian standard AS1742.2-2009-Manual Uniform Traffic Control Devices, or as shown on the plans or as directed by the superintendent.

LM2 The scope of work shall include all pavement markings to roads and carparks.

LM3 The work carried out and testing performed shall comply with the current, relevant Australian standards and RMS standards where necessary.

LM4 All markings shall be spotted out and verified by the contractors representative prior to application.

LM5 Paint shall be applied at a wet thickness of between 0.35mm - 0.45mm.

LM6 Paint shall only be applied to clean and dry surfaces.

LM7 All longitudinal lines shall be applied by a self-propelled machine.

LM8 Linemarking removal shall be carried out by grinding or sandblasting. Removal by burning will not be permitted.

LM9 The extent of linemarking to be eradicated shall be confirmed on site prior to removal. Any markings incorrectly removed shall be reinstated at the contractor's expense.

LM10 All markings shall be completed in a workmanlike manner and be straight, smooth and with even curves. Any non-conforming work, shall be removed and reinstated at the direction of the superintendent at the contractor's expense.

LM11 Linemarking on AC pavements to be provided no sooner than 7-10 days once the asphalt has set.

Stormwater Notes

SW1 For commercial or industrial sites -

All Ø300mm to Ø600mm drainage pipes shall be Class 4 approved spigot and socket reinforced concrete pipes with rubber ring joints (UNO). All Ø675mm or larger drainage pipes shall be Class 3 approved spigot and socket reinforced concrete pipes with rubber ring joints (UNO).

All drainage pipes less than or equal to Ø225mm shall be PVC-u DWV grade Class SN8 in accordance with AS/NZS 1260 : 2009 - PVC-u Pipes and Fittings for Drain, Waste and Vent Application with solvent welded joints.

SW2 Equivalent strength fibrous reinforced concrete (F.R.C.) and / or high density polyethylene (H.D.P.E.) may be used subject to approval by the superintendent.

SW3 All pipe junctions up to and including Ø450mm and tapers, shall be via purpose made fittings (UNO).

SW4 Minimum grade to stormwater lines to be 1% (UNO).

SW5 Contractor to supply and install all fittings and specials including various pipe adaptors to ensure proper connection between dissimilar pipework.

SW6 All connections to existing drainage pits shall be made in a tradesman-like manner and the internal wall of the pit at the point of entry shall be cement rendered to ensure a smooth finish with no protrusions.

SW7 All in-situ concrete pits to be 32Mpa minimum at 28 days.

SW8 Pits and pipes in areas of salinity hazard shall have increased cover to any reinforcement.

SW9 Precast concrete pits may be installed in lieu of cast in-situ pits, when pipe junctions are accommodated within the overall dimensions of the pit, and approved by the superintendent.

SW10 Pits deeper than 1000mm shall have step irons installed in accordance with the local or statutory authority requirements.

SW11 Bedding shall be Type H2 (UNO) for pipes not under pavements, and Type HS2 for pipes under pavements in accordance with AS/NZS 3725 : 2007 - Design for Installation of Buried Concrete Pipes.

SW12 Backfill trench with sand or approved granular backfill to 300mm (min) above the pipe. Where the pipe is under pavements backfill remainder of trench to pavement subgrade with sand or approved gravel sub-base compacted in 150mm layers to 98% standard maximum dry density. The contractor is to ensure compaction equipment is appropriate for the pipe class used.

SW13 Where stormwater lines pass under floor slabs DWV grade PVC-u rubber ring joints are to be used (UNO).

SW14 Where subsoil drainage lines pass under floor slabs and vehicular pavements, unslotted PVC-u DWV grade Class SN8 pipe shall be used.

SW15 Provide 3m length of Ø100mm subsoil drainage line or 200 'Nylex' strip drain surrounded with 150mm of 20mm blue metal or gravel, and wrapped in 'Bidim' A24 geotextile filter fabric or approved equivalent, at invert of incoming upstream pipe on each pit.

Concrete Notes

General

CN1 Use "AS3972 - 2010 - General purpose and blended cements - Type GP" cement (UNO).

CN2 All concrete shall be subject to project control sample and testing to AS3600 - 2009 - concrete structures.

CN3 Consolidate all concrete, including footings and slabs on ground with mechanical vibrators.

CN4 Cure all concrete as follows -
- keep surfaces continuously wet for 3 days, then
- prevent moisture loss for the next 4 days using polythene sheeting or wet hessian protected from wind and traffic, and then allow drying out.
- curing compounds may be used provided that they comply with AS3799 and they do not affect floor finishes.
- PVA-based curing compounds are NOT acceptable.

CN5 Fix reinforcement as shown on drawings. The type and grade is indicated by a symbol as shown below -

N	hot rolled deformed bar, grade 500
R	plain round bar, grade 250
SL / RL	hard drawn wire fabric square or rectangular

following this symbol a numeral indicates the specified diameter.

CN6 Provide bar supports or spacers to provide concrete cover as detailed to all reinforcement.

Concrete Pavements

CN7 Concrete mix parameters -
maximum aggregate size 20mm
flexural strength at 28 days = 3.5 MPa, F'c= 32 MPa, (UNO)
flexural strength at 90 days = 3.85 MPa
max water/cement ratio = 0.55
max shrinkage limit = 650 micron strains (AS1012.13-1992)
min cement content = 300kg/m³
cement to be type "SL" (normal cement) to AS3972-2010
slump = 80mm

CN8 Early age saw cutting ('softcut') or similar shall be used for initial saw cut. It is to be performed as soon as the concrete has hardened sufficiently, to prevent excessive chipping, spalling, or tearing regardless of time or weather conditions.

CN9 Joint layout shall be as detailed on the plans.

CN10 Provide 10mm wide expansion joints between all buildings, other structures and pavements.

CN11 Bond breaker to be two (2) uniform coats of bitumen emulsion all over the exposed surface and on end.

CN12 Dowels and tie bars to meet strength requirements of structural grade steel in accordance with AS ISO 1302 - 2005 - geometrical product specifications.
Dowels and tie bars shall be -
straight,
to length specified,
all dowels to be hot dip galvanised,
sawn to length not cropped.

CN13 Dimensions of sealant reservoir dependant on the sealant type adopted. Superintendent approval to be obtained for sealant and reservoir dimensions and detail proposed by the contractor. Refer to plans for typical arrangement and sealant.

CN14 Prior to the placement of concrete in the adjacent slab, 'Ableflex' filler shall be adhered to the already cast and cleaned concrete face using an approved waterproof adhesive. Adhesive shall be liberally applied to the full face of the concrete slab to be covered by the filler, and on the full face of the filler to be adhered.

CN15 The base course shall be kept moist (not wet) by sprinkling with water immediately prior to pouring the concrete.

CN16 All work to be finished to satisfy its intended use as shown on the plans, and / or in accordance with the specification.

Kerbing Notes

CN17 All concrete kerbs to have a minimum characteristic compressive strength F'c=25MPa (UNO).

CN18 All kerbs, dish drains, etc. to be constructed on 75mm minimum base course.(UNO on the Drawings)

CN19 Kerb expansion joints shall be formed from 10mm 'Ableflex' (or approved equivalent) for the full depth of the section.

CN20 Expansion joints shall be located at drainage pits, tangent points of curves and elsewhere at 12m maximum spacing (UNO).

CN21 Tooled joints shall be min 3mm wide and located at maximum 3m spacing.

CN22 Integral kerb joints shall match the location of the pavement jointing.

Preliminary - Not for Construction

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Title
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Stage 3a Apartments

General Civil Notes

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	

Scale at A1	Status	Rev	Security
NA	APR	P1	STD

Drawing Number
MMD-378541-C-DR-CV-XX-0002

Preliminary - Not for Construction

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	16.12.16	DRC	Issued for Development Application	CFK	JG

1:200 — 0 — 10m — 20m

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Client
HammondCare
Level 2
447 Kent Street
Sydney, NSW 2000

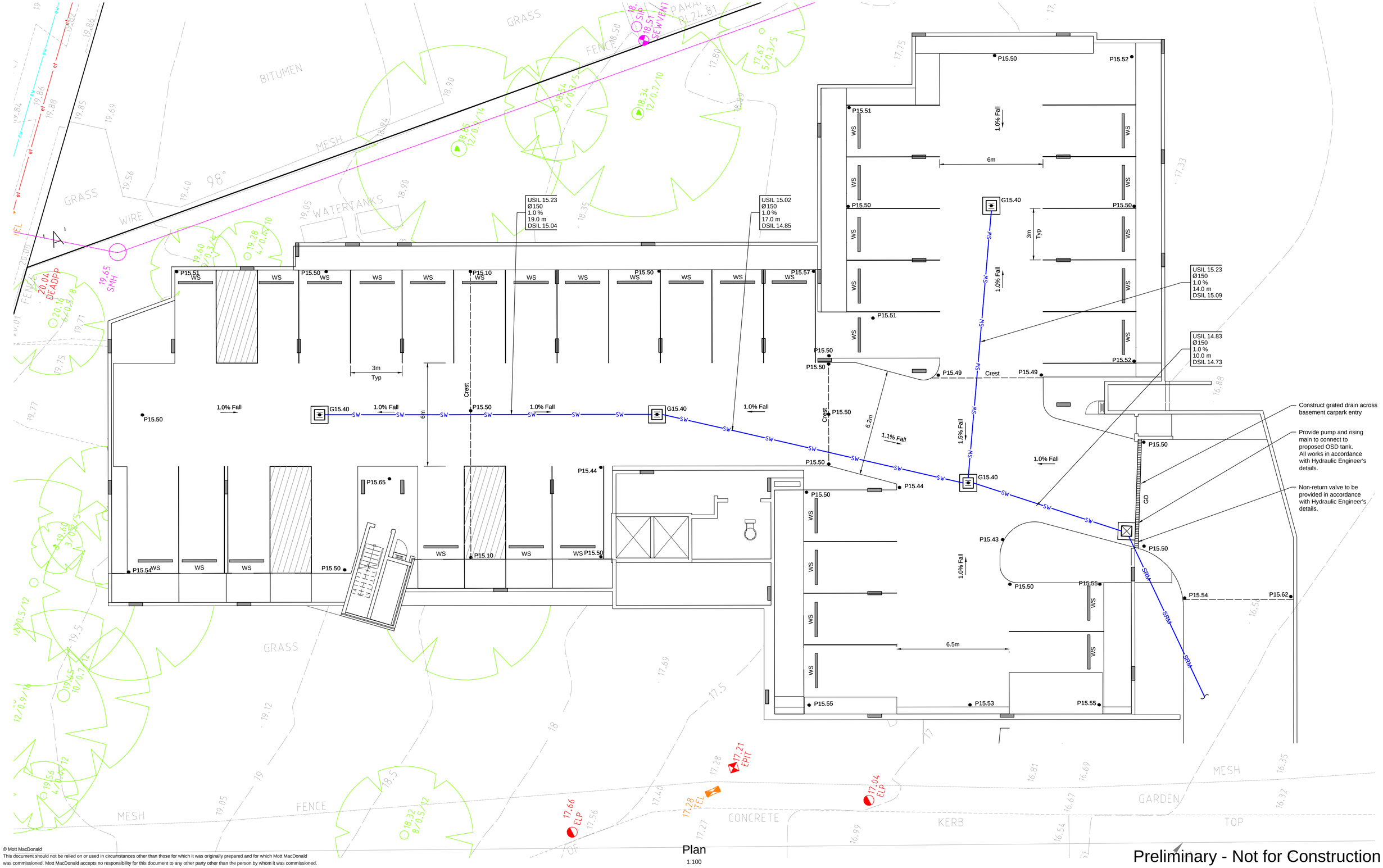
Title
HammondGrove Miranda
Stage 3a Apartments
MUSIC Catchment Plan

Designed	C.Keenan	Eng check	S.Reilly
Drawn	D.Chapman	Coordination	C.Keenan
Dwg check	A.Singh	Approved	J.Gilligan

Scale at A1	Status	Rev	Security
1:250	APR	P1	STD

Drawing Number
MMD-378541-C-DR-CV-XX-0110

\\mottmac\project\Sydney\Projects\37xxxx\378541\04 Working\01 CAD\Civil\Drawings\MMD-378541-C-DR-CV-XX-0110.dwg Dec 20, 2016 - 2:16PM cha60503



Plan
1:100

Preliminary - Not for Construction

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	20.12.16	DRC	Issued for Development Application	CFK	JG

1:100 0 5m 10m

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Sydney, NSW 2000

Title
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Stage 3a Apartments

Siteworks and Stormwater Management Plan - Basement

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	

Scale at A1	Status	Rev	Security
1:100	APR	P1	STD

Drawing Number
MMD-378541-C-DR-CV-XX-0030

Building
FFL 18.50

FFL 16.200

Construct grated drain across basement carpark entry and provide pump and rising main to connect to proposed detention tank. All works in accordance with Hydraulic Engineer's details.

Existing light pole to be relocated
All works in accordance with service providers requirements (typ)

Existing services to be modified to suit. All works in accordance with service providers requirements (typ)

Transition proposed pavers and make smooth connection to existing.

Existing light pole to be relocated
All works in accordance with service providers requirements (typ)

Proposed below ground on-site stormwater detention tank
- Storage volume = 136m³

Below ground OSD tank's structural design to be confirmed by Structural engineer during detailed design phase.

Sawcut and provide deeplift pavement. Make smooth connection to existing.

Connect to existing stormwater pipe. Contractor to confirm diameter, location and invert of existing system on-site prior to commencement of works

Provide Humes Jellyfish 1800-6-1 or approved equivalent

USIL 16.09
Ø375
1.0 %
15.8 m
DSIL 15.93

USIL 14.37
Ø375
1.0 %
23.5 m
DSIL 14.13

USIL 17.20
Ø300
4.3 %
11.2 m
DSIL 16.72

USIL 18.25
Ø300
6.2 %
16.5 m
DSIL 17.22

USIL 16.70
Ø300
3.8 %
25.8 m
DSIL 15.72

USIL 13.94
Ø375
6.7 %
5.7 m
DSIL 13.56

USIL 13.86
Ø375
1.0 %
6.9 m
DSIL 13.79

USIL 13.77
Ø225
1.0 %
3.6 m
DSIL 13.73

USIL 13.58
Ø225
1.0 %
3.6 m
DSIL 13.54

USIL 13.52
Ø375
1.0 %
31.3 m
DSIL 13.21

Plan
1:200

Preliminary - Not for Construction

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	20.12.16	DRC	Issued for Development Application	CFK	JG

1:200 0 10m 20m

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Title
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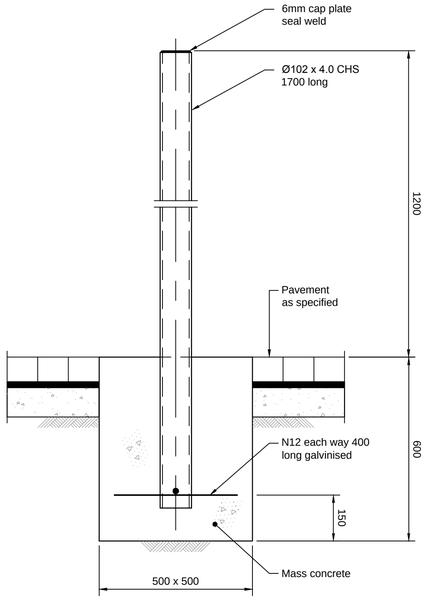
Stage 3a Apartments

Siteworks and Stormwater Management Plan - Ground

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	
Scale at A1	Status		Rev	Security	
1:200	APR		P1	STD	

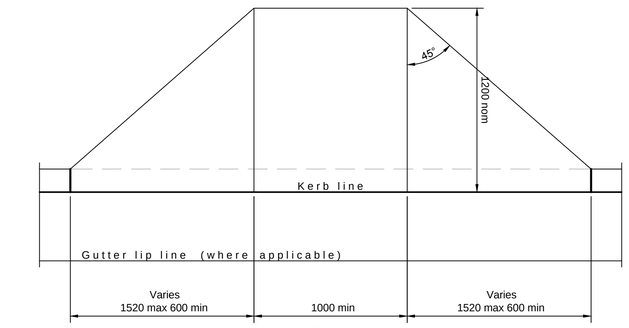
Drawing Number
MMD-378541-C-DR-CV-XX-0020



Finish: hot dip galvinised 600gm/m²

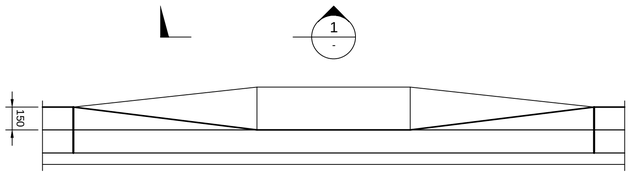
Bollard to Pavers

1:10



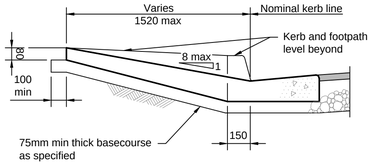
Plan

1:20



Elevation

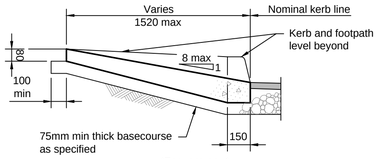
1:20



(For kerb and gutter)

Section 1

1:20

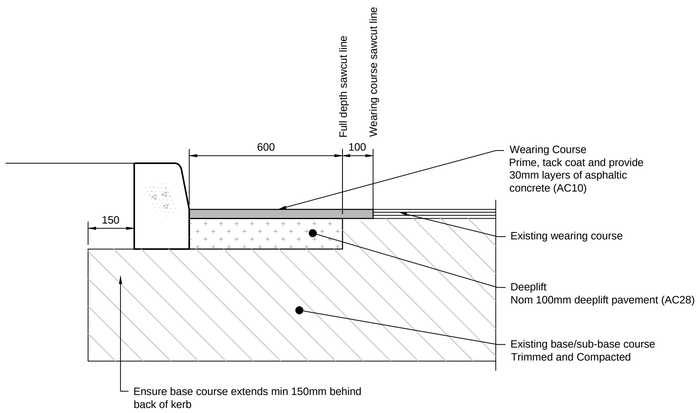


(For kerb only)

Section 1

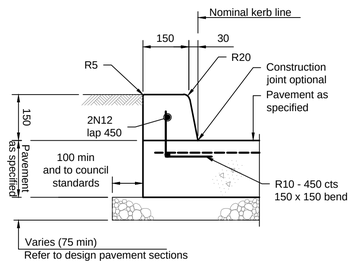
1:20

Pram Ramp (PR)



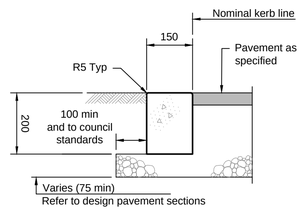
Pavement - Deeplift (Kerb)

1:10



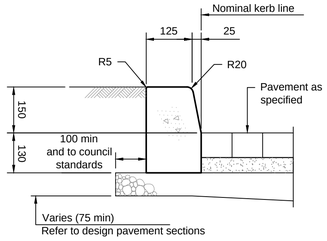
Integral Kerb (IK)

1:10



Flush Kerb (FK)

1:10



Kerb Only (KO)

1:10

Preliminary - Not for Construction

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	20.12.16	DRC	Issued for Development Application	CFK	JG

1:10 0 500mm 1000mm

1:20 0 1000mm 2000mm

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Title
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Stage 3a Apartments

Siteworks Details
Sheet 2

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	

Scale at A1	Status	Rev	Security
1:5,10,20	APR	P1	STD

Drawing Number
MMD-378541-C-DR-CV-XX-0041

Soil and Water Management Notes

General Instructions

SWM01 These plans present a conceptual soil and water management plan (SWMP) only and shows a possible way of managing soil and erosion. The contractor shall be responsible for the establishment and management of the site and preparing a detailed plan and obtaining approval from the relevant authority prior to the commencement of any works.

SWM02 This plan is to be read in conjunction with the engineering plans and any other plans, written instructions, specification or documentation that may be issued and relating to development of the subject site.

SWM03 The contractor will ensure that all soil and water management works are consistent with 'Managing Urban Stormwater - Soils and Construction' - also known as 'The Blue Book'.

SWM04 All builders and sub-contractors shall be informed of their responsibilities in minimising the potential for soil erosion and pollution to downslope lands and waterways.

Erosion Control

SWM05 Water shall be prevented from entering the permanent drainage system until sediment concentration is less then or equal to 50mg/L, ie the catchment area has been permanently landscaped and / or any likely sediment has been filtered through an approved structure.

SWM06 Any sand used in the concrete curing process (spread over the surface) will be removed as soon as possible and within 10 working days from placement.

SWM07 Acceptable receptors will be constructed for concrete and mortar slurries, paints, acid washings, light-weight waste materials and litter.

SWM08 'Sediment' fencing will be installed as indicated on the plans and at the direction of site superintendent to ensure containment of sediment. The sediment fencing will outlet or overflow under stabilised conditions into the sediment basin, to safely convey water into a suitable filtering system should the pores in the fabric block.

SWM09 Stockpiles should not be located within 5m of trees and hazard areas, including likely areas of concentrated or high velocity flows such as waterways, drainage lines, paved areas and driveways. Where they are within 5m from such areas, special sediment control measures should be taken to minimise possible pollution to downstream waters. Measures should also be applied to prevent the erosion of the stockpile.

SWM10 All cut and fill batters are to be seeded and mulched within 14 days of completion of formation.

SWM11 Any existing trees which form part of the final landscaping plan will be protected from construction activities by-

a. Protecting them with barrier fencing or similar materials installed outside the drip line,
b. Ensuring that nothing is nailed to them,
c. Prohibiting paving, grading, sediment wash or placing of stockpiles within the drip line except under the following conditions,

(i) Encroachment only occurs on one side and no closer to the trunk than either 1.5 metres or half the distance between the outer edge of the drip line and the trunk, which ever is the greater,

(ii) A drainage system that allows air and water to circulate through the root zone (e.g. a gravel bed) is placed under all fill layers of more than 300 millimetres depth

(iii) Care is taken.

SWM12 During windy weather, large disturbed unprotected areas should be kept moist (not wet) by sprinkling with water to keep dust under control.

SWM13 Temporary protection from erosive forces will be undertaken on lands where final shaping has not been completed but works are unlikely to proceed for periods of two months or more (eg. on topsoil stockpiles). This may be achieved with a vegetative cover. A recommended listing of plant species for temporary cover is -

i) autumn/winter sowing - oats/ryecorn at 20 kg/ha
- japanese millet at 10 kg/ha
ii) spring/summer sowing - japanese millet at 20 kg/ha
- oats/ryecorn at 10 kg/ha

SWM14 Diversion banks / channels will be rehabilitated as soon as possible and within 5 working days from their final shaping. Other than in the winter months, suitable materials include turf grasses such as Couch or Kikuyu. During winter, or at other times when temporary rehabilitation (more than 3 months) is required, it is suggested that hessian cloth is used but only if tacked with appropriate pegs and an anionic bitumen emulsion. Foot and vehicular traffic should be kept away from these areas.

SWM15 Undertake site development works in accordance with the engineering plans. Where possible, phase development so that land disturbance is confined to areas of workable size.

Construction Sequence

SWM16 Where practical, the soil erosion hazard on the site should be kept as low as possible. To this end, works should be undertaken in the FOLLOWING SEQUENCE -

(i) Install inlet sediment traps to all gully pits fronting the site,

(ii) Install a 1.8m chain wire fence around the boundaries and attach hessian cloth or similar to it on the windward side (ties at the top, centre and bottom and at 1m intervals or as instructed by the superintendent),

(iii) Install geofabric sediment fence and sediment traps around all permanent stormwater reticulation structures as shown on the plan,

(iv) Construct stabilised construction entrance as shown on the plan or to location as determined by superintendent,

(v) Install diversion banks along the boundary where required, rehabilitate disturbed lands downslope from the basins within 20 working days,

(vi) Ensure that the sediment basin is directed onto a turfed area and drains to a suitable location. A temporary stormwater line may be necessary to convey the flows to this location. Construct diversion channels at the boundary to drain into the sediment basin as shown on plans,

(vii) At completion stabilise site and decommission sediment basin and all erosion control devices.

SWM17 Temporary soil and water management structures will be removed only after the lands they are protecting are rehabilitated.

SWM18 Final site landscaping will be undertaken as soon as possible and within 20 working days from completion of construction activities.

Site Inspection and Maintenance

SWM19 At least weekly and after every rain fall event, the contractor will inspect the site and ensure that -

(i) Drains and all sediment control devices operate effectively and initiate repair or maintenance as required,

(ii) Receptors for concrete and mortar slurries, paints, acid washings, light-weight waste materials and litter are to be emptied as necessary. Disposal of waste shall be in a manor approved by the superintendent,

(iii) Spilled sand (or other materials) is removed from hazard areas, including likely areas of concentrated or high velocity flows such as waterways, gutters, paved areas and driveways,

(iv) Sediment is removed from basins and / or traps when less than 20m³ of trapping capacity remain per 1000m² of disturbed lands, and / or less than 500mm depth remains in the settling zone. Any collected sediment will be disposed in areas where further pollution to down slope lands and waterways is unlikely,

(v) Rehabilitated lands have effectively reduced the erosion hazard and initiate upgrading or repair as appropriate.

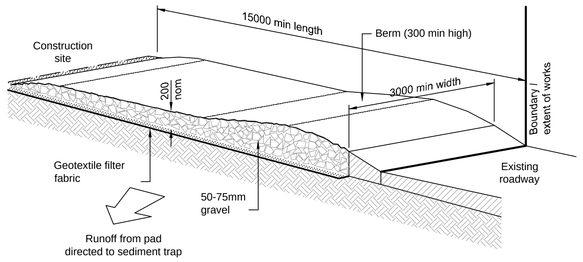
SWM20 The contractor shall provide all monitoring control and testing.

Note

This plan is a concept only. It is created to highlight some of the sediment and erosion control measures which may appear. The contractor is responsible for the final design and ensuring all measures are taken to protect the environment.

Soil and Water Managenent Legend

- Construct temporary sediment fence
- Install sandbag sediment traps
- Install sediment trap for drop inlet
- Construct temporary stabilised site entry with shaker grid
- Construct temporary sediment basin
- Construct temporary diversion bank
- Existing tree to be removed

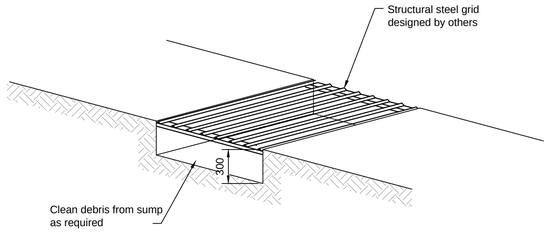


Temporary Site Entrance

NTS

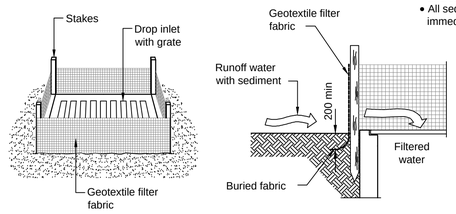
Maintenance

- The temporary access shall be maintained in a condition that prevents tracking or flowing of sediment onto public rights of way,
- This may require periodic top dressing with additional gravel as conditions demand and repair and/or cleanout of any measures used to trap sediment,
- All sediment spilled, dropped, washed or tracked onto public rights of way must be removed immediately.



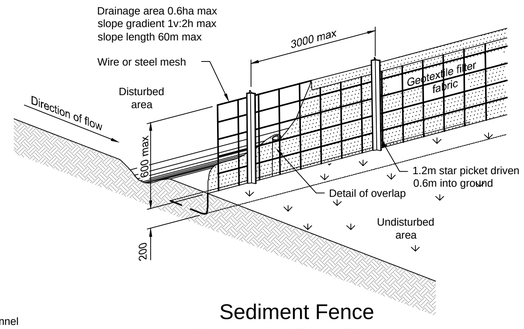
Shaker Pad

NTS



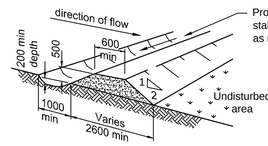
Sediment Trap for Drop Inlet (Geotextile Filter Fabric)

NTS



Sediment Fence (Geotextile Filter Fabric)

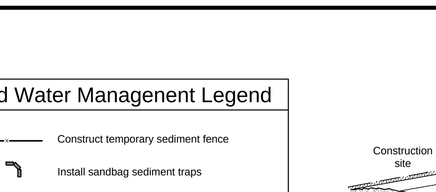
NTS



(For catchment of 2ha or less)

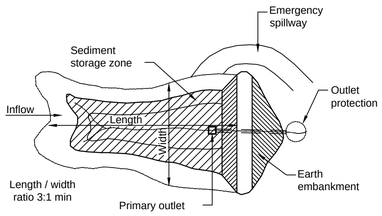
Diversion bank (with channel)

NTS



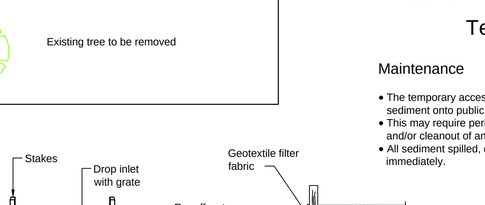
Sediment Trap for Kerb Inlet (at Low Point - Sandbag)

NTS



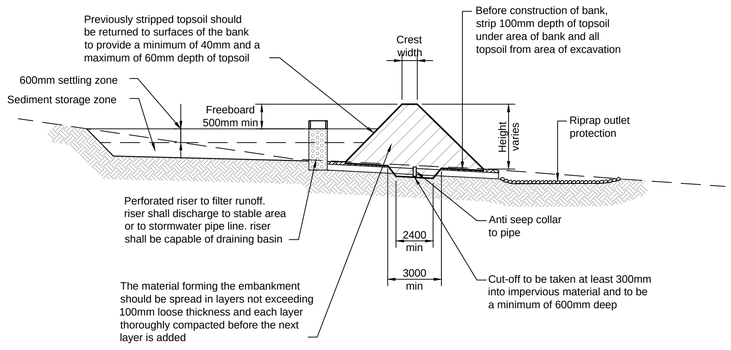
Sediment Basin (Typical) Plan - Type C Soils

NTS



Sediment Trap for Kerb Inlet (On Grade - Sandbag)

NTS



Sediment Basin (Typical) Cross Section - Type C Soils

NTS

Preliminary - Not for Construction

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Title
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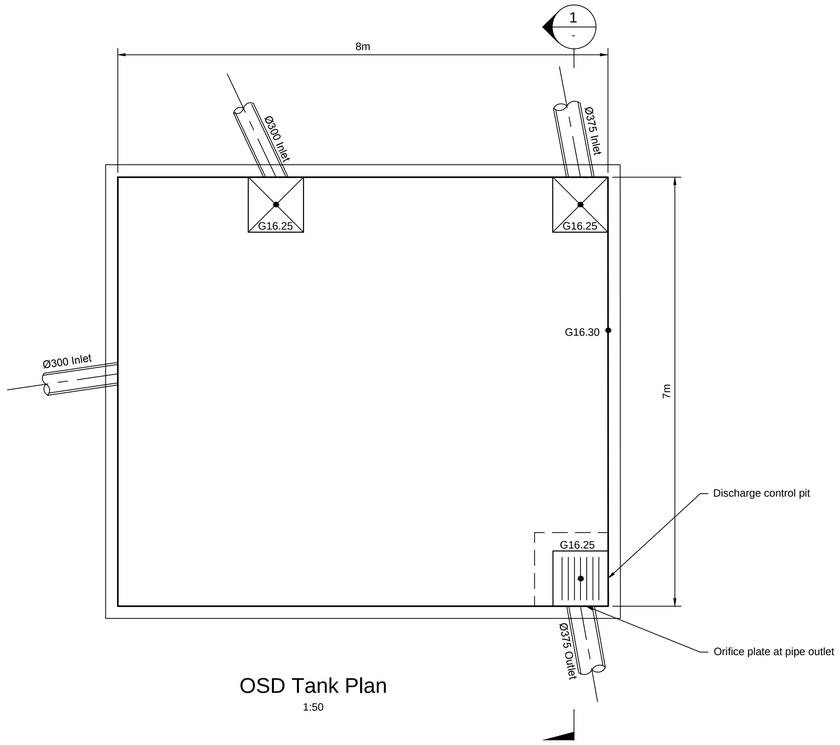
Stage 3a Apartments

Soil and Water Management
Details and Notes

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	

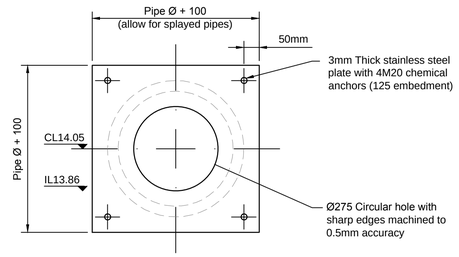
Scale at A1	Status	Rev	Security
NA	APR	P1	STD

Drawing Number
MMD-378541-C-DR-CV-XX-0011



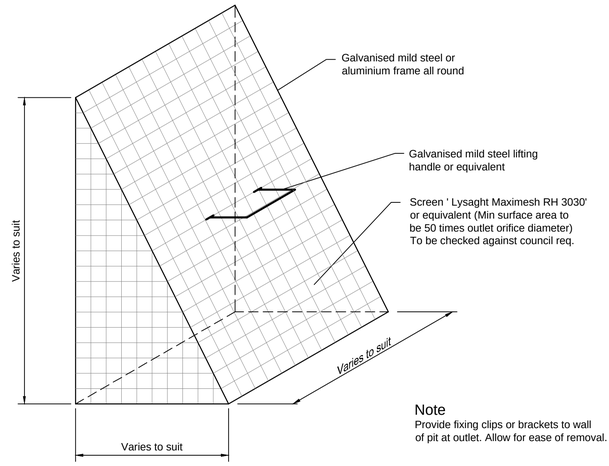
OSD Tank Plan

1:50



Orifice Plate

1:10

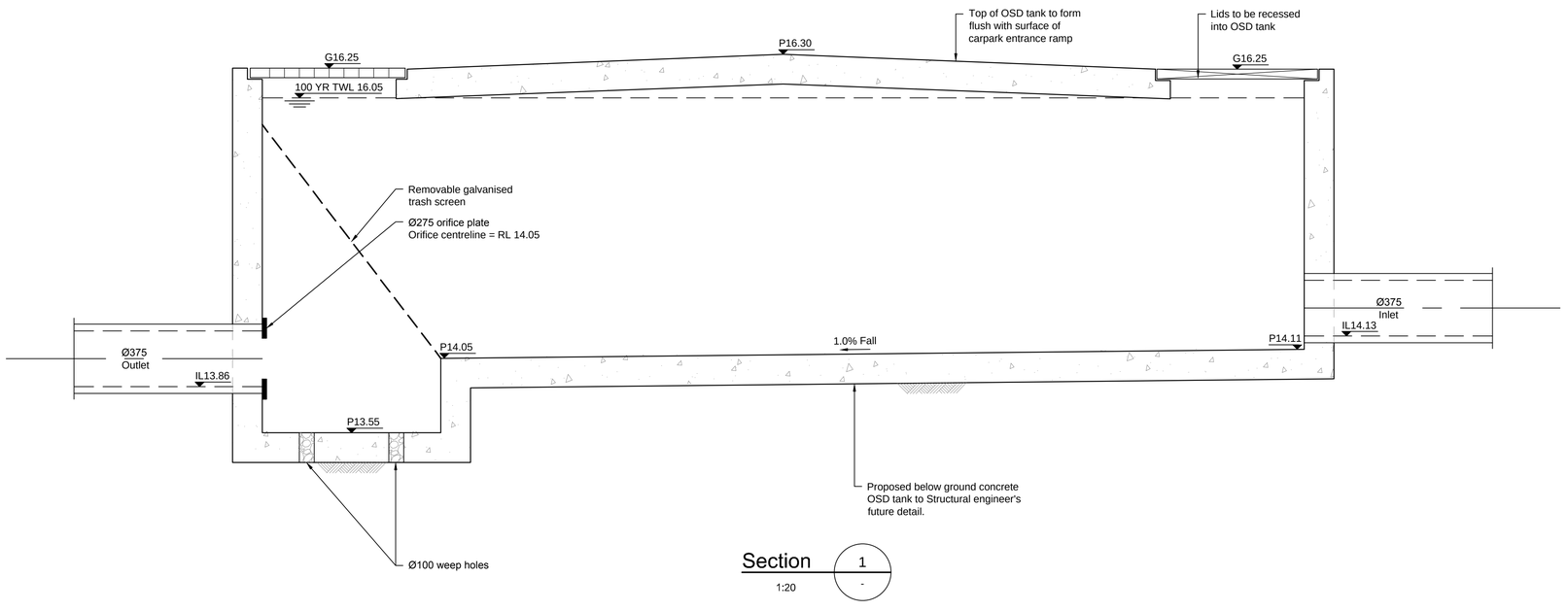


Note

Provide fixing clips or brackets to wall of pit at outlet. Allow for ease of removal.

Typical Removable Screen Detail

NTS



Section 1 / 1:20

Preliminary - Not for Construction

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	20.12.16	DRC	Issued for Development Application	CFK	JG

1:10 — 0 — 50m — 10m
1:20 — 0 — 10m — 20m
1:50 — 0 — 2.5m — 5m

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Title
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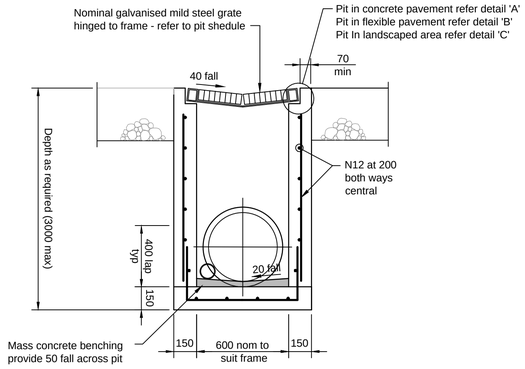
Stage 3a Apartments

Stormwater Detention Tank
Plan, Section and Details

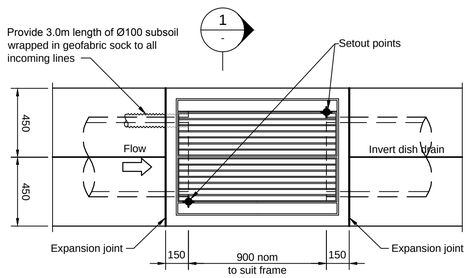
Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	
Scale at A1	Status		Rev	Security	
1:10,20,50	APR		P1	STD	

Drawing Number
MMD-378541-C-DR-CV-XX-0050



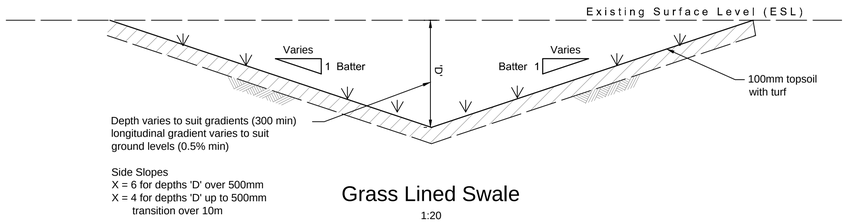
Section 1 / 1:20

Provide step irons
if pit deeper than
1000 (refer detail)

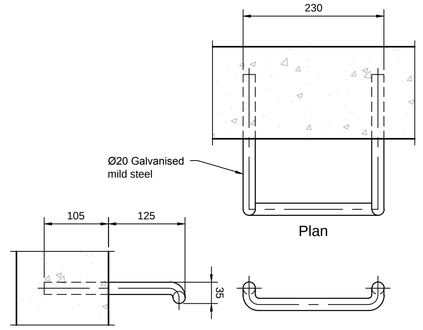


Plan
1:20

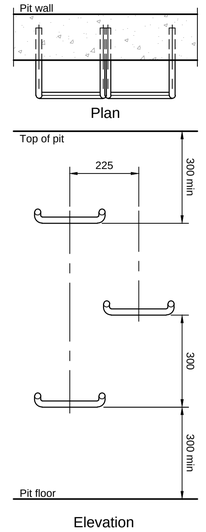
Surface inlet / junction pit
(pipe sizes ≤ Ø450)



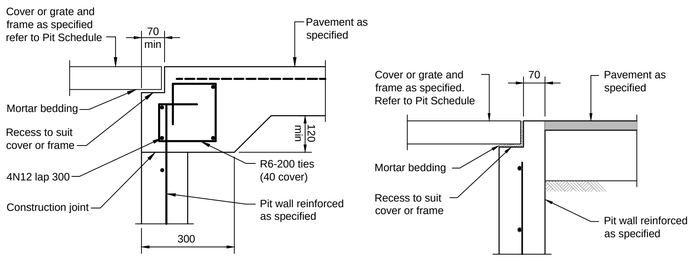
Grass Lined Swale
1:20



Step Iron Detail
1:5

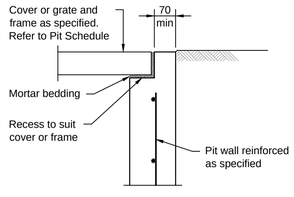


Step Iron
Placement to Pit Wall
NTS

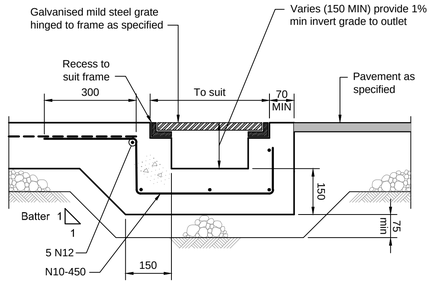


Detail 'A'
1:10

Detail 'B'
1:10



Detail 'C'
1:10



Grated Drain in Concrete Pavement (GD)
1:10

Preliminary - Not for Construction

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	20.12.16	DRC	Issued for Development Application	CFK	JG

1:5 0 250mm 500mm
1:10 0 500mm 1000mm
1:20 0 1000mm 2000mm

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Level 2
447 Kent Street
Sydney, NSW 2000

Title
HammondGrove Miranda
Stage 3a Apartments

Stormwater Drainage Details
Sheet 1

Designed	C.Keenan		Eng check	S.Reilly	
Drawn	D.Chapman		Coordination	C.Keenan	
Dwg check	A.Singh		Approved	J.Gilligan	
Scale at A1 1:5,10,20	Status APR		Rev P1	Security STD	

Drawing Number
MMD-378541-C-DR-CV-XX-0040