ACTIVITY DETERMINATION

Project No. BGWY9

Conflict of Interest[1]

In this matter:

1. I have declared any possible conflict of interests (real, potential or perceived) to the Acting Chief Executive, Land & Housing Corporation.
2. I do not consider I have any personal interests that would affect my professional judgement.
3. I will inform the Acting Chief Executive, Land & Housing Corporation as soon as I become aware of a possible conflict of interest.

Signed.....

Name.....Emma NIcholson

Dated.....16 November 2023

Having regard to the Determination Recommendation Report, the Statement of Compliance and the Review of Environmental Factors for this project addressing matters under Part 5 of the *Environmental Planning and Assessment Act 1979,* I determine that the activity proceed as described below and subject to the identified requirements set out in **Schedule 1**.

SITE IDENTIFICATION

STREET ADDRESS

Unit/Street No	Street or property name
25 – 29	Prospero Street

Suburb, town or locality	Postcode
Maryland	2287

Local Government Area(s)	Real property description (Lot and DP)
Newcastle	Lots 395, 396 and 397 in DP 702896

ACTIVITY DESCRIPTION

Provide a description of the activity

Demolition of three 3 existing dwellings and structures, removal of trees, and the construction of 9 residential units comprising 1 x one bedroom, 5 x two bedroom and 3 x three bedroom units, with associated landscaping and fencing, surface parking for 6 cars, and consolidation into a single lot.

1. *Conflict of interest includes actual and potential. A conflict of interest includes pecuniary i.e. financial interests to you or a related party or non-pecuniary i.e. benefits to relatives, friends, business associates and personal causes, etc. This includes "related persons" as defined in the Property, Stock and Business Agency Act 2002.*

Signed.....  ..... Dated.....16 November 2023

Emma Nicholson
A/Head of Policy and Innovation
Land and Housing Corporation
Department of Planning & Environment

SCHEDULE 1

IDENTIFIED REQUIREMENTS

PART A – Standard Identified Requirements

THE DEVELOPMENT

The following identified requirements are to ensure that the residential activity is carried out in accordance with the plans / documents and any amendments arising from the Review of Environmental Factors under Part 5 of the Environmental Planning & Assessment Act 1979, Section 171 of the Environmental Planning and Assessment Regulation 2021 and the requirements of State Environmental Planning Policy (Housing) 2021.

1. The development shall be carried out substantially in accordance with the following plans / documents as modified below and by any of the undermentioned Identified Requirements:

Title / Name:	Drawing No / Document Ref	Revision / Issue:	Date [dd/mm/yyyy]:	Prepared by:
Architectural				
Coversheet	DA00	05	08.08.2023	Stanton Dahl Architects
Site & Block Analysis Plan	DA01	04	08.08.2023	Stanton Dahl Architects
Demolition Plan	DA02	04	08.08.2023	Stanton Dahl Architects
Cut & Fill Plan	DA03	04	08.08.2023	Stanton Dahl Architects
Site & External Works Plan – Ground Floor	DA04	04	08.08.2023	Stanton Dahl Architects
Site & External Works Plan – First Floor	DA05	03	08.08.2023	Stanton Dahl Architects
Landscape & Deep Soil Diagram	DA06	05	08.08.2023	Stanton Dahl Architects
Floor Plans (Units 1 – 4)	DA07	04	08.08.2023	Stanton Dahl Architects
Floor Plans (Units 5 – 7)	DA08	04	08.08.2023	Stanton Dahl Architects
Floor Plans (Units 8 – 9)	DA09	04	08.08.2023	Stanton Dahl Architects
Elevations – Sheet 1	DA10	04	08.08.2023	Stanton Dahl Architects
Elevations – Sheet 2	DA11	04	08.08.2023	Stanton Dahl Architects
Elevations – Sheet 3	DA12	04	08.08.2023	Stanton Dahl Architects
Sections – Sheet 1	DA13	04	08.08.2023	Stanton Dahl Architects
Sections – Sheet 2	DA14	04	08.08.2023	Stanton Dahl Architects
Shadow Diagrams – Sheet 1	DA15	05	08.08.2023	Stanton Dahl Architects

Title / Name:	Drawing No / Document Ref	Revision / Issue:	Date [dd/mm/yyyy]:	Prepared by:
Shadow Diagrams – Sheet 2	DA16	02	08.08.2023	Stanton Dahl Architects
Shadow Diagrams – Sheet 3	DA17	02	08.08.2023	Stanton Dahl Architects
View From Sun – Sheet 1	DA18	05	08.08.2023	Stanton Dahl Architects
View From Sun – Sheet 2	DA19	05	08.08.2023	Stanton Dahl Architects
POS Views (Units 1 – 4) – Sheet 1	DA20	02	08.08.2023	Stanton Dahl Architects
POS Views (Units 1 – 4) – Sheet 2	DA21	02	08.08.2023	Stanton Dahl Architects
POS Views (Units 5 – 7) – Sheet 1	DA22	02	08.08.2023	Stanton Dahl Architects
POS Views (Units 5 – 7) – Sheet 2	DA23	02	08.08.2023	Stanton Dahl Architects
POS Views (Units 8 – 9) – Sheet 1	DA24	02	08.08.2023	Stanton Dahl Architects
POS Views (Units 8 – 9) – Sheet 2	DA25	02	08.08.2023	Stanton Dahl Architects
External Colour Selection	DA26	05	08.08.2023	Stanton Dahl Architects
Civil/ Stormwater				
Notes & Legends	C01	5	10.05.2023	Greenview Consulting
Ground Floor Drainage Plan	C02	5	10.05.2023	Greenview Consulting
Site Stormwater Details Sheet 1	C05	5	10.05.2023	Greenview Consulting
Notes & Legends	ESM12	2	26.04.2023	Greenview Consulting
Environmental Site Management Plan	ESM22	2	26.04.2023	Greenview Consulting
Landscape				
Landscape Plan	L01	6	10.05.2023	Stanton Dahl Architects
Tree Protection & Details	L02	6	10.05.2023	Stanton Dahl Architects
Landscape Specification and Maintenance Plan	L03	6	10.05.2023	Stanton Dahl Architects
BASIX				
BASIX Certificate	1185536M_05		11.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Summary	0008635110		10.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Unit 1	0008635021-01		10.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Unit 2	0008635054-01		10.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Unit 3	0008635088-01		10.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Unit 4	0008635039-01		10.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Unit 5	0008635070-01		10.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Unit 6	0008635096-01		10.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Unit 7	0008635047-01		10.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Unit 8	0008635062-02		10.05.2023	Northrop Consulting Engineers Pty Ltd
NatHERS Certificate Unit 9	0008635104-01		10.05.2023	Northrop Consulting Engineers Pty Ltd
Reports				
Arborist's Stage C	-	-	13.04.2023	Hunter Horticultural Services

Title / Name:	Drawing No / Document Ref	Revision / Issue:	Date [dd/mm/yyyy]:	Prepared by:
Report				
Access Report	23060	Final	21.04.2023	Vista Access Architects
Geotechnical Investigation and Acid Sulfate Soil Assessment	20/3518	-	October 2020	STS Geotechnics Pty Ltd
Traffic Impact Assessment	630.30566-R01	v1.0	April 2023	SLR Consulting Australia Pty Ltd
Waste Management Plan	23013		April 2023	Dickens Solutions
Bushfire Certificate		4	12.04.2023	Newcastle Bushfire Consulting
Final Building Code Of Australia 2022 (Volume 2) Report	20-215620		3.05.2023	Philip Chun Building Compliance

2. All building work is to be undertaken in accordance with the National Construction Code and referenced Australian Standards.

3. All commitments listed in the BASIX certificate and stamped plans shall be implemented.

4. All construction documentation and building work is to be certified in accordance with Section 6.28 of the Environmental Planning and Assessment Act 1979.

5. The land the subject of this determination shall be consolidated into a single lot. The plan of consolidation shall be lodged at the NSW Land Registry Services and shall be registered prior to the occupation of the development. A copy of the registered plan shall be provided to the Land & Housing Corporation.

OPERATIONAL MATTERS

The following Identified Requirements relate to the use of the site and are to ensure that the activity and its operation do not interfere with the amenity of the surrounding area.

Stormwater Run-off

6. Stormwater shall be collected within the site and conveyed in a pipeline to the appropriate gutter or drain under the control of City of Newcastle Council substantially in accordance with the approved concept stormwater drainage plans.

7. Alterations to the natural surface contours or surface absorption characteristics of the site shall not impede, increase or divert natural surface water runoff so as to cause a nuisance to adjoining property owners.

8. All driveways shall be graded in such a manner as to provide continuous surface drainage flow paths to the appropriate points of discharge.

9. To prevent water from entering buildings, surface waters shall be collected and diverted clear of the buildings by a sub-surface / surface drainage system.

Vehicular Access and Parking

10. A concrete vehicular crossing(s) and layback(s) shall be provided at the entrance(s) / exit(s) to the property. The crossing(s) and layback(s) shall be constructed in accordance with City of Newcastle Council's standard requirements for residential

crossings. Council shall be provided with plans for the crossing(s) and layback(s) together with the payment of any Council inspection fees.

11. Particular care shall be taken in the location of vehicular crossings and/or laybacks to avoid poles, pits etc. The cost of any necessary adjustments to utility mains and services associated with the construction of the layback(s) / driveway(s) shall be borne by the Land & Housing Corporation. Obsolete gutter layback(s) shall be constructed as kerb in accordance with City of Newcastle Council's standards.

Note:
It is recommended that discussion be held with the relevant authorities before construction works commence.

12. Car parking spaces and driveways shall be constructed of concrete or other approved hard surfaced materials. The spaces must be clear of obstructions and columns, permanently line marked and provided with adequate manoeuvring facilities. The design of these spaces must comply with AS 2890.1.

Site Works

13. All soil erosion and sediment control measures required to be put in place prior to the commencement of demolition / construction works shall be maintained during the entire period of the works until all the disturbed areas are restored by turfing, paving or revegetation. Soil erosion and sediment control measures shall be designed in accordance with the guidelines set-out in the Blue Book *Managing Urban Stormwater: Soils and Construction* (4th edition, Landcom, 2004).

14. An appropriately qualified person shall design retaining walls or other methods necessary to prevent the movement of excavated or filled ground, including associated stormwater drainage measures.

Building Siting

15. All buildings shall be sited well clear of any easements affecting the site. The builder shall ascertain if any easements do exist and, if they do, obtain full details of such prior to construction commencing.

Smoke Detection System(s)

16. Smoke detection systems shall be installed throughout the building(s) in accordance with requirements of Clause E2.2a of the Building Code of Australia. Detectors and alarms shall comply with AS 3786 and AS 1670 and must:

    i. be connected to a permanent 240V power supply; and
    ii. be provided with a battery backup to activate the alarm unit in the event of failure of the permanent power supply.

Site Soil Contamination

17. If the site is identified as being potentially affected by soil contamination, it shall be inspected by a suitably qualified person to identify any contaminated or hazardous material present. A proposal for remediation shall be prepared, which may include preparation of a Remedial Action Plan, and remediation shall be carried out in accordance with the proposal. A Validation Report, prepared in accordance with Environment Protection Authority requirements, shall be obtained from a qualified

expert on completion of the remediation work to verify that the site is suitable for the intended residential use. A copy of the Validation Report shall be provided to the Land & Housing Corporation on completion of the remediation works.

Landscaping

18. Landscaping shall be carried out substantially in accordance with the approved Landscape Plan and maintained for a period of 12 months by the building contractor. City of Newcastle Council shall be consulted in relation to the planting of any street trees.

19. All scheduled plant stock shall be pre-ordered, prior to commencement of construction or 3 months prior to the commencement of landscape construction works, whichever occurs sooner, for the supply to the site on time for installation. The builder shall provide written confirmation of the order to City of Newcastle Council and provide a copy to the Land & Housing Corporation.

Tree Removal

20. Removal of trees within the boundaries of the site is to be carried out in accordance with the trees shown for removal on the approved Landscape Plan and Arborist's Stage C Report and no other trees shall be removed without further approval(s).

Fencing

21. All front fencing and gates shall be constructed wholly within the boundaries of the site. Any gates associated with the fencing shall swing inwards towards the site.

Provision of Letterbox Facilities

22. Suitable letterbox facilities are to be provided in accordance with Australia Post specifications.

Public Liability Insurance

23. A valid public liability insurance policy of at least $10M shall be maintained throughout the demolition / construction works by the contractor.

PRIOR TO ANY WORK COMMENCING ON THE SITE

The following Identified Requirements are to be complied with prior to any work commencing on the site, including demolition.

Disconnection of Services

24. All services that are required to be disconnected shall be appropriately disconnected and made safe prior to commencement of the demolition / construction works. The various service authorities shall be consulted regarding their requirements for the disconnection of services.

25. All existing services within the boundary to remain live shall be identified, pegged and made safe.

Demolition

26. The builder shall notify the occupants of premises on either side, opposite and at the rear of the site a minimum of five (5) working days prior to demolition. Such notification shall be clearly written on an A4 size paper giving the date demolition will commence and be placed in the letterbox of every premise (including every unit in a multi-unit residential building or mixed use building). The demolition shall not commence prior to the date that is stated in the notice letter.

27. Prior to the demolition, a Work Plan shall be prepared by a competent person(s) in accordance with AS 2601 and shall be submitted to the Land & Housing Corporation. The Work Plan shall outline the identification of any hazardous materials (including surfaces coated with lead paint), method of demolition, the precautions to be employed to minimise any dust nuisance and the disposal methods for hazardous materials.

28. If buildings to be demolished are determined as, or suspected of, containing asbestos cement, a standard commercially manufactured sign containing the words 'DANGER ASBESTOS REMOVAL IN PROGRESS', and measuring not less than 400mm x 300mm, shall be erected in a prominent visible position on the site for the duration of the demolition works.

Note:
Any buildings constructed before 1987 is assumed to contain asbestos.

Utilities Service Provider Notification

29. The demolition / construction plans shall be submitted to the appropriate water utility's office (e.g. Sydney Water office) to determine whether or not the development will affect the utility's sewer and water mains, stormwater drains and any easements.

Note:
If the development complies with water utility's requirements, the plans will be stamped indicating that no further requirements are necessary.

Council Notification

30. City of Newcastle Council shall be advised in writing, of the date it is intended to commence work, including demolition. A minimum period of **five (5)** working days notification shall be given.

Site Safety

31. A sign shall be erected in a prominent position on any site on which demolition or building work is being carried out:

(a) showing the name, address and telephone number of the responsible Land & Housing Corporation officer for the work, and
(b) showing the name of the principal contractor (if any) 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.

The sign shall be maintained while the work is being carried out but shall be removed when the work has been completed.

Note:
This requirement does not apply in relation to building work that is carried out inside an existing building that does not affect the external walls of the building.

32. A minimum 1.8m high security fence or Class A / Class B (overhead) hoarding must be erected between the work site and any public place prior to demolition / construction. Access to the site shall be restricted to authorised persons only and the site shall be secured against unauthorised entry when demolition / construction work is not in progress or the site is otherwise unoccupied.

Note:
Approval from the relevant roads authority will be required under Section 138 of the Roads Act 1993 where a Class A or B hoarding encroaches onto the footpath of / or a public thoroughfare within a classified road.

33. No building or demolition materials are to be stored on the footpath or roadway.

Site Facilities

34. The following facilities shall be installed on the site:

(a) Toilet facilities shall be provided at the rate of 1 toilet for every 20 persons or part thereof employed at the site. Each toilet provided shall be a standard flushing toilet and shall be connected to a public sewer or if connection to a public sewer is not practicable, to an accredited sewerage management facility provided by Newcastle Council or if this is not practicable to some other council approved management facility.

(b) Adequate refuse disposal methods and builders storage facilities. Builders' wastes, materials or sheds shall not to be placed on any property other than that which this approval relates to.

35. Access to the site shall only be provided via an all weather driveway on the property and is not to be provided from any other site.

Protection of Trees

36. Trees and other vegetation that are to be retained on site and in the council road reserve shall be protected prior to the commencement of works and for the duration of the construction period in accordance with the details provided in the Arborist's Stage C Report.

Waste Management

37. A final Waste Management Plan shall be prepared and submitted to the Land & Housing Corporation by the building contractor prior to the commencement of demolition / construction. The plan shall detail the amount of waste material and the destination of all materials, recyclable and non-recyclable.

PRIOR TO ANY CONSTRUCTION WORK COMMENCING ON SITE

The following Identified Requirements are to be complied with prior to any construction works occurring on the site, excluding demolition.

Service Authority Clearances

38. A compliance certificate, or other evidence, shall be obtained from the relevant water utility provider (e.g. the local council for the area, Hunter Water or Sydney Water), confirming service availability prior to work commencing.

    Note:
    Payment of water and/or sewer service charges and/or a notice of requirements for works to be carried out during construction / prior to occupation may be applicable prior to issue of the compliance certificate.

39. A written clearance from an electricity supply authority stating that electrical services are available to the site, or that arrangements have been entered into for the provision of services to the site, shall be obtained prior to work commencing.

40. A certificate from an approved telecommunications carrier certifying that satisfactory arrangements have been made for the provision of underground telephone services, to the site and to each dwelling, shall be obtained prior to work commencing.

41. Where the site is to be connected to reticulated gas, a certificate from an approved gas carrier to certify that satisfactory arrangements have been made to ensure the provision of underground gas services to each dwelling in the development shall be obtained prior to work commencing.

Stormwater Disposal

42. A detailed stormwater drainage plan(s), substantially in accordance with the approved concept stormwater drainage plan(s), shall be prepared and submitted to the Land & Housing Corporation. Any on-site detention system shall be designed in accordance with the relevant catchment authority's requirements (e.g. the Upper Parramatta River Catchment Trust On-site Detention Handbook) and/or City of Newcastle Council's drainage code.

43. Where a drainage easement is required, proof of lodgement of the plan of the drainage easement at the NSW Land Registry Services shall be submitted to the Land & Housing Corporation prior to commencement of works. Registration of the plan of easement shall be completed prior to occupation of the development and a copy of the registered plan shall be provided to the Land & Housing Corporation.

DURING DEMOLITION AND CONSTRUCTION WORKS

The following Identified Requirements are to be complied with whilst demolition and construction works are occurring on the site.

Landfill

44. Where site filling is necessary, a minimum of 95% standard compacting shall be achieved and certified by a NATA registered Soils Lab.

45. Land fill materials must satisfy the following requirements:

    i. be Virgin Excavated Natural Matter (VENM);
    ii. be free of slag, hazardous, contaminated, putrescible, toxic or radio-active matter; and
    iii. be free of industrial waste and building debris.

Heritage

46. Historic and indigenous archaeological sites and relics are protected under the *Heritage Act 1977* and *National Parks and Wildlife Act 1974,* respectively. Should any relics be uncovered during the course of the approved works, work must cease immediately in the affected area. Subsequently, in cases where historical items have been uncovered, the Department of Planning and Environment must be contacted.

47. All workers / contractors on the site shall be informed of their obligations, under the Heritage Act and *National Parks and Wildlife Act 1974,* that it is illegal to disturb, damage or destroy a relic without the prior approval.

Demolition

48. Any existing structures identified for demolition shall be demolished prior to commencement of the construction of the activity.

49. Demolition shall be carried out in accordance with the appropriate provisions of AS 2601.

50. Where materials containing asbestos are to be removed, demolition shall be carried out by a licensed contractor(s) who have current SafeWork NSW accreditation in asbestos removal.

51. Removal of asbestos-based thermal or acoustic insulation, such as sprayed asbestos and asbestos-based lagging, including friable asbestos boards, shall be carried out in accordance with the National Occupational Health and Safety Commission's Code of Practice for the Safe Removal of Asbestos, 2nd Edition [NOHSC:2002 (2005)].

52. Hazardous or intractable wastes, including all asbestos laden waste, arising from the demolition process shall be removed and disposed of in accordance with the requirements of SafeWork NSW and the Department of Planning and Environment.

53. Documentary evidence, in the form of tip receipts from an approved Waste Management Facility, shall be obtained by the demolition contractor and submitted to the Land & Housing Corporation demonstrating the appropriate disposal of the asbestos waste.

54. Demolition procedures shall maximise the reuse and recycling of demolished materials in order to reduce the environmental impacts of waste disposal.

55. During demolition, the public footpath and the public road shall not be obstructed by any vehicles. The public road and footpath shall be swept (not hosed) clean of any material, including clay, soil and sand.

56. All vehicles leaving the site with demolition materials shall have their loads covered and vehicles shall not track soil and other material onto the public roads and footpaths. The footpath shall be suitably protected against damage when plant and

vehicles access the site. All loading of vehicles with demolished materials shall occur on site.

Survey Reports

57. Survey reports shall be submitted by the building contractor to the Land & Housing Corporation prior to the placement of the footings / slab and on completion of the dwellings to verify the correct position of the structures in relation to the allotment boundaries.

Hours of Demolition / Construction / Civil Work

58. Demolition / construction / Demolition / construction / civil work shall only occur on the site between the hours of 7.00am to 5.00pm Monday to Saturday with no work permitted on Sundays or public holidays.

Excavation & Backfilling

59. All excavations and backfilling associated with the demolition or erection of building(s) shall be executed safely and in accordance with appropriate professional standards. All such work shall be guarded and protected to prevent it from being dangerous to life or property.

Pollution Control

60. Any noise generated during the construction of the development shall not exceed the limits specified in the July 2009 Interim Construction Noise Guidelines, published by the former Department of Environment and Climate Change.

61. No fires shall be lit or waste materials burnt on the site.

62. No washing of concrete forms or trucks shall occur on the site.

63. Any contamination / spills on the site during construction works shall be actively managed and reported immediately to appropriate regulatory authorities to minimise any potential damage to the environment.

64. Dust generation during demolition / construction shall be controlled using regular control measures such as on site watering or damp cloth fences.

65. All vehicles transporting loose materials and travelling on public roads shall be secured (i.e. closed tail gate and covered) to minimise dust generation.

66. Non-recyclable waste and containers shall be regularly collected and disposed of at a licensed landfill or other disposal site in accordance with details set out in the final Waste Management Plan.

Impact of Construction Works

67. The Land & Housing Corporation shall bear the cost of any necessary adjustments to utility mains and services.

68. Care shall be taken to prevent any damage to adjoining properties. The building contractor shall be liable to pay compensation to any adjoining owner if, due to demolition/construction works, damage is caused to such adjoining property.

Termite Protection

69. To protect buildings from subterranean termite, termite barriers installed in accordance with AS 3660.1, shall be placed on the underside and in penetrations of the concrete slab floor.

In addition, a durable notice must be permanently fixed inside the meter box indicating:

(a) the method of protection.
(b) the date of installation of the system.
(c) where a chemical barrier is used, its life expectancy as listed on the National Registration Authority label.
(d) the need to maintain and inspect the system on a regular basis.

PRIOR TO OCCUPATION OF THE DEVELOPMENT

The following Identified Requirements are to be complied with prior to the occupation of the development.

General

70. The use or occupation of the development shall not commence until all the Identified Requirements of this determination have been complied with.

Council Infrastructure Damage

71. The cost of repairing any damage caused to City of Newcastle Council's assets in the vicinity of the site as a result of demolition / construction works shall be met in full by the building contractor.

Stormwater Drainage

72. Prior to occupation, a Work As Executed Plan shall be prepared by the building contractor clearly showing all aspects of the constructed stormwater drainage system, including any on-site detention system. The plan shall demonstrate general compliance with the approved concept stormwater drainage plan(s) and shall include:

- sufficient levels and dimensions to verify the constructed storage volumes; and
- location and surface levels of all pits; and
- invert levels of the internal drainage lines, orifice plates fitted and levels within the outlet control pits; and
- finished floor levels of all structures; and
- verification that any required trash screens have been installed; and
- locations and levels of any overland flow paths; and
- verification that any drainage lines are located wholly within easements, where applicable.

The Work-As-Executed Plan information shall be shown on the final civil works drawings.

A positive covenant and restriction-as-to-user shall be placed over the onsite detention system in accordance with City of Newcastle Council's on-site detention

policy to ensure that the system will be adequately maintained. The positive covenant and restriction-as-to-user shall be registered at NSW Land Registry Services prior to occupation. A copy of the registered restriction-as-to-user shall be provided to the Land & Housing Corporation and Newcastle Council.

PART B – Additional Identified Requirements

Site Specific Requirements

73. To manage bushfire risk and comply with Planning for Bushfire Protection 2019 (PBP), the development shall comply with the following requirements outlined in the Bushfire Certificate prepared by Newcastle Bushfire Consulting dated 12 April 2023:

a. BAL-12.5 in accordance with AS3959 (2018) Construction of buildings in bushfire-prone areas or NASH Standard (1.7.14 updated) National Standard Steel Framed Construction in Bushfire Areas – 2014 as appropriate and the additional construction requirements of Planning for Bush Fire Protection (2019) Section 7.5.2.
b. At the commencement of building works and in perpetuity, the entire property shall be managed as an inner protection area (IPA) as outlined within Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW Rural Fire Service's document Standards for Asset Protection Zones.
c. Water, electricity, and gas are to comply with Section 7 of Planning for Bush Fire Protection (2019).
d. Landscaping is to be undertaken in accordance with Planning for Bush Fire Protection (2019) Appendix 4 and managed and maintained in perpetuity.
e. It is recommended that the property owner and occupants familiarise themselves with the relevant bushfire preparation and survival information provided by the NSW RFS.

74. To improve solar access to private open space areas of Units 1 - 7, the following amendments to proposed fencing are required:

a. The screen fencing provided along the east elevation of the Private Open Space areas of Units 1 and 2 is to be reduced in height to a maximum of 1.5m measured from the finished floor level of the paved Private Open Space area.
b. The screen fencing provided along the east elevation of the Private Open Space areas of Units 3 and 4 is to be reduced in height to a maximum of 1.7m measured from the finished floor level of the paved Private Open Space area.
c. The screen fencing provided along the west elevation of the Private Open Space areas of units 5-7 (labelled f(5)) is to be deleted. The dividing fences separating the Private Open Space area of these units is to extend to the boundary fence on the west boundary to ensure privacy is maintained between these units.

75. To ensure consistency across documentation, drawing DA05 in the Architectural Plans must be updated to reflect the location of the north facing windows in bed 2 of unit 5, as shown on drawings DA08 and DA10.

Requirements Resulting from Council Submissions

76. A new kerb inlet pit (lintel nominal size1200mm) to CN's Standard Drawing A2200 at the site frontage, connecting to an existing public pit via new 375mm RRJ class 4 RCP pipe for discharge of stormwater from the development. Site drainage must be connected to the new stormwater pit.

77. Redundant driveways in the road reserve are to be removed and restored as kerb.

78. The driveway crossover adjacent to council street tree PT1 must be removed using hand tools only. No machinery is to be operated in the Tree Protection Zone (TPZ) of this tree.

79. In order to comply with City of Newcastle Council's House Numbering Policy' and the Surveying and Spatial Regulation 2017, the street address for the subject development is allocated as follows:

ADDRESS SCHEDULE				
Unit/ Dwelling/ Lot Number on plan	Council Allocated Street Addresses			
	House Number	Street Name	Street Type	Suburb
Proposed Unit 1	1/27	Prospero	Street	Maryland
Proposed Unit 2	2/27	Prospero	Street	Maryland
Proposed Unit 3	3/27	Prospero	Street	Maryland
Proposed Unit 4	4/27	Prospero	Street	Maryland
Proposed Unit 5	7/27	Prospero	Street	Maryland
Proposed Unit 6	8/27	Prospero	Street	Maryland
Proposed Unit 7	9/27	Prospero	Street	Maryland
Proposed Unit 8	6/27	Prospero	Street	Maryland
Proposed Unit 9	5/27	Prospero	Street	Maryland

Requirements Resulting From Public Submissions

80. To minimise privacy impacts into the rear private open space of 23 Prospero Street, the bottom fixed windowpane of the two windows on the east elevation of bedroom 2 in Unit 3 are to be removed.

ADVISORY NOTES

i. Approval of this development activity does not imply or infer compliance with Section 23 of the *Disability Discrimination Act 1992*. Refer to AS 1428.1 and the Building Code of Australia for detailed guidance.

ii. Information regarding the location of underground services may be obtained from Dial Before You Dig at www.1100.com.au or by dialling 1100.

Decision Statement

SITE IDENTIFICATION

STREET ADDRESS

Unit/Street No	Street or property name
25 – 29	Prospero Street

Suburb, town or locality	Postcode
Maryland	2287

Local Government Area(s)	Real property description (Lot and DP)
Newcastle	Lots 395, 396 and 397 in DP 702896

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Provide a description of the activity

Demolition of 3 existing dwellings and structures, removal of trees, and the construction of 9 residential units comprising 1 x 1-bedroom, 5 x 2-bedroom and 3 x 3-bedroom units, with associated landscaping and fencing, surface parking for 6 cars, and consolidation into a single lot.

The Land & Housing Corporation (LAHC) has proposed the above activity under the provisions of *State Environmental Planning Policy (Housing) 2021* (Housing SEPP) which requires determination under Part 5 of the *Environmental Planning & Assessment Act 1979* (EP&A Act). This Decision Statement relates to the Review of Environmental Factors (REF) for the above activity prepared under Part 5 of the EP&A Act and the *Environmental Planning and Assessment Regulation 2021*.

Based on the REF document and supporting documentation, including advice from City of Newcastle a decision to proceed with the proposed activity has been made. This decision included consideration of the following:

Significant Impact on the Environment

- The proposed activity is not likely to have a significant impact on the environment and therefore an EIS is not required.

- The proposed activity will not be carried out in a declared area of outstanding biodiversity value and is not likely to significantly affect threatened species, populations or ecological communities, or their habitats or impact biodiversity values, meaning a SIS and/or BDAR is not required.

Reasons for the Decision

- Following an assessment of the proposed activity and associated environmental impacts within the REF document it was decided that the proposed development will have economic and social benefits and any minor short-term impacts on the environment or surrounding properties can be appropriately mitigated.

- The proposed development will assist in the provision of much needed social and affordable housing and assist in addressing the existing and growing demand for housing in the local government area.

Mitigation Measures

- Mitigation measures are required to minimise or manage environmental impacts and are detailed throughout the REF and specifically within Section 8. All mitigation measures are detailed as Identified Requirements within the Activity Determination. Additional mitigation measures, detailed in the Activity Determination have been imposed to minimise the impact on the surrounding environment, ensure appropriate site safety and to ensure legislative compliance.

Signed……  …… **Dated**..16 November 2023

Emma Nicholson
Acting Head of Policy and Innovation
Land and Housing Corporation
Department of Planning & Environment

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

Stanton Dahl Architects
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Tel +61 2 8876 5300
www.stantondahl.com.au

Land & Housing Corporation, General Housing Development
25-29 Prospero Street, Maryland, NSW Lots 395-397, DP 702896
Part 5 Activity Submission 8th August 2023

Architectural Drawing Schedule

2869.23	DA00	Cover Sheet & Location Plan
2869.23	DA01	Site & Block Analysis Plan
2869.23	DA02	Demolition Plan
2869.23	DA03	Cut & Fill Plan
2869.23	DA04	Site & External Works Plan - Ground Floor
2869.23	DA05	Site & External Works Plan - First Floor
2869.23	DA06	Landscape & Deep Soil Diagram
2869.23	DA07	Floor Plans (Units 1-4)
2869.23	DA08	Floor Plans (Units 5-7)
2869.23	DA09	Floor Plans (Units 8-9)
2869.23	DA10	Elevations - Sheet 1
2869.23	DA11	Elevations - Sheet 2
2869.23	DA12	Elevations - Sheet 3
2869.23	DA13	Sections - Sheet 1
2869.23	DA14	Sections - Sheet 2
2869.23	DA15	Shadow Diagrams - Sheet 1
2869.23	DA16	Shadow Diagrams - Sheet 2
2869.23	DA17	Shadow Diagrams - Sheet 3
2869.23	DA18	Site View From Sun - Sheet 1
2869.23	DA19	Site View From Sun - Sheet 2
2869.23	DA20	POS Views (Units 1-4) - Sheet 1
2869.23	DA21	POS Views (Units 1-4) - Sheet 2
2869.23	DA22	POS Views (Units 5-7) - Sheet 1
2869.23	DA23	POS Views (Units 5-7) - Sheet 2
2869.23	DA24	POS Views (Units 8-9) - Sheet 1
2869.23	DA25	POS Views (Units 8-9) - Sheet 2
2869.23	DA26	External Colour Selection

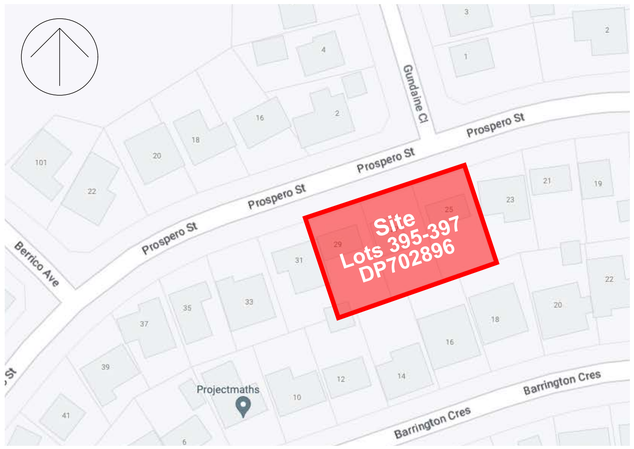
Civil Drawing Schedule

230135	C01	Notes & Legends
230135	C02	Ground Floor Drainage Plan
230135	C05	Site Stormwater Details Sheet 1
230135	ESM1	Notes & Legends
230135	ESM2	Environmental Site Management Plan

Landscape Drawing Schedule

2869.23	L01	Landscape Plan & Details
2869.23	L02	Tree Protection Details
2869.23	L03	Landscape Specification & Maintenance Plan

Artist's Impression - View from Prospero Street



01 **Location Plan**
not to scale

NSW GOVERNMENT Planning & Environment

Stanton Dahl Architects

NSW GOVERNMENT Planning & Environment

Land & Housing Corporation

General Housing Development

25-29 Prospero Street,
Maryland, NSW

Drawn; MP/DD/AT
Checked; ML
Plot date; 8/8/2023

Scale; as noted @ AI

Project No;
BGWY9

Drawing No;
DA00

Revision#;
05

Cover Sheet & Location Plan

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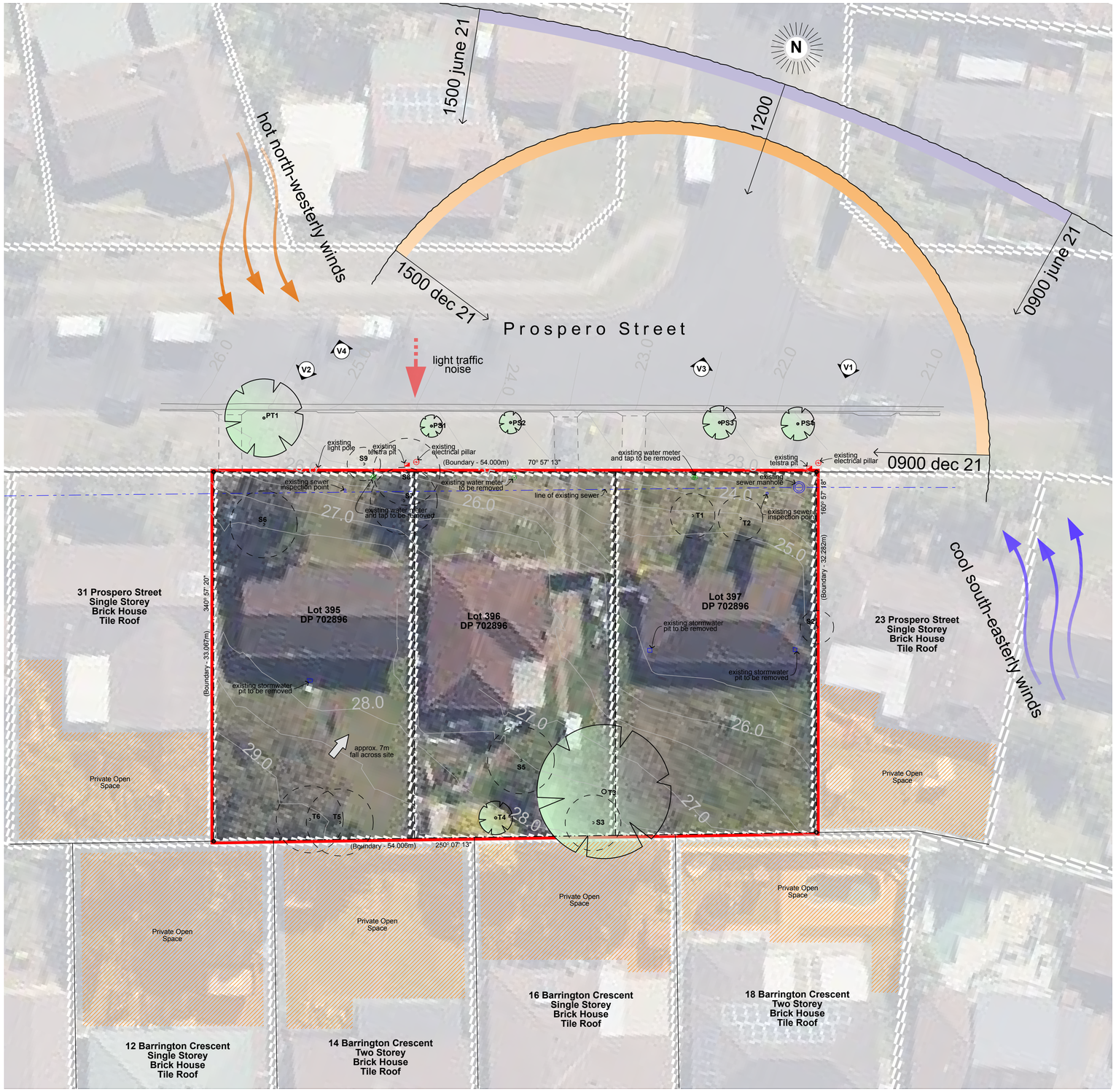

01 Site & Block Analysis Plan
1:200

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

V1 View towards 23 Prospero Street

V2 View towards 31 Prospero Street

V3 View towards Gundaine Close

V4 View towards 16 Prospero Street & 2 Gundaine Close

Legend
site & block analysis plan
note: drawing may not contain all items listed below

- existing trees to be retained
- existing trees to be removed
- existing structures
- DCP setbacks
- site boundaries
- 40 approx. location of existing contours
- indicates private open spaces

- Coles Fletcher (895m)
- Fire & Rescue NSW Wallsend Fire Station (706m)
- Maryland Public School (320m)
- Grange Avenue Reserve (452m)
- Bill Elliot Park (631m)
- Wallsend Airfield (1,538m)
- Sandgate Train Station (4,325m)

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
04	08/08/23	Updated Part 5 Issue
03	10/05/23	Part 5 Issue
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do not scale drawings. check all dimensions on site. figured dimensions take precedence.

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Landscape Consultant:
Botanique Design
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Stormwater Consultant:
Greenview Consulting
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Architect:
Stanton Dahl Architects

Project:
General Housing Development

at
25-29 Prospero Street, Maryland

Title:
Site & Block Analysis Plan

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:09 pm

Status: Part 5 Activity Submission

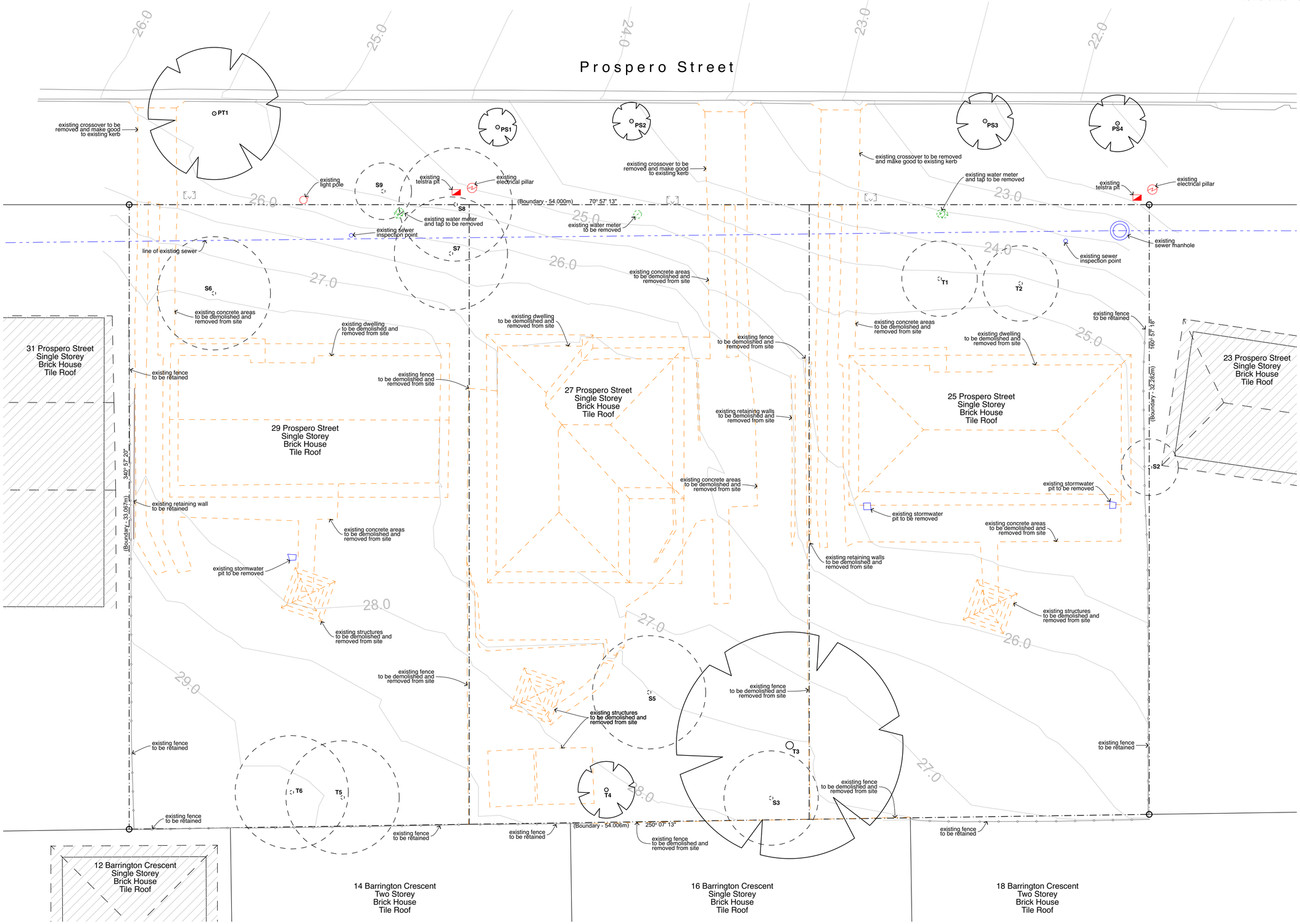
Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:200 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA01	2 of 27		04

0 1000 2000 3000 4000 5000 10 000
scale: 1:100 @A1

DETERMINED by the NSW Land and Housing Corporation on:
16 November 2023

Legend
demolition plan
note: drawing may not contain all items listed below

- existing trees to be retained
- existing trees to be removed
- not in scope of works
- denotes existing items to be demolished or removed (walls, equipment etc.)
- site boundaries
- approx. location of existing contours



01 Demolition Plan
1:100

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
04	08/08/23	Updated Part 5 Issue
03	10/05/23	Part 5 Issue
02	26/04/23	Part 5 Issue
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Architect:
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Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Demolition Plan

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:09 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:100 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA02	3 of 27		04

scale: 1:100 @A1

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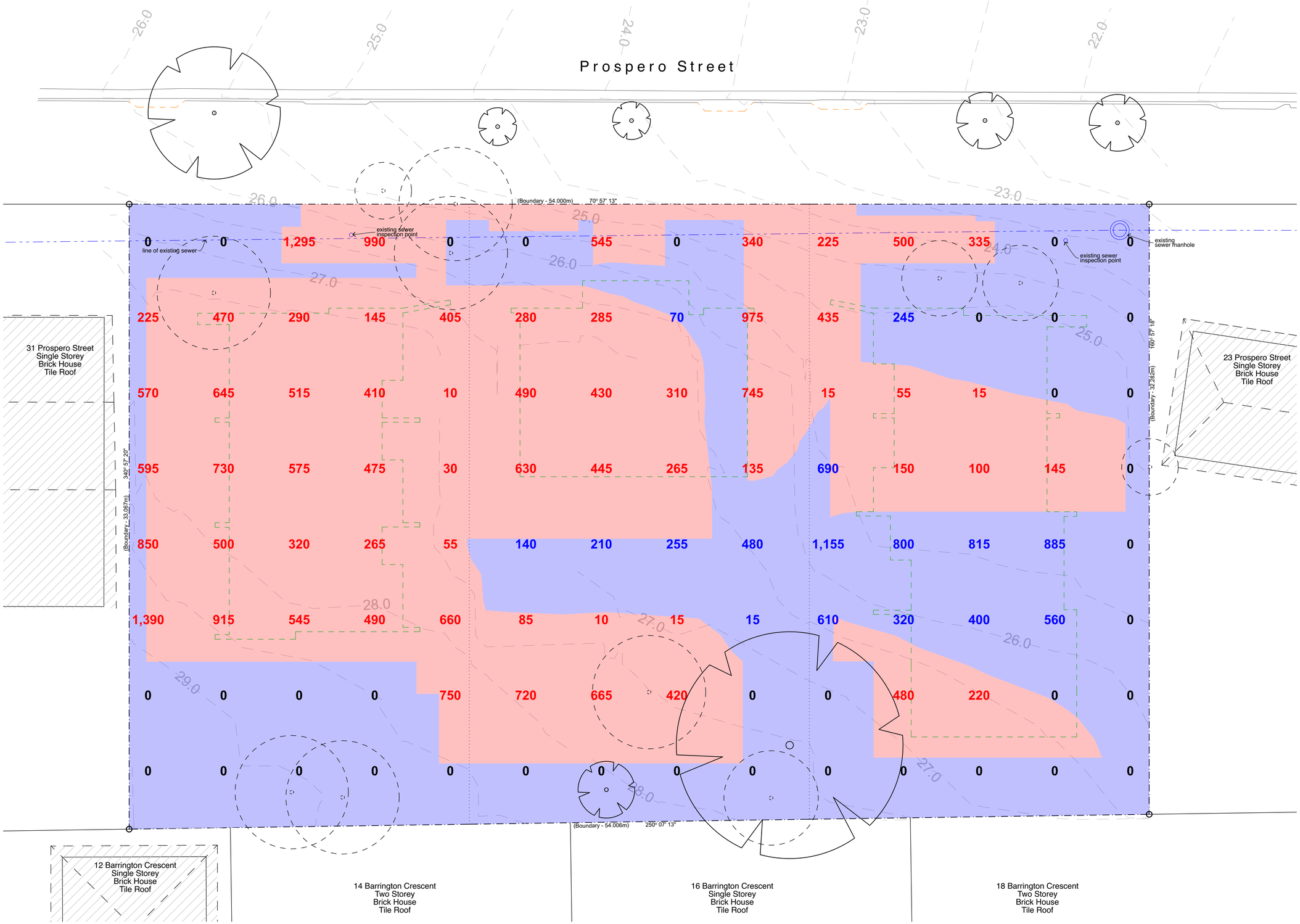
DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

Legend — cut & fill plan
note: drawing may not contain all items listed below

- existing trees to be retained
- existing trees to be removed
- outline of new buildings
- site boundaries
- **note:** blue area indicated extent of fill
- **note:** red area indicated extent of cut
- 150 approx. depth of fill in millimetres
- 150 approx. depth of cut in millimetres
- 40 approx. location of existing contours



01 Cut & Fill Plan
1:100

Planning & Environment
NSW GOVERNMENT

Rev	Date	Issue
04	08/08/23	Updated Part 5 Issue
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Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Cut & Fill Plan

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:09 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:100 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA03	4 of 27		04

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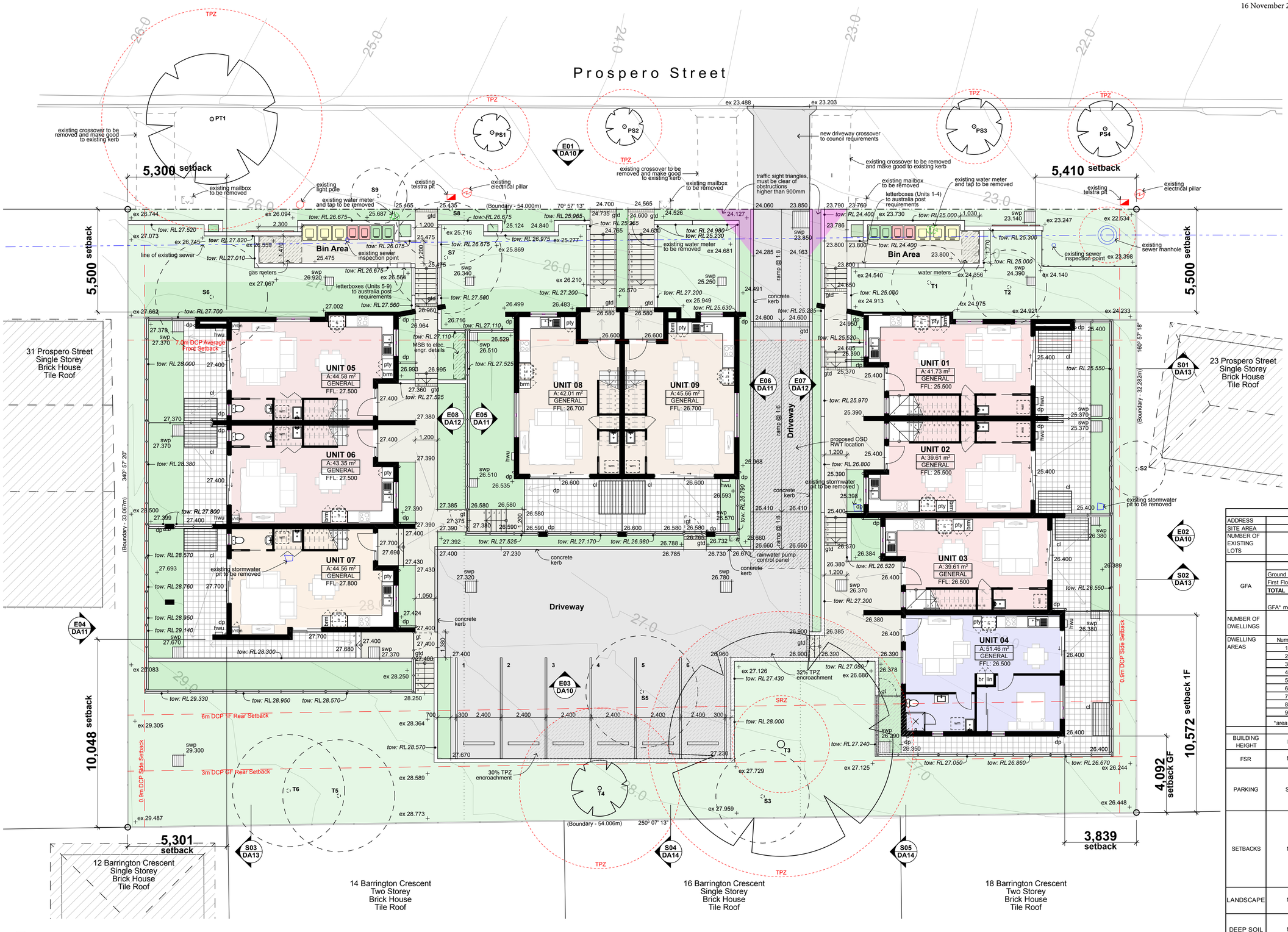
DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023



01 Site & External Works Plan - Ground Floor
1:100

Legend
(external work / site plan)
note: drawing may not contain all items listed below

- ex.contours & banking line
- existing trees to be removed
- existing trees to be retained
- proposed trees
- existing levels
- proposed levels
- proposed spot levels

ac	air conditioner condenser
acc	accessible
adhc	ageing, disability & home care
ap	access panel
bal(1)	balustrade (type)
bfc	broom finished concrete
boe	brick on edge
bl	bollard light
bol	bollard
cc(1)	coloured concrete (type)
cft(1)	ceramic floor tile (type)
cl	clothes line
col	column
dp	downpipe
drp	doorpost
ex.	existing
fb(1)	facebrick work (type)
ffl	finished floor level
ft(1)	fence (type)
gb	garbage bin
gt	gate
gtd	grated drain
hr(1)	handrail (type)
ht	hose tap
hwu	hot water unit
hyd	hydrant
kr	kerb ramp
lb	letter box
ofc	off form concrete
pmp	permeable pavers
pos	private open space
pp	power pole
rw(1)	retaining wall (type)
rwo	rainwater outlet
rwt	rainwater tank
sfc	steel float concrete
sfl	structural floor level
swp	storm water pit
tfc	trowel finished concrete
tgsi	tactile ground surface indicator
tow	top of wall
wfc	wood float concrete
ws	wheel stop

DEVELOPMENT DATA - TOWNHOUSES

ADDRESS	25-29 Prospero Street, Maryland			
SITE AREA	1,764.45m2			
NUMBER OF EXISTING LOTS	Lots 395-397 DP 702896			
	Land Zoning: R2			
GFA	Ground Floor	392.63	m2	
	First Floor	391.85	m2	
	TOTAL	**784.48**	**m2**	
	GFA* measured to inner face of external enclosing wall, excluding garages.			
NUMBER OF DWELLINGS	9 Apartments - 1x 1 Bed, 5x 2 Bed, 3x 3 Bed			

DWELLING AREAS

Number	Type*	Beds	Area* (m²)	POS (m2)
1	General	2	87.29	19.37
2	General	2	84.01	23.84
3	General	2	82.37	19.00
4	General	1	51.46	29.90
5	General	2	90.44	22.18
6	General	2	87.57	26.82
7	General	3	101.29	44.86
8	General	3	95.44	44.16
9	General	3	105.01	18.88

*area = measured to internal face of external wall including internal walls.

	Control	Requirement	Proposed
BUILDING HEIGHT	Housing SEPP	9m	7.95m
FSR	Newcastle LEP	0.6:1	0.44 : 1 (784.48 m2)
PARKING	SEPP (Housing)	0.4 space per 1 bed = 0.4 0.5 space per 2 bed = 2.5 1 space per 3 bed = 3 total spaces required = 5.9 (6)	6 spaces
SETBACKS	Newcastle DCP	Front: average setback of buidings within 40m either side on same road = 7m	building line = 5.5m front porch = 4.05m
		Side: 4.5m high = 0.9m	3.84m
		Rear: ≤4.5m high = 3m >4.5m high = 6m	4.09m 10.05m
LANDSCAPE	Newcastle DCP	30% of lot area min 1.5m, min 3m at rear = 529.34m2	535.03m2 (30% of site area)
DEEP SOIL	Newcastle DCP	15% of lot area, min 3m = 264.67m2	401.45m2 (23% of site area)
SOLAR ACCESS	LAHC Design Requirements	70% of dwellings & POS must have 2hrs of direct sunlight between 9am to 3pm 21 June	Living - 7/9 = 78% POS - 9/9 = 100%

*bushfire note:

the BAL 12.5 construction requirements of the development to be in accordance to bushfire report provided by Newcastle Bushfire Consulting Rev 4 dated 12 April 2023

Planning & Environment

Rev	Date	Issue
04	08/08/23	Updated Part 5 Issue
03	10/05/23	Part 5 Issue
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Architect:
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Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Site & External Works Plan - Ground Floor

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date: 8/8/2023	Scale: 1:100 @ A1	S(d job no: 2869.23	Project no. BGWY9
Stage: Part 5	Drawn: MP/DD/AT	Checked: ML	Approved: ML
Drawing: DA04	Sheet: 5 of 27		Rev: 04

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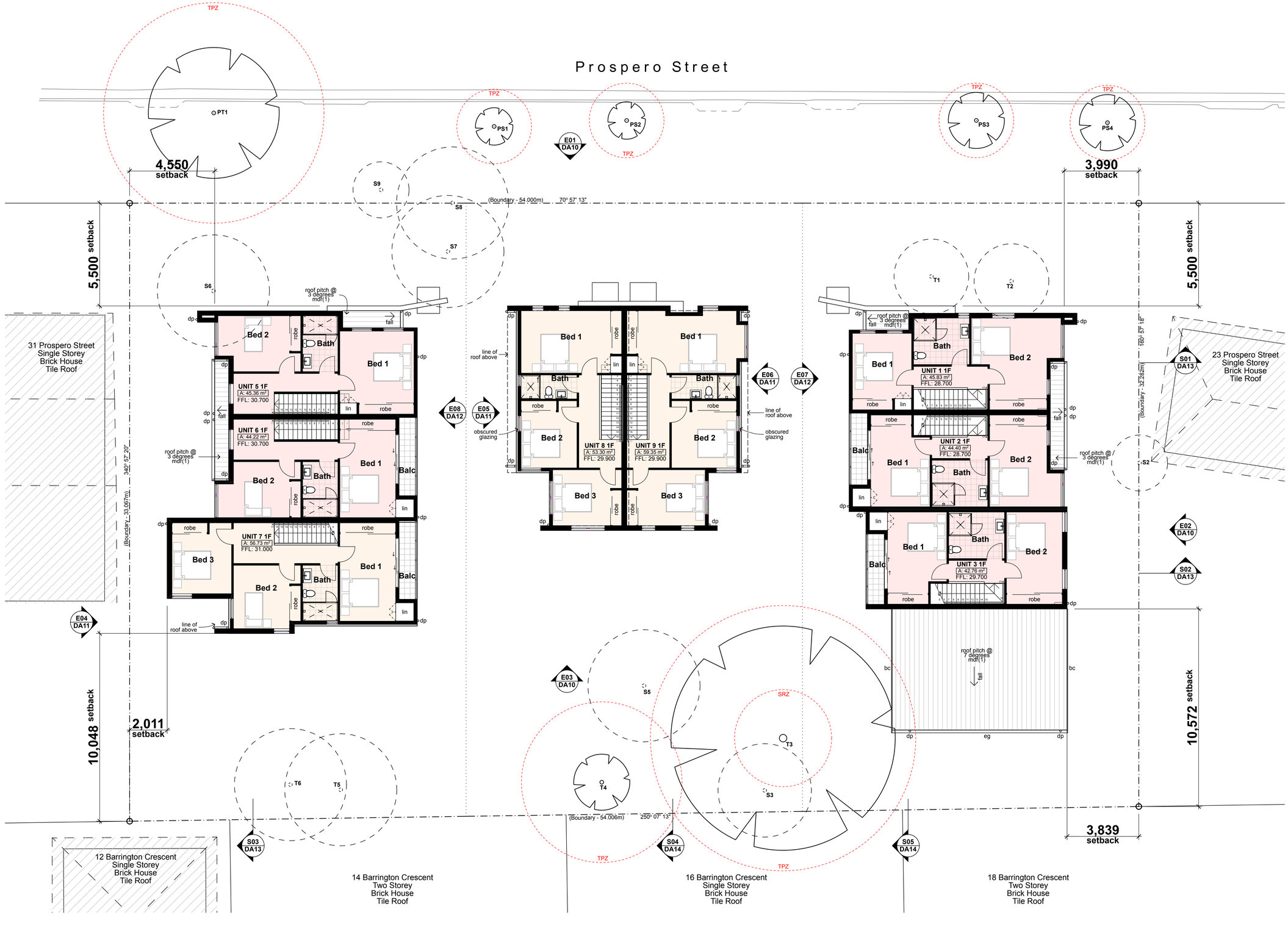
DETERMINED by the NSW Land and Housing Corporation on:
16 November 2023



01 Site & External Works Plan - First Floor
1:100

Legend (external work / site plan)
note: drawing may not contain all items listed below

64	ex.contours & banking line
	existing trees to be removed
	existing trees to be retained
	proposed trees
ex. RL00.00	existing levels
RL00.00	proposed levels
39.000	proposed spot levels

ac	air conditioner condenser
acc	accessible
adhc	ageing, disability & home care
ap	access panel
bal(1)	balustrade (type)
bfc	broom finished concrete
boe	brick on edge
bl	bollard light
bol	bollard
cc(1)	coloured concrete (type)
cft(1)	ceramic floor tile (type)
cl	clothes line
col	column
dp	downpipe
drp	doorpost
ex.	existing
fb(1)	facebrick work (type)
ffl	finished floor level
ft(1)	fence (type)
gb	garbage bin
gt	gate
gtd	grated drain
hr(1)	handrail (type)
ht	hose tap
hwu	hot water unit
hyd	hydrant
kr	kerb ramp
lb	letter box
ofc	off form concrete
pmp	permeable pavers
pos	private open space
pp	power pole
rw(1)	retaining wall (type)
rwo	rainwater outlet
rwt	rainwater tank
sfc	steel float concrete
sfl	structural floor level
swp	storm water pit
tfc	trowel finished concrete
tgsi	tactile ground surface indicator
tow	top of wall
wfc	wood float concrete
ws	wheel stop

*bushfire note:

the BAL 12.5 construction requirements of the development to be in accordance to bushfire report provided by Newcastle Bushfire Consulting Rev 4 dated 12 April 2023

Planning & Environment
NSW GOVERNMENT

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Architect:
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Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Site & External Works Plan - First Floor

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:100 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA05	6 of 27		03

0 2000 4000 6000 8000 10 000 20 000
scale: 1:200 @A1

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

Legend
note: drawing may not contain all items listed below

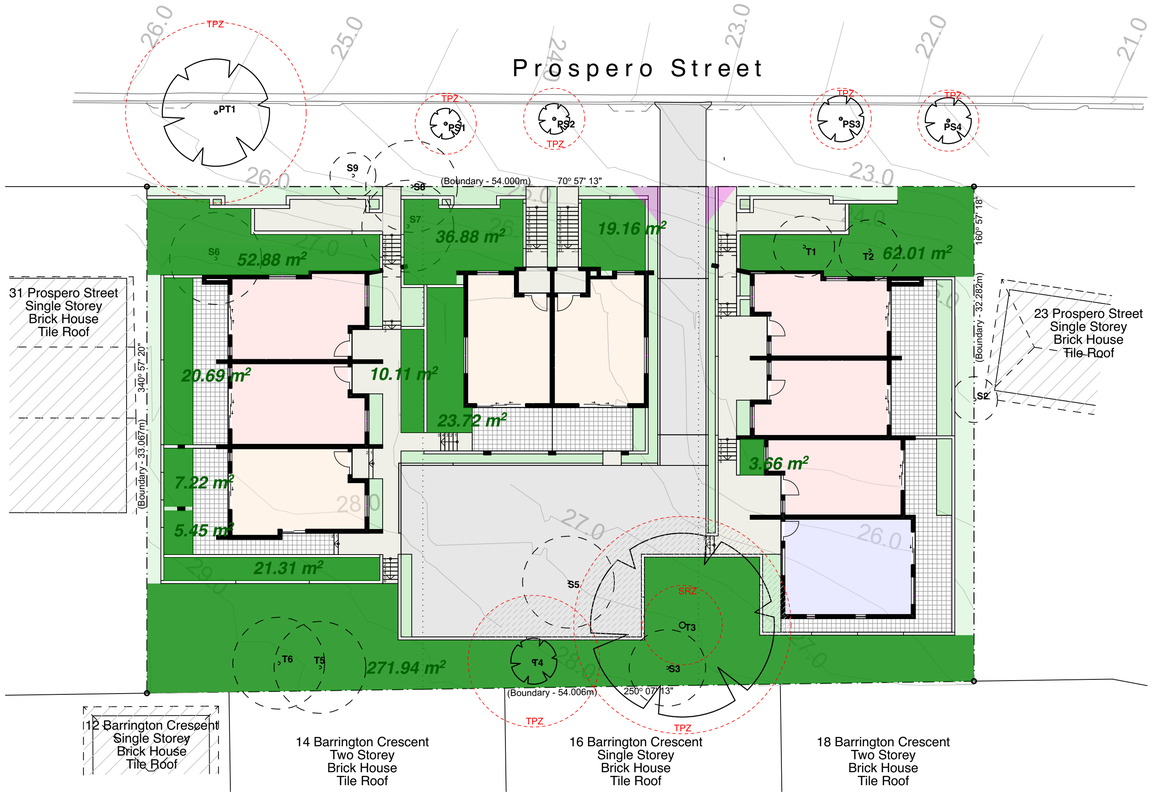
soft landscape & deep soil

Dark Green area indicates landscape area (min. dim 1.5x1.5m)

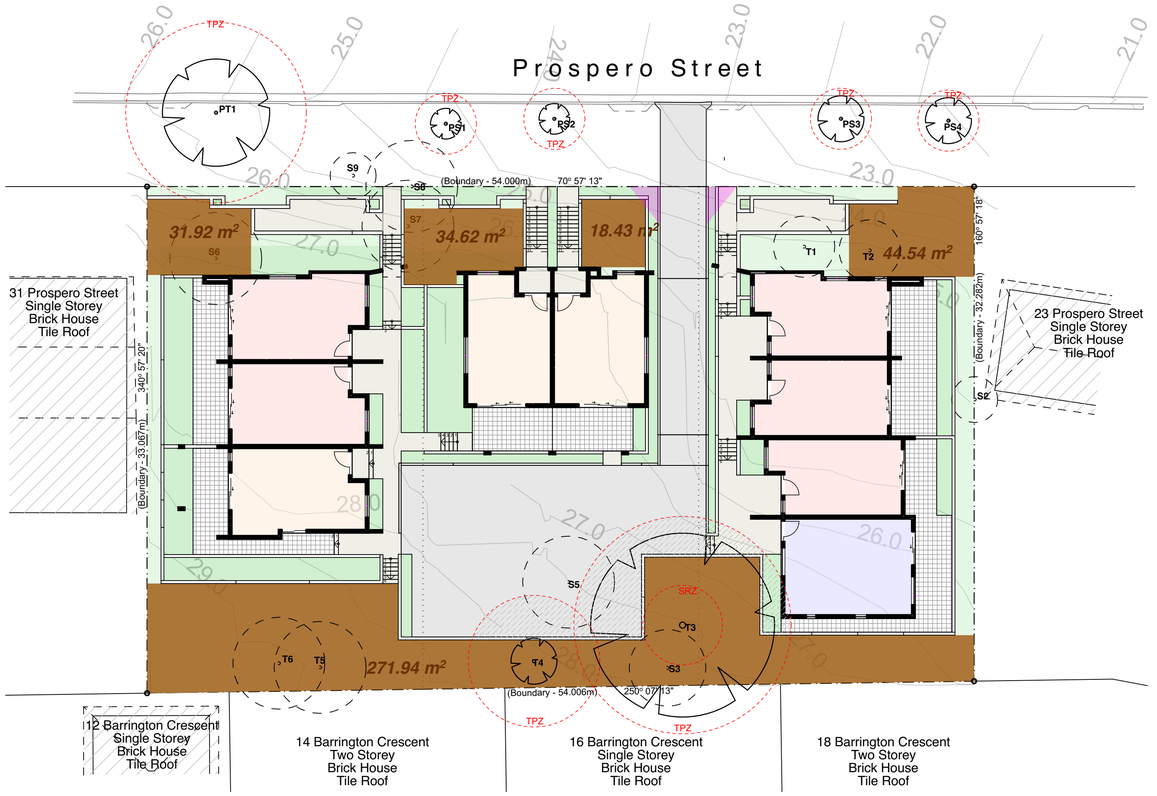
Total: 535.03 m² (30% of site area)

Dark Brown area indicates deep soil zone (min. dim 3x3m)

Total: 401.45 m² (23% of site area)



01 Soft Landscaping Diagram
1:200



02 Deep Soil Diagram
1:200

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
05	08/08/23	Updated Part 5 Issue
04	16/06/23	Part 5 Issue
03	10/05/23	Part 5 Issue
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General Housing Development
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25-29 Prospero Street, Maryland

Title:
Landscape & Deep Soil Diagram

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
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Drawing:	Sheet:		Rev:
DA06	7 of 27		05

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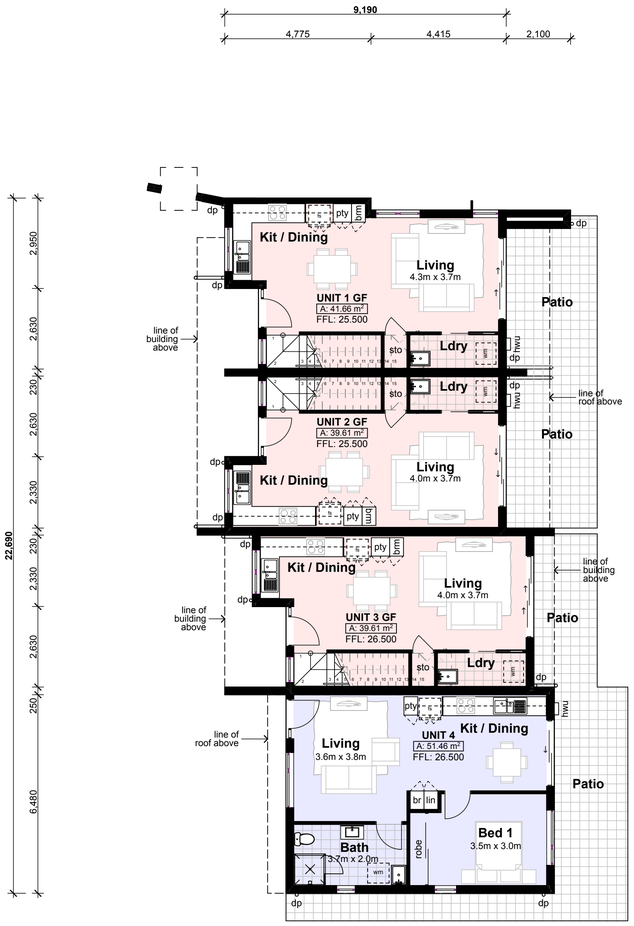
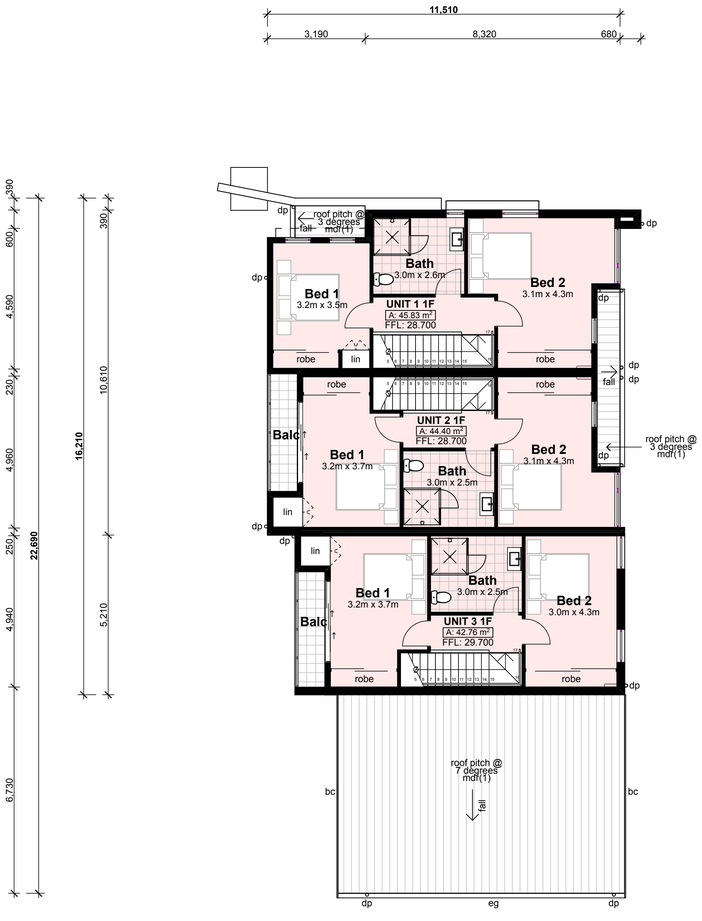
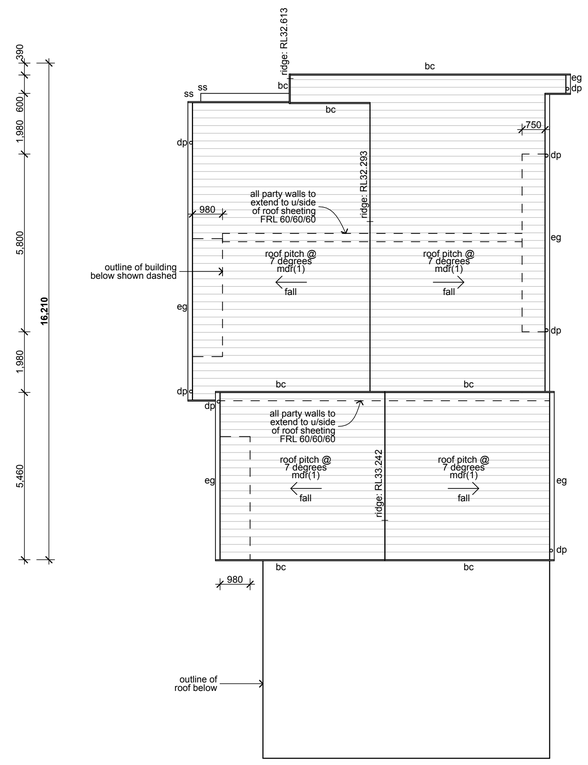


01 Ground Floor Plan (Units 1-4)
1:100



02 First Floor Plan (Units 1-4)
1:100



03 Roof Plan (Units 1-4)
1:100

Legend (floor plans)
note: drawing may not contain all items listed below

D01	door numbers (as scheduled) (prefix ex. for existing door)
W01	window numbers (as scheduled) (prefix ex. for existing window)
(a)	wall type (as scheduled)
ac	air conditioner condenser
acc	accessible
adhc	ageing, disability & home care
amb	ambulant
ap	access panel
bal(1)	balustrade (type)
bfc	broom finish concrete
bol	bollard
brm	broom cupboard
bsn	basin
cft(1)	ceramic floor tile (type)
cj	control joint
cl	clothes line
col	column
comms	communication cabinet
cpt(1)	carpet (type)
ct	cooktop
dp	downpipe
drp	doorpost
edb	electrical distribution box
ex.	existing
fb(1)	face brickwork (type)
fhr	fire hose reel
fp	feature panel
fs	fridge space
fw	floor waste
gb	garbage bin
gt	gate
gtd	grated drain
hr(1)	handrail (type)
ht	hose tap
hwu	hot water unit
hyd	hydrant
kr	kerb ramp
lb	letter box
lin	linen cupboard
mw	microwave
ofc	off form concrete
ps	privacy screen
pty	pantry
ref	refridgerator
rfm	recessed floor mat
robe	wardrobe
rw(1)	retaining wall (type)
rwt	rainwater tank
snk	sink
sc	steel column
sfc	steel float concrete
shr	shower
sk	skylight/skytube
sl	sliding door
st	store
sv(1)	sheet vinyl (type)
swp	storm water pit
tgsi	tactile ground surface indicators
vp	vent pipe
wfc	wood float concrete
wm	washing machine space
wo	wall oven
ws	wheel stop
wcs	window casing

Legend (roof plans)
note: drawing may not contain all items listed below

ap	access panel
bc	barge capping
dp	downpipe
eg	eaves gutter
ex.	existing
fg	flashing
gu	gutter
mdr(1)	metal deck roof sheeting (type)
of	overflow
pc	parapet capping
pv	photovoltaic cells
rc	roof ridge capping
rwh	rainwater head
sk	skylight/skytube
tf	tray flashing
vg	valley gutter
vof	vertical overflow
vp	vent pipe

*bushfire note:

the BAL 12.5 construction requirements of the development to be in accordance to bushfire report provided by Newcastle Bushfire Consulting Rev 4 dated 12 April 2023

*bushfire note:

the BAL 12.5 construction requirements of the development to be in accordance to bushfire report provided by Newcastle Bushfire Consulting Rev 4 dated 12 April 2023

NSW GOVERNMENT Planning & Environment

04	08/08/23	Updated Part 5 Issue
03	10/05/23	Part 5 Issue
02	26/04/23	Part 5 Issue
01	14/04/23	Part 5 Issue
Rev	Date	Issue

do not scale drawings. check all dimensions on site. figured dimensions take precedence.

Project Architect:
Stanton Dahl Architects
Ph: (02) 8876 5300

Landscape Consultant:
Botanique Design
Mob: 0404 887 620

Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Floor Plans (Units 1-4)

File:
2869.23_25-29 Prospero St, Maryland_Part 5.pln

Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:100 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA07	8 of 27		04

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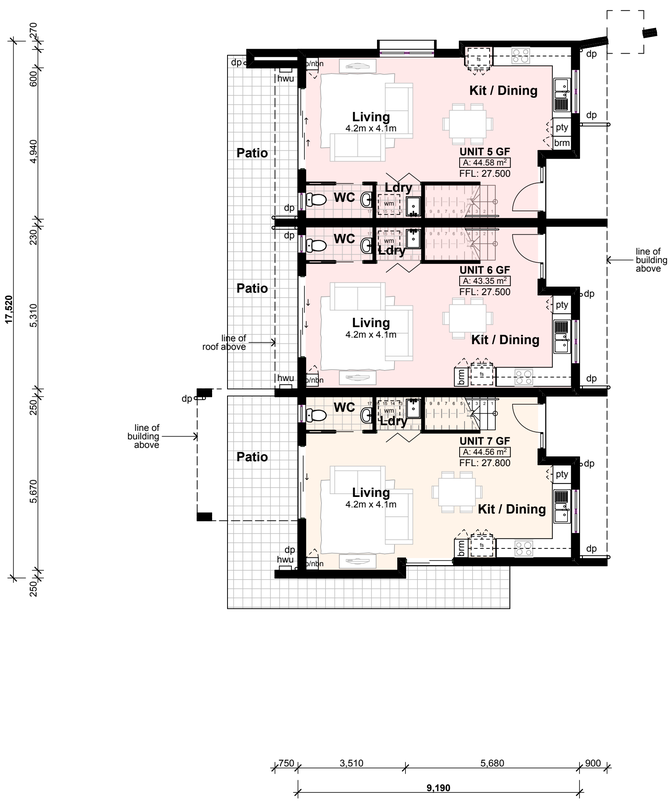
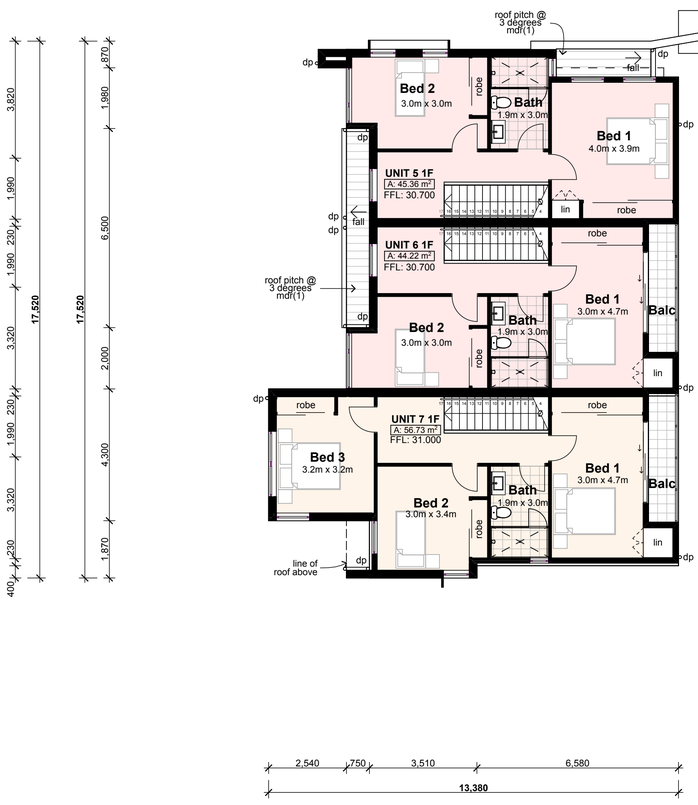
scale: 1:100 @A1

DETERMINED by the NSW Land and Housing Corporation on:

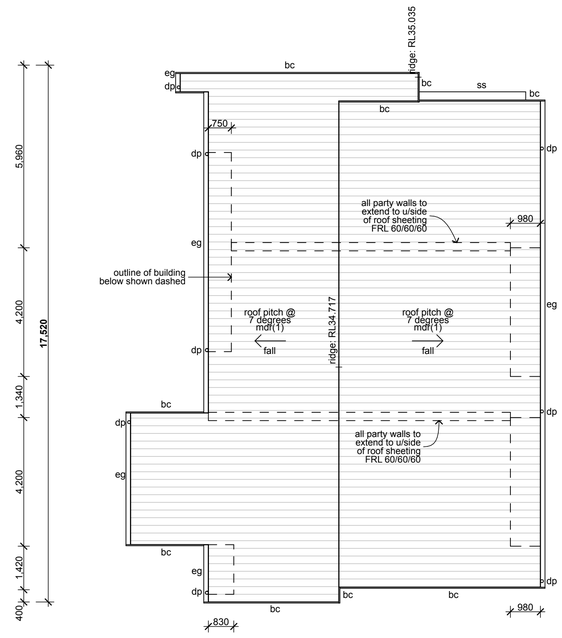
16 November 2023



01 Ground Floor Plan (Units 5-7)
1:100



02 First Floor Plan (Units 5-7)
1:100



03 Roof Plan (Units 5-7)
1:100

Legend (floor plans)

note: drawing may not contain all items listed below

D01	door numbers (as scheduled) (prefix ex. for existing door)
W01	window numbers (as scheduled) (prefix ex. for existing window)
(a)	wall type (as scheduled)

ac	air conditioner condenser
acc	accessible
adhc	ageing, disability & home care
amb	ambulant
ap	access panel
bal(1)	balustrade (type)
bfc	broom finish concrete
bol	bollard
brm	broom cupboard
bsn	basin
cft(1)	ceramic floor tile (type)
cj	control joint
cl	clothes line
col	column
comms	communication cabinet
cpt(1)	carpet (type)
ct	cooktop
dp	downpipe
drp	doorpost
edb	electrical distribution box
ex.	existing
fb(1)	face brickwork (type)
fhr	fire hose reel
fp	feature panel
fs	fridge space
fw	floor waste
gb	garbage bin
gt	gate
gtd	grated drain
hr(1)	handrail (type)
ht	hose tap
hwu	hot water unit
hyd	hydrant
kr	kerb ramp
lb	letter box
lin	linen cupboard
mw	microwave
ofc	off form concrete
ps	privacy screen
pty	pantry
ref	refridgerator
rfm	recessed floor mat
robe	wardrobe
rw(1)	retaining wall (type)
rwt	rainwater tank
snk	sink
sc	steel column
sfc	steel float concrete
shr	shower
sk	skylight/skytube
sl	sliding door
st	store
sv(1)	sheet vinyl (type)
swp	storm water pit
tgsi	tactile ground surface indicators
vp	vent pipe
wfc	wood float concrete
wm	washing machine space
wo	wall oven
ws	wheel stop
wcs	window casing

Legend (roof plans)

note: drawing may not contain all items listed below

ap	access panel
bc	barge capping
dp	downpipe
eg	eaves gutter
ex.	existing
fg	flashing
gu	gutter
mdr(1)	metal deck roof sheeting (type)
of	overflow
pc	parapet capping
pv	photovoltaic cells
rrc	roof ridge capping
rwh	rainwater head
sk	skylight/skytube
tf	tray flashing
vg	valley gutter
vof	vertical overflow
vp	vent pipe

*bushfire note:

the BAL 12.5 construction requirements of the development to be in accordance to bushfire report provided by Newcastle Bushfire Consulting Rev 4 dated 12 April 2023

Planning & Environment
NSW GOVERNMENT

Rev	Date	Issue
04	08/08/23	Updated Part 5 Issue
03	10/05/23	Part 5 Issue
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01	14/04/23	Part 5 Issue

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figured dimensions take precedence.

Project Architect:
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Ph: (02) 8876 5300

Landscape Consultant:
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Mob: 0404 887 620

Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Floor Plans (Units 5-7)

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date: 8/8/2023	Scale: 1:100 @ AI	S\d job no: 2869.23	Project no. BGWY9
Stage: Part 5	Drawn: MP/DD/AT	Checked: ML	Approved: ML
Drawing: DA08	Sheet: 9 of 27		Rev: 04

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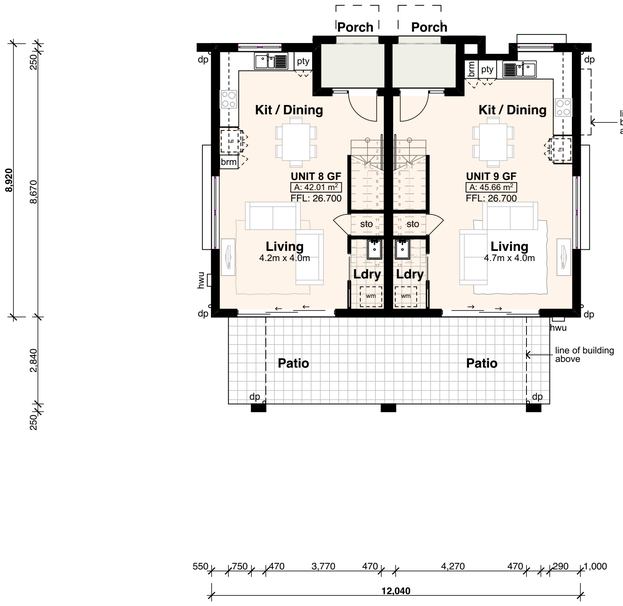
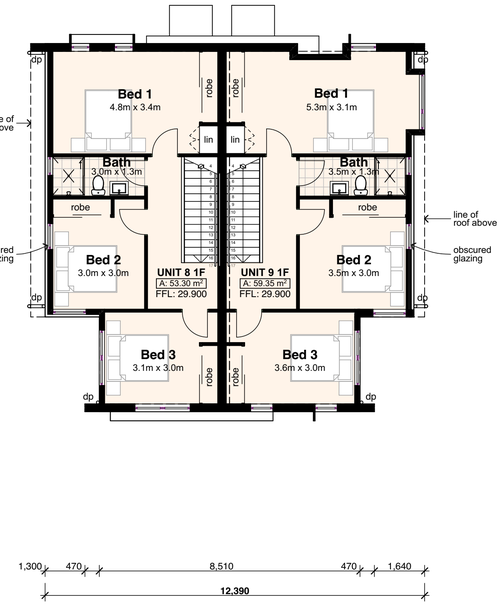
scale: 1:100 @A1

DETERMINED by the NSW Land and Housing Corporation on:

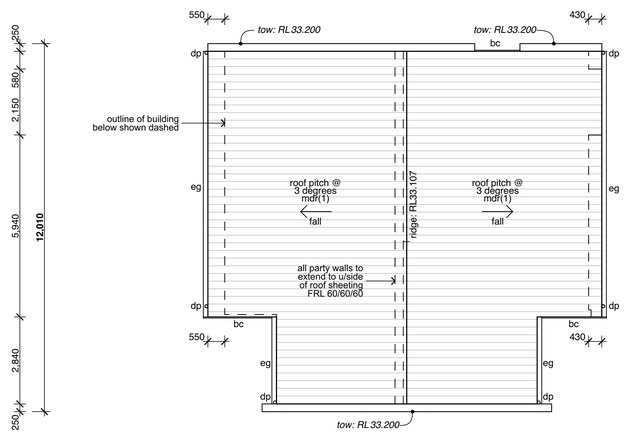
16 November 2023



01 Ground Floor Plan (Units 8-9)
1:100



02 First Floor Plan (Units 8-9)
1:100



03 Roof Plan (Units 8-9)
1:100

Legend (floor plans)
note: drawing may not contain all items listed below

D01	door numbers (as scheduled) (prefix ex. for existing door)
W01	window numbers (as scheduled) (prefix ex. for existing window)
(a)	wall type (as scheduled)
ac	air conditioner condenser
acc	accessible
adhc	ageing, disability & home care
amb	ambulant
ap	access panel
bal(1)	balustrade (type)
bfc	broom finish concrete
bol	bollard
brm	broom cupboard
bsn	basin
cft(1)	ceramic floor tile (type)
cj	control joint
cl	clothes line
col	column
comms	communication cabinet
cpt(1)	carpet (type)
ct	cooktop
dp	downpipe
drp	doorpost
edb	electrical distribution box
ex.	existing
fb(1)	face brickwork (type)
fhr	fire hose reel
fp	feature panel
fs	fridge space
fw	floor waste
gb	garbage bin
gt	gate
gtd	grated drain
hr(1)	handrail (type)
ht	hose tap
hwu	hot water unit
hyd	hydrant
kr	kerb ramp
lb	letter box
lin	linen cupboard
mw	microwave
ofc	off form concrete
ps	privacy screen
pty	pantry
ref	refridgerator
rfm	recessed floor mat
robe	wardrobe
rw(1)	retaining wall (type)
rwt	rainwater tank
snk	sink
sc	steel column
sfc	steel float concrete
shr	shower
sk	skylight/skytube
sl	sliding door
st	store
sv(1)	sheet vinyl (type)
swp	storm water pit
tgsi	tactile ground surface indicators
vp	vent pipe
wfc	wood float concrete
wm	washing machine space
wo	wall oven
ws	wheel stop
wcs	window casing

Legend (roof plans)
note: drawing may not contain all items listed below

ap	access panel
bc	barge capping
dp	downpipe
eg	eaves gutter
ex.	existing
fg	flashing
gu	gutter
mdr(1)	metal deck roof sheeting (type)
of	overflow
pc	parapet capping
pv	photovoltaic cells
rrc	roof ridge capping
rwh	rainwater head
sk	skylight/skytube
tf	tray flashing
vg	valley gutter
vof	vertical overflow
vp	vent pipe

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NSW GOVERNMENT Planning & Environment

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04	08/08/23	Updated Part 5 Issue
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Landscape Consultant:
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Mob: 0404 887 620

Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Floor Plans (Units 8-9)

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:100 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA09	10 of 27		04

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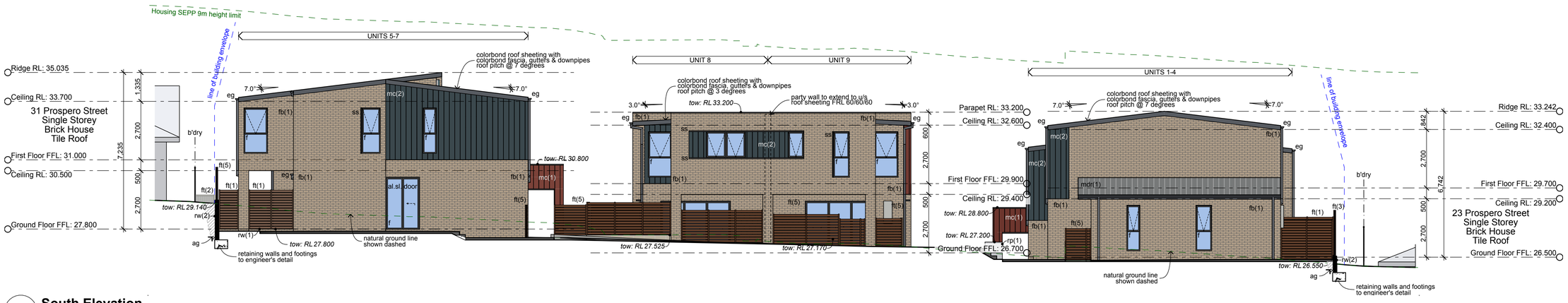
scale: 1:100 @A1

DETERMINED by the NSW Land and Housing Corporation on:
16 November 2023

E01 North Elevation (Prospero Street)
1:100

E02 East Elevation
1:100



E03 South Elevation
1:100

Legend
(elevation & sections)
note: drawing may not contain all items listed below

ac	air conditioner condenser
ag	ag pipe
alv	adjustable louvres
alw	aluminium framed window
bal(1)	balustrade (type)
bc	barge capping
bg	box gutter
boe	brick on edge
bws	brickwork sill
cfc	compressed fibre cement
cj	control joint
conc.	concrete
cs	coved skirting
csc	cut soldier course
dp	downpipe
drh	door head
dms	decorative metal screen
eg	eaves gutter
egl	existing ground line
ex.	existing
f	fixed sash window
fb(1)	face brickwork (type)
fcl	finished ceiling level
ffl	finished floor level
flv	fixed louvres
fp	feature panel
ft(1)	fence (type)
gl	ground line
gt	gate
hr(1)	handrail (type)
ip	insulated panel
mc(1)	metal cladding (type)
mdr(1)	metal deck roof (type)
mps	metal privacy screen
nc	non structural column
og	obscure glazing
ofc	off form concrete
olv	operable louvres
p(1)	paint (type)
pap(1)	perforated acoustic panel (type)
pbd	plasterboard
ps	privacy screen
pv	photovoltaic cells
rc	rendered concrete
rms	raked metal soffit
rp(1)	render & paint finish (type)
rs	roller shutter
rw(1)	retaining wall (type)
rwh	rainwater head
s	sliding sash window
sc	steel column
sk	skylight/skytube
sl	sliding door
ss(1)	sun shade (type)
ts	timber skirting
wcs	window casing

Fence Type

ft(1)	1.8m high powdercoated metal slatted fence (horizontal)
ft(2)	1.8m high colorbond fence
ft(3)	2.1m high powdercoated metal slatted fence (horizontal)
ft(4)	0.9m high powdercoated metal slatted fence (vertical)

04	08/08/23	Updated Part 5 Issue
03	10/05/23	Part 5 Issue
02	26/04/23	Part 5 Issue
01	14/04/23	Part 5 Issue
Rev	Date	Issue

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Landscape Consultant:
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Mob: 0404 887 620

Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Elevations - Sheet 1

File:
2869.23_25-29 Prospero St, Maryland_Part 5.pln

Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

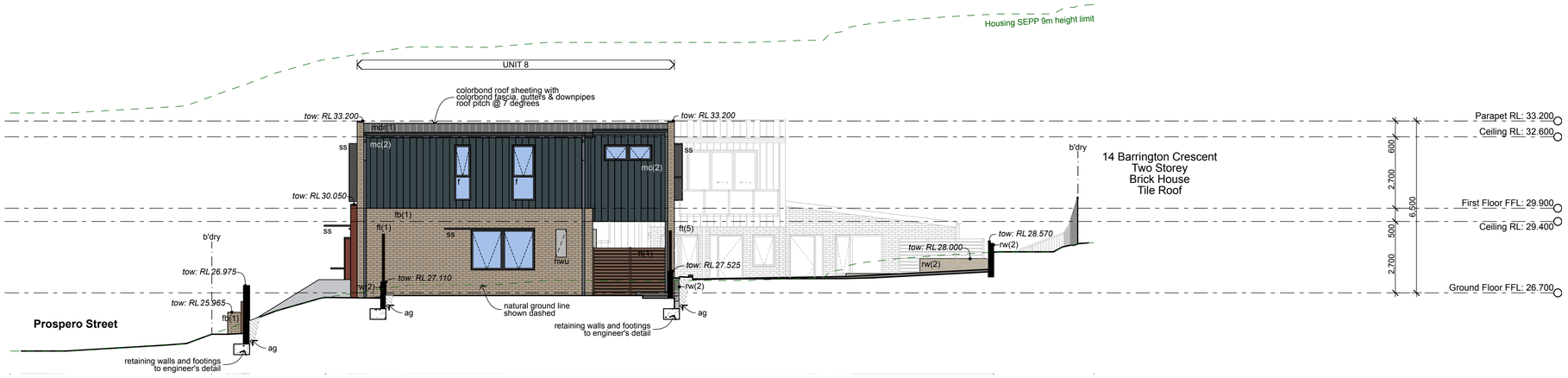
Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:100 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA10	11 of 27		04

NSW GOVERNMENT Planning & Environment

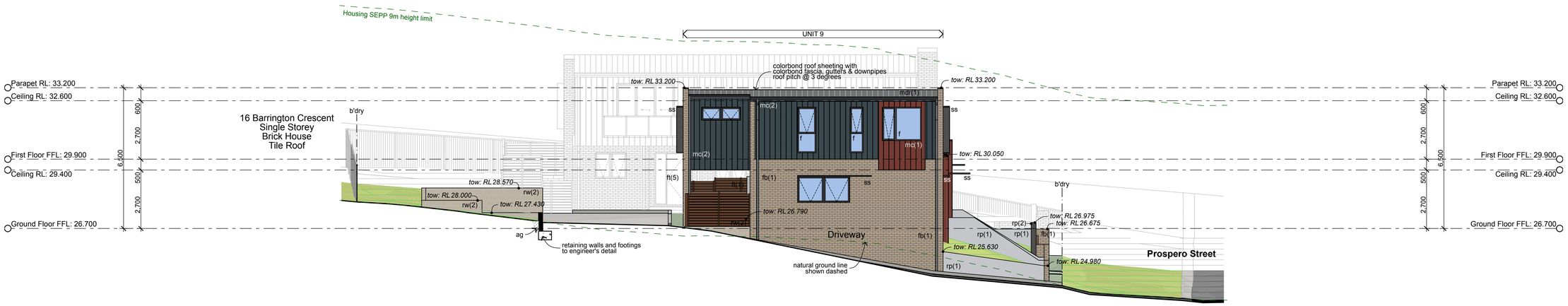
0 1000 2000 3000 4000 5000 10 000
scale: 1:100 @A1

DETERMINED by the NSW Land and Housing Corporation on:
16 November 2023

E04 West Elevation
1:100



E05 Units 8-9 West Elevation
1:100



E06 Units 8-9 East Elevation
1:100

Legend
(elevation & sections)
note: drawing may not contain all items listed below

ac	air conditioner condenser
ag	ag pipe
alv	adjustable louvres
alw	aluminium framed window
bal(1)	balustrade (type)
bc	barge capping
bg	box gutter
boe	brick on edge
bws	brickwork sill
cfc	compessed fibre cement
cj	control joint
conc.	concrete
cs	coved skirting
csc	cut soldier course
dp	downpipe
drh	door head
dms	decorative metal screen
eg	eaves gutter
egl	existing ground line
ex.	existing
f	fixed sash window
fb(1)	face brickwork (type)
fcl	finished ceiling level
ffl	finished floor level
flv	fixed louvres
fp	feature panel
ft(1)	fence (type)
gl	ground line
gt	gate
hr(1)	handrail (type)
ip	insulated panel
mc(1)	metal cladding (type)
mdr(1)	metal deck roof (type)
mps	metal privacy screen
nc	non structural column
og	obscure glazing
ofc	off form concrete
olv	operable louvres
p(1)	paint (type)
pap(1)	perforated acoustic panel (type)
pbd	plasterboard
ps	privacy screen
pv	photovoltaic cells
rc	rendered concrete
rms	raked metal soffit
rp(1)	render & paint finish (type)
rs	roller shutter
rw(1)	retaining wall (type)
rwh	rainwater head
s	sliding sash window
sc	steel column
sk	skylight/skytube
sl	sliding door
ss(1)	sun shade (type)
ts	timber skirting
wcs	window casing

Fence Type

ft(1)	1.8m high powdercoated metal slatted fence (horizontal)
ft(2)	1.8m high colorbond fence
ft(3)	2.1m high powdercoated metal slatted fence (horizontal)
ft(4)	0.9m high powdercoated metal slatted fence (vertical)

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
04	08/08/23	Updated Part 5 Issue
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01	14/04/23	Part 5 Issue

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Landscape Consultant:
Botanique Design
Mob: 0404 887 620

Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Elevations - Sheet 2

File:
2869.23_25-29 Prospero St, Maryland_Part 5.pln

Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date: 8/8/2023	Scale: 1:100 @ AI	S\d job no: 2869.23	Project no. BGWY9
Stage: Part 5	Drawn: MP/DD/AT	Checked: ML	Approved: ML
Drawing: DA11	Sheet: 12 of 27		Rev: 04

0 1000 2000 3000 4000 5000 10 000
scale: 1:100 @A1

DETERMINED by the NSW Land and Housing Corporation on:
16 November 2023

E07 Units 1-4 West Elevation
1:100

E08 Units 5-7 East Elevation
1:100

Legend
(elevation & sections)
note: drawing may not contain all items listed below

ac	air conditioner condenser
ag	ag pipe
alv	adjustable louvres
alw	aluminium framed window
bal(1)	balustrade (type)
bc	barge capping
bg	box gutter
boe	brick on edge
bws	brickwork sill
cfc	compessed fibre cement
cj	control joint
conc.	concrete
cs	coved skirting
csc	cut soldier course
dp	downpipe
drh	door head
dms	decorative metal screen
eg	eaves gutter
egl	existing ground line
ex.	existing
f	fixed sash window
fb(1)	face brickwork (type)
fcl	finished ceiling level
ffl	finished floor level
flv	fixed louvres
fp	feature panel
ft(1)	fence (type)
gl	ground line
gt	gate
hr(1)	handrail (type)
ip	insulated panel
mc(1)	metal cladding (type)
mdr(1)	metal deck roof (type)
mps	metal privacy screen
nc	non structural column
og	obscure glazing
ofc	off form concrete
olv	operable louvres
p(1)	paint (type)
pap(1)	perforated acoustic panel (type)
pbd	plasterboard
ps	privacy screen
pv	photovoltaic cells
rc	rendered concrete
rms	raked metal soffit
rp(1)	render & paint finish (type)
rs	roller shutter
rw(1)	retaining wall (type)
rwh	rainwater head
s	sliding sash window
sc	steel column
sk	skylight/skytube
sl	sliding door
ss(1)	sun shade (type)
ts	timber skirting
wcs	window casing

Fence Type

ft(1)	1.8m high powdercoated metal slatted fence (horizontal)
ft(2)	1.8m high colorbond fence
ft(3)	2.1m high powdercoated metal slatted fence (horizontal)
ft(4)	0.9m high powdercoated metal slatted fence (vertical)

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
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Mob: 0404 887 620

Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Elevations - Sheet 3

File:
2869.23_25-29 Prospero St, Maryland_Part 5.pln

Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date: 8/8/2023	Scale: 1:100 @ AI	S\d job no: 2869.23	Project no. BGWY9
Stage: Part 5	Drawn: MP/DD/AT	Checked: ML	Approved: ML
Drawing: DA12	Sheet: 13 of 27		Rev: 04

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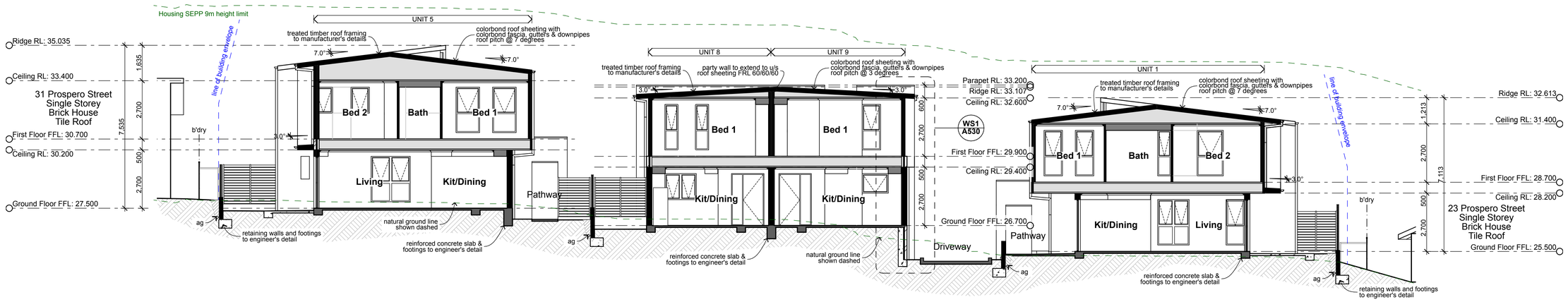
scale: 1:100 @A1

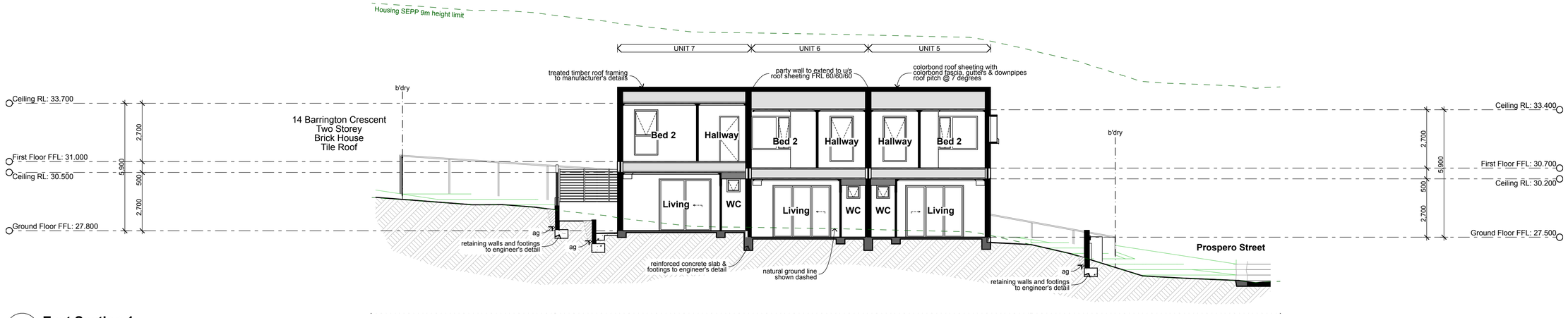
DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023



S01 South Section 1
1:100

S02 South Section 2
1:100



S03 East Section 1
1:100

Legend
(elevation & sections)
note: drawing may not contain all items listed below

ac	air conditioner condenser
ag	ag pipe
alv	adjustable louvres
alw	aluminium framed window
bal(1)	balustrade (type)
bc	barge capping
bg	box gutter
boe	brick on edge
bws	brickwork sill
cfc	compressed fibre cement
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cs	coved skirting
csc	cut soldier course
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dms	decorative metal screen
eg	eaves gutter
egl	existing ground line
ex.	existing
f	fixed sash window
fb(1)	face brickwork (type)
fcl	finished ceiling level
ffl	finished floor level
flv	fixed louvres
fp	feature panel
ft(1)	fence (type)
gl	ground line
gt	gate
hr(1)	handrail (type)
ip	insulated panel
mc(1)	metal cladding (type)
mdr(1)	metal deck roof (type)
mps	metal privacy screen
nc	non structural column
og	obscure glazing
ofc	off form concrete
olv	operable louvres
p(1)	paint (type)
pap(1)	perforated acoustic panel (type)
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ps	privacy screen
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rp(1)	render & paint finish (type)
rs	roller shutter
rw(1)	retaining wall (type)
rwh	rainwater head
s	sliding sash window
sc	steel column
sk	skylight/skytube
sl	sliding door
ss(1)	sun shade (type)
ts	timber skirting
wcs	window casing

Fence Type

ft(1)	1.8m high powdercoated metal slatted fence (horizontal)
ft(2)	1.8m high colorbond fence
ft(3)	2.1m high powdercoated metal slatted fence (horizontal)
ft(4)	0.9m high powdercoated metal slatted fence (vertical)

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Stormwater Consultant:
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Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Sections - Sheet 1

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:100 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA13	14 of 27		04

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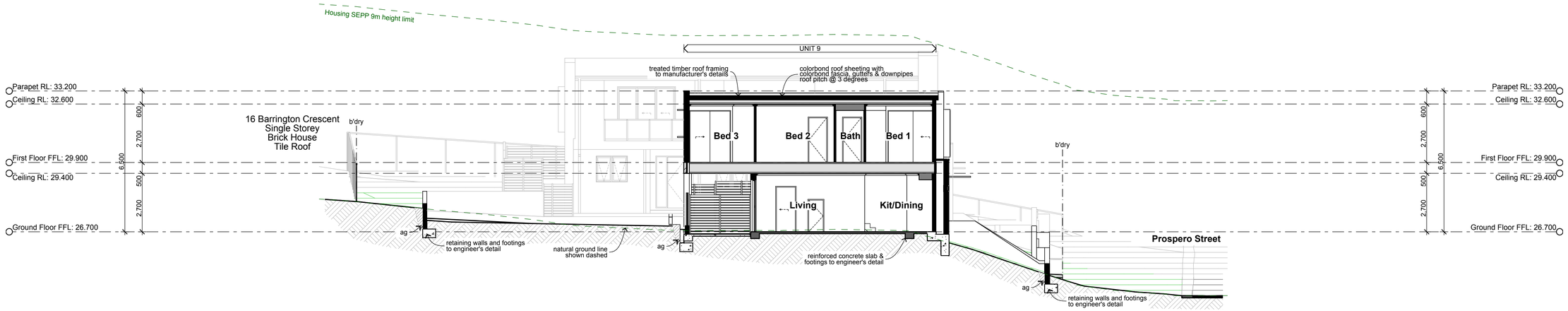
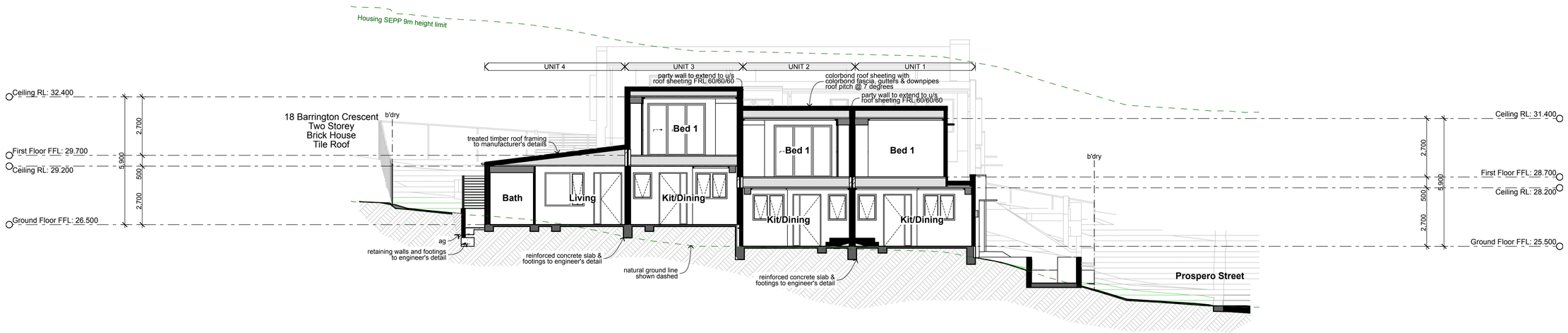
scale: 1:100 @A1

DETERMINED by the NSW Land and Housing Corporation on:
16 November 2023



S04 East Section 2
1:100



S05 East Section 3
1:100

Legend
(elevation & sections)
note: drawing may not contain all items listed below

ac	air conditioner condenser
ag	ag pipe
alv	adjustable louvres
alw	aluminium framed window
bal(1)	balustrade (type)
bc	barge capping
bg	box gutter
boe	brick on edge
bws	brickwork sill
cfc	compessed fibre cement
cj	control joint
conc.	concrete
cs	coved skirting
csc	cut soldier course
dp	downpipe
drh	door head
dms	decorative metal screen
eg	eaves gutter
egl	existing ground line
ex.	existing
f	fixed sash window
fb(1)	face brickwork (type)
fcl	finished ceiling level
ffl	finished floor level
flv	fixed louvres
fp	feature panel
ft(1)	fence (type)
gl	ground line
gt	gate
hr(1)	handrail (type)
ip	insulated panel
mc(1)	metal cladding (type)
mdr(1)	metal deck roof (type)
mps	metal privacy screen
nc	non structural column
og	obscure glazing
ofc	off form concrete
olv	operable louvres
p(1)	paint (type)
pap(1)	perforated acoustic panel (type)
pbd	plasterboard
ps	privacy screen
pv	photovoltaic cells
rc	rendered concrete
rms	raked metal soffit
rp(1)	render & paint finish (type)
rs	roller shutter
rw(1)	retaining wall (type)
rwh	rainwater head
s	sliding sash window
sc	steel column
sk	skylight/skytube
sl	sliding door
ss(1)	sun shade (type)
ts	timber skirting
wcs	window casing

Fence Type

ft(1)	1.8m high powdercoated metal slatted fence (horizontal)
ft(2)	1.8m high colorbond fence
ft(3)	2.1m high powdercoated metal slatted fence (horizontal)
ft(4)	0.9m high powdercoated metal slatted fence (vertical)

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
04	08/08/23	Updated Part 5 Issue
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01	14/04/23	Part 5 Issue

do not scale drawings. check all dimensions on site.
figured dimensions take precedence.

Project Architect:
Stanton Dahl Architects
Ph: (02) 8876 5300

Landscape Consultant:
Botanique Design
Mob: 0404 887 620

Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Sections - Sheet 2

File:
2869.23_25-29 Prospero St, Maryland_Part 5.pln

Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date: 8/8/2023	Scale: 1:100 @ AI	S\d job no: 2869.23	Project no. BGWY9
Stage: Part 5	Drawn: MP/DD/AT	Checked: ML	Approved: ML
Drawing: DA14	Sheet: 15 of 27		Rev: 04

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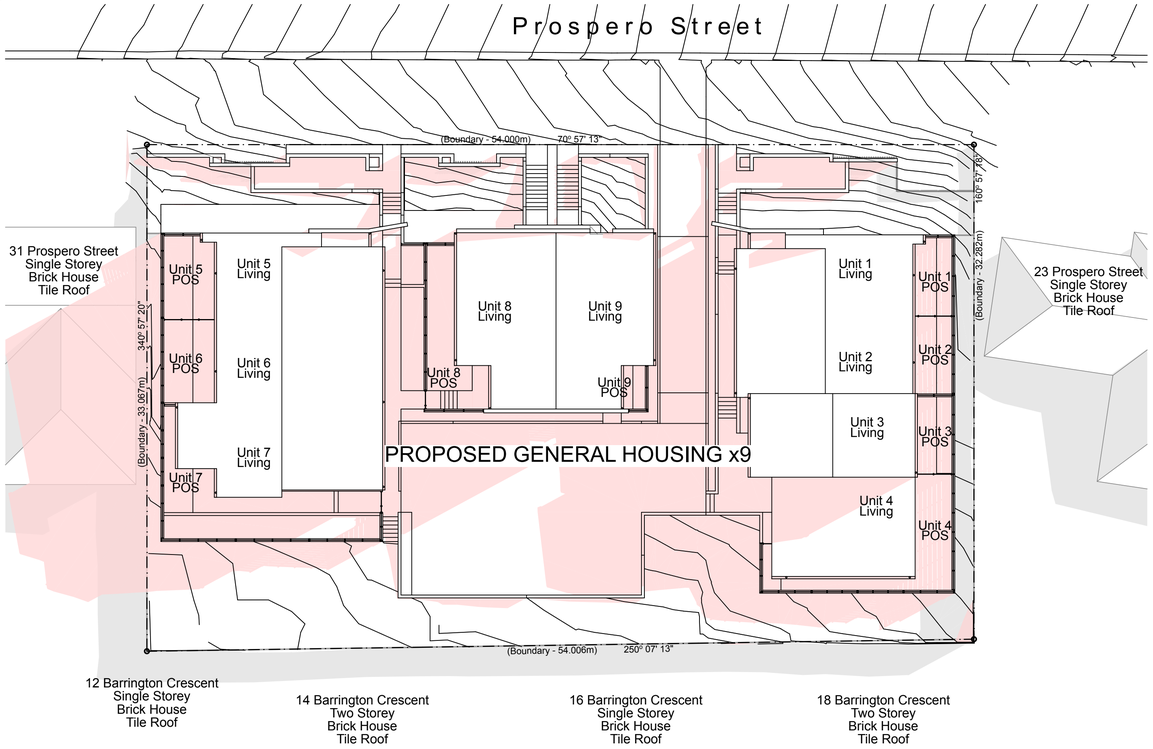
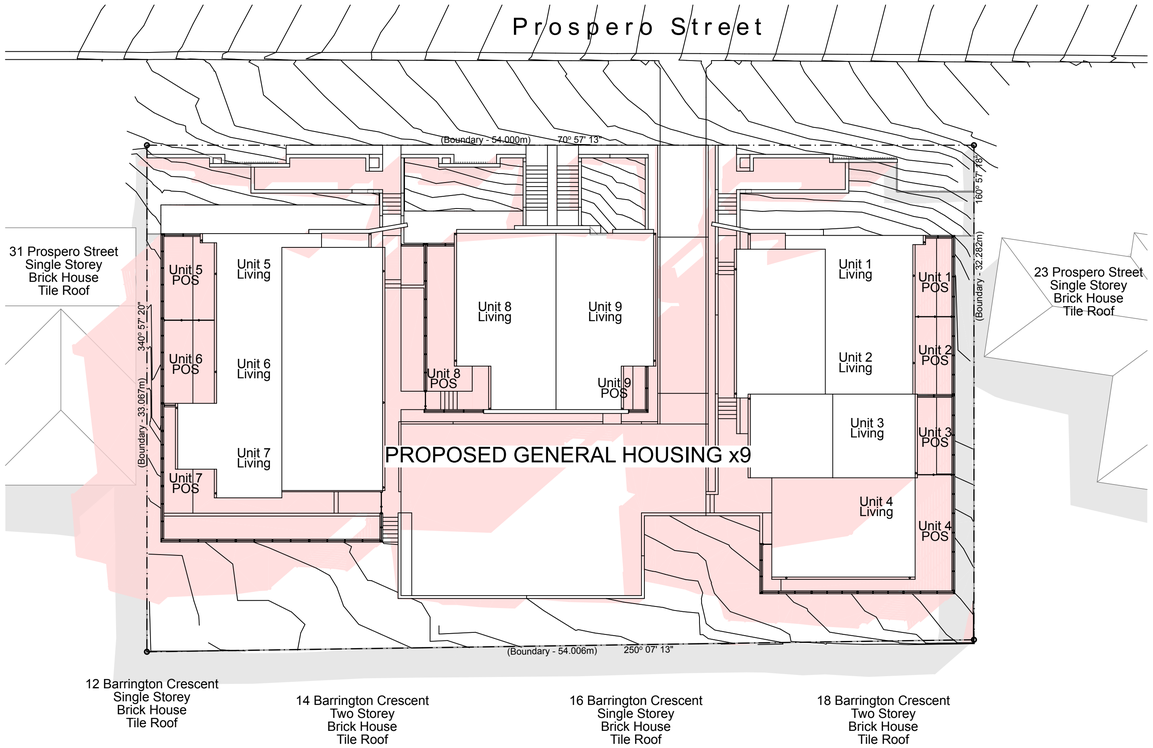
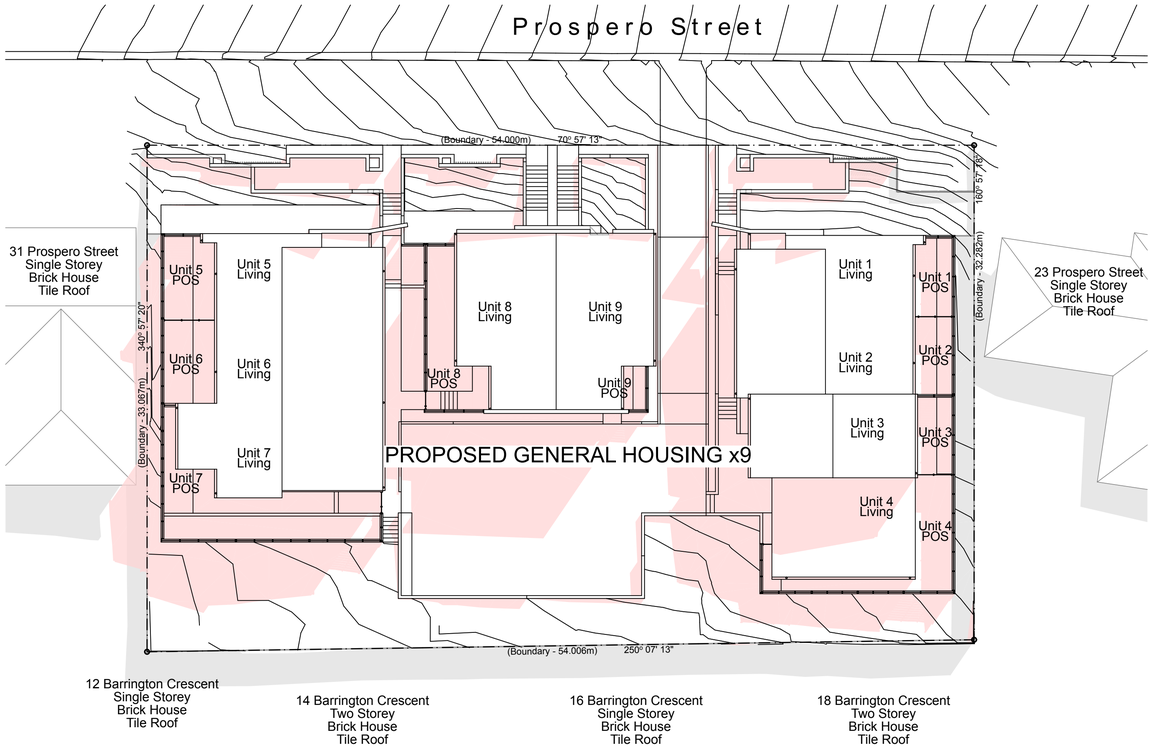


01 **Shadow Diagram @ 9am, 21 June**
1:200



02 **Shadow Diagram @ 10am, 21 June**
1:200



03 **Shadow Diagram @ 11am, 21 June**
1:200

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

Legend
shadow diagrams
note: drawing may not contain all items listed below

note:
shadows cast: proposed buildings

note:
shadows cast: existing neighbour buildings

NSW GOVERNMENT
Planning & Environment

Rev	Date	Issue
05	08/08/23	Updated Part 5 Issue
04	16/06/23	Part 5 Issue
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Stormwater Consultant:
Greenview Consulting
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Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Shadow Diagrams - Sheet 1

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date: 8/8/2023	Scale: 1:200 @ AI	S\d job no: 2869.23	Project no. BGWY9
Stage: Part 5	Drawn: MP/DD/AT	Checked: ML	Approved: ML
Drawing: DA15	Sheet: 16 of 27		Rev: 05

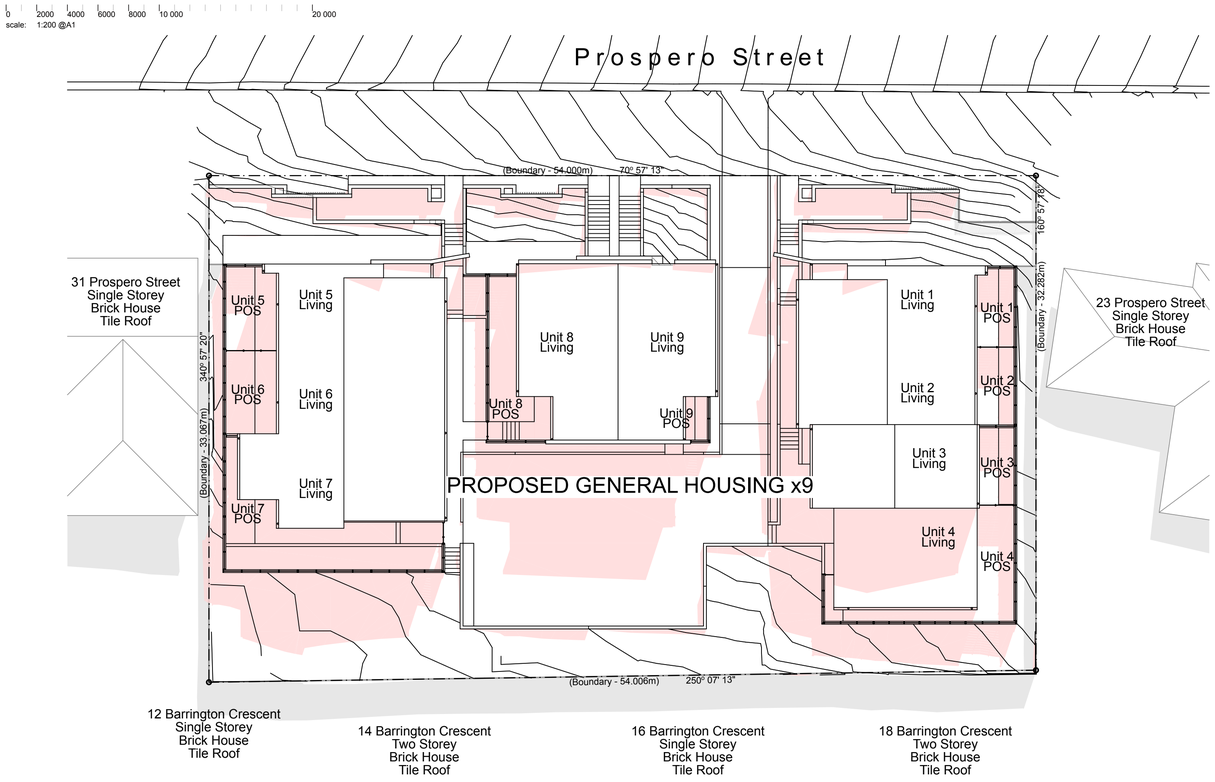
DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

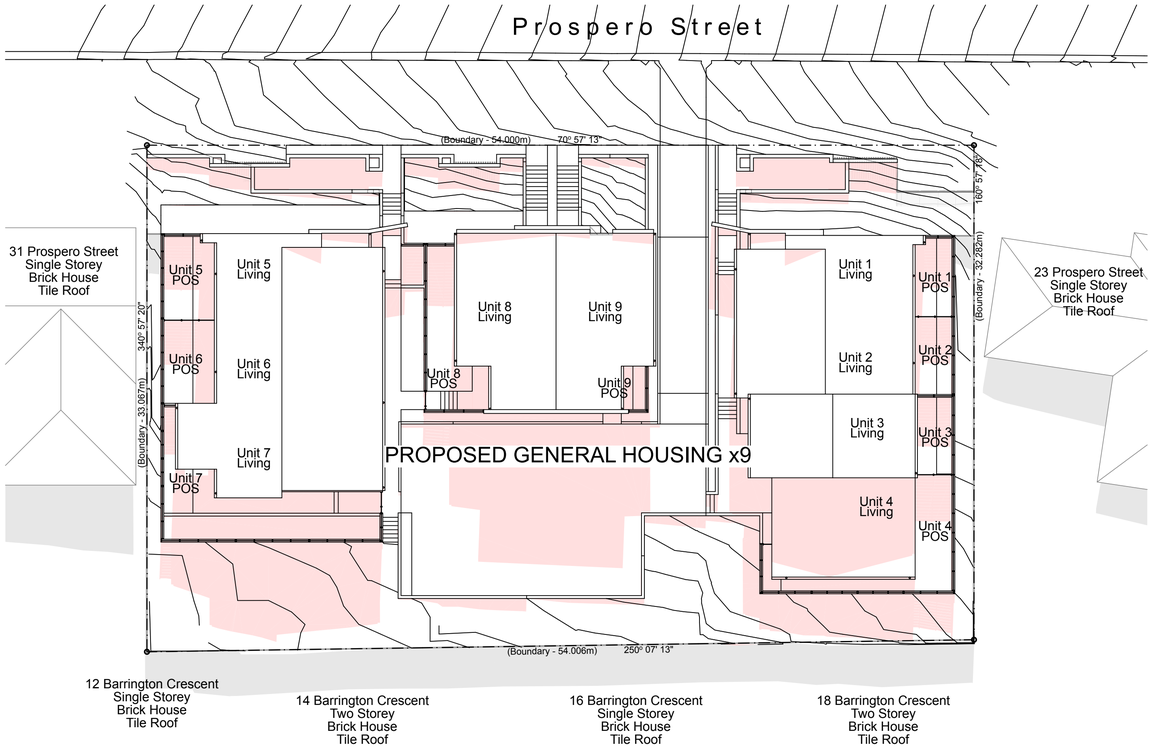
Legend
shadow diagrams
note: drawing may not contain all items listed below

note:
shadows cast: proposed buildings

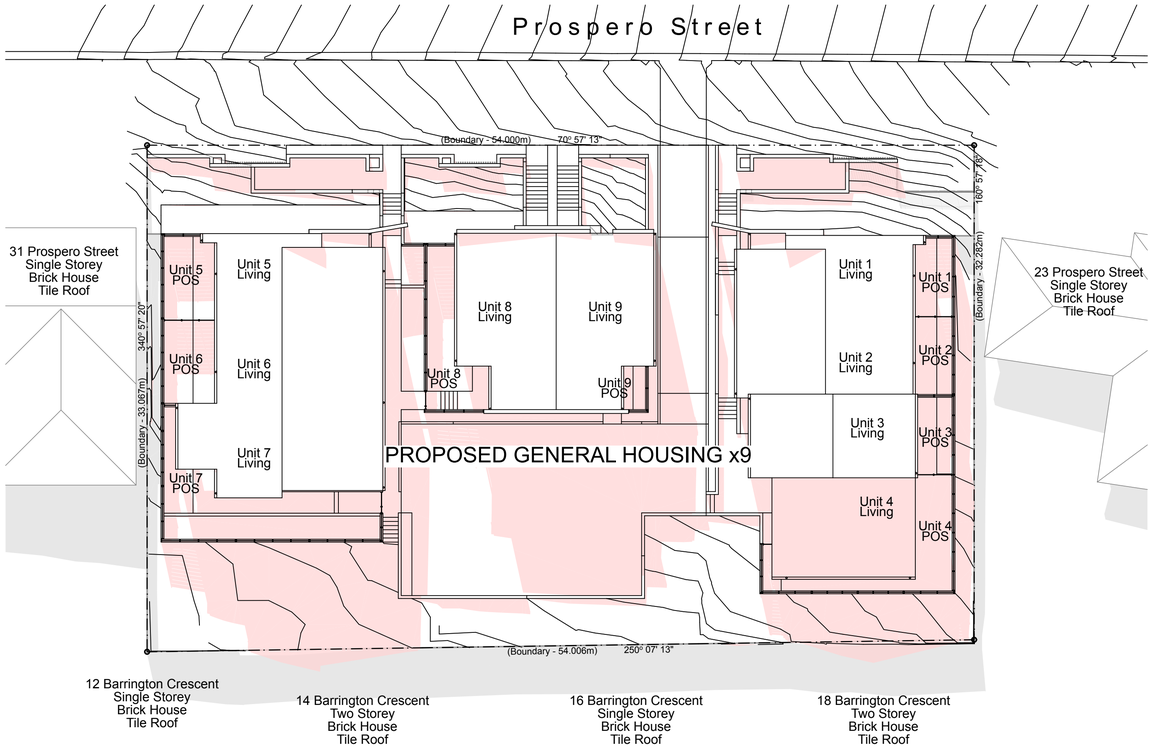
note:
shadows cast: existing neighbour buildings



01 Shadow Diagram @ 12pm, 21 June
1:200



02 Shadow Diagram @ 1pm, 21 June
1:200



03 Shadow Diagram @ 2pm, 21 June
1:200

NSW GOVERNMENT
Planning & Environment

Rev	Date	Issue
02	08/08/23	Updated Part 5 Issue
01	16/06/23	Part 5 Issue

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Stormwater Consultant:
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Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Shadow Diagrams - Sheet 2

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:10 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:200 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA16	17 of 27		02

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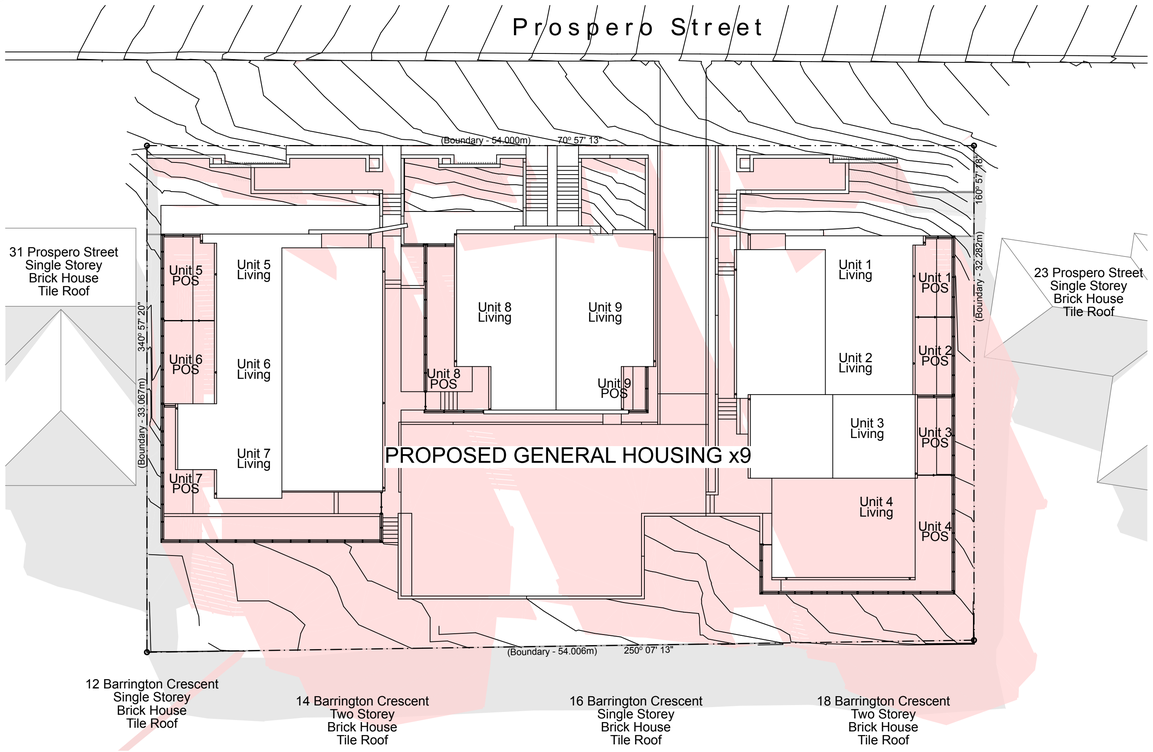

01 **Shadow Diagram @ 3pm, 21 June**
1:200

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

Legend
shadow diagrams
note: drawing may not contain all items listed below

note:
shadows cast: proposed buildings

note:
shadows cast: existing neighbour buildings

Living Areas									
Solar Access	9am	10am	11am	12pm	1pm	2pm	3pm	Total	Complies
Unit 1	Y	Y	Y	Y	Y	Y	Y	6 hrs	Y
Unit 2	Y	Y	Y	N	N	N	N	3 hrs	Y
Unit 3	Y	Y	Y	N	N	N	N	2 hrs	Y
Unit 4	Y	Y	Y	Y	N	N	N	3 hrs	Y
Unit 5	Y	Y	Y	Y	Y	Y	Y	6 hrs	Y
Unit 6	N	N	N	N	N	N	Y	0 hrs	N
Unit 7	N	N	N	N	N	N	Y	0 hrs	N
Unit 8	N	Y	Y	Y	Y	Y	Y	5 hrs	Y
Unit 9	N	Y	Y	Y	Y	Y	Y	5 hrs	Y
Living areas of 70% of the dwellings must receive a minimum of 2 hours of sunlight between 9:00am and 3:00pm on 21 June.								Complies - 7/9 = 78%	

Private Open Space									
Solar Access	9am	10am	11am	12pm	1pm	2pm	3pm	Total	Complies
Unit 1	Y	Y	Y	Y	Y	Y	Y	6 hrs	Y
Unit 2	Y	Y	Y	Y	Y	Y	N	5 hrs	Y
Unit 3	Y	Y	Y	Y	Y	N	N	4 hrs	Y
Unit 4	Y	Y	Y	Y	Y	N	N	4 hrs	Y
Unit 5	N	Y	Y	Y	Y	Y	Y	5 hrs	Y
Unit 6	N	N	N	N	Y	Y	Y	2 hrs	Y
Unit 7	N	N	N	N	Y	Y	Y	2 hrs	Y
Unit 8	N	N	Y	Y	Y	Y	Y	4 hrs	Y
Unit 9	N	Y	Y	Y	N	N	N	2 hrs	Y
Private open space of 70% of the dwellings must receive a minimum of 2 hours of sunlight between 9:00am and 3:00pm on 21 June.								Complies - 9/9 = 100%	

NSW GOVERNMENT Planning & Environment

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02	08/08/23	Updated Part 5 Issue
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Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Shadow Diagrams - Sheet 3

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:11 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	1:200 @ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA17	18 of 27		02

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

01 **Site View From Sun - 9am, June 21**
not to scale

02 **Site View From Sun - 10am, June 21**
not to scale

03 **Site View From Sun - 11am, June 21**
not to scale

04 **Site View From Sun - 12pm, June 21**
not to scale

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
05	08/08/23	Updated Part 5 Issue
04	16/06/23	Part 5 Issue
03	10/05/23	Part 5 Issue
02	26/04/23	Part 5 Issue
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Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development

at
25-29 Prospero Street, Maryland

Title:
Site View From Sun - Sheet 1

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:11 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	@ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA18	19 of 27		05

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

01 **Site View From Sun - 1pm, June 21**
not to scale

03 **Site View From Sun - 3pm, June 21**
not to scale

02 **Site View From Sun - 2pm, June 21**
not to scale

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
05	08/08/23	Updated Part 5 Issue
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Mob: 0404 887 620

Stormwater Consultant:
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Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development

at
25-29 Prospero Street, Maryland

Title:
Site View From Sun - Sheet 2

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:11 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	@ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA19	20 of 27		05

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

01 POS View Units 1-4 - 9am, June 21
not to scale

02 POS View Units 1-4 - 10am, June 21
not to scale

03 POS View Units 1-4 - 11am, June 21
not to scale

04 POS View Units 1-4 - 12pm, June 21
not to scale

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
02	08/08/23	Updated Part 5 Issue
01	16/06/23	Part 5 Issue

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Mob: 0404 887 620

Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development

at
25-29 Prospero Street, Maryland

Title:
POS Views (Units 1-4) - Sheet 1

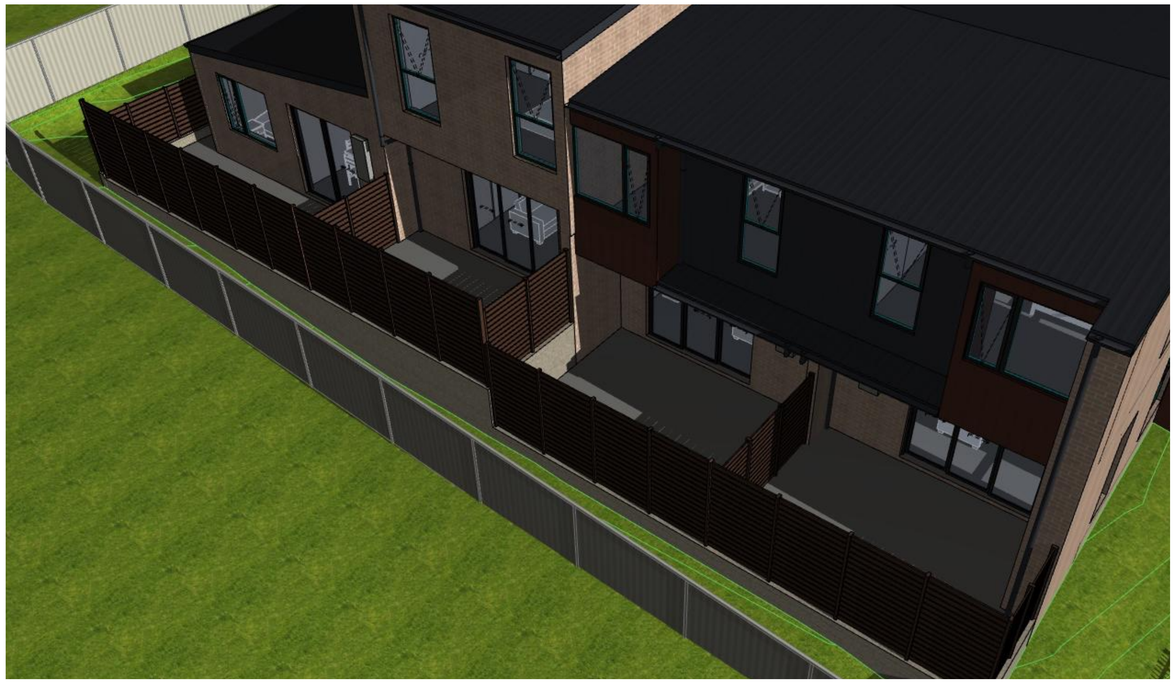
File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:11 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	@ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA20	21 of 27		02

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023



01 **POS View Units 1-4 - 1pm, June 21**
not to scale

03 **POS View Units 1-4 - 3pm, June 21**
not to scale

02 **POS View Units 1-4 - 2pm, June 21**
not to scale

NSW GOVERNMENT Planning & Environment

Rev	Date	Issue
02	08/08/23	Updated Part 5 Issue
01	16/06/23	Part 5 Issue

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Stormwater Consultant:
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Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development

at
25-29 Prospero Street, Maryland

Title:
POS Views (Units 1-4) - Sheet 2

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:11 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	@ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA21	22 of 27		02

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

01 POS View Units 5-7 - 9am, June 21
not to scale

03 POS View Units 5-7 - 11am, June 21
not to scale

02 POS View Units 5-7 - 10am, June 21
not to scale

04 POS View Units 5-7 - 12pm, June 21
not to scale

NSW GOVERNMENT Planning & Environment

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Architect:
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Project:
General Housing Development

at
25-29 Prospero Street, Maryland

Title:
POS Views (Units 5-7) - Sheet 1

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:11 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	@ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA22	23 of 27		02

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

01 **POS View Units 5-7 - 1pm, June 21**
not to scale

03 **POS View Units 5-7 - 3pm, June 21**
not to scale

02 **POS View Units 5-7 - 2pm, June 21**
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NSW GOVERNMENT Planning & Environment

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General Housing Development

at
25-29 Prospero Street, Maryland

Title:
POS Views (Units 5-7) - Sheet 2

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
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Date:	Scale:	S\d job no:	Project no.
8/8/2023	@ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA23	24 of 27		02

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

01 **POS View Units 8-9 - 9am, June 21**
not to scale

03 **POS View Units 8-9 - 11am, June 21**
not to scale

02 **POS View Units 8-9 - 10am, June 21**
not to scale

04 **POS View Units 8-9 - 12pm, June 21**
not to scale

NSW GOVERNMENT Planning & Environment

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Project:
General Housing Development

at
25-29 Prospero Street, Maryland

Title:
POS Views (Units 8-9) - Sheet 1

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:11 pm

Status: Part 5 Activity Submission

Date:	Scale:	S\d job no:	Project no.
8/8/2023	@ AI	2869.23	BGWY9
Stage:	Drawn:	Checked:	Approved:
Part 5	MP/DD/AT	ML	ML
Drawing:	Sheet:		Rev:
DA24	25 of 27		02

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

01 **POS View Units 8-9 - 1pm, June 21**
not to scale

03 **POS View Units 8-9 - 3pm, June 21**
not to scale

02 **POS View Units 8-9 - 2pm, June 21**
not to scale

NSW GOVERNMENT Planning & Environment

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Architect:
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Project:
General Housing Development

at
25-29 Prospero Street, Maryland

Title:
POS Views (Units 8-9) - Sheet 2

File: 2869.23_25-29 Prospero St, Maryland_Part 5.pln
Plotted: 8/8/2023 2:11 pm

Status: Part 5 Activity Submission

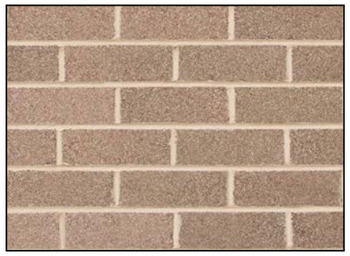
Date:	Scale:	S\d job no:	Project no.
8/8/2023	@ AI	2869.23	BGWY9
Stage:	**Drawn:**	**Checked:**	**Approved:**
Part 5	MP/DD/AT	ML	ML
Drawing:	**Sheet:**		**Rev:**
DA25	26 of 27		02

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

General Housing Development

25-29 Prospero Street, Maryland, NSW
Lots 395-397, DP 702896

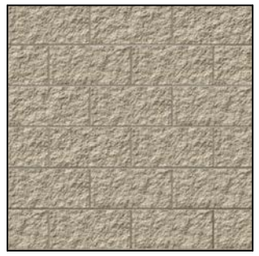


Face Brick - fb(1), rw(1)
Austral - Bowral 76
Colour: Simmental Silver

Metal Cladding - mc(1)
Fielders - Prominence
Colour: Colorbond - Aries

Metal Cladding - mc(2)
Fielders - Prominence
Colour: Colorbond - Ironstone

Metal Roof Sheeting - mdr(1)
Colorbond - Trimdek
Colour: Ironstone



Retaining Wall - rw(2)
Austral - GB Split Face
Colour: Limestone

Render & Paint rp(1)

DULUX - SW1E2 White on White

Gutters, Fascia, Downpipes, Letterboxes

Dulux - Colorbond "Ironstone"

Render & Paint rp(2), Cappings, Sunshades, Door & Window Frames, Balustrades

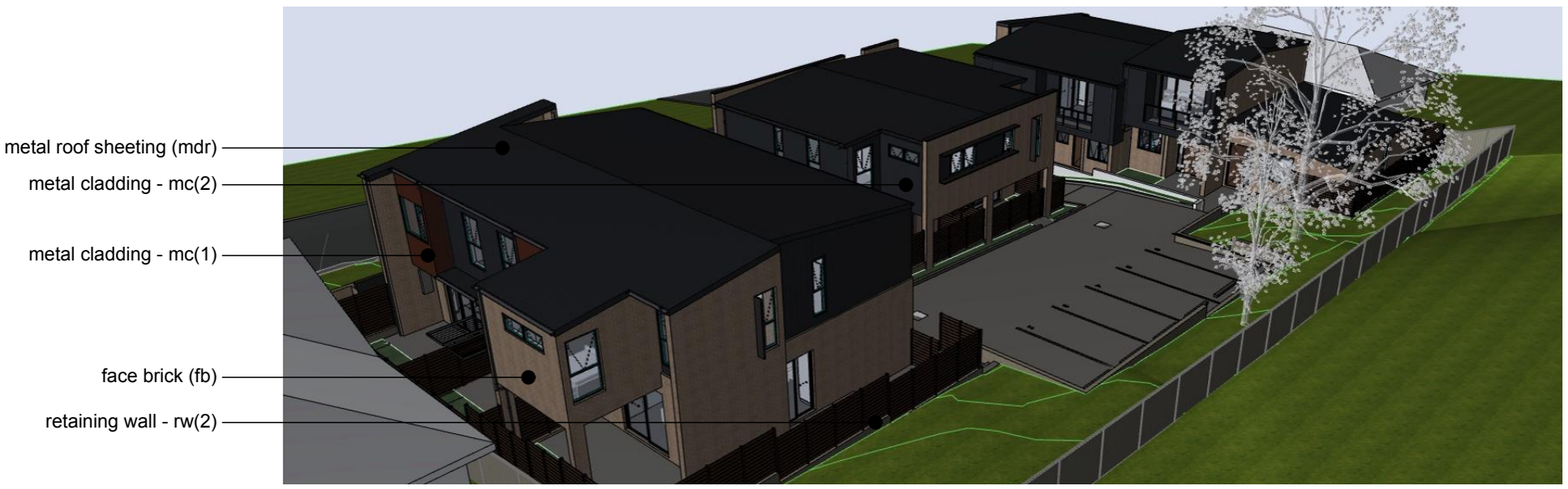
Dulux - Colorbond "Monument"

Fences ft(1) ft(3) ft(4), Entry Doors

DULUX - Colorbond "Terrain"

Fences ft(2)

DULUX - Colorbond "Surfmist"



Rev	Issue	Date
01	Part 5 Issue	14/04/23
02	Part 5 Issue	26/04/23
03	Part 5 Issue	10/05/23
04	Part 5 Issue	16/06/23
05	Updated Part 5 Issue	08/08/23

Stanton Dahl Architects

PART 5 ISSUE

Land & Housing Corporation,
General Housing Development
25-29 Prospero Street,
Maryland, NSW

External Colour Selection

Project No;
BGWY9

Drawing No; DA26

Revision#; 05

Scale; as noted @ A3

Drawn; MP/DD/AT

Plot date; 8/8/2023

Stanton Dahl Architects
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Tel +61 2 8876 5300
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DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

1 Landscape Plan
1:100

legend:

note: drawing may not contain all items listed below

RL00.00 →	proposed levels
ac	air conditioner condenser
acc	accessible
adhc	ageing, disability & home care
ap	access panel
bal(1)	balustrade (type)
bfc	broom finished concrete
boe	brick on edge
bol	bollard
cl	clothes line
col	column
dp	downpipe
drp	doorpost
ex.	existing
fb(1)	facebrick work (type)
ft(1)	fence (type)
gb	garbage bin
gt	gate
gtd	grated drain
hr(1)	handrail (type)
ht	hose tap
hwu	hot water unit
hyd	hydrant
kr	kerb ramp
lb	letter box
ofc	off form concrete
pp	power pole
rw(1)	retaining wall (type)
sfc	steel float concrete
swp	storm water pit
tfc	trowel finished concrete
tgsi	tactile ground surface indicator
tow	top of wall
wfc	wood float concrete
	ex.contours & banking line
	existing trees to be retained
	existing trees to be removed
	metal garden edging
	fencing -for all fencing materials and types refer to the architects plans.
	proposed trees
	planting areas
	turf
	mulch path
	sandstone boulders

Planning for Bushfire:
Note: Design complies with the requirement of an asset protection zone as outlined in the planning for Bush Fire Protection (2019) Appendix 4 of the NSW RFS Standards for Asset Protection Zones.
1. Tree in maturity should not touch or overhang the building.
2. Low limbs should be removed up to a height of 2m above the ground.
3. Grass should be kept mown (no more than 100mm in height)
4. Landscape area should be maintained free of leaf litter and debris. The gutter and roof should be maintained free of leaf littler and debris.
5. Ground fuels such as fallen leaves, twigs and branches should be removed on a regular basis.
6. Shrubs form 10% of the ground cover.

plant schedule

code	botanical name	common name	mature height	quantity	pot size	stake
Trees						
Ere	Elaeocarpus reticulatus 'Prima Donna'	Blueberry Ash	12.0m	2	100L	yes
Lis	Lagerstroemia indica 'Sioux'	Crepe Myrtle	6.0m	2	100L	yes
Shrubs						
Acs	Acmena 'Cherry Surprise'	Lilly Pilly	3.0m	85	200mm	no
Groundcovers, Grasses and Feature Plants						
Aci	Arthropodium cirratum	NZ Rock Lily	0.9m	96	200mm	no
Hsc	Hibbertia scandens	Guinea Flower	0.2m	25	140mm	no
Ljr	Liriope 'Just Right'	Just Right	0.5m	111	140mm	no
Llt	Lomandra longifolia 'Tanika'	Dwarf Mat Rush	0.5m	268	140mm	no
Mpa	Myoporum parvifolium 'Yareena'	Creeping Boobiala	0.1m	314	140mm	no
Pxa	Philodendron 'Xanadu'	Xanadu	0.6m	52	140mm	no
Tja	Trachelospermum jasminoides 'Tricolor'	Tricolor Jasmine	0.2m	64	140mm	no

Planning, Industry & Environment
NSW GOVERNMENT

Rev	Date	Issue
6	10.05.23	Part 5 Issue
5	24.04.23	Tender Issue (90%)
4	24.04.23	Part 5 Issue
3	11.04.23	Tender Issue (90%)

do not scale drawings. check all dimensions on site. figured dimensions take precedence.

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Landscape Consultant:
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Stormwater Consultant:
Greenview Consulting
Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Landscape Plan

File: 230318 25-29 Prospero St, Maryland_Landscape.pln

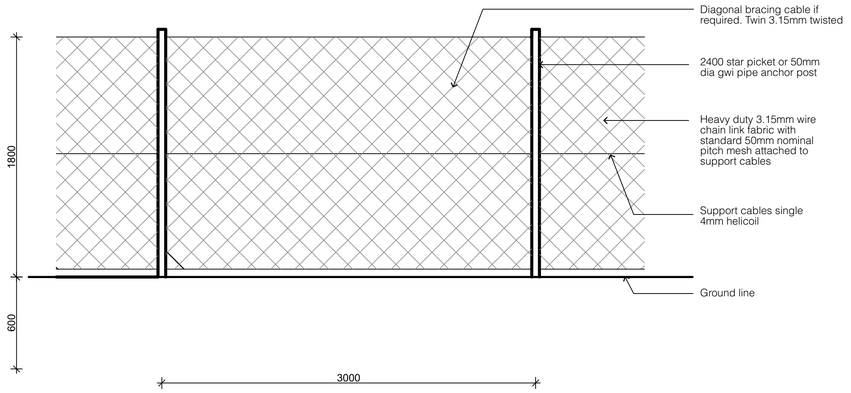
Plotted: 18/5/2023 12:30 pm

Status: Part 5 Submission

Date: 18/5/2023	Scale: 1:100 @ AI	S\d job no: 2869.23	Project no. BGWY9
Stage: Part 5	Drawn: MM	Checked: ML	Approved: ML
Drawing: L01	Sheet: 1 of 3		Rev: 6

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023



1 elevation
not to scale

Installation
A continuous tree protection fence shall be erected around the perimeter of the tree protection zone (TPZ). Refer to (4) plan calculating the TPZ and should be situated as determined by the project arborist in accordance with AS4970 Protection of trees on development sites, Section 4, 4.3. The TPZ must be secured to restrict access. AS4687 Temporary fencing and hoardings specifies applicable fencing requirements.

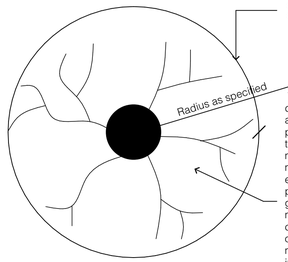
The tree protection fence shall be a minimum of 1800mm high chain link fabric on 2400mm star picket or 50mm dia gwi pipe anchor posts. They are to be driven 600mm into the ground ensuring fencing can not be moved, install diagonal cable bracing if required for stability.

Attach shade cloth or similar geotextile fabric to cover the fence panels and screen the TPZ from contamination.

The tree protection fence shall be installed prior to any demolition, clearing, grading or construction work. The tree protection fence is to remain in place in functioning condition until all construction is complete.

Prohibitions
No persons, vehicles, material, equipment or disposal of solid, liquid or chemical waste including concrete cleanup waste, painters waste or similar is permitted within the TPZ.
No excavation or soil removal permitted within the TPZ.
There is to be no storage of materials, rubbish, soil, equipment, structures or goods of any type to be kept or placed within 5 metres from the trunk or within the dripline of any tree for the duration of the development. This will ensure protection of the tree/s to be retained on or adjacent to site.

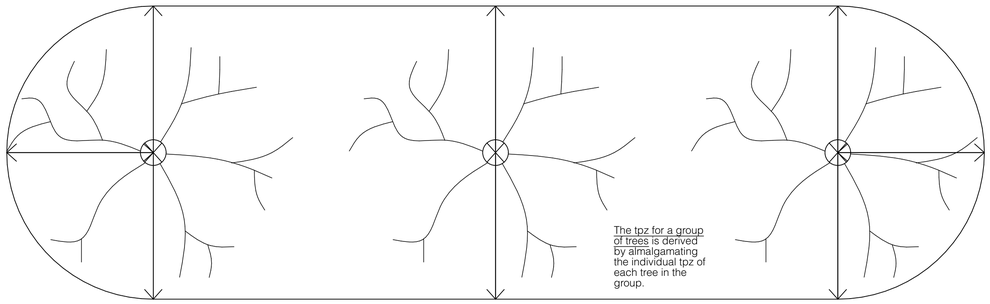
Signage
A 600mm x 450mm prohibition sign complying with in accordance with AS4970 2009 Protection of trees on development sites stating "no entry-tree protection zone" and including the site foreman's contact details is to be attached to the fence, visible from all areas of the site. The sign is to remain in place until all construction has been completed.



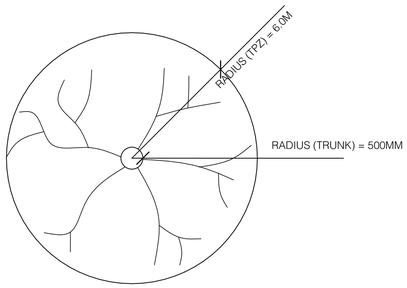
The area of the Tree Protection Zone to be mulched to a depth of 100 mm with organic material being 75% leaf litter and 25% wood, and this being composted material preferably from the same genus and species of tree as that to where the mulch is to be applied, i.e. species-specific mulch. The depth of mulch and type as indicated, to be maintained for the duration of the project. Where deep excavation will expose the soil profile to drying out the root plate is to be protected by pegging jute matting across the ground surface 2 m back from the edge of the profile and 2 m down the face of the profile and is to be in one continuous sheet or layers up to 5 mm thick and overlapped 300 mm and pegged. Pegs are to be a minimum length of 200 mm and spaced at 500 mm increments in a grid pattern. Once installed mulch is to be placed on top of the jute matting previously described.

2 plan - tree protection fence construction
not to scale

3 elevation
not to scale



4 plan - calculating the tpz - grouped trees
not to scale



For single trunk trees,
The tpz is an area equivalent to a circle with a radius 12 x the trunk diameter (t) measured 1.5 metres above the ground.

ie. Single trunk tree with a 500mm trunk diameter (t) at 1.5 metres above the ground:
12 x t(12 x 500mm) = 6.0m radius tpz

For multi-trunk trees
With more than 1 trunk arising below 1.5 metres above the ground level, the tpz is an area equivalent to a circle with a radius 10 x the trunk diameter (t) measured at the base of the trunk.

5 plan - calculating the tpz - individual trees
not to scale

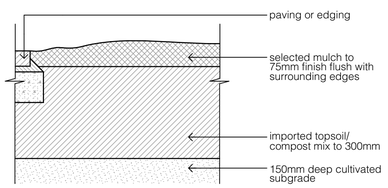
Tree protection zone (TPZ)
The tree protection zone is the minimum area around a tree that must be left undisturbed to protect the root system and maintain the health and stability of the tree.

The TPZ is calculated using the methodology detailed in drawing (4) and (5), based on the British Standard BS 5837:2005 trees in relation to construction recommendations. Note that distances are measured from the outside edge of the trunk of the tree.

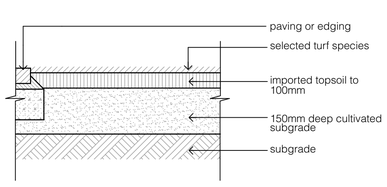
In some circumstances the TPZ may vary from the area calculated to take into consideration individual site factors - such as existing structures, the presence of rock outcrops or similar. Variations to the TPZ must be assessed and certified by an arborist.

To help protect the tree a fence or similar barrier is generally erected around the perimeter of the TPZ - refer to drawing (1).

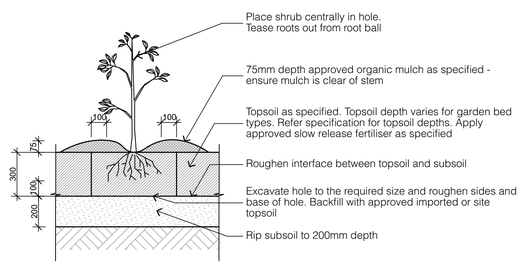
Prohibitions
No trenching, excavation, soil level changes, storage of materials, disposal of waste, mechanical equipment or other construction activities are allowed in the TPZ. Minor works that do not adversely impact on the tree may be carried out in the TPZ under the direct supervision of an arborist.



6 Garden Bed Preparation Detail
1:10

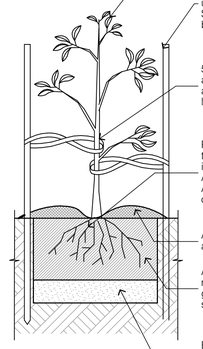


7 Turf Preparation Detail
1:10



8 Tree Planting Detail
1:20

Tree watering 1: 1st initial watering at the time of planting. Quantity of water will be adequate to saturate the root ball to its core.
Tree watering 2: post planting, provide a minimum of 15 litres of water (for tree in a 45 litre pot) to the newly planted tree per 7 days. Water at a slow rate not to displace mulch. For trees in pot size larger than 45 litres, provide quantity of water on third of that pot size.



Note: it is the responsibility of the contractor to confirm the location of all underground services prior to commencement of any excavation or staking works.
Strong central leading trunk to be evident at time of planting

All trees supplied must meet the criteria of AS2303-2018: tree stock for landscape use & be healthy specimens free of pests and diseases. Trees to be well watered of a maximum of 24 hours prior to planting

Set 3 of 50x50x2400mm hardwood stakes vertically and clear of root ball and canopy at 900mm spacing, offset a min. 200mm from underground services to ensure no damage is caused to services. Stakes must be positioned so as to prevent damage to structural branches and prevent rubbing on branches.

50mm wide hessian ties of good quality wrapped around the trunk and nailed or stapled to the stake. Tree tie is to be positioned as high as possible, looped around the trunk and not the branches, and be loose, however still be tight enough to prevent excessive movement

Position tree in hole with the top of the rootball at the same height as the surrounding ground and backfill with 50/50 blend of site soil and imported organic topsoil. Imported organic topsoil must be as per AS:4419 2003: soils for landscape & gardens.
At the time of planting, if the roots are matted, slice the bottom 50mm off and apply the spade to the bottom in each quadrant.

Apply and spread mulch (as per AS4454-2012) to a depth of 150mm and 1200mm diameter from tree. No mulch is to be touching the tree.

Apply 500gms of gypsum to the planting site at a radius of a minimum 1200mm diameter from centre of hole. Apply 500gms of gypsum to inside of hole. Lightly compact soil at the base to prevent settling.

Excavate a planting hole with sloping sides 3 times the width of the rootball. Break up sides and base.
If digging in soil of low permeability, the hole should be wider and deeper. In this instance backfill will be required at base of hole.
Augers are not to be used for excavation of the planting hole. Planting hole is to be watered prior to planting.
No tree is to be planted into naturally waterlogged soil. If soil is waterlogged, planting must be rescheduled to allow sufficient time for the soil to dry out.

9 Tree Planting Detail
1:20

Planning, Industry & Environment
NSW GOVERNMENT

Rev	Date	Issue
6	10.05.23	Part 5 Issue
5	24.04.23	Tender Issue (90%)
4	24.04.23	Part 5 Issue
3	11.04.23	Tender Issue (90%)

do not scale drawings. check all dimensions on site.
figured dimensions take precedence.

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Ph: (02) 8544 1683

Architect:
Stanton Dahl Architects

Project:
General Housing Development

at
25-29 Prospero Street, Maryland

Title:
Tree Protection & Details

File:
230318 25-29 Prospero St, Maryland_Landscape.pln

Plotted: 10/5/2023 9:48 am

Status: Part 5 Activity Submission

Date: 10/5/2023	Scale: 1:20, 1:10 @ A1	S|d job no: 2869.23	Project no. BGWY9
Stage: Part 5	Drawn: MM	Checked: ML	Approved: ML
Drawing: L02	Sheet: 2 of 3		Rev: 6

LANDSCAPE NOTES:

GENERAL

1. The Landscape drawings have been based on site survey and building layout information. Check boundaries, levels, dimensions and locate services on site prior to starting work.
2. Landscape plans are to be read in conjunction with all architectural and other project consultant's drawings and specifications and with such other written instructions as may be issued during the course of the contract.
3. Any discrepancies between landscape/architectural or other project consultant's drawings shall be reported to the landscape designer prior to any works being carried out.
4. All works are to be carried out in accordance with drawing notation and/or written specifications where applicable.
5. Works and supply of materials not covered by drawing notation or written pecification are to be carried out in accordance with AS Codes, LCA guidelines and the By-Laws and Ordinances of the relevant Building Authority and/or manufacturer's recommendations as applicable.
6. All dimensions and locations of works are to be checked on site and confirmed by the landscape/building site supervisor prior to the commencement of any works.
7. Dimensions shall not be obtained by scaling from structural drawings. Dimensions are indicated in millimeters unless otherwise specified.
8. The contractor shall at all times implement adequate erosion and sediment control measures where applicable, (details noted on the construction management plan)
9. The position of services indicated on drawings (when applicable), are approximate and must be confirmed on site prior to the commencement of any site works.
10. Refer to Architectural drawings for fence types, retaining walls, paving and decking details.

AUSTRALIAN STANDARDS

All materials and workmanship should be in accordance with the relevant Australian standards:
AS1684 - Residential Timber Framed Construction Part 1
AS1720.1 - 1997 (Amendment 4 - 2002) Timber Structures - Design
AS4419 - 2002 Soils for landscaping and Garden Use
AS3600 - 2009 (Amendment 1 - 2012) Concrete Structures
AS1012 - Methods of Testing Concrete
AS3610 - 1996 Formwork for Concrete
AS/NZ4455 - Part 1 2008 and Part 2 2010 Masonry Units, Pavers, Flags and Segmental Retaining walls - Masonry Units
AS1428.1 - 2009 (Amendment 2010) Design for Access and Mobility - General requirements for Access - New Building Works
AS1428.3 - 1992 Requirements for Children and Adolescents with Physical Disabilities
All pavements shall comply with AS/NZS 4586:1999 standards Class W (low) for slip resistance

SERVICES

Before landscape work is commenced. The Landscape Contractor is to establish the position of all service lines and ensure tree planting is carried out at least 3 metres away from these services. Service lids, vents and hydrants shall be left exposed and not covered by any landscape finishes (turfing, paving, garden beds etc.) Finish adjoining surfaces flush with pit lids.

SITE PREPARATION

Clear site of any builders rubbish and set up erosion and sediment control as per councils requirements.
All existing trees and/or vegetation to be retained, is to be preserved and protected from any damage occurring during the execution of landscape works. The root systems of existing retained plants are not to be disturbed. Landscape operations carried out within the root zone is to be carefully carried out using hand tools. Storage of materials, Mixing of materials, vehicular parking, disposal of building materials and stockpiling shall not be carried out within 3m of the drip line of these trees/vegetation. Grade site to achieve proposed final grades. Stockpile soil if suitable for reuse or provide landscape soil that meets Australian Standards to replace site top soil.

DRAINAGE.

Subsoil drainage: Where applicable, flexible 90mm subsoil, socked, drainage coil is to be installed to all planting areas defined by retaining walls, interfaces between planting/lawn areas and paving, kerb lines, footpath edges etc. on natural ground. The subsoil drainage lines are to be installed and covered with free draining gravel at the base of retaining walls and planting areas, as above, and sufficiently buried to ensure they are covered with 100mm free draining gravel and 150mm topsoil. The gravel is to be covered with 3-4 oz non-woven filter fabric.
Surface drainage: The contractor is to ensure adequate drainage is provided to all newly paved/hard surface areas, linking either to existing drainage sump pits or to new pits constructed by the contractor.
The Subsoil and Surface drainage system is to be linked to the site's storm water system.

SOIL PREPARATION

Soil compliance - Soil test results must confirm compliance of the proposed soil with AS 4419 and the "Soil type(s)" specified below as defined by AS 4419-2003. Soil for landscaping must be site soil or imported topsoil that is tested for horticultural suitability by a NATA accredited laboratory and provide for the site specific vegetation performance objectives. A qualified Agronomist must provide certification that soil amelioration works have been undertaken in accordance with the conditions and relevant specification, approved documentation of all relevant approvals.
Phosphorus levels in soil - For phosphorus-sensitive plants (i.e. many natives) ensure the soil complies with paragraph 5.8 (page 8) of AS4419.
Nitrogen- Include / apply plant-available nitrogen for low nitrogen mulches to prevent nitrogen deficiency from nitrogen drawdown.
All proposed planting areas are to be deep ripped to a depth of 300mm and clay soils are to be treated with a clay breaker. If existing top soil suitable for reuse it may be reused. 75mm depth of ANL Organic Garden Mix to be imported and combined with 25mm depth Greenlife compost or approved equivalent. Additive to be to a depth of 100mm, cultivated with existing garden bed soil to 250mm depth. Weed matting (non-plastic type) to be provided under all private courtyard garden beds. Install 75mm of selected mulch.

NEW PLANTING

All plants shall be true to type and size, conform with those species listed in the Plant Schedule on the drawings, be vigorous, well established, of good form consistent with species or variety, not soft or forced, free from disease or insect pests with large healthy root systems and no evidence of having been restricted or damaged. Immediately reject dried out, damaged or unhealthy plant material before planting. All stock is to be container grown for a minimum of six (6) months prior to delivery to site.
Plants shall have been hardened off and suitable for planting in the climatic conditions prevailing at the site. Trees shall be of uniform appearance and have a single leading trunk and proportionate and balanced crown.
The Contractor shall be responsible for the health of plants from time of delivery, and no consideration will be given to any claim arising from the Contractors neglect or failure to observe any defects in the plants at time of delivery.
Remove plant from container without disturbing the root ball and place centrally and plumb in the hole with the top of the root-ball level with the surrounding surface level. Backfill root-ball with an Organic garden soil-mix, lightly tamp and water thoroughly to eliminate air pockets.
Install plant material as per plan. Keep planting areas moist, stake plants as required and 'water in'.
Ensure soil-mix is not placed over the top of the root-ball and that the plant stem remains the same height above the ground as it was in the container. Soil-mix for backfilling of plants shall conform to AS4419-1998.
Weed matting (non-plastic type) to be provided under all private courtyard garden beds.

TREES

Refer to Tree Planting Detail when applicable.
The trees shall comply with NATSPEC Specifying Trees: a guide to assessment of tree quality (2003) or Australian Standard AS 2303 – 2015 Tree stock for landscape use, and be planted and maintained in accordance with Councils street tree planting specifications.
Install root barrier to site services as required.

STAKING AND TYING

Stakes shall be straight hardwood, free from knots and twists, pointed at one end and sized accordingly to plant size to be staked.

a) 5-15L pot size	1 x (1200 x 25 x 25mm)
b) 35-75L pot size	2 x (1500 x 38 x 38mm)
c) 100L & greater pot size	3 x (1800 x 50 x 50mm)

Ties shall be 50mm wide hessian webbing or approved equivalent nailed or stapled to stake. Drive stakes a minimum one third of their length, avoiding damage to the root system, on the windward side of the plant.

TURF

Excavate/ grade areas to be turfed to 120mm below the required finished levels. Do not excavate with 1500mm of any existing tree to be retained. Ensure that all of the surface water runoff is to be directed towards the inlet pits, kerbs etc. and away from buildings. Ensure that no pooling or ponding will occur. Rip subgrade to 150mm deep. Install 100mm depth of 5 parts imported topsoil mixed with 1 part compost. Just prior to spreading turf, spread 'shirleys no. 17 lawn fertiliser' over the topsoil at the recommended rate. Lay Sir Walter Buffalo turf rolls closely butted. Fill any small gaps with topsoil. water thoroughly.

PROTECTION OF EXISTING TREES

Protection of existing trees to be retained on site, trees shall be adequately protected to council requirements for the duration of the building contract. Storage of materials, mixing of material, vehicular parking, disposal of building materials and stockpiling shall not be carried out within the drip line of these trees.
Any roots damaged during the building operations shall be cleanly cut off inside the damaged or exposed area.
Trees are to be monitored for health during the building contract ensuring the root zone has not been damaged or has dried out.
Tree root pruning shall be undertaken by an experienced Arborist with a qualification in tree surgery.

MULCHING

On completion of planting, all areas are to be mulched using non toxic Cypress Mulch or similar that meets Australian Standards to a depth of 75m. A water catchment dish is to be provided around the base of each plant. Keep mulch clear of all plant stems and rake to an even surface finishing 25mm below adjoining levels. Ensure mulch is watered in and tamped down during installation. Keep mulch clear of any plant stems.

FERTILISER

MASS PLANTING AREAS: All newly planted areas are to be fertilised with an organic life, slow release fertiliser (Osmocote 8-9 month / Agriform (R) 21g) which is to be adequately watered in. Native plants with Osmocote zero Phosphorus 5-6 month slow release. Apply as per manufacturer's instructions.
ADVANCED TREES: Pellets shall be in the form intended to uniformly release plant food elements for a period of approximately nine months equal to Shirleys Kokei pellets, analysis 6.3:1.8:2.9. Kokei pellets shall be placed at the time of planting to the base of the plant, 50mm minimum from the root ball at a rate of two pellets per 300mm of top growth to a maximum of 8 pellets per tree.

METAL EDGING

Metal edging shall consist of 100 x 5mm, galvanized, flat bar steel, secured in place with either 75x25x300mm treated pine pegs driven into the ground, or with 400mm re-inforced rod welded to steel at 1000mm centers and hammered into the ground. Edging is to finish flush with adjoining lawn surfaces with the pegs recessed 20mm below top of edging. In general edging is to be provided at all interfaces between lawn and planting areas.

BOULDERS

Approx. 300mm - 600mm sandstone boulders. Ensure boulders have a flat base and are stable.

LANDSCAPE MAINTENANCE PROGRAMME

Maintenance shall mean the care and maintenance of the landscape works by accepted horticultural practice as rectifying any defects that become apparent in the landscape works under normal use. This shall include, but shall not be limited to, watering, mowing, fertilising, reseeding, re-turfing, weeding, pest and disease control, staking and tying, replanting, cultivation, pruning, aerating, renovating, topdressing, maintaining the site in a neat and tidy condition as follows:-

1.0 GENERAL

The landscape contractor shall maintain the landscape works for the term of the maintenance (or Plant establishment) period to the satisfaction of the council. The landscape contractor shall attend to the site on a weekly basis. The maintenance period shall commence at handover and continue for a period of 52 weeks maintenance for the Post- Completion Period which also includes a 3 Month Maintenance period for minor building matters.

2.0 WATERING.

Grass, trees and garden areas shall be watered regularly so as to ensure continuous healthy growth. The minimum acceptable watering required is equal to 25mm of natural rainfall or its applied equivalent during each period of one (1) week, around individual plants, maintain a completely weed and grass free watering saucer of a minimum diameter of one (1) metre.

3.0 RUBBISH REMOVAL

During the term of the maintenance period the landscape contractor shall remove rubbish that may occur and reoccur throughout the maintenance period. This work shall be carried out regularly so that at weekly intervals the area may be observed in a completely clean and tidy condition.

4.0 REPLACEMENTS

The landscape contractor shall replace all plants that are missing, unhealthy or dead at the Landscape Contractor's cost during the maintenance period. Replacements shall be of the same size, quality and species as the plant that has failed unless otherwise directed by the Landscape Architect. Replacements shall be made on a continuing basis not exceeding two (2) weeks after the plant has died or is seen to be missing.

5.0 STAKES AND TIES

The landscape contractor shall replace or adjust plant stakes, and tree guards as necessary or as directed by the Landscape Architect. Adjust ties to give adequate support to the plants, replace broken or damaged ties as necessary and straighten stakes. Remove stakes and ties at the end of the maintenance period if so directed.

6.0 PRUNING

Trees and shrubs shall be pruned as directed by the Landscape Architect. Pruning will be directed at the maintenance of the dense foliage or miscellaneous pruning and beneficial to the condition of the plants to improve plant shape and form or to clear footpaths and driveways. Any damaged growth shall be pruned. All pruned material shall be removed from the site.

7.0 MULCHED SURFACES

All mulched surfaces shall be maintained in a clean and tidy condition and be reinstated if necessary to ensure that a depth of 75mm is maintained. Ensure mulch is kept clear of plant stems at all times.

8.0 PEST AND DISEASE CONTROL

Control pathological diseases or insect pests by physical removal. Where physical removal is not possible use registered non- toxic sprays, applied in accordance with manufacturer's instructions.

9.0 WEED ERADICATION

Eradicate weeds by environmentally acceptable methods using a non-residual glyphosate herbicide (eg. 'Roundup') in any of its registered formulae, at the recommended maximum rate. Regularly remove by hand, weed growth that may occur or recur throughout grassed, planted and mulched areas. Remove weed growth from an area 750mm diameter around the base of trees in grassed areas. Continue eradication throughout the course of the works and during the maintenance period.

10.0 FERTILISING

Apply follow up concentrated organic fertiliser to all turfed areas once during the maintenance period 10 weeks after completion.

11.0 LAWNS

Mow at max 10-day intervals, trimming all edges, remove all weed growth or grass around base of all plants in turf or by hand in grass areas within the isolated planting area edging and within one (1) metre diameter area in grass, do not use nylon line type edge trimmers around base of trees - replace or repair failed turf and bare patches.

12.0 SOIL SUBSIDENCE

Any soil subsidence or erosion which may occur after the soil filling and preparation operations shall be made good by the landscape contractor at no cost to the client.

ONGOING MAINTENANCE SCHEDULE OF PLANTING AND TURF AREAS

OCCUPATIONAL HEALTH AND SAFETY (OHS)
Services are to be provided safely and in accordance with relevant OHS regulations and with continual regard for the safety of the public and developer employees.

MOWING

- All grassed areas shall be maintained in a weed free state. Weed growth with grass areas must not exceed 10% of the total grass area.
- Grass clippings shall be distributed evenly over the surface and at no time shall the layer of clippings be at such a depth that it will affect or damage the lawn area.
- Ensure one does not mow over any litter or debris. Prior to mowing, all areas shall be inspected and are to be cleared of litter and debris, including but not limited to paper, plastic, glass, rocks, branches, garden refuse, timber, spoil, etc. Such material shall be disposed of off-site. The contractor must take an environmentally responsible approach to the collection, sorting and recycling (where appropriate) of materials collected in the interests of waste minimisation. Green waste recycling is encouraged.
- Sharps are to be collected by the developer and disposed of appropriately. The contractor should be fully aware of the associated problems of needle stick injury and therefore handle sharps accordingly.
- Grass height shall be kept between 40 mm – 70mm in height.
- All turf is to be cut evenly and sharply across the surface to a height of 40mm. The method of measurement of the mowing height shall be the average height from the ground to the uppermost extent of the blades when held up vertically. No more than one-third (1/3) of the grass length should be removed in any one mowing.
- Wherever possible grass shall be cut in parallel lines so that all grassed areas are left with a neat and tidy appearance. On successive cuts the grass must be mowed in the opposite direction or at variable directions, to avoid windrows developing and to prevent grass seed stalks lying in one direction and remaining uncut. After mowing, all hard surfaces such as footpaths and roads shall be cleared of cut material.
- The needs of the public must be considered before mowing commences. At all times, the contractor must be courteous and respectful of the needs of these users.
- All nature strips abutting reserves or Council-managed facilities shall be mown and maintained to the same standard as the facilities.
- The contractor should use discretion in the selection of appropriate machinery suited to the task and must take into consideration ambient site conditions. Ground surface damage as a result of the use of machinery inappropriate to the conditions will be the responsibility of the contractor to reinstate.

Monthly:
Weeding - Weed garden areas manually or with approved herbicide. Prior approval required for Herbicide use. Approved Herbicide use to be in accordance with regulation rates and manufacturer's recommendation. Protect plants from overspray and avoid if rain is likely within 12 hour period. Prevent reproduction of weeds by removal of seedlings and established weeds before seed set. This work should be carried out regularly at least once a month so that the planted and mulched areas are weed free when observed at monthly intervals.
Leaf Litter Removal - Do not remove leaf litter from planted areas unless depth of litter is impacting on plant growth. Remove leaf litter from pathways
Pest & Disease Control - Check for incidence of fungal and insect attack. Avoid use of chemical sprays Apply appropriate treatment for fungal and insect attack if necessary subject to approval
Plant Removal and Replacement - Inspect for failed or dying plants requiring replacement and record probable cause. Replant after dead or failed plant removal.
Mulch - Ensure mulch is kept clear of plant stems at all times. Drainage pits are to be cleared of mulch and other material regularly so that all pits are cleared when observed at monthly intervals or after significant storm events.
Check irrigation system is operating correctly.

Spring:
Mulching - Reapply mulch to maintain to a depth of 75mm
Plant Fertiliser - Fertilise all plants at specified rates based on soil testing results. Prior approval required for fertiliser use. Slow release fertiliser N:P:K ratio– 18:3:10 at manufacturer's recommended rate per plant. Initial fertilising at planting based on soil testing results
Pruning & Trimming - Shrubs & groundcover - Tip prune to encourage density. Length removed depending on vigour of previous plant growth. Pruning should reflect the natural growth, flowering and regrowth habit of the individual species. Generally prune after flowering. Prune hedges in late Spring.
Turf Fertiliser - Apply fertiliser at rates as recommended by manufacturer.
Turf Mowing - Every 3 weeks in spring & autumn Do not mow under wet conditions. Mow at heights of between 40 to-60mm & remove no more than 1/3 of the leaf blade at any one time. Do not use nylon line type edge trimmers around base of trees.
Turf Decompaction & Aeration - Inspect for compaction and thatching. Carry out aeration treatment if required. Carry out with dethatching or verticutting equipment.

Summer:
Pruning & Trimming - Climbers - Prune long leaders which cannot be reattached to climbing frame. Train leaders onto wires.
Turf Mowing - Every 2 weeks in summer. Do not mow under wet conditions. Mow at heights of between 40 to-60mm & remove no more than 1/3 of the leaf blade at any one time. Do not use nylon line type edge trimmers around base of trees.

Autumn:
Turf Fertiliser - Apply fertiliser at rates as recommended by manufacturer.
Turf Mowing - Every 3 weeks in spring & autumn Do not mow under wet conditions. Mow at heights of between 40 to-60mm & remove no more than 1/3 of the leaf blade at any one time. Do not use nylon line type edge trimmers around base of trees.

Winter:
Pruning & Trimming - Shrubs & groundcover - Tip prune to encourage density. Length removed depending on vigour of previous plant growth. Tip pruning involving the removal of the top 25mm or growing tip of each branch, should be used with shrubs and groundcover to encourage development of new shoots during the active growing season. Be careful not to remove the buds before the flowering season in those plants that have terminal flowers. Prune hedges.
Turf Mowing - Every month in winter. Do not mow under wet conditions. Mow at heights of between 40 to-60mm & remove no more than 1/3 of the leaf blade at any one time. Do not use nylon line type edge trimmers around base of trees.
Turf Replacement - Inspect for failed turf requiring replacement and record probable cause.

As Required -
Pest & Disease Control - Check for incidence of fungal and insect attack. Avoid use of chemical sprays Apply appropriate treatment for fungal and insect attack if necessary subject to approval. If chemical control is considered necessary, these should be mixed and applied in strict accordance with manufacturer's directions. Do not spray in windy or extreme weather.
Plant Removal and Replacement - Replant after dead or failed plant removal. All plants that have died or failed (lost more than 50% of their normal foliage cover) shall be replaced with the same species and commercially available size as the plant to be replaced. Generally plant material shall be uniformly high quality stock equal to best available for 'retail sale'. The root systems shall be balanced in relation to the size of the plant. Plants shall be healthy well grown, hardened off specimens of good shape and free from pests and diseases and in accordance with 'Specifying Trees: a guide to assessment of tree quality' (Clark 2006).
Pruning & Trimming - Remove deadwood from trees if required. Pruning should reflect the natural growth, flowering and regrowth habit of the individual species. Generally prune after flowering. Pruning will be directed at the maintenance of the dense foliage or miscellaneous pruning and beneficial to the condition of the plants to improve plant shape and form or to clear footpaths and driveways. Any damaged growth shall be pruned. All pruned material shall be removed from the site. Train leaders of climber onto wires.
Weed Control in Turf - Remove weeds from turf areas manually or with approved herbicide in accordance with manufacturer's recommendation
Turf Replacement - Remove failed turf, prepare surface & lay new turf in accordance with original turf specified.
Watering - Grass, trees and garden areas shall be watered regularly so as to ensure continuous healthy growth. The minimum acceptable watering required is equal to 25mm of natural rainfall or its applied equivalent during each period of one (1) week, around individual plants, maintain a completely weed and grass free watering saucer of a minimum diameter of one (1) metre.
Stakes and Ties - Replace or adjust plant stakes, and tree guards as necessary. Adjust ties to give adequate support to the plants, replace broken or damaged ties as necessary and straighten stakes. Remove stakes and ties after one year.
Mulch - Ensure mulch is kept clear of plant stems at all times. Drainage pits are to be cleared of mulch and other material regularly so that all pits are cleared when observed at monthly intervals or after significant storm events.
The overflow area is to be cleared of weeds on a regular basis and particularly after significant storm events.
Check irrigation system is operating correctly.
Check paved areas and clean if slippery with a high pressure hose. Check retaining walls and planter boxes for signs of failure. Check seats and tables for signs of wear and tear and ensure all fastenings are secure. Maintain BBQ s per manufacturer's details (if required).

Planning for Bushfire:
Note: Design complies with the requirement of an asset protection zone as outlined in the planning for Bush Fire Protection (2019) Appendix 4 of the NSW RFS Standards for Asset Protection Zones.
1. Tree in maturity should not touch or overhang the building.
2. Low limbs should be removed up to a height of 2m above the ground.
3. Grass should be kept mown (no more than 100mm in height)
4. Landscape area should be maintained free of leaf litter and debris. The gutter and roof should be maintained free of leaf littler and debris.
5. Ground fuels such as fallen leaves, twigs and branches should be removed on a regular basis.
6. Shrubs form 10% of the ground cover.

IRRIGATION

SCOPE OF WORKS

The contractor (as part of a Design & Construct (D&C) contract) is to design, supply, and install a sub-surface irrigation system. Irrigation is to be provided to all mass planting areas and tree pits. Refer to Landscape Plan for locations.
There will be one central control room (Location to be confirmed), this is where the timer panel will be located. The solenoid and tap locations are to be confirmed on site by superintendent.

Council states the need to conserve water and this requirement is expected to be factored into the design and construction of the irrigation systems.

Contractor is to coordinate with client regarding entitlement boundaries. Irrigation zoning to suit

PERFORMANCE STANDARDS

The Contractor is responsible for the design, supply, and install an irrigation system that will reliably supply sufficient water to sustain the gardens specified.
The following table presents the assessed water demand for the different types of plants to be planted. It is a requirement that the irrigation system is able to supply at least these quantities of water.

PLANTING TYPE	PERIOD		
P1 (Week 1)	P2 (Week 2 to 3)	P3 (Week 4 to Week 52)	Ongoing Irrigation
150-200mm	1.5 L / Day	0.5 L / Days	1L / Week
300-400mm	3 L / Day	1.5 L / Days	3 L / Week
100L-400L	9 L / Day	4.5 L / Days	5L / Week
Turf	15L / sqm per week during summer - 7L / sqm per week during winter		

Each component of the irrigation system and the overall design is required to confirm to all pertinent Australian Standards.

DESIGN REQUIREMENTS

The Contractor's D&C Irrigation Plan will provide the following information for review and approval.
- An overview of the system including a sketch plan showing the intended layout;
- The pipeline diameter (inner diameter), material, rating and methods of joining (if joints are applicable);
- The depth the pipeline will be buried and the off-set distances to any shrubs, paths, road or building;
- The brand and model of any pumps to be installed, including a copy of the pump curves and the approximate difference in elevation between from the high and low points of the system and the location of the pump; and
- The proposed location and brand of any ancillary equipment such as valves, solenoids, and/or soil moisture probes or measuring gauges and any measures to protect against corrosion.

The Contractor will also provide a short description listing:
- Features of the irrigation system that help conserve water;
- How the system is designed to operate – for example does it offer flexibility of automatic and manual operations;
- How the risk of root intrusion is addressed;
- The length of warranty of all equipment provided;
- A brief description of the maintenance requirements of the system;
- Any additional features of the system which is considered to enhance water conservation.

HEALTH AND SAFETY

The Contractor will be responsible for Health and Safety of the works and ensuring any excavations are adequately barricaded and or covered. The Contractor is also to ensure that they know the location of existing services prior to excavation.

STOCKPILING

The Contractor is to agree the location of any stockpile areas with the Superintendent in advance. The stockpile location must not interfere with traffic or pedestrian access.
The Contractor is to take care to protect materials from the elements as appropriate, and for example should not allow pipes to be exposed to sunlight for prolonged periods of time, or placed in a position where they may be scratched.

EXISTING SERVICES

The Contractor will be held responsible for any damage to existing services or infrastructure on the site caused by the Contractor.

ENVIRONMENTAL PROTECTION

The Contractor is to manage the works in a way that will protect the environment. This is expected to include stopping sediment entering the stormwater drains, and avoiding wasting water. Any costs associated with protecting the environment are to be incorporated into the Contractor's fee.

HOLD POINTS

The Contractor will provide 48 hours notice for the following inspections from the Superintendent or their designated representative:
- Arrival to site of pipelines and pumps. These are to be inspected to check the integrity and brand of the materials prior to installation. In particular it will be checked that the pipes are not too scratched;
- Installation of the pipework prior to backfill. The Superintendent or their representative will visually inspect the irrigation system before it is backfilled. The testing will check that the integrity of the irrigation system is intact and that an adequate supply of water is distributed throughout the pipelines;
- Testing of the irrigation programming system; and
- Practical completion of the works.

AS CONSTRUCTED DRAWINGS

The Contractor shall submit "As Constructed" drawings of the irrigation system before Practical Completion will be awarded. The As Constructed drawings will be prepared to the same scale and on the same sized standard sheets as the approved design drawings and will show the locations and depths of all pipelines and ancillary equipment.

OPERATION MANUAL

The Contractor will provide an Operating Manual prior to Practical Completion which will contain:
- Operating instructions for the system;
- Programming instructions for the control system;
- Details of all equipment used in the system;
- Recommendations for the frequency of irrigation; and
- Full maintenance and servicing instructions.

The Contractor will provide two copies of the Operation Manual to the Superintendent.

MAINTENANCE PERIOD

The Contractor will be responsible for maintaining the works for 12 months after the issuance of the Certificate of Practical Completion. Towards the end of the Maintenance Period the Superintendent or their representative will inspect the work with a soil moisture probe which is to be supplied by the Contractor. The Superintendent or their representative may direct the contractor to excavate any areas that appear to be of concern due to the state of health of the plants or the results of the soil moisture probe. The excavation and repair of any damaged equipment will be deemed to have been included.
Refer to Architectural drawings for fence types, retaining walls, paving and decking details.

Planning, Industry & Environment
NSW GOVERNMENT

Rev	Date	Issue
6	10.05.23	Part 5 Issue
5	24.04.23	Tender Issue (90%)
4	24.04.23	Part 5 Issue
3	11.04.23	Tender Issue (90%)

do not scale drawings. check all dimensions on site.
figured dimensions take precedence.

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Landscape Consultant:
Botanique Design
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Stormwater Consultant:
Greenview Consulting
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Architect:
Stanton Dahl Architects

Project:
General Housing Development
at
25-29 Prospero Street, Maryland

Title:
Landscape Specification and Maintenance Plan

File: 230318 25-29 Prospero St, Maryland_Landscape.pln
Plotted: 10/5/2023 9:41 am

Status: Part 5 Activity Submission

Date: 10/5/2023	Scale: @ A1	S|d job no: 2869.23	Project no. BGWY9
Stage: Part 5	Drawn: MM	Checked: ML	Approved: ML
Drawing: L03	Sheet: 3 of 3		Rev: 6

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

CIVIL DESIGN

FOR PROPOSED DEVELOPMENT AT

25-29 Prospero Street, Maryland, NSW

GENERAL NOTES

1. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE NOMINATED OR APPLICABLE COUNCIL SPECIFICATION.
2. THE CONTRACTOR SHOULD REPORT ANY DISCREPANCIES ON THE DRAWINGS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN.
3. IT IS THE RESPONSIBILITY OF THE TENDERER TO SEEK CLARIFICATION WHERE DOCUMENTATION IS CONFLICTING OR UNCLEAR. WHERE NO CLARITY IS OBTAINED, THE TENDERER IS TO ALLOW FOR BOTH INTERPRETATIONS IN THEIR PRICING.
4. CONTRACTOR IS NOT TO ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE PERMISSION OF THE OWNER.
5. SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED OR REMOVED FROM SITE.
6. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING.
7. ALL DRAINAGE LINES THOUGH ADJACENT LOTS SHALL BE CONTAINED WITHIN EASEMENTS CONFORMING TO COUNCIL'S STANDARDS.
8. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL PROVIDE A TRAFFIC MANAGEMENT PLAN PREPARED BY AN ACCREDITED PERSON IN ACCORDANCE WITH RMS REQUIREMENTS, FOR ANY WORK ON OR ADJACENT TO PUBLIC ROADS, PLAN TO BE SUBMITTED TO COUNCIL & RMS AS REQUIRED.
9. THESE PLANS SHALL BE A READ IN CONJUNCTION WITH OTHER RELEVANT CONSULTANTS' PLANS, SPECIFICATIONS, CONDITIONS OF DEVELOPMENT CONSENT AND CONSTRUCTION CERTIFICATE REQUIREMENTS.
10. THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.
11. THE BUILDER IS TO VERIFY ALL LEVELS ON SITE PRIOR TO COMMENCING CONSTRUCTION.
12. ALL THE CLEANING EYES (OR INSPECTION EYES) FOR THE UNDERGROUND PIPES HAVE TO BE TAKEN UP TO THE FINISHED GROUND LEVEL FOR EASY IDENTIFICATION AND MAINTENANCE PURPOSES
13. ALL TERRACE FLOOR AND PLANTER GRATES TO HAVE FIRE COLLARS FITTED EXCEPT FOR CLASS 1 BUILDINGS
14. ALL PITS HAVING AN INTERNAL DEPTH THAT EXCEEDS 1.0m SHALL BE PROVIDED WITH GALVANIZED STEP IRON'S AT 300 mm CENTRES PLACED IN A STAGGERED PATTERN AND SHALL BE IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS AS4198-1994.
15. ALL MULCHING TO BE USED WITHIN THE AREA DESIGNATED AS ON SITE DETENTION STORAGE SHALL BE OF A NON-FLOATABLE MATERIAL SUCH AS DECORATIVE RIVER GRAVEL. BARK MULCHING SHALL NOT BE USED WITHIN THE DETENTION STORAGE AREA.
16. PRIOR TO COMMENCING ANY WORKS ON THE SITE, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITE STORMWATER SYSTEM CONNECTION INTO COUNCIL'S KERB/DRAINAGE SYSTEM MATCH THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY.
17. GREENVIEW IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY SURVEY INFORMATION PROVIDED ON THIS DRAWING.
18. ALL LEVELS SHOWN ARE EXPECTED TO BE TO A.H.D.
19. ALL CHAINAGES AND LEVELS ARE IN METERS, AND DIMENSIONS IN MILLIMETRES, UNLESS NOTED OTHERWISE.
20. THE SURVEY INFORMATION ON THIS DRAWING HAS BEEN PROVIDED BY THE ARCHITECT.
21. CONTRACTORS SHALL ARRANGE FOR THE WORKS TO BE SET OUT BY A REGISTERED SURVEYOR.
22. W.A.E DRAWINGS BY A REGISTERED SURVEYOR ARE REQUIRED PRIOR TO CERTIFICATION OF DRAINAGE.
23. WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES WITHOUT WRITTEN APPROVAL.
24. WATER TREATMENT DEVICES TO STRICTLY COMPLY WITH MANUFACTURING SPECIFICATIONS.

RAINWATER REUSE SYSTEM NOTES

1. RAINWATER SUPPLY PLUMBING TO BE CONNECTED TO OUTLETS WHERE REQUIRED BY BASIX CERTIFICATE (BY OTHERS)
2. NO DIRECT CONNECTION BETWEEN TOWN WATER SUPPLY AND THE RAINWATER SUPPLY
3. PROVIDE AN APPROVED STOP VALVE AND/OR PRESSURE LIMITING VALVE AT THE RAINWATER TANK
4. PROVIDE AT LEAST ONE EXTERNAL HOSE COCK ON THE TOWN WATER SUPPLY FOR FIRE FIGHTING.
5. PROVIDE APPROPRIATE FLOAT VALVE AND/OR SOLENOID VALVES TO CONTROL TOWN WATER SUPPLY INLET TO TANK IN ORDER TO ACHIEVE THE TOP-UP INDICATED ON THE TYPICAL DETAIL.
6. ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS/NZ3500.1 NATIONAL PLUMBING AND DRAINAGE CODE.
7. PRESSURE PUMP ELECTRICAL CONNECTION TO BE CARRIED OUT BY A LICENSED ELECTRICIAN.
8. ONLY ROOF RUN-OFF IS TO BE DIRECTED TO THE RAINWATER TANK SURFACE WATER INLETS ARE NOT TO BE CONNECTED.
9. PIPE MATERIALS FOR RAINWATER SUPPLY PLUMPING ARE TO BE APPROVED MATERIALS TO AS/NZ3500 PART 1 SECTION 2 AND TO BE CLEARLY AND PERMANENTLY IDENTIFIED AS 'RAINWATER'. THIS MAY BE ACHIEVED FOR BELOW GROUND PIPES USING IDENTIFICATION TAPE (MADE IN ACCORDANCE WITH AS2648) OR FOR ABOVE GROUND PIPES BY USING ADHESIVE PIPE MARKERS (MADE IN ACCORDANCE WITH AS1345)
10. EVERY RAINWATER SUPPLY OUTLET POINT AND THE RAINWATER TANK ARE TO BE LABELLED 'RAINWATER' ON A METALLIC SIGN IN ACCORDANCE WITH AS1319
11. ALL INLETS AND OUTLETS TO THE RAINWATER TANK ARE TO HAVE SUITABLE MEASURES PROVIDED TO PREVENT MOSQUITO AND VERMIN ENTRY.
12. ALL DOWNPIPES CHARGED TO THE RAINWATER TANK ARE TO BE SEALED UP TO GUTTER LEVEL AND BE PRESSURE TESTED AND CERTIFIED
13. TOWN WATER CONNECTION TO RAINWATER TANK TO BE TO THE SATISFACTION OF THE REGULATORY AUTHORITY. THIS MAY REQUIRE PROVISION OF
    - 13.1. PERMANENT AIR GAP
    - 13.2. BACKFLOW PREVENTION DEVICE

SAFETY IN DESIGN NOTES

THERE ARE INHERENT RISKS WITH CONSTRUCTING, MAINTAINING, OPERATING, DEMOLISHING, DISMANTLING AND DISPOSING. WE NOTE THIS DESIGN IS TYPICAL OF SIMILAR DESIGNS. AS FAR AS IS REASONABLY PRACTICABLE RISKS HAVE BEEN ELIMINATED OR MINIMISED THROUGH THE DESIGN PROCESS. HAZARD CONTROLS MUST STILL BE IMPLEMENTED BY THE CONTRACTOR, OWNER OR OPERATOR TO ENSURE THE SAFETY OF WORKERS. GREENVIEW ASSESSMENT DID NOT IDENTIFY ANY UNIQUE RISKS ASSOCIATED WITH THE DESIGN.

EARTHWORK NOTES

1. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS
2. THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES AND DEBRIS ETC. TO THE EXTENT OF THE PROPOSED DEVELOPED AREA.
3. PROVIDE PROTECTION BARRIERS TO PROTECTED/SENSITIVE AREAS PRIOR TO ANY BULK EXCAVATION.
4. OVER FULL AREA OF EARTHWORKS, CLEAR VEGETATION, RUBBISH, SLABS ETC. AND STRIP TOP SOIL. AVERAGE 200mm THICK. REMOVE FROM SITE, EXCEPT TOP SOIL FOR RE-USE.
5. CUT AND FILL OVER THE SITE TO LEVELS REQUIRED.
6. PRIOR TO ANY FILLING IN AREAS OF CUT OR IN EXISTING GROUND, PROOF ROLL THE EXPOSED SURFACE WITH A ROLLER OF MINIMUM WEIGHT OF 5 TONNES WITH A MINIMUM OF 10 PASSES.
7. EXCAVATE AND REMOVE ANY SOFT SPOTS ENCOUNTERED DURING PROOF ROLLING AND REPLACE WITH APPROVED FILL COMPACTED IN LAYERS. THE WHOLE OF THE EXPOSED SUBGRADE AND FILL SHALL BE COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2%.
8. FOR ON SITE FILLING AREAS, THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.
9. WHERE HARD ROCK IS EXPOSED IN THE EXCAVATED SUB-GRADE, THIS WILL BE INSPECTED AND A DECISION MADE ON THE LEVEL TO WHICH EXCAVATION IS TAKEN.
10. FILL IN 200mm MAXIMUM (LOOSE THICKNESS) LAYERS TO UNDERSIDE OF BASECOURSE USING THE EXCAVATED MATERIAL AND COMPACTED TO 98% STANDARD (AS 1289 5.1.1). MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2% SHOULD THERE BE INSUFFICIENT MATERIAL FROM SITE EXCAVATIONS, IMPORT AS NECESSARY CLEAN GRANULAR FILL TO APPROVAL.
11. COMPACTION TESTING SHALL BE CARRIED OUT AT THE RATE OF 2 TESTS PER 1000SQ METRES PER LAYER BY A REGISTERED NATA LABORATORY. THE COSTS OF TESTING AND RE-TESTING ARE TO BE ALLOWED FOR BY THE BUILDER.
12. BATTERS TO BE AS SHOWN, OR MAXIMUM 1 VERT : 4 HORIZ.
13. ALL CONDUITS AND MAINS SHALL BE LAID PRIOR TO LAYING FINAL PAVEMENT.
14. ALL BATTERS AND FOOTPATHS ADJACENT TO ROADS SHALL BE TOP SOILED WITH 150mm APPROVED LOAM AND SEEDED UNLESS OTHERWISE SPECIFIED.

DRAINAGE INSTALLATION

RCP CONVENTIONAL INSTALLATIONS & ROAD CROSSINGS

1. SUPPLY & INSTALLATION OF DRAINAGE WORKS TO BE IN ACCORDANCE WITH THESE DRAWINGS, THE COUNCIL SPECIFICATION AND THE CURRENT APPLICABLE AUSTRALIAN STANDARDS.
2. BACKFILL SHALL BE PLACED & COMPACTED IN ACCORDANCE WITH THE SPECIFICATION. A GRANULAR GRAVEL AGGREGATE MATERIAL (<10mm) BACKFILL IS RECOMMENDED FOR THE BEDDING, HAUNCH SUPPORT AND SIDE ZONE DUE TO IT'S SELF COMPACTING ABILITY.
3. A MINIMUM OF 150mm CLEARANCE IS TO BE PROVIDED BETWEEN THE OUTSIDE OF THE PIPE BARREL AND THE TRENCH WALL FOR PIPES < 600 DIA. 200mm CLEARANCE FOR PIPES 600 TO 1200 DIA AND D/6 CLEARANCE FOR PIPES > 1200 DIA.
4. BEDDING OF THE PIPELINES IS TO BE TYPE 'HS2' IN ACCORDANCE WITH THE STANDARDS AND AS FOLLOWS:

a.COMPACTED GRANULAR MATERIAL IS TO COMPLY WITH THE FOLLOWING GRADINGS:

M	19	2.3600	0.6000	0.3000	0.1500	0.0750
% MASS PASSING	100	50-100	20-90	10-60	0-25	0-10

-AND THE MATERIAL PASSING THE 0.075 SIEVE HAVING LOW PLASTICITY AS DESCRIBED IN APPENDIX D OF AS1726.

b.BEDDING DEPTH UNDER THE PIPE TO BE 100mm.

c.BEDDING MATERIAL TO BE EXTENDED FROM THE TOP OF THE BEDDING ZONE UP TO 0.3 TIMES PIPE OUTSIDE DIAMETER. THIS REPRESENTS THE 'HAUNCH ZONE.'

d.THE BEDDING & HAUNCH ZONE MATERIAL IS TO BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 98% WITHIN ROAD RESERVES AND TRAFFICABLE AREAS AND 95% ELSEWHERE FOR COHESIVE MATERIAL OR A MINIMUM DENSITY INDEX OF 70% IN ACCORDANCE WITH THE STANDARDS FOR COHESIONLESS MATERIAL.

e.COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED ORGANISATION WITH A NATA CERTIFIED LABORATORY FOR ALL DRAINAGE LINES LAID WHOLLY OR IN PART UNDER THE KERB & GUTTER OR PAVEMENT

ROOF DRAINAGE

1. ALL ROOF DRAINAGE IS TO BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE CURRENT APPLICABLE AUSTRALIAN STANDARDS INCLUDING AS3500.3, NCC AND COUNCIL'S SPECIFICATIONS.
2. DOWNPIPES SHOWN ARE INDICATIVE ONLY. REFER ARCHITECTURALS FOR FINAL LOCATIONS.
3. ALL DOWNPIPES TO BE CONSTRUCTED OF ONE MATERIAL FOR AESTHETICS REASONS AND PAINTED TO PROTECT THEM AGAINST ULTRA-VIOLET LIGHT DAMAGE. UNLESS APPROVED OTHERWISE BY THE PROJECT ARCHITECT.
4. ALL DOWNPIPES TO HAVE LEAF GUARDS.
5. ALL EAVES GUTTERS ARE TO BE DESIGNED TO THE 5% AEP (20YR) STORM EVENTS UNO
6. ALL EAVES GUTTER OVERFLOWS ARE TO BE IN ACCORDANCE WITH AS3500.3 G3
7. ALL BOX GUTTERS ARE TO BE DESIGNED TO CATER TO THE 1% AEP (100YR) STORM EVENTS UNO
8. IN ACCORDANCE WITH AS3500.3 CLAUSE 3.7.6.G, BOX GUTTERS SHALL:
    - a. BE STRAIGHT (WITHOUT CHANGE IN DIRECTION)
    - b. HAVE A HORIZONTAL CONSTANT WIDTH BASE (SOLE) WITH VERTICAL SIDES IN A CROSS-SECTION.
    - c. HAVE A CONSTANT LONGITUDINAL SLOPE BETWEEN 1:200 AND 1:40.
    - d. DISCHARGE AT THE DOWNSTREAM END WITHOUT CHANGE OF DIRECTION (I.E. NOT TO THE SIDE); AND
    - e. BE SEALED TO THE RAINHEADS AND SUMPS
9. GREENVIEW RECOMMENDS THAT THE BUILDER VERIFIES THAT ANY AND ALL BOX GUTTERS HAVE BEEN DESIGNED BY A QUALIFIED CIVIL ENGINEER PRIOR TO THE COMMENCEMENT OF WORKS.
10. GREENVIEW RECOMMENDS A SPECIFIC INSPECTION AND CERTIFICATION BY A QUALIFIED CIVIL ENGINEER OF ANY AND ALL BOX GUTTERS INSTALLED ON THE PROJECT PRIOR TO OCCUPATION CERTIFICATE
11. ALL DOWNPIPES ARE TO BE PIPE CONNECTED INTO THE FORMAL RAINWATER OR STORMWATER LINE UNLESS SPECIFICALLY NOTED ON THE DRAWINGS OTHERWISE.

STORMWATER DRAINAGE NOTES

1. STORMWATER DRAINAGE SHALL BE GENERALLY IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS INCLUDING AS3500.3 , NCC AND COUNCIL'S SPECIFICATION.
2. MINIMUM PIT DIMENSIONS ARE TO BE IN ACCORDANCE WITH AS3500.3 TABLE 7.5.2.1 WHICH PROVIDES GUIDANCE ACCORDING TO PIT DEPTH U.N.O.

TABLE 7.5.2.1

MINIMUM INTERNAL DIMENSIONS FOR STORMWATER AND INLET PITS

Depth to invert of outlet	Minimum internal dimensions mm		
	Rectangular		Circular
	Width	Length	Diameter
≤450	350	350	—
≤600	450	450	600
>600 ≤900	600	600	900
>900 ≤1200	600	900	1000
>1200	900	900	1000

3. PIPES OF 225mm DIA. AND UNDER SHALL BE UPVC
4. PIPES OF 300mm DIA. AND LARGER SHALL BE FRC OR CONCRETE CLASS 2 RUBBER RING JOINTED UNO.
5. ALL FRC OR RCP STORMWATER PIPES WITHIN ROAD RESERVE AREAS TO BE CLASS 3 U.N.O. BY COUNCILS SPECIFICATION.
6. PIPES SHALL GENERALLY BE LAID AT THE GRADES INDICATED ON THE DRAWINGS.
7. MINIMUM COVER TO PIPES 300mm DIA. AND OVER GENERALLY SHALL BE 600mm IN CARPARK & ROADWAY AREAS UNO.
8. ALL PIPES LOCATED IN LANDSCAPE AREAS TO HAVE 300mm COVER. WHERE NOT POSSIBLE AND COVER IS BETWEEN 150mm AND 300mm USE SEWER GRADE PIPE.
9. PIPES 225mm DIA AND OVER SHALL BE LAID AT 0.5% MIN. GRADE U.N.O.
10. PIPES UP TO 150mm DIA SHALL BE LAID AT 1.0% MIN. GRADE U.N.O
11. BACKFILL TRENCHES WITH APPROVED FILL COMPACTED IN 200mm LAYERS TO 98% OF STANDARD DENSITY.
12. ANY PIPES OVER 16% GRADE SHALL HAVE CONCRETE BULKHEADS AT ALL JOINTS
13. THE MINIMUM SIZES OF THE STORMWATER DRAINAGE PIPES SHALL NOT BE LESS THAN 90mm DIA FOR CLASS 1 BUILDINGS AND 100mm DIA FOR OTHER CLASSES OF BUILDING OR AS REQUIRED BY THE REGULATORY AUTHORITY.
14. BUILD INTO UPSTREAM FACE OF ALL PITS A 3.0m SUBSOIL LINE FALLING TO PITS TO MATCH PIT INVERTS.
15. ALL LANDSCAPED PITS TO BE MIN 450 SQUARE U.N.O OR LARGER AS REQUIRED BY AS3500.3 TABLE 7.5.2.1
16. GREENVIEW RECOMMENDS ALL COURTYARDS TO HAVE 450 SQUARE PLASTIC PIT INSTALLED WITH A 150mm DIA. CONNECTION TO FORMAL DRAINAGE SYSTEM.
17. ALL DRIVEWAY PITS TO BE MIN 600 SQUARE U.N.O OR LARGER AS REQUIRED BY AS3500.3 TABLE 7.5.2.1
18. ALL PLANTER BOXES AND BALCONIES TO BE CONNECTED TO THE PROPOSED STORMWATER DRAINAGE LINE.
19. ALL STORMWATER DRAINAGE WORK TO AVOID TREE ROOTS. WHERE NOT POSSIBLE, ALL EXCAVATIONS IN VICINITY OF TREE ROOTS ARE TO BE HAND DUG.
20. GEOTEXTILE FABRIC TO BE PLACED UNDER RIP RAP SCOUR PROTECTION WHERE APPLICABLE.
21. ALL BASES OF PITS TO BE BENCHED (TO HALF PIPE DEPTH) TO THE INVERT OF THE OUTLET PIPE AND PROVIDE GALVANISED ANGLE SURROUNDINGS TO GRATE.
22. ANY VARIATION TO THAT WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY THE ENGINEER PRIOR TO THE COMMENCEMENT.
23. ALL BALCONIES AND ROOFS TO BE DRAINED AND TO HAVE SAFETY OVERFLOWS IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
24. GREENVIEW RECOMMENDS ALL ACCESSIBLE GRATES TO BE FITTED WITH CHILDPROOF LOCKS
25. ALL WORK WITHIN COUNCIL RESERVE AREAS TO BE INSPECTED BY COUNCIL PRIOR TO BACKFILLING.
26. COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.
27. WATER PROOF ALL CONCRETE BALCONIES & ROOFS TO ARCHITECTS DETAILS
28. ALL BALCONIES TO HAVE FLOOR WASTE AND 1% FALL WITH SAFETY OVERFLOW.
29. ALL SUBSOIL DRAINAGE SHALL BE A MINIMUM OF Ø65mm AND SHALL BE PROVIDED WITH A FILTER SOCK. THE SUBSOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS TO BE PROVIDED BY THE LANDSCAPE CONSULTANT.
30. SUBSOIL DRAINAGE PIPES AND FITTINGS SHALL BE PERFORATED PLASTIC TO CURRENT AUSTRALIAN STANDARDS. LAY PIPES ON FLOOR OF TRENCH GRADED AT 1% MIN. AND OVERLAY WITH FILTER MATERIAL EXTENDING TO WITHIN 200mm OF SURFACE. PROVIDE FILTER FABRIC OF PERMEABLE POLYPROPYLENE BETWEEN FILTER MATERIAL AND TOPSOIL. PROVIDE FLUSHING EYE'S AT HIGH POINTS OR TO COUNCILS REQUIREMENTS.
31. ALL GRATES IN AREAS OF FREQUENT PEDESTRIAN TRAFFIC (IE FOOTPATHS, WALKWAYS, ETC.) TO BE HEELPROOF GRATE.
32. REFER ARCHITECTS DETAIL FOR GRATE FINISH (IE STAINLESS STEEL OR GALVANISED).
33. GRATES TO BE IN ACCORDANCE WITH TABLE BELOW:

PIT GRATE INLINE TYPE

GRATE TYPE	TRAFFIC CONDITIONS
A - EXTRA LIGHT DUTY	FOOTWAYS AND AREAS ACCESSIBLE ONLY TO PEDESTRIANS AND PEDAL CYCLISTS.
B - LIGHT DUTY	FOOTWAYS THAT CAN BE MOUNTED BY VEHICLES.
C - MEDIUM DUTY	MALLS AND PEDESTRIAN AREAS OPEN TO SLOW MOVING COMMERCIAL VEHICLES.
D - HEAVY DUTY	CARRIGEWAYS OF ROADS AND AREAS OPEN TO COMMERCIAL VEHICHLES.
TABLE AS PER AS3996 - 2006. ENGINEER TO BE NOTIFIED IF LOAD CONDITIONS LISTED ABOVE ARE EXCEEDED.	

32. COVER TO PIPE TO BE AS PER TABLE BELOW:

COVER TABLE

LOCATION	PIPE TYPE	COVER
LANDSCAPE	PVC	300
LANDSCAPE (SINGLE DWELLING)	PVC	100
UNDER TRAFFICABLE AREA	PVC	100 BELOW UNDERSIDE OF PAVEMENT
CONCRETE	STEEL	NIL BELOW UNDERSIDE OF PAVEMENT
ROADS	RCP	500 BELOW UNDERSIDE OF PAVEMENT

STORMWATER DRAINAGE NOTES CONTINUED

33. GREENVIEW'S STORMWATER SYSTEM HAS BEEN DESIGNED TO CAPTURE SURFACE RUNOFF FROM THE SITE ITSELF BUT DOES NOT INCORPORATE SPECIFIC GROUNDWATER CAPTURE MECHANISMS. IN SOME CASES, GROUNDWATER INUNDATION MAY BE A SIGNIFICANT SOURCE OF WATER DURING A STORM EVENT. GREENVIEW RECOMMENDS THAT ALL RETAINING WALLS CLOSE TO HABITABLE AREAS BE FITTED WITH AN IMPERMEABLE MEMBRANE AND SUBSOIL DRAINAGE TO PREVENT GROUNDWATER INGRESS.
34. GREENVIEW RECOMMENDS ALL IN-GROUND STORMWATER PIPE RUNS ARE SET OUT BY THE BUILDER PRIOR TO COMMENCEMENT OF WORKS. WHERE 300MM COVER IS NOT ACHIEVED, NOTIFY ENGINEER.
35. WHERE STORMWATER DRAINAGE WORKS ARE TO BE UNDERTAKEN PRIOR TO THE CONSTRUCTION OF THE BUILDING, THE BUILDER IS TO SET OUT THE FLOOR LEVELS AND ENSURE PROPOSED STORMWATER DRAINAGE LEVELS AND BUILDING LEVELS ARE COMPATIBLE. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES.

ON-SITE DETENTION

1. ON-SITE DETENTION (OSD) TANKS ARE TO BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE CURRENT APPLICABLE AUSTRALIAN STANDARDS INCLUDING AS3500.3, NCC AND COUNCILS' SPECIFICATIONS.
2. IT IS CRITICAL THAT THE MINIMUM OSD VOLUME AS CALCULATED BY THE DESIGN AND NOTED ON THESE PLANS IS ACHIEVED ON SITE. VOLUMES TO BE VERIFIED BE REGISTERED SURVEYOR AND NOTED IN THE WAE SURVEY PRIOR TO CERTIFICATION.
3. OSD VOLUME MAY BE ACHIEVED IN BELOW GROUND TANK, OR ABOVE GROUND PONDING, OR RAINWATER TANK OFFSET, OR INFILTRATION/ABSORPTION SYSTEM. EACH COUNCIL HAS SPECIFIC GUIDELINES FOR HOW STORMWATER FLOWS ARE TO BE CONTROLLED AND DISCHARGED.
4. PONDING AND OVERFLOW LEVELS FROM THE OSD SHALL BE NOT LESS THAN 300mm BELOW ADJACENT HABITABLE FLOOR LEVELS OF BUILDINGS AND NOT LESS THAN 150mm BELOW NON-HABITABLE FLOOR LEVELS (AS3500.1 CLAUSE 7.10.1)

BELOW GROUND OSD TANKS

1. THE HYDRAULIC CONTROL FOR THE STORAGE (USUALLY ORIFICE PLATE) SHALL BE FIRMLY FIXED IN PLACE TO PREVENT REMOVAL OR TAMPERING. A PLATE OF 3mm TO 5mm THICK STAINLESS STEEL WITH A CIRCULAR HOLE SHALL BE USED, PROVIDED:
    - a. IT IS MACHINED TO 0.5mm ACCURACY
    - b. IT RETAINS A SHARP EDGE; AND
    - c. THE ORIFICE DIAMETER IS NOT LESS THAN 25mm (AS 3500.3 CLAUSE 7.10.2
2. INSPECTION / ACCESS OPENINGS SHALL BE PROVIDED ABOVE THE LOCATION OF THE OUTLET WITH DIMENSIONS AT LEAST 600mm x 600mm OR 600mm DIAMETER FOR STORAGES UP TO 800mm DEEP AND 600mm x 900mm FOR DEEPER STORAGES. THERE SHALL BE NO IMPEDIMENTS TO THE REMOVAL OF DEBRIS THROUGH THIS OPENING. INSPECTION SHALL BE POSSIBLE WITHOUT RESIDENTS OR OWNERS HAVING TO REMOVE HEAVY ACCESS COVERS (AS3500.3 CLAUSE 7.10.2.b.ii)
3. WHERE STORAGES ARE NOT DEEP ENOUGH TO WORK IN (<1.5m DEEP), ACCESS SHALL BE PROVIDED AT INTERVALS OF APPROXIMATELY 10m TO ALLOW THE SYSTEM TO BE FLUSHED TO THE STORAGE OUTLET> ACCESS SHALL BE PROVIDED AT THE OUTLET (AS3500.3 CLAUSE 7.10.2.b.iii)
4. A SUMP SHALL BE PROVIDED AT THE OUTLET POINT, SET BELOW THE LEVEL OF THE MAIN STORAGE TO COLLECT DEBRIS. WHERE A DISCHARGE CONTROL PIT IS INCLUDED IN THE STORAGE< THIS SHALL CONTAIN A SUMP SET A MINIMUM OF 1.5 TIMES THE DIAMETER OF THE ORIFICE OF THE OUTLET BELOW THE CENTRE OF THE ORIFICE. SUMPS SHALL BE PROVIDED WITH WEEP HOLES TO DRAIN OUT TO THE SURROUNDING SOIL, AND SHALL BE FOUNDED ON A COMPACTED GRANULAR BASE.
5. WHERE THE DEPTH OF THE TANK EXCEEDS 1.2m, A LADDER IN ACCORDANCE WITH AS3500.3 CLAUSE 7.5.5.4 SHALL BE INSTALLED.
6. BELOW GROUND OSD SYSTEMS SHALL CONFORM WITH AS2865.
7. IN ACCORDANCE WITH AS3500.3 CLAUSE 7.10.2.D SCREENS (TRASH RACKS) WITH THE FOLLOWING CHARACTERISTICS SHOULD BE PROVIDED TO COVER EACH ORIFICE OUTLET:
    - a. FOR ORIFICES UP TO 150mm DIA., A FINE APERTURE-EXPANDED METAL MESH SCREEN WITH A MINIMUM AREA OF 50 TIMES THE AREA OF THE ORIFICE. FOR LARGER DIA. ORIFICES, A COARSER GRID MESH WITH A MINIMUM AREA OF 20 TIMES THE ORIFICE AREA MAY BE USED AS AN ALTERNATIVE.
    - b. STEEL SCREENS SHOULD BE STAINLESS STEEL OR HOT-DIP GALVANIZED
    - c. WHERE APERTURE-EXPANDED MESH SCREENS ARE EMPLOYED, THEY SHOULD BE POSITIONED SO THAT THE OVAL-SHAPED HOLES ARE HORIZONTAL, WITH THE PROTRUDING LIP ANGLED UPWARDS AND FACING DOWNSTREAM. A HANDLE MAY BE FITTED TO ENSURE CORRECT ORIENTATION AND EASY REMOVAL FOR MAINTENANCE.
    - d. SCREENS SHOULD BE PLACED NO FLATTER THAN 45 DEGREES TO THE HORIZONTAL IN SHALLOW STORAGES UP TO 600mm DEEP. IN DEEPER OR MORE REMOTE LOCATIONS, THE MINIMUM ANGLE SHOULD BE 60 DEGREES TO THE HORIZONTAL.
8. IF THE BELOW GROUND OSD STORAGE IS SEALED, A VENT SHOULD BE PROVIDED TO EXPEL ANY NOXIOUS GASES (AS3500.3 CLAUSE 7.10.2.D.B).
9. THE STORAGE SHOULD BE DESIGNED TO FILL WITHOUT CAUSING OVERFLOWS IN UPSTREAM CONDUITS DUE TO BACKWATER EFFECTS (AS3500.3 CLAUSE 7.10.2.D.C).
10. BELOW GROUND STORAGES SHALL BE CONSTRUCTED OF CONCRETE, MASONRY, ALUMINIUM/ZINC AND ALUMINIUM/ZINC/MAGNESIUM ALLOY-COATED STEEL, ZINC-COATED STEEL, GALVANISED IRON OR PLASTICS (AS3500.3 7.10.3)

MAINTENANCE SCHEDULE: ON SITE DETENTION (OSD)

ALL OSD MAINTENANCE TASKS SHOULD BE UNDERTAKEN AFTER A SIGNIFICANT STORM EVENT

6 MONTHLY

ELEMENT	TASK	DESCRIPTION / ACTION
ORIFICE PLATE	INSPECT FOR BLOCKAGE	CHECK PLATE FOR BLOCKAGE AND CLEAN
TRASH SCREEN	CHECK / CLEAN	CHECK AND CLEAN TRASH SCREEN
PIT SUMP	CHECK FOR SEDIMENT	CHECK FOR SEDIMENT / LITTER / SLUDGE AND CLEAN-OUT
GRATED LIDS	CHECK FOR DAMAGE	CHECK FOR CORROSION OR OTHER DAMAGE AND REPAIR / REPLACE AS NEEDED
	CLEAR BLOCKAGES	CHECK AND CLEAR BLOCKAGES
STORAGE LIDS	CHECK	REMOVE DEBRIS / MULCH / LITTER / SEDIMENT
OUTLET PIPES	CHECK FOR BLOCKAGES	CHECK / CLEAN / FLUSH OUTLET PIPES, REMOVE ANY BLOCKAGES
STEP IRONS	CHECK FIXING	ENSURE STEP-IRON FIXINGS ARE SECURE AND REPAIR AS NEEDED

ANNUALLY

ELEMENT	TASK	DESCRIPTION / ACTION
ORIFICE PLATE	CHECK ATTACHMENT	ENSURE PLATE IS MOUNTED SECURELY, TIGHTEN AND SEAL GAPS AS REQUIRED
TRASH SCREEN	CHECK ATTACHMENT	ENSURE PLATE IS MOUNTED SECURELY, TIGHTEN AND SEAL GAPS AS REQUIRED
	CHECK CORROSION	CHECK TRASH SCREEN FOR CORROSION, ESPECIALLY AT CORNERS NEAR WELDS AND REPAIR / REPLACE AS NEEDED
STEP IRONS	CHECK FOR CORROSION	EXAMINE STEP IRONS AND REPAIR ANY DAMAGE
INTERNAL WALLS	CHECK	CHECK FOR CRACKS / SPALLING AND REPAIR AS NEEDED
OSD SURROUNDS	CHECK FOR SUBSIDENCE	CHECK FOR SUBSIDENCE (WHICH MAY INDICATE LEAKS) AND REPAIR AS NEEDED

5-YEARLY

ELEMENT	TASK	DESCRIPTION / ACTION
ORIFICE PLATE	CHECK ORIFICE PLATE	CHECK ORIFICE SIZE AGAINST WAE AND CHECK FOR PITTING / SCARRING, REPLACE IF NECESSARY

COLOUR LEGEND

NEW (REFER TO SCHEDULES FOR COLOUR DEFINITION)
▨ EXISTING
REMOVED OR RELOCATED

GREENVIEW CIVIL SHEET LIST		
No.	SHEET NAME	REV.
C01	NOTES & LEGENDS	5
C02	GROUND FLOOR DRAINAGE PLAN	5
C03	FIRST FLOOR DRAINAGE PLAN	1
C04	ROOF DRAINAGE PLAN	1
C05	SITE STORMWATER DETAILS SHEET 1	5

RECOMMENDED SAFETY SIGNS

CONFINED SPACE DANGER SIGN

1. A CONFINED SPACE DANGER SIGN SHALL BE POSITIONED IN A LOCATION AT ALL ACCESS POINTS, SUCH THAT IT IS CLEARLY VISIBLE TO PERSONS PROPOSING TO ENTER THE BELOW GROUND TANKS CONFINED SPACE.
    - MINIMUM DIMENSIONS OF THE SIGN
    - 300mm x 450mm (LARGE ENTRIES, SUCH AS DOORS)
    - 250mm x 180mm (SMALL ENTRIES SUCH AS GRATES & MANHOLES)
2. THE SIGN SHALL BE MANUFACTURED FROM COLOUR BONDED ALUMINUM OR POLYPROPYLENE
3. SIGN SHALL BE AFFIXED USING SCREWS AT EACH CORNER OF THE SIGN.

EXISTING SERVICES

ABBREVIATIONS

DP	DOWN PIPE
FFL	PROPOSED FINISHED FLOOR LEVEL
GL	PROPOSED PIT SURFACE LEVEL
IL	PROPOSED PIT INVERT LEVEL
IO	INSPECTION OPENING
K&G	KERB & GUTTER
P	FINISHED PAVEMENT LEVEL
RCP	REINFORCED CONCRETE PIPE
RKG	ROLL KERB & GUTTER
RL	FINISHED SURFACE LEVEL
RWO	RAINWATER DRAINAGE OUTLET
RWT	PROPOSED RAINWATER TANK
TK	TOP OF NEW KERB LEVEL
TOW	TOP OF NEW RETAINING WALL LEVEL
TWL	TOP OF WATER LEVEL
uPVC	RIGID PVC PIPE
VD	VERTICAL DROPPER

REV.	DATE	BY	DESCRIPTION
5	10.05.2023	JPS	PART 5 ISSUE
4	26.04.2023	JPS	PART 5 ISSUE
3	24.04.2023	JPS	PRELIMINARY ISSUE
2	13.04.2023	JPS	PRELIMINARY ISSUE
1	20.03.2023	JPS	PRELIMINARY ISSUE

PROPOSED DEVELOPMENT

25-29 Prospero Street, Maryland, NSW

Land & Housing Corporation

greenview CONSULTING
(02) 8544 1683 | www.greenview.net.au

DESIGN: KP | DRAWN: JPS | CHECKED: AMcK | SIZE: A1 | SCALE: 1 : 100

CIVIL DESIGN

NOTES & LEGENDS

230135
PRELIMINARY
C01 5

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

GREENVIEW RECOMMENDS SEWER TO PEG OUT TO ENSURE NO CLASH WITH STORMWATER

BIN AREA DRAINAGE TO BE COMPLETED BY HYDRAULIC ENGINEER AS THIS WILL CONNECT TO SEWER

PROPOSED KERB INLET PIT IN ACCORDANCE WITH POINT 4 ON CITY OF NEWCASTLE ADVICE DATED 20 SEPTEMBER 2022

APPROX GL +21.85
APPROX IL +20.85

CONNECT TO EXISTING KERB INLET PIT AT 23 PROSPERO ST

GREENVIEW RECOMMENDS A FULL SERVICE LOCATOR SEARCH AND ROAD FRONTAGE PLAN SHOWING LEVELS AND GRADES OF PROPOSED PIPE EXTENSION (NOT IN CURRENT SCOPE)

STW Ø375mm CLASS 4 RCP @ 1.0% MIN

THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS.

FINAL STORMWATER PIT TO BE FITTED WITH TRASH RACK SCREEN.

INFILTRATION/STORAGE CHAMBER/RWT PERMITTED TO MOVE CLOSER TOWARD STREET UPON RECEIPT OF SEWER PEGOUT.

STRUCTURAL INPUT REQUIRED TO DETERMINE VALIDITY OF STORMWATER SYSTEM WALLS ADJACENT STRUCTURE

RWT/FILTER CHAMBER/ STORAGE CHAMBERDETAILS TO BE CONFIRMED WITH COUNCIL ENGINEER DUE TO SITE BEING IN COASTAL WETLAND CATCHMENT

24kL RWT IN ACCORDANCE WITH POINT 4 ON CITY OF NEWCASTLE ADVICE

12kL OF RWT WATER TO BE RETICULATED INTO EACH OF THE FOLLOWING NEW USES: SITE IRRIGATION SYSTEMS, EXTERNAL TAPS, ALL TOILETS AND COLD WATER WASHING MACHINE TAPS AND LAUNDRY BASIN TAPS

LANDSCAPE TO HAVE MINIMUM 150mm LIP TO TOP OF RETAINING WALL TO PREVENT OVERLAND FLOWS

LANDSCAPE TO HAVE MINIMUM 150mm LIP TO TOP OF RETAINING WALL TO PREVENT OVERLAND FLOWS

LANDSCAPE TO HAVE MINIMUM 150mm LIP TO TOP OF RETAINING WALL TO PREVENT OVERLAND FLOWS

GRADED LINE TO TAKE PRIORITY AS RAINWATER LINE CAN BE CHARGED. TYPICAL

GENERAL LEGEND

- LANDSCAPE
- BYPASS LANDSCAPE
- LANDSCAPE ON PODIUM SLAB
- HARDSTAND
- ROOF AREA TO DRAIN
- EXISTING ROOF AREA TO DRAIN
- EASEMENT FOR DRAINAGE
- OSD

PROPOSED TREES | EXISTING TREES

CIV - FIXTURES SCHEDULE		
	TYPE	DESCRIPTION
		GRATED STORMWATER PIT
		PERIMETER STRIP DRAIN
		SEALED STORMWATER PIT
	300W	GRATED STRIP DRAIN
	DP SPREADER	DP SPREADER

CIV - STANDARD SYMBOLS	
	DESCRIPTION
	FALL ARROW
	ROOF FALL ARROW

CIV - STORMWATER SERVICES		
	TYPE	DESCRIPTION
	RW	RAIN WATER
	STW	STORMWATER

GROUND FLOOR DRAINAGE PLAN

Scale: 1 : 100

1. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING.
2. THE BUILDER/CONTRACTOR SHALL LOCATE ALL EXISTING PUBLIC UTILITY SERVICES WITHIN THE SITE, FOOTPATH AREA AND ROAD RESERVE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ALL LOCATIONS AND LEVELS OF SERVICES SHALL BE REPORTED TO THE STORMWATER ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORKS TO ENSURE THERE ARE NO OBSTRUCTIONS IN THE LINE OF THE DRAINAGE DISCHARGE PIPES.
3. PRIOR TO COMMENCING ANY WORKS ON THE SITE, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITE STORMWATER SYSTEM CONNECTION INTO COUNCIL'S KERB/DRAINAGE SYSTEM MATCH THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER IMMEDIATELY
4. ALL STORMWATER DRAINAGE WORK TO AVOID TREE ROOTS. WHERE NOT POSSIBLE, ALL EXCAVATIONS IN VICINITY OF TREE ROOTS ARE TO BE HAND DUG.
5. ALL BASES OF PITS TO BE BENCHED (TO HALF PIPE DEPTH) TO THE INVERT OF THE OUTLET PIPE WITH ALL PIPES CUT FLUSH WITH SIDE OF PIT, TO ALLOW SMOOTH FLOW OF STORMWATER.
6. PROVIDE GALVANISED ANGLE SURROUNDINGS TO GRATE WHERE IN TRAFFICABLE AREAS.
7. PROVIDE 100mm GAP IN BASE OF FENCE FOR EMERGENCY OVERFLOWS.
8. PROVIDE SUBSOIL DRAINAGE AND OUTLETS TO ALL ON PODIUM PLANTER BOXES. OUTLET PIPES NOT SHOWN FOR CLARITY OF DOCUMENTATION.
9. ALL DOWNPIPES ARE TO BE PIPE CONNECTED INTO THE FORMAL RAINWATER OR STORMWATER LINE UNLESS SPECIFICALLY NOTED ON THE DRAWINGS OTHERWISE.
10. ALL PIPES TO BE 100mmØ @ 1% MINIMUM UNLESS NOTED OTHERWISE.
11. ALL BASES OF PITS TO BE BENCHED TO THE INVERT OF THE OUTLET PIPE WITH ALL PIPES CUT FLUSH WITH SIDE OF PIT, TO ALLOW SMOOTH FLOW OF STORMWATER.
12. PROVIDE GALVANISED ANGLE SURROUNDINGS TO GRATES IN TRAFFICABLE AREAS.

STORMWATER CALCULATIONS

- LGA NEWCASTLE
- DESIGN CRITEIRA: ACHIEVE STORMWATER OBJECTIVES AS PER THE "STORMWATER AND WATER EFFICIENCY FOR DEVELOPMENT [APRIL 2019]"
- SITE AREA TOTAL = 1765m²
- SITE IS < 5000sqm THEREFORE SMALL-SCALE DEVELOPMENT
- TOTAL PROPOSED IMPERVIOUS AREA [EXC. PERMEABLE PAVING] = 870m², ADOPT 900m²
- TOTAL PROPOSED ROOF AREA = 530m²
- TOTAL PROPOSED IMPERVIOUS% = 900/1765 = 51%
- TOTAL STORAGE REQUIRED IN RWT = 0.01226*530 = 6.5m³ (COLLECTS ROOF ONLY)
- REMAINING STORAGE REQUIRED = 0.01226*370 = 4.5m³ (CAN COLLECT DRIVEWAYS ETC)
- PROVIDE SANDFILTER, MIN SIZE = 0.8*9 = 7.2m² IN PLAN AREA
- WSUD: RAINWATER TANK AND SAND FILTER THEREFORE DEEMED TO COMPLY AND NO ADDITIONAL WSUD ARRANGEMENTS REQUIRED

SCALE 1:100

REV.	DATE	BY	DESCRIPTION
5	10.05.2023	JPS	PART 5 ISSUE
4	26.04.2023	JPS	PART 5 ISSUE
3	24.04.2023	JPS	PRELIMINARY ISSUE
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PROPOSED DEVELOPMENT

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greenview CONSULTING
(02) 8544 1683 | www.greenview.net.au

DESIGN: KP | DRAWN: JPS | CHECKED: AMcK | SIZE: A1 | SCALE: As indicated

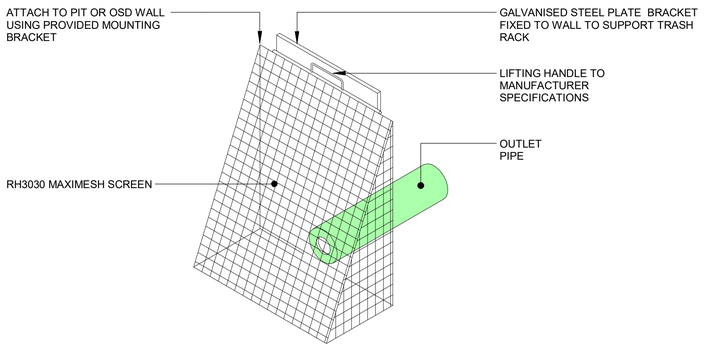
CIVIL DESIGN

GROUND FLOOR DRAINAGE PLAN

230135
PRELIMINARY
C02 5

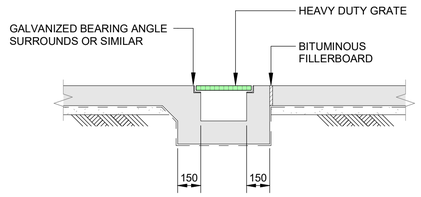
DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

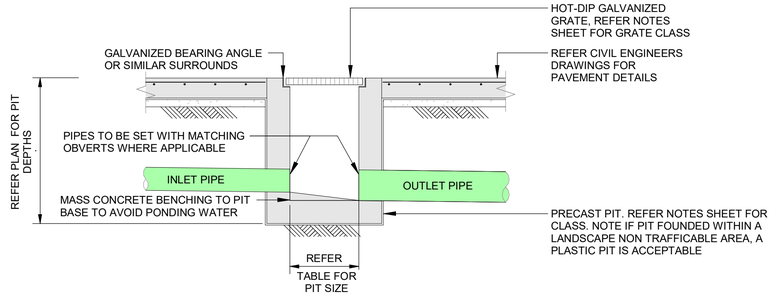


PROVIDE PRE-MADE TRASH SCREEN AS PER MASCOT ENGINEERING "MULTI-PURPOSE TRASH SCREENS" OR APPROVED EQUIVALENT

TYPICAL TRASH SCREEN DETAIL
Scale: 1 : 10



TYPICAL GRATED DRAIN DETAIL
Scale: 1 : 20

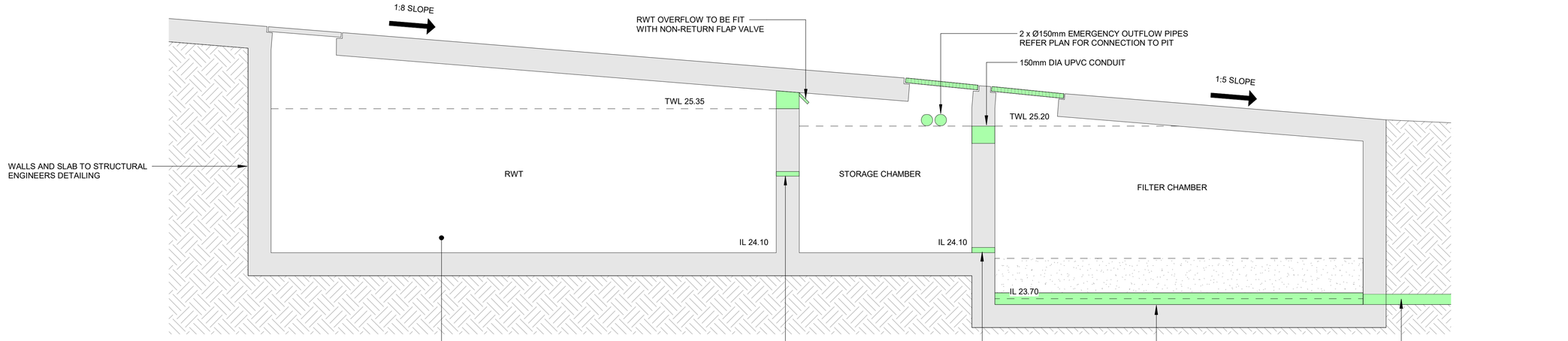


1. ENSURE CLIMB IRONS ARE PROVIDED UNDER LID AT 300 CTS TO COUNCIL'S SPECIFICATIONS WHERE PIT DEPTH IS DEEPER THAN 1000.
2. GREENVIEW RECOMMENDS THE PLUMBER PROVIDES 90Dia x 3000 LONG SUBSOIL DRAINAGE STUB PIPE SURROUNDED WITH 100mm THICKNESS OF NOMINAL 20mm COARSE FILTER MATERIAL WRAPPED IN GEOTEXTILE FILTER FABRIC. (BIDUM A24 OR APPROVED SIMILAR). TO BE PARALLEL TO UPSTREAM SIDE OF EACH INLET PIPE.

PIT SIZE

DEPTH	PIT DIMENSION
0 - 600	450 mm x 450 mm
600 - 900	600 mm x 600 mm
900 - 1200	600 mm x 900 mm
1200 +	900 mm x 900 mm

TYPICAL CONCRETE INLET PIT - CONCRETE SURFACE
Scale: 1 : 20



1 / C02 OSD SECTION
Scale: 1 : 20

REV.	DATE	BY	DESCRIPTION
5	10.05.2023	JPS	PART 5 ISSUE
4	26.04.2023	JPS	PART 5 ISSUE
3	24.04.2023	JPS	PRELIMINARY ISSUE
2	13.04.2023	JPS	PRELIMINARY ISSUE
1	20.03.2023	JPS	PRELIMINARY ISSUE

PROPOSED DEVELOPMENT

25-29 Prospero Street, Maryland, NSW

Land & Housing Corporation

greenview CONSULTING
(02) 8544 1683 | www.greenview.net.au

DESIGN: KP | DRAWN: JPS | CHECKED: AMcK | SIZE: A1 | SCALE: As indicated

CIVIL DESIGN

SITE STORMWATER DETAILS SHEET 1

230135
PRELIMINARY
C05 5

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023

CIVIL DESIGN

FOR PROPOSED DEVELOPMENT AT

25-29 Prospero Street, Maryland, NSW

GENERAL INSTRUCTIONS

1. THIS SOIL AND WATER MANAGEMENT PLAN IS TO BE READ IN CONJUNCTION WITH OTHER ENGINEERING PLANS RELATING TO THIS DEVELOPMENT.
2. CONTRACTORS WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS INSTRUCTED IN THIS SPECIFICATION AND CONSTRUCTED FOLLOWING THE GUIDELINES OF "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION", DEPT OF HOUSING, 1998 (BLUE BOOK).
3. ALL SUBCONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN REDUCING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE AREAS.
4. THESE PLANS SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT CONSULTANTS' PLANS, SPECIFICATIONS, CONDITIONS OF DEVELOPMENT CONSENT AND CONSTRUCTION CERTIFICATE REQUIREMENTS, WHERE DISCREPANCIES ARE FOUND NOTIFY ENGINEER IMMEDIATELY FOR VERIFICATION.
5. WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES.

LAND DISTURBANCE INSTRUCTIONS

1. DISTURBANCE TO BE NO FURTHER THAN 5 (PREFERABLY 2) METRES FROM THE EDGE OF ANY ESSENTIAL ENGINEERING ACTIVITY AS SHOWN ON APPROVED PLANS. ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE ZONES THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
2. ACCESS AREAS ARE TO BE LIMITED TO A MAXIMUM WIDTH OF 10 METRES THE SITE MANAGER WILL DETERMINE AND MARK THE LOCATION OF THESE ZONES ON-SITE. ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE BOUNDARIES THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
3. ENTRY TO LANDS NOT REQUIRED FOR CONSTRUCTION OR ACCESS IS PROHIBITED EXCEPT FOR ESSENTIAL THINNING OF PLANT GROWTH.
4. WORKS ARE TO PROCEED IN THE FOLLOWING SEQUENCE.
   A. INSTALL ALL BARRIER AND SEDIMENT FENCING WHERE SHOWN ON THE PLAN.
   B. CONSTRUCT THE STABILISED SITE ACCESS.
   C. CONSTRUCT DIVERSION DRAINS AS REQUIRED.
   D. INSTALL MESH AND GRAVEL INLETS FOR ANY ADJACENT KERB INLETS.
   E. INSTALL GEOTEXTILE INLET FILTERS AROUND ANY ON-SITE DROP INLET PITS.
   F. CLEAR SITE AND STRIP AND STOCKPILE TOPSOIL IN LOCATIONS SHOWN ON THE PLAN.
   G. UNDERTAKE ALL ESSENTIAL CONSTRUCTION WORKS ENSURING THAT ROOF AND/OR PAVED AREA STORMWATER SYSTEMS ARE CONNECTED TO PERMANENT DRAINAGE AS SOON AS PRACTICABLE
   H. GRADE LOT AREAS TO FINAL GRADES AND APPLY PERMANENT STABILISATION (LANDSCAPING) WITHIN 20 DAYS OF COMPLETION OF CONSTRUCTION WORKS.
   I. REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER THE PERMANENT LANDSCAPING HAS BEEN COMPLETED.
5. ENSURE THAT SLOPE LENGTHS DO NOT EXCEED 80 METRES WHERE PRACTICABLE. SLOPE LENGTHS ARE DETERMINED BY SILTATION FENCING AND CATCH DRAIN SPACING.
6. ON COMPLETION OF MAJOR WORKS LEAVE DISTURBED LANDS WITH A SCARIFIED SURFACE TO ENCOURAGE WATER INFILTRATION AND ASSIST WITH KEYING TOPSOIL LATER.

SITE MAINTENANCE INSTRUCTIONS

1. THE SITE SUPERINTENDENT WILL INSPECT THE SITE AT LEAST WEEKLY AND AT THE CONCLUSION OF EVERY STORM EVENT TO:
   A. ENSURE THAT DRAINS OPERATE PROPERLY AND TO EFFECT ANY NECESSARY REPAIRS.
   B. REMOVE SPILLED SAND OR OTHER MATERIALS FROM HAZARD AREAS, INCLUDING LANDS CLOSER THAN 5 METRES FROM AREAS OF LIKELY CONCENTRATED OR HIGH VELOCITY FLOWS ESPECIALLY WATERWAYS AND PAVED AREAS.
   C. REMOVE TRAPPED SEDIMENT WHENEVER THE DESIGN CAPACITY OF THAT STRUCTURE HAS BEEN EXCEEDED.
   D. ENSURE REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND NOT TO INITIATE UPGRADING OR REPAIR AS NECESSARY.
   E. CONSTRUCT ADDITIONAL EROSION AND/OR SEDIMENT CONTROL WORKS AS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS. MAKE ONGOING CHANGES TO THE PLAN WHERE IT PROVES INADEQUATE IN PRACTICE OR IS SUBJECTED TO CHANGES IN CONDITIONS ON THE WORK-SITE OR ELSEWHERE IN THE CATCHMENT.
   F. MAINTAIN EROSION AND SEDIMENT CONTROL STRUCTURES IN A FULLY FUNCTIONING CONDITION UNTIL ALL EARTHWORK ACTIVITIES ARE COMPLETED AND THE SITE IS REHABILITATED.

THE SITE SUPERINTENDENT WILL KEEP A LOGBOOK MAKING ENTRIES AT LEAST WEEKLY, IMMEDIATELY BEFORE FORECAST RAIN AND AFTER RAINFALL. ENTRIES WILL INCLUDE:

   A. THE VOLUME AND INTENSITY OF ANY RAINFALL EVENTS.
   B. THE CONDITION OF ANY SOIL AND WATER MANAGEMENT WORKS.
   C. THE CONDITION OF VEGETATION AND ANY NEED TO IRRIGATE.
   D. THE NEED FOR DUST PREVENTION STRATEGIES.
   E. ANY REMEDIAL WORKS TO BE UNDERTAKEN.

THE LOGBOOK WILL BE KEPT ON-SITE AND MADE AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. IT WILL BE GIVEN TO THE PROJECT MANAGER AT THE CONCLUSION OF THE WORKS.

SAFETY IN DESIGN NOTES

1. THERE ARE INHERENT RISKS WITH CONSTRUCTING, MAINTAINING, OPERATING, DEMOLISHING, DISMANTLING AND DISPOSING. WE NOTE THIS DESIGN IS TYPICAL OF SIMILAR DESIGNS. AS FAR AS IS REASONABLY PRACTICABLE RISKS HAVE BEEN ELIMINATED OR MINIMISED THROUGH THE DESIGN PROCESS. HAZARD CONTROLS MUST STILL BE IMPLEMENTED BY THE CONTRACTOR, OWNER OR OPERATOR TO ENSURE THE SAFETY OF WORKERS. GREENVIEW ASSESSMENT DID NOT IDENTIFY ANY UNIQUE RISKS ASSOCIATED WITH THE DESIGN.

SEDIMENT CONTROL INSTRUCTIONS

1. SEDIMENT FENCES WILL BE INSTALLED AS SHOWN ON THE PLAN AND ELSEWHERE AT THE DISCRETION OF THE SITE SUPERINTENDENT TO CONTAIN SOIL AS NEAR AS POSSIBLE TO THEIR SOURCE.
2. SEDIMENT FENCES WILL NOT HAVE CATCHMENT AREAS EXCEEDING 900 SQUARE METRES AND HAVE A STORAGE DEPTH OF AT LEAST 0.6 METRES.
3. SEDIMENT REMOVED FROM ANY TRAPPING DEVICES WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS CANNOT OCCUR.
4. STOCKPILES ARE NOT TO BE LOCATED WITHIN 5 METRES OF HAZARD AREAS INCLUDING AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS AND DRIVEWAYS.
5. WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR WATER HAS BEEN TREATED BY AN APPROVED DEVICE.
6. TEMPORARY SEDIMENT TRAPS WILL REMAIN IN PLACE UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
7. ACCESS TO SITES SHOULD BE STABILISED TO REDUCE THE LIKELIHOOD OF VEHICLES TRACKING SOIL MATERIALS ONTO PUBLIC ROADS AND ENSURE ALL-WEATHER ENTRY/EXIT.

SOIL EROSION CONTROL INSTRUCTIONS

1. EARTH BATTERS WILL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NO STEEPER, UNLESS OTHERWISE NOTED, THAN:
   - 2(H):1(V) WHERE SLOPE LENGTH LESS THAN 12 METRES.
   - 2.5(H):1(V) WHERE SLOPE LENGTH BETWEEN 12 AND 16 METRES.
   - 3(H):1(V) WHERE SLOPE LENGTH BETWEEN 12 AND 20 METRES.
   - 4(H):1(V) WHERE SLOPE LENGTH GREATER THAN 20 METRES.
2. ALL WATERWAYS, DRAINS, SPILLWAYS AND THEIR OUTLETS WILL BE CONSTRUCTED TO BE STABLE IN AT LEAST THE 1:20 YEAR ARI, TIME OF CONCENTRATION STORM EVENT.
3. WATERWAYS AND OTHER AREAS SUBJECT TO CONCENTRATED FLOWS AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUNDCOVER C-FACTOR OF 0.05 (70% GROUND COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION. FLOW VELOCITIES ARE TO BE LIMITED TO THOSE SHOWN IN TABLE 5-1 OF "MANAGING URBAN STORMWATER-SOILS AND CONSTRUCTION", DEPT OF HOUSING 1998 (BLUE BOOK). FOOT AND VEHICULAR TRAFFIC WILL BE PROHIBITED IN THESE AREAS.
4. STOCKPILES AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.1 (60% GROUND-COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION.
5. ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.15 (50% GROUND COVER) WITHIN 20 WORKING DAYS FROM INACTIVITY EVEN THOUGH WORKS MAY CONTINUE LATER.
6. FOR AREAS OF SHEET FLOW USE THE FOLLOWING GROUND COVER PLANT SPECIES FOR TEMPORARY COVER. JAPANESE MILLET 20 KG/HA AND OATS 20 KG/HA.
7. PERMANENT REHABILITATION OF LANDS AFTER CONSTRUCTION WILL ACHIEVE A GROUND-COVER C-FACTOR OF LESS THAN 0.1 AND LESS THAN 0.05 WITHIN 60 DAYS. NEWLY PLANTED LANDS WILL BE WATERED REGULARLY UNTIL AN EFFECTIVE COVER IS ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY, FOLLOW-UP SEED AND FERTILISER WILL BE APPLIED AS NECESSARY.
8. REVEGETATION SHOULD BE AIMED AT RE-ESTABLISHING NATURAL SPECIES. NATURAL SURFACE SOILS SHOULD BE REPLACED AND NON-PERSISTANT ANNUAL COVER CROPS SHOULD BE USED.

WASTE CONTROL INSTRUCTIONS

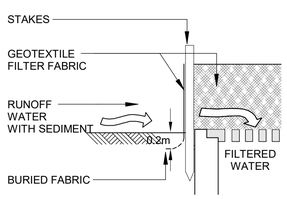
1. ACCEPTABLE BINS WILL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHING, LIGHTWEIGHT WASTE MATERIALS AND LITTER. CLEARANCE SERVICES WILL BE PROVIDED AT LEAST WEEKLY. DISPOSAL OF WASTE WILL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT.
2. ALL POSSIBLE POLLUTANT MATERIALS ARE TO BE STORED WELL CLEAR OF ANY POORLY DRAINED AREAS, FLOOD PHONE AREAS, STREAMBANKS, CHANNELS AND STORMWATER DRAINAGE AREAS. STORE SUCH MATERIALS IN A DESIGNATED AREA UNDER COVER WHERE POSSIBLE AND WITHIN CONTAINMENT BUNDS.
3. ALL SITE STAFF AND SUB-CONTRACTORS ARE TO BE INFORMED OF THEIR OBLIGATION TO USE WASTE CONTROL FACILITIES PROVIDED.
4. ANY DE-WATERING ACTIVITIES ARE TO BE CLOSELY MONITORED TO ENSURE THAT WATER IS NOT POLLUTED BY SEDIMENT, TOXIC MATERIALS OR PETROLEUM PRODUCTS.
5. PROVIDE DESIGNATED VEHICULAR WASHDOWN AND MAINTENANCE AREAS WHICH ARE TO HAVE CONTAINMENT BUNDS.

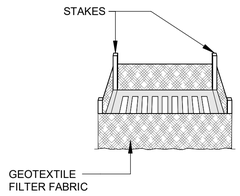
PROCEDURE FOR DE-WATERING

1. ENSURE PERMISSION FOR DE-WATERING IS RECEIVED FROM AUTHORITIES BEFORE PUMPING OUT.
2. AN ON-SITE TREATMENT PROCESS DISCHARGING TO THE STORMWATER SYSTEM WILL BE IMPLEMENTED. ALL SITE WATERS DURING CONSTRUCTION WILL BE CONTAINED ON SITE AND RELEASED ONLY WHEN pH IS BETWEEN 8.5 & 6.5, SUSPENDED SOLIDS ARE LESS THAN 50mg/L, TURBIDITY LESS THAN 100 NTU'S, OIL AND GREASE LESS THAN 10mg/L AND BIOCHEMICAL OXYGEN DEMAND (BOD5) LESS THAN 30mg/L (FOR STORMS LESS THAN 1 IN 5 YEAR EVENTS).
3. METHODS OF SAMPLING AND ANALYSIS OF WATER QUALITY WILL BE IN ACCORDANCE WITH THE APPLICABLE METHOD LISTED IN THE EPA PUBLISHED APPROVED METHODS FOR THE SAMPLING ANALYSIS OF WATER POLLUTANTS IN NEW SOUTH WALES.
4. WHERE LABORATORY ANALYSIS IS REQUIRED AS INDICATED BY IN-SITU TESTING, APPROPRIATE SAMPLE BOTTLES AND PRESERVATIVES WILL BE USED AND GUIDANCE FOR THE SAMPLING METHOD OBTAINED FROM APPLICABLE PARTS OF AS5667.1 AND AS5667.6. ANALYSIS WILL BE UNDERTAKEN WHERE PRACTICAL BY A NATA REGISTERED LABORATORY CERTIFIED TO PERFORM THE APPLICABLE ANALYSIS.
5. AS EXCAVATION TO TOP SOIL PROGRESSES, ANY WATER COLLECTED AT THE BOTTOM OF EXCAVATIONS WILL BE DIVERTED TO A TEMPORARY SEDIMENTATION BASIN OR SETTLEMENT TANK. IF THE WATER CONTAINS ONLY SEDIMENTS, IT WILL BE FILTERED AND PUMPED TO STORMWATER. BEFORE THIS CAN HAPPEN IT MUST CONTAIN LESS THAN 50mg/L TOTAL SUSPENDED SOLIDS.
6. POLLUTED WATER MUST NOT ENTER THE STORMWATER SYSTEM. IN SOME CIRCUMSTANCES, A LIQUID WASTE COMPANY MAY BE REQUIRED TO COLLECT CONTAMINATED WATER FOR DISPOSAL AT A LICENSED TREATMENT FACILITY.

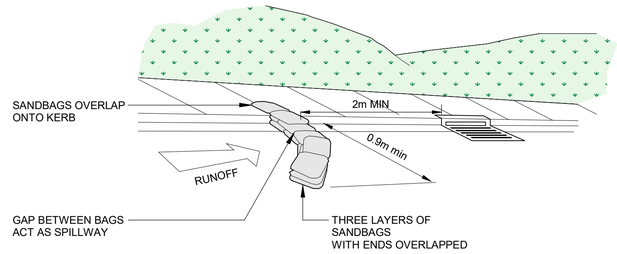
THE BUILDER AND EXCAVATION CONTRACTOR ARE TO ENSURE ANY WATER DISCHARGED INTO COUNCIL STORMWATER SYSTEM FROM THE EXCAVATED PORTIONS OF THE SITE COMPLY WITH THE RELEVANT ENVIRONMENTAL CRITERIA AND APPROPRIATE CONTROL METHODS SHALL BE ADOPTED. THE PROPOSED CONTROL METHODS ARE STRICTLY TO COMPLY WITH THE ANZECC 2000 GUIDELINES.

WHERE WORK INVOLVES EXCAVATION OR STOCKPILING OF RAW OR LOOSE MATERIALS, EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PROVIDE WHOLLY WITHIN THE SITE WHILST WORK IS BEING CARIED OUT IN ORDER TO PREVENT SEDIMENT AND SILT FROM SITE WORKS BEING CONVEYED BY STORMWATER INTO COUNCIL'S STORMWATER SYSTEM, NATURAL WATER COURSES, BUSHLANDS, AND NEIGHBORING PROPERTIES. IN THIS REGARD, ALL STORMWATER DISCHARGE FROM THE SITE SHALL MEET THE REQUIREMENTS OF THE PROTECT OF ENVIRONMENT OPERATIONS ACT 1997 AND THE DEPARTMENT OF ENVIRONMENT, CLIMATE CHANGE AND WATER GUIDELINES. THE CONTROL DEVICES ARE TO BE MAINTAINED IN A SERVICEABLE CONDITION AT ALL TIMES.

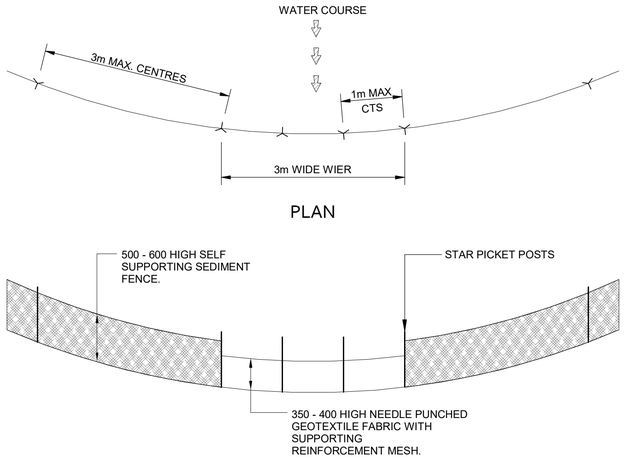




INLET SEDIMENT TRAP
Scale: 1 : 20



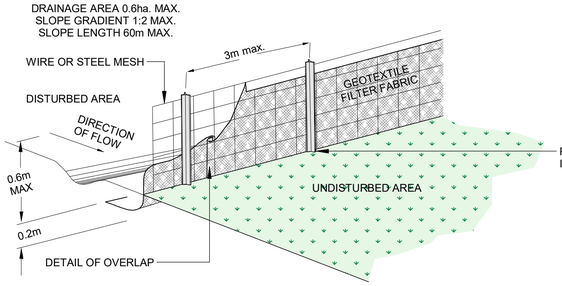
SANDBAG SEDIMENT TRAP
Scale: 1 : 20



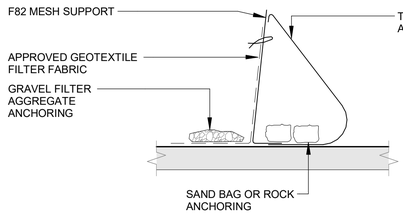
PLAN

ELEVATION

ESM_SEDIMENT FENCE WEIR
Scale: 1 : 20

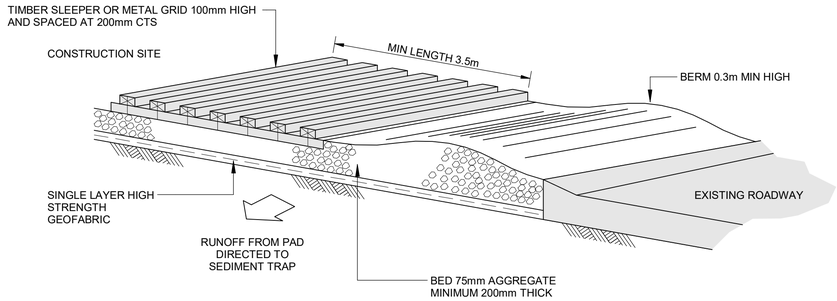


SEDIMENT SILT FENCE
Scale: 1 : 20



1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE.
2. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.
3. JOIN SECTIONS OF FABRIC AT A SUPPORT WITH A 150mm OVERLAP.
4. REFER TO DETAIL SD 6-9 "BLUE BOOK"

SILT FENCE BARRIER DETAIL
Scale: 1 : 20



TEMPORARY CONSTRUCTION EXIT
Scale: 1 : 20

REV.	DATE	BY	DESCRIPTION
2	26.04.2023	JPS	PART 5 ISSUE
1	24.04.2023	JPS	PART 5 ISSUE

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Land & Housing Corporation

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DESIGN: KP | DRAWN: JPS | CHECKED: AMcK | SIZE: A1 | SCALE: As indicated

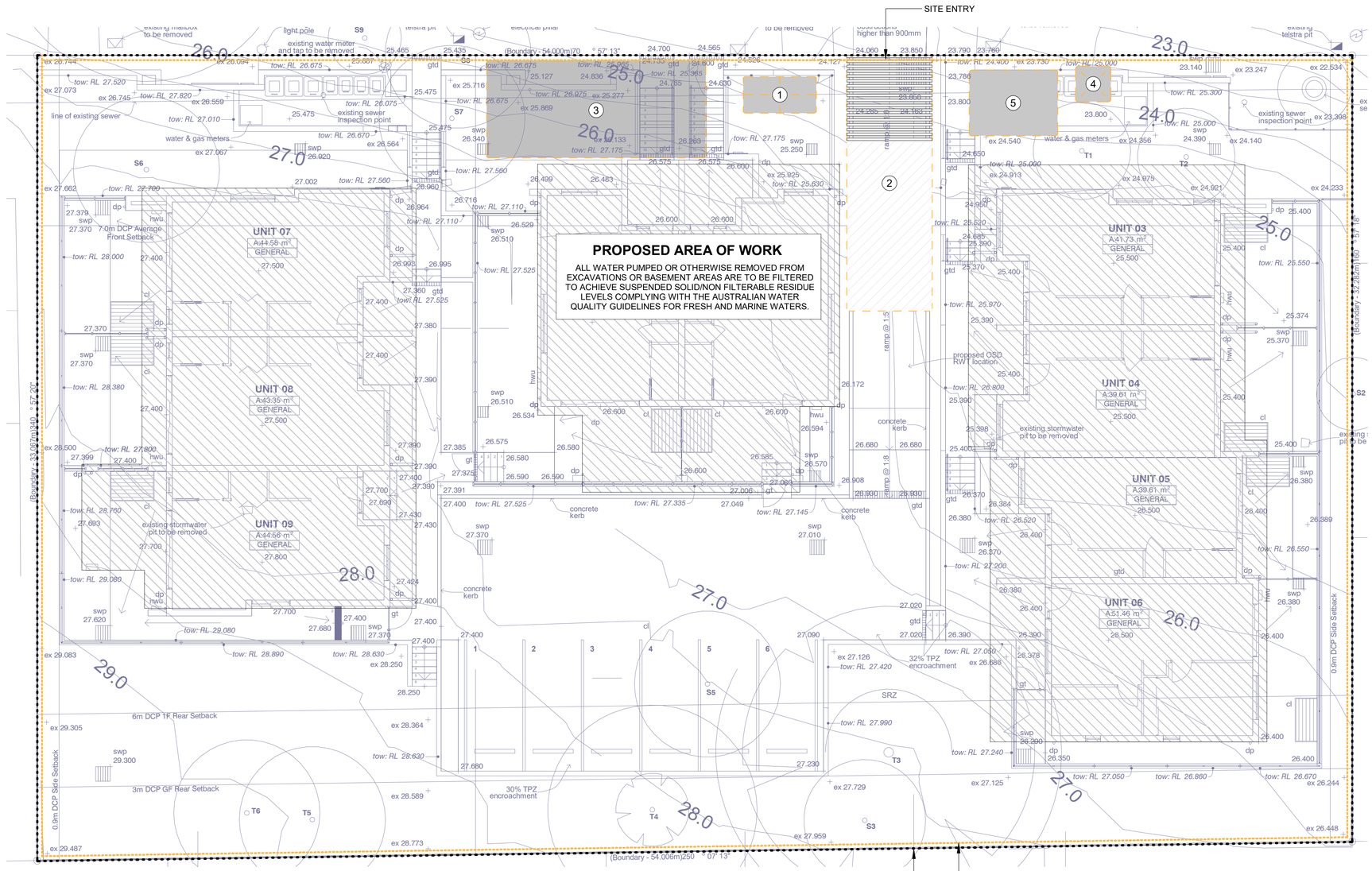
CIVIL DESIGN

NOTES & LEGENDS

230135
TENDER
ESM12

DETERMINED by the NSW Land and Housing Corporation on:

16 November 2023



ENVIRONMENTAL SITE MANAGEMENT LAYOUT
Scale: 1 : 100

FOR NOISE CONTROL, VIBRATION MANAGEMENT, DUST CONTROL, ODOUR CONTROL REFER TO NOTES ON THIS DRAWING, FOR OTHER NOTES (LITTER/WASTE, STORMWATER) REFER ESM1

WHERE WORK INVOLVES EXCAVATION OR STOCKPILING OF RAW OR LOOSE MATERIALS, EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PROVIDE WHOLLY WITHIN THE SITE WHILST WORK IS BEING CARIED OUT IN ORDER TO PREVENT SEDIMENT AND SILT FROM SITE WORKS BEING CONVEYED BY STORMWATER INTO COUNCIL'S STORMWATER SYSTEM, NATURAL WATER COURSES, BUSHLANDS, AND NEIGHBORING PROPERTIES. IN THIS REGARD, ALL STORMWATER DISCHARGE FROM THE SITE SHALL MEET THE REQUIREMENTS OF THE PROTECT OF ENVIRONMENT OPERATIONS ACT 1997 AND THE DEPARTMENT OF ENVIRONMENT, CLIMATE CHANGE AND WATER GUIDELINES. THE CONTROL DEVICES ARE TO BE MAINTAINED IN A SERVICEABLE CONDITION AT ALL TIMES.

THE BUILDER AND EXCAVATION CONTRACTOR ARE TO ENSURE ANY WATER DISCHARGED INTO COUNCIL STORMWATER SYSTEM FROM THE EXCAVATED PORTIONS OF THE SITE COMPLY WITH THE RELEVANT ENVIRONMENTAL CRITERIA AND APPROPRIATE CONTROL METHODS SHALL BE ADOPTED. THE PROPOSED CONTROL METHODS ARE STRICTLY TO COMPLY WITH THE ANZECC 2000 GUIDELINES.

SITE MANAGEMENT LEGEND

- CHAIN WIRE FENCE
- SILT FENCE

ESM - SITE MANAGEMENT SCHEDULE	
TYPE	DESCRIPTION
1	SKIP BIN (PROVIDE COVER)
2	SITE ACCESS GRATE
3	MATERIALS STOCKPILE (RELOCATE AS NECESSARY)
4	TOILET FACILITY
5	SITE SHED

NOISE CONTROL
- WHERE POSSIBLE, STRATEGICALLY PLACE NOISE-GENERATING PLANT / EQUIPMENT TO TAKE ADVANTAGE OF NATURAL SCREENING (E.G. BUILDINGS)
- AVOID PLACING NOISE-GENERATING PLANT / EQUIPMENT CLOSE TOGETHER AND/OR OPERATE SIMULTANEOUSLY
- MAINTAIN ALL PLANT & EQUIPMENT TO MINIMISE NOISE EMISSIONS (E.G. REPAIR BROKEN SILENCING EQUIPMENT, TIGHTEN RATTLING COMPONENTS ETC)
- ALL PLANT & EQUIPMENT TO BE OPERATED IN THE CORRECT MANNER TO AVOID UNNECESSARY NOISE EMISSIONS
- ALL DELIVERIES TO SITE TO BE IN ACCORD WITH THE RELEVANT CONSTRUCTION TRAFFIC MANAGEMENT PLAN (CTMP)
- NO PUBLIC ADDRESS SYSTEMS TO BE USED EXCEPT IN THE CASE OF EMERGENCIES
- WHERE NECESSARY, FIT PLANT WITH SILENCERS AND/OR OTHER NOISE ATTENUATION MEASURES
- ENSURE CONSTRUCTION VEHICLES AND PLANT/EQUIPMENT ARE TURNED OFF WHEN NOT IN USE (I.E. AVOID IDLING)

VIBRATION MANAGEMENT
- USE LOW-VIBRATION EMITTING PLANT & EQUIPMENT WHERE POSSIBLE
- WHERE PRACTICAL, USE NON-PERCUSSIVE PILING TECHNIQUES OR PROVIDE ACCOUSTIC SHIELDING

DUST CONTROL
- WHERE POSSIBLE, STAGE ANY VEGETATION REMOVAL TO MINIMISE EXPOSED AREAS
- AREAS EXPOSED (IN THE SHORT TERM) TO BE STABILISED USING WATERING AND/OR GEO-FABRICS AS APPROPRIATE TO MINIMISE DUST GENERATION
- MODIFY / REDUCE CONSTRUCTION ACTIVITIES DURING HIGH WIND CONDITIONS IF INCREASED DUST GENERATION IS A POSSIBILITY
- DUST CONTROL MEASURES TO BE IMPLEMENTED AS THE SITE SUPERVISOR DEEMS APPROPRIATE, INCLUDING WATER CARTS, SPRINKLERS, SPRAYS, DUST SCREENS, ETC
- CHECK EROSION CONTROL MEASURE REGULARLY TO ENSURE CAPTURED SILT DOES NOT BECOME AIRBORNE

ODOUR CONTROL
- SEGRATE AND COLLECT WASTE REGULARLY TO ENSURE ODOURS ARE MINIMISED
- NO BURNING-OFF OF WASTE AT ANY TIME
- REMOVE WASTE BINS FROM SITE REGULARLY

-10 -5 0 10
SCALE 1:100

REV.	DATE	BY	DESCRIPTION
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PROPOSED DEVELOPMENT

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DESIGN: KP | DRAWN: JPS | CHECKED: AMcK | SIZE: A1 | SCALE: 1 : 100

CIVIL DESIGN

ENVIRONMENTAL SITE MANAGEMENT PLAN

230135 TENDER ESM22