NORTHERN
MIDLANDS
COUNCIL

13 Smith Street / PO Box 156
Longford Tas 7301

PLANNING APPLICATION

Phone: 6397 7303
E-mail: planning@nmc.tas.gov.au

PLANNING APPLICATION
Proposal

Description of proposal: .....

New collocated Emergency Services Facility for the Tasmanian Fire Service (TFS) and State Emergency Service (SES)

.....

.....

.....

.....

(attach additional sheets if necessary)

If applying for a subdivision which creates a new road, please supply three proposed names for the road, in order of preference:

1..... 2..... 3.....

Site address: 17 Church Street, Campbell Town .....

.....

CT no: 14992/2 .....

Estimated cost of project *$*..... 1.4m *(include cost of landscaping, car parks etc for commercial/industrial uses)*

Are there any existing buildings on this property? Yes / No No existing buildings

If yes – main building is used as .....

If variation to Planning Scheme provisions requested, justification to be provided:

This application is made as a combined application pursuant to Section 43A of the Act and includes a site specific qualification to allow Emergency Services Use on this site in the General Residential Zone.

See attached planning report for a full assessment against the planning scheme.

.....

.....

(attach additional sheets if necessary)

Is any signage required? Yes, see plans for a 1200mm (H) x 3000m (W) sign adjacent to the frontage .....

(if yes, provide details)

PLANNING APPLICATION

Applicant / owner details

Applicant: Department of Police, Fire and Emergency Management (DPFEM)

Signature of Applicant: ..... **Date:** 3/11/21

Applicant's Details:

Postal address: C/- All Urban Planning Pty Ltd

19 Mawhera Avenue, Sandy Bay 7005

Phone: ..... Mobile:

E-mail: frazer @ allurbanplanning.com.au

Yes ☑ I agree to receive communication regarding this application via email (please tick)

Name of Owner/s of subject site: Midland Agricultural Association

(as per certificate of title)

*(If the subject site is Crown land, owned by the Council or administered by the Council or the Crown, the application must be signed by **either** the responsible Minister of the Crown (or the Minister's delegate) **or** by the General Manager of the Council, **and** must be accompanied by written permission of that Minister or general manger to the making of the application.)*

*If the proposal involves works to an existing access or a new access the application must be signed by **either** the responsible Minister of the Crown (or the Minister's delegate) **or** by the General Manager of the Council **and** must be accompanied by the written permission of that Minister or general manager to the making of the application.*

Owner's postal address: C/- George Gatenby, President, 17 Church Street, Campbell Town

Owner's email address: gatenby.maa@gmail.com

As the owner of the land, I consent to the application being submitted,

X

Signed: ..... **Date:** .....

OR

As the applicant, I declare that I have notified the owner of the application

Signed: ..... **Date:** .....

Right of Way:

If the subject site is accessed via a right of way, the owner of the ROW must also be notified of the application.

Name of Owner/s of ROW: N/A

ROW Owner's Postal Address: .....

As the applicant, I have notified the owner of the ROW of the application

Signed: ..... **Date:** .....

(attach extra page if required)

Office use only:

Paid $..... Date: ..... Receipt No: ..... (Code 01)

Ref: **P1...../** ..... Discretionary / Permitted / No Permit Required

Attachments:

- ❑ **Site plan** *(A4 or A3) showing:*
  - new buildings, works and alterations
  - north point, relative site and floor levels
  - lot boundaries, contours, road frontages, rights of way, easements and any services over the land
  - location of any existing buildings or structures on the land or adjoining lots
  - existing natural features such as trees, watercourses etc
  - items to be demolished, areas to be cut and filled
  - vehicle access points to roads and provisions for car parking & manoeuvring
  - provision of open space, including gradients, dimensions, access and adjoining open spaces
  - provisions for drainage
  - a completed environmental supplement for commercial or industrial developments
- ❑ **Adequate information to fully explain proposal, its intent, compatibility with environs & justification for any variation of Scheme provisions**
- ❑ **Locality plan showing:**
  - nearby streets
  - nearby buildings & features
- ❑ **Landscape plans & elevations** *(A4 or A3) showing:*
  - existing vegetation
  - proposed plantings
  - trees to be removed or land clearing and measures to prevent site soil erosion / pollution
- ❑ **Proposal plans/drawings** *(A4 or A3) showing:*
  - floor plan (inc area in m^2)
  - building elevations (inc heights of building)
  - external materials and proposed colour scheme
  - type and colour and construction materials on all external surfaces
  - details of external lighting including the location, direction and strengths of external lights and proposed baffle devices
  - details of signage required
- ❑ **Consent of the property owner;**
- ❑ **Copy of title plan & easements** (available from Service Tas)
- ❑ **Other reports** (eg engineering)
- ❑ **Fees**
  Application fees are based on estimates provided by the applicant when the planning application is made – an adjustment may be levied when a project cost is provided at building application stage.

Applications may be emailed to Planning@nmc.tas.gov.au, and application fees may be paid over the phone to Council's receptionist.

PRIVACY STATEMENT

The Northern Midlands Council abides by the *Personal Information Protection Act 2004* and views the protection of your privacy as an integral part of its commitment towards complete accountability and integrity in all its activities and programs.

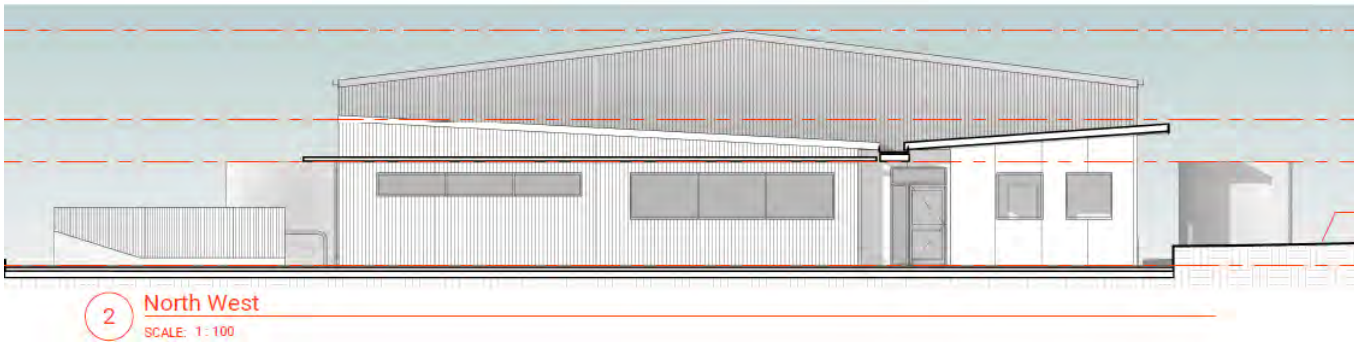
Collection of Personal Information: The personal information being collected from you for the purposes of the *Personal Information Protection Act, 2004* and will be used solely by Council in accordance with its Privacy Policy. Council is collecting this information from you in order to process your application.

Disclosure of Personal Information: Council will take all necessary measures to prevent unauthorised access to or disclosure of your personal information. External organisations to whom this personal information will be disclosed as required under the *Building Act 2016*. This information will not be disclosed to any other external agencies unless required or authorised by law.

Correction of Personal Information: If you wish to alter any personal information you have supplied to Council please telephone the Northern Midlands Council on (03) 6397 7303. Please contact the Council's Privacy Officer on (03) 6397 7303 if you have any other enquires concerning Council's privacy procedures.

AllUrbanPlanning PTY LTD

Section 43A Combined Planning Scheme Amendment and Application for Planning Permit for Emergency Services at 17 Church Street, Campbell Town



Date 3 November 2021

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Email frazer@allurbanplanning.com.au allurbanplanning.com.au

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Executive Summary

All Urban Planning has been engaged by Department of Police, Fire and Emergency Management (DPFEM) to prepare a combined application pursuant to Section 43A of the *Land Use Planning and Approvals Act* (Act) for a planning scheme amendment and application for a planning permit amendment. The proposal relates to the *Northern Midlands Interim Planning Scheme 2013* (Planning Scheme) and application for a planning permit for a new collocated facility for the Tasmanian Fire Service (TFS) and State Emergency Service (SES) at 17 Church Street, Campbell Town.

Background

Currently the TFS and SES provide services from two separate sites in Campbell Town.

The proposal will encourage continued collaboration across both agencies and provide a single facility for incident and emergency management. It would also provide a combined "all hazards" training and exercising facility for the Northern Midlands Area in line with best practice models.

The proposal will accommodate diverse functions including administration, training, community education, equipment and vehicle storage, equipment maintenance, and hazardous materials response capabilities.

Site

The land is currently owned by the Midland Agricultural Association Incorporated and is subject to a contract of sale to the DPEFM subject to creation of a suitable title and planning permit for the proposed emergency services facility.

The proposed site has recently been approved as a one lot subdivision of 3304m^2 under Planning Permit PLN-21-0138.

Proposal

The proposal involves:

1. An amendment to the planning scheme ordinance to insert a site specific qualification to the Use Table for the General Residential Zone to allow Discretionary consideration of an *Emergency Services* use at 17 Church Street; and
2. A combined application for a planning permit for the new collocated facility based on the approved subdivision site.

1. Introduction

All Urban Planning Pty Ltd has been engaged by DPFEM to prepare a combined application pursuant to Section 43A of the Act for a planning scheme amendment and application for a planning permit at 17 Church Street, Campbell Town.

The Council may initiate and certify an amendment to the planning scheme if it is satisfied that it is consistent with the requirements of Section 32 of the Act.

Accordingly, to support this Amendment, this assessment has been prepared to:

- Provide the strategic rationale for the proposed amendment
- Detail the site and the surrounding uses
- Provide a full description of the proposed amendment
- Determine that the proposal is in accordance with the State Policies
- Establish that the proposal is in accordance with the Northern Tasmania Regional Land Use Strategy (NTRLUS)
- Demonstrate that the application can further the objectives set out in Schedule 1 of the Act
- Finally, that a permit should be issued for the intended collocated emergency services facility once the amendment is in place.

1.1 Title Information & Owners Consent

The proposed relates to the following land:

Address	Title	Area	Owner
17 Church Street	14992/1	Approx. 6600m^2	Midland Agricultural Association Incorporated

1.2 Project Background

Currently the TFS and SES provide services from two separate sites in Campbell Town.

Campbell Town, due to its central geographic location is:

- regularly used by various TFS and SES business units for meetings supported by the Campbell Town Brigade
- a key location for TFS in preparedness during hot day response and is regularly used for the staging of additional resources during the bush fire season
- an important location for the Northern Midlands SES - Operational requirements to provide Road Crash Rescue, Storm/flood and other community services in the Northern Midlands Municipal area.

Site selection

A number of site options around Campbell Town have been considered including redevelopment of existing sites. However, the preferred at 17 Church Street (part of CT14992/1), has been identified as a suitable green field site within the town boundary that will best meet the needs of the project.

The subject property is situated on the western fringes of Campbell Town between the cemetery and showgrounds. The siting near the open areas of the showgrounds provides an added advantage of a large maintained area adjacent to the project site which could be used as an air base during Hot Day Response operations or Staging Area/Temporary Accommodation. The Showgrounds also have their own amenities that would support larger scale emergency responses.

The Show Society are supporting the project and are committed to developing a relationship with DPFEM to further develop the surrounding land in order to benefit the community.

An agreement for sale has been prepared with the owners of the site, the Midland Agricultural Association and is conditional on the planning approvals outlined above.

Benefits of the project

This project will provide significant opportunity for both agencies to operate in a more efficient and effective response as most SES members are dual members with TFS. The proposal will encourage continued collaboration across both agencies and provide a single facility for incident and emergency management. It will also provide a combined “all hazards” training and exercising facility for the Northern Midlands Area in line with best practice models.

The proposal will accommodate diverse functions including administration, training, community education, equipment and vehicle storage, equipment maintenance, and hazardous materials response capabilities.

The benefits of the project are that it will:

- accommodate flexible facilities that can accommodate and adapt to the evolving operational and training needs of the TFS and SES
- provide sufficient office space and vehicle storage areas to accommodate both agencies
- provide combined operational and training facilities for both TFS and SES promoting resource sharing and promoting cross training opportunities
- create a conducive environment for current and future agency commitments and responsibilities for the region, including interagency meetings and incident management needs
- encourage closer working relationships for Operational Management
- create efficiencies and savings in asset and resource management

The facility will typically only be occupied by operational staff. However, on occasions the facility may also need to accommodate the general public for community engagement activities.

2. Existing Planning Controls

The proposed site is zoned General Residential under the *Northern Midlands Interim Planning Scheme 2013* as shown in Figure 1 below. The title is split zoned with the rear part zoned Low Density Residential.

The approved subdivided 3304m^2 lot is located entirely within the General Residential Zoned portion of the land. The rear balance area is zoned Low Density Residential with a 6m wide fee simple access strip over the eastern side of the General Residential Zoned portion of the land providing legal frontage to Church Street for that balance.

The proposed Emergency Services use is currently prohibited in the General Residential Zone. A planning scheme amendment is therefore required to support the proposal.

Following discussions with Council's Senior Planner, Paul Godier it is considered that a site specific amendment to the Use Table for the Residential Use, similar to that incorporated for the Ambulance Station at 176 High Street, Campbell Town, is the most logical approach to accommodate the proposal.

Figure 1 - Existing zoning and title boundary (Source: annotated from theList)

2.1 Existing General Residential Zone Use Table 10.2

The existing Use Table for the General Residential Zone includes *Emergency Services* as a Discretionary use subject to the following Qualification:

If on CT 76398/4 & 5 (176 High Street, Campbell Town)

The proposal is to amend this Qualification by adding the subject land CT14992/1 (17 Church Street, Campbell Town).

2.2 Use Standards – General Residential Zone

The Use Standards for the General Residential Zone in Clause 10.3 of the planning scheme will continue to apply to proposals for non-residential use on the site including the proposed Emergency

Services use. These Use Standards will ensure due consideration of amenity impacts to nearby residential uses including by way of noise, traffic movement, smoke, odour, dust and illumination (Clause 10.3.1). The compatibility of the visual character of the use will also be relevant to consideration of Discretionary uses under Clause 10.3.2.

2.3 Planning Scheme Overlays

The site is identified as a Bushfire Prone Area under the planning scheme. The site is also designated as within the Urban Growth Boundary under the planning scheme.

The Urban Growth Boundary is relevant to the strategic provisions within Sections 2 and 3 of the planning scheme rather than the operative provisions. The boundary is relevant to the Settlement Strategy and in accordance with Clause 3.6 seeks to:

> *Consolidate residential growth within the existing settlement pattern based on the urban growth boundaries of serviced centres and the directions established in Council's Development Plans [as reviewed and revised from time to time] for the major towns of Longford, Perth, Evandale and Campbell Town and Cressy. …*

The proposal for consolidation of emergency services facilities within the Urban Growth Boundary for Campbell Town is consistent with this strategy.

3. Strategy

3.1 Northern Tasmanian Regional Land Use Strategy

The Northern Region is comprised of the eight municipal areas of the Launceston, Northern Midlands, Meander Valley, West Tamar, George Town, Dorset, Break O' Day and Flinders councils. The Northern Regional Land Use Framework provides strategic context at a regional level for planning schemes within the region and contains strategies for the future use and development of land within the region.

The Northern region is characterised by a distinct settlement hierarchy with the urban area of Greater Launceston as the higher order and dominant population centre, together with towns, villages and hamlets. Settlements are generally separated by natural or productive rural areas and have their own character and identity. Regional strategies advocate that settlements support local and regional economies, concentrate the investment in the improvement of services and infrastructure and enhance the quality of life in those centres.

The Northern region has significant natural and cultural assets including areas of important biodiversity, areas and sites of cultural heritage, important landscapes and recreation opportunities, and natural resources which are integral to the consideration of the strategic use of land.

The application of zoning responds to the unique circumstances of the Northern Region with the settlement hierarchy reflected in some zones only being relevant to the population densities of Launceston urban area and the principal use of the Rural Resources Zone reflecting the highly dispersed and variable nature of the Region's productive rural resources. Each of the zones contains regionally consistent core elements in the provisions that respond to the regional strategies.

Consistent with the Regional Land Use Framework and settlement hierarchy, Northern Midlands Council will manage land use and development according to the following local principle and strategy:

Settlement - Urban Growth Boundary

a) *Encourage growth within the existing settlement pattern in the main towns of Longford, Cressy, Perth, Evandale, Campbell Town, Ross and Avoca as the foci for commercial, residential, industrial, community and other development*

The proposal is considered consistent with this statement in that it reflects the existing settlement pattern in Campbell Town and can be serviced by existing infrastructure.

The proposal for coordinated emergency services planning by a State agency will further Strategic Direction G1.2- *to adopt an integrated and coordinated approach to government infrastructure, transport and land use planning.*

4. Amendment Northern Midland Interim Planning Scheme

4.1 Proposed amendment

The proposed amendment is to amend the Use Qualification for the Emergency services Use Class under Table under Clause 10.2 of the planning scheme by inserting the following words at the end of the existing Use Qualification:

If on CT 76398/4 & 5 (176 High Street, Campbell Town) or CT 14992/1 (17 Church Street, Campbell Town)

4.2 Reasoning for the Proposal

The proposed amendment will allow consideration of an *Emergency services* use on the site.

A number of site options around Campbell Town have been considered including redevelopment of existing sites. However, the preferred site at 17 Church Street (part of CT14992/1), has been identified as a suitable green field site within the town boundary that will best meet the needs of the project.

The subject property is situated on the western fringes of Campbell Town between the cemetery and showgrounds. The siting near the open areas of the showgrounds provides an added advantage of a large maintained area adjacent to the project site which could be used as an air base during Hot Day Response operations or Staging Area/Temporary Accommodation. The showgrounds also have their own amenities that would support larger scale emergency responses.

5. Land Use Planning and Approvals Act 1993

Before making a decision whether to initiate and/or certify a draft amendment, the planning authority must consider whether the application is consistent with Section 32 of LUPAA which requires:

(1) A draft amendment of a planning scheme, and an amendment of a planning scheme, in the opinion of the relevant decision-maker within the meaning of section 20(2A)–

…

(e) must, as far as practicable, avoid the potential for land use conflicts with use and development permissible under the planning scheme applying to the adjacent area; and

(ea) must not conflict with the requirements of section 30O; and

(f) must have regard to the impact that the use and development permissible under the amendment will have on the use and development of the region as an entity in environmental, economic and social terms.

(2) The provisions of section 20(2), (3), (4), (5), (6), (7), (8) and (9) apply to the amendment of a planning scheme in the same manner as they apply to planning schemes.

The proposal is considered consistent with these requirements below.

5.1 Land Use Conflicts

Pursuant to section 32(1)(e), the Council must be satisfied that the proposed amendment, as far as practicable, avoids the potential for land use conflicts with use and development permissible under the Scheme applying to the adjacent area.

Comment

As discussed above the site is located on the western fringes of Campbell Town between the existing showgrounds and cemetery. This siting will provide a good buffer to sensitive residential uses.

There is a row of residential properties on the opposite side of Church Street. The Use Standards under Clause 10.3 of the planning scheme will continue to apply and will ensure that any future use and development on the land for an Emergency Services use will not adversely impact upon the occupiers of adjoining nearby uses.

Having regard to these considerations, it is considered that the proposal will as far as practical avoid the potential for land use conflict.

5.2 Impact of the Amendment on the Region as an Entity

The proposed minor planning scheme amendment to allow consideration of collocated Emergency Services use to support the community will have a positive impact on the Northern Region.

5.3 State Policies

The following State Policies are made under the State Policies and Projects Act 1993:

- State Policy on the Protection of Agricultural Land 2009;
- State Policy on Water Quality Management 1997; and
- Tasmanian State Coastal Policy 1996.

The National Environmental Protection Measures are automatically adopted as State Policies under the same act.

The following examines the State Policies as they apply to this amendment.

5.3.1 State Policy on the Protection of Agricultural Land 2009

The purpose of the State Policy on the Protection of Agricultural Land 2009 is:

"to conserve and protect agricultural land so that it remains available for the sustainable development of agriculture, recognising the particular importance of prime agricultural land".

Comment

The proposal relates to land zoned for urban use and development and does not conflict with this Policy.

5.3.2 State Coastal Policy 1996

The State Coastal Policy 1996 is created under the State Policies and Projects Act 1993.

Comment

The proposal does not affect land in the coastal zone and the Coastal Policy does not apply.

5.3.3 State Policy on Water Quality Management 1997

The State Policy on Water Quality Management is concerned with achieving *'sustainable management of Tasmania's surface water and groundwater resources by protecting or enhancing their qualities while allowing for sustainable development in accordance with the objectives of Tasmania's Resource management and Planning System'.*

Comment:

The proposed amendment will continue to allow for suitable stormwater treatment to be incorporated in future development as required by the planning scheme. Such measures will ensure the long-term quality of stormwater runoff is efficiently managed to protect water quality.

5.4 National Environment Protection Measures

The National Environmental Protection Measures relate to:

- Ambient air quality;
- Ambient marine, estuarine and fresh water quality;
- The protection of amenity in relation to noise;
- General guidelines for assessment of site contamination;
- Environmental impacts associated with hazardous wastes; and
- The re-use and recycling of used materials.

Comment:

The planning scheme provisions will continue to include suitable provisions to deal with matters such as protection of water quality, avoidance of land contamination, protection of amenity in relation to noise and other emissions. The proposed amendment is therefore not considered to conflict with these NEPMs

5.5 Northern Tasmania Regional Land Use Strategy

As set out through the strategic considerations above in Section 3, the proposal is consistent with the NTRLUS in that it will further the objectives for consolidation within the established settlement pattern of use and development at Campbell Town.

5.6 Gas Pipelines Act 2000

Pursuant to Section 20(1) (e) of the Act provides that the Council must be satisfied that the amendment has regard to the safety requirements set out in the standards prescribed under the Gas Pipelines Act 2000.

There is no gas infrastructure in the vicinity of this site and the proposal is therefore in accordance with this requirement.

5.7 Schedule 1 of the Land Use Planning & Approvals Act 1993

Schedule 1 of the Land Use Planning and Approvals Act 1993 Section 20(1)(a) of the Act provides that the Council is to be satisfied that the proposed amendment seeks to further the objectives set out in Schedule 1. The objectives in Schedule 1 and their relevance to this amendment are addressed below.

5.7.1 Schedule 1 Part 1

(a) To promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity;

Comment

The amendment promotes the objectives for sustainable development of land through allowing for the efficient use of existing urban zoned land without significant environmental constraints.

(b) To provide for the fair, orderly and sustainable use and development of air, land and water;

Comment

The amendment will support the efficient use of public land to provide coordinated critical emergency services infrastructure for the Northern Region and will further this Objective.

(c) To encourage public involvement in resource management and planning;

Comment

The site selection follows community consultation with members of the TFS and SES. A further opportunity for public input will be available through the notification of the amendment.

(d) To facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c) above.

Comment

The proposed amendment to allow consideration of a collocated emergency services use on the site does not affect the attainment of this Objective.

(e) To promote sharing of responsibility for resource management and planning between the different spheres of Government, the community and industry in the State.

Comment

The proposal reflects coordinated action by the Department to plan for critical emergency services infrastructure and furthers this objective.

Schedule 1 Part 2

(a) To require sound strategic planning and co-ordination by state and local Government;

Comment

The proposal reflects coordinated action by the Department to plan for critical emergency services infrastructure and furthers this objective.

(b) To establish a system of planning instruments to be the principal way of setting objectives, policies and controls for the use, development and protection of land;

Comment

The proposed amendment to allow consideration of an emergency services use on the site is consistent with the approach of the existing Use Qualification for the Campbell Town Ambulance Station in the General Residential Zone and does not affect the attainment of this Objective.

(c) To ensure the effects on the environment are considered and provide for explicit consideration of social and economic effects when decisions are made about the use and development of land;

Comment

Relevant environmental considerations such as stormwater quality and emissions will be considered under the provisions of the planning scheme as part of any proposal for future development.

(d) To require land use and development planning and policy to be easily integrated with environmental, social, economic, conservation and resource management policies at State, regional, and municipal levels;

Comment

As discussed above the proposal furthers strategic planning policies and is consistent with this Objective.

(e) To provide for the consolidation of approvals for land use or development and related matters, and to co-ordinate planning approvals with related approvals;

Comment

The proposed combined application for planning scheme amendment and application for a planning permit is consistent with this objective.

(f) To secure a pleasant, efficient and safe working, living and recreational environment for all Tasmanians and visitors to Tasmania;

Comment

The proposal will assist to facilitate emergency services facilities for the safety of the community and will further this Objective.

(g) To conserve those buildings, areas or other places which are of scientific, aesthetics, architectural or historical interest, or otherwise of special cultural value;

Comment

The site is not listed as a heritage place or within a heritage precinct under the planning scheme. There is an existing heritage listed cottage at 26 Church Street further to the north west on the opposite side of Church Street. It is considered that the provisions of the General Residential Zone including 10.3.2 (Residential Character – Discretionary Uses) and 10.4.14 for Non Residential Development will ensure that the proposal does not inappropriately intrude on the visual character of

the area. Having regard to these ongoing considerations that will apply through the planning scheme the proposal will ensure that this Objective is furthered.

(h) To protect public infrastructure and other assets and enable the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community;

Comment

The proposal will support the efficient use of public land for the benefit of the community and will further this Objective.

(i) To provide a planning framework which fully considers land capability;

Comment

The site is relatively unconstrained and is suitable for the existing and intended use and development as demonstrated in Section 6 below.

5.8 Conclusion

This assessment demonstrates that the proposed amendment meets all statutory requirements.

6. Application for a Planning Permit

The following section provides an assessment of the proposed emergency services use and development against the provisions of the planning scheme that would apply following the proposed amendment.

6.1 Proposal

The proposal shown in Figure 2 below is for a new emergency services facility on the approved 3304m^2 lot[1] at 17 Church Street. The approved subdivision is shown in Figure 3.

The proposal includes:

- a new simple gable roofed building to accommodate an operations office, meeting room, store, amenities and enclosed vehicle drive through area
- 26 carparking spaces including 1 accessible space
- 2 x 15000l water tanks
- Vehicle wash bay and store
- Provision for a future battery store
- Compressed gravel access and parking areas
- Footpaths
- 1500mm front fence
- Landscaped screening

[1] Planning Permit PLN-21-0138 for 17 Church Street was approved by Northern Midlands Council 25 August 2021 and approves a 1 lot subdivision to create the subject site.

The building is to be clad in “Shale Grey” and “Wallaby” Colorbond with feature cement sheet panels.

Use

The facility will be predominantly used on a volunteer basis with training throughout the year and emergency use as required. The facility will also be used as a regional meeting venue for emergency services related activities. The following provides an overview of the expected activities, staffing and visitation.

- Staff
  - No permanent staff
  - 12 briefed volunteer staff
- Visitor numbers will be dependent on the event but are expected to be associated with the following activities:
  - Meetings for up to 50 persons on an occasional basis
  - Events - use for fire event management on an as need basis. This will include operational staff working in the meeting space to manage the teams with additional heavy vehicles temporarily on site to ensure response readiness.
- Hours of Operation

  The facility will generally operate between the hours of 7am and 5pm exept that it will also be used:
  - on an as needs basis at any time for emergency events
  - and for weekly training Wednesday Nights for both TFS & SES until 9pm
- Expected traffic volumes – will vary depending on the event with the following examples:
  - Meetings - will be a combination of North/South staff meeting in middle. The building will have capacity for 50 people. Some ride sharing is expected with a resultant demand for 20 domestic vehicles.
  - Up to 6 heavy vehicles in storage on site at any one time.
  - Volunteer activities such as weekly training are expected to generate up to 12 vehicles.

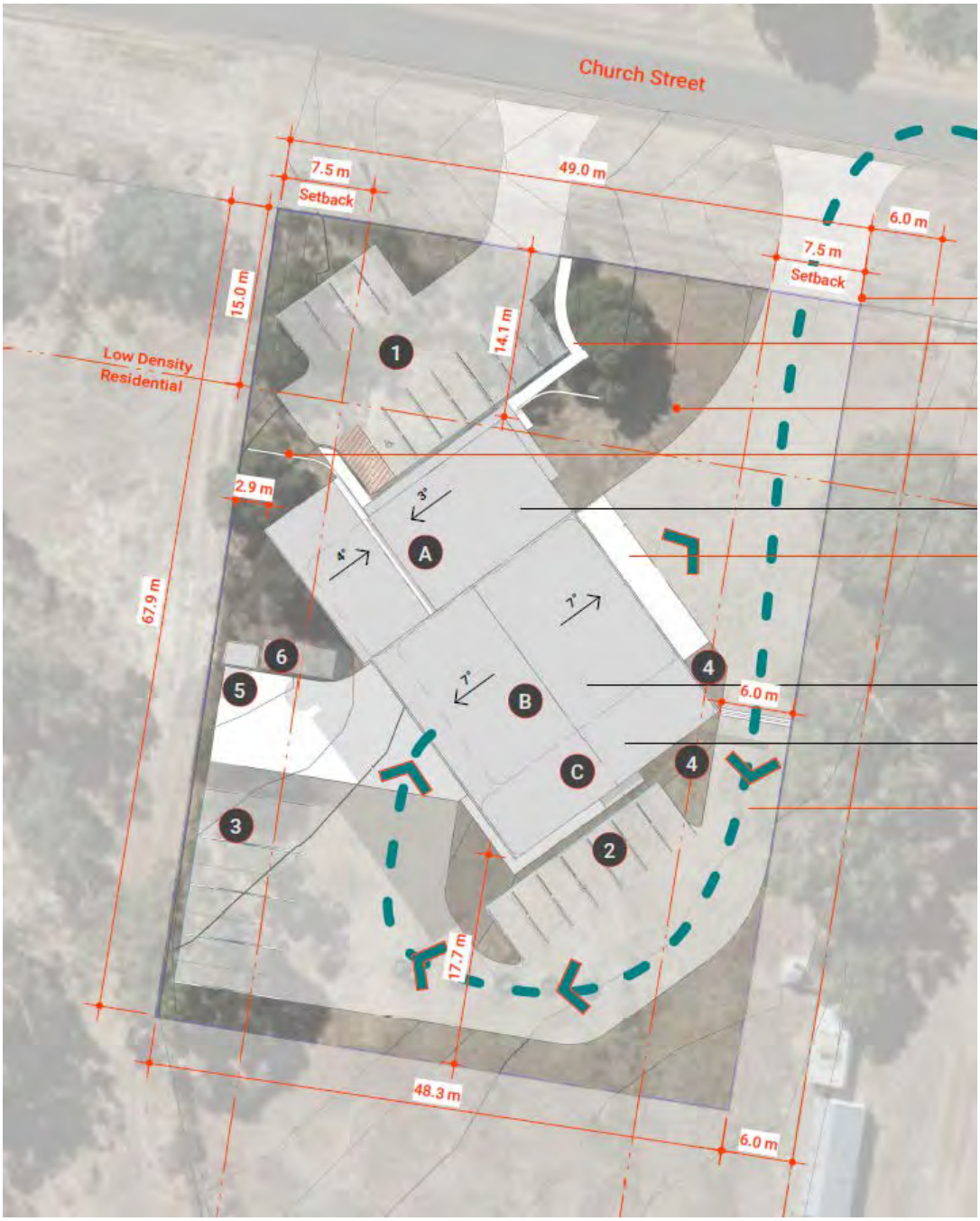


Figure 2 - Proposed Plan

Figure 3 - Approved subdivision

6.2 Operation of the Planning Scheme

Under Clause 8.10.1 of the planning scheme the planning authority must, in addition to the matters required by s.51(2) of the Act, take into consideration:

(a) all applicable standards and requirements in this planning scheme; and

(b) any representations received pursuant to and in conformity with s57(5) of the Act,

but in the case of the exercise of discretion, only insofar as each such matter is relevant to the particular discretion being exercised.

Relevantly, a standard is applicable if the site is within the relevant zone and the standard deals with a matter that could affect or be affected by the proposed development; cl.7.5.2.

A standard is defined to mean the objective for a particular planning issue and the means for satisfying that objective through either an acceptable solution or corresponding performance criterion.

Compliance with a standard is achieved by complying with either the acceptable solution or corresponding performance criterion; cl.7.5.3.

The objective of the standard may be considered to help determine whether the proposed use or development complies with the performance criterion of that standard; cl.7.5.4.

Under Clause 8.10.2, in determining an application for a permit for a discretionary use the planning authority must, in addition to the matters referred to in subclause 8.10.1, have regard to:

(a) the purpose of the applicable zone;

(b) any relevant local area objective or desired future character statement for the applicable zone;

(c) the purpose of any applicable code; and

(d) the purpose of any applicable specific area plan,

but only insofar as each such purpose, local area objective or desired future character statement is relevant to the particular discretion being exercised.

6.3 General Residential Zone

Assuming the planning scheme amendment is approved, the proposed *Emergency services* use would be Discretionary in the General Residential Zone.

The Purpose of the General Residential Zone is:

10.1.1.1 To provide for residential use or development that accommodates a range of dwelling types at suburban densities, where full infrastructure services are available or can be provided.

10.1.1.2 To provide for compatible non-residential uses that primarily serve the local community.

10.1.1.3 Non-residential uses are not to be at a level that distorts the primacy of residential uses within the zones, or adversely affect residential amenity through noise, activity outside of business hours traffic generation and movement or other off site impacts.

10.1.1.4 To encourage residential development that respects the neighbourhood character and provides a high standard of residential amenity.

The proposed *Emergency services* use is an essential service to support the local community and in this respect is considered consistent with Zone Purpose 10.1.1.2.

The site is located on the periphery of the town, between the showgrounds and cemetery and has been selected to maximise separation and minimise impacts on the amenity of residential uses. In this respect the proposal also furthers Zone Purpose Statement 10.1.1.3. For the reasons set out below in relating to the use and development standards for the Zone the proposal will not unreasonably affect residential amenity through noise, activity outside of business hours, traffic generation and movement or other site impacts.

Purpose Statements 10.1.1.1 and 10.1.1.4 relate to residential use and development and are not relevant to this proposal.

Local Area Objectives

The Local Area Objectives under Clause 10.1.2 are:

- *To consolidate growth within the existing urban land use framework of the towns and villages.*
- *To manage development in the General residential zone as part of or context to the Heritage Precincts in the towns and villages.*
- *To ensure developments within street reservations contribute positively to the Heritage Precincts in each settlement.*

The proposal furthers these Local Area Objectives in that it will be sited within the Urban Growth Boundary for Campbell Town. The site is located well clear of the designated heritage precincts under the planning scheme. It has also been designed with a significant setback and landscaped frontage to Church Street to minimise impacts on the existing row of residential cottages on the opposite side of the street.

Desired Future Character Statements

There are no desired future character statements under Clause 10.1.3 of the planning scheme.

6.4 Use Standards

Amenity (10.3.1)

Objective:

To ensure that non-residential uses do not cause an unreasonable loss of amenity to adjoining and nearby residential uses.

Use Standards	***Assessment***
A1 *If for permitted or no permit required uses.*	The proposed Discretionary use is to be assessed under P1.
P1 *The use must not cause or be likely to cause an environmental nuisance through emissions including noise and traffic movement, smoke, odour, dust and illumination.*	The proposal is unlikely to cause an environmental nuisance and is considered to satisfy P1 in that activities will predominantly involve meeting, training and coordination and are not expected to involve significant noise emissions. Emergency services vehicle sirens are unlikely to be used from the site and any external lighting will be baffled and orientated to avoid light spill or glare to nearby properties. Traffic movements will generally be low and during daytime hours apart from in the event of a significant emergency.
A2 *Commercial vehicles for discretionary uses must only operate between 7.00am and 7.00pm*	Vehicle movements to the site will generally comply with these hours other than occasional vehicle movements for emergency events. Emergency services vehicles are for the public

Monday to Friday and 8.00am to 6.00pm Saturday and Sunday.	good rather than commercial. The proposal is not considered to conflict with A2 to the extent that it applies.
P2 *Commercial vehicle movements for discretionary uses must not unreasonably impact on the amenity of occupants of adjoining and nearby dwellings.*	In the event that the proposed emergency services vehicles are considered commercial vehicles for the purpose of this assessment, the proposed use is considered to satisfy P2 in that sirens will not be used from the site, significant out of hours emergency activities are expected to be infrequent, with occasional associated disturbance from traffic movements an accepted part of local rural life. The site will be predominantly operated by volunteer members of the local community such that operations are likely to be managed to avoid unreasonable disturbance
A3 *If for permitted or no permit required uses.*	The proposed Discretionary use is to be assessed under P3.
P3 *External lighting must demonstrate that:* *a) floodlighting or security lights used on the site will not unreasonably impact on the amenity of adjoining land; and* *b) all direct light will be contained within the boundaries of the site.*	The proposal is considered to satisfy P3 in that any external lighting will be minimised, sited, orientated and baffled to avoid light spill or glare beyond the boundaries of the site. It will therefore ensure that no unreasonable amenity impact results to nearby properties.

Residential Character – Discretionary Uses (10.3.2)

Objective:

To ensure that discretionary uses support:

a) the visual character of the area; and

b) the local area objectives, if any.

Use Standards	***Assessment***
A1 *Commercial vehicles for discretionary uses must be parked within the boundary of the property.*	The proposal is for a public facility and as such will not involve commercial vehicles. Nevertheless, the proposal will accommodate all parking within the boundaries of the site and would comply with A1 if it did apply.

A2 *Goods or material storage for discretionary uses must not be stored outside in locations visible from adjacent properties, the road or public land.*	The proposal complies with A2 in that there are no outdoor storage locations visible from adjacent properties, the road or public land.
A3 *Waste material storage for discretionary uses must:* *a) not be visible from the road to which the lot has frontage ; and* *b) use self-contained receptacles designed to ensure waste does not escape to the environment.*	The proposal complies with A3 in that all waste will be stored in self contained receptacles in an area that is not visible from the road.

Development Standards for Dwellings (10.4)

Clauses 10.4.1-10.4.13 do not apply to this proposal for non-dwelling development.

Non Residential Development (10.4.14)

Objective:

To ensure that all non-residential development undertaken in the Residential Zone is sympathetic to the form and scale of residential development and does not affect the amenity of nearby residential properties.

Development Standard	***Assessment***
A1 *If for permitted or no permit required uses.*	The proposed Discretionary use is to be assessed under P1.
P1 Development must be designed to protect the amenity of surrounding residential uses and must have regard to: *a) the setback of the building to the boundaries to prevent unreasonable impacts on the amenity, solar access and privacy of habitable room windows and private open space of adjoining dwellings; and* *b) the setback of the building to a road frontage and if the distance is appropriate to the location and the character of the area, the efficient use of the site, the safe and efficient use of the road and the amenity of residents; and:* *c) the height of development having regard to:*	The proposal has been designed to protect the amenity of the surrounding residential uses on the opposite side of Church Street and to satisfy P1 in that: a) there are no adjacent residential uses and the proposal will therefore not impact on privacy or solar access of any adjoining residential property b) the building is setback 14m from the Church Street frontage at its closest point and angled away from the frontage so that it will have negligible streetscape impact c) the proposed building height of 6.1m is modest and comparable to the height of

i) the effect of the slope of the site on the height of the building; and *ii) the relationship between the proposed building height and the height of existing adjacent and buildings; and* *iii) the visual impact of the building when viewed from the road and from adjoining properties; and* *iv) the degree of overshadowing and overlooking of adjoining properties; and* *d) the level and effectiveness of physical screening by fences or vegetation; and* *e) the location and impacts of traffic circulation and parking and the need to locate parking away from residential boundaries; and* *f) the location and impacts of illumination of the site; and* *g) passive surveillance of the site; and* *h) landscaping to integrate development with the streetscape.*	nearby residential properties. This height and the significant setback from the front boundary will mean that the building will not have significant visual impact from the street or any adjoining property d) a 1500mm high screen and screen landscaping are proposed between the building and the street and will soften the appearance of the site e) the site has been laid out with guest parking at the front and the remainder of operational parking within the building or at the rear of the site away from residential properties. Impacts on traffic circulation and parking will therefore be minimised f) as discussed above in relation to the Use Standard under 10.3.1 any external lighting will be minimised, sited, orientated and baffled to avoid light spill or glare beyond the boundaries of the site. It will therefore ensure that no unreasonable amenity impact results to nearby properties. g) The site has been arranged with the more publicly accessible and active areas of the site including the meeting room, kitchen and visitor parking areas at the front of the site and will assist to provide passive surveillance of the street h) The proposal includes landscaped screening between the building, parking areas and the street to soften the appearance of the development.

7. Planning Scheme Codes

The site is covered by the Bushfire Prone Area Overlay and Urban Growth Boundary. The Urban Growth Boundary is not an operative part of the planning scheme.

7.1 Bushfire-Prone Areas Code

Notwithstanding that the site is within a Bushfire Prone Area, the proposal does not involve subdivision or a vulnerable or hazardous use. The Code therefore does not apply.

The use will involve storage of small volumes of hazardous substances such as unleaded fuel and diesel in jerry cans. These volumes however will not be above manifest quantities specified in the Work Health and Safety Regulations 2021.

7.2 Road and Railway Assets Code

Use (E4.6.1)

Objective:

To ensure that the safety and efficiency of road and rail infrastructure is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions.

Use Standard	***Assessment***
A2 *For roads with a speed limit of 60km/h or less the use must not generate more than a total of 40 vehicle entry and exit movements per day*	The proposal is likely to comply with A2 in that traffic movements are expected to be low as set out above in Section 6.1 and below 40 vehicle movements per day.

Management of Road Accesses and Junctions(E4.7.2)

Objective:

To ensure that the safety and efficiency of roads is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions

Development Standard	***Assessment***
A1 *For roads with a speed limit of 60km/h or less the development must include only one access providing both entry and exit, or two accesses providing separate entry and exit*	The proposal separates visitor and operational vehicles with two accesses and must therefore be assessed under P1.
P1 *For roads with a speed limit of 60km/h or less, the number, location, layout and design of accesses and junctions must maintain an acceptable level of safety for all road users, including pedestrians and cyclists.*	The proposed separate visitor and operational accesses are an appropriate response to manage safety for all road users including pedestrians and cyclists. Church Street is a low traffic environment and it is considered that the proposed access arrangement will function safely and therefore satisfy P1.

Sight distance at Accesses, Junctions and Level Crossings (E4.7.4)

Objective:

To ensure that use and development involving or adjacent to accesses, junctions and level crossings allows sufficient sight distance between vehicles and between vehicles and trains to enable safe movement of traffic.

Development Standard	***Assessment***
A1 *Sight distances at* *a) an access or junction must comply with the Safe Intersection Sight Distance shown in Table E4.7.4; and* *b) rail level crossings must comply with AS1742.7 Manual of uniform traffic control devices - Railway crossings, Standards Association of Australia; or* *c) If the access is a temporary access, the written consent of the relevant authority has been obtained.*	This section of Church Street is straight, relatively flat and has a wide nature strip such that vehicles exiting the site will have good sight distance to passing traffic and pedestrians and will comply with the Sight distance requirements under Table E.4.7.4 of the Code.

7.3 Car Parking and Sustainable Transport Code

This code applies to all use and development.

Car parking numbers (E6.6.1)

The proposal complies with A1 in that there is no specific requirement for an Emergency Services Use under Table E6.1.

Construction of Car Parking Spaces and Access Strips (E6.7.1)

The proposed access and parking areas will be designed to met Australian Standards, drained and sealed with compacted gravel to satisfy A1/P1.

Design and Layout of Car Parking (E6.7.2)

Objective:

To ensure that car parking and manoeuvring space are designed and laid out to an appropriate standard.

Development Standard	***Assessment***
A1.1 *Where providing for 4 or more spaces, parking areas (other than for parking located in garages and carports for dwellings in the General Residential Zone) must be located behind the building line; and* *A1.2* *Within the General residential zone, provision for turning must not be located within the front*	The proposed visitor parking area for 11 spaces is to be sited forward of the building line and is therefore to be assessed under P1.

setback for residential buildings or multiple dwellings.	
P1 *The location of car parking and manoeuvring spaces must not be detrimental to the streetscape or the amenity of the surrounding areas, having regard to:* *a) the layout of the site and the location of existing buildings; and* *b) views into the site from the road and adjoining public spaces; and* *c) the ability to access the site and the rear of buildings; and* *d) the layout of car parking in the vicinity; and* *e) the level of landscaping proposed for the car parking.*	The proposed visitor parking area in front of the building is considered acceptable under P1 in that: a) The site has been laid out to separate visitor parking and traffic from operation movements and staff parking. This necessitates two accesses and requires the visitor parking to be sited in front of the building. b) The front setback will include a 1.5m high screen and landscaped screen planting to soften the appearance of the parking area from the Street c) For the reasons discussed in relation to criterion a above it Is not possible or desirable to site the visitor parking area behind the building d) The site is located between the showgrounds and cemetery and there is no established pattern of parking in the vicinity e) As discussed in relation to criterion b) the proposal includes a landscaped front setback that will largely screen and soften the appearance of the parking when viewed from the street
A2.1 Car parking and manoeuvring space must: *a) have a gradient of 10% or less; and* *b) where providing for more than 4 cars, provide for vehicles to enter and exit the site in a forward direction; and* *c) have a width of vehicular access no less than prescribed in Table E6.2 and Table E6.3, and* *A2.2 The layout of car spaces and access ways must be designed in accordance with Australian Standards AS 2890.1 – 2004 Parking Facilities, Part 1: Off Road Car Parking.*	The proposal complies with A2.1 in that: a) Parking and manoeuvring areas will have a gradient less than 1:10 b) Vehicles will be able to enter and exit the site in a forward direction c) The layout will comply with the dimensions of Table E6.2 and E6.3 The proposal will be Setout to comply with AS2890.1 and therefore will satisfy A2.2.

Car Parking Access, Safety and Security (E6.7.3)

Objective:

To ensure adequate access, safety and security for car parking and for deliveries.

Development Standard	***Assessment***
A1 *Car parking areas with greater than 20 parking spaces must be:* *a) secured and lit so that unauthorised persons cannot enter or;* *b) visible from buildings on or adjacent to the site during the times when parking occurs.*	The proposal does not involve a single carparking area for more than 20 spaces and A1 does not apply.

Parking for Persons with a Disability (E6.7.4)

Objective:

To ensure adequate parking for persons with a disability.

Development Standards	***Assessment***
A1 *All spaces designated for use by persons with a disability must be located closest to the main entry point to the building.*	The proposed accessible parking space is located adjacent to the main entry and complies with A1.
A2 *Accessible car parking spaces for use by persons with disabilities must be designed and constructed in accordance with AS/NZ2890.6 – 2009 Parking facilities – Off-street parking for people with disabilities.*	The accessible space has been set out to comply with the Australian Standard and therefore satisfies A2.

Loading and Unloading of Vehicles, Drop-off and Pickup (E6.7.6)

Objective:

To ensure adequate access for people and goods delivery and collection and to prevent loss of amenity and adverse impacts on traffic flows.

Development Standard	***Assessment***
A1 *For retail, commercial, industrial, service industry or warehouse or storage uses:*	The proposal does not involve a retail, commercial, industrial, service industry, warehouse or storage use and A1 therefore does not apply.

a) at least one loading bay must be provided in accordance with Table E6.4; and *b) loading and bus bays and access strips must be designed in accordance with Australian Standard AS/NZS 2890.3 2002 for the type of vehicles that will use the site.*	

Pedestrian Walkways (E6.8.5)

Objective:

To ensure pedestrian safety is considered in development

Development Standard	***Assessment***
A1 *Pedestrian access must be provided for in accordance with Table E6.5.*	Table E6.5 requires a 1m wide footpath for carparks that require 11 or more spaces. In this case a separate footway is provided from the front boundary to the main entry and complies with A1.

7.4 Scenic Management Code

The site is not within a mapped scenic management area.

7.5 Biodiversity Code

The proposal does not involve an area of priority habitat on the planning scheme maps or removal of native vegetation.

7.6 Water Quality Code

The proposal is not located within 50m of a wetland or watercourse.

7.7 Recreation and Open Space Code

The proposal does not involve subdivision and the Code does not apply.

7.8 Environmental Impacts and Attenuation Code

The proposal does not involve a sensitive use or a use listed under Table E11.1 or E11.2 and the Code does not apply.

7.9 Local Historic Heritage Code

The proposal is not within a listed place or relevant area under this Code.

7.10 Signage

The proposal involves a modest free standing sign "Tasmanian Fire Service & State Emergency Service

Campbell Town" at the frontage measuring 1200mm high x 3000mm wide.

8. Conclusion

The project is in response to an identified demand and has been sited for ease of access, to minimise exposure to natural hazards, minimise impacts on environmental values and avoid impacts on nearby residential amenity.

The building has been carefully designed to minimise impacts on the streetscape.

Assuming the proposed Planning Scheme amendment is approved, the proposed collocated emergency services facility would comply with the relevant provisions of the General Residential Zone and planning scheme Codes such that a permit should be issued.

Appendix A

Certificate of Title

RESULT OF SEARCH

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

Tasmanian Government

SEARCH OF TORRENS TITLE

VOLUME	FOLIO
14992	1
EDITION	DATE OF ISSUE
3	03-Sep-1999

SEARCH DATE : 13-Apr-2021
SEARCH TIME : 01.36 PM

DESCRIPTION OF LAND

Town of CAMPBELL TOWN
Lot 1 on Sealed Plan 14992
Derivation : Part of Lot 37743 Section Vv Gtd. to The Trustees of the Diocese of Tas.
Prior CT 3861/69

SCHEDULE 1

B782665 TRANSFER to MIDLAND AGRICULTURAL ASSOCIATION INCORPORATED Registered 29-Nov-1995 at 12.02 PM

SCHEDULE 2

Reservations and conditions in the Crown Grant if any
SP 14992 FENCING COVENANT in Schedule of Easements

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

the list

FOLIO PLAN

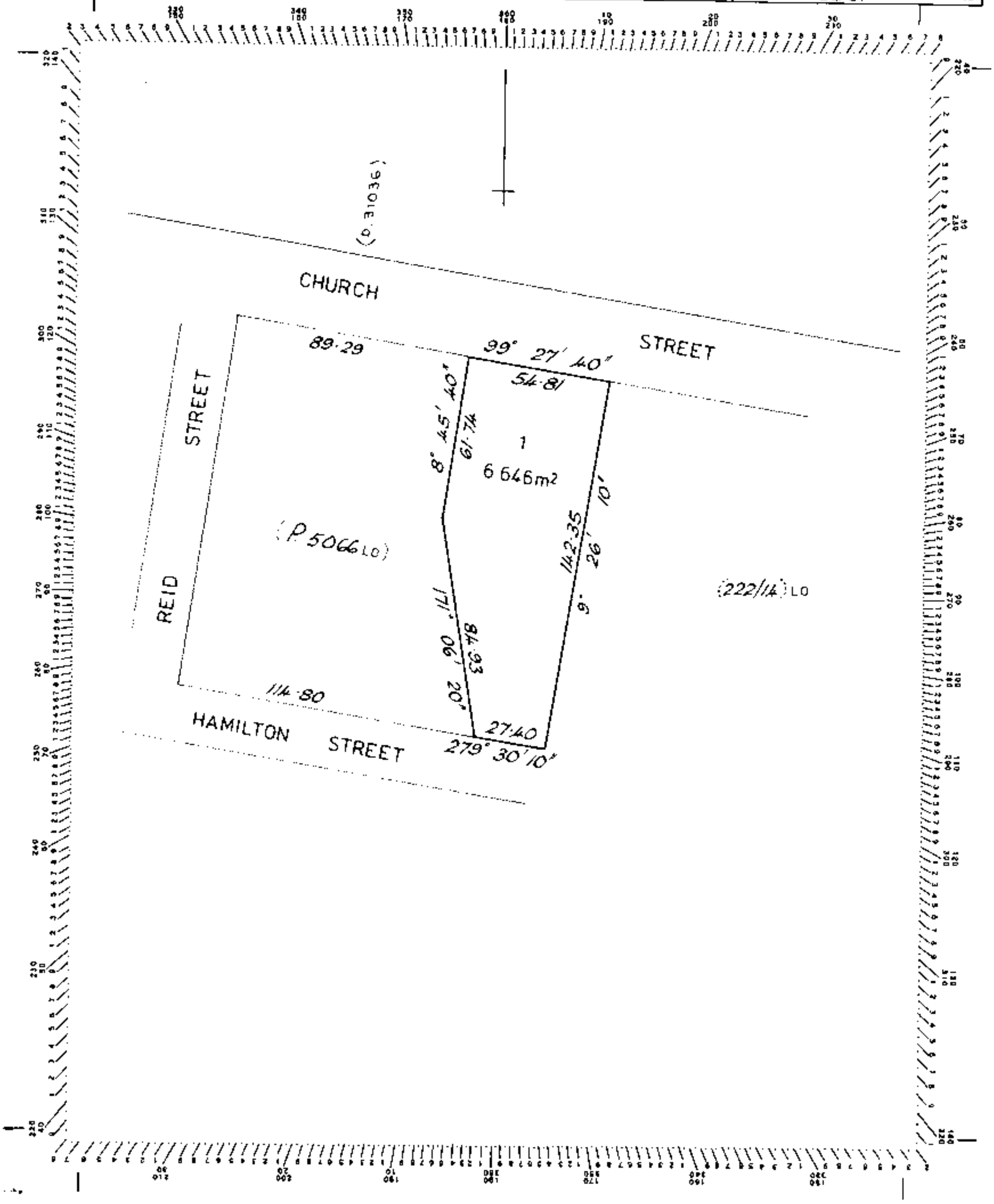
RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

Tasmanian Government

ST 14992

Owner: The Trustees of the Diocese of Tasmania.	**PLAN OF SURVEY** by Surveyor Edward McRae Pedley of land situated in the	**Registered Number:** S.P 14992
Title Reference: C.T. Vol 3729 Fol 50	TOWN OF CAMPBELL TOWN SECTION Vv	**Effective from:** 15 OCT 1980
Grantee: Part of Lot 37743, 2·077ha Granted to The Trustees of the Diocese of Tasmania.	SCALE 1: 1500 MEASUREMENTS IN METRES	ACTING DEPUTY Recorder of Titles



Search Date: 13 Apr 2021 Search Time: 01:36 PM Volume Number: 14992 Revision Number: 01 Page 1 of 1

Department of Primary Industries, Parks, Water and Environment **www.thelist.tas.gov.au**

Where possible large existing tree stock to be retained.

Landscaped Street Frontage
Low >.5m to front,
Medium >1.5m behind
planting buffer 3m minimum

Pedestrian Pavement
110 m2

Screening fence 1500h & Landscape Screening

Vehicle separation 1000h

A. Meeting
200 m²

Concrete Driveway Pavement
Wash Bay + Appliance Entrance
225 m2

B. Appliance
270 m²

C. Operations
120 m²

Compressed Gravel
Road + Parking
1650 m2

image credit . thelist.tas.gov.au . accessed 16.03.21

Property Details

Lot Size 3300m2
Fully Enclosed Space 590m2

Address: 17 Church St Campbell Town TAS 7210
PID: 2036373
Title Reference: 14992/1

Fully Enclosed Space

A Meeting room, kitchen, accessible amenities, stores & outdoor breakout

B Appliance bays, drive through, 3 x Item 8 Vehicles [8.1m x 2.9m]

C Operations office, amenities and PPC

Site Development

1 Meeting parking bays 5.4 x 2.5
10 x standard
1 x DDA

2 Operations parking bays 5.4 x 2.5
7 x standard

3 Appliance + overflow outdoor parking
4 x Item 8 vehicles for hot day preparation

4 2 x 15000lt water tank

5 Wash Bay & Wash Bay Store

6 Future Battery Store

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DA.1 Site Plan

Campbell Town TFS & SES

21.031 DPFEM 17 Church St Campbell Town

Plot Date: 8/10/2021 9:54:19 AM

C Development MS MS 08.10.21
No Revision Drawn Checked Date

A3 1 : 500

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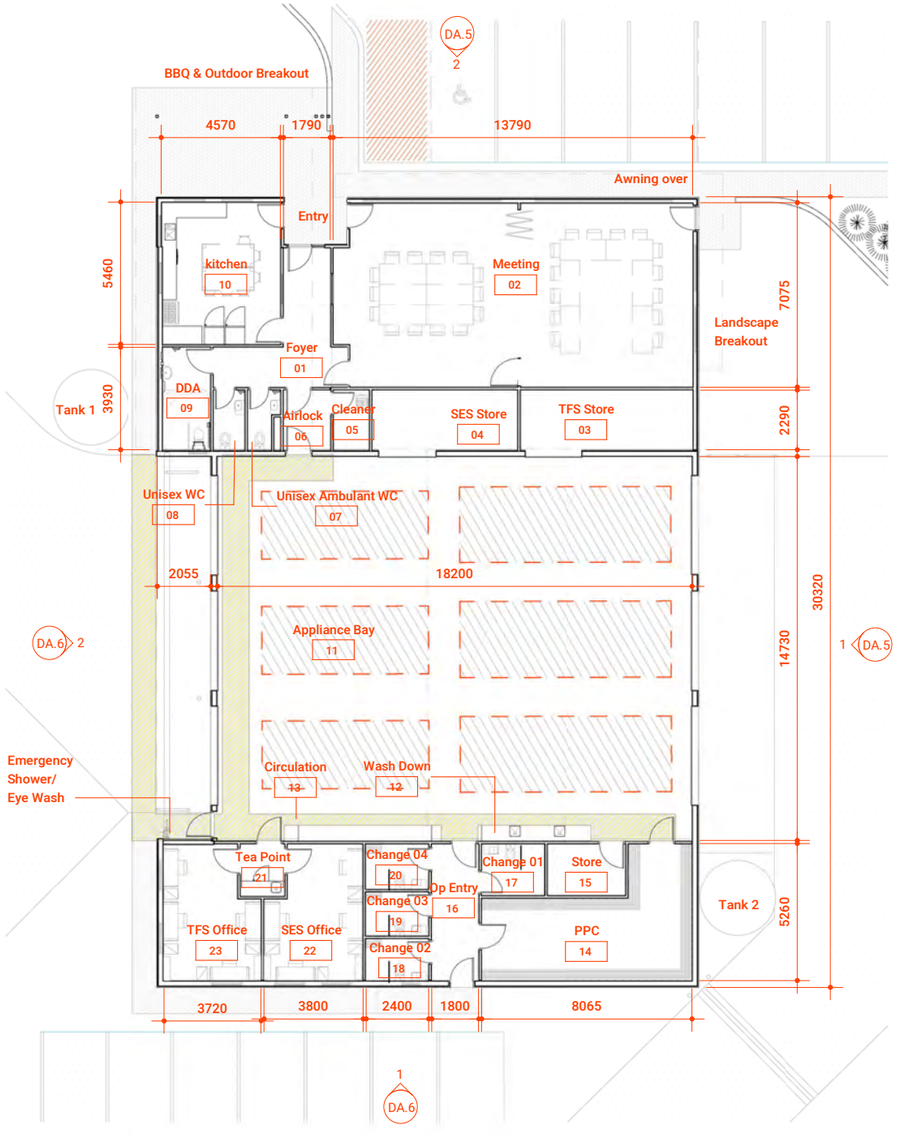

Room Schedule . Internal

Number	Name	Area
01	Foyer	14.7 m²
02	Meeting	95.3 m²
03	TFS Store	15.1 m²
04	SES Store	12.7 m²
05	Cleaner	3.2 m²
06	Airlock	4.1 m²
07	Unisex Ambulant WC	2.4 m²
08	Unisex WC	2.7 m²
09	DDA	7.2 m²
10	kitchen	24.6 m²
11	Appliance Bay	249.2 m²
12	Wash Down	8.4 m²
13	Circulation	10.5 m²
14	PPC	30.6 m²
15	Store	6.0 m²
16	Op Entry	9.5 m²
17	Change 01	4.8 m²
18	Change 02	3.9 m²
19	Change 03	4.0 m²
20	Change 04	4.2 m²
21	Tea Point	3.4 m²
22	SES Office	18.1 m²
23	TFS Office	17.6 m²
Grand total		552.1 m²

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DA.2 General Arrangement Plan

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21.031 DPFEM 17 Church St Campbell Town

A3 1 : 200

Plot Date: 8/10/2021 9:54:31 AM

C Development MS MS 08.10.21

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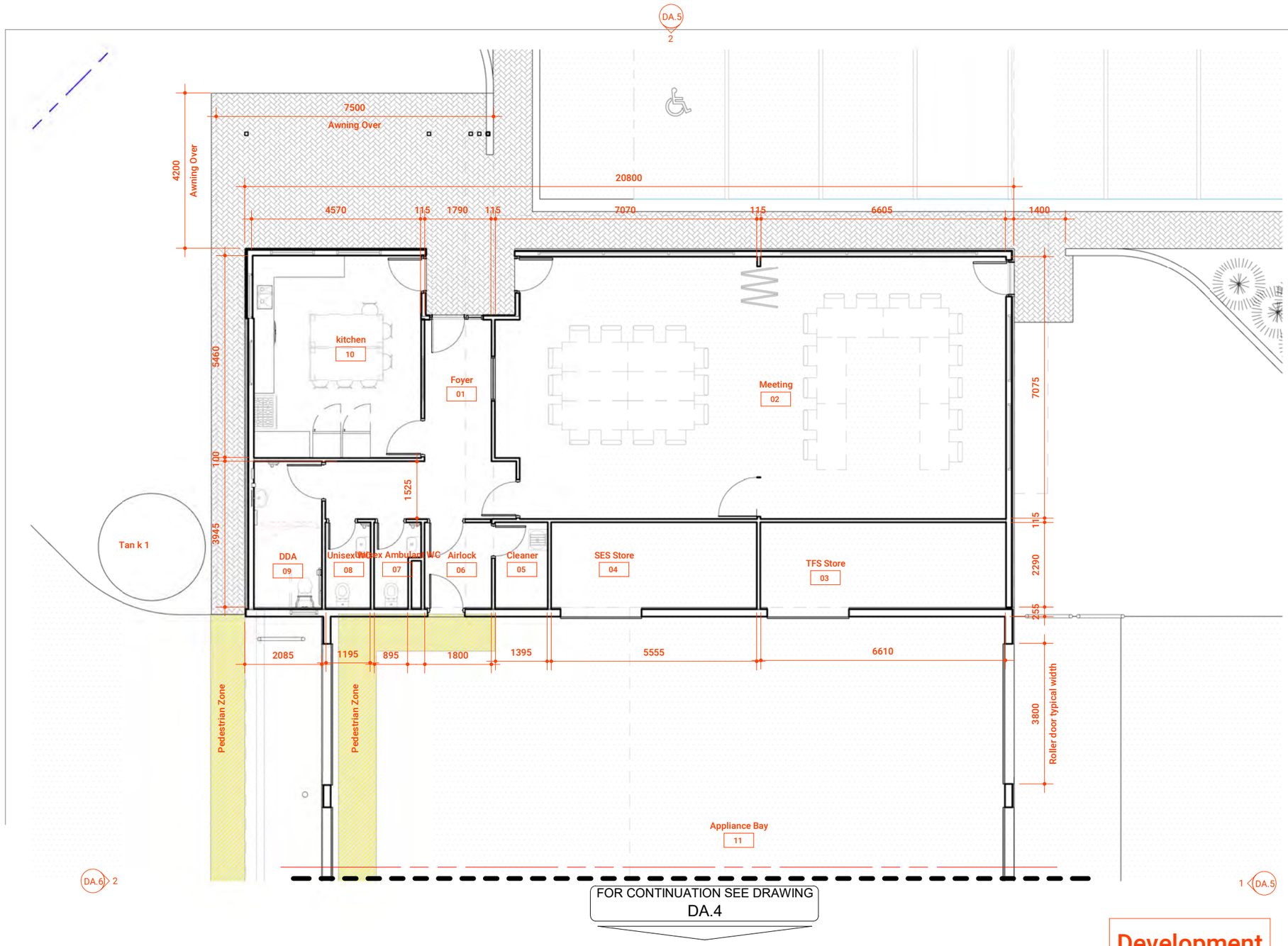

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DA.3 GA Plan North

Campbell Town TFS & SES

21.031 DPFEM 17 Church St Campbell Town

A3 1 : 100

Plot Date: 8/10/2021 9:54:42 AM

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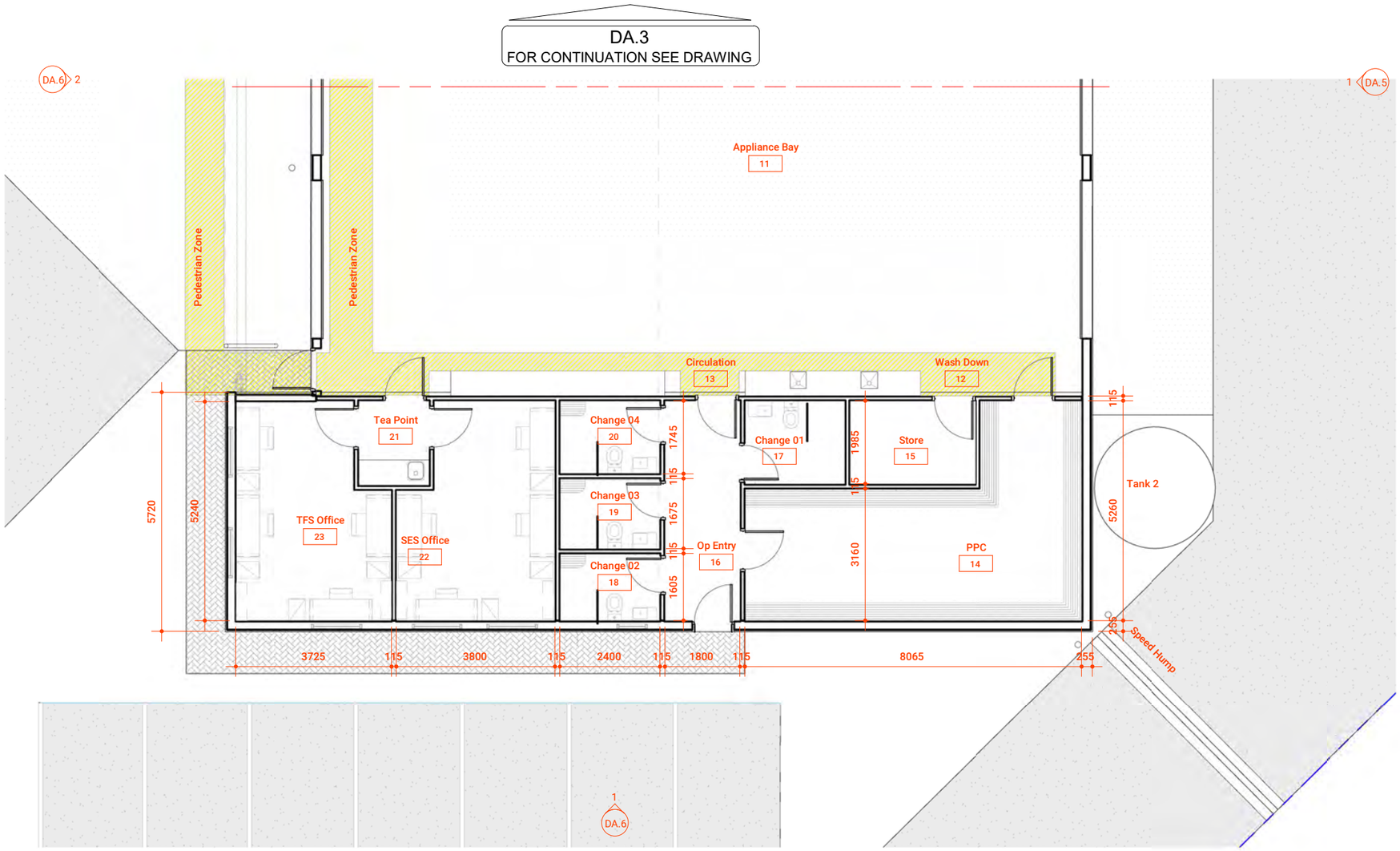

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DA.4 GA Plan South

Campbell Town TFS & SES

21.031 DPFEM 17 Church St Campbell Town

A3 1 : 100

Plot Date: 8/10/2021 9:54:52 AM

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No Revision Drawn Checked Date

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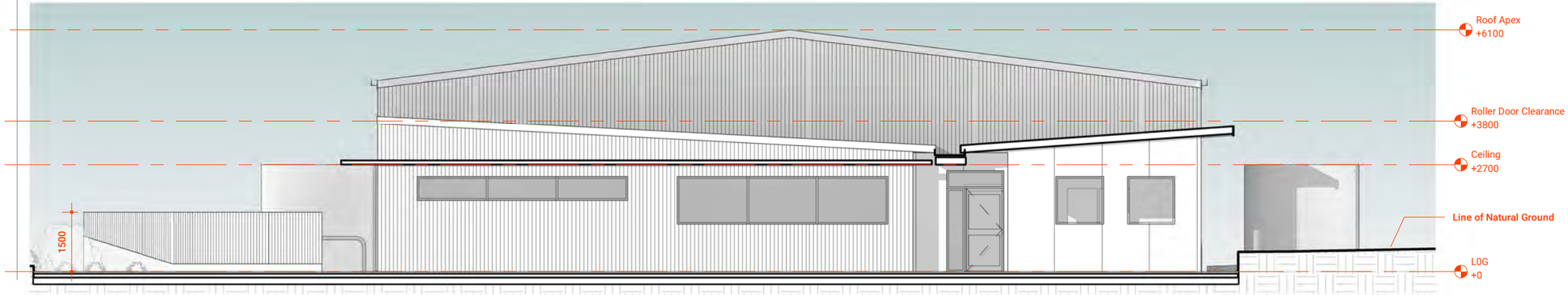
1 North East

SCALE: 1 : 100



2 North West

SCALE: 1 : 100

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DA.5 Elevations Sheet 1

Campbell Town TFS & SES

21.031 DPFEM 17 Church St Campbell Town

A3 1 : 100

Plot Date: 8/10/2021 9:55:04 AM

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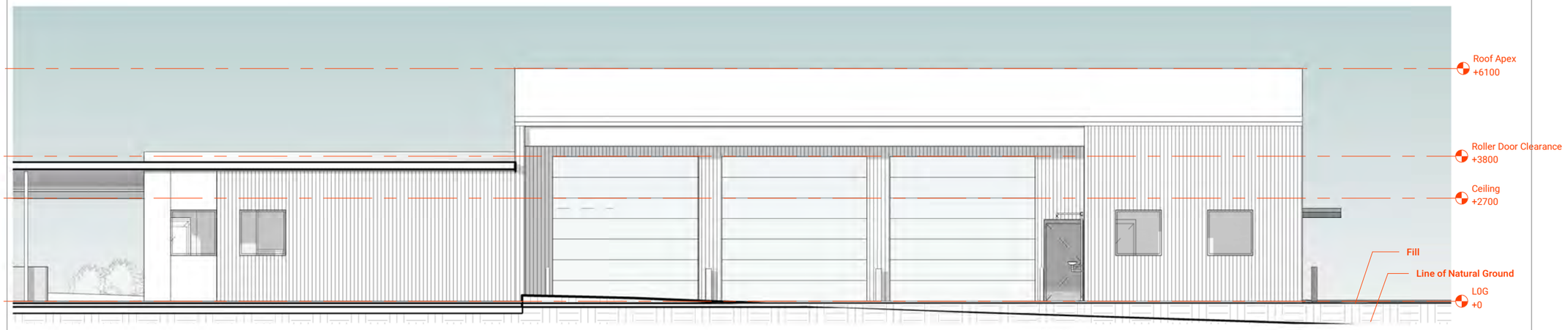
1 South East

SCALE: 1 : 100



2 South West

SCALE: 1 : 100

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DA.6 Elevations Sheet 2

Campbell Town TFS & SES

21.031 DPFEM 17 Church St Campbell Town

A3 1 : 100

Plot Date: 8/10/2021 9:55:15 AM

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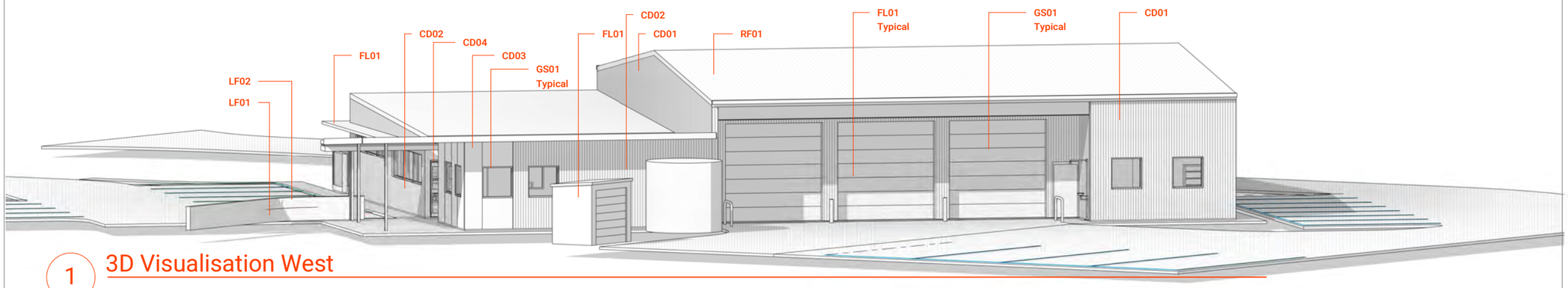


1 3D Visualisation West

SCALE: NA

MATERIALS

RF01
Location: Roof Sheet
Material: Trimclad Roofing
Colour: Shale Grey

FL01
Location: Trims & Ancillary
Material: Powdercoated
Colour: Wallaby

CD01
Location: Cladding
Material: Trimclad Colorbond
Colour: Shale Grey

CD02
Location: Cladding
Material: Trimclad Colorbond
Colour: Wallaby

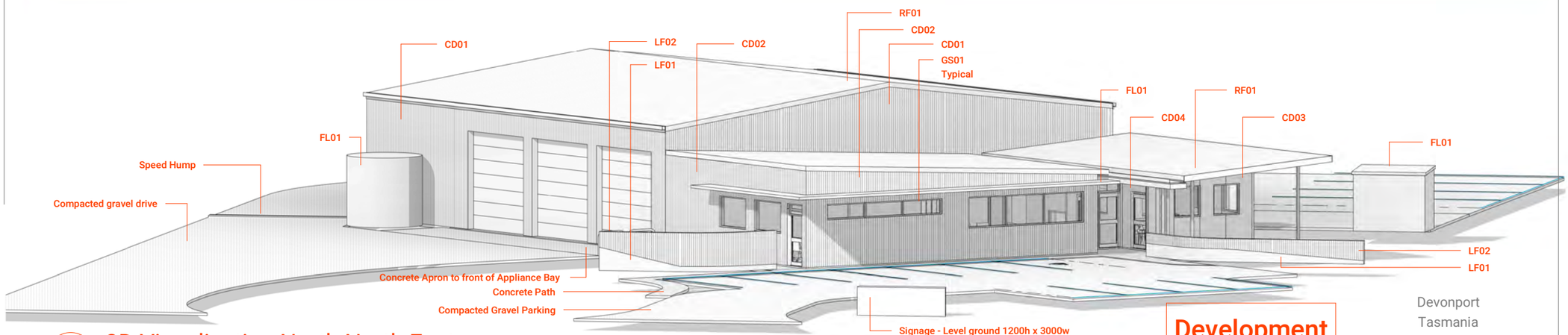
CD03
Location: Cladding Feature
Material: Cement Sheet
Colour: Painted Wallaby

CD04
Location: Cladding Entrance
Material: Aluminium Sheet
Colour: Red/Orange Feature

GS01
Location: Door/Window Frames
Material: Aluminium
Colour: Monument

LF01
Location: Pavement + Screen
Material: Concrete in situ
Colour: Natural, broomed finish

LF02
Location: Screen Fencing
Material: Hardwood timber oiled
Colour: Silver Top Ash or Similar



2 3D Visualisation North North East

SCALE: NA

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DA.7 3D + Materials

Campbell Town TFS & SES

21.031 DPFEM 17 Church St Campbell Town

A3 1 : 150

Plot Date: 8/10/2021 9:55:40 AM

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No Revision Drawn Checked Date

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CLIENT:
DPFEM

PROJECT:
17 CHURCH STREET, DRIVEWAY ACCESS

ADDRESS:
17 CHURCH STREET, CAMPBELL TOWN

PROJECT No:
210073 - DA

STATUS:
CONTROLLED DOCUMENT

ISSUED FOR / DESCRIPTION:
DEVELOPMENT APPROVAL

DRAWINGS:

REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:
0	DEVELOPMENTAL APPROVAL	KL	28-10-21

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APPROVED: **R.JESSON** ACRED. No: **CC5848I**

DESIGN BY: **MRP**
DESIGN CHK: **RJJ**
DRAWN BY: **MRP**
DRAFT CHK: **KL**
DATE: **28-10-21**

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CLIENT: **DPFEM**
PROJECT: **17 CHURCH STREET, DRIVEWAY ACCESS**
ADDRESS: **17 CHURCH STREET, CAMPBELL TOWN**

TITLE: **COVER SHEET**
SCALE: - SHEET SIZE: **A3** DWGs IN SET: -
PROJECT No: **210073** DWG No: **COV** REV: **0**

GENERAL

1. NOTICE TO TENDERER
THE CONTRACTOR / TENDERER IS TO MAKE THEMSELVES AWARE OF THE LOCAL COUNCIL AND THE DEPARTMENT OF INFRASTRUCTURE ENERGY AND RESOURCES (D.O.S.G.) STANDARDS FOR CIVIL WORKS. CONSTRUCTION IS TO BE CARRIED OUT TO THESE STANDARDS. TENDERER IS TO ALLOW FOR THESE STANDARDS DURING PRICING. COPIES OF THE STANDARDS ARE AVAILABLE FOR INSPECTION UPON REQUEST FROM THE LOCAL COUNCIL OR D.O.S.G.'s WEB SITE.

2. NOTIFICATION
THE CONTRACTOR IS TO NOTIFY ALL RELEVANT STATUTORY AUTHORITIES PRIOR TO COMMENCING ANY WORK FOR THE POSSIBLE LOCATION OF ANY EXISTING SERVICES NOT SHOWN ON THESE PLANS, AND IS TO NOTIFY THE SUPERINTENDENT OF THE SAME.
ALL EXISTING SERVICES ARE TO BE PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO EXISTING SERVICES IS TO BE MADE GOOD AT THE CONTRACTOR'S EXPENSE.

3. DRAWINGS AND SPECIFICATIONS
THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED FOR THE PURPOSE OF OBTAINING COUNCIL APPROVAL AND CALLING OF TENDERS. THEY ARE NOT TO BE USED FOR CONSTRUCTION. A CONSTRUCTION SET OF DRAWINGS STAMPED "CONSTRUCTION SET" WILL BE ISSUED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

4. COMMON TRENCHING
WHERE ANY COMMON TRENCHING IS REQUIRED, THE FOLLOWING CLEARANCE DISTANCES (BARREL TO BARREL) MUST BE MAINTAINED FROM EXISTING OR PROPOSED SERVICES:
HORIZONTALLY:
- 300mm ALONG A LENGTH GREATER THAN 2 METRES.
- 500mm MINIMUM FROM ANY MAIN GREATER THAN 200mm DIA.
- 150mm MINIMUM ALONG A LENGTH LESS THAN 2 METRES.

VERTICALLY:
- 150mm MINIMUM
- 300mm MINIMUM FROM ANY MAIN GREATER THAN 200mm DIA.

ELECTRICAL CABLES SHOULD BE LOCATED ON THE OPOSITE SIDE OF THE STREET. WHERE THIS IS NOT POSSIBLE A 400mm MINIMUM DISTANCE MUST BE OBSERVED OF WHICH 300mm SHOULD BE IN NATURAL AND UNDISTURBED MATERIAL.

5. AURORA TRENCHING
THE CONTRACTOR IS TO ALLOW FOR EXCAVATION AND BACKFILLING OF ALL TRENCHES FOR THE INSTALLATION OF AURORA CABLES.
CONTRACTOR IS TO LIAISE WITH THE AURORA FOR THE EXTENT OF CABLE TRENCHING.

6. TELSTRA TRENCHING
THE CONTRACTOR IS TO ALLOW FOR EXCAVATION AND BACKFILLING OF ALL TRENCHES FOR THE INSTALLATION OF TELSTRA CABLES.
CONTRACTOR IS TO LIAISE WITH TELSTRA FOR THE EXTENT OF CABLE TRENCHING.

7. EXISTING SERVICES
LOCATE EXISTING EXISTING SERVICES PRIOR TO COMMENCING DEMOLITION AND SITE WORKS. THE CONTRACTOR IS TO ARRANGE AND PAY FOR THE ON SITE MARKING AND CONFIRMATION OF DEPTH OF SERVICE LOCATIONS FOR ALL UNDERGROUND SERVICES INCLUDING TELSTRA, AURORA, POWERCO, TASWATER (WATER & SEWER) AND COUNCIL SERVICES (ie: STORMWATER) IN THE AREA OF NEW WORKS. LOCATION TO BE CONFIRMED USING CABLE LOCATORS AND HAND DIGGING METHODS. PRIOR TO ANY WORKS ON SITE, ANY CLASHES WITH DESIGNED SERVICES ON FOLLOWING DRAWINGS ARE TO BE REPORTED TO DESIGN ENGINEER FOR DIRECTION.

8. COUNCIL & AUTHORITIES APPROVALS
ALL WORKS ARE TO BE IN ACCORDANCE WITH THE FOLLOWING APPROVALS:
- NIL

9. SIGNAGE
ALL SIGN WORKS AND INSTALLATION TO BE IN ACCORDANCE WITH CURRENT VERSION OF MUTCD & AUSTROADS FOR SIGNAGE DETAILS.

10. SCOPE OF WORKS
THE SCOPE OF WORKS ARE SHOWN IN THESE DOCUMENTS AND THE SPECIFICATION. IT IS EXPECTED THE CONTRACTOR WILL RESOLVE ALL ISSUES UNCOVERED ON SITE THAT ARE NOT DETAILED IN CONJUNCTION WITH THE SUPERINTENDENT.

GENERAL CONT.

7. LINE TYPE LEGEND

AG — AG	DN100 AGG PIPE OR MEGAFLOW DRAIN AS NOTED @ 1:100 FALL TO STORM WATER SYSTEM
eSW	DENOTES EXISTING STORM WATER MAIN (CONFIRM EXACT LOCATION)
SW	DENOTES PROPOSED STORM WATER MAIN
eS	DENOTES EXISTING SEWER MAIN (CONFIRM EXACT LOCATION)
S	DENOTES PROPOSED SEWER MAIN
eW	DENOTES EXISTING WATER MAIN (CONFIRM EXACT LOCATION)
W	DENOTES PROPOSED WATER MAIN
eGAS	DENOTES EXISTING GAS MAIN (CONFIRM EXACT LOCATION)
GAS	DENOTES PROPOSED GAS MAIN
eCOM	DENOTES EXISTING UNDERGROUND TELECOM / FIBRE OPTIC LINE (CONFIRM EXACT LOCATION)
----------	DEMOLITION

10. SURVEY SYMBOLS LEGEND

e	EXISTING
TOK 44.400	SPOT LEVEL WITH DESCRIPTION
+ 44.330	EXISTING SPOT LEVEL

EARTHWORKS

1. GENERAL
GENERAL EARTHWORKS, MATERIAL AND WORKMANSHIP SHALL COMPLY WITH THIS SPECIFICATION AND THE CURRENT EDITION OF THE S.A.A. CODE FOR EARTHWORKS AS 3789 TOGETHER WITH ANY CODES, STANDARDS OR REGULATIONS REFEREED TO THEREIN.
THE CONTRACTOR SHALL KEEP A COPY OF AS 3789 ON SITE.

2. INSPECTIONS
THE CONTRACTOR IS TO ENGAGE AN APPROVED GEOTECHNICAL ENGINEER TO CARRY OUT LEVEL 3 TESTING OF ALL EARTH WORKS TO AS 3789, INCLUDING
- SUBGRADE
- FILLS
- PAVEMENTS
- BACKFILLING OF SERVICE TRENCHES

CERTIFICATION OF THESE ELEMENTS IS TO BE PROVIDED PRIOR TO TO PRACTICAL COMPLETION

3. AREAS OF FILL
A. REMOVE TOP SOIL AND ORGANIC MATERIAL
B. PROOF ROLL SUBGRADE IN ACCORDANCE WITH AS1289 TO:
- 98% STANDARD DRY DENSITY UNDER BUILDING
- 100% STANDARD DRY DENSITY UNDER ROADS AND CARPARKS
- REMOVE ANY SOFT SPOTS AND COMPACT WITH 2% OF OPTIMUM MOISTURE CONTENT TO STANDARD DRY DENSITY AS STATED ABOVE

C. PLACE FILL AS SPECIFIED AND COMPACT WITHIN 2% OF OPTIMUM MOISTURE CONTENT TO STANDARD DRY DENSITY AS STATED ABOVE

4. AREAS OF CUT
A. REMOVE TOP SOIL AND ORGANIC MATERIAL
B. PROOF ROLL SUBGRADE IN ACCORDANCE WITH AS1289 TO:
- -98% STANDARD DRY DENSITY UNDER BUILDINGS
- 100% STANDARD DRY DENSITY UNDER ROADS AND CAR PARKS
- REMOVE ANY SOFT SPOTS AND COMPACT WITH 2% OF OPTIMUM MOISTURE CONTENT TO STANDARD DRY DENSITY AS STATED ABOVE

SURVEY

1. SURVEY DETAILS
FOLLOWING ARE SURVEY DETAILS USED AS BASIS FOR DESIGN:
- SURVEYOR: PDA SURVEYORS
- SURVEY REF. NO. 47248
- SURVEY DATE: 22/04/2021
- SITE LOCATION: 17 CHURCH STREET
- LOCAL AUTHORITY: NORTHERN MIDLANDS COUNCIL
- COORDINATE SYSTEM: MGA2020
- LEVEL DATUM: AHD 83

2. SETOUT
1. SETOUT RESPONSIBILITY
   - CONTRACTOR TO ARRANGE AND PAY FOR REGISTERED SURVEYOR TO SETOUT THE PROJECT. RARE WILL PROVIDE CAD FILES TO ASSIST.

ROAD WORKS

1. GENERAL
ALL WORKS ARE TO BE CARRIED OUT TO THE LOCAL COUNCIL AND D.O.S.G. STANDARDS. ANY DEPARTURES FROM THESE STANDARDS REQUIRES THE PRIOR APPROVAL OF THE SUPERINTENDENT AND THE LOCAL COUNCIL WORKS SUPERVISOR.

2. INSPECTIONS
THE CONTRACTOR IS RESPONSIBLE FOR ORGANISING THE FOLLOWING INSPECTIONS WITH THE SUPERINTENDENT. 48 HOURS NOTICE IS REQUIRED TO BE GIVEN TO THE SUPERINTENDENT PRIOR TO THE INSPECTION.
- SUBGRADE PREPARATION
- SUB-BASE FOR ROADS, CARPARKS AND KERBS
- BASE COURSE
- FINAL TRIM PRIOR TO PLACING KERBS
- FINAL TRIM PRIOR TO SEALING

3. TESTING
THE CONTRACTOR IS TO BE RESPONSIBLE FOR ORGANISING AND PAYING ALL COSTS ASSOCIATED WITH TESTING IN ACCORDANCE WITH D.O.S.G. SPEC G4-COMPACTION ASSESSMENT.

4. HOTMIX
ALL HOTMIX IS TO BE BLACK IN COLOUR AND IS TO MEET AND BE PLACED IN ACCORDANCE WITH D.O.S.G. SPEC R55-DENSE GRADED ASPHALT.

5. KERBS
ALL KERBS ARE TO BE AS SHOWN ON THE DRAWINGS AND BE IN ACCORDANCE WITH IPWEA LGAT STANDARD DRAWINGS.

6. ROAD RESERVE WORKS
ALL WORKS IN (OR REQUIRING OCCUPATION) IN THE ROAD RESERVE MUST BE UNDERTAKEN BY CONTRACTOR REGISTERED WITH COUNCIL'S (REGISTERED CONTRACTOR).

7. FOOTPATHS
PROVIDE EXPOSED AGGREGATE WITH 14mm BLUESTONE SURFACE FINISH TO CONCRETE FOOTPATHS ONLY & ADD 5% BLACK OXIDE.
PROVIDE EXPANSION / CONTROL / WEAKENED PLANE JOINTS IN ACCORDANCE WITH IPWEA STD DWG TSD-R11-v1

8. LANDSCAPE / STREET FURNITURE
- BOLLARDS - STAINLESS STEEL, REFER DETAIL
- LANDSCAPING & STREET FURNITURE BY COUNCIL

SOIL & WATER MANAGEMENT

1. GENERAL
ALL WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH 'SOIL & WATER MANAGEMENT ON BUILDING & CONSTRUCTION SITES' GUIDELINES AVAILABLE FROM NORTHERN RESOURCE MANAGEMENT (NRM).

2. SOIL EROSION CONTROL
SOIL EROSION CONTROL IN ACCORDANCE WITH NRM GUIDELINES.
CONTRACTOR TO ALLOW TO:
- LIMIT DISTURBANCE WHEN EXACTING BY PRESERVING VEGETATED AREA'S AS MUCH AS POSSIBLE
- DIVERT UP-SLOPE WATER WHERE PRACTICAL
- INSTALL SEDIMENT FENCES DOWN SLOPE OF ALL DISTURBED LANDS TO FILTER LARGE PARTICLES PRIOR TO STORM WATER SYSTEM
- WASH EQUIPMENT IN DESIGNATED AREA THAT DOES NOT DRAIN TO STORM WATER SYSTEM
- PLACE STOCK PILES AWAY FROM ON-SITE DRAINAGE & UP-SLOPE FROM SEDIMENT FENCES
- LEAVE & MAINTAIN VEGETATED FOOT PATH
- STORE ALL HARD WASTE & LITTER IN A DESIGNATED AREA THAT WILL PREVENT IT FROM BEING BLOWN AWAY & WASHED INTO THE STORM WATER SYSTEM
- RESTRICT VEHICLE MOVEMENT TO A STABILISED ACCESS

3. NRM GUIDELINES
CONTRACTOR TO COMPLETE ALL WORKS IN ACCORDANCE WITH NRM SOIL & WATER MANAGEMENT ON BUILDING & CONSTRUCTION SITE USING THE FACT SHEETS:
- FACT SHEET 1: SOIL & WATER MANAGEMENT ON LARGE BUILDING & CONSTRUCTION SITES
- FACT SHEET 2: SOIL & WATER MANAGEMENT ON STANDARD BUILDING & CONSTRUCTION SITES
- FACT SHEET 3: SOIL & WATER MANAGEMENT PLANS
- FACT SHEET 4: DISPERSIVE SOILS - HIGH RISK OF TUNNEL EROSION
- FACT SHEET 5: MINIMISE SOIL DISTURBANCE
- FACT SHEET 6: PRESERVE VEGETATION
- FACT SHEET 7: DIVERT UP-SLOPE WATER
- FACT SHEET 8: EROSION CONTROL MATS & BLANKETS
- FACT SHEET 9: PROTECT SERVICE TRENCHES & STOCKPILES
- FACT SHEET 10: EARLY ROOF DRAINAGE CONNECTION
- FACT SHEET 11: SCOUR PROTECTION - STORM WATER PIPE OUTFALLS & CHECK DAMS
- FACT SHEET 12: STABILISED SITE ACCESS
- FACT SHEET 13: WHEEL WASH
- FACT SHEET 14: SEDIMENT FENCES & FIBRE ROLLS
- FACT SHEET 15: PROTECTION OF STORM WATER PITS
- FACT SHEET 16: MANAGE CONCRETE, BRICK & TILE CUTTING
- FACT SHEET 17: SEDIMENT BASINS
- FACT SHEET 18: DUST CONTROL
- FACT SHEET 19: SITE RE-VEGETATION

REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:
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DESIGN CHK: **RJJ**
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DRAFT CHK: **KL**
DATE: **28-10-21**

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CLIENT: **DPFEM**
PROJECT: **17 CHURCH STREET, DRIVEWAY ACCESS**
ADDRESS: **17 CHURCH STREET, CAMPBELL TOWN**

TITLE: **CIVIL NOTES**
SCALE: - SHEET SIZE: **A3** DWGs IN SET: -
PROJECT No: **210073** DWG No: **C000** REV: **0**

LOCALITY PLAN
NTS

SITE PLAN
SCALE 1:1000

REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:
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CLIENT: DPFEM
PROJECT: 17 CHURCH STREET, DRIVEWAY ACCESS
ADDRESS: 17 CHURCH STREET, CAMPBELL TOWN

TITLE: CIVIL WORKS PLAN
SCALE: 1:1000 SHEET SIZE: A3 DWGs IN SET: -
PROJECT No: 210073 DWG No: C101 REV: 0

DEMOLITION PLAN

SCALE 1:200

DEMOLITION NOTES

1. PRIOR TO COMMENCING DEMOLITION AND SITE WORKS, THE CONTRACTOR IS TO ARRANGE AND PAY FOR THE ON SITE MARKING AND CONFIRMATION OF DEPTH, OF SERVICE LOCATIONS FOR ALL UNDERGROUND SERVICES INCLUDING COMMUNICATIONS, TASNETWORKS, POWERCO AND COUNCIL SERVICES (ie: WATER, STORMWATER AND SEWER) IN THE AREA OF NEW WORKS. LOCATION TO BE CONFIRMED USING CABLE LOCATORS AND HAND DIGGING METHODS. PRIOR TO ANY WORKS ON SITE, ANY CLASHES WITH DESIGNED SERVICES ON FOLLOWING DRAWINGS ARE TO BE REPORTED TO DESIGN ENGINEER FOR DIRECTION.
2. REFER DRAWINGS FOR SET OUT DIMENSIONS & COORDINATE ALL LEVELS, CONTRACTOR TO REFER ENGINEER FOR ANY DISCREPANCIES / CLASHES.
3. CAP & TERMINATE & REMOVE REDUNDANT DISUSED DRAINAGE SERVICES TO SATISFACTION OF ENGINEER & LOCAL AUTHORITIES
4. INSTALL SILT FENCES & TRAPS TO PREVENT SEDIMENTS & POLLUTANTS ENTERING STORM WATER SYSTEM OR NATURAL DRAINAGE LINES
5. STOCK PILING OF SOILS OR MATERIALS AFFECTED BY WATER TO BE STORED CLEAR OF ANY DRAINAGE PATH
6. CLEAN SITE VEHICLES BEFORE EXITING SITE
7. DISPOSE OF EXCAVATED MATERIAL TO LICENSED WASTE FACILITY OR APPROVED LAND FILL SITE
8. TRENCHES WHERE SERVICES ARE REMOVED ARE TO BE FILLED WITH AN APPROVED COMPACTED MATERIAL & TO ENGINEERS COMPACTION SPECIFICATIONS. MATCH & MAKE GOOD EXISTING SURFACES TO MATCH EXISTING SURROUNDINGS.
9. LOCATE AND PROTECT EXISTING OVERHEAD POWER LINE DURING WORKS

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DANGER OVERHEAD POWER LINES

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CLIENT: DPFEM

PROJECT: 17 CHURCH STREET, DRIVEWAY ACCESS

ADDRESS: 17 CHURCH STREET, CAMPBELL TOWN

TITLE: EXISTING SURVEY / DEMOLITION PLAN

SCALE: 1:200 SHEET SIZE: A3 DWGs IN SET: -

PROJECT No: 210073 DWG No: C201 REV: 0

EROSION CONTROL PLAN

SCALE 1:200

EROSION AND SEDIMENT CONTROL NOTES

1. ALL RUNOFF AND SEDIMENT CONTROL STRUCTURES TO BE INSPECTED EACH WORKING DAY MAINTAINED IN A FUNCTIONING CONDITION
2. ALL VEGETATION OUTSIDE OF THE BUILDING ENVELOPE TO BE RETAINED
3. REFER 'SOIL AND WATER' NOTES IN CIVIL NOTES FOR ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES
4. EROSION AND SEDIMENT CONTROL MEASURES TO BE PLACED IN ACCORDANCE WITH NRM GUIDELINES & DETAILS SUPPLIED IN THESE DRAWINGS.

LEGEND

EROSION CONTROL BARRIER

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DANGER OVERHEAD POWER LINES

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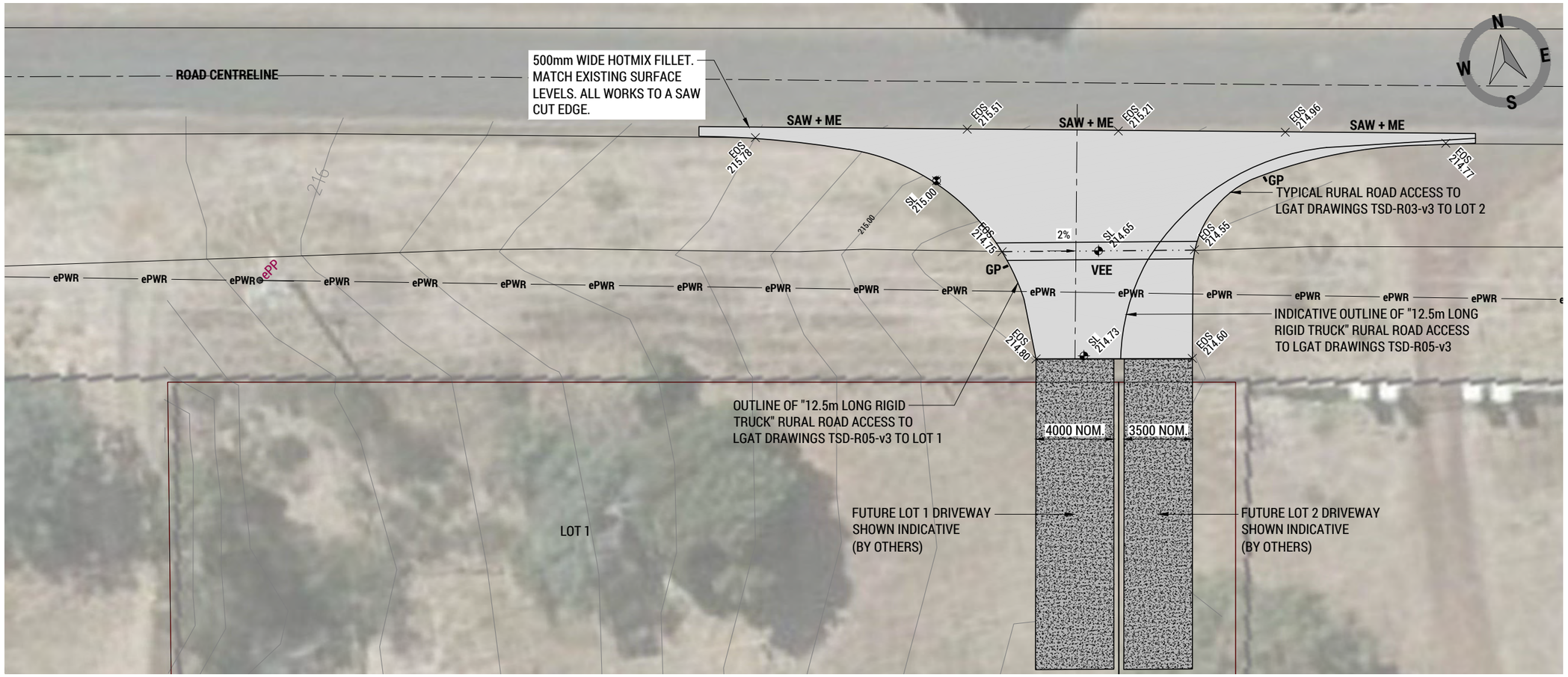
CLIENT: DPFEM
PROJECT: 17 CHURCH STREET, DRIVEWAY ACCESS
ADDRESS: 17 CHURCH STREET, CAMPBELL TOWN

TITLE: EROSION CONTROL PLAN
SCALE: 1:200 SHEET SIZE: A3 DWGs IN SET: -
PROJECT No: 210073 DWG No: C301 REV: 0



LEGEND

	HOTMIX - TRAFFICABLE MATCH EXISTING
	FUTURE DRIVEWAY BY OTHERS

LEGEND

ME	MATCH EXISTING
SAW	SAWCUT
GP	GUIDE POST TO LGAT STANDARDS
VEE	VEE DRAIN - REFER DETAIL
ePP	EXISTING POWER POLE

CIVIL WORKS PLAN

SCALE 1:200

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DANGER OVERHEAD POWER LINES

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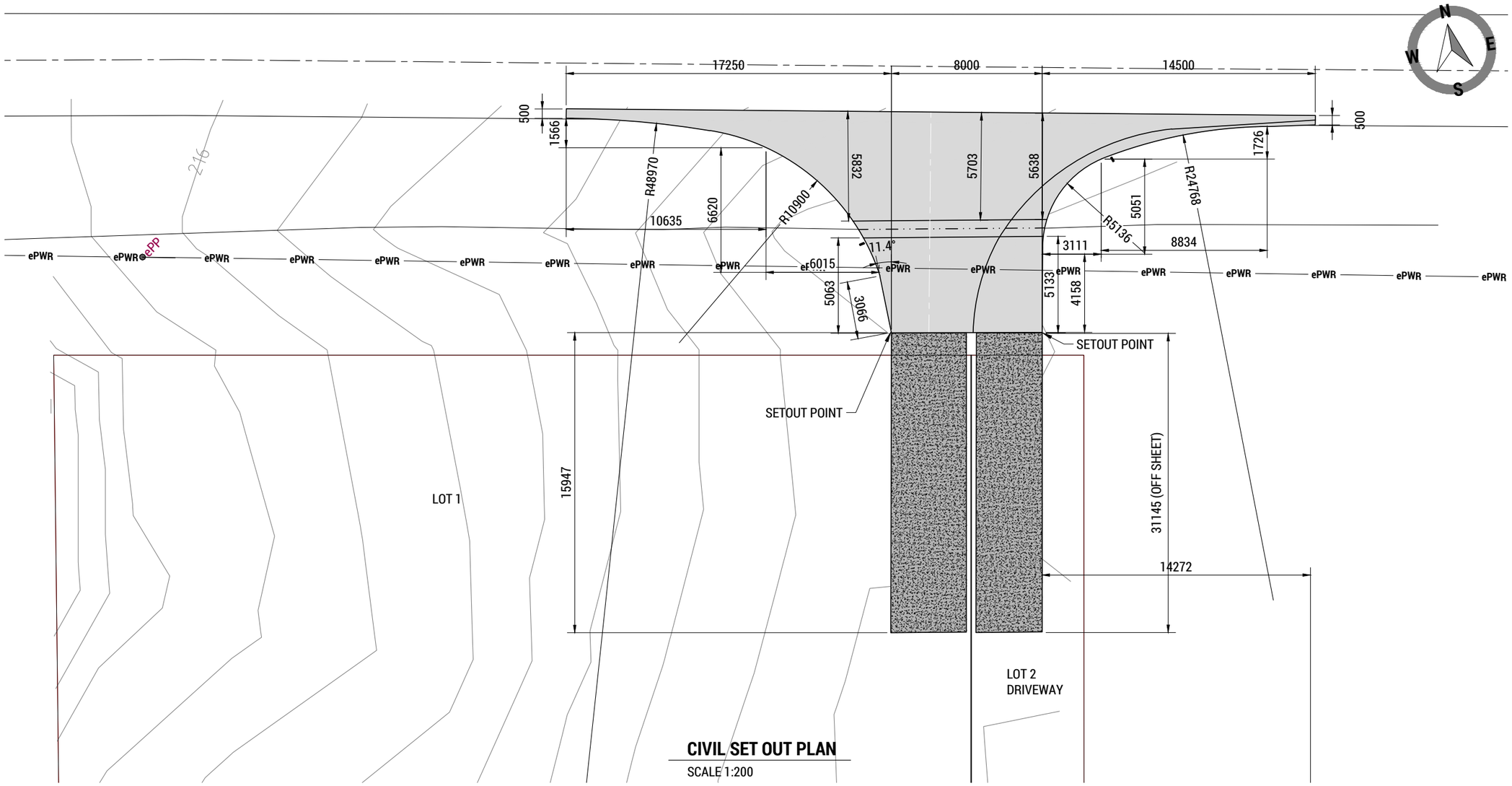
ADDRESS: **17 CHURCH STREET, CAMPBELL TOWN**

TITLE: **CIVIL WORKS PLAN**

SCALE: **1:200** SHEET SIZE: **A3** DWGs IN SET: **-**

PROJECT No: **210073** DWG No: **C401** REV: **0**



CIVIL SET OUT PLAN

SCALE 1:200

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DANGER OVERHEAD POWER LINES

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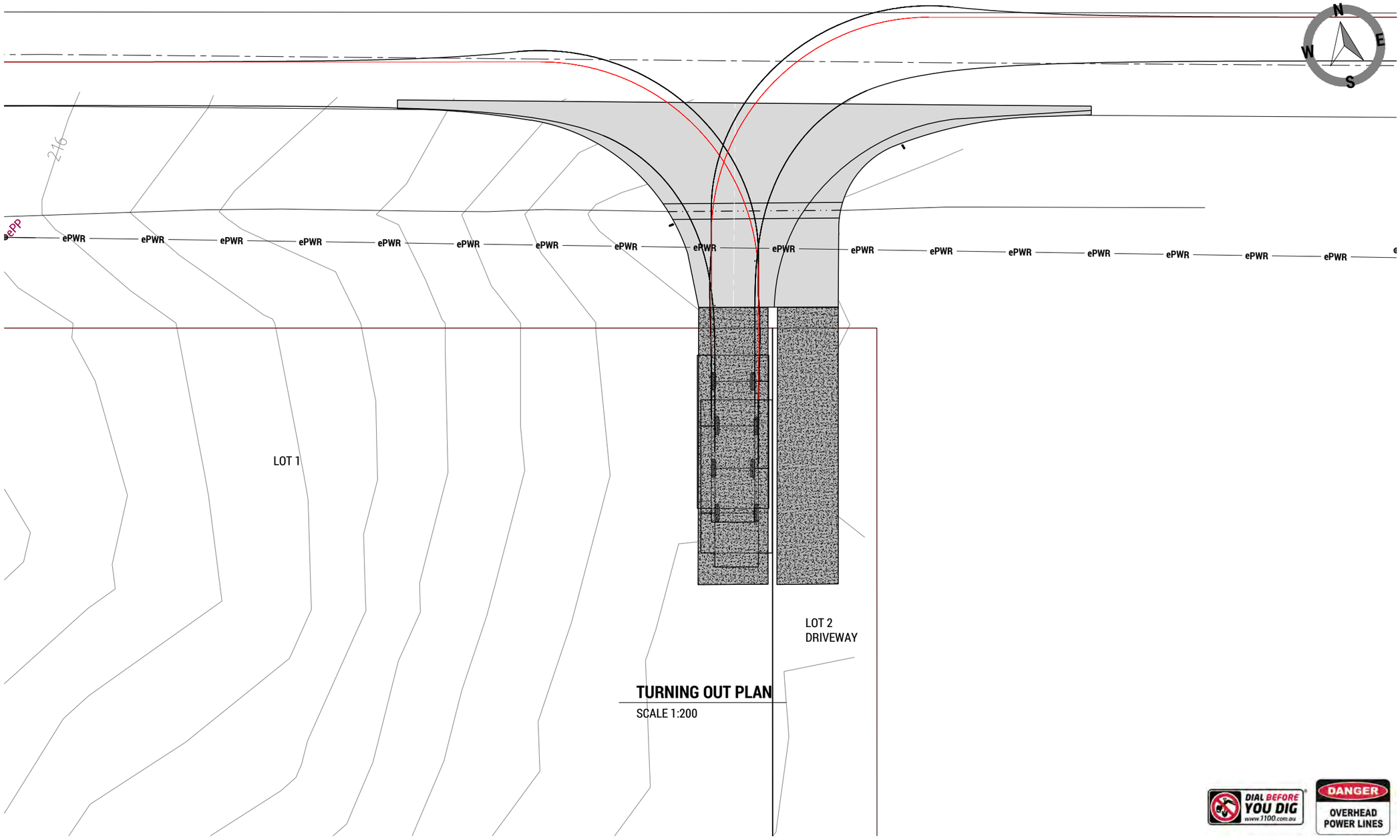
ADDRESS: 17 CHURCH STREET, CAMPBELL TOWN

TITLE: CIVIL WORKS PLAN

SCALE: 1:200 SHEET SIZE: A3 DWGs IN SET: -

PROJECT No: 210073 DWG No: C411 REV: 0



TURNING OUT PLAN

SCALE 1:200

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DANGER OVERHEAD POWER LINES

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CLIENT: **DPFEM**

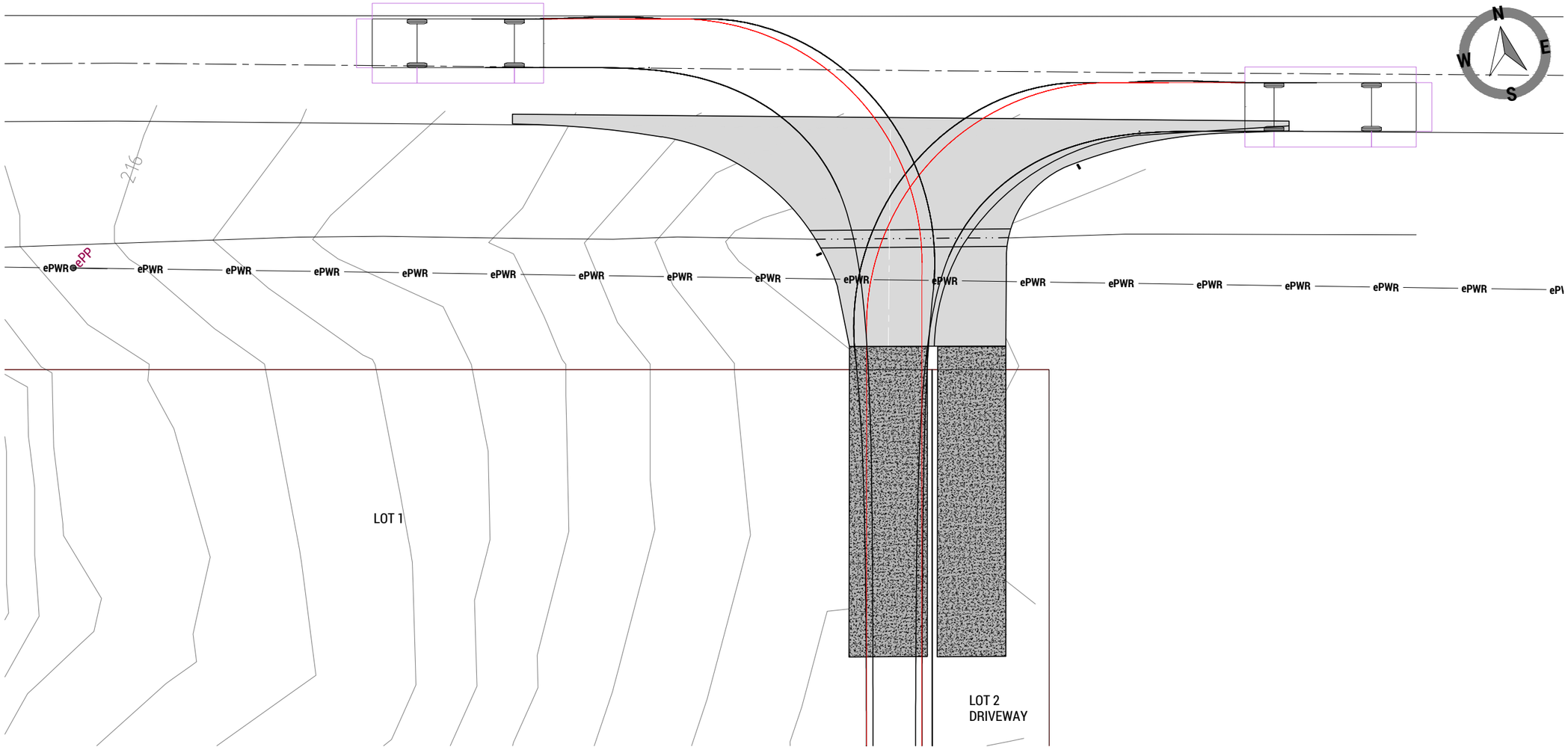
PROJECT: **17 CHURCH STREET, DRIVEWAY ACCESS**

ADDRESS: **17 CHURCH STREET, CAMPBELL TOWN**

TITLE: **TURNING PLAN**

SCALE: **1:200** SHEET SIZE: **A3** DWGs IN SET: **-**

PROJECT No: **210073** DWG No: **C421** REV: **0**



TURNING IN PLAN

SCALE 1:200

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DANGER OVERHEAD POWER LINES

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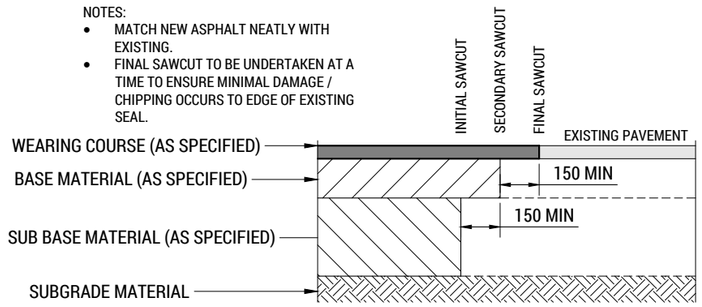
CLIENT: DPFEM
PROJECT: 17 CHURCH STREET, DRIVEWAY ACCESS
ADDRESS: 17 CHURCH STREET, CAMPBELL TOWN

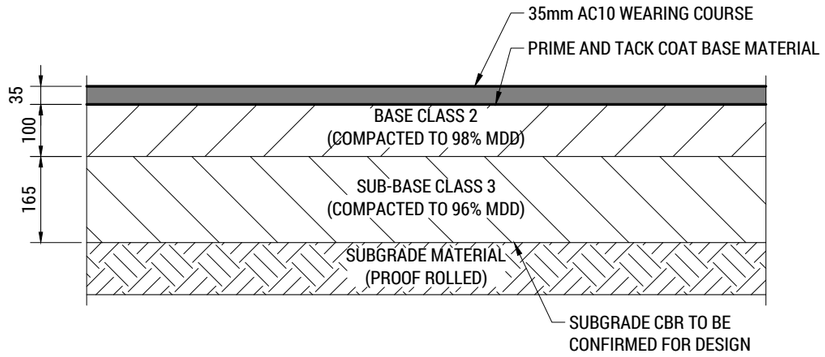
TITLE: TURNING IN PLAN
SCALE: 1:200 SHEET SIZE: A3 DWGs IN SET: -
PROJECT No: 210073 DWG No: C422 REV: 0



D01 - **NEW TO EXISTING HOT MIX TRANSITION**

SCALE 1:20

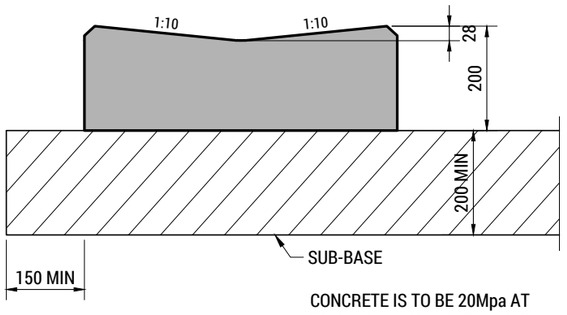
MIN CBR 4% (CONTRACTOR TO CONFIRM ONSITE)



D02 - **HOT MIX PAVEMENT - ROADWAYS - PAV-A**

SCALE 1:10

MIN CBR 4% (CONTRACTOR TO CONFIRM ONSITE)



CONCRETE IS TO BE 20Mpa AT 28 DAYS. FINISH IS TO BE PER D.S.G. SPEC SECTION 703.

D03 - **TYPE VEE DRAIN**

SCALE 1:10

REFER IPWEA STD DWG TSD-R14-v3 FOR APPROVED KERB & CHANNEL PROFILES & DIMENSIONS

REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:
0	DEVELOPMENTAL APPROVAL	KL	28-10-21

STATUS: **CONTROLLED DOCUMENT**

DO NOT SCALE - IF IN DOUBT, ASK
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APPROVED: **R.JESSON** ACRED. No: **CC5848I**

DESIGN BY: **MRP**
DESIGN CHK: **RJJ**
DRAWN BY: **MRP**
DRAFT CHK: **KL**
DATE: **28-10-21**

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CLIENT: **DPFEM**

PROJECT: **17 CHURCH STREET, DRIVEWAY ACCESS**

ADDRESS: **17 CHURCH STREET, CAMPBELL TOWN**

TITLE: **CIVIL SECTIONS & DETAILS**

SCALE: **1:10, 1:20** SHEET SIZE: **A3** DWGs IN SET: **-**

PROJECT No: **210073** DWG No: **C701** REV: **0**

Our ref: PLN21-0301

NORTHERN MIDLANDS COUNCIL

18 November 2021

Department of Police, Fire and Emergency Management
C/- All Urban Planning Pty Ltd
19 Mawhera Avenue
SANDY BAY TAS 7005
By email: frazer@allurbanplanning.com.au

Dear Mr Read

Additional Information Required for Draft Planning Scheme Amendment 04/2021
17 Church Street, Campbell Town

Thank you for your application, which has been reviewed by Council's planners.

In accordance with section 33 and 43D (former provisions) of the *Land Use Planning and Approvals Act 1993*, please provide:

- The owner's signature consenting to the making of the application on Council's application form; and
- The owner's signature on the Tasmanian Planning Commission's Form No. 1 with evidence that the President of the Midland Agricultural Association has authority in accordance with the rules of the association to sign the owner's consent form.

The following information is requested to assist in assessing the application:

- As the proposed development takes up a large portion of the block, please provide details of how the proposed building and hardstand areas will be drained. Run-off from the hardstand areas must either be contained within the property or discharged to the street - it cannot flow into a neighbouring property.
- There is significant fall across the site. Please provide levels of any proposed fill on the site.
- Advice as to whether fire training will occur on site and if so, how chemicals etc will be disposed of.

This information is requested under section 43E (former provisions) of the *Land Use Planning and Approvals Act 1993*. Please send any emails to planning@nmc.tas.gov.au including the reference **PLN21-0301**. If you have any questions, please contact me on 6397 7303, or e-mail planning@nmc.tas.gov.au.

Yours sincerely

Paul Godier
Senior Planner

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Launceston TAS 7250
P. 6388 9200
rarein.com.au

Our Ref: 210073

3rd December 2021

Paul Godier
Northern Midlands Council
PO Box 156
Longford TAS 7301

ATT: PLANNING DEPARTMENT

Dear Paul

RESPONSE TO RFI PLN21-0301, 17 CHURCH STREET, CAMPBELL TOWN

Rare Innovation have been engaged by M|Arkitecture to provide civil and structural engineering services for the development at the above address. Please refer this letter and its attachments addressing the request for information.

Attached to this letter are the following documents

A. Concept stormwater plan
B. Upper Catchment (Catchment 1) stormwater infiltration calculations
C. Lower Catchment (Catchment 2) stormwater infiltration and detention calculations
D. Concept Site Levels

Stormwater Disposal

In response to your request for further information this plan has been prepared to verify the site stormwater can be disposed of either through infiltration into the soil within the boundary lines or through disposal to the street.

The site is split into two catchments, the upper catchment that includes the buildings and the upper carpark, and the lower catchment that includes the driveways and lower carparks.

Catchment 1

The upper catchment will utilise high level stormwater pipes to ensure the roof drainage falls to the upper infiltration bed.

Site Area = 1434 m2

Impervious Area = 1200 m2

Catchment Infiltration Bed Area = 68.9 m2

Infiltration Rate = 2.39 L/s

5% AEP Storage required = 11.43 m3

Infiltration Bed Storage provided = 11.2 m3 (remainder in pipes)

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An overland flow path is provided from the infiltration bed to the street swale drain.

Catchment 2

The lower catchment falls to vee drains that protect the property boundary. These all fall to the low point on the site. This pit then feeds into a secondary infiltration bed. The lower catchment is designed for the 1% AEP storm so that this site is not allowing stormwater to overflow onto neighbouring properties.

Site Area = 1869 m2

Impervious Area = 1869 m2

Catchment Infiltration Bed Area = 60.5 m2

Infiltration Rate = 2.10 L/s

1% AEP Storage required = 99.29 m3

Infiltration Bed Storage provided = 9.83 m3

Above Ground Pond storage = 90.71 m3

The infiltration bed is protected from flooding by a flow rate restricting orifice that ensures the flow rate from the above ground pond is restricted to less than the infiltration rate of the ground. The required orifice size is 39mm diameter.

Stormwater Summary

The upper catchment is designed to infiltrate the 5% AEP storm with the 1% AEP storm overflowing to the street.

The lower catchment is designed to detain and infiltrate the 1% AEP storm so that there is not concentration of stormwater crossing into neighbouring boundaries.

The use of stormwater tanks for water reuse can be added to this concept without any complications.

Site Fill

The site required filling to address two issues.

Issue one is the stormwater disposal discussed above and issue two is to maintain safe driveways for access and a mostly level building.

Refer attachments D and E.

Should you have any further queries please do not hesitate to contact us.

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Yours faithfully,

Matthew Peart
Senior Structural Engineer // Buildings Division Manager
B.E.Hons // M.E.M // MIEAust

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CONCEPT STORMWATER CATCHMENT PLAN.
210073 - Attachment A.
STORMWATER CATCHMENT 1
STORMWATER CATCHMENT 2.
STORMWATER DETENTION / INFILTRATION BED 1.
INFILTRATION RATE = 2.3L/s
STORAGE AREA = 11.2m³
RAIN HEAD & OVER FLOW.
STORMWATER AT HIGH LEVEL.
STORMWATER AT HIGH LEVEL.
DETENTION POND STORAGE = 91m³
FLOW RESTRICTING ORIFICE Ø39mm FLOW = 2.1L/s
STORMWATER DETENTION BASIN / INFILTRATION BED 2.
INFILTRATION RATE = 2.1L/s

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Appendix A - Stormwater Infiltration and Detention Calculations - Catchment 1

Site Area	1434	m^2
Predevelopment Impervious Site Area	0	m^2
Postdevelopment Impervious Site Area	1200	m^2

Permissible Site Discharge Conditions

Rational Method

Q	L/s	Peak Flow
C		Rational Method Runoff Coefficient
I	mm/hr	Average Rainfall Invensity
A	m2	Catchment Area
F	1/3600	Conversion Factor

Q =F.C.I.A

Site Location Storm Rainfall

Time Interval		Rain Fall Intensity	
		20 Year	100 Year
		5%	1%
Minutes	Hours	mm/hr	mm/hr
5		82	111
10		62.6	87.8
20		43.8	61.4
30		34.4	47.4
60	1	22	29.2
120	2	14	17.9
180	3	10.7	13.6
360	6	6.96	8.83
720	12	4.55	5.9
1440	24	2.92	3.89
2880	48	1.79	2.41
4320	72	1.3	1.74

$^{10}I_1$ 10%, 1Hr 19.1 mm/hr

C_{10} $=0.9 \times f + C^1_{10} \times (1 - f)$ C^1_{10} $=0.1 + 0.0133 \times (^{10}I_1 - 25)$

C_{10} Lookup Table

f	25	30	35	40	45	50	55	60	65	70
0	0.1	0.1665	0.233	0.2995	0.366	0.4325	0.499	0.5655	0.632	0.6985
0.05	0.14	0.203175	0.26635	0.329525	0.3927	0.455875	0.51905	0.582225	0.6454	0.708575
0.1	0.18	0.23985	0.2997	0.35955	0.4194	0.47925	0.5391	0.59895	0.6588	0.71865
0.15	0.22	0.276525	0.33305	0.389575	0.4461	0.502625	0.55915	0.615675	0.6722	0.728725
0.2	0.26	0.3132	0.3664	0.4196	0.4728	0.526	0.5792	0.6324	0.6856	0.7388
0.25	0.3	0.349875	0.39975	0.449625	0.4995	0.549375	0.59925	0.649125	0.699	0.748875
0.3	0.34	0.38655	0.4331	0.47965	0.5262	0.57275	0.6193	0.66585	0.7124	0.75895
0.35	0.38	0.423225	0.46645	0.509675	0.5529	0.596125	0.63935	0.682575	0.7258	0.769025
0.4	0.42	0.4599	0.4998	0.5397	0.5796	0.6195	0.6594	0.6993	0.7392	0.7791
0.45	0.46	0.496575	0.53315	0.569725	0.6063	0.642875	0.67945	0.716025	0.7526	0.789175
0.5	0.5	0.53325	0.5665	0.59975	0.633	0.66625	0.6995	0.73275	0.766	0.79925
0.55	0.54	0.569925	0.59985	0.629775	0.6597	0.689625	0.71955	0.749475	0.7794	0.809325
0.6	0.58	0.6066	0.6332	0.6598	0.6864	0.713	0.7396	0.7662	0.7928	0.8194
0.65	0.62	0.643275	0.66655	0.689825	0.7131	0.736375	0.75965	0.782925	0.8062	0.829475
0.7	0.66	0.67995	0.6999	0.71985	0.7398	0.75975	0.7797	0.79965	0.8196	0.83955
0.75	0.7	0.716625	0.73325	0.749875	0.7665	0.783125	0.79975	0.816375	0.833	0.849625
0.8	0.74	0.7533	0.7666	0.7799	0.7932	0.8065	0.8198	0.8331	0.8464	0.8597
0.85	0.78	0.789975	0.79995	0.809925	0.8199	0.829875	0.83985	0.849825	0.8598	0.869775
0.9	0.82	0.82665	0.8333	0.83995	0.8466	0.85325	0.8599	0.86655	0.8732	0.87985
0.95	0.86	0.863325	0.86665	0.869975	0.8733	0.876625	0.87995	0.883275	0.8866	0.889925
1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

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Percentage Impervious
f 0.84
$^{10}I_1$ 25 mm/hr
C10 0.74

ARI	% AEP	Freq.Factor	C_x
1	0.632	63.2	0.8	0.592
2	0.393	39.3	0.85	0.629
5	0.181	18.1	0.95	0.703
10	0.095	9.5	1	0.74
20	0.049	4.9	1.05	0.777
50	0.02	2	1.15	0.851
100	0.01	1	1.2	0.888

Site Infiltration Conditions

Permeability	p	3	m/day
		0.000035	m/s
Infiltration Area	A	68.9	m^2
Infiltration Flow	Q	0.00239	m^3/s
		2.39	L/s

Catchment Discharge (Q, L/s)

Q=	C.I.A/3600			
C_{20}	0.777			Figure 1.13 from AR&R Book 8, 2001
I	82	mm/hr		From Bureau of Meteorology
A	1434	m^2		
Q_{10}	25.38	L/s		
∴	Catchment Discharge =		**25.4**	L/s

Catchment Discharge (Q, L/s)

Q=	C.I.A/3600			
C_{100}	0.888			Figure 1.13 from AR&R Book 8, 2001
I	111	mm/hr		From Bureau of Meteorology
A	1434	m^2		
Q_{100}	39.26	L/s		
∴	Catchment Discharge =		**39.3**	L/s

Design Flow

Design Storm for Detention		1:20 ARI or 5% AEP	
Design Flow	Q	**25.4**	L/s

Runoff Coefficient for Developed Site

C_{20} 0.777
C_{100} 0.888

Time Interval		Rain Fall Intensity		Permissible Discharge		Site Volume		Required Storage	
		20 Year	100 Year	20 Year	100 Year	20 Year	100 Year	20 Year	100 Year
Minutes	Hours	mm/hr	mm/hr	m	m	m	m	m	m
5		93.1	188	0.72	0.72	8.64	19.95	7.93	19.23
6		86.8	174	0.86	0.86	9.67	22.16	8.81	21.30
10		69.3	135	1.44	1.44	12.87	28.65	11.43	27.22
20		38.3	89.6	2.87	2.87	14.22	38.03	11.35	35.16
30		25.1	69	4.31	4.31	13.98	43.93	9.68	39.63
60	1	16.1	43.1	8.61	8.61	17.94	54.88	9.33	46.27
120	2	12.4	26.7	17.23	17.23	27.63	68.00	10.41	50.77
180	3	7.91	20.1	25.84	25.84	26.44	76.79	0.60	50.95
360	6	5.06	12.5	51.68	51.68	33.83	95.50	-17.85	43.83
720	12	3.2	7.75	103.35	103.35	42.79	118.43	-60.56	15.08
1440	24	1.97	4.8	206.70	206.70	52.68	146.69	-154.02	-60.01
2880	48	1.44	2.89	413.40	413.40	77.01	176.64	-336.39	-236.76
4320	72	1.32	2.09	620.10	620.10	105.90	191.62	-514.20	-428.48
								Max. Volumes	
							m^3	**11.43**	**50.95**

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Gravel Depth	D	0.65	m			
Gravel Porosity	p	0.25				
Bed Storage Available	V	11.19625	m^3	11.19625	11.43	-0.24

For storm events greater than the 5% AEP the stormwater will overflow to the street.

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Appendix B - Stormwater Infiltration and Detention Calculations - Catchment 2

Site Area	1869	m^2
Predevelopment Impervious Site Area	0	m^2
Postdevelopment Impervious Site Area	1869	m^2

Permissible Site Discharge Conditions

Rational Method

Q	L/s	Peak Flow
C		Rational Method Runoff Coefficient
I	mm/hr	Average Rainfall Invensity
A	m2	Catchment Area
F	1/3600	Conversion Factor

Q =F.C.I.A

Site Location Storm Rainfall

Time Interval		Rain Fall Intensity	
		20 Year	100 Year
		5%	1%
Minutes	Hours	mm/hr	mm/hr
5		82	111
10		62.6	87.8
20		43.8	61.4
30		34.4	47.4
60	1	22	29.2
120	2	14	17.9
180	3	10.7	13.6
360	6	6.96	8.83
720	12	4.55	5.9
1440	24	2.92	3.89
2880	48	1.79	2.41
4320	72	1.3	1.74

$^{10}I_1$ 10%, 1Hr 19.1 mm/hr

C_{10} $=0.9 \times f + C^1_{10} \times (1 - f)$ C^1_{10} $=0.1 + 0.0133 \times (^{10}I_1 - 25)$

C_{10} Lookup Table

f	25	30	35	40	45	50	55	60	65	70
0	0.1	0.1665	0.233	0.2995	0.366	0.4325	0.499	0.5655	0.632	0.6985
0.05	0.14	0.203175	0.26635	0.329525	0.3927	0.455875	0.51905	0.582225	0.6454	0.708575
0.1	0.18	0.23985	0.2997	0.35955	0.4194	0.47925	0.5391	0.59895	0.6588	0.71865
0.15	0.22	0.276525	0.33305	0.389575	0.4461	0.502625	0.55915	0.615675	0.6722	0.728725
0.2	0.26	0.3132	0.3664	0.4196	0.4728	0.526	0.5792	0.6324	0.6856	0.7388
0.25	0.3	0.349875	0.39975	0.449625	0.4995	0.549375	0.59925	0.649125	0.699	0.748875
0.3	0.34	0.38655	0.4331	0.47965	0.5262	0.57275	0.6193	0.66585	0.7124	0.75895
0.35	0.38	0.423225	0.46645	0.509675	0.5529	0.596125	0.63935	0.682575	0.7258	0.769025
0.4	0.42	0.4599	0.4998	0.5397	0.5796	0.6195	0.6594	0.6993	0.7392	0.7791
0.45	0.46	0.496575	0.53315	0.569725	0.6063	0.642875	0.67945	0.716025	0.7526	0.789175
0.5	0.5	0.53325	0.5665	0.59975	0.633	0.66625	0.6995	0.73275	0.766	0.79925
0.55	0.54	0.569925	0.59985	0.629775	0.6597	0.689625	0.71955	0.749475	0.7794	0.809325
0.6	0.58	0.6066	0.6332	0.6598	0.6864	0.713	0.7396	0.7662	0.7928	0.8194
0.65	0.62	0.643275	0.66655	0.689825	0.7131	0.736375	0.75965	0.782925	0.8062	0.829475
0.7	0.66	0.67995	0.6999	0.71985	0.7398	0.75975	0.7797	0.79965	0.8196	0.83955
0.75	0.7	0.716625	0.73325	0.749875	0.7665	0.783125	0.79975	0.816375	0.833	0.849625
0.8	0.74	0.7533	0.7666	0.7799	0.7932	0.8065	0.8198	0.8331	0.8464	0.8597
0.85	0.78	0.789975	0.79995	0.809925	0.8199	0.829875	0.83985	0.849825	0.8598	0.869775
0.9	0.82	0.82665	0.8333	0.83995	0.8466	0.85325	0.8599	0.86655	0.8732	0.87985
0.95	0.86	0.863325	0.86665	0.869975	0.8733	0.876625	0.87995	0.883275	0.8866	0.889925
1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

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Percentage Impervious
f 1.00
$^{10}I_1$ 25 mm/hr
C10 0.86

ARI	% AEP	Freq.Factor	C_x
1	0.632	63.2	0.8	0.688
2	0.393	39.3	0.85	0.731
5	0.181	18.1	0.95	0.817
10	0.095	9.5	1	0.86
20	0.049	4.9	1.05	0.903
50	0.02	2	1.15	0.989
100	0.01	1	1.2	1.032

Site Infiltration Conditions

Permeability p 3 m/day
0.000035 m/s

Infiltration Area A 60.5 m^2
Infiltration Flow Q 0.00210 m^3/s
2.10 L/s

Catchment Discharge (Q, L/s)
Q= C.I.A/3600
C_{20} 0.903 Figure 1.13 from AR&R Book 8, 2001
I 82 mm/hr From Bureau of Meteorology
A 1869 m^2
Q_{10} 38.44 L/s
∴ Catchment Discharge = **38.4** L/s

Catchment Discharge (Q, L/s)
Q= C.I.A/3600
C_{100} 1.032 Figure 1.13 from AR&R Book 8, 2001
I 111 mm/hr From Bureau of Meteorology
A 1869 m^2
Q_{100} 59.47 L/s
∴ Catchment Discharge = **59.5** L/s

Design Flow

Design Storm for Detention 1:100 ARI or 1% AEP
Design Flow Q **59.5** L/s

Runoff Coefficient for Developed Site

C_{20} 0.903
C_{100} 1.032

Time Interval		Rain Fall Intensity		Permissible Discharge		Site Volume		Required Storage	
		20 Year	100 Year	20 Year	100 Year	20 Year	100 Year	20 Year	100 Year
Minutes	Hours	mm/hr	mm/hr	m	m	m	m	m	m
5		93.1	188	0.63	0.63	13.09	30.22	12.46	29.59
6		86.8	174	0.76	0.76	14.65	33.56	13.89	32.81
10		69.3	135	1.26	1.26	19.49	43.40	18.23	42.14
20		38.3	89.6	2.52	2.52	21.55	57.61	19.03	55.09
30		25.1	69	3.78	3.78	21.18	66.54	17.40	62.76
60	1	16.1	43.1	7.56	7.56	27.17	83.13	19.61	75.57
120	2	12.4	26.7	15.13	15.13	41.86	103.00	26.73	87.87
180	3	7.91	20.1	22.69	22.69	40.05	116.31	17.36	93.62
360	6	5.06	12.5	45.38	45.38	51.24	144.66	5.86	99.29
720	12	3.2	7.75	90.75	90.75	64.81	179.38	-25.94	88.63
1440	24	1.97	4.8	181.50	181.50	79.79	222.20	-101.71	40.70
2880	48	1.44	2.89	363.00	363.00	116.65	267.56	-246.35	-95.44
4320	72	1.32	2.09	544.50	544.50	160.40	290.25	-384.10	-254.25
								Max. Volumes	
							m^3	**26.73**	**99.29**

Gravel Depth D 0.65 m

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Gravel Porosity	p	0.25					
Bed Storage Available	V	9.83125	m^3		9.83125	99.29	-89.45

As an overland flow path can not be provided the design will allow for the 100 year stormevent to be detained and infriltated into the ground.

Discharge Bed has a storage capacity of 9.83 m^3

Additional required storage is 89.45 m^3

Discharge Orifice Size

Permissible Discharge Flow Rates = Soil Infiltration Rate

Q_{100} 2.10 L/s 0.002 m^3/s

Depth of storage for 100 year rainfall event

h= 0.45 m (depth of ponded water + depth to centre of the orifice)

Flow through an orifice

Q= k.A.V

k= Shape factor 0.62

A= Area of the orifice

V= Flow velocity

Velocity

V= √2.g.h

g= gravity (9.81m/s^2)

h= pressure head

∴ V= 3.0 m/s

Required area of the orifice for 100 year rainfall event discharge

A= Q/(k.V)

∴ A= 0.0011

1140 mm^2

Diametre of the orifice

A= $\pi D^2/4$

D= √(4.A/π)

∴ D= 39 mm

Detention Storage Calculation

Considering pond from pit to bottom of the kerb as a Frustum

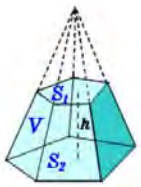
Area 1

Pit Dimensions

a = 0.45 m

b = 0.45 m

Area S1 = 0.2025 m^2



Pond Area

Area S2 = 280 m^2

Depth of Pond

h = 0.07 m

Volume of Pond

V1 = 6.713757 m^3

Considering the pond area above the kerb as a prism

Area 2

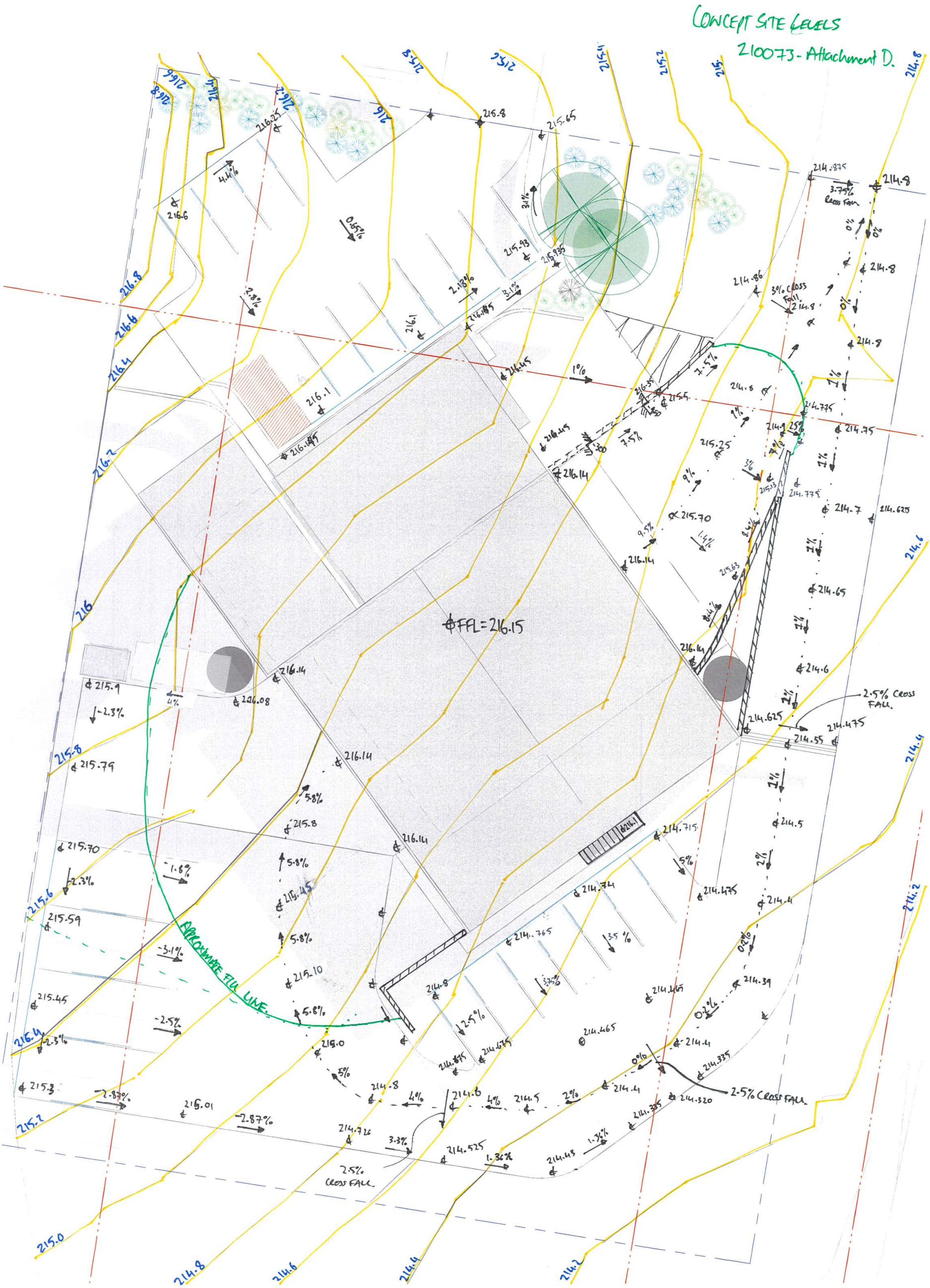
Pond Area = 280 m^2

Pond Depth = 0.3 m

Pond Volume = 84 m^3

Total Above Ground Storage

V = 90.71 m3


CONCEPT SITE LEVELS
210073 - Attachment D.
FFL=216.15
APPROXIMATE FIU LINE.
2.5% CROSS FALL.
1:200.

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Our Ref: 210073

18th February 2022

Paul Godier
Northern Midlands Council
PO Box 156
Longford TAS 7301

ATT: PLANNING DEPARTMENT

Dear Paul

RESPONSE TO RFI PLN21-0301, 17 CHURCH STREET, CAMPBELL TOWN

Rare Innovation have been engaged by M|Arkitecture to provide civil and structural engineering services for the development at the above address. Please refer this letter and its attachments addressing the request for information.

Attached to this letter are the following documents

A. Concept stormwater plan
B. Upper Catchment (Catchment 1) stormwater infiltration calculations
C. Lower Catchment (Catchment 2) stormwater infiltration and detention calculations
D. Concept Site Levels

Planning Permit PLN-21-0138 states the stormwater disposal requirements as per the below.

2.2 Stormwater absorption drain – Lot 1
The owner of Lot 1 must enter in to, and comply with, all conditions of an agreement under Part 5 of the Land Use Planning and Approvals Act 1993 to provide for the following:

a. A stormwater absorption drain must be constructed prior to any building works on Lot 1.
b. The absorption drain must be designed by a certified hydraulic engineer to cater for all hardstand areas that cannot be drained to Church Street.
c. Plans and calculations from a certified hydraulic engineer must be submitted to the General Manager for assessment.
d. Construction of the drain must not commence until the plans are approved.
e. The drain shall be sized taking into account the saturated permeability of the soil.
f. The drain shall be sized with sufficient storage capacity to dispose of the full range of 5% AEP storms, with an additional safety factor volume 50% above the calculated need. Absorption drain calculations shall be undertaken in accordance with the procedures detailed in Water Sensitive Urban Design – Engineering Procedures for Stormwater Management in Tasmania (Derwent Estuary Program, 2012).
g. The drain shall be located to command the stormwater discharge from all areas of the site.
h. The drain shall be installed along the contour at a minimum of 6.0 metres clear of boundaries down slope of any structures.
i. The installation shall be located to ensure there is no concentrated discharge from any structures.
j. A system operation / maintenance manual is to be provided and approved by the Engineering Services Manager.
k. The system shall be marked on an "As Constructed" plan to Council requirements with the

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plan provided to Council.

l. The system is to be installed prior to site occupancy, operated and maintained by the owner in conformity with the manufacturer or design engineer's instruction manual and any additional conditions as required by Council. Any nuisance / concentrated discharge from the facility shall be rectified by the owner to Council's requirements and at the owner's expense within 14 days' notice of the nuisance.

Stormwater Disposal – Planning Permit Compliance

a. A stormwater absorption drain is part of this development and will be in place prior to the construction of the impervious areas.
b. The design will be certified by a company director.
c. Sketch plans and detailed calculations are attached. Detailed plans will be submitted as part of the Building Approval documents
d. The construction of the drain will not commence until the plans are approved.
e. The drain has taken into account the saturation permeability of the soil. This is certified by Geoton, report GL21409Ab.
f. The drainage design has in fact got a factor of safety of 50% of the 5% AEP storm for the absorption bed that can overflow to the street. The drainage design has a factor of safety 50% on absorption storage for the bed that can not flow over the street.
g. All the stormwater will be captured by the system.
h. The drainage is not possible to be located 6m from the boundary. As such a tech dry retaining wall and onsite detention pond has need installed to ensure no flow will cross the property boundary.
i. No concentrated discharge from any structure will be achieved.
j. A manual can be provided
k. The plumber will submit "As Constructed" plans
l. The property owner will operate, maintain and repair the system.

Stormwater Disposal Design

In response to your request for further information this letter has been prepared to verify the site stormwater can be disposed of either through infiltration into the soil within the boundary lines or through disposal to the street.

The site is split into two catchments, the upper catchment that includes the buildings and the upper carpark, and the lower catchment that includes the driveways and lower carparks.

Catchment 1

The upper catchment will utilise high level stormwater pipes to ensure the roof drainage falls to the upper infiltration bed.

Site Area = 1434 m2

Impervious Area = 1200 m2

Catchment Infiltration Bed Area = 75 m2

Infiltration Rate = 2.60 L/s

5% AEP Storage required = 9.65 m3

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5% AEP Storage with 50% FoS = 14.48 m3

Infiltration Bed Storage provided = 15 m3

An overland flow path is provided from the infiltration bed to the street swale drain. This will ensure any flows greater than 5% AEP will not flow on to a neighbouring property.

Catchment 2

The lower catchment falls to vee drains that protect the property boundary. These all fall to the low point on the site. This pit then feeds into a secondary infiltration bed. The lower catchment is designed for the 1% AEP storm so that this site is not allowing stormwater to overflow onto neighbouring properties.

Site Area = 1869 m2

Impervious Area = 1869 m2

Catchment Infiltration Bed Area = 60.5 m2

Infiltration Rate = 2.10 L/s

1% AEP Storage required = 37.34 m3

1% AEP Storage with 50% FoS = 56.01 m3

Infiltration Bed Storage provided = 12.1 m3

Above Ground Pond storage provided = 45.4 m3

Total storage provided = 57.5 m3

The infiltration bed is protected from flooding by a flow rate restricting orifice that ensures the flow rate from the above ground pond is restricted to less than the infiltration rate of the ground. The required orifice size is 39mm diameter.

Stormwater Summary

The upper catchment is designed to infiltrate the 5% AEP storm with the 1% AEP storm overflowing to the street.

The lower catchment is designed to detain and infiltrate the 1% AEP storm so that there is not concentration of stormwater crossing into neighbouring boundaries.

The only condition of the planning permit that can not be achieved is point h. above. This has been mitigated by the design of a Tech Dry blockwork wall that will provide a bund against the property boundaries and any nuisance flows.

The use of stormwater tanks for water reuse can be added to this concept without any complications.

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Site Fill

The site required filling to address two issues.

Issue one is the stormwater disposal discussed above and issue two is to maintain safe driveways for access and a mostly level building.

Refer attachments D and E.

Should you have any further queries please do not hesitate to contact us.

Yours faithfully,

Matthew Peart
Senior Structural Engineer // Buildings Division Manager
B.E.Hons // M.E.M // MIEAust

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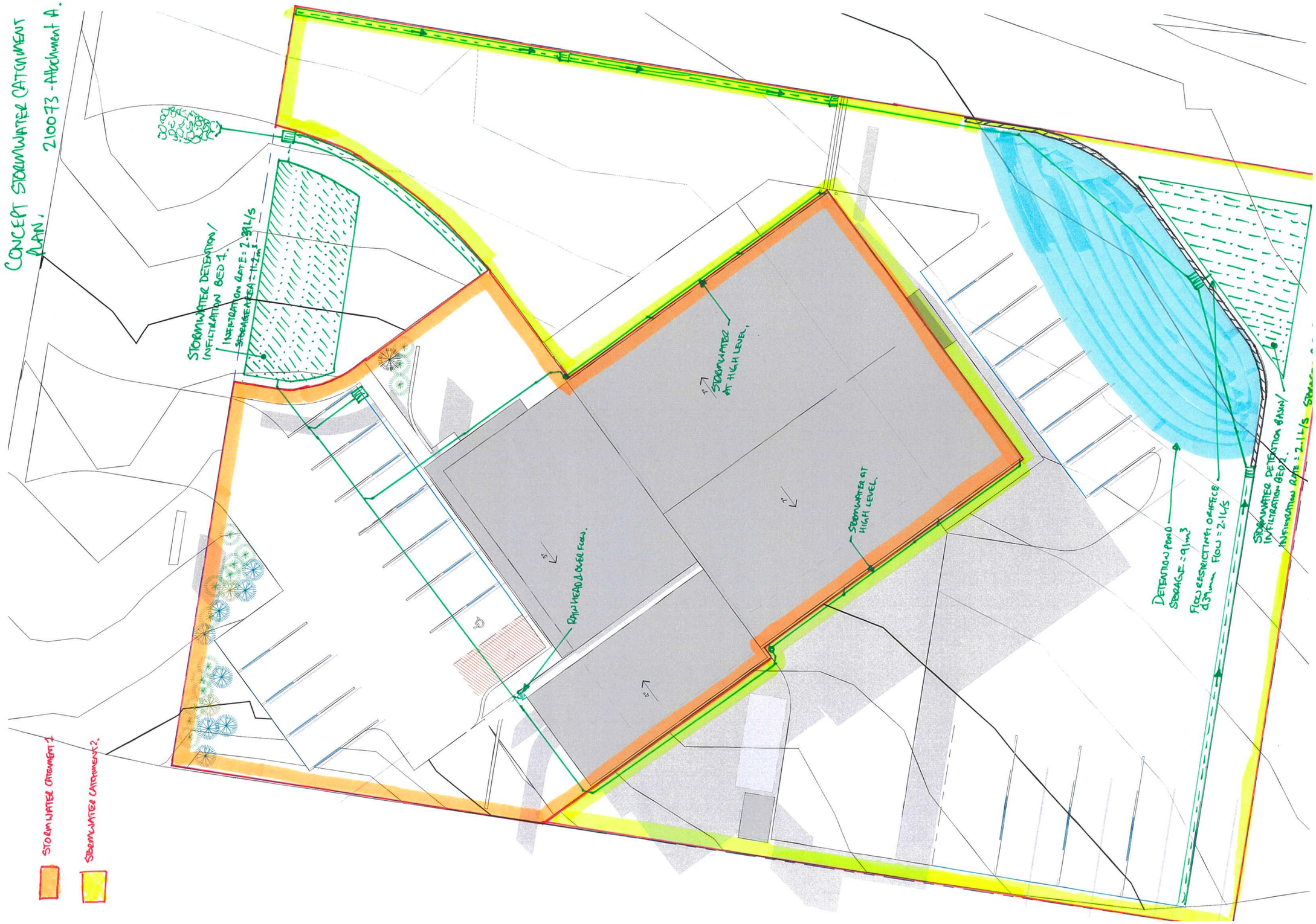
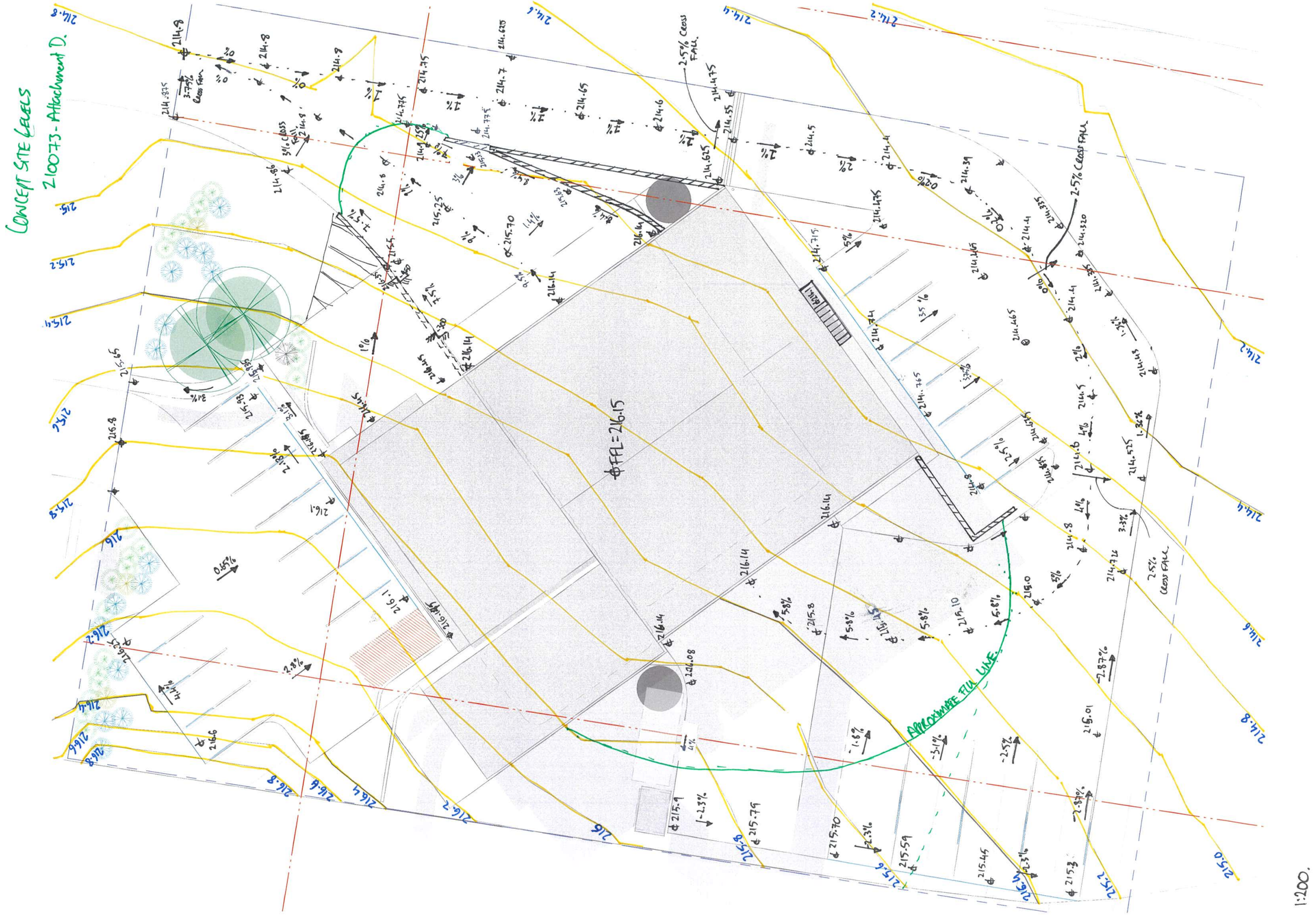

CONCEPT STORMWATER CATCHMENT PLAN.
210073 - Attachment A.
STORMWATER DETENTION/ INFILTRATION BED 1.
INFILTRATION RATE: 2.3L/s
STORAGE AREA = 11.2m3
STORMWATER AT HIGH LEVEL.
RAINHEAD DOWN PIPE FLOW.
STORMWATER AT HIGH LEVEL
DETENTION POND STORAGE = 91m3
FLOW RESTRICTION ORIFICE 63mm FLOW = 2.1L/s
STORMWATER DETENTION BASIN/ INFILTRATION BED 2. INFILTRATION RATE = 2.1L/s
STORMWATER CATCHMENT 1
STORMWATER CATCHMENT 2.


CONCEPT SITE LEVELS
210073 - Attachment D.
ΦFFL=214.15
APPROXIMATE FLU LINE
1:200.

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Appendix A - Stormwater Infiltration and Detention Calculations - Catchment 1

NOTE: Revised cells highlighted

Site Area	1434	m^2
Predevelopment Impervious Site Area	0	m^2
Postdevelopment Impervious Site Area	1200	m^2

Permissible Site Discharge Conditions

Rational Method

Q	L/s	Peak Flow
C		Rational Method Runoff Coefficient
I	mm/hr	Average Rainfall Invensity
A	m2	Catchment Area
F	1/3600	Conversion Factor

Q =F.C.I.A

Site Location Storm Rainfall

Time Interval		Rain Fall Intensity	
		20 Year	100 Year
		5%	1%
Minutes	Hours	mm/hr	mm/hr
5		82	111
10		62.6	87.8
20		43.8	61.4
30		34.4	47.4
60	1	22	29.2
120	2	14	17.9
180	3	10.7	13.6
360	6	6.96	8.83
720	12	4.55	5.9
1440	24	2.92	3.89
2880	48	1.79	2.41
4320	72	1.3	1.74

$^{10}I_1$ 10%, 1Hr 19.1 mm/hr

C_{10} $=0.9 \times f + C^1_{10} \times (1 - f)$ C^1_{10} $=0.1 + 0.0133 \times (^{10}/_1 - 25)$

C_{10} Lookup Table

f	25	30	35	40	45	50	55	60	65	70
0	0.1	0.1665	0.233	0.2995	0.366	0.4325	0.499	0.5655	0.632	0.6985
0.05	0.14	0.203175	0.26635	0.329525	0.3927	0.455875	0.51905	0.582225	0.6454	0.708575
0.1	0.18	0.23985	0.2997	0.35955	0.4194	0.47925	0.5391	0.59895	0.6588	0.71865
0.15	0.22	0.276525	0.33305	0.389575	0.4461	0.502625	0.55915	0.615675	0.6722	0.728725
0.2	0.26	0.3132	0.3664	0.4196	0.4728	0.526	0.5792	0.6324	0.6856	0.7388
0.25	0.3	0.349875	0.39975	0.449625	0.4995	0.549375	0.59925	0.649125	0.699	0.748875
0.3	0.34	0.38655	0.4331	0.47965	0.5262	0.57275	0.6193	0.66585	0.7124	0.75895
0.35	0.38	0.423225	0.46645	0.509675	0.5529	0.596125	0.63935	0.682575	0.7258	0.769025
0.4	0.42	0.4599	0.4998	0.5397	0.5796	0.6195	0.6594	0.6993	0.7392	0.7791
0.45	0.46	0.496575	0.53315	0.569725	0.6063	0.642875	0.67945	0.716025	0.7526	0.789175
0.5	0.5	0.53325	0.5665	0.59975	0.633	0.66625	0.6995	0.73275	0.766	0.79925
0.55	0.54	0.569925	0.59985	0.629775	0.6597	0.689625	0.71955	0.749475	0.7794	0.809325
0.6	0.58	0.6066	0.6332	0.6598	0.6864	0.713	0.7396	0.7662	0.7928	0.8194
0.65	0.62	0.643275	0.66655	0.689825	0.7131	0.736375	0.75965	0.782925	0.8062	0.829475
0.7	0.66	0.67995	0.6999	0.71985	0.7398	0.75975	0.7797	0.79965	0.8196	0.83955
0.75	0.7	0.716625	0.73325	0.749875	0.7665	0.783125	0.79975	0.816375	0.833	0.849625
0.8	0.74	0.7533	0.7666	0.7799	0.7932	0.8065	0.8198	0.8331	0.8464	0.8597
0.85	0.78	0.789975	0.79995	0.809925	0.8199	0.829875	0.83985	0.849825	0.8598	0.869775
0.9	0.82	0.82665	0.8333	0.83995	0.8466	0.85325	0.8599	0.86655	0.8732	0.87985
0.95	0.86	0.863325	0.86665	0.869975	0.8733	0.876625	0.87995	0.883275	0.8866	0.889925
1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

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Percentage Impervious
f 0.84
$^{10}I_1$ 25 mm/hr
C10 0.74

ARI	% AEP	Freq.Factor	C_x
1	0.632	63.2	0.8	0.592
2	0.393	39.3	0.85	0.629
5	0.181	18.1	0.95	0.703
10	0.095	9.5	1	0.74
20	0.049	4.9	1.05	0.777
50	0.02	2	1.15	0.851
100	0.01	1	1.2	0.888

Site Infiltration Conditions

Permeability	p	3	m/day
		0.000035	m/s
Infiltration Area	A	75	m^2
Infiltration Flow	Q	0.00260	m^3/s
		2.60	L/s

Catchment Discharge (Q, L/s)

Q=	C.I.A/3600			
C_{20}	0.777			Figure 1.13 from AR&R Book 8, 2001
I	82	mm/hr		From Bureau of Meteorology
A	1434	m^2		
Q_{10}	25.38	L/s		
∴	Catchment Discharge =		**25.4**	L/s

Catchment Discharge (Q, L/s)

Q=	C.I.A/3600			
C_{100}	0.888			Figure 1.13 from AR&R Book 8, 2001
I	111	mm/hr		From Bureau of Meteorology
A	1434	m^2		
Q_{100}	39.26	L/s		
∴	Catchment Discharge =		**39.3**	L/s

Design Flow

Design Storm for Detention		1:20 ARI or 5% AEP	
Design Flow	Q	**25.4**	L/s

Runoff Coefficient for Developed Site

C_{20}	0.777
C_{100}	0.888

Time Interval		Rain Fall Intensity		Permissible Discharge		Site Volume		Required Storage	
		20 Year	100 Year	20 Year	100 Year	20 Year	100 Year	20 Year	100 Year
Minutes	Hours	mm/hr	mm/hr	m^3	m^3	m^3	m^3	m^3	m^3
5		82	111	0.78	0.78	7.61	11.78	6.83	11.00
6		62.6	87.8	0.94	0.94	6.98	11.18	6.04	10.24
10		43.8	61.4	1.56	1.56	8.13	13.03	6.57	11.47
20		34.4	47.4	3.13	3.13	12.78	20.12	9.65	16.99
30		22	29.2	4.69	4.69	12.26	18.59	7.57	13.90
60	1	14	17.9	9.38	9.38	15.60	22.79	6.22	13.42
120	2	10.7	13.6	18.75	18.75	23.84	34.64	5.09	15.89
180	3	6.96	8.83	28.13	28.13	23.26	33.73	-4.86	5.61
360	6	4.55	5.9	56.25	56.25	30.42	45.08	-25.83	-11.17
720	12	2.92	3.89	112.50	112.50	39.04	59.44	-73.46	-53.06
1440	24	1.79	2.41	225.00	225.00	47.87	73.65	-177.13	-151.35
2880	48	1.3	1.74	450.00	450.00	69.53	106.35	-380.47	-343.65
4320	72	0	0	675.00	675.00	0.00	0.00	-675.00	-675.00
								Max. Volumes	
							m^3	**9.65**	**16.99**
							+ 50% FoS	**14.48**	**25.49**

Where

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Permissible Discharge	$Q_{dis} = T \times Q_{inf}$ T = Time in seconds Q_{inf} = Infiltration flow in m/s
Site Volume	$V_{site} = ((C \times I \times A)/3600) \times T$ C = Run off coefficient I = rainfall intensity A = site area T = Time in seconds
Required Storage	$V_{store} = Q_{dis} - V_{site}$

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Gravel Depth	D	0.8	m
Gravel Porosity	p	0.25	
Bed Storage Available	V	15	m^3

For storm events greater than the 5% AEP the stormwater will overflow to the street.

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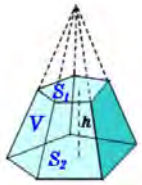

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Appendix B - Stormwater Infiltration and Detention Calculations - Catchment 2

NOTE: Revised cells highlighted

Site Area	1869	m^2
Predevelopment Impervious Site Area	0	m^2
Postdevelopment Impervious Site Area	1869	m^2

Permissible Site Discharge Conditions

Rational Method

Q	L/s	Peak Flow
C		Rational Method Runoff Coefficient
I	mm/hr	Average Rainfall Invensity
A	m2	Catchment Area
F	1/3600	Conversion Factor

Q =F.C.I.A

Site Location Storm Rainfall

Time Interval		Rain Fall Intensity	
		20 Year	100 Year
		5%	1%
Minutes	Hours	mm/hr	mm/hr
5		82	111
10		62.6	87.8
20		43.8	61.4
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60	1	22	29.2
120	2	14	17.9
180	3	10.7	13.6
360	6	6.96	8.83
720	12	4.55	5.9
1440	24	2.92	3.89
2880	48	1.79	2.41
4320	72	1.3	1.74

$^{10}I_1$ 10%, 1Hr 19.1 mm/hr

C_{10} $=0.9 \times f + C^1_{10} \times (1 - f)$ C^1_{10} $=0.1 + 0.0133 \times (^{10}I_1 - 25)$

C_{10} Lookup Table

f	25	30	35	40	45	50	55	60	65	70
0	0.1	0.1665	0.233	0.2995	0.366	0.4325	0.499	0.5655	0.632	0.6985
0.05	0.14	0.203175	0.26635	0.329525	0.3927	0.455875	0.51905	0.582225	0.6454	0.708575
0.1	0.18	0.23985	0.2997	0.35955	0.4194	0.47925	0.5391	0.59895	0.6588	0.71865
0.15	0.22	0.276525	0.33305	0.389575	0.4461	0.502625	0.55915	0.615675	0.6722	0.728725
0.2	0.26	0.3132	0.3664	0.4196	0.4728	0.526	0.5792	0.6324	0.6856	0.7388
0.25	0.3	0.349875	0.39975	0.449625	0.4995	0.549375	0.59925	0.649125	0.699	0.748875
0.3	0.34	0.38655	0.4331	0.47965	0.5262	0.57275	0.6193	0.66585	0.7124	0.75895
0.35	0.38	0.423225	0.46645	0.509675	0.5529	0.596125	0.63935	0.682575	0.7258	0.769025
0.4	0.42	0.4599	0.4998	0.5397	0.5796	0.6195	0.6594	0.6993	0.7392	0.7791
0.45	0.46	0.496575	0.53315	0.569725	0.6063	0.642875	0.67945	0.716025	0.7526	0.789175
0.5	0.5	0.53325	0.5665	0.59975	0.633	0.66625	0.6995	0.73275	0.766	0.79925
0.55	0.54	0.569925	0.59985	0.629775	0.6597	0.689625	0.71955	0.749475	0.7794	0.809325
0.6	0.58	0.6066	0.6332	0.6598	0.6864	0.713	0.7396	0.7662	0.7928	0.8194
0.65	0.62	0.643275	0.66655	0.689825	0.7131	0.736375	0.75965	0.782925	0.8062	0.829475
0.7	0.66	0.67995	0.6999	0.71985	0.7398	0.75975	0.7797	0.79965	0.8196	0.83955
0.75	0.7	0.716625	0.73325	0.749875	0.7665	0.783125	0.79975	0.816375	0.833	0.849625
0.8	0.74	0.7533	0.7666	0.7799	0.7932	0.8065	0.8198	0.8331	0.8464	0.8597
0.85	0.78	0.789975	0.79995	0.809925	0.8199	0.829875	0.83985	0.849825	0.8598	0.869775
0.9	0.82	0.82665	0.8333	0.83995	0.8466	0.85325	0.8599	0.86655	0.8732	0.87985
0.95	0.86	0.863325	0.86665	0.869975	0.8733	0.876625	0.87995	0.883275	0.8866	0.889925
1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

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Percentage Impervious
f 1.00
$^{10}I_1$ 25 mm/hr
C10 0.86

ARI	% AEP	Freq.Factor	C_x
1	0.632	63.2	0.8	0.688
2	0.393	39.3	0.85	0.731
5	0.181	18.1	0.95	0.817
10	0.095	9.5	1	0.86
20	0.049	4.9	1.05	0.903
50	0.02	2	1.15	0.989
100	0.01	1	1.2	1.032

Site Infiltration Conditions

Permeability	p	3	m/day
		0.000035	m/s
Infiltration Area	A	60.5	m^2
Infiltration Flow	Q	0.00210	m^3/s
		2.10	L/s

Catchment Discharge (Q, L/s)

Q=	C.I.A/3600			
C_{20}	0.903			Figure 1.13 from AR&R Book 8, 2001
I	82	mm/hr		From Bureau of Meteorology
A	1869	m^2		
Q_{10}	38.44	L/s		
∴	Catchment Discharge =		**38.4**	L/s

Catchment Discharge (Q, L/s)

Q=	C.I.A/3600			
C_{100}	1.032			Figure 1.13 from AR&R Book 8, 2001
I	111	mm/hr		From Bureau of Meteorology
A	1869	m^2		
Q_{100}	59.47	L/s		
∴	Catchment Discharge =		**59.5**	L/s

Design Flow

Design Storm for Detention		1:100 ARI or 1% AEP	
Design Flow	Q	**59.5**	L/s

Runoff Coefficient for Developed Site

C_{20} 0.903
C_{100} 1.032

Time Interval		Rain Fall Intensity		Permissible Discharge		Site Volume		Required Storage	
		20 Year	100 Year	20 Year	100 Year	20 Year	100 Year	20 Year	100 Year
Minutes	Hours	mm/hr	mm/hr	m^3	m^3	m^3	m^3	m^3	m^3
5		82	111	0.63	0.63	11.53	17.84	10.90	17.21
6		62.6	87.8	0.76	0.76	10.57	16.93	9.81	16.18
10		43.8	61.4	1.26	1.26	12.32	19.74	11.06	18.48
20		34.4	47.4	2.52	2.52	19.35	30.48	16.83	27.95
30		22	29.2	3.78	3.78	18.56	28.16	14.78	24.38
60	1	14	17.9	7.56	7.56	23.63	34.53	16.07	26.96
120	2	10.7	13.6	15.13	15.13	36.12	52.46	20.99	37.34
180	3	6.96	8.83	22.69	22.69	35.24	51.09	12.55	28.41
360	6	4.55	5.9	45.38	45.38	46.07	68.28	0.70	22.90
720	12	2.92	3.89	90.75	90.75	59.14	90.04	-31.61	-0.71
1440	24	1.79	2.41	181.50	181.50	72.50	111.56	-109.00	-69.94
2880	48	1.3	1.74	363.00	363.00	105.31	161.09	-257.69	-201.91
4320	72	0	0	544.50	544.50	0.00	0.00	-544.50	-544.50
								Max. Volumes	
							m^3	**20.99**	**37.34**
							+ 50% FoS	**31.49**	**56.01**

Where

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Permissible Discharge	$Q_{dis} = T \times Q_{inf}$ T = Time in seconds Q_{inf} = Infiltration flow in m/s
Site Volume	$V_{site} = ((C \times I \times A)/3600) \times T$ C = Run off coefficient I = rainfall intensity A = site area T = Time in seconds
Required Storage	$V_{store} = Q_{dis} - V_{site}$

Gravel Depth	D	0.8	m
Gravel Porosity	p	0.25	
Bed Storage Available	V	12.1	m^3

As an overland flow path can not be provided the design will allow for the 100 year stormevent to be detained and infriltated into the ground.

Discharge Bed has a storage capacity of 12.10 m^3

Additional required storage is 25.24 m^3

Additional storage to be achieved through a detention basin in the lower carpark with a flow restricting orifice

Discharge Orifice Size

Permissible Discharge Flow Rates = Soil Infiltration Rate

Q_{100} 2.10 L/s 0.002 m^3/s

Depth of storage for 100 year rainfall event

h= 0.45 m (depth of ponded water + depth to centre of the orifice)

Flow through an orifice

Q= k.A.V

k= Shape factor 0.62

A= Area of the orifice

V= Flow velocity

Velocity

V= $\sqrt{2.g.h}$

g= gravity (9.81m/s^2)

h= pressure head

∴ V= 3.0 m/s

Required area of the orifice for 100 year rainfall event discharge

A= Q/(k.V)

∴ A= 0.0011

1140 mm^2

Diametre of the orifice

A= $\pi D^2/4$

D= $\sqrt{(4.A/\pi)}$

∴ D= 39 mm

Detention Storage Calculation

Considering pond from pit to bottom of the kerb as a Frustum

Area 1

Pit Dimensions

a = 0.45 m

b = 0.45 m

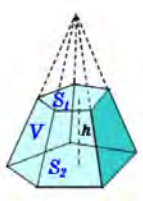
Area S1 = 0.2025 m^2

Pond Area

Area S2 = 140 m^2

Depth of Pond

h = 0.07 m



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Volume of Pond

V1 = 3.395629 m^3

Considering the pond area above the kerb as a prism

Area 2

Pond Area = 140 m^2

Pond Depth = 0.3 m

Pond Volume = 42 m^3

Total Above Ground Storage

V = 45.40 m3

GEOTON Pty Ltd
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20 July 2021

Reference No. GL21409Ab

PDA Surveyors
PO BOX 284
LAUNCESTON TAS 7315

Attention: Mr Allan Brooks

Dear Sir

RE: Site Classification and Stormwater Disposal Evaluation
17 Church Street, Campbell Town

We have pleasure in submitting herein our report detailing the results of the geotechnical investigation conducted at the above site.

Should you require clarification of any aspect of this report, please contact Sean Shahandeh or the undersigned on (03) 6326 5001.

For and on behalf of

Geoton Pty Ltd

Tony Barriera

Director – Principal Geotechnical Engineer

Site Classification and Stormwater Disposal Evaluation

1 INTRODUCTION

At the request of PDA Surveyors, Geoton Pty Ltd has carried out a geotechnical investigation and landslide risk assessment for a proposed residential development at 17 Church Street, Campbell Town.

The investigation has been conducted to provide the following:

- An assessment of the general subsurface conditions at the site and consequently assigning a Site Classification in accordance with AS 2870 – 2011 “Residential Slabs and Footings”;
- An assessment of the surrounding topography and provide a Wind Classification in accordance with AS 4055:2012 “Wind Loads for Housing”; and
- The suitability of the site for disposal of stormwater in accordance with AS/NZS 3500.3 “Stormwater Drainage”;

A preliminary 2 Lot subdivision plan was provided; prepared by PDA Surveyors, reference 47248 P01, dated 06 April 2021. The above-mentioned site classification was conducted for Lot 1 only whereas an assessment of the suitability for stormwater disposal was conducted for both Lots 1 and 2.

2 BACKGROUND

2.1 Geology

The MRT Digital Geological Atlas 1:25,000 Series, indicates that the site is mapped as Cretaceous – Neogene Period Basalt, with this being generally confirmed by our field investigation.

2.2 Landslide Hazard

Examination of the LIST Landslide Planning Map – Hazard Bands Overlay, indicates that the site is not within a mapped landslide hazard band.

3 FIELD INVESTIGATION

The field investigation was conducted on 20 July 2021 and involved the drilling of 4 boreholes by a 4WD mounted auger rig to depths of between 1.4m and 2.0m.

Dynamic Cone Penetration (DCP) tests were conducted in the granular soils encountered in the investigation.

The logs of the boreholes are included in Appendix A and their locations are shown on Figure 1 attached.

4 SITE CONDITIONS

4.1 Surface Conditions

The site is currently undeveloped with the ground surface having a very gentle slope towards the southeast. The vegetation across the site comprises a low cover of grass and mature trees along the site boundaries.

Photographs of the site are attached as Plates 1 and 2.

4.2 Subsurface Conditions

The investigation indicated that the soil profile varied slightly across the site.

Borehole BH1 encountered silty sand topsoil to a depth of 0.25m, overlying medium dense to dense silty sand to a depth of 1.5m, underlain by high plasticity sandy clay to the auger refusal depth of 1.7m.

Boreholes BH2 and BH4 encountered silty sand topsoil to a depth of 0.25m, overlying medium dense to dense silty sand to depths of 0.8m to 1.5m, underlain by high plasticity sandy clay to the investigated depths of 1.4m to 2.0m.

Borehole BH3 encountered silty sand topsoil to a depth of 0.25m, overlying medium dense to dense silty sand the investigated depth of 1.4m.

Auger refusal in Borehole BH1 was inferred to be on a highly weathered rock (basalt).

The boreholes did not encounter any signs of groundwater seepage over the investigated depths.

Full details of soil conditions encountered are presented on the borehole logs.

5 SITE CLASSIFICATION (LOT 1)

After allowing due consideration of the site geology, drainage and soil conditions, the site has been classified as follows:

CLASS S (AS 2870)

Foundation designs in accordance with this classification are to be subject to the overriding conditions of the foundations section below.

This classification is applicable only for ground conditions encountered at the time of this investigation. If cut or fill earthworks are carried out, then the site classification will need to be re-assessed, and possibly changed.

5.1 Foundations

Particular attention should be paid to the design of footings as required by AS 2870 – 2011.

In addition to normal founding requirements arising from the above classification, particular conditions at this site dictate that the founding medium for all footings would be as follows:

Silty SAND (SM) – fine to medium grained, light grey

encountered below 0.25m from the existing ground surface

An allowable bearing pressure of **100kPa** is available for edge beams, strips, pads and bored piers founded as above.

Earthworks should be carried out in accordance with AS3798-2007, Earthworks for Residential and Commercial Development.

- All topsoil should be removed from the building footprint.
- The natural sand foundation should be proof rolled prior to slab on ground construction.
- All sands disturbed in the base of footing excavations should be compacted.
- If groundwater is encountered in site or footing excavations, it is recommended that subsoil drains are installed discharging to the stormwater system.

A higher allowable bearing pressure of **150kPa** is available for footings founded in the dense silty sand at depths below 0.7m (BH3) to 1.0m (BH2) from the existing ground surface.

The site classification presented assumes that the current natural drainage and infiltration conditions at the site will not be markedly affected by the proposed site development work. Care should therefore be taken to ensure that surface water is not permitted to collect adjacent to the structure and that significant changes to seasonal soil moisture equilibria do not develop as a result of service trench construction or tree root action.

Attention is drawn to Appendix B of AS 2870 and CSIRO Building Technical File BTF18 “Foundation Maintenance and Footing Performance: A Homeowner’s Guide” as a guide to maintenance requirements for the proposed structure.

Although the borehole data provides an indication of subsurface conditions at the site, variations in soil conditions may occur in areas of the site not specifically covered by the field investigation. The base of all footing or beam excavations should therefore be inspected to ensure that the founding medium meets the requirements referenced herein with respect to type and strength of founding material.

The boreholes were backfilled shortly after being drilled, not allowing time for groundwater seepage flows to develop. Groundwater seepages or higher groundwater levels can occur during and/or after a prolonged period of wet weather or a heavy rainfall event.

6 WIND CLASSIFICATION

After allowing due consideration of the region, terrain, shielding and topography, the site has been classified as follows:

WIND CLASSIFICATION N2 (AS 4055)

REGION	TERRAIN CATEGORY	SHIELDING	TOPOGRAPHY
A	TC2.0	NS	T0

7 PRELIMINARY ON-SITE STORMWATER DISPOSAL (LOTS 1 & 2)

7.1 General

On-site detention storage must be provided to limit the peak rate of piped stormwater discharge and overland flows from the site to that generated by a 5% Annual Exceedance Probabilities (AEP) storm event.

7.2 Permeability of Soil and Soil Category

Based on the findings of the borehole investigation and the results of the permeability tests, the soil has been classified as follows:

- Texture – Sand (Table E1 from AS/NZS 1547);
- Structure – Massive (Table E4 from AS/NZS 1547); and
- Category – 1 (Table E1 from AS/NZS 1547).

For massive Category 1 soils, the indicative permeability from AS/NZS1547 Table 5.1 is >3.0m/day.

- Adopted Permeability - 3.0m/day.

7.3 Rainfall and Runoff

The Intensity-Frequency-Design (IFD) rainfall curve and table for the site were generated from the Bureau of Meteorology IFD data website (BOM 2016).

In accordance with AS/NZS 3500.3 – Stormwater Drainage, Section 3.3.5, the design rainfall depth/intensity for anywhere in Australia shall be for a five-minute duration.

The five-minute duration design rainfall depth for the design AEP event is as follows:

- **5% AEP = 6.83mm**

The storage quantity is calculated using the following formula:

$$\boldsymbol{Q = CDA}$$

where Q is quantity in m^3;

C is coefficient of runoff (taken as unity 1.0);

D is depth of the Storm in m; and

A is area of the catchment (roof area) that rainfall will runoff in m^2.

No plans for the proposed development have been provided, however a roof area of **300m^2** has been adopted for evaluation of each lot.

As such, the stormwater quantity and flowrate for a design event are calculated as follows:

The storage quantity:

Q= 1.0 x (6.83) / 1000 x (300.0) = **2.05m^3**.

The event flowrate (q_5) is calculated by dividing storage quantity by the storm duration of 5 minutes, i.e. 300 seconds, and thus

q_5 = (2.05) / 300 = 0.0068m^3/s = **6.8L/s**

7.4 Detention Method

Suitable on-site detention will be provided through a gravel-filled detention bed with the capacity to hold a 5% AEP event before overflowing via sheet flow across the property.

The stormwater quantity for a 5% AEP event from the roof area is calculated as (Q) 2.05m^3. Therefore, the detention bed will require a volume of approximately 8.2m^3 to store a 5% AEP event taking into consideration a porosity of 0.25 for the 20mm to 40mm nominal size gravel. As such, the stormwater disposal area will require the following dimensions:

- Bed length = 16.4m
- Bed width = 1.0m
- Bed depth = 0.5m

These dimensions may be modified once actual plans for the developments on the lots are provided.

It is recommended that a 2m buffer be provided around the stormwater disposal area.

7.5 Conclusion

The subsurface investigation indicated that the site is underlain by silty sand with an indicative permeability of >3.0m/day. Based on the calculations above an approximate area of 16.4m^2 will be required for on-site stormwater detention for each lot. As such, the results of the investigation indicate that both Lots 1 and 2 have **sufficient depth and suitable area** available for on-site stormwater detention.

References:

AS 1726 - 2017 Geotechnical Site Investigation

AS 2870 - 2011 Residential Slabs and Footings Construction

AS 4055 - 2012 Wind Loads for Housing

IFD Data System: http://www.bom.gov.au/water/designRainfalls/ifd/

AS/NZS 3500.3 – Stormwater Drainage

Site Classification and Stormwater Disposal Evaluation

Attachments:

Limitations of report

Figure 1 – Site Plan

Site Photographs

Appendix A – Borehole Logs & Explanation Sheets

Appendix B – Certificate Forms

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Geotechnical Consultants - Limitations of report

These notes have been prepared to assist in the interpretation and understanding of the limitations of this report.

Project specific criteria

The report has been developed on the basis of unique project specific requirements as understood by Geoton and applies only to the site investigated. Project criteria are typically identified in the Client brief and the associated proposal prepared by Geoton and may include risk factors arising from limitations on scope imposed by the Client. The report should not be used without further consultation if significant changes to the project occur. No responsibility for problems that might occur due to changed factors will be accepted without consultation.

Subsurface variations with time

Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. In the event of significant delays in the commencement of a project, further advice should be sought.

Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and at the time they are taken. All available data is interpreted by professionals to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, as it is virtually impossible to provide a definitive subsurface profile which includes all the possible variabilities inherent in soil and rock masses.

Report Recommendations

The report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until earthworks and/or foundation construction is almost complete and therefore the report recommendations can only be regarded as preliminary. Where variations in conditions are encountered, further advice should be sought.

Specific purposes

This report should not be applied to any project other than that originally specified at the time the report was issued.

Interpretation by others

Geoton will not be responsible for interpretations of site data or the report findings by others involved in the design and construction process. Where any confusion exists, clarification should be sought from Geoton.

Report integrity

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way.

Geoenvironmental issues

This report does not cover issues of site contamination unless specifically required to do so by the client. In the absence of such a request, Geoton take no responsibility for such issues.

Geoton Pty Ltd

Legend

BH 1 — Approximate Borehole Location

—— Contour in Metres (LiDAR Derived)

GEOTON Pty Ltd			
date	20/07/10	drawn	SS
scale	As Shown	approved	TB
original size	A3	rev	

client:	PDA SURVEYORS		
project:	17 CHURCH STREET CAMPBELL TOWN		
title:	SITE PLAN		
project no:	GL21409A	figure no.	1

PLATE 1 - View of the site looking to the northwest

PLATE 2 - View of the site looking to the south

GEOTON Pty Ltd				client: PDA SURVEYORS	
title: PHOTOGRAPH				project: 17 CHURCH STREET CAMPBELL TOWN	
date:	19/07/2021	original size	A4	project no: GL21409A	figure no. PLATES 1 & 2

Appendix A

Borehole Logs

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Tel (03) 6326 5001

ENGINEERING BOREHOLE LOG

Borehole no. BH1
Sheet no. 1 of 1
Job no. GL21409A

Client : PDA Surveyors
Project : Site Classification and Stormwater Disposal Evaluation
Location : 17 Church Street, Campbell Town
Date : 19/07/2021
Logged By : SS

Drill model : Drilltech
Hole diameter : 150mm
Easting:
Northing:
Slope: 90°
Bearing: -
RL Surface :
Datum :

Method	Support	Penetration	Water	Notes Samples Tests	Depth (m)	Graphic log	Classification Symbol	Material Description	Moisture condition	Consistency density, index	Structure, additional observations
ADV	N				0.25			TOPSOIL - Silty SAND, fine to medium grained, dark grey, trace fine gravel	M	L	
					0.50		SM	Silty SAND - fine to medium grained light grey, trace fine to medium gravel	M	MD	
					0.75						
					1.00				M	D	
					1.25			With clay			
					1.50						
							CH	Sandy CLAY - high plasticity, light grey mottled brown, fine to medium grained sand	M	VSt	W < PL
					1.75			Borehole BH1 auger refusal @ 1.7m on inferred highly weathered rock			
					2.00						
					2.25						

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ENGINEERING BOREHOLE LOG

Borehole no. BH2
Sheet no. 1 of 1
Job no. GL21409A

Client : PDA Surveyors
Project : Site Classification and Stormwater Disposal Evaluation
Location : 17 Church Street, Campbell Town
Date : 19/07/2021
Logged By : SS

Drill model : Drilltech
Hole diameter : 150mm
Easting:
Northing:
Slope: 90°
Bearing: -
RL Surface :
Datum :

Method	Support	Penetration	Water	DCP (Blows/ 100mm)	Depth (m)	Graphic log	Classification Symbol	Material Description	Moisture condition	Consistency density, index	Structure, additional observations
ADV	N			2 2 4	0.25			TOPSOIL - Silty SAND, fine to medium grained, dark grey	M	L	
				5 5 5 4 4 4 5	0.50 0.75 1.00		SM	Silty SAND - fine to medium grained light grey, trace coarse grained sand	M	MD	
				7 10	1.25			With clay	M	D	
					1.50 1.75 2.00		CH	Sandy CLAY - high plasticity, grey mottled light grey, fine to medium grained sand, trace fine gravel, trace coarse grained sand			
					2.25			Borehole BH2 terminated @ 2.0m			

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Unit 24, 16-18 Goodman Court, Invermay TAS
Tel (03) 6326 5001

ENGINEERING BOREHOLE LOG

Borehole no. BH3
Sheet no. 1 of 1
Job no. GL21409A

Client : PDA Surveyors
Project : Site Classification and Stormwater Disposal Evaluation
Location : 17 Church Street, Campbell Town
Date : 19/07/2021
Logged By : SS

Drill model : Drilltech
Hole diameter : 150mm
Easting:
Northing:
Slope: 90°
Bearing: -
RL Surface :
Datum :

Method	Support	Penetration	Water	Notes Samples Tests	Depth (m)	Graphic log	Classification Symbol	Material Description	Moisture condition	Consistency density, index	Structure, additional observations
ADV	N				0.25			TOPSOIL - Silty SAND, fine to medium grained, grey	M	L	
					0.50		SM	Silty SAND - fine to medium grained light grey	M	MD	
					0.75				M	D	
					1.00						
					1.25						
					1.50			Borehole BH3 terminated @ 1.4m			
					1.75						
					2.00						
					2.25						

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Unit 24, 16-18 Goodman Court, Invermay TAS
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ENGINEERING BOREHOLE LOG

Borehole no. BH4
Sheet no. 1 of 1
Job no. GL21409A

Client : PDA Surveyors
Project : Site Classification and Stormwater Disposal Evaluation
Location : 17 Church Street, Campbell Town
Date : 19/07/2021
Logged By : SS

Drill model : Drilltech
Hole diameter : 150mm
Easting:
Northing:
Slope: 90°
Bearing: -
RL Surface :
Datum :

Method	Support	Penetration	Water	Notes Samples Tests	Depth (m)	Graphic log	Classification Symbol	Material Description	Moisture condition	Consistency density, index	Structure, additional observations
ADV	N				0.25			TOPSOIL - Silty SAND, fine to medium grained, grey	M	L	
					0.50		SM	Silty SAND - fine to medium grained light grey	M	MD	
					0.75			With clay	M	D	
					1.00		CH	Sandy CLAY - high plasticity, fine to medium grained sand, trace of coarse grained sand	M	St	W < PL
					1.25				M	VSt	W < PL
					1.50			Borehole BH4 terminated @ 1.4m			
					1.75						
					2.00						
					2.25						

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Investigation Log Explanation Sheet

METHOD – BOREHOLE

TERM	Description
AS	Auger Screwing*
AD	Auger Drilling*
RR	Roller / Tricone
W	Washbore
CT	Cable Tool
HA	Hand Auger
DT	Diatube
B	Blank Bit
V	V Bit
T	TC Bit

* Bit shown by suffix e.g. ADT

METHOD – EXCAVATION

TERM	Description
N	Natural exposure
X	Existing excavation
H	Backhoe bucket
B	Bulldozer blade
R	Ripper
E	Excavator

SUPPORT

TERM	Description
M	Mud
N	Nil
C	Casing
S	Shoring

PENETRATION

1	2	3	4	
				No resistance ranging to Refusal

WATER

Symbol	Description
▶—	Water inflow
—◀	Water outflow
▼	17/3/08 water on date shown

NOTES, SAMPLES, TESTS

TERM	Description
U_{50}	Undisturbed sample 50 mm diameter
U_{63}	Undisturbed sample 63 mm diameter
D	Disturbed sample
N	Standard Penetration Test (SPT)
N*	SPT – sample recovered
N_C	SPT with solid cone
V	Vane Shear
PP	Pocket Penetrometer
P	Pressumeter
B_S	Bulk sample
E	Environmental Sample
R	Refusal
DCP	Dynamic Cone Penetrometer (blows/100mm)
PL	Plastic Limit
LL	Liquid Limit
LS	Linear Shrinkage

CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION

Based on AS 1726:2017

MOISTURE

TERM	Description
D	Dry
M	Moist
W	Wet

CONSISTENCY/DENSITY INDEX

TERM	Description
VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fr	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	Very dense

GEOTON Pty Ltd

Soil Description Explanation Sheet (1of 2)

DEFINITION

In engineering terms, soil includes every type of uncemented or partially cemented inorganic or organic material found in the ground. In practice, if the material can be remoulded or disintegrated by hand in its field condition or in water it is described as a soil. Other materials are described using rock description terms.

CLASSIFICATION SYMBOL AND SOIL NAME

Soils are described in accordance with the AS 1726: 2017 as shown in the table on Sheet 2.

PARTICLE SIZE DEFINITIONS

NAME	SUBDIVISION	SIZE (mm)
BOULDERS		>200
COBBLES		63 to 200
GRAVEL	Coarse	19 to 63
	Medium	6.7 to 19
	Fine	2.36 to 6.7
SAND	Coarse	0.6 to 2.36
	Medium	0.21 to 0.6
	Fine	0.075 to 0.21
SILT		0.002 to 0.075
CLAY		<0.002

MOISTURE CONDITION

Coarse Grained Soils

Dry Non-cohesive and free running.

Moist Soil feels cool, darkened in colour. Soil tends to stick together.

Wet As for moist but with free water forming when handling.

Fine Grained Soils

Moist, dry of Plastic Limited – w < PL
Hard and friable or powdery.

Moist, near Plastic Limit – w ≈ PL
Soils can be moulded at a moisture content approximately equal to the plastic limit.

Moist, wet of Plastic Limit – w > PL
Soils usually weakened and free water forms on hands when handling.

Wet, near Liquid Limit - w ≈ LL

Wet, wet of Liquid Limit - w > LL

CONSISTENCY TERMS FOR COHESIVE SOILS

TERM	UNDRAINED STRENGTH s_u (kPa)	FIELD GUIDE
Very Soft	≤12	Exudes between the fingers when squeezed in hand
Soft	12 to 25	Can be moulded by light finger pressure
Firm	25 to 50	Can be moulded by strong finger pressure
Stiff	50 to 100	Cannot be moulded by fingers
Very Stiff	100 to 200	Can be indented by thumb nail
Hard	>200	Can be indented with difficulty by thumb nail
Friable	–	Can be easily crumbled or broken into small pieces by hand

RELATIVE DENSITY OF NON-COHESIVE SOILS

TERM	DENSITY INDEX (%)
Very Loose	≤15
Loose	15 to 35
Medium Dense	35 to 65
Dense	65 to 85
Very Dense	> 85

DESCRIPTIVE TERMS FOR ACCESSORY SOIL COMPONENTS

DESIGNATION OF COMPONENT	IN COARSE GRAINED SOILS		IN FINE GRAINED SOILS	TERM
	% Fines	% Accessory coarse fraction	% Sand/ gravel	
Minor	≤5	≤15	≤15	Trace
	>5, ≤12	>15, ≤30	>15, ≤30	With
Secondary	>12	>30	>30	Prefix

SOIL STRUCTURE

ZONING		CEMENTING	
Layer	Continuous across the exposure or sample.	Weakly cemented	Easily disaggregated by hand in air or water.
Lens	Discontinuous layer of different material, with lenticular shape.	Moderately cemented	Effort is required to disaggregate the soil by hand in air or water.
Pocket	An irregular inclusion of different material.		

GEOLOGICAL ORIGIN

WEATHERED IN PLACE SOILS

Extremely weathered material	Structure and/or fabric of parent rock material retained and visible.
Residual soil	Structure and/or fabric of parent rock material not retained and visible.

TRANSPORTED SOILS

Aeolian soil	Carried and deposited by wind.
Alluvial soil	Deposited by streams and rivers.
Colluvial soil	Soil and rock debris transported downslope by gravity.
Estuarine soil	Deposited in coastal estuaries, and including sediments carried by inflowing rivers and streams, and tidal currents.
Fill	Man-made deposit. Fill may be significantly more variable between tested locations than naturally occurring soils.
Lacustrine soil	Deposited in freshwater lakes.
Marine soil	Deposited in a marine environment.

GEOTON Pty Ltd

Soil Description Explanation Sheet (2 of 2)

SOIL CLASSIFICATION INCLUDING IDENTIFICATION AND DESCRIPTION

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 63 mm and basing fractions on estimated mass)						GROUP SYMBOL	PRIMARY NAME
COARSE GRAINED SOIL More than 65% of soil excluding oversize fraction is larger than 0.075 mm	(A 0.075 mm particle is about the smallest particle visible to naked eyes)	GRAVEL More than half of coarse fraction is larger than 2.36 mm	CLEAN GRAVEL (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes		GW	GRAVEL
				Predominantly one size or a range of sizes with some intermediate sizes missing		GP	GRAVEL
			GRAVEL WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML and MH below)		GM	Silty GRAVEL
				Plastic fines (for identification procedures see CL, CI and CH below)		GC	Clayey GRAVEL
		SAND More than half of coarse fraction is smaller than 2.36 mm	CLEAN SAND (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate sizes		SW	SAND
				Predominantly one size or a range of sizes with some intermediate sizes missing		SP	SAND
			SAND WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML and MH below)		SM	Silty SAND
				Plastic fines (for identification procedures see CL, CI and CH below)		SC	Clayey SAND
FINE GRAINED SOIL More than 35% of soil excluding oversize fraction is smaller than 0.075 mm		IDENTIFICATION PROCEDURES ON FRACTIONS <0.075 mm					
				DRY STRENGTH	**DILATANCY**	**TOUGHNESS**	
		SILT & CLAY (low to medium plasticity, LL ≤ 50)		None to Low	Slow to Rapid	Low	ML SILT
				Medium to High	None to Slow	Medium	CL, CI CLAY
				Low to Medium	Slow	Low	OL ORGANIC SILT
		SILT & CLAY (high plasticity, LL > 50)		Low to Medium	None to Slow	Low to Medium	MH SILT
				High to Very High	None	High	CH CLAY
				Medium to High	None to Very Slow	Low to Medium	OH ORGANIC CLAY
		Highly Organic Soil		Readily identified by colour, odour, spongy feel and frequently by fibrous texture.			Pt PEAT

● LL – Liquid Limit.

COMMON DEFECTS IN SOILS

TERM	DEFINITION	DIAGRAM
PARTING	A surface or crack across which the soil has little or no tensile strength. Parallel or sub parallel to layering (e.g. bedding). May be open or closed.	
FISSURE	A surface or crack across which the soil has little or no tensile strength, but which is not parallel or sub parallel to layering. May be open or closed. May include desiccation cracks.	
SHEARED SEAM	Zone in clayey soil with roughly parallel near planar, curved or undulating boundaries containing closely spaced, smooth or slickensided, curved intersecting fissures which divide the mass into lenticular or wedge-shaped blocks.	
SHEARED SURFACE	A near planar curved or undulating, smooth, polished or slickensided surface in clayey soil. The polished or slickensided surface indicates that movement (in many cases very little) has occurred along the defect.	

TERM	DEFINITION	DIAGRAM
SOFTENED ZONE	A zone in clayey soil, usually adjacent to a defect in which the soil has a higher moisture content than elsewhere.	
TUBE	Tubular cavity. May occur singly or as one of a large number of separate or inter-connected tubes. Walls often coated with clay or strengthened by denser packing of grains. May contain organic matter.	
TUBE CAST	An infilled tube. The infill may be uncemented or weakly cemented soil or have rock properties.	
INFILLED SEAM	Sheet or wall like body of soil substance or mass with roughly planar to irregular near parallel boundaries which cuts through a soil mass. Formed by infilling of open defects.	

Appendix B

Certificate Forms

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: PDA Surveyors *Owner /Agent*
PO Box 284 *Address*
Launceston Tas 7250 *Suburb/postcode*

Qualified person details:

Qualified person: Tony Barriera - Geoton Pty. Ltd.
Address: PO Box 522
Prospect Tas 7250
Phone No: 03 6326 5001
Fax No:
Licence No: CC6220 P
Email address: tbarriera@geoton.com.au

Qualifications and Insurance details: Tony Barriera – BEng, MSc CPEng, NER – IEAust 471929 Civil, Geotechnical Certain Underwriters at Lloyd's- ENG 20 000330
(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items

Speciality area of expertise: Geotechnical Engineering
(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work:

Address: 17 Church Street
Campbell Town Tas 7210
Lot No: 1
Certificate of title No: 14992/1

The assessable item related to this certificate: Classification of foundation conditions according to AS2870 - 2011
(description of the assessable item being certified)
Assessable item includes –
- *a material;*
- *a design*
- *a form of construction*
- *a document*
- *testing of a component, building system or plumbing system*
- *an inspection, or assessment, performed*

Certificate details:

Certificate type: Foundation Site Classification – AS2870
(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable item, at any stage, as part of - *(tick one)*

building work, plumbing work or plumbing installation or demolition work: ☐

or

a building, temporary structure or plumbing installation: ☒

In issuing this certificate the following matters are relevant –

Documents:	Geoton Pty Ltd, Report Reference No. GL21409Ab, dated 20/07/2021
Relevant calculations:	Refer to report
References:	AS 2870 – 2011 Residential Slabs and Footings Construction AS 4055 – 2012 Wind Loads for Housing CSIRO Building Technical File 18

Substance of Certificate: (what it is that is being certified)

Site Classification in accordance to AS2870 - 2011
Wind Loading in accordance to AS 4055 - 2012
Findings and recommendations of report

Scope and/or Limitations

The classification applies to the site as investigated at the time and does not account for any future alteration to foundation conditions resulting from earthworks, drainage condition changes or site maintenance variations.

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:		GL21409Ab	20/07/2021

REFERRAL OF DEVELOPMENT APPLICATION PLN-21-0301 TO WORKS & INFRASTRUCTURE DEPARTMENT

Property/Subdivision No: 300800.055
Date: 10 November 2021
Applicant: Department of Police, Fire and Emergency Management (DPFEM)
Proposal: PSA to insert Emergency Services as a discretionary use in the Genreal Residential Zone if only on Folio of the Register 14992/2 in conjunction with an s43A applicaiton for an Emergency Services facility
Location: 17 Church Street, Campbell Town

W&I referral PLN-21-0301, 17 Church Street, Campbell Town

Planning admin: W&I fees paid.

Please inspect the property and advise regarding stormwater/drainage, access, traffic, and any other engineering concerns.

Is there is a house on one of the lots?	*No*
Is it connected to all Council services?	*N/a*
Are any changes / works required to the house lot?	*N/a*
Are the discharge points for stormwater, infrastructure that is maintained by Council? (This requires a check to ensure the downstream infrastructure is entirely owned, maintained, operated by Council and have been taken over as Council assets.)	*Yes*

Stormwater:

Does the physical location of stormwater services match the location shown on the plan? (Requires an on-site inspection)	*Yes*
Is the property connected to Council's stormwater services?	*No*
If so, where is the current connection/s?	*N/a*
Can all lots access stormwater services?	*Yes*
If so, are any works required?	*Yes, as per design*
Is stormwater detention required	*Yes*
Has a stormwater detention design been submitted	*Yes, but more detail required*
If so, is it designed for 20- year ARI with overland flow path to road or any other low risk Council approved place of discharge.	*Yes*
If no to above , has the design for 100 – year ARI been done.	*Yes*
If yes to any of the above, does it comply with Councils stormwater policy	*Yes*
Is the design approved by works & infrastructure	*Yes*
Please quote drawing numbers and any other relate documentation (email etc.)	*Concept sketch provided Rare*
Additional Comments/information	*No*
Stormwater works required:	
In accordance with approved plan	
Is there kerb and gutter at the front of the property?	*No*
Are any kerb-and-gutter works required?	*No*

Road Access:

Does the property have access to a made road?	*No*
If so, is the existing access suitable?	*Yes*

Does the new lot/s have access to a made road?	*Yes*
If so, are any works required?	*Yes, as per plan*
Is off-street parking available/provided?	*Yes*
Road / access works required:	
Works to be in accordance with Standard Drawing TSD R09 - concrete driveway crossover & apron.	
Is an application for vehicular crossing form required?	*Yes*
Is a footpath required?	*No*
Extra information required regarding driveway approach and departure angles	*No*
Are any road works required?	*No*
Are street trees required?	*No*
Additional Comments:	An Engineer's design **is** required.

Engineer's comment (Cameron Oakley):

The designers have provided a proposal for mostly on-site stormwater disposal on the General Residentially zoned block. This relies on stormwater generated on the development, which is more or an industrial scale than residential, discharging to a detention basin and to infiltration beds. For a scale of development this size a connection to the a formal stormwater system worth normally be required. The only stormwater system is the area, however, is some nominal roadside shaping on the southern side of Church Street might be considered a drain. Unfortunately property slopes downhill away from the road.

The soil profile appears to be sandy, and as such could be expected to allow infiltration of concentrated stormwater in a relatively fast manner, the proposal is not without risks. These are:

- In the designer's calculations a generic saturated soil permeability has been assumed, while it is likely to be suitable. This permeability rate was used to determine the required size of the detention and infiltration. If the permeability is actually lower than assumed, the proposed arrangement will be undersized.
- While the soil is sand and should allow fast infiltration, it may not always be the case. For example, if the sand layer is prone to seasonal saturation from other ground water sources then it would not allow the high infiltration rates at all times. It is noted that at approximately 1.2m depth in the soil profile there is a high plasticity clay, which will prevent the downward migration of groundwater below this depth.
- Given the proposal of the site, mains water use is extremely likely for washdown of vehicles and plant, and potentially for training purposes. Any runoff from this use will likely enter the detention/infiltration system. It is not known what volumes of operational water will enter the proposed systems, or if they will enter the sewage system.
- Infiltration systems are prone to failure if they are not properly maintained. Runoff of hardstand, and from washdown water is likely to contain sediment, nutrients and other contaminants. This material should be removed or treated before entering the system. Sediment in particular, entering the infiltration system, will eventually lead to blockage and failure. Gross pollutants may enter the detention basin, causing it to overtop into the neighbouring property, if not removed. As such appropriate pre-treatment needs to be provided, and an Operation and

Maintenance Manual adopted, which ensures any system is properly operated and maintained is critical in preventing failure.

- It is proposed that infiltration at the top of the site will overflow into the roadside drain in the 1% AEP event. The Operations Manager has suggested this drain is just the land beside the road, rather than part of the stormwater system, and as such may not be appropriate. This could be overcome, if necessary, by shaping/forming of the drain

If any of the above items in not properly considered there is the potential for the detention/infiltration system to fail and cause a nuisance. If the proposal was for a residential dwelling on the residential lot this overall risk of failure of system resulting in nuisance to adjacent owners would be low. This proposed development is unique in that it is more similar to an industrial site, which larger impervious surfaces discharging the system, and therefore the potential risk is greater. The alternative to an infiltration system would be for stormwater to be collected and pumped back to the roadside drain, once any upgrades to the drain had been completed, or pumped to a new pipe which would have to be constructed in Church Street, from the site 170m east to Glenelg Street.

WORKS & INFRASTRUCTURE DEPARTMENT CONDITIONS

W.1 Stormwater

a) Concentrated stormwater must not be discharged into neighbouring properties

b) Landscaping and hardstand areas must not interfere with natural stormwater run-off from neighbouring properties.

c) Prior to the issue of any approval under the Building Act 2016 or the commencement of work on the site (whichever occurs first), amended plans must be provided showing:
   (i) all roofs that are capable of effectively draining to the kerb via charged connections, do drain to the kerb via a charged connection; and
   (ii) hardstand areas and roofs unable to drain to the kerb via charged connection, are drained to a pumped stormwater system with combined effective storage design to cater for the range 20 year AEP event durations and otherwise designed and installed in accordance with AS3500.3:2018.

   These amended plans must be approved by Council's Works and Infrastructure Department.

d) The amended plans must be accompanied by a detailed design of the pumped stormwater system prepared by a suitably qualified person which clearly shows:
   (i) that the capacity of the pumped system is to be achieved by a combination of pump capacity and wet well storage between the high and low working levels in the wet well;
   (ii) that the combined effective storage comprising of the volume to be able to be pumped in 30 minutes plus the wet well storage shall not be less than the volume from the storm of ARI = 20 years and duration of 120 minutes
   (iii) that the minimum wet well storage between the high and low working levels, expressed in m^3, shall be 1% of the catchment area in m^2; in any case it shall be not less than 3 m^2;
   (iv) that the combined effective storage design is sufficient to cater for the range of 20 year AEP events;
   (v) that maximum pumped outflows to the kerb are 20 L/s or less
   (vi) that the capacity of the kerb is not exceeded by pumped outflows, taking into account the existing catchment which flows to the kerb; and

(vii) that stormwater to be discharged to the kerb is at a maximum 45-degree angle in the direction of flow.

The detailed design must be approved by Council's Works and Infrastructure Department prior to the issue of any approval under the Building Act 2016 or the commencement of work on the site (whichever occurs first).

e) Prior to the commencement of the use, an 'Operation and Maintenance Manual' for the pumped stormwater system must be prepared by a suitably qualified person and provided to and approved by Council's Works and Infrastructure Department. The Operation and Maintenance Manual must:
   (i) provide a detailed description of the pumped stormwater system as well as the components included in the system covered in the manual;
   (ii) provide a comprehensive detailed explanation of all major operating procedures to ensure that the pumped system works as designed;
   (iii) detail the preventive and corrective maintenance programs that must be adopted to ensure the system is in a proper working order, including maintenance schedules, procedures and test requirements; and
   (iv) include 'as constructed' drawings of the pump and storage system as an annexure to the Operation and Maintenance Manual.

f) A plumbing permit is required prior to commencing any plumbing or civil works within the property.

W.2 Access

a) A concrete driveway crossover and apron must be constructed for each dwelling from the edge of the road to the property boundary in accordance with Council standards.

b) Access works must not commence until an application for vehicular crossing has been approved by Council.

c) All works must be done in accordance with Council Standard Drawing TSD-R09 and to the satisfaction of the Works Manager.

W.3 Municipal standards & approvals

Unless otherwise specified within a condition, all works must comply with the Municipal Standards including specifications and standard drawings. All works must be constructed to the satisfaction of Council. Where works are required to be designed prior to construction, such designs and specifications must be approved by Council prior to commencement of any *in situ* works.

W.4 Works in Council road reserve

a) Works must not be undertaken within the public road reserve, including crossovers, driveways or kerb and guttering, without prior approval for the works by the Works Manager.

b) Twenty-four (24) hours notice must be given to the Works & Infrastructure Department to inspect works within road reserve, and before placement of concrete or seal. Failure to do so may result in rejection of the vehicular access or other works and its reconstruction.

W.5 Pollutants

a) The developer/property owner must ensure that pollutants such as mud, silt or chemicals are not released from the site.

b) Prior to the commencement of development authorised by this permit the developer/property owner must install all necessary silt fences and cut-off drains to prevent soil, gravel and other debris from escaping the site. Material or debris must not be transported onto the road reserve (including the nature strip, footpath and road pavement). Any material that is deposited on the road reserve must be removed by the developer/property owner. Should Council be required to clean or carry out works on any of their infrastructure as a result of pollutants being released from the site the cost of these works may be charged to the developer/property owner.

W.7 Nature strips

Any new nature strips, or areas of nature strip that are disturbed during construction, must be topped with 100mm of good quality topsoil and sown with grass. Grass must be established and free of weeds prior to Council accepting the development.`

W.8 Part 5 Agreement

(a) Prior to the commencement of the use, the landowner must enter into an agreement under Part 5 of the *Land Use Planning and Approvals Act* 1993 with the Northern Midlands Council.

(b) The agreement referred to in condition 0(a) will be in such form as Council may require at its discretion, and must include the following:

  (i) that the landowner acknowledges that the property relies on a pumped stormwater system and that the purpose of the pumped stormwater system is to service and control the concentrated discharge of stormwater from any structures on the property which are not connected by gravity or charged pipes to Council's stormwater system.

  (ii) that the landowner is responsible for the ongoing operation and maintenance of the pump and stormwater storage system;

  (iii) that the landowner must operate and maintain the pumped stormwater system in accordance with the Operation and Maintenance Manual following its submission to and approval by the Council's Works and Infrastructure Department as required by condition e) of this permit;

  (iv) annex a copy of the approved Operation and Maintenance Manual as required by condition e) of this permit to the Agreement.

  (v) that the landowner must provide a report to the Council on or before 30 June every 12 month period, from a suitably qualified person confirming that the pumped stormwater system is in working order and that the maintenance procedures and maintenance schedules described within the Operation and Maintenance Manual have been complied with.

  (vi) that the landowner must rectify any nuisance caused by the concentrated discharge of stormwater from the pumped stormwater system, to Council's requirements and at the owner's expense, within 14 days of Council giving notice of the requirement to do so.

  (vii) That the failure by the landowner to comply with a term or condition set out in the agreement allows the Council to undertake that work, with the costs of doing so to be a debt due and payable by the landowner to the Council.

  The landowner is responsible for all Council and Land Titles Office costs, fees and charges associated with the preparation and lodgement of the Part 5 agreement.

Jonathan Galbraith (Engineering Officer)
Date: 3/3/22

Submission to Planning Authority Notice

Council Planning Permit No.	PLN-21-0301	**Council notice date**	10/11/2021
TasWater details			
TasWater Reference No.	TWDA 2021/01949-NMC	**Date of response**	19/11/2021
TasWater Contact	Anthony Cengia Scott James (Trade Waste)	**Phone No.**	0474 933 293 0417 240 264
Response issued to			
Council name	NORTHERN MIDLANDS COUNCIL		
Contact details	Planning@nmc.tas.gov.au		
Development details			
Address	17 CHURCH ST, CAMPBELL TOWN	**Property ID (PID)**	2036373
Description of development	Planning Scheme Amendment to insert Emergency Services as a Discretionary Use + Application for Emergency Services Facility		

Schedule of drawings/documents

Prepared by	Drawing/document No.	Revision No.	Date of Issue
M architecture	21.031 Sheets DA.1 to DA.6		08/10/2021

Conditions

SUBMISSION TO PLANNING AUTHORITY NOTICE OF DRAFT AMENDMENT TO PLANNING SCHEME *AND* PLANNING APPLICATION REFERRALS

Pursuant to the *Water and Sewerage Industry Act* 2008 (TAS) Section 56P(1) TasWater makes the following submission(s):

TasWater does not object to the draft amendment to planning scheme and has no formal comments for the Tasmanian Planning Commission in relation to this matter and does not require to be notified of nor attend any subsequent hearings.

Pursuant to the *Water and Sewerage Industry Act* 2008 (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:

CONNECTIONS, METERING & BACKFLOW

1. A suitably sized water supply with metered connection and sewerage system and connection to the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit.

   Advice: TasWater will not accept direct fire boosting from the network unless it can be demonstrated that the periodic testing of the system will not have a significant negative effect on our network and the minimum service requirements of other customers serviced by the network. To this end break tanks may be required with the rate of flow into the break tank controlled so that peak flows to fill the tank do not also cause negative effect on the network.

2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost.

3. Prior to commencing construction/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater.

TRADE WASTE

4. Prior to the commencement of operation, the developer/property owner must obtain Consent to discharge Trade Waste from TasWater.

5. The developer must install appropriately sized and suitable pre-treatment devices prior to gaining Consent to discharge.

6. The Developer/property owner must comply with all TasWater conditions prescribed in the Trade Waste Consent

DEVELOPMENT ASSESSMENT FEES

7. The applicant or landowner as the case may be, must pay a development assessment fee of $363.57, to TasWater, as approved by the Economic Regulator and the fees will be indexed, until the date paid to TasWater.

   The payment is required within 30 days of the issue of an invoice by TasWater.

Advice

General

For information on TasWater development standards, please visit https://www.taswater.com.au/building-and-development/technical-standards

For application forms please visit https://www.taswater.com.au/building-and-development/development-application-form

Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

(a) A permit is required to work within TasWater's easements or in the vicinity of its infrastructure. Further information can be obtained from TasWater

(b) TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit www.taswater.com.au/Development/Service-location for a list of companies

(c) TasWater will locate residential water stop taps free of charge

(d) Sewer drainage plans or Inspection Openings (IO) for residential properties are available from your local council.

Trade Waste

Prior to any Building and/or Plumbing work being undertaken, the applicant requires a Certificate for Certifiable Work (Building and/or Plumbing). The Certificate for Certifiable Work (Building and/or Plumbing) must accompany all documentation submitted to Council. Documentation must include a floor and site plan with:

Location of all pre-treatment devices i.e. Oil Water Separator;

Schematic drawings and specification (including the size and type) of any proposed pre-treatment device and drainage design; and

Location of an accessible sampling point in accordance with the TasWater Trade Waste Sampling Specifications for sampling discharge.

At the time of submitting the application for a Certificate for Certifiable Work (Building and/or Plumbing) a

Trade Waste Application form is also required.

The application forms are available at http://www.taswater.com.au/Customers/Liquid-Trade-Waste/Commercial.

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by

Jason Taylor
Development Assessment Manager

TasWater Contact Details			
Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au

Rosemary Jones

From: Council Referrals <Council.Referrals@tasnetworks.com.au>
Sent: Thursday, 18 November 2021 11:41 AM
To: NMC Planning
Subject: RE: PLN21-0301 - TasNetworks Referral 17 Church Street Campbell Town CN21-225755
Attachments: PLN21-0301 - TasNetworks Referral.docx; Form-No.-1-Owners-consent-September-2021.PDF; TFS-SES Planning Application - DPFEM Signed.pdf; Section 43A Planning Report Campbell Town Colocation with plans.pdf; 21.031 . DPFEM Campbell Town TFS SES . Development 201008 (002).pdf

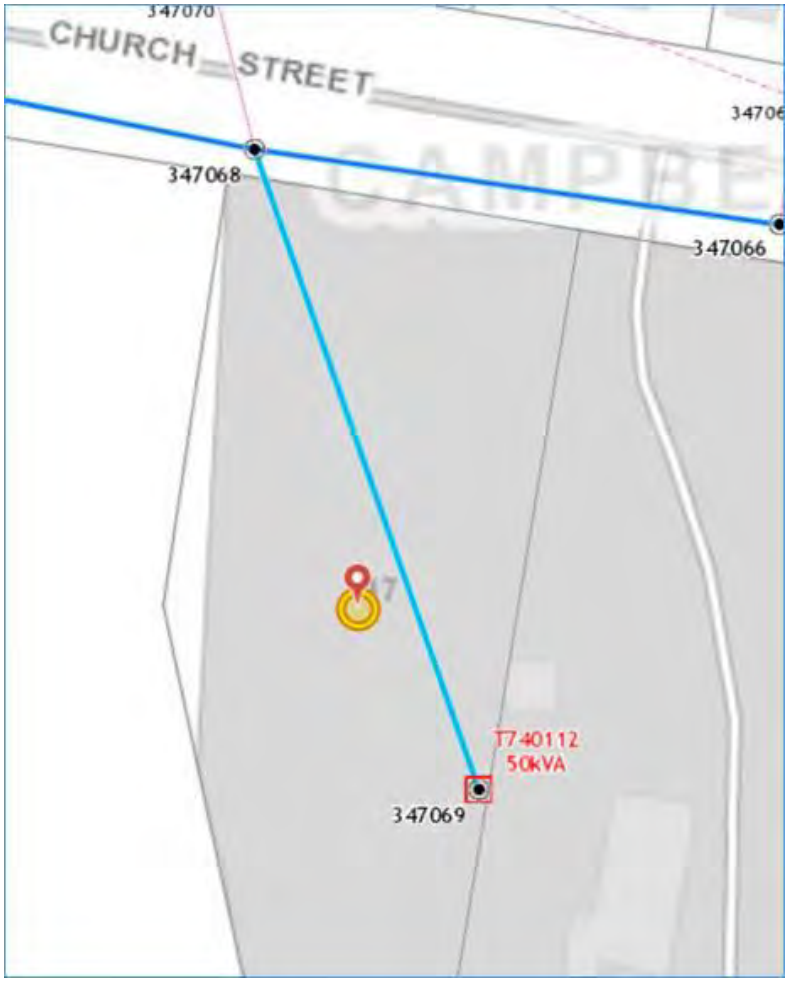
Follow Up Flag: Follow up
Flag Status: Completed

Hi Karen,

Thank you for your email on 10 November 2021 referring the abovementioned development.

Based on the information provided, the development is likely to adversely affect TasNetworks' operations.

TasNetworks has an existing high voltage feeder line passing directly through this lot which supplies electricity to a neighbouring property as shown in the below picture from our mapping system. Before any building works commence on site, the customer will be required to submit a negotiated connection application to TasNetworks to have this line relocated.



It is recommended the customer contact TasNetworks on 1300 137 008 should they have any questions in regards to the above advice.

Regards

TasNetworks . Powering a Bright Future

Megan Loftus
Connections Advisor
Customer Connections Team

P (03) 6324 7583 |**E** networkcustomersupply@tasnetworks.com.au
1 Australis Dr, Rocherlea 7248
PO Box 419, Launceston TAS 7250

www.tasnetworks.com.au
@TasNetworks
/TasNetworks

From: NMC Planning <planning@nmc.tas.gov.au>
Sent: Wednesday, 10 November 2021 3:50 PM
To: Council Referrals <Council.Referrals@tasnetworks.com.au>
Subject: PLN21-0301 - TasNetworks Referral 17 Church Street Campbell Town CN21-225755

Good afternoon

Please see attached referral for a Planning Scheme Amendment. The link to the application documents is below:
https://www.dropbox.com/sh/wkmubqes066d9ep/AABn89WWVwp4WHV8aB1JQevda?dl=0 [dropbox.com]

Kind regards,
Karen

Karen Jenkins

Administration Officer - Community & Development | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: karen.jenkins@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au [northernmidlands.tas.gov.au]

PLANNING APPLICATION

Proposal

Description of proposal: Staged subdivision for 22 residential lots - see supporting report

(attach additional sheets if necessary)

If applying for a subdivision which creates a new road, please supply three proposed names for the road, in order of preference:

1. to be advised 2. 3.

Site address: 86 Burghley Street Longford

CT no: 115134/3

Estimated cost of project $ NA - subdivision *(include cost of landscaping, car parks etc for commercial/industrial uses)*

Are there any existing buildings on this property? ~~*Yes*~~ */ No*
If yes – main building is used as .....

If variation to Planning Scheme provisions requested, justification to be provided:

(attach additional sheets if necessary)

Is any signage required? No
(if yes, provide details)

PLANNING APPLICATION

Proposal

Description of proposal: Staged subdivision for 22 residential lots - see supporting report

(attach additional sheets if necessary)

If applying for a subdivision which creates a new road, please supply three proposed names for the road, in order of preference:

1. to be advised 2. ..... 3. .....

Site address: 86 Burghley Street Longford

CT no: 115134/3

Estimated cost of project $ NA - subdivision *(include cost of landscaping, car parks etc for commercial/industrial uses)*

Are there any existing buildings on this property? ~~*Yes*~~ */ No*
If yes – main building is used as .....

If variation to Planning Scheme provisions requested, justification to be provided:

(attach additional sheets if necessary)

Is any signage required? No *(if yes, provide details)*

EXHIBITED

WOOLCOTT SURVEYS

EAST COAST SURVEYING
CONSULTING SURVEYORS & LAND PLANNERS

PLANNING SUPPORTING REPORT

Application for staged 22 lot subdivision

86 Burghley Street, Longford

November 2021

EXHIBITED

Job Number: L180418
Prepared by: Michelle Schleiger (michelle@woolcottsurveys.com.au)
Town Planner
Reviewed by: James Stewart (james@woolcottsurveys.com.au)
Senior Planner

Rev. no	Description	Date
1	Draft	6 October 2021
2	Revision	29 October 2021
3	Final	24 November 2021

Launceston | St Helens | Hobart | Devonport
woolcottsurveys.com.au

EXHIBITED

Contents

EXHIBITED

1. Introduction

This report has been prepared in support of a planning permit application under Section 57 of the Land Use Planning and Approval Act 1993 (the 'Act') to develop land at 86 Burghley Street, Longford (the 'subject site').

This application is to be read in conjunction with the following supporting documentation:

Document	Consultant
Proposal Plan	Woolcott Surveys
Proposal Plan - Infrastructure	6ty° Pty Ltd
Bushfire Hazard Assessment	Woolcott Surveys
Traffic Impact Assessment	Midson Traffic Pty Ltd

2. Subject site and proposal

2.1 Site details

Address	86 Burghley Street, Longford TAS 7301
Property ID	7875547
Title:	115134/3
Land area	1.763ha
Planning Authority	Northern Midlands Council ('Council')
Covenants or Agreements	None on title
Application status	Discretionary application
Existing Access	No formal access existing
Proposed development	Staged 22 lot subdivision over two stages including road lots and infrastructure development for reticulated water, sewer and stormwater.
Zone	General Residential
Overlay/s	Bushfire Prone Areas (Abutting Urban Growth Boundary)
Existing development	Vacant with approved subdivision on partial lot (See Planning History)
Existing services and infrastructure	
Water	Proposed reticulated main
Sewer	Proposed reticulated main

Stormwater	Proposed reticulated main
Electricity	Existing overhead
Planning History	PLN-19-0070 – Scheme amendment and 7 lot subdivision

2.2 Proposal

The proposal is for a staged subdivision to provide 22 residential lots and one new road lot. The existing road lots of Lewis Street and Burghley Street that bound the subject site will be constructed as a part of the development.

The proposal consists of the following:

Stage #	Lots #	Total lots created
Stage 1	7 to 17 and 27 to 28 Road Lot 301	13 residential lots 1 road lot (Cul-de-sac from Catherine Street)
Stage 2	18 to 26	9 residential lots Existing roads (Lewis Street and Burghley Street) constructed to sealed road.

Infrastructure for the provision of reticulated services will be constructed as a part of the development; this is detailed on the proposal plan supplied at Annexure 3.

2.3 Images

Figure 1 – Aerial view of the subject site (Source: LISTMap)

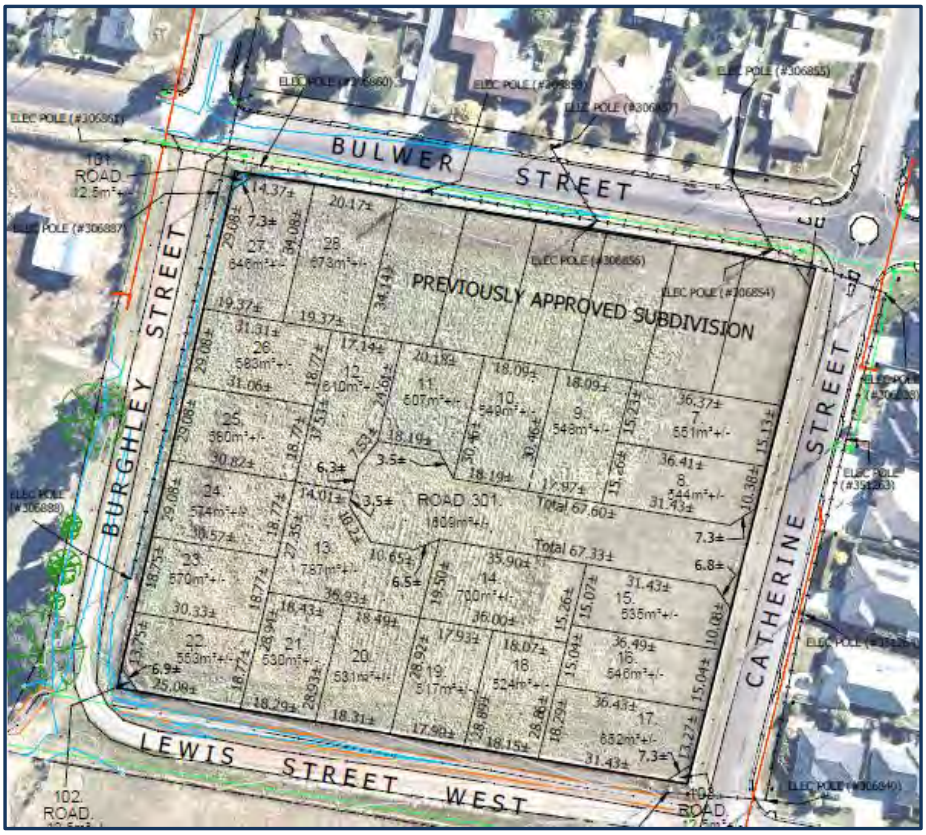


Figure 2 - Proposed subdivision (full detail provided at Annexure 2) (extracted).

Figure 3 - site from Bulwer and Burghley facing SE

Figure 4 - Lewis St to Burghley St facing W

Figure 5 - Bulwer St facing W

Figure 6 - Catherine St facing S

EXHIBITED

3. Planning Assessment

3.1 Zoning

The site is zoned General Residential under the schem.

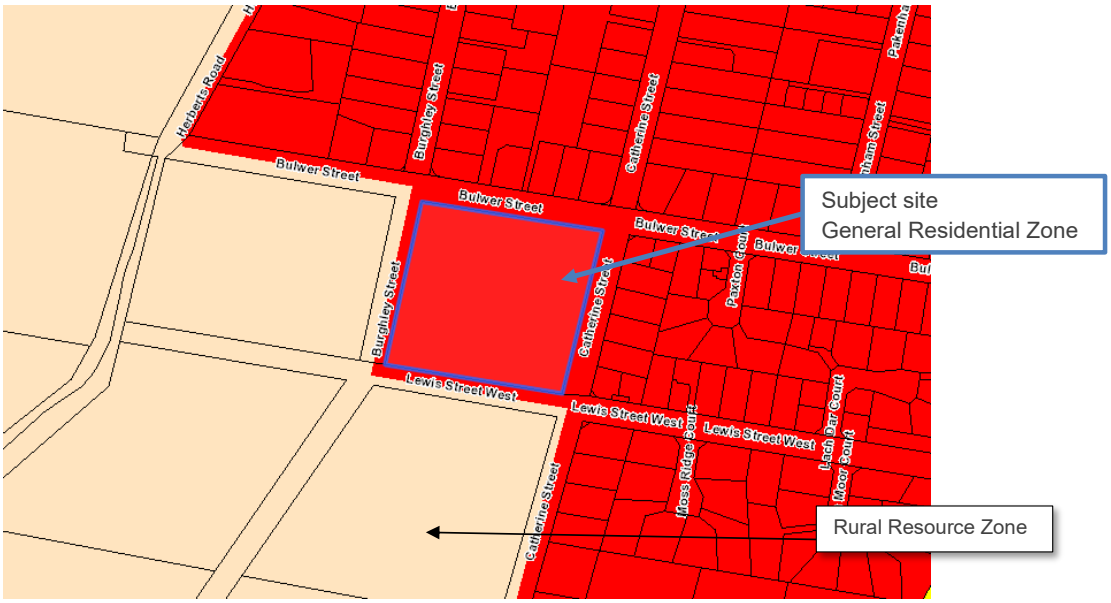


Figure 7 - Zoning of the subject site and surrounding area (Source: LISTMap)

3.2 Overlays

The subject site is affected by the Bushfire Prone Areas Overlay (hatched area).

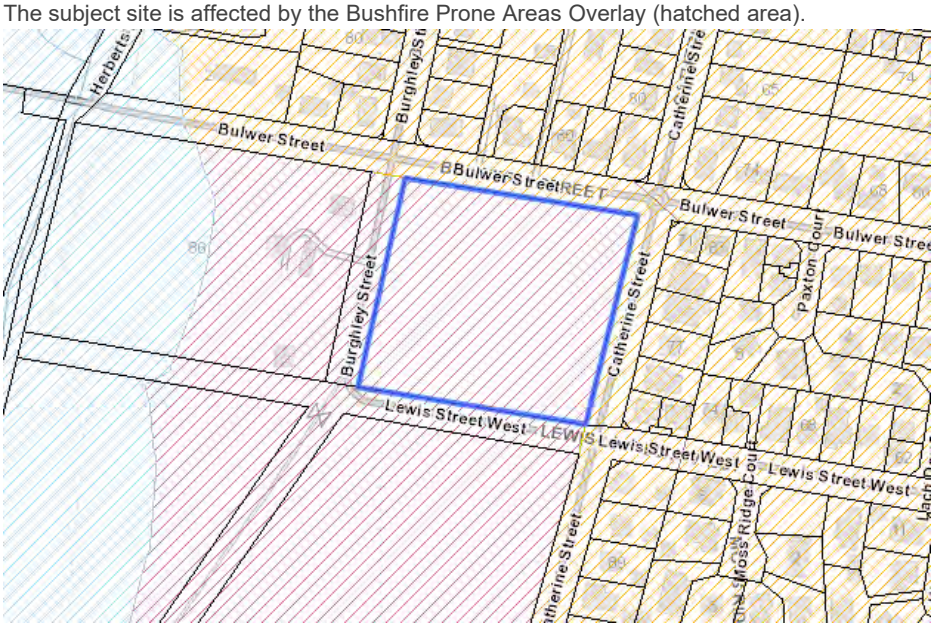


Figure 8 - Overlays affecting the subject site (Source: LISTMap)

EXHIBITED

4. Planning Scheme Zone Assessment

4.1 Zone assessment

10 General Residential Zone

10.1 Zone Purpose

10.1.1 Zone Purpose Statements

10.1.1.1	To provide for residential use or development that accommodates a range of dwelling types at suburban densities, where full infrastructure services are available or can be provided.
10.1.1.2	To provide for compatible non-residential uses that primarily serve the local community.
10.1.1.3	Non-residential uses are not to be at a level that distorts the primacy of residential uses within the zones, or adversely affect residential amenity through noise, activity outside of business hours traffic generation and movement or other off site impacts.
10.1.1.4	To encourage residential development that respects the neighbourhood character and provides a high standard of residential amenity.

10.1.2 Local Area Objectives

To consolidate growth within the existing urban land use framework of the towns and villages.
To manage development in the General residential zone as part of or context to the Heritage Precincts in the towns and villages.
To ensure developments within street reservations contribute positively to the Heritage Precincts in each settlement.

10.1.3 Desired Future Character Statements

There are no desired future character statements

Response:
The proposed does not present a conflict to the purpose of the zone.

10.4.15 Subdivision

10.4.15.1 Lot Area, Building Envelopes and Frontage

Objective	
To provide lots with areas and dimensions that enable the appropriate siting and construction of a dwelling, private open space, vehicle access and parking, easements and site features.	
Acceptable Solutions	**Performance Criteria**
A1.1 Lots must: a) have a minimum area of at least 450m2 which: i. is capable of containing a rectangle measuring 10m by 15m; and ii. has new boundaries aligned from buildings that satisfy the relevant acceptable solutions for setbacks; or b) be required for public use by the Crown, an agency, or a corporation all the shares of which are held by Councils or a	P1.1 Each lot for residential use must provide sufficient useable area and dimensions to allow for: a) a dwelling to be erected in a convenient and hazard-free location; and b) on-site parking and manoeuvrability; and c) adequate private open space.

municipality; or c) be for the provision of utilities; or d) be for the consolidation of a lot with another lot with no additional titles created; or e) be to align existing titles with zone boundaries and no additional lots are created.	
A2 Each lot must have a frontage of at least 3.6m.	P2 Each lot must have appropriate, permanent access by a Right of Carriageway registered over all relevant titles.

Response:

A1.1 The Acceptable Solution is achieved.
Each lot will have an area of at least 450m^2 with the minimum lot size proposed being 507m^2.
Each lot is dimensioned to allow a rectangle measuring 10m x 15m with acceptable setbacks.

(A1.2 not applicable)

A2 The Acceptable Solution is achieved. Each lot has frontage that meets the minimum requirement of 3.6m.

10.4.15.2 Provision of Services

Objective	
To provide lots with appropriate levels of utility services.	
Acceptable Solutions	Performance Criteria
A1 Each lot must be connected to a reticulated: a) water supply; and b) sewerage system.	P1 Each lot created must be: a) in a locality for which reticulated services are not available or capable of being connected; and b) capable of accommodating an onsite wastewater management system.
A2 Each lot must be connected to a reticulated stormwater system.	P2 Each lot created must be capable of disposal of stormwater to a legal discharge point.

Response

A1 The acceptable solution is achieved. Each lot will have access to reticulated water supply and sewer. The Proposal Plan – Infrastructure, provided at Annexure 3, provides detail on mains development to allow each lot to connect to reticulated systems.

A2 The acceptable solution is achieved. Each lot will have access to a reticulated stormwater system. New stormwater mains will be developed to allow each lot to be serviced. The Proposal Plan – Infrastructure, provided at Annexure 3, provides detail.

10.4.15.3 Solar Orientation of Lots

Objective	
To provide for solar orientation of lots and solar access for future dwellings.	
Acceptable Solutions	Performance Criteria
A1 At least 50% of lots must have a long axis within the range of: a) north 20 degrees west to north 30 degrees east; or	P1 Dimensions of lots must provide adequate solar access, having regard to the likely dwelling size and the relationship of each lot to the road.

b) east 20 degrees north to east 30 degrees south.	
A2 The long axis of residential lots less than 500m^2, must be within 30 degrees east and 20 degrees west of north.	P2 Lots less than 500 m2 must provide adequate solar access to future dwellings, having regard to the: a) size and shape of the development of the subject site; and b) topography; and c) location of access way(s) and roads.

Response

P1 The performance criteria are addressed. Each lot exceeds the minimum lot size of 450m^2 and there are ten lots that have a long axis within the north facing range. The remainder are adequately dimensioned and positioned to provide solar access dependent on building design. The layout of the subdivision allows each lot to maintain appropriate setbacks upon development to minimise any impact to neighbouring lots with regard to solar access.

A2 The acceptable solution is achieved. No lots are less than 500m^2 in area.

10.4.15.5 Integrated Urban Landscape

Objective	
To provide attractive and continuous landscaping in roads and public open spaces that contribute to the: a) character and identity of new neighbourhoods and urban places; or b) to existing or preferred neighbourhood character, if any.	
Acceptable Solutions	Performance Criteria
A1 The subdivision must not create any new road, public open space or other reserves.	P1 For subdivision that creates roads, public open space or other reserves, the design must demonstrate that: a) it has regard to existing, significant features; and b) accessibility and mobility through public spaces and roads are protected or enhanced; and c) connectivity through the urban environment is protected or enhanced; and d) the visual amenity and attractiveness of the urban environment is enhanced; and e) it furthers the local area objectives, if any.

Response

P1 The performance criteria are addressed as the development includes a new road.

a) No significant features are identified on the land;
b) The proposed road links to the existing road network, joining directly to Catherine Street.
c) Connectivity is enhanced through connection to new lots by the new road and the construction of the boundary roads at Burghley Street and Lewis Street. This will provide uniformity to the street grid and connectivity to new and existing lots.
d) Amenity will be enhanced as the street infrastructure is improved and standardised.
e) The following is a response to the local area objectives for the zone:
    i. *To consolidate growth within the existing urban land use framework of the towns and villages.*

The development follows the existing pattern of development and is a natural development progression, south west of the existing urban development area of Longford. The development extends existing networks in an orderly and contained pattern in line with the existing grid.

ii) *To manage development in the General residential zone as part of or context to the Heritage Precincts in the towns and villages.*
The surrounding development to the subject site is residential of mixed heritage and style with no prevailing heritage character. It is recognised that Longford has strong heritage features but they are not a part of the surrounding character for the subject site.

iii) *To ensure developments within street reservations contribute positively to the Heritage Precincts in each settlement.*
Not applicable.

Figure 9 - Subject site in relation to the Longford township and development pattern. (Source: LISTMap)

10.4.15.6 Walking and Cycling Network

Objective	
a) To provide safe, convenient and efficient movement through and between neighbourhoods by pedestrians and cyclists; and b) To design footpaths, shared path and cycle path networks that are safe, comfortable, well constructed and accessible. c) To provide adequate provision to accommodate wheelchairs, prams, scooters and other footpath bound vehicles.	
Acceptable Solutions	Performance Criteria
A1 The subdivision must not create any new road, footpath or public open space.	P1 Subdivision that creates new roads, footpaths, or public open spaces must demonstrate that the walking and cycling network is designed to: a) link to any existing pedestrian and cycling networks; and b) provide the most practicable direct access for cycling and walking to activity centres, community facilities, public transport stops and public open spaces; and c) provide an interconnected and continuous network of safe, efficient and convenient footpaths, shared paths, cycle paths and

	cycle lanes based primarily on the network of arterial roads, neighbourhood roads and regional public open spaces; and d) promote surveillance along roads and from abutting dwellings.

Response

P1 The performance criteria are addressed.

a) The new road will link directly to Catherine Street. Footpath infrastructure will be developed to the standard of that at Bulwer Street and Catherine Street and integration to the existing network.

b) The infrastructure for pedestrian and other transport movement will provide practical and direct access to the existing network.

c) The development will be connected as the proximity and built infrastructure will allow for a contiguous development pattern.

d) There are no hidden spaces created in the subdivision layout and anticipated development within the General Residential Zone. The lots that border the site promote residential development that faces the streets and new road and there are no internal lots.

10.4.15.7 Neighbourhood Road Network

Objective	
Objective a) To provide for convenient, safe and efficient movement through and between neighbourhoods for pedestrians, cyclists, public transport and other motor vehicles using the neighbourhood road network; and b) To design and construct road carriageways and verges so that the road geometry and traffic speeds provide an accessible and safe neighbourhood road system for all users.	
Acceptable Solutions	Performance Criteria
A1 The subdivision must not create any new road.	P1 The neighbourhood road network must: a) take account of the existing mobility network of arterial roads, neighbourhood roads, cycle paths, shared paths, footpaths and public transport routes; and b) provide clear hierarchy of roads and physical distinctions between arterial roads and neighbourhood road types; and c) provide an appropriate speed environment and movement priority for the safe and easy movement of pedestrians and cyclists and for accessing public transport; and d) provide safe and efficient access to activity centres for commercial and freight vehicles; and e) ensure connector roads align between neighbourhoods for safe, direct and efficient movement of pedestrians, cyclists, public transport and other motor vehicles; and f) provide an interconnected and continuous network of roads within and between neighbourhoods for use by pedestrians, cyclists, public transport and other vehicles and minimise the provision of cul-de-sacs;

	and g) provide for service and emergency vehicles to safely turn at the end of a dead-end road; and h) take into account of any identified significant features.

Response

P1 The performance criteria are addressed.

a) The new road development integrates with the existing neighbourhood network;
b) The new road is a short cul-de-sac that will clearly indicate use for residents and visitors, not as a through-way. This will link with Catherine Street which, in the hierarchy of roads, provides linkages within Longford a s apart of the prevailing grid network.
c) The new road would be within the local speed environment and allow appropriate movement to facilitate entry and egress from residential addresses.
d) Not applicable.
e) Not applicable
f) The use of the cul-de-sac maximises the use of the land for residential development and maintains the prevailing and dominant grid pattern that defines the Longford development pattern.
g) The road development will be built to the appropriate standard.
h) No significant features are identified.

4.2 Code Assessment

The following Codes under the Scheme are considered applicable to this application.

Code		Comments
E1	Bushfire-prone Areas Code	Applicable – Refer to Annexure 4
E2	Potentially Contaminated Land Code	Not applicable
E3	Landslide Code	Not applicable
E4	Road and Railway Assets Code	Applicable; refer to the TIA at Annexure 5
E5	Flood Prone Areas Code	Not applicable
E6	Car Parking and Sustainable Transport Code	Applicable; refer to the following section of the report
E7	Scenic Management Code	Not applicable
E8	Biodiversity Code	Not applicable
E9	Water Quality Code	Not applicable
E10	Recreation and Open Space Code	Applicable; refer to the following section of the report
E11	Environmental Impacts and Attenuation Code	Not applicable
E12	Airports Impact Management Code	Not applicable
E13	Heritage Code	Not applicable
E14	Coastal Code	Not applicable
E15	Signs Code	Not applicable

E6 Parking and Sustainable Transport Code

This Code applies to all use and development.

E6.6 Use standards

E6.6.1 Car parking numbers

Table E6.1 Parking Space Requirements (extract)

Use: Residential	Parking Requirements
If a 1 bedroom or studio dwelling in the General Residential Zone (including all rooms capable of being used as a bedroom)	1 space per dwelling.
If a 2 or more bedroom dwelling in the General Residential Zone (including all rooms capable of being used as a bedroom)	2 spaces per dwelling
Objective To ensure that an appropriate level of car parking is provided to service use.	

Acceptable Solutions	Performance Criteria
A1 The number of car parking spaces must not be less than the requirements of: a) Table E6.1; or b) a parking precinct plan contained in Table E6.6: Precinct Parking Plans (except for dwellings in the General Residential Zone).	P1 The number of car parking spaces provided must have regard to: (a-k)

Response:

A1 The Acceptable Solution is achieved. All proposed lots will have adequate car parking space for 2+ vehicles with manoeuvring room.

E6.6 Development Standards

Not applicable as there is no development proposed beyond the subdivision as a part of this application.

E10 Recreation and Open Space Code

This code applies to development of land for subdivision in the general residential, general industrial, light industrial, commercial, local business, general business, low density residential, rural living and village zones.

E10.6 Development standards

E10.6.1 Provision of Public Open Space

Objective
a) To provide public open space which meets user requirements, including those with disabilities, for outdoor recreational and social activities and for landscaping which contributes to the identity, visual amenity and health of the community; and b) To ensure that the design of public open space delivers environments of a high quality and safety for a range of users, together with appropriate maintenance obligations for the short, medium and long term.

Acceptable Solutions	Performance Criteria
A1 The application must: a) include consent in writing from the General Manager that no land is required for public open space but instead there is to be a cash payment in lieu.	P1 Provision of public open space, unless in accordance with Table E10.1, must: a) not pose a risk to health due to contamination; and b) not unreasonably restrict public use of the land as a result of: i. services, easements or utilities; and ii. ii) stormwater detention basins; and iii. iii) drainage or wetland areas; and iv. iv) vehicular access; and c) be designed to: i. provide a range of recreational settings and accommodate adequate facilities to meet the needs of the community, including car parking; and ii. reasonably contribute to the pedestrian connectivity of the broader area; and iii. be cost effective to maintain; and iv. respond to the opportunities and

	constraints presented by the physical characteristics of the land to provide practically useable open space; and v. provide for public safety through Crime Prevention Through Environmental Design principles; and vi. provide for the reasonable amenity of adjoining land users in the design of facilities and associated works; and vii. have a clear relationship with adjoining land uses through treatment such as alignment, fencing and landscaping; and viii. create attractive environments and focal points that contribute to the existing or desired future character statements, if any.

Response:
Please see the attachment provided at Annexure 6 addressing this clause.

5. Conclusion

The proposed development is for a staged 22 residential lot subdivision with one new road lot.
The subdivision will be delivered over two stages; Stage 1 will see the development of 13 residential lots and a new road (cul-de-sac), with the new lots fronting Catherine Street and Bulwer Street. This will join to the already approved subdivision that fronts Bulwer Street to the corner of Catherine Street. Stage 2 will deliver 9 residential lots and the construction of the roads that bound the west and south of the lot, Burghley Street and Lewis Street.

The subdivision also includes the development of reticulated services (water, sewer, stormwater) to the residential lots.

The subdivision will provide 22 new residential lots with connectivity to Longford and surrounds in an orderly development that respects the existing development pattern of the area.

The proposal is appropriate to the zone and meets the provisions of the Scheme. Approval for the subdivision is sought from Council.

Annexure 1 – Certificate of Title Plan and Folio Text
Annexure 2 – Subdivision proposal plan
Annexure 3 – Infrastructure proposal plan
Annexure 4 – Bushfire Hazard Assessment
Annexure 5 – Traffic Impact Assessment
Annexure 6 – Letter regarding Public Open Space

WOOLCOTT SURVEYS

Land Surveying | Town Planning | Project Management

w woolcottsurveys.com.au **e** office@woolcottsurveys.com.au

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East Coast office
48 Cecilia Street
St Helens 7216
p (03) 6376 1972

Hobart
South office
Rear studio, 132 Davey Street
Hobart 7000
p (03) 6227 7968

Devonport
North west office
2 Piping Lane
East Devonport 7310
p (03) 6332 3760

EXHIBITED

FOLIO PLAN

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

Tasmanian Government

OWNER LT ACT 1980

FOLIO REFERENCE W549

GRANTEE WHOLE OF 5-3-0, 4-1-17, 7-0-0, 6-3-18, 6-3-0, 1-2-5 GTD TO FRANCIS FRENCH. WHOLE OF 7-0-0 GTD TO WILLIAM HARTNELL & WHOLE OF 12-3-5 GTD TO HUGH CALVELEY COTTON.

PLAN OF TITLE

LOCATION TOWN OF LONGFORD (SECS. A & BB) & WESTMORLAND – LONGFORD (SEC. GG & NN)

FIRST SURVEY PLAN No. C/48 & A7/101 L O

COMPILED BY

SCALE 1: 3000 LENGTHS IN METRES

REGISTERED NUMBER P115134

APPROVED - 6 DEC 1994

Recorder of Titles

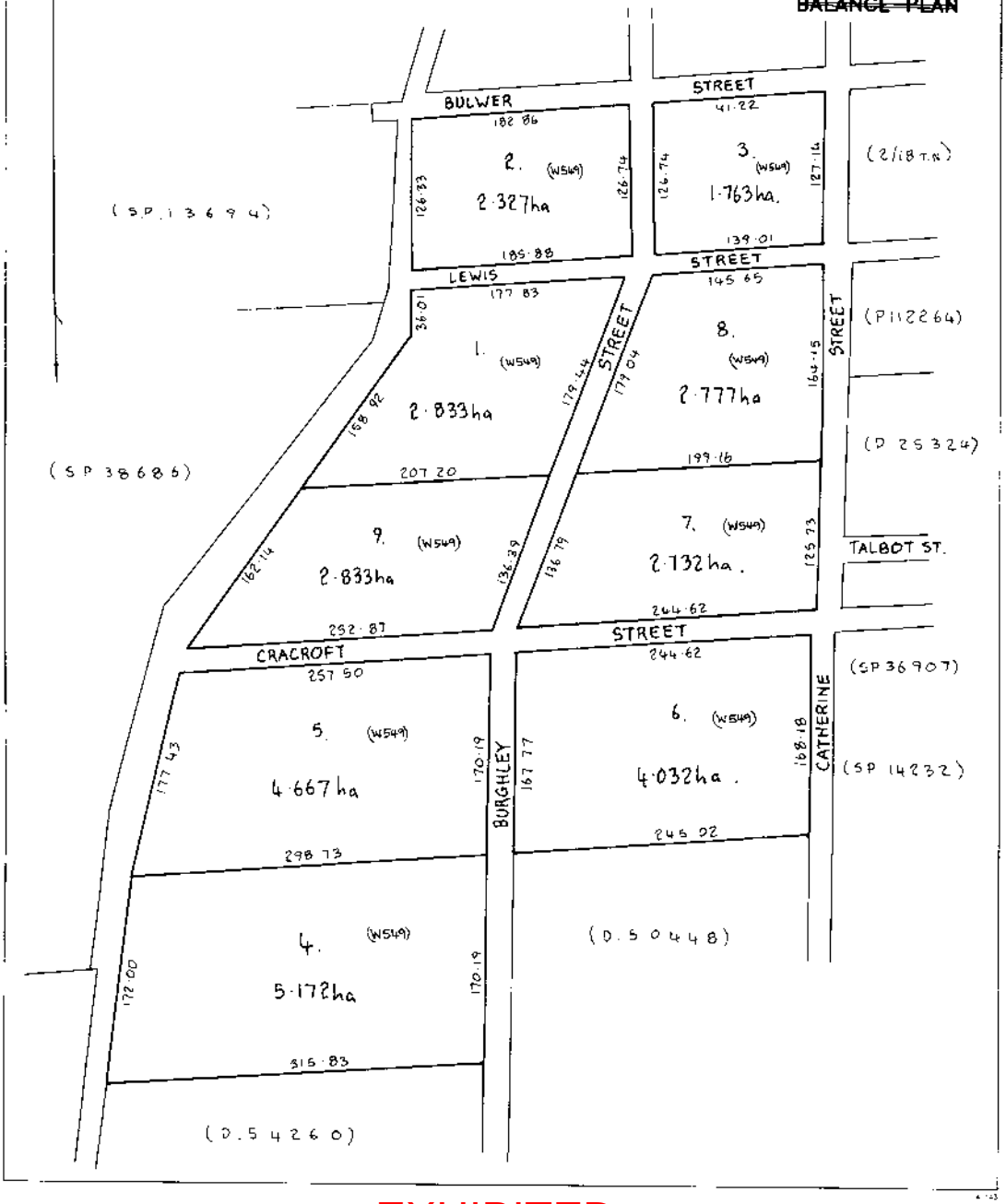
MAPSHEET MUNICIPAL CODE No. 56

LAST UPI No 0794, 755, 753

LAST PLAN No.

ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN

~~BALANCE PLAN~~



EXHIBITED

Search Date: 28 Oct 2021 Search Time: 12:32 PM Volume Number: 115134 Revision Number: 01 Page 1 of 1

Department of Primary Industries, Parks, Water and Environment

www.thelist.tas.gov.au

STAGING NOTES:

STAGE 1: LOTS 7-17 AND 27-28.
STAGE 2: LOTS 18-26.

EXHIBITED

Notes: 1. CONTOUR INTERVAL IS 0.2m 2. CONTOUR INDEX IS 1.0m	PROPOSED 2 STAGED SUBDIVISION OWNERS: DELLFARM PTY. LTD. ADDRESS: 86 BURGHLEY STREET, LONGFORD	N	WOOLCOTT SURVEYS	10 Goodman Court Invermay TAS 7248 PO Box 593 Mowbray Heights TAS 7248 Phone (03) 6332 3760 Fax (03) 6332 3764 Email: admin@woolcottsurveys.com.au		Job Number L180418
			Drawn CSS	File name L180418_PROP_PLAN_300921	Date 30/09/2021	Scale 1:800@A3	Edition V1	Sheet 1 OF 1

PLEASE NOTE

1. INTENDED USE OF PLAN
   THIS PLAN WAS PREPARED TO ACCOMPANY A DEVELOPMENT APPLICATION TO COUNCIL AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE. DETAILS ARE SUBJECT TO CHANGE AND IN PARTICULAR NO RELIANCE SHOULD BE PLACED ON THE INFORMATION ON THIS PLAN FOR ANY FINANCIAL DEALINGS INVOLVING THIS LAND.

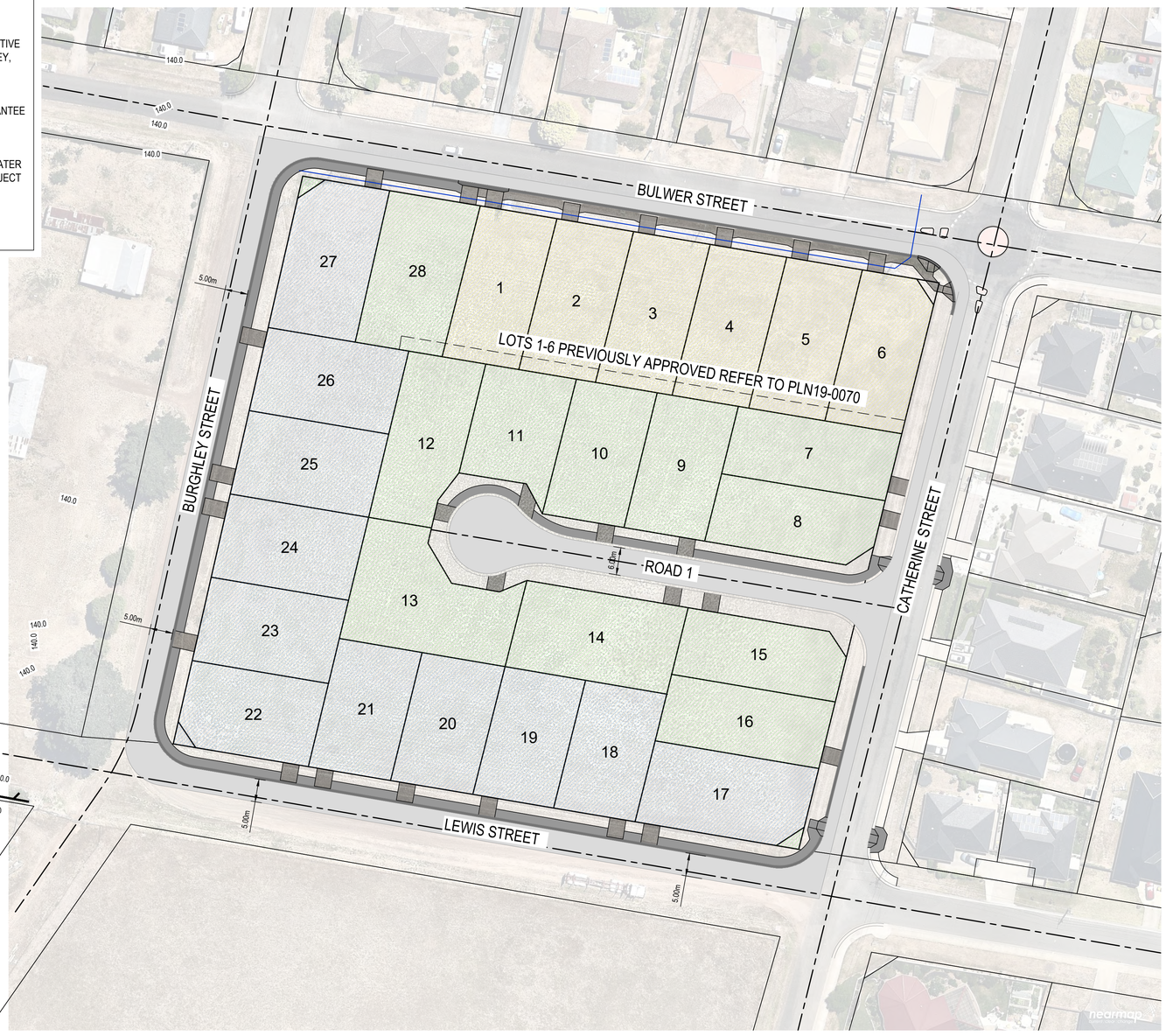
2. LAYOUT MEASUREMENTS
   ALL MEASUREMENTS, AREAS AND LOTS SHOWN ARE INDICATIVE ONLY AND SUBJECT TO CHANGE DUE TO FINAL FIELD SURVEY, DETAILED DESIGN AND CONSTRUCTION

3. SERVICES
   ALL SERVICES SHOWN ARE APPROXIMATE ONLY. NO GUARANTEE CAN BE GIVEN THAT ALL RELEVANT SERVICES ARE SHOWN

4. DETAILED DESIGN APPROVALS
   ROAD, DRIVEWAYS, FOOTPATHS, SEWER, STORMWATER, WATER AND LANDSCAPING SHOWN IS PRELIMINARY ONLY AND SUBJECT TO CHANGE. ALL CHANGES DURING DETAILED DESIGN AND CONSTRUCTION ARE SUBJECT TO THE APPROVALS OF THE RELEVANT SERVICE AUTHORITIES

THIS NOTE IS AN INTEGRAL PART OF THIS PLAN

Revised
24/01/2022



EXHIBITED

WOOLCOTT SURVEYS

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Offices:
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Hobart
St Helens
Devonport

6ty°
6ty Pty Ltd
ABN 27 014 609 900
Architectural
ABP No. CC4874f
Structural / Civil
ABP No. CC1633i

APPROVED COMPANY ISO 9001 Quality Management Systems QMS

PLANNING DOCUMENT

ISSUE	DATE	ISSUED FOR	REV.
01	09.11.21	PLANNING APPROVAL	-

DIMENSIONS ARE IN METRES. DO NOT SCALE. CHECK AND VERIFY ALL DIMENSIONS ON SITE. REFER DISCREPANCIES TO THE SUPERINTENDENT. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH: APPLICABLE AUSTRALIAN STANDARDS & LOCAL AUTHORITY REQUIREMENTS.

PROJECT: PROPOSED 28 LOT SUBDIVISION

AT: 86 BURGHLEY STREET
LONGFORD

FOR: DELL FARM PTY LTD

DRAWING: PROPOSAL PLAN

DESIGNED: M.C.V DRAWN: A.T.V CHECKED: P.M.W.

SCALES: 1:500 AT A1 SIZE DRAWING SHEET

PROJECT No. 21.175 DRAWING No. Cp01 REV. -

PLEASE NOTE

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2. LAYOUT MEASUREMENTS
   ALL MEASUREMENTS, AREAS AND LOTS SHOWN ARE INDICATIVE ONLY AND SUBJECT TO CHANGE DUE TO FINAL FIELD SURVEY, DETAILED DESIGN AND CONSTRUCTION

3. SERVICES
   ALL SERVICES SHOWN ARE APPROXIMATE ONLY. NO GUARANTEE CAN BE GIVEN THAT ALL RELEVANT SERVICES ARE SHOWN

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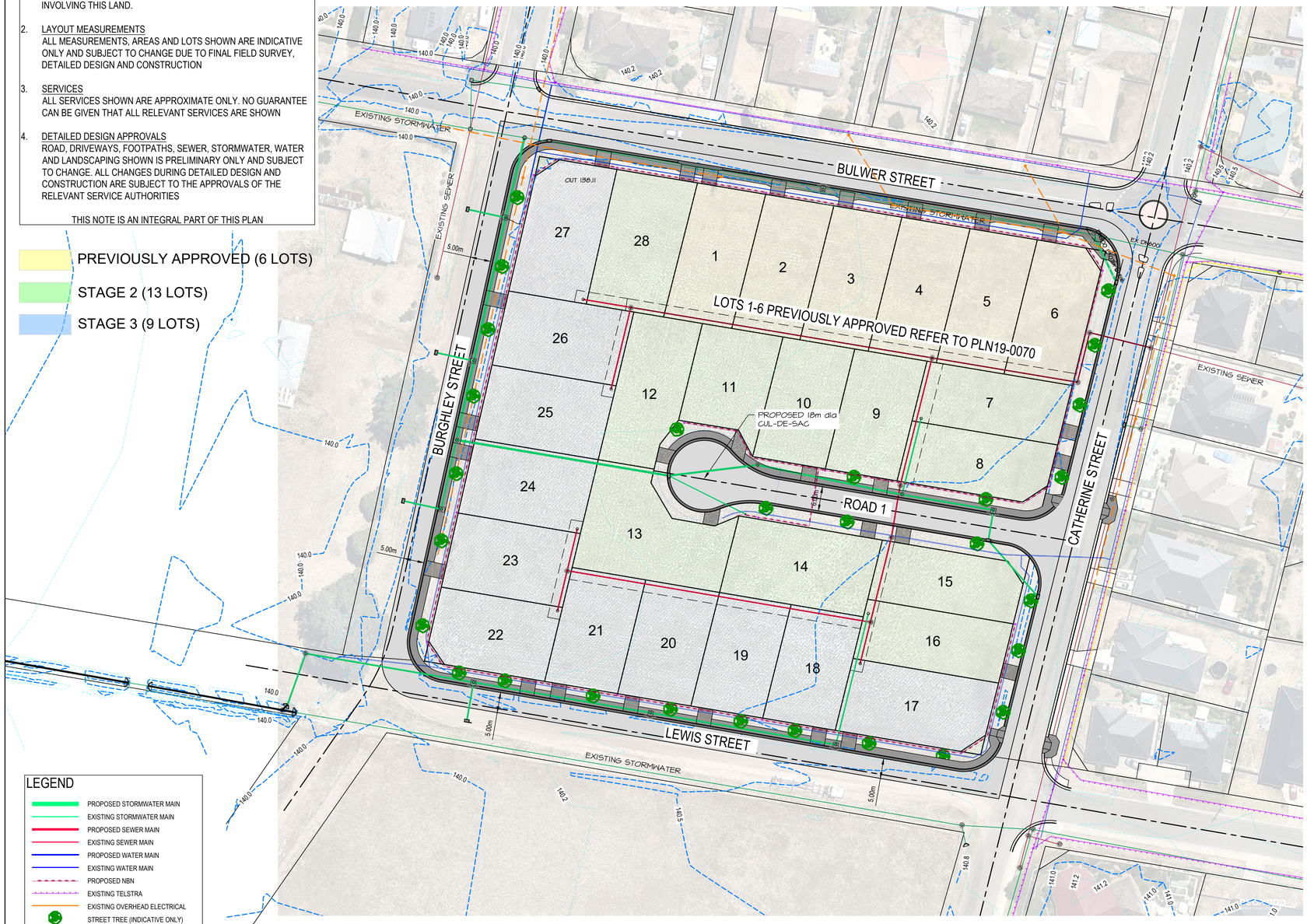
THIS NOTE IS AN INTEGRAL PART OF THIS PLAN

PREVIOUSLY APPROVED (6 LOTS)

STAGE 2 (13 LOTS)

STAGE 3 (9 LOTS)

Revised
24/01/2022



LEGEND

- PROPOSED STORMWATER MAIN
- EXISTING STORMWATER MAIN
- PROPOSED SEWER MAIN
- EXISTING SEWER MAIN
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- PROPOSED NBN
- EXISTING TELSTRA
- EXISTING OVERHEAD ELECTRICAL
- STREET TREE (INDICATIVE ONLY)

EXHIBITED

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Hobart
St Helens
Devonport

6ty°
6ty Pty Ltd
ABN 27 014 609 900
Architectural
ABP No. CC4874f
Structural / Civil
ABP No. CC1633i

APPROVED COMPANY ISO 9001 Quality Management Systems QMS Certification Services

PLANNING DOCUMENT

ISSUE	DATE	ISSUED FOR	REV.
01	09.11.21	PLANNING APPROVAL	-
02	21.01.22	PLANNING APPROVAL	A

N

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PROJECT: PROPOSED 28 LOT SUBDIVISION

AT: 86 BURGHLEY STREET
LONGFORD

FOR: DELL FARM PTY LTD

DRAWING: PROPOSAL PLAN
INFRASTRUCTURE

DESIGNED: M.C.V DRAWN: A.T.V CHECKED: P.M.W.

SCALES: 1:500 AT A1 SIZE DRAWING SHEET

PROJECT No. 21.175 DRAWING No. Cp02 REV. A

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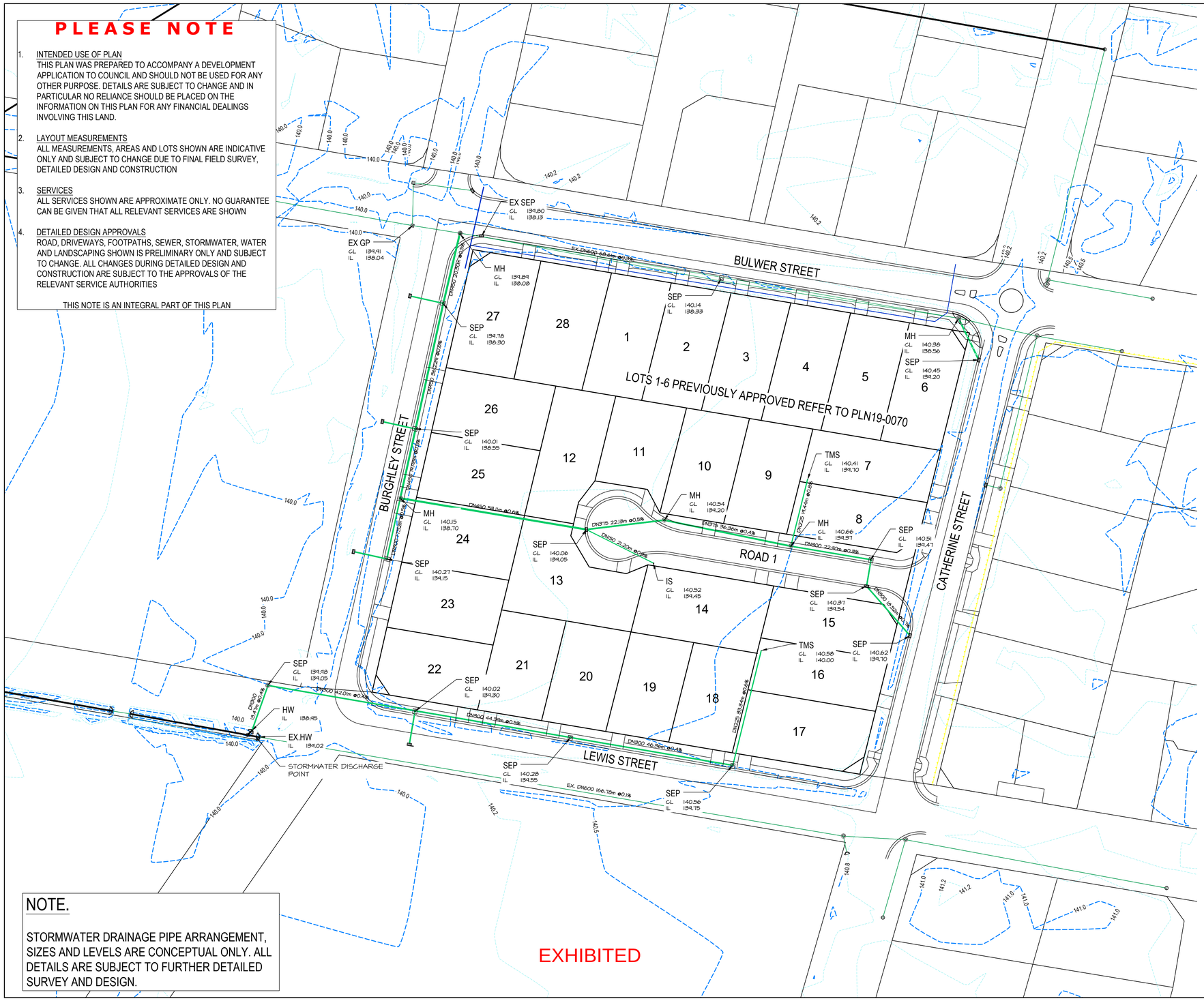

EXHIBITED

NOTE.

STORMWATER DRAINAGE PIPE ARRANGEMENT, SIZES AND LEVELS ARE CONCEPTUAL ONLY. ALL DETAILS ARE SUBJECT TO FURTHER DETAILED SURVEY AND DESIGN.

WOOLCOTT SURVEYS

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Revised
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01	21.01.22	PLANNING APPROVAL	-

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PROJECT: PROPOSED 28 LOT SUBDIVISION

AT: 86 BURGHLEY STREET
LONGFORD

FOR: DELL FARM PTY LTD

DRAWING: PROPOSAL PLAN
STORMWATER DETAILS
PRELIM LEVELS

DESIGNED: M.C.V DRAWN: A.T.V CHECKED: P.M.W.

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EAST COAST SURVEYING

BUSHFIRE HAZARD REPORT

22 Lot Subdivision

86 Burghley Street, Longford

November 2021

EXHIBITED

Job number: L180418
Prepared by: James Stewart (james@woolcottsurveys.com.au)
Town Planner & Bushfire Hazard Practitioner 157

Rev. no	Description	Date
1	FINAL	08/11/2021

Disclaimer
This report deals with the potential bushfire risk only, all other statutory assessments sit outside of this report. This report is not to be used for future or further development on the site, other then what has been specifically provided for in the certified plans attached. Woolcott Surveys Pty Ltd accepts no responsibility to any purchaser, prospective purchaser or mortgagee of the property who in any way rely on this report. This report sets out the owner's requirements and responsibilities and does not guarantee that buildings will survive in the event of a bushfire event. If characteristics of the property change or are altered from those which have been identified, the BAL classification may be different to that which has been identified as part of this report. In this event the report is considered to be void.

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Executive Summary

Development of a 22 lot residential subdivision is proposed for 86 Burghley Street, Longford. The subdivision consists of 22 residential lots and one road lot, which will be undertaken over two stages. Access to lots will be via the internal cul-de-sac, or via the surrounding Council roads.

The site is entirely within the boundary of a bushfire prone area shown on an overlay of a planning scheme map for the *Northern Midlands Interim Planning Scheme 2013*. A bushfire event at this site or within the immediate area is likely to impact on future buildings at this location and subject development to considerable radiant heat and ember attack.

A bushfire hazard management plan has been prepared and is provided as an appendix to this report. The plan sets out the owner's responsibilities to maintain a managed area for each lot, taking into consideration the relevant requirements under Australian Standard *AS3959-2018 Construction of buildings in bushfire-prone areas*.

Conclusions and recommendations

a) Hazard management areas meeting the requirements of BAL 12.5 can be achieved for lots 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27 and 28.

b) Lots 7, 8, 9, 10, 11 and 15 are considered exempt in accordance with clause E1.4 (a) of PD 5.1 Bushfire Prone Areas Code.

c) Lot 301, the proposed cul-de-sac road, must be in compliance with Table E, Element A, with the exception of the 12m outer radius for cul-de-sacs.

d) New hydrants are required in accordance with the TasWater Supplement to Water Supply Code of Australia WSA 03-2011-3.1 MRWA Edition 2:0. Hydrants to have a separation of not more than 60m.

e) As part of stage 1, the balance lot and future stage 2 area, is to be managed in accordance with section 5.2 of this report, prior to Council sealing a final plan of subdivision. This area is to be maintained in perpetuity, until such time as stage 2 is complete.

f) All lots are to be treated as a hazard management area. Maintenance of all hazard management areas must be in perpetuity.

Signed:

Author: James Stewart
Accreditation No: BFP-157

Table of Contents

1. Introduction

This Bushfire Hazard Report and Bushfire Hazard Management Plan (BHMP) has been prepared in support of a proposed 22 lot subdivision at 86 Burghley Street, Longford.

1.1 The subject site

The following is a summary of the application information:

Property address	86 Burghley Street, Longford.
Certificate of title	CT115134/3
Property ID (PID)	9719166
Property Owners	Dell Farm Pty Ltd.
Existing Use and Development	Vacant
Approved Development	Six lot subdivision.
Existing Zoning	General Residential Zone
Planning Scheme	Northern Midlands Interim Planning Scheme 2013
Identified on a Bushfire Overlay Map	Yes
Priority Habitat identified	No
Proposed Works	22 Lot Staged Subdivision.
Water Supply	Reticulated water supply
Vehicular Access	Council Roads (multiple).

1.2 Bushfire Assessment

A bushfire assessment is a process of analysing information about the potential impacts on a proposed development that is likely to occur in a bushfire hazard scenario. A 'bushfire-prone area' is an area where a bushfire event is potentially likely to occur, and that may result in significant adverse impact on buildings and/or lives.

In Tasmania, most local Councils have a planning scheme overlay map that identifies bushfire-prone areas. Subdivision within a bushfire-prone area triggers the assessment of the Bushfire-Prone Areas Code under the planning schemes and subsequently requires assessment against the provisions of the Code. The assessment generally requires a BHMP to be provided as part of the application.

The bushfire assessment will determine the Bushfire Attack Level (BAL) for the future lots, which measures the possible exposure of a building to bushfire hazard. The BAL is assessed in accordance with Australian Standard *AS 3959-2018 construction of buildings in bushfire-prone areas.*

The subject site falls within the municipal area of Northern Midlands. The assessment has been undertaken in accordance with E1.0 Bushfire-Prone Areas Code and to accompany a subdivision

application under the *Northern Midlands Interim Planning Scheme 2013.* Please refer to Section 6 of the report for detail.

A BAL assessment is required to understand the fuel management requirements for the subject site and to demonstrate that future new buildings within each proposed new lots can be constructed to a BAL19 level under the *Building Act 2016*.

1.3 References

The following documents were referred in the preparation of, and should be read in connection with, this bushfire assessment report:

- Tasmanian Government, Planning Directive No. 5.1 – Bushfire-Prone Areas Code
- Tasmanian Government, Director's Determination – Requirements for Building in Bushfire Prone Areas (transitional) Version 2.2.
- Tasmanian Government, Director's Determination – Application of Requirements for Building in Bushfire Prone Areas (transitional) Version 1.4.
- Northern Midlands Interim Planning Scheme 2015
- Australian Standard, AS3959-2018 construction of buildings in bushfire-prone areas.
- Building Act 2016
- Tasmanian Fire Service, Bushfire Hazard Advisory Notes

2. Site Description

2.1 Site context

A 22-lot subdivision is being undertaken on land owned by Dell Farm Pty Ltd. The subdivision will be undertaken over two stages. The site consists of one regular shaped title, which has a total area of 1.76ha. The land is generally located in the south western part of the Longford township.

The site is vacant, with no use or development on site. The land was used as pasture at the time of inspection.

The land adjoins residential development on the northern and eastern sides, with rural land located to the south and west. The site is bounded by Bulwer and Catherine Streets, to the north and west. Both of these roads are sealed Council maintained roads. Lewis Street West and Burghley Street are unsealed Council maintained roads, located to the south and west of the site.

The site is generally level with a gentle fall to the west, towards Back Creek rivulet which runs north south.

Figure 1 – Aerial view of the subject site and its surrounding area (source: The LISTMap)

The subject site will be serviced by a reticulated water supply maintained by TasWater. There are currently hydrants located along Catherine Street and Bulwer Street.

2.2 Planning controls

The site is within the municipal area of the Northern Midlands Council. Therefore, the planning instrument is the *Northern Midlands Interim Planning Scheme 2013* (The Scheme).

The subject site is currently within the General Residential Zone. The subject site adjoins the General Residential Zone to the north and east of the site, and the Rural Resource Zone to the south and west.

The subject site also entirely falls within the Bushfire-Prone Areas Overlay.

Figure 2 – Zoning Map (source: The LISTMap)

3. The Proposal

It is proposed to subdivide the subject site into 22 residential lots. The lots are intended for residential development, ranging from 500m^2 to 787m^2 in size. A new cul-de-sac road will provide vehicular access off Catherine Street, while all other lots will access off either Bulwer, Catherine, Lewis Street West, or Burghley Street. All lots will be connected to reticulated water, sewer and stormwater.

Figure 3 – Proposed subdivision layout. Refer to Annexure 2 for detail.

EXHIBITED

4. Bushfire Site Assessment

4.1 Vegetation Analysis

4.1.1 TasVeg Mapping

The TasVeg map 4.0 provides general information indicating potential bushfire prone vegetation in the area.

The mapping shows the vegetation community across the subject site as FAG, being agricultural land. This is consistent with the characteristics of the subject site, as well as land to the south and west, which is all used as pasture. Land to the north and east is developed for urban purposes. While TasVeg generally classifies this as FUR, there is a section of mapping to the east which requires updating.

No other vegetation has been identified in proximity of the subject site.

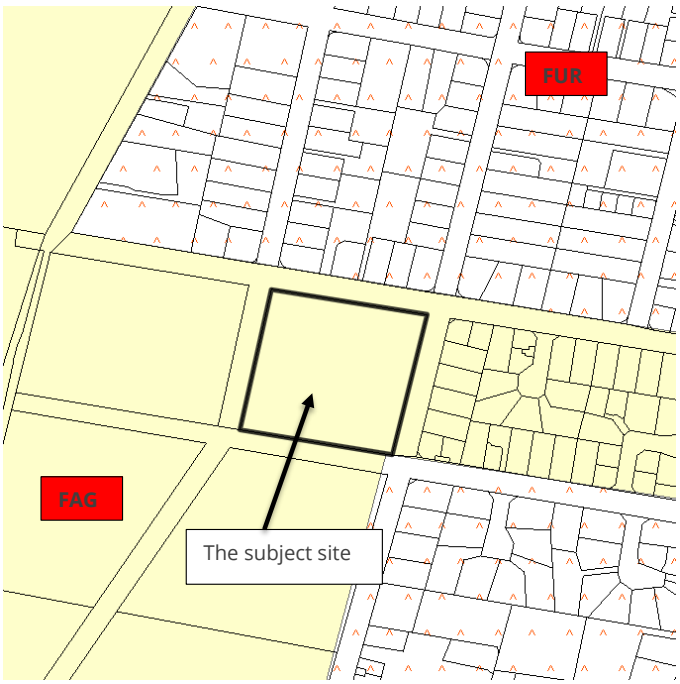


Figure 4 – TasVeg 4.0 map (source: The LISTMap)

4.1.2 Vegetation Type and Separation

A site visit was conducted on the 8th of November 2021. An analysis of the land and bushfire prone vegetation within 120m from the subject site is provided below.

Direction	Analysis
North	Land to the north is urban in nature and classified as managed. It is developed for residential purposes, with a mixture of single and multiple dwellings.
South	Land to the south is classified as grassland. The land is used for pasture and grazing activities.
East	Land to the east is classified as managed. It is developed for residential purposes, with a mixture of single and multiple dwellings.
West	Land to the west is classified as grassland. The land is used for pasture and grazing activities. There is a single dwelling on the property to the west, however the lot is a large lot which is in a similar state to surrounding grassland areas.

Figure 5 – Vegetation analysis within 120m of site.

Legend

Grassland

Managed land

4.2 Effective slope Analysis

Figure 6 below shows the effective slope which is the slope of land under the classified vegetation **in relation to** the subject site. The identified bushfire prone vegetation occurs on land that is generally flat. There is a very slight fall to the east, while land to the south all sits at the 140m AHD contour, which is the same as the subject site.

Figure 6 – Effective slope of site and surrounding bushfire prone vegetation.

4.3 Photos

Figure 7 – Bulwer Street, Looking west.

Figure 8 – looking south across subject site.

Figure 9 – Looking west across subject site.

Figure 10 – Adjoining grassland to the south.

Figure 11 – Looking south across adjoining title.

Figure 12 – Looking at adjoining property to the west.

5. Bushfire Protection Measures

5.1 BAL Rating and Risk Assessment

The purpose of the BAL assessment is to identify the minimum separation between the bushfire prone vegetation and a building area within each proposed lot. The assessment aims to achieve the minimum requirements of **BAL 19**.

The definition of BAL 19 and 12.5 are highlighted as follows:

Bushfire attack level (BAL)	**Predicted bushfire attack and exposure level**
BAL-LOW	Insufficient risk to warrant specific construction requirements
BAL-12.5	Ember attack, radiant heat below 12.5kW/m^2
BAL-19	Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5-19kW/m^2
BAL-29	Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19-29kW/m^2
BAL-40	Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 29-40kW/m^2
BAL-FZ	Direct exposure to flames radian heat and embers from the fire front.

The distances from each lot to the classified vegetation is presented below, along with the slope and type of vegetation. To better demonstrate the required separation as hazard management areas, a 10m x 15m building area is shown on each lot. As per the analysis in Section 4.1, the only identified bushfire-prone vegetation around the site is grassland.

Lots 7, 8, 9, 10, 11, and 15 are all over 50m from grassland. These lots are therefore classified as insufficient risk and are considered exempt under the code.

Note: The subdivision starts at lot number 7. Lot numbers 1-6 were approved as part of an earlier subdivision, with frontage onto Bulwer Street. Refer to the proposal plan for more detail.

Lot 12	**North**	**East**	**South**	**West**
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -80m Managed 80m-100m Grassland	0-48m Managed 48m-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

BAL LOW Setbacks	NA	NA	NA	1m

Lot 13	**North**	**East**	**South**	**West**
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -48m Managed 48m-100m Grassland	0-48m Managed 48m-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA
BAL LOW Setbacks	NA	NA	2m	2m

Lot 14	**North**	**East**	**South**	**West**
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -48m Managed 48m-100m Grassland	0-80m Managed 80m-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA
BAL LOW Setbacks	NA	NA	2m	NA

Lot 15	**North**	**East**	**South**	**West**
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -48m Managed 48m-100m Grassland	0-100m Managed
Slope (degrees, over 100m)	NA	NA	Upslope/flat	NA
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA
BAL LOW Setbacks	NA	NA	2m	NA

Lot 16	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -40m Managed 40m-100m Grassland	0-100m Managed
Slope (degrees, over 100m)	NA	NA	Upslope/flat	NA
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 17	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -20m Managed 20m-100m Grassland	0-100m Managed
Slope (degrees, over 100m)	NA	NA	Upslope/flat	NA
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 18	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -20m Managed 20m-100m Grassland	0-100m Managed
Slope (degrees, over 100m)	NA	NA	Upslope/flat	NA
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 19	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -20m Managed 20m-100m Grassland	0-90m Managed 90-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 20	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -20m Managed 20m-100m Grassland	0-70m Managed 70-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 21	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -20m Managed 20m-100m Grassland	0-50m Managed 50-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 22	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -20m Managed 20m-100m Grassland	0-20m Managed 20-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 23	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -40m Managed 40m-100m Grassland	0-20m Managed 20-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 24	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -60m Managed 60m-100m Grassland	0-20m Managed 20-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 25	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -80m Managed 80m-100m Grassland	0-20m Managed 20-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 26	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -100m Managed	0-20m Managed 20-100m Grassland
Slope (degrees, over 100m)	NA	NA	NA	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 27	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -100m Managed 100+ Grassland	0-20m Managed 20-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA

Lot 28	North	East	South	West
Vegetation within 100m of site	0m -100m Managed	0m -100m Managed	0m -100m Managed 100+ Grassland	0-40m Managed 40-100m Grassland
Slope (degrees, over 100m)	NA	NA	Upslope/flat	Downslope 1°
BAL 19 Setbacks	NA	NA	NA	NA
BAL 12.5 Setbacks	NA	NA	NA	NA
BAL LOW Setbacks	NA	NA	NA	10m

5.2 Hazard Management Areas

As outlined in the *Planning Directive 5.1 – Bushfire-Prone Areas Code*, a Bushfire Hazard Management Area (BHMA) will be managed in accordance with the provided plan. Existing vegetation needs to be strategically modified and then maintained within this area in accordance with the BHMP to achieve the following outcomes:

- to reduce the quantity of windborne sparks and embers reaching buildings;
- to reduce radiant heat at the building; and
- to halt or check direct flame attack.

The BHMA will be developed within and up to the property boundaries to provide access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present that will significantly contribute to the spread of a bushfire.

The BHMA will be achieved by adoption of the following strategies:

Maintenance of Fuel Management Areas

It is the responsibility of the property owner to maintain and manage the landscaping in accordance with the Bushfire Hazard Management Plan and the current Guidelines for Development in Bushfire-Prone Areas of Tasmania.

This area is to be regularly managed and maintained. Landscaping in this area will be minimised:

- Grass maintained to a maximum height of 100mm, with fuel loads kept to less than 2 tonnes per hectare which will be maintained at this level.
- Trees and any undergrowth will be clear of (BCA) class 1 – 9 buildings on all sides.
- All undergrowth and understorey of trees (up to 2m) will be removed within the bushfire hazard management area.
- Select larger trees can be retained within the BHMA, ensuring a minimum 5m canopy separation is provided between each established tree.
- Pathways to 1 metre surrounding the buildings and landscaping material, will be non-combustible (stone, pebbles etc.).
- The total shrub cover will be a maximum of 20% of the available area.
- There will be a clear space from the buildings of at least four (4) times the mature height of any shrubs planted.
- Shrubs will not be planted in clumps, this is to avoid build-up of debris and dead vegetation materials.

Landscaping

- vegetation along the pathways to comprise non-flammable style succulent ground cover or plants (avoid plants that produce fine fuel which is easily ignited, plants that produce a lot of debris, trees and shrubs which retain dead material in branches or which shed long strips of bark, rough fibrous bark or drop large quantities of leaves in the spring and summer, vines on walls or tree canopies which overhang roofs)
- timber woodchip and flammable mulches cannot be used and brush and timber fencing should be avoided where possible

5.3 Roads

Roads must be constructed as per the following table. In this instance, performance criteria has been addressed due to the size of the cul-de-sac outer radius.

Element		Requirement
A.	Roads	Unless the development standards in the zone require a higher standard, the following apply: (a) two-wheel drive, all-weather construction; (b) load capacity of at least 20t, including for bridges and culverts; (c) minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 2m from the edge of the carriageway; (f) cross falls of less than 3 degrees (1:20 or 5%); (g) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; (h) curves have a minimum inner radius of 10m; (i) dead-end or cul-de-sac roads are not more than 200m in length unless the carriageway is 7 meters in width; (j) dead-end or cul-de-sac roads have a turning circle with a minimum 12m outer radius; and carriageways less than 7m wide have 'No Parking' zones on one side, indicated by a road sign that complies with *Australian Standard AS1743-2001 Road signs-Specifications*.

5.4 Access

Private access roads must be constructed as per the following table:

Element		Requirement
A.	Property access length is less than 30m; or access is not required for a fire appliance to access a fire fighting water point.	There are no specified design and construction requirements.
B.	Property access length is 30m or greater; or access is required for a fire appliance to a fire fighting water point.	The following design and construction requirements apply to property access: (a) all-weather construction; (b) load capacity of at least 20t, including for bridges and culverts; (c) minimum carriageway width of 4m; (d) minimum vertical clearance of 4m; (e) minimum horizontal clearance of 0.5m from the edge of the carriageway; (f) cross falls of less than 3 degrees (1:20 or 5%); (g) dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; (h) curves with a minimum inner radius of 10m; (i) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and (j) terminate with a turning area for fire appliances provided by one of the following: (i) a turning circle with a minimum outer radius of 10m; or (ii) a property access encircling the building; or (iii) a hammerhead "T" or "Y" turning head 4m wide and 8m long.
C.	Property access length is 200m or greater.	The following design and construction requirements apply to property access: (a) the requirements for B above; and (b) passing bays of 2m additional carriageway width and 20m length provided every 200m.
D.	Property access length is greater than 30m, and access is provided to 3 or more properties.	The following design and construction requirements apply to property access: (a) complies with requirements for B above; and (b) passing bays of 2m additional carriageway width and 20m length must be provided every 100m.

5.5 Fire Fighting Water Supply

Table E4 Reticulated water supply for firefighting.

Element		Requirement
A.	Distance between building area to be protected and water supply.	The following requirements apply: (a) the building area to be protected must be located within 120m of a fire hydrant; and (b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.
B.	Design criteria for fire hydrants	The following requirements apply: (a) fire hydrant system must be designed and constructed in accordance with *TasWater Supplement to Water Supply Code of Australia WSA 03 – 2011-3.1 MRWA 2nd Edition*; and (b) fire hydrants are not installed in parking areas.
C.	Hardstand	A hardstand area for fire appliances must be: (a) no more than 3m from the hydrant, measured as a hose lay; (b) no closer than 6m from the building area to be protected; (c) a minimum width of 3m constructed to the same standard as the carriageway; and (d) connected to the property access by a carriageway equivalent to the standard of the property access.

6. Bushfire-Prone Areas Code Assessment

An assessment of E1.0 Bushfire-Prone Areas Code under the Scheme is provided as follows.

E1.6 Development Standards

E1.6.1 Subdivision: Provision of hazard management areas

Objective

Subdivision provides for hazard management areas that:

(a) facilitate an integrated approach between subdivision and subsequent building on a lot;

(b) provide for sufficient separation of building areas from bushfire-prone vegetation to reduce the radiant heat levels, direct flame attack and ember attack at the building area; and

(c) provide protection for lots at any stage of a staged subdivision.

Acceptable solutions	Proposed solutions
A1 (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of hazard management areas as part of a subdivision; or (b) The proposed plan of subdivision: (i) shows all lots that are within or partly within a bushfire-prone area, including those developed at each stage of a staged subdivision; (ii) shows the building area for each lot; (iii) shows hazard management areas between bushfire-prone vegetation and each building area that have dimensions equal to, or greater than, the separation distances required for BAL 19 in Table 2.4.4 of *Australian Standard AS 3959 – 2009 Construction of buildings in bushfire-prone areas*; and (iv) is accompanied by a bushfire hazard management plan for each individual lot, certified by the TFS or accredited person, showing hazard management areas equal to, or greater than, the separation distances required for BAL 19 in Table 2.4.4 of *Australian Standard AS 3959 – 2009 Construction of buildings in bushfire-prone areas*; and	A1a) Not applicable. A1b) The acceptable solution is achieved. The BHMP: i) shows all 22 lots within the bushfire prone area. Lots 7, 8, 9, 10, 11 and 15 are considered exempt based on their proximity to bushfire prone vegetation. The subdivision will be done over two stages. Two BHMPS have been provided to take into account the staging. ii) shows a 10m x 15m building area on lots 1-22. iii) shows a HMA associated with each building area demonstrating the separation distances required for BAL 19 in Table 2.4.4 of AS 3959 – 2018 *Construction of buildings in bushfire-prone area*. All lots can achieve BAL 12.5, with some lots being able to be developed as BAL Low. iv) The application provides a bushfire hazard management plan which is prepared by a provisional bushfire hazard practitioner and will be certified by TFS. A1c) Part 5 agreement is not required. A requirement to maintain land on the balance lot after stage 1 has been included on the BHMP.

(c) If hazard management areas are to be located on land external to the proposed subdivision the application is accompanied by the written consent of the owner of that land to enter into an agreement under section 71 of the Act that will be registered on the title of the neighbouring property providing for the affected land to be managed in accordance with the bushfire hazard management plan.	

E1.6.2 Subdivision: Public and firefighting access

Objective

Access roads to, and the layout of roads, tracks and trails, in a subdivision:

(a) allow safe access and egress for residents, fire fighters and emergency service personnel;

(b) provide access to the bushfire-prone vegetation that enables both property to be defended when under bushfire attack and for hazard management works to be undertaken;

(c) are designed and constructed to allow for fire appliances to be manoeuvred;

(d) provide access to water supplies for fire appliances; and

(e) are designed to allow connectivity, and where needed, offering multiple evacuation points.

Acceptable solutions	**Proposed solutions**
P1 A proposed plan of subdivision shows access and egress for residents, fire-fighting vehicles and emergency service personnel to enable protection from bushfires, having regard to: a) appropriate design measures, including: i) two way traffic; ii) all weather surfaces iii) height and width of any vegetation clearances iv) load capacity v) provision of passing bays vi) traffic control devices vii) geometry, alignment and slope of roads, tracks and trails viii) use of through roads to provide for connectivity ix) limits on the length of cul-de-sacs and dead-end roads x) provision of turning areas xi) provision for parking areas xii) perimeter access; and	P1) Performance criteria is relied upon due to the outer radius of the proposed cul-de-sac. A response to the criteria and justification has been provided in section 7 of this report.

xiii) fire trails b) the provision of access to i) bushfire-prone vegetation to permit the undertaking of hazard management works; and ii) fire fighting water supplies; and c) any advice from the TFS.	

E1.6.3 Subdivision: Provision of water supply for fire fighting purposes

Objective	
Adequate, accessible and reliable water supply for the purposes of fire fighting can be demonstrated at the subdivision stage and allow for the protection of life and property associated with the subsequent use and development of bushfire-prone areas.	
Acceptable solutions	**Proposed solutions**
A1 In areas serviced with reticulated water by the water corporation: (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of a water supply for fire fighting purposes; (b) A proposed plan of subdivision showing the layout of fire hydrants, and building areas, is included in a bushfire hazard management plan approved by the TFS or accredited person as being compliant with Table E4; or (c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire.	A1 a) Not applicable b) The acceptable solution is achieved, noting that the proposed plan of subdivision shows the location of hydrants. Building areas are compliant with table E4, being within 120m of a hydrant.
A2 In areas that are not serviced by reticulated water by the water corporation: (a) The TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant provision of a water supply for fire fighting purposes; (b) The TFS or an accredited person certifies that a proposed plan of subdivision demonstrates that a static water supply, dedicated to fire fighting, will be provided and located compliant with Table E5; or	A2 Not applicable as the subject site is serviced by reticulated water.

(c)	A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire.	

7. Justification of Cul-De-Sac Road

As noted in section 6 of this report, the application relies on performance criteria due to the cul-de-sac not proposing a 12m outer radius turning head. The cul-de-sac has instead proposed to be constructed in accordance with LGAT standards, being a 9m outer radius head.

In providing justification on a reduced standard, it is noted that all parts of the access standards can be achieved as compliant with Table E1, with the exclusion of the cul-de-sac radius.
The current cul-de-sac is proposed to be 9m outer radius, with regular kerb and channel, consistent with the remainder of residential areas in Longford to the east and north of the site.

In arguing that a cul-de-sac constructed to urban standards is appropriate, the following is noted:

- Lots 9-14 which are serviced via this cul-de-sac road, are all large enough to ensure dwellings can be constructed to achieve BAL 12.5 setbacks or BAL Low setbacks. The area of bushfire prone vegetation, being entirely to the south and west, is approximately 60m from the cul-de-sac.
- The surrounding area is not bushland, but predominantly urban in character, made up of residential uses. There are no large areas of unmanaged vegetation within 100m of the new lots. The only identified vegetation within 100m of the site is grassland.
- All lots can all provide compliant accesses, as building areas for each of these lots is less than 30m from a road.
- Hydrants will be installed along the new cul-de-sac road, as well as on the new roads of Lewis Street West and Burghley Street, ensuring all lots will have a building area within 120m of a hydrant.

It is subsequently argued that an urban cul-de-sac outer radius of 9m is appropriate for the location, given the nature of the lots and surrounding area, compliant accesses, and water provisions.

The safety of fire fighters has been considered when making this assessment. The short length of the cul-de-sac and urban environment ensures there will be no unmanaged fuels within the road reserve. The adjoining lots provide a suitable buffer from radiant heat and direct flame for fire fighters. A large tanker with a turning radius of 19.8m would require a three point turn at the end of the cul-de-sac, however as they are not considered to be in imminent danger (based on above factors), the risk of burn over is assessed as low.

A detailed response to the performance criteria of clause E1.6.2 Subdivision: Public and firefighting access is provided below.

P1) Performance criteria is relied upon as:

a) The cul-de-sac head will be constructed in accordance with LGAT Standard drawings, having a radius of 9m. The acceptable solution requires a radius of 12m for cul-de-sacs within a bushfire prone area.

i. The road provides for two way traffic, including access for fire vehicles in a bushfire event.

ii. The road will be sealed as per LGAT standards. The road will be suitable for use in all weather conditions.

iii. There is no vegetation above the road. The road has a horizontal separation to any potential threat to the south and west of some 60m. There is no identified threat to the north or west. The balance lot will be managed as a HMA as part of stage 1 subdivision.

iv. The road has an appropriate load capacity to facilitate fire vehicles in a bushfire event.

v. Passing is achievable given the width of the road (6.9m) and road reserve (15m).

vi. There are no recommended traffic control devices as part of the subdivision.

vii. The road is level, on a flat surface. The bushfire threat is on generally flat land. There are no bends or deviations proposed in the road.

viii. The road is a cul-de-sac road. The road joins to Catherine Street to the east. The site is bounded by Council roads providing suitable buffers and separation.

ix. The cul-de-sac has a length of approximately 90m. The limited length of road reduces risk and provides ample opportunity for vehicles to exit in a bushfire event.

x. Turning area is provided. There are numerous access strips in the western end of the proposed roads allowing for a three-point turn if required.

xi. Parking areas at the end of the cul-de-sac will be limited due to the number access strips in this part. It would be expected vehicles would park onsite.

xii. Perimeter access is provided via the Council maintained roads and residential lots.

xiii. There are no proposed fire trails.

b) The TFS can access the bushfire prone vegetation on the surrounding lots should a bushfire event occur. Access is via Lewis Street West and Burghley Street. The size of lots also ensures a fire vehicle can park on the proposed road, and fight the fire to the south or west.

c) The TFS have not provided comment on this application.

The bushfire threat in this area is assessed as low. The lots will be cleared in their entirety to provide for residential development. The entire lot will be treated as a bushfire hazard management area. The development is within an established and growing urban environment. The requirements to provide a cul-de-sac with 12m radius would be out of character with this area, and not warranted given the level of threat. The risk is considered low based on the site characteristics and nature of the area.

Performance criteria is achieved.

8. Assessment of Risk – Lots 7, 8, 9, 10, 11 and 15

The development includes a number of lots which have been deemed exempt as part of the assessment. These lots are all over 50m from the identified grassland. The grassland is the only vegetation within 100m of the site. In accordance with Table 2.6, and section 2.2.3.2 of AS3959: 2018, development over 50m from grassland, where that is the only identified vegetation, can be considered as low threat. Despite the subdivision being staged, a requirement to permanently maintain the balance lot after stage 1 will be required. The requirement to manage the remainder of the balance lot will not apply once stage 2 is completed.

Based on the overall impact, it is assessed that the above-mentioned lots, as shown on the bushfire hazard management plan, are suitable to be classified as exempt under clause E1.4 of the *Northern Midlands Interim Planning Scheme 2013*.

9. Conclusions and Recommendations

The proposal seeks planning approval for a 22-lot residential subdivision at 86 Burghley Street, Longford. The proposal will utilise existing Council roads, as well as constructing a new cul-de-sac road off Catherine Street. The subdivision will be done over two stages.

All of the lots have demonstrated that a building area can be provided in an area meeting the requirements of BAL 12.5, with many future dwellings expecting to locate in areas subject to BAL LOW. Hydrants will be provided along the proposed cul-de-sac road and surrounding Council roads, thus ensuring all building areas can be adequately protected in a bushfire event. Access to each of the lots will be less than 30m in length, thus negating the need for any specific access considerations.

The following recommendations and conclusions are made:

a) Hazard management areas meeting the requirements of BAL 12.5 can be achieved for lots 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27 and 28.

b) Lots 7, 8, 9, 10, 11 and 15 are considered exempt in accordance with clause E1.4 (a) of PD 5.1 Bushfire Prone Areas Code.

c) Lot 301, the proposed cul-de-sac road, must be in compliance with Table E, Element A, with the exception of the 12m outer radius for cul-de-sacs.

d) New hydrants are required in accordance with the TasWater Supplement to Water Supply Code of Australia WSA 03-2011-3.1 MRWA Edition 2:0. Hydrants to have a separation of not more than 60m.

e) As part of stage 1, the balance lot and future stage 2 area, is to be managed in accordance with section 5.2 of this report, prior to Council sealing a final plan of subdivision. This area is to be maintained in perpetuity, until such time as stage 2 is complete.

f) All lots are to be treated as a hazard management area. Maintenance of all hazard management areas must be in perpetuity.

Annexure 1 – Bushfire Hazard Management Plan

Hazard Management and Protection Area Requirements:

Hazard management and protection measures requires:

Roads

Unless the development standards in the zone require a higher standard, the following apply:

(a) two-wheel drive, all-weather construction;
(b) load capacity of at least 20t, including for bridges and culverts;
(c) minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road;
(d) minimum vertical clearance of 4m;
(e) minimum horizontal clearance of 2m from the edge of the carriageway;
(f) cross falls of less than 3 degrees (1:20 or 5%);
(g) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads;
(h) curves have a minimum inner radius of 10m;
(i) dead-end or cul-de-sac roads are not more than 200m in length unless the carriageway is 7 meters in width;

Reticulated Water Supply for Fire Fighting.

The following requirements apply:

(a) the building area to be protected must be located within 120m of a fire hydrant; and
(b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.

The following requirements apply:

(a) fire hydrant system must be designed and constructed in accordance with TasWater Supplement to Water Supply Code of Australia WSA 03 – 2011-3.1 MRWA 2nd Edition; and
(b) fire hydrants are not installed in parking areas.

Hazard Management – Vegetation Management

a) Lots 7-28 in their entirety are to be treated and maintained as a bushfire hazard management area.
b) Vegetation in the hazard management area (as dimensioned and shown) is to managed and maintained in a minimum fuel condition (refer to section 5.2 of Bushfire Hazard Management Report)

Notes:

1. Refer plans –Woolcott Surveys, Proposed 2 Staged Subdivision, dated 30/09/2021 Sheet 1, L180418.
2. All future works to comply with director's determination – Requirements for building in Bushfire Prone Areas (transitional) (v2.2). Table 4.1, 4.2, 4.3 and 4.4.
3. Plan to be read in conjunction with Bushfire Hazard Management Report dated 08/11/2021

Bushfire Assessment Based on Stamped Plans
James Stewart – BFP: 157, Scope of Work: 1, 2, 3B, 3C.
WOOLCOTT SURVEYS

EXHIBITED

BUSHFIRE HAZARD MANAGEMENT PLAN - Stage 1
PROPOSED 2 Stage subdivision
OWNER: Dellfarm PTY. LTD.
Lot 3. Burghley Street, Longford 7301
C.T.115134/3, PID 9719166

N

WOOLCOTT SURVEYS
10 Goodman Court Invermay TAS 7248
PO Box 593 Mowbray Heights TAS 7248
Phone (03) 6332 3760
Fax (03) 6332 3764
Email: office@woolcottsurveys.com.au

Job Number L180418

Drawn	File name	Date	Scale	Edition	Sheet
MPF	L180418_BHMP.dwg	12-11-21	1:800@A3	v3.0	1/2

Hazard Management and Protection Area Requirements:

Hazard management and protection measures requires:

Roads

Unless the development standards in the zone require a higher standard, the following apply:

(a) two-wheel drive, all-weather construction;
(b) load capacity of at least 20t, including for bridges and culverts;
(c) minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road;
(d) minimum vertical clearance of 4m;
(e) minimum horizontal clearance of 2m from the edge of the carriageway;
(f) cross falls of less than 3 degrees (1:20 or 5%);
(g) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads;
(h) curves have a minimum inner radius of 10m;
(i) dead-end or cul-de-sac roads are not more than 200m in length unless the carriageway is 7 meters in width;

Reticulated Water Supply for Fire Fighting.

The following requirements apply:

(a) the building area to be protected must be located within 120m of a fire hydrant; and
(b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.

The following requirements apply:

(a) fire hydrant system must be designed and constructed in accordance with TasWater Supplement to Water Supply Code of Australia WSA 03 – 2011-3.1 MRWA 2nd Edition; and
(b) fire hydrants are not installed in parking areas.

Hazard Management – Vegetation Management

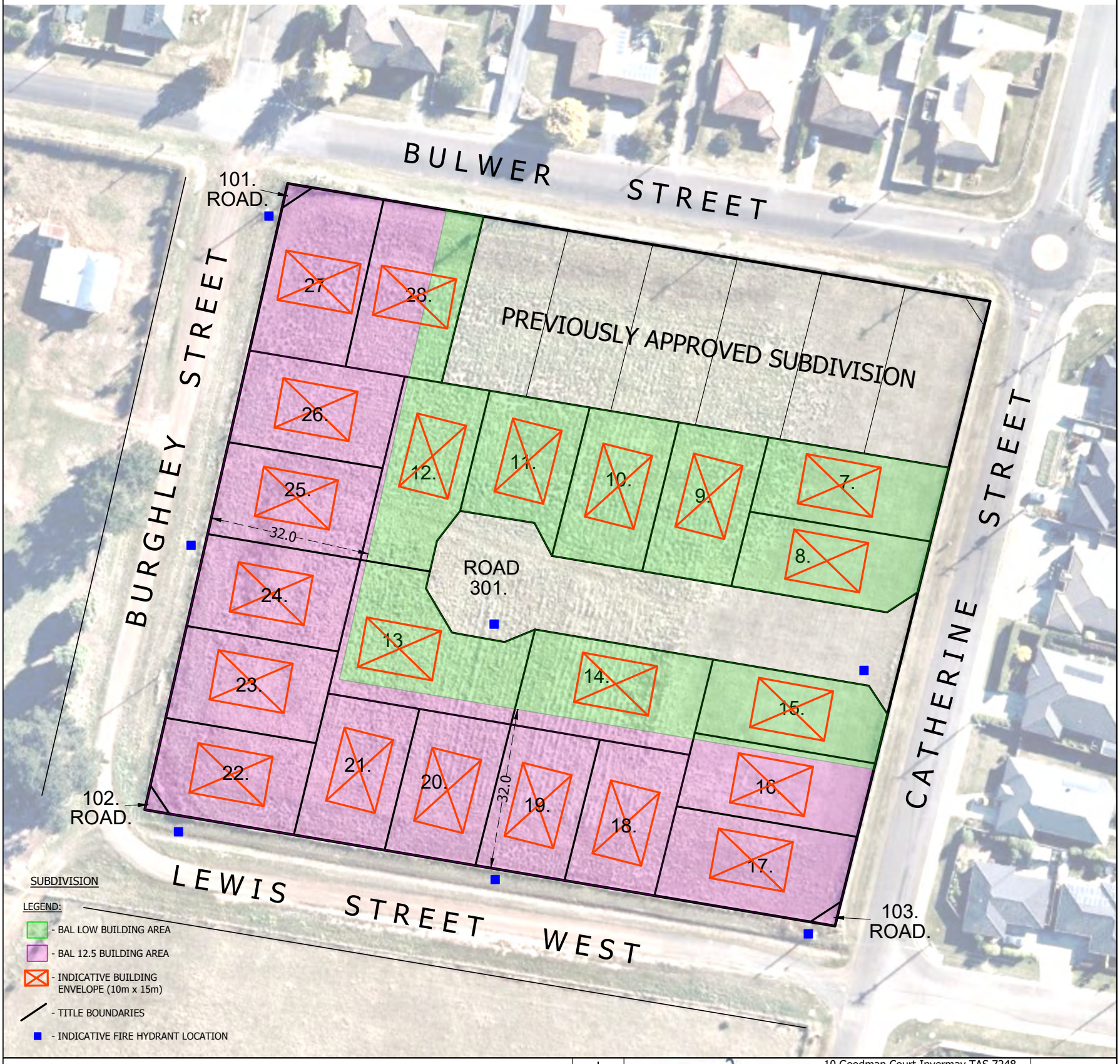
a) Lots 7-28 in their entirety are to be treated and maintained as a bushfire hazard management area.
b) Vegetation in the hazard management area (as dimensioned and shown) is to managed and maintained in a minimum fuel condition (refer to section 5.2 of Bushfire Hazard Management Report)

Notes:

1. Refer plans –Woolcott Surveys, Proposed 2 Staged Subdivision, dated 30/09/2021 Sheet 1, L180418.
2. All future works to comply with director's determination – Requirements for building in Bushfire Prone Areas (transitional) (v2.2). Table 4.1, 4.2, 4.3 and 4.4.
3. Plan to be read in conjunction with Bushfire Hazard Management Report dated 08/11/2021

Bushfire Assessment Based on Stamped Plans
James Stewart – BFP: 157, Scope of Work: 1, 2, 3B, 3C.
WOOLCOTT SURVEYS

EXHIBITED



BUSHFIRE HAZARD MANAGEMENT PLAN - Stage 2
PROPOSED 2 Stage subdivision
OWNER: Dellfarm PTY. LTD.
Lot 3. Burghley Street, Longford 7301
C.T.115134/3, PID 9719166

N

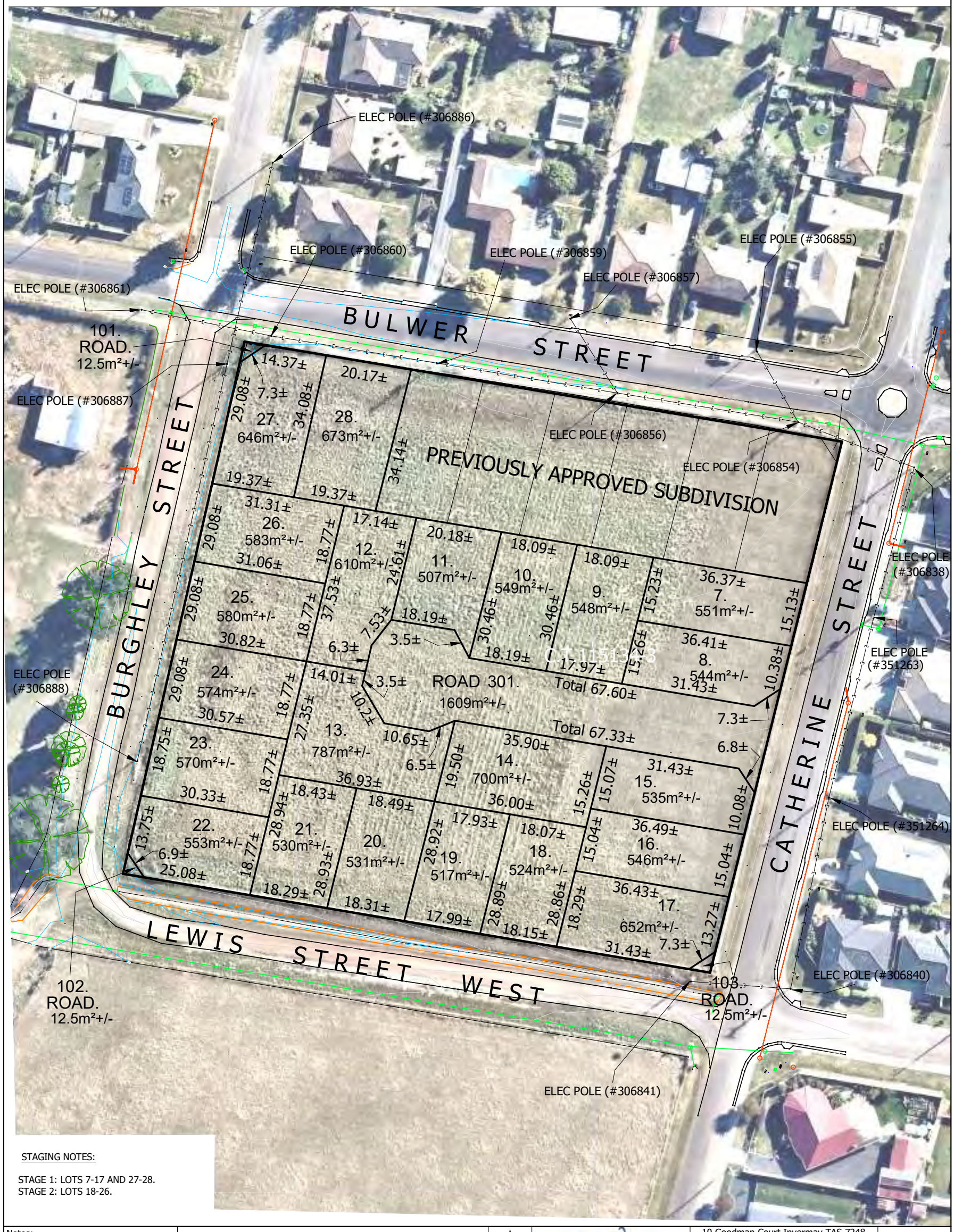
WOOLCOTT SURVEYS
10 Goodman Court Invermay TAS 7248
PO Box 593 Mowbray Heights TAS 7248
Phone (03) 6332 3760
Fax (03) 6332 3764
Email: office@woolcottsurveys.com.au

Job Number L180418

Drawn	File name	Date	Scale	Edition	Sheet
MPF	L180418_BHMP.dwg	12-11-21	1:800@A3	v3.0	2/2

Annexure 2 – Subdivision Proposal Plan

EXHIBITED



STAGING NOTES:

STAGE 1: LOTS 7-17 AND 27-28.
STAGE 2: LOTS 18-26.

Notes:

1. CONTOUR INTERVAL IS 0.2m
2. CONTOUR INDEX IS 1.0m

PROPOSED 2 STAGED SUBDIVISION
OWNERS: DELLFARM PTY. LTD.
ADDRESS: 86 BURGHLEY STREET, LONGFORD

N

WOOLCOTT SURVEYS
10 Goodman Court Invermay TAS 7248
PO Box 593 Mowbray Heights TAS 7248
Phone (03) 6332 3760
Fax (03) 6332 3764
Email: admin@woolcottsurveys.com.au

Job Number L180418

Drawn	File name	Date	Scale	Edition	Sheet
CSS	L180418_PROP_PLAN_300921	30/09/2021	1:800@A3	V1	1 OF 1

Annexure 3 – Planning Certificate

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE[1] UNDER S51(2)(d) *LAND USE PLANNING AND APPROVALS ACT 1993*

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:	86 Burghley Street, Longford
Certificate of Title / PID:	**CT115134/3, PID9719166**

2. Proposed Use or Development

Description of proposed Use and Development:	22 Lot Subdivision – 2 Stages
Applicable Planning Scheme:	Northern Midlands Interim Planning Scheme 2013

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Bushfire Hazard Report	Woolcott Surveys	08/11/2021	1
Bushfire Hazard Management Plan	Woolcott Surveys	11/11/2021	1
Proposed 2 Staged Subdivision	Woolcott Surveys	30/09/2021	1

[1] This document is the approved form of certification for this purpose and must not be altered from its original form.

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

☒	**E1.4 / C13.4 – Use or development exempt from this Code**	
	Compliance test	**Compliance Requirement**
☒	E1.4(a) / C13.4.1(a)	Insufficient increase in risk (lots 7, 8, 9, 10, 11 and 15)

☐	**E1.5.1 / C13.5.1 – Vulnerable Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.1 P1 / C13.5.1 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.5.1 A2 / C13.5.1 A2	Emergency management strategy
☐	E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan

☐	**E1.5.2 / C13.5.2 – Hazardous Uses**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.5.2 P1 / C13.5.2 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.5.2 A2 / C13.5.2 A2	Emergency management strategy
☐	E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan

☒	**E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.1 P1 / C13.6.1 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk
☒	E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')
☐	E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement

☒	**E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access**	
	Acceptable Solution	**Compliance Requirement**
☒	E1.6.2 P1 / C13.6.2 P1	***Planning authority discretion required. A proposal cannot be certified as compliant with P1.***
☐	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk
☐	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables

☒	**E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes**	
	Acceptable Solution	**Compliance Requirement**
☐	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
☒	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table
☐	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
☐	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
☐	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
☐	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

5. Bushfire Hazard Practitioner

Name:	James Stewart	**Phone No:**	0467 676 721
Postal Address:	PO BOX 593, Mowbray, Tas, 7248	**Email Address:**	james@woolcottsurveys.com.au
Accreditation No:	BFP – 157	**Scope:**	1, 2, 3B, 3C

6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act 1979* that the proposed use and development:

☒ Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or

☒ The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed:
certifier

Name: James Stewart **Date:** 12/11/2021

Certificate Number: WS-36

(for Practitioner Use only)

EXHIBITED

MIDSON
traffic
pty ltd

Dellfarm Pty Ltd

86 Burghley Street Subdivision
Traffic Impact Assessment

October 2021

ENGINEERS AUSTRALIA

PROFESSIONAL ENGINEER OF THE YEAR
INDIVIDUAL AWARDS
TASMANIA
WINNER 2016

EXHIBITED

Contents

Figure Index

Table Index

1. Introduction

1.1 Background

Midson Traffic were engaged by Dellfarm Pty Ltd to prepare a traffic impact assessment for a proposed 22-lot residential subdivision development at 86 Burghley Street, Longford.

1.2 Traffic Impact Assessment (TIA)

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management, but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

This TIA has been prepared in accordance with the Department of State Growth (DSG) publication, *Traffic Impact Assessment Guidelines*, August 2020. This TIA has also been prepared with reference to the Austroads publication, *Guide to Traffic Management,* Part 12: *Traffic Impacts of Developments*, 2019.

Land use developments generate traffic movements as people move to, from and within a development. Without a clear understanding of the type of traffic movements (including cars, pedestrians, trucks, etc), the scale of their movements, timing, duration and location, there is a risk that this traffic movement may contribute to safety issues, unforeseen congestion or other problems where the development connects to the road system or elsewhere on the road network. A TIA attempts to forecast these movements and their impact on the surrounding transport network.

A TIA is not a promotional exercise undertaken on behalf of a developer; a TIA must provide an impartial and objective description of the impacts and traffic effects of a proposed development. A full and detailed assessment of how vehicle and person movements to and from a development site might affect existing road and pedestrian networks is required. An objective consideration of the traffic impact of a proposal is vital to enable planning decisions to be based upon the principles of sustainable development.

The Northern Midlands Interim Planning Scheme, 2013, sets out the requirements in E4.5 of the Road and Rail Assets Code as follows:

> *E4.5.1 A TIA is required to demonstrate compliance with performance criteria.*
>
> *E4.5.2 A TIA for roads must be undertaken in accordance with Traffic Impact Assessment Guidelines, Department of Infrastructure, Energy and Resources[1] September 2007.*
>
> *Australian Guidelines and Australian Standards are to be used as the basis for any required road or junction design.*
>
> *E4.5.3 A TIA must be accompanied by written advice as to the adequacy of the TIA from the:*
>
> *a) road authority in respect of a road; and*

[1] The former Department of Infrastructure Energy and Resources is now known as The Department of State Growth.

b) rail authority in respect of a railway.

E4.5.4 The Council must consider the written advice of the relevant authority when assessing an application which relies on performance criteria to meet an applicable standard.

This report assesses the development against the relevant clauses of Codes E4.0 (Road and Railway Assets Code) and E6.0 (Car Parking and Sustainable Transport Code).

1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *Traffic Impact Assessment Guidelines*, August 2020, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

- 25 years professional experience in traffic engineering and transport planning.
- Master of Transport, Monash University, 2006
- Master of Traffic, Monash University, 2004
- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Chartered Professional Engineer (CPEng); Engineering Executive (EngExec); National Engineers Register (NER)

1.4 Project Scope

The project scope of this TIA is outlined as follows:

- Review of the existing road environment in the vicinity of the site and the traffic conditions on the road network.
- Provision of information on the proposed development with regards to traffic movements and activity.
- Identification of the traffic generation potential of the proposal with respect to the surrounding road network in terms of road network capacity.
- Traffic implications of the proposal with respect to the external road network in terms of traffic efficiency and road safety.

1.5 Subject Site

The subject site is located at 86 Burghley Street, Longford. The site is currently a vacant lot bound by Burghley Street, Bulwer Street, Catherine Street and Lewis Street.

The subject site and surrounding road network is shown in Figure 1.

Figure 1 Subject Site & Surrounding Road Network

Image Source: LIST Map, DPIPWE

1.6 Reference Resources

The following references were used in the preparation of this TIA:

- Northern Midlands Interim Planning Scheme, 2013 (Planning Scheme)
- Austroads, *Guide to Traffic Management,* Part 12: *Traffic Impacts of Developments*, 2019
- Austroads, Guide to Road Design, Part 4A: Unsignalised and Signalised Intersections, 2017
- Department of State Growth, *Traffic Impact Assessment Guidelines*, 2020
- Roads and Maritime Services NSW, *Guide to Traffic Generating Developments*, 2002 (RMS Guide)
- Roads and Maritime Services NSW, *Updated Traffic Surveys,* 2013 (Updated RMS Guide)
- Australian Standards, AS2890.1, *Off-Street Parking*, 2004 (AS2890.1:2004)

2. Existing Conditions

2.1 Transport Network

For the purposes of this report, the transport network consists of Burghley Street, Catherine Street, Lewis Street West and Bulwer Street.

2.1.1 Burghley Street

Burghley Street connects between William Street at its northern end and Lewis Street at its southern end. It provides north-south connectivity around the western end of the predominantly residential area south of the Longford town centre.

Near the subject site, Burghley Street carries very low traffic volumes (in the order of less than 200 vehicles per day). The general urban speed limit of 50-km/h applies to Burghley Street. Burghley Street looking north adjacent to the subject site is shown in Figure 2.

Figure 2 Burghley Street

2.1.2 Catherine Street

Catherine Street connects between William Street at its northern end and Cressy Road at its southern end. It runs parallel to Burghley Street and provides a minor collector road function between Cressy Road and Longford town centre.

Near the subject site, Catherine Street carries approximately 1,000 vehicles per day. The general urban speed limit of 50-km/h applies to Catherine Street. Catherine Street looking north adjacent to the subject site is shown in Figure 3.

Figure 3 Catherine Street

	
Catherine St – looking north along site frontage	Catherine St – looking south along site frontage

2.1.3 Bulwer Street

Bulwer Street connects between Wellington Street at its eastern end and terminates approximately 2-kilometers to the west. It provides east-west connectivity to residential and rural property south of Longford.

Bulwer Street adjacent to the subject site looking west is shown in Figure 4.

Figure 4 Bulwer Street

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2.1.4 Lewis Street West

Lewis Street West runs parallel to Bulwer Street, connecting between Wellington Street at its eastern end and Burghley Street at its western end. It provides east-west connectivity to residential and rural property south of Longford. The section of Lewis Street West west of Catherine Street has an unsealed pavement surface.

Lewis Street adjacent to the subject site looking west is shown in Figure 5.

Figure 5 Lewis Street West

2.2 Road Safety Performance

Crash data can provide valuable information on the road safety performance of a road network. Existing road safety deficiencies can be highlighted through the examination of crash data, which can assist in determining whether traffic generation from the proposed development may exacerbate any identified issues.

Crash data was obtained from the Department of State Growth for a 5+ year period between 1st January 2016 and 30th September 2021 for Burghley Street, Bulwer Street, Lewis Street and Catherine Street near the subject site.

The findings of the crash data are summarised as follows:

- A total of 5 crashes were reported during this time: 2 crashes were reported in Catherine Street; 1 crash was reported in Bulwer Street; 1 crash was reported in Lewis Street and no crashes were reported in Burghley Street.
- Catherine Street. 1 crash was reported at the intersection of Bulwer Street resulting in property damage and 1 crash was reported a short distance to the north of Bulwer Street resulting in minor injury. Both crashes occurred during normal business hours.
- Bulwer Street. Crash was reported at 8:36 on 22nd March involving a 'cross-traffic' collision at the intersection of Marlborough Street resulting in minor injury.

- Lewis Street. Crash was reported at 9:30am on 26th June 2021 involving a reversing manoeuvre from a driveway. The crash resulted in property damage only.

The crash data does not provide an indication that there are any road safety deficiencies in the network that may be exacerbated by traffic generated by the development proposal.

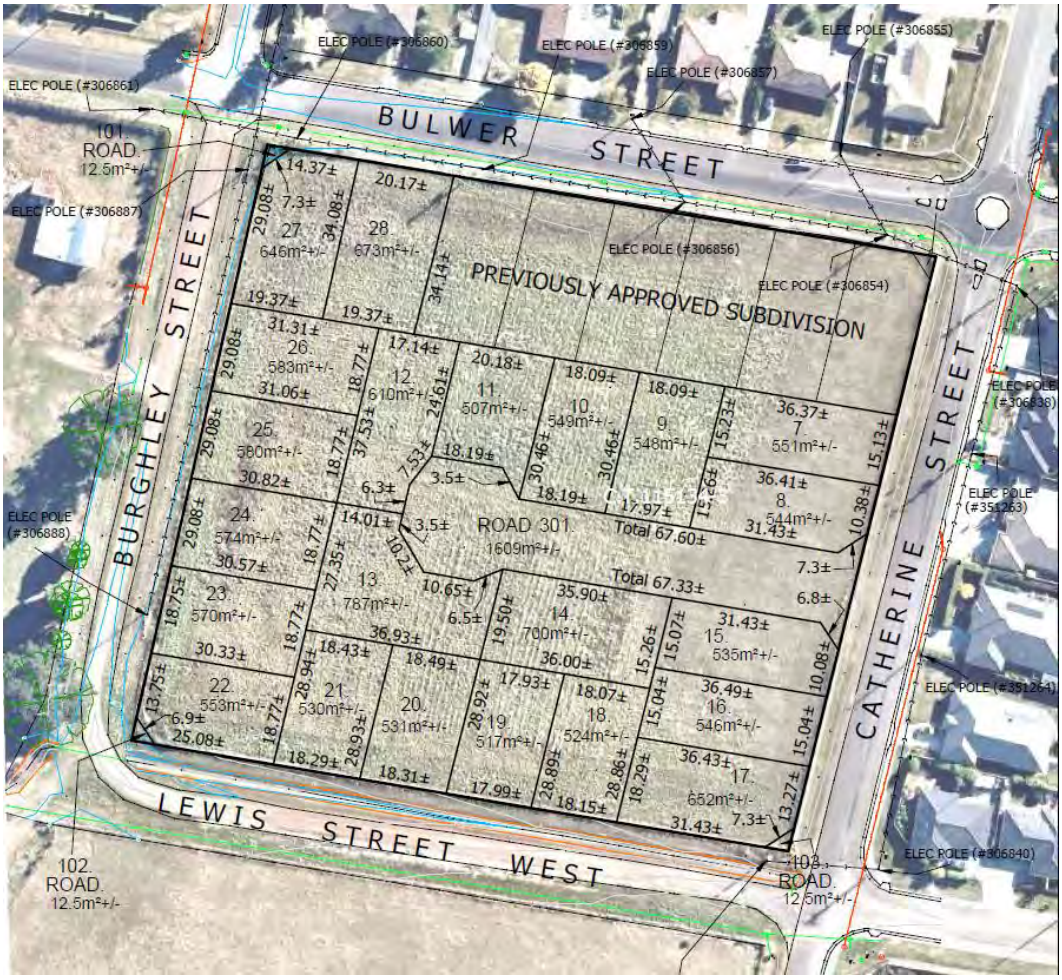
3. Proposed Development

3.1 Development Proposal

The development proposal is a 22-lot subdivision. A new access will be created in Catherine Street to service the internal lots. Lots fronting onto Catherine Street, Lewis Street and Burghley Street will have street frontage driveway access. 6 lots have been approved on the Bulwer Street frontage through a previous development application process.

The proposed development is shown in Figure 6.

Figure 6 Proposed Development Plans



4. Traffic Impacts

4.1 Trip Generation

Traffic generation rates were sourced from the RMS Guide. The RMS Guide (and RMS updated surveys) states that residential dwellings generate 7.4 trips per day per dwelling, with a peak generation of 0.78 trips per hour.

This equates to a total traffic generation of 163 two-way vehicle movements per day, with a peak of 18 vehicle per hour.

4.2 Trip Assignment

The traffic generation of the subdivision will occur at the following locations:

- New access at Catherine Street 59 vpd with a peak of 7 vph
- Catherine Street driveways 3 driveways total generation 22 vpd, peak 2 vph
- Lewis Street driveways 4 driveways total generation 30 vpd, peak 3 vph
- Burghley Street driveways 5 driveways total generation 37 vpd, peak 4 vph
- Bulwer Street driveways 2 driveways total generation 15 vpd, peak 2 vph
- TOTAL 163 vpd, peak 18 vph

4.3 Traffic Generation Impacts

The Acceptable Solution A2 of E4.6.1 of the Planning Scheme states that "*For roads with a speed limit of 60km/h or less the use must not generate more than a total of 40 vehicle entry and exit movements per day*". In this case, the proposed development generates approximately 163 vehicles per day and therefore fails to comply with Acceptable Solution A2 of E4.6.1. It is noted that the main access will generate 59 vehicles per day with the balance of traffic generation spread across individual driveways on four street frontages.

The Performance Criteria, P2, or E4.6.1 states "*For roads with a speed limit of 60km/h or less, the level of use, number, location and design of accesses and junctions must maintain an acceptable level of safety for all road users, including pedestrians and cyclist*".

The following is relevant for the proposed development:

- The single access will generate 59 vehicles per day with a relatively low peak generation of 7 vehicles per hour – this equates to slightly more than 1 vehicle movement every 10 minutes on average. The individual driveways will have relatively low traffic generation and are evenly disbursed along the frontage roads.

- All frontage roads have very low traffic volume. Conflicts between vehicle manoeuvring will be minimised at the site's accesses.

Based on the above, the development meets the requirements of Performance Criteria P1 of Clause E4.6.1 of the Planning Scheme.

4.4 Access Impacts

The Acceptable Solution A1 of Clause E4.7.2 of the Planning Scheme states "*For roads with a speed limit of 60km/h or less the development must include only one access providing both entry and exit, or two accesses providing separate entry and exit*".

In this case the development creates a new access onto Catherine Street and also individual driveway accesses onto all four road frontages to the site. The development therefore does not comply with the requirements of Acceptable Solution A1 of Clause E4.7.2 of the Planning Scheme.

The Performance Criteria P1 of Clause E4.7.2 of the Planning Scheme states "*For roads with a speed limit of 60km/h or less, the number, location, layout and design of accesses and junctions must maintain an acceptable level of safety for all road users, including pedestrians and cyclists*".

The following is relevant with respect to the development proposal:

- The site is a large area that has access to four frontage roads. The distribution of frontage lot driveways will be consistent with the surrounding network. The presence of driveways is expected along the frontage roads and consistent with the urban road network design.
- The vehicle speeds in the surrounding network are relatively low and consistent with a residential environment. The presence of a roundabout at the junction of Bulwer Street and Catherine Street provides a traffic calmed environment that supports residential property access.
- The internal lot access road on Catherine Street will form a new cul-de-sac that will only service 8 lots. The traffic generation associated with the access is relatively low and will have a high operational level of service.

Based on the above assessment the development meets the requirements of Performance Criteria P1 of Clause E4.7.2 of the Planning Scheme.

4.5 Sight Distance

The Acceptable Solution A1 of Clause E4.7.4 of the Planning Scheme states "*sight distance at an access or junction must comply with the Safe Intersection Sight Distance shown in Table E4.7.4*". The requirements of Table E4.7.4 are reproduced in Table 1.

Table 1 Planning Scheme SISD Requirements

Vehicle Speed	*Safe Intersection Sight Distance (SISD) Metres, for speed limit of:*	
km/h	*60 km/h or less*	*Greater than 60 km/h*
50	80	90
60	105	115
70	130	140
80	165	175
90		210
100		250
110		290

Assuming the vehicle speed is equal to the speed limit of 50-km/h then the required Planning Scheme SISD is 80 metres. All frontage roads adjacent to the subject site have straight geometry with no physical objects that would obscure view. Sight distance from all driveways on each frontage road and the access in Catherine Street will therefore have unobstructed sight distance complying with the requirements of Table E4.7.4. The Acceptable Solution A1 of Clause E4.7.4 of the Planning Scheme is therefore met.

4.6 Pedestrian Impacts

The proposed development is well connected to the surrounding road network's pedestrian infrastructure and includes a footpath and/or wide nature strips on each frontage road of the site.

The proposed development will generate some level of pedestrian activity (to/from Longford town centre, school, recreational facilities, etc). These movements can be accommodated safely and efficiently in the network.

4.7 Road Safety Impacts

No significant road safety impacts are foreseen for the proposed development. This is based on the following:

- The surrounding road transport network is capable of absorbing the relatively small estimated traffic generation of the proposed development (with a total peak generation estimated to be 18 vehicles per hour.
- Sight distance at all driveway accesses on each frontage road and the internal lot access road on Catherine Street exceeds Planning Scheme requirements and therefore provides a safe access environment.

- The crash history of the surrounding road network near the subject site does not indicate that there are any specific road safety issues that are likely to be exacerbated by traffic generated by the proposed development.

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5. Conclusions

This traffic impact assessment (TIA) investigated the traffic and parking impacts of a proposed 22-lot subdivision at 86 Burghley Street, Longford. The development includes a new access on Catherine Street that will service 8-lots. The remaining lots will have direct driveway access to the four frontage roads of the site.

The key findings of the TIA are summarised as follows:

- The traffic generation of the proposed development is likely to be 163 vehicles per day with a peak of 18 vehicles per hour.
- The development complies with the requirements of Performance Criteria P1 of Clause E4.6.1 of the Planning Scheme in terms of traffic generation at the site's accesses.
- The development complies with the requirements of Acceptable Solution A1 4.7.2 of the Planning Scheme in terms of number of accesses.
- Sufficient sight distance is available at the proposed Catherine Street access as well as all individual driveway accesses to comply with the requirements of Acceptable Solution A1 of Clause E4.7.4 of the Planning Scheme.

Based on the findings of this report the proposed development is supported on traffic grounds.

Midson Traffic Pty Ltd ABN: 26 133 583 025

28 Seaview Avenue
Taroona TAS 7053
T: 0437 366 040 E: admin@midsontraffic.com.au W: www.midsontraffic.com.au

Document Status

Revision	Author	Review	Date
0	Keith Midson	Zara Kacic-Midson	27 October 2021

WOOLCOTT SURVEYS

EAST COAST SURVEYING

Our Ref: L180418

Date 22/11/2021

Des Jennings
General Manger
Northern Midlands Council
PO Box 156
Longford TAS 7301
By Email: planning@nmc.tas.gov.au

Dear Des,

RE: PLANNING APPLICATION – PROPOSED STAGED 22 LOT SUBDIVISION – 86 BURGHLEY STREET, LONGFORD

This letter requests that Council hold a cash payment in lieu of public open space for a Staged 22 Lot subdivision that is proposed for 86 Burghley Street, Longford.

It is proposed that Council hold the cash contribution in trust, until the proponent fulfils the obligation of Clause E10.6.1; P1 by the provision of public open space. This will be made as a part of the proponent's Master Plan for the area and subsequent land development. This matter has been under discussion with Council.

Should you agree with this proposal could you please forward your approval to the Planning Department and supply details of the trust holding to the applicant. It is anticipated that this will satisfy the section of the Planning Application pursuant to Clause E10.6.1 A1a) of the *Northern Midlands Interim Planning Scheme 2013*.

Your earliest attendance to this matter would be greatly appreciated.

If you have any questions regarding this application, please do not hesitate to get in touch on the numbers or email address provided.

Kind regards,
Woolcott Surveys

Michelle Schleiger
Town Planner
michelle@woolcottsurveys.com.au

LAUNCESTON
10 Goodman Crt, Invermay
PO Box 593, Mowbray TAS 7248
P 03 6332 3760

ST HELENS
48 Cecilia St, St Helens
PO Box 430, St Helens TAS 7216
P 03 6376 1972

HOBART
Rear Studio, 132 Davey St,
Hobart TAS 7000
P 03 6227 7968

DEVONPORT
2 Piping Lane,
East Devonport TAS 7310
P 03 6332 3760

ABN 63 159 760 479

Paul Godier

From: Des Jennings
Sent: Thursday, 23 December 2021 4:48 PM
To: Paul Godier
Cc: Gail Eacher
Subject: Request for cash payment in lieu of land for public open space - 22 lot subdivision - 86 Burghley Street

Hi Paul,
Agreed to accept cash in lieu of open space unless the Planning Authority when determining the matter resolves differently.
Thanks Des

Des Jennings
General Manager | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: des.jennings@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au
Tasmania's Historic Heart
employer of choice

From: Paul Godier
Sent: Thursday, 23 December 2021 3:10 PM
To: Des Jennings
Subject: Request for cash payment in lieu of land for public open space - 22 lot subdivision - 86 Burghley Street

Hello Des, the attached letter advises:

It is proposed that Council hold the cash contribution in trust, until the proponent fulfils the obligation of Clause E10.6.1; P1 by the provision of public open space. This will be made as a part of the proponent's Master Plan for the area and subsequent land development.

Can you please advise whether you consent to taking cash in lieu of land for public open space for this proposal

Regards,

Paul Godier
Senior Planner | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: paul.godier@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au
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NORTHERN MIDLANDS COUNCIL
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To: Des Jennings
Subject: Request for cash payment in lieu of land for public open space - 22 lot subdivision - 86 Burghley Street

Hello Des, the attached letter advises:

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Can you please advise whether you consent to taking cash in lieu of land for public open space for this proposal

Regards,

Paul Godier
Senior Planner | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: paul.godier@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au
NORTHERN MIDLANDS COUNCIL
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Our ref: PLN21-0323

6 January 2022

Woolcott Surveys
PO Box 583
MOWBRAY TAS 7248
By email: admin@woolcottsurveys.com.au

Planning Application PLN21-0323
General Manager's permission to the making of the application required for 22 Lot subdivision at 87 Bulwer St and Bulwer St, Burghley St, Catherine St, and Lewis St road reserves, Longford

Thank you for your application. The application proposes works in the Bulwer St, Burghley St, Catherine St, and Lewis St road reserves.

Therefore, in accordance with section 52(1B) of the *Land Use Planning and Approvals Act 1993*, the application must be signed by the general manager of the council and be accompanied by the written permission of the general manager to the making of the application.

This is required to make a valid application in accordance with section 51(1AC) of the *Land Use Planning and Approvals Act 1993*.

Before granting permission to the making of the application the general manager has requested:

- Plans showing footpaths along all street frontages, and one side of the proposed road.
- Plans showing invert and surface levels on all stormwater manholes as the existing stormwater mains in this area are relatively shallow.
- Plans showing provision of reticulated gas to the lots.
- Plans showing provision of NBN to the lots.
- Plans demonstrating that street trees can be planted outside each lot with the required clearances from services.

Please contact me on 6397 7303 or email planning@nmc.tas.gov.au if you have any questions.

Yours sincerely

Paul Godier
Senior Planner

Paul Godier

From: NMC Planning
Sent: Wednesday, 2 February 2022 10:58 AM
To: Michelle Schleiger
Cc: Des Jennings; Colin Smith; James Stewart
Subject: RE: PLN21-0323 - 22 Lot subdivision - 87 Bulwer Street and adjoining road reserves

Hello Michelle, thank you for your email.

We note that the plans do not show footpath along the frontage of Catherine Street.

While this is not required under the LGAT standards because footpath exists on the opposite side of Catherine Street, our view is the development would benefit from footpath fronting Catherine Street.

However, the General Manager has today given consent to the making of the application.

Please note that the additional information requested by TasWater in our email sent to you 1 February 2022 is still required.

Yours sincerely,

Paul Godier

NORTHERN MIDLANDS COUNCIL

Senior Planner | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: paul.godier@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

Tasmania's Historic Heart

employer of choice

From: Michelle Schleiger
Sent: Monday, 24 January 2022 11:09 AM
To: NMC Planning <planning@nmc.tas.gov.au>
Cc: Colin Smith <colin.smith@woolcottsurveys.com.au>; James Stewart <james@woolcottsurveys.com.au>
Subject: FW: Col For review RE: PLN21-0323 - 22 Lot subdivision - 87 Bulwer Street and adjoining road reserves

Dear Paul

Please find the attached plans updated to show:

- Footpaths along all street frontages as requested;
- Updated stormwater plans as requested;
- Provision of NBN to lots marked on plan;
- Plans showing street tree proposed locations.

With regard to the provision of reticulated gas to the lots:

- This is not a requirement under the planning scheme;
- We have discussed this with Tas Gas who have indicated that they may not be open to developing gas infrastructure at this location. Tas Gas are looking at viability and we anticipate further advice by 7 Feb 2022. We are hopeful that this item will not delay the planning application any further.
- Advise also suggests there is conflict between tree planting and gas infrastructure (cannot plant a tree within 10m of a gas main) or dig within 30m of a gas main without supervision.

- Further, we question the cost of including gas infrastructure for an energy source that has little take up and is outdated. Most residences would prefer solar panels/batteries as an alternative energy source.

We request you pass this along to the General Manager for consent and await further advice from you on this matter.
With Regards

Michelle Schleiger
Town Planner

M 0477 332 008
P 03 6332 3760
E michelle@woolcottsurveys.com.au
W www.woolcottsurveys.com.au
A 10 Goodman Court, Invermay TAS (PO BOX 593, Mowbray Heights TAS 7248)

In response to the Coronavirus (COVID-19) pandemic we have implemented Social Distancing policies and guidelines. Where possible we are limiting face to face office meetings with alternative options such as zoom/skype/teams or onsite meetings. Please attend our offices by appointment only. We are closely monitoring the situation and our business is operating in strict accordance with government guidelines. We are currently all working in our offices and it is business as usual.

From: NMC Planning <planning@nmc.tas.gov.au>
Sent: Thursday, 6 January 2022 3:29 PM
To: Kylie Stokes <admin@woolcottsurveys.com.au>
Subject: PLN21-0323 - 22 Lot subdivision - 87 Bulwer Street and adjoining road reserves

Please see the attached letter.

Regards,

Paul Godier

Senior Planner | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: paul.godier@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

Request for Additional Information

For Planning Authority Notice

Council Planning Permit No.	PLN-21-0323	**Application date**	10/01/2022
TasWater details			
TasWater Reference No.	TWDA 2022/00026-NMC	**Date of response**	17/01/2022
TasWater Contact	Al Cole	**Phone No.**	0439605108
Response issued to			
Council name	NORTHERN MIDLANDS COUNCIL		
Contact details	Planning@nmc.tas.gov.au		
Development details			
Address	87 BULWER ST, LONGFORD	**Property ID (PID)**	9719166
Description of development	22 lot subdivision	**Stage No.**	

Additional information required

Additional information is required to process your request. To enable assessment to continue please submit the following:

1. Please update the concept servicing plan for water & sewer services to show the following:
    a. Indicative location of proposed TasWater easements in accordance with the relevant TasWater supplement (outline the minimum widths);

Advice

Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

- A permit is required to work within TasWater's easements or in the vicinity of its infrastructure. Further information can be obtained from TasWater
- TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit www.taswater.com.au/Development/Service-location for a list of companies
- TasWater will locate residential water stop taps free of charge
- Sewer drainage plans or Inspection Openings (IO) for residential properties are available from your local council.

To view our assets, all you need to do is follow these steps:

1) Open up webpage - http://maps.thelist.tas.gov.au/listmap/app/list/map
2) Click 'Layers'
3) Click 'Add Layer'
4) Scroll down to 'Infrastructure and Utilities' in the Manage Layers window, then add the appropriate layers.
5) Search for property
6) Click on the asset to reveal its properties

Authorised by

Jason Taylor
Development Assessment Manager

TASWATER CONTACT DETAILS			
Email	development@taswater.com.au	Web	www.taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001		

Request for Additional Information

For Planning Authority Notice

Council Planning Permit No.	PLN-21-0323	**Application date**	10/01/2022
TasWater details			
TasWater Reference No.	TWDA 2022/00026-NMC	**Date of response**	31/01/2022
TasWater Contact	Al Cole	**Phone No.**	0439605108
Response issued to			
Council name	NORTHERN MIDLANDS COUNCIL		
Contact details	Planning@nmc.tas.gov.au		
Development details			
Address	87 BULWER ST, LONGFORD	**Property ID (PID)**	9719166
Description of development	22 lot subdivision	**Stage No.**	

Additional information required

Additional information is required to process your request. To enable assessment to continue please submit the following:

1. In order to issue a Submission to the Planning Authority, I need to refer to plans provided by the applicant, in this case the proposed water and sewer servicing. Currently I have a water servicing plan that does not contain required easements over the sewer (21.175/CP02). The applicant is requested to provide a single set of plans that are clear and consistent such that I can provide a Submission to Council.

Advice

Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

- A permit is required to work within TasWater's easements or in the vicinity of its infrastructure. Further information can be obtained from TasWater
- TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit www.taswater.com.au/Development/Service-location for a list of companies
- TasWater will locate residential water stop taps free of charge
- Sewer drainage plans or Inspection Openings (IO) for residential properties are available from your local council.

To view our assets, all you need to do is follow these steps:

1) Open up webpage - http://maps.thelist.tas.gov.au/listmap/app/list/map
2) Click 'Layers'
3) Click 'Add Layer'
4) Scroll down to 'Infrastructure and Utilities' in the Manage Layers window, then add the appropriate layers.
5) Search for property
6) Click on the asset to reveal its properties

Authorised by

Jason Taylor
Development Assessment Manager

TASWATER CONTACT DETAILS			
Email	development@taswater.com.au	Web	www.taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001		

Submission to Planning Authority Notice

Council Planning Permit No.	PLN-21-0323	**Council notice date**	10/01/2022
TasWater details			
TasWater Reference No.	TWDA 2022/00026-NMC	**Date of response**	07/02/2022
TasWater Contact	Al Cole **Phone No.**	0439605108	
Response issued to			
Council name	NORTHERN MIDLANDS COUNCIL		
Contact details	Planning@nmc.tas.gov.au		
Development details			
Address	87 BULWER ST, LONGFORD	**Property ID (PID)**	9719166
Description of development	22 lot subdivision		

Schedule of drawings/documents

Prepared by	Drawing/document No.	Revision No.	Date of Issue
Woolcott Surveys/6ty	Proposal Plan Cp02A	A	21/01/2022

Conditions

Pursuant to the *Water and Sewerage Industry Act* 2008 (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:

CONNECTIONS, METERING & BACKFLOW

1. A suitably sized water supply with metered connections and sewerage system and connections to each lot of the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit.
2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost.
3. Prior to commencing construction of the subdivision, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater.

ASSET CREATION & INFRASTRUCTURE WORKS

4. Plans submitted with the application for Engineering Design Approval must, to the satisfaction of TasWater show, all existing, redundant and/or proposed property services and mains.

   Advice: Refer to boundary conditions provided below.
5. Prior to applying for a Permit to Construct new infrastructure the developer must obtain from TasWater Engineering Design Approval for new TasWater infrastructure. The application for Engineering Design Approval must include engineering design plans prepared by a suitably qualified person showing the hydraulic servicing requirements for water and sewerage to TasWater's satisfaction.
6. Prior to works commencing, a Permit to Construct must be applied for and issued by TasWater. All infrastructure works must be inspected by TasWater and be to TasWater's satisfaction.
7. In addition to any other conditions in this permit, all works must be constructed under the supervision of a suitably qualified person in accordance with TasWater's requirements.

8. Prior to the issue of a Consent to Register a Legal all additions, extensions, alterations or upgrades to TasWater's water and sewerage infrastructure required to service the development, are to be completed generally as shown on, and in accordance with, the plans listed in the schedule of drawings, and are to be constructed at the expense of the developer to the satisfaction of TasWater, with live connections performed by TasWater.

9. After testing, to TasWater's requirements, of newly created works, the developer must apply to TasWater for connection of these works to existing TasWater infrastructure, at the developer's cost.

10. At practical completion of the water and sewerage works and prior to TasWater issuing a Consent to a Register Legal Document the developer must obtain a Certificate of Practical Completion from TasWater for the works that will be transferred to TasWater. To obtain a Certificate of Practical Completion:

    a. Written confirmation from the supervising suitably qualified person certifying that the works have been constructed in accordance with the TasWater approved plans and specifications and that the appropriate level of workmanship has been achieved;

    b. A request for a joint on-site inspection with TasWater's authorised representative must be made;

    c. Security for the twelve (12) month defects liability period to the value of 10% of the works must be lodged with TasWater. This security must be in the form of a bank guarantee;

    d. Work As Constructed drawings and documentation must be prepared by a suitably qualified person to TasWater's satisfaction and forwarded to TasWater.

11. After the Certificate of Practical Completion has been issued, a 12 month defects liability period applies to this infrastructure. During this period all defects must be rectified at the developer's cost and to the satisfaction of TasWater. A further 12 month defects liability period may be applied to defects after rectification. TasWater may, at its discretion, undertake rectification of any defects at the developer's cost. Upon completion, of the defects liability period the developer must request TasWater to issue a "Certificate of Final Acceptance". The newly constructed infrastructure will be transferred to TasWater upon issue of this certificate and TasWater will release any security held for the defects liability period.

12. The developer must take all precautions to protect existing TasWater infrastructure. Any damage caused to existing TasWater infrastructure during the construction period must be promptly reported to TasWater and repaired by TasWater at the developer's cost.

13. Ground levels over the TasWater assets and/or easements must not be altered without the written approval of TasWater.

FINAL PLANS, EASEMENTS & ENDORSEMENTS

14. Prior to the Sealing of the Final Plan of Survey, a Consent to Register a Legal Document must be obtained from TasWater as evidence of compliance with these conditions when application for sealing is made.
Advice: Council will refer the Final Plan of Survey to TasWater requesting Consent to Register a Legal Document be issued directly to them on behalf of the applicant.

15. Pipeline easements, to TasWater's satisfaction, must be created over any existing or proposed TasWater infrastructure and be in accordance with TasWater's standard pipeline easement conditions. .

DEVELOPMENT ASSESSMENT FEES

16. The applicant or landowner as the case may be, must pay a development assessment fee of, $699.36, and a Consent to Register a Legal Document fee of $154.42 to TasWater, as approved by

the Economic Regulator and the fees will be indexed, until the date paid to TasWater.

The payment is required within 30 days of the issue of an invoice by TasWater.

17. In the event Council approves a staging plan, a Consent to Register a Legal Document fee for each stage, must be paid commensurate with the number of Equivalent Tenements in each stage, as approved by Council.

Advice

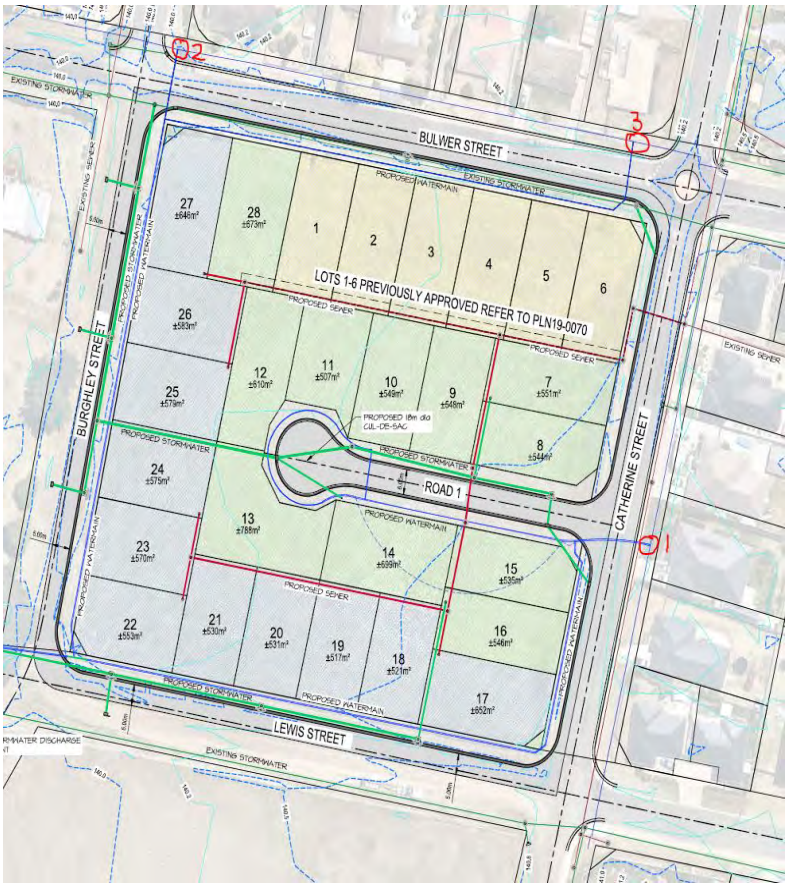
General

For information on TasWater development standards, please visit https://www.taswater.com.au/building-and-development/technical-standards

For application forms please visit https://www.taswater.com.au/building-and-development/development-application-form

Boundary Conditions (Water)

Modelling indicates that there is sufficient capacity in the system to supply these additional lots. The plan provided indicates that they wish to connect into the existing network at 3 points - on pipes A490743, A491060 & A490847 (see points 1, 2 & 3 respectively below):



The Peak Day total boundary heads (HGL), not pressures, at these 3 connection points for both Peak Day & Peak Day plus 10 L/s Fire Flow are:

Connection pipe	HGL – Peak Day (m)	HGL – Peak Day + 10 L/s Fire Flow (m)
A490743	174	174
A491060	175	175
A490847	175	175

It should be noted that these are the boundary heads in the water main itself at the proposed connection points and do not include losses through the actual connections or associated pipework.

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by

Jason Taylor
Development Assessment Manager

TasWater Contact Details			
Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au

From: "Bushfire Practitioner" <bfp@fire.tas.gov.au>
Sent: Fri, 14 Jan 2022 09:23:10 +1100
To: "NMC Planning" <planning@nmc.tas.gov.au>
Cc: "Moore, Chris" <Chris.Moore@fire.tas.gov.au>
Subject: RE: Referral PLN21-0323 - Referral to Tasfire

Dear Karen,

Thank you for referring this to TFS for comment.

The proposal requires Council's discretion under clause E1.6.2 P1. I can confirm that TFS supports the proposed variation to the Acceptable Solution and has had previous correspondence with the bushfire practitioner on this.

We also provided advice in relation to the BAL-19/LOW building areas, which could be simplified in order to improve the usability of the bushfire hazard management plan. That feedback doesn't appear to have been incorporated into the plan however the proposal is still compliant with clause E1.6.1 A1 in any case.

I note the subdivision will be staged and there is a requirement for the balance land in Stage 1 to be established in a minimum fuel condition prior to the release of the Stage 1 titles. This will need to be maintained by the owner until Stage 2 proceeds. Council may wish to condition the permit accordingly to ensure this is not overlooked by the developer.

Regards,

Tom O'Connor
Senior Planning & Assessment Officer
Bushfire Risk Unit

Tasmania Fire Service
Service | Professionalism | Integrity | Consideration

Cnr Argyle and Melville Streets | GPO Box 308 Hobart Tasmania 7001
Phone (03) 6166 5575 | Mobile 0438 101 367
tom.oconnor@fire.tas.gov.au | **www.fire.tas.gov.au**

From: NMC Planning <planning@nmc.tas.gov.au>
Sent: Monday, 10 January 2022 3:31 PM
To: Bushfire Practitioner <bfp@fire.tas.gov.au>
Subject: Referral PLN21-0323 - Referral to Tasfire

Good afternoon

Please see attached plans and documents submitted for a 22 lot subdivision at 87 Bulwer St (was 86 Burghley St) & Bulwer St, Catherine St, Lewis St & Burghley St road reserves Longford TAS 7301.

Your response within 14 days of the date of this email would be appreciated.

Kind regards
Karen

Karen Jenkins

Administration Officer - Community & Development | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: karen.jenkins@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

Rosemary Jones

From: Council Referrals <Council.Referrals@tasnetworks.com.au>
Sent: Wednesday, 12 January 2022 2:14 PM
To: NMC Planning
Subject: RE: PLN21-0323 - TasNetworks Referral Lot 3 87 Bulwer St LONGFORD CN22-11784
Attachments: PLN21-0323 - TasNetworks Referral.docx; PLN21-0323 Referral Documents.pdf

Hi Karen,

Thank you for your email on 10/01/2022 referring the abovementioned development.

Based on the information provided, the development is not likely to adversely affect TasNetworks' operations.

As with any subdivision of this magnitude, consideration should be given to the electrical infrastructure works that will be required to ensure a supply of electricity can be provided to each lot. To understand what these requirements may entail, it is recommended you advise the proponent to contact TasNetworks Early Engagement team at early.engagement@tasnetworks.com.au at their earliest convenience.

Kind regards,
Vicki

TasNetworks | Powering a Bright Future

Vicki Maloney
Connections Advisor
Customer Connections Team
Available Tuesday – Friday
P 03 6324 7583
networkcustomersupply@tasnetworks.com.au

1 Australis Dr, Rocherlea 7248
PO Box 419, Launceston TAS 7250

www.tasnetworks.com.au
@TasNetworks
/TasNetworks

From: NMC Planning <planning@nmc.tas.gov.au>
Sent: Monday, 10 January 2022 3:18 PM
To: Council Referrals <Council.Referrals@tasnetworks.com.au>
Subject: PLN21-0323 - TasNetworks Referral Lot 3 87 Bulwer St LONGFORD CN22-11784

Good afternoon

Please find attached referral for your action.

Kind regards
Karen

Karen Jenkins

Administration Officer - Community & Development | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: karen.jenkins@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au [northernmidlands.tas.gov.au]

NORTHERN MIDLANDS COUNCIL

Tasmania's Historic Heart

employer of choice

Acting General Manager
PO Box 156
LONGFORD TAS 7301

February 21, 2022

Dear Maree

We wish to make a representation to planning application number PLN-21-0323, 22 lot subdivision on the following grounds:
1/. Request that the exit/entry point to the proposed court off Catherine St be mirrored to Burghley St opposite Dell Farm cottage, thus creating minimal disturbance and less traffic congestion.
A street will need to be formed on stage 2 of this development for blocks on Burghley and Lewis St West. So we ask why can't this be done on stage 1 with the court being flipped? What reasoning is behind leaving the court entry on Catherine St? We encourage your longer-term perspective with the stages on the amenity of Catherine St.
Perceived benefits of this change to the court location:

- Safer entry with less traffic on Catherine St, especially with proposed further development of the Pitt pastureland in the future and obviously additional new courts to maximise available housing lots heading South towards Longford House.
- Catherine St does attract through traffic to the dog park and access to Cressy Rd. Unfortunately despite a 50 kph signed limit on the street, we have witnessed innumerable idiots accelerating south from the Bulwer roundabout at massive speed; last episode was at the weekend with an old hotted up Ford estimated at least 120kph past our home roaring up to the end of the street, onto Cressy Rd then up Wilmores Lane on the rev limiter all the way!! With this scenario in mind, a future resident turns right out of the proposed court opposite us and is collected will end up in our bedroom, front yard or neighbour's property. It's obvious that this layout design has not been considered by any local experience because the risks are extreme and who will be liable for the outcome? Consider this warning in your deliberations. It's not too late to change this proposed plan cause as a council you have the opportunity to say, "Upon reflection we see a safer alternative available to change the orientation of the plan!"
- Necessary on-road parking for Catherine St residents of #71, 73, 75, 77 and 79. Personally for us at #77 the current proposal of the court entry/exit will impede on our on-street parking. Currently we have the added necessity to leave space for accessing the marked fire hydrant on our nature strip. So lawfully we only have space now for one vehicle at the front of our property. Vision for traffic in and out of the proposed court directly opposite our driveway would probably mean we would lose this available spot?? For Phyllis at #73, added difficulty will be experienced exiting her driveway with so many directions to check.
- Less disturbance to current occupants in Catherine St. Personally, noise of accelerating vehicles plus headlights of vehicles beaming straight into our bedroom window. As a minimum this would amount to an average of 16 vehicle movements without visitors turning left or right at any given time. Whereas if the court was flipped with its entrance onto Burghley St, a safer outcome will be achieved for all ratepayers and road users and no one will be disturbed.

2/. Please advise the details on dust mitigation on the construction phase as the prevailing winds are predominantly NNW, landing all the debris upon our properties opposite the site.

3/. We have looked at courts in other areas and the practical inclusion of 2 parking bays in the court makes sense for safer on-street parking.

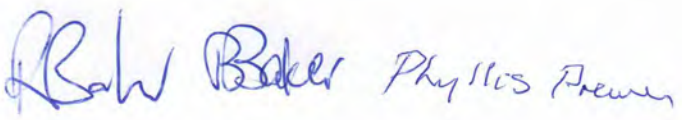
- This will prevent congestion in the court, especially when occupants have more than 2 vehicles, particularly when teenagers have their own vehicles. One example is in Honeysuckle Grove, Evandale.
- Visitor parking needs to be provided for as well.

We appreciate the opportunity to provide our perspective and trust it will be given due fair consideration.

Kind regards

Rob and Bronwyn Baker and Phyllis Prewer at #73 Catherine St
P.
E.

PO Box 96
Longford
Tasmania 7301



10/02/2022

Trent Hall
79 Catherine St
Longford Tas 7301

Northern Midland Council
Smith Street
Longford Tas 7301

Dear General Manager,

I am writing to appeal against the positioning of the Cul de sac in Catherine St of the proposed 22 Lot Sub division of 87 Bulwer St, Catherine St, Burghley St and Lewis St West. I am extremely concerned regarding the positioning as dangerous and has high potential to cause motor vehicle accidents, bike riders to be hit.

As a resident who lives across the road from the proposed Cul de sac for the past ten years of already being quite concerned of the high traffic volume on this street and complete disregard to the 50 KLM speed limit which starts at the dog park, it amazes me how there hasn't been more accidents or people being hit out walking/Excersing or children on bikes, along this street as it is.

To add another road Entrance off this particular area which has the Lewis St West Intersection and Bulwer St Round about as bookends will cause more traffic Congestion on an already busy and dangerous Section of road. Why this Cul de Sac Couldn't be positioned off Burghley St is beyond me

as it will be alot less road used for traffic.

In saying all this I am in full Support of the Sub division going ahead and providing great progress for our town.

I have been a rate payer for 14 plus years and seriously hope my view and no doubt other concerned residents in the area get taken for serious consideration and have to plans changed to hopefully keep a safe Street thriving.

Kind Regards

Trent Hall

Acting General Manager
PO Box 156
LONGFORD TAS 7301

February 22, 2022

Dear Acting General Manager

PLN-21-0323 IMPORTANT SAFETY CONCERNS

We wish to make a representation to the 22 lot subdivision on the grounds of community safety.
We concur with our next door neighbours at 83 Bulwer St that this development will increase the traffic flow on Catherine St. We witness a lot of movement already and potentially this subdivision will add a minimum of 40 vehicle movements (without visitors) in and out of Catherine St. This is a safety and planning issue especially with many young children walking, riding, scooting unsupervised to and from Longford Primary or to the bus stop. Plus the younger children walking or being wheeled in the pram to play at Lewis St West park.
Would you consider some way of dispersing some of the new residential traffic onto Burghley St to then link up with other streets rather than the full impact being on this roundabout?
At present many drivers do not keep to the 50kph limit in the street and we have witnessed vehicles being driven OVER the roundabout without slowing down. Our bedroom would bear the full impact of an out of control vehicle hurtling off the roundabout!!
We have not sighted police in our area to enforce the regulations.

Concernedly yours,

Peter and Janelle Lee.
71 Catherine St
Longford
Tasmania 7301

I refer to the development application (PLN-21-0323) which details the proposed subdivision of a balance lot (87 Bulwer St, formerly 86 Burghley St) created as part of a previous application and note a number of minor issues which could likely be easily resolved by the Applicant and may achieve better outcomes.

Longford Development Plan
The Longford Development Plan adopted by Council in May 2012 shows the land in question falls within 'Site 3'.

The purpose of the Longford Development Plan was to provide a broad framework to guide Council when it considers subdivision and development proposals for Longford, with it being stated in the summary/conclusion:

Site 3 holds the greatest potential to develop the site as a total entity – focussing on design rather than lot layout. The overall outcome should be to create a product that is not only desirable, but also respects the pattern of development in close proximity to the individual site.

NTRLUS + Zone Purpose Statement 10.1.1.1
The NTRLUS seeks to promote and plan for a diverse range of dwelling types and sizes including small lot housing and multiple dwellings. This is echoed in the zone purpose statement of 10.1.1.1 under the current Northern Midlands Interim Planning Scheme which refers to 'accommodating a range of dwelling types at suburban densities'.

It subsequently seems reasonable to consider any potential limitations on dwelling types which might apply when considering the previously approved 6 lots and proposed 22 lots.

The current Scheme has an acceptable solution requiring a minimum 325m² per dwelling for multiple dwellings or applicable performance criteria requiring development density be compatible with existing development or wholly or partly within 400m of a public transport stop.

None of the previously approved 6 lots satisfy the acceptable solution and this is true for the majority of the proposed lots in this DA, with only lots 13, 14, 17 and 28 being in excess of the 650m² required to achieve 325m² per dwelling for multiple dwellings.

With existing nearby development being on average around 400m² per dwelling for multiple dwellings and in excess of 800m² for single dwellings, it seems unlikely a site area less than the acceptable solution 325m² could be considered compatible and only 2 of the lots (both previously approved) are wholly or partly within 400m walking distance of the bus stop south of Bulwer St on Marlborough St. However, these lots may fail to satisfy other Scheme provisions (e.g. those relating to overshadowing).

Similar issues relating to overshadowing may exist for Lot 28 and Lot 13 may likely require relaxation of the frontage setback for a second dwelling.

It is foreseeable that a lack of lots suitable for multiple dwellings (as an example) could result in a subdivision where the only dwelling type will be single dwellings and subsequently seems at odds with the NTRLUS and Zone Purpose Statement. Likewise,

this may be further exacerbated if provisions of the LPS are in effect by the time any development occurs and sees a change in the minimum site area per dwelling for multiple dwellings.

10.4.15.3 Solar Orientation of Lots
The objective of this clause is given 'to provide for solar orientation of lots and solar access for future dwellings'. The DA notes reliance on P1 which requires likely dwelling sizes to be considered.

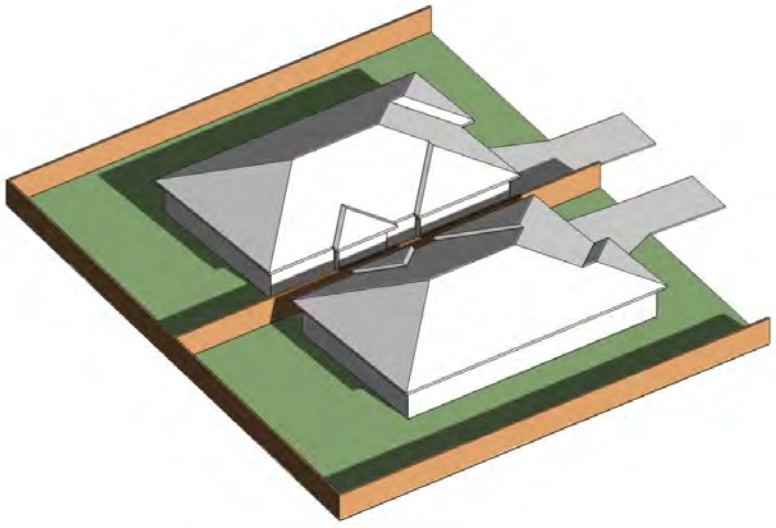
Plans provided by many building companies on their websites indicate significant variation in terms of footprint and overall dimensions for typical 3 bedroom/2 bathroom/double garage dwellings. There are similarly minor deviations in general layout, although designs for lots with narrower frontages tend to place the living space at or near to the rear of the dwelling.

Given such variation, a better approach may be to ensure lots are optimally oriented and that driveway crossover locations encourage better siting of dwellings to maximise solar access to yards and dwellings, especially daytime living spaces.

Ideally, dwellings should be located as near to a southern boundary as possible such that any shadow cast onto a property to the south is no greater than would occur from a boundary fence at 1.8m high which at midday on June 21st casts a shadow of around 3.9m.

Where driveway crossovers are located near to a northern boundary (as is true for lots 8, 24 and 26), it is subsequently more likely a future dwelling will be sited nearer to the northern boundary. The dwelling will then overshadow its own yard and the fence will overshadow the dwelling if the minimum required setback is adopted.

The extent of increased overshadowing caused by poor dwelling siting resulting from driveway crossover location can be demonstrated with a simple shadow diagram for midday at June 21st using 1.5m side setbacks, 1.8m fences and dwellings based on a 3 bedroom/2 bathroom/double garage setup available from a building company's website using lots 24 and 25 (below).



Clearly, the dwelling sited closer to the southern boundary receives greater sunlight to its yard and northern façade, which will also improve passive heating in cooler months. Conversely, the dwelling sited closer to its northern boundary will have reduced potential for passive heating and the proximity to the dwelling to the north may also reduce the ability to capture breezes for cross ventilation.

Lot 8 is also potentially problematic given it has a greater setback requirement to the south, which could force any future dwelling to be sited closer to the northern boundary.

The proposed subdivision has improved lot orientation for several lots when compared with the concept plan provided in the DA for the initial 6 lots.

It may further be advantageous to rotate by 90°, lots 7 and 8 and lots 27 and 28.

This would give lots 7 and 8 wider frontages better suited to typical dwelling widths and with the primary frontage to the south, likely see living spaces remain oriented north. This would also help resolve any issues with dwelling siting on Lot 8.

Rotating lots 27 and 28 would also reduce the likelihood of living spaces being to the south and/or any potential overshadowing issues for Lot 28 if used for multiple dwellings. Slightly resizing the lots could see Lot 27 also be made suitable for multiple dwellings under the current Scheme, although it is unclear whether this would be possible under the future LPS.

Lot 12 similarly does not lend well to typical dwelling designs, with required setbacks potentially limiting development to the northern half of the lot. The dwelling will then overshadow a significant portion of its own yard mid-winter and require an extensive driveway area should it include an attached garage.

10.4.15.5 Integrated Urban Landscape
The DA states in response to P1 (e) (i):

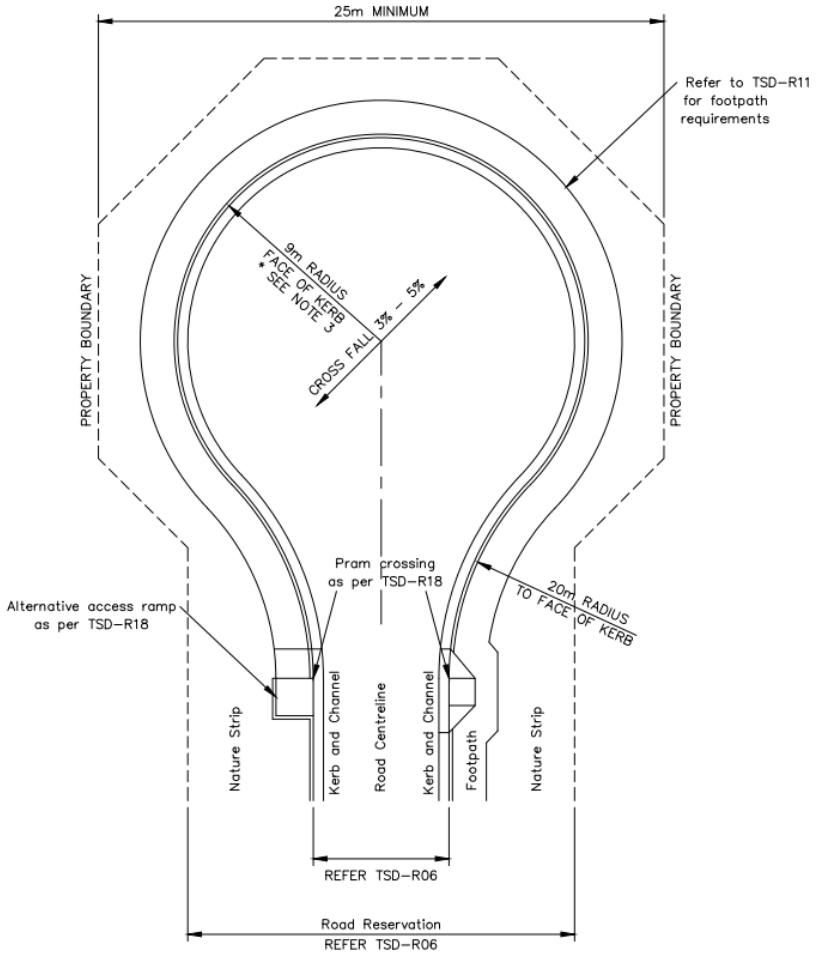
The development follows the existing pattern of development and is a natural development progression, south west of the existing urban development area of Longford.

Analysis of cul-de-sacs in Longford indicates there are some 15 in total. Of these, 11 connect to a street running east-west, including all 4 cul-de-sacs in the newer residential area to the east of the subject site. 3 of the 4 cul-de-sacs connecting to north-south streets specifically connect to Wellington St which acts as a terminating street to the east for the town's general street grid pattern.

It should be noted the Longford Development Plan also provided analysis of the town's street pattern, stating curved streets and cul-de-sacs should be avoided for any new development.

On this basis, the proposed cul-de-sac should connect to Lewis St in order to be consistent with the existing pattern of cul-de-sacs connecting to east-west streets or Burghley St as a terminating street for the town's general street grid to the west.

LGAT standard drawing TSD-R08-v3 (below) similarly indicates a minimum distance of 25m between property boundaries for the reservation at the head of a cul-de-sac in urban areas. The proposed cul-de-sac appears to have a dimension of approximately 24.26m and so fails to meet LGAT requirements in this regard.



URBAN TYPE CUL–DE–SAC

10.4.15.6 Walking and Cycling Network
LGAT standard drawing TSD-R08-v3 shows the entire perimeter of the curved part of the cul-de-sac head having a footpath. This suggests the proposed extent of footpath to half the head of the cul-de-sac may not comply with LGAT standards.

E10.6.1 Public Open Space
The DA refers to a master plan for future development in seeking the option of a cash payment in lieu of providing public open space.

The smaller lot sizes of the previous DA and this proposal see average lot sizes well below the prevailing average in the area despite the Longford Development Plan identifying a need to 'follow the size of surrounding lots'.

It subsequently seems reasonable to expect greater provision of public open space where smaller lot sizes are proposed, to offset the lesser amounts of private open space.

The provision of actual space as part of the subdivision of the balance lot seems to have been implied in the minutes of the October 2019 Council meeting relating to the previous DA, where it is stated:

It is recommended that the preference at this time would be for Council to receive a cash in-lieu contribution as the location of public open space would be better managed as part of the future subdivision when a more definitive plan is provided in order to better locate the public open space. It would be Council's expectation at that time that public open space was provided as a land contribution.

As the master plan has not been provided to demonstrate where or how much future public open space might be provided nor is it clear when future development might occur, the cash payment option should be refused.

Alternatively, if Council agrees to a cash payment then there should be a strict limit on how long the funds can be held in trust in the event future development does not occur in a timely manner with the intent of improving the nearest park at the junction of Lewis and Marlborough streets.

Lot 8 Driveway
Section 3.3.3 of AS1890.1:2004 refers to Figure 3.1 which identifies prohibited locations for driveway accesses gives a distance of 6m to the tangent point of the intersecting roadway.

The driveway access of Lot 8 appears to be within 6m of the tangent point of the proposed cul-de-sac and assuming compliance with the Standard is required, should be repositioned given there are no obvious constraints preventing compliance.

This would similarly be a non-issue if lots 7 and 8 were rotated 90° as suggested.

I trust Council will carefully consider these issues, most of which can be easily resolved and potentially achieve an improved outcome.

Kind regards,

Mark Rhodes

Acting General Manager
PO Box 156
LONGFORD TAS 7301

February 22, 2022

Dear Acting General Manager

PLN-21-0323 IMPORTANT SAFETY CONCERNS

We wish to make a representation to the 22 lot subdivision on the grounds of community safety.
This development will increase the traffic flow on Catherine St. We sit out the front of our property daily and do see a lot of movement.
Potentially this subdivision will add a minimum of 40 vehicle movements (without visitors) in and out of Catherine St. This is a safety and planning issue especially with many young children walking, riding, scooting unsupervised to and from Longford Primary or to the bus stop. Would you consider some way of dispersing some of the new residential traffic onto Burghley St to then link up with other streets rather than the full impact being on this roundabout?
At present many drivers do not keep to the 50kph limit in the street and we have witnessed vehicles being driven OVER the roundabout without slowing down.
We have not sighted police in our area to enforce the regulations.

Yours with concern,

Mr and Mrs N and J Streets
Phone
83 Bulwer St
Longford
Tasmania 7301

Our Ref: L180418
Your Ref: PLN-21-0323

Date: 4 March 2022

Development Services Department
Planning
PO Box 156
Longford TAS 7301
By Email: planning@nmc.tas.gov.au

Dear Planning

Response to representations – PLN-21-0323 – 87 BULWER STREET – 22 Lot Subdivision

This letter is provided in response to the representations received for the above-mentioned planning application.

Firstly, thank you for the opportunity to address community concerns. We have attempted to address all the matters raised in broad terms, as some representations raised similar issues.

Cul-de-sac siting and traffic issues
Please see Attachment 1- response from Keith Midson.

Multiple Dwellings
As the representor points out, there are some lots within the subdivision suited for multiple dwellings, should the lots be developed this way. There is no expectation that all lots will provide for multiple modes of development, but some should. It is noted that there is a need for higher density housing across the region covered by the NTRLUS; the Inner Residential Zone provides for that, where this is suitable. While we appreciate the broad perspective of this, we think four lots suited to multiple dwellings within the subdivision design is reasonable.
The application meets the current scheme requirements for lots sizes.

Orientation and overshadowing
While these are important factors, we find there are always competing factors in designing a lot layout that force compromise.
If the nominated lots were to be rotated there would be fewer dwellings to potentially face the main thoroughfare of Catherine Street and Bulwer Street, compromising potential passive surveillance opportunities and improvement to the streetscape (Clause 10.4.15.6-P1d). Bulwer Street has only three dwellings facing the street (currently) with very little frontage (dwellings facing) to the western end on the subject site. Allowing the two nominated lots to face north means this 'dead' spot is mitigated. This is an important consideration to place-making and forming street character as well as public safety. It is noted that with each decision for orientation one street always has the advantage over the other. Future considerations for the Burghley Street character may include development on the west side of the street along with street infrastructure upgrades. We consider that frontage to Catherine Street to be more of a priority than frontage to the proposed cul-de-sac as there would be a significant length of the block without a dwelling facing the street from this side. Given the width of the street, the potential lack of passive surveillance would be irresponsible.

LAUNCESTON
10 Goodman Crt, Invermay
PO Box 593, Mowbray TAS 7248
P 03 6332 3760

ST HELENS
48 Cecilia St, St Helens
PO Box 430, St Helens TAS 7216
P 03 6376 1972

HOBART
Rear Studio, 132 Davey St,
Hobart TAS 7000
P 03 6227 7968

DEVONPORT
2 Piping Lane,
East Devonport TAS 7310
P 03 6332 3760

ABN 63 159 760 479

Once again, we cannot address development that has not occurred and all future development will be subject to the provisions of the planning scheme with regard to overshadowing. We believe the lot sizes are reasonably sized and can allow flexibility for dwelling design to incorporate overshadowing and solar access factors. The type of housing that individuals choose, whether based on desire or budget, is not in our control. All future applications will be subject to the provisions of the scheme.
The performance criteria for Clause 10.4.15.3 has been addressed. Where lots are not north facing, they are larger in area to allow building design flexibility.

Development pattern
The notation of prevailing cul-de-sac orientation is interesting; however, we have designed the cul-de-sac to provide direct and efficient travel, according to Clause 10.4.15.6 by allowing entry to and from Catherine Street. This provides the most direct route to the town centre and road network.

Cul-de-sacs, within greenfield developments prevent efficient travel and thoroughfare to transport infrastructure, however, this development is working in and with an existing cadastre with a prevailing grid street layout. The utilisation of a cul-de-sac in this instance means more efficient use of the land (more efficient use of the land has environmental impact benefits). There are through-ways available to each street that bound this development, and the ability to access the transport network and the prevailing character is maintained.

A note on plans submitted for planning applications
Significant time and resources are needed to develop plans that have had a preliminary assessment for civil design and servicing infrastructure. This process includes discussion with Councils and other relevant parties. The plans submitted provide an indication that based on initial calculations, the plan will work and what it will basically entail. They provide information to planners for assessment and if it is not sufficient for this purpose, additional information is requested.

To provide detailed engineering design plans takes longer and uses more resources. They become more expensive as the details are worked out to comply exactly with the standards and conditions of the permit within the development.

That is why, for planning purposes, preliminary plans are submitted. They provide a good idea of the development, with appropriate preliminary work. If the planning application is refused, the applicant has not spent all their resources on detailed engineering design plans. This is standard practice and plans are usually notated as ‘for planning purposes’ or similar.

Upon issue of a permit, construction plans are created that will detail all development as per the conditioned standards including LGAT and Australian standards where required.

Public Open Space
This matter is under discussion with Council for negotiation.

Kind regards,
Woolcott Surveys

Michelle Schleiger
Town Planner
michelle@woolcottsurveys.com.au

Keith Midson
Midson Traffic Pty Ltd
28 Seaview Avenue
Taroona TAS 7053
0437 366 040

3 March 2022

Michelle Schleiger
Woolcott Surveys
Via email

Dear Michelle,

86 BURGHLEY ST – RESPONSE TO REPRESENTATIONS, TRAFFIC

Further to our recent discussions, this letter provides a response to traffic related representations made in against the abovementioned development proposal. I have collated the response to relevant traffic issues raised in categories in the following sections.

1. Speeding and Anti-Social Behaviour

Many of the representations refer to issues associated with existing driver behaviour on Catherine Street. This includes speeding and anti-social behaviour. These issues will most likely continue irrespective of the proposed development being constructed or not. There are no measures that the development can take to prevent these measures from occurring. The most appropriate measure is to report these issues to Council (as road authority) and Police.

2. Traffic Congestion

Several of the representations raise concerns regarding traffic congestion associated with a new road junction in Catherine Street. The traffic generation associated with the cul-de-sac (that will service 8 dwellings) will be 59 vehicles per day, with a peak of 7 vehicles per hour. This equates to an average of just over 1 vehicle every 10 minutes during peak periods (morning and afternoon peak periods). Considerably lower hourly traffic generation will occur outside these peak periods.

The cul-de-sac will connect at a T-junction with Catherine Street having priority. This means that traffic flow in Catherine Street will be largely unimpacted by the new road junction in terms of efficiency. The low level of traffic generation will therefore not have any significant impact on traffic efficiency in Catherine Street or in the new road that will be constructed within the subdivision.

Additional traffic generated by the development will utilise the roundabout at the Bulwar Street junction, however this will not include all traffic generated by the development as some traffic will access other parts of the network. The existing roundabout currently operates well below efficiency. Roundabouts are designed to distribute traffic priority across all road approaches. The additional traffic generation associated with the proposed development will not have any significant adverse impacts with the roundabout based on efficiency.

3. Design of Cul-De-Sac Junction on Catherine Street

One representation referenced Australian Standard AS1890.1, which refers to '*Thermally Released Links*'. The correct standard, AS2890.1, '*Off-Street Parking', 2004.*

Section 3.2.3 of AS2890.1 (not the incorrect reference 3.3.3 stated in the representation) provides the requirements for the placement of access driveways in relation to road junctions. In this case the development will provide a new road junction and other access junctions should not be placed in the area denoted in Figure 3.1 of AS2890.1.

Section 3.2.3 of AS2890.1 specifically states "*This requirement shall not apply to accesses to domestic driveways in the kerb section opposite the entering road at any intersection including signalised intersections*". In this case the existing driveway will be located opposite the new cul-de-sac junction which is permitted as it is a domestic driveway. The cul-de-sac junction on Catherine Street is therefore acceptable and meets the requirements of AS2890.1.

Please contact me on 0437 366 040 if you require any further information.

Yours sincerely,

Keith Midson BE MTraffic MTransport FIEAust CPEng EngExec NER

DIRECTOR
Midson Traffic Pty Ltd

Paul Godier

From: NMC Planning
Sent: Thursday, 24 February 2022 4:57 PM
To: Paul Godier
Subject: FW: Urgent Request for Council to initiate an amendment to the Heritage Scheme to include the property "Valleyfield" Longford.
Attachments: Aerial photo Valleyfield 1970s.jpg; Glover J R sketch Valleyfield 1.jpg; Glover J R sketch Valleyfield 2.jpg; Valleyfield Land Title.PDF; Valleyfield Brick Well.jpg; Valleyfield Heritage Barn 1988.jpg; Valleyfield Land Title.PDF; Valleyfield POW Cottage.jpg; Valleyfield Stone Cottage 1988.jpg

Rosemary Jones
Administration Officer - Community & Development | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: rosemary.jones@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au
NORTHERN MIDLANDS COUNCIL
Tasmania's Historic Heart
employer of choice

From: Valleyfield Vineyard
Sent: Thursday, 24 February 2022 4:17 PM
To: NMC Planning <planning@nmc.tas.gov.au>
Subject: Urgent Request for Council to initiate an amendment to the Heritage Scheme to include the property "Valleyfield" Longford.

Attn: Paul Gottier
Senior Planner
Northern Midlands Council
Further to our discussion last week, I write to request that our property “Valleyfield”, situated at 873 Illawarra Road, Longford, be given consideration as a property of historical significance to the Norfolk Plains region and to ask that Northern Midlands Council initiate an amendment to the Scheme. We believe the property has significant historical value and may have been overlooked as it appears Northern Midlands Council have no record of there being a homestead on the property, with a possible mix up over a stone cottage that was at some stage destroyed by fire.

There is some urgency to this request as the early proposal for stage 2 of the Illawarra Road upgrade is suggesting the removal of our front Hawthorn Hedge to facilitate an overtaking lane. We feel this would be a great shame as it is part of the scenic corridor which is such an attractive feature of the Longford district. It will also have significant negative impact on the Native Bird and Bandicoot sanctuary we have establised and which is protected by this hedge.

Originally the property was part of a land grant to Henry Clayton in 1837 who established “Wickford” and later divided off “Valleyfield”, “Highfield” and “Springfield” on the western side of Illawarra Road for his three sons, before they eventually sold up, intending to emigrate to New Zealand. However their ship was wrecked off the coast and he perished at sea, although his family continued to New Zealand and the UK.

In piecing together the history of “Valleyfield”, we can tell you the following:

The property as it exists now is bounded almost entirely by well maintained hawthorn hedges which are now nearly 200 years old. The hedge represents one of the few remaining hawthorn hedges north of Longford and has significant frontage to the scenic heritage corridor of Illawarra Road.

The homestead was built with triple brick external and some internal walls. We believe it was built around 1840 as there are sketches in the National Library by John Richardson Glover dated 1850-59 which show the house built in Georgian style with established gardens. These sketches also depict the hedge along Illawarra Road. (attached)

Among the outbuildings there is the shell of one of two cottages built to house Italian POWs who were sent to work on farms during the war years. The cottage is constructed of hand split timbers and hand forged nails. Both cottages can be seen in the aerial photograph of the property taken in the 1970’s, although only one remained when we purchased the property in 2005.

The physical fabric of the original stables is intact with mangers and stalls and rough stone flooring.

There is a bricked well near the homestead which is an outstanding example of brick workmanship from this era. We estimate it is approx. 30ft deep and 5 ft wide, although we currently keep it covered for safety. (When I told my grandmother, Mollie Gatenby (MacKinnon) from “Rhodes”, that we were returning to Tasmania in 2005 and had bought “Valleyfield”, she laughed and said she remembered “Old Mrs Newton fell down the well and they had to hold her up with a piece of fishing line while they found a rope to haul her out!”)

There are the archeological remains of a stone cottage, which burnt down in the early history of the property and the stone was used for drystone walls and garden paths at “Valleyfield”. We understand this was the reason Council have no record of the house – it was mistaken as being burnt down.

There are also archeological remains of a large barn, which is shown in both J R Glover’s sketch of Valleyfield Farm and the aerial photograph of the property taken in the 1970s. The barn was also lost prior to our purchase of the property, although the corrogated iron shearing shed fronting the barn remains.

One piece of the history of the property that we have yet to ascertain is when, between Henry Clayton and the Newton family, someone Federated the style of the Valleyfield homestead. It now has a gabled facade and federation stained glass round window and entrance/doorway.

We have done extensive works to preserve the building – we were obliged to reroof as the original french terracotta tiles were so fragile that breakage was allowing water into the roof and walls. We also had the entire external and internal walls damp coursed to prevent issues of rising damp, plus restumped and refloored throughout internally.

We have established a vineyard on the property, which has produced some exciting early vintages – a new farming venture for the Norfolk Plains. Currently we operate a small cellar door from the homestead, which has seen many of the Newton and some of the Clayton family return to visit and tell us stories of their childhood memories at “Valleyfield”.

In keeping with our conservation values we have also established a wildlife sanctuary on the property to protect the habitat of threatened native species that live here, such as the Eastern Barred Bandicoot and Spotted Tailed Quoll. We have a nearby nesting pair of Wedge Tail Eagles which hunt over the property,

also a pair of Cape Barren Geese, Black Swans, Morepork Owls and a myriad of frogs around the front dam.

Both of these activities allow the public to visit and enjoy not only the produce from the vineyard, but also the historical and conservation aspects of “Valleyfield”.

As mentioned above, the reason for our request for urgent appraisal is that there are currently plans being drafted on behalf of State Growth to expand Illawarra Road. These plans would ruin its historical significance as a scenic corridor, which is what our forefathers intended. The draft we have seen entails the removal of the Hawthorn Hedge fronting Illawarra Road. We strongly wish to protect the hedge, given its age and its significance to the property of “Valleyfield”. We realise time is a crucial factor at this point.

I have attached the current land title and various images relating to the historical features of the property.

Please contact us if there is further information or images you require, or if you wish to conduct and inspection.

We appreciate your attention.

Yours sincerely,

Frances & Simon Stewart
VALLEYFIELD VINEYARD
(Bell & Gong)


"Valleyfield" c.1850 - 1859
JOHN R. GLOVER


"Valleyfield" c.1850 - 1859
JOHN R. GLOVER

the LIST. DEPARTMENT of PRIMARY INDUSTRIES, WATER and ENVIRONMENT Land Information Services

Tasmania

RESULT OF SEARCH

RECORDER OF TITLES, TASMANIA
Issued pursuant to the Land Titles Act 1980

SEARCH OF TORRENS TITLE

VOLUME	FOLIO
40413	1
EDITION	DATE OF ISSUE
8	08-Aug-2005

SEARCH DATE : 08-Aug-2005
SEARCH TIME : 04.14 pm

DESCRIPTION OF LAND

Parish of LONGFORD, Land District of WESTMORLAND
Lot 1 on Sealed Plan 40413
Derivation : Part of 1,705 Acres Gtd to H Clayton
Prior CT 4584/16

SCHEDULE 1

C649997 TRANSFER to SIMON JOHN STEWART and FRANCES JUNE STEWART - Registered 27-Jul-2005 at 12:02 pm

SCHEDULE 2

Reservations and conditions in the Crown Grant, if any
SP 40413 EASEMENTS in Schedule of Easements
SP 40413 FENCING COVENANT in Schedule of Easements
C649998 MORTGAGE to National Australia Bank Limited - Registered 27-Jul-2005 at 12:03 pm

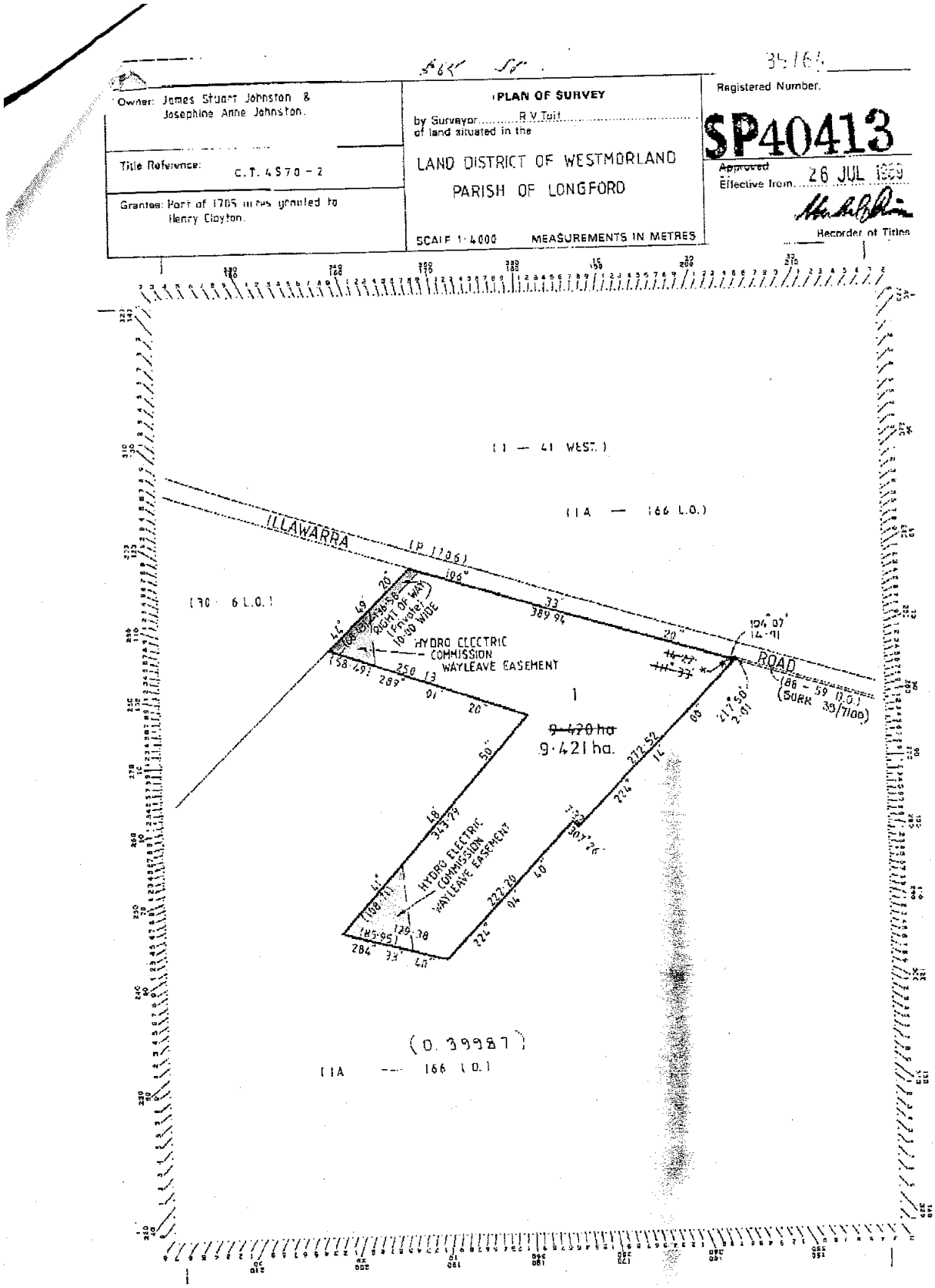
UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations

END OF SEARCH.

Warning: The information appearing under Unregistered Dealings and Notations has not been formally recorded in the Register.

Putting it all together.



http://www.thelist.tas.gov.au/thelistprod/list_title_utils.planImagePage?p_file_name=pi... 8/03/2005

http://www.thelist.tas.gov.au/thelistprod/list_title_utils.planImagePage?p_file_name=pi... 8/03/2005

Paul Godier

From: Valleyfield Vineyard
Sent: Friday, 11 March 2022 12:49 PM
To: Paul Godier
Subject: Re: Urgent Request for Council to initiate an amendment to the Heritage Scheme to include the property "Valleyfield" Longford.
Attachments: 13231P01-VALLEYFIELD VINEYARD-BLOCK 4.pdf; Valleyfield Survey Plan.PDF; Wedge-Tailed Eagle over Valleyfield March 2022.jpg

Dear Paul,

Thankyou for your email regarding our request for Council to initiate an amendment to the Heritage Scheme to include our property “Valleyfield” Longford.

Please find attached additional supporting documents that outline the current property from an aerial photograph, including an additional plan to expand our vineyard, which will not be possible if the hedge along our road boundary is removed. It will also compromise our ability to drought proof the property in the future, limiting the area around the existing dam.

I also attach a clearer copy of the Survey Plan. We had a Surveyor attend this morning to try and identify the road boundary. The hedge was planted as the original boundary, but the survey line seems to be from the centre of the hedge in the northern corner and then varying inwards by approximately 30-40cm as the line progresses towards our southern road corner. Therefore a request for amendment would likely involve Crown land.

We would appreciate Council noting that our desire to conserve the hedge is not solely based on its heritage value, but also because it has significant value for the conservation of local endangered species that currently find sanctuary within the hedge boundary. These include a healthy population of Eastern Barred Bandicoots, Long Nosed Bandicoots, Spotted Tailed Quolls as well as a variety of native bird species – most significantly a nearby nesting pair of Wedge-Tailed Eagles that hunt over the dam. I have attached a photo taken this week – not a very good one as the Eagle is high in the sky by the time I photographed it – but I had just seen it doing a low pass over the dam before circling up into the sky. (We are apparently top of Aurora Energy’s list to receive bird diverters over our powerline, when they find some funds!)

We feel that the proposed Illawarra Road upgrade is a mistake – making the whole Perth bypass redundant if it goes ahead. As residents of Illawarra Road since 2005 and an 8th Generation Northern Midlands family, we feel strongly about preserving the heritage of this area and feel a better option would have been to drop the speed limit to 80km/hr and remove the trucks to the original highway route.

We therefore request that Northern Midlands Council vote to initiate this amendment.

Yours sincerely,

Frances & Simon Stewart
Valleyfield
873 Illawarra Road
Longford 7301

From: Paul Godier
Sent: Thursday, March 10, 2022 9:39 AM
To:
Subject: RE: Urgent Request for Council to initiate an amendment to the Heritage Scheme to include the property "Valleyfield" Longford.

Dear Frances and Simon,

I have discussed this request with the General Manager and the recommendation is that you apply for the scheme amendment using the attached forms.

You will need to pay the initial $1,058 application fee, which you can ask Council to consider remitting.

The reason for this is that scheme amendments take up a substantial amount of staff time, so the standard fees should be considered.

If Council agrees to the amendment the additional fees will be:

- $1,058 processing fee
- $1,395 total advertising fee for 3 advertisements
- $628 if the Tasmanian Planning Commission holds a hearing
- $330 (min.) Tasmanian Planning Commission fee

I'll need the attached forms lodged by 1pm on Friday 11 March to make the agenda.

Can you confirm that the hedge is entirely on 873 Illawarra Road?
If the hedge extends into the road reservation, your proposed amendment for heritage listing of 873 Illawarra Road will not protect that part of the hedge in the road reserve.

Please let me know if you have any questions.

Regards,

Paul Godier

Senior Planner | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: paul.godier@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

NORTHERN MIDLANDS COUNCIL

Tasmania's Historic Heart

employer of choice

From: Valleyfield Vineyard
Sent: Thursday, 24 February 2022 4:17 PM
To: NMC Planning <planning@nmc.tas.gov.au>
Subject: Urgent Request for Council to initiate an amendment to the Heritage Scheme to include the property "Valleyfield" Longford.

Attn: Paul Gottier
Senior Planner
Northern Midlands Council

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Please contact us if there is further information or images you require, or if you wish to conduct and inspection.

We appreciate your attention.

Yours sincerely,

Frances & Simon Stewart
VALLEYFIELD VINEYARD
(Bell & Gong)

6ty°

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57 Best Street
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P (03) 6424 7161

6ty Pty Ltd
ABN 27 014 609 900

Architectural
ABP No. CC4874f
Structural / Civil
ABP No. CC1633i

APPROVED COMPANY ISO 9001 QMS Certification Services

ISSUE	DATE	ISSUED FOR	REV.
01	21.01.2020	INFORMATION	-

N

DIMENSIONS ARE IN MILLIMETRES. DO NOT SCALE. CHECK AND VERIFY ALL DIMENSIONS ON SITE. REFER DISCREPANCIES TO THE SUPERINTENDENT. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH: BUILDING CODE OF AUSTRALIA, APPLICABLE AUSTRALIAN STANDARDS & LOCAL AUTHORITY REQUIREMENTS.

PROJECT: BELL & GONG VINEYARD
PROJECT: VALLEYFIELD
ADDRESS: 873 ILLAWARRA ROAD
ADDRESS: LONGFORD 7301
FOR: F & S STEWART

DRAWING: PROPOSED AND EXISTING VINEYARD

DESIGNED: RMP DRAWN: RMP CHECKED: RMP

SCALES: 1:1000 AT A1 SIZE DRAWING SHEET

PROJECT No. 13.231 DRAWING No. P01 REV. -

the LIST

SURVEY INFORMATION REPORT

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

Tasmanian Government

40413

35161

Owner: James Stuart Johnston & Josephine Anne Johnston	**PLAN OF SURVEY** by Surveyor R.V.Tart of land situated in the	Registered Number: **SP40413**
Title Reference C.T. 4570 - 2	LAND DISTRICT OF WESTMORLAND	~~Approved~~ Effective from: 26 JUL 1989
Grantee: Part of 1705 acres granted to Henry Clayton	PARISH OF LONGFORD	Recorder of Titles
	SCALE 1:4000 MEASUREMENTS IN METRES