DRAFT ENGINEERING REPORT

DA#:	**SA 2019 / 0010**
Applicant:	**A.C.N. 625 477 054 Pty Ltd**
Proposal:	**Subdivision**
Address:	**52 Charles Street, Orford**
Zone:	**General Residential**
Report completed by (Name & date):	**Leigh Wighton** **12 August 2020**

Brief Description	
General	Development involves the subdivision of an existing lot with frontage to Charles Street via an access strip as well as frontage to Mary Street into 8 separate lots.
Roadworks and access	The land has frontage to Charles St via a 7.2m wide access strip. Charles St is a Council road constructed to an urban standard with kerb and channel. There is a concrete footpath on the opposite side of the road. The land also has frontage to Mary St which is also a Council road constructed to an urban standard with kerb and channel. There is a concrete footpath on the opposite side of the road. There is an existing crossover and driveway apron off Charles St to the lot. There are no existing crossovers off Mary St. Lots 1 and 2 are internal lots which will have a shared access off Charles Street. The existing access will need to be upgraded /constructed for the full length of the access strips. Lots 3-8 have access off Mary St. Lots 4 – 7 are internal lots that will share a single access driveway. Lots 3 and 8 have larger frontages to Mary Street and will have their own individual accesses. A Bushfire Hazard Management Plan and report was submitted with the application.
Stormwater	Preliminary Stormwater, Sewer and Water reticulation plans were submitted with the application. It is proposed that stormwater from the subdivision will be piped north to the existing public stormwater system in Prosser St through 46 Charles St. and 3 Prosser St. Stormwater runoff from the internal driveway servicing Lots 1 and 2 will need to discharge to kerb in Charles Street. A previous proposal for this land had SW from the subdivision running east to Charles Street with a new main constructed in the road heading north the intersection of Prosser Street where it connected to the existing public stormwater system. The SW report by JSA

	Consulting Engineers submitted with the application was undertaken for this earlier layout rather than the current proposal. Council however commissioned a report by AD Design & Consulting for Stormwater Investigation & Review of Drainage Infrastructure in the broader catchment. This report identified a number of hydraulic and capacity issues in the piped network downstream of the proposed subdivision. The developer will be required to provide on site detention to limit stormwater runoff to pre-existing or upgrade downstream infrastructure to accommodate any increase in order to ensure the subdivision does not adversely affect downstream properties from flooding. Where rainwater tanks or detention on private property is required a Part 5 agreement will need to be registered on the titles to control their management and operation. It is unviable for the developer of a relatively small subdivision in a large catchment to upgrade the entirety of an extensive piped system downstream. Should Council be in a position to partially fund works to mitigate flood risks within the catchment a financial contribution from the developer equivalent to the total cost of implementing detention for the subdivision may be a reasonable outcome. This however would be dependant upon Council having a stormwater management plan in place for the catchment and works programme approved for capacity upgrades. The application involves more than 5 lots. As such Water Sensitive Urban Design principles are required for the treatment and disposal of stormwater. The applicant has not addressed this requirement. The practicality of implementing WSUD principles within this subdivision is limited given it creates no open space or road reservation. A condition requiring the developer implement WSUD principles or alternatively make a financial contribution to Council for stormwater treatment in a more appropriate location is recommended. An amended stormwater management report from a suitably qualified person will be required to demonstrate compliance with the conditions prior to engineering plans being approved.
Sewer and Water	Sewer and water reticulation is available to the land. The application was referred to TasWater who have imposed conditions.
Power, Telco, etc	Power is underground in Mary St and overhead in Charles St. NBN is available in the area.
Codes	Parking & Access Stormwater

Representations	**Response**
Rep 1 1. Demolition of existing sheds - this will probably contain asbestos and would like assurance that this will be removed safely. 2. runoff/stormwater - an inordinate amount of water is collected on and runs down 52 Charles St during a rain event. The last rain event caused significant run off and water damage at my property, [redacted], with wash	2. A piped stormwater system serving the new lots connected to the puplic stormwater system will be provided as part of the subdivision. 3. Any vehicular access will need to be provided in accordance with Council standards and subject to engineering design approval.

out onto Charles St. In my view, this will be exacerbated by additional hard areas as part of the development. I think as part of the subdivision, Council should require the developer to collect and appropriately divert the runoff into the stormwater system. 3. Unless the angle of the driveway crossover at 52 Charles St onto Charles St is altered, trucks etc will not be able to access the newly subdivided blocks that way. 4. In my view, 20 additional blocks from 52 Charles St and the adjoining development, is overdevelopment and will change the social/cultural fabric of this area of Orford. It is too much.	

Recommended Conditions:

General

1. The subdivision layout or development must be carried out substantially in accordance with the application for planning approval, the endorsed drawings and with the conditions of this permit and must not be altered or extended without the further written approval of Council.

2. Prior to Council sealing the final plan of survey for each stage, security for an amount clearly in excess of the value of all outstanding works and maintenance required by this permit must be lodged with the Glamorgan Spring Bay Council. The security must be in accordance with section 86(3) of the Local Government (Building & Miscellaneous Provisions) Council 1993. The amount of the security shall be determined by the Council's General Manager in accordance with Council Policy following approval of any engineering design drawings.

3. All conditions of this permit, including either the completion of all works and maintenance or payment of security in accordance with this permit, must be satisfied before the Council seals the final plan of survey for each stage. It is the subdivider's responsibility to notify Council in writing that the conditions of the permit have been satisfied and to arrange any required inspections.

4. The development must be in accordance with the Bushfire Hazard Management Plan and Report prepared by Jacqui Blowfield (IreneInc Planning and urban Design), dated 26 May 2020, and submitted with the application, or as otherwise required by this permit, whichever standard is greater.

5. All land noted as roadway, footway, open space or similar must be transferred to Council. Complete transfer documents that have been assessed for stamp duty, must be submitted with the final plan of survey.

6. The final plan of survey must include easements over all drains, pipelines, wayleaves and services to the satisfaction of Council's General Manager.

Engineering

7. The subdivision must be carried out in accordance with the *Tasmanian Subdivision Guidelines October 2013* or as otherwise agreed by Council's General Manager or require by conditions of this permit.

8. Engineering design drawings to the satisfaction of the Council's General Manager must be submitted to and approved by the Glamorgan Spring Bay Council before development of the land commences.

9. Engineering design drawings are to be prepared by a qualified and experienced civil engineer, or other person approved by Council's General Manager, and must show -

   (a) all existing and proposed services required by this permit;

   (b) all existing and proposed roadwork required by this permit;

   (c) measures to be taken to provide sight distance in accordance with the relevant standards of the planning scheme;

   (d) measures to be taken to limit or control erosion and sedimentation;

   (e) any other work required by this permit.

10. Approved engineering design drawings will remain valid for a period of 2 years from the date of approval of the engineering drawings.

Services

11. Property services must be contained wholly within each lots served or an easement to the satisfaction of the Council's General Manager or responsible authority.

12. The Subdivider must pay the cost of any alterations and/or reinstatement to existing services, Council infrastructure or private property incurred as a result of the proposed subdivision works. Any work required is to be specified or undertaken by the authority concerned.

13. Property services to internal lots must be extended to the lot proper to the satisfaction of Council's General Manager.

Drainage

14. The developer is to provide a piped stormwater property connection to each lot capable of servicing the entirety of each lot by gravity in accordance with Council standards and to the satisfaction of Council's General Manager.

15. The developer must provide a piped minor stormwater drainage system designed to comply with all of the following:

   (a) be able to accommodate a storm with an ARI of 20 years, when the land serviced by the system is fully developed;
   (b) stormwater runoff will be no greater than pre-existing runoff or any increase can be accommodated within existing or upgraded public stormwater infrastructure.

   Advice: The stormwater network downstream of the subdivision has insufficient capacity to accommodate increased runoff from the subdivision. The developer will need to provide detention to limit flows from the subdivision and/or upgrade downstream infrastructure to accommodate any increase in flows generated by the subdivision. Any detention or upgrades are to be based on detailed design calculations submitted in conjunction with engineering plans for approval by Council. Council may, at the discretion of the Works Manager, accept a financial contribution, equal to no less than the total cost of implementing detention to limit flows from the subdivision to pre-existing, subject to Council having a stormwater management plan in place for the catchment and works programme approved for capacity upgrades.

16. New stormwater pipework within the subject property and extending to the existing public stormwater system in Prosser Street must be designed to accommodate a storm with an ARI

of 20 years, when the land serviced by the system is fully developed, irrespective of whether private stormwater detention is to be provided on individual lots.

17. The developer is to provide a major stormwater drainage system designed to accommodate a storm with an ARI of 100 years.

18. Where on site detention is provided or required on individual lots each lot must be subject to an agreement under Part 5 of the Land Use Planning and Approvals Act 1993 that is entered into prior to the sealing of the final plan of survey in order to manage the installation and maintenance of on-site stormwater detention to the effect that:

    a. the owners of each lot must install and maintain rainwater detention tanks with diversion devices to collect all stormwater runoff from roofed areas, of a size and type to be determined and shown in the engineering design drawings;

    b. The design details for (a) above are included in the agreement in a clear, readily understandable manner.

    The agreement must bind the current owner and his/her successors in title and must be prepared on a blank instrument form and registered with the Recorder of Titles at no cost to Council

19. Water Sensitive Urban Design Principles must be incorporated into the development. These Principles will be in accordance with, and meet the treatment targets specified within, the Water Sensitive Urban Design Procedures for Stormwater Management in Southern Tasmania and to the satisfaction of the Council's General Manager.

    Alternatively:

    The developer may, at the discretion of Council's General Manager, make a financial contribution to Glamorgan Spring Bay Council for the provision of stormwater treatment. The value of the contribution must be equal to the cost of implementing on site treatment to meet the targets specified in Table E7.1 Acceptable Stormwater Quality and Quantity Targets of the Glamorgan Spring bay Interim Planning Scheme, or as otherwise agreed by Council's General Manager. Where partial treatment is provided on site a proportional contribution may be considered. The contribution must be paid prior to sealing the Plan of Survey.

20. Prior to, or in conjunction with, the submission of Engineering Design Drawings the developer must submit an amended Stormwater Infrastructure Drainage Report, including detailed calculations, clearly demonstrating compliance with the conditions of this permit, for approval by Council's General Manager. The report must be prepared and certified by an experienced and practicing Civil Engineer. Once approved the amended report will form part of the endorsed documents.

21. Upon completion of works the engineer certifying the Stormwater Infrastructure Drainage Report must provide certification that the stormwater system has been constructed in accordance with the approved report.

Tas Water

22. The development must meet all required Conditions of approval specified by Tas Water Submission to Planning Authority Notice, TWDA 2020/00XXX-GSB, dated XX/XX/2020.

Telecommunications and electrical reticulation

23. Electrical and telecommunications services must be provided to each lot in accordance with the requirements of the responsible authority and to the satisfaction of Council's General Manager.

24. New electrical and fixed line telecommunications services must be installed underground to the requirements of the responsible authority unless approved otherwise by Council's General Manager.

25. Prior to sealing the final plan of survey the developer must submit to Council:

    (a) Evidence that each lot has existing electrical and telecommunication connections; or
    (b) A "Provisioning of Telecommunications Infrastructure – Confirmation of final payment" or "Certificate of Practical Completion of Developer's Activities" from NBN Co.
    (c) Written advice from TasNetworks confirming that all conditions of the Agreement between the Owner and authority have been complied with and/or that future lot owners will not be liable for network extension or upgrade costs, other than individual property connections at the time each lot is further developed.

Roads and Access

26. Roadworks and drainage must be constructed in accordance with the standard drawings prepared by the IPWE Aust. (Tasmania Division) and to the requirements of Council's General Manager.

27. A vehicular access including concrete driveway apron and kerb crossover must be provided to each lot from the road carriageway to the property boundary, in accordance with Council's Standard Drawings and to the satisfaction of Council's General Manager.

28. Separate vehicular accesses from Mary Street must be provided to Lots 3 and 8.

29. To the satisfaction of Council's General Manager, the shared vehicular accesses to Lots 1 and 2, and to Lots 4 to 7, must be constructed for the entire length of the access strips to the lot proper. The driveways must be provided in accordance with *Standards Australia (2004): Australian Standard AS 2890.1 - 2004 – Parking Facilities Part 1: Off Street Car Parking; Standards Australia, Sydney*, Council standards, and must include:

    (a) 5.5 metre min. width carriageway to provide 2 way access located at least 0.3m from any side boundary

    (b) Constructed with a durable all weather pavement

    (c) Sealed Surfaced (The surfacing material must be concrete from the kerb to the property boundary. The surfacing material within the property must be asphalt, concrete, pavers or other approved material.)

    (d) Stormwater drainage.

Water quality

30. A soil and water management plan (here referred to as a **'SWMP'**) prepared in accordance with the guidelines Soil and Water Management on Building and Construction Sites, by the Derwent Estuary Programme and NRM South, must be approved by Council's General Manager before development of the land commences.

31. Temporary run-off, erosion and sediment controls must be installed in accordance with the approved SWMP and must be maintained at full operational capacity to the satisfaction of Council's General Manager until the land is effectively rehabilitated and stabilised after completion of the development.

32. The topsoil on any areas required to be disturbed must be stripped and stockpiled in an approved location shown on the detailed soil and water management plan for reuse in the rehabilitation of the site. Topsoil must not be removed from the site until the completion of all works unless approved otherwise by the Council's General Manager.

33. All disturbed surfaces on the land, except those set aside for roadways, footways and driveways, must be covered with top soil and, where appropriate, re-vegetated and stabilised to the satisfaction of the Council's General Manager.

Construction

34. The subdivider must provide not less than forty eight (48) hours written notice to Council's General Manager before commencing construction works on-site or within a council roadway.

35. The subdivider must provide not less than forty eight (48) hours written notice to Council's General Manager before reaching any stage of works requiring inspection by Council unless otherwise agreed by the Council's General Manager.

36. Subdivision works must be carried out under the direct supervision of an approved practising professional civil engineer engaged by the subdivider and approved by the Council's General Manager.

'As constructed' drawings

37. Prior to the works being placed on the maintenance and defects liability period an "as constructed" drawing of all engineering works provided as part of this approval must be provided to Council to the satisfaction of the Council's General Manager. These drawings and data sheets must be prepared by a qualified and experienced civil engineer or other person approved by the General Manager in accordance with Council's *Guidelines for As Constructed Data*.

Maintenance and Defects Liability Period

38. The subdivision must be placed onto a twelve (12) month maintenance and defects liability period in accordance with Council Policy following the completion of the works in accordance with the approved engineering plans and permit conditions.

39. Prior to placing the subdivision onto the twelve (12) month maintenance and defects liability period the Supervising Engineer must provide certification that the works comply with the Council's Standard Drawings, specification and the approved plans.

THE FOLLOWING ADVICE APPLIES TO THIS PERMIT: -

A. The owner is advised that an engineering plan assessment and inspection fee must be paid to Council in accordance with Council's fee schedule prior to Council approving the engineering design drawings.

B. All approved engineering design drawings will form part of this permit on and from the date of approval.