

Resource Planning and Development Commission

Land Use Planning and Approvals Act 1993 and Resource Planning and Development Commission Act 1997

Decision and Reasons for Decision

Glenorchy Planning Scheme 1992

Draft Amendment GLE 1-2008
Permit Application No PLN-08-0188

Draft amendment 1-08 is to amend the scheme to omit clause S7.18 and to insert a substitute clause S7.18. The current and substitute clauses apply to land at Coraki Street and Danina Street Chigwell.

Date and Place of Hearing

Tuesday 16 December 2008 Resource Planning and Development Commission, 144 Macquarie Street Hobart commencing at 2.15pm.

Delegation

In accordance with its decision dated 1 December 2008 and in exercise of the power conferred upon it by s.8 of the *Resource Planning and Development Commission Act 1997*, the Resource Planning and Development Commission delegated to Mr Robin Nolan and Mr John Vandenberg jointly and severally:

1. its powers and functions under sections 40, 41, 41A, 41B, 42(1), 42(2), 43G, 43H and 43I of the *Land Use Planning and Approvals Act 1993* in relation to draft amendment 1-2008 and permit number PLN-08-0188 to the Glenorchy Planning Scheme 1992; and
2. in connection with the exercise of those powers in performance of those functions, its powers under Part 3 of the *Resource Planning and Development Commission Act 1997*.

Documents supplied by Planning Authority

- Council's s.35 report – 12 September 2008 including the documents comprising the application.
- Council's s.39 report – 28 October 2008.

Representations

Representations were received from:

M Lewis and M Lewis.

Pitt and Sherry obo Housing Tasmania Department of Health and Human Services.

Appearances at the hearing

Council:

Ms G van Randen and Mr R Grierson represented the Glenorchy City Council with Sergeant D Spinks of Tasmania Police in attendance to advise on crime prevention through design.

Representors:

Mr J McIntosh, Mr A Keene, Dr N Boyd and Mrs C Nicholson of consultants Pitt and Sherry obo Housing Tasmania.

Mr G Hardwick, Mrs P Davis and Mr P North represented Housing Tasmania.

Mr M Lewis.

Issues raised in the Representations

The representation from Mrs Lewis and Mr Lewis concerned the loss of water pressure to Mrs Lewis' property at 29 Kinarra Crescent Chigwell.

The representation from Pitt and Sherry objected to condition 4 on the permit concerning the requirement to show wetland/open space as a road reservation.

Council's Response to the Representations

Council made no recommendations for modifications to the draft amendment. Council recommended modifications to the permit.

Commission's assessment of the draft amendment

The draft amendment concerns land of the former Chigwell Primary School. Amendment 4/06 (approved 1 May 2007) rezoned the land from community use to urban residential and inserted into the scheme an outline development plan (ODP) at clause s7.18. The ODP for amendment 4/06 indicated development parcels, placement of roads and open space. The current draft amendment removes the ODP to be replaced by a set of requirements including:

- mature street tree planting;
- a table of uses that limits allowable uses compared to those available under the prevailing urban residential zone;
- water sensitive urban design;
- pedestrian access through the site;
- pedestrian and fire vehicle access to open space; and
- footpaths designed in accordance with crime prevention through environmental design strategies.

The site consists of three lots owned by Housing Tasmania with a total area of 5.37ha.

The draft amendment principally carries forward the principles of the outline development plan using description rather than a plan. The additional element is clause 7.18.6 that references clause 9.9 of the scheme concerning 'crime prevention' (which would apply in any event), and to incorporation of 'Safer by Design' publications by the New South Wales Police force.

In respect to proposed clause 7.18.6, the interest is limited to 'footways' whereas clause 9.9 and the 'Safer by Design' publications cover many more issues. To effectively deal with urban design and to minimise crime clause, 7.18.6 should not be limited to footways

and instead refer to 'roads and other public spaces. In addition, as an incorporated document(s), the reference should be defined such that the specific document is known.

The draft amendment should be approved with modifications to delete the current planning scheme provisions, to refer to use 'or' development in clause 7.18.2, to delete 'future' in clauses 7.18.4 and 7.18.5 and to revise clause 7.18.6.

Commission's assessment of the permit

The permit is for the subdivision development of 68 lots (including the open space (wetland) lot 40). Council granted the permit subject to 67 conditions. Representations were confined to the permit.

Mr Lewis for Mrs Lewis (his mother) was concerned about loss of water pressure due to possible disturbance to their supply line that crosses the adjoining reserve from the Coraki Street water main. In reply to this representation Council recommended an additional condition on the permit (to amend condition 46) to require the replacement of the water line referred to in Mr Lewis' representation.

Council's submission was that the amended condition will at least maintain water pressure in the area. Condition 46 should be amended accordingly as recommended by Council.

The representation from Pitt and Sherry concerned condition 4. Condition 4 and other conditions recommended by Council for amendments to the permit were reviewed at the hearing.

Condition 4 states:

'lot 40 shall be included in the road reserve'

The representation argued that the condition 4 was unreasonable and confusing.

Lot 40 is designated 'open space (wetland)' on the proposal plan. Council's argument for it to be included in the road reserve was not that the land was destined to be 'road' but that being classified as 'road' followed the purpose of the lot, primarily public utility for drainage purposes and secondly as public space and pedestrian path. Council argued that designating the land as road enabled clearer regulation of the space and type of fencing that would define the adjoining lots 39, 41 and 58.

Submissions to the Commission from Council and Pitt and Sherry both dated 11 November 2008 advised agreement with lot 40 being shown as road but with an additional condition, inserted as follows:

'The boundaries of lots 39, 41 and 58 where adjacent to the road reserve containing wetland and walkway, shall be fenced with a fence to the following specifications:

- Maximum overhaul height 1800mm*
- Minimum 75% transparency above 1.2m*

Prior to erecting a fence, the applicant shall submit a drawing of the fences with engineering drawings for approval by Council's Senior Statutory Planner.'

Documents for Council and the representor Pitt and Sherry reveal considerable debate on condition 4 and how best to describe lot 40. The facts are, lot 40 has a dual role of pedestrian link and drainage retention basin as part of the public utility network. In addition, in the interest of crime prevention there is a need for public over-viewing over and through the space hence the interest in the type of fencing bordering the space. The additional condition agreed between the parties appears to provide a satisfactory solution to the matters raised and permit condition 4 should be modified accordingly.

Council's s.39(2) report proposed modifications to condition 5 to expand its scope to apply to the second footway in the vicinity of lot 52. Condition 5 concerns passive surveillance over the public space through windows of adjoining buildings and appropriate fencing. Revised condition 5 was not contested by the representor.

Council's revised condition simply extends a surveillance requirement to both proposed walkways. Condition 5 is accepted subject to amendment to clarify the prohibition embodied in the proposed covenant.

Council proposed an additional condition (condition 6) concerning the design of the footway between lots 46, 47, 52 and 53. The proposal plan shows a 4m wide reserve with a +/- 1.2m wide footpath with landscaping on either side.

It was reported that Council's 'Safer by Design Working Group' preferred the footway to be deleted, but alternatively recommended it be widened to 10 metres. Council's resolution in its s.39(2) report however stated:

'In relation to condition 6(a) widening the walkway to 10 metres is considered excessive given that the walkway is straight and safety concerns can be addressed within the proposed 4 metre wide walkway'

The draft amendment clause 17.18.6 refers to the scheme clause 9.9 and the adoption of crime prevention through environmental design strategies in accordance with the Safer by Design publications of the New South Wales Police Force.

Clause 9.9 states:

9.9. CRIME PREVENTION *Amendment K 21/5/96*

The Council must not grant a permit (including a permit for a plan of Subdivision) if in its opinion the Use, Development or Subdivision fails to make reasonable provision for:

Am 4-04 6/4/05

- a) *public safety, security and a reasonable sense of security for residents and other users of the locality;*
- b) *lighting, visibility and natural surveillance to provide safe access in public spaces and pedestrian access ways;*
- c) *minimising the potential for, and effect of vandalism and anti-social behaviour through good design and construction;*

unless it is satisfied that such measures can be implemented by the imposition of conditions of approval.

The design of the walkway, proposals for fencing, lighting and building footprints as required by proposed condition 6 and Pitt and Sherry plan H07233-P29revA satisfy clause 9.9.

Turning to the New South Wales Police *Companion to the Safer By Design Crime Risk Assessment VO5.2* refers to Linking Footways-

'Pathways connecting cul-de-sacs with adjoining streets ... are often problematic. Crimes such as burglary and vandalism are higher in properties adjoining uncontrolled walkways. Many sexual assaults and other physical attacks have occurred in these areas also.'

The document refers to this as a feature 'to be discouraged.'

Sergeant Spinks considered a 10m wide footway would be too wide but viewed 4m as too narrow.

The proposed footway is to link Danina Street to the head of a proposed cul-de-sac. Retention of the footway provides for pedestrian inter-communication for the proposed estate and that is to be encouraged. The width and length of the footway is relevant to the assessment of acceptability. The overall length is approximately 60 metres. Pitt and Sherry plan H07233-P29 Rev A defines building footprints set back 3 metres from the footway property boundary and with 'pool type' fencing. The proposed building setback, fencing, lighting and other design features should allow passive surveillance and not lead to or create a perception of a narrow corridor and a space that encourages crime. With these design features a 4m wide walkway is considered acceptable.

The additional clause (inserted as clause 6) should be modified to refer to a 4m minimum width footway (road reserve) and to refer to the site plans showing building footprints set back from the footway edge.

Condition 26 requires each lot to conform to the requirements set out in the Glenorchy Planning Scheme 1992 with respect to dimensions, area and frontage. Lots 43 and 44 and lots at 63 and 65 are sub-minimal on the proposal plan. This is a matter for compliance on the final survey plan. Alternatively, the provisions of 2.10.2 of the scheme invoked to allow lots of smaller area where there is demonstrated compliance with the objectives of the scheme.

The design of the subdivision is for a central cul-de-sac off Coraki Street with turning head and 5 combined access drives providing access to multiple numbers of lots. The key issue with the subdivision is the cul-de-sac in relation to the density of lots proposed and lack of a through road to Danina Street. This design of the internal access road using a cul-de-sac contrasts with the system of through roads in the outline development plan for amendment A1-08.

Sergeant Spinks raised the issue of long culs-de-sac and turning heads that encouraged 'hooning' in vehicles and other unsociable behaviour associated with such street arrangements. He submitted that culs-de-sac generally should be avoided.

The Safer by Design approach is to favour short well supervised single entry culs-de-sac and discourages long curvilinear or pedestrian linked culs-de-sac. The road and pedestrian ways as shown on the proposal plan are arrangements in the Safer by Design assessment to be discouraged. The change from the outline development plan with road connections between Coraki and Danina Streets to a cul-de-sac with vehicles directed to

Coraki Street is justified in the traffic impact assessment lodged with the application. The documentation refers to not increasing traffic in Danina Street, deficient junctions for the traffic link Danina Street through to Berriedale Road and to avoid the creation of 'rat run' through the subdivision. In contrast to traffic connections, the application refers to the pedestrian links in Danina Street to provide good pedestrian connectivity.

The relative weighting in terms of safety and crime prevention of through roads or culs-de-sac and long curvilinear culs-de-sac with pedestrian links compared to other road arrangements is not easily determined. The proposed density of lots on the proposal plan provides the opportunity for surveillance on the road space, pedestrian links and other design features that can reduce the opportunity for crime. On balance whilst the road arrangement is not ideal the matter of crime prevention has been addressed and accordingly the road layout should be approved.

The remaining permit conditions require modifications as required to identify the responsible party as the applicant and to make minor changes, predominately to omit 'shall' and to substitute 'must'.

Application of State Policies

State Coastal Policy 1996:

The draft amendment and permit involve land in the coastal zone as defined by the Policy and within the urban area of Glenorchy. Development of the land would not constitute ribbon development or an unrelated cluster development along the coast. The site is not an area of coastal hazard. The draft amendment is assessed as being prepared in accordance with the Policy.

Interim State Policy on the Protection of Agricultural Land 2008:

The draft amendment and permit do not involve agricultural land as defined in the Policy. The Policy is not applicable to the draft amendment.

State Policy on Water Quality Management 1997

The draft amendment requires stormwater management based on water sensitive urban design. The permit includes works for the effective management of stormwater. The draft amendment and permit are assessed as being prepared in accordance with the Policy.

National environmental protection measures

National environmental protection measures do not have application for use or development of the site.

Schedule 1 Objectives

Part 1 objectives

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

The draft amendment and permit further the objective for sustainable development of physical resources through the provision for additional residential land in the serviced area of Glenorchy. There is no evidence that the maintenance of ecological processes and genetic diversity are issues for the subject land.

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

The draft amendment and permit further the objective for fair and orderly use and development through the provision of additional housing land within the urban area with ready access to transport, shops and community services.

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

The draft amendment and permit have included public processes.

(d) to facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c);

The draft amendment and permit further this objective consistent with the above objectives.

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

The draft amendment and permit involves the sharing of responsibility for additional housing land within existing urban areas.

Part 2 objectives

The part 2 objectives are furthered principally in terms of establishing a system of planning instruments to be the principal way of setting objectives, policies and controls for the use, development and protection of land and to secure a pleasant, efficient and safe, living and recreational environment.

Conclusion

In accordance with s.40(1) of LUPAA, the draft amendment, representations and Council's report have been considered. The draft amendment is to insert site specific provisions for land in the urban residential zone. The draft amendment should be approved with modifications. The modified amendment is attached at Annexure A.

The permit is for the subdivision development of the site. The permit should be approved with modifications to the conditions. The modified permit is attached at Annexure B.

Decision

Pursuant to Section 41(ab) of the *Land Use Planning and Approvals Act 1993* the Commission modifies the draft amendment as set out in Annexure A and gives its approval to the draft amendment as modified pursuant to Section 42 of the Act.

Pursuant to Section 43H (1)(b)(ii) of the *Land Use Planning and Approvals Act 1993* the Commission modifies the permit as set out in Annexure B.



Robin Nolan
Chairman

John Vandenberg

Delegates
Resource Planning and Development Commission
28 January 2009

Attachments:

Annexure A: The modified draft amendment
Annexure B: The modified permit

Annexure A

**GLENORCHY PLANNING SCHEME 1992
 AMENDMENT A1-08**

The Glenorchy Planning Scheme 1992 is amended as follows:

- (i) Omit clause S7.18.
- (ii) Substitute clause S7.18 as follows:

S7.18 This clause applies to the land at CT95521/1, Coraki Street and CTs142153/1&2, together known as 21 Danina Street, Chigwell, and shall apply to any subsequent lots created by subdivision within the land.

Notwithstanding any other provision of this Scheme, the use and development of this land shall be subject to the following:

7.18.1 Any application involving a subdivision of the land which would create a new road or section of road is to provide for mature street tree planting.

7.18.2 The status of use or development on the land shall be in accordance with the following table:

USE AND DEVELOPMENT CATEGORIES	Use and Development Status
Auxiliary Dwelling	P
Child Care Centre	D
Communal Dwelling	D
Home Activity	P1
Home Child Care Centre	P1
Multiple Dwelling Units	D
Public Park	P1
Public Utility	D
Retirement Village	D
Single Dwelling	P1
Two Dwelling Units	P
All other defined uses and <i>Development</i>	X

KEY.

P1 = The use or Development of the Land may take place without obtaining a permit, provided the use or Development complies with all relevant Development Standards of this Scheme (refer Clause 7.3).

P= The Council will grant a permit for the use or Development of the Land conditionally or otherwise provided it complies with all relevant Development Standards of this Scheme (refer Clause 7.4).

- D= The Council has the discretion to grant a permit or refuse to grant a permit for the use or Development of the Land (refer Clause 7.5).
X= The use or Development of the Land is prohibited (refer Clause 7.6).

- 7.18.3 Stormwater management on the site must adopt water sensitive urban design principles in accordance with the State Policy on Water Quality Management 1997 and must ensure that peak flows to Council's downstream systems are not increased.
- 7.18.4 Development of the site must, at a minimum, allow pedestrian access through the site. Specifically, pedestrian access shall be provided between Coraki Street, Danina Street and the Danina Street Reserve. Until such access is established, any application for partial development of the site must include an Outline Development Plan demonstrating how this would be achieved.
- 7.18.5 Development of the site must provide for pedestrian and fire vehicle access to the rear of lots adjoining Catherine Street Reserve and the land zoned Open Space adjoining the Reserve.
- 7.18.6 Roads and other public spaces must be designed in accordance with Clause 9.9 of the Scheme and shall adopt Crime Prevention through Environmental Design (CPTED) strategies in accordance with the Companion to the Safer by Design Crime Risk Assessment (VO5.2) published by the NSW Police Force.

Annexure B

Resource Planning and Development Commission

GLENORCHY PLANNING SCHEME 1992

GLENORCHY PLANNING AUTHORITY

PLANNING PERMIT

GLENORCHY PLANNING SCHEME 1992

Application No:	PLN-08-0188
Applicant:	Housing Tasmania
Proposed Use/development:	sixty seven (67) lot subdivision
Address:	Coraki Street (CT 95521/1) and 21 Danina Street (CT's 142153/1 & 2), CHIGWELL

This permit allows the use or development of the land, subject to the conditions set out below.

This permit will lapse if the use or development is not substantially commenced within 2 years of the permit date, unless the Planning Authority has granted an extension of the permit.

Please Note: This is NOT a Building Permit.

CONDITIONS

Planning Conditions

1. Use and development must be substantially in accordance with planning permit application No. PLN-08-0188 and endorsed Drawing labelled P2 submitted on 19 August 2008, endorsed drawings labelled P3 submitted on 2 September 2008, except as otherwise required by this permit.
2. A detailed landscaping plan, substantially in accordance with plan H07233-P23 Rev.A and prepared by a suitably qualified person, is to be submitted by the applicant in association with the detailed engineering plans for approval by Council's Senior Statutory Planner. The landscaping works must also include planting along the main access road and must be completed prior to Council sealing the titles. The landscaping plan is to be prepared at a suitable scale, and indicate the following:-

- (a) outline of the proposed boundaries, paved areas and accesses into the lots and areas to be used for placing wheelie bins on wheelie bin collection days;
 - (b) existing trees and those to be removed;
 - (c) the proposed planting (including expected plant species, mature height and plant size);
 - (d) measures used for protection of existing trees during construction works; and
 - (e) maintenance plan such as watering system, if required.
 3. Trees and planting established by the applicant must demonstrate healthy growth, prior to Council taking over maintenance responsibility for the landscaped areas.
 4. Lot 40 must be included in the road reserve. The boundaries of lots 39, 41 and 58 where adjacent to the road reserve containing wetland and waterway, must be fenced by the applicant with a fence to the following specifications:
 - Maximum overall height 1800mm
 - Minimum 75% transparency above 1.2m
- Prior to erecting fences, the applicant must submit a drawing of the fences with engineering drawings for approval by Council's Senior Statutory Planner.
5. A covenant, to which Council is to be made a party, must be created by the applicant on the titles of Lots 39, 41, 46, 47, 52, 53 and 58 to prohibit any development on land either side of the Footway and/or Wetland that does not provide:
 - (a) a window or windows overlooking the footway and wetland; and
 - (b) fencing that permits passive surveillance of the wetland and/or walkway
 6. To minimise the potential for entrapment opportunities and to provide for public safety in the footway between Lots 53 & 46 and Lots 52 & 47 on the proposal plan, development must be substantially in accordance with Pitt and Sherry plan HO7233-P29 Rev A and the following:
 - (a) The road reserve containing the footway must be a width of 4m minimum;
 - (b) The road reserve containing the footway must be landscaped to achieve a clearly visible pedestrian corridor. It must not include any seating opportunities and must provide the following:
 - (i) Signage in accordance with Glenorchy City Council's Parks & Reserves Signs Manual.
 - (ii) Barriers such as bollards or hoop barriers to prevent vehicles using the space.
 - (iii) Street lighting to allow facial recognition of approaching persons at 15m. Street lighting must be in accordance with Australian Standard AS/NZS 1158.3.1:1999 and be vandal resistant High Pressure Sodium, Metal Halide, Mercury Vapour or lights with similar colour so as not to discourage pedestrians from using the space.

A detailed landscaping plan, in accordance with the above, must be submitted with the detailed engineering plans by the applicant for approval by Council's Senior Statutory Planner. The plan must be prepared at a suitable scale and the works identified on the

plan must be completed by the applicant to the satisfaction of Council's Senior Statutory Planner prior to Council sealing the title.

7. Engineering works must provide for pedestrian and fire vehicle access to the rear of lots adjoining Catherine Street Reserve and the land zoned Open Space adjoining the Reserve. Detailed design drawings demonstrating compliance with this requirement must be submitted by the applicant for the approval of Council's Senior Planner, together with the detailed engineering drawings for the subdivision.

Development Engineering Conditions

8. The applicant must ensure that Reciprocal Rights of Way are created over adjoining fee simple titles of rear lots to enable a single sealed access driveway to be used for each group of lots. The alternative is to provide a separate sealed access to each lot at the time of subdivision.
9. Shared driveways to rear lots must be fully constructed by the applicant to a minimum width of 3 metres and sealed or concreted for the full length to the requirements of Council's Development Engineer.
10. Driveways must be demonstrated on the engineering design plans as complying with standards of acceptable sight distance and maximum grade of 1 in 5.
11. Surface and sub-surface cut off drains must be constructed by the applicant to control overland and seepage flows to and from adjacent property and within the subdivision.
12. Following completion of the roads and infrastructure, ground levels of the subdivided land must not be altered by more than 300 mm without express approval of Council's Development Engineer or having been incorporated into an approved Building application.
13. The applicant must construct the new roadworks to the following minimum standards:-
 - (a) 'Main' cul-de-sac –
 - (a) Minimum 18 metre wide road reservation.
 - (b) Fully constructed, sealed and drained carriageway with concrete barrier kerb and channel, 7.5 metre wide, exclusive of kerb and channel.
 - (c) 1.5 metre wide concrete footpaths on both sides, generally located adjacent to the property boundary.
 - (d) Cul-de-sac turning head diameter 17m diameter exclusive of kerb and channel. Road reserve with of 25m at cul-de-sac head.
 - (b) 'Minor' culs-de-sac – this refers to the three smaller culs-de-sac to be constructed in interlocking pavers, designed as shared zones, where pedestrians have priority over vehicles.
 - (i) Minimum 15 metre wide road reservation.
 - (ii) Fully constructed, paved and drained carriage way with concrete semi-mountable kerb both sides, 5.5 metres wide, exclusive of kerb and channel.
 - (iii) 1.5 metre wide concrete footpath on the north side of the northern most cul-de-sac only to connect to the walkway through to Danina Street.

- (iv) Turning heads to provide for a single rigid vehicle (8.8m long) to complete a three point turn.
 - (c) 'Minor' shared zones at the end of the main cul-de-sac – this refers to the small shared zones proposed at the end of the main cul-de-sac to access rear lots.
 - (i) Fully constructed, paved and drained carriageway, 5.0m wide.
- 14. A right hand turn lane, including traffic islands, must be provided by the applicant on Berriedale Road at Taree Street, in accordance with the recommendations made in the Traffic Impact Assessment submitted with the Development Application. The applicant must complete the design of the right turn lane, to the requirements of Council's Traffic Engineer. In addition the applicant must obtain Department of Infrastructure Energy and Resources (DIER) approval for the design prior to construction. The applicant must be responsible for the design of the right turn lane and obtaining all required approvals. The applicant must pay Council for the costs of constructing the right turn lane, including traffic islands, in advance of Council undertaking the works. Completion of the right turn lane is required prior to lodging the Final Plan of Survey and Schedule of Easements to Council for sealing.
- 15. The Approval of Engineering plans must be undertaken in a maximum of two stages. If Engineering plans are submitted in more than one stage, preliminary design must be provided, to the requirements of Council's Development Engineer, to demonstrate that road alignments and drainage designs are compatible with the ultimate design of the subdivision.
- 16. Where drops associated with retaining walls are in excess of 1m, the drop must be protected by pedestrian fencing, approved by Council's Development Engineer.
- 17. All earth retaining structures in excavation must be located outside the road reservation.
- 18. In accordance with the *State Policy on Water Quality Management 1997* and the requirement to minimise the impact of development on water quality, the stormwater engineering design approach is to include methods of stormwater disposal along the lines of Water Sensitive Urban Design. In addition stormwater detention must be provided on site by the applicant so that runoff flows to Council's existing stormwater systems downstream are not increased. The stormwater treatment for the site is to be generally consistent with the Stormwater Management Strategy prepared by Pitt & Sherry, dated August 2008 and must provide for the following:
 - (a) Catherine Street Reserve catchment
 - (i) The applicant must include covenants or Part 5 Agreements on new titles requiring that minimum 2,000 litre rainwater tanks are fitted to new dwellings, to collect roof runoff. Tanks to be required to be plumbed into toilets so that water re-use occurs, with top up from the reticulated supply.
 - (ii) A wetland and planted swale drains to be constructed in the open space above Catherine Street Reserve, to collect stormwater from the development for treatment, prior to discharge.
 - (iii) A low bunded area to be constructed around the wetland, to contain flows for the 1 in 100 year event.

- (iv) The outfall from the wetland / detention area to be piped down the steep drop from the open space to Catherine Street Reserve with an energy dissipater installed at the pipe outlet to slow the flows and control erosion. The outlet to be directed via a rock lined swale drain to the existing creek in the reserve.
- (b) Danina Street catchment.
 - (i) The applicant must include covenants or Part 5 Agreements on new titles requiring that minimum 2,000 litre rainwater tanks are fitted to new dwellings, to collect roof runoff. Tanks to be required to be plumbed into toilets so that water re-use occurs, with top up from the reticulated supply.
 - (ii) A wetland and planted swale drain to be constructed immediately above Danina Street, to collect stormwater from the development for treatment, prior to discharge.
 - (iii) Stormwater detention for a 20 year recurrence storm is to be provided over and above the wetland area so as to contain flows such that the stormwater load on Council's system downstream is not increased due to the development.
- 19. Detailed design and supporting calculations for the stormwater management measures proposed for the development, in a functional design report format, must be submitted by the applicant for the approval of Council's Development Engineer, together with the detailed engineering drawings for the subdivision. These details must comply with the following requirements:
 - (a) Be consistent with the requirements of WSUD Engineering Procedures for Stormwater Management in Southern Tasmania (2005).
 - (b) Clearly show the dual stage outlet configuration for the systems.
 - (c) Detail the hydraulic calculations and show that the outlet configuration can control the extended detention function of the wetland and the flood retardation function of the retarding basin.
 - (d) Clearly show the extended detention depth and the flood retardation depth (i.e. flood depth above extended detention) in both wetland/retarding basin areas.
 - (e) Clearly show the wetland areas and the areas expected to be flooded in the retarding basin areas in the 20 year and 100 year events.
 - (f) Clearly show that the flood retarding area multiplied by the flood detention depth equates to the flood storage provision as calculated.
 - (g) Show all final calculated levels at both sites (that is wetland normal water level, wetland top of extended detention level, 20 Year ARI flood level and 100 yr ARI flood level at the reserve).
 - (h) Show fill requirements on adjacent lots, where required, to ensure properties are not flooded due to the flood storage provisions at the two retarding basin sites.
 - (i) Clearly show the invert levels of the outfall points from the site and how these fit with the proposed outlet configurations of the wetland/retarding basin areas.

20. The applicant must undertake soil tests to ensure wetland construction is appropriate and to assess if clay lining is required or if topsoil for planting is required to be imported.
21. The applicant must ensure that planting, plant species and landscaping associated with the wetland and stormwater detention areas is selected and designed by a suitably qualified and experienced landscape architect to the satisfaction of Council's Development Engineer. Plants must be well established and demonstrating healthy growth, prior to Council taking over maintenance responsibility for the wetlands and stormwater detention areas.
22. Specific landscaping and fencing, where required, must be provided by the applicant around the sediment basins and wetlands to discourage direct public access to these areas, to the requirements of Council's Development Engineer.
23. The design and construction of the sediment basins and wetlands must take into account any staging of the subdivision and the management of siltation during the building stage of the development. A management plan must be prepared by the applicant to address these issues and the timing of construction of these stormwater systems.
24. Each lot must conform to the requirements set out in the Glenorchy Planning Scheme 1992 with respect to dimensions, area and frontage.
25. An original and two copies of each of the Plan of Survey and Schedule of Easements must be submitted by the applicant to Council for sealing.
26. All roads, areas required for road widening, walkways and public open space areas are to be shown as lots on the final diagram and are to be sold by the applicant to Council for a nominal sum of \$1.00. The final plan of survey will not be sealed until an executed Agreement for Sale and an executed Memorandum of Transfer is provided to Council, along with the required Titles Office registration fees. Any other legal costs associated with fulfilment of this condition are to be met by the applicant. Within 14 days after issue of titles, certificates of titles to the abovementioned lots must be surrendered to Council by the applicant so that the transfer can be effected.
27. A covenant, to which Council is to be made a party, must be created by the applicant on the titles of all Lots to prohibit any development on land except in accordance with the recommendations contained in the Geotechnical Report prepared by Pitt & Sherry, dated February 2008.
28. The applicant must make available to all prospective purchasers, or their agents, upon request a copy of the Geotechnical Report prepared by Pitt & Sherry, dated February 2008.
29. Where earthworks, including earthworks associated with driveways, and/or an easement encroach on a proposed lot, the lot must contain an area of land, outside the earthworks and/or easement which complies with the minimum internal rectangle in accordance with the subdivision requirements of the Glenorchy Planning Scheme 1992.
30. If the subdivision is proposed to be staged, then a Plan of Survey and Schedule of Easements for each stage of the subdivision in accordance with the approved plan of subdivision is to be submitted separately by the applicant for sealing by Council.

31. The applicant is to provide underground electrical reticulation for power and street lighting. Underground H.E.C. cables shall be used subject to any underground cables in joint use trenches complying with Council requirements.
32. All subdivisional road works, footpath, drainage and associated works must be constructed in accordance with Council specifications and by-law No. 156. Design plans and specifications must be submitted by the applicant for approval in accordance with Section 10 of the Local Government (Highways) Act 1982, and are subject to full compliance with Council's By Law No. 156 and the Development Engineer's approval. All documents must be signed and sealed in accordance with Section 19 of the Local Government Act 1993.
33. Prior to the approval of engineering drawings the applicant must provide Council with a detailed estimate for the works. Under Council Resolution Nov 10/03, payment of an engineering assessment fee of 1% of the value of the works is required prior to the issue of the approved drawings.
34. The applicant must drain the proposed roadway in accordance with section 86(2)(c) of the *Local Government (Building and Miscellaneous Provisions) Act 1993* and the requirements of Council's Development Engineer.
35. The applicant must provide sub-soil drains on each side of roads constructed with the sub-grade below the natural ground or as otherwise required by Council's Development Engineer.
36. The applicant must create easements over all existing and proposed service lines, in accordance with Council's Development Engineer's requirements.
37. A separate service connection for water supply, sewerage, and storm water must be provided by the applicant to each lot in accordance with the Development Engineer's requirements.
38. Services for rear lots must be provided by the applicant from the front boundary or legal point of connection for the total length of the access of internal rear blocks.
39. The cost of any alterations and/or reinstatement to existing services or private property incurred in proposed subdivisional works to be borne by the applicant. Any work so required is to be specified and undertaken by the appropriate Authority concerned.
40. The applicant must extend the sewer main and provide a 100 nom. dia. sewer connections to each lot in accordance with section 86(2)(b) of the *Local Government (Building and Miscellaneous Provisions) Act 1993* and the requirements of Council's Development Engineer
41. The applicant must pay the cost of Council extending a common sewer main, where required, to the boundary of the subject land in accordance with section 86(2)(b) of the *Local Government (Building and Miscellaneous Provisions) Act 1993* and the requirements of Council's Engineer.
42. In respect to any existing or proposed service infrastructure located outside the boundaries of the land, the applicant must liaise with and obtain written agreement from the owners of such land, which will permit the necessary easements and allow Council to undertake the necessary extension works. The costs related to establishing easements must be at the expense of the applicant.

43. The applicant must extend the existing stormwater drain and provide a connection from the boundary of each lot to a legal point of discharge in accordance with section 86(2)(c) of the *Local Government (Building and Miscellaneous Provisions) Act 1993* and the requirements of Council's Development Engineer.
44. The applicant must incorporate water reticulation mains as required for the ultimate system to the Development Engineer's sizing and design requirements. A water main must be extended from the new main installed in the roadway, through to Danina Street. This main must be installed within public land. An isolation valve must be included on this line to separate the pressure zones. The existing 38mm line from Coraki Street to Kinarra Crescent must be replaced with a new 40mm diameter copper line from the new main in the subdivision road to Kinarra Crescent. The new copper line must be located within the reserve east of the subdivision road. Design details of the water line replacement must be submitted for the approval of Council's Development Engineer with the subdivision engineering drawings.
45. Design road pavement depths to the satisfaction of Council's Development Engineer based on the estimated traffic volume, the expected traffic type, the subgrade CBR and in accordance with sound engineering practice. Base subgrade CBR's on laboratory tests using a minimum of 3 separate samples for each street, unless otherwise approved by Council's Development Engineer.
46. Where it is proposed to use proprietary products in the construction of road pavements or parking areas, such as interlocking pavers or reinforcing systems for grassed areas (such as 'grasspave') designs must be accompanied by the manufacturer's written endorsement approving of the application in the manner proposed. Such endorsement must be submitted to Council for the Development Engineer's approval.
47. The applicant must show embankment licences on the final diagram where road batters extend into any lot.
48. The applicant must construct driveways to each lot from the kerb to the property boundary using reinforced concrete.
49. A sealed temporary turning facility must be incorporated at the end of the constructed road at each stage of construction.
50. An approved reflectorised 'no-road' sign and barrier must be erected by the applicant at the end of each stage of construction.
51. Light standards and fittings connected to electricity supply must be provided by the applicant in accordance with Council's Development Engineer's requirements.
52. Should the applicant wish to have the final plan of survey for the subdivision sealed by Council prior to the completion of the subdivisional works and the roading being taken over by Council, then the applicant must lodge with Council a bank guarantee covering the cost of the uncompleted and unsecured works. Such guarantee sum shall be assessed by Council's Development Engineer at an appropriate stage of the works, however the final plan of survey must not be sealed by Council until the works are substantially complete.
53. Where it is proposed to construct and retain consolidated fill batters steeper than an angle of repose of 1 in 2, adequate retaining structures, designed by a qualified engineer, must be provided by the applicant to resist all potential earth loading including surcharge and traffic loadings. Suitable certified design drawings and

associated calculations by a qualified Engineer of *insitu-structures* must be prepared and must be submitted by the applicant for Council's Development Engineer's approval with the engineering drawings. Where considered necessary by Council's Development Engineer, the intended use of precast components must be accompanied by the manufacturer's written endorsement approving of the application in the manner proposed. Such endorsement must be submitted to Council for the Development Engineer's approval.

54. No top soil shall be removed from land outside the limits of earthworks associated with road and civil construction without the consent of Council. Any top soil disturbed as a result of works allowed by this permit must be stock-piled on site for the duration of the works and reinstated by the applicant prior to completion of the works.
55. All disturbed surfaces on the land authorised by this permit except those areas set aside for roadways and footpaths must be dressed with top soil and where appropriate revegetated and stabilised by the applicant to the satisfaction of Council's Development Engineer so as to prevent any erosion or siltation either on or adjacent to the land.
56. The applicant must provide street signs and line marking in accordance with the requirements of Council's Development Engineer.
57. The applicant must pay Council to the amount of \$108.46 (GST inclusive) per lot to complete the measure up and record 'as constructed' data for all services and connections prior to the works being placed on maintenance.
58. Alterations and additions to existing Council services must be undertaken by Council at the applicant's cost.
59. All runoff from paved and driveway areas must be retained within site boundaries and drained to an approved stormwater system.
60. Prior to the issue of the Final Plan of Survey and Schedule of Easements the applicant must pay Council a Community Assets Charge as a contribution to off-site community sewer assets nominated in Council's Community Assets Charges Policy. The total amount of the charge at the date of payment is to be \$3,992 per lot (excluding the balance lot) plus an adjustment for the relative change in the most recent Australian Bureau of Statistics' non-building construction index (ABS catalogue no. 6427.0 Table 16) (December quarter) between the date of the permit and the date of payment.
61. Prior to the issue of the Final Plan of Survey and Schedule of Easements the applicant must pay Council a Community Assets Charge as a contribution to off-site community water assets nominated in Council's Community Assets Charges Policy. The total amount of the charge at the date of payment is to be \$2,231 per lot where water is supplied from Wakehurst Reservoir (excluding the balance lot), plus an adjustment for the relative change in the most recent Australian Bureau of Statistics' non-building construction index (ABS catalogue no. 6427.0 Table 16) (December quarter) between the date of the permit and the date of payment.
62. A detailed Soil and Water Management Plan, related to the construction process, must be submitted by the applicant and approved by Council's Development Engineer, in accordance with the Soil and Water Management Code of Practice for Hobart Regional Councils and the recommendations made in the Geotechnical Report. The SWMP must consider the potential for erosion of the local soils and shall address the

- extent of vegetation to be cleared from the site and the revegetation of cleared areas to enhance soil stability and minimise the potential for erosion. The Plan must address the potential risk of tunnel and gully erosion as identified in the Geotechnical Report.
63. Soil and water management must comply with best practice to prevent any transfer of soil material outside of the area specifically and necessarily disturbed for construction. Particular attention must be paid to ensure no soil material is tracked onto roads and footpaths or to enter the Council's stormwater system. All aspects and protection measures in connection with soil and water management must comply with the requirements of Council's Development Engineer and be installed prior to the removal of and/or disturbance of any soil or vegetation.
 64. The loading and unloading of goods, including building materials and equipment, from vehicles must only be carried out on the land.
 65. Damage to Council Assets:
 - (a) Any damage to Council's assets, including services, footpaths, driveway crossings and nature strips must be promptly reported to and then repaired to the requirements of Council's Development Engineer, at the applicant's cost.
 - (b) It shall be the applicant's responsibility to obtain and submit with the Building Application, a comprehensive photographic record of the condition of the footpaths, driveways and nature strips at the road frontage to the site and adjacent to the site, prior to commencing construction. The photographic record must be relied upon to establish the extent of damage caused to Council's assets throughout construction. In the event that the applicant fails to provide a pre-construction photographic record of the site then any damage to Council assets found by Council's Development Engineer on completion of the works shall be deemed to be the responsibility of the applicant and must be repaired at the applicant's cost.

Advice to Applicant

This advice does not form part of the permit but is provided for the information of the applicant.

- As the road works and underground infrastructure will become part of Council's assets to be maintained by Council, the Contractor undertaking the works must be approved by Council's Development Engineer, is to be fully competent in subdivision works, and have in place, a currently recognised Quality Assurance System under AS3900.
- The allowable maximum grade of driveways permitted by the Glenorchy Planning Scheme is 1 in 5. The design and construction should extend the driveway into the lot up to maximum grade as far as required to reach natural surface, unless otherwise approved by Council's Development Engineer.
- This permit does not apply to staging of the subdivision. If it is proposed to stage the works then separate approval will be required by varying the Planning Permit under Section 43K of the *Land Use Planning and Approvals Act 1993*.

- Engineering plans are to be prepared by a qualified and experienced, practicing civil engineer to a standard as approved by Council's Development Engineer.
- The applicant should liaise with Powerco and investigate the provision of reticulated gas supply to the subdivision.

Resource Planning and Development Commission