

Telephone Inquiries:
MR L W ALLEN
File No:
16-2009-811-1
Parcel No: 24684

11 December, 2009

RPS HARPER SOMERS O'SULLIVAN PTY LTD
PO BOX 428
HAMILTON NSW 2303

Dear Sir/Madam

Re: Proposal: Eight (8) Lot Subdivision - TT
Property: LOT: 284 DP: 806310
155 Salamander Way SALAMANDER BAY

Reference is made to the abovementioned development application lodged with Council and the following advice is provided for your attention. Please note that the assessment and processing of this application cannot proceed until the following information has been submitted to Council.

Development Control Plan 2007

Council has concerns relating to the proposal as outlined below. Given that potential end users for allotments such as Aldi, Big W and a Medical Centre have been identified for the site it is considered that an integrated approach to the development incorporating a concept plan with these uses would be beneficial to determining the appropriateness of the proposed subdivision layout.

This is needed to ensure compliance with the Development Control Plan 2007 (DCP2007) for the proposed subdivision, but importantly any future proposed uses should also be able to comply with DCP2007.

To this end, demonstrated and documented compliance with Section B1 of DCP2007 is required. Of particular significance to the subdivision are performance criteria B1.P4, B1.P5, B1.P25 and controls B1.C4 and B1.C44.

Concept Plan

Any concept plan prepared for the site would need to consider,

- The proposed end users for allotments, their footprints, location of loading docks and built form,
- Traffic Volumes and traffic Calming measures. A new traffic analysis incorporating the proposed Aldi, Big W and Medical Centre should be considered,

- Pedestrian access and linkages,
- The interaction of the site with the adjacent wetland,
- The interaction of the site with the adjacent residential area,
- An integrated traffic/pedestrian movement plan.

In preparing the concept plan for the site, consideration should also be given to demonstrating that each lot configuration is capable of future development complying with Section B4 – Commercial Development of DCP2007.

It is considered that demonstrated compliance for the subdivision and future DA's on the proposed allotments with the requirements of Section B4 is best achieved through the preparation of a concept plan that addresses these controls.

Notwithstanding the above request, the following comments have been generated as a result of internal and external referrals.

Strategic Issues

Council's Senior Strategic Planner has provided comment on the proposal, it would be appreciated if the following points could be addressed.

- Council is currently considering a rezoning proposal to amend Port Stephens LEP 2000 with respect to Lot 21 DP 1044009, 100 Salamander Way, Salamander Bay. This proposal is seeking to rezone a portion of the site for residential purposes, offsetting that portion with the remainder of the site as environmental conservation. Please clarify the proposal to "offset" development at 155 Salamander Way with dedication of 100 Salamander Way.
- Council consider any development fronting Salamander Way and Bagnalls Beach Road as "Gateway" development, particularly at major intersections. A concept plan is required to demonstrate an integrated approach to achieving an overall integrated townscape that contributes positively to the locality. In this regard, lot size, orientation and access are critical to ensuring a positive integrated outcome as opposed to internalised "mini-major" stand alone development. This is particularly relevant in ensuring that future development encourages integration with the existing shopping mall.
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Please note Council previously developed draft Salamander Bay Town Centre Urban Design Guidelines that may provide assistance in preparing an overall concept plan (contact Council's Integrated Planning section to discuss). It should be further noted that an outstanding resolution from Council to prepare a Development Control Plan over the subject site remains unsatisfied as does a resolution of Council to identify a community precinct in the subject locality. These outstanding resolutions need to be considered in light of the proposed application.

Department of Environment, Climate Change and Water Referral.

The development application was referred to the Department of Environment, Climate Change and Water (DECCW) as Integrated Development. DECCW has issued General Terms of approval subject to several issues being resolved. A copy of correspondence from DECCW dated 4 December 2009 has been attached to assist in the resolution of these issues.

Drainage and Water Quality

Comments have been received from Council's Development Engineer, the following points are required to be addressed to allow continued assessment of the proposal.

The site is in a compulsory 1-in-100 year onsite infiltration area for stormwater control. The proposal includes dimensions for a detention basin and infiltration trenches as part of the stormwater layout however does not show how these sizes were determined. Please provide a copy of the calculations used to determine the size of these components of the stormwater system. This should include estimates of infiltration rates, design storm events used, impervious area estimates and a plan of the sub-catchments for the site.

Comments have been received from Council's Drainage Engineer, the following points are required to be addressed to allow continued assessment of the proposal.

Mambo wetland is an estuarine wetland covering an area of 175ha. It is part of the Port Stephens Estuary, which has been listed on the Register of the National Estate. As Mambo Wetland is an integral part of the Port Stephens Estuary, it is important that the Mambo Wetland is protected from pollutants that may be transported into the wetlands from the stormwater system.

The existing site is very sandy in nature and it produces little or no runoff during storm events. Post development in this site will increase the impervious area to more than 90% and will increase the discharge and the volume of freshwater entering the wetland.

The development site has been divided into three sub- catchment areas, but the drainage system proposed for these sub-catchment areas are not supported with any drainage calculations, infiltration calculations or hydrological and hydraulic calculations. The drainage report and the drawings must include the followings;

- Sub- catchment areas
- Pre and post development flow calculations
- Hydrological and hydraulic calculations for minor drainage system (10 year ARI storm events) and major drainage system (100 Year ARI storm events).

- Overflow paths and overflows along the road, private properties etc.
- External catchment drainage must be incorporated into the drainage calculations.
- Easement details for public water to drain through private properties
- Details of detention basin (stage – storage – discharge relationship, side slopes, low flow and high flow outlets details, inlet details, erosion control measures etc)
- Infiltration trench details (x-sections, surface area for infiltration, lengths, invert levels, obvert levels, infiltration rates used for calculations, maintenance access and method of maintenance etc).
- Infiltration system and detention basin must be modelled with the proposed pipe drainage system
- All the drainage pits within road reserve must have the dimension minimum of 900SQ.

All of the above details are necessary to assess the development.

Stormwater Quality

As indicated in the drawings, stormwater from the proposed development site will be directed into the wetland through three separate sub-catchments drainage outlets.

- The sub-catchment 1 (eastern side of the development - from Lot7)—There is no water quality control proposed in the development.
- The sub-catchment 2 (southern side of the development - from Lot2) -- There is no water quality control proposed in the development. Development must include appropriate stormwater treatment devices to control the quality of stormwater.
- The sub-catchment 3 (western side of the development - from Lot5) – a detention pond and trash screen across the flow path has been proposed in the development. This is totally inadequate to control the water quality. Trash screen to control the gross pollutant would not be effective and the pollutant collected by the trash screen won't be retained.

Therefore, development must include appropriate stormwater treatment devices for the above mentioned sub-catchments to control the quality of stormwater prior to entering into the wetland.

Stormwater Quantity

Sub-catchment 1

- Minor (10 year ARI) and major (100 year ARI) flows are not included in the report or drawings.
- Capacity of the proposed drainage system is not given in the drawings.
- Hydraulic gradelines for the pipe system is not given in the drawings.
- Section of the infiltration system is not provided in the drawings.

- Maintenance access and how to maintain the infiltration system is not provided in the drawings
- **Infil 1:**
 - Not supported by the calculations— it seems, the capacity of the infiltration system provided in the drawing is inadequate to control the predevelopment flows which is almost nil for majority of the storm events.
 - Located next to the building on adjacent property. Impact on the building need to be assessed.
 - No easement over the infiltration system
 - System may overflow on to the road or private property – need flow calculations to show this.
- It is not clear, the drainage system from P19 – P26 is located within Lot 7 or within road reserve. If it is located within lot 7, an easement is required over the drainage system.

Sub-catchment 2

- Minor (10 year ARI) and major (100 year ARI) flows are not included in the report or drawings.
- Capacity of the proposed drainage system is not given in the drawings.
- Hydraulic gradelines for the pipe system is not given in the drawings.
- Section of the infiltration system is not provided in the drawings.
- Maintenance access for the infiltration system is not provided in the drawings
- **Infil 2:**
 - Not supported by the calculations— it seems, the capacity of the infiltration system provided in the drawing is inadequate to control the predevelopment flows which is almost nil for majority of the storm events.
 - Located next to the building on adjacent property. Impact on the building need to be assessed.
 - No easement over the infiltration system
 - System may overflow on to the road or private property – need flow calculations to show this.
- At present, this sub-catchment does not drain to Bagnell Beach road. The existing drainage system at Bagnell Beach road has insufficient capacity. Connecting a new additional drainage system will exacerbate the flooding on Bagnell Beach road and increase the flooding frequency.
- P30 – P33 must design to carry 100 year ARI flows.
- P30-P31 must have minimum of 3m easement over the drainage line.
- The proposed new roundabout makes P32 as a sag pit. Require additional inlet pits around P32.
- P29 must have a weir to control the stormwater for infiltration
- Part of the drainage from community centre and childcare centre drain westerly direction (through lot 3). An inter-allotment drainage system must be created along the boundary to collect runoff from community centre and childcare centre and connect to P27.

- Infil 3 does not have any downstream control to function as an infiltration system.

Sub-catchment 3

- Minor (10 year ARI) and major (100 year ARI) flows are not included in the report or drawings.
- Capacity of the proposed drainage system is not given in the drawings.
- Hydraulic gradelines for the pipe system is not given in the drawings.
- Section of the detention/infiltration system is not provided in the drawings.
- Side slope of the detention/infiltration system must have slope 1: 6
- Obvert level of the basin is RL5.0 AHD and the invert level of the basin RL 3.65AHD. There is no low flow outlet for this basin. That means, this pond will have permanent water level at RL 5.0 AHD.
- Majority of the road drainage system from P1 – P 6 will be submerged before the storm event and may surcharge during storm events
- I believe that the groundwater level at this location may be higher than RL 3.65 AHD. So very little infiltration will happen at this location.
- Size of the detention/infiltration basin is too small to control the post development flows and volumes. Require proper modelling and calculations to support the size of the basin.
- Require longitudinal section to check the road surface levels and the pit surface levels. It seems, there are number of artificial sag points created on the road. This may cause water to pond at the sag points instead of flow along the road.
- Inter-allotment easement is required between Lot6 and the existing shopping centre to collect stormwater from Lot 6
- **Infiltration basins:** Stormwater discharge through an infiltration system is a very slow process and determining the critical storm duration for infiltration basin is not same as determining the time of concentration for pipe flows. Designing an infiltration basin must consider all duration storm events, in particular higher duration storm events. It must be recognised that higher duration storm events produce larger volume of stormwater and as a result the basins may fill up quickly and surcharge.
- **Factor of safety for infiltration rate:** The infiltration rate is a parameter that may change with time due to clogging or lack of maintenance. As the bio-retention swale receives water from carparks and other areas, the surface infiltration may reduce significantly. Therefore, a higher factor of safety must be applied for designing the bio-retention swale.

In general,

- Consultation must be extended to Mambo Wanda Wetland Committee.
- Development advisory Panel minutes dated 7 August 2009, dot points under drainage/ detention/infiltration have not been addressed properly.

- Infiltration pipe system 1.5 to 2m behind the proposed kerb and guttering could be easily implemented to reduce the flow rates and volumes. This has not been considered in this subdivision.
- Road LS indicates that it has been graded toward Salamander Way. That means, major flows from the road and surcharged flows from the pits will flow along the road and flood Salamander Way and new roundabout. This is not acceptable. All the major flows must be directed to the proposed infiltration/detention basin.

It is required that the issues raised above by Council's Drainage Engineer be addressed prior to further assessment of the proposal occurring.

Flora and Fauna Issues

Council's Environmental Projects Officer has provided comment on the proposal, it would be appreciated if the following points could be addressed.

- Offset proposals include landscaping to include koala feed trees and retention of existing ones as well as dedication of Lot 21 DP 1044009 – 100 Salamander Way.

A detailed landscaping plan showing koala trees to be retained and planted should be submitted to allow continued assessment of the impacts to the Koala population. Specific species list must also be provided and MUST be endemic to the locality. In addition to this more detail is needed in regard to the proposed offset. Detailed information in regard to offset size, specific locations need to be provided. Also methodology on appropriate offset size for the removal of 4.2 Ha of EEC needs to be carried out to justify any offset proposal. The applicant will also need to enter into a planning agreement on the land to protect it in perpetuity for conservation purposes as proposed.

- Appropriate assessment of the EEC impact is dependant on the above points (landscaping details and offset details)
- Appropriate assessment of the CKPoM is dependant on the above points (landscaping details and offset details)
- There has been no survey effort during the flowering period of cryptic orchid species or juncea known to occur in the locality. The habitat assessment for these species has also stated that suitable habitat is present on site. As the proposed development will result in all vegetation to be removed it can be said that there has been little to no consideration for preservation of these species habitats. It is unclear as to if additional suitable habitat for these species occurs outside the development site but within the immediate locality (eg Mambo wetlands / 100 salamander Way etc). This needs to be clarified. It is recommended that a survey be carried out during the flowering period of the identified orchids and juncea that potentially occur on site (winter/spring). More information is

required as to the amount of suitable habitat for these species being removed from the immediate locality.

- Stormwater should not enter the adjacent SEPP 14 wetlands untreated. Treatment must not only include Gross pollutant but also urban runoffs such as oils and greases etc. The development is also within a 50m buffer zone to the SEPP 14 wetland.

Many of these issues could be rectified by retaining the western area of the site that is vegetated and appropriate environmentally considerate landscaping in the east and south.

It is required that the issues raised above by Councils Environmental Projects Officer be addressed prior to further assessment of the proposal occurring.

Traffic and Pedestrian Access

Council's Traffic Engineer has provided comment on the proposal, it would be appreciated if the following points could be addressed.

- **Network impact and connectivity:-**
 - The traffic report states that traffic signals will be required at the Bagnall Beach Road/Town Centre Circuit intersection as a result of development of all of the lots. Council considers that the traffic signals are required to be conditioned to be constructed prior to issue of the subdivision certificate in consideration of the totality of this development.
 - Road widening and an additional travel lane are required on the northern side of the Town Centre Circuit connection to Bagnall Beach Road. This will be required to allow traffic signals to function efficiently at the intersection and to prevent traffic queuing into the circuit road and impacting the adjoining roundabout. Please provide concept plans and adjusted subdivision plan for consideration
 - The proposed roundabout on Salamander Way will have serious impacts on existing residents at properties No.152 & 154. The roundabout needs to be either relocated or to have an access drive to the properties included that demonstrates reasonable access solutions. Please provide concept plans and any adjusted subdivision plan for consideration.
 - The existing roundabouts on Town Centre Circuit do not function well, mainly due to the very small radius of the annulus. There is evidence of pavement failure caused by heavy vehicles turning over the roundabouts and this will be exacerbated by increased traffic volumes associated with further development. An analysis of the level of service is required to be provided for all the existing and proposed internal intersections in order to

ascertain what internal infrastructure upgrades are required.

- The road pavement widths do not comply with the commercial requirements of 11m to 13m wide pavement. The proposed 8m carriageways are too narrow to allow for reasonable access to the proposed lots. There is insufficient road width to cater for turning/passing lanes and the result will be congestion of the travel lanes. This problem is already evident in the existing road network and considerable problems result in peak periods. Provide a revised plan and traffic strategy that addresses how vehicle entry into intersections and lots will be provided without compromise of the circulation function of the road network. Special consideration of heavy vehicle access is required in this commercial environment, and how each individual lot will be provided with vehicle access points. Please provide concept plans, revised report and adjusted subdivision plan for consideration.
 - The proposed verge widths do not comply with the 4m wide requirements of council's DCP. Without a DCP, guidelines or master plan in place for this development the impacts of future loading docks, driveways and built-form presentation to the road reserves are unknown and not enforceable. The proposal to create sub-standard verge widths is not supported without controls in place to ensure that desirable outcomes are achieved. The recommendation is that verges, in accordance with Port Stephens Council's DCP 2007, are to be provided for all the roads fronting commercial lots unless controls are linked to the lots. Please amend verge widths and subdivision plans or provide alternate solutions to address the issue.
 - There is no practical consideration of pedestrian and cycle movements around the northern loop of Town centre circuit, it is unrealistic to predict that people not entering the site from the Purser Street connection will utilise the high level cycleway on the northern boundary of the site as a means to move from east to west (and visa versa). Please provide cycle/pedestrian connectivity on the southern side of the northern loop section of Town Centre Circuit. Please provide concept plans and adjusted subdivision plan for consideration.
 - Purser Street connection – The proposal has not considered vehicle connection to Purser Street to the north of the site to maximise connectivity to the commercial centre in accordance with B1.P7, B1C8 of Port Stephens Council's DCP 2007. This connection was also mentioned in the *Child Friendly Environment Case Study - GMU Salamander Bay Town Precinct, December 2008*. Please provide vehicle connection and amended construction plans for this connection
- **Public transport:-**
 - Provision for bus stops is required around the proposed circuit roads at four hundred metre intervals, including adjacent to the existing

library/community centre and the proposed medical centre; on the northern loop of Town Centre circuit; and just north of the connector road to Bagnalls Beach Road. This is required to accommodate community and private/charter operators as well as potential changes to public bus services. Bus lay-by's shall be provided on both sides of the road immediately opposite each other. Please provide amended plans.

- The concept plan submitted does not show pedestrian linkages to the existing bus stop on Salamander Way. Pedestrian facilities are to be provided to allow pedestrians and cyclists to connect to the proposed shared path on the eastern side of the proposed circuit road. Please provide amended plans.

- **Heavy vehicles:-**

- The 8m carriageway is too narrow to allow for heavy vehicles to track around the bends in the road without crossing the centreline. Swept paths need to be provided, as well as details regarding the priorities of intersections. Please provide amended plans.
- Details of proposed loading/delivery areas, procedures and proposed delivery times are also required for all proposed lots.

- **Pedestrian access:-**

- Bagnall Beach Rd is a sub-arterial, multilane road with no priority given to pedestrians. Increases in traffic due to development must be provided for by controlled pedestrian access across Bagnall Beach Road. Activity and work opportunities generated by the development will have a significant impact on connectivity with three schools and a TAFE adjacent to the site. The current disconnection for external pedestrians entering the site is not addressed in the subdivision proposal. Provide amended details.
- Pedestrian access to the north of the site (Purser Street) will be very limited with the shared path being at a different level to the proposed road. Consideration should have been given to the provision of steps to at least provide connectivity for able-bodied people. The vehicle connection of Purser Street and subsequent regrading will amend this situation. Provide amended pedestrian/cycle details with the road regrading.
- Child friendly principles also need to be addressed by providing improved internal connectivity and way-finding. Way-finding through large at grade car parks does not enhance safety or connectivity for both young and older road users. Sight lines, lighting and vegetation are to be considered at all crossing points within the site. This site is shown as an important link in Council's footpath and cycleway strategy. This should be addressed as part of a DCP for the site.

- Pedestrian refuges or raised pedestrian crossings (wombat crossings) are required at footpath crossing points on Town Centre circuit. These will assist pedestrian safety as well as reducing traffic speeds. Provide concept plans for consideration which also demonstrate consideration of bus stops, pedestrian corridors and desire lines for existing and proposed lots/developments within the commercial precinct.
- 1.2m footpaths are shown on some of the roads. These are inadequate for a commercial centre of this scale. Provide 2.4m wide shared pathway connecting throughout the site on all roads. 1.2m footpaths shall be constructed on the other side of Road 1 and Road 2.
- A 2m shared path is required to connect on the northern side of Town Centre Circuit to Bagnall Beach Road.
- Shared pathway is required along the external frontages of the site on Salamander Way and Bagnall Beach Road for all frontages adjoining Bagnalls Beach Road and Salamander Way.
- **Parking restrictions:-**
 - The 8m carriageways shown are too narrow to allow on-street parking and two way travel lanes. Consideration needs to be given to how this will be controlled with a minimum of ongoing maintenance for Council. Provide a traffic report outlining how traffic flows and parking are to be controlled.
- **Minor Road 2:-**
 - The road cannot be approved in its current form. There needs to be connectivity provided through to the circuit road or alternatively a turnaround provided that will accommodate the design heavy vehicles. Provide amended details.

It is required that the issues raised above by Councils Traffic Engineer be addressed prior to further assessment of the proposal occurring.

As previously noted, Council is of the opinion that a concept plan for the site, integrating the proposed end users of the allotments would assist in addressing the issues raised

Upon receipt of the abovementioned information, Council will be able to commence assessment of the application. It should be noted that during the assessment process, further information may be required.

Should you have any further inquiries or wish to discuss the above application please do not hesitate to contact the undersigned between the hours of 9.00 am –12.00pm.

Yours faithfully

Leonard Allen
SENIOR DEVELOPMENT PLANNER

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DA TRACKER

Development & Building has been listening to your suggestions for improvement. Council has now launched its On-line Application Tracking System and a revised Website so you can access key information, forms and application updates anytime, 24 hours, 7 days a week. Council welcomes your feedback on these new initiatives. Email council@portstephens.nsw.gov.au or write to The Manager Development & Building, Port Stephens Council, PO Box 42, Raymond Terrace NSW 2324