

Referral Response - Major Developments - Engineer

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| Application Number: | DA17/1092 |
| Referral Officer | Dennis Urena |
| Referral Unit | Major Developments - Engineer |
| Date of referral | 13 June 2018 |
| Land to be developed (Address): | Lot 2 DP 1108408 13 - 15 Park Road WALLACIA NSW 2745 |
| Proposed Development: | Staged Construction of Wallacia Memorial Park including Cemetery for 88,000 Burial Plots, Chapel & Related Crematorium & Function Rooms, Administration Building, Services Outbuilding, Parkland Areas, Internal Roads, Car Parking & Associated Landscaping & Site Servicing Works |

Recommendation

Not supported

Detailed assessment

Not supported

I have reviewed the application and the following plans against the Development Engineering Referral Checklist attached:

| Prepared By | Report /Drawing No. | Title | Revision & Date | ECM # |
|-------------------------------------|--|-------------------------------------|---|---------|
| Warren Smith & Partners | 5936000 | Engineering Plans | Rev 2, 9 March 2018 | 8202279 |
| GRC Hydro | | Flood Assessment | October 2017 | 7912810 |
| Stormy Water Solutions | Report | WSUD and Stormwater Management Plan | 11 October 2017 (received 22 May 2018) | 8202284 |
| Transport Planning P'ship | 17257-Park Rd Cemetery, Wallacia TIA_171026 | Traffic Impact Assessment | 26 October 2017, 18 May 2018 | 8202281 |
| Ignite | | Site Plans | 17 October 2017 | 7912960 |
| Florence Jacuer Landscape Architect | L101-L504 | Landscape Plans | 17 April 2018 | 8202278 |
| Degotardi Smith & Partners | 34820A02.DWG | Site Survey Plans | B - 28 September 2017 | 7913006 |

A number of deferral items from the initial assessment has not been addressed. In this regard, prior to further assessment by Development Engineering, the following matters shall be addressed by the applicant –

Stormwater Drainage and Flooding

- The flood assessment report prepared by GRC Hydro dated October 2017 has been reviewed. In this regard, the following matters shall be addressed –

- Figure 5 (proposed peak flood depths) and Figure 6 (Proposed Flood hazard) shall be reviewed and updated to show the proposed detention basin 2A;
- The proposed basins (and associated batters/levees) shall be located clear of the 1% AEP floodway.
- Further OSD Design details shall be provided addressing the following –
 - OSD Systems are required to release water after the peak storm event to provide capacity for future events. Therefore, any proposed OSD systems should not include any existing ponds, rainwater tanks, water retention basins or dams.
 - Detention storage areas is to be located at a level that is above the 1:5 ARI Flood level and outside/clear of the 1% AEP flood;
 - A plan view, pit, swale, weir, outlet, section detail etc. for each detention basin proposed shall be shown on the stormwater drainage plans. Each section detail shall also include the existing creek level / outlet connection in the detail.
- The provision of rainwater tanks for rural outbuildings and structures must follow and be sized in accordance with clause 5.3 of Council's Stormwater Drainage Specification for building developments. Larger tanks are required to a maximum 90,000l for land zoned E3 or E4 in accordance with Section C3.8 of the DCP 2014.
- All vegetated swales shall be provided with reduced levels / invert levels to demonstrate that the system drains to their respective OSD basins.
- The pre-existing and post development catchment plan for each OSD and drainage system shall be shown on the plans. The designer shall also demonstrate/include upstream/external stormwater catchments draining through the site and included as part of the OSD storage or considered as bypassing.

Road Design

- A detailed concept plan of the intersection treatment for the Road 1 (Entrance A - Main entry access) off Park Road shall be shown on the Civil drawings in accordance with the recommendations in the Traffic Impact Assessment prepared by The Transport Planning Partnership Pty Ltd dated 26 October 2017.
- A detailed concept plan of the driveway treatment for the Road 2 access off Park Road (Entrance B – Staff only access opposite existing workshop) shall be shown on the Civil drawings. Access details shall be in accordance with Council standard detail - SD1005.
- A detailed concept plan of the driveway treatment for the Road access off Park Road (fronting the club house) shall be shown on the civil drawings.
- A detailed concept plan of the driveway treatment for the Road access off Mulgoa Road (north west of the site) shall be shown on the civil drawings. Please note that the existing bus stop is within close proximity to the access point.
- All proposed roads shall be labeled (i.e. Road 1) on drawings C6.02-C6.09 and generally coincide with the Site Plans prepared by Ignite.
- Details of the proposed carpark modifications adjacent to the club house shall be provided. It is also unclear of what is proposed within the front setback of the club house and the parking arrangements.
- Traffic sign posts and pavement markings in accordance with AS 1742 – Manual of Uniform Traffic Control Devices are to be provided where required.
- Engineering drawings have shown existing trees in accordance with the survey plans. However, details of trees proposed for removal shall be clearly defined. **Note:** Penrith City Council's Tree Preservation Order defines a tree as "a perennial plant with a self-supporting stem which has a girth of 300mm or more, measured at a distance 400mm above the ground and has a height in excess of 3.0m).

REFERRAL CHECKLIST

| | YES | NO | Not Applicable |
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| Pre-lodgement advice has been reviewed | | X | |
| Proclaim has been checked for property affectations | X | | |
| Exponare been checked for property affectations | X | | |
| Is the site affected by mainstream flooding? | X | | |
| If Yes, then | | | |

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| Have flood levels been issued by DFP&WQ? | | X | |
| Are proposed/ existing levels to AHD? | X | | |
| Has a flood report been submitted? | X | | |
| Is the proposal consistent with LEP and DCP provisions? | | | |
| Is the proposal outside the floodway? | X | | |
| Is the flood risk associated with the development acceptable (access, hazard & evacuation)? | X | | |
| Additional Comments: | | | |
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| Is the site affected by local flooding? | X | | |
| If Yes, then | | | |
| Are proposed/ existing levels to AHD? | X | | |
| Has an overland flow report been submitted? | X | | |
| Is the proposal consistent with LEP and DCP provisions (same as mainstream flooding)? | X | | |
| Is the proposal compliant with Council's draft Overland Flow Policy? | X | | |
| Is the proposal outside the floodway? | X | | |
| Is the flood risk associated with the development acceptable (access, hazard & evacuation)? | X | | |
| Additional Comments: | | | |
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| Has a Stormwater Concept plan been provided? | X | | |
| If Yes, then | | | |
| Does the proposal have a legal drainage connection? | X | | |
| Is the stormwater concept plan consistent with LEP and DCP provisions (water quantity and quality)? | | X | |
| Is the proposal consistent with Council's draft stormwater policy? | | X | |
| Can the site drain by gravity? | X | | |
| For sites requiring OSD does the site storage and PSD comply? Is the OSD system within a common area accessible from the street? | | X | |
| Is the stormwater concept plan compatible with landscaping and architectural plans? | | X | |
| Additional Comments: | | | |
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| Carparking, Access and Manoeuvring details have been provided? | X | | |
| If Yes, then | | | |
| Has a traffic report or statement been provided? | X | | |
| Is RMS concurrence required (traffic generating developments and access from classified roads) | X | | |
| Has the Traffic Section provided comments? | | X | |
| Has the proposal's impact on the surrounding road network been considered? | | X | |
| Does the proposal comply with the DCP controls? | | X | |
| Is the proposal compliant with AS 2890.1/2/6 ie garages, aisle and handle widths, gradients, turning paths, ramps etc? | | | X |

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| Is adequate sight distance available? | | X | |
| Have service and emergency vehicles been provided for? | X | | |
| Additional Comments: | | | |
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| Are proposed earthworks and site levels satisfactory? | X | | |
| If Yes, then | | | |
| Has a geotechnical report been provided for the earthworks including salinity, contamination, acid sulphate soils and material source? | X | | |
| Are existing and proposed levels clearly indicated? | X | | |
| Is the scale of earthworks appropriate? | X | | |
| Have suitable controls pertaining to retaining walls been applied? | X | | |
| Is the proposed change in levels satisfactory with respect to impacts on flooding? | X | | |
| Additional Comments: | | | |
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| Is the proposal for subdivision? | | X | |
| If Yes, then | | | |
| Has a subdivision concept plan been provided? | | | |
| Is the layout, road and drainage network consistent with relevant LEP's and DCP's? | | | |
| Is the proposed road and drainage network consistent with Council's Engineering Design Guidelines? | | | |
| Has adequate provision been made for pedestrians, cyclists and public transport? | | | |
| Has a stage 2 Road Safety Audit been provided? | | | |
| Has the application made provision for any works in kind proposals? | | | |
| Are the proposed waterbodies satisfactory? – refer to separate checklist | | | |
| Suitable provision has been made for water quantity and quality? | | | |
| Additional Comments: | | | |
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| Does the proposal require External Works? | X | | |
| If Yes, then | | | |
| Has the condition of the road frontage, including all infrastructure, been assessed? | X | | |
| Is road and/or drainage construction required? | X | | |
| Are service lead in works required? | X | | |
| Additional Comments: | | | |
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