



(Additional work)
Neighbourhood Centre
(Traffic modelling & intersection design)

Scope of work

The Neighbourhood Centre will form a strategic node for the Ingleside Precinct, as:

1. A place which forms a community focal point, particularly for the northern part of Ingleside;
2. A centre providing local scale retail and commercial services to the Precinct, as well as shop-top format housing; and
3. A point of interchange to access future high frequency suburban bus services along Mona Vale Road.

The Neighbourhood Centre will need to provide for pedestrians, cyclists, local bus services and private vehicle motorists. These users will either be accessing Neighbourhood Centre services or passing through en route to or from the northern portion of Ingleside.

There is a need to examine in detail how the various roles of the Neighbourhood Centre will be delivered as an integrated product, providing effective service to its various users.

The broader Neighbourhood Centre assessment has the following objectives:

1. Define upgrade requirements (financial and spatial) for various intersections if development were to proceed in accordance with the Structure Plan.
2. Determine, from an urban design perspective, an effective design that recognises the various user priorities and offers a solution that addresses conflicting priorities in an efficient manner.

In addition various other intersections in the Precinct require detailed design to enable an understanding of land acquisition and construction costs.

Traffic modelling and intersection design

1. Refining local and regional road network representations in the model to reflect the proposed future year configuration:
 - a. Lane Cove Road diversion through the Neighbourhood Centre
 - b. Road link from Chiltern Road to Lane Cove Road along the northern boundary of the Neighbourhood Centre.
 - c. Powderworks Road conversion to a 50km/h traffic calmed format.
 - d. Adjustments to the Manor Road route to reflect a comparable design standard to the converted Powderworks Road, and that the future Manor Road will be a competing route to the converted Powderworks Road.

- e. Restricted turning movements at the intersection of Mona Vale Road and Chiltern Road. Options to be tested include a left in-left out configuration, and also the retention of a right turn movement from Mona Vale Road westbound to Chiltern Road.
 - f. Road link from Addison Road to Harvey Road, along the Harvey Road crown road reserve, and closure of the Tumburra Road connection to Mona Vale Road.
 - g. Reclassifying the future north-south route connected to zone 24 as a local road with a low speed environment.
2. Preparation of a 'no development' 2036 trip table for the Precinct, ensuring that any land use change assumed within source trip tables has been eliminated.
 3. Develop a trip table for the proposed development based on the proposed Structure Plan. Documentation is to include:
 - a. An assessment of travel generation characteristics by land use type, and documentation of the assignment of trips within the model;
 - b. The treatment of internal trip generation within the Precinct; and
 - c. The resulting assignment of trips to zones, including the assumed modal split.
 4. Use the traffic model(s) to assign trips to routes, identify capacity constraints and design upgrades. Documentation is to include:
 - a. Documentation of the forecast 2036 AM and PM peak hour traffic along all main roads and regional roads within and adjacent to the Precinct, for 'structure plan' and 'no development' scenarios. This is to include Powderworks Road and Garden Street in the vicinity of their intersection.
 - b. Documentation of the forecast 2036 AM and PM peak hour traffic for roads marked as Collector Roads in the Structure Plan. Where model resolution may significantly affect the accuracy of results, this is to be identified as such.
 - c. Reported level of service indicators at intersections with Mona Vale Road, plus intersections requiring detailed design in item 5:
 - i. For existing intersections, report level of service with and without upgrades.
 - ii. For upgraded/new intersections, indicate approximate spare capacity as a percentage by factoring up traffic on all arms until intersection failure is reached.
 5. Complete a design of the following intersections, including approaches, at sufficient detail to identify any land acquisition requirements:
 - a. Mona Vale Road, Manor Road and the new road through the Neighbourhood Centre. Note that this will need to accommodate a local bus route crossing Mona Vale Road;
 - b. The intersection of Chiltern Road with the new east-west road on the northern boundary of the Neighbourhood Centre land use;

- c. The intersection of the new east-west road along the northern boundary of the Neighbourhood Centre and the new road through the Neighbourhood Centre;
 - d. The intersection of the new east-west road along the northern boundary of the Neighbourhood Centre and the current Lane Cove Road;
 - e. Mona Vale Road and Chiltern Road;
 - f. Mona Vale Road, Powderworks Road and the new road link to Addison Road.
 - g. Powderworks Road and Wattle Road
 - h. Manor Road and Wattle Road
 - i. Chiltern Road and Cicada Glen Road
 - j. Cicada Glen Road and Walter Road.
6. Prepare a costing of the intersection upgrades based on the designs. Costings should take into account the area is characterised by sandstone outcroppings, undulating topography and shallow, at times poorly draining, soils. Cost estimates are to be provided as P50 and P90 estimates.
 7. Update the draft Transport and Traffic Assessment dated 25 May 2016 to reflect the revised traffic modelling and designs.

Deliverables

The study is to be completed to a standard which permits both DP&E and Council to use the material to specify design requirements within Development Control Plans, and justify costings proposed for developer contributions. In particular the documents must provide clear links between design objectives and design requirements.

The provider will be required to present documentation in the following formats:

- Reports in Microsoft Word and PDF format;
- Final electronic files (for exhibition) are to be limited to 10MB with image resolution limited to 200 DPI. If necessary the report is to be provided in parts to meet this requirement;
- All reports presented in A4 format (except for maps and diagrams, which may be presented in A3) with colour plans, photographs and diagrams, comprising complete documentation of the study process, investigations, findings, individual studies/reports undertaken and recommendations. All reports must include an executive summary;
- Images, and designs, including maps, are to be provided as separate files in an editable format.

All mapping is to be compatible with Council's software and is to be provided in the MGA Zone 56 coordinate system. Preferred file formats are, in decreasing order of preference:

1. ArcView shapefiles
2. Mapinfo .TAB files
3. AutoCad .DXF files.

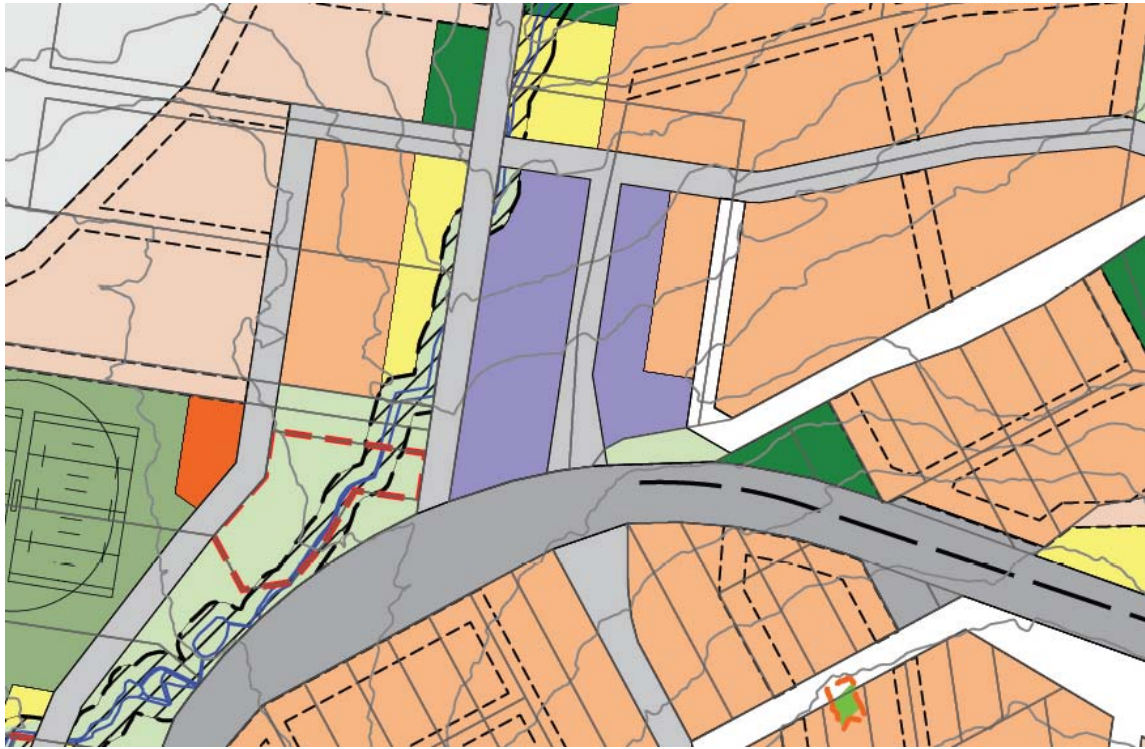


Figure: May 2016 - detail showing context of the Neighbourhood Centre