PART

D

Conclusion

Chapter 11. Scope of the concept plan and approval

11.1 Outline of the scope of the project

On 7 April 2006 the Minister for Planning made an order declaring the North West Rail Link project to be a project to which Part 3A of the EP&A Act applies. The Ministerial order described the North West Rail Link in general terms as follows:

The construction and operation of the North West Rail Link being:

» A heavy passenger railway off the Northern Line linking Epping with the regional centres of Castle Hill and Rouse Hill; and

» Associated infrastructure including stations, train stabling, roadways, car parks, bus interchanges, public amenities and intermodal facilities.

The North West Rail Link is described as the project for the purposes of the environmental assessment.

The project is described in further detail in chapter 7 and it is the subject of the environmental assessment set out in part C. The description of the project reflects the level of design development completed to date.

TIDC is seeking approval from the Minister for Planning of the concept plan for the project. As set out above, the project involves the construction and operation of the North West Rail Link generally within the corridor shown in Figures 11.1 to 11.6. The following sections describe the concept plan for the aspects of the project.

11.1.1 Surface quadruplication of a section of the Northern Line between Epping and Beecroft

The project involves the construction and operation of a new passenger railway line on the surface for an approximately 2.5 kilometre section along the existing Northern Line north of Epping Station and south of Beecroft Station. The new rail lines would be within the existing rail corridor and involve a quadruplication (i.e. the installation of a new twin track) of the existing twin track Northern Line.

At the northern end of the quadruplication works a new approximately 0.2 kilometre long section of dive structures leading to two tunnel portals would be required.

The quadruplication includes associated works retaining walls on either side of the corridor and major new structures including the:

» M2 Motorway bus underpass;

» M2 Motorway rail overbridge; and

» Cheltenham Road rail overbridge.

The project would involve upgrades to Cheltenham Station including the construction of a new pedestrian overbridge, easy access facilities and new ticketing and staff amenities. Modifications would also be made to the commuter car park.

11.1.2 A section of railway line in tunnel within a new 60 metre wide rail corridor between the Northern Line in the vicinity of Beecroft and north of Norwest Business Park

The project involves the construction and operation of a passenger railway line in a new approximately 13 kilometre twin tunnels within a new 60 metre wide rail corridor branching off the Northern Line (between Cheltenham and Beecroft Stations) in the vicinity of Beecroft. The tunnels would surface north of Norwest Business Park near Celebration Drive. The tunnel rail corridor horizontal alignment is shown in Figures 11.1 to 11.4.

Four new underground railway stations would be located within this tunnel section. Further information on these stations is set out in section 11.1.4 below.

11.1.3 A section of railway line predominantly on the surface within a new generally 40/60 metre wide rail corridor between north of Norwest Business Park and the northern end of the stabling facility at Rouse Hill

The project involves the construction and operation of a section of new passenger railway line predominantly on the surface for approximately 7 kilometres within a new generally 40/60 metre wide rail corridor between north of Norwest Business Park and the northern end of the stabling facility at Rouse Hill. This section of the rail corridor is shown in Figures 11.4 to 11.6.

This surface section includes:

» Approximately 1.2 kilometres cut and cover tunnel between north of Norwest Business Park and north of Burns Road (60 metre wide corridor);

» Approximately 1.4 kilometres cut and cover tunnel from south of Rouse Hill Station to north-west of Commercial Road (this would include a new crossing underneath Windsor Road) (60 metre wide corridor);

» Approximately 0.8 kilometres within a cutting for the interim stabling facility (as set out in section 11.1.6 below) between north-west of Commercial Road to the northern end of the stabling facility (60 metre wide corridor);

» Approximately 1 kilometre of viaduct from Samantha Riley Drive to north of the Windsor Road/Old Windsor Road intersection (this would include a new bridge to be constructed over Windsor Road) (40 metre wide corridor); and

» The remaining sections of this corridor would be in embankment or in cutting (40 metre wide corridor).

Two new stations are proposed within this section at Burns Road and Rouse Hill and information on these stations is set out in section 11.1.4 below.

11.1.4 Six new stations within a 60 metre wide rail corridor

The project involves the construction and operation of six new stations. The location of these new stations are shown in Figures 11.1 to 11.6. The new stations are:

» Franklin Road Station;

» Castle Hill Station;

» Hills Centre Station;

» Norwest Station;

» Burns Road Station; and

» Rouse Hill Station.

Each of the stations would be located within a new generally 60 metres wide rail corridor.

Each of the stations, excluding Rouse Hill Station and Burns Road, would be within the tunnel section. The depths of the stations range from approximately 10 to 40 metres below surface level, with surface access (stairs, escalators and lifts), staff facilities and ticketing facilities. Platforms would be a single 170m long island platform with design provision for future extension to 210 metres.

Rouse Hill Station would ultimately have four train platforms on two main islands.

The project requires the construction and operation of ancillary surface structures at each of the stations. These ancillary structures would include access/egress, ventilation facilities and infrastructure to support public transport, commuter car parking (at Franklin Road, Hills Centre and Burns Road stations) and transit orientated land uses. These features would not necessarily be located within the nominated 60 metres wide corridor surrounding each station.

The approval of the location and general form of the stations would establish basic principles to enable locality (around the stations) and precinct planning to proceed. Further design development is proposed for the stations, and elements of the station precincts directly related to the project.

11.1.5 Park and ride facilities

The project would involve the construction and operation of park and ride facilities at selected stations. These facilities would not necessarily be located within the nominated 60 metre wide corridor surrounding the stations. Park and ride facilities, which are subject to further design and assessment including as to their scale, quantum and design are proposed at Franklin Road Station, Hills Centre Station and Burns Road Station.

11.1.6 A train stabling facility at Rouse Hill

The project would include the construction and operation of a stabling facility (including associated infrastructure, access roads, staff facilities etc) within an area north west of the Rouse Hill Town Centre on the western side of Windsor Road within the future Area 20 precinct of the North West Growth Centre.

The stabling facility is an interim facility and has been designed to form part of a future extension of the North West Rail Link. The stabling facility would provide for stabling of eight eight-car train sets. Facilities within the yard would include cleaning/ light maintenance facilities, ablutions, administration offices and staff car parking. The facility would be floodlit and fenced for security.

The approval of the location of this interim stabling facility would allow for future land use planning around the site and for future design development to progress.

11.1.7 Ancillary support facilities

Ancillary facilities including power supply, sectioning huts, signalling structures, access roads, and other infrastructure required for the operation and maintenance of rail services and infrastructure would be required.

An emergency egress facility/vent shaft would be required between Epping and Franklin Road Stations and a site adjacent/above the tunnel on Pennant Hills Road has been indicatively located for this facility.

Water treatment plant(s) would likely be required in the vicinity of tunnel portals (Cheltenham dive and Balmoral Road dive structures) and potentially in the vicinity of Hills Centre Station.

The majority of ancillary facilities would be contained within the rail corridor. Further design development, scoping requirements and assessment is required to determine these requirements for the project in more detail.

11.1.8 Construction work sites

A number of construction sites have been identified as being required for construction works associated with the project. The need for these surface sites for construction is based on the constructability assessment and preliminary design work and would include sites at:

- Epping to Beecroft quadruplication (linear construction zone) including M2 Motorway bridge;
- Cheltenham Station upgrade;
- Cheltenham dive site (i.e. tunnel portal);
- Station sites (Franklin Road, Castle Hill, Norwest, Burns Road and Rouse Hill);
- Vent shaft/emergency egress (in the vicinity of Cumberland Highway) for the tunnel;
- Balmoral Road construction site;
- Hills Centre construction site;
- Above ground construction areas and viaduct construction (between Burns Road and Rouse Hill);
- Cut and cover works at Rouse Hill and Windsor Road; and
- Rouse Hill stabling area.

The main construction site at Balmoral Road is proposed as a tunnel support site (ie. spoil removal, tunnel boring machine launch etc) and would involve 24 hour a day operations.

The construction sites associated with the project would be subject to refinement in terms of location and size as a result of further design work.

11.2 Additional assessments proposed for staged delivery of the project

The additional assessments required to advance the staged delivery of the project and determine the extent of potential impacts of stage 1 and 2 includes (as a minimum):

» Further assessment of construction methodology for spoil removal from the Hills Centre work site directly onto Showground Road (which would be required for stage 1) would be undertaken in consultation with Baulkham Hills Council and RTA with the aim of minimising construction impacts, particularly those impacts associated with construction noise and traffic disruptions;

» Consultation with Baulkham Hills Council, RTA, land owners, stakeholders and communities into the activities associated with the Castle Hill Showground, with the aim of minimising significant disruptions to events and activities during construction;

» Further design of the temporary stabling within the tunnel sections west of the Hills Centre Station; and

» Additional investigations into the footprint of construction works at the Hills Centre site with the aim of minimising impacts on Cattai Creek, riparian vegetation and facilities associated with the Castle Hill Showground.

The investigations will be undertaken and detailed in the submissions report and, if required, the preferred activity report.

11.3 Additional design and assessments proposed for project

Subject to the terms of any concept plan approval, additional design and environmental assessment would be undertaken for the following elements of the project.

11.3.1 Corridor design development and infrastructure

The vertical alignment and horizontal alignment of the corridor has been identified (see Chapter 7). However, further design development is required to better define some elements of the rail infrastructure within and, in some cases, outside of the corridor, including where necessary:

» Survey and geotechnical investigations;

» Structures, including rail overbridges, waterway crossings (bridges and reinforced concrete box culverts), retaining walls and noise walls;

» Earthworks — embankments and cuttings;

» Gantry structures and electrical infrastructure;

» Adjustments and relocation of utility services; and

» Track work.

More detailed designs for the rail alignment and associated infrastructure and (where relevant) architectural designs would be prepared.

11.3.2 Stations

The project would involve modifications and upgrades to Cheltenham Station and the construction of six new stations at Franklin Road, Castle Hill, Hills Centre, Norwest, Burns Road and Rouse Hill.

It is proposed that additional design and environmental assessment is undertaken for each of the stations incorporating the following elements:

» Engineering and architectural design of station buildings and associated structures;

» Track work in the vicinity of the stations;

» Bicycle and pedestrian facilities including easy access facilities;

» Landscaping and urban design;

» Transport interchange facilities — access, parking (where possible), bus bays and kiss-and-ride;

» Utility services modification and relocation;

» Ticket barriers, staff amenities and other facilities;

» Construction work sites;

» Temporary works during construction;

» Road crossings; and

» Diversions of watercourses where appropriate.

11.3.3 Stabling facility

Additional assessment is proposed for the stabling facility to cover future design work, including where necessary:

» Engineering and architectural design of buildings and associated structures;

» Track work and signalling;

» Potential noise barriers and other mitigation measures;

» Retaining wall structures;

» Landscaping and urban design; and

» Parking facilities.

11.3.4 Construction sites

Additional assessment is required to confirm the exact location, number, footprint and layout of the proposed construction sites.

Figure 11.1 Corridor - Epping to Thompsons Corner

Figure 11.2 Corridor - Thompsons Corner to Rogans Hill Reservoir

Figure 11.3 Corridor - Rogans Hill Reservoir to Hills Centre Station

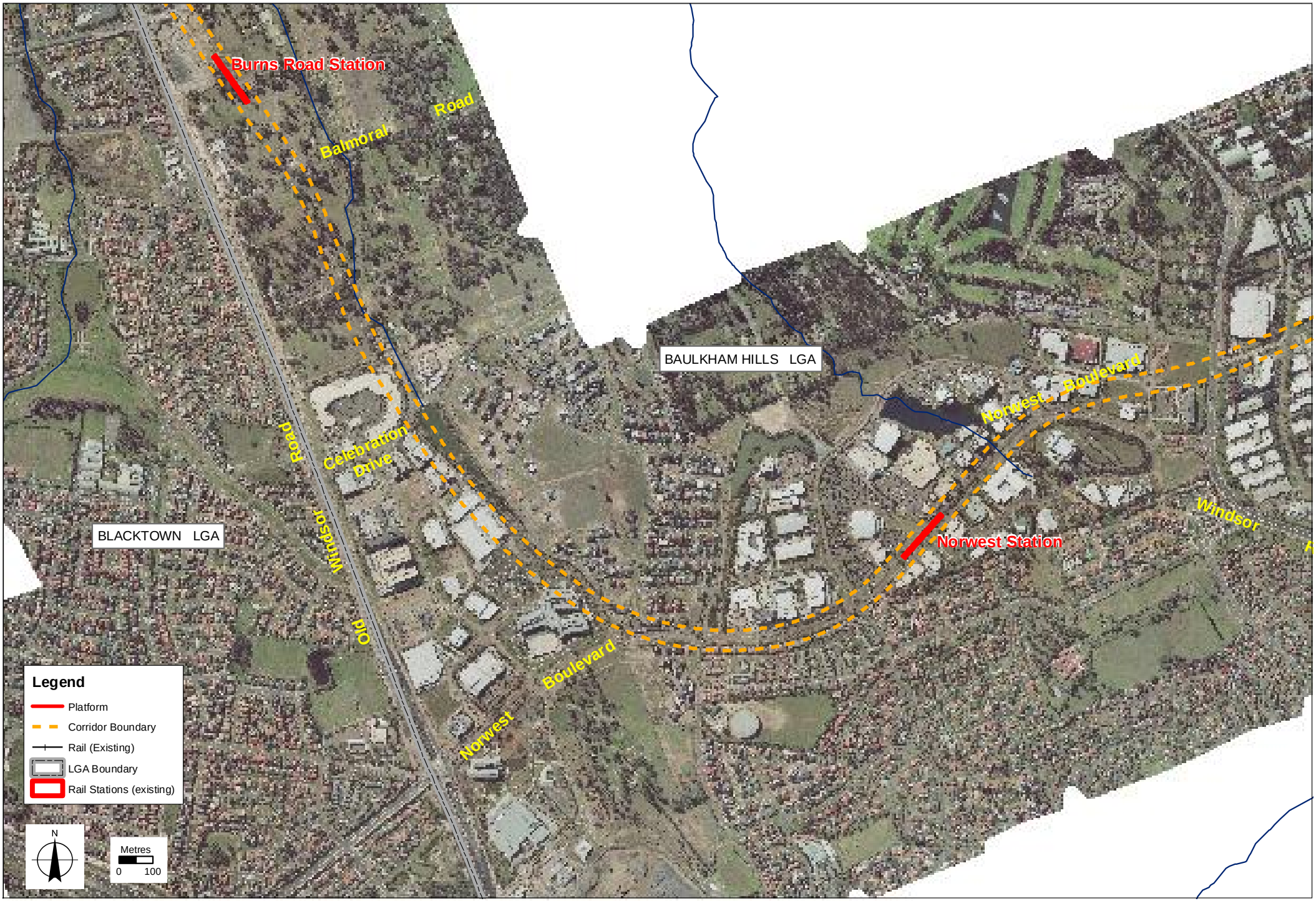

Figure 11.4 Corridor - Hills Centre Station to Burns Road Station

Figure 11.5 Corridor - Burns Road Station to Old Windsor Road/Windsor Road intersection

Figure 11.6 Corridor - Old Windsor Road/Windsor Road intersection to Rouse Hill stabling facility