

PART 3: ASSESSMENT OF TRANSPORT CORRIDORS

9. REGIONAL RAIL LINK (WEST OF WERRIBEE TO DEER PARK)

The proposal for the Regional Rail Link – west of Werribee to Deer Park is being planned in an integrated manner with the changes to Melbourne’s Urban Growth Boundary, the Outer Metropolitan Ring / E6 Transport Corridor and the preservation of grasslands areas in Melbourne’s west.

The Regional Rail Link can allow urban growth areas in Melbourne’s west to be served by high-quality public transport infrastructure early on in their development. It is of strategic importance to Victoria in achieving its wider transport planning vision as outlined in *The Victorian Transport Plan* and urban growth planning as outlined in *Melbourne 2030* and *Melbourne @ 5 million*.

9.1 UNDERSTANDING THE CORRIDOR

The Regional Rail Link – west of Werribee to Deer Park is a 30 kilometre long section of up to 50 kilometres of the rail project linking the Melbourne-Geelong railway west of Werribee to Southern Cross Station via the Melbourne-Ballarat railway, connecting at Deer Park.

The other section of the Regional Rail Link uses the existing rail corridors between Southern Cross Station and Deer Park. Both sections of the overall Regional Rail Link can be developed independently of each other, although both are proposed to be developed together to reduce construction times and ensure overall project benefits are realised as early as possible.

9.2 ASSESSMENT

The selection and assessment process to determine the alignment for the Regional Rail Link – west of Werribee to Deer Park involved:

- > Preparing route concepts to identify a broad range of options considering engineering constraints and benefits.
- > Preparing concept alignments to assess the route concept options against future land use planning needs.
- > Undertaking specialist investigations relating to engineering design, transport planning, land use planning, flora and fauna, hydrology, geotechnical, cultural heritage, social impact, economic impact, contamination and hydrogeological, noise and vibration, and physical services.

The impacts of the proposed transport corridor have been identified and assessed in a range of specialist studies. These studies also recommend mitigation measures to avoid or reduce the impacts of the project and are summarised in the *Regional Rail Link – west of Werribee to Deer Park, Strategic Assessment Report*.

There are a number of positive benefits and impacts from the proposal, including:

- > Better access to employment opportunities and services;
- > Better land use and transport integration at activity centres (existing and planned);
- > Reduced household transport costs;
- > Greater resilience to energy price fluctuations;
- > Reduced road congestion;
- > Greater mobility for disadvantaged community groups; and
- > Healthier communities.

9.3 PREFERRED ALIGNMENT

The alignment selection and assessment process led to the identification of a preferred alignment, which is shown on page 29, *Melbourne's West – Land Use and Transport Initiatives Map*.

The preferred alignment provides the greatest consistency with land use objectives to develop more housing and jobs. There is provision for an intermodal freight terminal inside the existing Urban Growth Boundary and zoned industrial areas. It integrates well with existing activity and proposed activity centres and maximises the opportunities at Rose Grange Activity Centre. Future urban growth opportunities are maximised through the opportunity to develop future residential or industrial land uses. Other options limit this potential.

9.4 PREFERRED ALIGNMENT FEATURES

Project corridor

The project corridor will generally be 60 metres wide, and will be wider at locations where bridges, stations, car parking, train stabling and other facilities are required. Where the Regional Rail Link runs through Wyndham Vale, it will share an existing 75 metre reservation with the proposed 'Armstrong Road'.

Track arrangement

Initially the alignment will incorporate two tracks from Werribee to Deer Park for use by the Geelong and Warrnambool V/Line regional rail services. Depending on the rate of urban development in the surrounding areas, a further two tracks will be constructed in stages from north of the Werribee River in Tarneit to near Middle Road, Ravenhall. The extra tracks will accommodate 'short-starter' regional rail services operating between Manor Lakes and Southern Cross. South of Manor Lakes, the corridor will accommodate a pair of regional tracks and a pair of suburban tracks for the future extension of the Werribee suburban rail service.

Stations

Upon opening of the railway, stations will initially be located at Manor Lakes in Wyndham Vale and Rose Grange in Tarneit. Depending on future urban growth in the surrounding areas, additional stations can be opened at Dohertys Road in Truganina, Davis Road in Tarneit and near Sewells Road in Tarneit. The final resolution of these additional stations will occur later through the preparation of Growth Area Framework Plans and Precinct Structure Plans. A station is also proposed at Blackforest Road if the Werribee line is extended.

Levels

Most of the railway will be constructed at or near natural surface level; however detailed design will refine the exact levels. The rail will be partially sunk into a cutting in order to pass under the Deer Park Bypass at Ravenhall. It will also be sunk into a cutting where it shares an existing corridor with the proposed Armstrong Road in Wyndham Vale. This results in the Regional Rail Link and the proposed Armstrong Road fitting within the existing 75 metre corridor without impacting on land for service roads or containing existing dwellings. Where the project crosses waterways, it will need to be elevated to ensure that 100 year flood events do not close the railway or adversely affect the flood regimes of waterways.

Extension of Werribee suburban service

Reservation of the land for the Regional Rail Link will include land to extend the existing suburban electric railway service from Werribee to Manor Lakes. This component can be constructed either simultaneously with the Regional Rail Link or at a later time. To maximise benefits and facilitate future development it is essential that land for the Werribee extension be reserved at the same time as the land needed for the Regional Rail Link. If the extension to Werribee is constructed later, a connection between Geelong and Werribee will be maintained in the meantime by either bus services between Manor Lakes and Werribee or a rail shuttle between Geelong and Werribee. The Werribee service would be extended via the existing Melbourne-Geelong railway corridor before branching northwards to parallel the two-track corridor for V/Line regional railway services, thereby creating a four-track railway corridor between Black Forest Road and Ballan Road, Wyndham Vale. A railway station served only by suburban trains would be constructed at Black Forest Road, Wyndham Vale, to serve future urban development in the surrounding area.

The Werribee extension also requires construction of stabling and depot facilities for suburban trains. The facilities are proposed to be located north of Ballan Road, Wyndham Vale, to allow trains to originate and terminate services at Manor Lakes. Ultimately this would provide stabling, cleaning and other facilities for thirty 6-carriage trains.

10. OUTER METROPOLITAN RING / E6 TRANSPORT CORRIDOR

The proposal for the Outer Metropolitan Ring / E6 Transport Corridor is being planned in an integrated manner with the changes to Melbourne's Urban Growth Boundary, the Regional Rail Link and the preservation of grasslands areas in Melbourne's west.

It is being planned to provide an ultimate high speed transport link for freight and people that can:

- > Enhance connectivity between key international transport hubs such as Melbourne Airport, Avalon Airport and Port of Geelong;
- > Improve access to the proposed Beveridge interstate rail terminal;
- > Serve as an important route to interstate and major regional destinations;
- > Link residential and employment growth areas in the north and west of Melbourne; and
- > Improve access in this major employment corridor which includes Avalon Airport, Werribee, Melton, Melbourne Airport and Donnybrook.

10.1 UNDERSTANDING THE CORRIDOR

The Outer Metropolitan Ring / E6 Transport Corridor is located between west of Werribee and Kalkallo. It is being planned to allow for a freeway standard road capable of being upgraded ultimately to four lanes in each direction (with appropriate auxiliary lanes), together with four railway tracks in the median for interstate freight and high speed passenger trains. The proposal includes freeway to freeway and freeway to arterial road access points, via grade separated interchanges.

It also includes provision for connections from the railway corridor in the median of the Outer Metropolitan Ring / E6 to existing railways west of Werribee (west to north), near Rockbank (south to east) and in the vicinity of Beveridge (west to north).

Between Kalkallo and Epping, the E6 part of the Transport Corridor will enable the ultimate provision of a freeway standard road with three lanes in each direction. This new corridor will link to the existing E6 reservation at Findon Road, Epping, which enables the provision of a six lane freeway standard road to connect southward to the M80 at Thomastown, between Dalton Road and Plenty Road.

The Deer Park Bypass / Outer Metropolitan Ring / E6 Transport Corridor connector will provide for an ultimate freeway standard road of three lanes in each direction.

The Transport Corridor will be the main orbital transport route linking the growth areas. It will be a major transport link that efficiently serves the needs of interstate and regional freight moving directly through to new freight terminals, and minimises movements into inner Melbourne areas in the future.

10.2 ASSESSMENT

The alignment selection and assessment process involved:

- > Identifying a broad study area;
- > Identifying opportunities and constraints within the study area (such as geographic features, existing and potential future land uses existing and planned transport infrastructure, biodiversity);
- > Developing potential options that were technically feasible and addressed major known constraints; and
- > Assessing the interaction of the potential options with the proposed Urban Growth Boundary, Regional Rail Link and protection of grassland areas.

The Outer Metropolitan Ring / E6 Transport Corridor will have a number of benefits and impacts. These have been identified and assessed in a range of specialist studies and are outlined in the *Planning Assessment Report - Outer Metropolitan Ring / E6 Transport Corridor*.

10.3 PREFERRED ALIGNMENT

The preferred alignment for the Outer Metropolitan / E6 Transport Corridor is shown on *Melbourne's West and North – Land Use and Transport Initiatives Maps*.

The preferred alignment commences at the Princes Freeway, west of Werribee. It heads north to pass west of the existing residential area of Wyndham Vale, and then north-east towards Tarneit. In the vicinity of Boundary Road, Mount Cottrell, the Transport Corridor swings north, running to the east of Troups Road South, and crosses the Western Freeway, east of Troups Road North, Rockbank. It then shifts slightly east to head north, to the west of Plumpton Road.

North of the Melton Highway (Keilor-Melton Road), the preferred alignment swings north-east to cross the Calder Freeway between Calder Park and Diggers Rest. It then crosses Jacksons and Deep Creeks and passes to the north of Bulla and west of Craigieburn. North of Donnybrook Road, Mickleham, it swings east crossing the Hume Highway between Kalkallo and Beveridge, in the vicinity of Donovans Lane.

The preferred alignment crosses the Melbourne-Sydney railway and then swings south-east before heading broadly south parallel to Epping Road and then Bindts Road to meet the existing E6 reservation at Findon Road. It then follows the existing public acquisition overlay reservation to the Metropolitan Ring Road at Thomastown.

The proposal includes provision for an east-west link between the Western Freeway, Deer Park Bypass and the Outer Metropolitan Ring / E6 Transport Corridor, broadly following a line just south of Middle Road, Truganina. VicRoads has also defined a study area for a possible high standard connection between the Outer Metropolitan Ring / E6 Transport Corridor and Melbourne Airport, with potential for this connection to pass either to the east or west of Bulla. Investigations for this corridor will be undertaken at a future date.

The Outer Metropolitan Ring / E6 proposal also includes provision for a new interchange and access to serve Little River. This is required in response to the need to close the existing easterly-oriented ramps on the Princes Freeway interchange at Little River Road, due to its close proximity to the proposed interchange with the Outer Metropolitan Ring / E6 Transport Corridor.

10.4 SECTIONS OF THE PREFERRED ALIGNMENT

Princes Freeway to Werribee River

The preferred alignment will pass to the west of a proposed quarry on the north side of Bulban Road (and east of Ball Road), and to the east of the proposed grassland reserve. The alignment cannot be located any further west in this area without adversely impacting on the proposed grassland reserve.

South of Ballan Road, the preferred alignment will pass a proposed quarry and the western boundary of the existing Urban Growth Boundary.

North of Ballan Road, the preferred alignment will avoid existing and proposed quarry sites. It will cross the Werribee River with a reasonable angle to minimise environmental impacts and bridge construction costs. It will also avoid known sites of Aboriginal cultural heritage and the recently constructed high pressure gas main.

Werribee River to Kororoit Creek

The preferred alignment will pass to the east of Troups Road and east of Rockbank. An alignment further west of Troups Road would adversely impact on the proposed grassland reserve and would impact existing houses in Rockbank. A more westerly alignment would be located to close to the Western Freeway-Leakes Road interchange and would require its realignment and reconstruction.

The crossing with Kororoit Creek will be located to minimise the impact on environmental values of the creek.

Western Freeway (Deer Park Bypass) Connection

The most easterly point of this connection is governed by the location of the Western Freeway (Deer Park Bypass). Key constraints that have influenced the location of the Transport Corridor in this area are: the residential area to the north and the industrial area to the south and west of Robinsons Road, the secure area of the Remand Centre and the Boral Quarry. Other key constraints include a recently constructed high pressure gas pipeline, a proposed industrial development to the south of Middle Road, between Robinsons and Christies Road and heritage sites in the vicinity of Middle Road and Hopkins Road.

Kororoit Creek to Deep Creek

The Organ Pipes National Park, the Calder Park Raceway and the existing settlement at Diggers Rest are key constraints in this area. These factors set the required interchange location with the Calder Freeway.

The location of the Outer Metropolitan Ring / E6 Transport Corridor in this section is also governed by the requirement to find a satisfactory crossing location of Jacksons Creek and Deep Creek that minimises environmental impacts and costs and allows for an interchange with Sunbury Road and a future connection to Melbourne Airport. There is limited opportunity to vary the alignment of the Transport Corridor at the Deep Creek crossing, where the shape of the valley and a nearby ridge limit the potential options.

Deep Creek to Melbourne-Sydney railway

The key constraints that have influenced the location of the Transport Corridor in this area are:

- > The Avenue of Honour at Mickleham;
- > The need for Outer Metropolitan Ring / E6 Transport Corridor and Hume Freeway interchange to avoid impacts on Kalkallo and Beveridge;
- > The need for satisfactory alignment and grade for the rail connection to avoid Bald Hill and cross existing Melbourne-Sydney railway;
- > Impacts on historic features and sites including Mickleham Primary school;
- > Current and future quarry in Oaklands Road;
- > Intruding on the Deep Creek Valley other than at the crossing point;
- > Planned developments within the existing Urban Growth Boundary along Donnybrook Road;
- > Melbourne Water retarding basin;
- > Settlements such as Kalkallo; and
- > Geographic features such as Bald Hill and Crowe Hill.

There is a need to locate the east-west section of the Transport Corridor as far south as possible to maximise its utility as a ring road. This will also enable it to satisfactorily service the proposed Donnybrook-Beveridge Interstate Rail Terminal, without road freight vehicles being required to traverse arterial roads through residential areas.

Another key driver of the location of the Outer Metropolitan Ring / E6 Transport Corridor is the desire to serve the Craigieburn area with only one crossing of Deep Creek. This requires crossing of Deep Creek as far south as possible, having regard to the location of the township of Bulla and the need to avoid impacts on Melbourne Airport. It is also important to maximise opportunities for urban expansion west of Craigieburn and to locate the Transport Corridor as close as reasonably possible to Melbourne Airport to serve the international terminals.

E6 – Melbourne-Sydney railway to Findon Road

Broad considerations influencing the location of the E6 in this area are:

- > The need to maximise the potential for urban expansion, while providing a major north–south freeway to serve proposed development areas;
- > The need to minimise environmental impacts on the Darebin Creek and other sensitive environments;
- > The need to minimise impacts on approved developments within the existing Urban Growth Boundary;
- > The need to avoid impacts on quarry operations as much as possible; and
- > The need to avoid geographic features such as hills, as far as possible.