
Urban Renewal from Grade Separation Case for Funding A Transformational Regional Project

Moreland City Council
Darebin City Council
NORTH Link



2 Northern
Communities



8 Level
Crossings



5 Re-Invented
Stations



A regional
approach



Innovation

Joint Mayoral Statement



It is apparent that continuing local and regional population and traffic growth is placing considerable stress on local road infrastructure and challenging economic, social and environmental sustainability in the Moreland and Darebin communities.

This road infrastructure problem is nowhere more acute than at four major railway level crossings where rapidly increasing numbers of vehicles compete every day with suburban train movements on three train lines.

A 2008 national survey ranked these four crossings among the highest priority to be removed on the Melbourne train network. Today our crossings are arguably the worst in Melbourne and our roads have the slowest travel speeds in the morning and evening peak periods compared to other Melbourne regions, as well as the longest delays in travel time.

Funding is urgently needed to remove all of these crossings.

In helping to find a funding solution, both Councils commissioned a preliminary business case to examine private sector investment and innovation applied in other countries that could deliver substantially greater community and economic development outcomes from grade separation, so as to improve community safety, end the undesirable effects of severance and enhance the economic competitiveness of our municipalities in a challenging economic environment.

This document presents key concepts and benefits of a new programmatic method to remove level crossings, for which the Councils seek State Government support in the form of:

- Endorsing an innovative “Regional Approach” as an alternative method to fund and remove level crossings;
- Establishing a Local Development Authority as a partnership between State Government and the two Councils to provide governance, consistent planning and decision making framework for four discrete Transit Oriented Development precincts;
- Provide \$4 million to fund development of a detailed business case with clear next steps to allow grade separation works to provide the foundation for a wider transformational urban renewal scheme in both municipalities



Cr Lambros Tapinos
Mayor, Moreland City Council



Cr Gaetano Greco
Mayor, Darebin City Council

Project Overview

The proposed Regional Grade Separation Project in the Darebin and Moreland municipalities will contribute to the transformation of Victoria’s Rail Services and Melbourne’s north.

- Provide modern stations at Coburg, Glenroy, Bell, Preston and Reservoir
- Allow passengers to enter and exit trains more quickly and more safely
- Release 13.5 hectares of new land in the heart of four suburban communities
- Create opportunity for urban renewal above and around five new stations
- Provide a focus for transit oriented development in Melbourne’s north.

Level crossings would be removed at:

- Bell Street, Coburg
- Munro Street, Coburg
- Glenroy Road, Glenroy
- Bell Street, Preston
- Oakover Road, Preston
- Cramer Street, Preston
- Murray Road, Preston
- High Street, Reservoir

The removal of eight level crossings would:

- Reduce road congestion for the 160,000+ vehicles that cross the Craigieburn, Upfield and South Morang railway lines at key locations every day
- Make roads safer for motorists, public transport users, pedestrians and cyclists
- Eliminate future potential of train accidents at level crossings
- Improve connectivity with trains, trams and buses
- Deliver more reliable travel times for motorists and public transport users through improved transport network efficiency
- Eliminate community severance in major activity centres
- Enhance local amenity and access to shops and businesses
- Provide a new foundation for greater economic activity in Melbourne’s northern suburbs

Two Communities



Share a significant problem with eight level crossings

The City of Darebin and the City of Moreland form the heart of Melbourne’s northern suburbs and the northern metropolitan region. Both communities lie approximately 7 kilometres from the Melbourne CBD and contain a combined population of 290,000 people.

Continuing population growth in Darebin and Moreland, and the wider region is placing tremendous pressure on already strained infrastructure and services, particularly public transport, the road network and many level crossings in the local area.

With a compound annual population growth rate of 2.15% both municipalities are growing faster than the overall regional growth rate of 2.05% and will exceed a combined population of 400,000 by 2040.

More than 22% of Melbourne’s future population growth is forecast to occur in the northern metropolitan region, which is on track to exceed 1.2 million people by 2021.

ALCAM risk score each locations ranking			
Rank	Street	Suburb	ALCAM Risk Score
6	Bell St	Coburg	4646
10	Bell St	Preston	3686
11	Glenroy Rd	Glenroy	3617
25	Murray Rd	Preston	2590
59	Cramer St	Preston	1527
72	High St	Reservoir	1312
80	Munro St	Coburg	1102
119	Oakover Rd	Preston	544

2008 Australian Level Crossing Assessment Model (ALCAM) score for Melbourne Rail Road Grade Separation Priorities

"Northern roads have the slowest travel speeds in the morning and evening peak periods compared to other Melbourne regions, as well as the longest delays in travel time".

Northern Horizons' 50 year Infrastructure Strategy for Melbourne's North 2014

Every weekday approximately 160,000 vehicles move through eight railway level crossings located in Coburg, Glenroy, Preston and Reservoir. Some vehicles encounter more than one level crossing.

These Councils seek to remove their four worst crossings which will require grade separations at a total of eight level crossings. These level crossings straddle the Craigieburn, Upfield and South Morang lines, on which more than 440 train movements occur to and from Melbourne every weekday.

During peak periods boom gates at these level crossings can be closed for more than 20 minutes an hour. Traffic is often delayed for 4 minutes at each level crossing.

The east-west Smartbus route on Bell Street (903) is severely inhibited by road congestion – during peak times the bus takes around 49 minutes to travel across Moreland and Darebin at an average speed of 12km per hour between destinations. Congestion is a contributing reason why local bus networks are underutilised.

Every weekday approximately 160,000 vehicles move through eight railway level crossings

The 2014 Northern Horizons 50 year Infrastructure Strategy for Melbourne’s north confirms that northern roads have the slowest travel speeds in the morning and evening peak periods compared to other Melbourne, regions, as well as the longest delays in travel time.

Around 24 road accidents per year occur in close proximity to these level crossings. Train and vehicle collisions have occurred at several of these crossings, making them locations of public safety concern for both Councils.

Darebin City Council and Moreland City Council are committed to removing these level crossings and commissioned globally recognised transport consultancy Interfleet Technology Pty Ltd to provide an international perspective on how grade separation could be achieved to the maximum economic benefit to both communities.

Approximately 180,000 vehicles per day cross the West Gate Bridge

Average weekday traffic passing through level crossings			
Level Crossing (Lx)	AM peak 6.30-8.30 AM	PM peak 4.00-6.00 PM	Off-peak
Bell Street, Preston	~6,240	~6,240	~39,520
Cramer Street, Preston	~6,240	~1,000	~3,500
Murray Road, Preston	~1,420	~1,420	~7,460
Oakover Road, Preston	~950	~950	~3,100
High Street, Reservoir	~2,100	~2,100	~24,000
Bell Street, Coburg	~5,520	~5,520	~34,960
Munro Street, Coburg	~100	~100	~400
Glenroy Road, Glenroy	~2,050	~2,400	~4,050
Total Vehicles	~19,380	~19,730	~113,840
Total			~156,400

Source: Vic Roads, Darebin and Moreland City Councils

“This is a regional problem that’s getting worse.”

Cr Lambros Tapinos, Mayor, Moreland City Council

“We have a necklace of dangerous level crossings that strangle economic productivity in Darebin and Moreland.”

Cr Gaetano Greco, Mayor, Daribin City Council



To keep pace with population growth in the Melbourne north region and meet forecast customer demand for public transport, the State Government plans to develop the capacity of the South Morang, Craigieburn and Upfield lines.

The Public Transport Victoria Stage 2 Network Development Plan for Melbourne Rail has planned for new, expanded train timetables to take effect in 2021, with additional expansion to occur in 2031 (Stage 3), and 2036 (Stage 4). These service expansions will result in a 38% increase in train operations on the Craigieburn line, 52% increase on the Upfield line, and 101% increase on the South Morang line.

By 2036 VicRoads predicts an 80% increase in road traffic volume on the Darebin-Moreland road system reflecting overall regional population growth. This will channel approximately 230,000 vehicles per day through level crossings where boom gates will likely be closed for nearly 40 minutes an hour with traffic backed up more than 800 metres.

Lack of coordination between boom gates and traffic lights at nearby road intersections already exacerbates congestion, heightens safety risks and contributes to rising vehicle accidents, particularly during morning and afternoon peaks. By 2036 road trauma and economic loss resulting from congestion will reach unacceptable levels.

Worsening congestion erodes productivity and competitiveness of local business and diminishes the ability of both Councils to attract new industry to address rapid loss and downsizing of traditional supply chain manufacturing sectors, particularly in the wake of recently announced closures of Ford, Holden and Toyota.

Rising unemployment from industry restructure will be coupled with rapid growth of micro-business and a transition to a more mobile, contingent (self employed) and locally based workforce by 2020. Future economic success of residents will be impacted by their access to efficient public transport and less congested local road networks.



Average weekday train movement passing through level crossings to and from Melbourne

	Current 2014	Stage 2 2021	Stage 3 2031	Stage 4 2036
Craigieburn	189	~225	~230	~262
Upfield	110	~130	~160	~168
South Morang	145	~169	~250	~292

Represents total trains through level crossings to and from Melbourne

Conclusion

Without timely investment, the potential of creating a revived and more attractive urban environment for the future could be lost – and as population increases, the potential wealth and vibrancy that could be associated with growth will be lessened. Through private sector innovation; public investment required to improve congestion through needed grade separation could deliver the significant spark to create community and commercial nodes of regeneration.



2014

~440 train movements per weekday
~24 accidents per year
~160,000 vehicles per week day
~144,000 Darebin residents
~150,000 Moreland residents
~940,000 people in Melbourne North Region
~11,000 Darebin businesses
~11,000 Moreland businesses

Current situation



Level Crossings

2036

~722 train movements per weekday
~41 accidents per year
~230,000 vehicles per week day
~200,000 Darebin residents
~210,000 Moreland residents
~1.7M people in Melbourne North Region
~23,000 Darebin businesses
~24,000 Moreland businesses

Stage 4 PTV train network plan takes effect



Level Crossings



A need to solve other problems

Eliminating community severance

Community severance – the “barrier effect” – happens when a railway line limits people’s mobility in a specific location, instead of facilitating it.

Railway lines with high timetabled volume create physical and psychological barriers that separate communities, with pronounced effects on walking and cycling mobility, community health and social cohesion.

Community severance effects at Glenroy and Reservoir divide these communities into disparate halves with diminished social contacts, physical activity, children’s play, access to goods and services and investment decisions. Severance at Coburg and Preston is even worse as it hampers investment decisions that hold back the strong economic development potential of these two Principal Activity Centres.

The nature, form, quality and location of urban renewal that may occur in these four suburban communities will be severely impacted and determined by level crossings that continue to create local conflict points between trains and road traffic that includes pedestrians, cyclists, buses, freight and cars.

Current grade separation engineering practice in Melbourne, while effective in eliminating conflict between rail and road transport at level crossings, produces deep open cut trenches in the heart of suburban centres that preclude opportunities for urban renewal and maintain the undesirable impacts of community severance.

By embracing **Smart Growth** urban development principles developed in Canada and the USA, a more innovative ‘regional’ approach to grade separation projects can be applied to eliminate severance and achieve greater economic returns from investment in the removal of level crossings in key suburban centres. This “regional approach” is just as valid outside of North America and in the context of Victoria, where such innovation can be created



Harnessing innovation to solve safety, congestion and economic problems

A regional approach

Since 2010 the State Government has invested in the removal of priority level crossings at Mitcham and Springvale, and has advanced plans to fund the removal of another seven crossings within the next few years.

At an average cost of \$140 to \$165 million, and with a total of 170 level crossings on the Melbourne train network, the State Government seeks innovative solutions to fund these projects and deliver outcomes earlier than the current ‘one at a time’ approach allows.

Given their high public priority, Bell Street, Coburg and Bell Street, Preston could be scheduled for removal in the near future. While both Councils would welcome this outcome, the flow on impact from isolated projects would likely be delayed removal of level crossings at Glenroy Road, Glenroy and High Street, Reservoir, and the risk of setting back opportunity to remove level crossings at Cramer Street and Murray Road, Preston by several decades.

To achieve a better safety, transport and economic outcome from State Government investment in grade separation, Darebin and Moreland Councils advocate a ‘**Regional Approach**’ whereby several projects are bundled together under a single contract to allow for the programmatic removal of level crossings and severance impacts in key suburban centres.

A **Regional Approach** could achieve economies of scale not currently achievable with the ‘one at time’ approach. Savings could allow more benefit to be achieved for the same investment, resulting in significant added value to State Government.

A regional approach is a smart way to resolve an escalating problem in Melbourne’s north.

State government has invited the private sector solutions for grade separations.

A regional approach = Innovation

How to remove 5% of Melbourne's level crossing problems in one project

Drawing on international experience with grade separation, mass transit and related urban renewal projects in Canada, the USA and the UK, as well as recent learnings from Sydney and Melbourne, Interfleet Technology Pty Ltd has prepared a preliminary business case with best, worst and expected scenarios that details the financial viability of a regional approach to remove level crossings.

The Preliminary Business Case identifies an indicative Benefit Cost Ratio of 1.26 could apply to an 'Expected Case' private sector investment scenario. This positive result indicates best value outcomes can be achieved and presents sufficient grounds for State Government, Darebin City Council and Moreland City Council to take the project forward to a full business case for further consideration.

The preliminary business case establishes a regional approach could programmatically remove eight level crossings in Darebin and Moreland within 5 years at an estimated cost to State Government of \$740 million.

The proposed regional approach contrasts markedly with the current 'one at a time' approach that would likely remove these level crossings over a 20 year period at an approximate cost of \$855 million.

The preliminary business case contemplates innovative funding arrangements whereby the private sector could fund construction for five years, allowing State Government to defer payment and achieve sustainable repayment over a longer 20 year period.

Meeting the objectives of Moving Victoria: Better Public Transport, Better Roads and the Plan Melbourne policy framework, a regional approach would result in a project of state significance that can quickly enable more trains to move more people with less traffic hold ups before Stage 2 of the PTV Train Network Development Plan is implemented in 2021.

As a project of state significance, the regional approach to grade separation could bring about timely and strategically valuable urban renewal, economic development and employment outcomes in Darebin and Moreland. The regional approach also provides an opportunity to introduce Transit Oriented Development (TOD) and Value Capture methodologies that have proven remarkably effective in Canada and the USA.

The project envisages a joined-up partnership between State Government, Darebin City Council, Moreland City Council and the private sector to maximise regional and state benefit from Government investment in grade separation, creating a methodology that can be replicated in other locations around Melbourne.

Blueprint for a different pathway

A project that embraces a regional approach to realise strategic urban renewal objectives from grade separation will incorporate several innovations that include:

Economy of scale

A single group to undertake works on the four major sites will reduce overheads on each of the projects as well as optimise the use of construction equipment and an experienced project management team to undertake the specialised works rather than mobilise four separate teams for each individual project. This method allows learnings to be applied to all of the projects and substantially reduces cost in other ways including ability to allow utilisation of spoil from one project to another

Standardisation

Creating standardised components for all four projects will eliminate substantial cost and move away from the costly and inefficient bespoke design approach currently applied to individual 'one at a time' projects. This approach will provide greater scope for scale, certainty and profitability for local component suppliers and sub contractors than has been achieved previously

Single Contract

The entire regional bundle of work would be undertaken by a single master contractor for the express purpose of realising a number of significant value adding benefits that cannot be achieved under the current 'one at a time' process.

The Game Change

A projected 15% to 20% saving from economy of scale and standardisation effects can fund installation of foundation decking at each site to support development and urban renewal above and around new railway stations, thereby achieving more value to government from the investment.

Removal of level crossings

The 'Expected Scenario' recommends removal of eight level crossings. Consideration is given to different construction options at some sites and optional cost variants are provided for potential addition of O'Hea Street, Coburg.

Underground Railway Stations

The 'Expected Scenario' recommends construction of five new underground premium railway stations. Consideration is given to gradient issues at Glenroy and Reservoir and placement options of some stations to achieve optimal connection to bus terminals and services. Each of the five underground stations are superbly located to become a focus for urban renewal.

Foundation Decking

The 'Expected Scenario' recommends construction of foundation decking above five underground railway stations, trenches and dive structures. This will eliminate community severance and create substantial unified land parcels at grade at each station site. A new 3 kilometre long corridor for urban renewal would be created from Oakover Road to Murray Road, in Preston as an example.

Minimal Disruption

The preliminary business case is predicated on a need to achieve minimal disruption during construction and minimal need to acquire properties. Following advice from Public Transport Victoria the case is founded on delivering a 2 track solution at each site, reflecting the cost efficient policy of ‘more train services on existing tracks, rather than more train services on more tracks’. Technical appraisal is provided on how PTV preference for ‘Off Line’ construction can be achieved with different options on the Craigieburn and South Morang lines, and the case for ‘On Line’ construction at Coburg with temporary closure of the Upfield Line. Expansion to 4 tracks is considered technically feasible at each site, but would require significant land acquisition to implement and is therefore not recommended.

5 Year Construction Period

The preliminary business case envisages a five year construction period to plan and coordinate the programmatic removal of eight level crossings across four discrete sites in the Darebin-Moreland municipalities. Construction would likely begin at Bell-Preston then Reservoir on the South Morang line, followed by Coburg on the Upfield line, concluding with Glenroy on the Craigieburn line. This would complete the ‘below ground’ railway infrastructure component. Development above and around railway stations would commence as each station progressively came on line.

Air Rights and Station Land

By placing railway stations seven metres underground and providing decking the project will create air rights above stations and railway tracks. These rights can be integrated with land surrounding railway stations to create new precincts at grade that can be rezoned for development. In total 13.5 hectares (approximately 12 football grounds the size of the MCG) would be liberated for development across the four sites at Coburg, Glenroy, Preston and Reservoir.

VicTrack Support

As custodian of railway land assets VicTrack has a requirement to maximise value to government from asset use. It is envisaged VicTrack could agree to sell or lease land at the five sites in exchange for private funding contribution to the delivery of each new \$45 million station asset; timely development above and around stations; and provision of higher density development that encourages increased use of public transport.

Private Sector Investment in and around Railway Stations

The preliminary business case envisages private sector investment could be harnessed to fund ‘below the line’ and ‘above the line’ construction stages. ‘Below the line’ grade separation works could be fully funded by a construction consortium for the five year construction period, after which State Government would commence a repayment program over an agreed period. Government cost could be reduced by private sector funding for the provision of new stations in exchange for station land at no cost. (The ‘Expected Scenario’ envisages 50% private sector funding, or \$110 million contribution in exchange for rights to develop station land. Developers would then invest in ‘above the line’ urban renewal projects above and around the five stations.

State Government and Councils waive taxes for 10/20 years

To provide incentive for development of railway precincts State Government could waive land tax and stamp duty for Developers and first buyers of property for a period of 10 years. Subsequent resale could return 10% of the value of the sale to the State. The Councils could redirect a proportion of rate revenue from property created in each railway precinct to a Local Development Authority for a period of 20 years to further improve local transit (100% first 10 years; 60% second 10 years).

Attractive to Developers

Gaining the investment interest and participation of developers is critical to success. Borrowing from experience in Canada and the USA, developers would be encouraged to invest in the rail project in exchange for acquiring land at no cost and rights to implement higher density development in the newly created railway precincts. Other innovations that could prove attractive to Developers include creating a higher density development zone around each station; implementation of Value Capture methods that could partly offset the need for Developer contributions; waiving of land tax and stamp duty; redirection of rate revenue to development; and provision of a consistent planning and decision making process to provide certainty for investment across all four sites.

Positive Economic Impact

Commitment to establish operations in Darebin/ Moreland will maximise local economic benefit and employment outcomes from the project. It is estimated that grade separation works will employ around 300 full time jobs directly and an additional 600 full time jobs in the wider Victorian economy each year during the 5 year construction period. The project will contribute to the retention of jobs in each local area through spend of construction workers. Total revenue generation for Victorian enterprises over the grade separation project period is estimated at \$1.5 billion*, with total wealth creation and contribution to Gross State Product estimated at \$650 million*.

* Estimate is indicative based on established documentation for Reservoir and Glenroy, final estimate will need to be refined for a full business case.

Transit Oriented Development

To maximise State Government benefit from its investment, it is recommended that TOD principles utilised in Canada and the USA be applied to the Coburg, Glenroy, Bell, Preston and Reservoir station sites. TOD will provide a clear, delineated zone and policy structure to encourage transit oriented investment and development. TOD has the capacity to attract massive investment in urban renewal, contribute to faster urban consolidation and greatly increase public use of transit.

Value Capture

The project offers a strong opportunity to introduce local value capture methods to help fund and refine transit and TOD development at each site and minimise future need for State Government funding. This could include scope for example to fund planning for new bus and tram transit options in the area, including a potential east-west tram link from Reservoir station to Latrobe University and Northland, upgraded bus terminals and depots, and creative transformation of Preston Oval and the Sydney Road shopping area in Coburg.

Local Development Authority

Based on experience in Canada and the USA, it is recommended that a Local Development Authority be established that consists of a partnership between the State Government, Darebin and Moreland City Councils. This entity would govern consistent planning and approvals for private sector development across the five station precinct sites and within each station TOD zone, and manage revenues derived from value capture methods.

Legislative Change

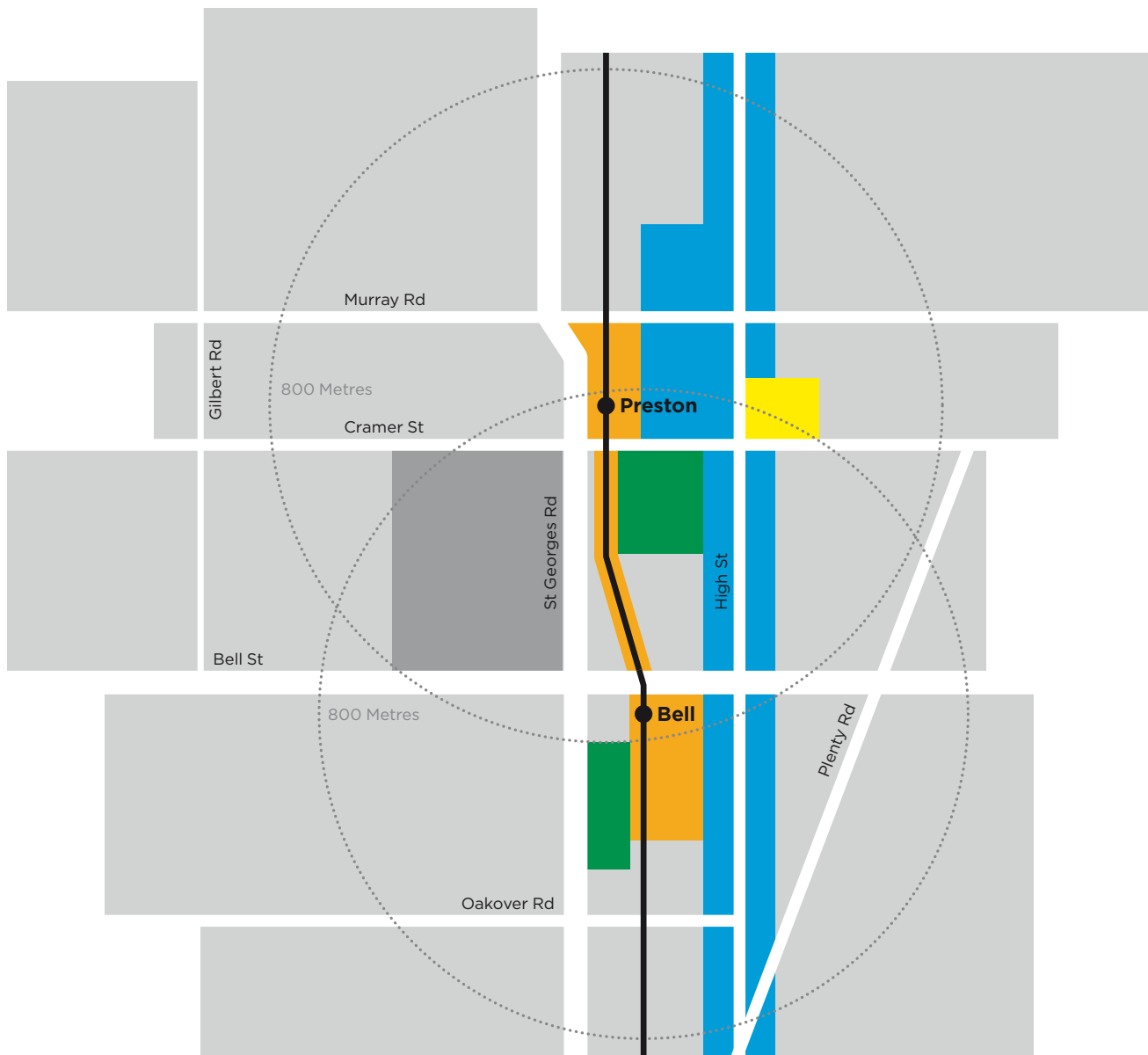
It is envisaged that some legislative and regulatory change may be required to allow for the introduction of value capture methods and the establishment of a Local Development Authority. Political and community support will be necessary to enable this innovative, alternative approach and achieve the substantial benefits the project could deliver to State Government and the two municipalities.

Blueprint for a different pathway

To realise maximum benefits from grade separation in Darebin and Moreland:

- **A ‘Regional Approach’ is proposed to rapidly and programmatically remove level crossings and benefit from economy of scale and standardisation;**
- Creating a project of financial scale delivered under a single contract will generate benefits that cannot be achieved from the usual individual project approach;
- Savings can be used to pay for ‘decking’ to create air rights, eliminate severance and integrate railway land at railway stations into a developable land envelope;
- Private investment can be invited to reduce infrastructure cost to State Government in exchange for rights to develop above and around new stations;
- Introduce TOD principles to provide focus and incentive for private investment into higher density urban renewal around new stations;
- Harness innovative Value Capture funding methods to reduce cost to State Government and create revenue to part fund further local transit improvements.
- **Establish a Local Development Authority to provide governance and consistent planning and decision making framework across four discrete TOD precincts.**

Five new railway stations



Bell & Preston

South Morang line

Level crossings removed

Bell Street, Oakover Road, Cramer Street and Murray Road

Two track option

Off-line construction method

3 construction options considered

New Underground Station

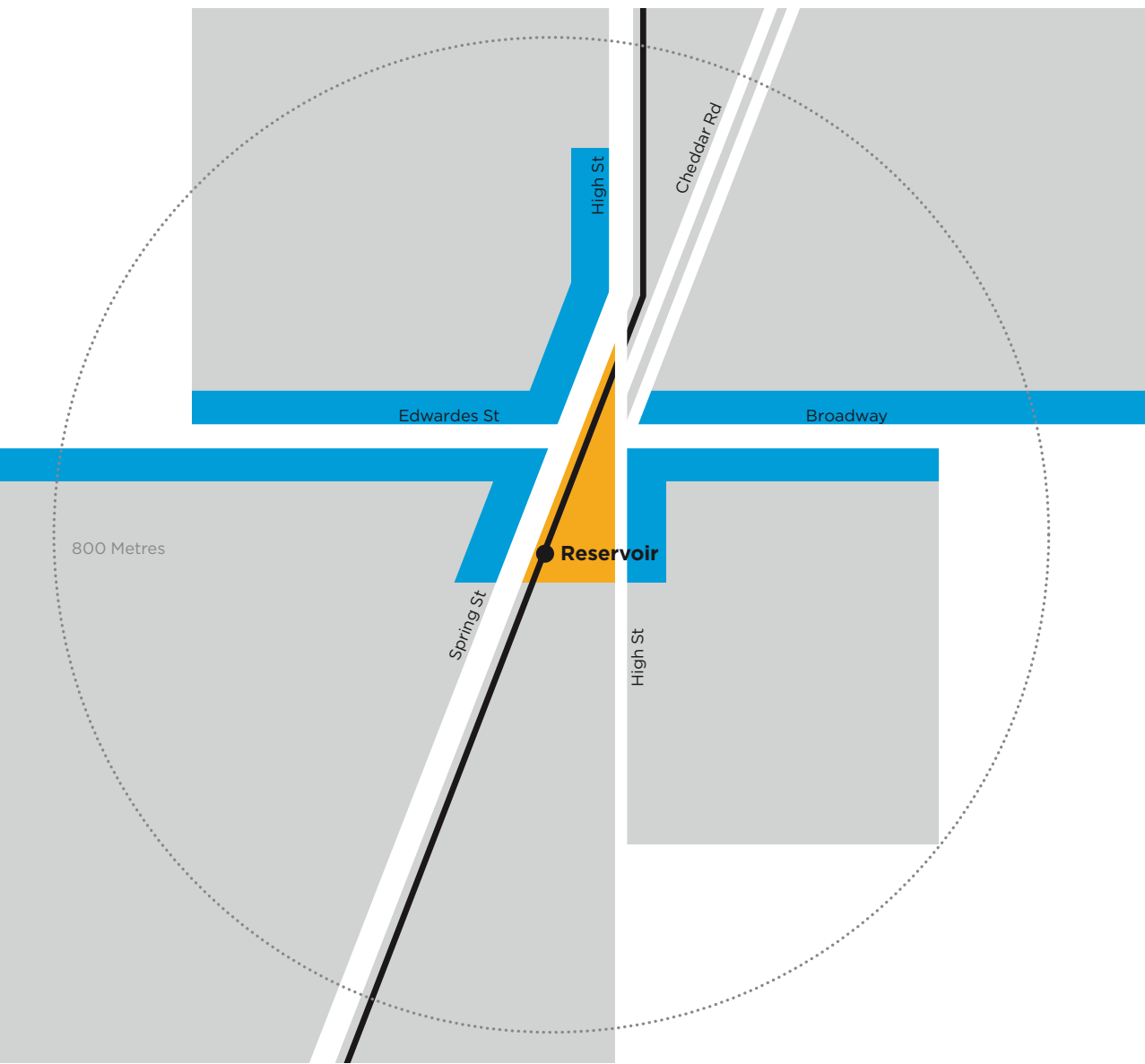
Estimated cost: ~\$261 million (Expected Case)

Railway land released:

3.9 ha (Bell 2.2 ha + Preston 1.7ha)
Potential additional land

Removal of four crossings considered least disruptive and best solution. Reduces impacts on nearby properties and Preston Oval with minimal acquisitions. Prevents Bell Street only option sterilising future grade separation prospects at Cramer Street and Murray Road. Results in developable decked area of nearly 3km, providing basis for linked development and major TOD opportunity. Option to locate Preston station under Murray Road for improved intermodal outcomes.

A detailed technical appraisal for the project provides a high level summary of construction challenges, options and opportunities for grade separation at each site.



Reservoir

South Morang line

Level crossings removed

High Street

Two track option

Off-line construction method

2 construction options considered

New Underground Station

Estimated cost: ~\$197 million (Expected Case)

Railway land released:

4.2 ha + potential additional land

Challenging location involving acute angle of rail and road alignments and steady elevating grade that plateaus at the station and level crossing. Results in large roundabout near former level crossing. Potential to locate station closer to northern road junction to provide entrances to all four sides of junction or closer to city to reduce construction costs. May involve relocation of the bus depot, bus interchange and commuter drop offs. Creates opportunity for major TOD opportunity.

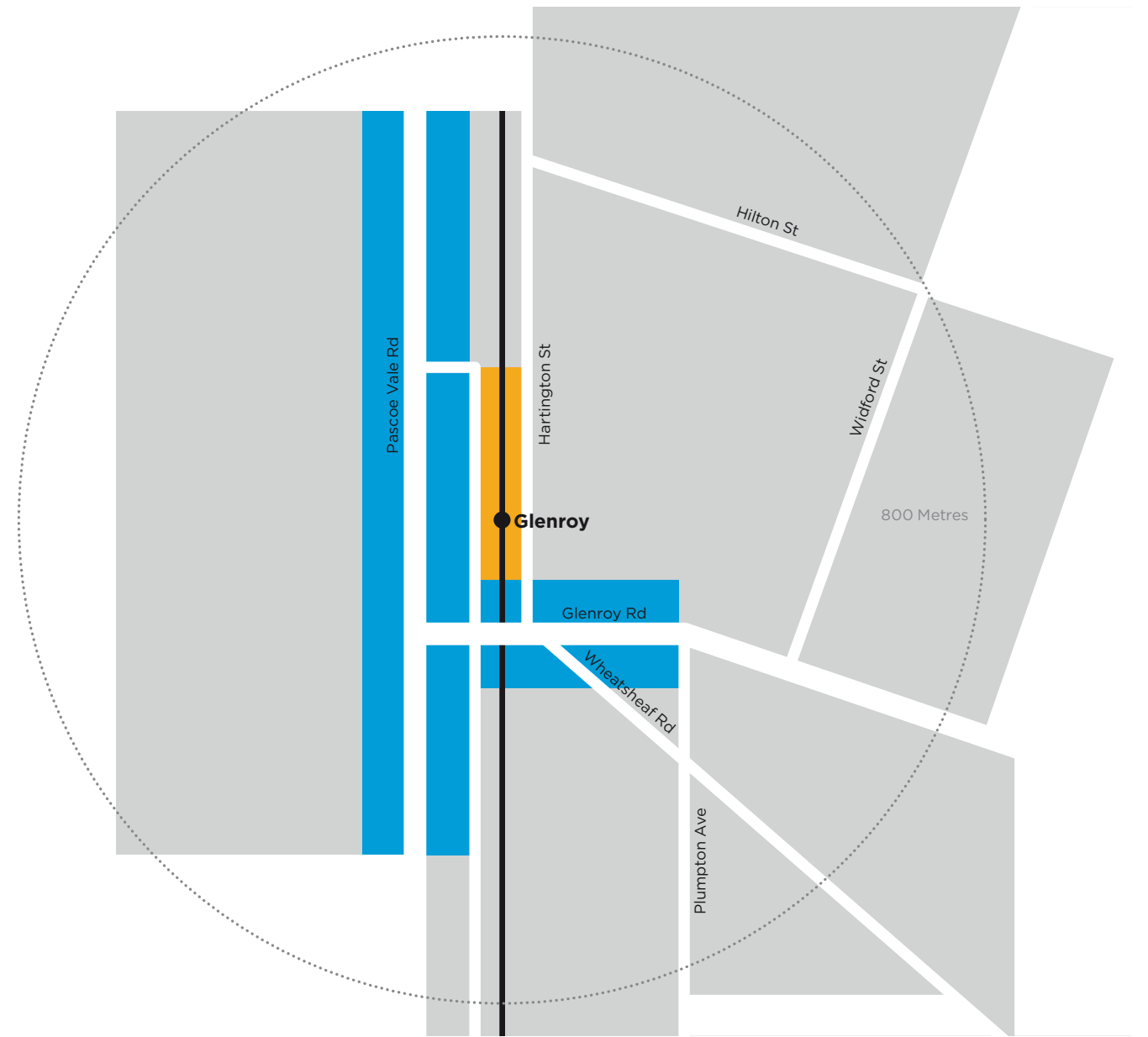


Coburg

● Development Area
 ● Shopping
 ● Parks
 ● Moreland Council

Upfield line
Level crossings removed
 Bell Street
 Munro Street
Two track option
Heritage listed station
On-line construction method
3 construction options considered
New Underground Station
Estimated cost: ~\$141 million (Expected Case)
Railway land released: 2.4 ha

On line construction recommended to retain station building, avoid street closures, reduce need for land acquisition, and avoid disruption to highly active community use in area. Provides for option to remove O'Hea Street at additional cost, possibly as a 'lite' grade separation. Project provides scope for development of significant TOD opportunity and re-imagining of Sydney Road- Bell Street urban landscape.



Glenroy

● Development Area
 ● Shopping

Craigieburn line
Level crossings removed
 Glenroy Road
Two track option
Off-line construction method
3 construction options considered
New Underground Station
Estimated cost: ~\$141 million (Expected Case)
Railway land released: 3.0 ha

Challenging location involving an elevating grade from the city to north of the existing station. Recommends temporary slew of tracks to west during construction to reduce need for land acquisition. Application of 2.5% or 1:40 maximum straight track passenger gradient will allow station location to remain in situ and meet PTV requirement for minimal impact on bus services. Potential to move station to under Glenroy Road to improve intermodal transit options. Project creates significant TOD potential to improve Glenroy activity centre.

Transit oriented development

Proven method for sustainable urban communities



Reservoir Station Artist Impression

The removal of level crossings and the elimination of severance at Coburg, Glenroy, Preston and Reservoir provides a rare opportunity to introduce the benefits of Transit Oriented Development to Melbourne's north and magnify local economic outcomes from the investment.

Characterised as mixed use residential and commercial smart growth areas, TOD's are specifically designed around railway stations to maximise access to public transport and incorporate features to encourage transit patronage.

Centred around a railway station, surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre, a TOD is designed to have a radius of 800m from a major transit stop to resolve last mile problems for pedestrians. In Canada and the USA a 800m-radius circle is a common standard that corresponds to the distance a person can walk in 10 minutes at 4.8 km/h (normal walking speed) and the common estimate for the distance people will walk to get to a railway station.

TOD's contain specific features designed to encourage public transport use that differentiate the development from surrounding urban sprawl. These include mixed-use development that will use train, tram and bus transit at all times of day, excellent pedestrian facilities such as high quality pedestrian crossings, narrow streets, and tapering of buildings as they become more distant from the public transport node.

Implemented with social equity principles in mind, TOD has shown strong potential to benefit and subsequently enhance low and moderate income communities by linking workers to employment centres, creating construction and maintenance jobs, sustainable new commercial activity and jobs, and the potential to encourage investment in areas that have suffered neglect and economic recession.

Experience in Canada and the USA is that TOD makes people more likely to depend exclusively on public transport to get to and from work, which reduces personal cost of car travel and car parking and increases personal economic success.

The smart growth TOD approach achieves a unique sense of community and place; expands use of public transport, employment, and housing choices; equitably distributes the costs and benefits of development; preserves and enhances natural environment and cultural resources; and promotes public health.

Ten principles guide and define smart growth in Canadian TOD projects:

- | | |
|---|--|
| 01. Mix of land uses | 06. Preserve open space, natural beauty, and critical environmental areas |
| 02. Take advantage of compact building design | 07. Strengthen and direct development towards existing communities |
| 03. Create a range of housing opportunities and choices | 08. Provide a variety of public transport choices: train, tram and bus |
| 04. Create walkable 10 minute neighbourhoods | 09. Make development decisions predictable, fair, and cost effective |
| 05. Foster distinctive, attractive communities with a strong sense of place | 10. Encourage community and stakeholder collaboration in development decisions |

TOD has been implemented by many local government authorities in suburban areas of Canadian and American cities similar in population size to Melbourne.

Calgary, Alberta, Canada
In 2008 Calgary City Council allocated funding to create six TOD communities and guide increased development around light rail transit stations. The Bridges TOD located in the Bridgeland community is an exemplar TOD development that includes a diverse range of medium and high density living, shops, services and parks.

Vancouver, British Columbia, Canada
Completed in 2009, the Vancouver Canada Line and its 16 stations is considered globally to be a model of TOD because of the innovative public private partnership that built, funds and operates it. Billions of dollars have since been invested in environmentally responsible high density growth around stations, where people now ride transit more and drive less. The most striking transformation is happening in central Richmond, where clusters of mid-rise apartment towers have gone up around stations. Richmond City Council got a jump on development by going into high planning gear and fully embracing TOD development principles as soon as plans for the line were announced.

Surrey, British Columbia, Canada
With a population of 450,000 people spread across six town centres, Surrey City Council introduced TOD and value capture methods in 2006 to fund the public transit system. In 2010, Surrey generated \$163.6 million in property taxation revenue, legislation required the City to spend \$16.5 million (approximately 10%) toward funding public transport improvements.

San Francisco Bay Area, California, United States
Local government in the San Francisco Bay Area encourage TOD by identifying Priority Development Areas above and around the Bay Area Rapid Transit (BART) system that can be expanded to house an expected additional 1 million people by 2035.

Value capture

‘Governments should utilise appropriate models to drive revenue from the broader benefits delivered by major infrastructure projects, such as value capture for transport infrastructure...’



Infrastructure Australia IFWG, 2012

Over the past two decades the Victorian government has relied on surplus recurrent revenues to fund expenditure on public transport infrastructure. This policy approach was driven by a desire to avoid debt and often resulted in deferral of projects which offered net economic benefits and could expand long-run economic capacity.

In 2013 industry, public transport advocates, academics and media highlighted a need to explore innovative mechanisms to unlock new funding streams for public transport infrastructure, and bring forward innovative methods for shared private and public investment in infrastructure to generate an uplift in productivity and urban value.

In February 2014 the Victorian Government introduced Guidelines for receiving, assessing and approving unsolicited private sector project bids that place a strong focus on innovation. This important initiative opened the gate to consideration of innovative value capture funding methods.

Today, an expansive range of value capture methods are deployed in the UK, USA and Canada to fund public transport improvements. While many methods may not be transferable to Victoria for a local regional project, four options are identified for consideration.

The introduction of value capture funding mechanisms not commonly used in Victoria will likely require some legislative change. Strong political leadership and community support will be vital to realise the economic and community benefits of a regional grade separation project and the successful achievement of more transit oriented future communities.

Funding and Financing

For clarity purposes, private sector financing is contemplated to pay for infrastructure works during the five year construction period, at the conclusion of which State Government would repay the funder over a defined period. The project also contemplates application of value capture methods to generate modest levels of local revenue over a 20 year period. These funds would contribute to ongoing transit related improvements within each TOD and minimise need for State Government contribution. The clear distinction between funding and financing concepts is described as follows:

Funding

The source of funds to pay for new infrastructure is often sourced:

- indirectly from taxpayers/ratepayers via State or local government funds;
- indirectly from infrastructure beneficiaries; or
- directly from infrastructure users.

Financing

Financing is money raised upfront and can be:

- monies raised from banks, construction firms and other investors to pay for infrastructure, which must ultimately be repaid by one of the funding sources; or
- not raised at all, if infrastructure is paid for by State or local government.

Joint Development

A Joint Development creates a partnership between the public and private sector, in which the public sector becomes involved in property development in an effort to recapture some of the value created by its investment into transport infrastructure.

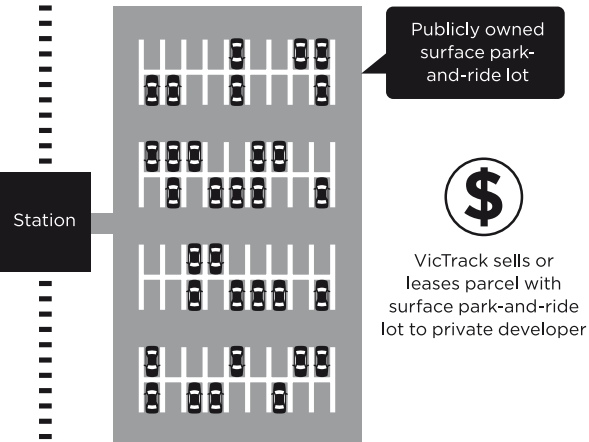
This is achieved by establishing development rights for air space above, and land surrounding a railway station and the lease or sale of these rights to the private sector. Government can choose to sell both the ground and air rights of a station to a single private sector buyer or divide the land parcel and sell or lease the packages to a group of private sector buyers.

Developer interest will be driven by the scale and strategic central location of the land liberated by the project. Approximately 13.5 hectares will be created the five sites connected to the Coburg, Glenroy, Bell, Preston and Reservoir railway stations, with scope to utilise a narrow 3km long corridor created between Bell and Preston railway stations.

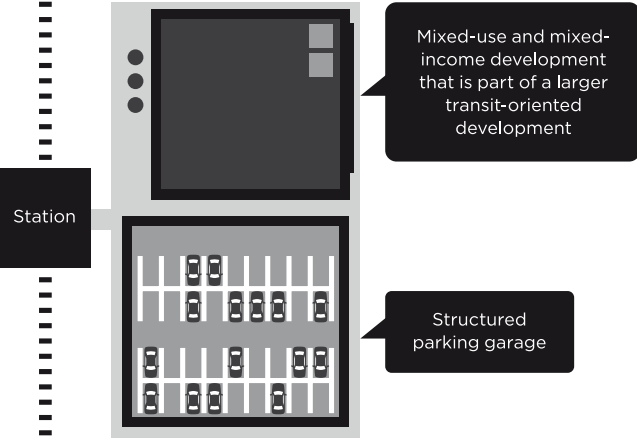
New land created by the Project:

Coburg Station: 24,000 square metres	(2.4 ha)
Glenroy Station: 30,000 square metres	(3.0 ha)
Bell Station: 22,000 square metres	(2.2 ha)
Preston Station: 17,000 square metres	(1.7 ha)
Reservoir Station: 42,000 square metres	(4.2 ha)
Total 135,000 square metres	(13.5 ha)

Before:



After



Benefitted Area Levy

Benefitted Area Levies (BAL) aim to recover some of the benefits that specific areas and businesses receive from an improved and more efficient public transport system. BALs involve the application of a special levy to the properties and/or businesses within a defined area, such as the Darebin and Moreland municipalities. Collected revenue is used to co-fund new public transport infrastructure or contribute to public transport improvements.

BALs are widely used by local councils throughout Australia, can be implemented in a number of ways and identify a clear link between the public transport investment's benefit, and an identifiable catchment of associated beneficiaries.

A BAL levy could be applied to residential and business property owners in proximity to the project during the five year construction period, recognising that these owners will receive an added value premium to their properties relative to their access to new infrastructure. This levy could be calculated as a flat rate on the basis of the unimproved capital value of each property.

From 1963 to 1995 Melbourne City Council implemented a BAL to fund the Melbourne Underground Rail Loop (MURL) or City Loop. The Victorian Government provided 50% of the funds through a public transport ticket levy, Melbourne City Council provided 25% of the funds through a BAL, and the Melbourne Metropolitan Board of Works provided 25% of the funds.

Tax Incremental Financing

Good infrastructure has a beneficial effect on property values across an area serviced by the infrastructure. This increase in property values translates to a funding source, because there is an incremental increase in rates which are calculated based on the unimproved value of property. This funding is only realised over time, so there is no immediate revenue stream. However, the future revenue stream can support financing, commonly known as Tax Increment Finance (TIF), as the future incremental revenue can be dedicated to repay financing.

TIF converts a future funding source into cash for public transport infrastructure improvements and is an equitable, efficient (linked to wealth gains by property owners) and effective (do not have upfront price impacts or create a disincentive to the redevelopment of land) financing method.

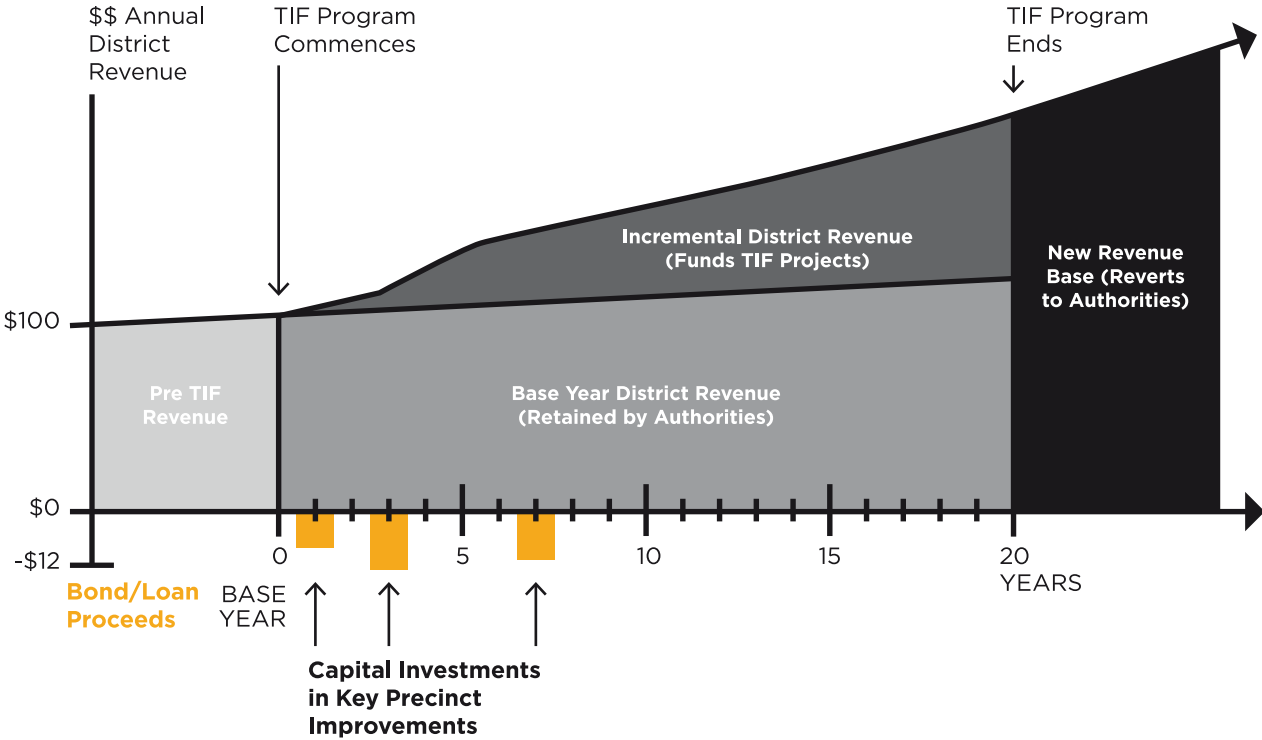
TIF is widely used by 49 states in the USA to finance urban renewal and transport projects and encourage economic development. The Dallas Area Rapid Transit (DART) and San Francisco Bay Area Rapid Transit (BART) projects are notable examples of how TIF can be used to support the financing of infrastructure that generates localised benefits.

In 2010 the British Government introduced TIF legislation as a means to allow local government to help pay for local infrastructure needs.

TIF allows projects to take tax revenues derived from future increases in property values within a prescribed geographic precinct (a TOD zone for example) and use those 'incremental' tax revenue increases to access financing required to fund transport infrastructure projects that lead to (or at least significantly contribute to) property value appreciation. TIF arrangements usually conclude after 20 years.

Over time, as the newly provided infrastructure leads to increased economic activity and higher property values, the quantum of tax revenue generated by the TIF precinct results in a portion being directed to service the debt used to fund infrastructure investment. When the debt is repaid the TIF district is normally dissolved or recalibrated to provide a funding stream for further local enhancements.

A Basic TIF Model



Source: PricewaterhouseCoopers 2008, Tax Increment Financing to Fund Infrastructure in Australia.

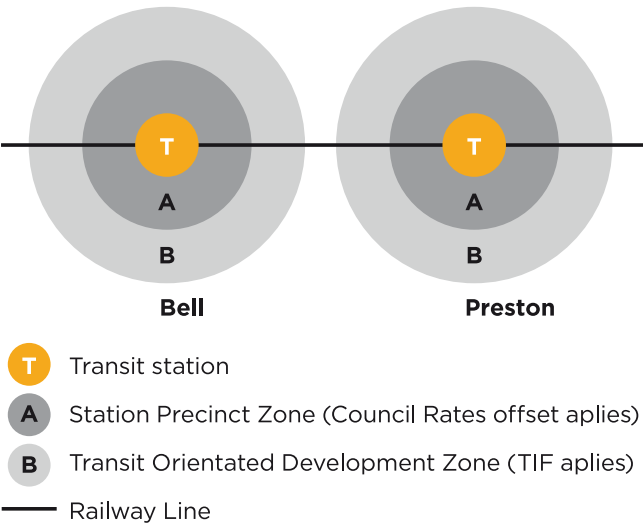
Special Assessment District

(Council Rates Offset variant)

A Special Assessment District (SAD) 'Council Rates Offset' variant of TIF identified by the Darebin and Moreland City Councils is a novel method of value capture that recognises that the rezoning of erstwhile uneconomic railway land into a new, discrete geographic precinct creates windfall property values. The Councils identify that annual council rates collected on new land property can be reinvested back into further development of local transport infrastructure in a TOD project for a period of up to 20 years.

Rezoned land in a railway precinct around a railway station would define the area from which council rates income would be returned to a project. The method reflects a pragmatic view that windfall council rates can be reassigned as a value capture revenue stream to a project on the basis that if left undeveloped, railway land would not otherwise generate council rates income.

Diagram of a SAD





Local development authority

A joined up partnership between State Government the Darebin City Council and the Moreland City Council

Gaining private sector support, involvement and investment in the project will be crucial to achieving complete success for the vision to remove level crossings and deliver urban renewal in the Darebin and Moreland communities.


It is envisaged the private sector would be involved in the development of new stations and a mix of medium to high density commercial, retail and residential development above and around new station precincts, as well as within defined TOD zones.

Clear feedback from the financial sector and developers is that to maximise success and provide certainty for investment and development, a new local mechanism will be required to govern and ensure consistent planning and decision making occurs across all five station development sites in the two municipalities.

Drawing on experience in Canada and the USA it is recommended that a Local Development Authority be established that consists of a partnership between State Government (possibly the Melbourne Planning Authority), Darebin City Council and the Moreland City Council.

The entity would govern private sector development at the five station precinct sites and within the TOD zones established around each station. This new Authority could also implement value capture methods and manage for example, BAL revenue from the two municipalities; TIF arrangements within each of the TOD zones; as well as SAD revenues from Council Rate Offset collected in each of the station precincts.

Benefits of a Regional Approach



Railway operations

- eliminate train incidents with people and vehicles at level crossings;
- improved train network efficiency including on time performance and line capacity;
- optimised operating and maintenance costs;

Rail passengers

- improved station access;
- increased patronage at stations due to improved access, frequency and service quality;
- less time delay due to operational efficiency and elimination of road incidents;

Road users/Passengers

- less delay due to reduced congestion and elimination of conflict with trains;

Business owners

- improved business outcomes due to improved accessibility for customers/employees;
- improved productivity and competitiveness

Land owners

- increase in underlying land values and increased real estate values;
- greater cohesiveness and integration of the community;

Community

- Reduced noise level, improved land use and local amenity, improved safety, greater integration and social cohesiveness; and

Government

- level crossings removed quicker than otherwise possible;
- increased patronage of public transport leads to greater productivity;
- greater attractiveness to employers;
- increased fare box revenue;
- TOD enables implementation of Plan Melbourne objectives
- TOD contributes to increased urban consolidation;
- TOD helps to drive new economic development opportunity;
- Value Capture methods reduces need for State contributions;
- greater environmental sustainability; and
- improvements in property-based revenue streams, such as rates and land taxes from increased land values.

Melbourne north region

Melbourne’s North Region is comprised of seven municipalities joined by the shire of Mitchell that have come together with NORTH Link, Regional Development Australia and Regional Development Victoria Melbourne North Committee to support major economic development and infrastructure opportunities in the region.

The 2014 Northern Horizons 50 Year Infrastructure Strategy for Melbourne’s North articulates the high priority placed on the need to undertake rail-road grade separation in the region. Member organisations encourage the State Government to provide funding for a detailed business case and further action on the proposed Regional Grade Separation Project within the Darebin and Moreland municipalities.

City of Banyule
City of Darebin
City of Hume
Mitchell Shire
City of Moreland
Nillumbik Shire
City of Whittlesea
City of Yarra



Brochure Design
R-Co Brand

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