Northern Link

20. Urban Regeneration

Northern Link

Phase 2 – Detailed Feasibility Study

CHAPTER 20

URBAN REGENERATION

■ September 2008

Contents

20. Urban Regeneration

This chapter provides an overview for urban regeneration initiatives and urban mitigations identified during the EIS investigations and through consultation with local community members and key stakeholders. It includes a description of the key urban measures that could be implemented to capture the potential direct and indirect benefits of Northern Link, as well as describing the urban mitigations proposed to be implemented to address indirect Project effects and to enhance the existing urban environment in conjunction with Project delivery.

20.1 Introduction

Northern Link would lead to a range of transport and other benefits for communities living both within and beyond the study corridor. However, the impacts of Project delivery are contained mostly within the study corridor, and specifically in those areas proximate to the surface connections. Furthermore, Northern Link would provide a catalyst for indirect changes in community activity, economic activity, land use and transport patterns in the inner western suburbs and the catchment areas of the Project.

If these changes are managed within an over-arching framework, Northern Link would provide the opportunity to deliver lasting transport, economic, community and environmental benefits to the City. An over-arching framework would seek to manage land use change, integrate land use and transport planning, and as a consequence, facilitate opportunities for beneficial community and economic activity. An integrated approach to planning is required, and would need to be consistent with or complementary to planning initiatives at both the State and local levels of government.

- The urban regeneration initiatives for Northern Link should:
- build on previous integrated planning measures for the inner western suburbs, such as the CityShape initiative and the local growth management strategy, local plans, and corridor plans
- build capacity in the communities of the study corridor for engaging in the planning of their urban environment;
- deliver enduring urban design of Project works and adjacent streets;
- deliver community benefits in the short term; and
- stimulate opportunities for sustainable economic development, consistent with desired urban planning outcomes.

20.2 Context

The purpose of initiating a program of urban regeneration associated with Northern Link is to capture and maximise the Project's potential benefits and manage the ongoing change occurring in the study corridor within a framework based in infrastructure planning and provision, and in a planning process founded on agency, stakeholder and community consultation.

A framework for urban regeneration in the study corridor would be implemented through the integration of project-specific requirements or conditions, the implementation of existing policies and programs, and the management of the development and redevelopment of land in accordance with established land use and infrastructure plans.

The Proponent would be responsible for delivering project-specific initiatives that would take the form of:

- urban design and landscape measures intended to mitigate the effects of the proposed infrastructure on its immediate surrounds; and

- urban mitigation measures intended to offset the indirect effects and to optimise the potential benefits of Project delivery across the study corridor.

Agencies, such as Brisbane City Council, TransLink and the Queensland Government, through the implementation of existing plans and programs, would capture the potential benefits and address the potential indirect impacts across the study corridor. For example, Brisbane City Council could advance its local planning program, in consultation with the Department of Infrastructure and Planning, to manage anticipated land use change and travel demand from revitalised commercial precincts in the inner western suburbs. The Department could also take such potential changes into account in considering proposals for transit oriented development in the study corridor. Brisbane City Council and Queensland Transport could also coordinate the staged upgrade of the Bicentennial Cycleway with Project-specific mitigation measures to maximise the benefits for people wanting to walk or cycle to work.

The framework for urban regeneration is presented as an extension of a number of existing, integrated planning measures.

20.2.1 Community Expectations

As with all major infrastructure projects, community expectations for Northern Link are that it will achieve its Project objectives and deliver a range of transport-related benefits to communities both within and beyond the study corridor. Without restating the Project objectives, Northern Link is expected to deliver much-needed transport benefits including reductions in traffic flows on key local roads, improved accessibility for communities residing within the study corridor, enhanced urban efficiencies through the connection of economic activity centres to a high-quality motorway network, and opportunities for urban renewal in the inner western suburbs. Such benefits can be characterised as 'high level' benefits, whereas the predicted impacts are more readily characterised as 'local level' impacts.

From the preliminary rounds of community consultation undertaken to support preparation of this EIS, there is broad community support for Northern Link in terms of its high level benefits. There is local concern and anxiety over the local level impacts. Preliminary community consultation for Northern Link has identified the following community concerns and expectations:

- recognition that traffic congestion in the inner western suburbs is 'a problem', and the need for traffic management and reduction in the inner western suburbs;
- concerns over construction and operational aspects of the Project, particularly for communities near the surface connections at Toowong and Kelvin Grove (eg: traffic congestion on approach roads, and project justification, visual impacts of surface infrastructure, noise, vibration, air quality, vent location and appearance);
- concerns that surface infrastructure and road widenings associated with connections at Toowong and Kelvin Grove will create physical barriers between neighbourhoods and to community facilities; and
- expectation that local residents should benefit from the Project equally, if not more so, with the people who presently drive through their suburbs to access employment in the CBD.

From the input received, it is clear that the local community expects enhancements beyond the suite of measures required to mitigate direct Project impacts. A program of 'urban mitigations' is proposed in this EIS to balance the local level impacts against the high level benefits.

However, in addition to responding to local level impacts, the opportunity should be taken to derive long-term benefits through management of land use change, integrated with a comprehensive approach to public transport and pedestrian and cycle connectivity.

20.3 Framework for Urban Regeneration

This framework for urban regeneration is recommended as one possible means of addressing the benefits and the impacts of Northern Link through integrated planning and delivery of existing, on-going programs at the State and local levels of government. Whether or not this particular approach is taken up by government, it is important that a coordinated and integrated response to capturing high level Project benefits and mitigating local community and environmental concerns be developed and adopted.

20.3.1 Urban Outcomes

The experience with many transport infrastructure projects has seen the urban form change dramatically and quickly as the private sector responds to improved accessibility by opening up new development fronts, or increasing the intensity with which land is used within transportation corridors[1]. Often such change occurs in an ad hoc manner, with the potential benefits flowing from infrastructure investment not being fully realised.

Northern Link would link the Western Corridor with the Australia TradeCoast, and also link the economic activity centres of the Brisbane CBD, Toowong and Indooroopilly to the motorway network. Other linkages include the University of Queensland at St Lucia and the Queensland University of Technology (Kelvin Grove campus). Within the study corridor, it is expected that the anticipated reduction of cross-city traffic will enhance accessibility to the Milton commercial precinct as well as to other major activity centres including the Wesley Hospital at Auchenflower, the Royal Brisbane Hospital and Institute of Medical Research at Herston.

The reduction of cross-city traffic flows and other traffic flows on some key routes in the inner western suburbs would enhance both the amenity and the accessibility of these suburbs. Potentially, this would lead to demand for increased residential opportunities, particularly adjacent to the centres and the transport nodes.

If the experience of Sydney is repeated in Brisbane with the development of tolled roads linking activity centres, there will be a need for integrated planning for land use and transport change to service these activity centres.

Over the life of Northern Link, it is expected that the urban form in the inner western suburbs will change dramatically, whether or not the Project proceeds. Northern Link would act as a catalyst for land use change which needs to be managed to achieve the *draft Brisbane CityShape 2026* [2] outcomes.

20.3.2 Integrated Transport and Land Use Planning

Consistent with regional planning strategies and City Plan, Northern Link needs to be integrated physically and functionally with the present and possible future urban fabric in the study corridor. This will require integration of land use planning and transport planning.

Brisbane City Council, in response to the SEQ Regional Plan has prepared a growth management strategy (LGMS) for the City. The Draft *CityShape* Implementation Strategy was released by the Council in May 2007 for public comment and also for the first round of State interest checks. This document is the draft LGMS for Brisbane.

[1] Ernst and Young, 2008, *The economic contribution of Sydney's toll roads to NSW and Australia*, a report prepared for Transurban, Sydney
[2] Brisbane City Council, 2006, *draft Brisbane CityShape 2026*, Council, Brisbane

The *Draft Brisbane CityShape 2026* (CityShape) consultative planning process confirmed the community's views that urban densities and the way in which communities live, work and play will change in response to population growth, demographic changes, economic circumstances and technological advances. While *CityShape* revealed a diversity of views and preferences about future urban form, there was a shared expectation that people should live closer to their places of work, their community centres and their places of recreation and entertainment, as a means of reducing travel demand. Toowong and Indooroopilly were both advanced as major centres, consistent with their SEQ Regional Plan roles and functions, and that they would comprise large shopping, entertainment and business functions, as well as support increased housing near train and bus stations.

CityShape focuses on medium and high density residential development within centres and growth corridors to promote an efficient urban form and protect Brisbane's low density residential areas. The plan identifies the inner west as a growth corridor to accommodate future population in the form of higher density housing due to its accessibility to public transport. Reductions in through-traffic and associated improvements to local accessibility and amenity, would help facilitate redevelopment of inner areas particularly in proximity to Milton Station and Auchenflower Station. The reduction in traffic congestion on major roads would also allow for potential increases in bus transport networks in the inner west to further facilitate residential growth as the area is increasingly accessible to the CBD.

Brisbane City Council already is preparing local plans for parts of the study corridor (Chapter 11, Land Use and Planning) and is investigating the preparation of corridor plans and other transport planning initiatives. This process is expected to be implemented over the next five years or more, and in time to manage potential changes to land use and travel demand. Interim measures may need to be introduced to City Plan to manage the process of change during the construction phase as well. The Queensland Government, through TransLink, is investigating opportunities for improved public transport, while Queensland Transport is supporting the development and enhancement of pedestrian and cycle links.

As redevelopment occurs in the study corridor, partly in response to the strategic advantages of the corridor (ie: proximity to key employment centres), and partly in response to the opportunities created by Northern Link, further consultation in the plan-making process will take place.

20.3.3 Urban Design

While Northern Link must meet high standards in engineering design, there is also a need for the Project to achieve high quality urban design outcomes. Good practice would require the integration of high-quality urban design with the detailed engineering design to achieve good urban outcomes in terms of community and economic benefits. Considering the functional life of major transport infrastructure, such as Northern Link, urban design should reflect principles of timelessness, flexibility and simplicity and should integrate seamlessly with land use planning and Project landscaping. Urban design should take into account the demands of present trends and serve the needs of future generations.

The urban design principles for Northern Link are presented in Chapter 14, Urban Design and Visual Environment.

The urban design theme for the study corridor should reflect upon the outcomes of the *CityShape* process, be sufficiently flexible to be adapted to meet future needs, and should be developed in consultation with agencies, stakeholders and the community, as part of the integrated planning process to be conducted over the next five years.

20.3.4 Social Equity

Some people from the communities near the local connections for Northern Link (ie: Toowong and Kelvin Grove) are concerned that they would be impacted by the construction and even the operation of the Project without enjoying the benefits, which often flow to others residing or working outside the corridor. Other criticisms of major projects allude to the range of more deserving programs or facilities, giving rise to issues of equity.

In the context of Northern Link, the concept of social equity is focussed on mitigating the potential construction and operational impacts of the Project, through a suite of mitigations leading to the achievement of sustainable urban outcomes. Such measures are intended to redress the community impacts of the Project and to make the localities around the local connections better places for living in the inner suburbs.

20.3.5 Stimulate Economic Development

Experiences in other places suggests that investment in public infrastructure, and transport infrastructure in particular, leads to strong economic development in areas benefiting from enhanced accessibility (Ernst and Young 2008, Adams and Carrol 2006, Ong 2008, Collins 2008)[3].

Heightened economic activity could be expected through the development and redevelopment of land in the corridor, which would benefit from relieved congestion and possibly enhanced connectivity and improved public transport services as a consequence of the Project. The commercial precincts in Milton, Indooroopilly and Toowong would benefit from congestion relief and from enhanced accessibility to the motorway network, especially for Toowong and Indooroopilly.

Existing community infrastructure in the corridor, such as regional recreation facilities in the Mt Coot-tha Botanic Gardens, the Mt Coot-tha lookout and the Brisbane Forest Park facililties (JC Slaughter Falls), regional health facilities at the RBH precinct at Herston, the Wesley Hospital at Auchenflower and major education facilities such as Queensland University of Technology (Kelvin Grove campus) and the University of Queensland would become more accessible and more attractive to regional catchments. Northern Link would facilitate enhancement of public transport services, particularly on Coronation Drive, which would support heightened economic activity in the designated major centres and specialist centres within and adjacent to the study corridor.

The expected scale of this economic activity is assessed to the extent possible through the EIS process and presented in Chapter 15, Economics. To avoid the costs, or limited gains of speculative economic activity, development needs to be planned and managed. Value in property and economic activity could then be harnessed for enduring community benefits. An integrated planning approach is required to capture the short and medium term benefits that would flow from these network improvements.

[3] Adams S. and Carroll J., 2006 *Portland Streetcar Development Oriented Transit*, prepared for the Office of Transportation and Streetcar Inc., Portland
Ernst and Young, 2008,*The Economic Contribution of Sydney's Toll Roads to NSW and Australia*, a Discussion Paper prepared for Transurban, EY, Sydney
Ong T., 2008, *Toll Roads Pay the Way*, article in Australian Financial Review 11 August 2008, Fairfax Media Publications, Sydney
Collins M., 2008, *Better Transport is Road to Profit*, article in Sunday Mail 17 August 2008, News Limited, Brisbane

20.4 Implementation and Outcomes

Urban regeneration should be driven by one or more key stakeholders who can capture potential benefits of the Project and balance Project costs, or impacts. Urban mitigations are best delivered in conjunction with Project delivery when local level impacts would be most intense.

20.4.1 Implementing Urban Regeneration

Program initiatives for urban regeneration should be developed within a consultative framework involving agencies, stakeholders and local communities. Potential urban regeneration initiatives in the inner western suburbs are listed below.

- *Queensland Government* - further development of the 'City West' master plan to determine the feasibility of implementing the Normanby action plan for improved urban amenity along Kelvin Grove Road and Musgrave Road in the vicinity of the Inner City Bypass.
- *Brisbane City Council* - investigation of local planning at Toowong and continuation of local planning at Milton and at Kelvin Grove to manage land use change and to achieve a high level of integration in land use and transport planning, consistent with the growth management strategy developed under the SEQ Regional Plan.
- *Proponent* - investigation of employment schemes for youth, disabled people, indigenous people and prematurely retired or long-term unemployed people, in conjunction with employment initiatives of the delivery vehicles.
- *Proponent* - investigation of possible participation in Project construction or in community-based, project-related activities building community capacity for people who don't speak English as their first language, people with low education levels and people with special needs.

While the government programs are presently operating, the intention is for their delivery in the study corridor to be integrated and coordinated, in order to optimise the potential for community benefit, and to optimise the benefits from each of the programs. The importance of the Proponent initiatives needs to be emphasised in the documentation supporting Project procurement. There may be other, equally effective means of integrating and coordinating the delivery of programs across the three tiers of government.

20.4.2 Redevelopment Initiatives

Redevelopment initiatives relate to the re-use of land acquired for delivery of Northern Link, such as the worksites and land acquisitions affected by 'partial takes'. While there would be a likely surge in redevelopment in localities adjacent to Project connections and along road accessing the Project[4], the use of such land ought to be determined through an orderly planning and development assessment process, established through *City Plan 2000,* as discussed in Section 20.3.2 above.

Mt Coot-tha

The Mt Coot-tha worksite sits beside and in places would traverse the Brisbane Botanic Gardens - Mt Coot-tha. As part of the Project mitigation scheme, it is intended that the worksite within the gardens precinct be rehabilitated in a way consistent with the Brisbane Botanic Gardens Master Plan.

Part of the worksite would be used for the siting of the ventilation station and ventilation outlet, and possibly would also include the tollroad control centre supporting the financial, maintenance and safety aspects of Project

[4] Refer to article, *Courier Mail* 15 August 2008

operations. The remainder of the worksite would be given over for inclusion in the Botanic Gardens and would include the surface water storage required as a supplementary supply for the Botanic Gardens. This facility would be provided during Project construction and used subsequently as a supplementary water source for the Botanic Gardens.

The return of the remainder of the worksite for inclusion in the Botanic Gardens would be consistent with the intentions of *City Plan 2000*.

Further streetscape works supporting the extension of the pedestrian and cycle connection from the Bicentennial Cycleway along Coronation Drive, via the pedestrian/cycle crossing of the Western Freeway, provided by the Queensland Government, would enhance the appeal and utility of the Botanic Gardens.

Toowong

The Toowong worksite, bounded by Milton Road, Frederick Street and Valentine Street, would be transformed as a consequence of Project construction activities. The removal of existing buildings, earthworks and removal of trees would expose residents on the northern side of Valentine Street to Milton Road, as well as change the land use character of the existing commercial and mixed use area on the northern side of Milton Road. Also, Project works such as the elevated road infrastructure above Milton Road, would impact on the commercial precinct on the southern side of Milton Road. Project works would also remove dwellings on the southern side of Morley Street adjacent to the intersection with Frederick Street.

During preliminary consultation undertaken in preparation for this EIS, the community expressed a range of concerns about the Project and Project works. In particular, the re-use of the Milton Road worksite was of concern to nearby residents and businesses.

The worksite lends itself to a range of possible uses, including:

- landscape buffer to Project infrastructure;
- community recreation – either as a commercial operation (eg: replacement of rental tennis courts) or as a community facility (eg: structured play facilities);
- commercial use – with access off Milton Road; or
- housing – either at low density with access of Valentine Street, or higher density with access off Milton Road.

It is proposed that the Toowong worksite be used as landscape buffer, as an off-set to the impacts of construction and operation of the Project especially for the residents of Valentine Street. This represents a significant contribution, in terms of foregone property value. Maintenance of this space would be at the cost and responsibility of the toll road owner and operator (PPP Co) for the duration of the toll road franchise, with the costs and responsibility reverting to the Brisbane City Council at the conclusion of the franchise period.

To further mitigate the impacts of the Project infrastructure in the Milton Road corridor, it is recommended that the multiple unit residential premises which gain access from Quinn Street be acquired for redevelopment as open space. This would compensate for the loss of half of Quinn Park as well as extend an effective buffer along the southern side of Milton Road around into Croydon Street. This open space proposal also would complement the use of the Valentine Street worksite as landscaped buffer so that Milton Road would be situated largely within a landscape corridor, with noise barriers and other specific mitigation measures provided within that landscape corridor.

The Quinn Park landscape corridor would extend from Sylvan Road to Croydon Street and would connect with the Education Queensland premises, being part of Toowong State School. Opportunities for pedestrian and cycle links through this corridor would arise, to supplement the other urban mitigations linking the Western Freeway bikeway back to the Bicentennial Cycleway.

Kelvin Grove

While the shape and size of the Kelvin Grove worksite provides for the effective mitigation of construction impacts, the re-use of the site presents some challenges. For re-use to result in desirable outcomes, it is proposed that three separate parcels be considered, namely:

- the southern parcel – bounded by Lower Clifton Terrace and the Hale Street connections to Kelvin Grove Road;
- the central parcel – sitting between Upper Clifton Terrace and Kelvin Grove Road, above the portal for the Kelvin Grove connecting ramps; and
- the northern parcel – land between Westbury Street and Victoria Street, east of

The southern parcel may be suitable for a range of uses including:

- landscape buffer to Kelvin Grove Road, Hale Street connections and Project infrastructure – should include drainage detention functions;
- community recreation – possibly a community facility (eg: structured play facilities, skate park, climbing walls);
- mixed commercial and residential use – with access off Lower Clifton Terrace; or
- tollroad control facility (northern end) with other commercial/leisure facilities (eg: café, dining) at street-level to Lower Clifton Terrace, with toll-road functions gaining access via Hale Street and Kelvin Grove Road.

While the end use would be determined through a planning and development assessment process, the preferred option would be a combination of uses which enlivened Lower Clifton Terrace, making it an effective and attractive pedestrian link between the Kelvin Grove Urban Village and the Caxton Street/Given Terrace precinct, including Suncorp Stadium, in Paddington.

The central parcel may be suitable for a range of uses including:

- landscape buffer to Kelvin Grove Road and Project infrastructure; or
- residential purposes – affordable housing or other medium to high-density housing sympathetic with the scale and character of housing in the street.

The preferred use would be the establishment of residential dwellings, with the density and form to be established through a detailed planning study and development assessment process. This is considered to be more compatible with the residential use and character of Upper Clifton Terrace.

The northern parcel may be suitable for a range of uses including:

- landscape buffer to Kelvin Grove Road and Project infrastructure; or

- residential purposes – affordable housing or other medium to high-density housing sympathetic with the scale and character of housing in the street.

The northern parcel will require alternative access either to Victoria Street or to Scott Street or both. The parcel would be adjacent to a large site presently used for commercial purposes. Assuming effects, such as road traffic noise, can be mitigated by careful design and siting, an appropriate use for the northern parcel would be residential, possibly for student accommodation or some form of affordable housing, with a nexus to Kelvin Grove Urban Village.

20.4.3 Land Use Planning Initiatives

The Brisbane City Council is the authority responsible for land use planning in the City, while having regard for the framework of State policies and regional planning instruments intended to guide infrastructure and development. The Council has successfully implemented a number of planning initiatives in the City of relevance to Northern Link. These include:

- neighbourhood or local planning; and
- infrastructure planning.

There are a number of locations in the study corridor, which would benefit from the implementation of these programs. If they could be implemented in step with the implementation of the Project, there is potential for added benefits to the long-term liveability of the study corridor. Recommended program initiatives are set out in **Table 20-1.**

- **Table 20-1 Urban Regeneration Initiatives - Land Use Planning**

Location	Program	Priority
Western Connections		
Toowong/ Auchenflower	Neighbourhood planning studies and community consultation to address redevelopment potential, pedestrian and cycle connectivity development for sites south of Milton Road between Croydon Street, Park Avenue and Toowong Memorial Park.	High
	Neighbourhood planning studies and community consultation to further develop local community orientated, pedestrian and cycle friendly commercial precincts at Taringa Station and Auchenflower Station.	Medium
Northern Connections		
Kelvin Grove, Milton and Spring Hill	Review of City Plan provisions, including local planning, to manage land use change, for sites situated within the City West area (specifically, Kelvin Grove Urban Village, the north-west CBD quarter, Milton and Normanby areas).	High
Kelvin Grove	Neighbourhood planning studies and community consultation to address redevelopment potential, retention of existing communities and improved vehicle, pedestrian and cycle connectivity for sites situated west of Kelvin Grove road bounded by Lower Clifton Terrace, Musgrave Road, Windsor Road and Prospect Terrace.	Medium
	Neighbourhood planning studies for Kelvin Grove Road/ Enoggera Road	Medium

20.5 Urban Mitigation Initiatives

In conjunction with the implementation of an integrated program of urban regeneration measures outlined in Section 20.3, a range of urban mitigation initiatives are proposed, in addition to the environmental management measures recommended in Chapter 19, Environmental Management Plan, to off-set Project impacts and restore some level of social equity at the community level. That is, additional works and neighbourhood enhancements would be provided with Project delivery to capture Project benefits for communities residing in proximity to the surface connections.

The urban mitigation initiatives proposed for the reference project are outlined in **Table 20-2** and are recommended as works to be undertaken as part of the Project to optimise the potential benefits of Northern Link and to address potential issues with social equity.

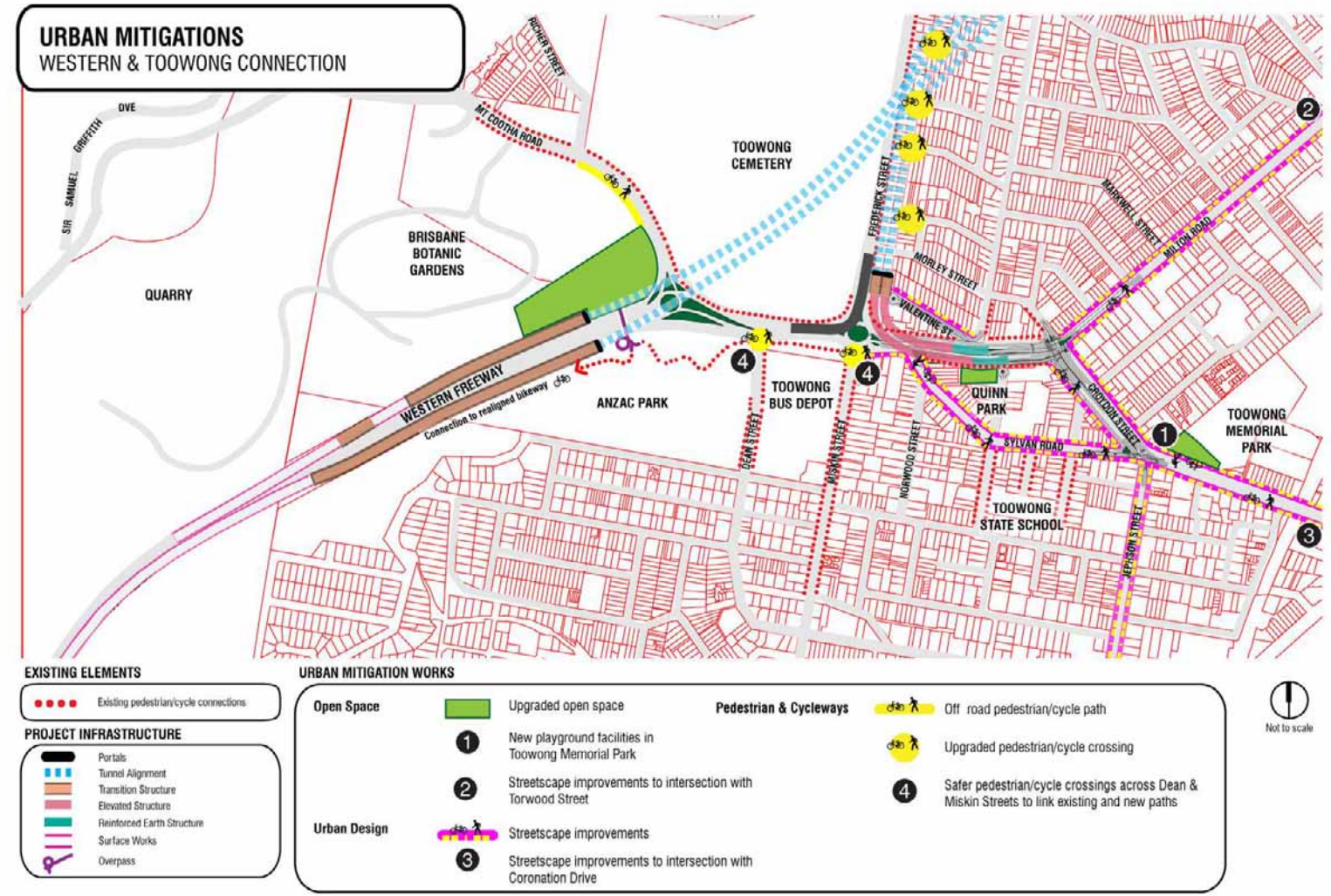
- **Table 20-2 Urban Mitigation Initiatives – Western and Toowong Connections**

Category	Location	Mitigation Measures	Priority
Urban design	Milton Road (Croydon Street to Markwell Street)	Streetscape works including: ▪ street tree planting ▪ footpath pavement improvements ▪ lighting ▪ landscape buffer to remaining land at Milton road intersection of Croydon Street	High (undertaken as project works)

Category	Location	Mitigation Measures	Priority
Urban design	Milton Road (Markwell Street to Torwood Street)	Streetscape works including build outs and tree planting to side streets at intersections with Milton Road.	
Urban design	Sylvan Road (Milton Road to Coronation Drive)	Streetscape works including: ■ street tree planting ■ footpath pavement improvements ■ construction of build outs to side streets at intersection with Sylvan Road ■ lighting ■ selected character elements (ie: public art)	
Urban design	Jephson Street (Croydon Street to Sherwood Street)	Streetscape works including build outs and tree planting to side streets at intersections with Jephson Street.	High (undertaken as project works)
	Valentine Street	Streetscape works including: ■ landscape buffer within worksite and to lower section of Valentine Street ■ street tree planting ■ footpath pavement improvements ■ lighting	
	Frederick Street (Valentine Street to Sleath Street	Streetscape works including build-outs and tree planting to side streets at intersections with Frederick Street.	
Pedestrian and cycle ways	Mt Coot-tha Road (Western Freeway to Botanic Gardens gate)	Provision of off-road pedestrian and bicycle path.	High
	Sylvan Road (Milton Road to Coronation Drive)	Off-road bicycle facilities, including: ■ dedicated cycle lane in conjunction with urban design measures ■ signalised bicycle crossing at Croydon Street ■ enhance railway underpass (ie: paints, lights, paving)	
	Sylvan Road to Western Freeway bikeway (Anzac Park, adjacent Dean Street)	Enhance existing off-road bike way, including improved and safer pedestrian and cycle crossovers at Dean Street and Miskin Street.	
	Mitlon Road (Croydon Street to Dean Street)	Use of acquired land for off-street pedestrian and cycle connection, linking to Western Freeway bikeway	High (if reference design proceeds)
	Milton Road (intersection with Croydon Street)	■ Re-establish signalised pedestrian crossings of Milton Road and Croydon Street ■ Support pedestrian crossing with urban design and landscape treatments	High
Open space	Mt Coot-tha Botanic	Rehabilitate that area of the	High

Category	Location	Mitigation Measures	Priority
	Gardens	gardens disturbed by construction activities is consistent with the Mt Coot-tha Botanic Gardens Master Plan including: ■ planting (ie: to dam surrounds, desalination research facility, and sculptured earth berms) ■ provision of sculptured earth berms comprising detailed mounding and turfing of the worksites; ■ BBQ's, shelters, drinking fountains, age appropriate play opportunities, park furniture and lighting	
Open space	Quinn Park	Landscape buffer to remaining land at Milton Road intersection of Croydon Street Rehabilitate park and mitigate infrastructure through the creation of an 'urban art park' including: ■ landscaping ■ lighting ■ amenities ■ public art ■ all ages play equipment	High
	Option – Toowong landscape corridor (see section 20.5.1 below for scope)	■ Within additional land acquisition (voluntary negotiation): ■ extend Quinn Park to east to link with acquired land on corner of Croydon Street and Milton Road ■ embellish land to meet open space requirements	High (if reference project proceeds)
	Toowong	Enhancement of Toowong Memorial Park, including: ■ landscaping ■ lighting ■ BBQ's, shelters, drinking fountains, regional level play equipment and park furniture.	Medium – subject to master plan and consultation
Public art	Toowong	Implement a public art strategy reflecting the identity and character of the local area, linking Milton Road to Coronation Drive (via Sylvan Road, pedestrian overpass of Milton Road and key open space areas)	High – subject to consultation for public art strategy

- **Figure 20-1: Urban Mitigations – Western and Toowong Connections**



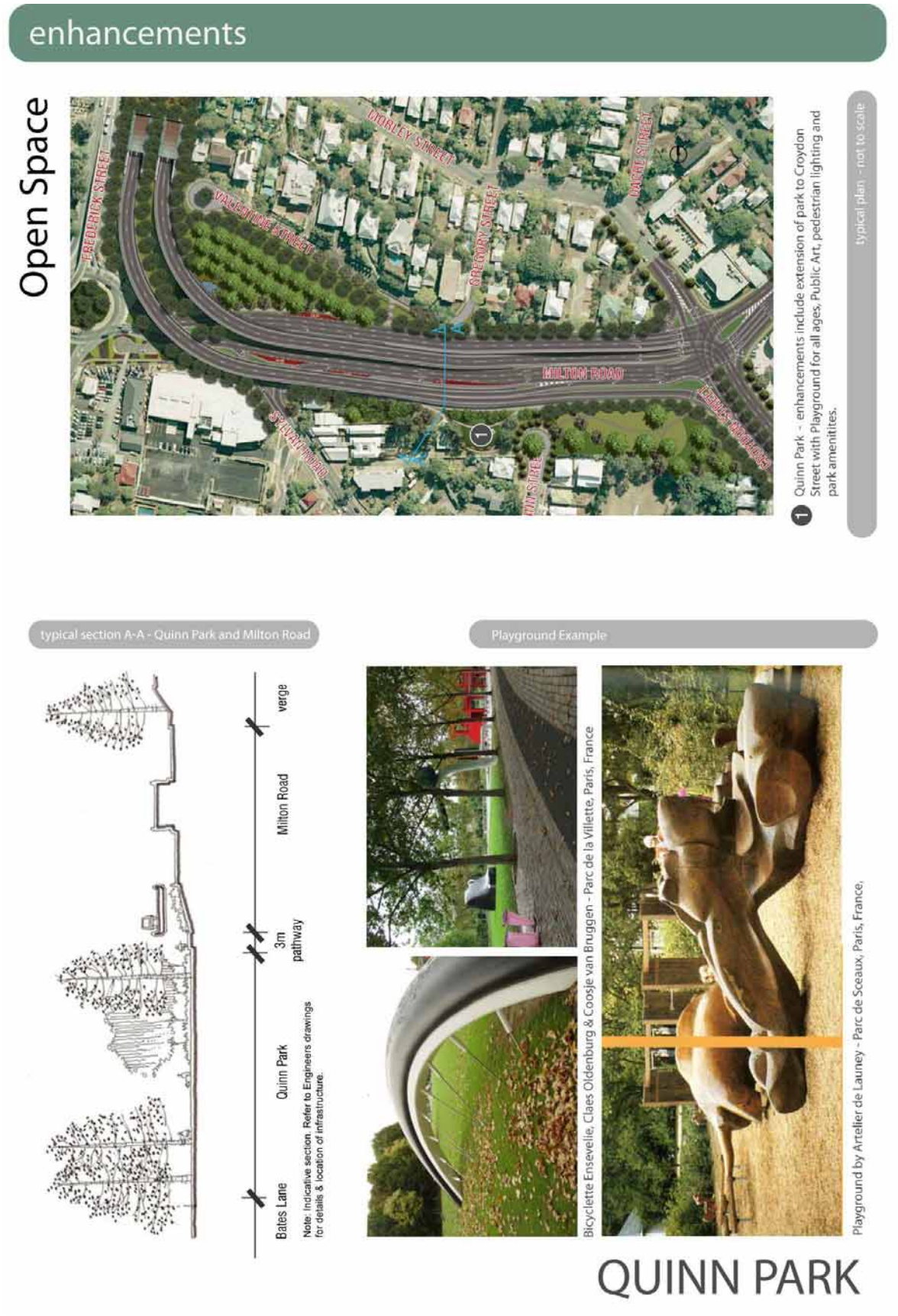
20.5.1 Urban Mitigations - Toowong Connection

The reference project includes local connections at Toowong and at Kelvin Grove. The Toowong connections satisfy the Project objectives and respond to a strategic transport planning need as documented in Chapter 2, Project Rationale. However, the Toowong connections would also impact on the local community.

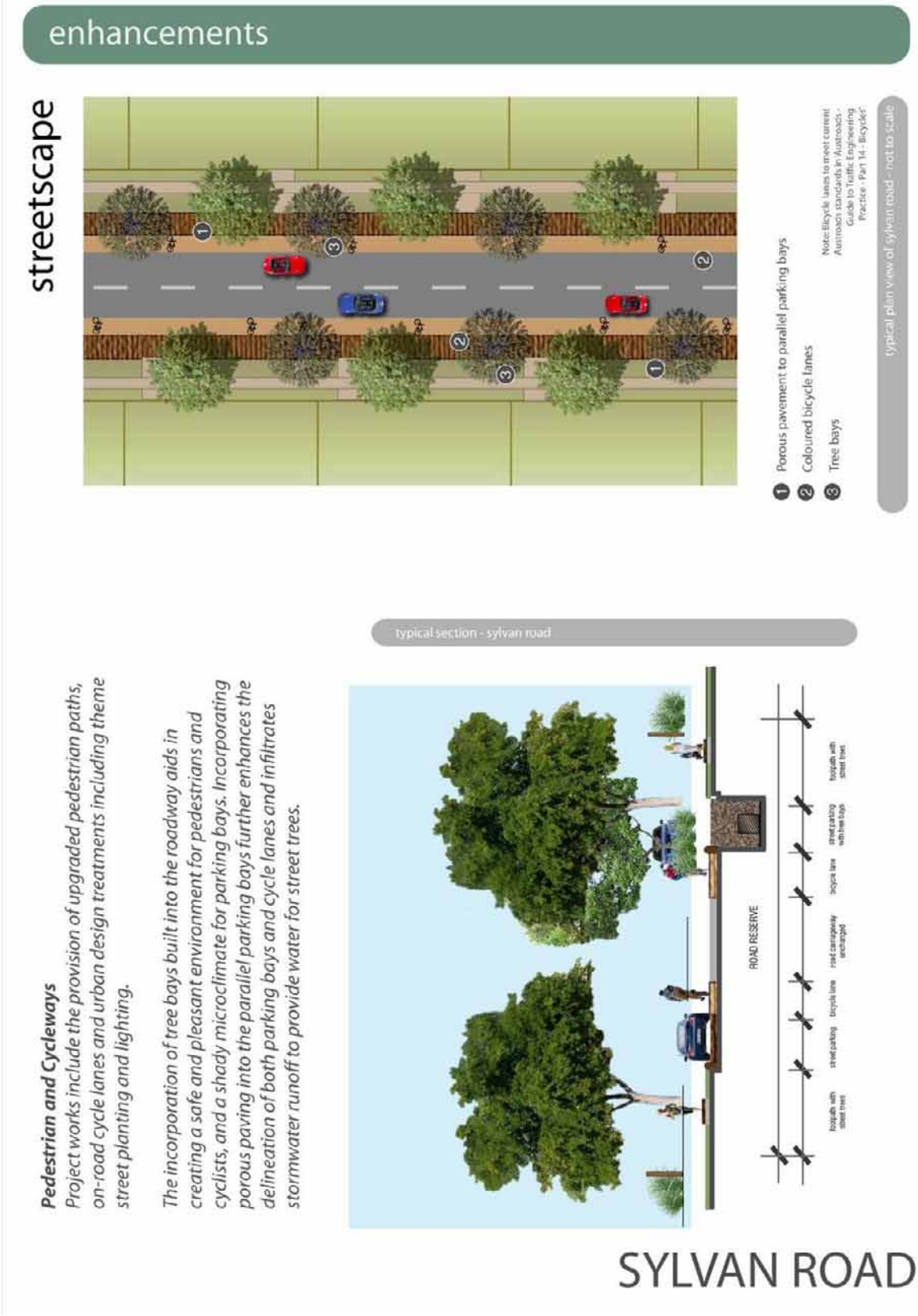
Should Northern Link be implemented in its present form at Toowong, a range of urban mitigations options should be considered, as listed below:

1. Detailed design studies – to bring an innovative approach to investigating possible opportunities to reduce the scale and the impact of the Toowong connections, in particular, the elevated road structures over Milton Road, or to reconfigure the Toowong connections in a way that either avoids or reduces the impacts on nearby properties, the streetscape of Milton Road and the amenity of Quinn Park; or
2. Implementation of an integrated program of urban mitigations involving land use changes, urban design, landscape design and pedestrian and cycle linkages, outlined below and represented graphically in **Figure 20-2**:
   - use of the Toowong worksite to create a landscaped buffer between Valentine Street, Milton Road and the proposed ramps and elevated roadways of the Toowong connection – possibly embellished with a pedestrian and cycle connection from Frederick Street to Gregory Street and Morley Street. This area should incorporate noise barriers within the landscaped buffer, possibly as part of the structure of the connections;
   - the option of creating a landscape corridor south of Milton Road – extending Quinn Park to Croydon Street, to compensate for the partial loss of Quinn Park and to create additional landscape space. This option would require the acquisition of additional properties in Quinn Street; and
   - extending the pedestrian / cycle link from Mt Coot-tha Road through the linear park to Croydon Street and Milton Road, connecting Anzac Park with Quinn Park, the Milton Road shops and the Toowong State School playing field. Predictive noise modelling would indicate the need for and preferred location of noise barriers for properties to the south of this corridor. or
3. Creation of a land use buffer to Milton Road – through detailed planning investigations and consultation, facilitate a land use buffer in the form of commercial or other non-residential development along either side of Milton Road to the east of Frederick Street and Sylvan Road. This buffer would not take effect for some time and would rely upon interim and short-term measures to address environmental impacts of the Toowong connections.

- **Figure 20-2: Urban Mitigation Option – Toowong Connection**



- **Figure 20-3: Urban Mitigations – Sylvan Road, Toowong**



20.5.2 Urban Mitigations – Northern and Kelvin Grove Connections

The Project impacts are addressed through the draft outline environmental management plans and the urban design measures proposed in the EIS. In addition to those mitigations for direct impacts, the urban mitigations measures proposed in relation to the reference project at Kelvin Grove are set out in **Table 20-3**.

- **Table 20-3: Urban Mitigations – Northern and Kelvin Grove Connections**

Category	Location	Mitigation Measures	Priority
Urban design	Kelvin Grove Road (from ICB on ramp to Prospect Terrace)	Streetscape works including: ▪ street tree planting ▪ footpath pavement improvements ▪ lighting ▪ selected character elements (ie: public art)	High
	Victoria Street Precinct (bounded by Prospect Terrace, Windsor Road, Musgrave Road, Lower Clifton Terrace and Kelvin Grove Road)	Streetscape works to reinforce the Victoria Street residential 'precinct' including: ▪ street tree planting (Victoria Street) ▪ footpath pavement improvements ▪ intersection thresholds and build outs to side streets with tree ▪ parking scheme ▪ local area traffic management measures	High
	Red Hill (Scott Street, Woolcock Street)	Streetscape works including: ▪ street tree planting ▪ intersection treatments ▪ traffic management measures	Medium – subject to consultation and detailed design
	Kelvin Grove (Blamey Street)	Streetscape works including: ▪ street tree planting (Kelvin Grove Road to Musk Avenue) ▪ enhanced park interface ▪ footpath pavement improvements	Medium – subject to consultation and detailed design
	Normanby Terrace	Reinstate noise walls to ICB to achieve status quo design specification.	Medium – subject to consultation and detailed design
	Lower Clifton Terrace	Rehabilitate the construction work site at Lower Clifton Terrace, including: ▪ provision of landscape buffer adjacent to Lower Clifton Terrace ▪ Public art ▪ possible adolescent/ young adult facility	High
	Victoria Park Road (Maidstone Street to ICB)	Streetscape works including build outs and tree planting to side streets at intersections with Victoria Park Road	Medium – subject to consultation and detailed design

Category	Location	Mitigation Measures	Priority
Pedestrian and cycle ways	Kelvin Grove	Provide a pedestrian and cycle connection between Victoria Park and Spring Hill.	Medium – subject to consultation, detailed design and cost apportionment
Pedestrian and cycle ways	Victoria Park	Reinstate the pedestrian and cycle path disturbed by construction works along ICB.	High
	Lower Clifton Terrace	Provide active pedestrian link connecting KGUV to Red Hill and Paddington, including: ■ footpath pavement improvements ■ street tree planting ■ lighting	Medium – subject to consultation and detailed design
Open space	MacCaskie Park	Enhancement of existing park including BBQ's, shelters, drinking fountains, park furniture and lighting.	High

The suite of urban mitigations for Northern Link is presented in **Figure 20-1** and **Figure 20-4**.

Typical treatments for pedestrian and cycle links in Sylvan Road and Lower Clifton Terrace, pavement and other street treatment are provided in **Figure 20-6** and **Figure 20-7** inclusive.

20.5.3 Kelvin Grove Mitigations

The preliminary consultation program revealed a range of existing, transport and accessibility issues for Kelvin Grove residents. Of these, the absence of pedestrian and cycle linkages to transport nodes such as the Normanby busway station, and to other communities such as Red Hill and Paddington, are of concern. The consultation process indicated a desire for enhanced pedestrian and cycle connectivity from Kelvin Grove Urban Village, Normanby Terrace and the QUT campus south to the Normanby busway station and to the west towards Red Hill and Paddington.

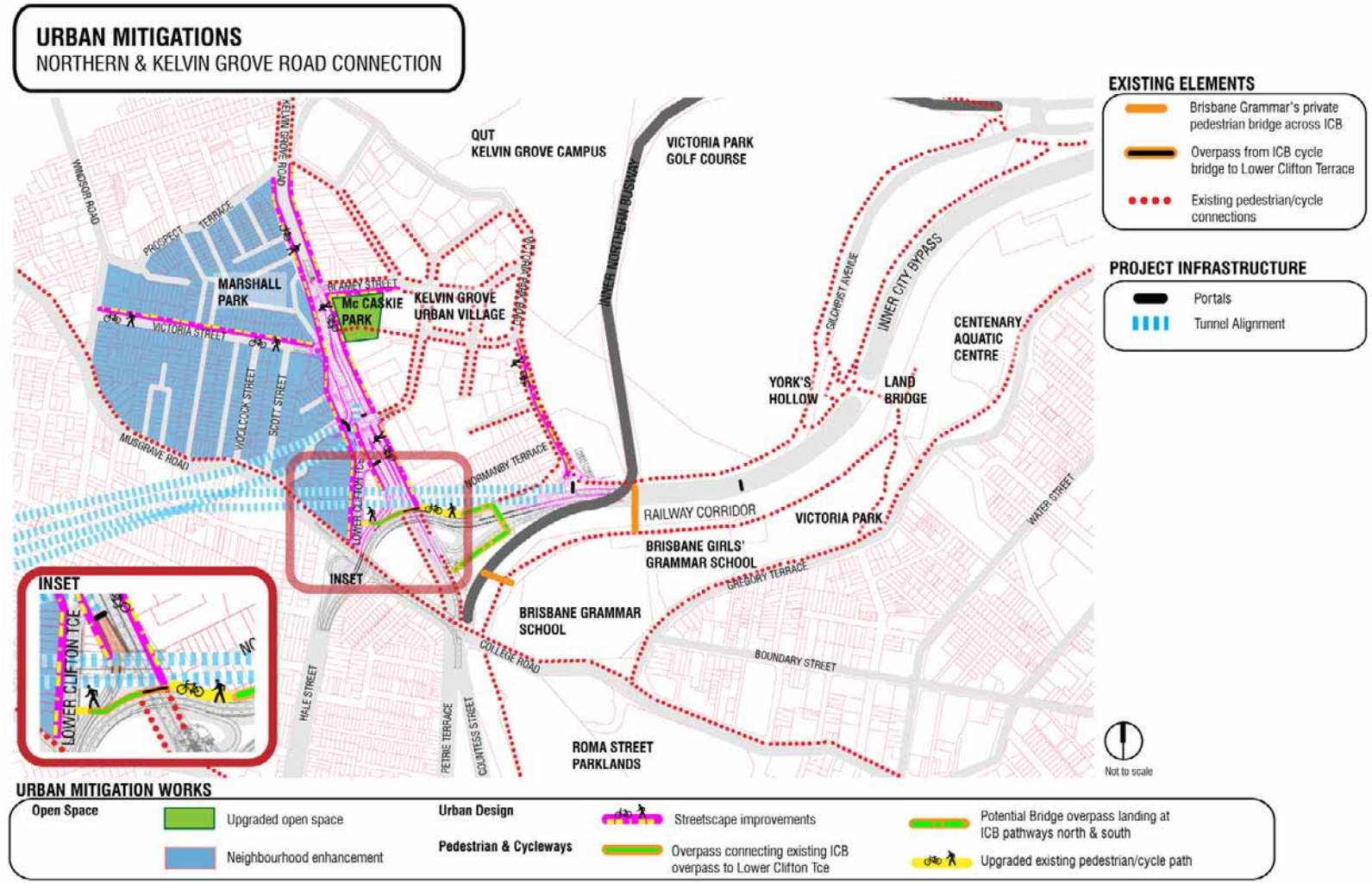
While the urban design and environmental management measures proposed in this EIS would be sufficient to address Project impacts, a number of additional urban mitigations would enhance the amenity of Kelvin Grove for residents and people who travel to the locality for work or for study. Such mitigations include:

- upgrading the pedestrian and cycle link from Kelvin Grove Road (east side) to Lower Clifton Terrace with the provision of a grade-separated crossing of Kelvin Grove Road to land in Lower Clifton Terrace;
- undertake design studies and works that would create and enliven Lower Clifton Terrace as a pedestrian-friendly environment, linked with the Victoria Park cycleway and linked to Musgrave Road and further south to Hale Street; and
- undertake street enhancements to support pedestrian movement and pedestrian-friendly environments in the precinct bounded by Prospect Terrace, Musgrave Road and Kelvin Grove Road.

From the preliminary consultation process, there is merit also in further detailed planning and design to support development of a pedestrian and cycle scheme which provides safe and convenient access from Kelvin Grove Road south to the Normanby busway station and west to Lower Clifton Terrace.

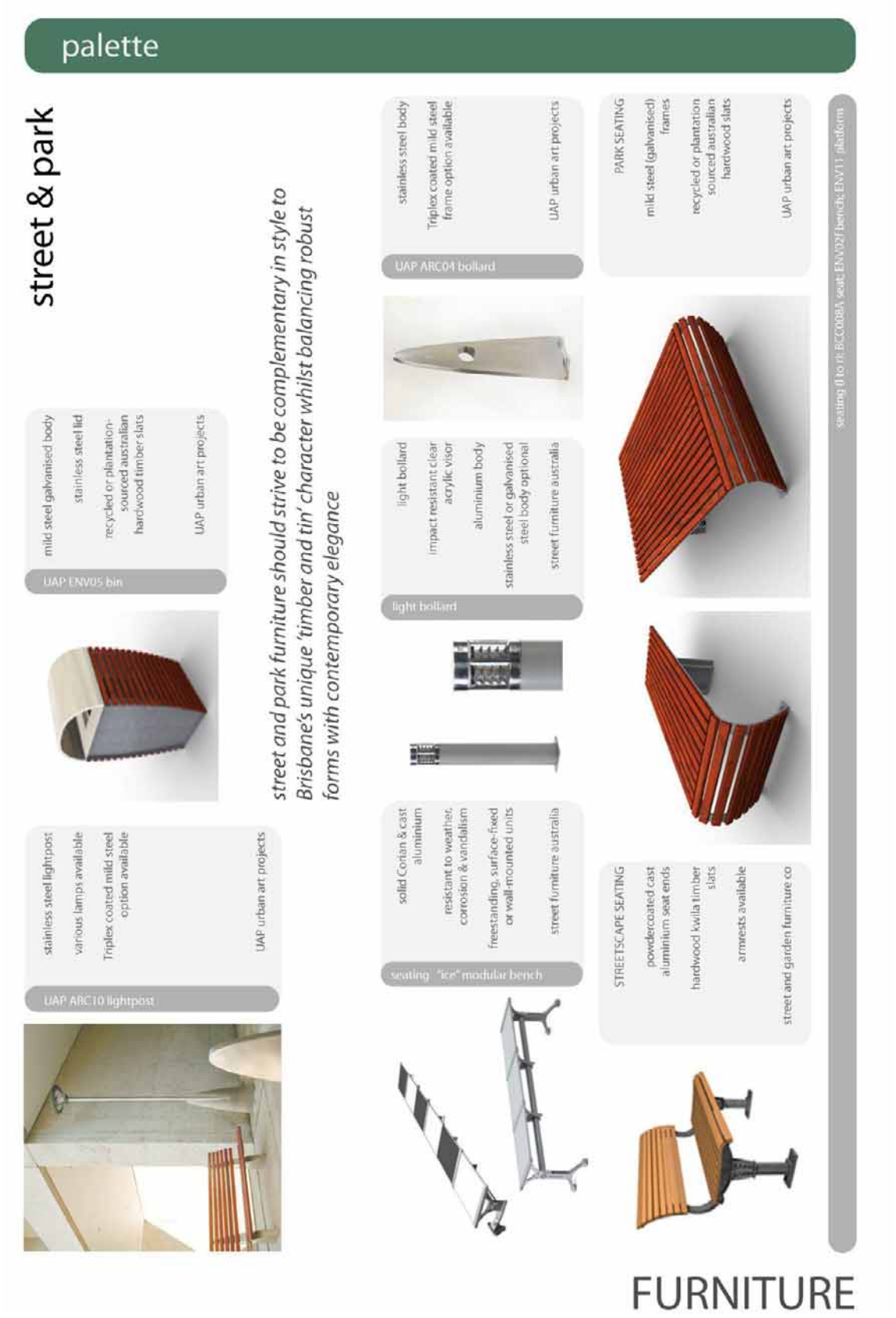
A possible scheme for implementing these measures is included in **Figure 20-4**. The program, funding and responsibility for delivering these connections should be determined by the Queensland Government in consultation with the Brisbane City Council. Such works need to be considered in the context of the City West – Smart City initiatives.

- **Figure 20-4: Urban Mitigations – Northern and Kelvin Grove Connections**

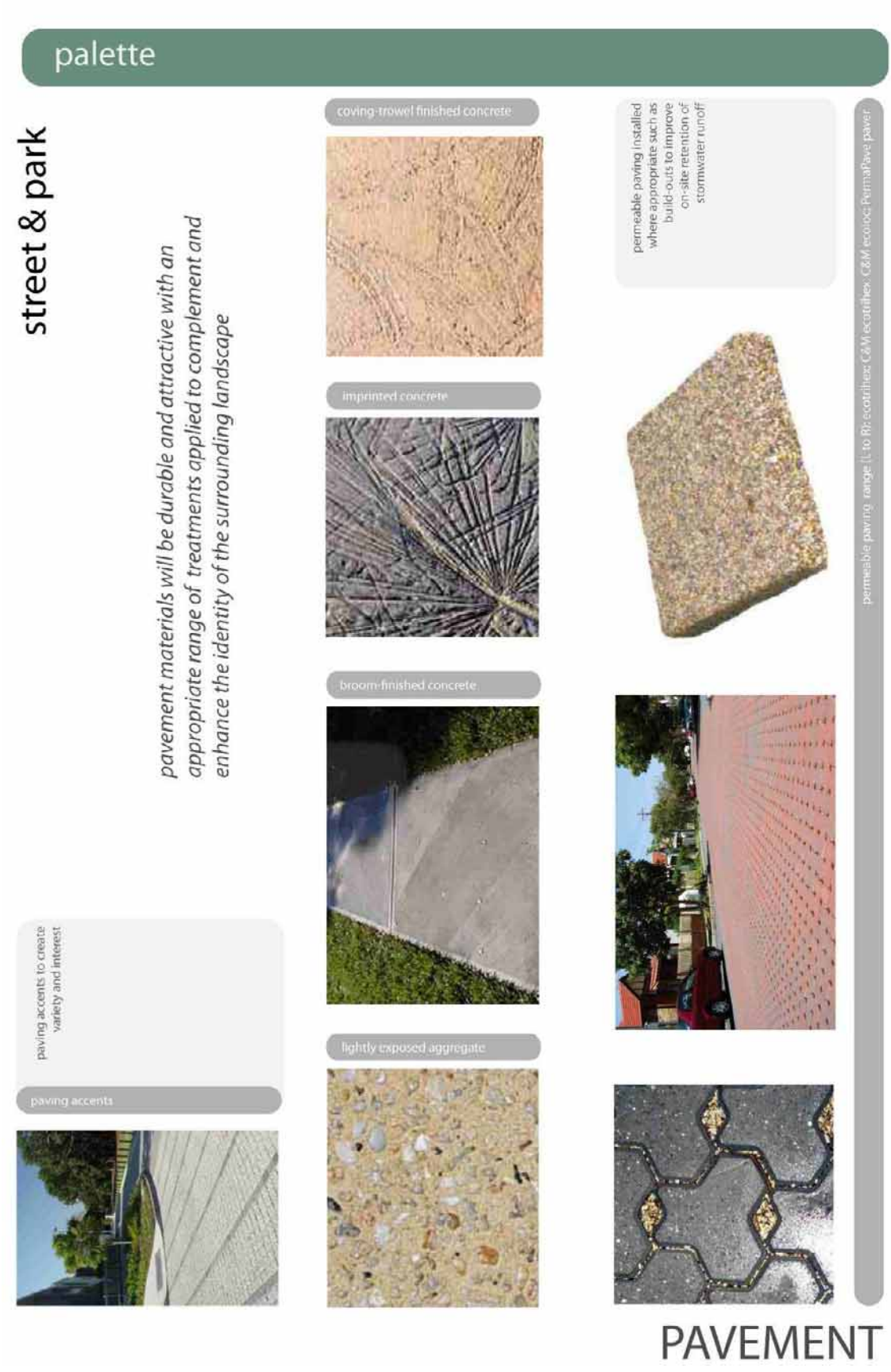


- **Figure 20-5: Urban Mitigations – Lower Clifton Terrace, Kelvin Grove**

- **Figure 20-6: Street Furniture Treatments**



- **Figure 20-7: Street Pavement Treatments**



20.5.4 Public Art Strategy – Northern Link

The benefits of public art would enrich the social and environmental milieu of the communities in the vicinity Northern Link infrastructure. Within the context of a framework of urban mitigation measures, commissioned art opportunities would evolve through the study of the Project area and engagement of local communities for understanding and interpretation of local values.

The benefits of public art opportunities in conjunction with the Project are wide ranging and include:

- city image building: - creating environments that reflect pride in the City, through insights into regional identity;
- providing a rich urban environment free from class or social barriers;
- satisfying current governmental policies and guidelines for public art;
- contributing to a regional distinctiveness through engagement with surrounding communities and their environments;
- creating environmental awareness and invoking public debate; and
- involving the community in the past, present or future attributes of their neighbourhoods and strengthening local social networks.

Trajectory for Rembrandt – 2002 - Baarn

Victory 1984-87 Zaanstad Netherlands – den Arend

Notwithstanding, the artistic journey involved in the realisation of public art installations, it is also necessary to provide a guide for implementation of a public art scheme for Northern Link within current arts policy.

The current public art policy derives from *Living in Brisbane 2026* (Brisbane City Council, 2007)[5], which promotes the *Vibrant, Creative City* as one of its major themes. *Living in Brisbane 2026* aspires to encourage a creative environment that embraces new ideas, cultural diversity and cultural enterprise and welcomes new people, collaboration, partnerships and initiatives.

Supporting this document is the *Art in Public Places Policy 2005-2010* (Brisbane City Council, 2005)[6], which sets out three strategy areas. The *Integrate Art into the City* strategy is of particular relevance as it promotes the opportunity to integrate art and design into major infrastructure projects. The strategy also notes the importance

[5] Brisbane City Council, 2007, *Our Shared Vision – Living in Brisbane 2026*, Council, Brisbane
[6] Brisbane City Council, 2005, *Art in Public Places 2005 – 2010*, Council, Brisbane

of cultural planning and curatorial frameworks to assists a cross-disciplinary approach and a greater 'understanding of the culture of a place', reinforcing and acknowledging places in and around the Project.

Public art is proposed in the suite of urban mitigations as an effective measure which would link communities with activity centres via pedestrian and cycle links. Public art is also proposed as part of an integrated approach to mitigating the effects of Project infrastructure (eg: elevated road structures, ventilation outlets and ventilation stations, retaining walls for road connections).

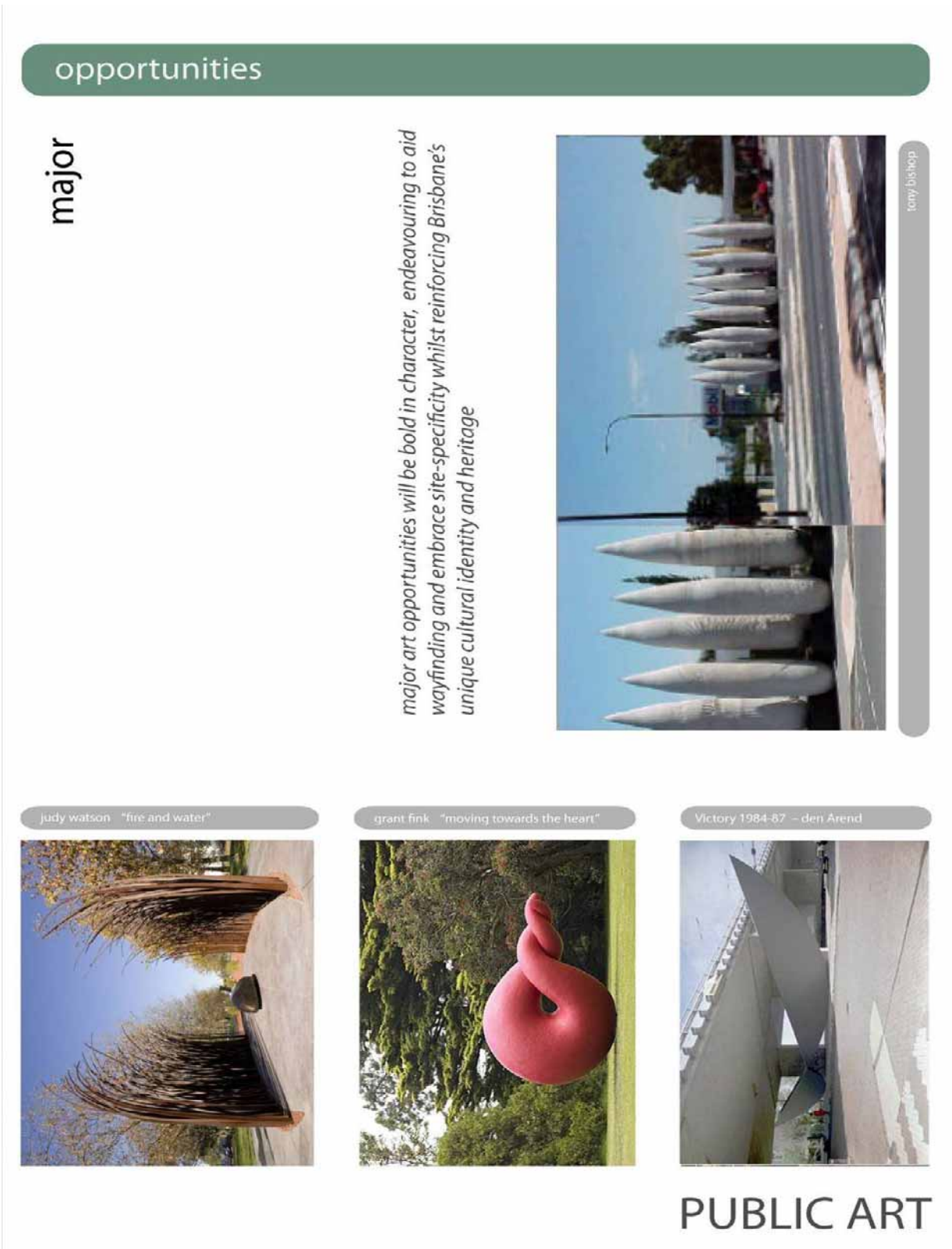
Public art measures for Northern Link should include a scoping of opportunities within a curatorial framework, with particular focus on place-making principles consistent with *Art in Public Places 2005 – 2010*. The Council has also established a framework for the integration of public art in Brisbane City Council's Capital Works Briefing Documents and Urban Design projects (Brisbane City Council, 2005, p3)[7].

Specific measures for integrating public art in Northern Link include:

- creation of a public art 'trail' linking the Brisbane Botanic Gardens at Mt Coot-tha to the Bicentennial Cycleway alongside Coronation Drive, with artistic themes to be determined with the benefit of community input, in accordance with Council's public art policy;
- integration of public art into elements of elevated infrastructure including the elevated roadways, ventilation stations and ventilation outlets, surface road connections and surface mitigation measures (eg: noise barriers, safety barriers);
- creation of a public art space in the southern parcel of the Kelvin Grove worksite, consistent with the landscape strategy, and extending into the urban design treatments for Lower Clifton Terrace;
- creation of a public art trail incorporated within the pedestrian and cycle linkages to be provided, partly by others, between Kelvin Grove Urban Village and the Normanby busway station; and
- integration of public art, where appropriate, within the landscape and rehabilitation works for worksites and surface roadworks.

[7] Brisbane City Council, 2005, *Art in Public Places 2005 – 2010*, Council, Brisbane

- **Figure 20-8: Public Art – Major**



- **20-9: Public Art – Minor**

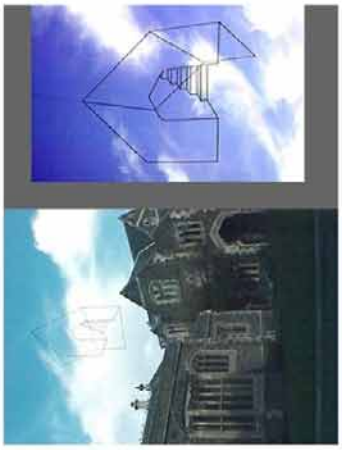
opportunities

minor

minor art opportunities will introduce moments of discovery and delight into the landscape - intimately scaled works seamlessly integrated into the fabric of the local neighbourhood

demakersvan "lace fence"

niel dawson



artist unknown

julia davis "menisci"

PUBLIC ART