



# LEVEL CROSSING REMOVAL AUTHORITY

URBAN DESIGN FRAMEWORK:  
PRINCIPLES & OBJECTIVES, MEASURES & QUALITATIVE  
BENCHMARKS

Version 3

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# 1. EXECUTIVE SUMMARY

## 1.1 SUMMARY

Over the next eight years, the State Government will deliver a coordinated program to remove 50 of the worst level crossings in Melbourne, improving safety and urban amenity in local communities whilst improving the efficiency of the local transport network. The Level Crossing Removal Authority (LXRA) has been created to deliver this program along with associated projects such as the Mernda Rail Extension and other future projects as allocated. Integrated development opportunities identified by LXRA will also be facilitated where they can provide improved urban renewal and transit-oriented outcomes for the benefit of the community.

This Urban Design Framework (UDF) establishes the expectations of the State and Local Governments for high quality, context sensitive urban design outcomes from the project. The document will be used to inform and influence the design process as well as providing the basis for evaluation of proposals. Proponents are expected to prepare locally relevant framework plans using the principles, objectives, measures and qualitative benchmarks contained within this document.

The UDF identifies eight key **principles** that are aligned with other level crossing removal projects across Melbourne. These principles address identity, connectivity, urban integration, sustainability, amenity, vibrancy, safety and accessibility.

Flowing from these principles are more detailed urban design **objectives** for the project, and **performance measures** to assist in achieving them. These are supported by **qualitative benchmarks** from relevant precedents.

## 1.2 REPORT STRUCTURE

The Urban Design Framework document has been organised into nine chapters:

### 1. Executive Summary

This chapter provides a summary of the overall urban design vision for the project.

### 2. Introduction

This chapter outlines the background, purpose, vision and key government policies that inform the project.

It also discusses the importance of good urban design and its integral role in the project.

### 3. Framework Structure

This chapter identifies the five key components of the urban design framework, in three sections:

- Urban Design Principles and objectives
- Local Considerations
- Urban Design Measures and Qualitative Benchmarks.

### 4. Principles and Objectives

This chapter presents eight urban design principles that provide the overarching framework for the urban design response. The eight principles are supported by a series of objectives which identify expectations in more detail.

### 5. Local Considerations

This chapter draws attention to the importance of local considerations for each site and affected area, and to the importance of context responsive solutions.

## 6. Measures and Qualitative Benchmarks

This chapter articulates the urban design measures as the overarching performance requirements for urban design outcomes resulting from all of the project works. These should be read together with the qualitative benchmarks which illustrate the quality of outcomes that are expected.

## 7. Implementation

This chapter outlines initiatives that will support the delivery of high quality, integrated urban design outcomes.

## 8. References

The final chapter provides information on images used throughout the document.



Figure 1 Level crossings proposed for renewal

# 2. INTRODUCTION

## 2.1 BACKGROUND

The Victorian State Government and Local Government Authorities wish to develop local communities around Melbourne that are prosperous, safe and vibrant – great places to be.

The Level Crossing Removal Authority (LXRA) was formed in May 2015 to coordinate the Level Crossing Removal Project and associated projects such as the Mernda Rail Extension and other future projects as allocated. The LXRA has commenced the design process for 50 sites across Melbourne. These level crossing removal projects will be significant infrastructure assets for Melbourne with a functional life of more than 100 years. As a major legacy project, it is critical that the best possible outcome for the transport network is achieved, and that all users benefit through the experience of better public places.

The organisational vision for LXRA is “Delivering great change – Transforming the way Victorians live, work and travel”. This vision is underpinned by five strategic objectives.

- Great Network.
- Great Places.
- Great Partnerships.
- Great Engagement.
- Great People.

Of particular relevance to urban design is the delivery of great places, specifically LXRA will:

- Activate safe, connected, vibrant spaces and communities.
- Maximise value capture opportunities.
- Act now to create a sustainable and prosperous future.

## 2.2 VICTORIA'S MAJOR TRANSPORT INFRASTRUCTURE PROGRAM

The Major Transport Infrastructure Program represents one of the most significant investments in transport infrastructure in Victoria's history. The program, comprising projects that are being undertaken by the Level Crossing Removal Authority (LXRA) and the Melbourne Metro Rail Authority (MMRA) are more than just road or rail projects, they are city shaping projects that will create a lasting legacy for Melbourne. Incorporating the principles and practices of great urban design and place making is therefore a priority if this investment is to deliver a full range of benefits for current and future Victorians.

The Office of the Victorian Government Architect (OVGA) advocates for good design to be a priority throughout the project lifecycle, and has been actively involved in the development of the Major Transport Infrastructure Program. The OVGA is embedded in project teams, working with the LXRA and MMRA to develop strategies, advocating for good design and sharing learnings across the program.

Both LXRA and MMRA are working with the OVGA to develop a design approach that will consist of a number of pillars:

- Common vision: create a lasting legacy for Melbourne through great urban design and place making in our major transport infrastructure projects.
- Accountability: prepare urban design documents to guide the planning, design and evaluation of major transport projects.
- Transparency: undertake a program of stakeholder and community engagement to inform the design of major transport infrastructure projects, including identifying key local considerations and opportunities to involve the community, including young people, in the projects.



## 2.3 PURPOSE

- Governance: seek expert design advice through the whole of project life-cycle, retaining consistent design expertise from the OVGA, industry and stakeholders at all stages of the project including development, procurement and delivery.
- Independent design review: use the Victorian Design Review Panel at key milestones throughout the project lifecycle, as appropriate.

The Level Crossing Removal Project Urban Design Framework and Melbourne Metro Urban Design Strategy are both based on this approach.

This Urban Design Framework (UDF) document establishes the expectations of the State and Local Governments for high quality, context sensitive urban design outcomes from the project.

The aim is to achieve a high quality urban design response which enhances urban amenity and minimises adverse impacts which may result from the proposed project and its associated structures.

The environments through which the rail corridor passes are a mixture of industrial, suburban and highly urbanised areas, with strong, established characters and attributes. They also bear significant potential for urban renewal. It is essential that the project results in improved quality and a positive, authentic contribution to existing urban character and amenity.

Designs must address both the rail and road infrastructure and the communities and places through which the project passes.

This process seeks private sector expertise and innovation in creating outstanding urban design outcomes, through an integrated and collaborative design approach in developing technical proposals.

The role of the Urban Design Framework is to guide the planning and design of the proposed project infrastructure, and to evaluate urban design proposals.

Rather than providing prescriptive urban design solutions, this UDF articulates what is to be achieved in terms of urban design quality and performance.

## 2.4 PROJECT VISION

These principles, objectives, local considerations, measures and qualitative benchmarks articulated in this UDF are provided to:

- Ensure proposals develop with good urban design considerations treated as being integral to project solutions;
- Articulate the basis for the Urban Design review team to provide feedback during the interactive bid process;
- Support the RFP evaluation criteria for Urban Design including Value Capture;
- Establish the minimum quality expected by the State in terms of performance outcomes and benchmarks for quality.

The Urban Design Framework is based upon the following aspirations:

- **Achieve urban design excellence** that benefits all of the transport network, its users and the communities and places through which the project passes
- **Maximise positive impacts** and minimise negative impacts resulting from the project
- **Provide thorough integration** of high quality urban design with best practice technical solutions
- **Develop collaborative, multi-disciplinary, integrated design thinking** for the project through an urban design led process

The UDF is a living document that will be updated as the level crossing removal program progresses.

## 2.5 POLICY CONTEXT

Policies relevant to the urban design aspirations and requirements for the proposal include but are not limited to:

- Regulation, Governance and Law Division, Victorian Department of Transport - 'Transport Integration Act 2010'
- Australian National Urban Design Protocol - 'Creating Places for People'
- Victorian 'Urban Design Charter' 2009
- Department of Environment, Land, Water & Planning - 'Plan Melbourne, Metropolitan Planning Strategy' 2014 and upcoming amendment
- Office of the Victorian Government Architect Publication - 'Good Design + Transport, Issue 05' 2012
- Public Transport Victoria - 'Network Development Plan' and other relevant policies
- Department of Environment, Land, Water & Planning - 'Safer Design Guidelines'
- Department of Environment, Land, Water & Planning - 'Activity Centre Design Guidelines'
- Economic Development, Jobs, Transport and Resources- 'Public Transport Guidelines for Land Use Development'
- Creative Victoria - 'Creative Industries Strategy'
- Other local planning policies and strategies



## 2.6 WHAT IS URBAN DESIGN AND WHY IS IT IMPORTANT?

Urban design is the practice of shaping the built environment to improve the quality and overall liveability of cities and towns. Whilst urban design is often tailored for a specific project, the dynamic and evolving nature of urban environments means that urban design is in fact a long term process.

Urban design operates on a variety of scales; from the macro scale of urban structures considering elements such as city-wide transport networks to the micro scale considering elements such as lighting. Good urban design employs a multi-disciplinary approach to create integrated and considered environments and often involves transport, planning, architecture, landscape architecture, engineering and finance expertise.

Urban design is important because of its potential to significantly influence:

- The functionality, character and spirit of public places for individuals and communities;
- The levels of comfort, accessibility, safety and inclusiveness of places;
- The expression of social and cultural values associated with places;
- The socio-economic composition, diversity and economic vibrancy of urban areas;
- The sustainability and resilience of urban environments;
- Community connectedness, health and well-being, and pride of place.

Altering the urban environment can be challenging and costly. When urban design is incorporated as a key consideration in developing technical solutions from the outset, better urban outcomes result at minimal cost.

The Victorian Government is committed to the removal of 50 of the most dangerous and congested level crossings on the metropolitan rail network to reduce congestion across the road network and improve safety for Victorians. The LXRA seeks the best in local and international private sector expertise to deliver the Level Crossing Removal Project.

Victoria is internationally recognised as a leader in the design quality of its urban environment, and as a liveable city. The Victorian Government is committed to enriching this reputation by ensuring high quality, innovative urban design outcomes are delivered through all infrastructure projects.

The project will have a significant impact on the condition and amenity of both established and developing urban areas. It is expected that the Project will improve urban quality in affected areas through integrated, responsive design solutions to local sites and to the corridor as a whole.

The project will also be instrumental in demonstrating positive benefits of densification by releasing land for well designed, integrated development through the Value Capture component of the project.

It is expected that development will contribute to improved urban amenity through incorporation of good urban design approaches, to ensure site responsive, locally relevant higher density development. This project has the potential to set strong benchmarks for design quality in urban renewal and to serve as a catalyst for positive urban renewal that reinvigorates and reconnects communities.

# 3. FRAMEWORK STRUCTURE

The Urban Design Framework is comprised of five components, in three sections.

The five components will be used for evaluation and assessment of design proposals as they develop throughout the process through to delivery.

	What are these?	What are they used for?
PRINCIPLES	High level, overarching principles from Federal and State Government documents such the National Urban Design Protocol and the Urban Design Charter.	Identify broad concepts about good urban design.
OBJECTIVES	These are drawn from the Federal, State and Local Government policy frameworks and strategies. These are amended to specifically address aspects of the project.	Outline what the project should achieve.
LOCAL CONSIDERATIONS	The site and community specific information that requires investigation, analysis and understanding for each site and affected area.	To form the foundation for contextually responsive project solutions.
MEASURES	The detailed requirements for UD performance to achieve the Principles and Objectives, in responsive solutions to local considerations.	Provide performance requirements as the basis upon which UD proposals will be developed and evaluated.
QUALITATIVE BENCHMARKS	Qualitative benchmarks to illustrate the minimum standard of design quality expected of project outcomes, drawn from relevant precedent projects.	Illustrate the level of quality that is expected in meeting the urban design measures – in terms of design integration, innovation and detailed resolution.

# 4. PRINCIPLES AND OBJECTIVES

Urban design outcome  
**ENHANCING**

## Principle 1 **IDENTITY**



A well defined identity and sense of place are key to creating strong and vibrant communities.

### **Objective 1.1 Sense of Place**

Recognise, maintain and enrich the identity, character and individuality of neighbourhoods and communities through which the project passes, through responsive, high quality architecture, landscape and urban form.

### **Objective 1.2 Responsive**

Integrate new transport infrastructure to ensure it responds sensitively and contributes positively to social, cultural, functional and physical aspects of local areas.

### **Objective 1.3 Heritage**

Recognise, respect and preserve indigenous and non-indigenous cultural heritage and local history through protection and responsiveness to heritage values.

### **Objective 1.4 Journey**

Provide a distinctive and authentic civic identity for the rail corridor that enhances the journey, creating an engaging and memorable public transport experience for commuters, and demonstrating sensitivity to interfaces with neighbours.

Urban design outcome  
**CONNECTED**

## Principle 2 **CONNECTIVITY & WAYFINDING**



Well connected and legible places contribute significantly to strong economies and healthy, inclusive communities.

### **Objective 2.1 Connectivity**

Improve connectivity through the immediate and wider precinct with safe, ample and efficient physical linkages to increase precinct permeability across and along the corridor for all modes, including pedestrians and cyclists.

### **Objective 2.2 Seamlessness**

Design to accommodate waiting areas and ease of movement between spaces for all users through integrating transport linkages with direct connections, clear sightlines and efficient transitional spaces.

### **Objective 2.3 Legibility**

Ensure legibility through an urban design response that supports intuitive wayfinding, and through a hierarchy of pathways that is easy to understand and navigate, reducing reliance on signs.

### **Objective 2.4 Public transport**

Support and enhance effective inter-modal connections for all commuters to public transport, including pedestrians, cyclists, and cars.

Urban design outcomes from *Creating Places for People - an Urban Design Protocol for Australian Cities*

Urban design outcome  
**DIVERSE**

Principle 3  
**URBAN INTEGRATION**



Well-integrated environments provide a sound framework for the successful development of great places.

**Objective 3.1 Integration**

Provide an integrated design transport infrastructure and land-use solution that shows a clear analysis of and responsiveness to the existing context, and demonstrates alignment with strategic visions / plans of the Government and the community.

**Objective 3.2 Reconnect**

Reconnect pedestrian and cycling networks where severed by previous civil interventions to deliver greater permeability and connectivity, and ensure resolution of the road-rail separation does not result in additional unforeseen dislocations.

**Objective 3.3 Urban renewal**

Ensure all new works make a positive contribution to enhance local areas by developing innovative, high quality propositions for urban renewal challenges and opportunities in each location.

**Objective 3.4 Future-proofing**

Support and enable appropriate, positive, future development and anticipated transport change in affected and surrounding areas through strategic design of transport infrastructure.

**Objective 3.5 Consultation**

Enhance the quality of project outcomes through working closely with affected stakeholders and the community to identify and prioritise key local contextual issues and opportunities.

Urban design outcome  
**ENDURING**

Principle 4  
**RESILIENCE & SUSTAINABILITY**



Places must be sustainable, enduring and resilient in order to support and nurture current and future generations.

**Objective 4.1 Enduring & durable**

Provide a design that is enduring and functional for generations to come, is readily maintainable, and will age gracefully in concept and detail, ensuring a positive built legacy.

**Objective 4.2 Sustainable**

Promote positive and relevant environmental, social, cultural and economic values, assessing long term life cycle implications to ensure a high level of sustainability.

**Objective 4.3 Environmental sustainability**

Employ environmentally sustainable design to minimize water and energy usage, to reduce climate change impacts and to protect and improve sustainability in the natural and built environment.

**Objective 4.4 Pollution mitigation**

Enhance the quality of the surrounding environment by designing to mitigate negative impacts including those associated with noise, spilled light, air and visual pollution.

**Objective 4.5 Governance**

Through effective governance arrangements, work together with stakeholders in surrounding areas to address integrated land use, transport and on-going management issues at the design stage of the project.

Urban design outcome  
**COMFORTABLE**

Principle 5  
**AMENITY**



High quality urban amenity associated with access to services and the experience of great public places contributes to successful, equitable and prosperous communities.

**Objective 5.1 Improved amenity**

Enhance existing urban amenity through a highly considered response to the existing place and provide a design outcome that addresses the challenges and opportunities inherent in the social, cultural, functional and physical aspects of the precinct.

**Objective 5.2 Comfort**

Provide a design that effectively caters for the physical comfort and psychological wellbeing of users.

**Objective 5.3 High quality**

Provide a high quality design outcome that makes a positive contribution to the local built and landscape context, through a well-considered conceptual approach, design resolution and construction detail.

Urban design outcome  
**VIBRANT**

Principle 6  
**VIBRANCY**



Animation of key civic spaces, and diversity in the experience of urban places support prosperous and healthy communities.

**Objective 6.1 Putting people first**

Address and support social and cultural aspects of the local community through the responsive and innovative design of an integrated public realm that is welcoming, inclusive, and appropriate to its locale.

**Objective 6.2 Public realm**

Create memorable, engaging and accommodating spaces and places in the public realm, through sensitive, high quality urban design.

**Objective 6.3 Range of experiences**

Create an integrated, legible public realm that provides a range of experiences and is accessible over different times of the day and different times of the year.

Urban design outcome  
**SAFE**

Principle 7  
**SAFETY**



Safe environments are essential for strong, connected and happy communities.

**Objective 7.1 Personal safety**

Significantly improve real and perceived personal safety in all affected areas through the application of passive, integrated Crime Prevention Through Environmental Design (CPTED) principles.

**Objective 7.2 Perception of safety**

Design to engender pride of place, and to result in outcomes that age gracefully, ensuring materials, products and detailing are easily maintained and not conducive to vandalism.

**Objective 7.3 Visual connectivity**

Maximise visibility and visual connections through design for clear sightlines and direct, intuitive site navigation routes, minimising obstructions including those associated with overpasses, underpasses and hidden corners.

**Objective 7.4 Direct routes**

Provide access routes which are direct, legible and easily navigable to ensure that users do not encounter dead-ends, and have clear, safe options to easily enter and exit from public spaces.

Urban design outcome  
**WALKABLE**

Principle 8  
**ACCESSIBILITY**



Highly accessible and inclusive environments encourage positive activation and contribute to prosperity, well being and the perception of care within communities.

**Objective 8.1 Universally inclusive**

Enhance universal accessibility through the affected and surrounding immediate and extended precinct for all members of the community, through fully integrated design solutions, without perceived or physical barriers or differentiation.

**Objective 8.2 Walkable**

Create generous, functional pathways and accommodating, usable public spaces, designed to prioritise pedestrian activity and connections across and between transport corridors, including linkages to local streets and networks.

**Objective 8.3 Active transport**

Provide a design that is conducive to and prioritises walking, cycling and public transport usage.



# 5. LOCAL CONSIDERATIONS

The individual sites encompassed by the project should be viewed as specific and distinctive opportunities to improve local places, while also forming part of the rail corridor and the associated journey. Effective enhancement of local places requires an understanding of existing character including physical conditions as well as strategies, plans and values that exist within local communities.

Each site, whether it be a level crossing removal, new station or associated development site, has its own unique character and 'sense of place', and there are distinctive issues and opportunities inherent in each place in terms of their urban design quality. The design for each site, and each area affected by the project, should take into account the unique characteristics, issues and opportunities that exist within a location and its community. In addition, consideration should be given to the dynamism of communities and to the needs of those who may live in and use these areas in future.

It is expected that proponents will undertake careful analysis of existing context through site investigation and research as appropriate, in order to understand local issues and opportunities to enhance and contribute to better local outcomes. It is expected that this will include analysis of each existing site, associated precincts and the corridor as a whole in order to establish a sound basis for a responsive design solution to level crossing removals and to any integrated development opportunities.

In some cases there is an opportunity to establish a new landmark built form within an existing activity centre, where a strategic redevelopment site is available as a result of the removal of a level crossing. Development must demonstrate a net community benefit and high quality architectural response.

Key local considerations for each site have been identified by Councils officers and the community as part of consultation processes. In many cases local considerations and feedback is captured using an online mapping tool called 'Social Pinpoint'.

In summary, local considerations specific to individual sites and areas affected by the projects are to be researched and analysed as the foundation for responsive design proposals.

Proponents should access material including:

- Information identified with input from Council and the local community;
- Report on LXRA Interactive Community Engagement;
- Site context analyses;
- Research of other publicly available material, including relevant local Council's policies and plans;
- Engagement with other key stakeholders.

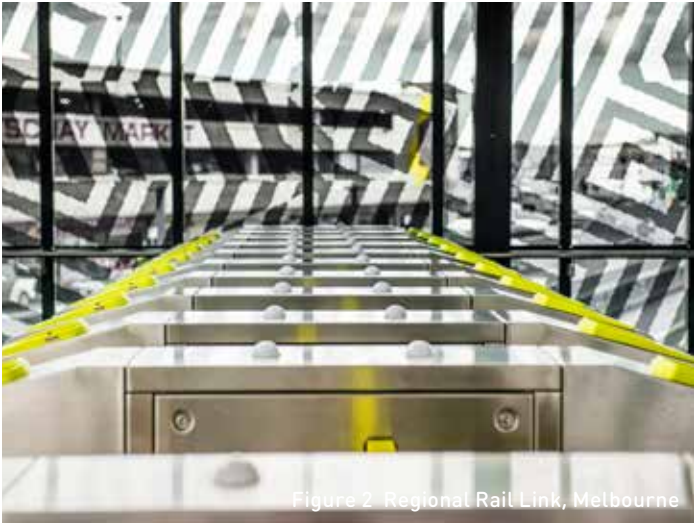


Figure 2 Regional Rail Link, Melbourne



Figure 3 Regional Rail Link, Melbourne



Figure 4 Regional Rail Link, Melbourne



Figure 5 Regional Rail Link, Melbourne



Figure 6 Regional Rail Link, Melbourne



# 6. MEASURES AND QUALITATIVE BENCHMARKS

## 6.1 WHOLE OF PROJECT

**6.1.1** Provide a high quality, well-resolved design outcome; and an innovative urban design response which is enduring in expression and timeless in nature, for road and rail users, surrounding land users and for Melbourne as a whole.

- *The design is to make a positive contribution to locally affected environments, to the rail corridor, and to greater Melbourne’s cultural identity and reputation for design innovation and excellence.*
- *The whole of the project is to be well conceived, carefully resolved and finely executed in detail, as a design which is responsive, engaging, environmentally sustainable, functional, and adaptable for future infrastructure needs.*
- *All structural, functional and service elements are to be resolved and integrated in a context sensitive manner as part of the urban design solution.*
- *The design is to ensure particular attention to successful integration and responsiveness to the existing landscape(s), cultural heritage, land use, the character and integrity of key precincts along the alignment, and overall coherence and identity.*
- *Incorporate sustainable design approaches into the project as a whole, and to its elements. Consider materials for the design that minimise embodied energy use, and maximise positive impacts.*

**6.1.2** Provide a high quality outcome for residents and adjacent private and public land users with respect to protection of views and privacy, noise amelioration, minimising overshadowing, and providing access and security through design.



Figure 7 Olympic Sculpture Park, Seattle



Figure 8 Craigieburn Bypass, Melbourne



Figure 9 Shared Zone Lonsdale Street, Dandenong

**6.1.3** A sense of journey for the corridor is to be created through an integrated landscape, architectural and urban design response, including the development of a palette of forms, treatments and materials for elements for the whole corridor or for key precincts within it as appropriate to the concept design intention, including:

- *Roads, bridges and elevated structures;*
- *Noise barriers, retaining walls, abutments, fencing and barriers;*
- *Pedestrian and cyclist paths;*
- *Earth forming, planting and open space elements, including open cuttings;*
- *Associated urban design elements including signage, lighting and any furniture.*

**6.1.4** The form, finishes and siting principles for all rail, road and street furniture, lighting, signage housings and other miscellaneous items are to be established at the concept stage of the design. These should be rationalised to minimise visual clutter, and designed as integral to the urban design concept, or aligned with local palettes as appropriate.

**6.1.5** The architectural, landscape and urban design works are to be carefully considered to provide an environment which is accessible, inclusive, supports safe behaviour, and is perceived as being safe.



Figure 10 Newtown Interchange, Sydney



Figure 11 PARK[E]ING, Venice



Figure 12 Gloucester Reserve WSUD, Melbourne



## 6.2 TRAIN STATIONS

**6.2.1** Design stations to optimise their dual role as service points for public transport infrastructure and as public places of pivotal spatial significance within the local area. Station design shall provide high quality civic places that:

- *respond to and enhance the local context;*
- *are fit for purpose, sustainable and offer good amenity for commuters and others;*
- *are enduring in design concept and execution; and*
- *improve community connections and public spaces.*

**6.2.2** Station facilities shall provide comfortable, efficient and adequate services and settings for commuters and users of the station consistent with PTV requirements, and will be robust, integrated components within the urban design concept and local solution.

**6.2.3** Entrances to stations should be legible, efficient, welcoming and generous spaces that are sensitively sited and designed to enhance local context and connectivity. Station entrances are to be located to maximise inclusiveness and accessibility.





**6.2.4** Design for direct, efficient, comfortable, safe and legible intermodal connections.

- *Adequately accommodate all relevant modes. Ensure that walking and cycling paths cater for desire lines and key flows.*
- *Ensure intuitive way finding through high visual and physical connectivity;*
- *Design waiting areas for good visual permeability and for ease of use for multi-modal transport;*
- *Provide bicycle parking facilities as an integral part of the station entry and civic space design. Cycling facilities should be safe, robust and elegant aspects of the urban design proposal in terms of spatial and detailed resolution.*

**6.2.5** Integrate car parking as part of the urban design response. Ensure car parking areas are safe and positive spaces through visual connectivity and high quality landscape design.



Figure 15 Hoxton Station, London



Figure 16 Hyllie Station, Sweden



## 6.3 BRIDGES AND ELEVATED STRUCTURES



- 6.3.1** Elevated structures are to contribute to urban quality, corridor identity, local identity, and provide a gateway experience at key crossings.
- 6.3.2** All bridges and elevated structures such as ramps are to offer integrated design solutions in terms of their form, elements, proportions and details. Structural solutions must integrate visual and spatial architectural and urban design considerations to ensure well- proportioned, elegant structural outcomes.
- 6.3.3** Elevated structures are to be sensitive to and respectful of context and existing urban elements, and to make a positive contribution to their environment.
- 6.3.4** Any new bridges, widened existing bridges, viaducts and ramps are to be designed and proportioned to complement the immediate context as part of the urban design vision:
- *Minimise negative amenity impacts on adjacent and surrounding neighbours, including public open spaces and future development sites;*
  - *Design viaducts and refine profiles of decks and piers as part of the overall urban design approach;*
  - *Maximise the safety and amenity of accessible areas below elevated structures, and where relevant their usefulness, through siting, visual connections, relationship to pathways and open spaces, and access to natural light;*
  - *Minimise the visual and spatial impact of all services associated with elevated structures, including conduits, drainage goods and fixtures through design integration;*
  - *Integrate lighting as part of the urban design strategy to contribute to identity, and to visual and spatial amenity;*



Figure 17 Yeouido Cycle Tunnel, Seoul

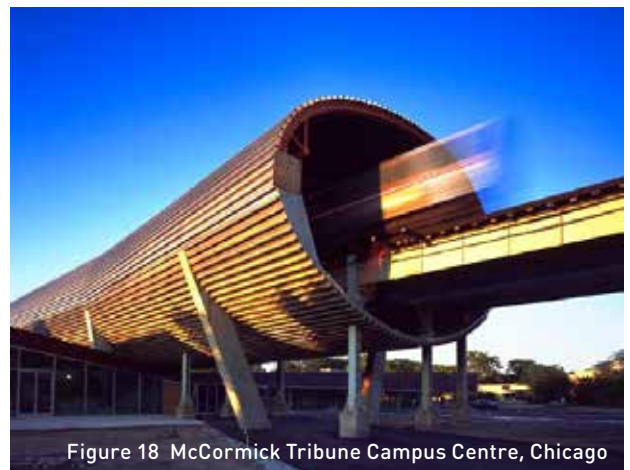


Figure 18 McCormick Tribune Campus Centre, Chicago



Figure 19 Eastlink, Melbourne

- *Superstructure, piers, beams and barriers are to be integrated elements within the urban design approach;*
- *Integrate to minimise visual clutter and to align with the urban design concept for the corridor;*
- *Integrate any barriers and screens as part of the technical and urban design solution, utilising high quality, enduring, robust and sustainable materials. Maximise visual permeability where possible.*

**6.3.5** Design pedestrian bridges as key urban design elements contributing to identity and legibility for the corridor journey and for local areas;

- *Design for inclusiveness, accessibility and safety.*



Figure 20 Eastlink Pedestrian Bridge, Melbourne



Figure 21 Footbridge Over the Railways, Villetaneuse



Figure 22 Folly for a Flyover temporary cinema, London

## 6.4 OPEN CUTTINGS

- 6.4.1** Minimise disconnection of communities and facilitate access to community spaces and movement networks by providing integrated linkages across cuttings.
- 6.4.2** Design open cuttings to contribute to the visual quality and amenity of affected areas through an integrated urban design response, with high quality hard and soft landscaping.
- 6.4.3** Mitigate adverse amenity impacts for adjacent residents and all users, and ensure all spaces are considered and resolved as part of the design solution.
- 6.4.4** Design for enhanced community connectivity as part of the holistic urban design response to improve permeability, legibility and accessibility for and across the corridor, and in and around station precincts.
- *Improve the quality and number of shared path crossings of the rail corridor cutting to better connect communities;*
  - *Pedestrian and cycling overpasses should be provided at strategic points relative to the existing and any new street networks and pedestrian movement patterns;*
  - *Connect and align new shared paths with the corridor where possible, and make connections to the Principal Bike Network or other bike path networks where relevant;*
  - *Design for good visual connectivity, passive surveillance and aspect, and minimize visual obstruction to sightlines generally.*
- 6.4.5** Retaining walls should use a consistent form, design and materials palette, as integrated elements within the urban design concept, landscape design and local context.



Figure 23 Cheonggyecheon River Restoration, Seoul



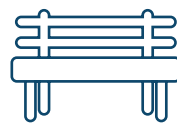
Figure 24 Freeway Park on the I-5, Seattle



Figure 25 Pacific Highway, Banora Point

- 6.4.6** Design of the landscape and species selection is to integrate a palette of viable species appropriate to microclimate, and to contribute to the urban design concept and respond to local character.
- 6.4.7** Provision should be made for additional cutting width and decking and buildings over where possible and appropriate. The provision for future decking in the more prominent locations would help provide continuity of the public realm and urban fabric.





## 6.5 PUBLIC REALM AND BUILT ENVIRONMENT

- 6.5.1** Maximise opportunities to create, enhance and connect to existing pedestrian precincts, community and recreation facilities, public open spaces and activity centres. Improve accessibility and general amenity for the community through a coherent, legible, inclusive and continuous public realm. Ensure the introduction of project elements does not inhibit the positive development of surrounding areas, and facilitate connections between precincts and places wherever possible.
- 6.5.2** The introduction of any project elements into an existing environment should promote and enable positive use of open space through design.
- 6.5.3** New spaces created around the transport infrastructure should feel and be safe, comfortable, inclusive and welcoming to users. Employ CPTED principles.
- 6.5.4** The extent and alignment of the project should be designed to avoid land acquisition, where possible, particularly land used for private residences, community facilities or parkland.
- 6.5.5** The project design should respond to and preserve indigenous and non-indigenous heritage, and local histories through



Figure 26 Nicholson Street Mall, Footscray



Figure 27 Burnside skate park, Oregon



Figure 28 City Square, Melbourne

acknowledgement of heritage values.

**6.5.6** Create additional or enhance existing publicly accessible spaces within or adjacent to existing activity centres and transport hubs to support increasing densification and improved urban amenity.

- *Provide high quality open spaces that are comfortable and inclusive with good access to sunlight, shade and protection from wind;*
- *Provide spaces that support a diversity of active and passive uses, integrating hardscape spaces such as civic plazas for community activities and cultural events where appropriate, and softscapes such as parkland and pocket parks for passive recreation.*

**6.5.7** Design to improve access to and connections between activity centre precincts that were previously disconnected by transport infrastructure.



Figure 29 MediaCityUK, Salford



Figure 30 A8ernA, Koog aan de Zaan



Figure 31 Shared Zone Lonsdale Street, Dandenong





## 6.6 LANDSCAPE AND NATURAL ENVIRONMENT

**6.6.1** Enhance and contribute to the quality of existing and surrounding landscapes through a coherent landscape design concept for the corridor, the journey and for local areas.

Increase the biodiversity of flora and fauna communities along the corridor and in affected areas.

**6.6.2** The design of the new transport infrastructure and siting of elements is to minimise the loss of mature trees, remnant vegetation, significant landscapes and parkland. Design is to achieve a net increase in tree canopy and contribution to the urban landscape. Plant selection, design and layout are to:

- *Present a coordinated colour, form and texture palette which is integral to the urban design concept, and relevant to each precinct or locality;*
- *Be well-implemented with appropriately selected species that ensures a low maintenance, thriving and enduring outcome;*
- *Maximise performance, long term viability and contribution to the landscape character, amenity and design concept as a whole by considering local conditions and existing character, microclimates and uses.*

**6.6.3** Landscape design elements including planting and land forming should be integrated to create visual buffers between the new transport infrastructure and surrounding areas, as appropriate within the context of local areas, the urban design concept and CPTED principles.



Figure 32 Cranbourne Botanical Gardens, Melbourne



Figure 33 Buffalo Bayou Promenade, Houston

- 6.6.4** Planting should be self-reliant, sustainable and require minimal maintenance. Native or indigenous species should be used where possible as part of the urban design concept, in environmentally sensitive zones, and in response to local context. The palette(s) of soft landscaping and hard landscaping elements should be coordinated and consistent with local Government strategies and palettes where appropriate.
- 6.6.5** The new transport infrastructure and associated public realm should be designed to minimise wind tunnel effects and wind impacts generally for pedestrians, at a local level.



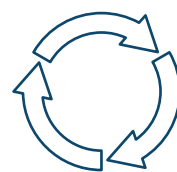
Figure 34 South Bank Parklands, Brisbane



Figure 35 West Footscray Station, Melbourne



Figure 36 BP Pedestrian Bridge, Chicago



## 6.7 ENVIRONMENTAL SUSTAINABLE DESIGN

- 6.7.1** The new transport infrastructure and associated development should align with the LXRA Sustainability Policy and should use materials, delivery methodologies, and other initiatives to support environmental sustainability.
- 6.7.2** Achieve best practice in environmentally sustainable development from the design stage through to construction.
- 6.7.3** Achieve an Infrastructure Sustainability Council of Australia (ISCA) 'Excellent' rating for the project and a Green Building Council of Australia (GBCA) Four Star Rating for station buildings as identified in the project brief.
- 6.7.4** Encourage innovative technology, design and processes in all development, which positively influences the sustainability of buildings.
- 6.7.5** Integrated development opportunities are to incorporate environmentally sustainable design measures in the areas of energy and water efficiency, greenhouse gas emissions, passive solar design, natural ventilation, stormwater reduction and management, solar access, orientation and layout of development, building materials and waste minimisation.
- 6.7.6** Demonstrate design potential for Environmentally Sustainable Development (ESD) initiatives at the planning stage.



Figure 37 Auckland Waterfront, Auckland



Figure 38 Edinburgh Gardens Rain Garden, Melbourne



Figure 39 Clifton Hill Railway Duplication, Melbourne





## 6.8 PEDESTRIAN AND BICYCLE CONNECTIONS

- 6.8.1** Maintain, improve and enhance the existing pedestrian and cycling network with particular reference to the strategic cycling corridor along the rail corridor.
- 6.8.2** Any new pedestrian and bicycle paths are to maintain and extend local connectivity for all user groups, including linking to existing or new community facilities, open spaces and urban renewal areas.
- 6.8.3** Maximise opportunities for grade-separated pedestrian and bicycle permeability across the rail corridor, and any cuttings.
- 6.8.4** Ensure pedestrian priority and improved connectivity at ground level wherever possible.
- 6.8.5** Pedestrian connectivity under and over new transport infrastructure, spaces and places should be provided as part of a coherent pedestrian movement network, connecting local pathways and places.
- 6.8.6** Shared paths and pedestrian spaces are to be safe, incorporating integrated lighting where appropriate, effective passive surveillance and CPTED principles.



Figure 40 Monash Freeway Rock Climbing Wall, Burnley



Figure 41 Eastern Freeway bike path, Melbourne



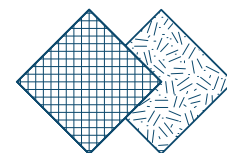
Figure 42 Shared Zone Lonsdale Street, Dandenong

- 6.8.7** Transitions between shared paths should be safe, continuous and seamless, with direct routes and consistent design elements to assist with legibility.
- 6.8.8** Ensure paths are safe and useable, with no impediments such as steep ramps, barriers or stairs.
- 6.8.9** Design requirements and prioritisation of cycling infrastructure is to connect and align with bicycle priority routes, including the State's program for Strategic Cycling Corridors and the Principle Bicycle Network.
- 6.8.10** Improve way finding and legibility around sites affected by the project, with consideration of new infrastructure and impacts on existing pathways and linkages.

Wayfinding should be intuitive, clear and consistent. Integrate signage and cycling infrastructure in response to local palettes and signage systems, and within the urban design approach for the project as a whole.



Figure 43 Cycling facilities, Melbourne



## 6.9 MATERIALS AND FINISHES

- 6.9.1** A palette of materials, finishes and landscape textures and colours is to be developed as part of the urban design concept. Palettes are to be sensitive to local environments, assist in the broader wayfinding strategy for the corridor and its precincts, and contribute to authentic enhancement of local identity.
- 6.9.2** Materials and finishes used in the project are to be high quality, durable, robust, easy to maintain and will age well over time.
- 6.9.3** Care should be given to ensure new materials and finishes are not overly reflective and do not create light pollution in the surrounding areas.
- 6.9.4** Selection and application of materials and finishes should be done to minimise potential for vandalism including graffiti.
- 6.9.5** Design for accessibility and functionality for ease of maintenance.



Figure 44 Craigieburn Bypass, Melbourne



Figure 45 South Morang Railway Station, Melbourne



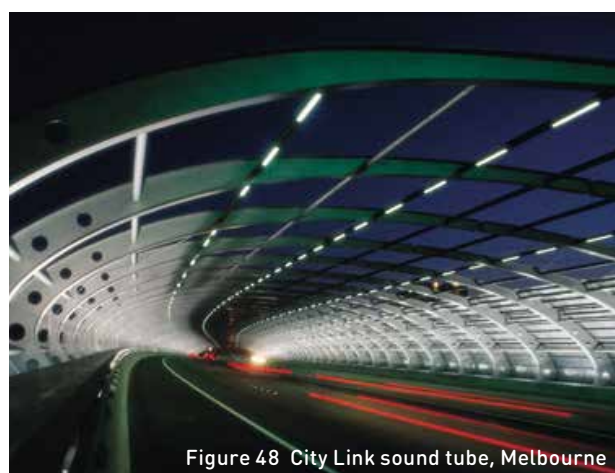
Figure 46 Alicante Tram station, Spain





## 6.10 NOISE ATTENUATION

- 6.10.1** Mitigate noise pollution of the surrounding areas in accordance with current State policy.
- 6.10.2** New noise attenuation elements are to be coordinated and designed to be integrated with consideration to the structures, existing noise attenuation elements, landforms, urban interfaces, urban design concept for precincts and for the project as a whole.
- 6.10.3** Transparent panels are to be used where noise walls substantially interfere with residents' views or access to daylight.
- 6.10.4** Design noise barriers to positively address and enhance both the rail side and community side of barriers. Noise walls should be designed with careful consideration to form, texture and colour on both sides of the walls with equal value.
- 6.10.5** Overshadowing of residential properties and open space, waterways and valuable habitat by noise barriers or other noise attenuation structures is to be minimised.
- 6.10.6** Design to minimise potential for vandalism to noise attenuation treatments, through materials selection, detail and positioning.





## 6.11 LIGHTING

- 6.11.1** Functional lighting for the project is to integrate with surrounding areas and be appropriate to the surrounding land uses. It should be considered relative to personal safety and access around the new transport infrastructure. Use energy efficient, vandal proof light fixtures that offer ease of access for maintenance, and are integrated design elements.
- 6.11.2** Feature lighting should be used in the project, to enhance navigation and the user experience, as an integrated part of the urban design concept. This lighting type should be coordinated with other design elements to create a cohesive identity for the project.
- 6.11.3** Any lighting employed in the project should be designed sensitively to the surrounding environment and oriented to minimise any light pollution. Design is to use highly directional lighting wherever possible to avoid lighting spill into surrounding neighbourhoods, parks and urban environments.



Figure 50 Jim Stynes Bridge, Melbourne



Figure 51 Webb Bridge, Melbourne



Figure 52 University of Sydney Darling Campus, Sydney



## 6.12 INTEGRATED PUBLIC ART WORKS

- 6.12.1 Consider the incorporation of public artworks in key locations.
- 6.12.2 Where public artworks are proposed, articulate and employ a process for selection, commissioning, implementation and on-going maintenance that ensures the works are of a high quality, responsive to the character of the urban setting, and will endure conceptually and physically.



Figure 53 Invasion Verde, Peru



Figure 54 Fruition at Royal Park, Melbourne



Figure 55 Rollercoaster pavillion, Beijing



## 6.13 INTEGRATED DEVELOPMENT OPPORTUNITIES

- 6.13.1** Integrated Development Opportunities (IDOs) should be designed to make a positive contribution to the local area and act as a catalyst for urban renewal, and encourage development / land use innovation where possible.
- 6.13.2** Built form and land uses should have regard to the policy context of the site and location, including broader Metropolitan Melbourne policy objectives which encourage higher density development in and around activity centres.
- 6.13.3** Consider a mix of land uses that contribute positively to the area and the local economy, including the potential to accommodate commercial uses and community and social uses where possible to meet other government outcomes.
- 6.13.4** Continue active frontages and retail functions in commercial areas where appropriate.
- 6.13.5** Integrate development with train station functions, to ensure physical connectivity and protection of visual and noise amenity is maintained, with station requirements (including access and other operational requirements) to take precedence.
- 6.13.6** Where possible, provide a diversity in housing options, including a mix of dwelling types and investigate opportunities for social and affordable housing.
- 6.13.7** Consider opportunities to maximise car parking efficiencies by potentially integrating commuter car parking into the development outcome for the site through the application of shared arrangements and/or off-peak utilization of car park spaces.
- 6.13.8** Where possible, any temporary vacant IDO sites should be developed with an appropriate interim land use and corresponding landscape design, so they make a positive contribution to the local area over the entire project lifecycle.



Figure 56 Rouse Hill



Figure 57 Breslauer Platz, Cologne



Figure 58 Nunawading Station

# 7. IMPLEMENTATION

## 7.1 EMBEDDING DESIGN QUALITY

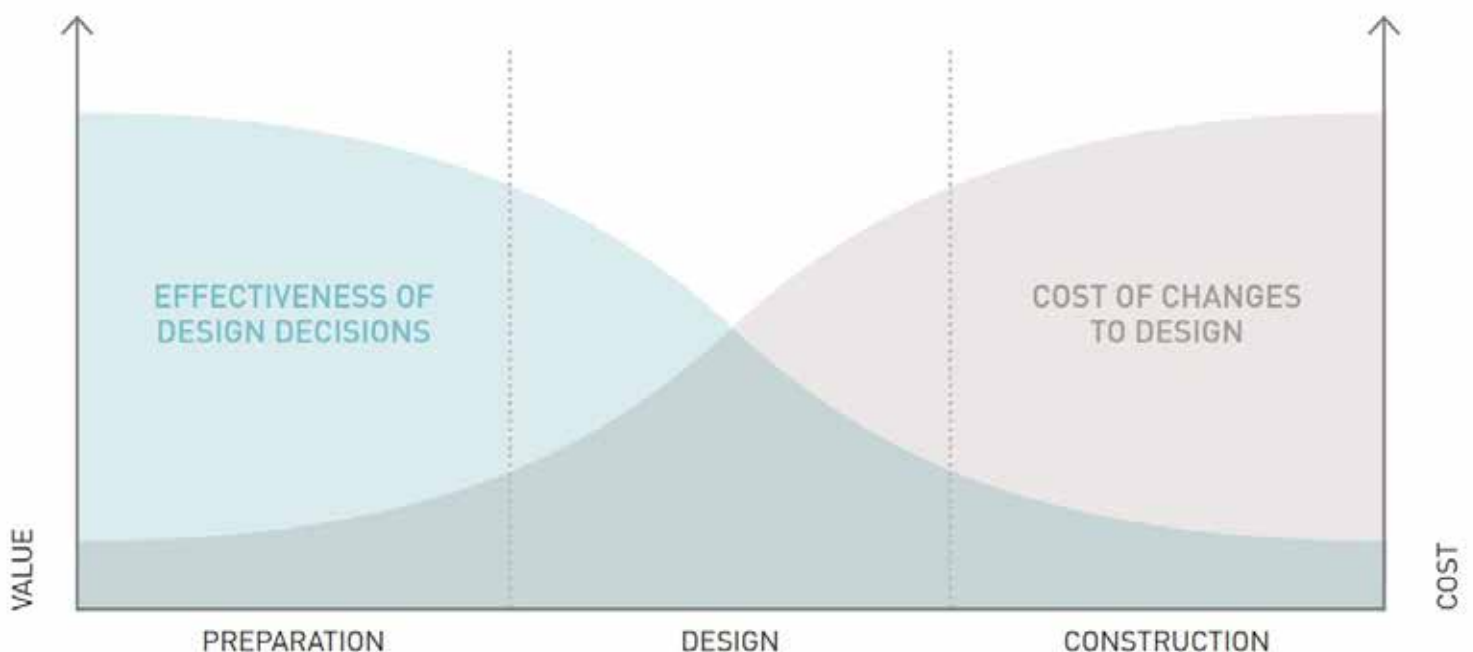
High quality, well-integrated design is critical to the success of a major infrastructure project. Establishing from the outset a vision for a site that considers the long-term possibilities for a place and community at a broader scale than just that of the initial transport project investment may act as a catalyst and unlock transformative urban integration and urban renewal opportunities.

The following excerpt is taken from the Office of the Victorian Government Architect's procurement guidance document Government as 'Smart Client' and illustrates the importance of introducing key design initiatives early in the design process to support quality design outcomes.

The diagram indicates that during a project's initial scoping and design phase it is possible to have a very substantial impact on design quality. As the project continues it is dominated by the rigours of the procurement process and the contractual and commercial demands of construction. The ability to impact and improve design quality becomes more difficult and expensive as the project progresses. When key design initiatives are put in place at the early stages of a project then there is a greater opportunity for good design to be realized.

Factors which can have a significant impact on design outcomes include:

- development of a Vision Statement
- quality of the Brief
- adequacy of the Budget
- adequacy of the Program
- need for Design Review
- experience and quality of the Management of the process
- the skill of the Design Team.



## 7.2 DESIGN QUALITY INITIATIVES

To support high quality and integrated urban design outcomes the LXRA is putting in place design initiatives and processes that will ensure design quality is embedded at the earliest stages of project's lifecycle from inception and continue for the life of a project. The establishment of design advice and design review mechanisms to support the implementation of the Urban Design Framework is critical to the success of the program.

### 7.2.1 Urban Design Advisory Panel

The Urban Design Advisory Panel (UDAP) will be comprised of members/stakeholders working within government who have particular professional expertise in architecture, urban design, strategic planning, transport planning and landscape architecture. A representative of The Office of the Victorian Government Architect (OVGA) will be the Chair of the UDAP and will drive high quality outcomes and integrated design for the LCRP, Mernda Rail Extension Project (MREP) and other future projects as allocated.

The UDAP will guide and advise on:

- a. Integrated design for projects delivered by the LXRA, including vision statements, urban context/ design reports and reference designs/project proposals to inform project scope and budget decisions;
- b. Development of project briefs and urban design performance requirements;
- c. Development of bidders' concept designs;
- c. Concept design development during a competitive tender process
- d. Evaluation of bidders' design proposals;
- e. Design and integration of development opportunities.

The UDAP will facilitate workshops and design advisory processes throughout the project lifecycle, and before major decisions are made. This design-led approach is intended to be positive and iterative, promoting site responsive designs that are consistent with the aspirations of each of the activity centres and adjacent neighbourhoods, and add value to the outcomes of the program.

### 7.2.2 Victorian Design Review Panel

The Victorian Design Review Panel (VDRP), which is managed by the OVGA, provides independent and authoritative advice to government and statutory decision makers across Victoria about the design of significant development proposals.

For LXRA, the VDRP can be made available to review project designs at key milestones, as an independent peer review. The VDRP could also be brought in at key stages of the procurement process to support the design review process and provide independent advice. The UDAP will be responsible for ensuring that any recommendations from the VDRP are considered in the design process.

The VDRP consists of highly experienced built environment professionals, who provide expert design review of significant projects at key stages of the design and development process. Architects, urban designers, landscape architects and planners, as well as specialists in sustainability, accessibility, health, place making and masterplanning, contribute to the VDRP.

The VDRP reviews projects that are significant because of their site, context or complexity, or because they will be establishing a precedent for new development in a place. The VDRP can review all scales of development from masterplans, major infrastructure, buildings, streets and public spaces.

## 8. FIGURE SOURCES

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2-6	<i>Regional Rail Link, Melbourne</i>	15	LXRA
7	<i>Olympic Sculpture Park, Seattle</i>	16	<a href="http://www.shank13.wordpress.com/2012/08/20/landscape-traditions-olympic-sculpture-park-final-paper">www.shank13.wordpress.com/2012/08/20/landscape-traditions-olympic-sculpture-park-final-paper</a>
8	<i>Craigieburn Bypass, Melbourne</i>	16	<a href="http://www.yasammekan.com1000">www.yasammekan.com1000</a>
9	<i>Shared Zone Lonsdale Street, Dandenong</i>	16	<a href="http://www.archdaily.com.br/br/01-156615/projeto-lonsdale-street-dandenong-slash-bkk-architects/52016265e8e44ebcd3000075-lonsdale-street-dandenong-bkk-architects-photo">www.archdaily.com.br/br/01-156615/projeto-lonsdale-street-dandenong-slash-bkk-architects/52016265e8e44ebcd3000075-lonsdale-street-dandenong-bkk-architects-photo</a>
10	<i>Newtown Interchange, Sydney</i>	17	<a href="http://www.wp.architecture.com.au/nswawards/2013-winners-list-jury-citations/2013-urban-design-entries">www.wp.architecture.com.au/nswawards/2013-winners-list-jury-citations/2013-urban-design-entries</a>
11	<i>PARK[E]ING, Venice</i>	17	<a href="http://www.landezine.com/index.php/2013/02/parkeing-by-stradivarie-associated-architects">www.landezine.com/index.php/2013/02/parkeing-by-stradivarie-associated-architects</a>
12	<i>Gloucester Reserve WSUD, Melbourne</i>	17	GHD
13	<i>Skyttlebron Railway Bridge, Lund</i>	18	<a href="http://www.dezeen.com/2014/06/13/skyttlebron-railway-bridge-lund-sweden-metro-arkitekter-zig-zags-onto-the-platforms">www.dezeen.com/2014/06/13/skyttlebron-railway-bridge-lund-sweden-metro-arkitekter-zig-zags-onto-the-platforms</a>
14	<i>North Melbourne Station, North Melbourne</i>	18	<a href="http://www.steel.com.au/showcase/projects/north-melbourne-station">www.steel.com.au/showcase/projects/north-melbourne-station</a>
15	<i>Hoxton Station, London</i>	19	<a href="http://www.westonwilliamson.com/projects/transport/victoria-station-upgrade">www.westonwilliamson.com/projects/transport/victoria-station-upgrade</a>
16	<i>Hyllie Station, Sweden</i>	19	<a href="http://www.stylepark.com">www.stylepark.com</a>
17	<i>Yeouido Cycle Tunnel, Seoul</i>	20	<a href="http://www.lokaldesign.com/index.php?/infrastructure/yeouido-specialized-project">www.lokaldesign.com/index.php?/infrastructure/yeouido-specialized-project</a>
18	<i>McCormick Tribune Campus Centre, Chicago</i>	20	<a href="http://www.iolet0012.egloos.com/m/619521">www.iolet0012.egloos.com/m/619521</a>
19	<i>Eastlink, Melbourne</i>	20	VicRoads
20	<i>Eastlink Pedestrian Bridge, Melbourne</i>	21	<a href="http://www.eastlink.com.au">www.eastlink.com.au</a>

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21	Footbridge Over the Railways, Villeteuse	21	<a href="http://www.lasthomedecors.com">www.lasthomedecors.com</a>
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23	Cheonggyecheon River Restoration, Seoul	22	<a href="http://www.paulalogy.com/korea-travelogue-day-2-myeongdong-cathedralbukchon-hanok-village-jump-and-cheonggyecheon">www.paulalogy.com/korea-travelogue-day-2-myeongdong-cathedralbukchon-hanok-village-jump-and-cheonggyecheon</a>
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26	Nicholson Street Mall, Footscray	24	<a href="http://www.v1.german-architects.com/en/projects/6099_nicholson_street_mall/all/indexAZ">www.v1.german-architects.com/en/projects/6099_nicholson_street_mall/all/indexAZ</a>
27	City Square, Melbourne CBD	24	<a href="http://www.v1.german-architects.com/en/projects/6099_nicholson_street_mall/all/indexAZ">www.v1.german-architects.com/en/projects/6099_nicholson_street_mall/all/indexAZ</a>
28	Burnside skate park, Oregon	24	<a href="http://www.skateparkhunter.com/usa/burnside-skatepark/">www.skateparkhunter.com/usa/burnside-skatepark/</a>
29	MediaCityUK, Salford	25	<a href="http://www.landezine.com/index.php/2011/08/mediacityuk-landscape-architecture">www.landezine.com/index.php/2011/08/mediacityuk-landscape-architecture</a>
30	A8ernA, Koog aan de Zaan	25	<a href="http://www.architonic.com/aisht/a8erna-nl-architects/5100103">www.architonic.com/aisht/a8erna-nl-architects/5100103</a>
31	Shared Zone Lonsdale Street, Dandenong	25	<a href="http://www.archdaily.com">www.archdaily.com</a>
32	Cranbourne Botanical Gardens, Melbourne	26	<a href="http://www.johngrimshawsgardendiary.blogspot.com.au/2012/12/the-australian-garden-rbg-cranbourne.html">www.johngrimshawsgardendiary.blogspot.com.au/2012/12/the-australian-garden-rbg-cranbourne.html</a>
33	Buffalo Bayou Promenade, Houston	26	<a href="http://www.batonrougelakes.org/planner">www.batonrougelakes.org/planner</a>
34	South Bank Parklands, Brisbane	27	<a href="http://www.architectureau.com/articles/2014-national-landscape-architecture-award-design-1">www.architectureau.com/articles/2014-national-landscape-architecture-award-design-1</a>
35	West Footscray Station, Melbourne	27	<a href="http://www.anlc.com.au/completed-projects/west-footscray-train-station">www.anlc.com.au/completed-projects/west-footscray-train-station</a>
36	BP Bridge, Chicago	27	<a href="http://www.worldofbuildings.com/bldg_profile.php?bldg_id=1240">www.worldofbuildings.com/bldg_profile.php?bldg_id=1240</a>
37	Auckland Waterfront, Auckland	28	<a href="http://www.landezine.com/index.php/2012/09/north-wharf-promenade-by-taylor-cullity-lethlean/taylor-cullity-lethlean_aucklandwaterfront_08">www.landezine.com/index.php/2012/09/north-wharf-promenade-by-taylor-cullity-lethlean/taylor-cullity-lethlean_aucklandwaterfront_08</a>
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55	Rollercoaster pavillion, Beijing	34	<a href="http://www.dezeen.com/2011/11/08/rollercoaster-by-interval-architects">www.dezeen.com/2011/11/08/rollercoaster-by-interval-architects</a>
56	Rouse Hill	35	<a href="http://mosmanplanning.net">mosmanplanning.net</a>
57	Breslauer Platz, Cologne	35	<a href="http://www.illumni.co">www.illumni.co</a>
58	Nunawading Station	35	<a href="http://www.commercial.prebuilt.com.au">www. commercial.prebuilt.com.au</a>