



Australian Government

National Capital Authority

CONSTITUTION AVENUE

PUBLIC REALM HANDBOOK

CONSTITUTION AVENUE STREETSCAPE

Design framework for streetscape elements on Constitution Avenue

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INTRODUCTION

The National Capital Authority (NCA) has produced the *Constitution Avenue Public Realm Handbook* to support changes being made to Constitution Avenue by multiple parties, over a period of time. It provides a level of direction on design integration and quality that will ultimately improve the experience of the street.

The handbook does not present a definitive master plan. Instead, it offers a robust framework that encourages creativity, individuality, and flexibility in design responses.

The NCA is seeking to promote high-quality design to achieve a more attractive and sustainable National Capital. Well-designed buildings, infrastructure and landscape projects make a lasting contribution to the public realm, provide more people-friendly streetscapes, and result in a more economically, socially and environmentally resilient city.

HOW TO USE THE HANDBOOK

This handbook has been developed for the following users:

- > land managers of building or development sites on Constitution Avenue (a proponent);
- > transport, architectural, urban and landscape designers, planners and engineers;
- > service providers or their contractors proposing works on National Land on Constitution Avenue;
- > construction managers or superintendents for any works; and
- > staff of the National Capital Authority involved in the assessment of works applications (proposals) or management of land or assets.

STRUCTURE

The document is arranged in the key sections outlined below.

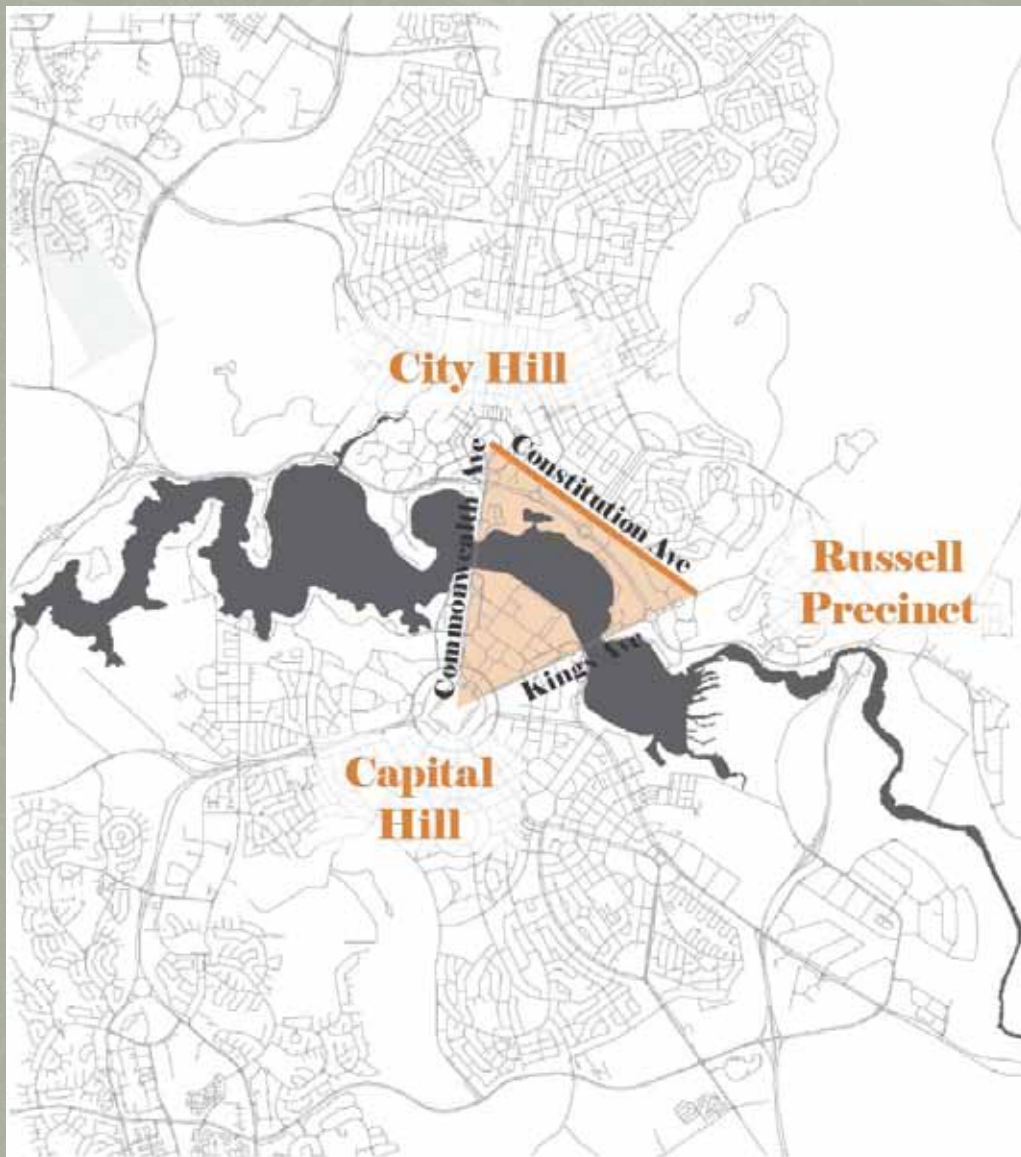
- > **Design Objectives:** any proposed change on Constitution Avenue must address these key long-term design objectives.
- > **Defining Street Elements:** this identifies some significant design opportunities and constraints for works on Constitution Avenue.
- > **Application:** the coordination of individual elements along Constitution Avenue is vital to the development of a cohesive streetscape. This section sets the conceptual framework for designers to use in the production of integrated transport, landscape, lighting and built form designs.

CONTEXT

Constitution Avenue connects Canberra City to the Russell employment precinct, with the suburbs of Reid and Campbell to the north, and the Canberra Central Parklands and Lake Burley Griffin to the south.

The Griffins' formally adopted Plan for Canberra set the foundations for a city within a natural setting, structured and defined by its surrounding landforms and made up of grand streets and boulevards, exceptional architecture and refined urban spaces.

Constitution Avenue is a central element of this plan and a key piece in the successful implementation of The Griffin Legacy. Within the City's future, the Avenue is set to become an elegant and vibrant mixed-use grand boulevard, linking London Circuit to Russell, increasing the vitality of the Central National Area, and completing the National Triangle. Constitution Avenue will be a major city street supported by an integrated transport system, broad tree-lined footpaths, outdoor dining and on-street parking.



DESIGN OBJECTIVES

The following section sets out six key design objectives for the transformation of Constitution Avenue into an urban boulevard. Any application for works on Constitution Avenue must demonstrate how the proposal addresses these key long-term design objectives.

1 TRANSFORM THE LINK INTO A DESTINATION

Constitution Avenue should be developed as a destination with extended hours of use and a strong sense of place. New developments should enhance the quality of public space through designs that generate activity and promote social interaction and economic vitality.



2 CREATE A STREET FOR PEOPLE

Making people feel welcome on the street is critical in transforming the corridor into an urban boulevard. Street changes and developments must produce street conditions that encourage use of public space. Designs should therefore prioritise pedestrian movement and contribute to a sense of comfort and amenity for people, such as weather protection and street furniture.



3 FOSTER DISTINCTIVENESS

Constitution Avenue is a city street of distinctive character and evolving heritage value, that needs to be maintained and enhanced as one of Australia's nationally significant addresses. It is of utmost importance that the established landscape character is enhanced and maintained through any future change.



4 CREATE DIVERSITY

Changes in land use and character must create diversity and variety in a balanced way which ensures a consistently high quality and that extends into the street, enhancing the experience of the street.



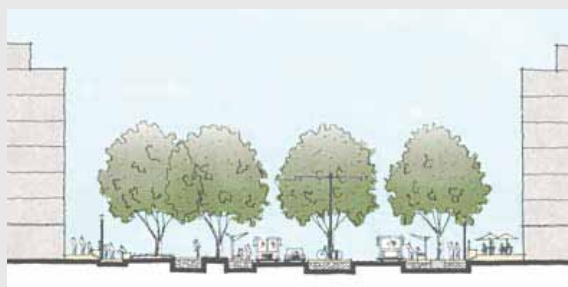
5 ENVIRONMENTAL INTEGRATION

Proposals must respond to the ecology of the area and demonstrate resilience to changing climatic factors in the design and detailing of the street.



6 UNIFY THE STREET

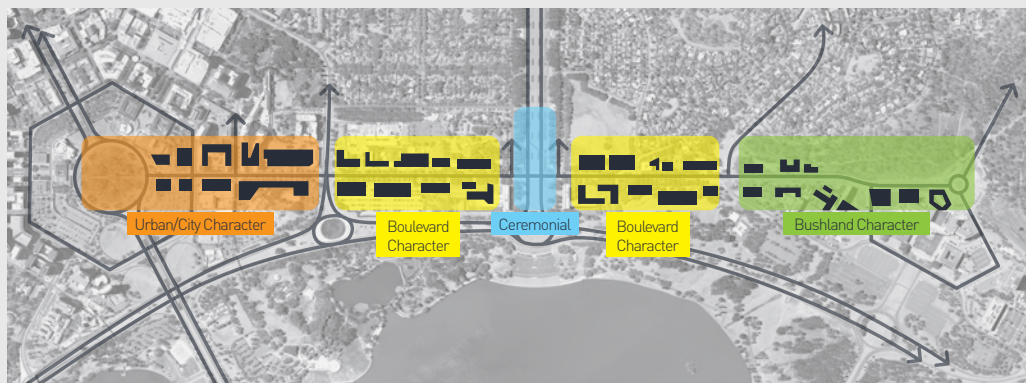
An appreciation of the complex relationships between spaces, defined land uses, and the clarity and function of movement along the corridor is essential in creating a sense of coherence and legibility for public and private spaces. Design solutions should seamlessly rationalise spaces, building edge conditions, multiple movement modes, urban and landscape elements.



DEFINING STREET ELEMENTS

STREET CHARACTER

The evolving patterns of activity, land use and landscape form on Constitution Avenue, will be experienced as five areas of distinct character within the street as a whole. In considering development options, those involved will be expected to respond to the street character within their design proposals.



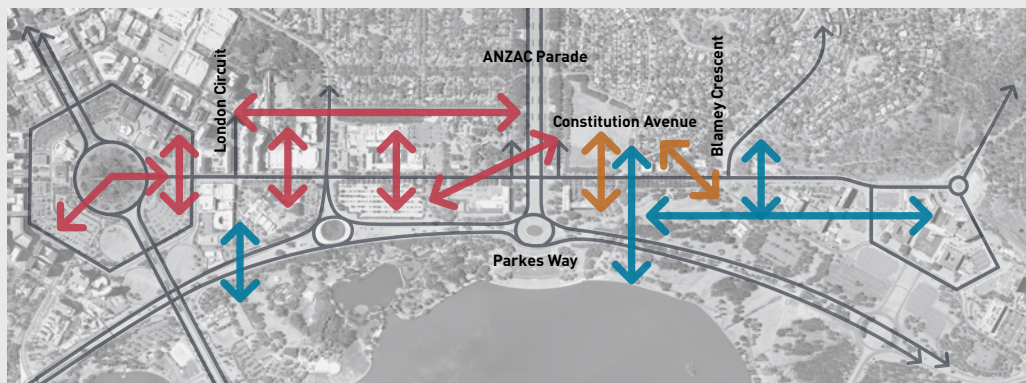
KEY

Future Development Character

■ Anticipated future development along street edge

MOVEMENT

Constitution Avenue is 2.5km in length, and possesses a varying rhythm of intersections, pedestrian crossings and service roads. The current and anticipated patterns of movement need to be catered for in any proposed change, to optimise access and minimise disruption, both along and across the corridor. The opportunity for people to cross the street should be prioritised and encouraged at regular intervals through appropriate detailed design.



KEY

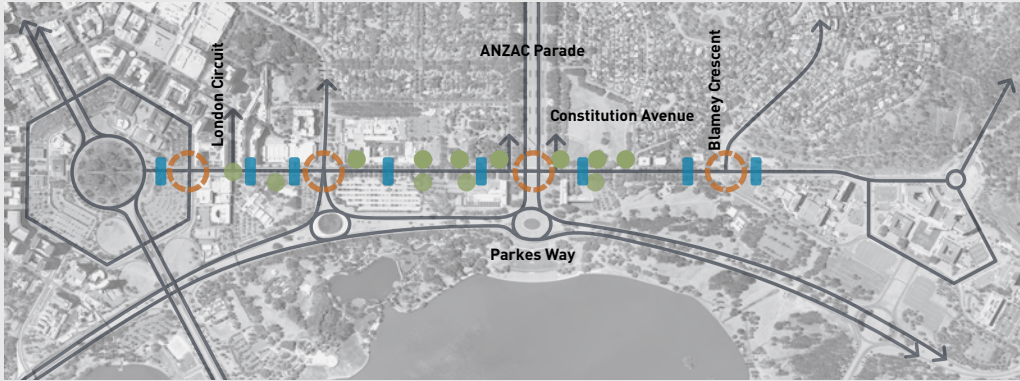
Linear and Cross Movement

- ← High pedestrian movement and connections
- ← Moderate pedestrian movement and connections
- ← Minor pedestrian movement and connections

Note: Movement and connection based on anticipated land uses and activity nodes




INTERSECTIONS

Over time, Constitution Avenue will be punctuated by an increased pattern of intersections, driveways and crossings. Where feasible, traffic management arrangements should be consolidated at strategic locations to strengthen the rhythm and permeability of the street. Entries, exits and crossings should be developed as integrated urban elements within the evolving street fabric.



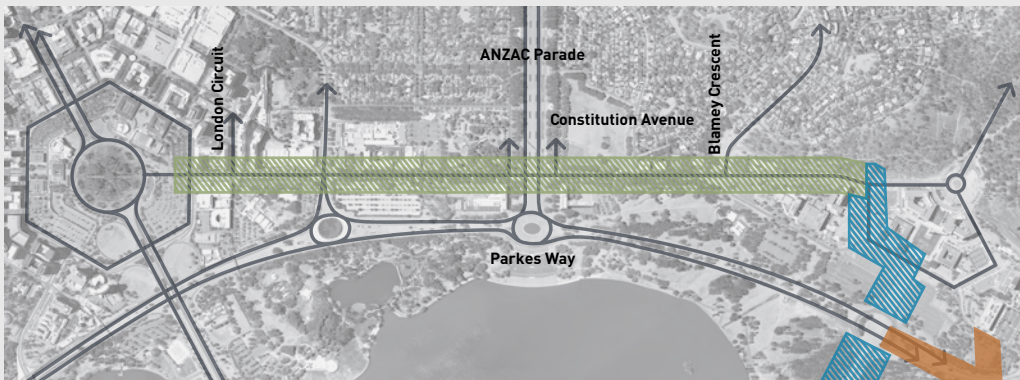
KEY

Linear and Cross Movement

-  **Signalised** Shared path north-side, cycleway and pedestrian paths connect at intersection south-side
-  **Non-signalised** Shared path north-side, cycleway and pedestrian paths remain separate side
-  **Indicative mid-block crossings** Increasing north-south permeability for pedestrians and cyclists




PUBLIC TRANSPORT

Constitution Avenue will continue to play a key role in the operation of Canberra's public transport network. Opportunities for public transport priority must be retained in any changes.



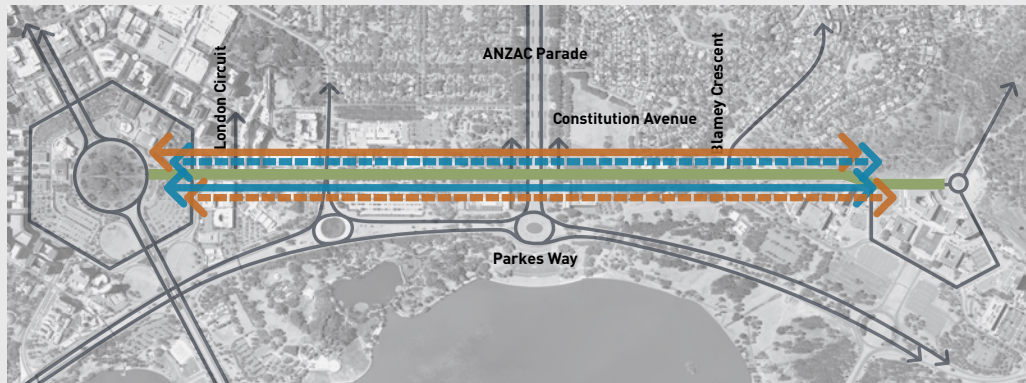
KEY

Future public transport

-  Potential for two-lane dedicated busway along Constitution Avenue
-  Future city transit connection, connecting to Constitution Avenue
-  Future city-airport connection

PUBLIC REALM ELEMENTS

The public realm is defined by the paths and spaces between the buildings on the street. These elements provide the basis for the street's emerging structure and character, which will vary notably between the north and south side of the street.



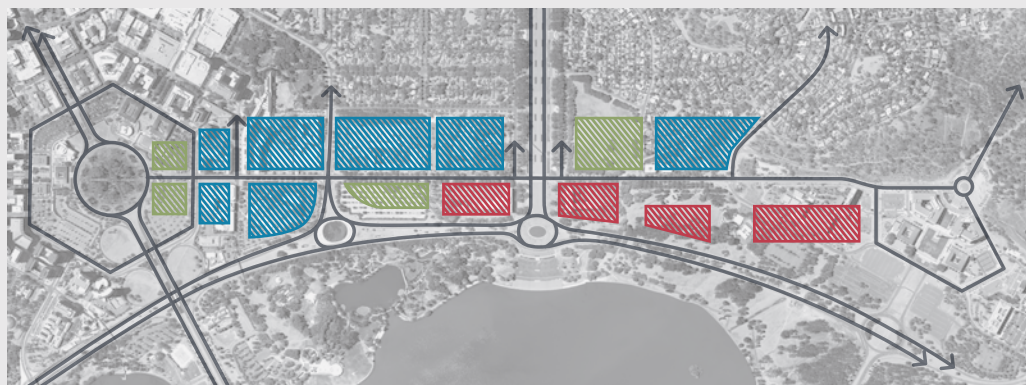
KEY

Public realm elements

- Public realm setback – typically 6.5m – allows for separation and activation of space
- Separated shared path north-side – width 2.5m – allows for activation along frontages
- Dedicated bi-directional off-street cycleway south-side – width 3.0m – allows for efficiency of movement
- Separated pedestrian shared path south-side – width 2.5m – provides safe walking environment
- Central median – allowing for turning lanes, street trees, street lighting and bike parking

ACTIVATION OF PUBLIC DOMAIN

The activity levels and hours of use along sections of the street is anticipated to vary considerably due to land use, tenancy and building design. A mix of land uses is encouraged to activate the street throughout the day, which should be supported by the design of built form and streetscape elements.



KEY

Land use and street activation

- Activated street edge condition
- Semi-activated street edge condition
- Minor activation of street edge condition

Note: Edge activation based on existing and anticipated future land uses and density patterns.

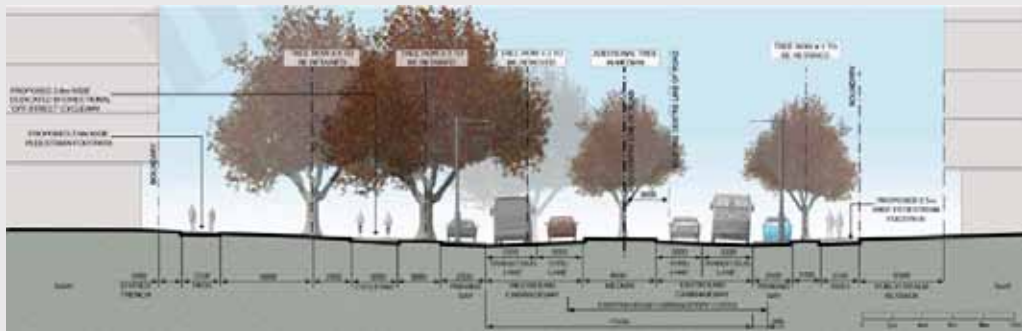
LONG TERM DEVELOPMENT

As part of the vision illustrated in the National Capital Plan, the design of Constitution Avenue will need to be upgraded to meet the long-term demands of a growing population. A future design has been developed that will accommodate two vehicle lanes in each direction (providing opportunity for public transport priority measures), with parallel kerbside parking on both sides of the street. A central median featuring tree plantings will allow right-turning movements where feasible and refuge for pedestrians. A dedicated bi-directional cycle lane and pedestrian path will run on the south side of the street, and a shared path on the northern side.

EXISTING TYPICAL SECTION



FUTURE TYPICAL SECTION



APPLICATION

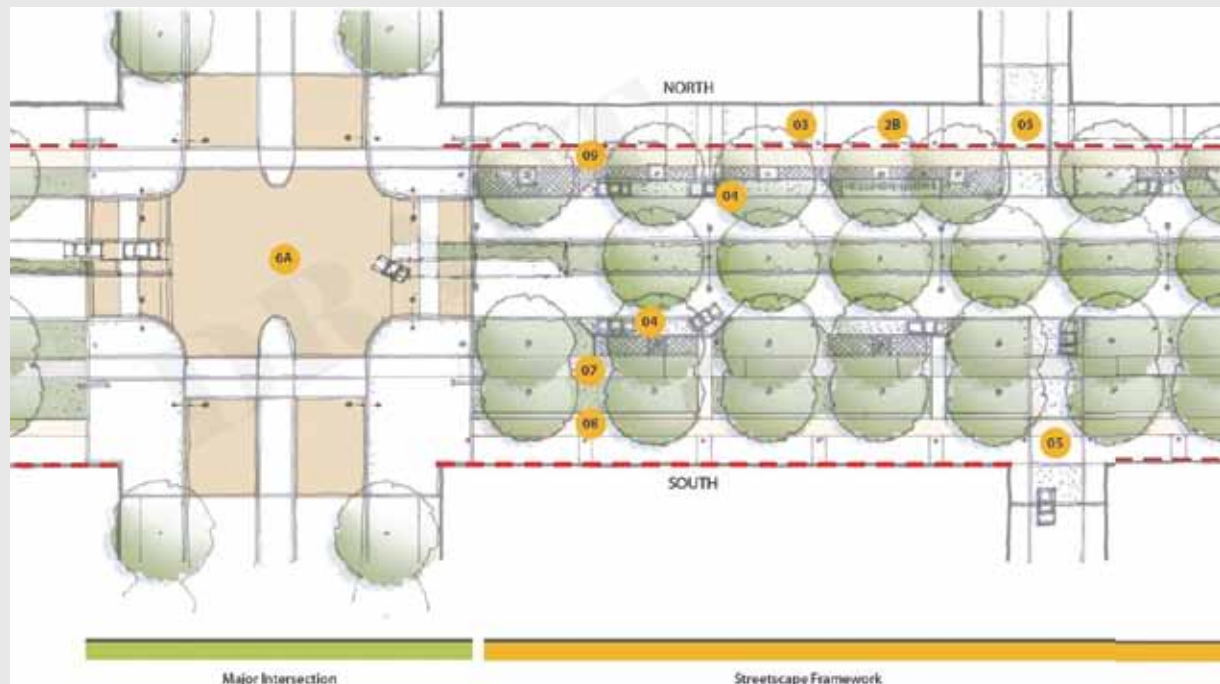
TYPICAL PLAN & SECTION

A design has been developed that illustrates the future composition of Constitution Avenue, with a focus on public space.

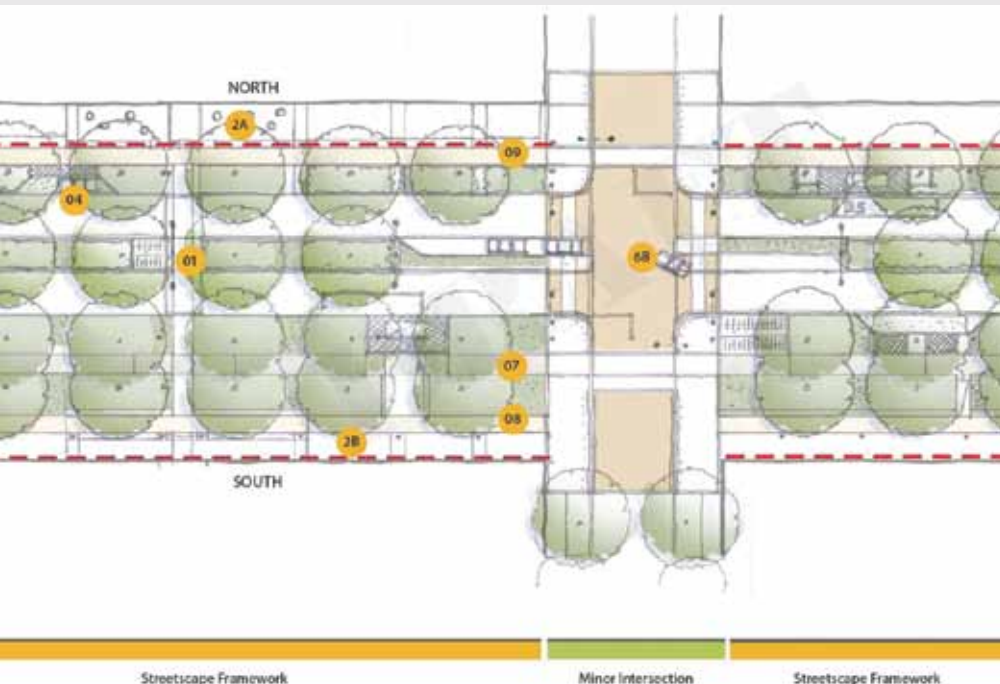
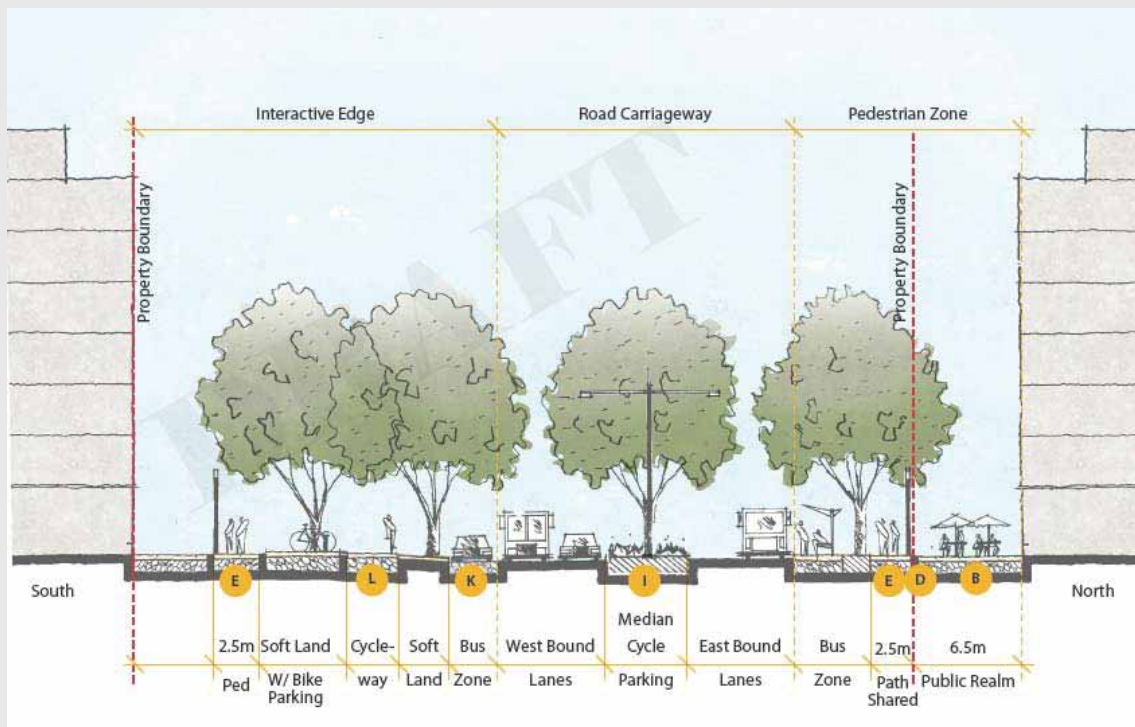
Key aspects of the design are:

- shared path on the north side of the street;
- separate pedestrian path and cycle lanes on the south side of street;
- setback on the north side of the street to reflect the publicly accessible space on the south side of the street (which may incorporate spaces for street furniture, and outdoor food and beverage);
- intersections, driveways and crossings should be visually identified through changes in materials to signal pedestrian priority;
- any level transition between built form and public space should remain legible and accessible;
- the natural characteristics of the area should be integrated and reinforced;
- street furniture should be located outside the path alignments;
- designs should reflect a unified and cohesive framework for the street, with provision for individual expression of character for building frontages; and
- the provision of amenities such as bicycle parking and seating should be conveniently located around desire lines, crossings and building entries.

TYPICAL PLAN



TYPICAL SECTION



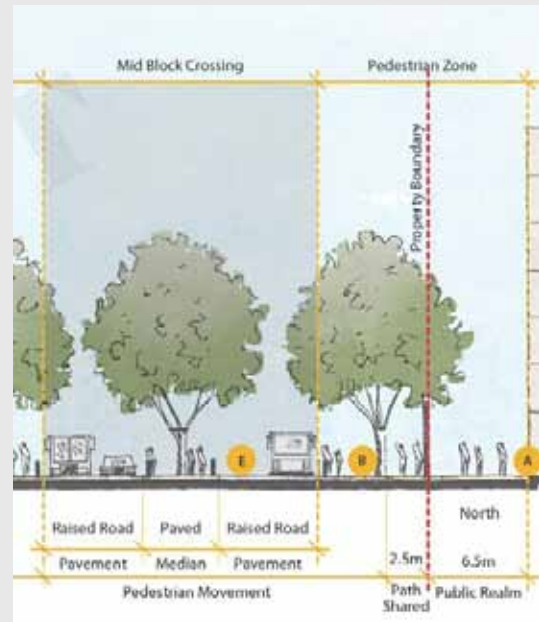
COMPONENTS

- 01 Mid-block crossing
 - 02 **Edge conditions:**
 - A. Active edge
 - B. Interactive edge
 - 03 Utilising grade change
 - 04 Parking and drop-off zones
 - 05 Access driveways for service and parking
 - 06 **Street intersections:**
 - A. Major intersection
 - B. Minor intersection
 - 07 Dedicated bidirectional cycleway (3.0m wide)
 - 08 Pedestrian path (2.5m wide)
 - 09 Shared path (2.5m wide)
- Property boundary

TYPICAL DETAILS

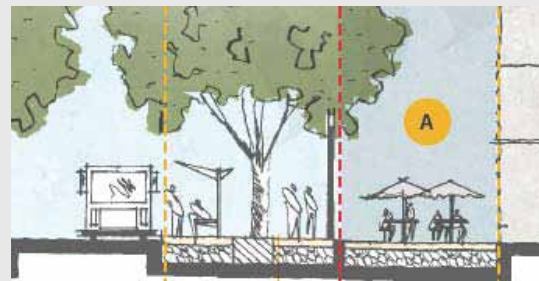
01 MID-BLOCK CROSSING

As part of the transformation of Constitution Avenue into a people-orientated street, provision must be made for people walking and riding bicycles to cross the street at regular points. Where possible, these crossings should give priority to people over through traffic using appropriate traffic management measures, such as raised pavement crossings.



02 ACTIVE EDGE

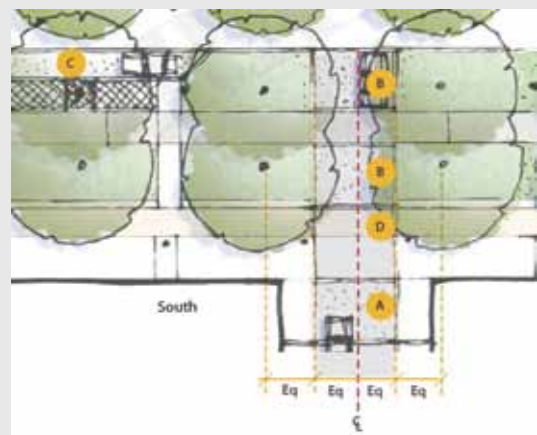
Development on Constitution Avenue should feature direct visual and physical pedestrian permeability and access at the street level and ensure a vibrant mix of land uses.



05 DRIVEWAYS

The following notes apply to the design of driveways:

- a] building articulation should permit vehicle queuing space to give priority to path users;
- b] driveway paving levels and treatments should be integrated with raised cycleway;
- c] driveways must be clear of on-street parking bays; and
- d] driveways must be centred between trees to avoid tree removal.



06 INTERSECTIONS

MAJOR INTERSECTIONS

Paving levels and treatments should be integrated between building frontages, paths and crossings to create an integrated space that gives priority to people walking, riding bicycles and using prams or wheelchairs.

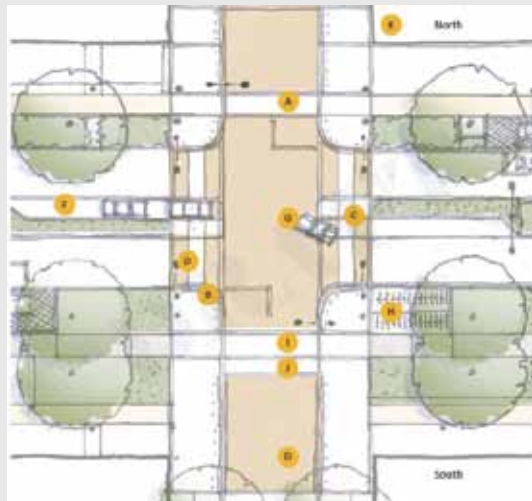
Raised intersections, changes in paving material and median breaks should be incorporated to define thresholds and reinforce transitions. Slip lanes will not be supported.



MINOR INTERSECTIONS

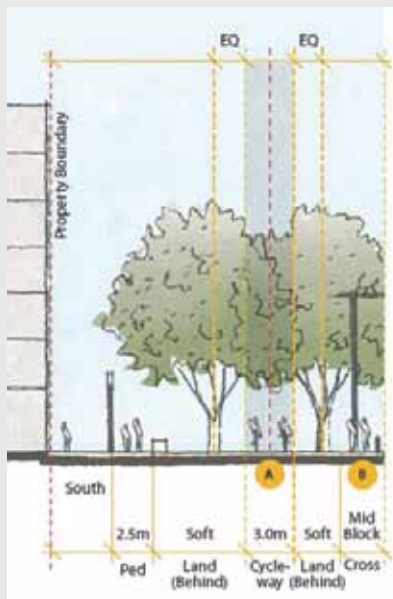
The turning radius of minor intersection and driveway corners should be minimised to reduce turning vehicle speeds and improve pedestrian safety.

Street furniture, such as seating and cycle racks, should be incorporated in any intersection design to improve pedestrian amenity.



07 DEDICATED CYCLEWAY

A dedicated two-way cycleway will be located on the south side of the street between two rows of trees. Driveway and minor road crossings should be raised to give priority to the cycleway and pedestrian path, incorporating appropriate traffic management measures to optimise safety for all users.

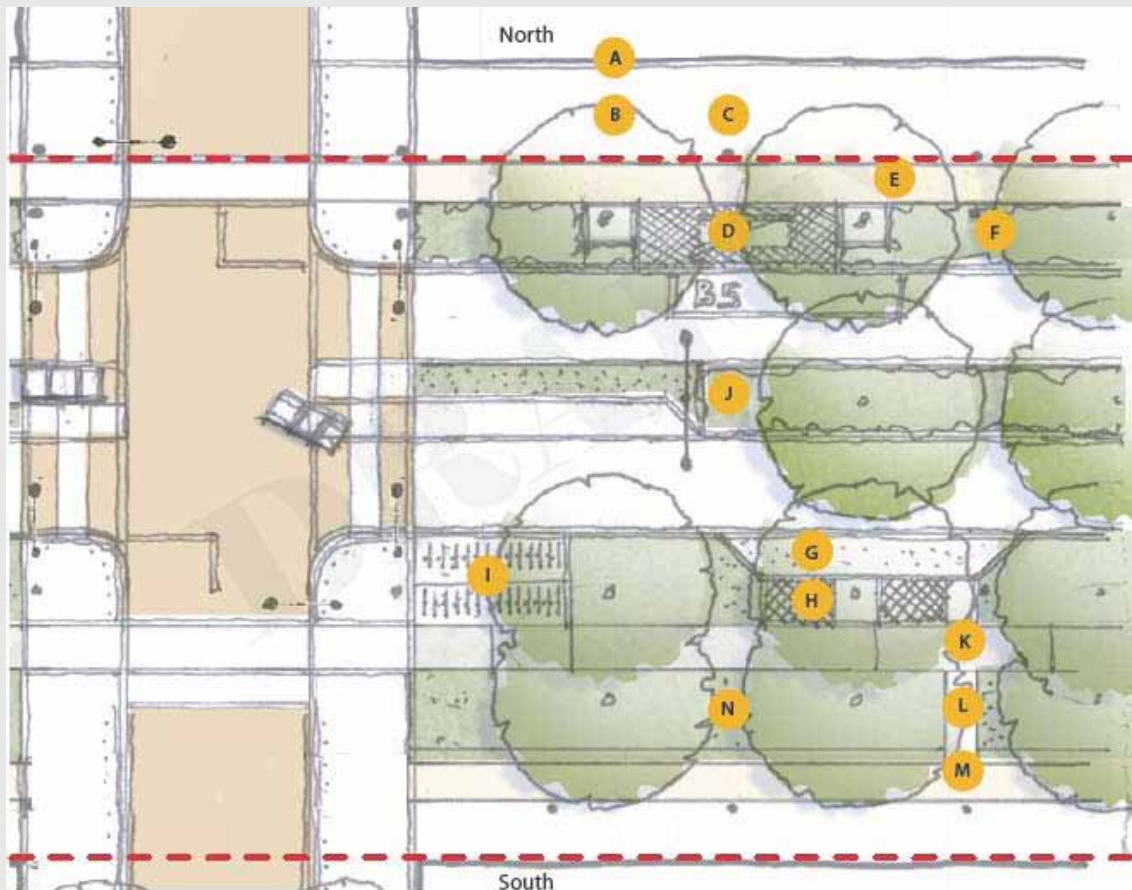


MATERIALS

GENERAL REQUIREMENTS

Public realm materials for Constitution Avenue should:

- be appropriate for their context and intended purpose;
- contribute to a unique sense of place for Constitution Avenue;
- be of a high quality, featuring a high standard of detailing and finish;
- create safe, accessible and inclusive spaces that permit freedom of movement;
- be durable and minimise energy or water use throughout their life; and
- contribute to legibility in the public realm.

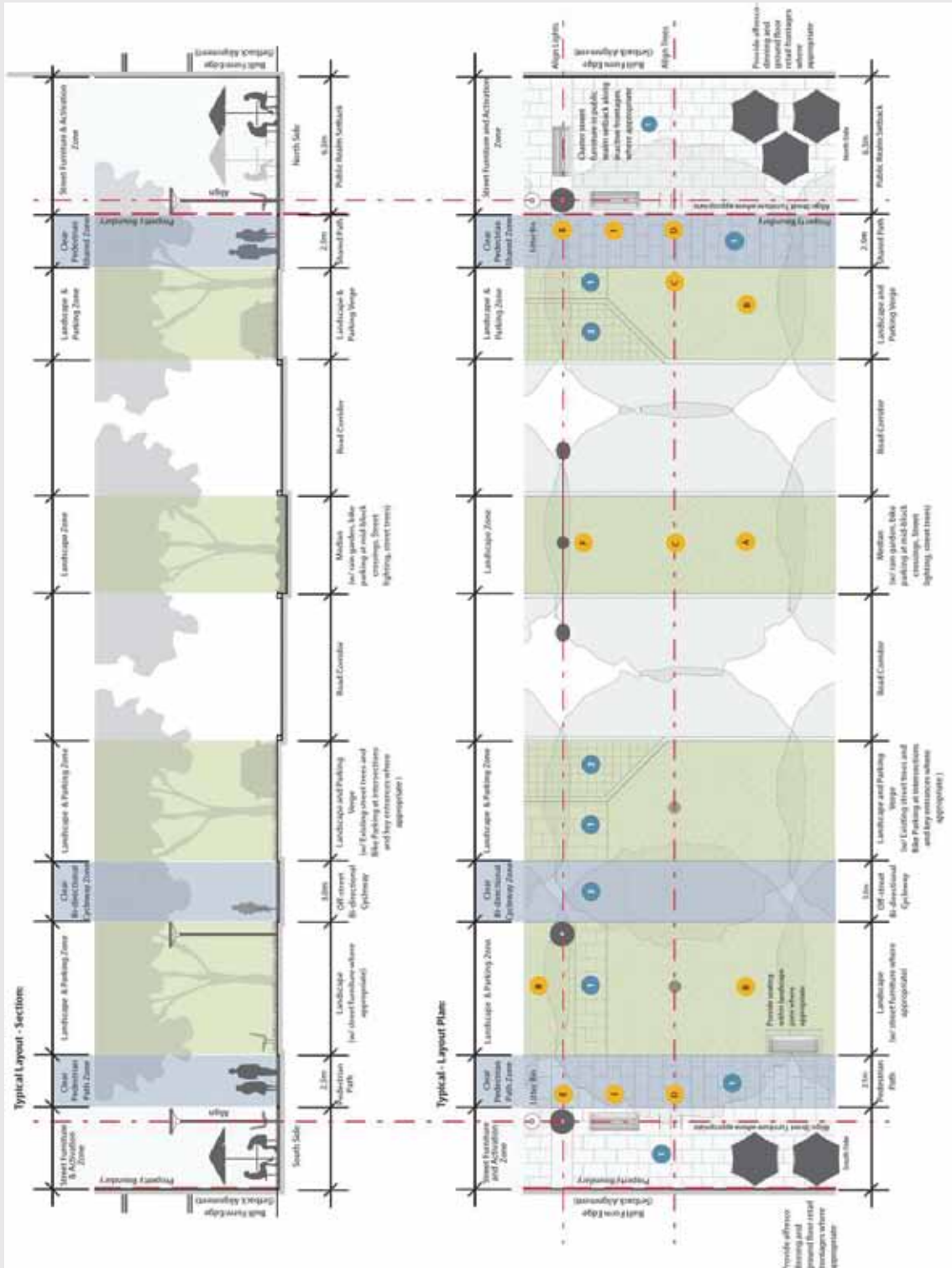


COMPONENTS

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> A 6.5m required building setback (north-side) B Active edge (see 02) C Interactive edge (see 02) D Pedestrian lighting E Unobstructed shared path designed for slow leandering movement of pedestrians and recreational cyclists | <ul style="list-style-type: none"> F Lawn G On-street parking bays with permeable paving H Permeable paving zone adjacent on-street parking bays I Planted median with street trees J Street lighting K Unobstructed vehicle crossover level with pedestrian path | <ul style="list-style-type: none"> L Bidirectional cycleway designed for efficient movement of cyclists M Pedestrian access paths linking shared path, cycleway, parking space, bus stops and mid-block crossings N Mid-block crossings located in conjunction with pedestrian desire lines and lighting O Pedestrian path designed for slow meandering movement of pedestrians |
|---|---|---|

APPLYING THE MATERIALS PALETTE

The following pages apply the materials palette to the basic structuring elements of the street. They provide an indicative guide to the application of materials within the road corridor and to the public realm on the north and south side of the Avenue. This includes mid-block and intersection layouts within the typical Avenue layout.



INDICATIVE MATERIALS PALETTE

LIGHTING



FURNITURE



SEATING



SOFT LANDSCAPING







PAVING



MATERIAL REQUIREMENTS

This section sets out the National Capital Authority's detailed requirements for the selection and location of all typical materials, species and fittings on Constitution Avenue, including key performance criteria for each component.

ID	COMPONENT	DESCRIPTION	SELECTION AND LOCATION PRINCIPLES	PERFORMANCE CRITERIA	INDICATIVE MATERIAL
C	Street trees	Quercus lusitanica (Lusitanian Oak)	<ul style="list-style-type: none"> > Maintain and enhance existing landscape character > Reinforce established planting pattern through ongoing replacement of trees that are missing or in poor condition 	<ul style="list-style-type: none"> > Transplant existing trees where possible > New trees should be minimum 6m height 	
	Street trees (east of Blamey Crescent)	Eucalyptus mannifera (Brittle Gum)	<ul style="list-style-type: none"> > Maintain and enhance existing landscape character > Reinforce established planting pattern through ongoing replacement of trees that are missing or in poor condition 	<ul style="list-style-type: none"> > New trees should be minimum 6m height 	



ID	COMPONENT	DESCRIPTION	SELECTION AND LOCATION PRINCIPLES	PERFORMANCE CRITERIA	INDICATIVE MATERIAL
D	Pedestrian lighting	Pole-top luminaire on matching round pole	<ul style="list-style-type: none"> > Feature lighting for pedestrian areas, paths, parks > Installation in uniform pattern > Create comfortable and safe pedestrian spaces at night > Daytime appearance should be 	<ul style="list-style-type: none"> > Visual comfort (low glare) > Energy efficient lamp > Simple geometric form > Durable surface finish > Concealed joints, hinges and fixings > Low maintenance, replaceable parts 	
J	Street lighting	Major roadway luminaire	<ul style="list-style-type: none"> > Installation in alignment 	<ul style="list-style-type: none"> > Simple geometric form > Contextually-sensitive to Anzac Parade > Energy efficient lamp 	
		Light pole with outreach arm	<ul style="list-style-type: none"> > Installation in alignment > Integrated with tree pattern and form > Consistent verge or median treatment 	<ul style="list-style-type: none"> > Enlarged base pole > Narrow or tapered upper segment > Dark grey coloured finish > Impact-absorbing base preferred 	

ID	COMPONENT	DESCRIPTION	SELECTION AND LOCATION PRINCIPLES	PERFORMANCE CRITERIA	INDICATIVE MATERIAL
	Minor road and car park lighting	KIM Archetype	<ul style="list-style-type: none"> > Consistent with path and car park lighting throughout National Triangle > Installation in alignment 	<ul style="list-style-type: none"> > Round pole > Compact fluorescent or LED lamp > Black finish 	
B E H	Active edges, pedestrian and shared path paving	Flagstone paver in Austral Black Granite or similar with exfoliated finish	<ul style="list-style-type: none"> > Stone paver to create public spaces of an enduring quality 	<ul style="list-style-type: none"> > Durable material and surface finish > Load-rated for access by maintenance vehicles 	
F	Infill planter beds	Water Sensitive Urban Design solutions to capture, store and reuse stormwater	<ul style="list-style-type: none"> > Rain gardens to capture and filter run-off from paved areas for tree health 	<ul style="list-style-type: none"> > Integrated into surrounding landscape form > Native plantings 	

ID	COMPONENT	DESCRIPTION	SELECTION AND LOCATION PRINCIPLES	PERFORMANCE CRITERIA	INDICATIVE MATERIAL
G	On-street parking bays	Interlocking pre-cast concrete permeable paver, milled or honed finish	<ul style="list-style-type: none"> Low volume traffic areas to improve tree health 	<ul style="list-style-type: none"> High quality form and finish 	
L	Cycleway	In-situ 3.0m concrete cycleway	<ul style="list-style-type: none"> In-situ charcoal-coloured concrete Located between tree rows 	<ul style="list-style-type: none"> Integral oxide colour Shot-blast finish for grip Minimum expansion joint tolerance 	
M	Minor pedestrian paths, intersection plazas	In-situ concrete	<ul style="list-style-type: none"> Off-white 'Portland' cement 	<ul style="list-style-type: none"> Medium shot-blast finish 	
N	Raised crossing ramps, intersection thresholds	Basalt or bluestone cobblestones	<ul style="list-style-type: none"> Paving to highlight threshold change around intersections or crossings Traffic calming and pedestrian safety feature 	<ul style="list-style-type: none"> Stone sourced from local region to reinforce unique sense of place Minimum gap tolerance for cycle safety 	

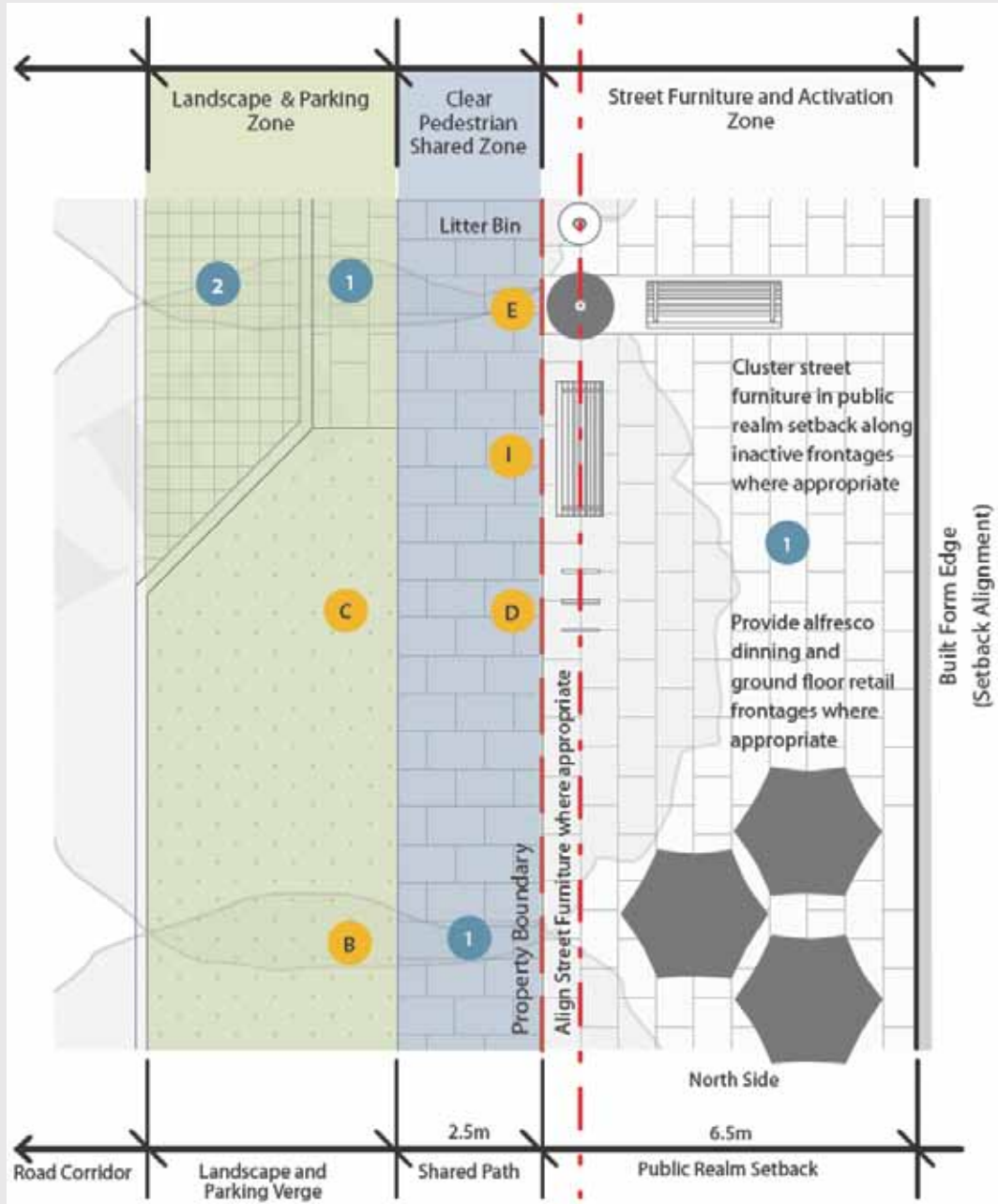
ID	COMPONENT	DESCRIPTION	SELECTION AND LOCATION PRINCIPLES	PERFORMANCE CRITERIA	INDICATIVE MATERIAL
P	Grass	Mown irrigated grass	<ul style="list-style-type: none"> ➤ Maintain general landscape character of ground cover grasses where suitable 	<ul style="list-style-type: none"> ➤ Drought tolerant, low water use species 	
I	Bicycle parking	Stainless steel post and loop rail	<ul style="list-style-type: none"> ➤ Located at key activity points (e.g. building entries, path junctions, public transport infrastructure) ➤ Use in conjunction with paving type B (black granite) ➤ Provide adequate circulation space around rail for riders and pedestrians ➤ Located in highly visible, well-lit places 	<ul style="list-style-type: none"> ➤ Offers stable and secure bicycle parking ➤ Easily-identifiable, visually-attractive form (with option for signage) ➤ Provide a range of locking options for bike frames and wheels ➤ Flexible mounting to suit a range of paving types ➤ Minimal obstruction to pedestrian movement when not in use ➤ Should not require users to bend down to ground level ➤ Durable materials 	
K	Bus shelter	Bus shelter with steel frame and glass panels	<ul style="list-style-type: none"> ➤ Contemporary appearance consistent with bus stop infrastructure throughout ACT ➤ Provide amenity for public transport users ➤ Seating, lighting and shelter from weather elements 	<ul style="list-style-type: none"> ➤ Sized to suit location and demand ➤ Integrated paving and signage (timetable information only) 	

ID	COMPONENT	DESCRIPTION	SELECTION AND LOCATION PRINCIPLES	PERFORMANCE CRITERIA	INDICATIVE MATERIAL
Q	Single seat	Timber seat with metal frame	<ul style="list-style-type: none"> > Contemporary form > Arranged in clusters to promote social interaction balanced with privacy > Strategically located at key activity points > Orientated to face street activity > Located outside key path alignments > Located to optimise weather protection 	<ul style="list-style-type: none"> > Materials must be comfortable throughout seasonal range > Ergonomically proven form to suit extended sitting periods > Materials should age/weather well and be renewable > Concealed detailing of construction and installation > Seating must be available at regular intervals featuring arms and backrests 	
R	Group seat	Timber seat with metal frame	<ul style="list-style-type: none"> > Contemporary form > Arranged in clusters to promote social interaction balanced with privacy > Strategically located at key activity points > Orientated to face street activity > Located outside key path alignments > Located to optimise weather protection 	<ul style="list-style-type: none"> > Materials must be comfortable throughout seasonal range > Ergonomically proven form to suit extended sitting periods > Surface finishes should age/weather well > Concealed detailing of construction and installation > Seating must be available at regular intervals featuring arms and backrests 	

ID	COMPONENT	DESCRIPTION	SELECTION AND LOCATION PRINCIPLES	PERFORMANCE CRITERIA	INDICATIVE MATERIAL
S	Seating walls	High density in-situ concrete retaining wall	<ul style="list-style-type: none"> > Where retaining walls are required > Located to reinforce key path alignments 	<ul style="list-style-type: none"> > Off-white Portland cement with 20mm chamfer to all exposed edges > 700mm nominal height 	
T	Water fountain	Drinking fountain with bottle refill tap	<ul style="list-style-type: none"> > Located at key activity points > Installation outside of key path alignments 	<ul style="list-style-type: none"> > Stainless steel for hygiene and durability > Wheelchair accessible > Integrated tap and fountain design 	

TYPICAL LAYOUT

PLAN (DETAIL)



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The National Capital Authority was established under the
Australian Capital Territory (Planning and Land Management) Act 1988

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