ASHBURTON TOWN CENTRE STREETSCAPE RENEWALS PROJECT

DEVELOPED DESIGN REPORT - LANDSCAPE
MAY 2019

Ashburton District Council AECOM Jasmax

CONTENTS

REPORT STRUCTURE

This Developed Design report is arranged into five sections, plus a set of accompanying technical plans.

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PART ONE
CONCEPT

1.1
EXECUTIVE SUMMARY

The developed design phase builds on the initial approved preliminary concept design report through more detailed analysis to inform design, detailed street design and materials selections. Detailed design will commence at the approval of this developed design report and associated technical documentation. It is expected that there will be a small amount of fine tuning and finessing of the content through the development of the detailed design package.

The developed design phase included the following analysis and considerations:

- Ongoing coordination with the AECOM
- Working closely with the engineering disciplines to ensure consistency of design and practicality of the proposed concepts
- Incorporation of feedback from ADC and local iwi
- Making changes to Abley specimen design in response to suggestions that were approved by ADC during preliminary design Internal QA and design reviews
- Initial consultation with Barrier Free New Zealand with regards to accessibility
-

The design has been developed sufficiently for ADC approval and to subsequently progress through to the detailed design stage. We expect feedback from ADC following review of this report content which will be taken on board during the production of detailed design documentation.

We have identified several key risks that should be considered moving forward and highlight these below.

- Uncertainty of budget. It is important that a thorough review of the proposed design is undertaken prior to starting detailed design to ensure that what is being proposed is able to be delivered to budget.

- Uncertainty of adjacent land ownership and status of developments. We have proposed a ‘best foot forward’ design that aims to compliment adjacent stakeholder and development given lack of detail available.

- Lighting – further coordination and design review is required with regard to street lighting. The current Connetics design is based on retention of existing poles and luminaires where possible. There is opportunity to establish a more suitable look and feel to the street lighting that compliments and is appropriate to the public realm upgrade.

The design team were asked to provide design options for the small park spaces on Tancred and Burnett Streets. We have provided design concepts for these spaces that integrate with the design of the intersections and tie in with the overall streetscape layout and palette.

It is expected that ADC will review these designs and provide comment, however, the park spaces are not currently in scope for progression into detailed design.

1.2
VISION

“Ashburton town centre will be the most attractive town centre in Aotearoa/New Zealand, reflecting its unique place on the Canterbury Plains. The heart of Ashburton will be a safe place to spend time in for locals and visitors, promoting economic growth and prosperity”.

1.3
PROJECT OBJECTIVES

Create the most attractive town centre in Aotearoa/New Zealand

- Create a highly attractive town centre that is a welcoming place to visit and spend time in.
- Bring the character and qualities that define Ashburton and the Canterbury Plains into the town centre.
- Design the streets for people with seating, shade, shelter and visual qualities that people associate with Ashburton.

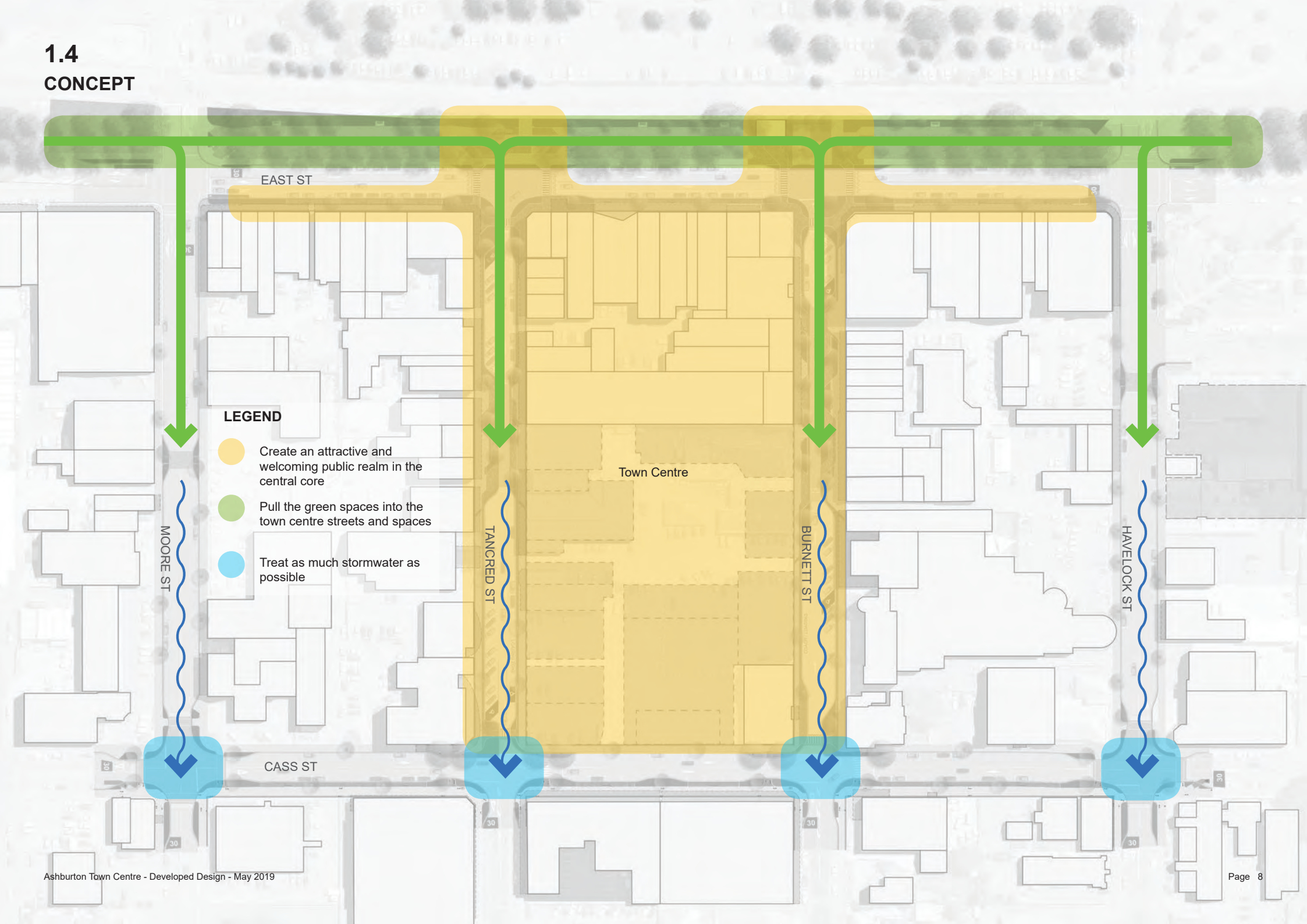
Revive the economic and social heart of Ashburton

- Create a public realm that attracts people and makes it easy to do business and activate the town centre.
- Create places that people want to gather in and organise public events.
- Create a town centre is an attractive place for tourists and locals.

Provide a safe and efficient town centre for all modes

- Create slower streets through design.
- Provide safer and more convenient crossings.
- Provide a safe and convenient cycle network.
- Future proof for a PT network.
- Parking is where it is needed, providing access to businesses and balancing the needs of people walking through the town centre.

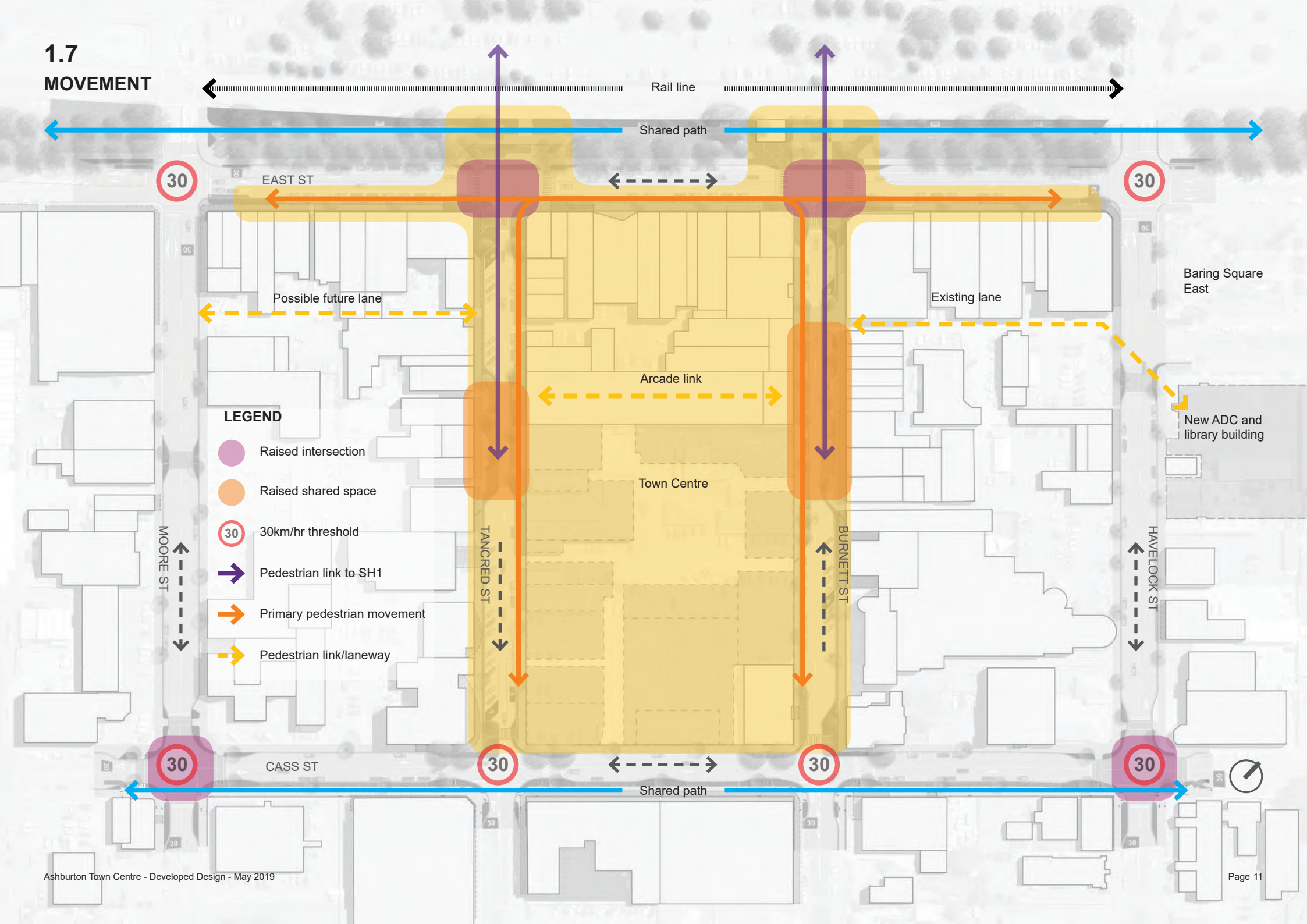
1.4
CONCEPT


EAST ST
CASS ST
MOORE ST
TANCRED ST
BURNETT ST
HAVELOCK ST
Town Centre
LEGEND
Create an attractive and welcoming public realm in the central core
Pull the green spaces into the town centre streets and spaces
Treat as much stormwater as possible

1.5
LANDSCAPE PLAN

1.6
URBAN DESIGN

1.7
MOVEMENT


Rail line
Shared path
EAST ST
30
Possible future lane
Existing lane
Baring Square East
Arcade link
New ADC and library building
Town Centre
LEGEND
Raised intersection
Raised shared space
30km/hr threshold
Pedestrian link to SH1
Primary pedestrian movement
Pedestrian link/laneway
MOORE ST
TANCRED ST
BURNETT ST
HAVELOCK ST
CASS ST
Shared path

1.8
CULTURAL DESIGN

The following cultural narratives were provided by the local rūnanga in their feedback of the Preliminary Design report

Plants that heal (rongoā), protect our environment and cleanse the water

- Use plants with rongoā value (traditional Māori medicinal plants).
- Collaborate with the local rūnanga on plant selections.
- Plant species which are threatened to preserve our flora.
- Promote biodiversity and create ecological habitats for fauna.
- Cleanse contaminated run-off through rain gardens.

Cultural narratives

- Collaborate with local rūnanga to integrate artistic and interpretative elements into the design, such as the native fish species prevalent in the Hakatere/Ashburton River.
- Consider incorporating information boards (designed by others) explaining the history of the area from a Māori perspective.
- Te reo celebrated in naming of spaces.

Connection with the mountains on Havelock and Moore Streets

- Maintain a visual connection with the views to the alps.
- Use columnar trees to frame and protect these views.
- Plant native Canterbury species to strengthen the connection.

1.9
SENSE OF PLACE

A vibrant community

- Safe and attractive streets that people want to spend time in.
- Public spaces that provide for spill out, socialising and play.
- Flexibility and facilities for larger community events.
- Accessible for all ages, abilities and modes.

Nature of the braided river

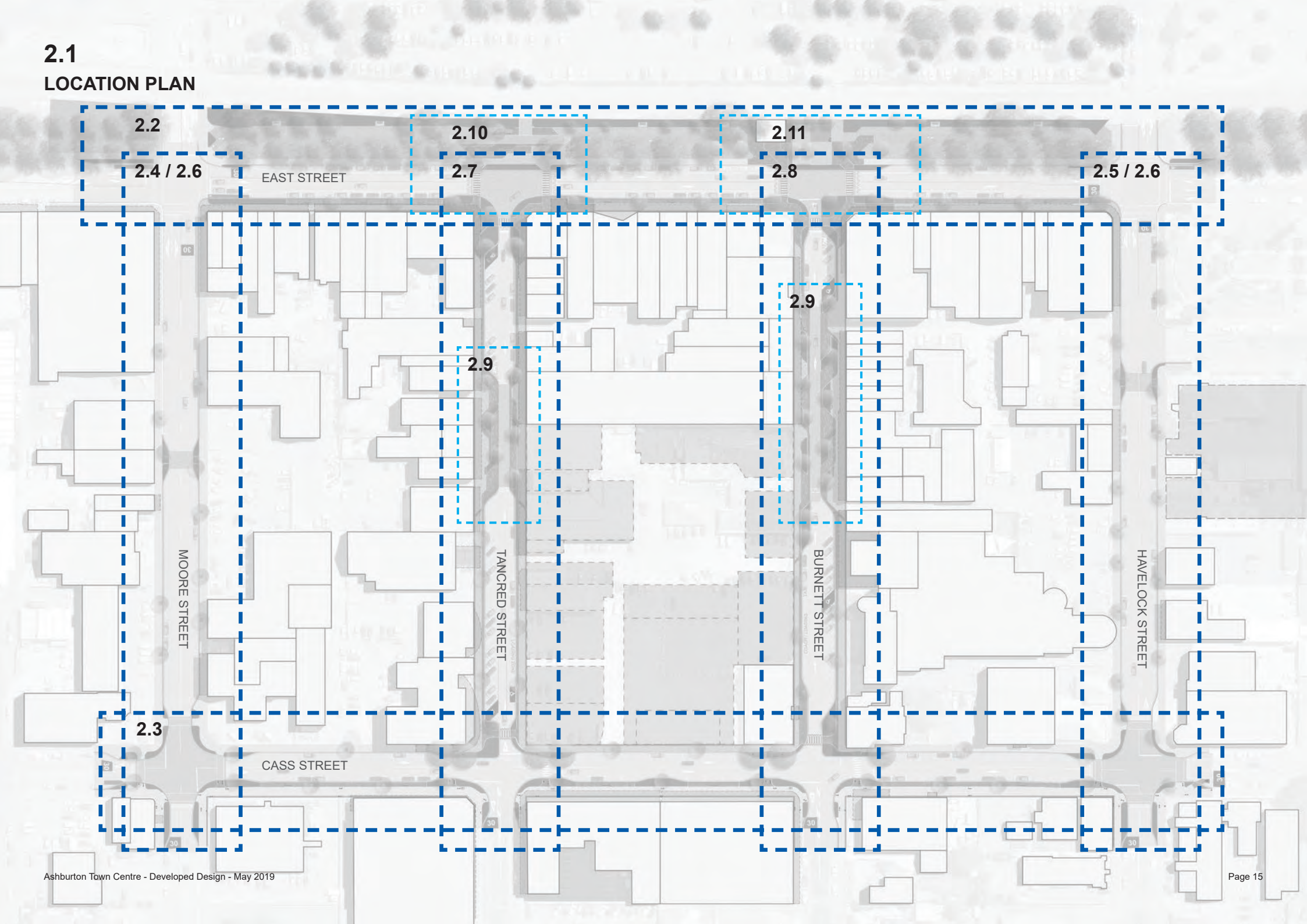
- The movement and form of the braided river used to inspire pavement patterns, circulation flows and social spaces.

Tonality of the Canterbury Plains

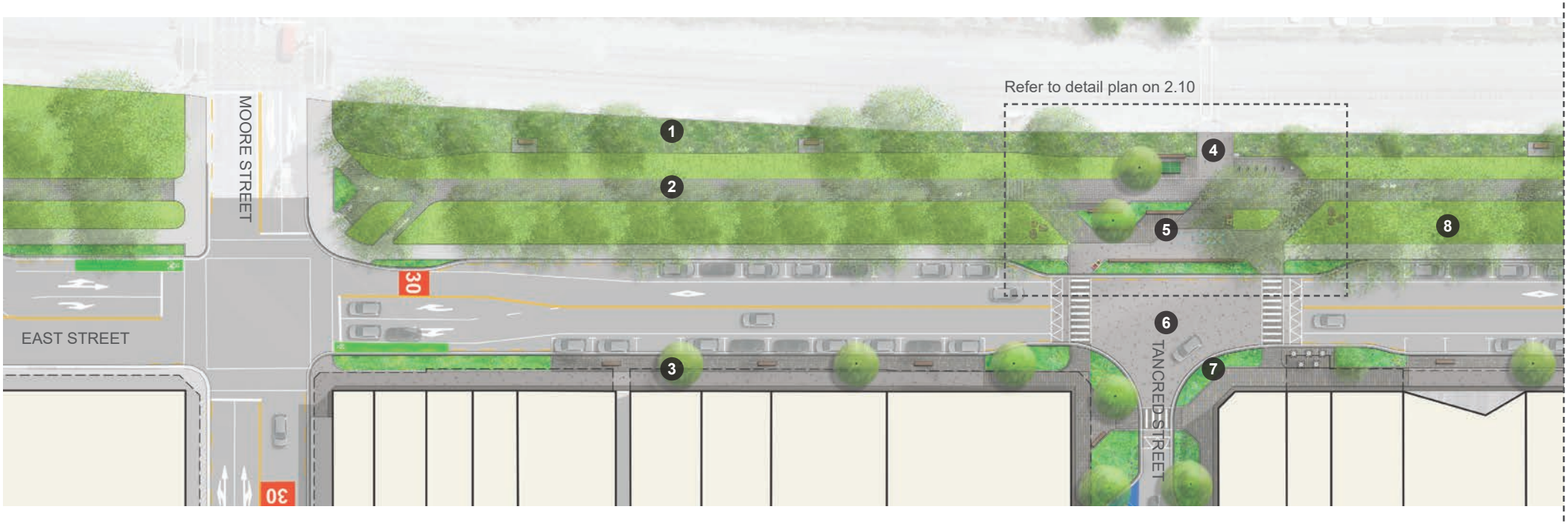
- The warm tones of the Canterbury Plains carried through into the paving and materiality palette.

PART TWO
STREET DESIGN

2.1
LOCATION PLAN



2.2
EAST STREET
PLAN



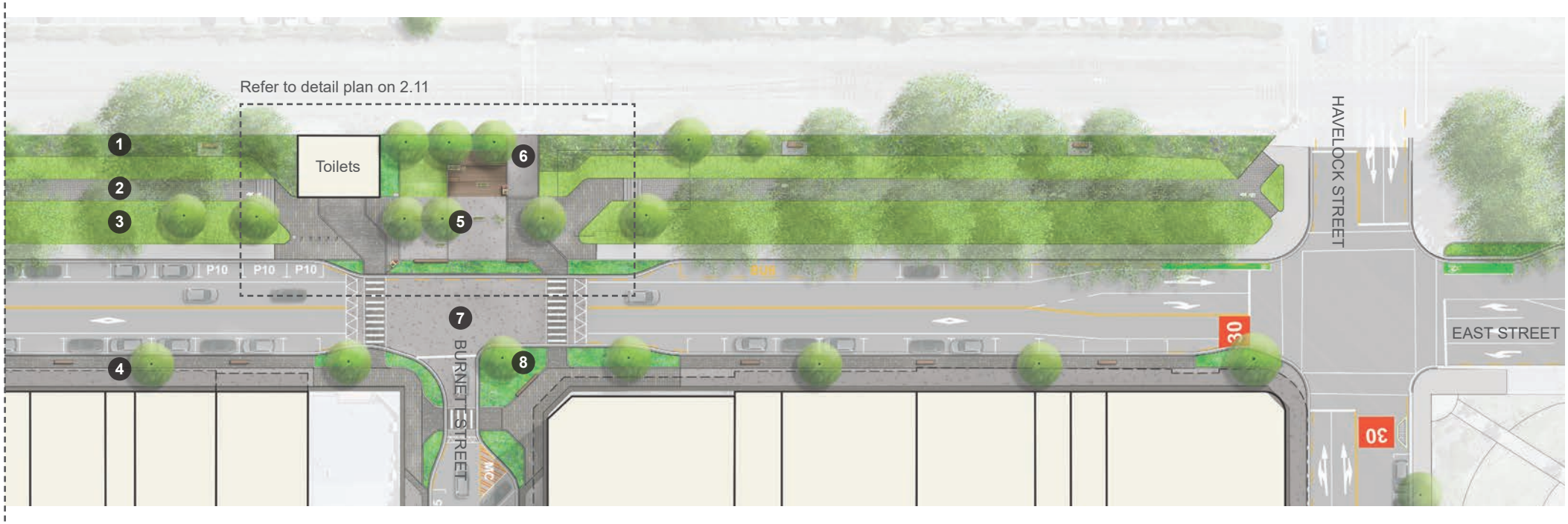
LEGEND

1. Existing garden enhanced with new plantings and benches
2. 3m wide shared path with new permeable paving
3. Widened footpath with new trees, benches and gardens
4. Concrete path to pedestrian railway crossing
5. Tancred Park with seating, play elements and planting
6. Raised concrete intersection with paved pedestrian crossings
7. Garden beds/rain gardens
8. Play elements integrated with the mature oak trees

Proposed trees

Existing trees to be retained

2.2
EAST STREET
PLAN



LEGEND

1. Existing garden enhanced with new plantings and benches
2. 3m wide shared path with new permeable paving
3. Play elements integrated with the mature oak trees
4. Widened footpath with new trees, benches and gardens
5. Burnett Park with seating, decking, play elements and planting
6. Concrete path to pedestrian railway crossing
7. Raised concrete intersection with paved pedestrian crossings
8. Garden beds/rain gardens

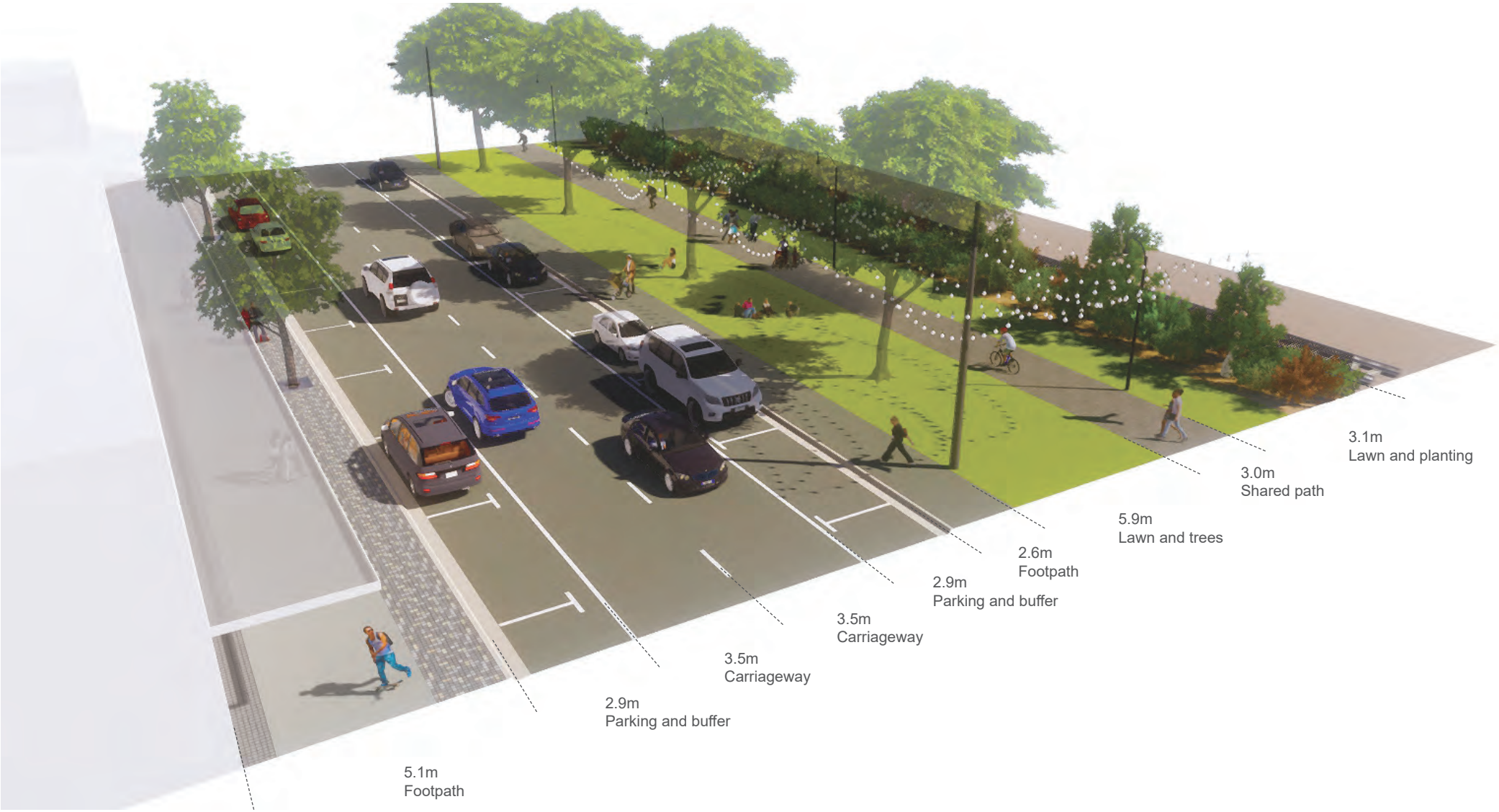
Proposed trees

Existing trees to be retained

2.2

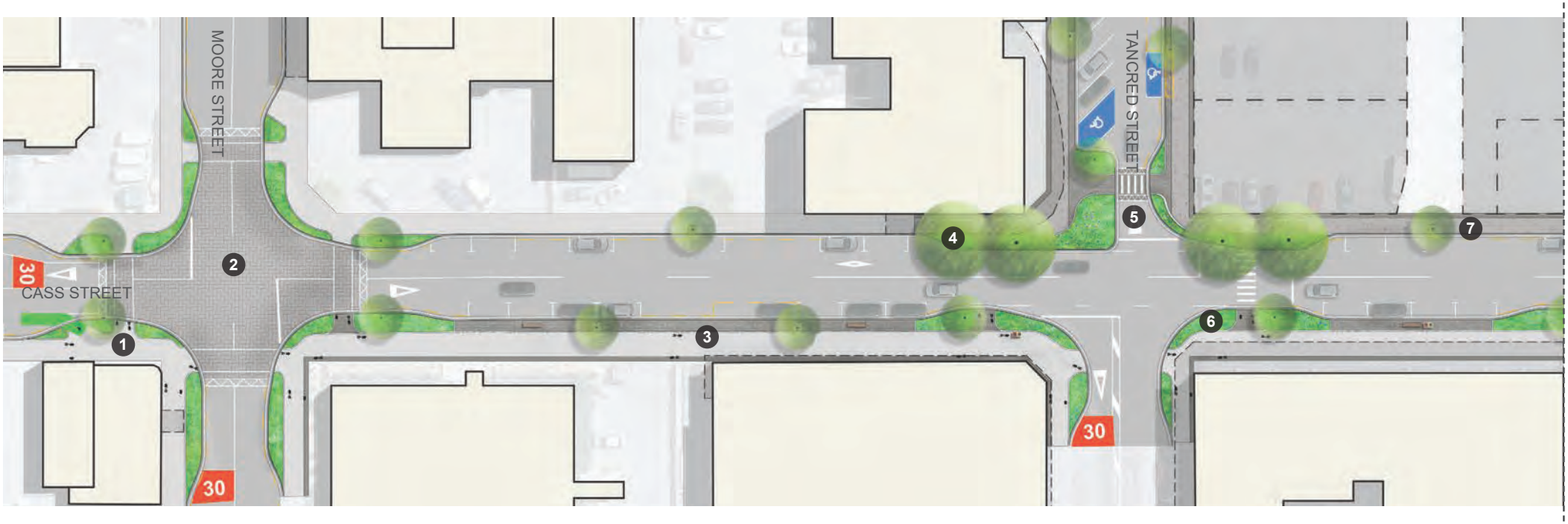
EAST STREET

TYPICAL MID BLOCK SECTION



2.2
EAST STREET
IMAGERY

2.3
CASS STREET
PLAN



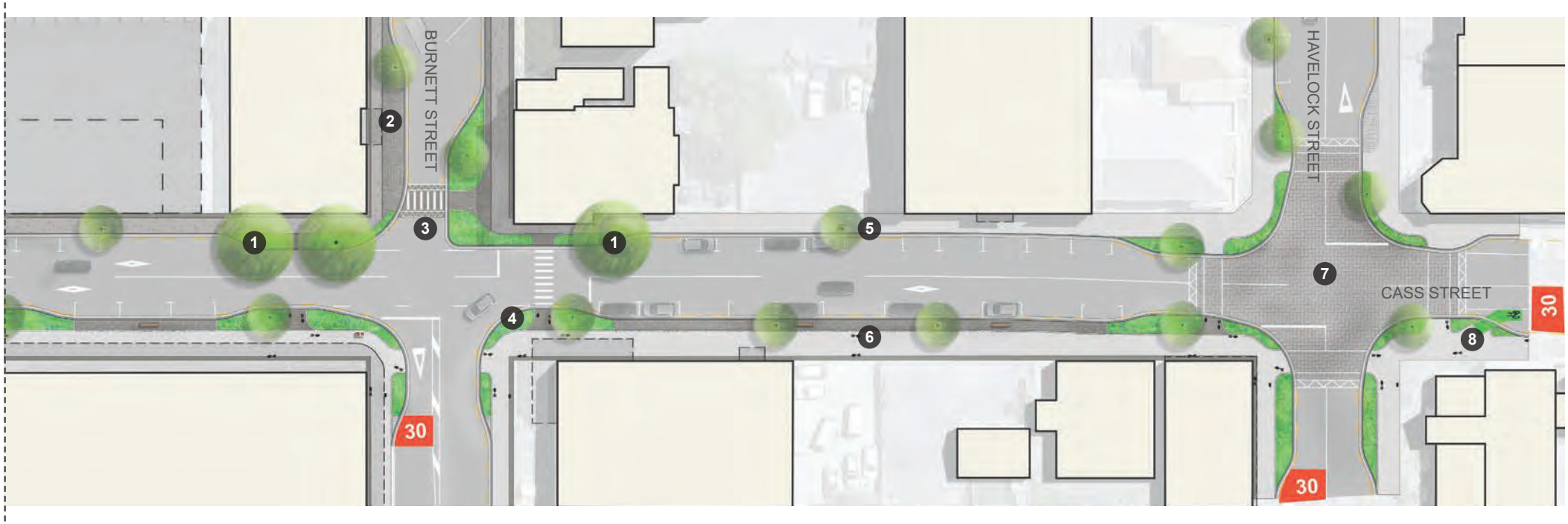
LEGEND

1. Street cycle lanes joining shared path
2. Raised paved intersection
3. 4m shared path and strip with new trees, benches and gardens
4. Existing tree retained with new raised planter
5. Paved pedestrian crossing
6. Garden beds/rain gardens
7. Asphalt footpath with trees in grilles

Proposed trees

Existing trees to be retained

2.3
CASS STREET
PLAN



LEGEND

1. Existing tree retained with new raised planter
2. Concrete footpath and paved area for outdoor dining
3. Paved pedestrian crossing
4. Garden beds/rain gardens
5. Asphalt footpath with trees in grilles
6. 4m shared path and strip with new trees, benches and gardens
7. Raised paved intersection
8. Street cycle lanes joining shared path

Proposed trees

Existing trees to be retained

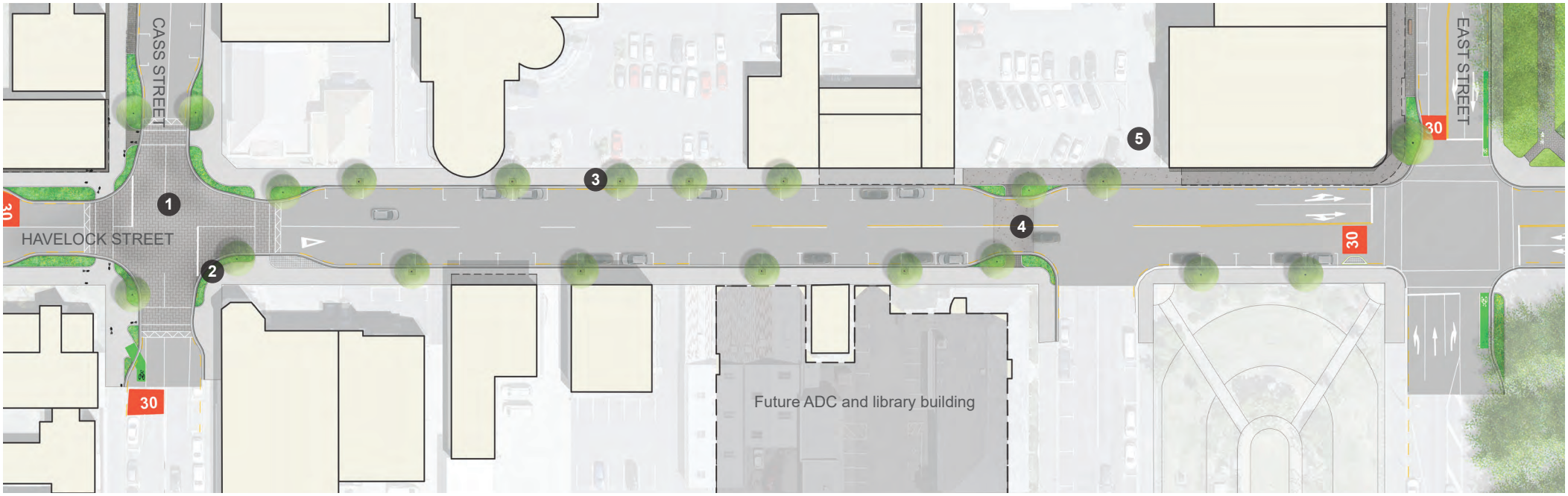
2.3

CASS STREET

TYPICAL MID BLOCK SECTION

2.3
CASS STREET
IMAGERY

2.4
HAVELOCK STREET
PLAN



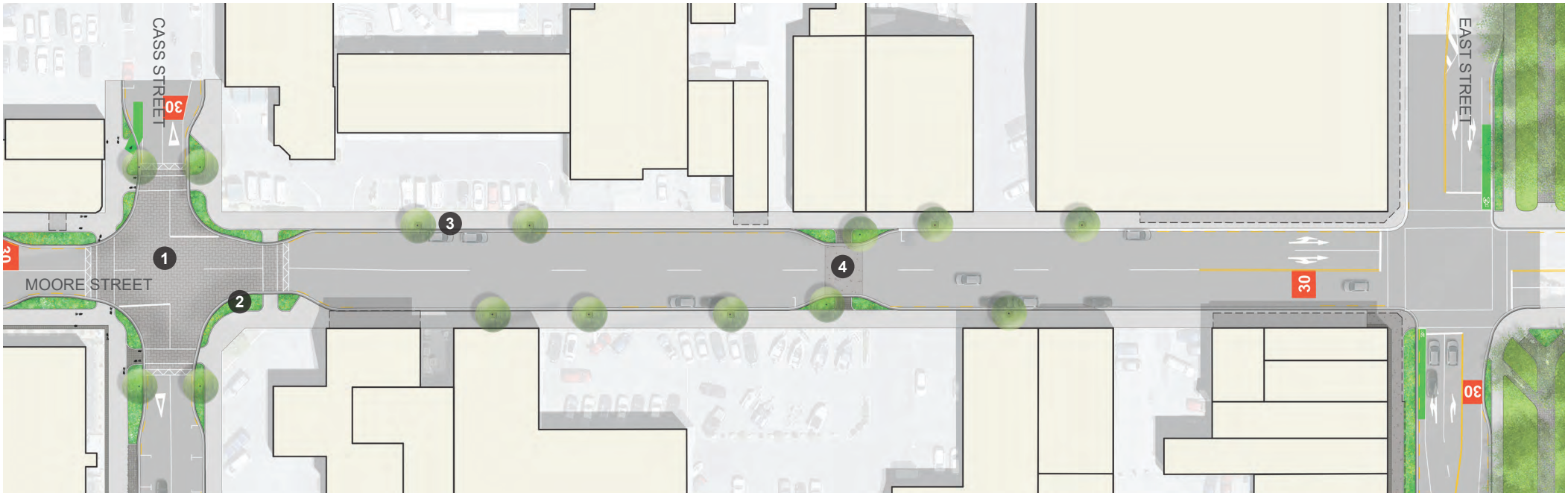
LEGEND

1. Raised paved intersection
2. Garden beds/rain gardens
3. Asphalt footpath with trees in grilles
4. Raised and paved mid block pedestrian crossing with planting
5. Laneway connection between Havelock and Burnett Street's

Proposed trees

Existing trees to be retained

2.5
MOORE STREET
PLAN



LEGEND

1. Raised paved intersection
2. Garden beds/rain gardens
3. Asphalt footpath with trees in grilles
4. Raised and paved mid block pedestrian crossing with planting

Proposed trees

Existing trees to be retained

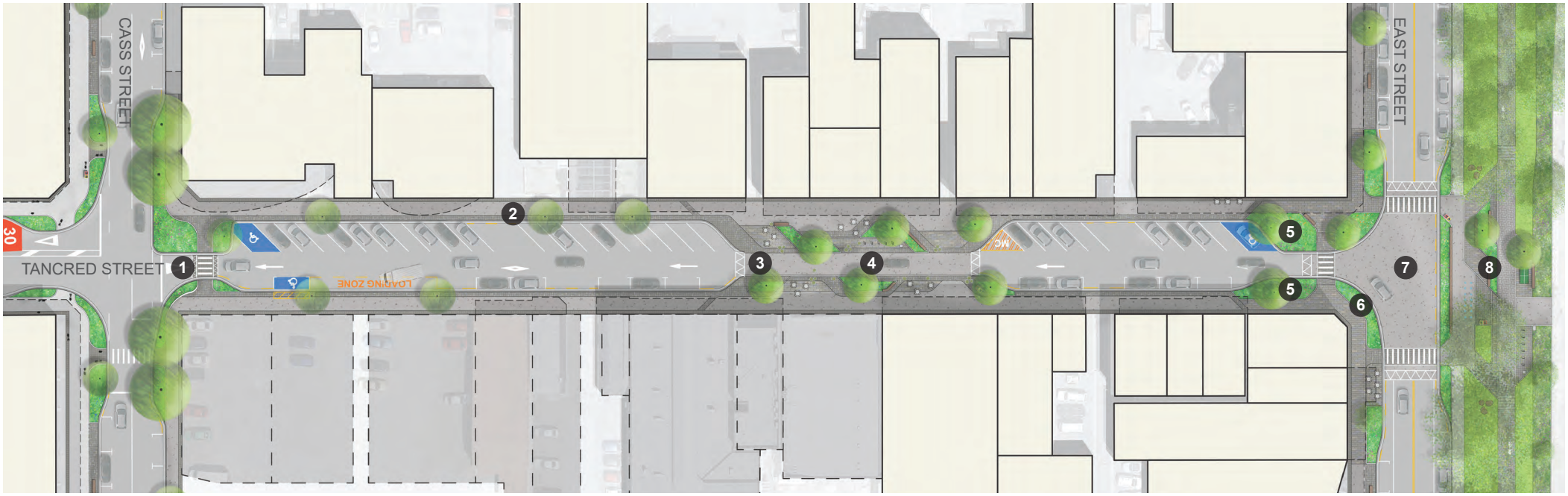
2.6

HAVELOCK AND MOORE STREETS

TYPICAL MID BLOCK SECTION

2.6
HAVELOCK AND MOORE STREETS
IMAGERY

2.7
TANCRED STREET
PLAN



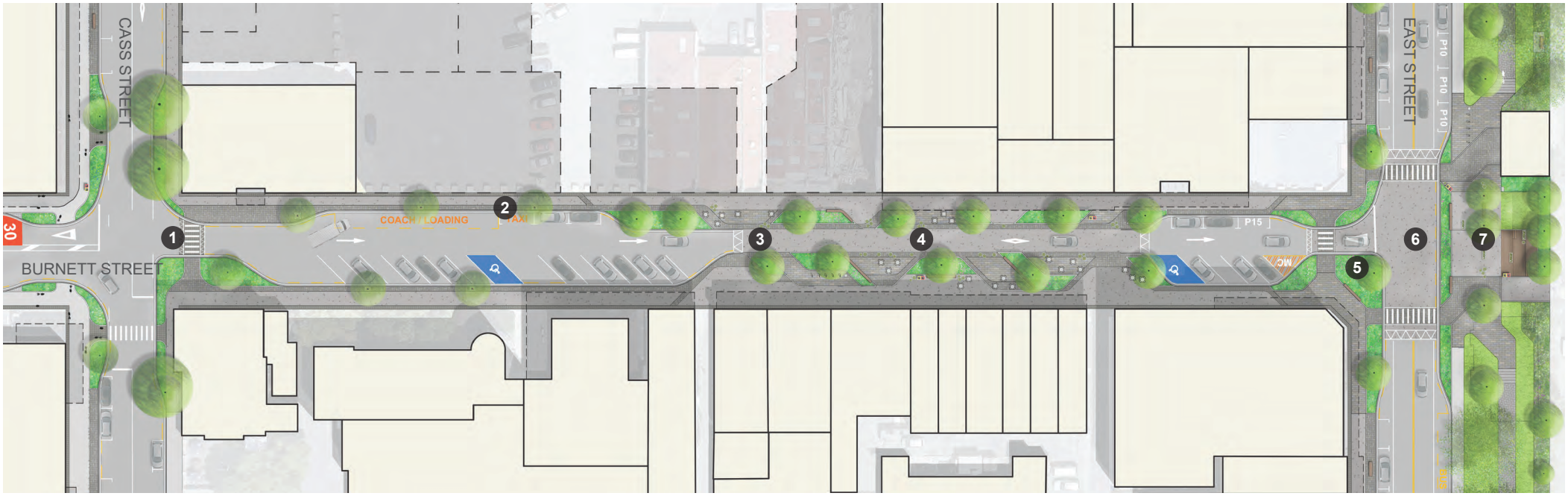
LEGEND

1. Raised paved intersection
2. Asphalt footpath with trees in grilles
3. Ramp to concrete raised platform
4. Shared space with high quality surfaces, planting and furniture
5. Existing tree retained with new raised planter
6. Garden beds/rain gardens
7. Raised concrete intersection with paved pedestrian crossings
8. Tancred Park - refer to section 2.10

Proposed trees

Existing trees to be retained

2.8
BURNETT STREET
PLAN



LEGEND

1. Raised paved intersection
2. Asphalt footpath with trees in grilles
3. Ramp to concrete raised platform
4. Shared space with high quality surfaces, planting and furniture
5. Garden beds/rain gardens
6. Raised concrete intersection with paved pedestrian crossings
7. Burnett Park - refer to section 2.11

Proposed trees

Existing trees to be retained

2.9

BURNETT AND TANCRED SHARED SPACES

TYPICAL VIEW

View of Burnett Street

SHARED SPACE PRINCIPALS

Shared zones aim to eliminate the segregation of road users as pedestrians also share the roadway. As such, no formal footpaths are required and unlike shared paths, which are just for pedestrians and cyclists, shared zones include motor vehicles as well.

The concept relies on the removal of typical street elements including line-markings, signage and kerbs, with the addition of extra street furniture and landscaping. This results in an intentional level of ambiguity so that drivers proceed with caution and at slow speeds.

In shared zones, the needs and comfort of pedestrians are paramount. People cycling and driving in shared zones are expected to act like guests, traveling in a way that is consistent with a walking pace and are legally required to give way to pedestrians.

LEGEND

1. Cycle stands and large pots defining the space
2. Concrete 'Traffic zone' for all users, raised from carriageway
3. Rain gardens / garden beds
4. 'Accessible zone' with 3m minimum clear concrete footpath
5. Make up strip paving, 600mm widths for sandwich boards
6. Lighting (indicative) featuring warm levels for human comfort
7. Split recycling bins
8. Paving with a subtle variety of textures, colours and sizes
9. Flush concrete kerbs integrated with the raised planters
10. 'Activity zone' with dining, seating, large pots and planting
11. Raised planter edges wrapped with timber for seating

2.9

BURNETT AND TANCRED SHARED SPACES

TYPICAL SECTION

View of Burnett Street

SHARED SPACE ZONES

Accessible zone - a clear space for walking; a tactile paver edge will define this zone for visually impaired pedestrians.

Activity zone - located between the traffickable and accessible zones, is where the street light poles, seats, rubbish bins and landscaping will be contained.

Traffickable zone - the space where motor vehicles are encouraged to travel; this is achieved through the strategic placement of street furniture, surface materiality and landscaping.

2.9

BURNETT AND TANCRED SHARED SPACES

TYPICAL VIEW

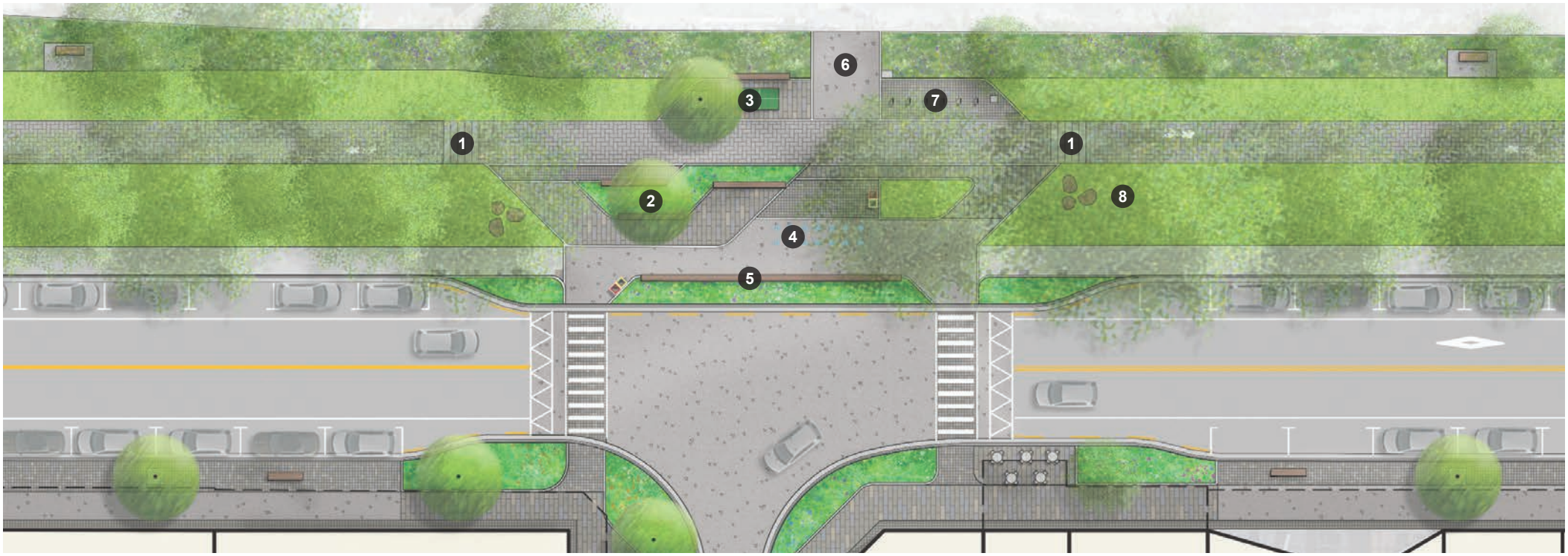
View of Burnett Street

2.9

BURNETT AND TANCRED SHARED SPACES

IMAGERY

2.10
TANCRED PARK
PLAN



LEGEND

1. Threshold paving between shared path and park
2. Raised planter with seating and continuation of oak trees
3. Outdoor table tennis (or similar activity)
4. Pop water jets in pavement
5. Raised seating wall and rain garden
6. Concrete path to pedestrian railway crossing
7. Cycle stands
8. Play elements integrated with the mature oak trees

Proposed trees

Existing trees to be retained

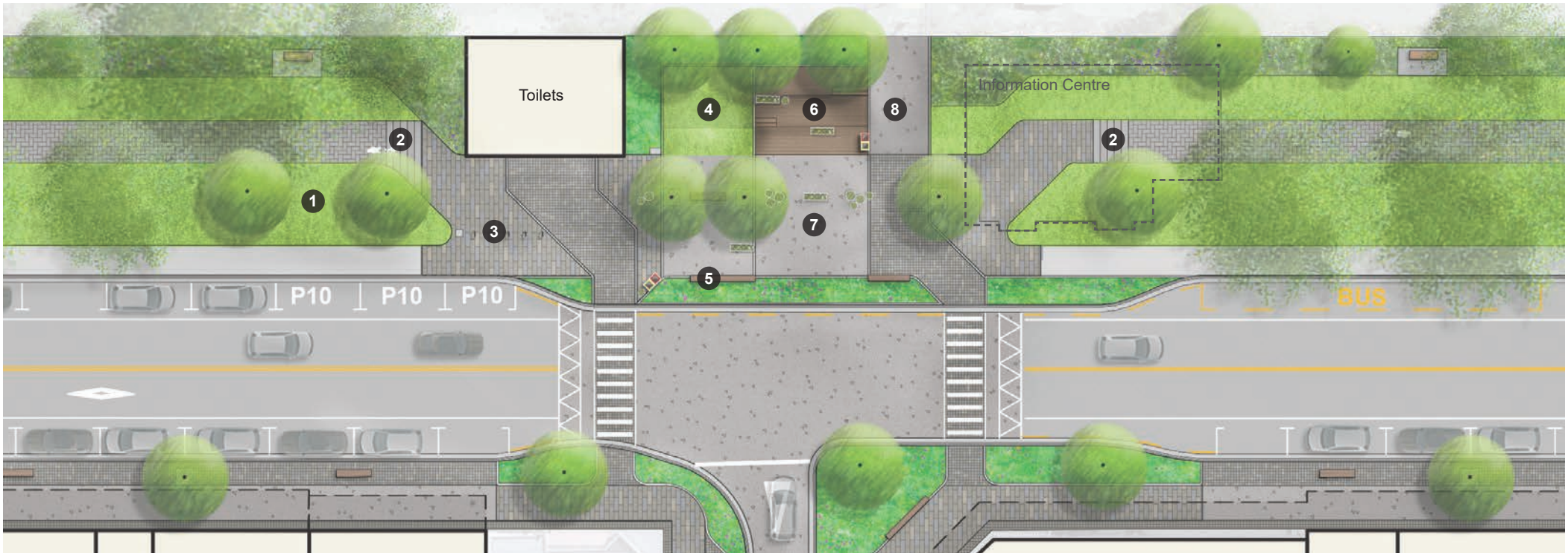
2.10
TANCRED PARK
VIEW

2.10
TANCRED PARK
VIEW

2.10
TANCRED PARK
IMAGERY

FOR INFORMATION

2.11
BURNETT PARK
PLAN



LEGEND

1. Play elements integrated with the mature oak trees
2. Threshold paving between shared path and park
3. Cycle stands
4. Sloped lawn for lounging and informal play
5. Raised seating wall and rain garden
6. Timber deck and bleacher seating
7. Flexible space for events with seating and movable pots
8. Concrete path to pedestrian railway crossing

Proposed trees

Existing trees to be retained

2.11
BURNETT PARK
VIEW

FOR INFORMATION

2.11
BURNETT PARK
VIEW

2.11
BURNETT PARK
IMAGERY

2.11
BURNETT PARK
INFORMATION CENTRE OPTION PLAN

LEGEND

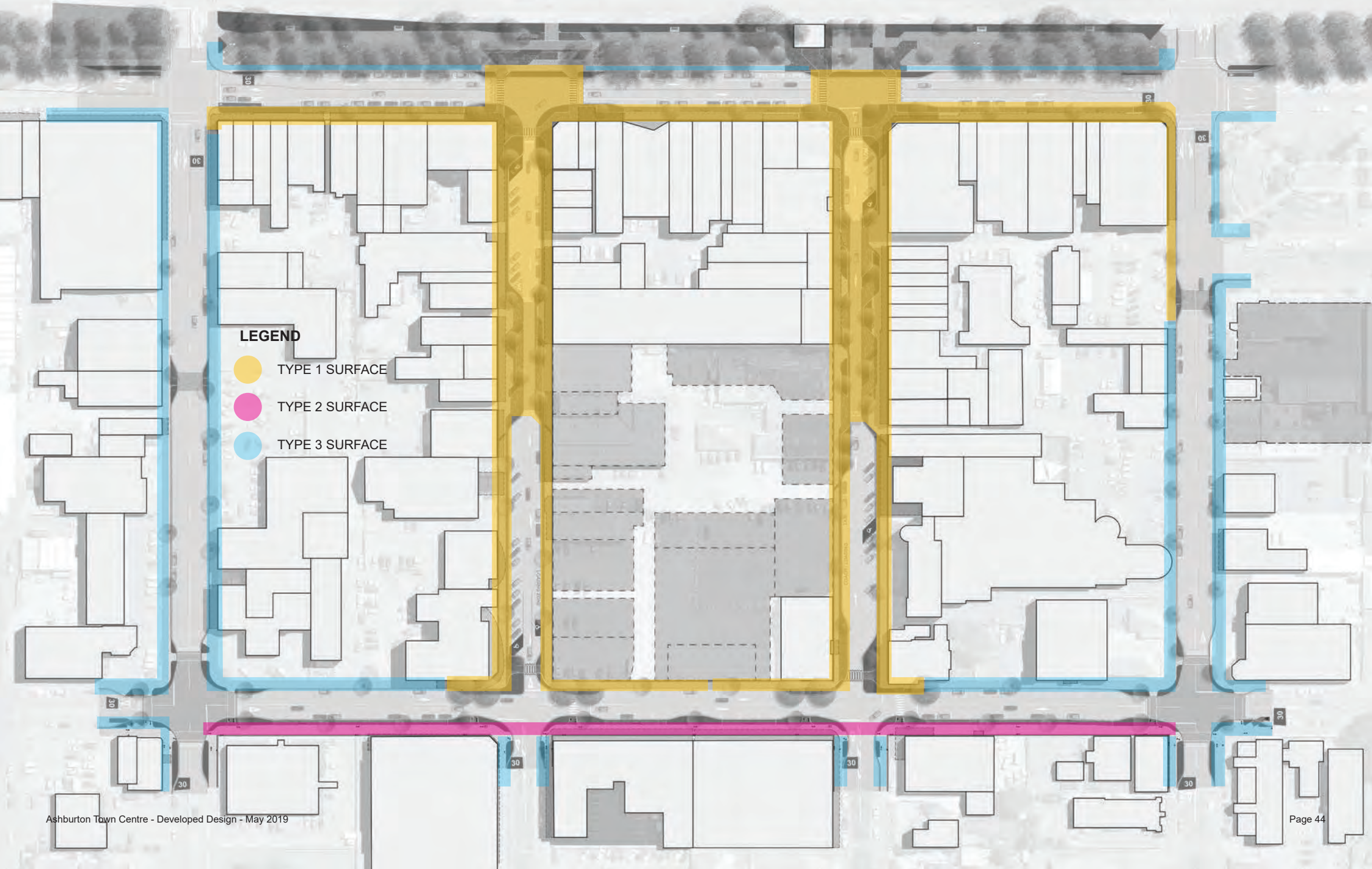
1. Play elements integrated with the mature oak trees
2. Threshold paving between shared path and park
3. Sloped lawn for lounging and informal play
4. Raised seating wall and rain garden
5. Timber deck and bleacher seating
6. Flexible space for events with seating and movable pots
7. Concrete path to pedestrian railway crossing
8. Retain existing oak tree

Proposed trees

Existing trees to be retained

PART THREE
SURFACING

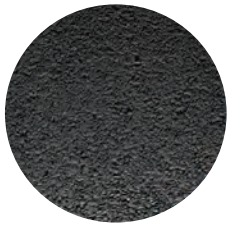
3.1
MATERIAL DISTRIBUTION HIERARCHY



3.2
SURFACE MATERIALS PALETTE

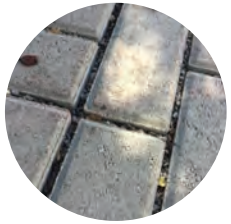
Surface materials in Ashburton town centre will form the central town palette. They need to be cost effective, easy to replace, maintain and repair and ideally sourced locally.

The look and feel of the materials should be native to Ashburton and aims to introduce a warmer tone to the traditionally grey street materiality of Canterbury. Materials need to have excellent general durability and slip resistance with surfaces needing to be able to hold up to 25+ years or more of general wear and tear and climatic conditions.

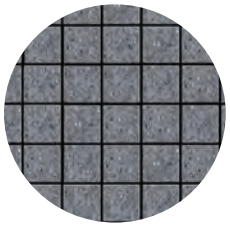


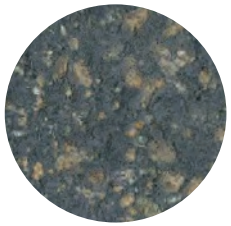
P01 ASPHALT

P02 IN-SITU CONCRETE (sandblasted + oxide)



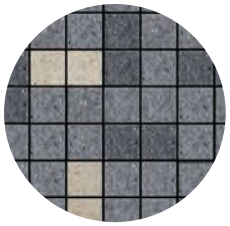
P03 POROUS PAVERS 200 x 100 x 80mm

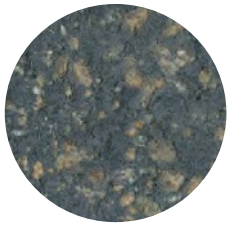


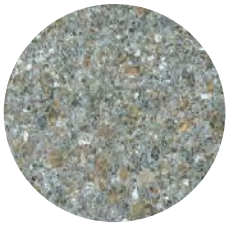


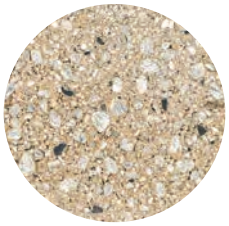
P04 PAVING 200 x 100 x 80mm

Colour Black Sands
Finish Bush Hammered



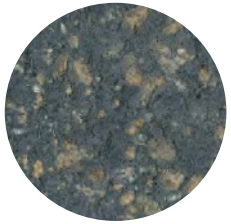


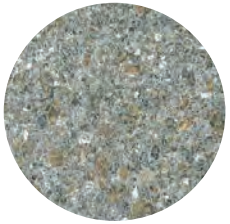


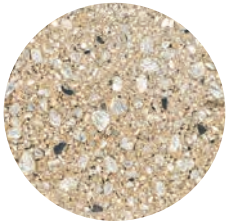


P05 PAVING 200 x 100 x 80mm

Colours Black Sands 40%, Natural 40% and Paihia 20%
Finish Bush Hammered 70% and Honed 30%







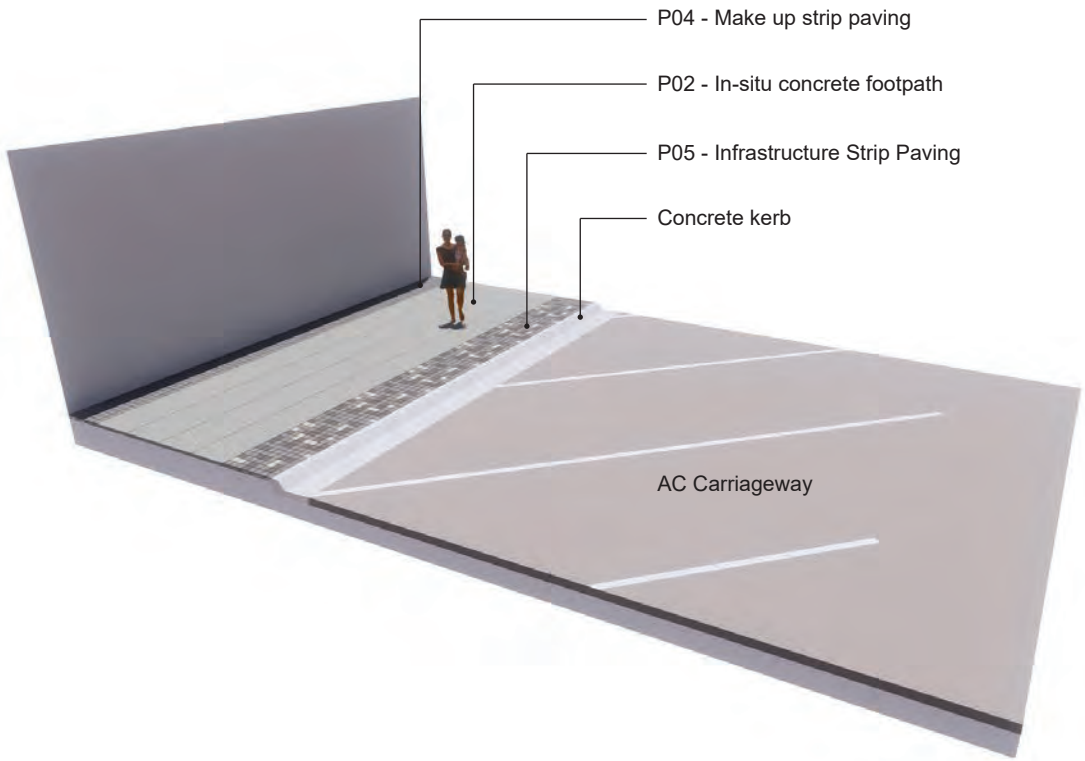
P06 PAVING 400 x 200 x 80mm

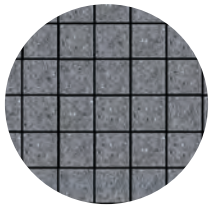
Colours Black Sands 40%, Natural 40% and Paihia 20%
Finish Bush Hammered 70% and Honed 30%

3.3
TYPE 1 - TYPICAL STREET SECTION

Typical treatment for East, Burnett, Tancred and a portion of Cass Street where footpath is adjacent to AC carriageway.

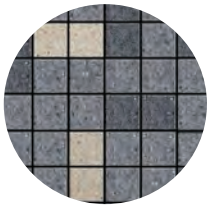
Refer to 3.1 for locations of Type 1 treatment.





P04

P02



P05

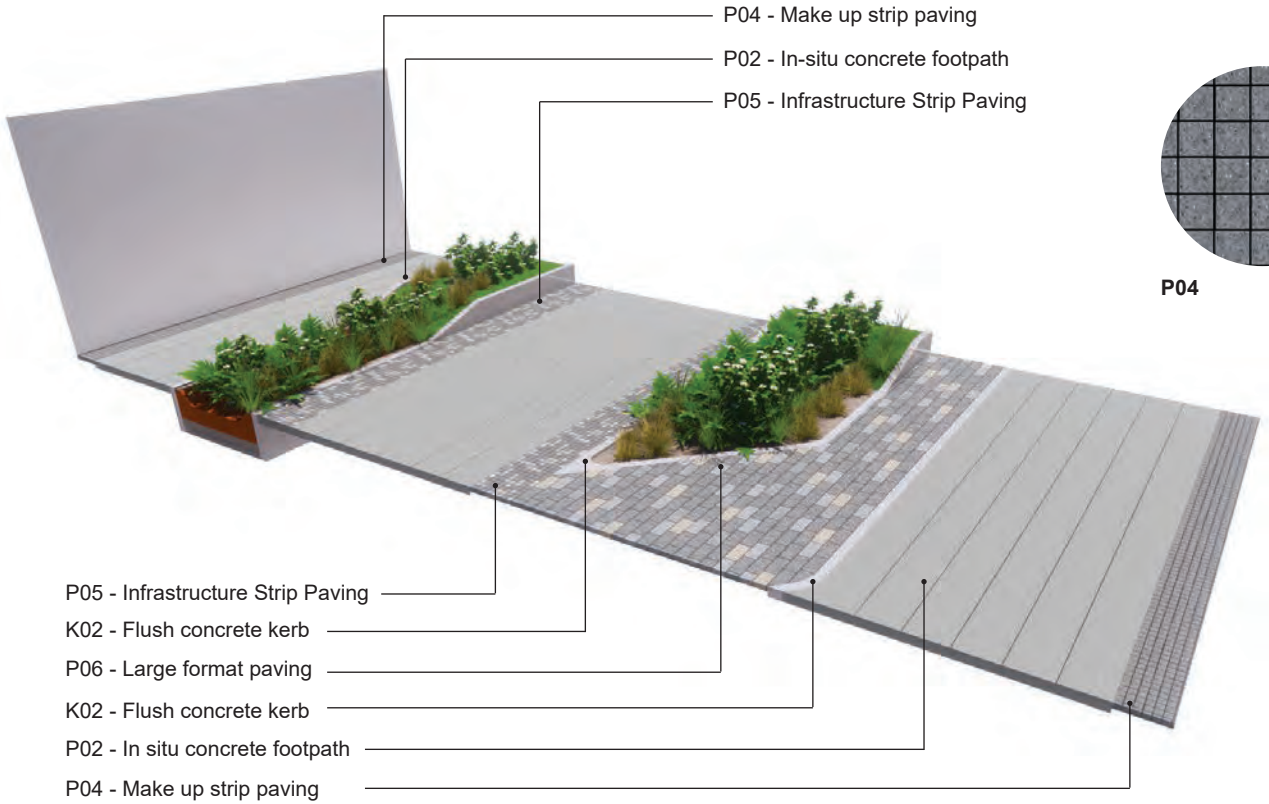
KEY NOTES

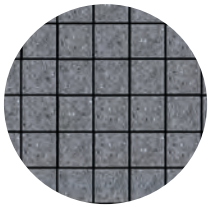
P02 Main footpath clear way. In-situ concrete with added oxide. Sandblast finish with sawcut detail at 600mm centres

P04 ‘Make up strip’ paving. Typically 600mm wide consisting of Firth ‘Holland Sett’ pavers of varying colour and finish.

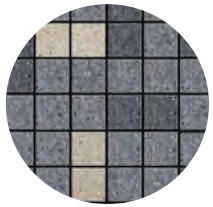
P05 ‘Infrastructure strip’ paving. Varying width consisting of Firth ‘Holland Sett’ pavers of varying colour and finish.

3.4
TYPE 1 - TYPICAL SHARED SPACE SECTION




P04


P02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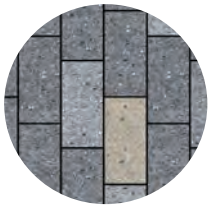

P06

KEY NOTES

P02 Main footpath clear way. In situ concrete with added oxide. Sandblast finish with sawcut detail at 600mm centres

P04 ‘Make up strip’ paving. Typically 600mm wide consisting of Firth ‘Holland Sett’ pavers of varying colour and finish.

P05 ‘Infrastructure strip’ paving. Varying width consisting of Firth ‘Holland Sett’ pavers of varying colour and finish.

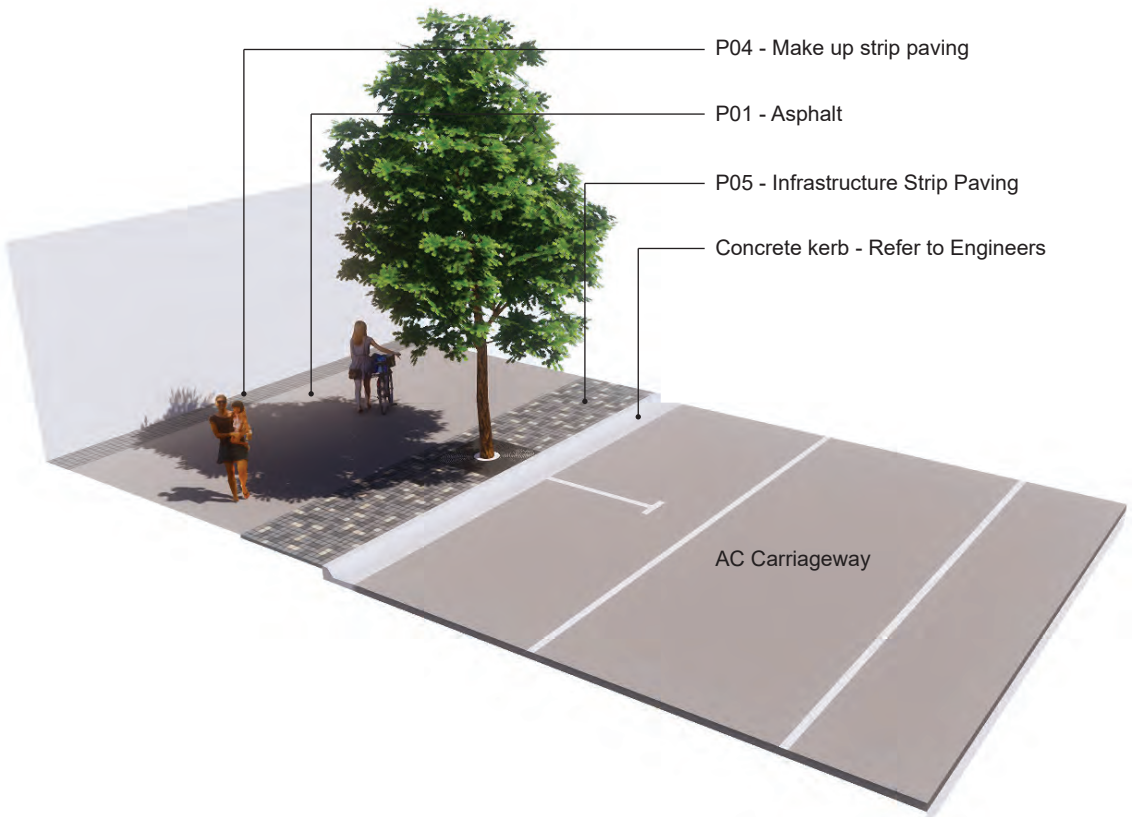
P06 ‘Large format’ paving. Varying width consisting of Firth ‘Piazza’ pavers of varying colour and finish.

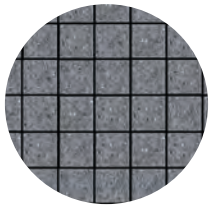
K02 Flush in-situ concrete kerb. 150mm wide with sandblast finish to transition into raised planters.

3.5
TYPE 2 - TYPICAL STREET SECTION

Typical treatment for Cass Street shared path.

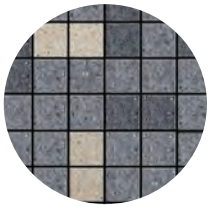
Refer to 3.1 for locations of Type 2 treatment.





P04

P01



P05

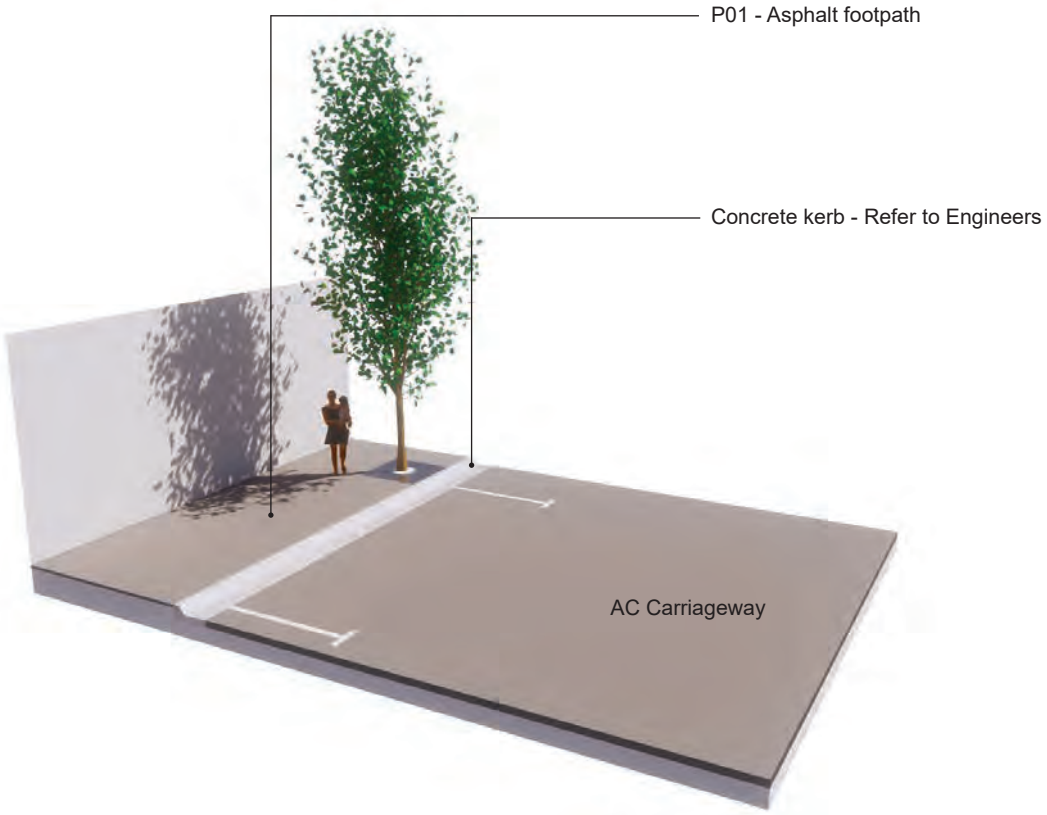
KEY NOTES

P02	Main footpath clear way. In situ concrete with added oxide. Sandblast finish with sawcut detail at 600mm centres
P01	Asphalt to define main movement corridor between make up strip and infrastructure strip
P05	'Infrastructure strip' paving. Varying width consisting of Firth 'Holland Sett' pavers of varying colour and finish.

3.6
TYPE 3 - TYPICAL SURFACE

Typical asphalt footpath treatment.

Refer to 3.1 for locations of Type 3 treatment.



P01

KEY NOTES

P01 Asphalt as main footpath surface.

PART FOUR
FURNITURE

4.1
PROPRIETARY FURNITURE

ST 01

SEAT WITH BACK AND ARM REST

TYPE	B_01_T B Series seat with back and arm rests.
MATERIALS	S/S Aluminum frame and FSC hardwood
DIMENSIONS	L1800 x W450 x H755
FINISHES	Bead blast stainless steel, penetrating oil
MANUFACTURER	Walkspace

ST 02

BENCH WITH ARM REST

TYPE	B_01_T B Series bench with arm rests.
MATERIALS	S/S Aluminum frame and FSC hardwood
DIMENSIONS	L1800 x W450 x H450
FINISHES	Bead blast stainless steel, penetrating oil
MANUFACTURER	Walkspace

BIKE

BIKE RACKS

TYPE	BR_02 - Sheffield Rack
MATERIALS	S/S 304 Pipe
DIMENSIONS	Dia50 x W1000 x H900
FINISHES	Bead blast stainless steel
MANUFACTURER	Walkspace

4.1
PROPRIETARY FURNITURE

BINS

WASTE SPLITTING BINS

TYPE	BN_01
MATERIALS	S/S 304 Lid and cladding, mild steel body and leg and polythene bin liner
DIMENSIONS	D450 x W450 x H750
FINISHES	Polished body and polished lid
MANUFACTURER	Walkspace
NOTES	Custom decal colours and symbols for waste to fit with ADC standards

AQUA

DRINK FOUNTAIN AND BOTTLE FILLER

TYPE	DF_04
MATERIALS	316 S/S fabrication with powdercoated colour cladding
DIMENSIONS	D300 x W180 x H900
FINISHES	S/S polished top, S/S bead blasted grate
MANUFACTURER	Walkspace

BOL

BOLLARD

TYPE	BL_02 Bollard
MATERIALS	S/S 304
DIMENSIONS	L100 x W100 x H900
FINISHES	Bead blast
MANUFACTURER	Walkspace
NOTES	Plant mount and removable options available and will be determined in detailed design

4.2
TREE GRATES, POTS AND SERVICE COVERS

TREE GRATES - SQUARE AND RECTANGULAR

TYPE	TGR_02 Square - Traffic grade TGR_02 Rectangular - Traffic grade
MATERIALS	Cast aluminum
DIMENSIONS	L1200 x W1200 x D30mm (square) L1600 x W800 x D30 (rectangular)
FINISHES	Bead blast
MANUFACTURER	Walkspace

LARGE URBAN POTS

TYPE	Large plant pots of varying shape and size	
MATERIALS	GRC lightweight	
DIMENSIONS	Large	1000mm High
	Medium	800mm High
	Small	500mm High
COLOURS	TBC	
MANUFACTURER	TBC	

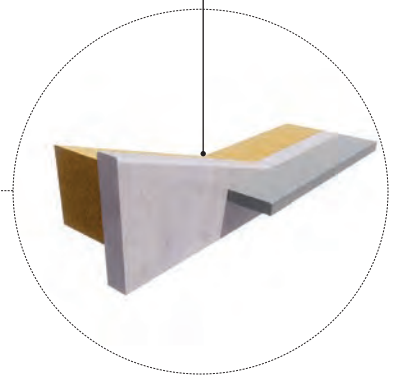
WUNDERCOVER SERVICE LIDS

TYPE	Utility type dependent
MANUFACTURER	Wundercover
NOTE	All paved and concrete areas (Type 1 and Type 2 surface treatments) should allow for wundercover lids for service covers.

4.3

CUSTOM PLANTERS

WALLS AND INTEGRATED SEAT



Precast transition unit. Top outer edge to have 15mm radius.
Footing detail to be determined in detailed design.

K02 Flush 150mm wide concrete kerb.

NOTES

Option for some benches to include backrests and arm rests. Extent to be determined in detailed design.

K03 Precast concrete transition unit.

ST03 65 wide x 40mm thick FSC hardwood timber slats fixed to custom steel bracket.
NOTE - wall to be noted 50mm lower to accommodate seat.

WALL 450 high x 150 wide concrete planter wall.

4.3
CUSTOM PLANTERS
WALLS AND RAIN

Precast wall unit. Top outer edge to have 15mm radius.
Footing detail to be determined in detailed design.

K03 Precast concrete Transition unit.

Rain garden

Rain garden walls form 150mm wide flush kerb where adjacent to rain gardens. Refer to section 5.0 for indicative construction.
Final details to be determined during detailed design.

4.4
PLAY ELEMENTS

Providing opportunity for play and recreation within the design of the town centre should be encouraged to activate spaces for users of all ages.

A selection of simple proprietary and natural elements placed carefully throughout the East Street green corridor will provide an opportunity for informal play. Items can be as simple as a swing slung from one of the existing trees to a more bespoke play item for a wider range of age groups.

Final selections to be discussed and worked through with ADC during detailed design.

SWINGS

Simple intervention of timber and rope swings hung from large existing trees along the East Street green corridor.

IN GROUND JUMPERS

In ground trampolines set into the green space beneath trees where tree root zones permit

BESPOKE ITEMS

Inclusion of one or two simple items such as the 'Bench Go Round' (pictured above) re-imagines public seating to create connection between strangers and add a degree of fun.

NATURAL ELEMENTS

Large locally sourced boulders or logs to encourage informal play opportunities.

4.5
SECONDARY FEATURE LIGHTING

Street lighting design by Connetics.
Electrical design by AECOM.

Refer to AECOM and Connetics documentation.

Suspended atmosphere lighting between trees in East Street green corridor.

System to be determined in detailed design depending on engineering, structural and budgetary requirements.

Option 1 - Catenary System

Robust long term cable system with fixing points attached to buildings or associated poles. Further investigation required to test extent of fixing points.

Potential use in shared spaces on Burnett and Tancred Streets.

Option 1 Image
Memory Lane in Christchurch

Above image uses Ronstan single cable catenary wire strung between purpose erected poles and using an Iguzzinni Roll 65 Mini luminaire.

Option 2 - Festoon Lighting

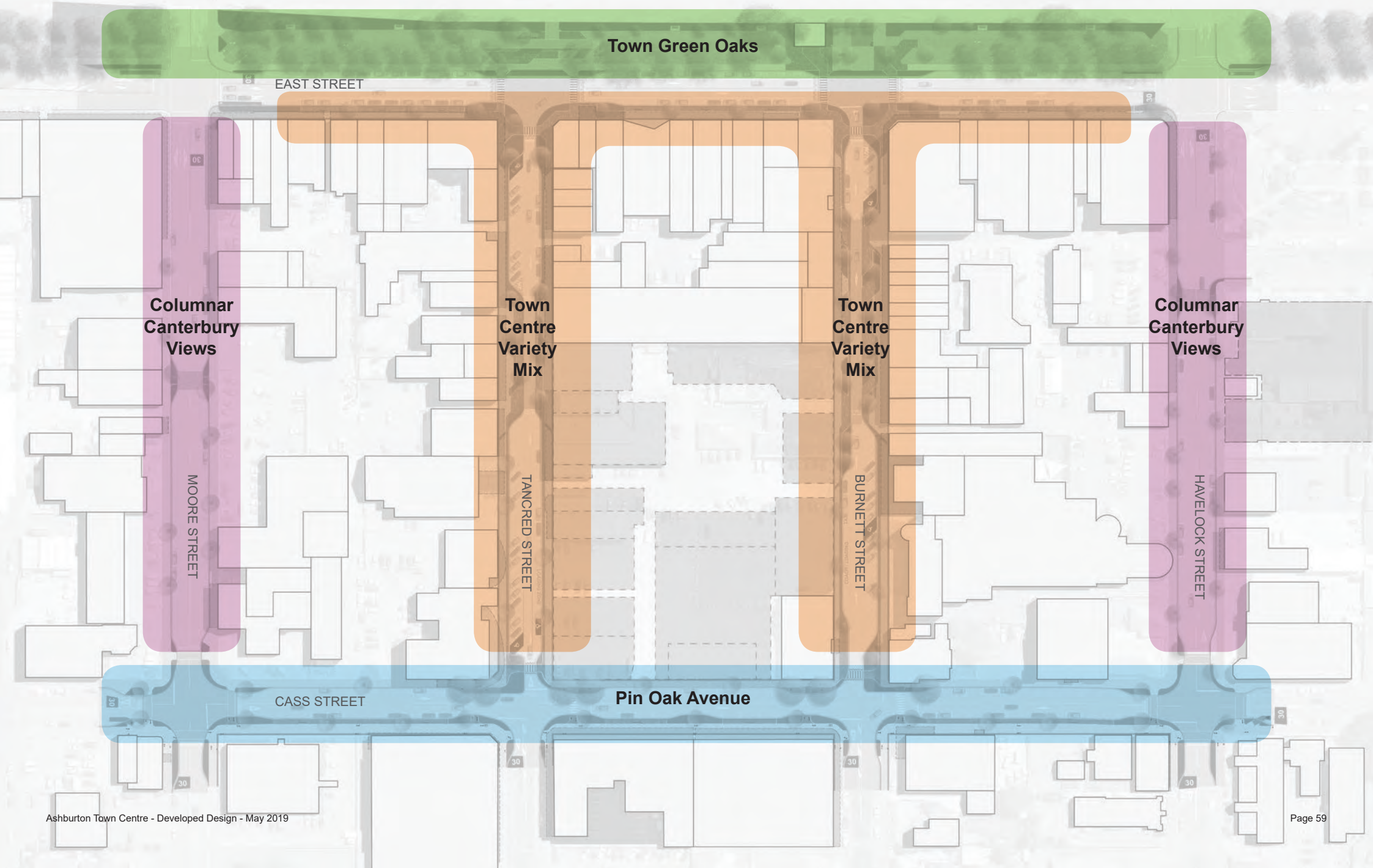
Lightweight system of decorative lighting strung up between existing trees along East Street without the use of additional poles.

Option 2 - Image

Any festoon lighting system will need to be tested for suitability and longevity in this environment.

PART FIVE
PLANTING

5.1
TREES - CONCEPT



5.2
TREE PALETTE

TOWN GREEN OAKS

- Double row of mature oak trees run along the Town Green, on the west side of East Street.
- Permeable pavers are used for the shared path beside the oaks, allowing water to infiltrate into the soil.
- For the Burnett and Tancred parks, additional oak trees will be added to continue the rows of legacy trees.

COLUMNAR CANTERBURY VIEWS

- Havelock and Moore Streets have views to the Canterbury landscape and Southern Alps.
- Rows of columnar tulip trees on either side will frame these views, while also softening the street and providing autumnal colour change.

PIN OAK AVENUE

- Cass Street currently has groupings of semi-mature pin oaks, mainly on intersections.
- This will be reinforced along both sides of the street, with additional pin oaks creating a leafy green extension from Mona Park.

Quercus robur
English oak

Liriodendron tulipifera 'Fastigiata'
columnar tulip tree

Quercus palustris
pin oak

5.2
TREE PALETTE

TOWN CENTRE VARIETY MIX

- The central core area provides an opportunity to use a mix of trees, in a variety of spaces.
- A variety of tree types and sizes will be used purposefully and is seen as an extension of the botanical gardens collection.
- Trees will be deciduous for summer shade/winter sun.

NOTES:

- The following tree selections are indicative only and are to discuss and agree in collaboration with the ADC arborist. This is to occur during the review period between the developed and detailed design stages.

LARGE TREES

Ginkgo biloba (male)
maidenhair tree

Liriodendron tulipifera
tulip tree

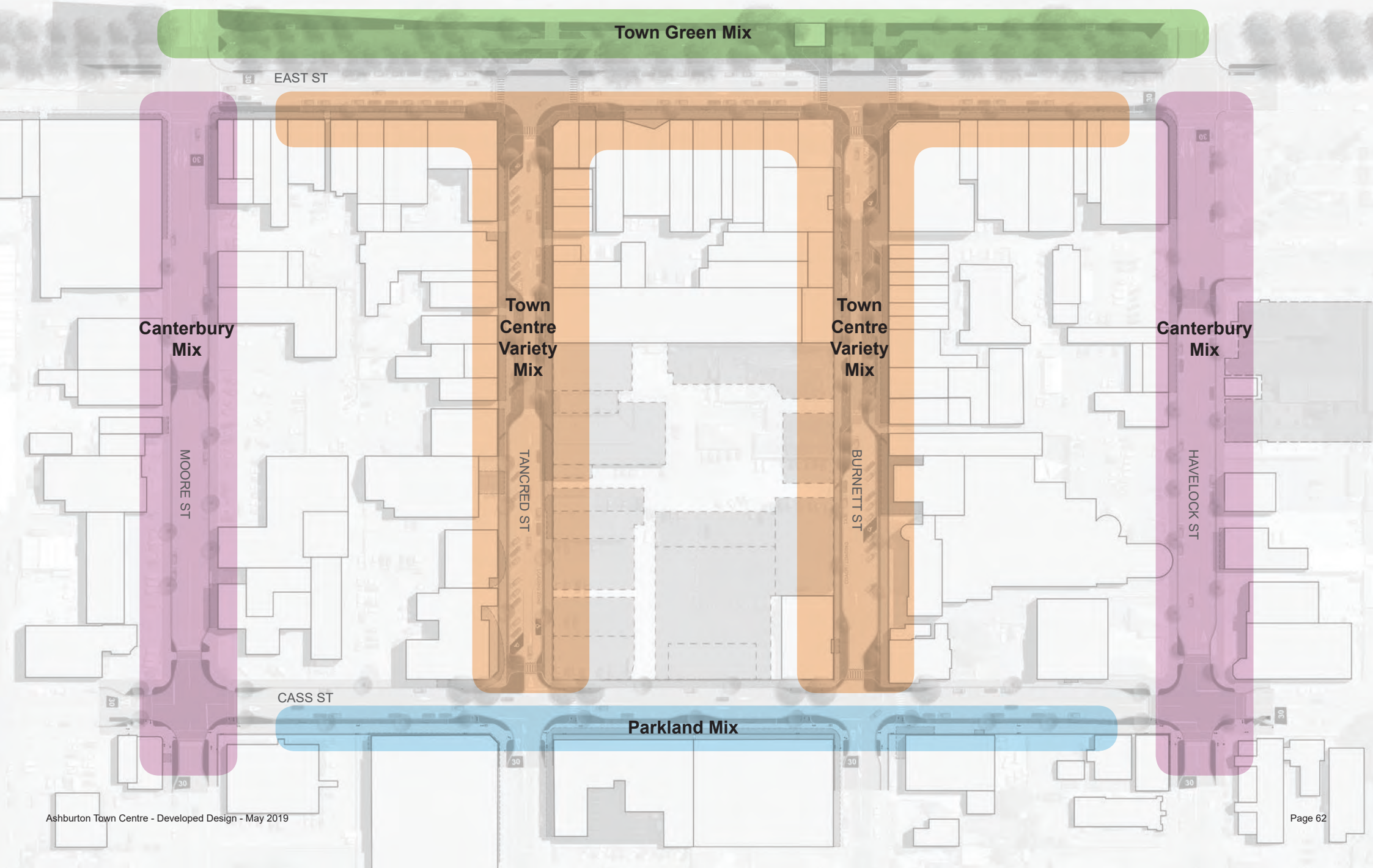
MEDIUM TREES

Acer palmatum
Japanese maple

Nyssa sylvatica
tupelo

Parrotia persica
Persian ironwood

5.3
GARDENS - CONCEPT



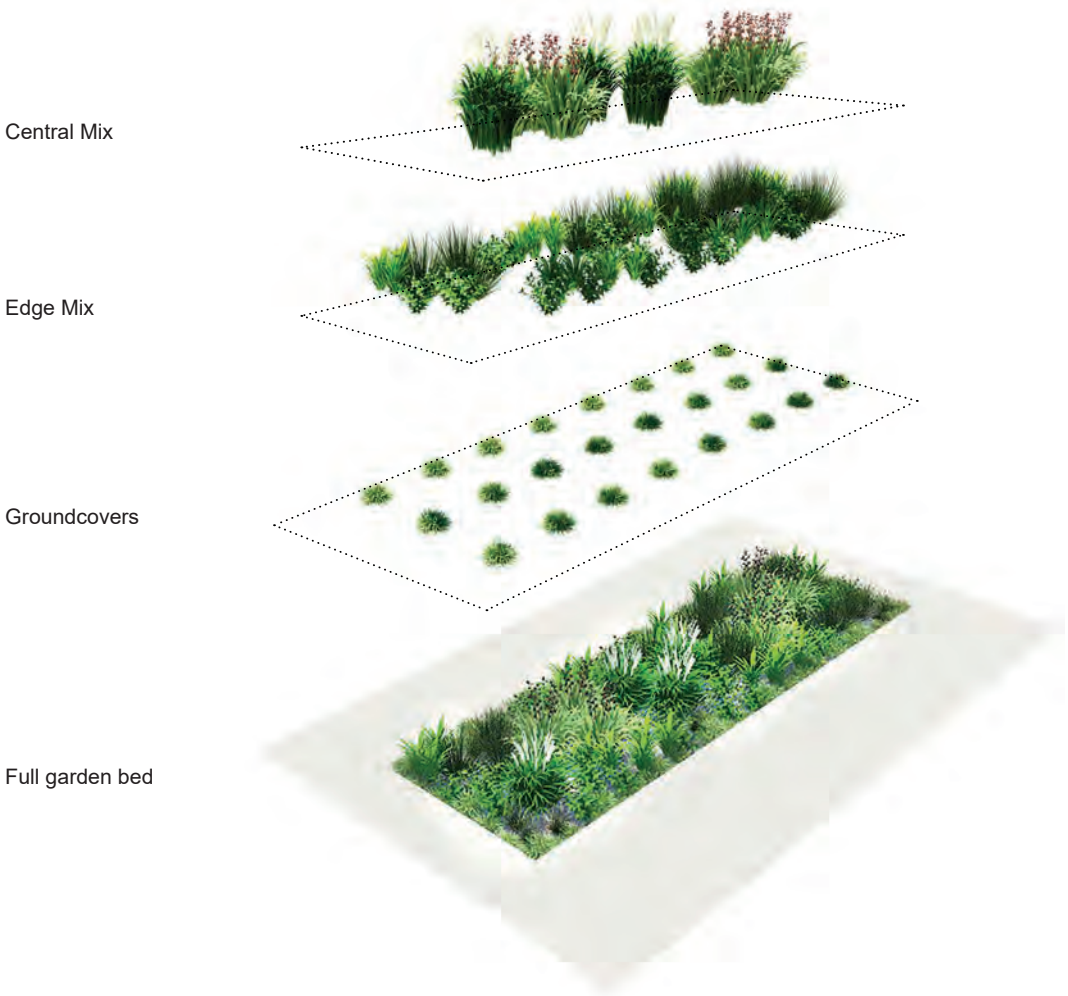
5.3
GARDENS - CONCEPT

PLANTING STRATEGIES

- Planting beds throughout the town centre will break down the extents of hardstand to soften the streets and provide more human comfort.
- Plantings will provide ecological services such as improving water quality, native fauna habitat, planting threatened species from the Canterbury region, air quality and shade and shelter.
- Cultural associations with species will be included, particularly those that cleanse the water and have rongoā value.
- The rain gardens will treat, retain and release run-off from the hardstand of the streets and pavements.
- A mix of evergreen and perennial plants will ensure a full foliage cover all year round, while seasonal interest will provide a continually changing display of colour and vibrancy.
- Plant densities and spreading planting will be used to aim to achieve full cover within two years, creating a completeness and reduce maintenance requirements.
- The arrangement of garden beds will have a layer of groundcovers across the entire bed, smaller species around the edges to prevent spilling out onto pavements and larger species in the centre to provide height and structure.

NOTES:

- The following planting selections are indicative only and to provide an overall palette for each planting zone.
- All plant selections are to be discussed and agreed in collaboration with ADC and the local rūnanga. This is to occur during the review period between the developed and detailed design stages.



TYPICAL GARDEN BED ARRANGEMENT

5.4
GARDEN PALETTE

TOWN GREEN MIX

- Enhance the existing planting along the Town Green and continue through Burnett and Tancred Parks.
- Retain the large, evergreen shrubs for screening and under plant with lush, textural and flowering plants.
- Fill larger gaps with similar species to the existing rhododendrons, azaleas and camellias.

Arthropodium 'Matapouri Bay'
rengarenga lily

Astelia fragrans
kakaha/astelia

Bergenia 'Bressingham Ruby'
Siberian-tea

Dianella nigra
turutu

Fuchsia procumbens (gc)
creeping fuchsia

Helleborus (mixed)

Heuchera (mixed)

Hosta (mixed)

Ligularia reniformis
tractor seat

Polygonatum odoratum
solomons seal

(gc) - groundcover plant

5.4
GARDEN PALETTE

CANTERBURY MIX

- Draws inspiration from the views to the wider Canterbury region and alps.
- Biodiversity mix of plants native to Canterbury, which aligns with the values of Takata Whenua and vision of the ADC Biodiversity Action Plan 2017-22.
- Specific rare plants selected which are in decline or nationally endangered/vulnerable.
- Creates a regional identity outside the new ADC and library building.
- All plants suitable for rain gardens.

Rongoā species (Māori medicinal plants)

Rare plants which are in decline or nationally endangered/vulnerable

Acaena novae-zelandiae (gc)
piripiri, bidibidi

Bulbinella angustifolia
Maori onion

Carex buchananii
Buchanan's sedge

Carex strictissima
red tussock

Coprosma acerosa (gc)
sand coprosma

Euphorbia glauca
waiu-atua, shore spurge

Festuca actae
Banks Peninsula blue tussock

Hypolepis ambigua
rough pig fern

Linum monogynum
rauhuia, linen flax

Pimelea villosa (gc)
sand daphne

Ranunculus ternatifolius (gc)

Poa cita
silver tussock

Polystichum vestitum
prickly shield fern

Sophora prostrata
dwarf köwhai

(gc) - groundcover plant

5.4
GARDEN PALETTE

TOWN CENTRE VARIETY MIX

- Vibrant planting to be attractive and engaging with the public.
- Mix of 70% evergreen for all-year cover and 30% perennial for seasonality, colour and interest.
- All plants suitable for rain gardens.

Achillea millefolium (mixed)
yarrow

Armeria maritima
sea thrift

Bergenia cordifolia
Siberian-tea

Dierama pulcherrimum
angel's fishing rod

Echinacea (mixed)
coneflower

Federation daisy (mixed)
Algerian iris

Gaura (mixed)
Algerian iris

Lavendula angustifolia
lavender

Leptinella diorca (gc)
shore leptinella

Libertia peregrinans
NZ iris

Ligularia reniformis
tractor seat

Liriope muscari (mixed)
lilyturf

Persicaria affinis (gc)
Himalayan knotweed

Pimelea prostrata (gc)
NZ daphne

Rhododendron (1m dwarf)
rhododendron

(gc) - groundcover plant

5.4
GARDEN PALETTE

PARKLAN1D MIX

- Extension of green avenue from Mona Park.
- Natural swathes of different green textures with splashes of colour variety and seasonality.
- All plants suitable for rain gardens.

Anigozanthos (mixed)
kangaroo paw

Chionochloa flavicans
miniature toetoe

Dianella 'Little Rev'

Dietes (mixed)
wild iris

Felicia amelloides
blue marguerite

Hemerocallis (mixed)
day lily

Libertia formosa

Muehlenbeckia axillaris (gc)
creeping pohuehue

Phormium cookianum 'Emerald Green'
mountain flax

Sisyrinchium striatum
pale yellow-eyed grass

(gc) - groundcover plant

5.5
GREEN INFRASTRUCTURE

RAIN GARDENS

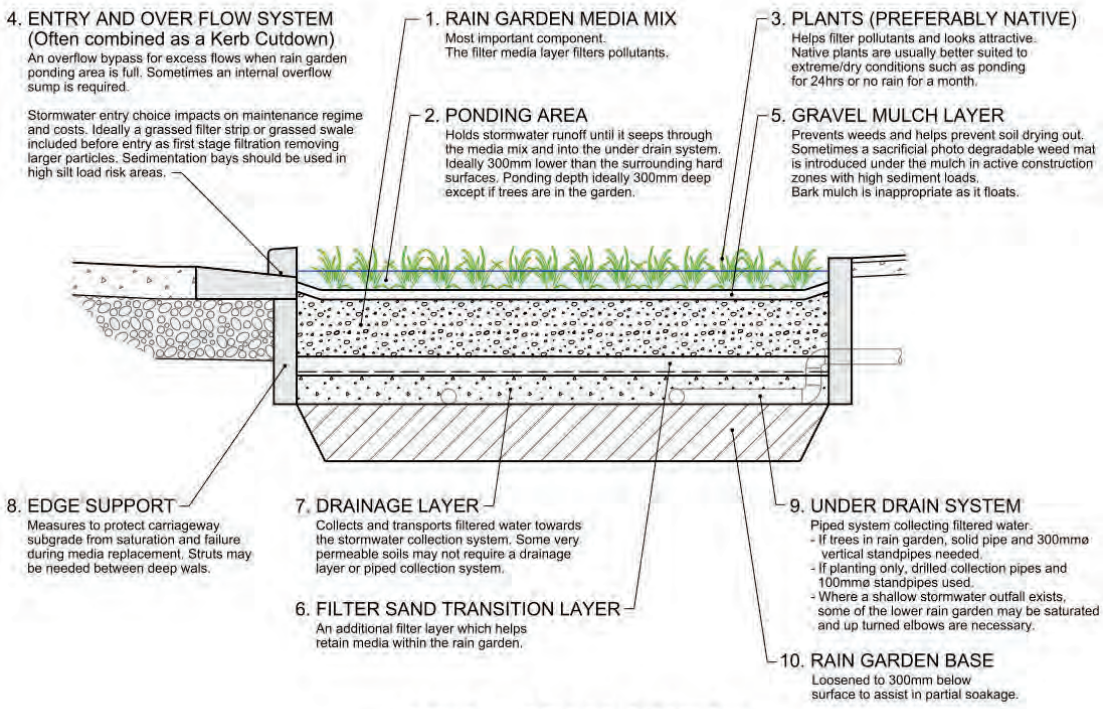
Natural waterways and groundwater resources are key assets of Ashburton, which require protection. Urban stormwater run-off can have adverse effects on the drainage, ecological, cultural, recreational, landscape and heritage values of waterways. Discharge of untreated stormwater to groundwater can also affect the quality of shallow groundwater.

Rain gardens are engineered gardens designed to harness the natural ability of vegetation and soils to treat stormwater. Treatment occurs through sedimentation, filtration, adsorption and uptake by vegetation. They can be used to reduce the effects of stormwater volumes, peak flows and contaminant loads on waterways.

This project design achieves approximately 75% of the road and footpath corridor being discharged to rain gardens.

The majority of the rain gardens within the project have been designed with a dual function kerb exit overflow/entry in the form of kerb cut downs. The overflow discharge sump is located in the kerb rather than within the rain garden. This arrangement allows for a functional stormwater network design which can operate independently of the rain gardens, future proofing the road corridor.

Where it is an impractical arrangement or where services do not allow, then the overflow sump is provided as a dome sump within the rain garden. Each rain garden is provided with a discharge sump either in the kerb or within the rain garden to minimise the flow widths in the road corridor during rain garden overflow.



KEY COMPONENTS OF A RAIN GARDEN - TYPICAL CROSS SECTION

Figure from the ‘CCC Rain garden design, construction and maintenance manual’ (available online)