

NO: R176

COUNCIL DATE: July 24, 2017

REGULAR COUNCIL

TO: **Mayor & Council** DATE: **July 20, 2017**

FROM: **General Manager, Planning & Development** FILE: **6520-20 (City Centre)**
General Manager, Engineering **5220-02**

SUBJECT: **Updates and Minor Amendments to the City Centre Plan**

RECOMMENDATION

The Planning & Development Department and the Engineering Department recommend that Council:

1. Approve the proposed housekeeping amendments to correct typographical errors in the City Centre Plan;
2. Approve the insertion of the density bonus policy clause into the City Centre Plan as shown in Appendix "I;"
3. Approve the City Centre Supplementary Standard Drawings as the Standard Construction documents for City Centre; and
4. Authorize the City Clerk to introduce the necessary by-laws and required readings to amend Schedule A of the *Subdivision & Development By-law, 1986, No. 8830* to introduce the City Centre Supplementary Standard Drawings as revisions to the Supplementary Master Municipal Construction Documents as documented in Appendix "II."

INTENT

The intent of this report is to provide Council with an update on:

1. Housekeeping amendments to the City Centre Plan;
2. Application of the density bonus in City Centre; and
3. New City Centre Standard Drawings that will form a part of the City's Engineering Design Criteria Manual and Standard Construction Documents.

BACKGROUND

The final Stage 2 City Centre Plan Update was approved by Council on January 16, 2017 (Corporate Reports R001; 2016 and R014; 2016). The plan provides direction of the vision and future build-out for the plan area as well as Land Use, Transportation, Parks and Cultural Policy, and a Financing

and Serving Strategy for City Centre. The approved City Centre Plan did not include finalized road design standards or language on the continuation of the Interim Density Bonus policy.

This report describes the highlights of the finalized City Centre Standard Road Drawings, clarifies the application of density bonus in City Centre, and outlines minor housekeeping amendments to correct typographical errors in the plan.

Interim Density Bonus Policy

On October 1, 2007 Council approved Policy O-54 Interim Bonus Density Policy (Corporate Report No. Co20; 2007) in City Centre and Guildford as a means to allow additional floor area (density) on a lot in exchange for the owner providing additional value or benefit back to the community. The policy was based on a land-lift model, where a developer was required to provide amenities or cash-in-lieu of amenities for a percentage of the additional value created by increase in density.

After the adoption of the policy, there were concerns expressed by members of the development community that there needed to be a better process to determine the appraised lift in value, and also that caution should be exercised in imposing amenity requirements that could impact the positive development momentum. A sub-committee was appointed to address the issue further.

As part of the City Centre Plan update, in January 2009, Council approved an interim density bonus strategy for City Centre (Corporate Report Co01; 2009) that would permit density increases in exchange for provision of amenities. This interim strategy was not based on the land-lift model, and allowed developments located within land use designations of the 7.5, 5.5, 3.5, 2.5, and 1.5 Floor Area Ratio (FAR) to increase density by up to 20%, in exchange for the provision of social or special needs housing or community amenities in accordance with those listed in Policy O-54 Interim Density Bonus Strategy.

Concurrent with the City Centre Plan update, the Surrey Affordable Housing Strategy was being prepared. It was determined that findings from the Affordable Housing Strategy could provide a basis from which staff could develop a more comprehensive density bonus policy for Council's consideration. Since the Affordable Housing Strategy was not complete by the time the City Centre Plan was finalized in January 2017, the Interim Density Bonus policy approved in January 2009 has continued to be applied to new developments in City Centre.

Enhanced City Centre Road Standards

The *Subdivision & Development By-law, 1986, No. 8830* (the "By-law") regulates the subdivision and development of land in the City. The By-law includes the City's Engineering Design Criteria Manual and Standard Construction documents, which establish the minimum standards for the design and construction of municipal infrastructure in the City, for both land development and capital works projects. These standards ensure that every parcel is developed with an adequate standard or level of servicing including those provided by water supply, sanitary sewage disposal, drainage collection, electrical and telecommunications wiring, road, sidewalk, and street lighting systems.

The Design Criteria Manual and Standard Construction documents were last updated in December 2015. In January 2017, Council approved the new City Centre Plan which includes enhanced road design standards reflecting City Centre's role as the downtown for South of Fraser.

Staff has been using the interim standards since January 2017, until detailed standards could be completed.

DISCUSSION

Housekeeping Amendments to the City Centre Plan

A number of minor housekeeping amendments are being made to the City Centre Plan. These changes are not substantive; rather, they correct typographical errors and provide improved clarity for some of the graphics.

Density Bonus Applications in City Centre

While staff will examine a more comprehensive density bonus strategy in the future, it is recommended that additional text be added to the approved City Centre Plan to provide clarity on the application of the interim density policy. The updated clause is included in Appendix II. Key clarification points are as follows:

- **Applicable Land Use Designations:** Where appropriate, consideration of an additional 20% density may be given to projects in the 3.5 FAR, 5.5 FAR, and 7.5 FAR land use designations in exchange for amenities.
- **Amenities that can be considered:** The amenities listed in Policy O-54 Interim Density Bonus Policy will continue to be applicable. These include affordable housing, civic amenities including child care spaces, public meeting spaces, civic and cultural facilities, public art, open space, publically accessible parks or gathering places, et cetera, or a cash-in-lieu payment provision. The amenities obtained should benefit the area in which the development is located.
- **Payment for cash-in-lieu:** Payment shall be at the time of building permit issuance. For phased developments, the contribution shall be paid at the time of building permit issuance for each phase. In cases where the amenity contribution is not a cash contribution, these may be subject to the provision of financial security at the time of building permit issuance.

Upon completion and approval of the Affordable Housing Strategy, staff will initiate a process to refine and expand the scope of the Interim Density Bonus Policy for Council's consideration. This refined policy is expected to replace the current Interim Density Bonus Policy. The Affordable Housing Strategy is expected to be completed in the fall of 2017.

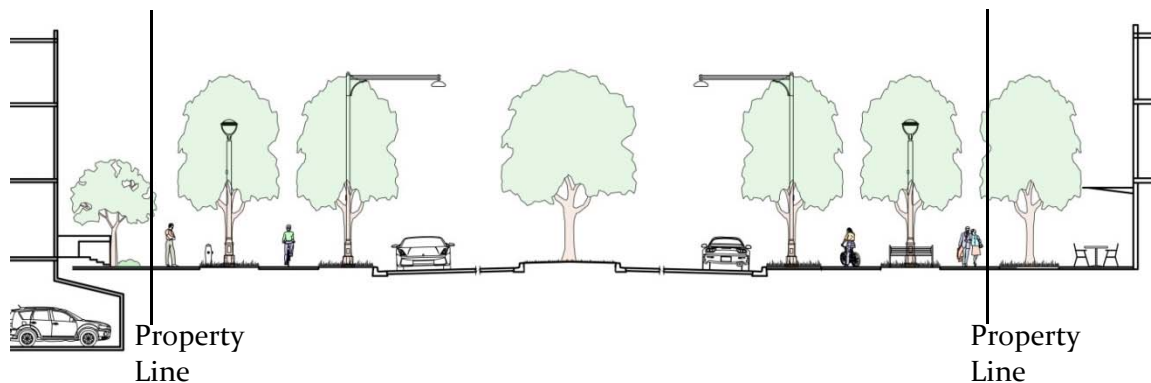
New City Centre Standard Drawings

New high quality City Centre Standard Drawings have been developed that reflect the role that streets will play in supporting transportation choices, economic vitality and urban design, as shown in Appendix "II." "Complete streets" cross sections recognize that streets in City Centre will be supporting higher volumes of pedestrians and cyclists as well as transit. The proposed City Centre Standard Drawings include improvements recommended by staff and external engineering consultants that meet the needs of the City relative to infrastructure maintenance and operations while optimizing the capital cost of construction to the land development industry and the City's taxpayers and ratepayers.

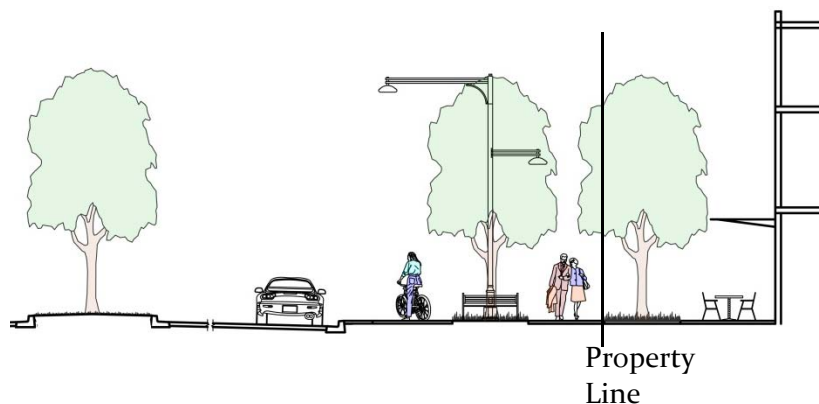
The more significant revisions developed by staff are highlighted below:

New Urban Standard for Greenways: The existing design standard for Greenways on arterials includes bike lanes in each direction on the roadway for more confident cyclists, and a single two-way 4m multi use path (MUP) shared by pedestrians and all ages and abilities cyclists on one side of the road. While this treatment is appropriate in suburban neighbourhoods throughout the City, this treatment does not separate the large volumes of cyclists and pedestrians anticipated in the future. It also places an unequal burden on the frontage with the Greenway, as there are additional Statutory Right-of-way (SRW) requirements to accommodate the MUP, above the standard—and equitable—road dedication requirements.

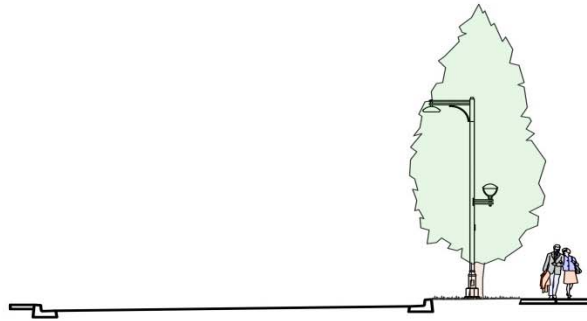
In the new standard for City Centre, the cycling facilities are separated from pedestrians by a continuous row of street trees and plantings and are one way on each side of the street. As an additional advantage, the overall proposed 32 metre wide road allowance is less than the previous dedication and SRW requirements combined, and is now evenly split between property owners on both sides of the street. The image below shows how a completed arterial with greenway could look with residential frontage on the left and commercial frontage on the right.



New Cycling Facilities on Arterials and Collectors: Protected bike lanes are suitable for cyclists of all ages and abilities and will be located on all arterials and collectors to support what is expected to be one of the fastest growing modal share in City Centre. The new design reallocates the space currently used for non-motorized transportation by bringing cyclists up into the boulevard with physical separation from vehicle traffic and pedestrian traffic. The image below illustrates the typical new Arterial standard with commercial interface.



New Lane Standard with Sidewalk and Street Trees: The new Green Lanes accommodates pedestrians and include a sidewalk as well as trees. The Green Lanes support broader transportation objectives as well as their core servicing role and are not meant as a replacement for local roads. The image below illustrates the new Green Lane standard.



Materials, Street Furniture and Green Infrastructure: Various elements of the pedestrian realm have been enhanced to increase pedestrian comfort. This includes high quality concrete sidewalks with light broom finishing and saw-cuts that allow for a smooth and even surface to ensure mobility for all users and abilities. Wider sidewalk widths of 2 metres are standard, and increased widths will be required in areas with high pedestrian volumes. Features such as public art, in-ground planting and large tree canopies will further create a pleasant walking environment.

The new design standards support the City's Shade Tree Management Plan with large, plentiful street trees to provide an urban forest and enhance the pedestrian experience. They also provide for more active spaces through setbacks in commercial areas that will include merchant zones, enhancing the public realm in City Centre.

Consultation

The updated standards were developed by the Engineering Department, with support from the Parks, Recreation & Culture and Planning & Development Departments.

The standards were also presented at two joint meetings of the Urban Development Institute and the City's Development Advisory Committee for review and feedback. Overall, the City received very constructive feedback from the industry and acknowledgements on the City's proactive approach to developing updated standards and consultation with the development industry.

SUSTAINABILITY CONSIDERATIONS

The new City Centre Standard Drawings align with Surrey's Sustainability Charter 2.0 vision for a thriving, green, inclusive city, as well as numerous Desired Outcomes (DO) and Strategic Directions (SD) across almost all Themes. Specifically, the Standard Drawings support the following:

Built Environment and Neighbourhoods

DO₃: The City Centre is a dynamic, attractive and complete metropolitan area and

important international destination, and is one of North America's most livable and desirable downtowns.

DO4: Surrey's neighbourhoods are safe, accessible, well-connected, walkable and bike friendly.

SD4: Continue to plan and develop a transportation and mobility network (including active transportation) that supports safety, placemaking and integration of neighbourhoods.

Public Safety

DO9: Transportation network supports and provides safe mobility for all ages and abilities.

SD8: Ensure all public infrastructure is built and maintained to ensure community safety and well-being for all ages and abilities.

Economic Prosperity and Livelihoods

DO6: Efficient land use and well-managed transportation infrastructure are in place to attract businesses and support a thriving economy.

Ecosystems

DO3: All development enhances, or minimizes the impacts on Surrey's lush tree canopy and natural environment, and avoids encroachment into natural areas, habitat features and parks.

SD5: Increase tree canopy coverage across the city.

Health and Wellness

DO9: Pedestrian and cycling infrastructure promotes walking and cycling for travel to work, school, services and recreation.

SD6: Provide opportunities for all residents, especially children, to interact with green spaces and trees.

Infrastructure

DO11: An integrated and multi-modal transportation network offers affordable, convenient, accessible and safe transportation choices within the community and to regional destinations.

DO12: Surrey residents of all ages and ability have access to active transportation options, enabling them to participate fully in society without the use of a private automobile.

SD11: Ensure the delivery of safe and accessible infrastructure, programs and education to support walking, cycling and transit for all residents.

CONCLUSION

This report highlights proposed updates to the City Centre Plan document with regard to minor housekeeping amendments and interim density bonus policy, and it introduces the City Centre Road Design Standards.

Upon completion of the Affordable Housing Strategy, staff will report back to Council to refine and expand the scope of the density bonus policy. In the interim, the policy as outlined in this report shall apply.

The City Clerk will bring forward the Design Criteria and Standard Construction Document revisions as housekeeping amendments to the By-law for adoption such that the By-law amendments are effective for new development applications and capital projects. The new criteria will not be required for in-stream applications or capital projects; however, they are already being applied successfully to development projects on a voluntary basis.

Based on the information above, it is recommended that Council:

- Approve the proposed housekeeping amendments to correct typographical errors in the City Centre Plan;
- Approve the insertion of the density bonus policy clause into the City Centre Plan as shown in Appendix “I;”
- Approve the City Centre Supplementary Standard Drawings as the Standard Construction documents for City Centre; and
- Authorize the City Clerk to introduce the necessary by-laws and required readings to amend Schedule A of the *Subdivision & Development By-law, 1986, No. 8830* to introduce the City Centre Supplementary Standard Drawings as revisions to the Supplementary Master Municipal Construction Documents as documented in Appendix “II.”

Original signed by
Jean Lamontagne
General Manager, Planning & Development

Original signed by
Fraser Smith, P.Eng., MBA
General Manager, Engineering

DL/PH/DB/ss

Appendix “I” - Replacement Page for City Centre Plan as related to the Interim Density Bonus Policy

Appendix “II” - *Subdivision & Development By-law, 1986, No. 8830* Amendments as related to the Design Criteria and Standard Construction Document

11.7

DENSITY BONUS

INTERIM POLICY

On October 1, 2007 Council approved Policy O-54-Interim Bonus Density Policy (Corporate Report No. C020) in City Centre and Guildford as a means to allow additional floor area (density) on a lot in exchange for the owner providing additional value or benefit back to the community. The policy was based on a land-lift model, where a developer was required to provide amenities or cash-in-lieu of amenities for a percentage of the additional value created by increase in density.

After the adoption of the policy, there were concerns expressed by members of the development community that there needed to be a better process to determine the appraised lift in value, and also that caution should be exercised in imposing amenity requirements that could impact the positive development momentum. A sub-committee was appointed to address the issue further.

In January 2009, Council approved an interim density bonus strategy for City Centre (Corporate Report C001) that would permit density increases in exchange for provision of amenities. The 2009 interim strategy allowed developments located within land use designations of the 7.5, 5.5, 3.5, 2.5 and 1.5 Floor Area Ratio (FAR) to increase density by up to 20%, in exchange for the provision of social or special needs housing or community amenities in accordance with those listed in City Policy O-54-Interim Density Bonus Strategy.

Concurrent with the City Centre Plan update, the Surrey Affordable Housing Strategy was being prepared. It was determined that findings from the Affordable Housing Strategy could provide a basis from which staff could develop a more comprehensive density bonus policy.

The Interim Density Bonus policy approved in January 2009 will continue to be applied to new developments in City Centre (with some modifications) until such time that a comprehensive policy is established. The details and of the City Centre Interim Density Bonus Policy are outlined in this section.

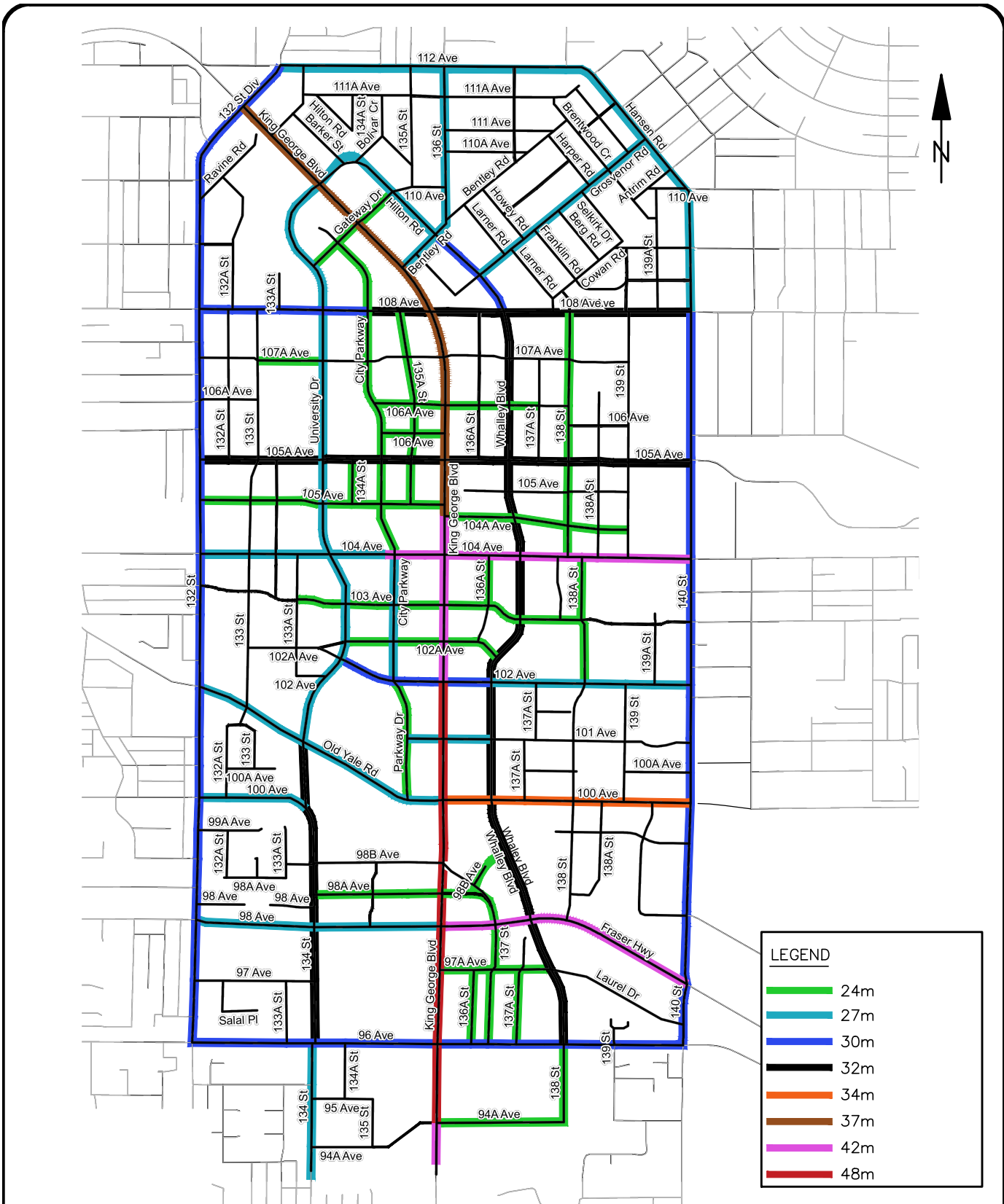
Density Bonus

Where appropriate, consideration of up to 20% increase in density may be considered in exchange for amenities as follows:

- **Land Use Designations:** eligible land use designations for consideration of density increase are Mid to High Rise 3.5 FAR, High Rise & Mixed Use 5.5 FAR, and Mixed Use 7.5 FAR designations.

The 2.5 FAR areas will not be considered for density bonus. Buildings in these designations are intended to provide a transitional built form between high rise and single family housing forms. Any density increases in the 2.5 FAR designation areas would not provide a suitable transition because the increased density would change the intended built form.

- **Amenities:** the amenities listed in Policy O-54: Interim Density Bonus Policy will continue to be applicable. These include affordable housing, civic amenities including child care spaces, public meeting spaces, civic and cultural facilities, public art, open space, publically accessible parks or gathering places, etc. The amenities obtained should benefit the area in which the development is located.
- **Cash-in-lieu of Amenities:** a cash-in-lieu of amenities payment may be provided. Payment shall be at the time of building permit issuance.
- **Phased Developments:** for phased developments, where a cash-in-lieu payment is made, the contribution shall be paid at the time of building permit issuance for each phase. In cases where the amenity contribution is not a cash contribution, these will be subject to the provision of financial security at the time of building permit issuance.



LEGEND	
	24m
	27m
	30m
	32m
	34m
	37m
	42m
	48m

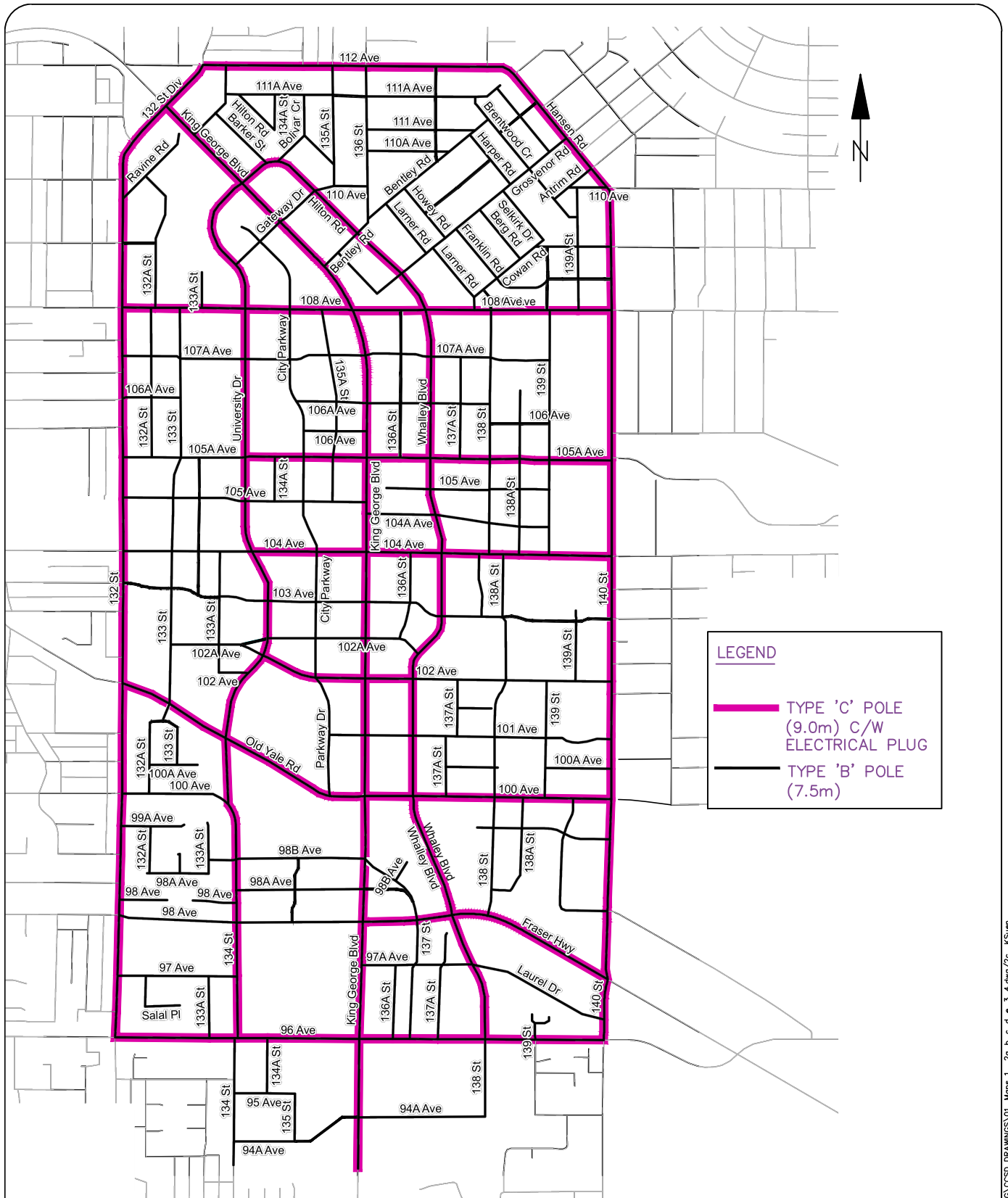
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1	JULY 2017
	Revision Date
	Approved

All Dimensions Shown In Metres, Unless Otherwise Noted	
Title	ROAD R.O.W. WIDTH MAP

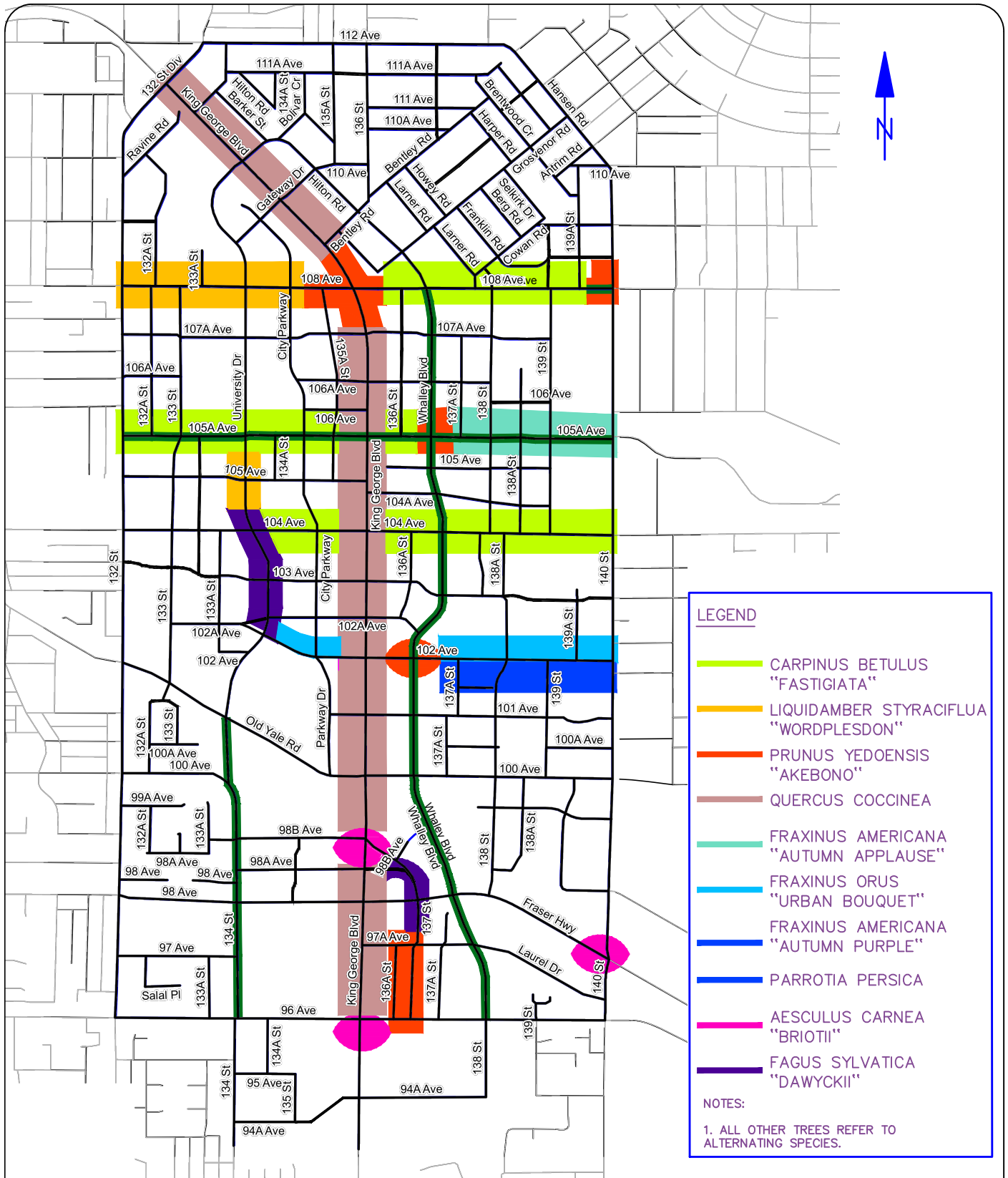
CITY CENTRE
STANDARD
DRAWINGS

Approved	
Date	JULY 2017
Drawn By	Surrey Engineering

DRAWING NUMBER	CCSD-2b
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3		All Dimensions Shown In Metres, Unless Otherwise Noted		
2				
1	JULY 2017			
	Revision Date	Approved	Title	
			STREETLIGHT TYPE MAP	
			Approved	DRAWING NUMBER
	CITY CENTRE STANDARD DRAWINGS		Date	JULY 2017
			Drawn By	Surrey Engineering
				CCSD-2c

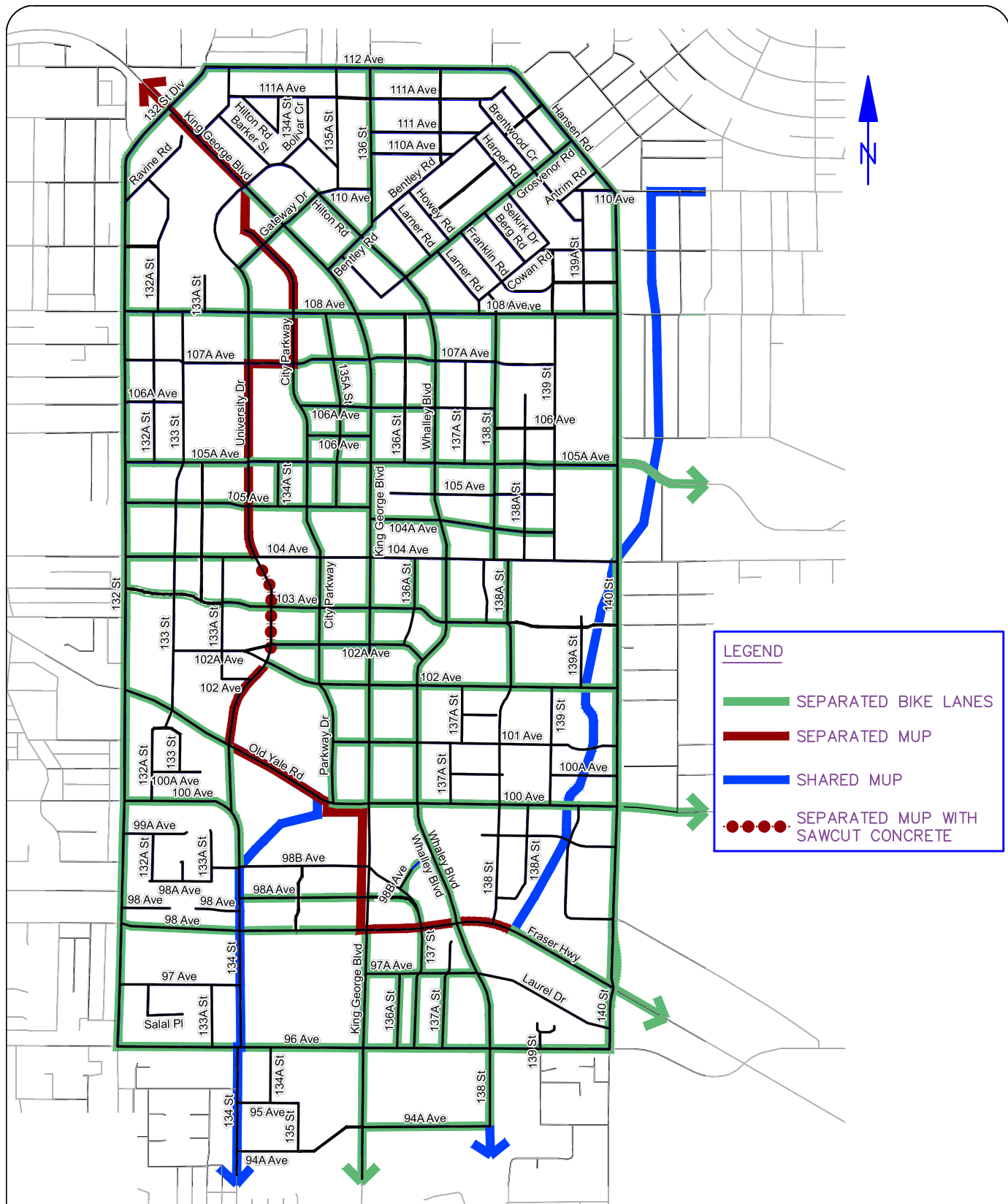


LEGEND

- CARPINUS BETULUS "FASTIGIATA"
- LIQUIDAMBER STYRACIFLUA "WORDPLESTON"
- PRUNUS YEDOENSIS "AKEBONO"
- QUERCUS COCCINEA
- FRAXINUS AMERICANA "AUTUMN APPLAUSE"
- FRAXINUS ORUS "URBAN BOUQUET"
- FRAXINUS AMERICANA "AUTUMN PURPLE"
- PARROTIA PERSICA
- AESCULUS CARNEA "BRIOTII"
- FAGUS SYLVATICA "DAWYCKII"


NOTES:
 1. ALL OTHER TREES REFER TO ALTERNATING SPECIES.

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017	Title	
	Revision Date	STREET – TREE TYPE MAP	
	Approved		
 CITY CENTRE STANDARD DRAWINGS		Approved	
		Date	JULY 2017
		Drawn By	Surrey Engineering
		DRAWING NUMBER	
		CCSD-3	

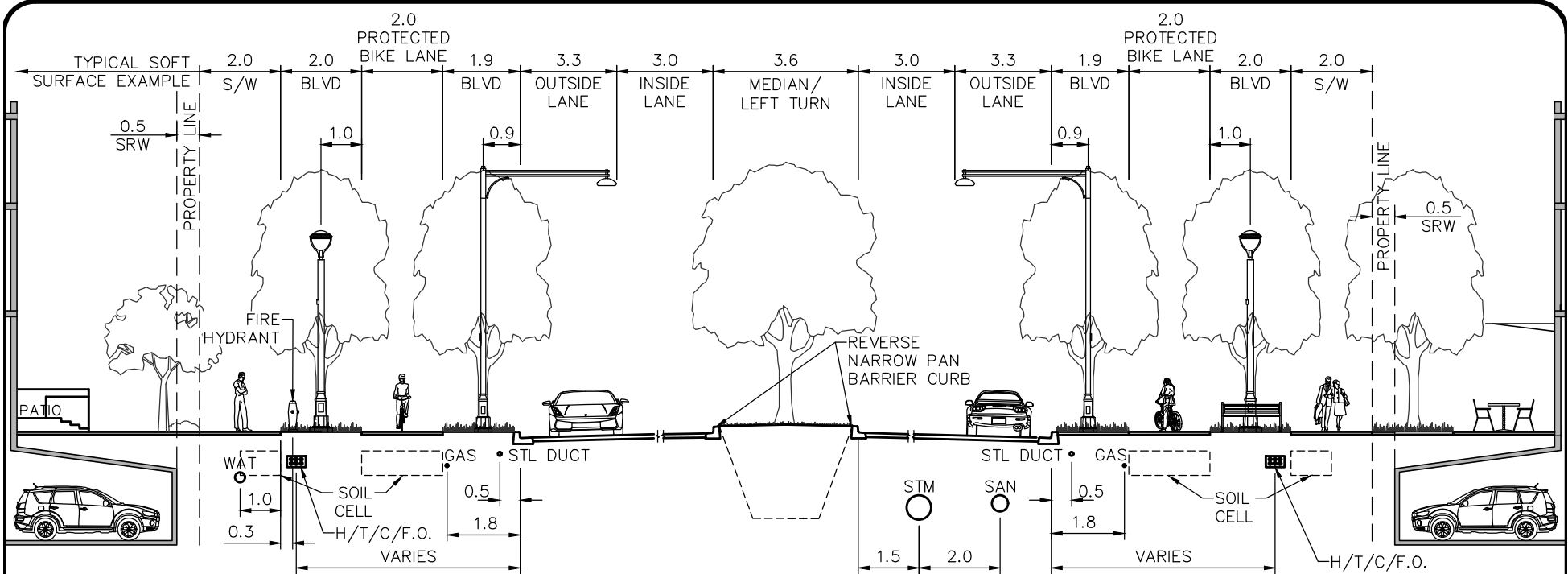


LEGEND

- SEPARATED BIKE LANES
- SEPARATED MUP
- SHARED MUP
- SEPARATED MUP WITH SAWCUT CONCRETE

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2	JULY 2017	Title SEPERATED CYCLING PATHS	
1	Revision Date		
	Approved	Approved	DRAWING NUMBER
		Date	JULY 2017
		Drawn By	Surrey Engineering
 CITY OF SURREY the future lives here.		CITY CENTRE STANDARD DRAWINGS	
		CCSD-4	

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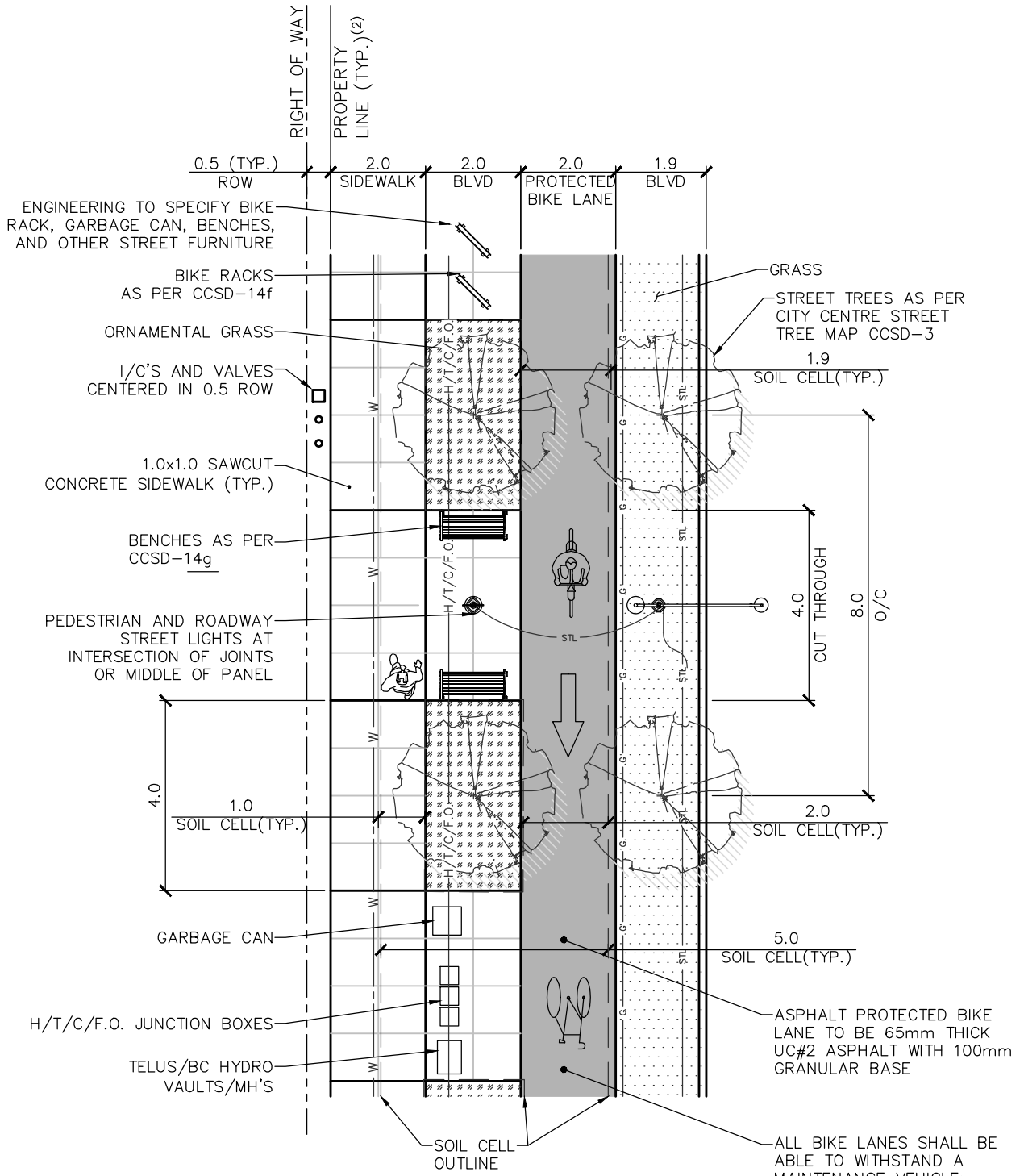
NOTE: UNDERGROUND PARKING TO BE CROPPED BELOW ADJACENT STREET GARDEN

BOULEVARD SECTION N.T.S

NOTES:

- (1) LANDSCAPED MEDIAN AS PER SSD-R16, LEFT TURN BAY AS PER SSD-R15.
- (2) REFER TO SPECIFIC TREATMENT OPTION FOR CIVIC CENTRE, COMMERCIAL, AND RESIDENTIAL FRONTAGE.
- (3) DISTRICT ENERGY UTILITY LOCATION TO BE CONFIRMED BY ENGINEERING.


3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title TYPICAL ARTERIAL ROAD CROSS SECTION 32m ROW
	Revision Date Approved	Approved
SURREY the future lives here.		CITY CENTRE STANDARD DRAWINGS
		Date JULY 2017 Drawn By Surrey Engineering
		DRAWING NUMBER CCSD-5a

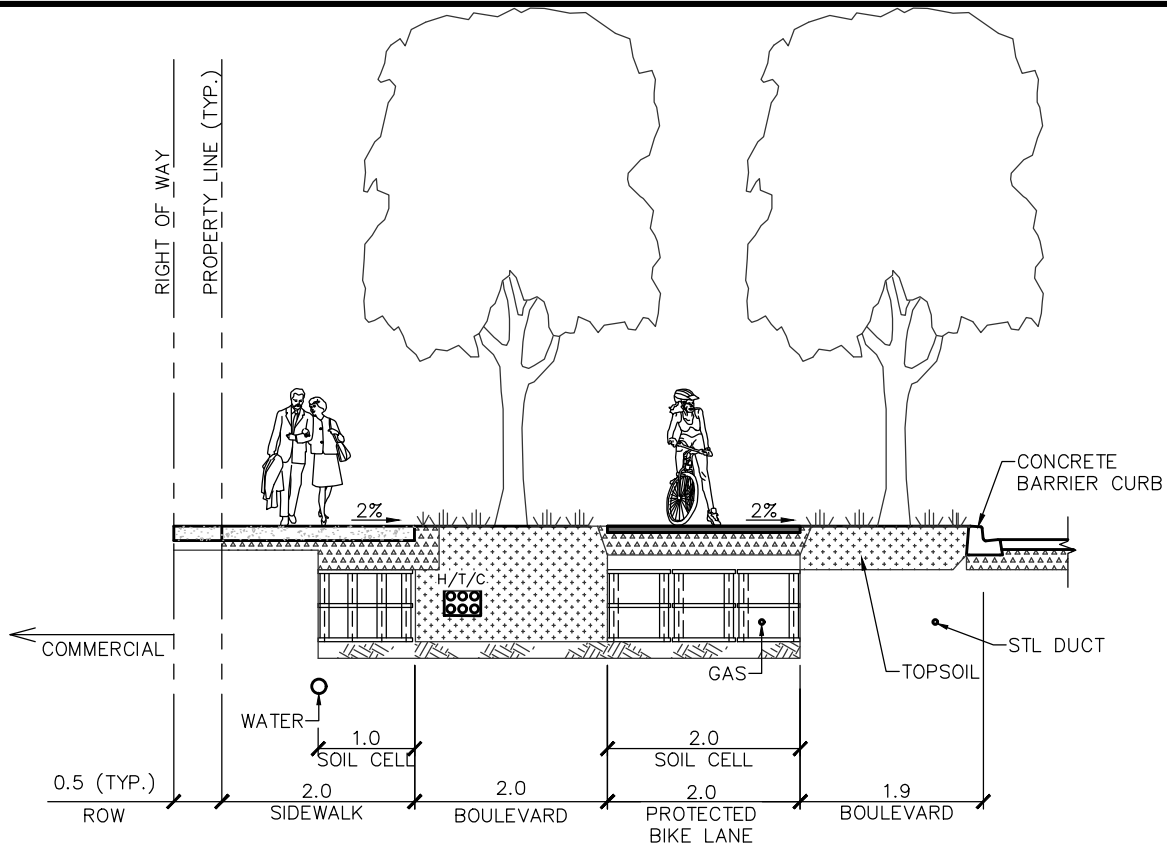


NOTES:

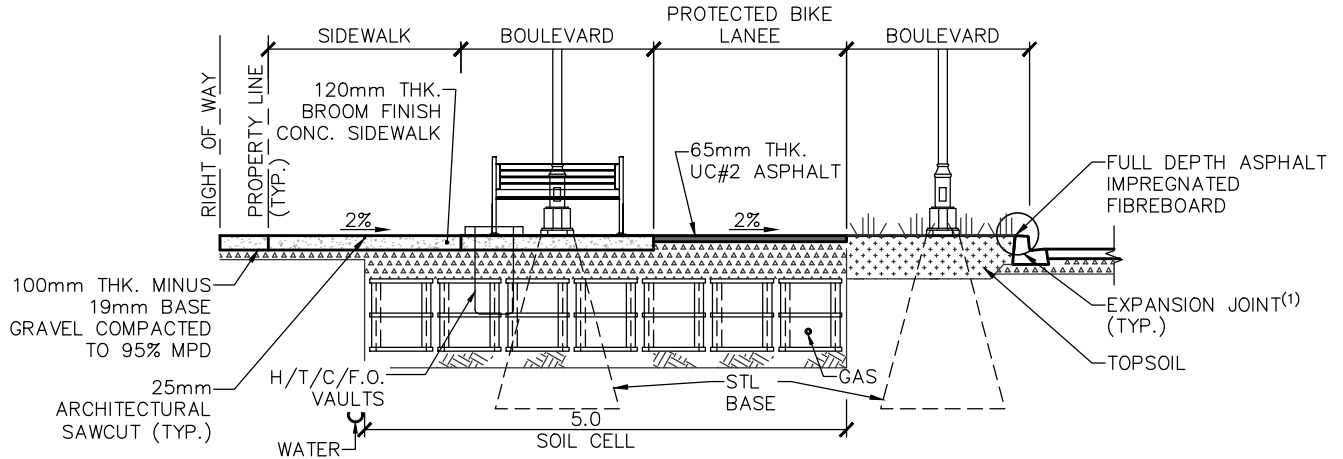
- (1) 0.5m SRW FOR I/C & MAINS.
- (2) IF BUILDING NOT ADJACENT TO SIDEWALK, ADD ON ADDITIONAL 0.5m TO ROW

ALL BIKE LANES SHALL BE ABLE TO WITHSTAND A MAINTENANCE VEHICLE: MINI SWEEPER, MINI SNOWPLOW, PICK-UP TRUCK (PARKS OPERATIONS)

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2		Title	PROTECTED BIKE LANE PLAN VIEW 32m ROW
1	JULY 2017	Approved	DRAWING NUMBER
	Revision Date	Approved	CCSD-5b
 CITY OF SURREY the future lives here.		CITY CENTRE STANDARD DRAWINGS	
		Date	JULY 2017
		Drawn By	Surrey Engineering




SECTION THROUGH TREE PLANTING

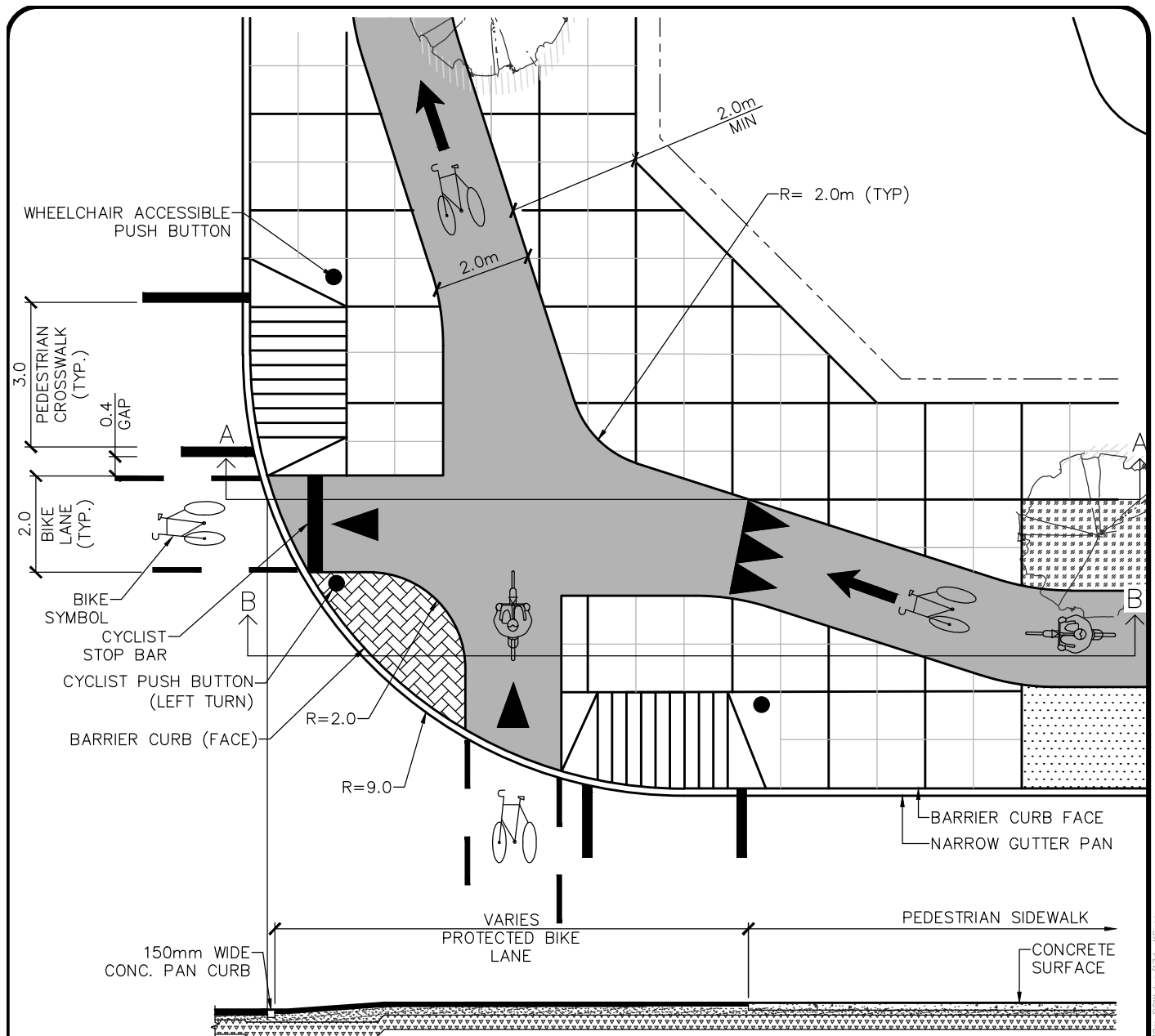


SECTION THROUGH CUT THROUGH

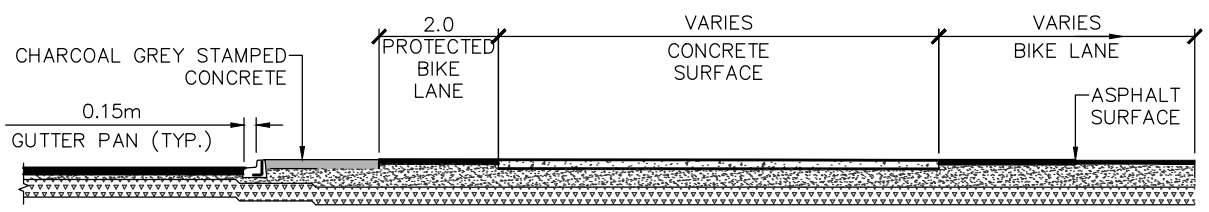
NOTES:

- (1) EXPANSION JOINTS SHALL USE FULL DEPTH ASPHALT IMPREGNATED FIBREBOARD @ MAXIMUM 9m LONGITUDINAL SPACING. EXPANSION JOINTS SHALL BE PROVIDED AGAINST ALL VERTICAL EDGES AND CHANGE IN MATERIALS. 50mm SMOOTH TROWEL ON BOTH SIDES OF EXPANSION JOINT.
- (2) CONTROL JOINTS SHALL HAVE A MAXIMUM 3m SPACING. CONTROL JOINTS SHALL BE SAWCUT ONLY.
- (3) CONTROL JOINT AND EXPANSION JOINT LAYOUTS TO BE CHALK MARKED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO COMPLETION.
- (4) CONCRETE EDGE ALONG PROPERTY LINE TO HAVE 150mm TROWEL FINISH. ALL SCORELINES TO STOP PRIOR TO TROWELED EDGE.
- (5) INSTALL SOIL CELL AS PER MANUFACTURERS RECOMMENDATIONS.

3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title PROTECTED BIKE LANE CROSS SECTION 32m ROW
	Revision Date	Approved
		Approved Date JULY 2017 Drawn By Surrey Engineering
		DRAWING NUMBER CCSD-5c



SECTION A



SECTION B

3	
2	
1	JULY 2017
	Revision Date
	Approved

All Dimensions Shown In Metres,
Unless Otherwise Noted

Title **PROTECTED BIKE LANE INTERSECTION
PLAN VIEW - 32m ROW**



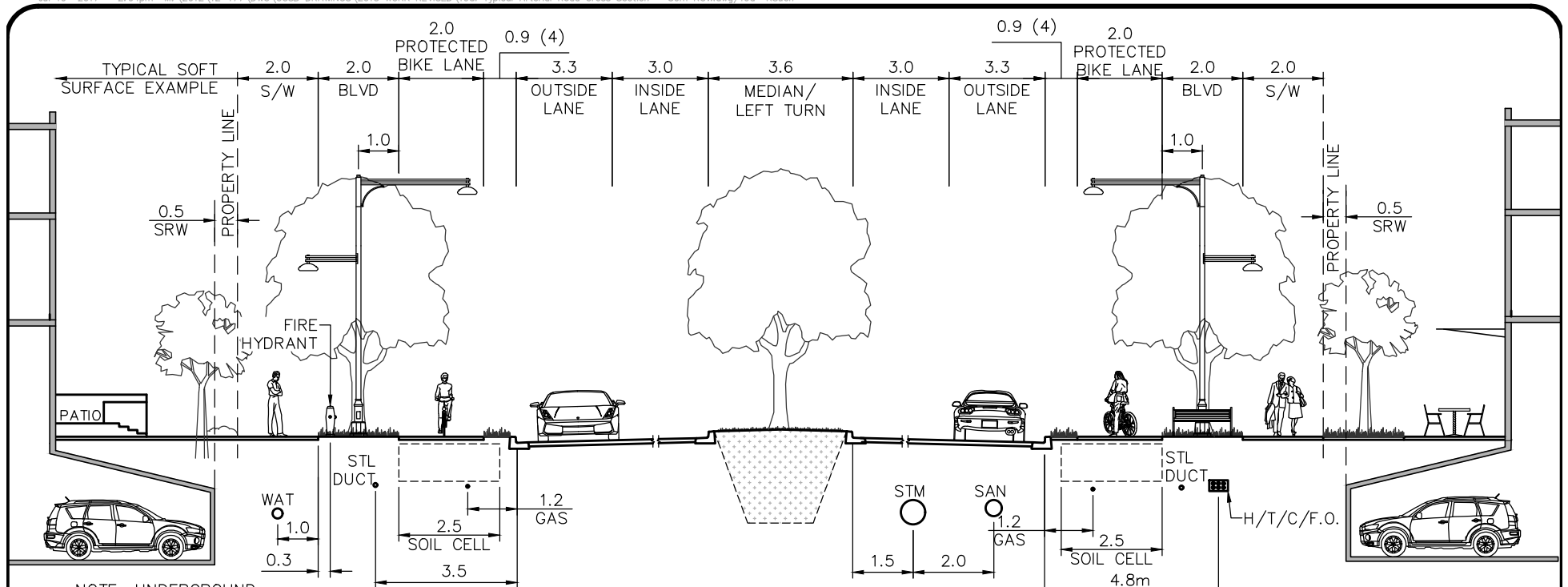
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Date JULY 2017

Drawn By Surrey Engineering

DRAWING NUMBER
CCSD-5d

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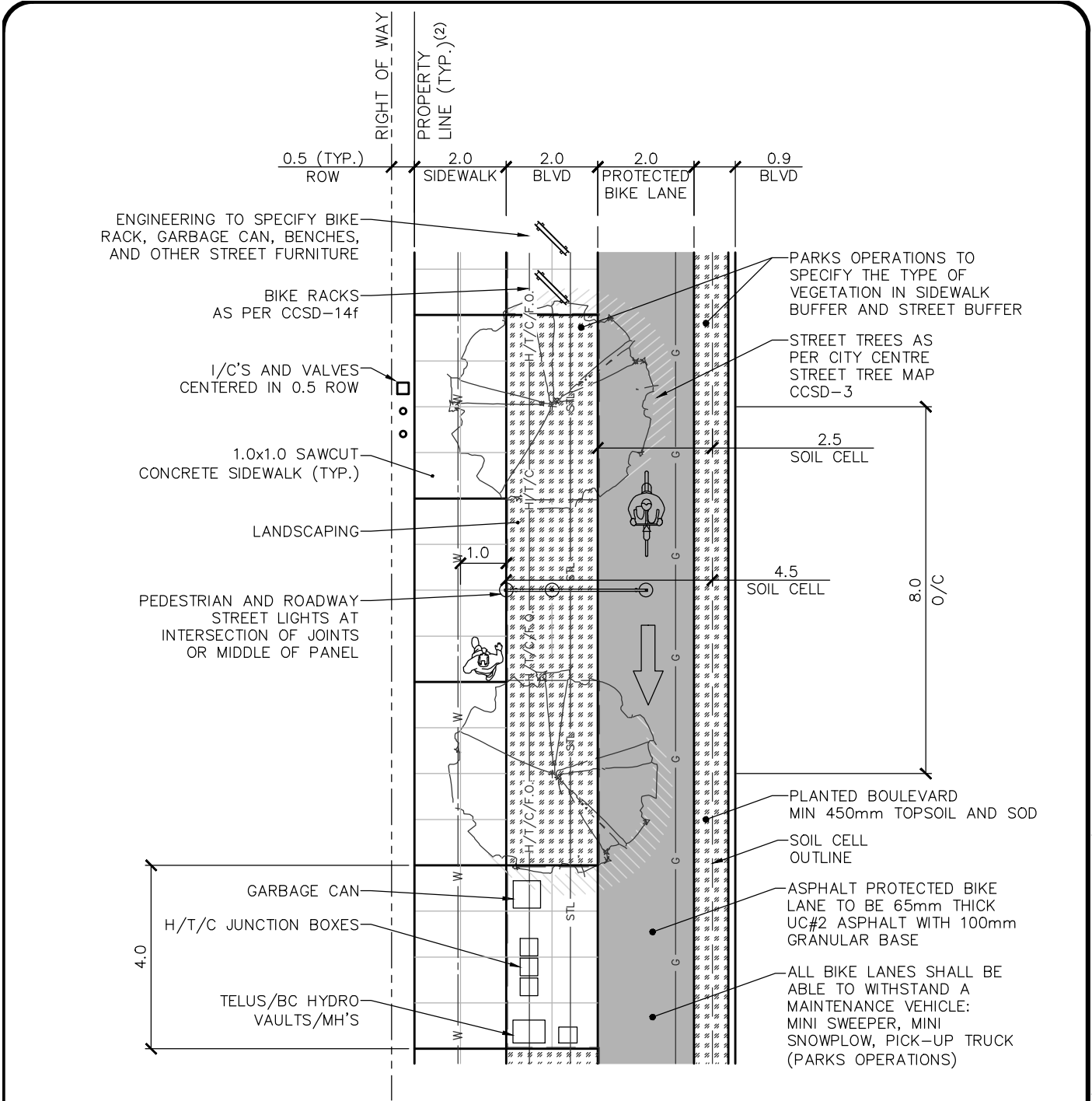


NOTE: UNDERGROUND PARKING TO BE CROPPED BELOW ADJACENT STREET GARDEN


BOULEVARD SECTION N.T.S

- NOTES:
- (1) LANDSCAPED MEDIAN AS PER SSD-R16, LEFT TURN BAY AS PER SSD-R15.
 - (2) REFER TO SPECIFIC TREATMENT OPTION FOR CIVIC CENTRE, COMMERCIAL, AND RESIDENTIAL FRONTAGE.
 - (3) DISTRICT ENERGY UTILITY LOCATION TO BE CONFIRMED BY ENGINEERING.
 - (4) BUFFER SEPARATION BETWEEN TRAVEL LANES AND CYCLE TRACK.

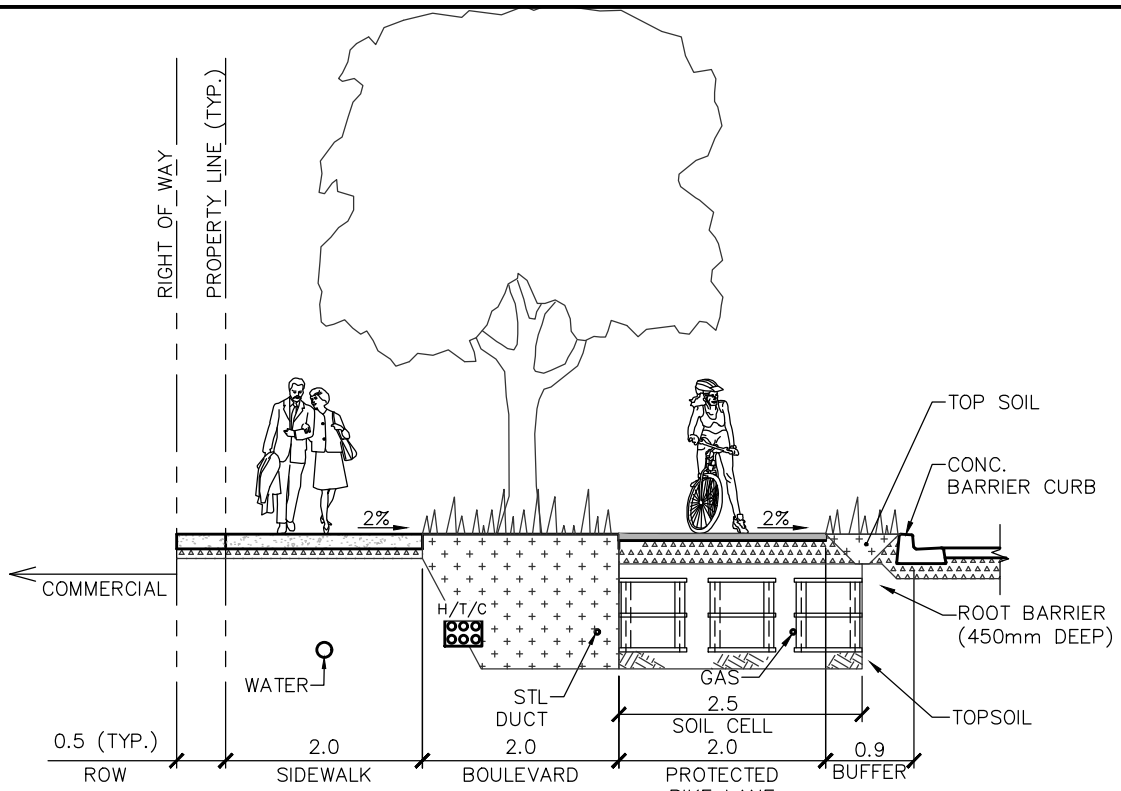
3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title TYPICAL ARTERIAL ROAD CROSS SECTION (30m) ROW
	Revision Date Approved	Approved
<div style="display: inline-block; vertical-align: middle; margin-left: 20px;"> <p>CITY CENTRE STANDARD DRAWINGS</p> </div>		Date JULY 2017
		DRAWING NUMBER
		Drawn By Surrey Engineering
		CCSD-6a



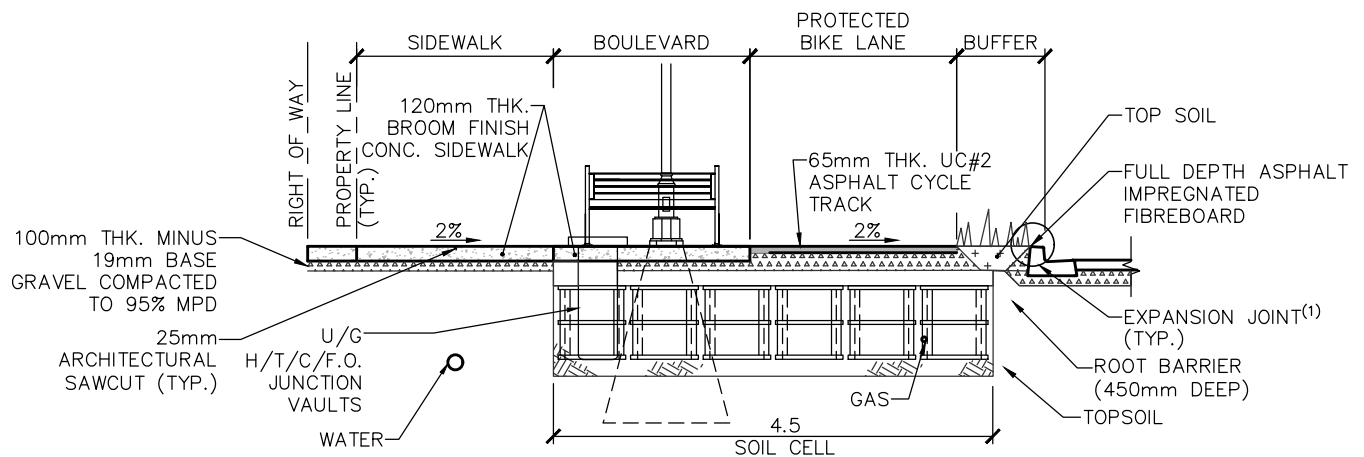
- NOTES:
- (1) 0.5m SRW FOR I/C & MAINS.
 - (2) IF BUILDING NOT ADJACENT TO SIDEWALK, ADD ON ADDITIONAL 0.5m TO ROW

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017	Title	PROTECTED BIKE LANE PLAN VIEW (30m) ROW
	Revision Date	Approved	
 CITY OF SURREY the future lives here.		CITY CENTRE STANDARD DRAWINGS	DRAWING NUMBER
		Approved	JULY 2017
		Date	JULY 2017
		Drawn By	Surrey Engineering
			CCSD-6b

Jul 19 2017 - 2:05pm M:\2012\12-177\DWG\CCSD DRAWINGS\2015 WORK REVISED\1b. Separated Cycle Track Plan View - 30m Rolling/180 KSuen



SECTION THROUGH TREE PLANTING



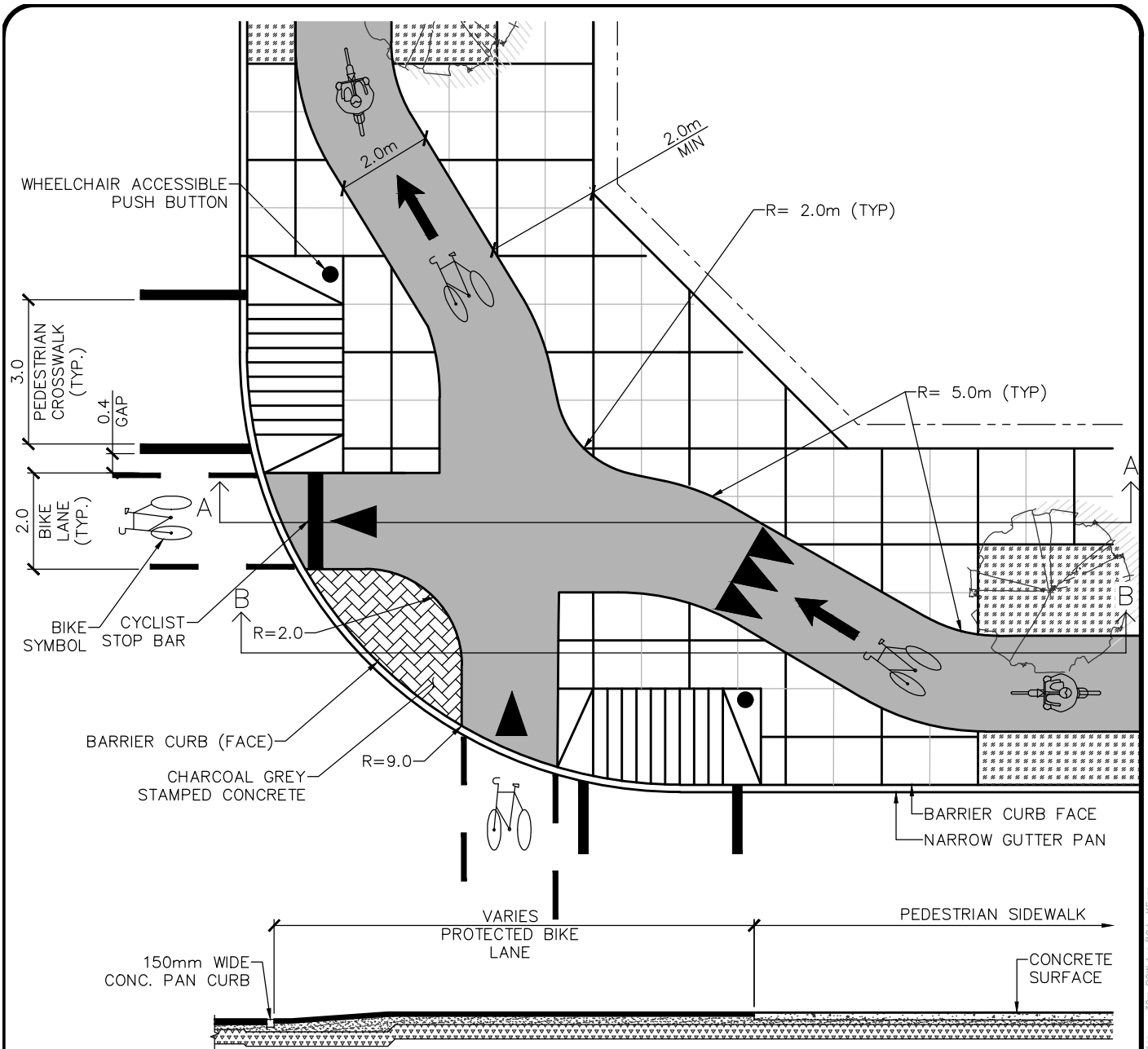
SECTION THROUGH CUT THROUGH

NOTES:

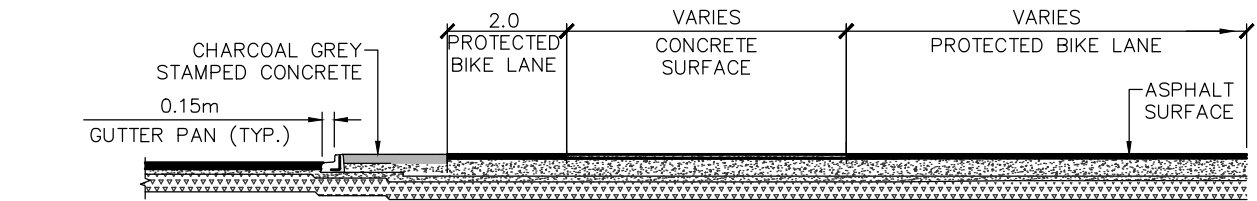
- (1) EXPANSION JOINTS SHALL USE FULL DEPTH ASPHALT IMPREGNATED FIBREBOARD @ MAXIMUM 9m LONGITUDINAL SPACING. EXPANSION JOINTS SHALL BE PROVIDED AGAINST ALL VERTICAL EDGES AND CHANGE IN MATERIALS. 50mm SMOOTH TROWEL ON BOTH SIDES OF EXPANSION JOINT.
- (2) CONTROL JOINTS SHALL HAVE A MAXIMUM 3m SPACING. CONTROL JOINTS SHALL BE SAWCUT ONLY.
- (3) CONTROL JOINT AND EXPANSION JOINT LAYOUTS TO BE CHALK MARKED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO COMPLETION.
- (4) CONCRETE EDGE ALONG PROPERTY LINE TO HAVE 150mm TROWEL FINISH. ALL SCORELINES TO STOP PRIOR TO TROWELED EDGE.
- (5) INSTALL SOIL CELL AS PER MANUFACTURERS RECOMMENDATIONS.

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017	Title PROTECTED BIKE LANE CROSS SECTION (30m) ROW	
	Revision Date	Approved	
CITY OF SURREY the future lives here.		Approved	
		Date	JULY 2017
		Drawn By	Surrey Engineering
		DRAWING NUMBER CCSD-6c	

jul 19 2017 - 2:06pm M:\2012\12-117\DWG\CSSD DRAWINGS\2015 WORK-REVISED\13c - Separated Cycle Track Cross Section - 30m ROW.dwg/13c - KSuen



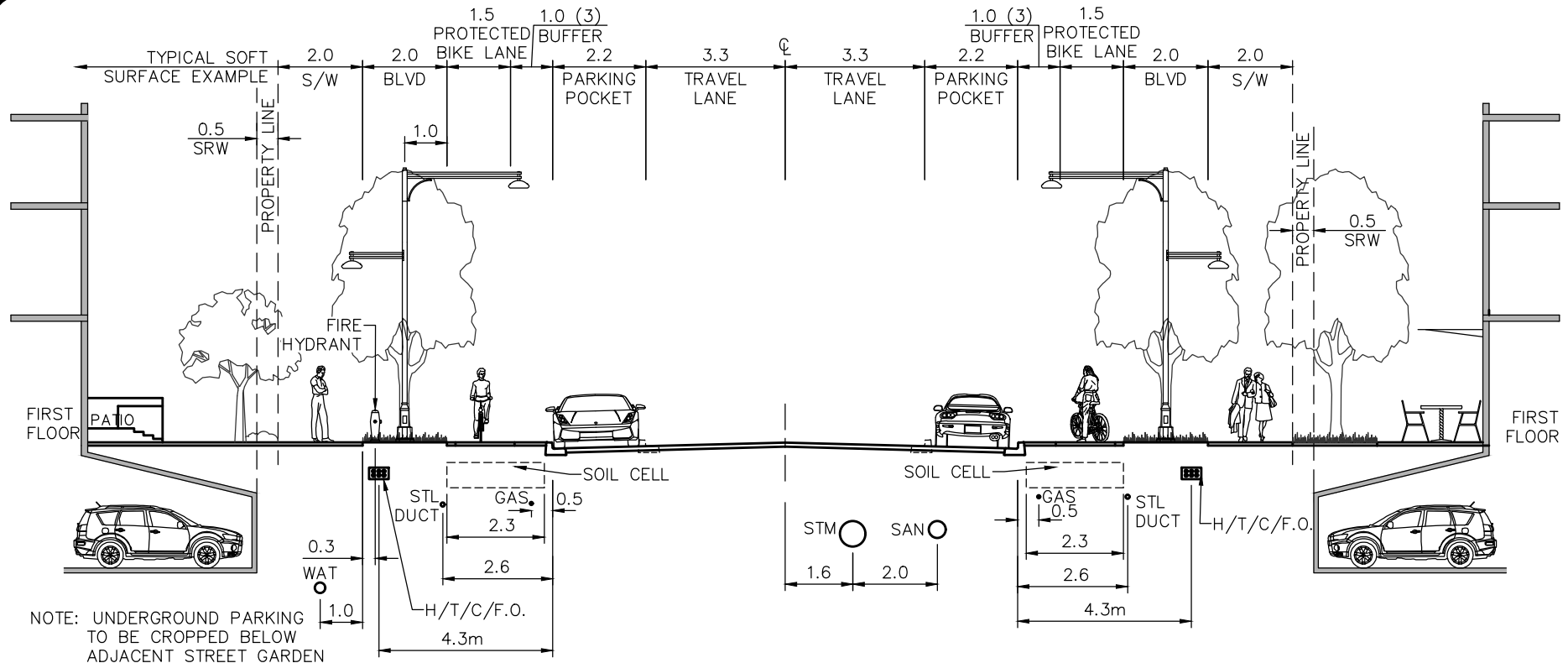
SECTION A



SECTION B

3		All Dimensions Shown In Metres, Unless Otherwise Noted		
2				
1	JULY 2017			
	Revision Date	Approved	Title	PROTECTED BIKE LANE INTERSECTION PLAN (30m) ROW
		CITY CENTRE STANDARD DRAWINGS	Approved	
			Date	JULY 2017
			Drawn By	Surrey Engineering
			DRAWING NUMBER	CCSD-6d

July 19 2017 - 2:07pm M:\2012\12-177\DWG\CCSD DRAWINGS\990_Separated Cycle Track Intersection Plan - 30m ROW.dwg/7/99 KSaen



BOULEVARD SECTION
N.T.S

- NOTES:
- (1) LANDSCAPED MEDIAN AS PER SSD-R16, LEFT TURN BAY AS PER SSD-R15.
 - (2) REFER TO SPECIFIC TREATMENT OPTION FOR CIVIC CENTRE, COMMERCIAL, AND RESIDENTIAL FRONTAGE.
 - (3) BUFFER SEPARATION BETWEEN TRAVEL LANES AND CYCLE TRACK.
 - (4) DISTRICT ENERGY UTILITY LOCATION TO BE CONFIRMED BY ENGINEERING.

3	
2	
1	JULY 2017
	Revision Date Approved



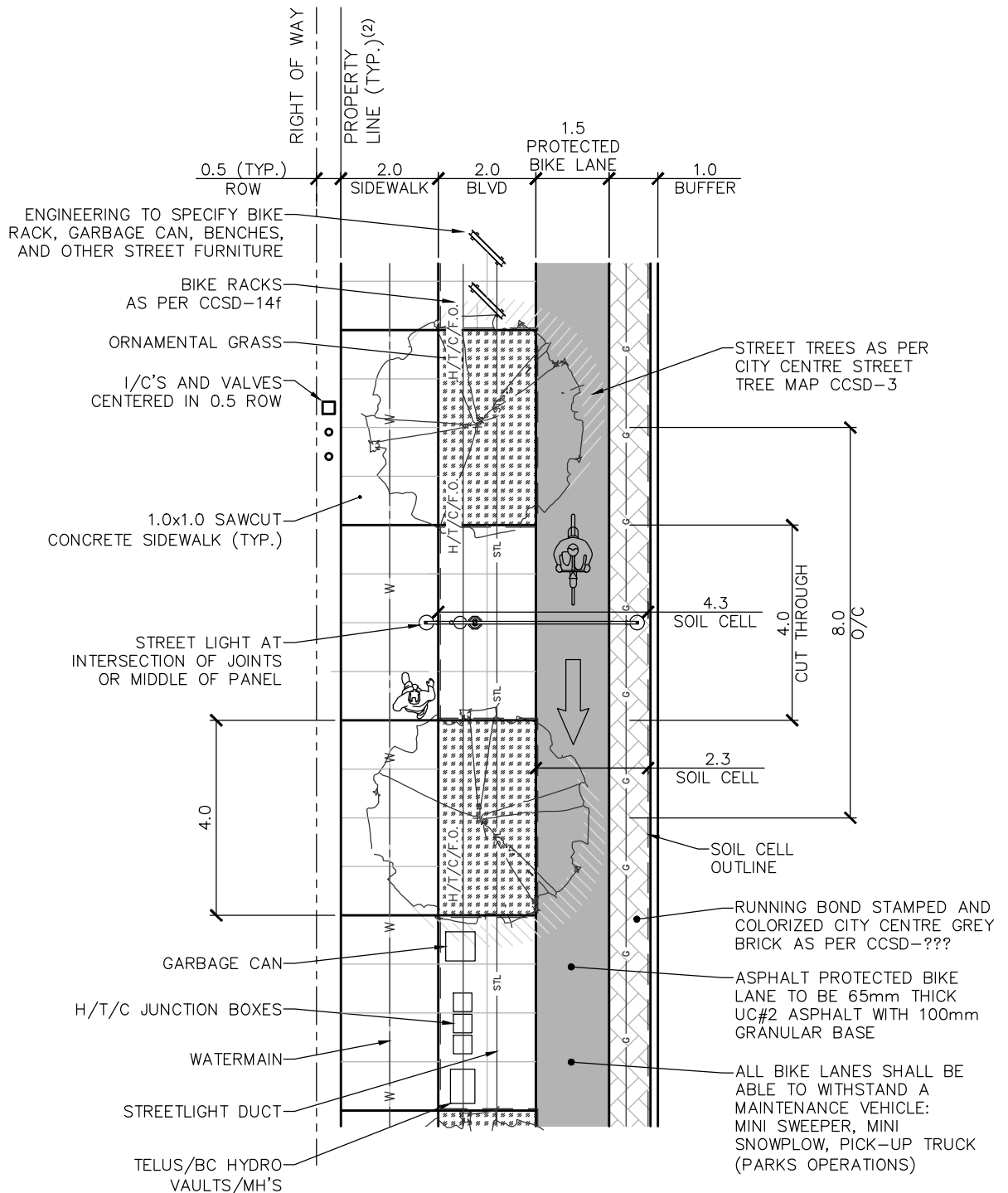
CITY CENTRE
STANDARD
DRAWINGS

All Dimensions Shown In Metres,
Unless Otherwise Noted

Title **TYPICAL COLLECTOR ROAD
CROSS SECTION (24m) ROW**


Approved
Date JULY 2017
Drawn By Surrey Engineering

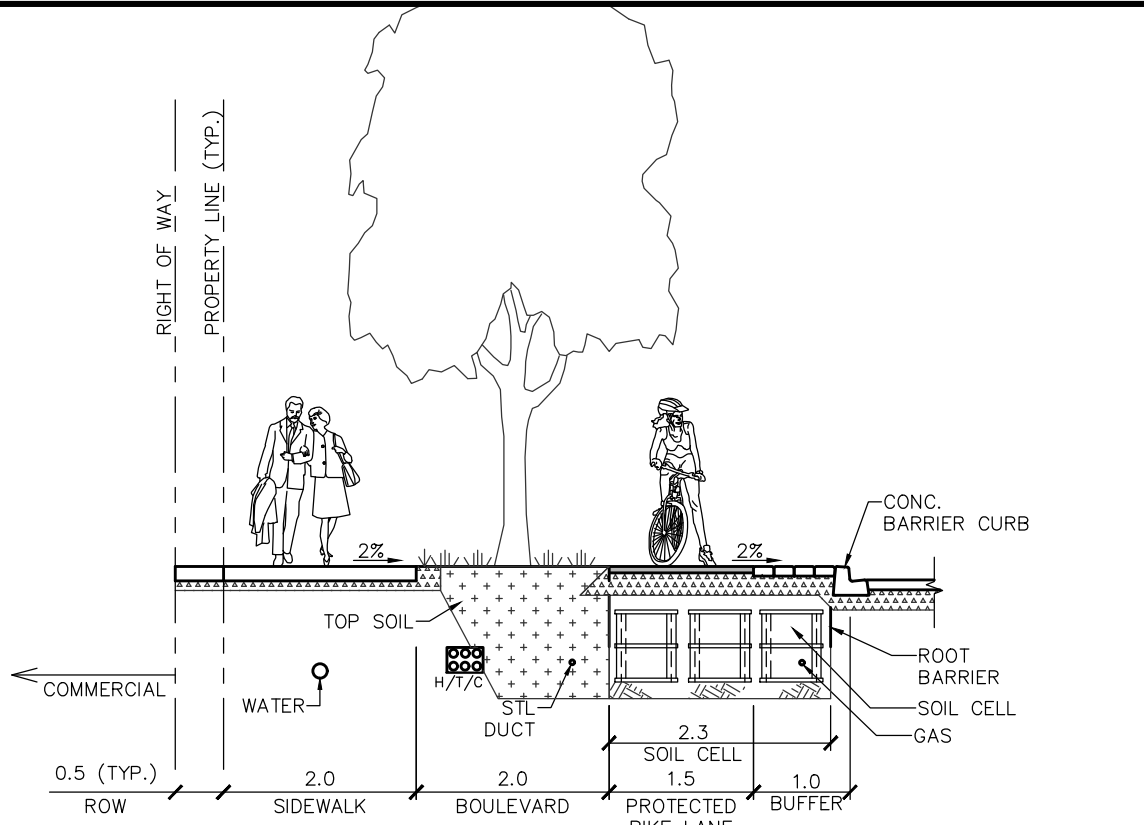
DRAWING NUMBER
CCSD-7a



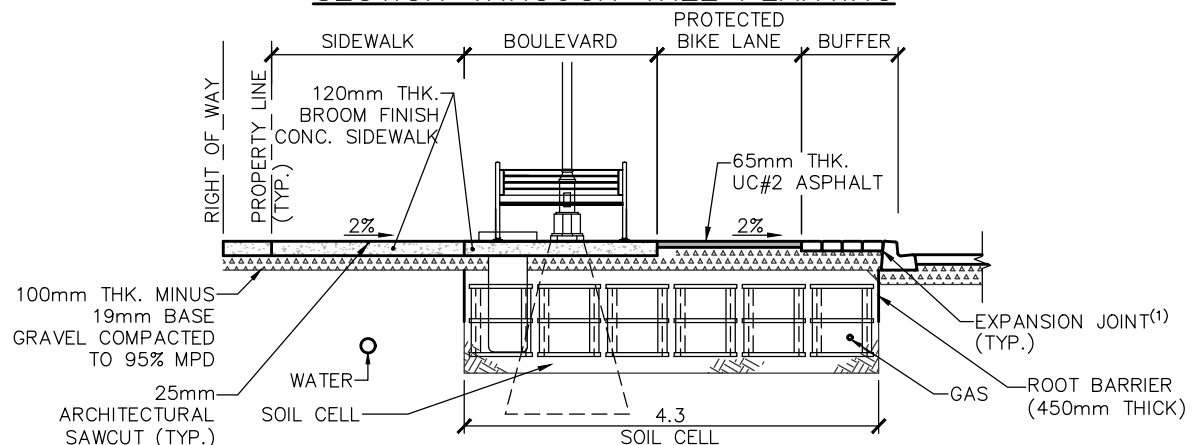
NOTES:

- (1) 0.5m SRW FOR 1/2 & MAINS.
- (2) IF BUILDING NOT ADJACENT TO SIDEWALK, ADD ON ADDITIONAL 0.5m TO ROW

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017	Title	PROTECTED BIKE LANE PLAN VIEW (24m) ROW
	Revision Date	Approved	
		Approved Date Drawn By	DRAWING NUMBER CCSD-7b
		CITY CENTRE STANDARD DRAWINGS	JULY 2017 Surrey Engineering



SECTION THROUGH TREE PLANTING



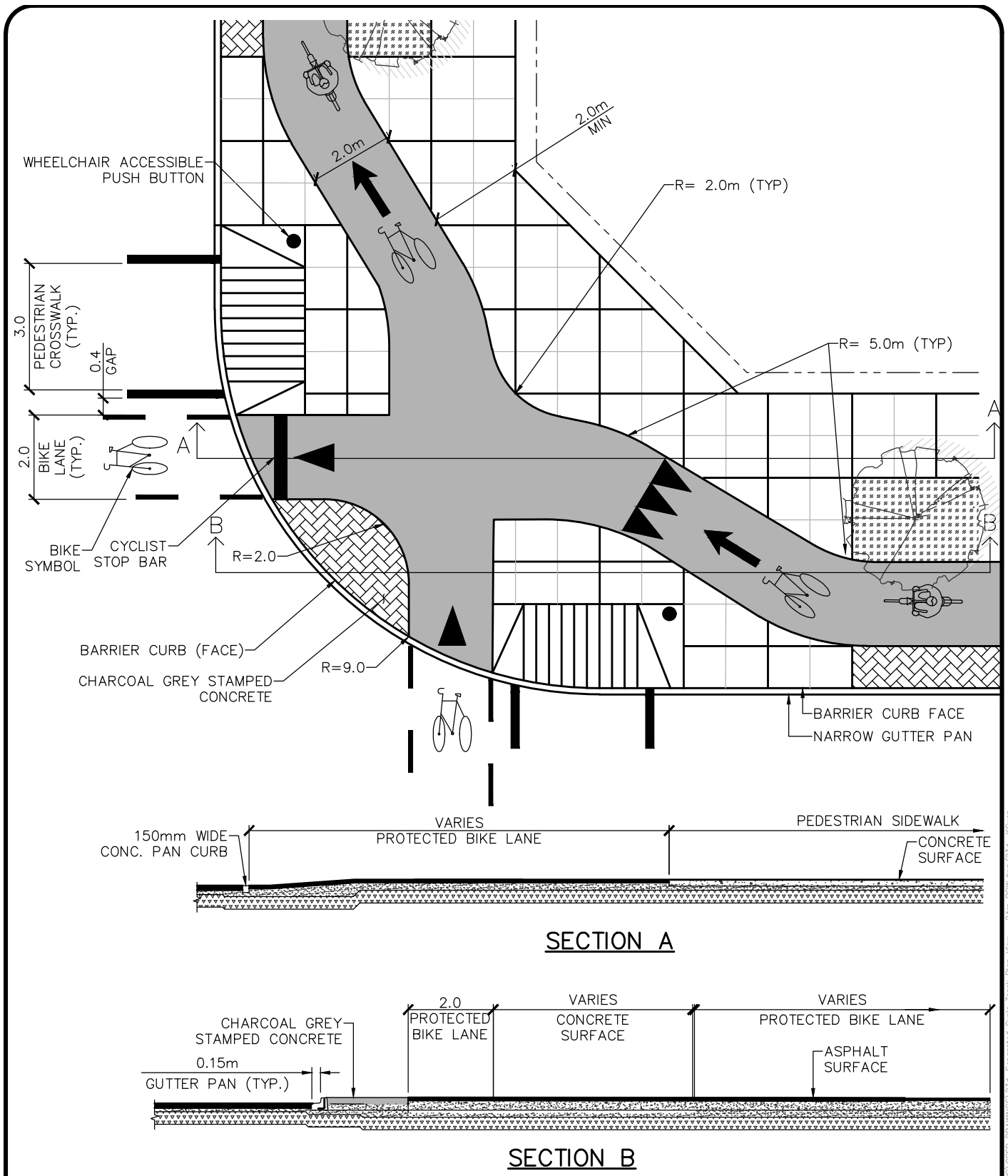
SECTION THROUGH CUT THROUGH

NOTES:

- (1) EXPANSION JOINTS SHALL USE FULL DEPTH ASPHALT IMPREGNATED FIBREBOARD @ MAXIMUM 9m LONGITUDINAL SPACING. EXPANSION JOINTS SHALL BE PROVIDED AGAINST ALL VERTICAL EDGES AND CHANGE IN MATERIALS. 50mm SMOOTH TROWEL ON BOTH SIDES OF EXPANSION JOINT.
- (2) CONTROL JOINTS SHALL HAVE A MAXIMUM 3m SPACING. CONTROL JOINTS SHALL BE SAWCUT ONLY.
- (3) CONTROL JOINT AND EXPANSION JOINT LAYOUTS TO BE CHALK MARKED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO COMPLETION.
- (4) CONCRETE EDGE ALONG PROPERTY LINE TO HAVE 150mm TROWEL FINISH. ALL SCORELINES TO STOP PRIOR TO TROWELED EDGE.
- (5) INSTALL SOIL CELL AS PER MANUFACTURERS RECOMMENDATIONS.

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017	Title	PROTECTED BIKE LANE CROSS SECTION (24m) ROW
	Revision Date	Approved	
 CITY OF SURREY the future lives here.		CITY CENTRE STANDARD DRAWINGS	DRAWING NUMBER
		Approved	CCSD-7c
		Date	JULY 2017
		Drawn By	Surrey Engineering

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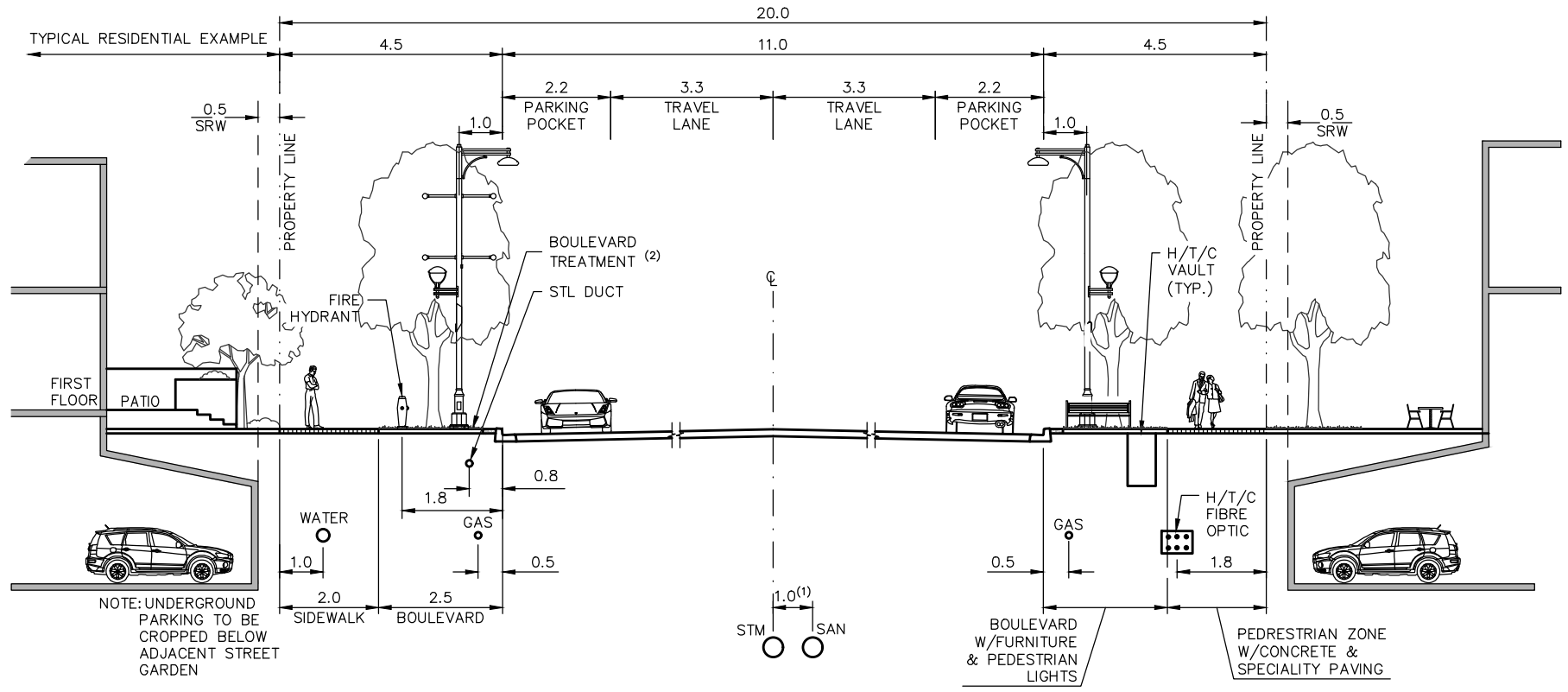


SECTION A

SECTION B

3		<p>All Dimensions Shown In Metres, Unless Otherwise Noted</p> <p>Title</p> <p>PROTECTED BIKE LANE INTERSECTION PLAN VIEW (24m) ROW</p>	
2			
1	JULY 2017		
	Revision Date	Approved	<p>Approved</p> <p>Date JULY 2017</p> <p>Drawn By Surrey Engineering</p>
		<p>CITY CENTRE STANDARD DRAWINGS</p>	<p>DRAWING NUMBER</p> <p>CCSD-7d</p>

Jul 19 2017 - 2:10pm M:\2012\12-177\DWG\CCSD DRAWINGS\2314 Separated Cycle Track Plan View - 24m ROW.dwg/23d KSuen



- NOTES: (1) REFER TO MINIMUM SPACING BETWEEN SEWERS IN THE COMMON TRENCH DRAWING SSD-G.3.
 (2) REFER TO SPECIFIC TREATMENT OPTION FOR CIVIC CENTRE, COMMERCIAL, AND RESIDENTIAL FRONTAGE.

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1	JULY 2017
	Revision Date Approved

All Dimensions Shown In Metres, Unless Otherwise Noted

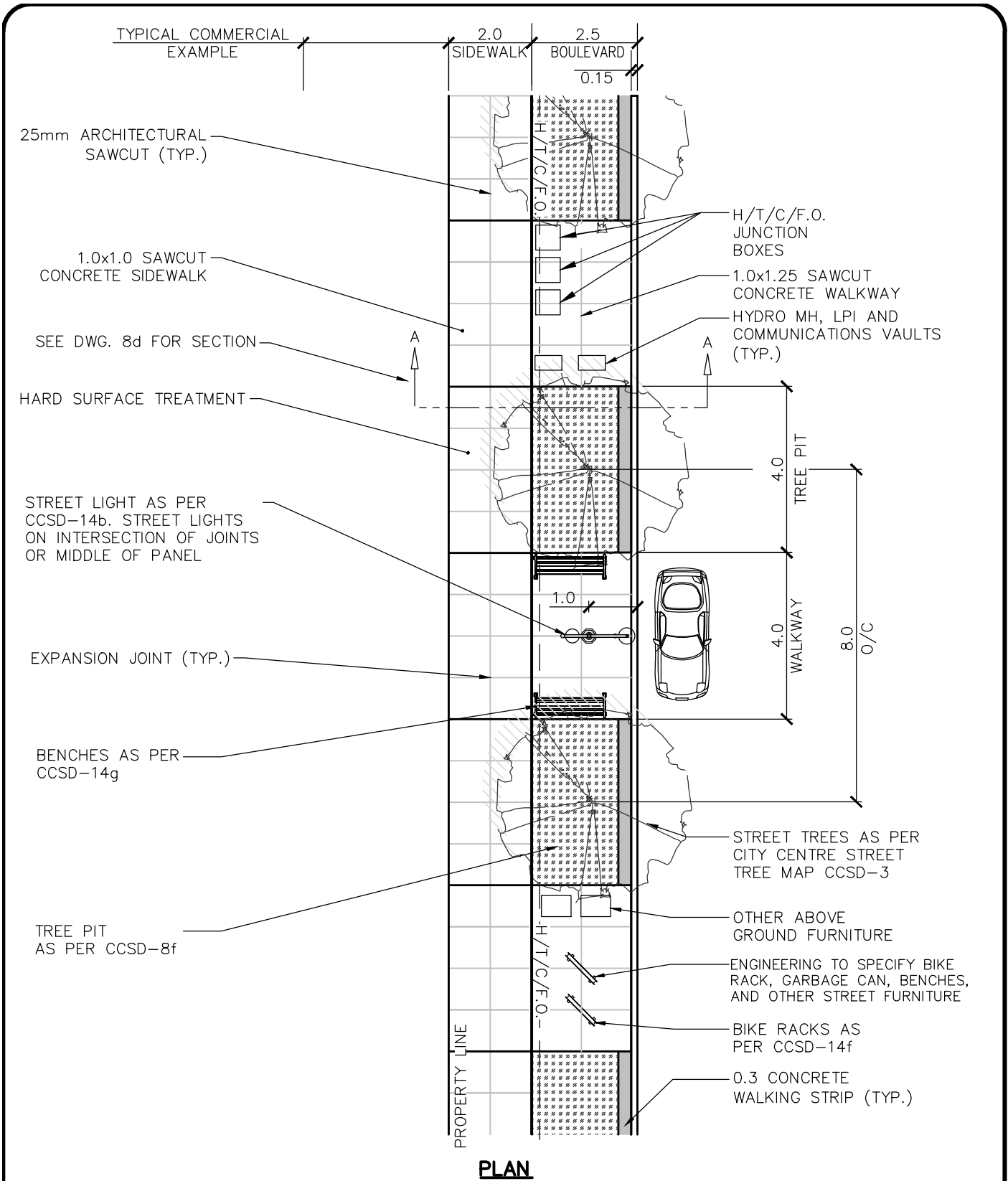
Title
TYPICAL LOCAL ROAD CROSS SECTION

Approved
 Date JULY 2017
 Drawn By Surrey Engineering


DRAWING NUMBER
CCSD-8a

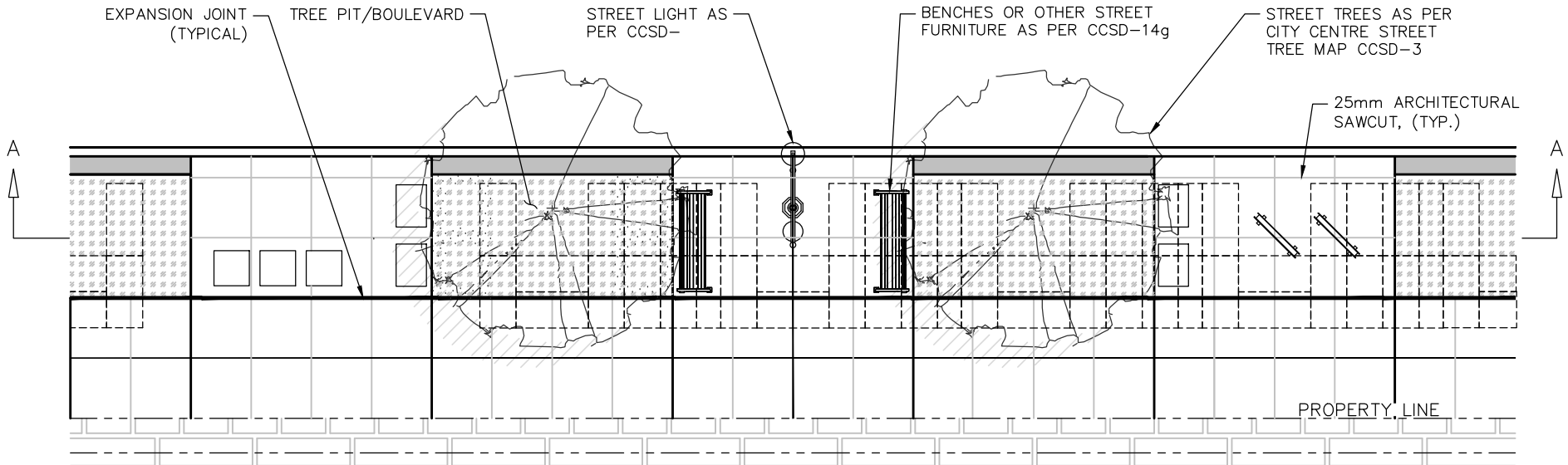


CITY CENTRE
 STANDARD
 DRAWINGS

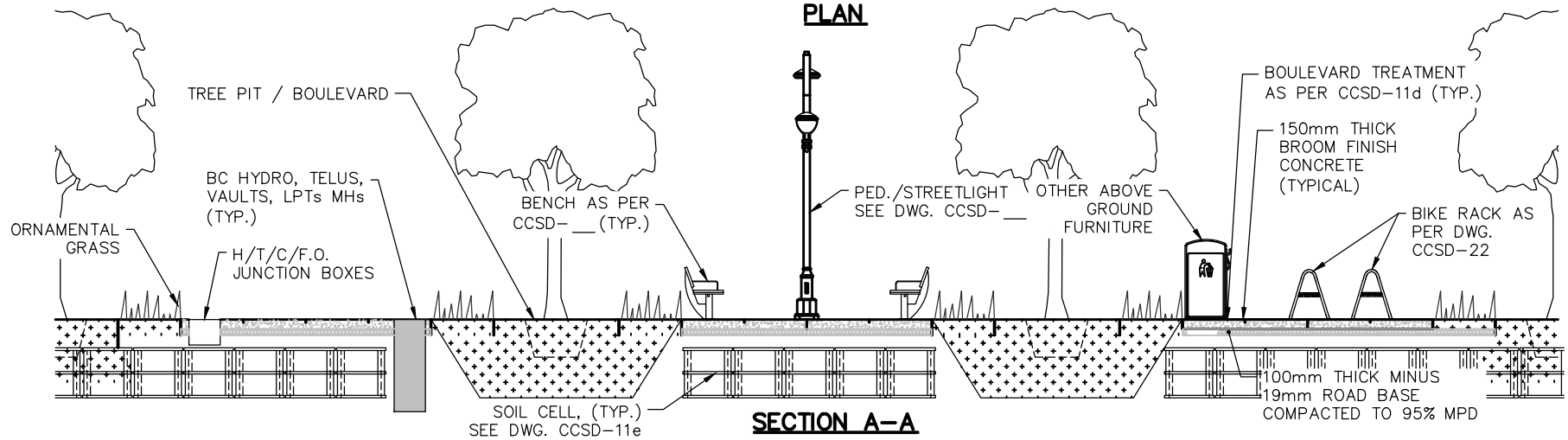


PLAN

3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title LOCAL BOULEVARD FOR 20M ROW HARDSCAPE FRONTAGE
	Revision Date Approved	
 <p>CITY OF SURREY the future lives here.</p>		<p>CITY CENTRE STANDARD DRAWINGS</p>
<p>Approved</p>		DRAWING NUMBER
<p>Date JULY 2017</p>		CCSD-8b
<p>Drawn By Surrey Engineering</p>		



PLAN



3		
2		
1	JULY 2017	
	Revision Date	Approved

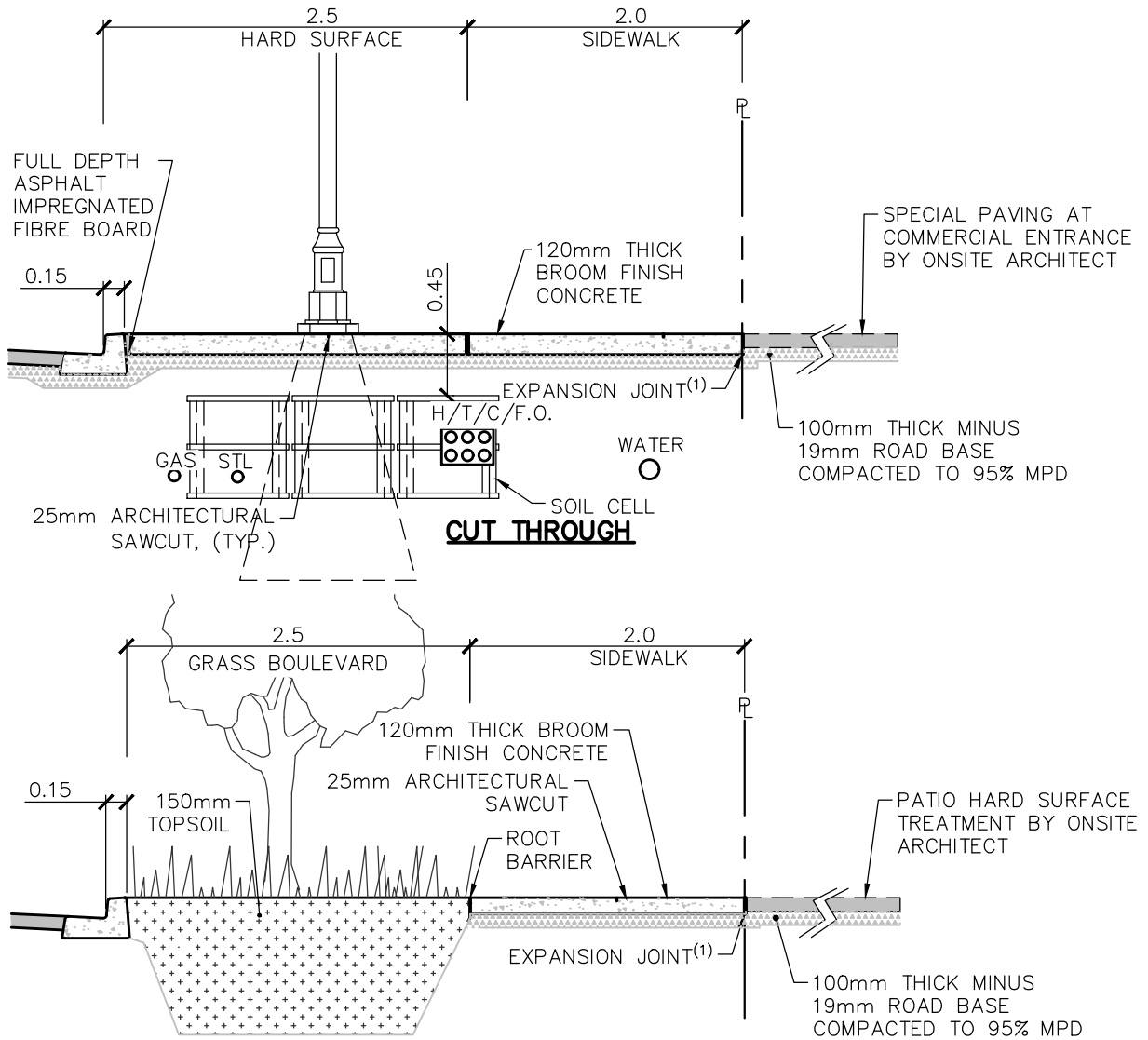
All Dimensions Shown In Metres, Unless Otherwise Noted

Title **LOCAL BOULEVARD FOR 20m ROW BLVD TREATMENT PLAN & SECTION**

Approved		DRAWING NUMBER
Date	JULY 2017	CCSD-8c
Drawn By	Surrey Engineering	




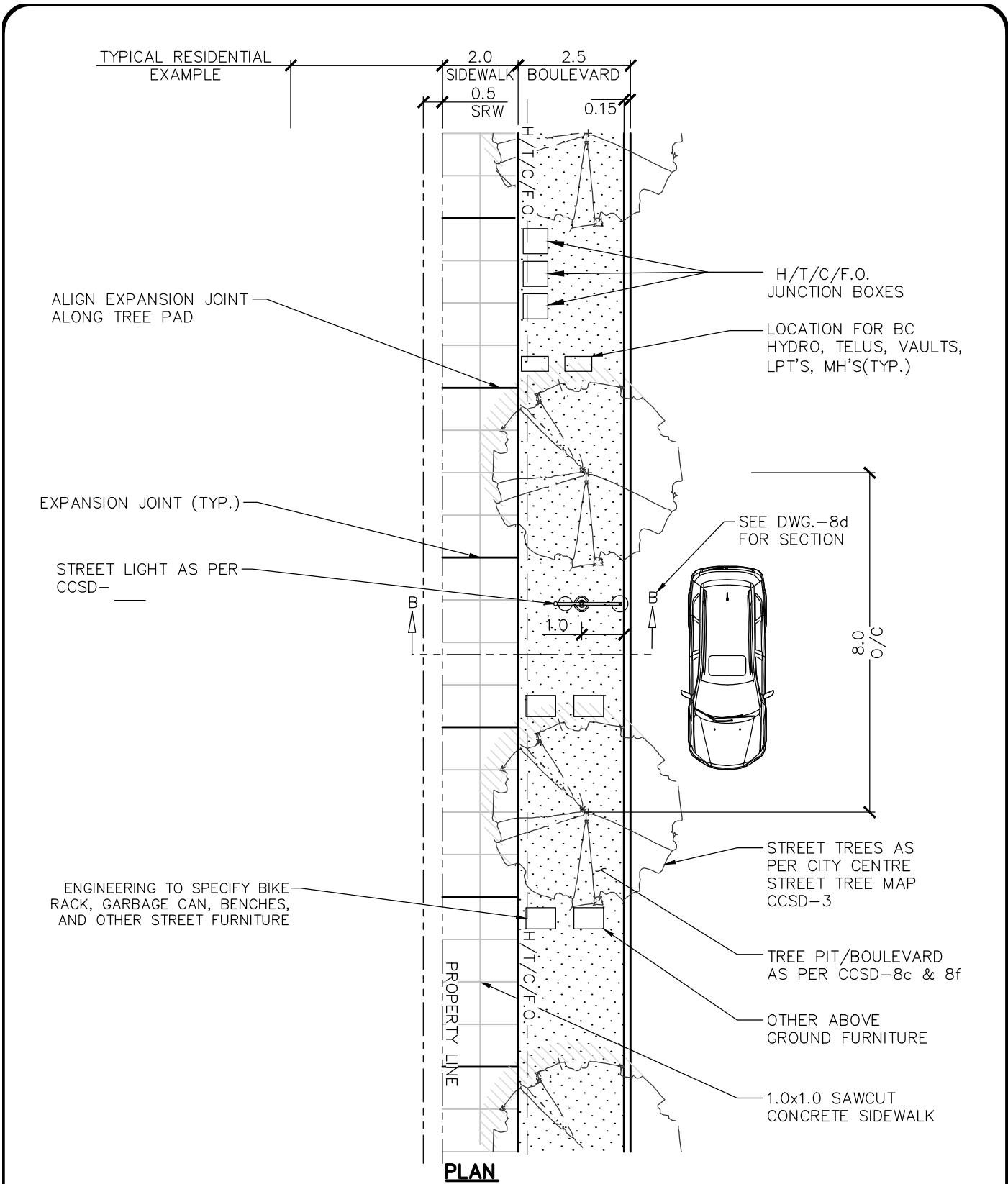
CITY CENTRE STANDARD DRAWINGS



TREE PLANTING

- NOTES:
- (1) EXPANSION JOINTS SHALL USE FULL DEPTH ASPHALT IMPREGNATED FIBREBOARD @ MAXIMUM 9m LONGITUDINAL SPACING. EXPANSION JOINTS SHALL BE PROVIDED AGAINST ALL VERTICAL EDGES AND CHANGE IN MATERIALS. 50mm SMOOTH TROWEL ON BOTH SIDES OF EXPANSION JOINT.
 - (2) CONTROL JOINTS SHALL HAVE A MAXIMUM 3m SPACING. CONTROL JOINTS SHALL BE SAWCUT ONLY.
 - (3) CONTROL JOINT AND EXPANSION JOINT LAYOUTS TO BE CHALK MARKED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO COMPLETION.
 - (4) INSTALL SOIL CELL AS PER MANUFACTURE RECOMMENDATION.

3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title LOCAL BOULEVARD FOR 20m ROW TYPICAL HARDSCAPE SECTION (4.5m) BLVD
	Revision Date	Approved
		Approved
CITY CENTRE STANDARD DRAWINGS		Date JULY 2017
		Drawn By Surrey Engineering
		DRAWING NUMBER CCSD-8d



3	
2	
1	JULY 2017
	Revision Date
	Approved

All Dimensions Shown In Metres,
Unless Otherwise Noted

Title **LOCAL BOULEVARD FOR 20m ROW
SOFTSCAPE FRONTAGE**

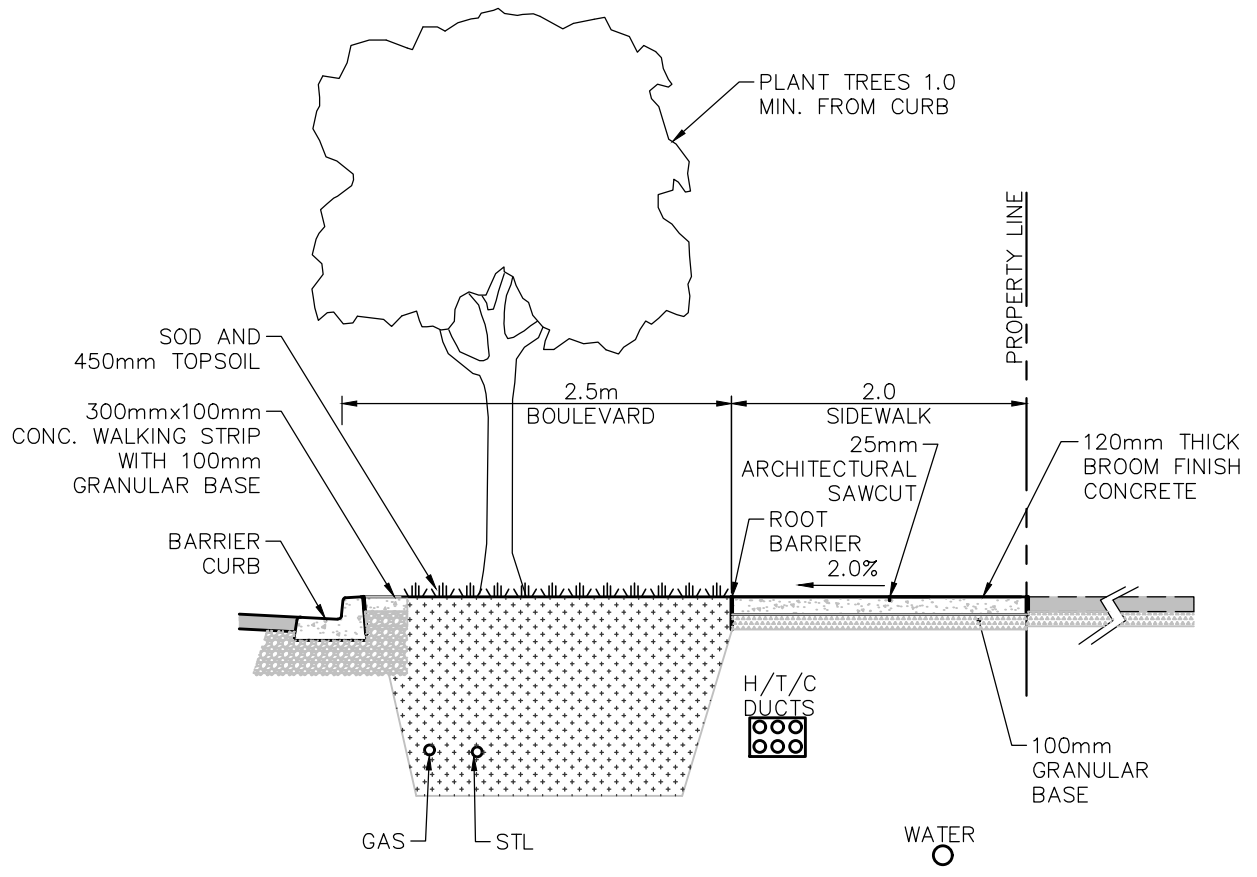


Approved


Date JULY 2017

Drawn By Surrey Engineering

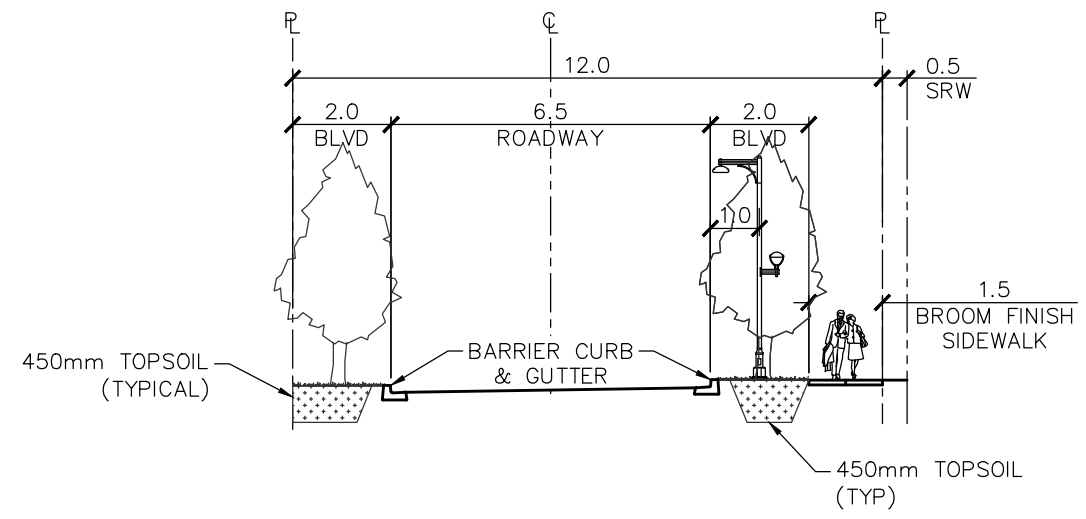
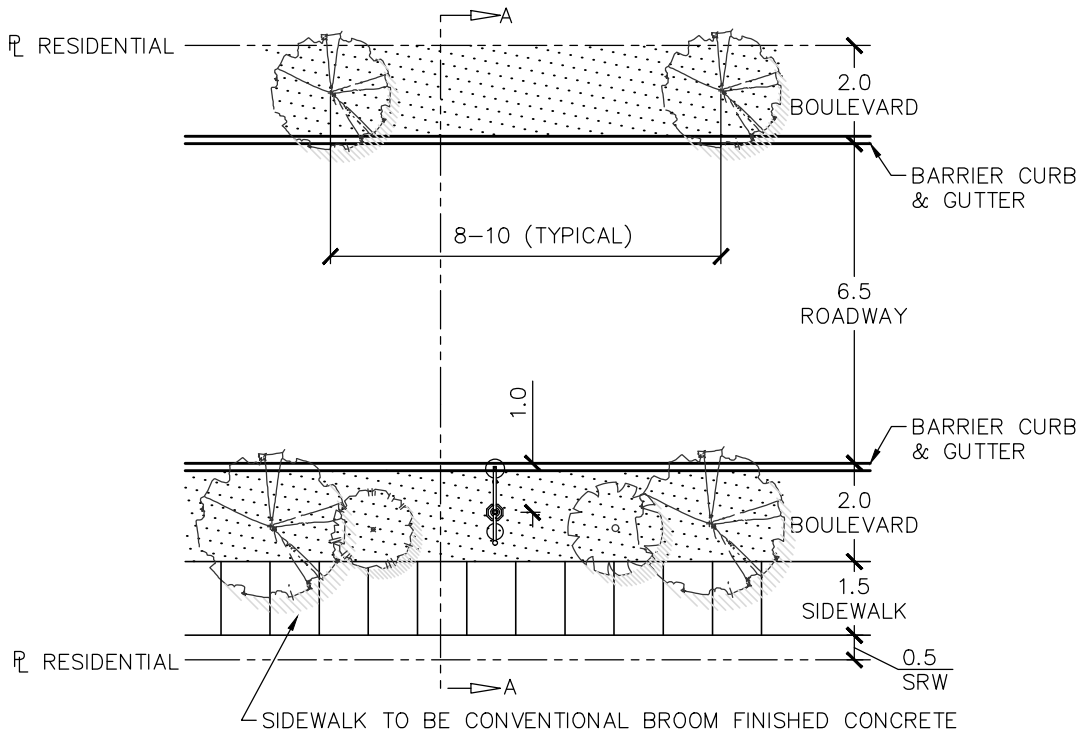
DRAWING NUMBER
CCSD-8e



- NOTES:
- (1) PLANT MATERIAL TO BE SELECTED FROM LIST OF ACCEPTABLE PLANT MATERIAL CITY OF SURREY PARKS DIVISION STANDARD CONSTRUCTION DOCUMENTS.
 - (2) PROTECT PLANT MATERIAL FROM DAMAGE DURING TRANSPORTATION AND PLANTING.
 - (3) LOCATE AND FLAG ALL BURIED UTILITIES IN PLANTING BEDS PRIOR TO DIGGING ENSURE THAT UTILITIES ARE PROTECTED DURING CONSTRUCTION.
 - (4) DO NOT EXPOSE PLANTS TO DIRECT SUN OR FROST.
 - (5) PRUNE ONLY IN ACCORDANCE WITH STANDARD CONSTRUCTION DOCUMENTS.


3		All Dimensions Shown In Metres, Unless Otherwise Noted		
2		Title LOCAL BOULEVARD FOR 20m ROW TYPICAL SOFTSCAPE SECTION (4.5m) BLVD		
1	JULY 2017			
	Revision Date	Approved		
 CITY OF SURREY the future lives here.		CITY CENTRE STANDARD DRAWINGS		
		Approved		DRAWING NUMBER
		Date		JULY 2017
Drawn By		Surrey Engineering		

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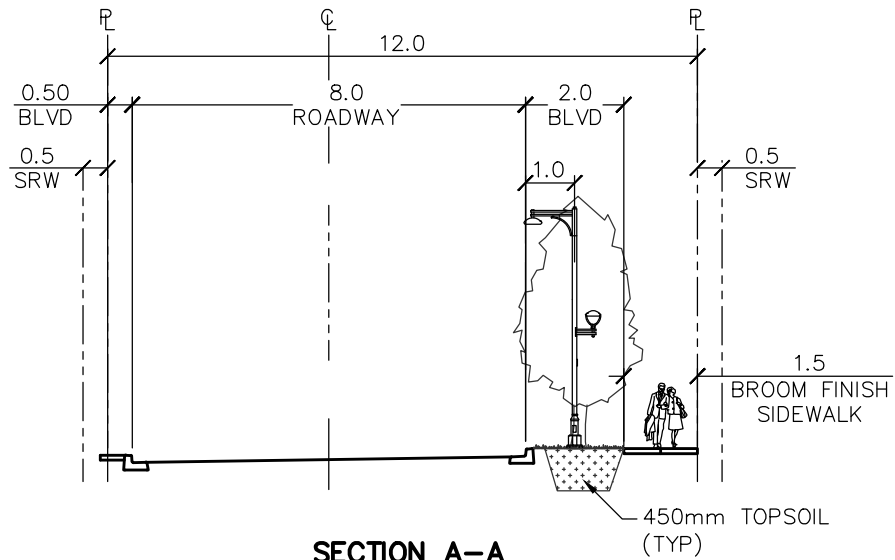
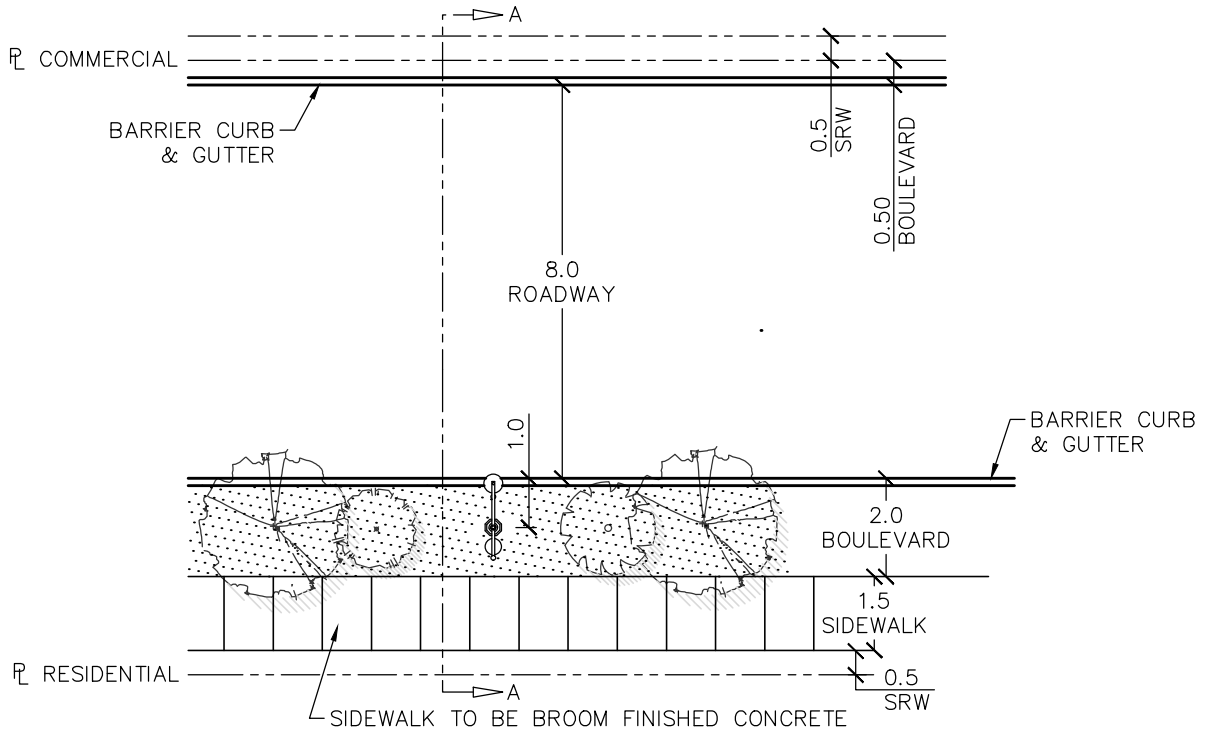


SECTION A-A

- NOTES: (1) TREE SPECIES TO BE AS PER CITY CENTRE STREET TREE AREA MAP CCSD-4.
 (2) BOULEVARD TO BE SODDED WITH MIN. 450mm THICK ABSORBANT TOPSOIL.
 (3) COLUMNER STREET TREES


3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title TYPICAL CROSS SECTION GREEN LANES (6.5m) PAVEMENT
	Revision Date	Approved
		Approved
CITY CENTRE STANDARD DRAWINGS		Date JULY 2017
		Drawn By Surrey Engineering
		DRAWING NUMBER CCSD-9a

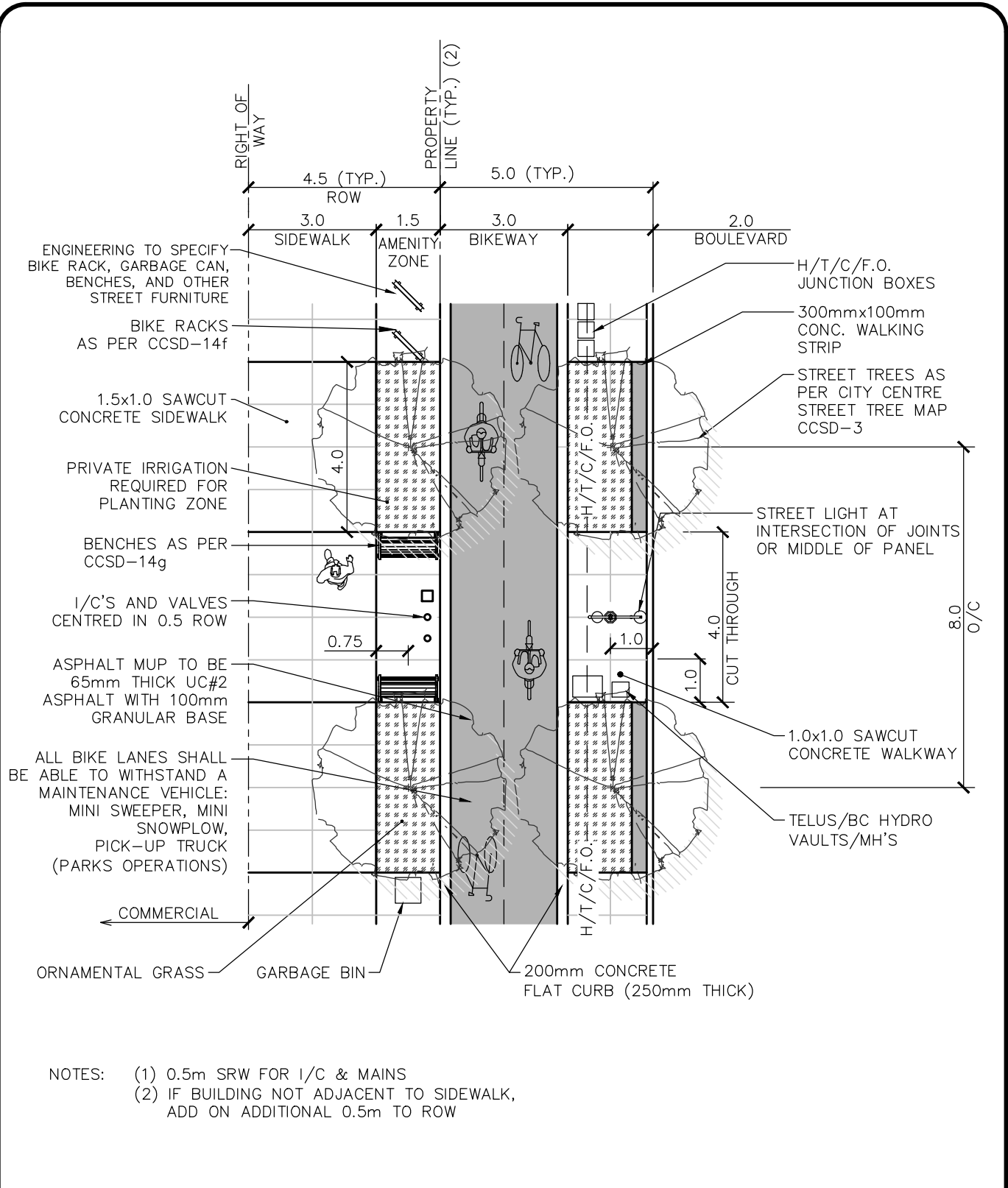
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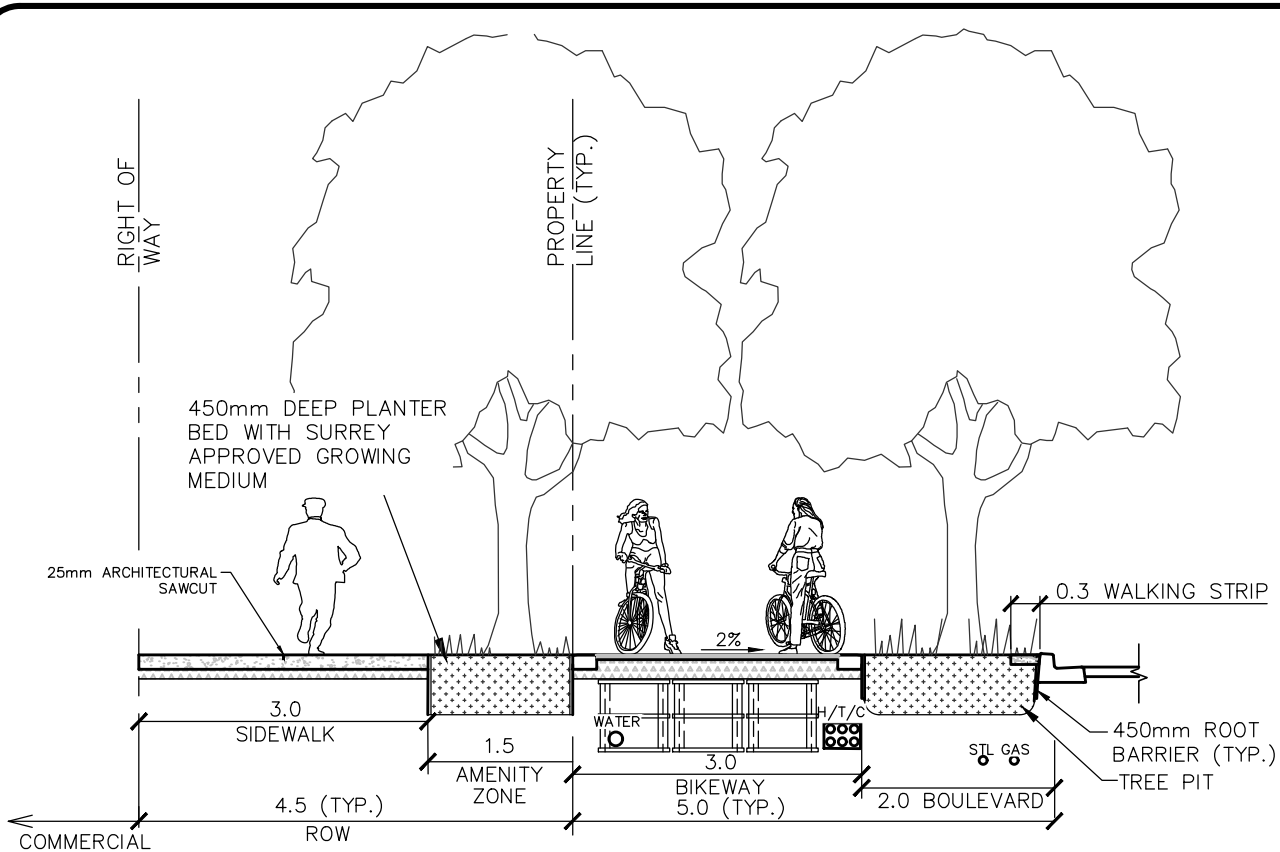
SECTION A-A

- NOTES:
- (1) TREE SPECIES TO BE AS PER CITY CENTRE STREET TREE AREA MAP CCSD-4.
 - (2) BOULEVARD TO BE SODDED WITH MIN. 450mm THICK ABSORBANT TOPSOIL.
 - (3) ADDITIONAL STREET TREES MAY BE PLACED IN SMALL GROUPINGS WITH A MIXTURE OF LARGE CANOPY AND MEDIUM UNDERSTORY TREES IN CURB EXTENSION AS DIRECTED BY ENGINEER.
 - (4) PARKING MAY BE PERMITTED IN LANE AS DIRECTED BY ENGINEER.

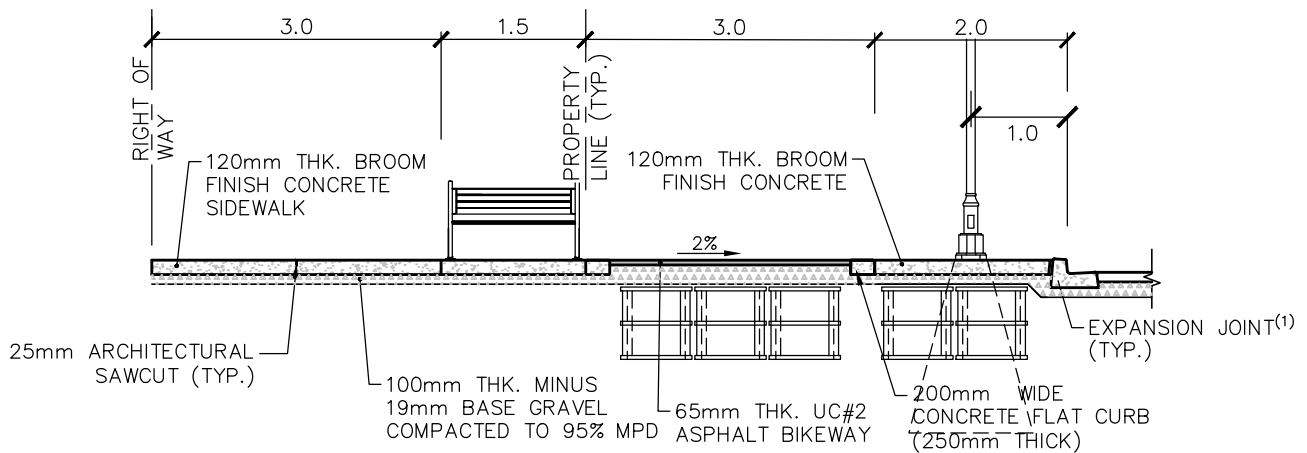
3		All Dimensions Shown In Metres, Unless Otherwise Noted		
2		TYPICAL CROSS SECTION GREEN LANES (8.0m) PAVEMENT		
1	JULY 2017			
	Revision Date	Approved		
 CITY OF SURREY the future lives here.		CITY CENTRE STANDARD DRAWINGS		
		Approved		DRAWING NUMBER
		Date		JULY 2017
Drawn By		Surrey Engineering		



3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017		
	Revision Date	Approved	Title BC PARKWAY WITH HARDSCAPE BOULEVARD
		Approved	
CITY CENTRE STANDARD DRAWINGS		Date JULY 2017	
		Drawn By Surrey Engineering	DRAWING NUMBER CCSD-10a




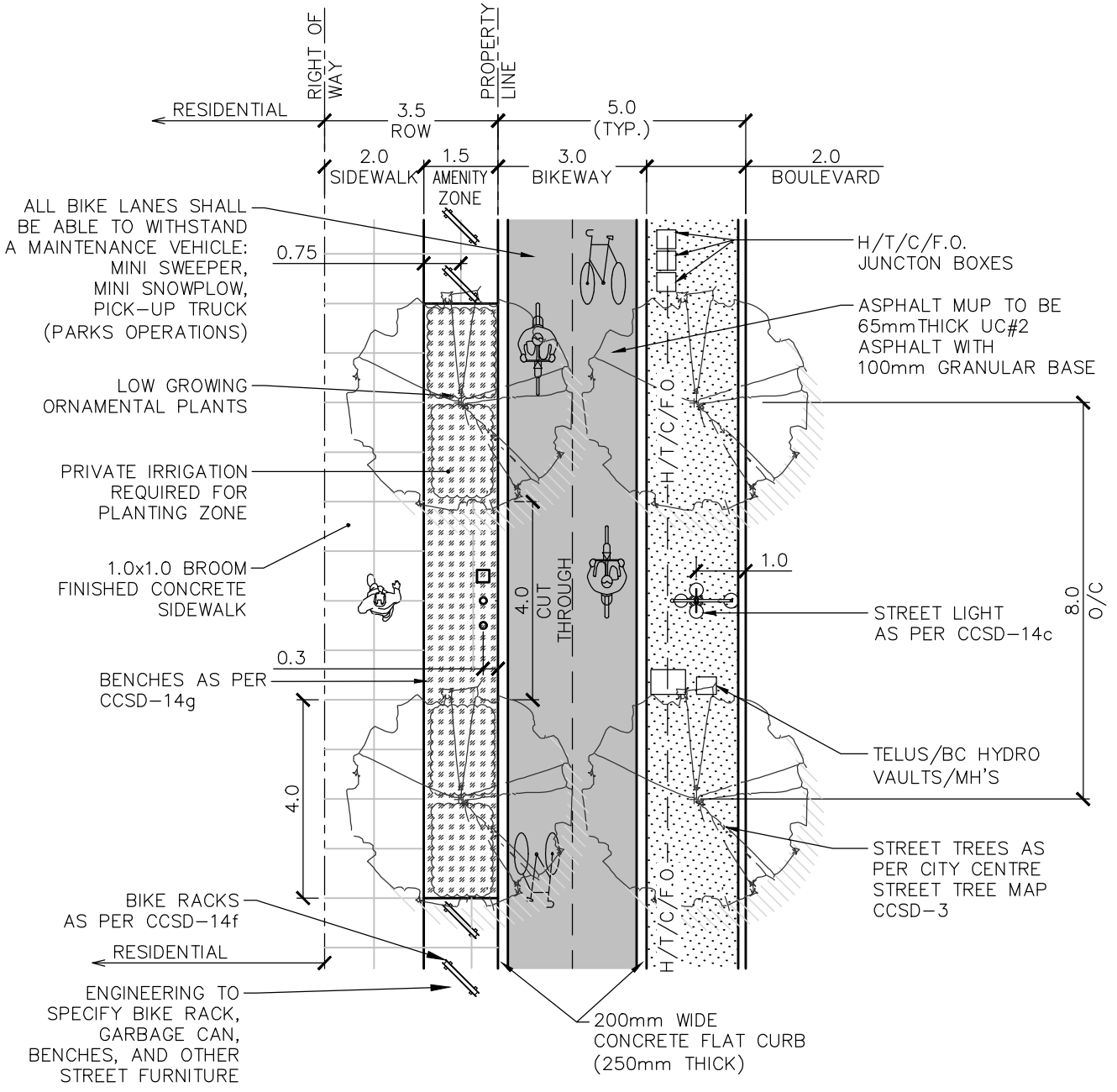
SECTION THROUGH TREE PLANTING



SECTION THROUGH CUT THROUGH

- NOTES:
- (1) EXPANSION JOINTS SHALL USE FULL DEPTH ASPHALT IMPREGNATED FIBREBOARD @ MAXIMUM 9m LONGITUDINAL SPACING. EXPANSION JOINTS SHALL BE PROVIDED AGAINST ALL VERTICAL EDGES AND CHANGE IN MATERIALS. 50mm SMOOTH TROWEL ON BOTH SIDES OF EXPANSION JOINT.
 - (2) CONTROL JOINTS SHALL HAVE A MAXIMUM 3m SPACING. CONTROL JOINTS SHALL BE SAWCUT ONLY.
 - (3) CONTROL JOINT AND EXPANSION JOINT LAYOUTS TO BE CHALK MARKED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO COMPLETION.
 - (4) CONCRETE EDGE ALONG PROPERTY LINE TO HAVE 150mm TROWEL FINISH. ALL SCORELINES TO STOP PRIOR TO TROWELED EDGE.

3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title BC PARKWAY WITH HARDSCAPE BLVD – CROSS SECTION
	Revision Date Approved	
 CITY CENTRE STANDARD DRAWINGS		Approved
		Date JULY 2017
		Drawn By Surrey Engineering
		DRAWING NUMBER CCSD-10b



3	
2	
1	JULY 2017
	Revision Date
	Approved

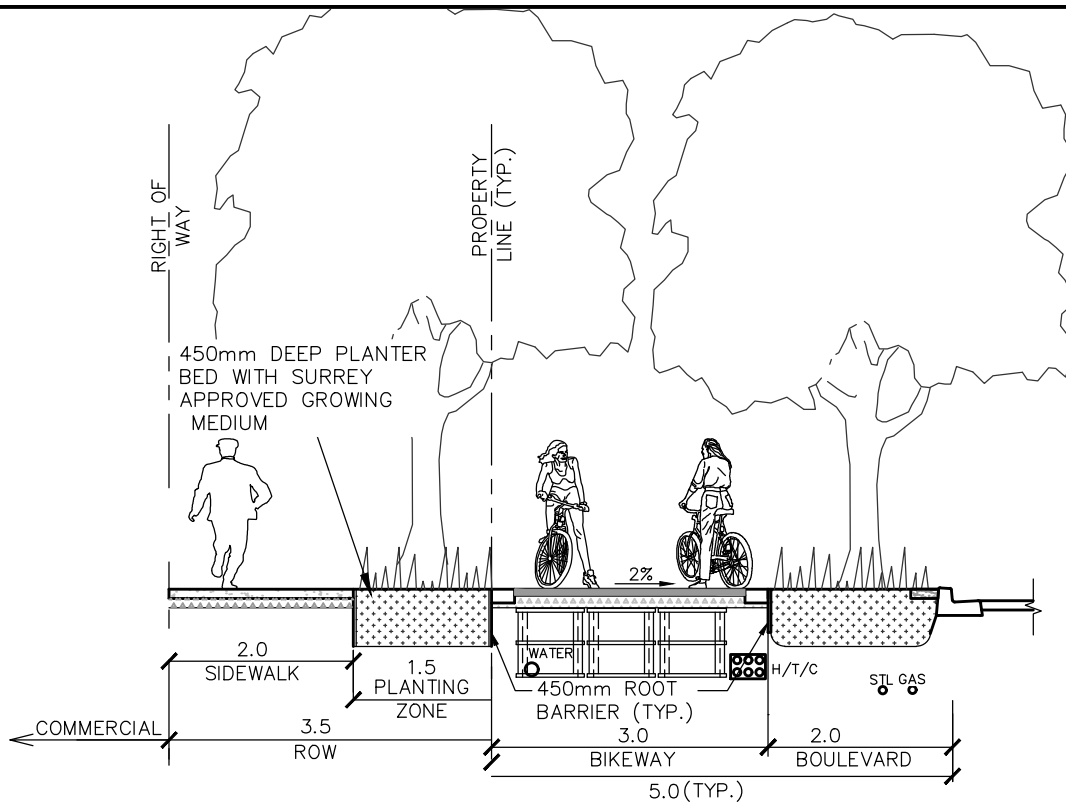
All Dimensions Shown In Metres, Unless Otherwise Noted

Title **BC PARKWAY WITH SOFTSCAPE**

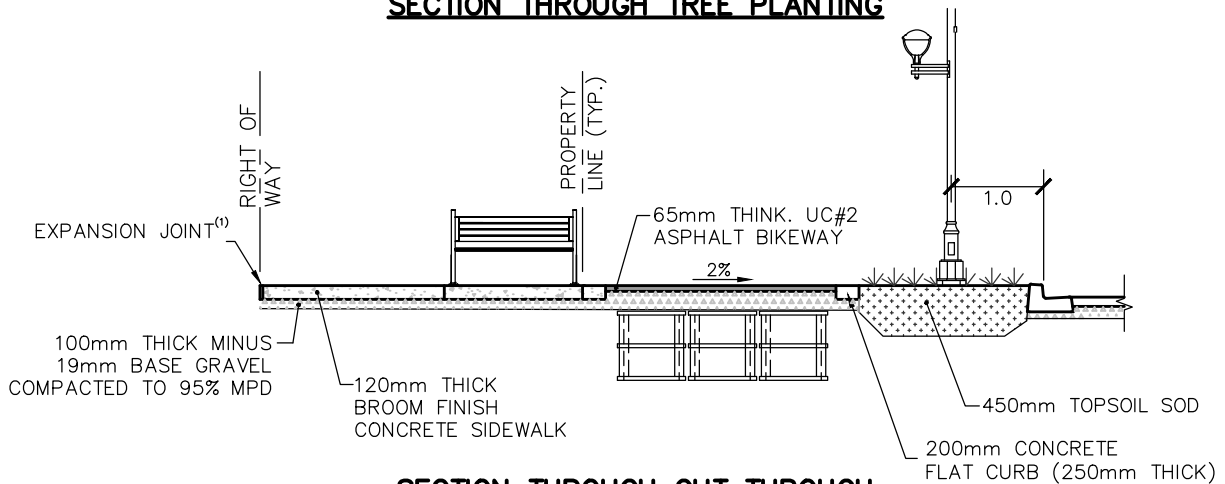


Approved	
Date	JULY 2017
Drawn By	Surrey Engineering

DRAWING NUMBER
CCSD-10c




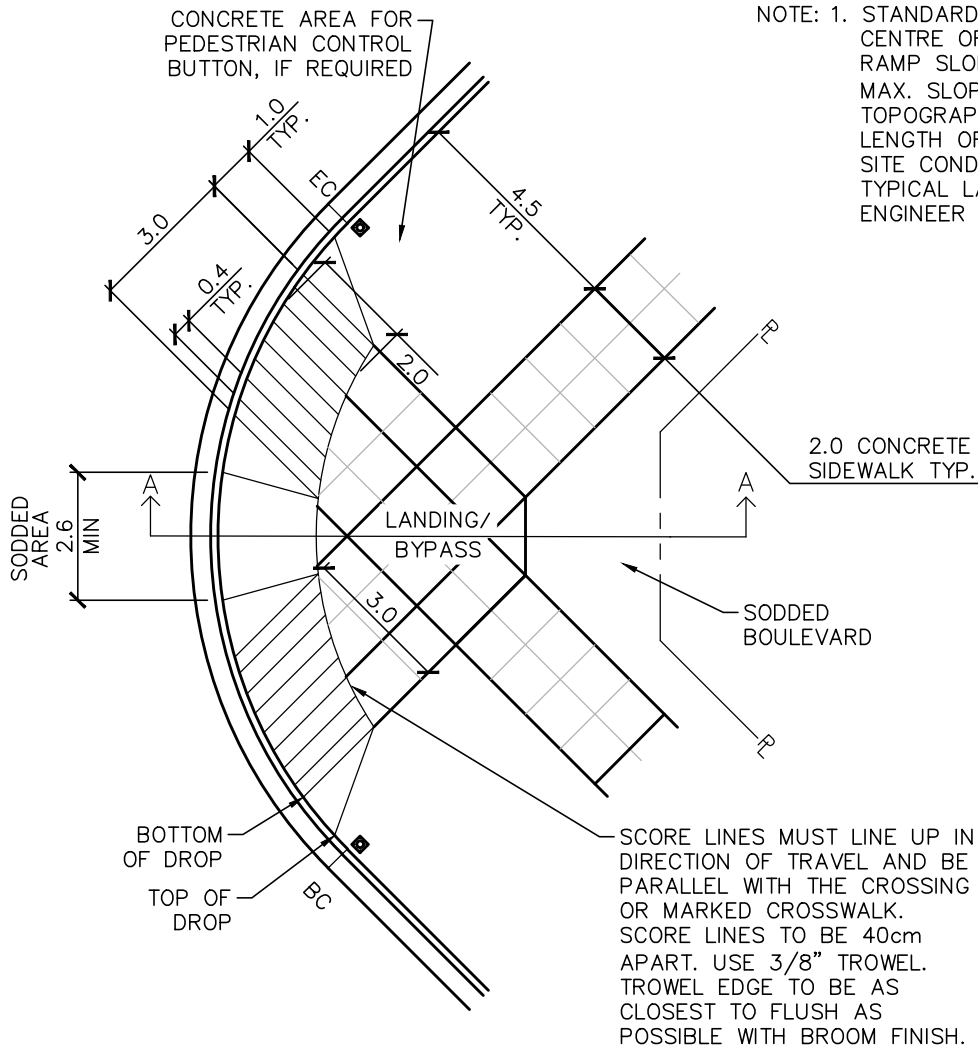
SECTION THROUGH TREE PLANTING



SECTION THROUGH CUT THROUGH

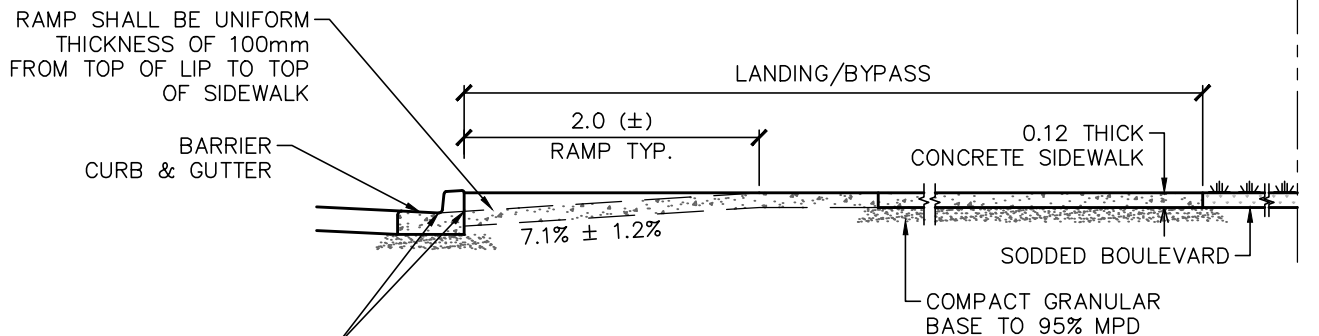
- NOTES:
- (1) EXPANSION JOINTS SHALL USE FULL DEPTH ASPHALT IMPREGNATED FIBREBOARD @ MAXIMUM 9m LONGITUDINAL SPACING. EXPANSION JOINTS SHALL BE PROVIDED AGAINST ALL VERTICAL EDGES AND CHANGE IN MATERIALS. 50mm SMOOTH TROWEL ON BOTH SIDES OF EXPANSION JOINT.
 - (2) CONTROL JOINTS SHALL HAVE A MAXIMUM 3m SPACING. CONTROL JOINTS SHALL BE SAWCUT ONLY.
 - (3) CONTROL JOINT AND EXPANSION JOINT LAYOUTS TO BE CHALK MARKED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO COMPLETION.
 - (4) CONCRETE FINISH TO MATCH EXISTING CONCRETE SIDEWALK FINISH
 - (5) CONCRETE EDGE ALONG PROPERTY LINE TO HAVE 150mm TROWEL FINISH. ALL SCORELINES TO STOP PRIOR TO TROWELED EDGE.

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017		
	Revision Date	Approved	BC PARKWAY WITH SOFTSCAPE – CROSS SECTION
	Approved		
	Date	JULY 2017	
	Drawn By		Surrey Engineering
 <p>CITY OF SURREY the future lives here.</p> <p>CITY CENTRE STANDARD DRAWINGS</p>			DRAWING NUMBER
			CCSD-10d




NOTE: 1. STANDARD RAMP LENGTH: 2.0m AT CENTRE OF RAMP. RECOMMENDED RAMP SLOPE: 7.1% ± 1.2%. MAX. SLOPE 8.3% (1:12) WHERE TOPOGRAPHY PERMITS. ADJUST LENGTH OF RAMP AS REQUIRED WHEN SITE CONDITIONS DO NOT PERMIT TYPICAL LAYOUT. CONTACT CITY ENGINEER FOR APPROVAL OF DESIGN.

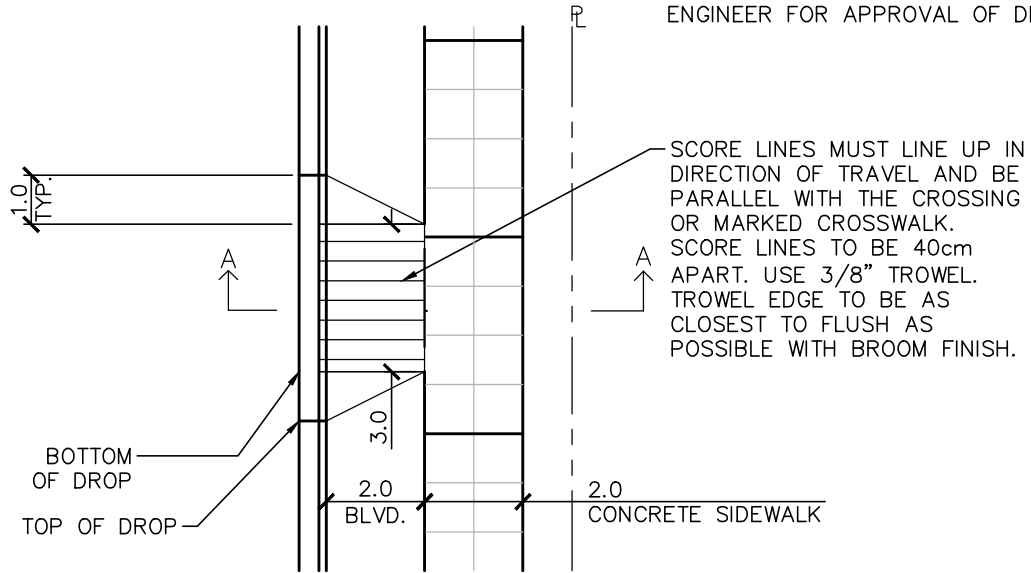
SPLIT LETDOWN



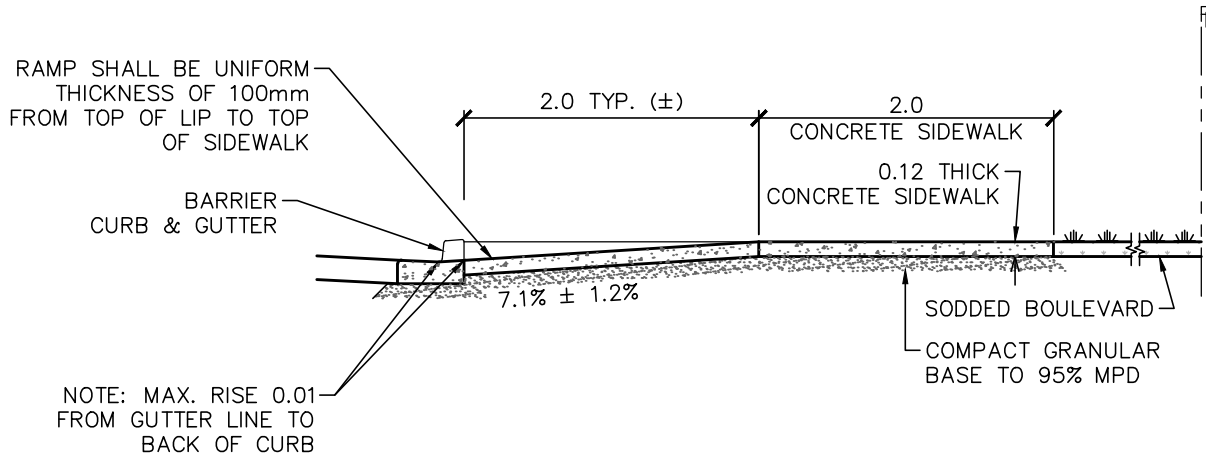
SECTION A-A CURB RAMP

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017		
	Revision Date	Approved	Title SPLIT LETDOWN AT INTERSECTION BOULEVARD GREATER THAN 4.50m
		CITY CENTRE STANDARD DRAWINGS	Approved
			Date JULY 2017
			Drawn By Surrey Engineering
			DRAWING NUMBER CCSD-11b

NOTE: 1. STANDARD RAMP LENGTH: 2.0m AT CENTRE OF RAMP. RECOMMENDED RAMP SLOPE: 7.1% ± 1.2%. MAX. SLOPE 8.3% (1:12) WHERE TOPOGRAPHY PERMITS. ADJUST LENGTH OF RAMP AS REQUIRED WHEN SITE CONDITIONS DO NOT PERMIT TYPICAL LAYOUT. CONTACT CITY ENGINEER FOR APPROVAL OF DESIGN.



PLAN



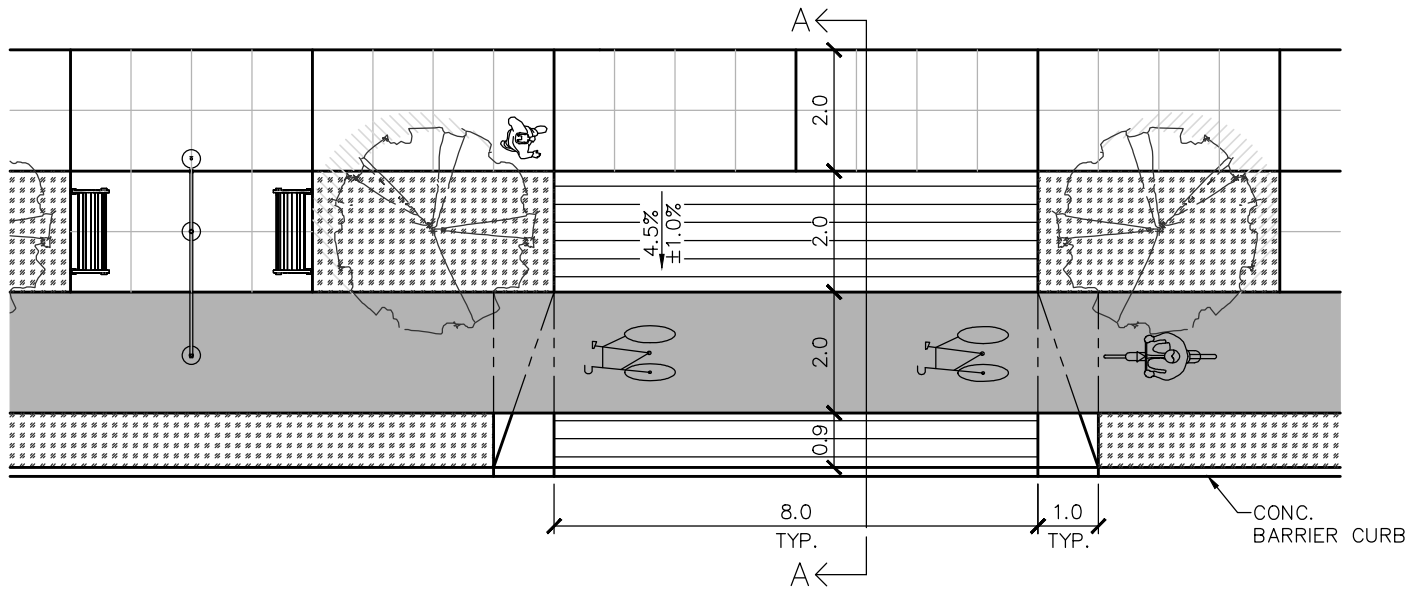
SECTION A-A CURB RAMP

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017		
	Revision Date	Approved	Title SINGLE RAMP LETDOWN WITH PARALLEL SCORING
	Approved		
	Date	JULY 2017	
	DRAWING NUMBER		CCSD-11c
	Drawn By		



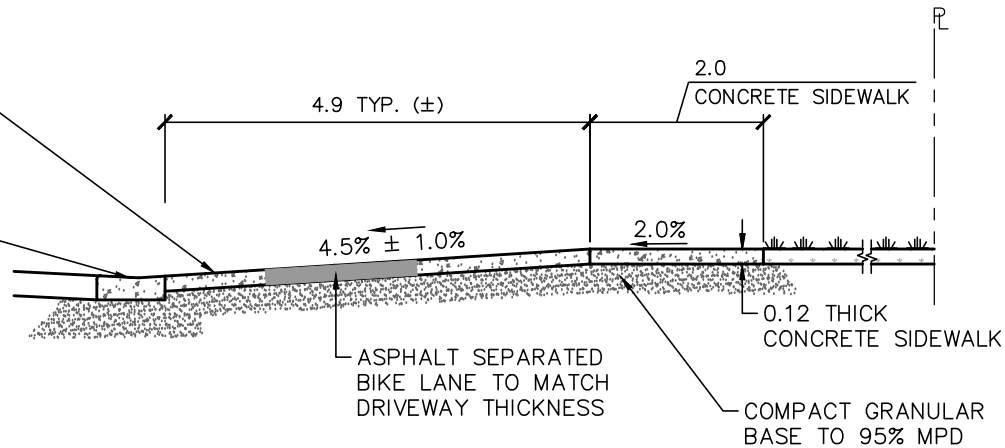
CITY CENTRE
STANDARD
DRAWINGS

TYPE 1



RAMP SHALL BE UNIFORM THICKNESS FROM TOP OF LIP TO FRONT OF SIDEWALK

25 LIP WITH 15 RADIUS



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1	JULY 2017
	Revision Date Approved



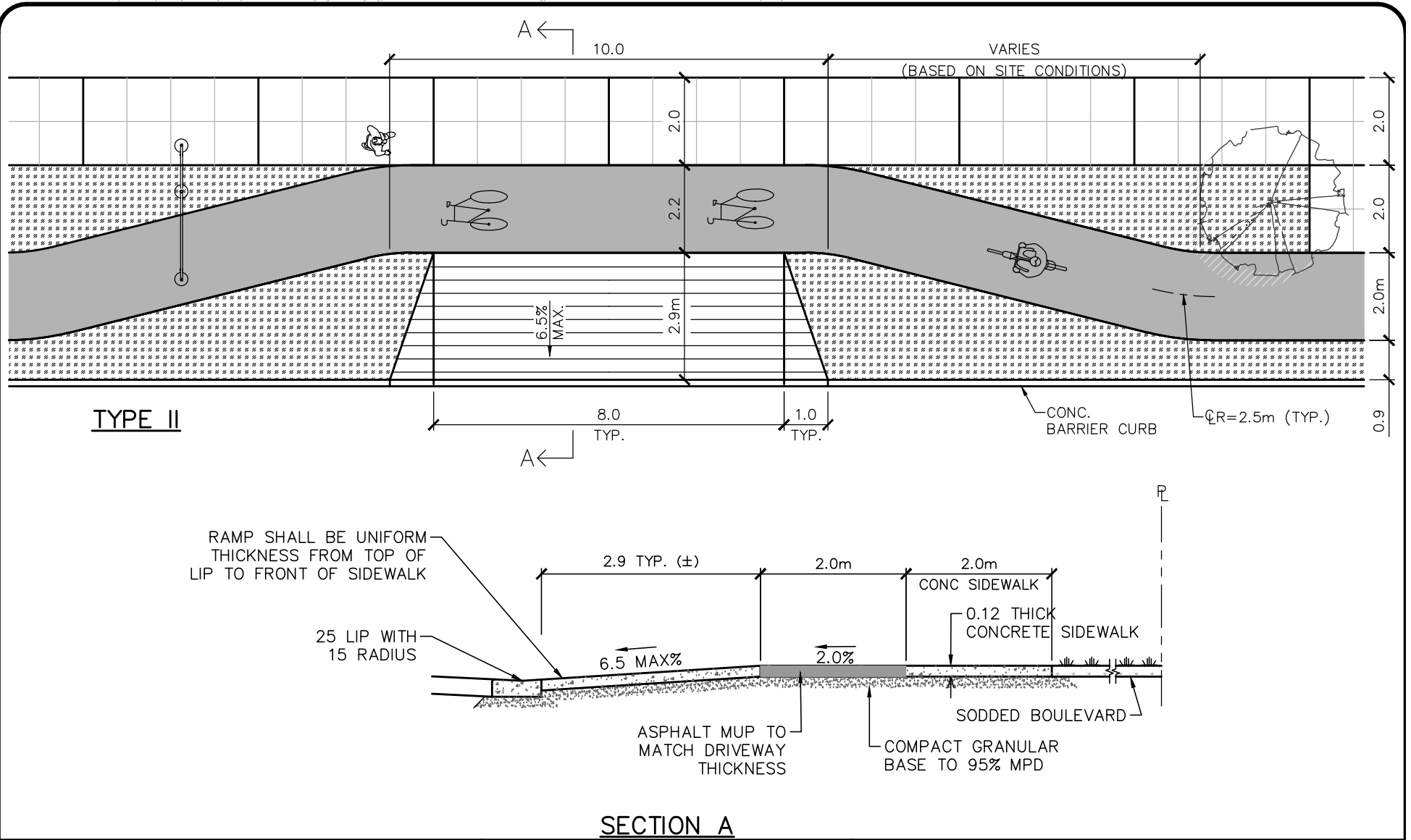
CITY CENTRE
STANDARD
DRAWINGS

All Dimensions Shown In Metres,
Unless Otherwise Noted

Title **DRIVEWAY TYPE 1 PLAN &
SECTION VIEW (30m) ROW**

Approved
Date JULY 2017
Drawn By Surrey Engineering

DRAWING NUMBER
CCSD-12a

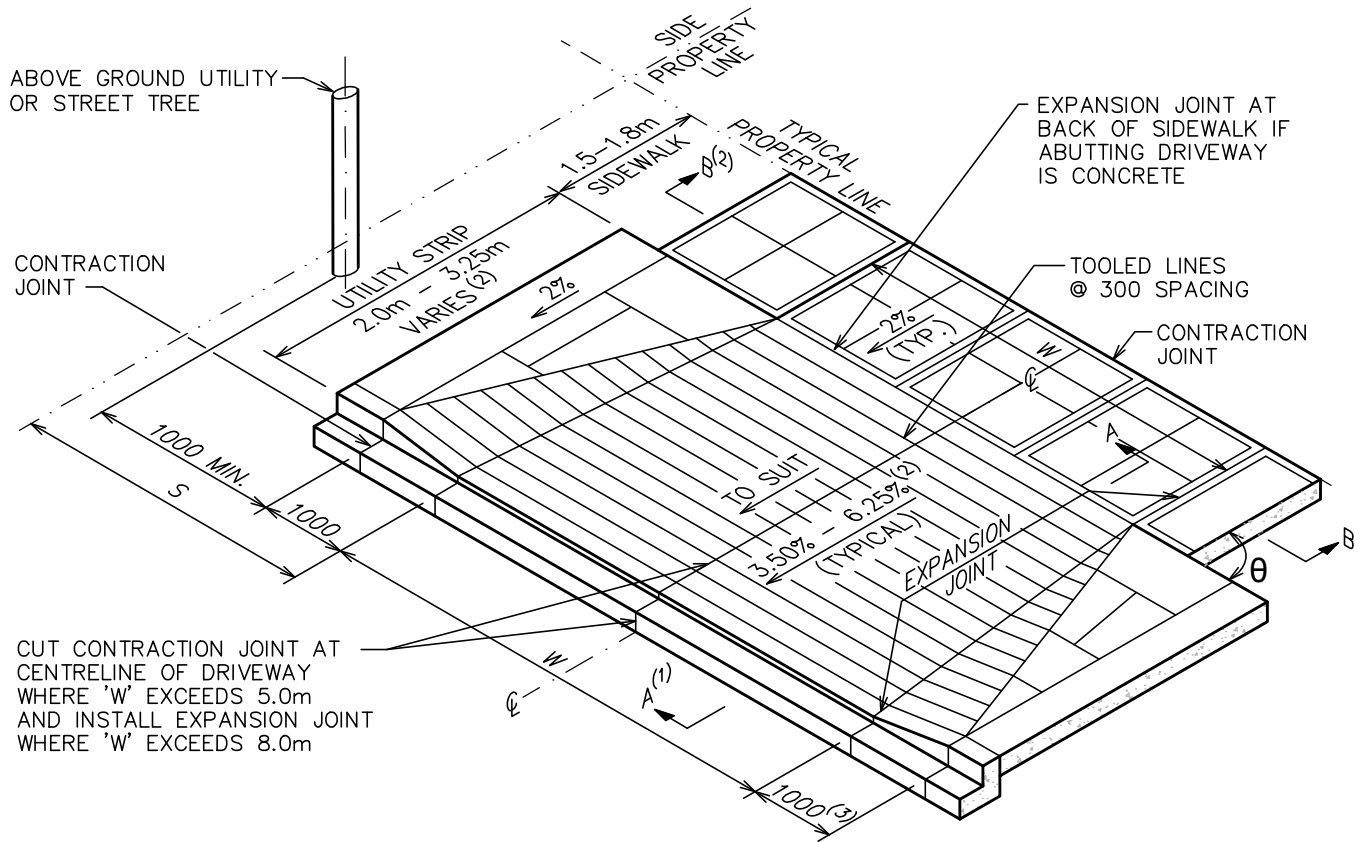


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1	JULY 2017
	Revision Date Approved

All Dimensions Shown In Metres, Unless Otherwise Noted	
Title	DRIVEWAY TYPE II PLAN & SECTION VIEW (30m) ROW
Approved	
Date	JULY 2017
Drawn By	Surrey Engineering




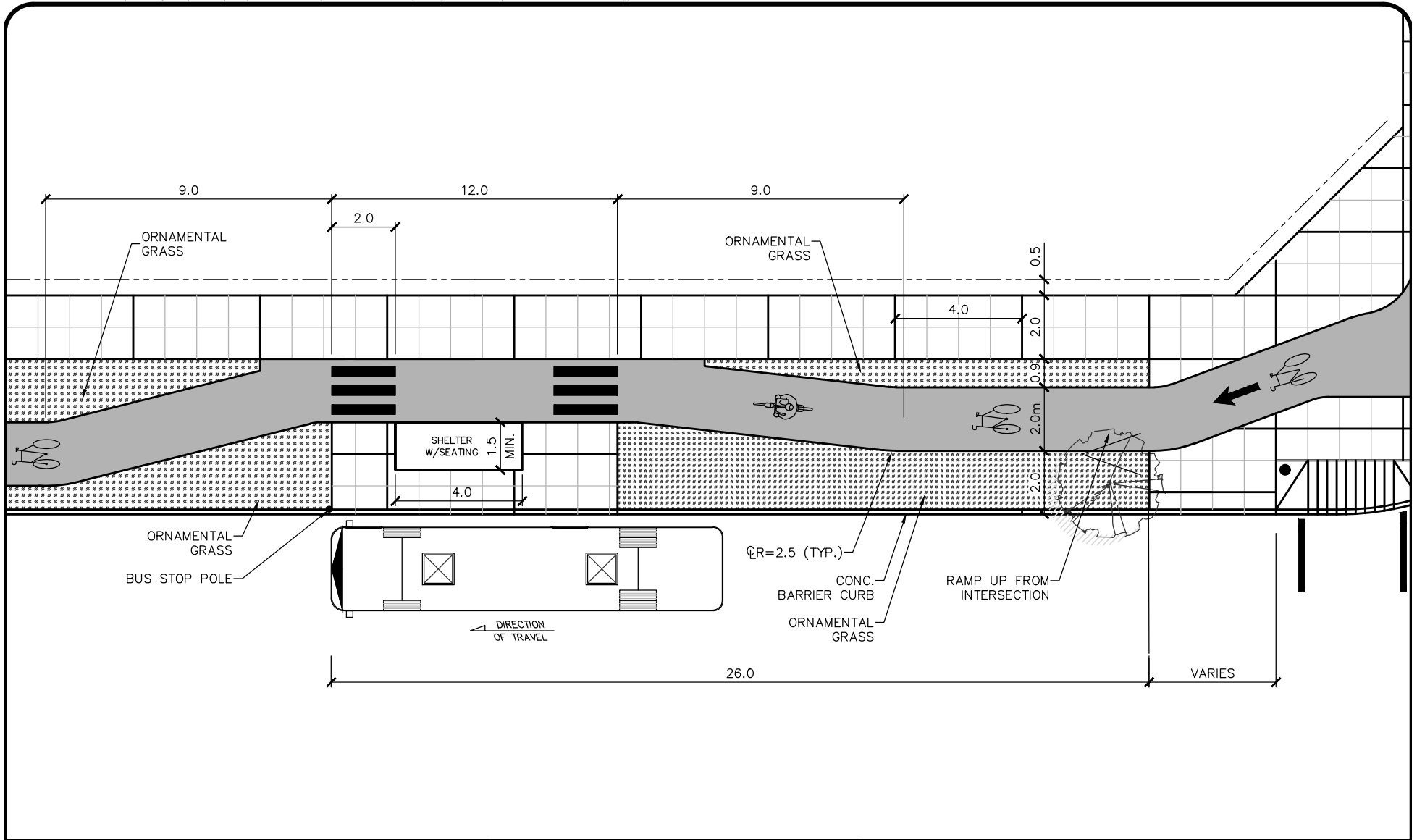
DRAWING NUMBER	
CCSD-12b	



ZONE	OPERATION	W		S	θ - MIN. ANGLE BTWN. THE FRONTAGE PROP. LINE AND THE EDGE OF DRIVEWAY (DEG.)
		MIN. (m)	STD. (m)	MIN. DISTANCE FROM SIDE PROPERTY LINE (m)	
SINGLE FAMILY RESIDENTIAL	N/A	4.5	6.0	1.2	90
MULTI FAMILY RESIDENTIAL	TWO WAY	N/A	7.3	2.0	90
	ONE WAY	N/A	4.5	2.0	45
LANE	RESIDENTIAL	N/A	7.3	2.0	90
	COMMERCIAL	N/A	9.3	2.0	45
COMMERCIAL	TWO WAY	7.3	9.0	2.0	90
	ONE WAY	N/A	4.5	2.0	45
INDUSTRIAL	TWO WAY	9.0	11.0	2.0	90
	ONE WAY	N/A	5.0	2.0	30

- NOTES: (1) FOR SECTION A-A REFER TO SSD-R.42.1.
 (2) FOR UTILITY STRIP LESS THAN 2.0m, LETDOWN SLOPE SHALL BE 2% AND REFER TO SECTION B-B ON SSD-R.42.1.
 (3) FLARE IS NOT PERMITTED FOR SINGLE FAMILY RESIDENTIAL UNLESS DIRECTED BY ENGINEER.
 (4) EXPANSION JOINTS SHALL USE FULL DEPTH ASPHALT IMPREGNATED FIBREBOARD @ MAXIMUM 9m LONGITUDINAL SPACING. EXPANSION JOINTS SHALL BE PROVIDED AGAINST ALL VERTICAL EDGES AND CHANGE IN MATERIALS.

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017	Title	LOCAL ROAD DRIVEWAYS
	Revision Date	Approved	
 CITY CENTRE STANDARD DRAWINGS		Approved	
		Date	JULY 2017
		Drawn By	Surrey Engineering
		DRAWING NUMBER	CCSD-12c



3	
2	
1	JULY 2017
	Revision Date Approved

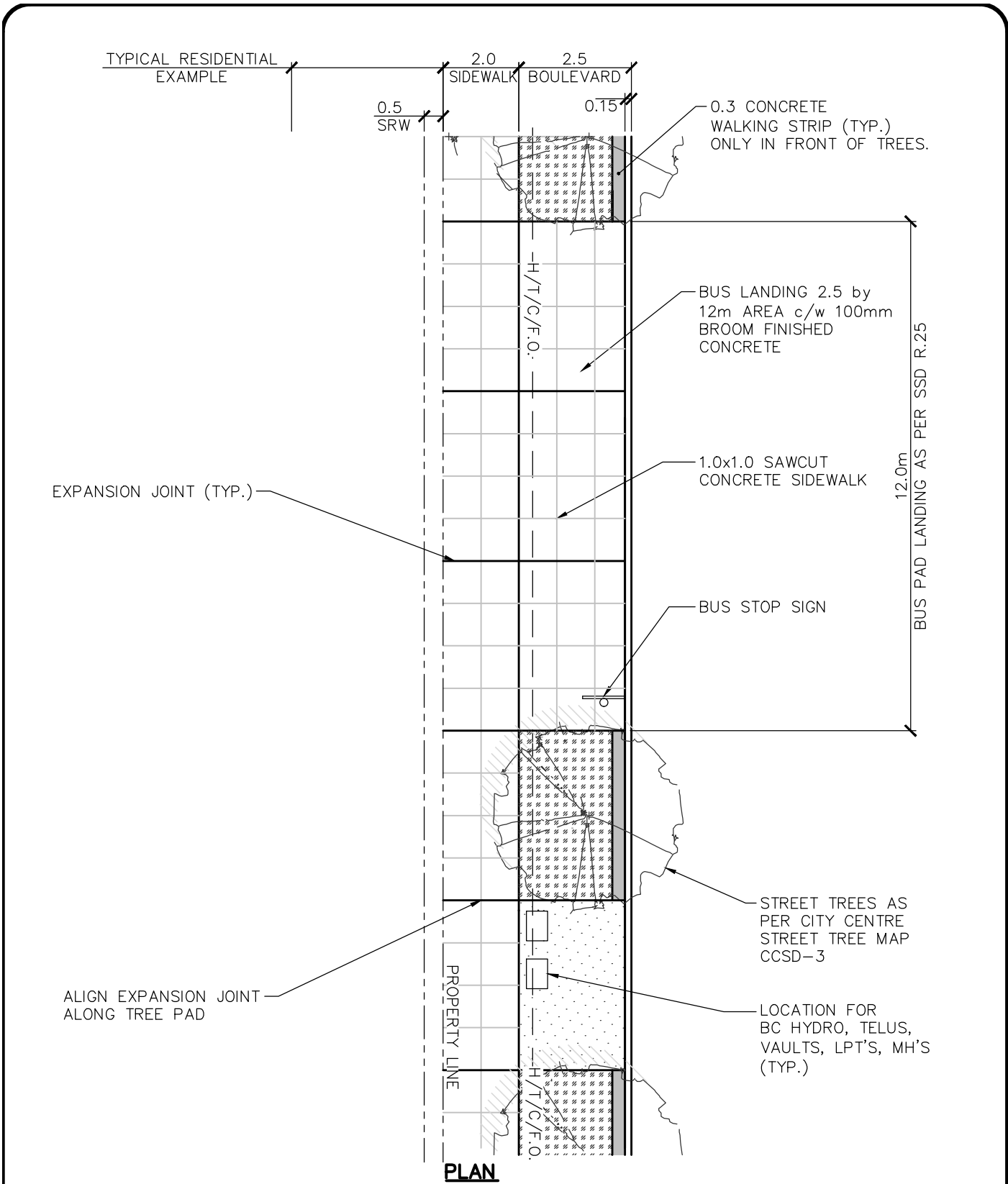
All Dimensions Shown In Metres, Unless Otherwise Noted	
Title	TYPICAL BUS STOP PLAN VIEW (30m) ROW


CITY OF SURREY
 the future lives here.

CITY CENTRE
 STANDARD
 DRAWINGS

Approved	
Date	JULY 2017
Drawn By	Surrey Engineering

DRAWING NUMBER
CCSD-13a



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2	
1	JULY 2017
	Revision Date Approved

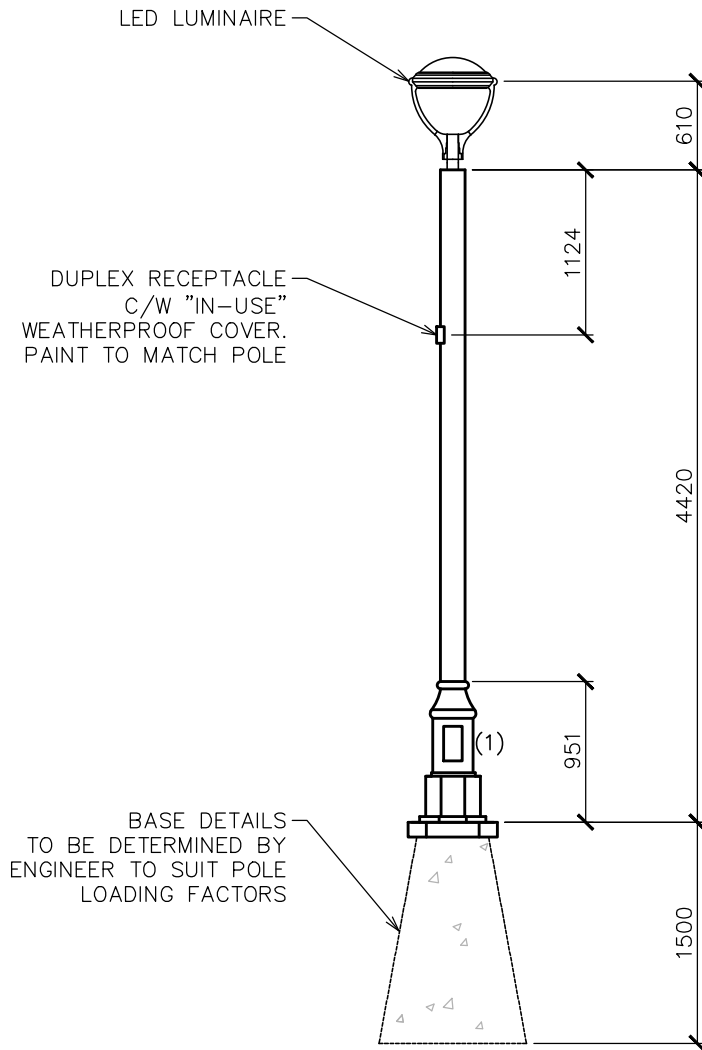
All Dimensions Shown In Metres,
Unless Otherwise Noted

Title **LOCAL BOULEVARD FOR 20m ROW
BUS STOP FOR (4.5m) FRONTAGE**




Approved
Date JULY 2017
Drawn By Surrey Engineering

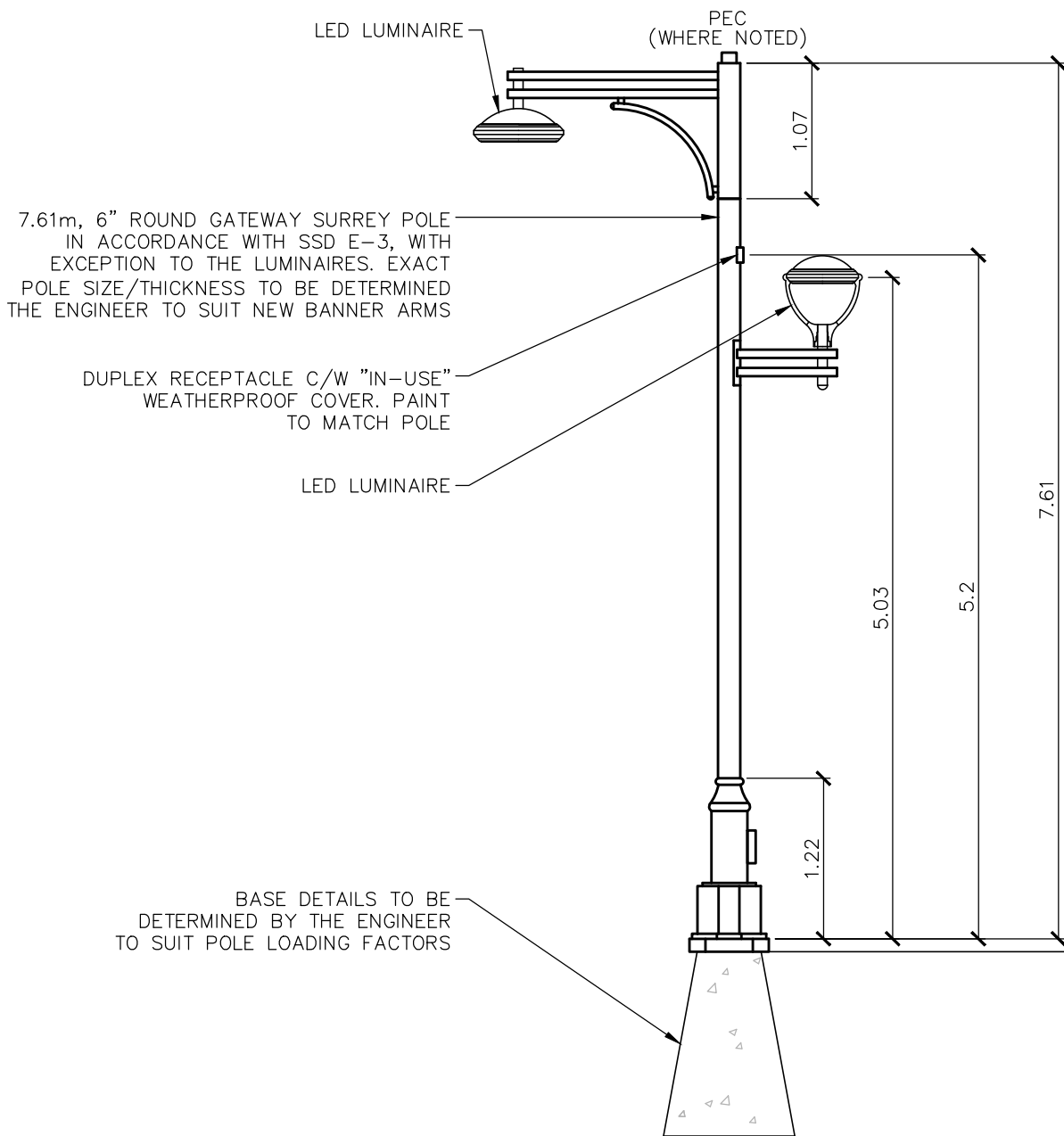
DRAWING NUMBER
CCSD-13b



TYPICAL PROPOSED TYPE 'A'
DECORATIVE LUMINAIRE POST


- NOTES: (1) BOX FOR FUSE AND PHOTOCELL TO BE INSTALLED WHERE IDENTIFIED BY STREETLIGHT ENGINEER.
(2) POLE TO BE POWDER COATED BLACK.

3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title STREET LIGHTS – TYPE 'A'
	Revision Date Approved	
		Approved
CITY CENTRE STANDARD DRAWINGS		Date JULY 2017
		Drawn By Surrey Engineering
		DRAWING NUMBER CCSD-14a

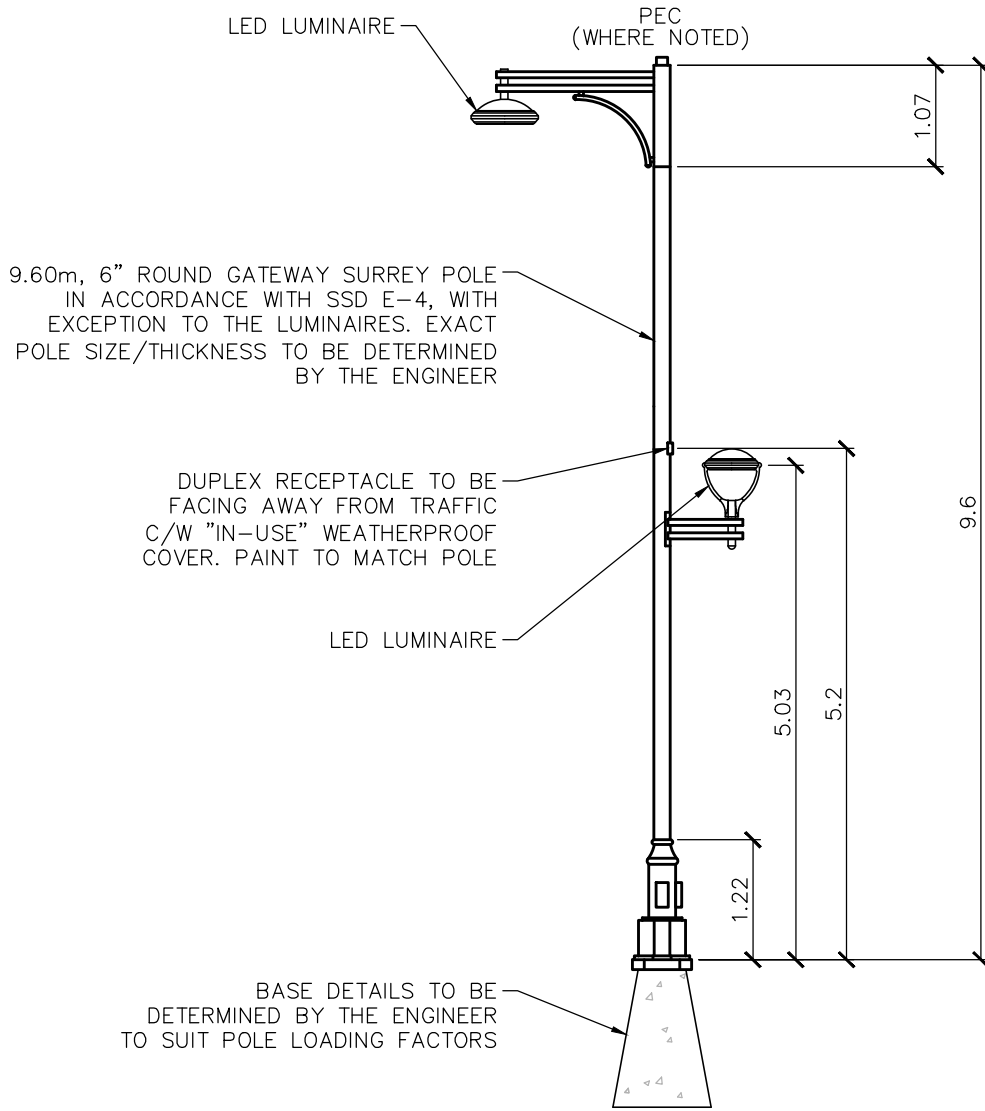


TYPICAL PROPOSED TYPE 'B' DECORATIVE LUMINAIRE POLE

- NOTES: (1) TYPICAL 32m SPACING ON OPPOSITE SIDES, NOT STAGGERED SUBJECT TO ENGINEER APPROVAL
 (2) SUBJECT TO EXCEEDING ILLUMINATION REQUIREMENTS.
 (3) POLE TO BE POWDER COATED RAL 7016 (GREY).

3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title STREET LIGHTS – TYPE 'B' WITH PEDESTRIAN LIGHT
	Revision Date	
		Approved
CITY CENTRE STANDARD DRAWINGS		Date JULY 2017
		Drawn By Surrey Engineering
		DRAWING NUMBER CCSD-14b

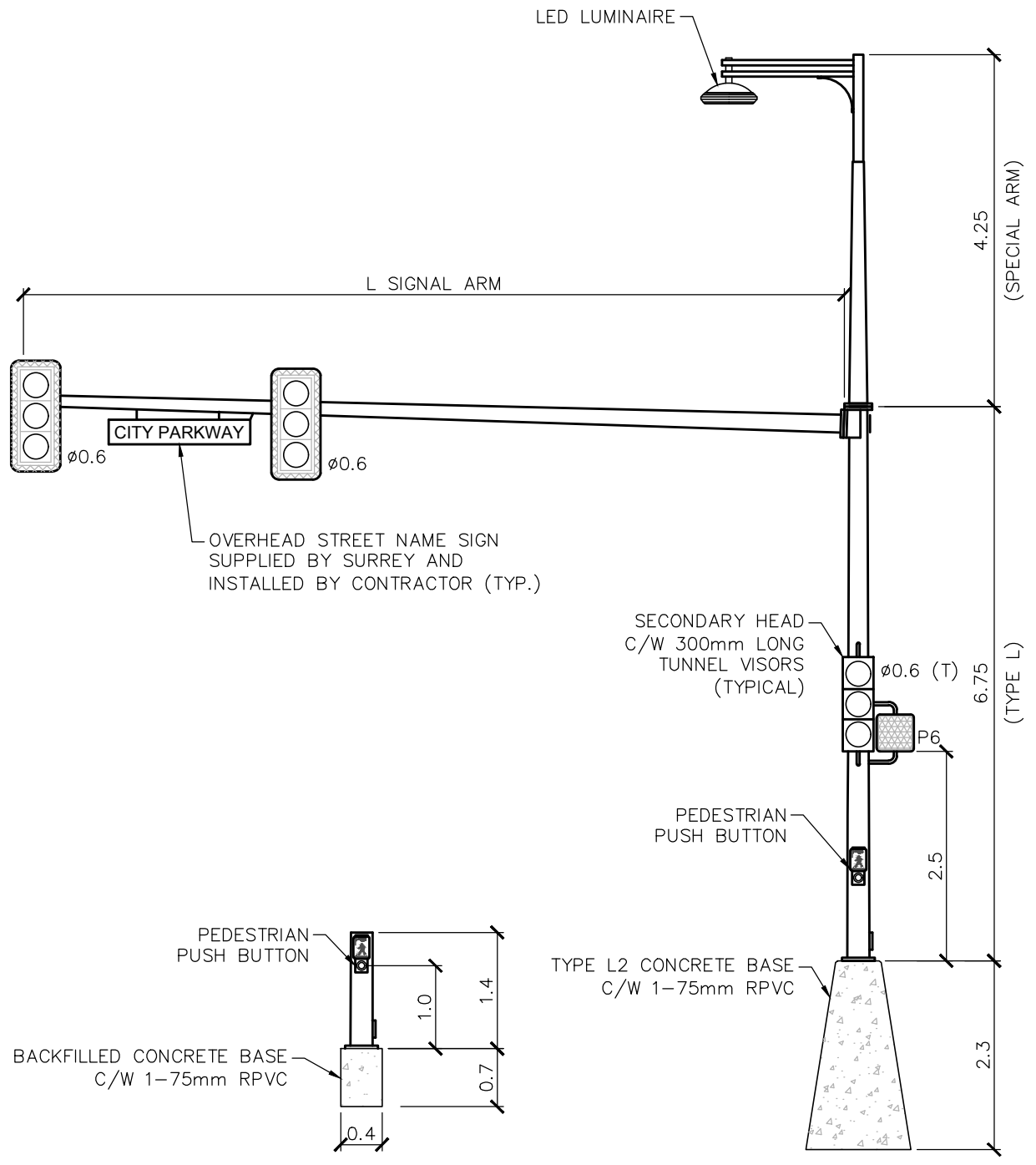
Jul 19 2017 2:29pm M:\2012\12-177\DWG\CCSD DRAWINGS\10b_Street Lights - Type 'B' - Pedestrian Light and Banner.dwg/10b_RS.dwg



**TYPICAL PROPOSED TYPE 'C'
DECORATIVE LUMINAIRE POLE**

- NOTES:
- (1) TYPICAL 40m SPACING ON OPPOSITE SIDES, NOT STAGGERED
SUBJECT TO ENGINEER APPROVAL
 - (2) SUBJECT TO EXCEEDING ILLUMINATION REQUIREMENTS
 - (3) 11m POLE MAY BE REQUIRED.
 - (4) POLE TO BE POWDER COATED BLACK.
 - (5) TO ACCOMMODATE BANNER ARMS, CONFIRM WIND LOADING
WITH STRUCTURAL ENGINEERING


3		All Dimensions Shown In Metres, Unless Otherwise Noted		
2				
1	JULY 2017	Title	STREET LIGHTS – TYPE C PEDESTRIAN LIGHT	
	Revision Date	Approved		
		Approved	DRAWING NUMBER CCSD-14c	
		Date		JULY 2017
		Drawn By		Surrey Engineering



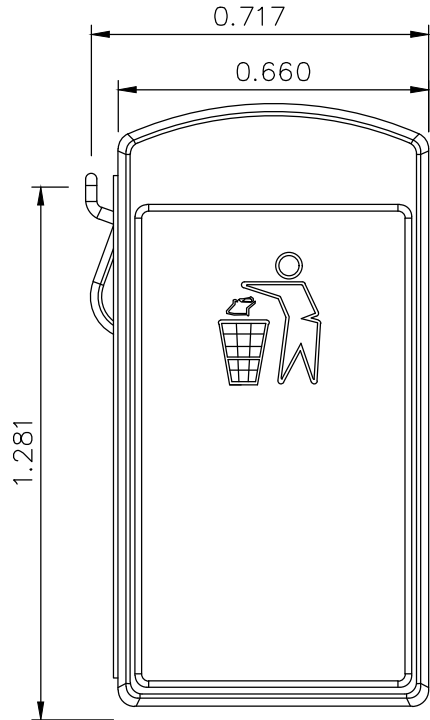
TYPICAL PROPOSED PEDESTRIAN PUSH BUTTON

TYPICAL PROPOSED TYPE 'L' TRAFFIC SIGNAL POLE

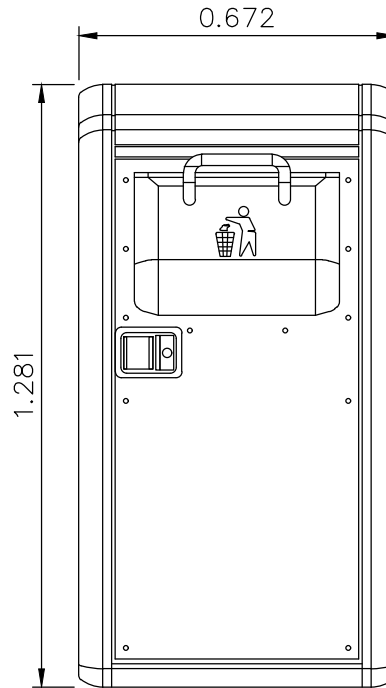
NOTES: (1) POLES TO BE POWDER COATED BLACK.

3		All Dimensions Shown In Metres, Unless Otherwise Noted	
2			
1	JULY 2017		
	Revision Date	Approved	Title TRAFFIC SIGNAL POLE
		Approved	
CITY CENTRE STANDARD DRAWINGS		Date JULY 2017	
		Drawn By Surrey Engineering	DRAWING NUMBER CCSD-14d

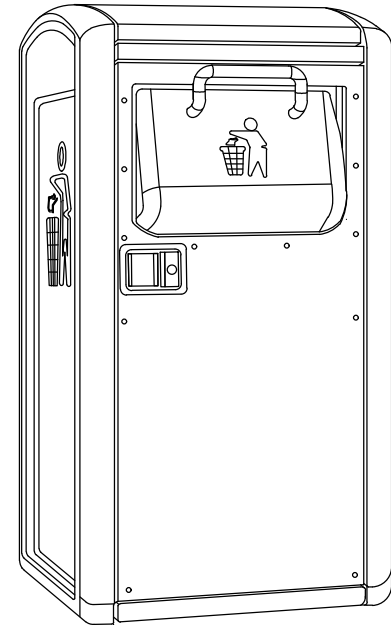
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LEFT SIDE VIEW
NTS



FRONT SIDE VIEW
NTS



ISOMETRIC VIEW
NTS

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1	JULY 2017	
	Revision Date	Approved



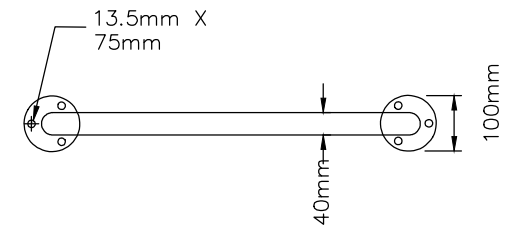
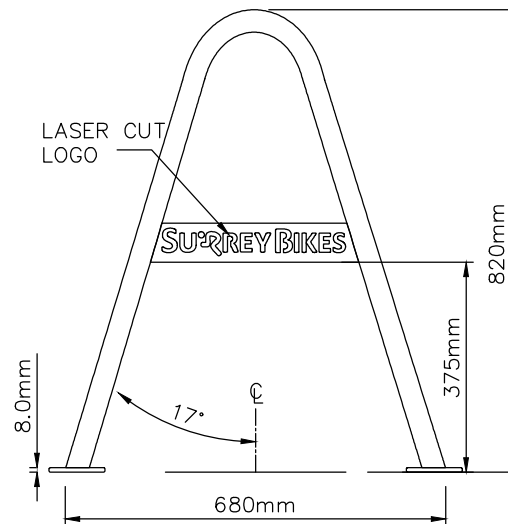
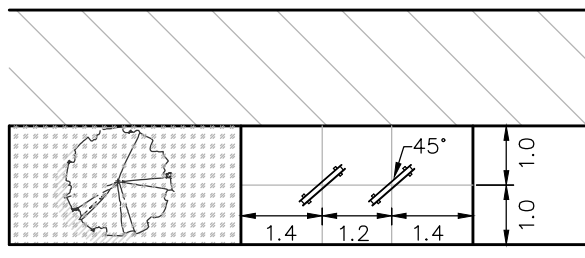
CITY CENTRE
STANDARD
DRAWINGS

All Dimensions Shown In Metres,
Unless Otherwise Noted

Title
TYPICAL TRASH CAN (BIG BELLY)

Approved
Date JULY 2017
Drawn By Surrey Engineering

DRAWING NUMBER
CCSD-14e



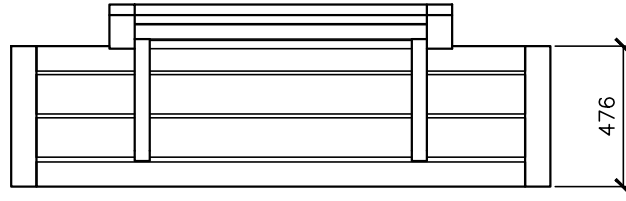
SPECIFICATIONS

BICYCLE CAPACITY	2
RECOMMENDED SPACING	1.2m OC
MINIMUM SPACING	0.9m OC
LONGITUDINAL SPACING	3.0m OC
ASSEMBLY MATERIAL	MILD STEEL (STAINLESS 304)
TUBE SIZE	40.0mm
WALL THICKNESS	3.0mm
LOGO BAR	4.0mm PLATE
WEIGHT	8.4KG
FINISH	POWDER COATED OVER ZINC PRIMER #4 POLISH (STAINLESS STEEL ONLY)
ANCHOR TYPE	CONCRETE WEDGE ANCHOR 13mm X 75mm GALVANIZED (STAINLESS) OPTIONAL BREAKAWAY NUTS

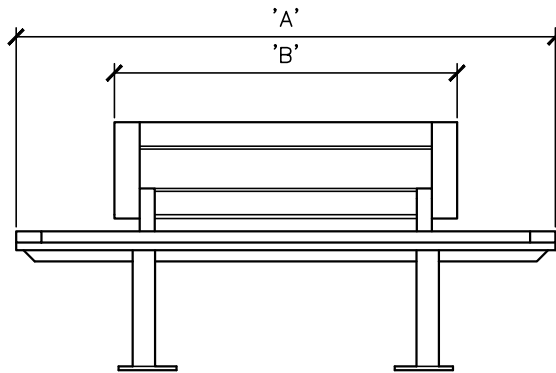
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1	JULY 2017
	Revision Date Approved

All Dimensions Shown In Metres, Unless Otherwise Noted	
Title	
TYPICAL BIKE RACK (BR1)	

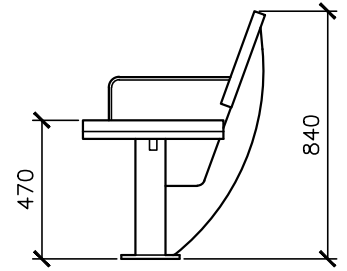
Approved		DRAWING NUMBER CCSD-14f
Date	JULY 2017	
Drawn By	Surrey Engineering	



TOP

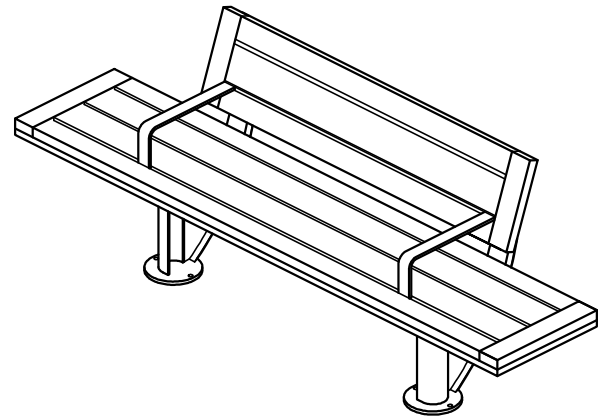


FRONT




ELEVATION

BENCH SIZE	1.8m	2.4m	2.7m
'A'	1.829m	2.388m	2.743m
'B'	1.162m	1.734m	1.905m

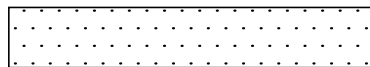


CITY STAFF TO SPECIFY
MATERIALS, COLOURS &
APPROVED MANUFACTURES

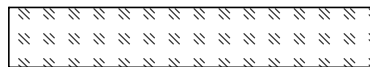
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1	JULY 2017	Title BENCH DETAIL
	Revision Date Approved	
		Approved
CITY CENTRE STANDARD DRAWINGS		Date JULY 2017
		Drawn By Surrey Engineering
		DRAWING NUMBER CCSD-14g

SURREY TYPICAL ORNAMENTAL GRASSES

BOTANICAL NAME	COMMON NAME
GRASSES, FESCUES AND SEDGES	
CALAMAGROSTIS ACUTIFOLIA	FEATHER REED GRASS
CAREX VARIETIES	SEDGE
FESTUCA GLUACA	BLUE FESCUE
HELICOTOTRICHON	BLUE OAT GRASS
IMPERNATA CYLINDRA	JAPANESE BLOOD GRASS
MISCANTHA VARIETIES	SILVER GRASS
PANICUM VERIGATUM	SWITCH GRASS
PENNISETUM VARIETIES	FOUNTAIN GRASS
STIPA TENUISSIAN	FEATHER GRASS



BOULEVARD GRASS PLAN VIEW




ORNAMENTAL GRASS PLAN VIEW



BOULEVARD GRASS SECTION VIEW



ORNAMENTAL GRASS SECTION VIEW

3		All Dimensions Shown In Metres, Unless Otherwise Noted
2		
1	JULY 2017	Title ORNAMENTAL GRASSES
	Revision Date Approved	
		Approved
CITY CENTRE STANDARD DRAWINGS		Date JULY 2017
		Drawn By Surrey Engineering
		DRAWING NUMBER CCSD-15