October 13, 2020

City of Mississauga
Planning and Building Department
300 City Centre Drive
Mississauga, ON L5B 3C1

Attention: Mr. David Breveglieri
Planner

Re: Proposed Rights-Of-Way Package
Lakeview Village - Mississauga

Dear David

Further to LCPL's submission of the Lakeview Village Street Hierarchy and Right-Of-Way Study, dated April 2020 and subsequent comments received from City staff on June 26, 2020, a virtual workshop took place on July 23, 2020 with over 40 attendees from the City, Region, and Lakeview Team taking part.

As a result of this workshop and subsequent X-Section materials received from the City on August 20, 2020 , the LCPL team has re-visited their proposed road x-sections, incorporating the City's comments where possible, while striving to maintain the strong desire for **compact complete streets**.

An overview of the revised x-sections and the design rationale for the various road elements was the topic of a further workshop with the City, Region, and Lakeview Team on September 24, 2020.

The attached package provides the presentation that was utilized to drive discussion on September 24th, which has been edited to include additional x-sections, as well as several supporting documents. The enclosed includes the following:

1. Design Element Summary Pages
2. September 24th Presentation
3. Appendix A – Road Design Standards – City vs. Lakeview
4. Appendix B – 2-D Composite Plan and Utility Location Plan
5. Appendix C – Detailed Response Matrix to City Comments June 26, 2020
6. Appendix D – AutoTurn Analysis for Articulated Buses and Standard Buses

The primary design elements that have been the subject of discussions to-date include urban design, sidewalks, tree corridors (incl Hydro Road special treatment), cycle tracks, dimensioning of splash pads/buffers/curbs/parking lane widths, travel lane widths, curb radii, utility corridors, and school pick-up drop-off zones. A summary sheet for each of these ten design elements is attached.

As part of the City's review of all the attached materials, the Lakeview Team believes that it is very important to emphasize that Lakeview Village is planned and designed as an urban, compact, pedestrian and cycling focused community that is intended to reinforce and attract the variety of activities, linkages and social gathering opportunities within a vibrant and attractive public realm that is commonly found in the great urban places locally and throughout the world.

A critical component to achieving this ideal urban setting is the implementation of **compact complete streets**. Lakeview is not a suburban community and the application of standards that are derived from traditional suburban developments is detrimental to the ability to deliver the community that Mississauga deserves.

It is important to understand the common features that make great urban streets – streets that are compact, safe, attractive and complete. Size does matter and it is fundamentally based on a balanced approach to integrating multiple functions and objectives, without needlessly optimizing the size of each individual element.

These great urban street features include the following:

- Minimized vehicular travel lane widths which results in reduced vehicular speeds;
- Reduced corner radii which results in reduced crossing distances, slower vehicle turning speeds and reduced intersection areas;
- Innovative approaches to healthy street tree planting conditions;
- Compact building face to building face distances that frame the street and reinforce a pedestrian scaled character;
- Street furniture and paving features that reinforce the desired character;
- Vibrant, multi-use boulevard spaces that respond to adjacent land uses and promote social gathering.

These important attributes cannot be achieved if the emphasis is on maximizing the individual components that make up the street right-of-way in isolation of the overall objective.

The following summarizes the items that need to be agreed on in order to achieve **compact complete streets** in Lakeview:

1. Wider sidewalk widths (2.0m vs. 1.8m on minor collector and local residential) vs. wider tree corridors
2. Special tree corridor configuration on Hydro Road north of Street A
3. Cycle track locations (ie not within roadway of Streets B and D and F)
4. Splash pad width of .75m measured to back of curb
5. No mountable curb between travel and parking lanes
6. Travel lane widths less than 3.3m (ie 3.0m for local roads and 3.25m for minor collectors)
7. Curb radii widths less than 12m for different intersection configurations
8. Utility Corridor on one-side of the road
9. School Pick-Up/Drop-Off Zones to be permitted within roadway (ie. not required on-site)

This study strives to achieve a balance in providing complete streets that effectively function from a connectivity, engineering, public gathering and streetscape character standpoint and is achieved within a compact, urban right-of-way that delivers the type of urban community that will make Lakeview Village a model of forward-thinking city building.

We look forward to continuing our work with all levels of City and Region staff, to achieve this goal.

Sincerely,
Lakeview Community Partners Limited

Brian Sutherland

Brian Sutherland
Vice-President, Argo Development Corporation

LAKEVIEW VILLAGE

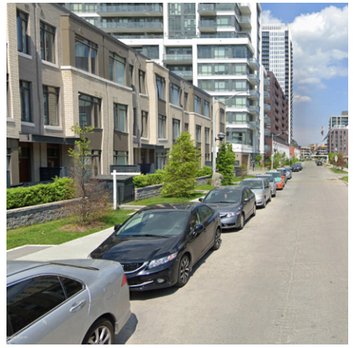
ROW RESPONSE PACKAGE | EXECUTIVE SUMMARY

OCTOBER 2020

URBAN DESIGN | Critical Components of Compact Streets

URBAN CONTEXT

Lakeview Village is planned and designed as an urban, compact, pedestrian, and cycling focused community. It is not a suburban community and the application of standards that are derived from traditional suburban developments is detrimental to achieving this vision.



STREET WALL

With an expanded right-of-way, building face to building face distances are increased, and the benefits of a compact street environment are diminished, resulting in streets that are less pedestrian-scaled and more prone to increased vehicular speeds. There is a direct correlation between a sense of street enclosure to decreased vehicular speeds.

CANOPY COVERAGE

The City's proposed increase to rights-of-way widths would result in less tree canopy coverage as a percentage of the paved area, resulting in a greater urban heat island and a reduced sense of enclosure. The visual impact of street trees is diminished from a streetscape character standpoint, as well.

IMPERMEABLE SURFACE

As a result of the widened rights-of-way, the impermeable paved surface area will also increase, further adding to the urban heat island effect and diminishing the streetscape character. The increase in the paved surface area will negatively impact stormwater capture and result in increased maintenance costs to the city.

TRAVEL LANES

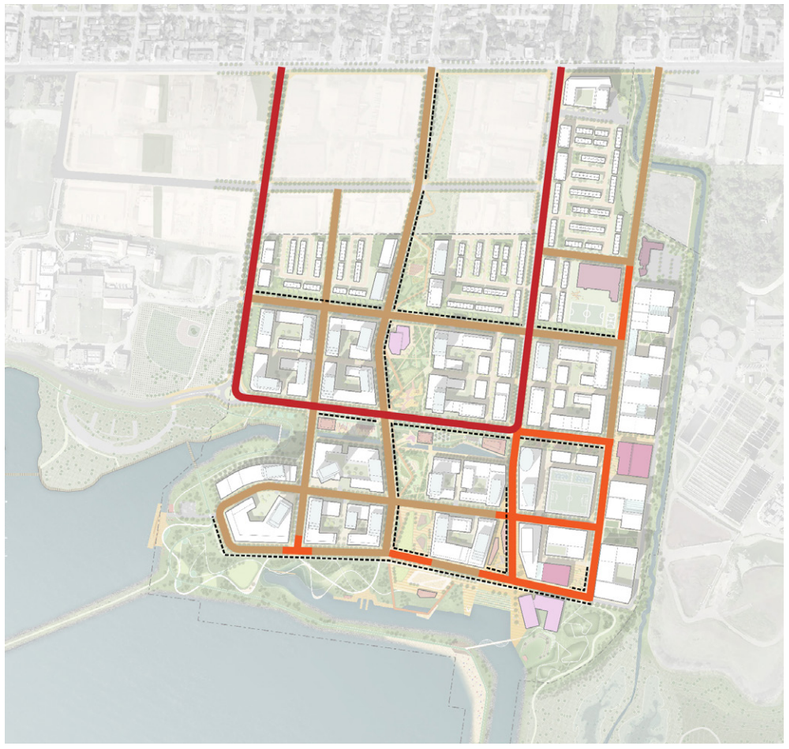
Wider, open streets are proven to encourage faster vehicular speeds. Increased speeds make the street more hostile to pedestrians and cyclists. Higher speed collisions significantly increase harm to those involved.

INTERSECTIONS & CORNER RADII

Expanded rights-of-way widths increase pedestrian crossing distances, which impacts the safety and walkability of the community, particularly for seniors, children, and those with disabilities.

SIDEWALKS

The updated cross-sections attached reflect a minimum sidewalk width of 2.0m for the major collector roads and 1.8m on the local roads and minor collector roads. These revisions were made to achieve compact streets and in many cases to generate wider tree corridors. Both the 1.8m and 2.0m sidewalk widths meet the City standards and the provincial AODA standards. Should the City feel strongly about 2.0m sidewalks within the local and minor collector roads, then width could be taken from the tree corridors (which exceed the minimum tree corridor widths). From an environmental standpoint, LCPL's preference is to put the width into the soft landscaped surfaces rather than hard surfaces. See Pedestrian Network response Section B on page 3 of the Response Matrix.



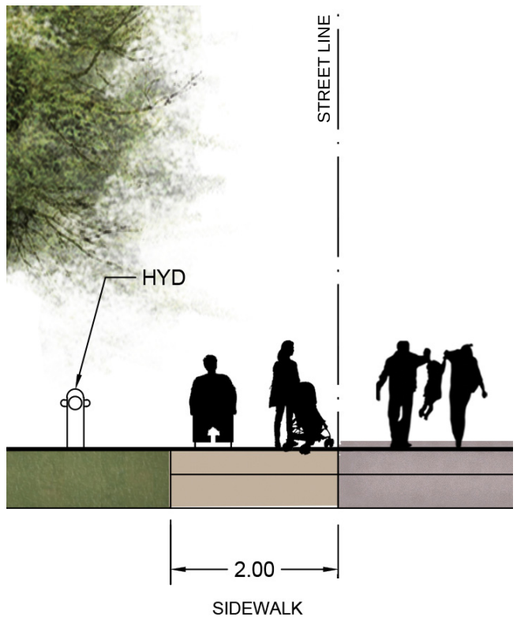
2.0m Sidewalk

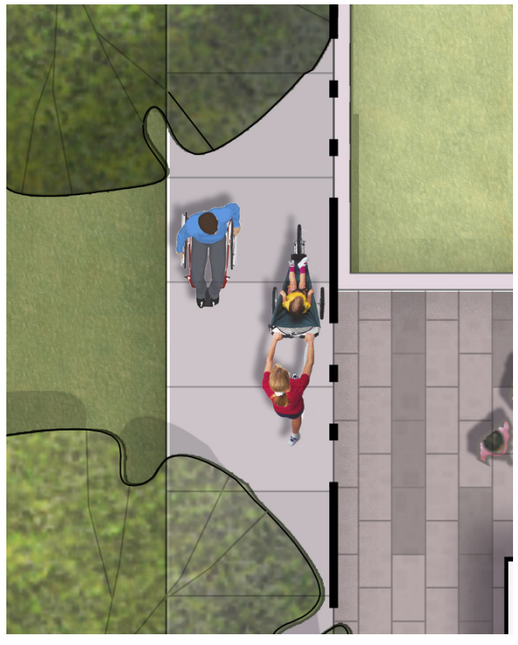
1.8m Sidewalk with Paved Tree Zone

1.8m Sidewalk with Planted Tree Zone

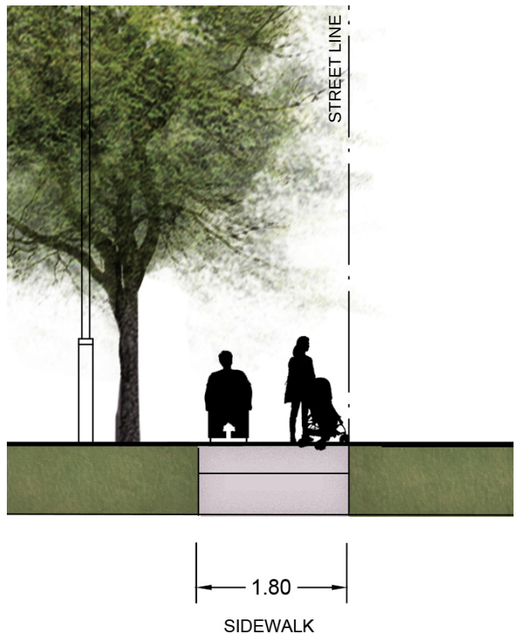
Addition Circulation Within Adjacent Park

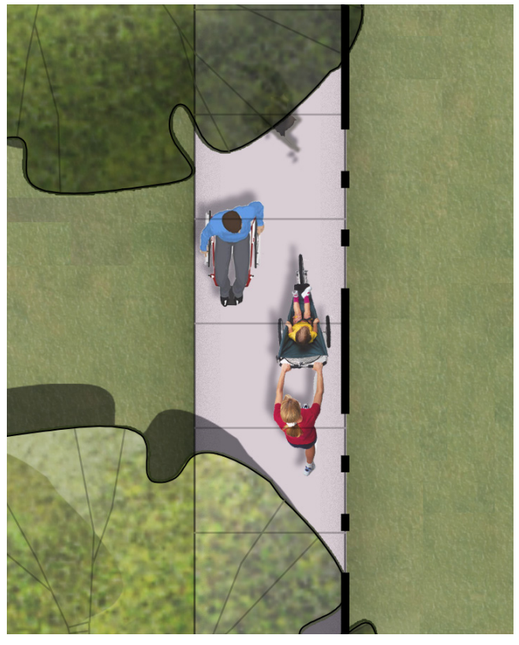
2.00m Sidewalk



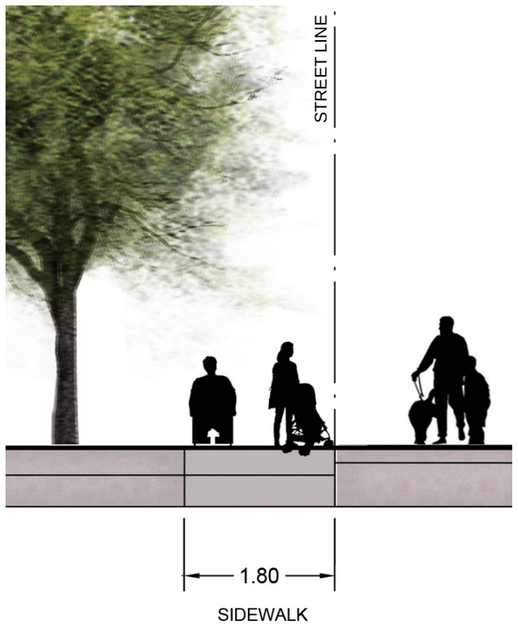


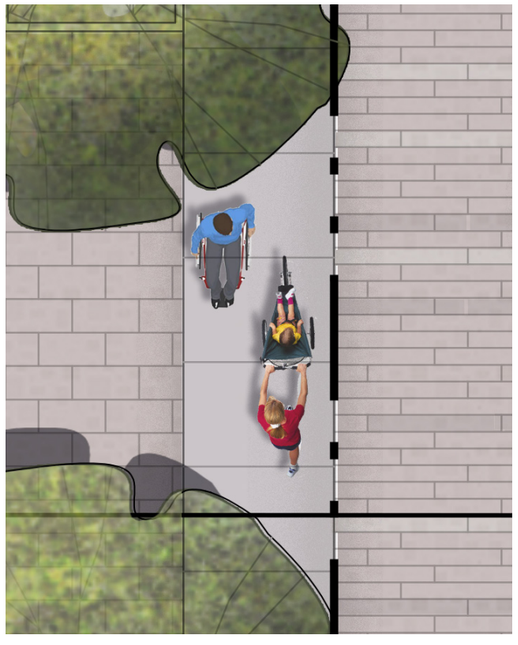
1.80m Sidewalk (Low-Traffic)
(w. vegetated zones on either side)





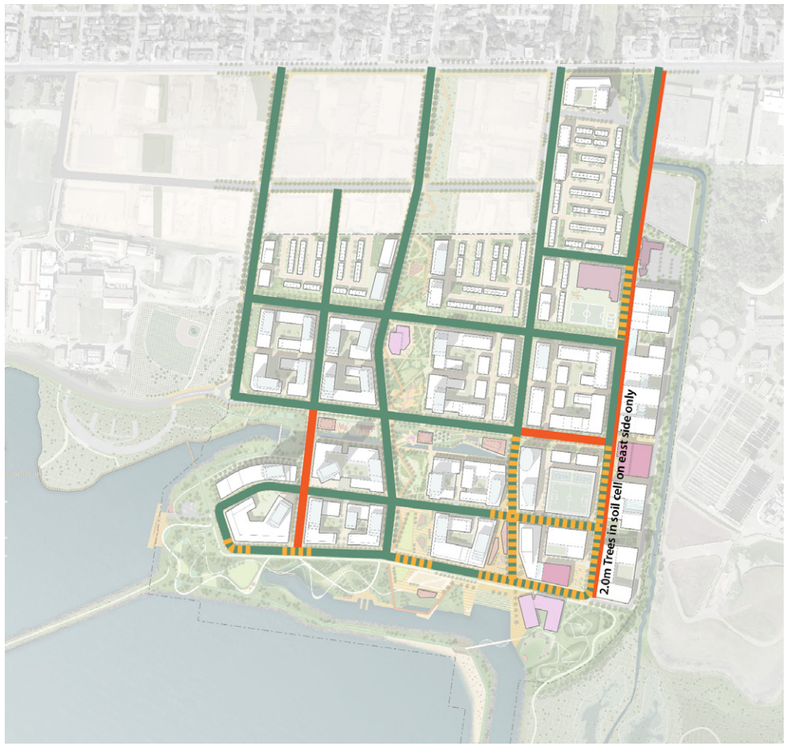
1.80m Sidewalk (High-Traffic)
(w. additional paving on either side)





TREE CORRIDORS

Tree corridor widths were revised to reflect the City's desire for a minimum width of 2.5m for trees in sod and a minimum width of 2.0 for trees in soil cells. The location of each of these tree elements can be seen on page 43 of the Presentation. Assuming that the City is in agreement with the location of the trees in soil cells, the Lakeview Team believes this item has been fully addressed. See response to Forestry comments in Section I, page 16, of the Response Matrix.



2.5m+ Trees in Sod

2.0m Trees in Soil Cell

2.5m+ Trees in Soil Cell (Due to Adjacent Building Uses)

Tree Species

Species that are appropriate for the climate and urban environment

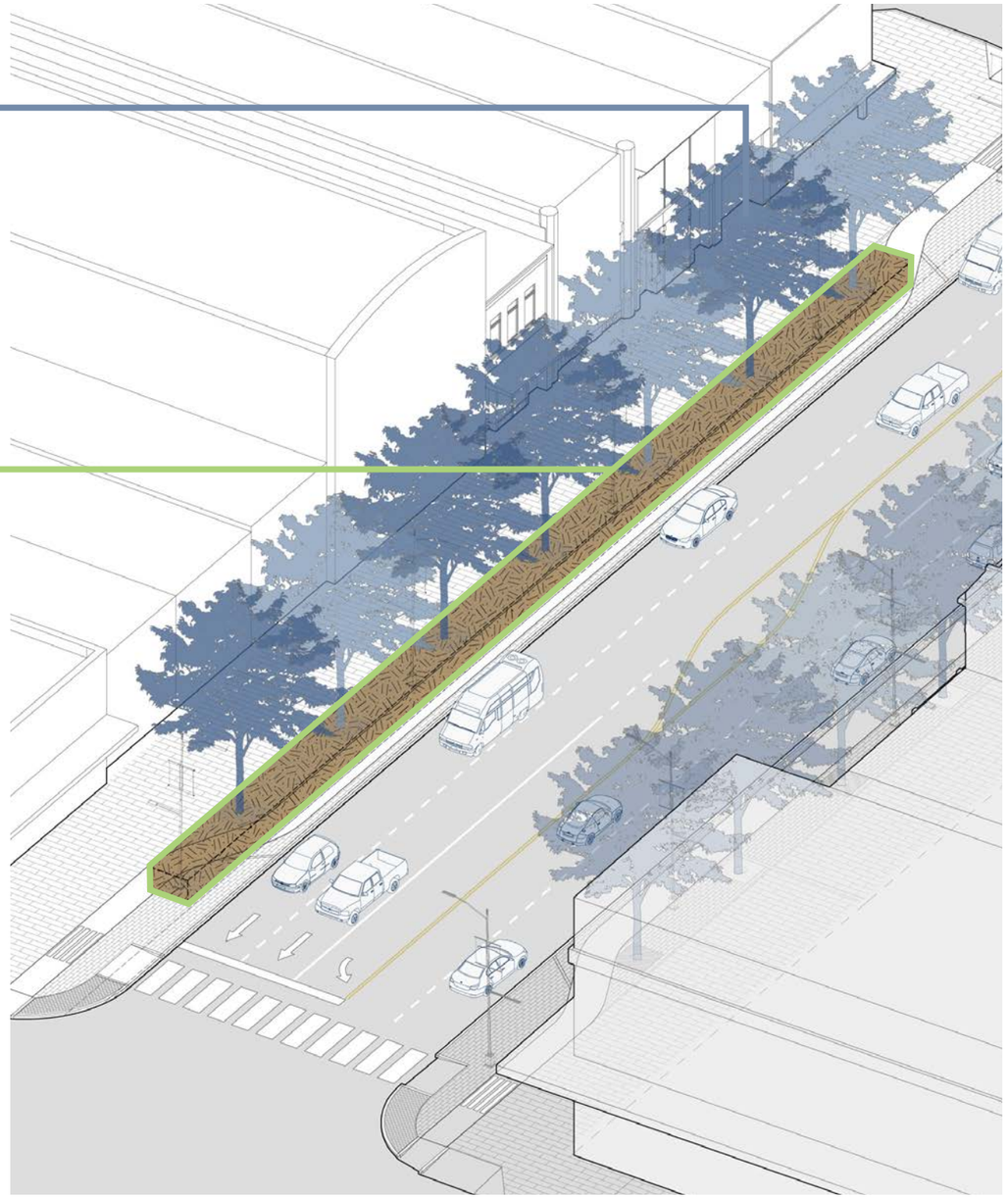
Soil Composition

Specified soil compositions to maximize tree health + growth

Soil Volume

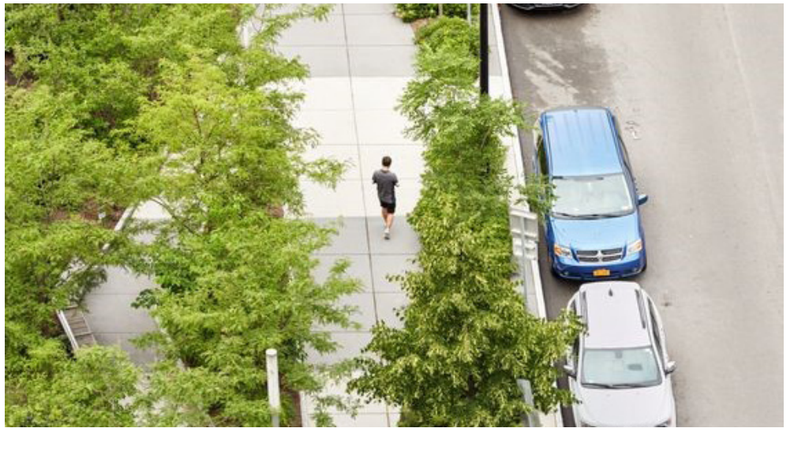
The provision of a continuous soil trench. Where ROW widths are tight, or the surface treatment is paved, the use of soil-cell

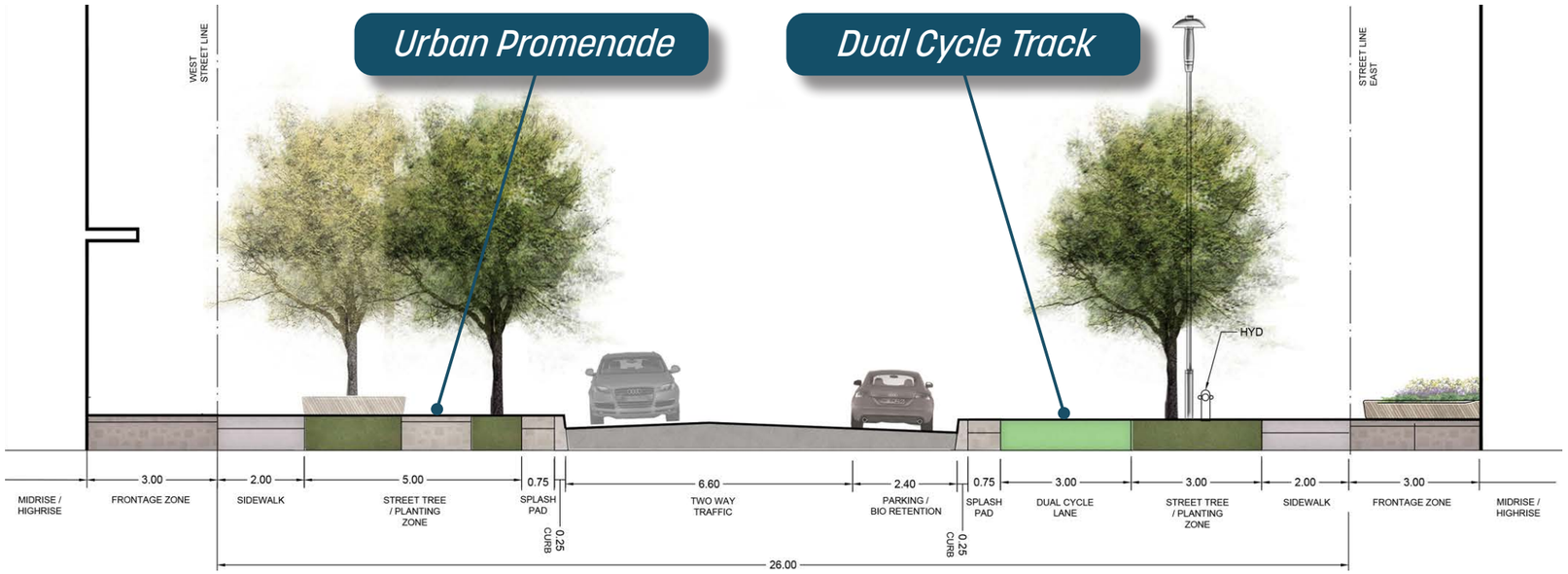
Structure supporting paving system (Soil-Cell)

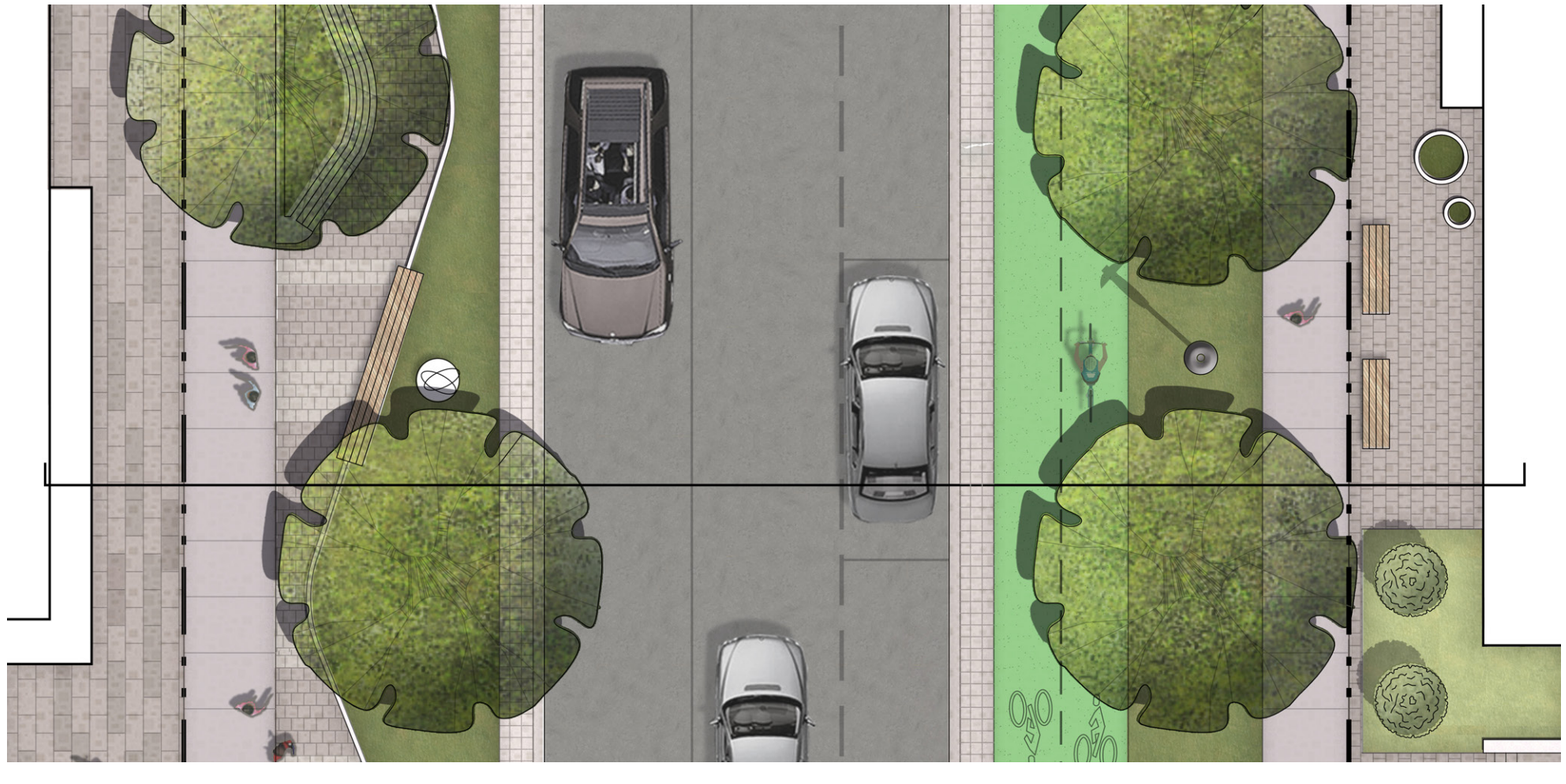


HYDRO ROAD | Special Character Street

Hydro Road, the main character avenue into Lakeview Village where it will directly link Lakeshore Road East with Lakeview Square and the waterfront, is intended to create a unique pedestrian promenade environment within an expanded boulevard along the west side of the street. This promenade will feature a double row of staggered street trees (planted within soil cells) and utilize both raised planters and at grade tree openings, decorative paving, unique lighting (pedestrian standards and in-ground lighting features), street furniture (seating, bike racks), LID functions and public art. The Lakeview Team does not believe it can achieve the same distinctive result and effect by integrating expanded sodded boulevards with double rows of trees on both sides of the street.





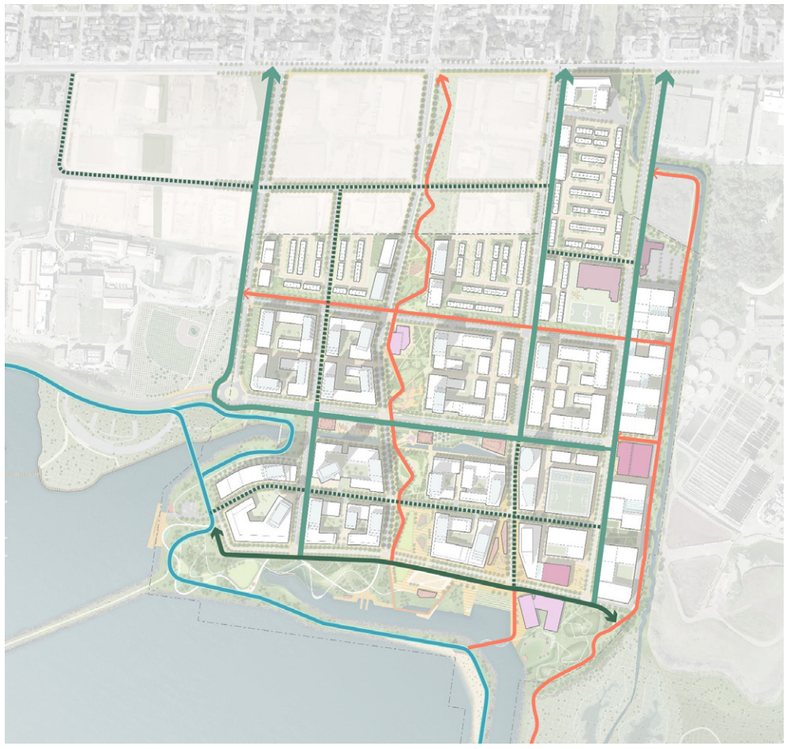


CYCLE TRACKS

Where cycle tracks are proposed, they have been revised from single tracks to dual tracks. The dual tracks are 3.0m in width as per the City's desired minimum width and are buffered from the adjacent travel/parking lanes by a concrete/paver splash pad.

The location of the cycle tracks are primarily in a north-south direction linking commuter cyclists from Lakeshore Road to the Lakefront and vice-versa. Multi-use trails within the parks (Aviator Park and Lakefront Park) along with mixed-traffic-lanes provide recreational cycling corridors for west-east travel.

See responses in Section A and C of the Response Matrix.



Multi-Use Trail
Dual Cycle Track in ROW
Waterfront Trail
Dual Cycle Track in Park/Open Space
Cycle Within Roadway

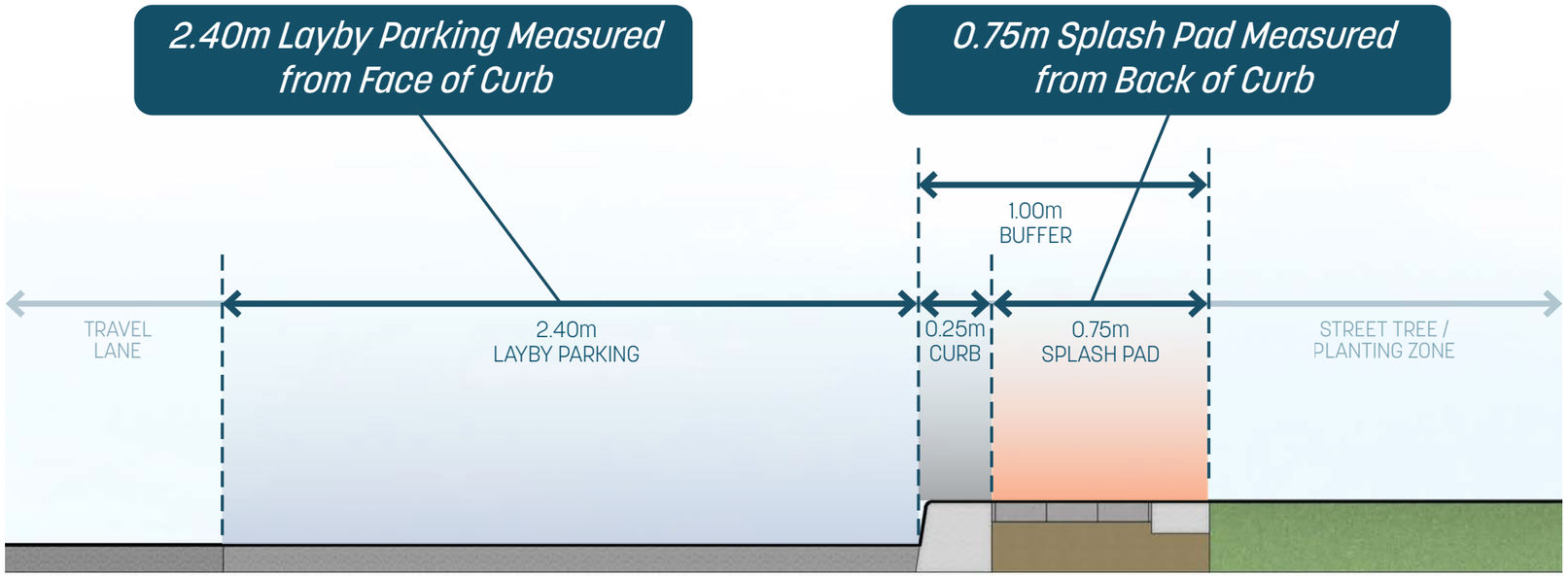
DIMENSIONING

PARKING LANES

Parking lane widths have not changed and remain at 2.4m width measured to face of curb. This is consistent with the City's comments of June 26th, 2020 which identified 2.4m minimum to face of curb (see item K-8 on Page 18 of the Response Matrix).

SPLASH PADS / BUFFERS

Splash pads/buffers are proposed on both sides of the Major Collector Roads and Minor Collector Roads. The Lakeview Team recognizes the City's concern regarding the potential for "dooring" of cyclists by parked vehicles and our x-sections have been revised to reflect a 0.75m width measured to the back of curb (i.e. 1.0m measured to face of curb as per OTM Book 18). Splash pads/ buffers are not proposed on any local streets.



BELMAR, LAKEWOOD, CO
2.40m Layby Parking to Face of Curb

ORENCO STATION, HILLSBORO, OR
2.40m Layby Parking to Face of Curb

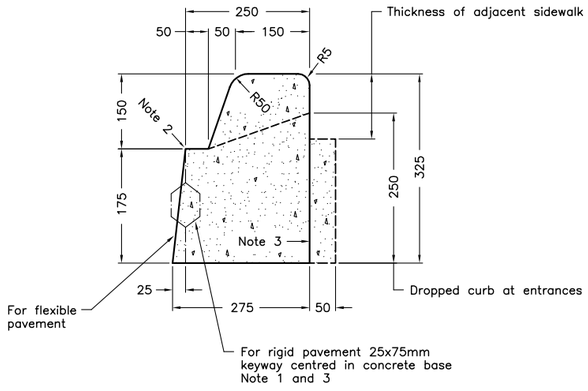
WESBROOK VILLAGE, VANCOUVER, ON
2.40m Layby Parking to Face of Curb

CURBS

CONCRETE CURBS

Sections have been revised to show a barrier curb with narrow gutter. Initial details comprise a barrier curb with narrow gutter (OPSD 600.080) lined with a row of concrete pavers as part of the gutter.

As noted on page 18 of the Response Matrix, the Lakeview Team sees this as a detailed design issue which will not impact the ROW widths as the adjacent lanes, including layby parking, are measured to face of curb and the 0.75m splash pad is measured to back of curb.



OPSD 600.080 DETAIL
Barrier Curb with Narrow Gutter

WEST DON LANDS, TORONTO, ON
Special Curb & No Gutter

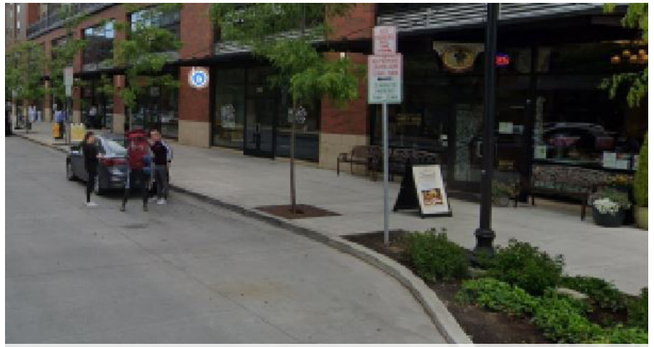
MOUNTABLE CURBS

Mountable curbs are not being proposed due to the following concerns:

- Impact runoff capture for use within the adjacent LID's
- Unnecessarily impact the ability to create compact streets
- Would require curb cuts along the travel lane to direct drainage into the bioswales and with a continuous gutter grade along the curbs, the drainage will likely by-pass the curb cuts making them less effective

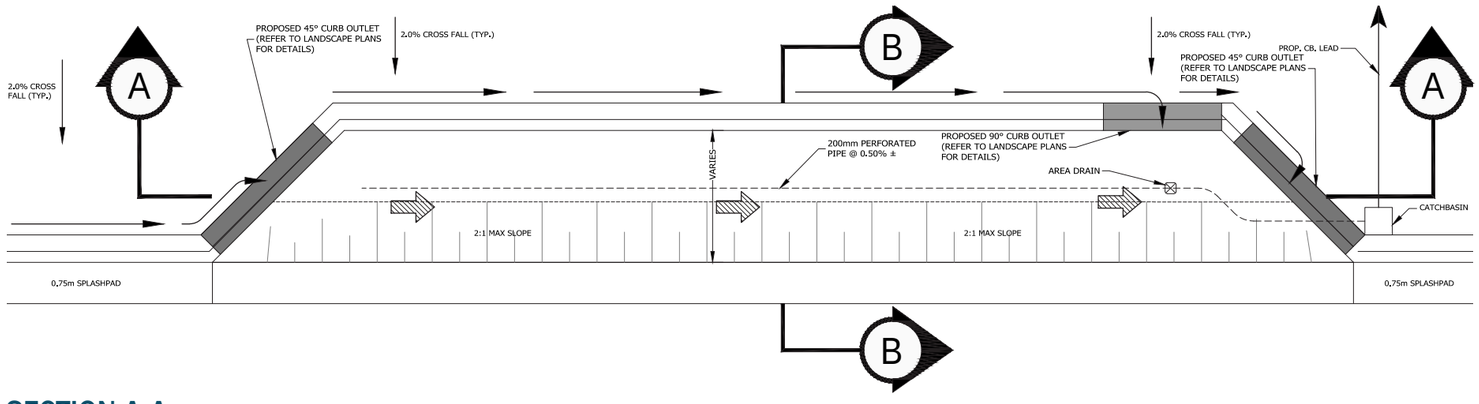
It is important to note that the West Village road designs do not include the mountable curb for the same reasons noted above.

See response K-3 on page 21 of the Response Matrix.

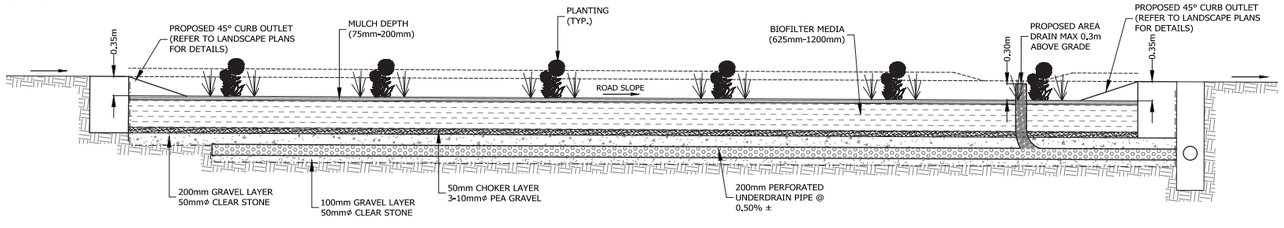


ORENCO STATION, HILLSBORO, OR
No Mountable Curb

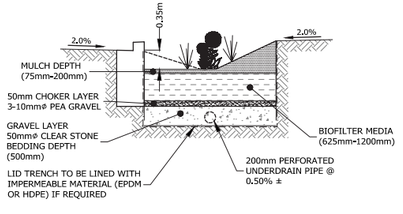
LID PLAN DETAIL



SECTION A-A



SECTION B-B



TRAVEL LANES

The travel lane widths have been revised from those in the April 2020 ROW Package. While the April 2020 ROW Package showed 3.35m lanes for transit routes and 3.3m lanes for non-transit routes, the revised sections reflect a narrowing of travel lane widths for roads with slower posted speeds. This was done to create travel lanes which would cause drivers to naturally slow down through the creation of compact complete street design.

The travel lanes proposed are as follows:

a. Transit Routes
   3.35m width (as per City) 40km/h posted speed

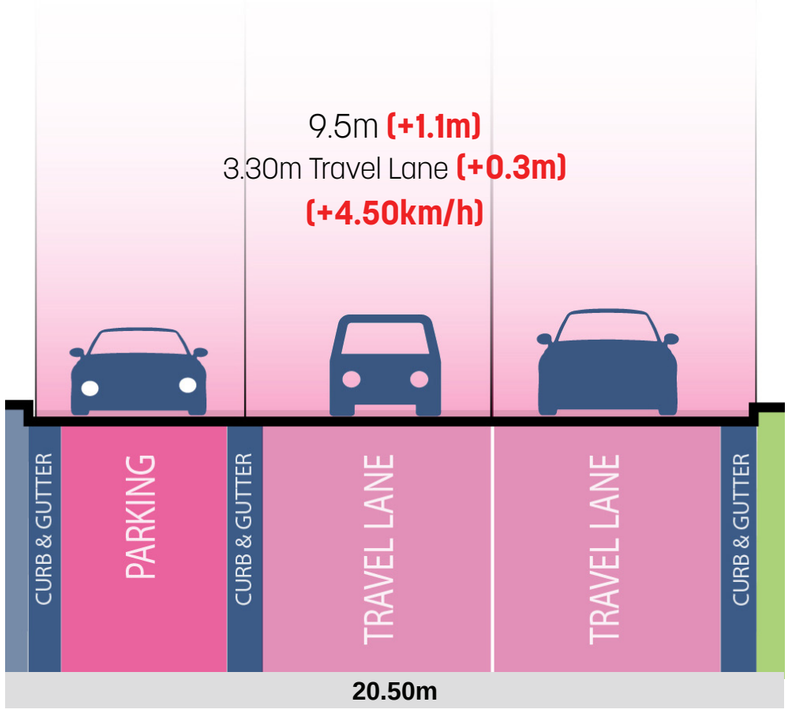
b. Major Collector Roads
   3.30m width (as per City) 40km/h posted speed

c. Minor Collector Roads
   3.25m width 30km/h posted speed

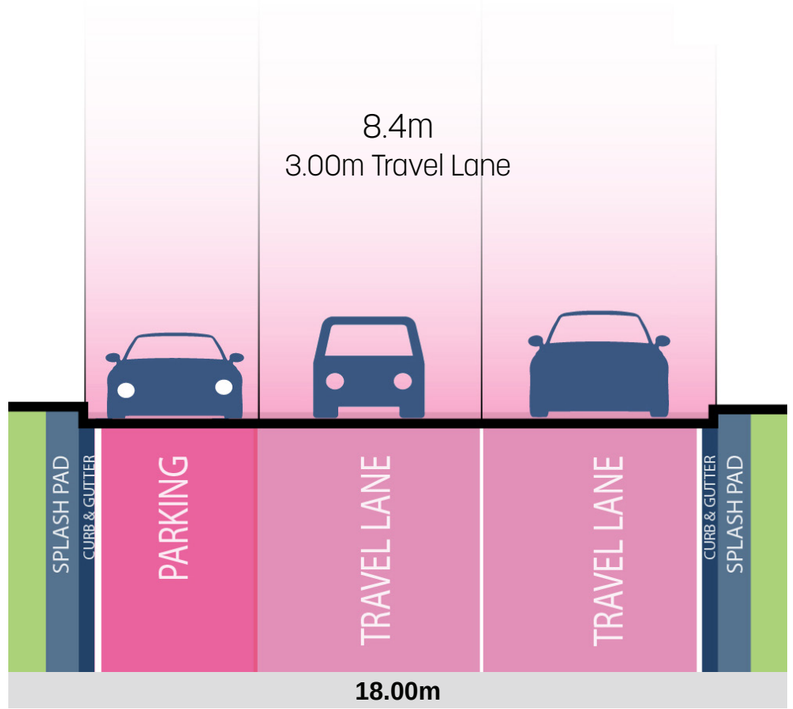
d. Local Roads
   3.00m width 30km/h posted speed

Each of these widths proposed by the Lakeview Team meets the TAC Design Guidelines for Canadian Roads which specifies a practical minimum travel lane width of 2.7m. See Road Design response Section K on page 18 of the Response Matrix.

City's Proposed Local Road



Lakeview Village Local Road



Maximum 3.00m Lane Widths for all Streets with a Posted Speed Limit of 40km/h or Less		Minimum (m)	Target (m)	Maximum (m)
Through Lane	60km/h or more	3.0	3.0	3.5
	50km/h		3.0	3.3
	40km/h or less		3.0	3.0

CITY OF TORONTO | Lane Width Dimensions
Road Engineering Design Guidelines - 2.0 Lane Widths

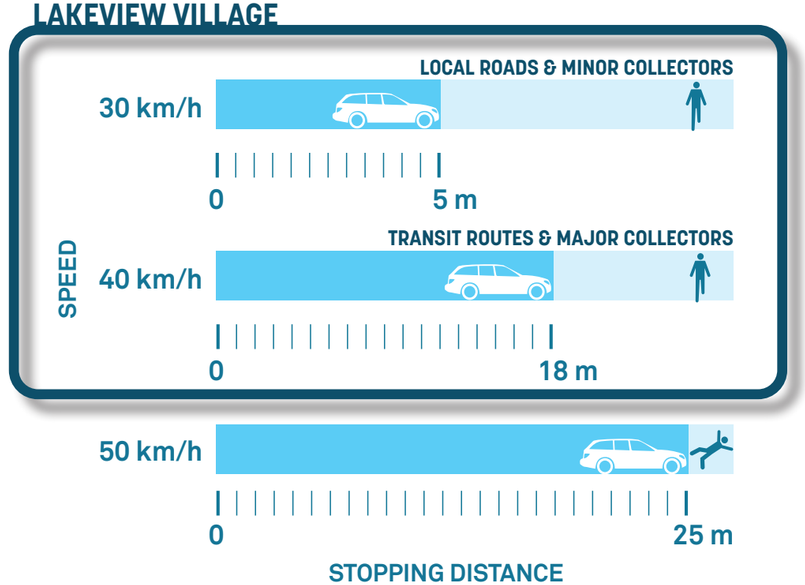
LANE WIDTH ADJUSTMENT FACTOR FORMULA

"Standard" Lane Width
- 3.60m | Lane Width Factor 1.000

Lakeview Village Lane Widths
- 3.30m | Lane Width Factor 0.966
- 3.25m | Lane Width Factor 0.961
- 3.00m | Lane Width Factor 0.933

The proposed lane widths in Lakeview Village will not have a noticeable impact on the capacity of the roadways. The reduced lane widths will have an overall positive impact for all road users. From a safety perspective, narrower lanes reduce speeds, shorten mid-block pedestrian crossing distances, and generally make for a better environment for non-auto modes. See Section K-2 on page 18 of the Response Matrix.

LAKEVIEW VILLAGE



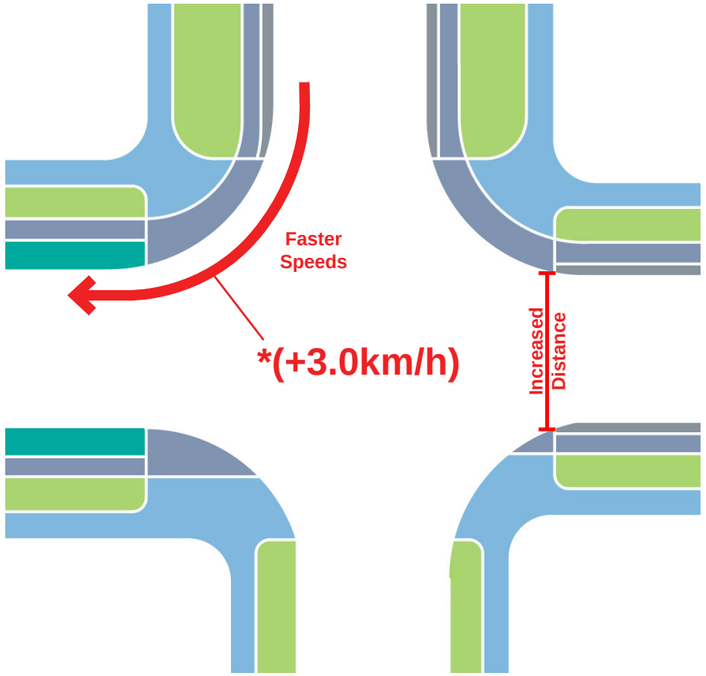
CURB RADII

While curb radii were not identified as an issue in the City's June 26th comments, it was raised subsequently by City staff to be a potential issue. The Lakeview figures contained in the April 2020 submission, as well as the current ROW Package identify a curb radii of 8.0m at all intersections except for the two 12.0m radii locations shown on the plan below. This has been proposed from a safety standpoint to promote slower vehicle speeds through intersection turns, as well as to reduce pedestrian crossing distances/times at the intersections. Examples of smaller curb radii are presented on pages 6,9, 13 & 16 of the attached Presentation and discussion took place on this item as part of the September 24th workshop.

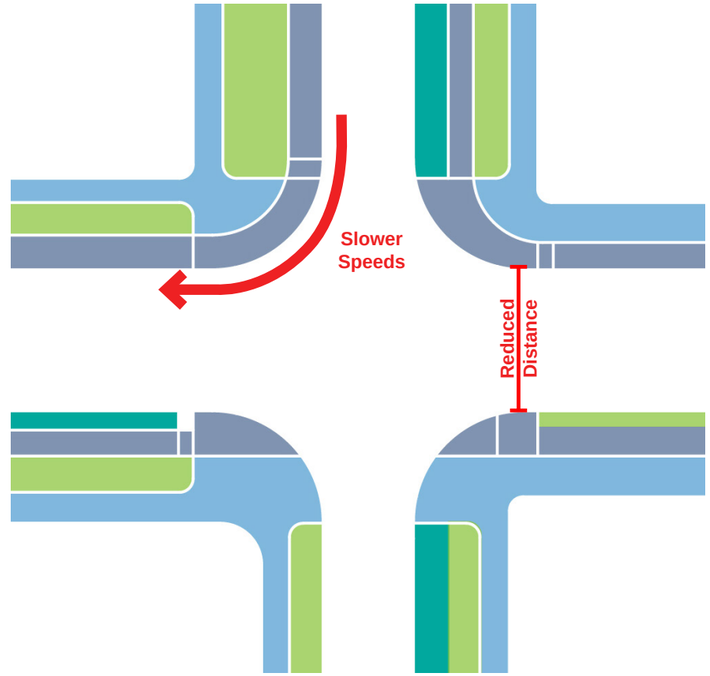
12.0m Corner Radii

*8.0m Corner Radii Proposed at All Other Intersection Roundings

City's Proposed 12.0m Corner Radii



Lakeview Village 8.0m Corner Radii



Larger corner radii increase turning velocity, pedestrian crossing distances, and negatively impact pedestrian and cyclist safety.

Turning Velocity Summary

R8.0m = ~21.0km/h
R12.0m = ~24.0km/h

ORENCO STATION, HILLSBORO, OR
6.50m Curb Radii

SUTER BROOK VILLAGE, PORT MOODY, BC
8.00m Curb Radii

UTILITY CORRIDOR

Significant discussion has taken place to date between the Lakeview Team and City/Region staff. As identified in the Response Matrix (Appendix C) and shown on the attached Utility Location Plan (Appendix B), all buildings/blocks can be serviced by a joint utility corridor on one side of the roadway with only seven (7) instances where road crossings would be needed to service a building from the far side of the roadway.

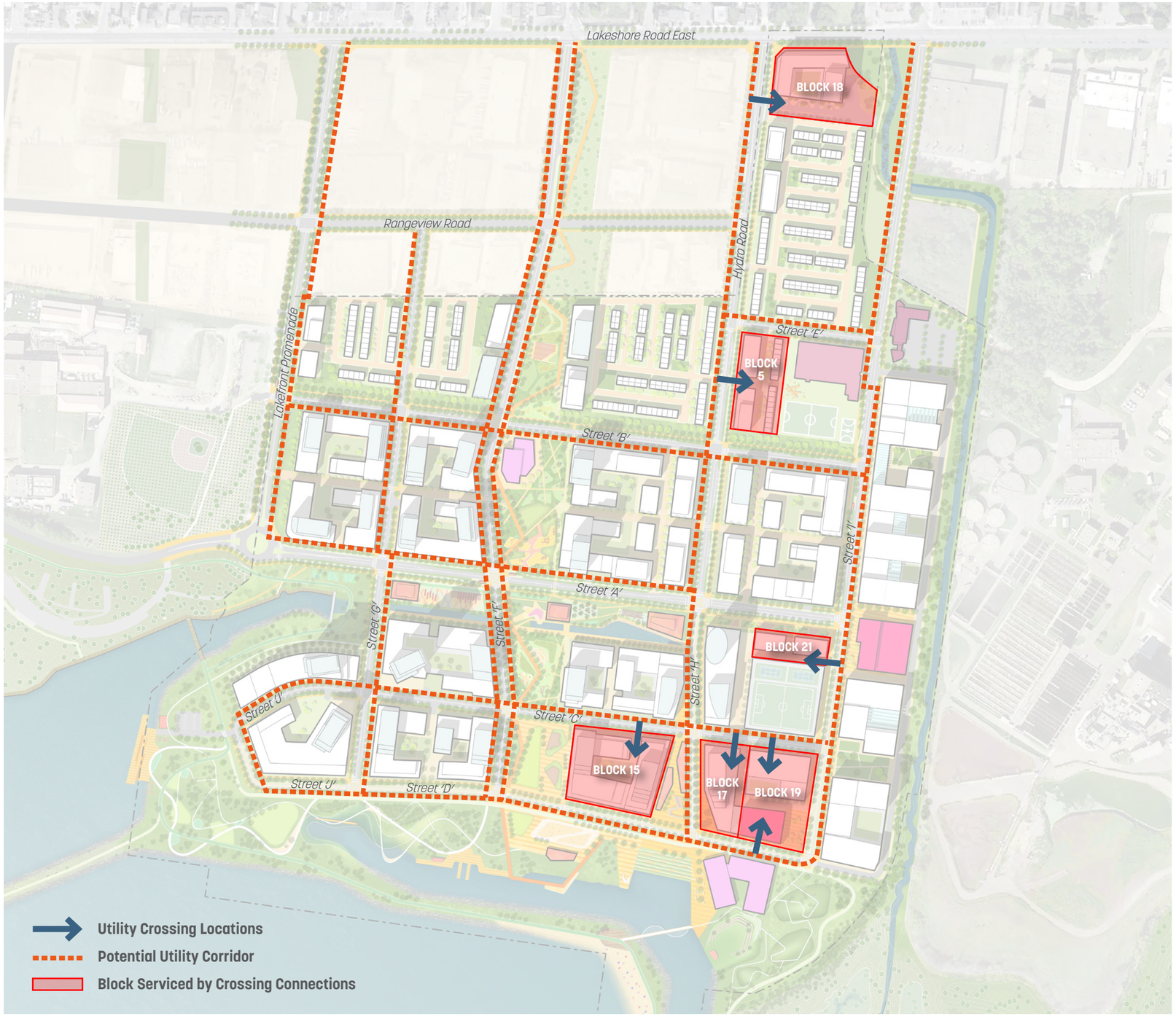
Given that there will be over 100 buildings to be serviced within Lakeview Village, the Lakeview Team believes it would be unnecessarily excessive to incorporate joint utility corridors on both sides of the road, in order to accommodate 7 crossings.

The attached Utility Location Plan has been updated, as requested by the Region of Peel, to show anticipated service locations to each building. As demonstrated, ample room exists for these connections given the large block sizes.

It is important to note that a joint utility corridor on one side of the roadway was approved for West Village. LCPL is looking to the City to advise the Utility Companies that this arrangement will be utilized for Lakeview Village as well.

Please reference Utility Location Plan located in Appendix B and Response Matrix response F-1 on page 13.

UTILITY CORRIDOR LOCATION
Demonstration Within ROWs



SCHOOL PICK-UP/DROP-OFF

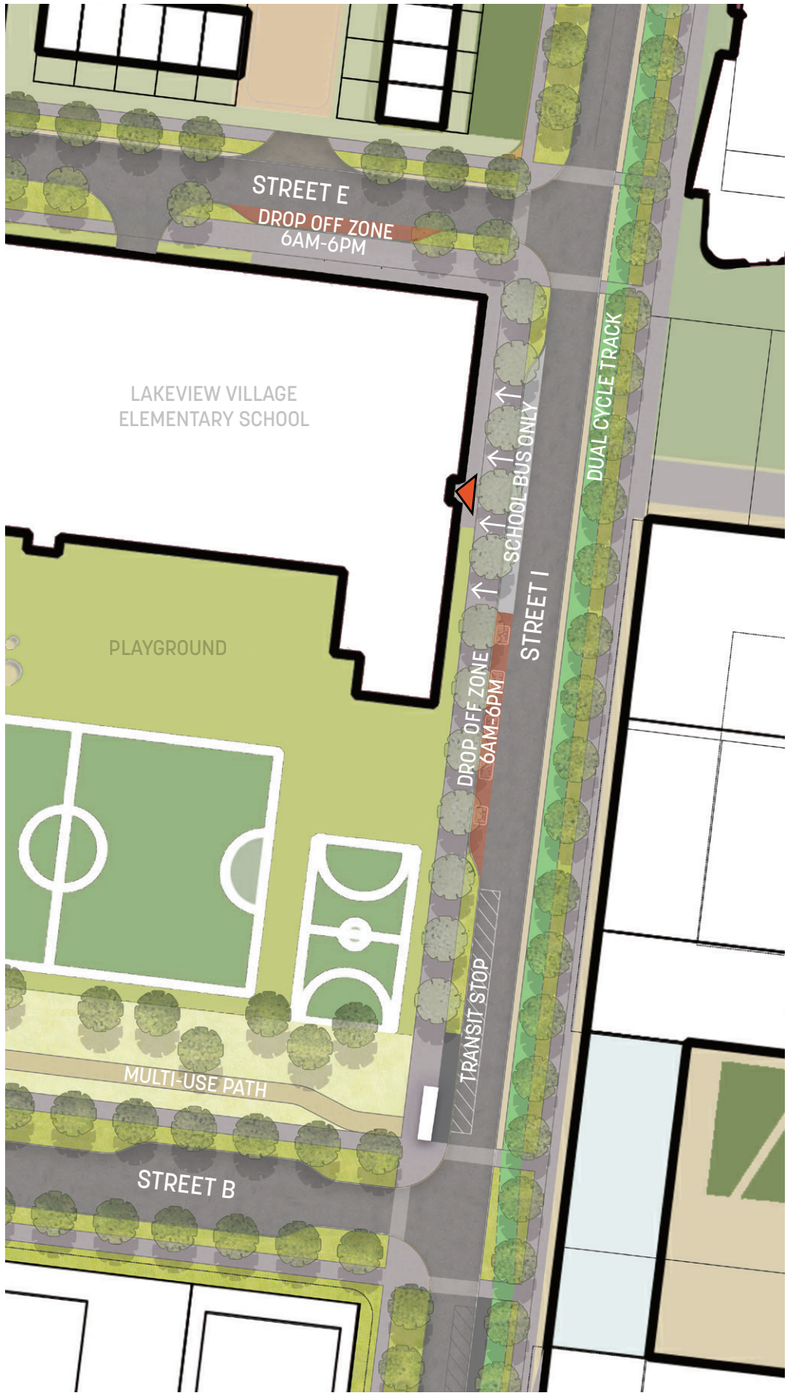
School Pick-Up and Drop-Off zones have been identified within the adjacent roadways, along with bus zones and parking laybys.

It is the objective of Lakeview Village to prioritize sustainable travel behaviours from day-one, in particular the use of active transportation for accessing local services. This objective is reflected in the Mississauga Official Plan policies for the Lakeview Waterfront Major Node Character Area (LWMNCA) which provides high-level direction on community objectives for the Lakeview Village project.

At this early stage, implementing an urban school design that accommodates a dedicated parent drop-off will enable the unnecessary use of the automobile and undermine other measures to promote walking and cycling to and from school. Although automotive drop-off is to be discouraged, there remains the ability for curbside drop-off for the occasional/necessary trip (ex. a student has a large school project) that will provide safe and practical access.

It is anticipated that all future students (grades K-8) will live within the Lakeview Village and Rangeview lands and will be within walking distance of the proposed public school. This is supported by the PDSB re-zoning comments which identified that the Lakeview Village lands alone will generate 718 students grades K-5 and 308 students grades 6-8. Given this assessment, it is likely that few, if any students, will be coming from beyond the limits of the LWMNCA. In other words, the compact built form and density planned for the LWMNCA generates a tighter catchment area for the proposed school compared to a typical suburban school, thus reinforcing the ability for walking and cycling. As such, parent automobile drop-off is not anticipated to be a necessity to support the function of the proposed school in terms of accommodating transportation needs for future students.

Lakeview Village represents an opportunity to proactively design for healthy, sustainable transportation behaviours and, in this instance, the proposed urban school concept will contribute to a culture of walking and biking for young people and their families. The proposed urban school design without an on-site parent automobile drop-off is therefore appropriate and desirable.



LAKEVIEW VILLAGE

ROW DISCUSSION

SEPTEMBER 24, 2020
(WITH ADDITIONAL ROW SECTIONS)

GREAT **COMPACT** URBAN STREETS

Why it's important

What are the fundamental components and principles

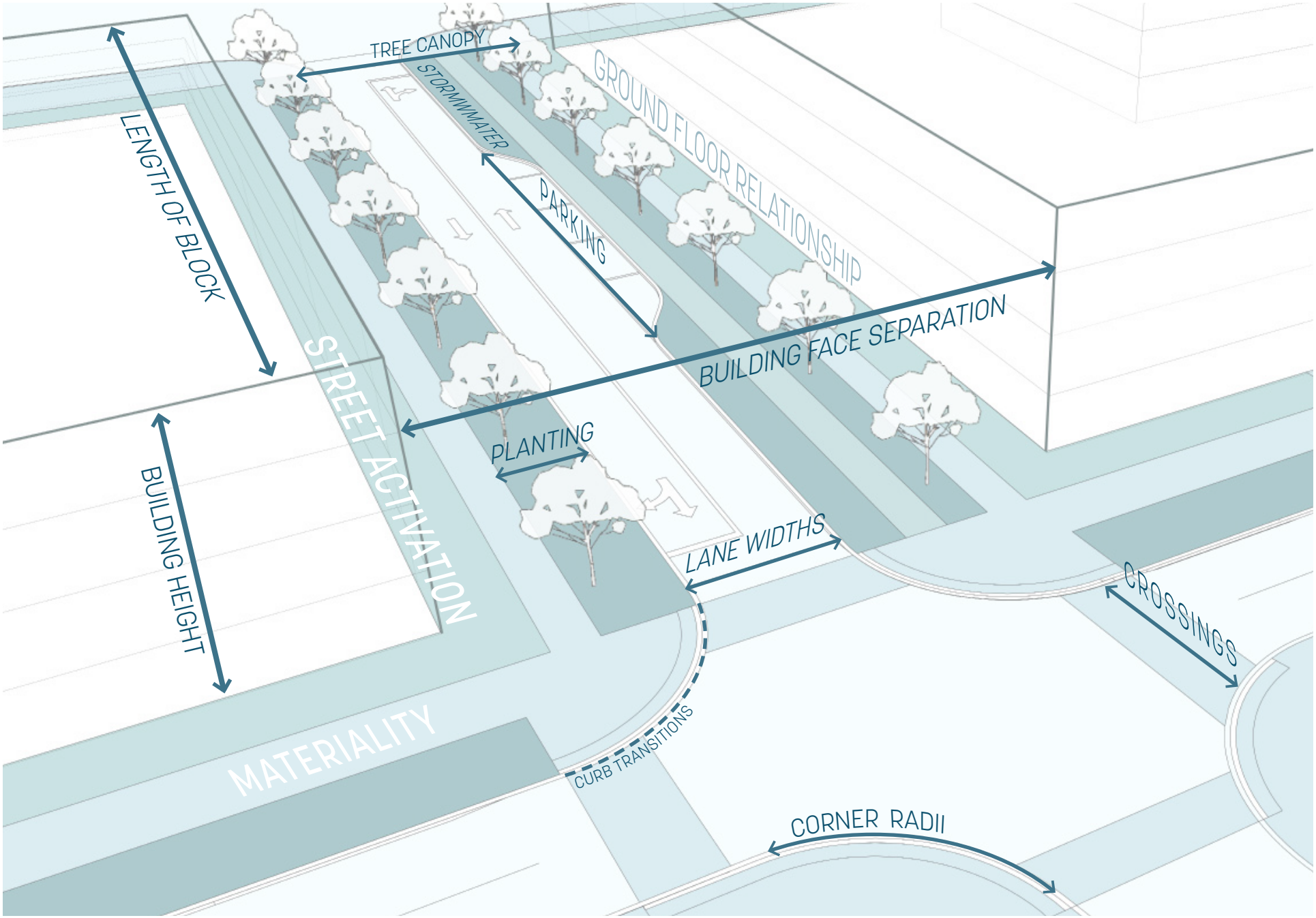
How do we get there | Proposed street sections

COMPLETE STREETS

" Streets that are designed to be safe for everyone : people who walk, bicycle, take transit, or drive, and **people of all ages and abilities.**

A Complete Streets policy ensures that transportation planners and engineers consistently design and operate the entire street network for **all road users,** not only motorists. "

STREETSCAPE COMPONENTS



SUTER BROOK VILLAGE, PORT MOODY, B.C.

SUTER BROOK VILLAGE, PORT MOODY, B.C.

*approx dimensions

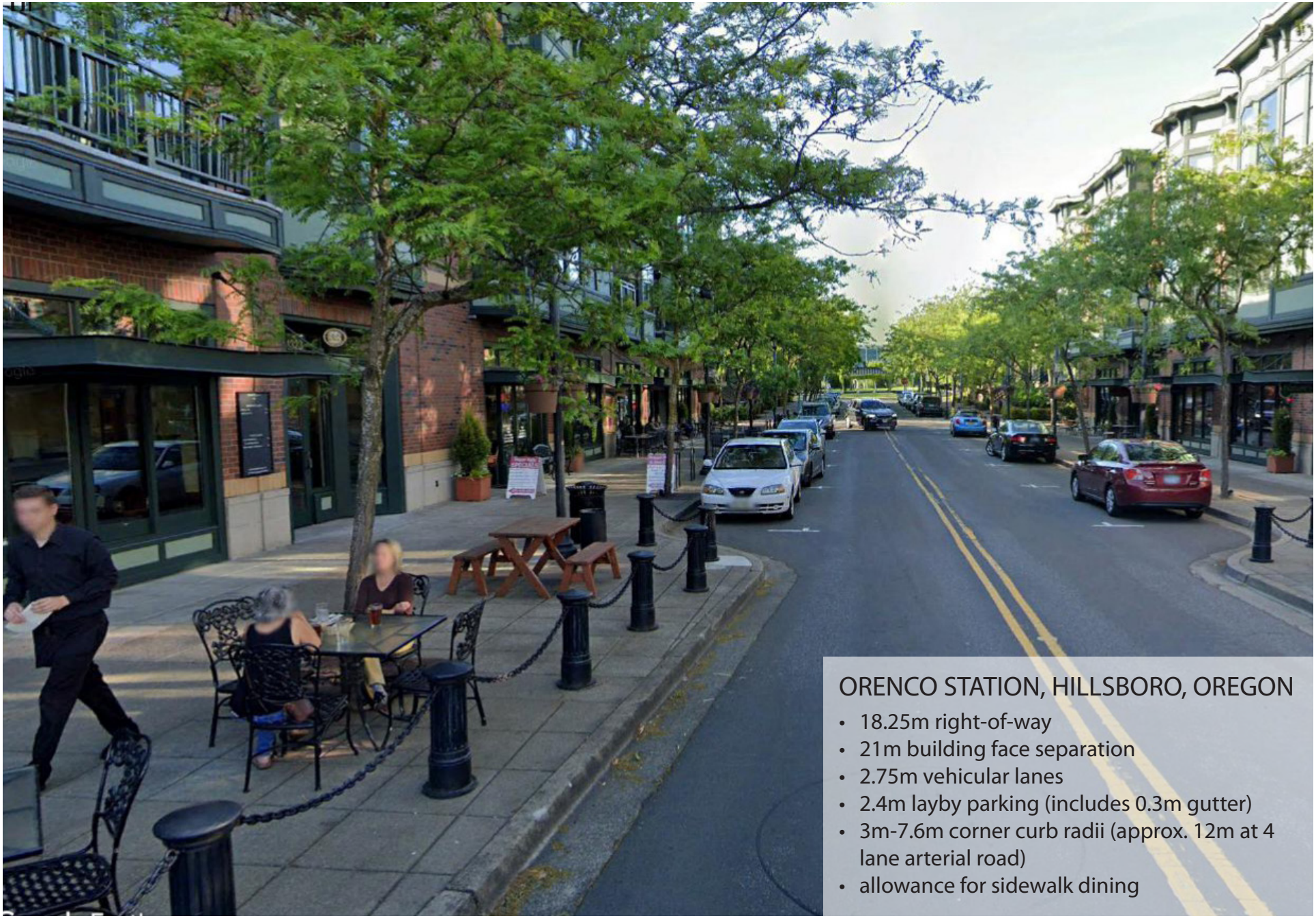
SUTER BROOK VILLAGE, PORT MOODY

- 18.5m commercial street right-of-way
- 2.4m layby parking (to curb face)
- parking on both sides
- 5.7m vehicular travel lanes (2-way)
- generally, 22m building face separation

ORENCO STATION, HILLSBORO, OR.

ORENCO STATION, HILLSBORO, OR.

*approx dimensions



ORENCO STATION, HILLSBORO, OREGON

- 18.25m right-of-way
- 21m building face separation
- 2.75m vehicular lanes
- 2.4m layby parking (includes 0.3m gutter)
- 3m-7.6m corner curb radii (approx. 12m at 4 lane arterial road)
- allowance for sidewalk dining

WESBROOK VILLAGE, UBC, VANCOUVER, B.C.

WESBROOK VILLAGE, UBC, VANCOUVER, B.C.

*approx dimensions

WESBROOK VILLAGE, UBC, VANCOUVER

- 18.5m neighbourhood collector with transit
- 16.9m local street with parking on both sides
- 2.4m layby parking on collectors / 1.85m layby parking on local streets
- 6.0m local street shared travel lane (2-way)
- 6-7m corner curb radii along main neighbourhood collector

BELMAR, LAKEWOOD, CO.

BELMAR, LAKEWOOD, CO.

*approx dimensions

BELMAR, LAKEWOOD, CO.

- 21.5m main street commercial right-of-way
- 23.5m building face separation
- 2.4m layby parking to face of curb
- 5.5m travel lanes (2-way)
- 4.6m corner radii along main street

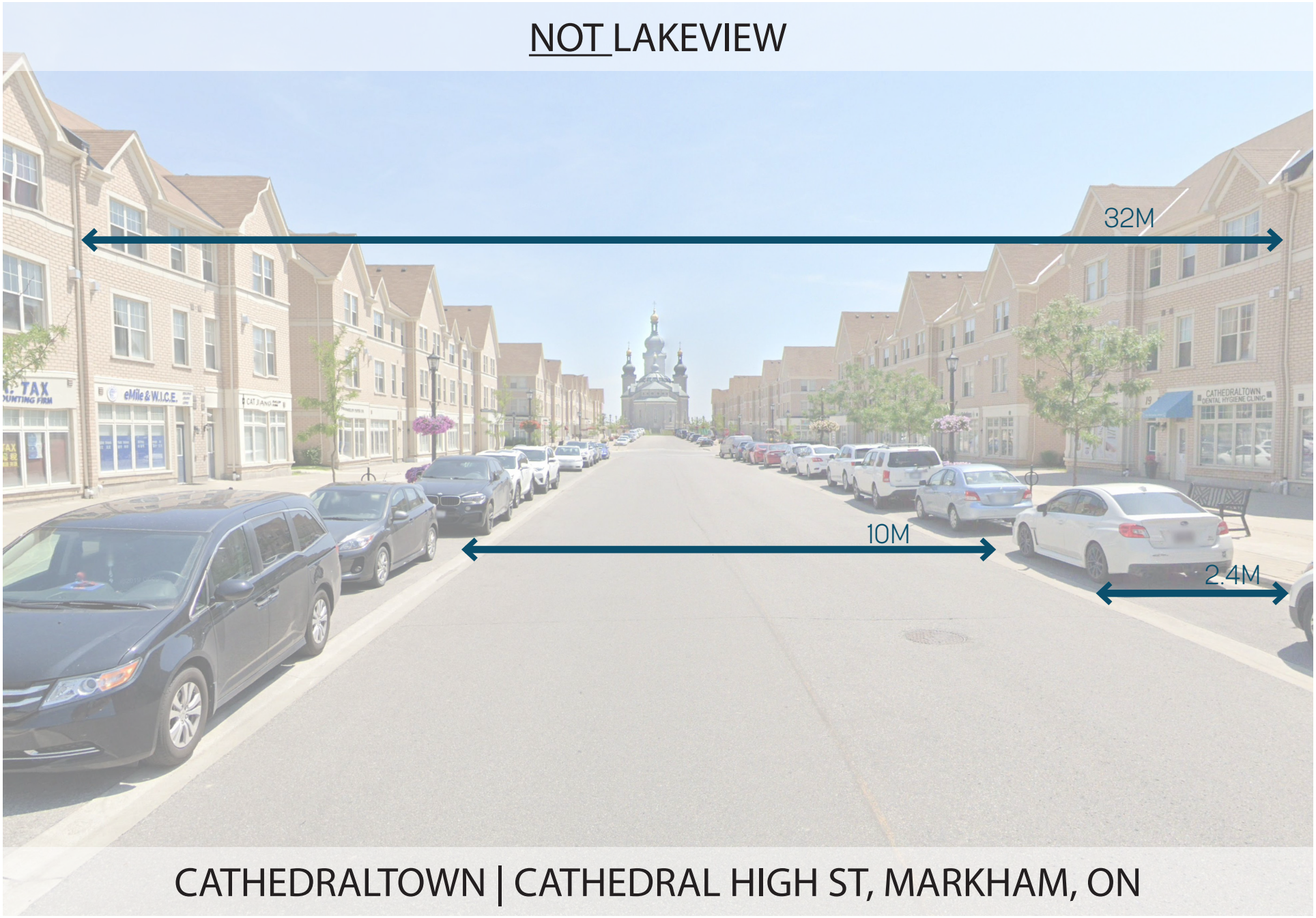
PALACE STREET | CANARY DISTRICT, TORONTO, ON

PALACE STREET | CANARY DISTRICT, TORONTO, ON

*approx dimensions

NOT LAKEVIEW

CATHEDRALTOWN | CATHEDRAL HIGH ST, MARKHAM, ON

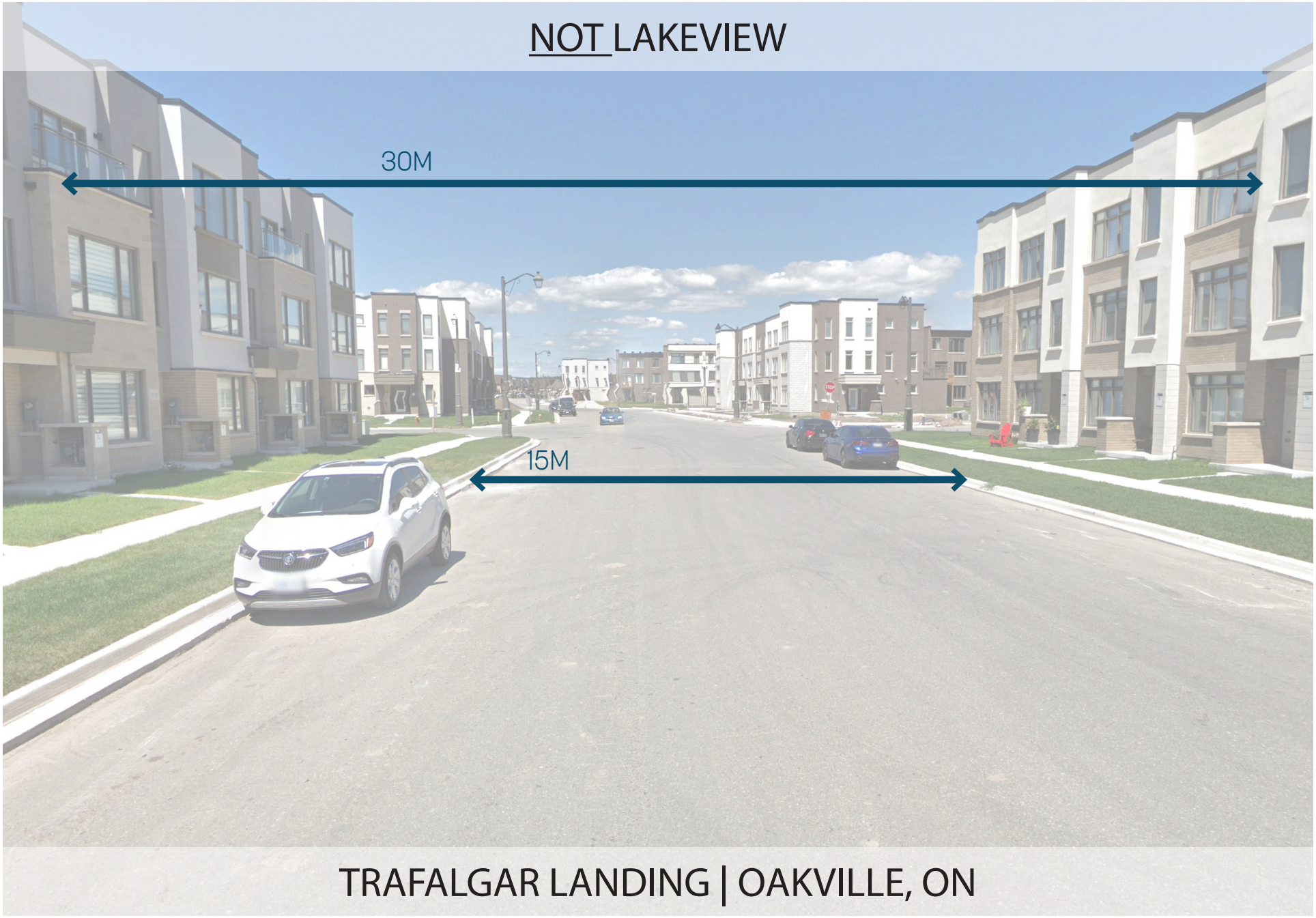


*approx dimensions

NOT LAKEVIEW

CATHEDRALTOWN | CATHEDRAL HIGH ST, MARKHAM, ON


NOT LAKEVIEW
TRAFALGAR LANDING | OAKVILLE, ON



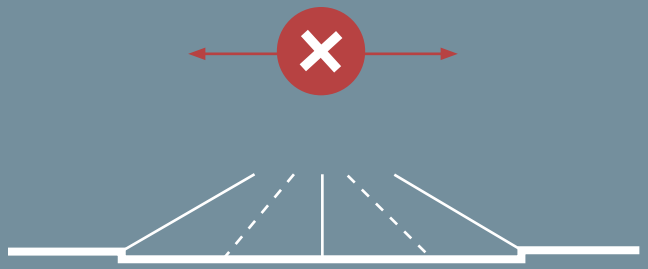
*approx dimensions

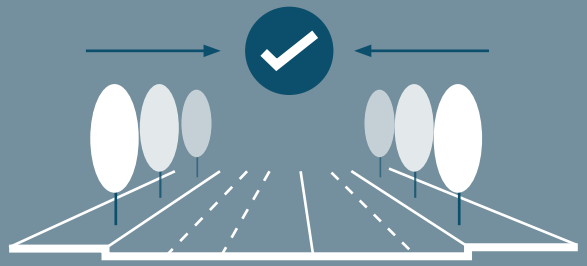
NOT LAKEVIEW

TRAFALGAR LANDING | OAKVILLE, ON

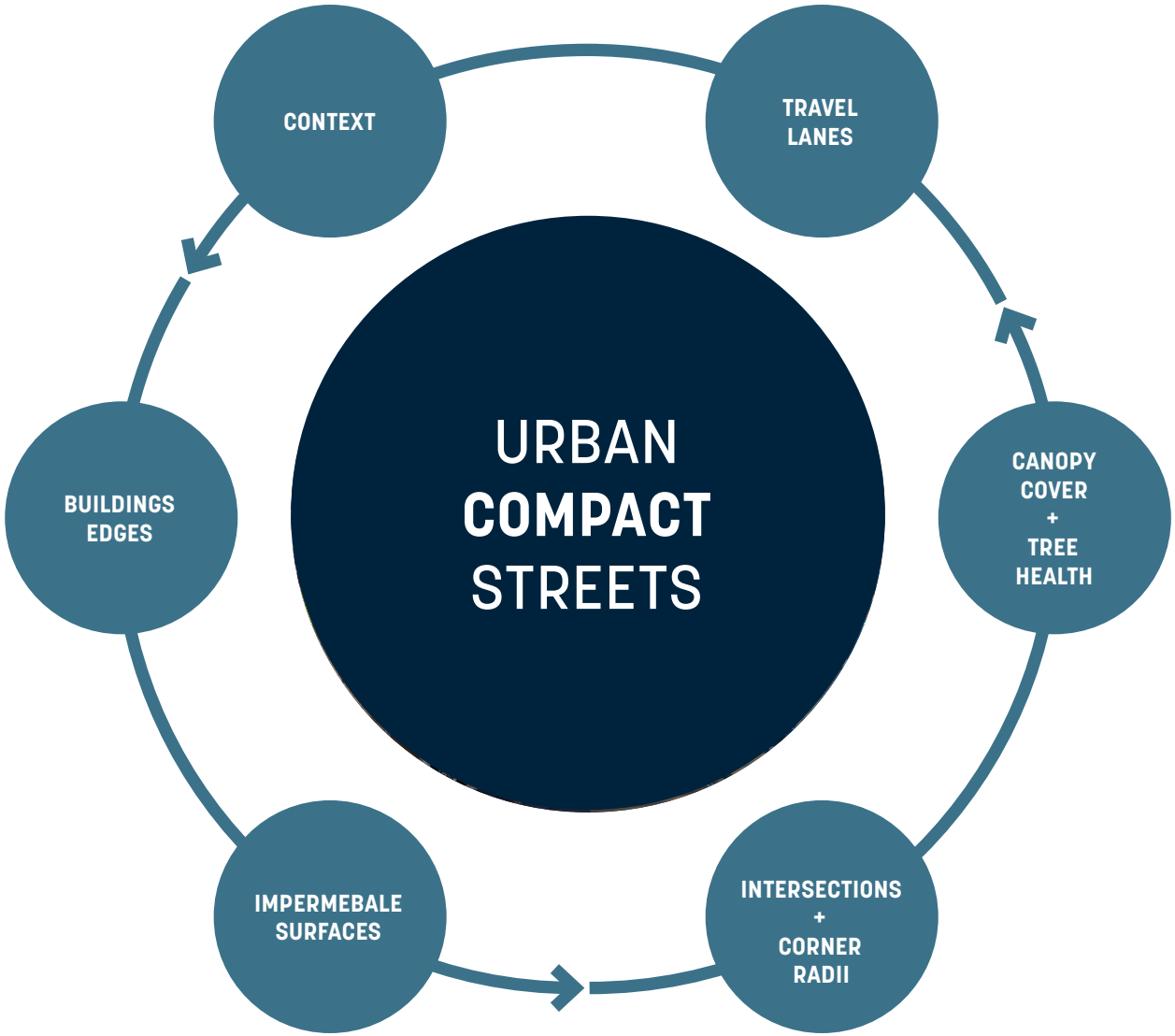
LAKEVIEW VILLAGE
ROW STANDARDS

GUIDING PRINCIPLES





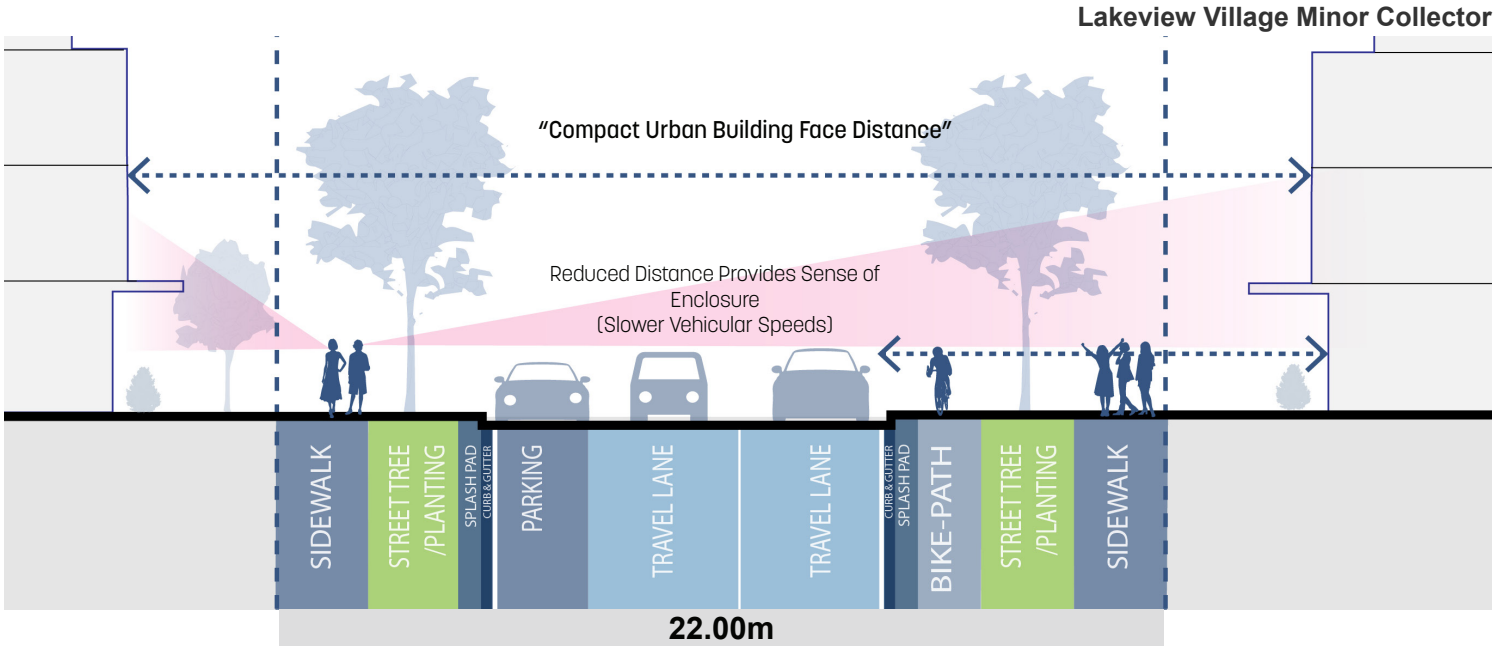
PRINCIPLES OF A COMPACT STREETSCAPE

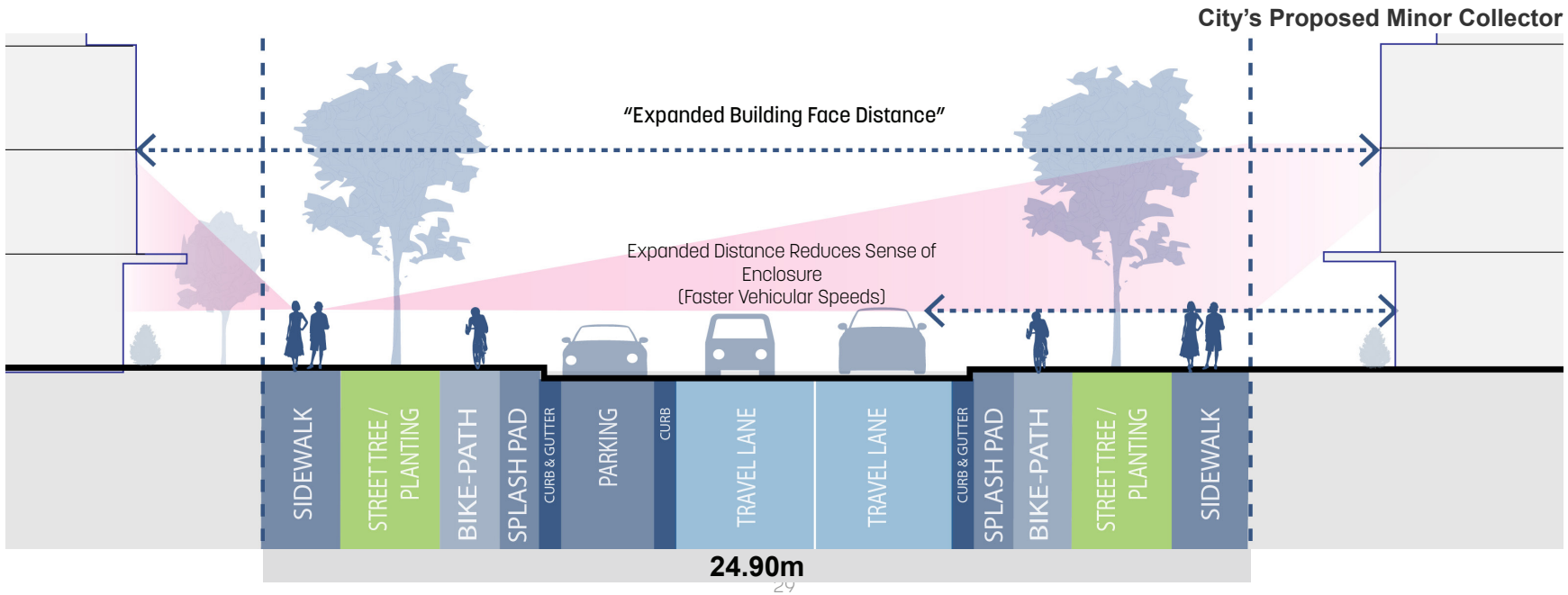


CONTEXT

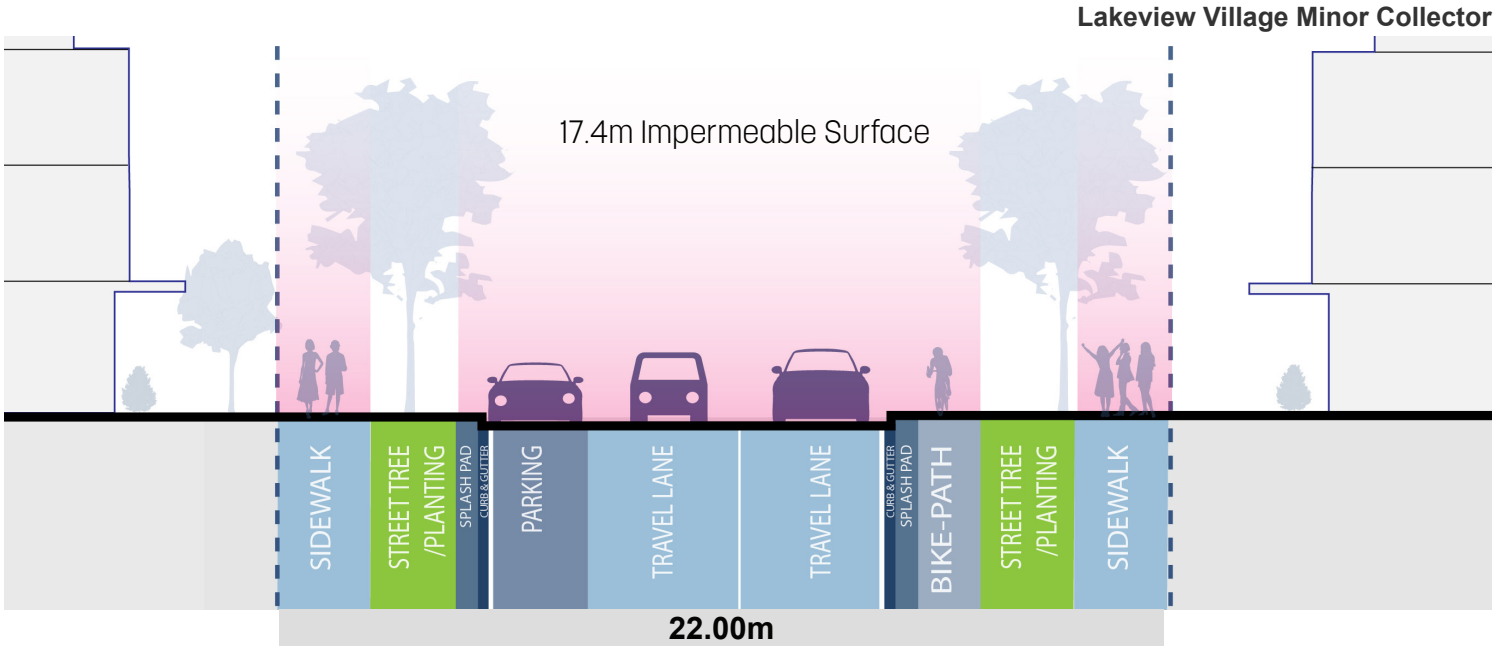

West Village
~19.0m
Local Road
Liberty Village
~16.5m
Local Road
Regent Park
~15.0m
Local Road
West Don Lands
~19.0m
Local Road
N

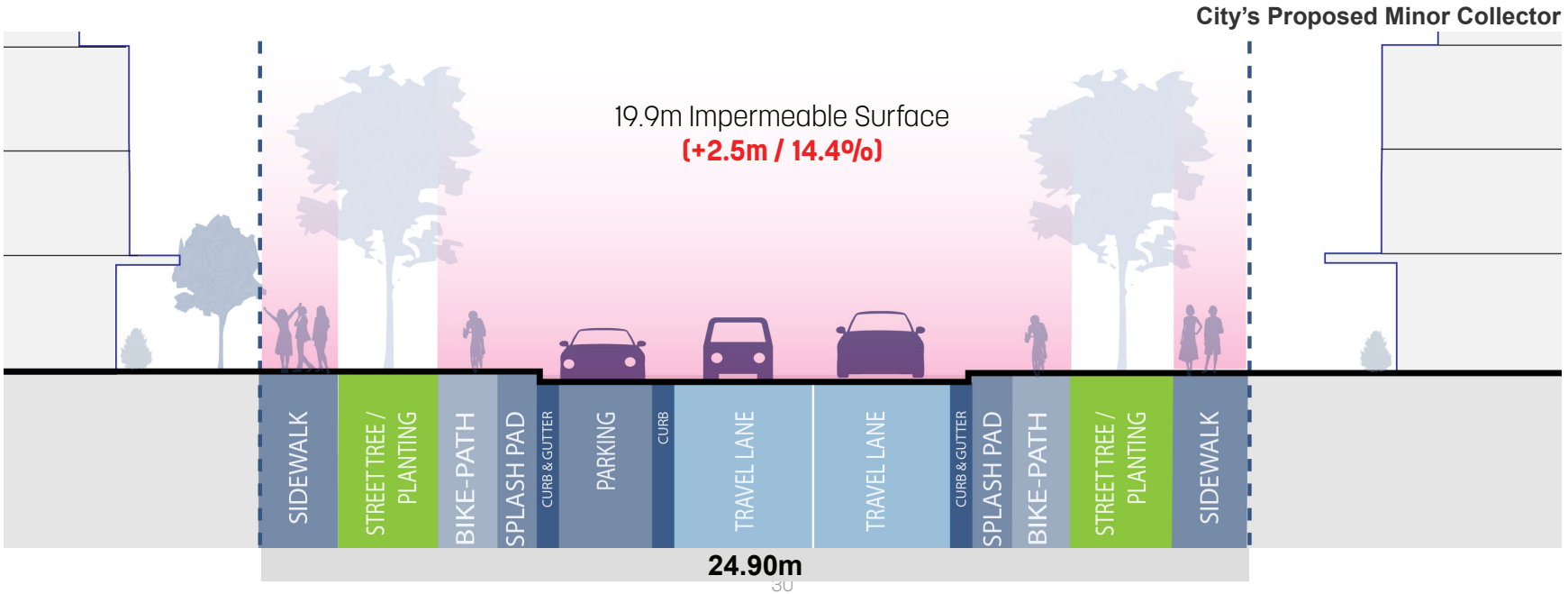
BUILDINGS EDGES



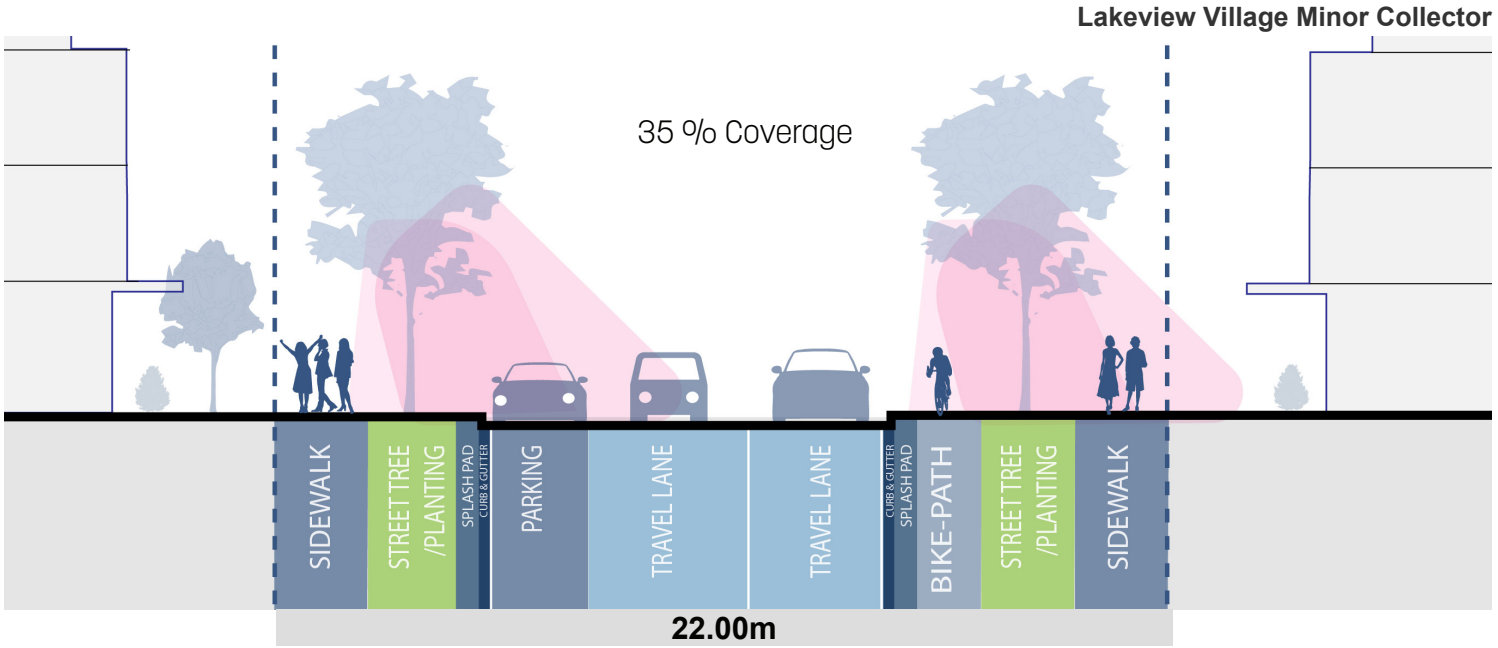


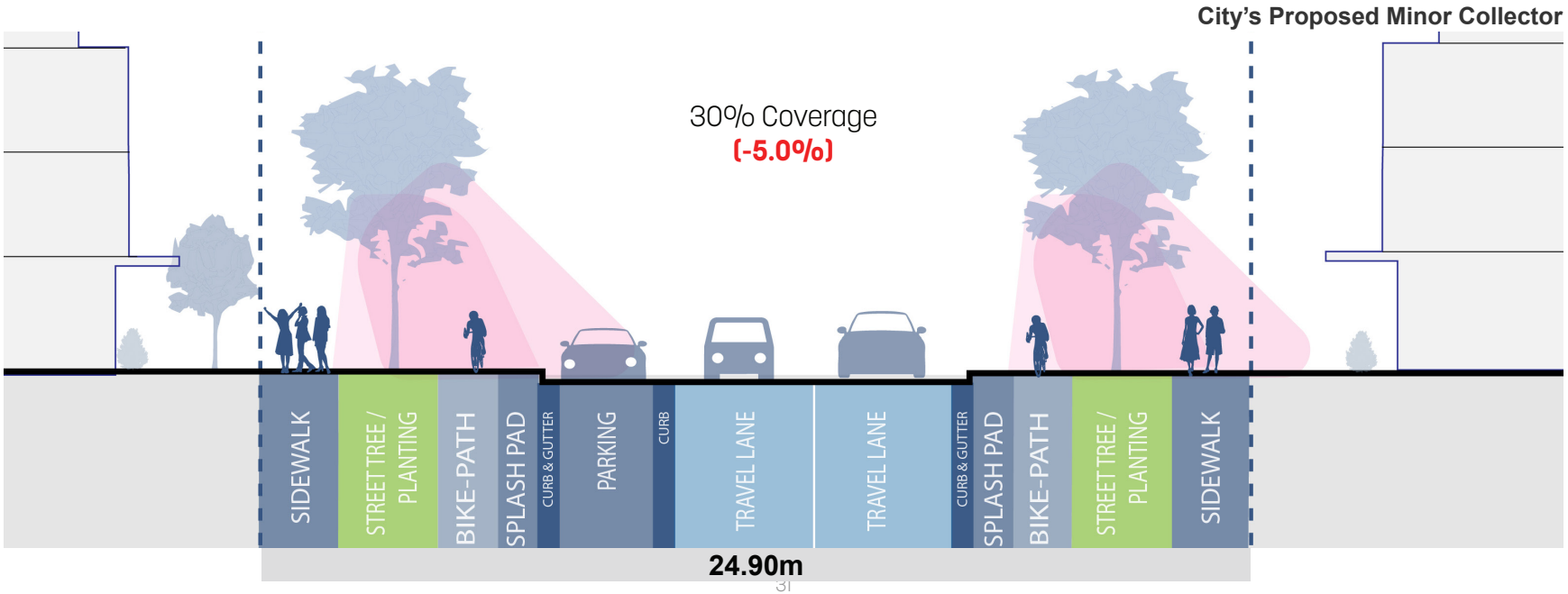
IMPERMEABLE SURFACES





CANOPY COVER





STREET TREES

Tree Species

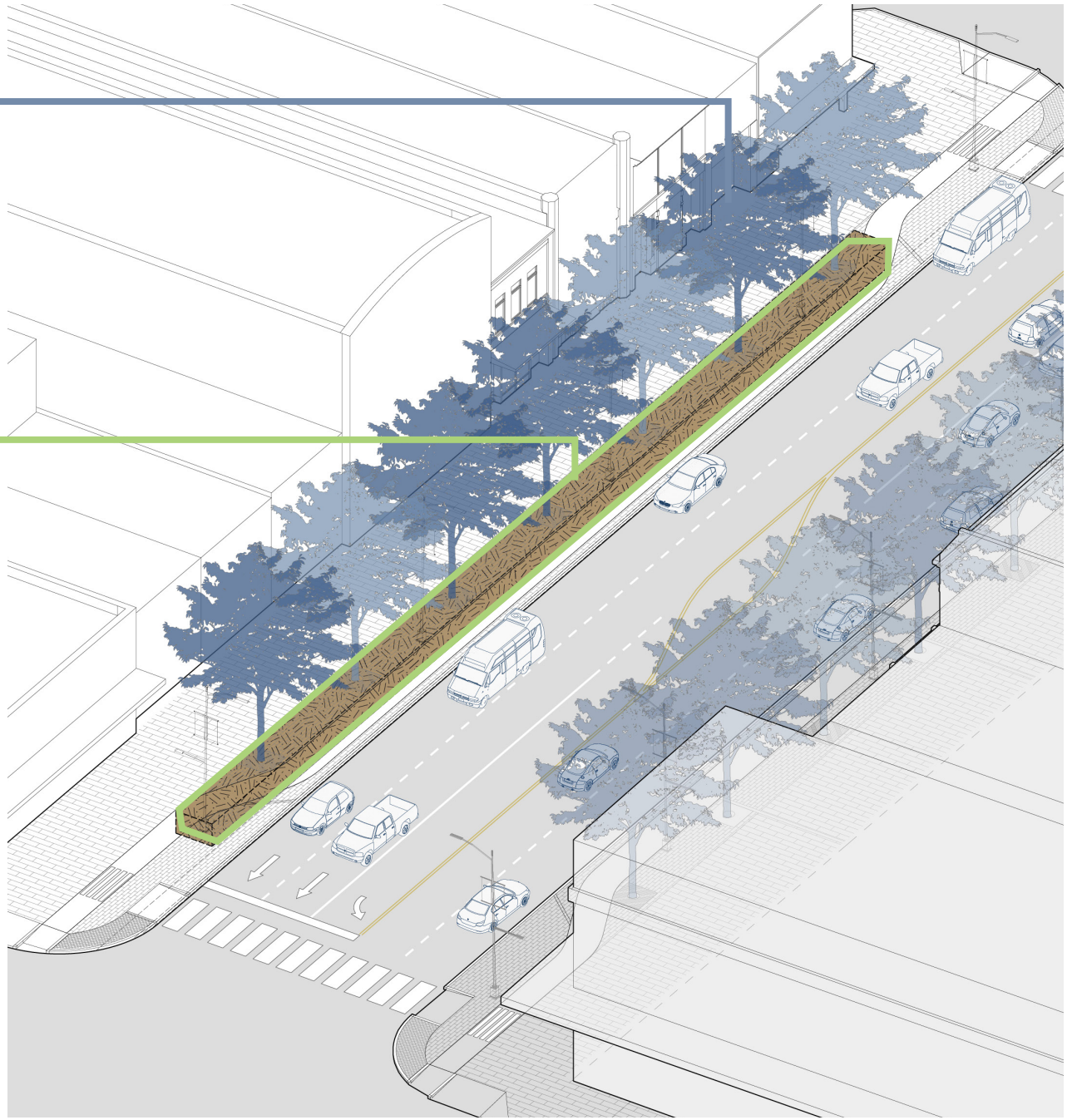
Species that are appropriate for the climate and urban environment

Soil Composition

Specified soil compositions to maximise tree health + growth.

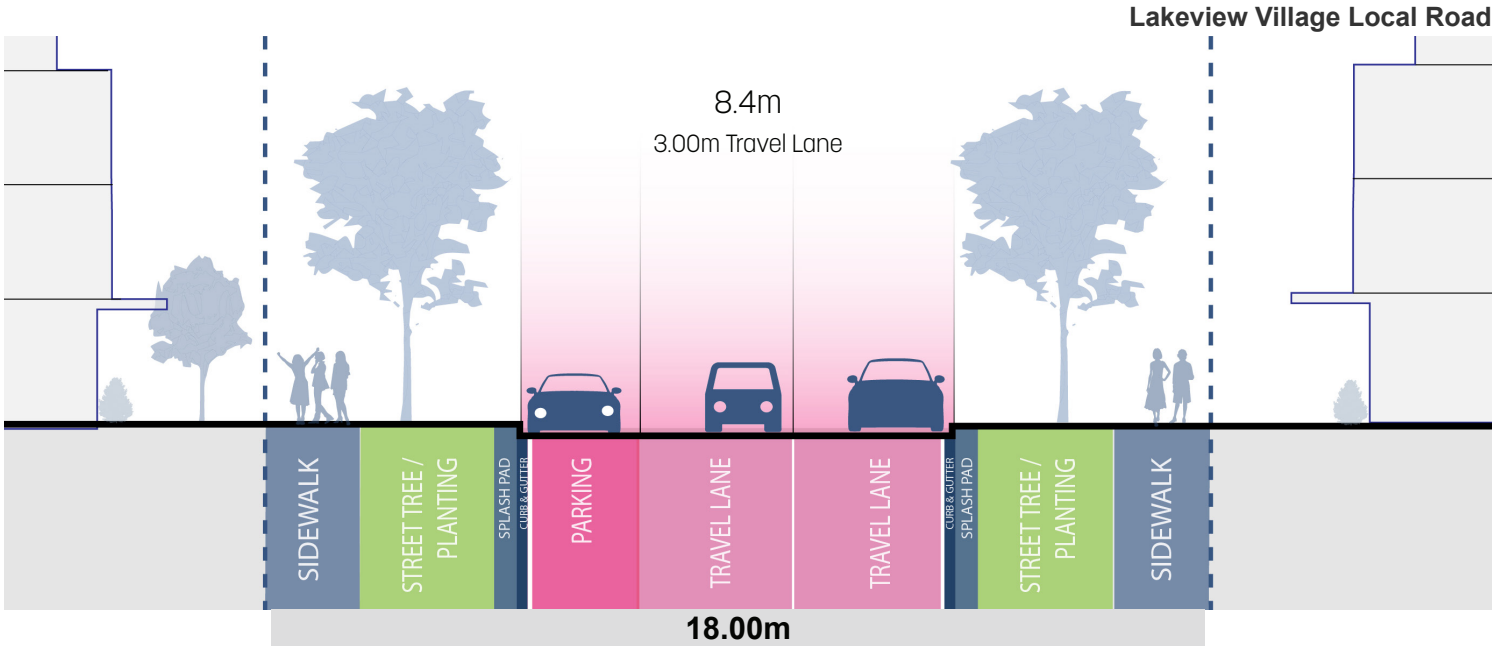
Soil Volume

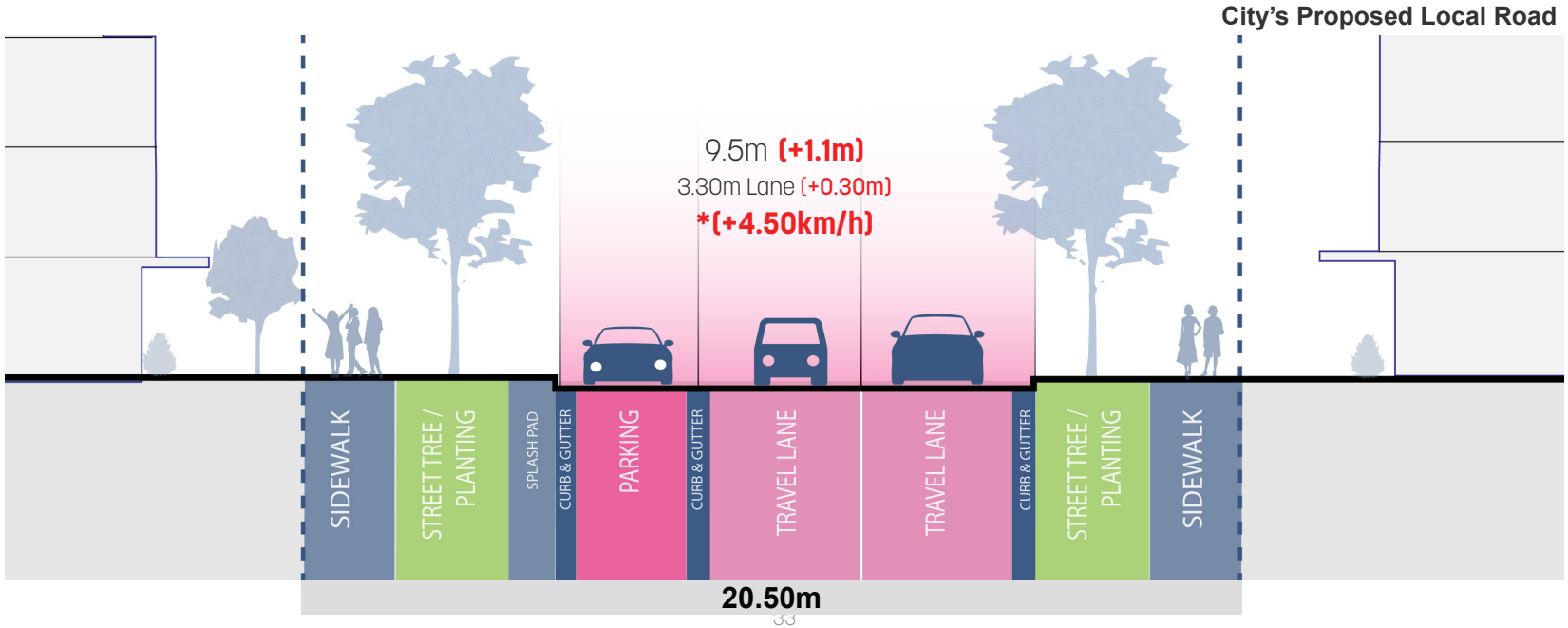
The provision of a continuous soil trench. Where ROW widths are tight, or the surface treatment is paved, the use of soil-cell



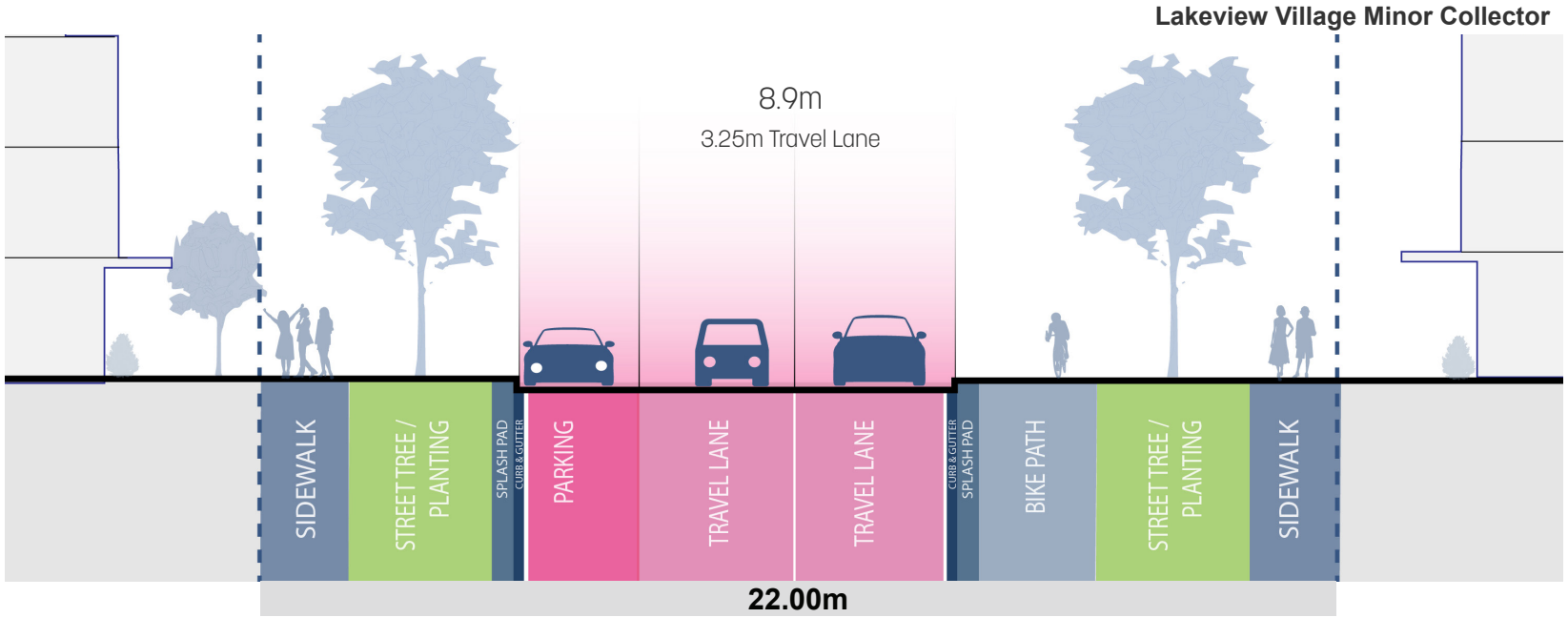
Structure supporting paving system (Soil-Cell)

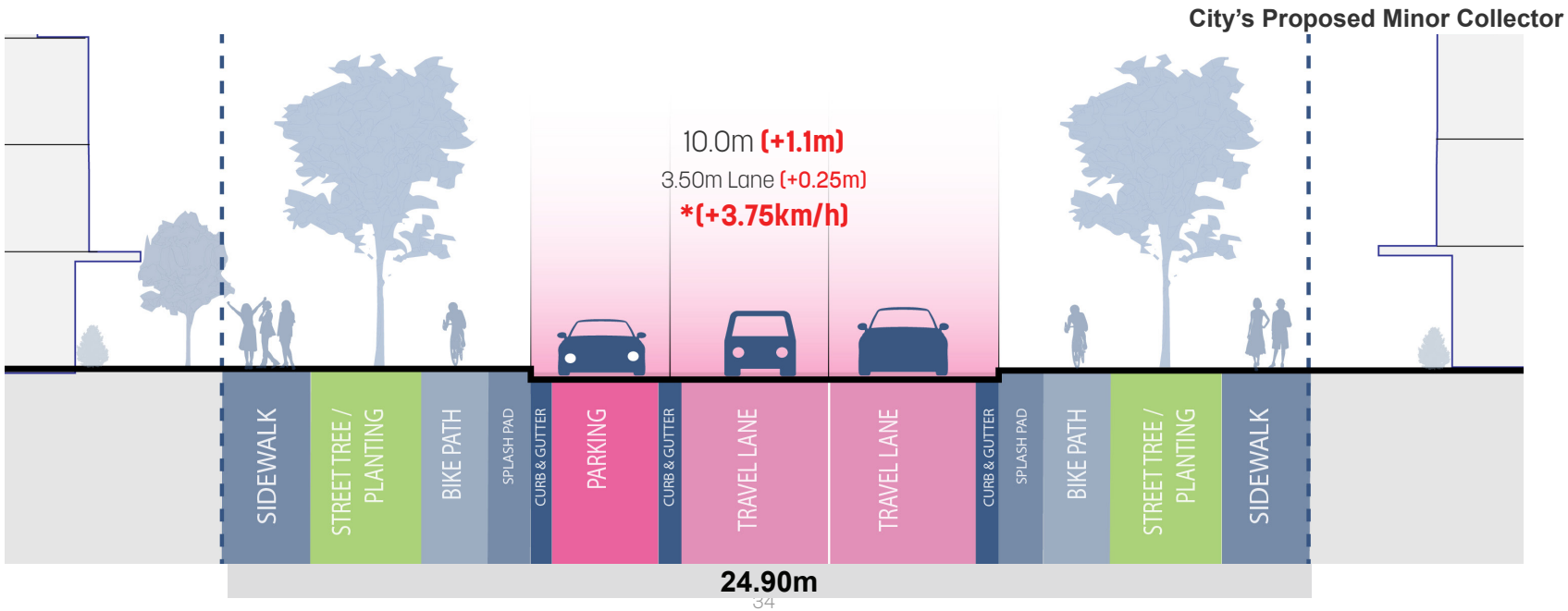
TRAVEL LANES - LOCAL ROADS



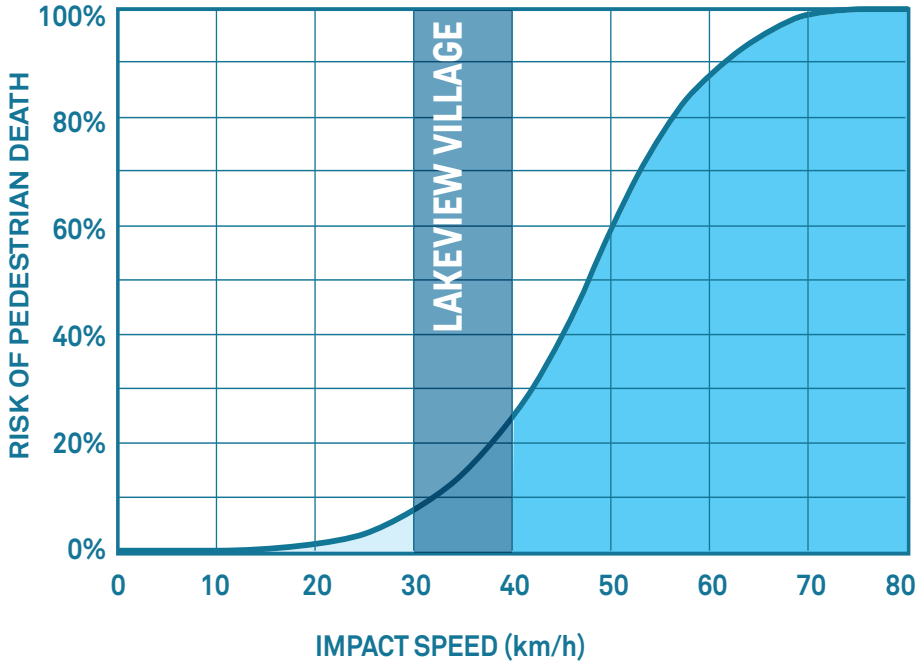


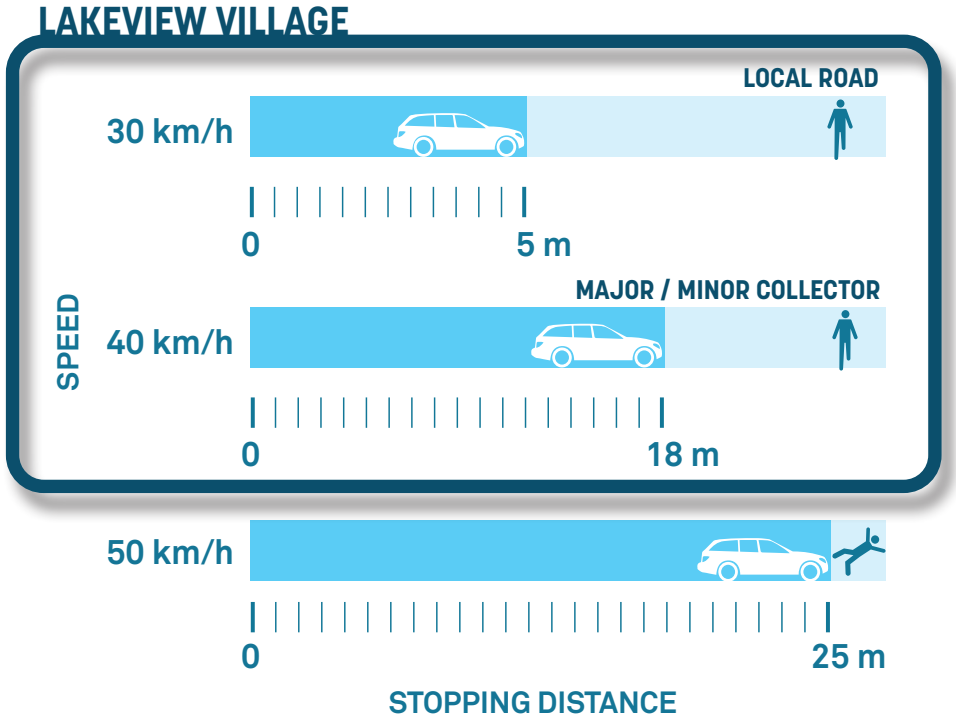
TRAVEL LANES - MINOR COLLECTORS





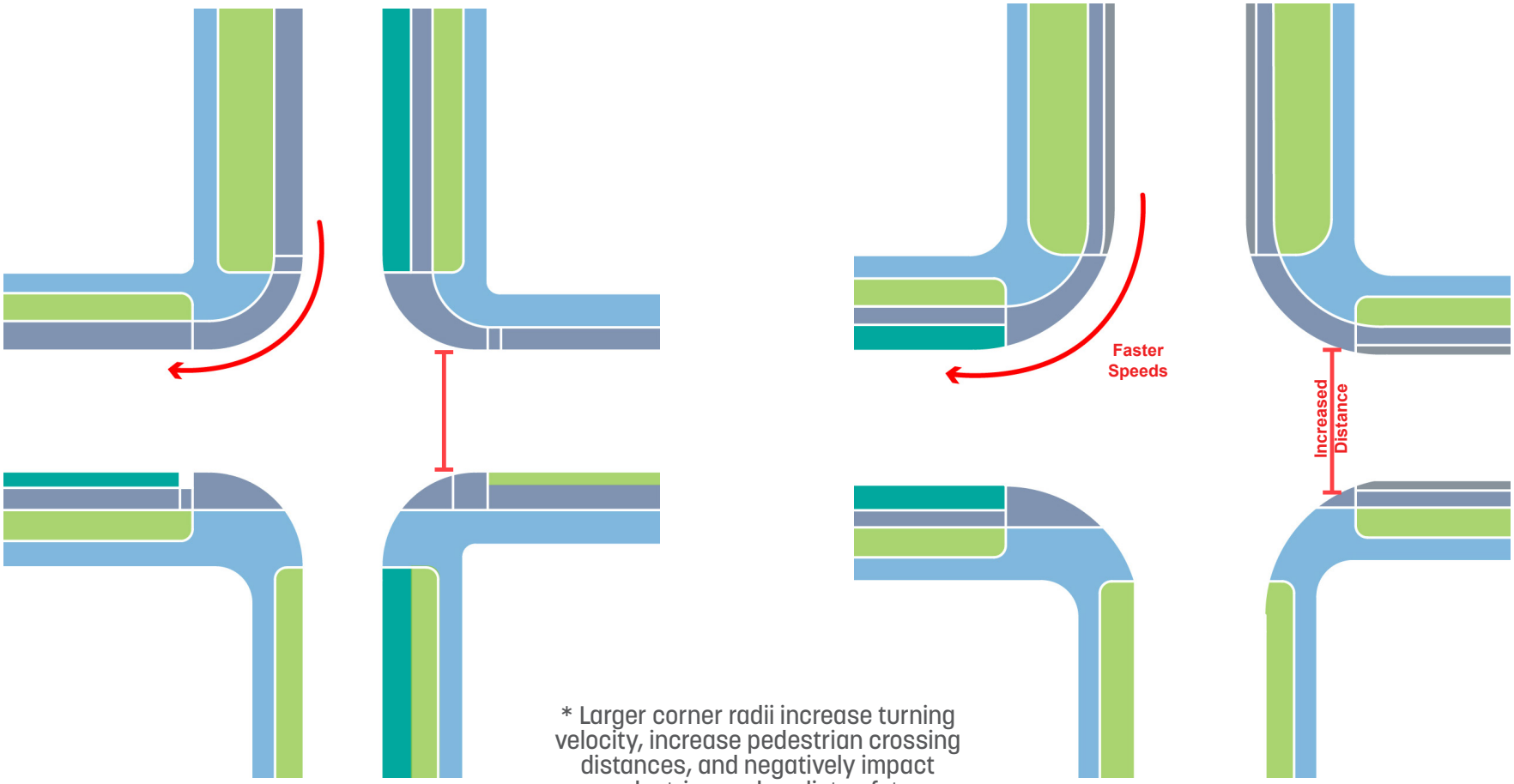
TRAVEL SPEEDS





*Global Street Design Guide / Safe Streets Save Lives

INTERSECTIONS + CORNER RADII



* Larger corner radii increase turning velocity, increase pedestrian crossing distances, and negatively impact pedestrian and cyclist safety.

Turning Velocity Summary

R8.0m = ~21.0km/h
R12.0m = ~24.0km/h

DISCUSSION ITEMS

KEY DISCUSSION ITEMS

1. Cycle Track Locations

2. Splashpad – 1.0m width to face of curb as per OTM Book 18

3. Curb – Special Lakeview curb detail envisioned; Barrier Curb combined with brick border
- No roll curb adjacent to parking lane

4. Parking Lane Width - 2.4m measured to edge of gutter as per TAC Manual

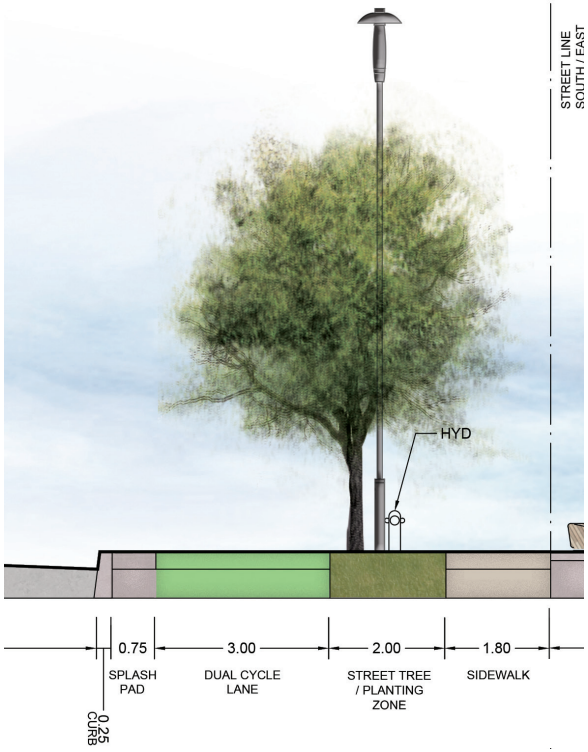
5. Travel Lane Width - Varies based on road classification and vehicle speed (3.0m, 3.25m,3.3m, and 3.35m when on bus route)

6. Tree Cell Locations

7. Curb Radii - 8m vs. 12m

8. Utility Corridor – One side of street only

CYCLE TRACK LOCATIONS



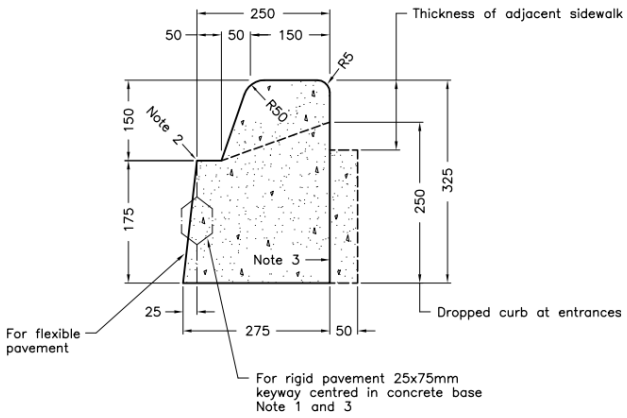
- Multi-use Trail
- Waterfront Trail
- Double Cycle Track
- Shared Lane with Traffic
- Dual Cycle Track in Park/Open

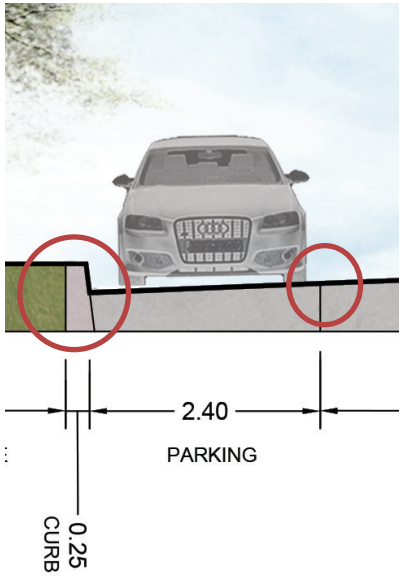
CURB / PARKING LANE

0.25M Special Curb Detail Specific to Lakeview

No roll curb

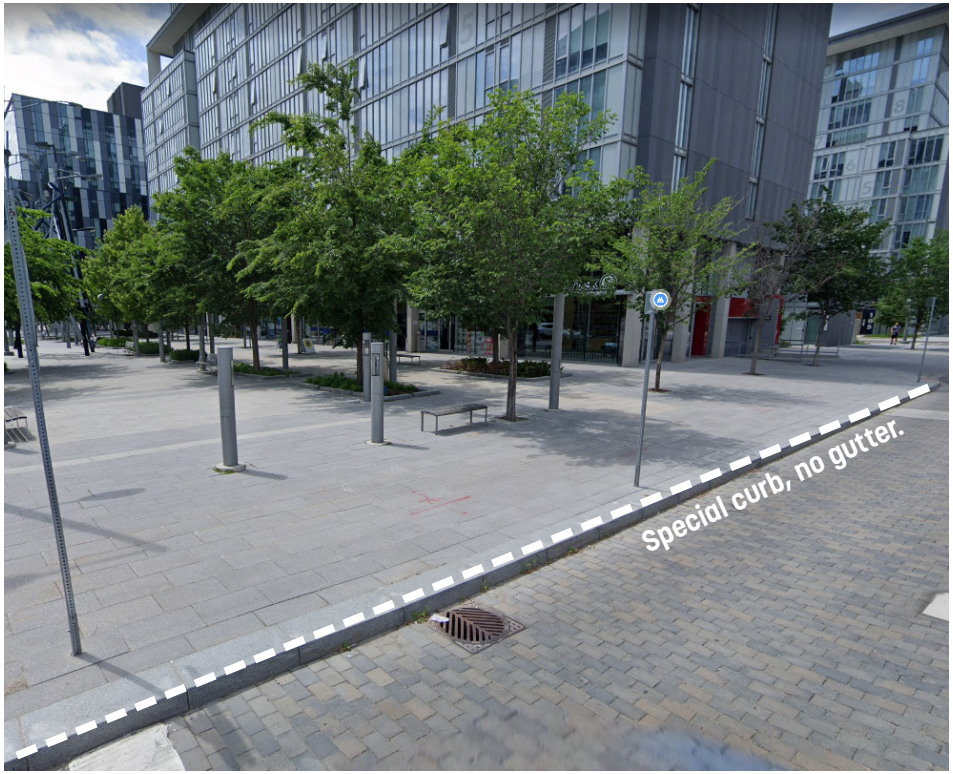
Ontario Provincal Standard Drawing
-Barrier Curb with Narrow Gutter





Orenco Station

Rolling Mills Road, West Don Lands



CURB TYPE / SPLASH PAD

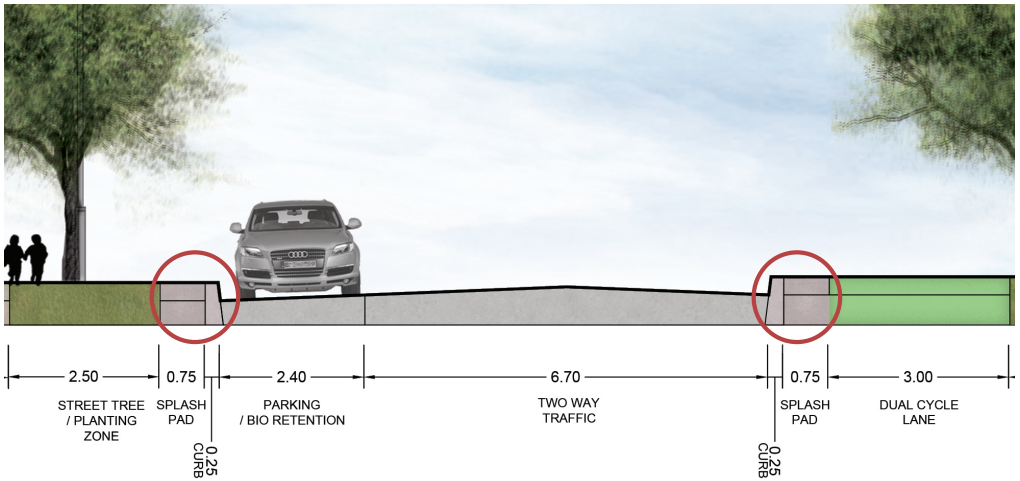
0.75M Major Collector

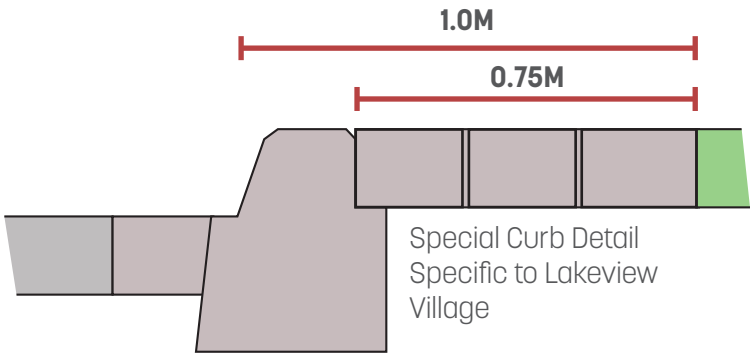
0.75M Minor Collector

0.0M Local Road

OTM Book 18 specifies 1.0m buffer between parking lane and cycle track measured to face of curb.

TAC specifies min 0.6m when cycle track adjacent to parking. Width of 0.75m buffer plus curb meets/exceeds these criteria while maintaining compact streets





Special Curb Detail
Specific to Lakeview Village

Creating a sense of identity through the detail-design of the streetscape elements.

Engraved Detail

Textured Paving

Unique Design Elements

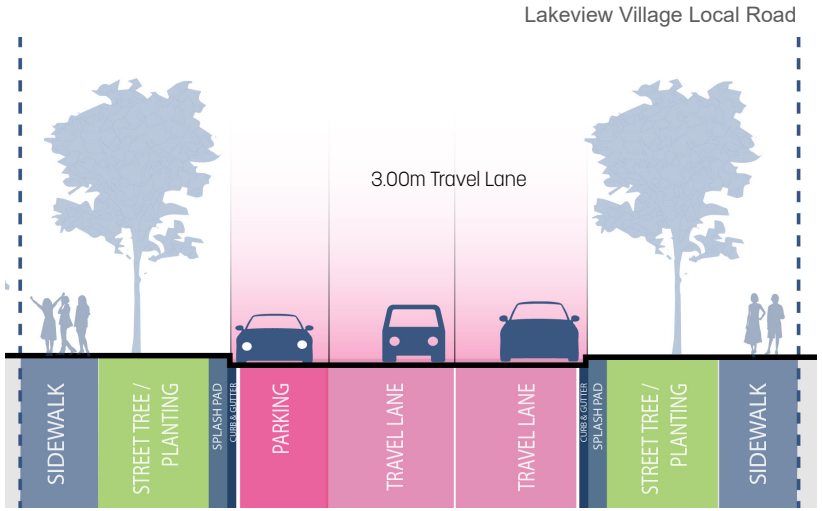
TRAVEL LANE

3.35M Bus Route

3.30M Major Collector

3.25M Minor Collector

3.00M Local Road

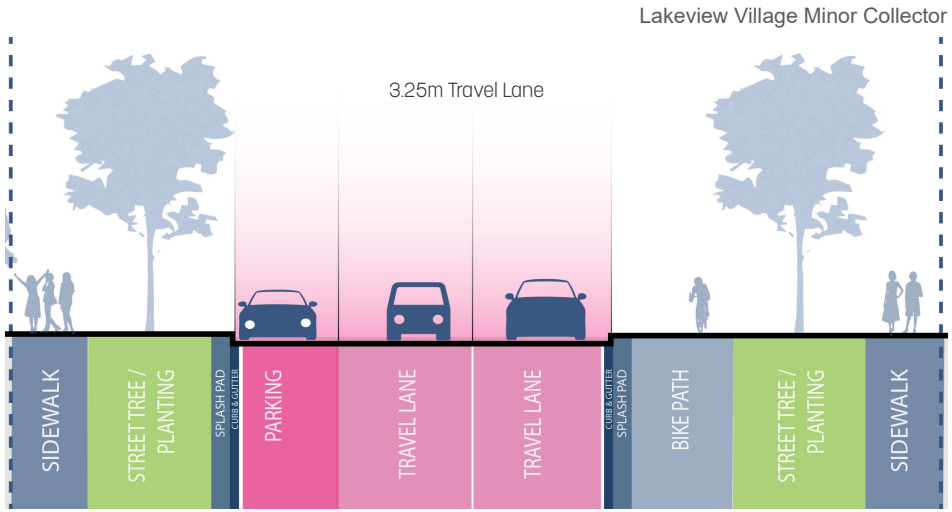


Transportation Association of Canada (TAC) Travel Lane Dimensions

For Design Speeds less than **60km/hr**

Practical Lower Limit **2.7m**
Recommended Lower Limit **3.0m**
Recommended Upper Limit **3.7m**
Practical Upper Limit **4.0m**

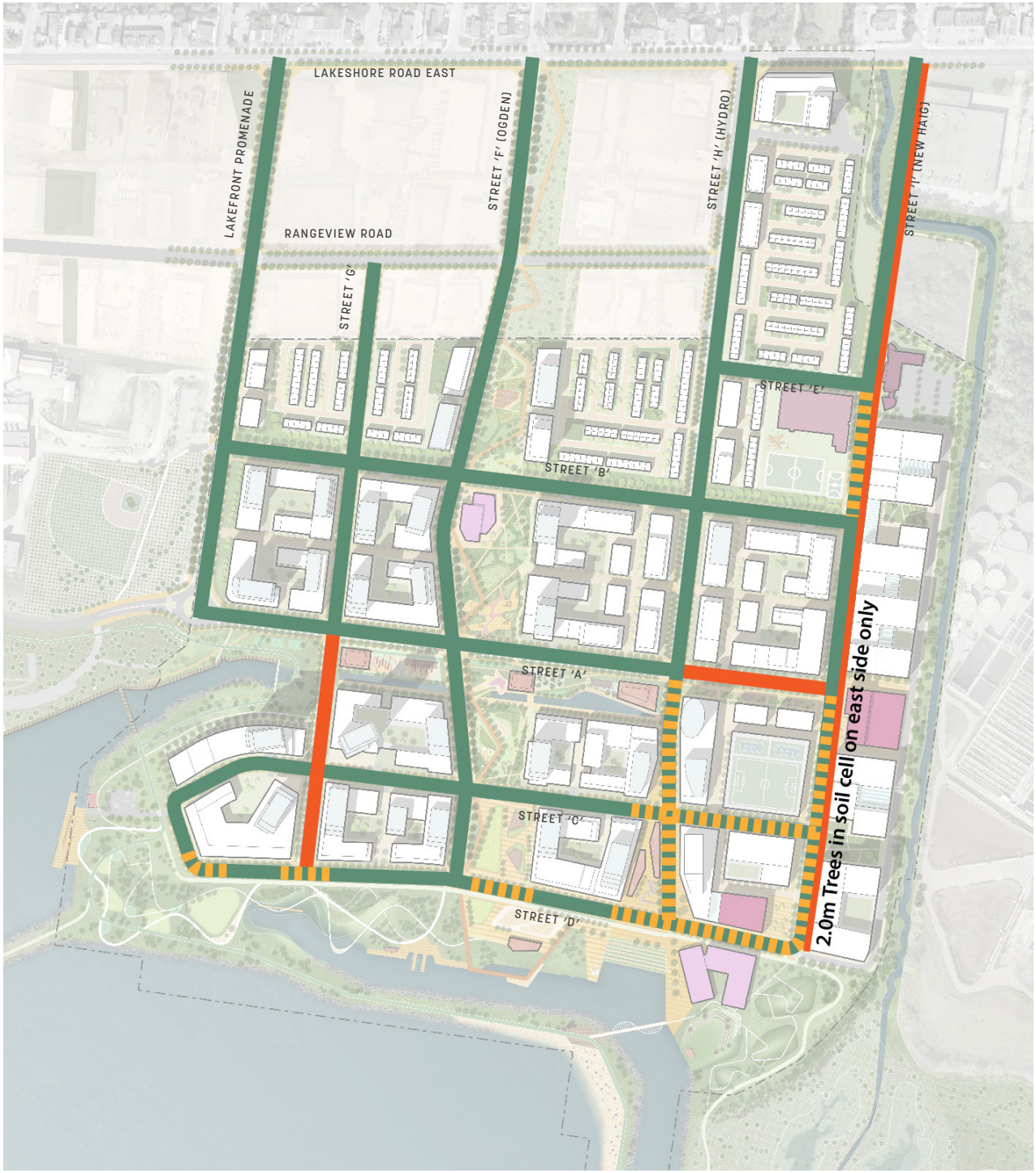
When Buses and Large Trucks regularly use a lane, **3.3m** minimum recommended regardless of speed.



TREE CORRIDOR

There may be trees in soil cells where adjacent open space / building typologies warrant plaza or hardscape surface treatments.

Eg. Lakeview Square or at entrances to mid-rise residential buildings.



2.0m+ (Soil Cell)

2.50m+ Sod

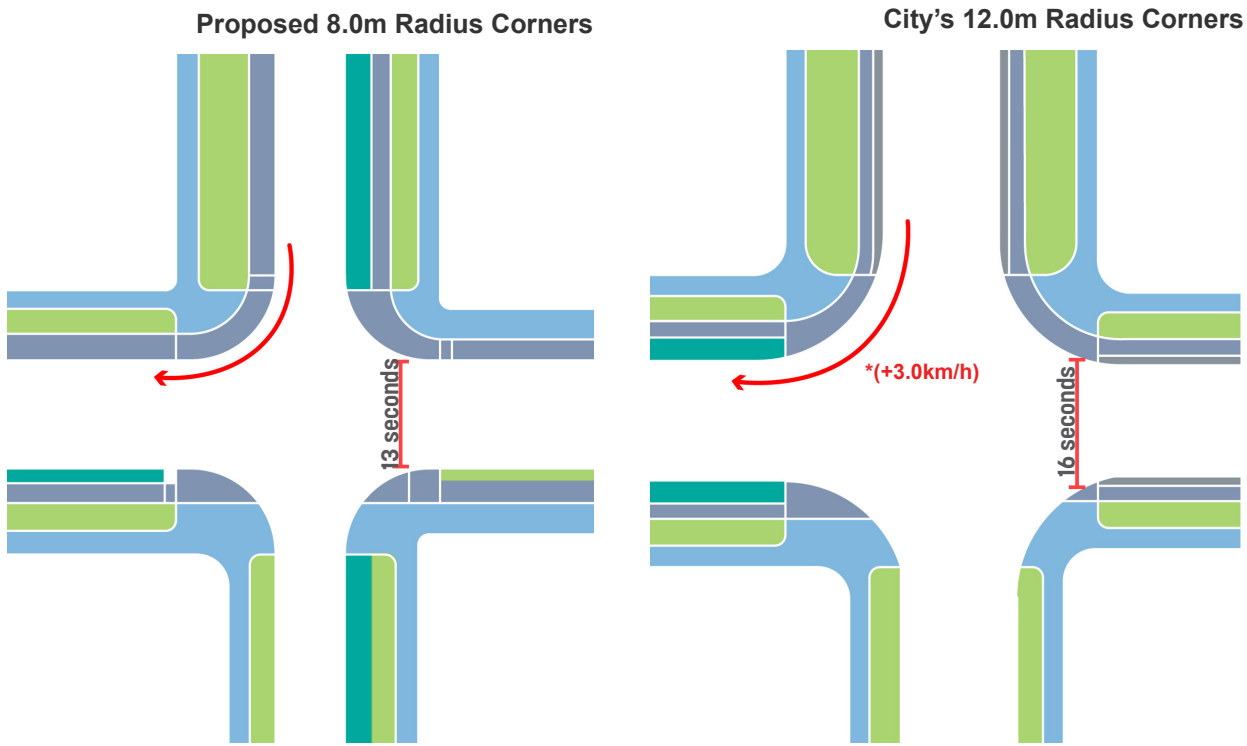
2.50m+ Soil Cell
(Due to Adjacent Building Uses)

CURB RADII

City standard is 8m for Local and Minor Collector, 12m for Major Collector

NACTO standard is 4.5m maximum to slow speeds through intersection turns.

Curb radii of 8.0m for Lakeview is proposed through out to encourage slower turn speeds through intersections and to minimize pedestrian crossing distance / time.



* Larger corner radii increase turning velocity, increase pedestrian crossing distances, and negatively impact pedestrian and cyclist safety.

Turning Velocity Summary

R8.0m = ~ 21.0km/h
R12.0m = ~ 24.0km/h

UTILITY CORRIDOR

The majority of buildings on the site can be serviced by a utility corridor on one side of the road. Of the 100+ buildings, less than 10 would require a road crossing for utility service.

STREET SECTIONS

DESIGN STANDARDS

	Element	City Suggestion	Lakeview Standard	Rationale
1	Sidewalk	2.0m+	2.0m Major Collectors	Meets City suggested width
			1.8m Minor Collectors 1.8m Local Roads	Exceed City of Mississauga and AODA minimum width of 1.5m. Reduction to 1.8m for Minor Collector and Local Streets assist in maintaining compact streets. All sidewalks located at edge of ROW so additional width is available in frontage zone.
2	Splashpad	1.0m	0.75m Major Collectors 0.75m Minor Collectors 0.0m Local Roads	OTM Book 18 specifies 1.0m buffer between parking lane and cycle track measured to **face of curb.** TAC specifies min 0.6m when cycle track adjacent to parking. wWidth of 0.75m buffer plus curb meets/exceeds these criteria while maintaining compact streets.
3	Curb Type	0.5m Curb + Gutter	Special Curb Detail Specific to Lakeview, with consideration to no concrete gutter.	Assists in creating a sense of place and identity
		0.5m Roll Curb between Through Lane and Parking Lane	No roll curb	Roll curb would intercept storm runnoff into parking layby, reducing runoff capture to bio-retention LID features.
4	Tree Corridor	2.5m+ planting / grass 2m hardscape	2.5m+ Trees in Sod 2.5m+ Trees in Soil-Cell 2.0m+ Trees in Soil-Cell	Meets City suggested minimum width. Corridor to be wider where possible Where adjacent uses warrent hadscape surface treatment. Meets City minimum width.
5	Bike Lanes	1.5m single cycle tracks		
		3.0m dual cycle track	3.0m dual cycle tracks	3.0m dual cycle tracks proposed on Promenade, G, H, and I - geared towards N-S commuter cycling from Lakeshore Road to the Waterfront. Major E-W commuter circulation along Street A
			3.0m dual cycle tracks proposed within adjacent parks	3.0m multi-use trails or 3.0m dual cycle tracks within Ogden Park, Aviator Park and Waterfront Park - geared towards E-W recereational cycling

DESIGN STANDARDS

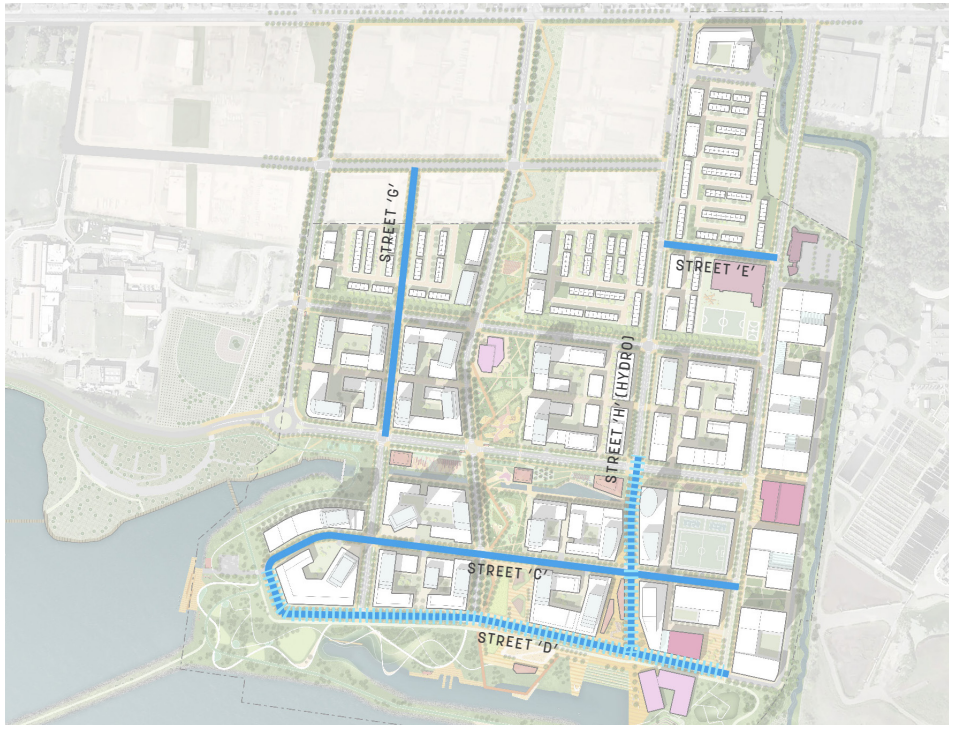
	Element	City Suggestion	Lakeview Standard	Rationale
6	Travel Lane	3.3 without bus route, 3.5m with bus route	3.3m Major Collector Road. 3.25m Minor Collector 3.35m Minor Collector with Bus Route 3.0m Local Road	Roads meet or exceed TAC minimum of 3.0m for design speeds <60km/hr Reduction of non-bus lanes to 3.25m reflect narrower street widths and slower posted speeds (30km/hr) 3.35m travel lanes for bus routes carried as per City direction in April 2019. Reduction of non-bus lanes to 3.25m reflect narrower street widths and slower posted speeds (30km/hr)
7	Parking Lane	2.4m	2.4m	Measured from face of curb
8	Curb Radii	12m	8m	City standard is 8m for Local and Minor Collector, 12m for Major Collector NACTO standard is 4.5m maximum to slow speeds through intersection turns. Curb radii of 8.0m for Lakeview is proposed through out to encourage slower turn speeds through intersections and to minimize pedestrian crossing distance / time
9	Utility Corridor	Both sides of road	One side of road	Majority of buildings on the site can be serviced by a utility corridor on one side of the road. Of the 100+ buildings, less than 10 would require a road crossing for utility service. See Utility Layout drawing.

LOCAL ROAD

Local roads serve as the finer grain street network within Lakeview Village and are intended to provide a comfortable pedestrian experience with relatively low levels of local vehicular traffic. Two lanes of traffic are accomodated with parking on one side. The local road's right-of-way width is **18.0 metres** with a proposed speed limit of **30km/h.**

Dependant on adjacent uses, the character of these streets are that of an urban residential district with a variety of hard and softscape frontage zones depending on the adjacent buiding typology.

Streets D and H are designated a 'Character' streets with a a unique sense of character and materiality that will be shown later in the document.



Local Road

Local Road - Character

STREETS C, E, J AND G + NORTH OF STREET A - LOCAL ROAD

18M RIGHT-OF-WAY

TOWN HOMES

3M FRONT GARDENS

3M FRONTAGE

1.8M SIDEWALK

2.75M STREET TREE

0.25M CURB

2.4M PARKING / LID

3.00M TRAVEL LANE

3.00M TRAVEL LANE

0.25M CURB

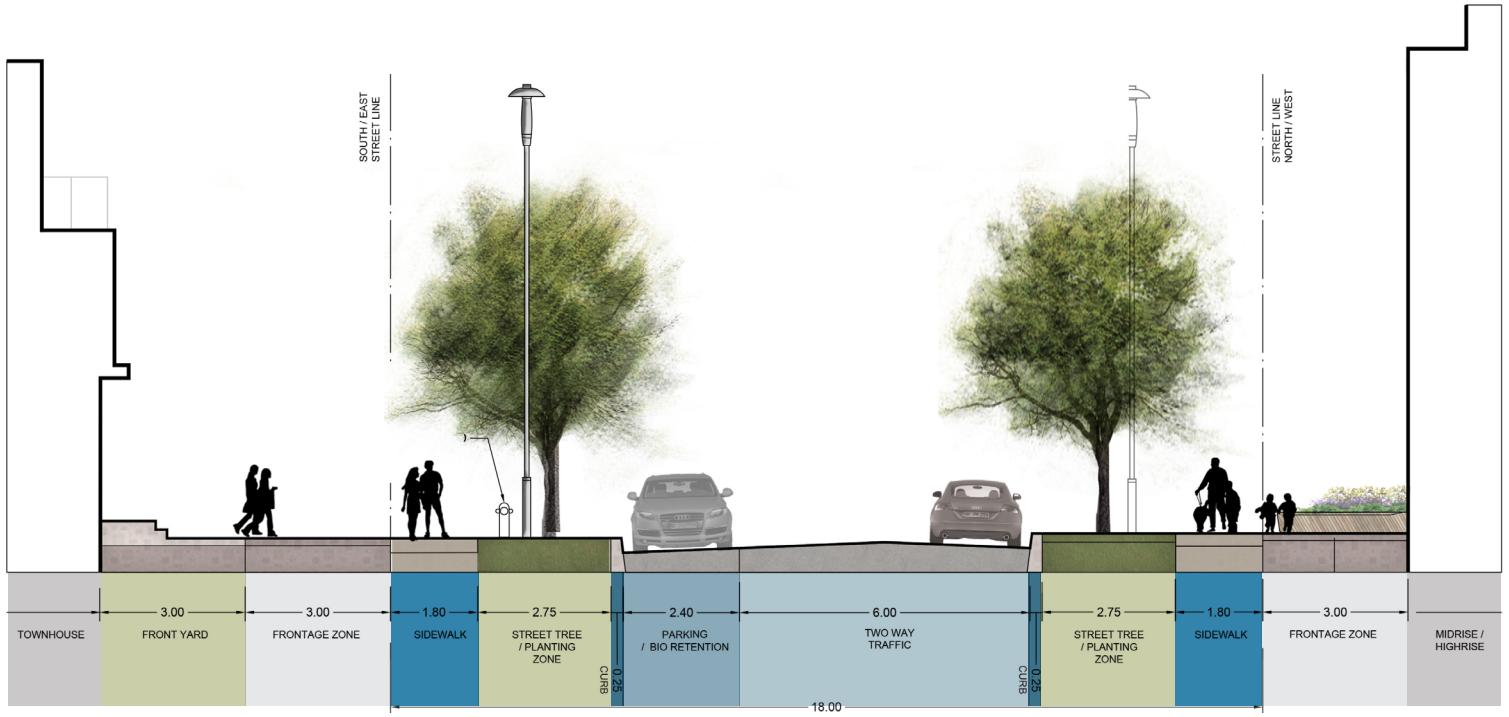
2.75M STREET TREE

1.8M SIDEWALK

3M FRONTAGE

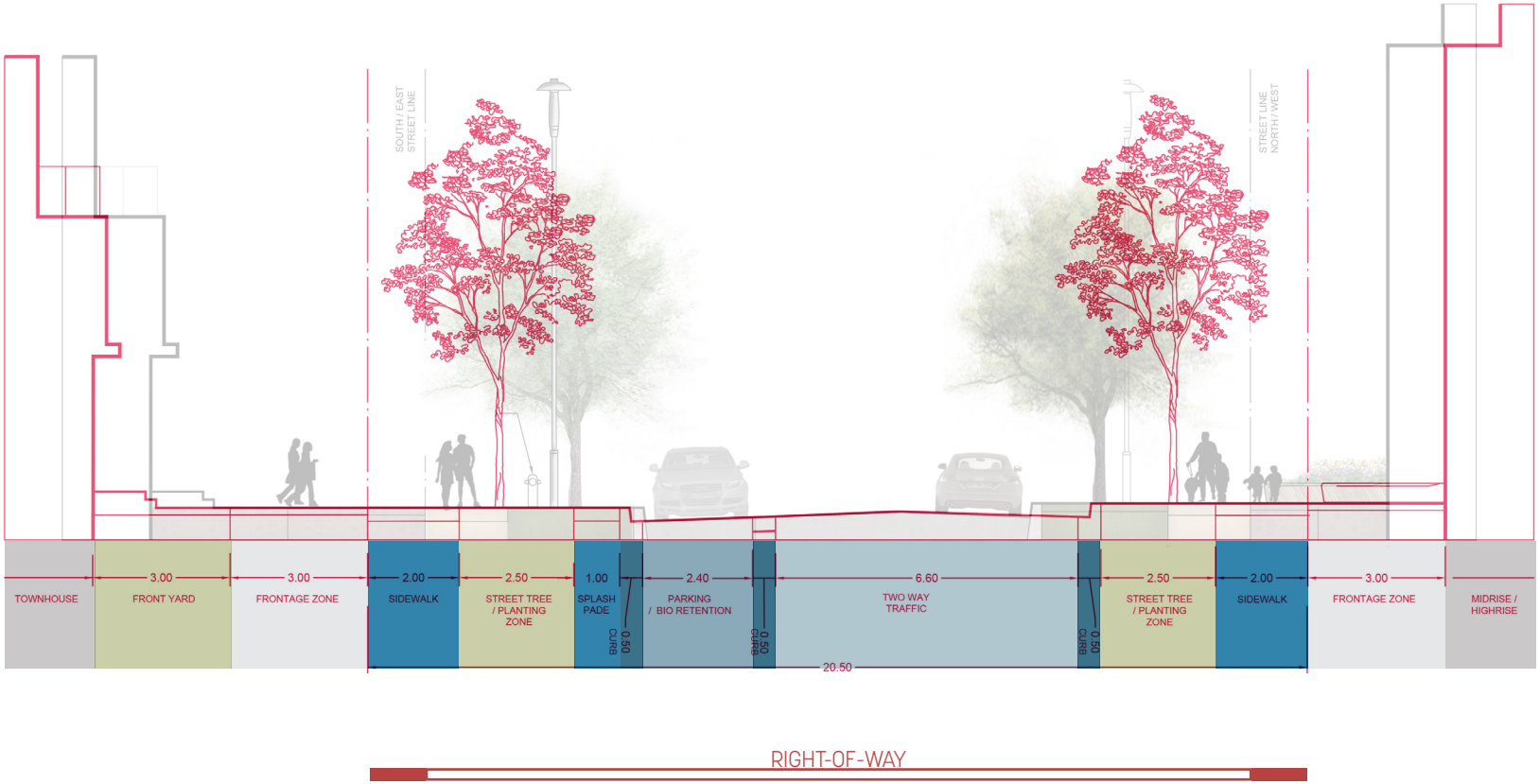
MID / HIGH RISE

STREETS C, E, J AND G + NORTH OF STREET A - LOCAL ROAD



18M RIGHT-OF-WAY

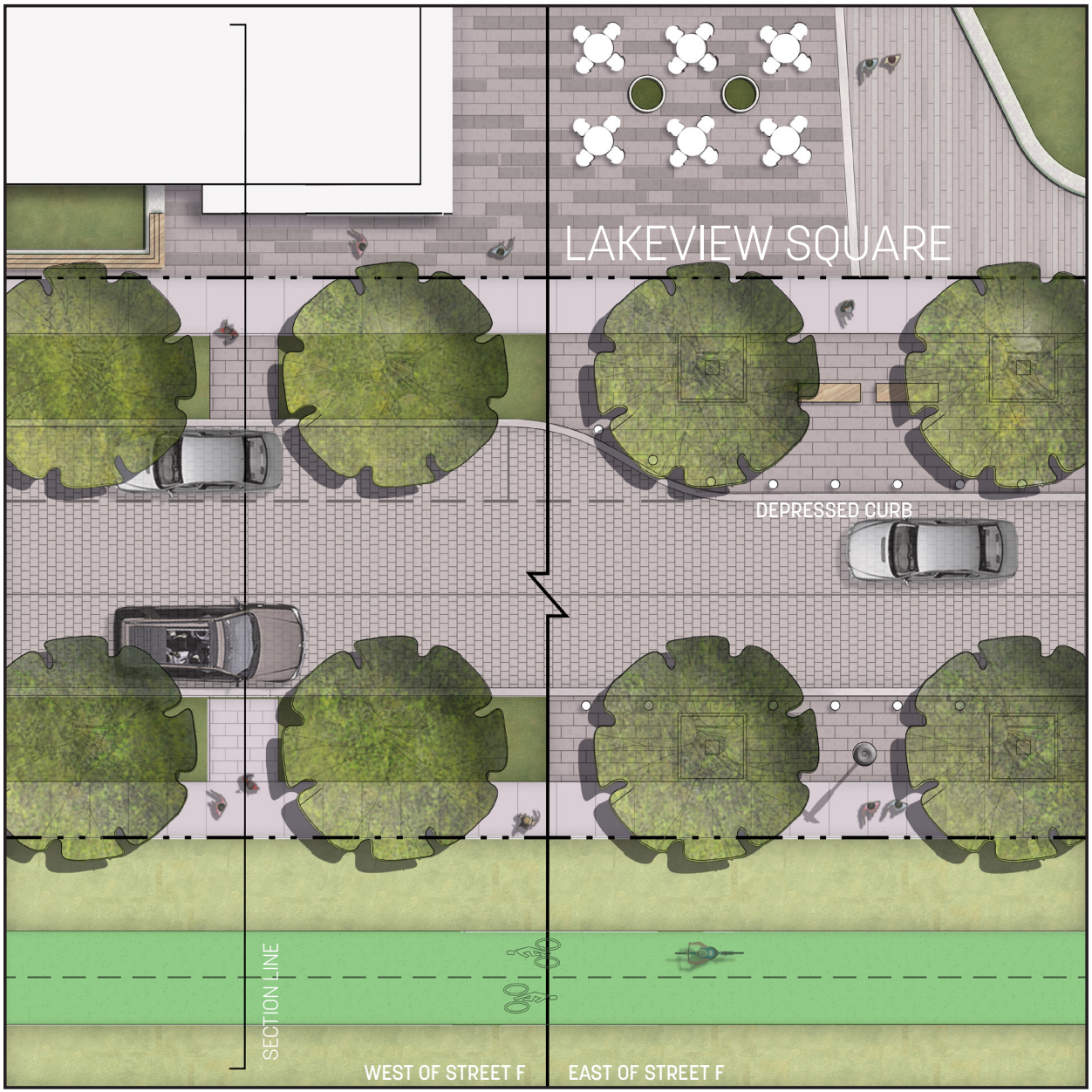
STREETS C, E, J AND G + NORTH OF STREET A - LOCAL ROAD WITH CITY PROPOSED CROSS SECTION OVERLAY



+2.5M

STREET D

STREET D - LOCAL ROAD (CHARACTER)



18M RIGHT-OF-WAY

MID/ HIGH RISE

3M FRONTAGE

1.8M SIDEWALK

2.75M STREET TREE

0.25M CURB

2.4M PARKING / LID

3.00M TRAVEL LANE

3.00M TRAVEL LANE

0.25M CURB

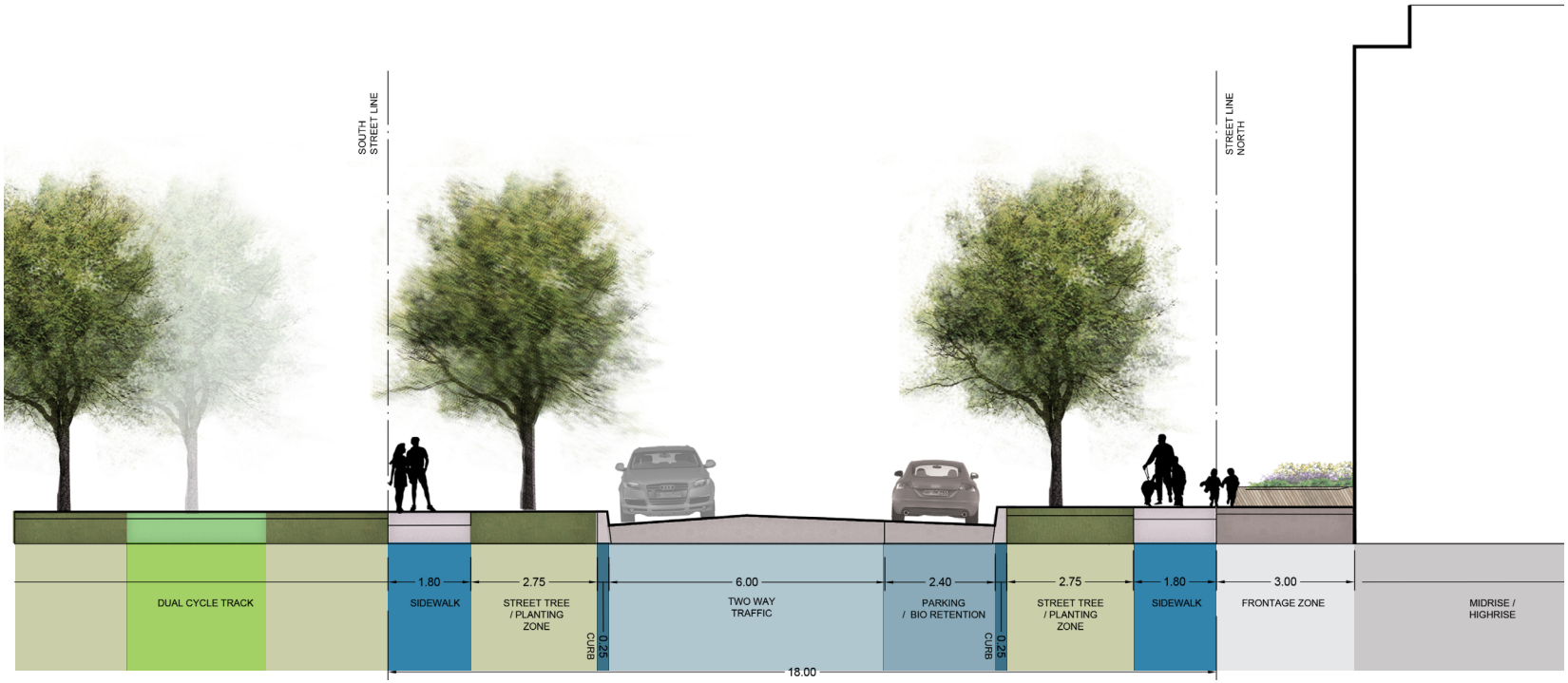
2.75M STREET TREE

1.8M SIDEWALK

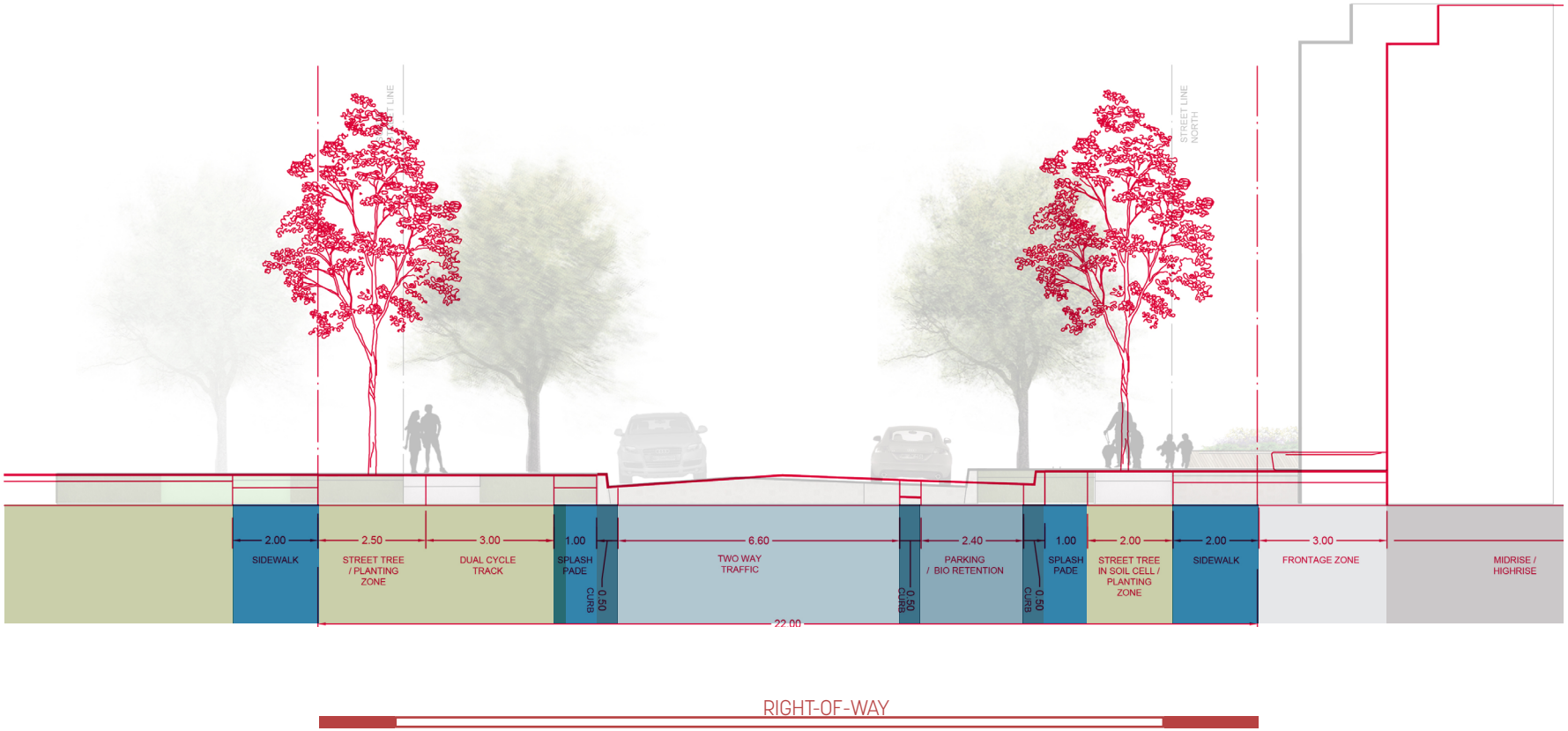
LAKEFRONT PARK

CYCLE TRACK

STREET D - LOCAL ROAD (CHARACTER)

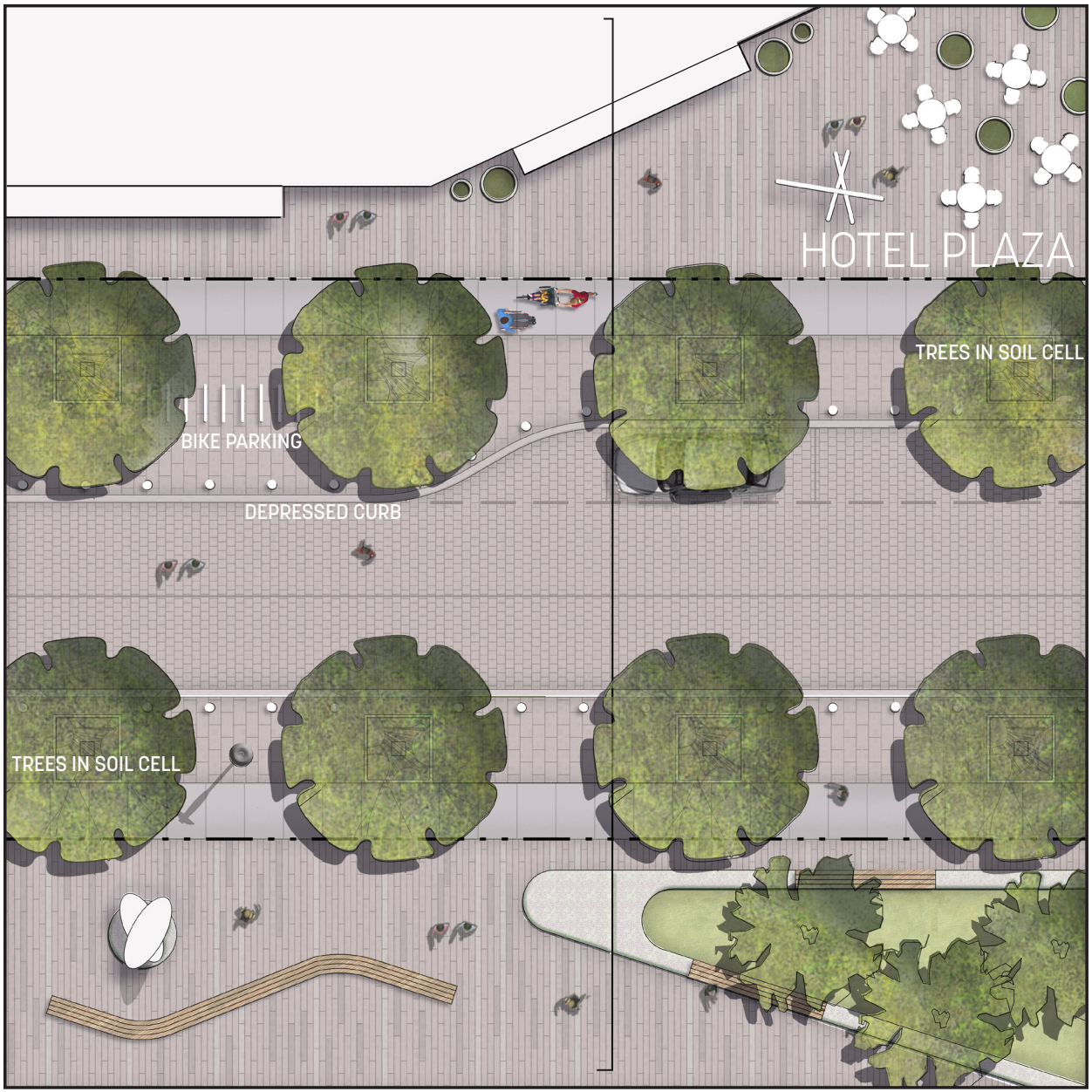


STREET D - LOCAL ROAD (CHARACTER)
WITH CITY PROPOSED CROSS SECTION OVERLAY



+ 4.0M

STREET H, SOUTH OF LAKEVIEW SQUARE - LOCAL ROAD (CHARACTER)



18M RIGHT-OF-WAY

HOTEL/COMMERCIAL

VARIES FRONTAGE

1.8M SIDEWALK

2.75M STREET TREE

0.25M CURB

2.4M PARKING / LID

3.00M TRAVEL LANE

3.00M TRAVEL LANE

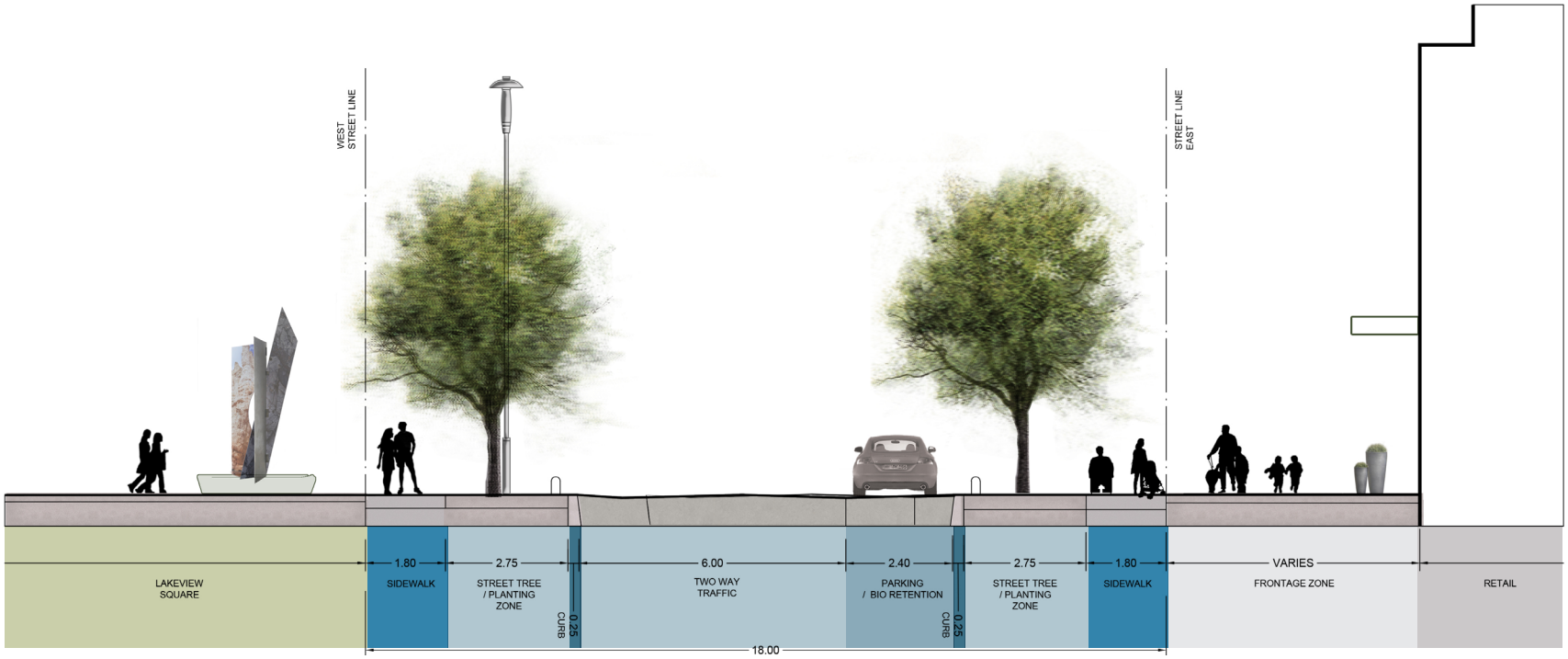
0.25M CURB

2.75M STREET TREE

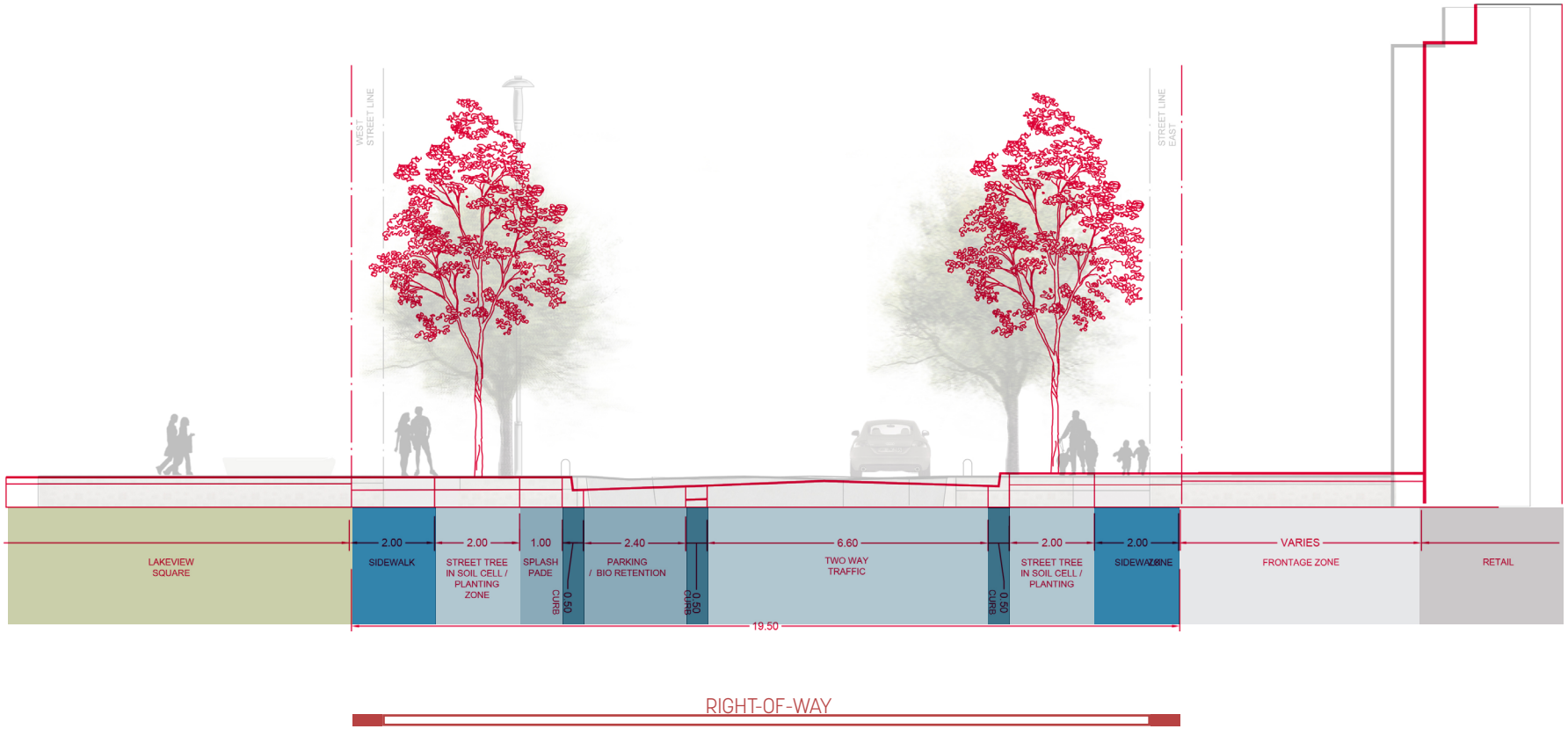
1.8M SIDEWALK

LAKEVIEW SQUARE

STREET H, SOUTH OF LAKEVIEW SQUARE - LOCAL ROAD (CHARACTER)



STREET H, SOUTH OF LAKEVIEW SQUARE - LOCAL ROAD (CHARACTER) WITH CITY PROPOSED CROSS SECTION OVERLAY



1.5M

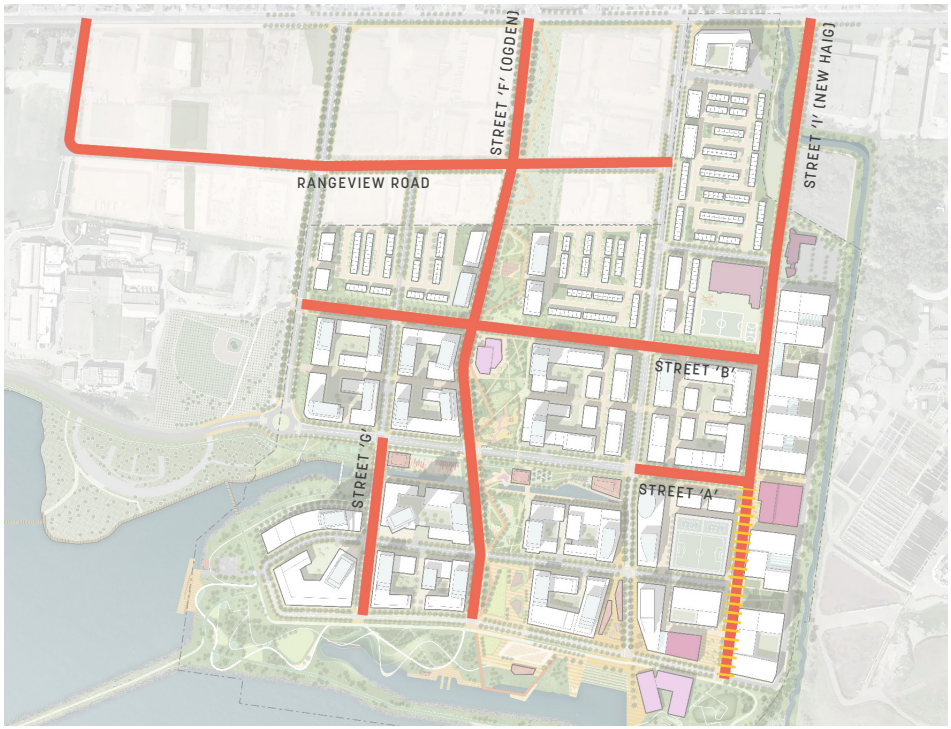
MINOR COLLECTOR

Minor collector roads also provide key Connections between Lakeview Village districts.

They further break down the community structure into smaller blocks and serve as key circulation routes. The proposed minor collector road right-of-way width is **22.0 metres** with a proposed speed limit of **30km/h.**

Additional variations on the typical configuration accommodate site specific and desired character conditions.

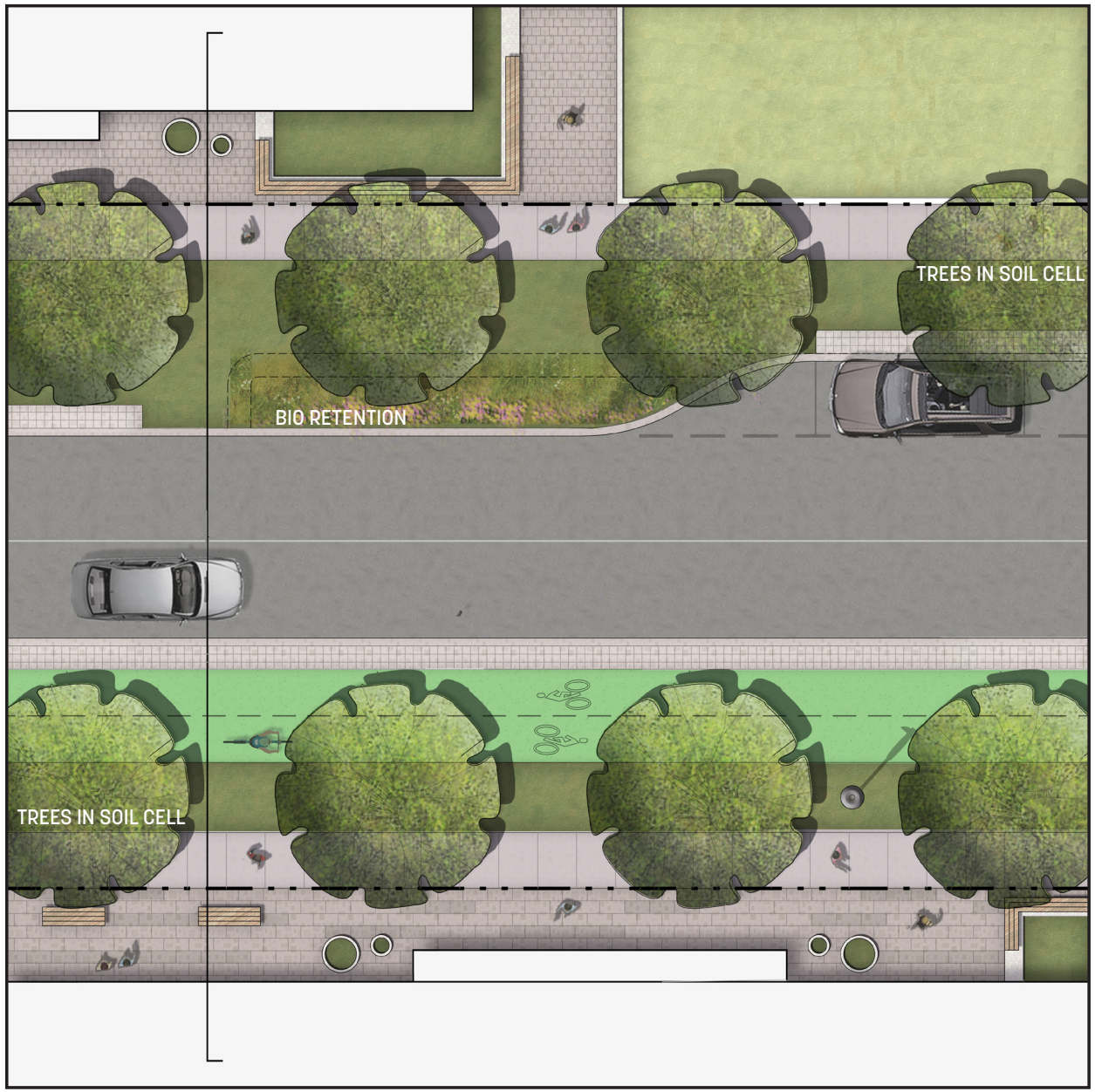
Street H is designated as a 'Character' street



Minor Collector

Minor Collector - Character

STREET G - MINOR COLLECTOR



22M RIGHT-OF-WAY

MID / HIGH RISE

3M FRONTAGE

1.8M SIDEWALK

2.25M STREET TREE

0.75M SPLASH PAD

0.25M CURB

2.4M PARKING / LID

3.25M TRAVEL LANE

3.25M TRAVEL LANE

0.25M CURB

0.75M SPLASH PAD

3.0M DUAL BIKE

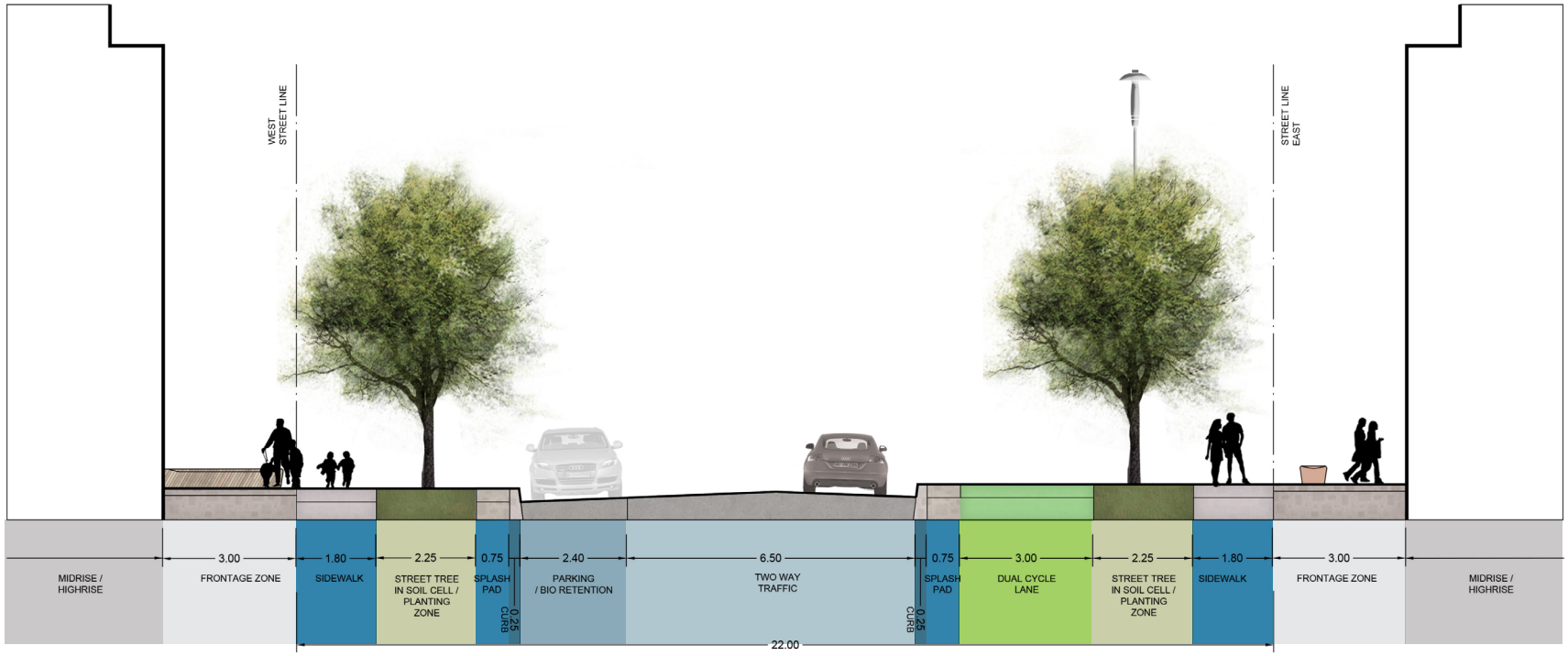
2.25M STREET TREE

1.8M SIDEWALK

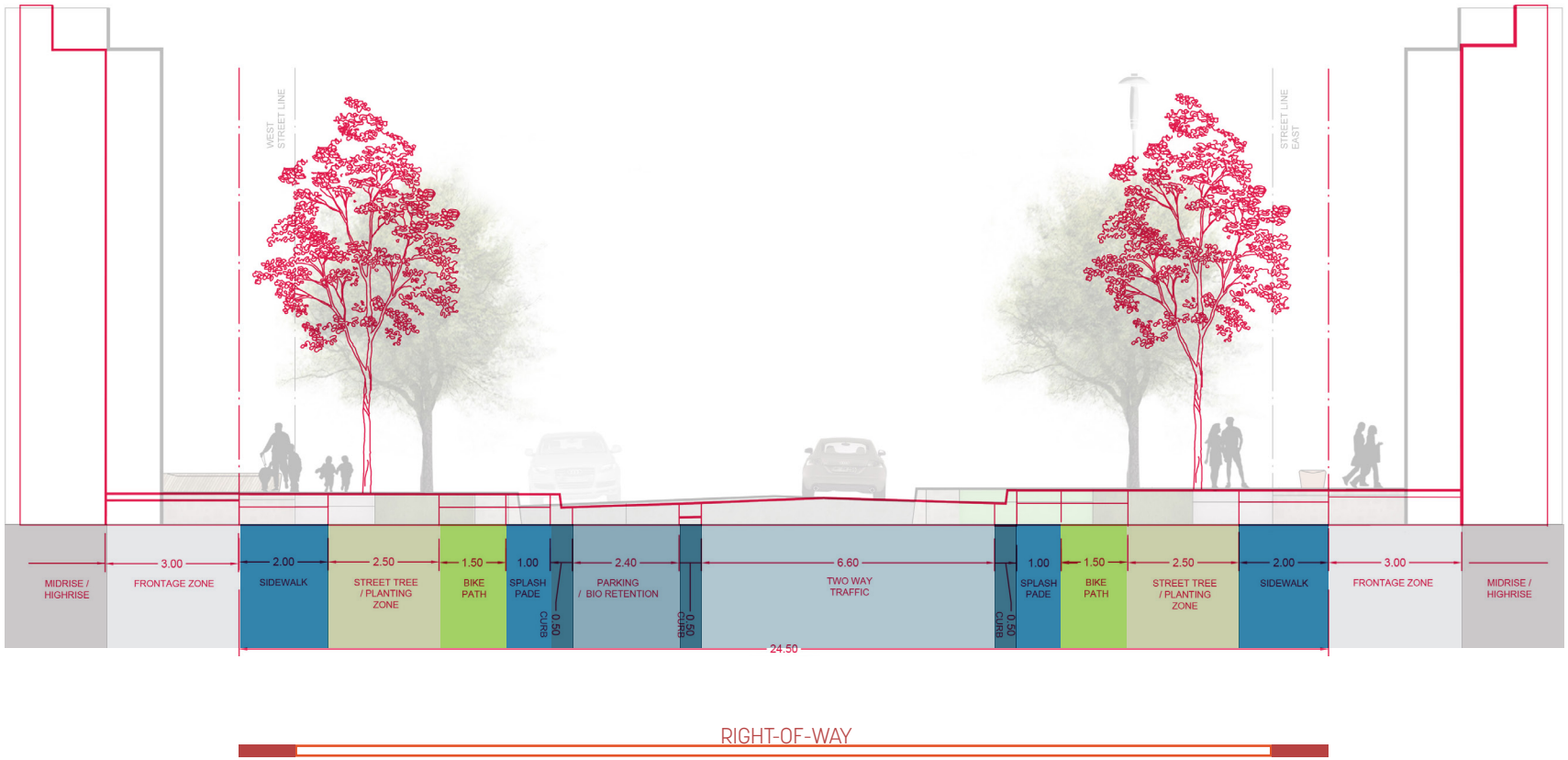
3M FRONTAGE

MID / HIGH RISE

STREET G - MINOR COLLECTOR



STREET G - MINOR COLLECTOR
WITH CITY PROPOSED CROSS SECTION OVERLAY



+ 3.9M

STREET B / AVIATOR PARK

STREET B - MINOR COLLECTOR

22M RIGHT-OF-WAY

MULTI-USE TRAIL

AVIATOR PARK

1.8M SIDEWALK

2.55M STREET TREE

0.75M SPLASH PAD

0.25M CURB

2.4M PARKING / LID

3.25M TRAVEL LANE

2.4M PARKING / LID

0.25M CURB

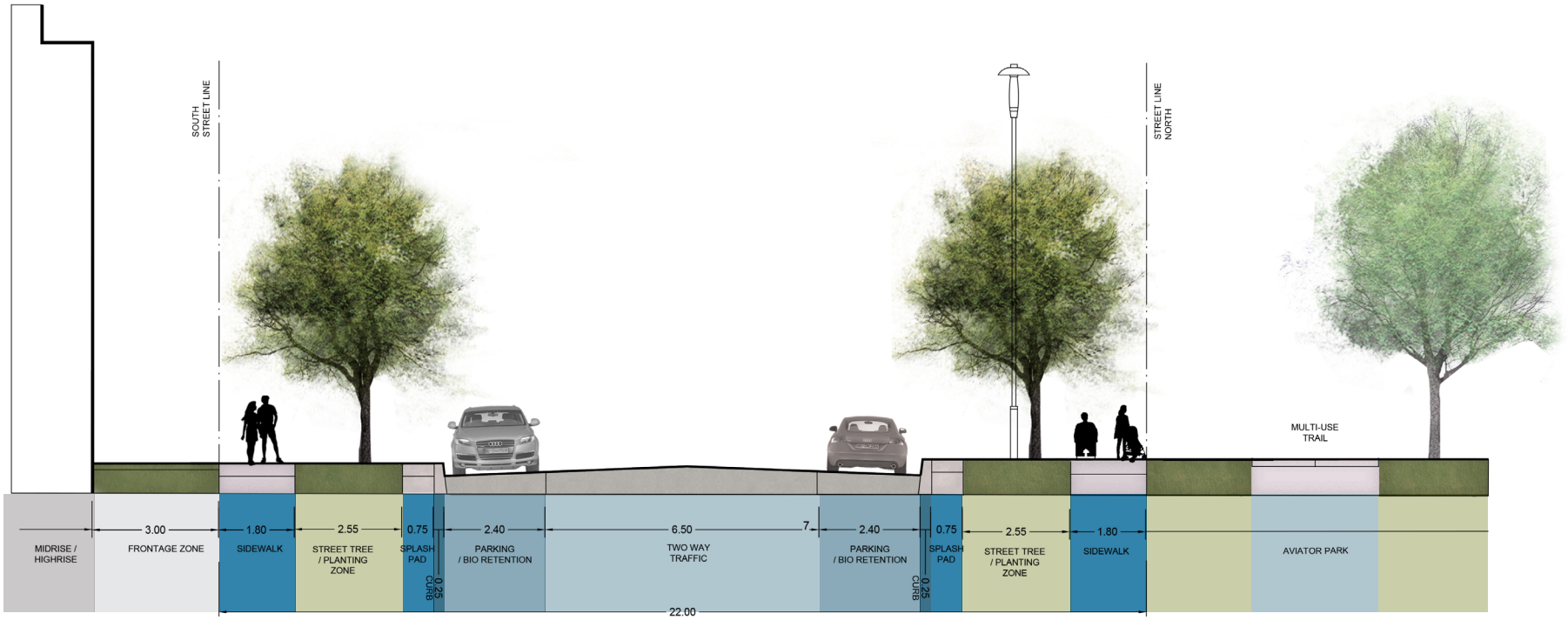
0.75M SPLASH PAD

2.55M STREET TREE

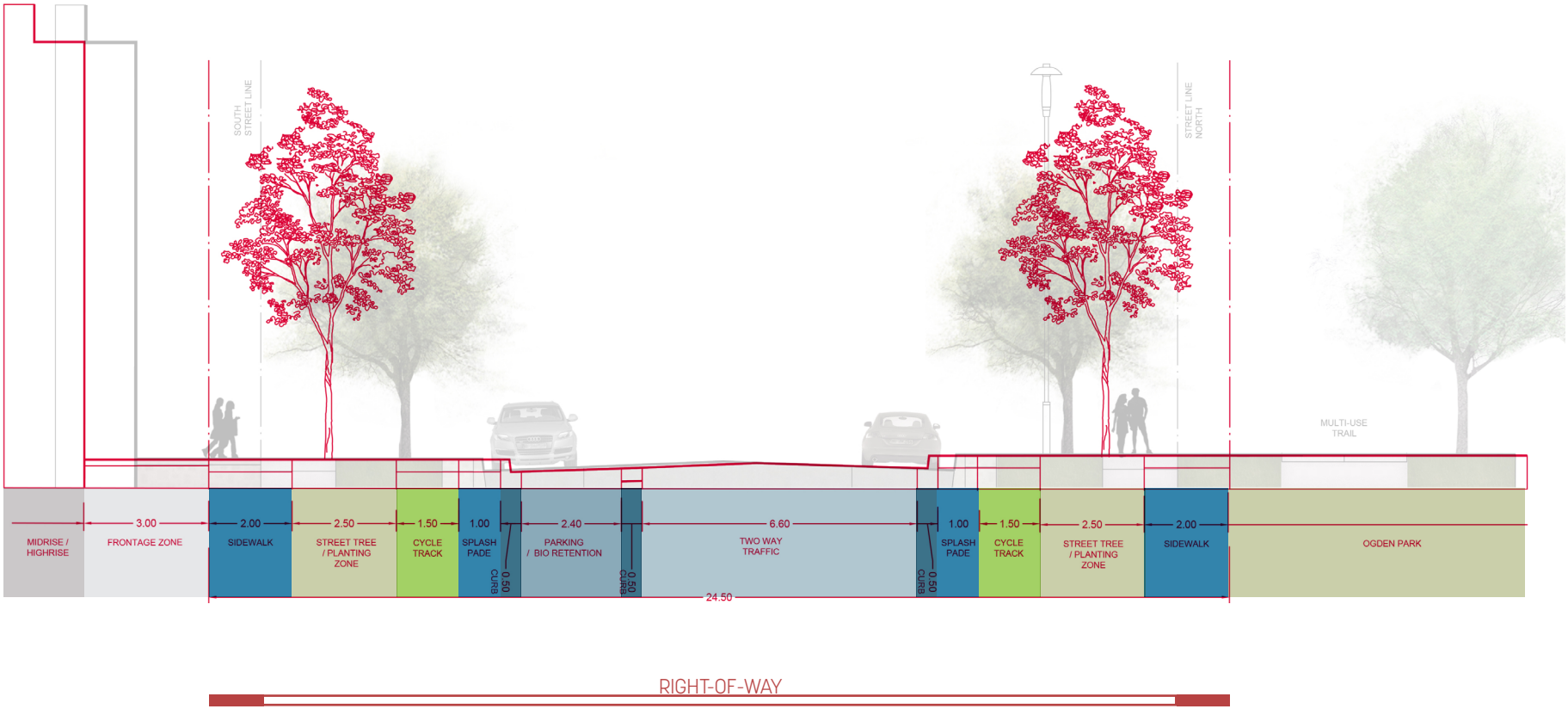
1.8M SIDEWALK

3M FRONTAGE

STREET B - MINOR COLLECTOR



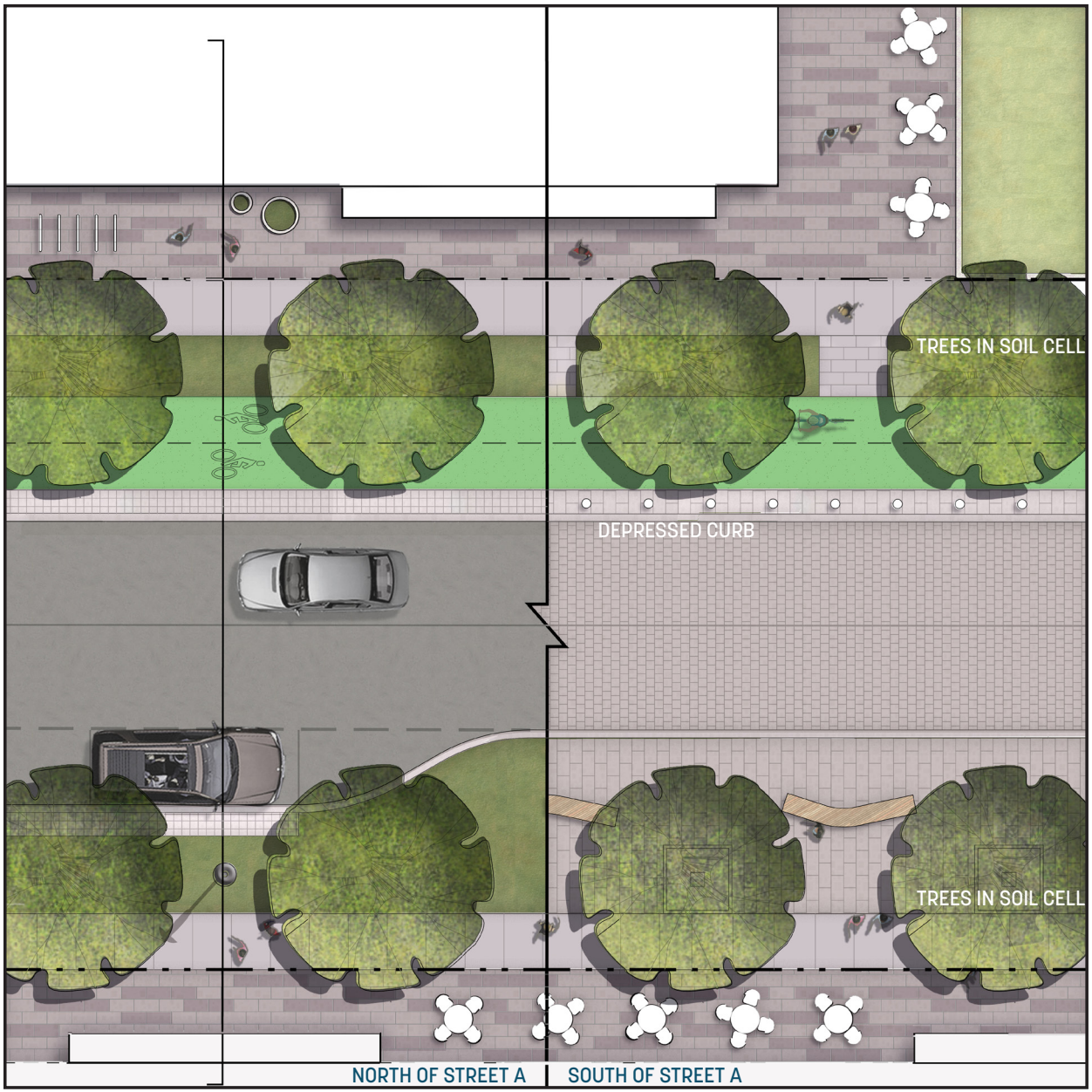
STREET B - MINOR COLLECTOR
WITH CITY PROPOSED CROSS SECTION OVERLAY



2.5M

NEW HAIG + STREET D

NEW HAIG / STREET I - MINOR COLLECTOR (CHARACTER SOUTH OF STREET A)



22.2M RIGHT-OF-WAY

COMMERCIAL/OFFICE

3M FRONTAGE

1.8M SIDEWALK

2.0M STREET TREE

3.0M DUAL BIKE

0.75M SPLASH PAD

0.25M CURB

3.35M TRAVEL LANE

3.35M TRAVEL LANE

2.4M PARKING / LID

0.25M CURB

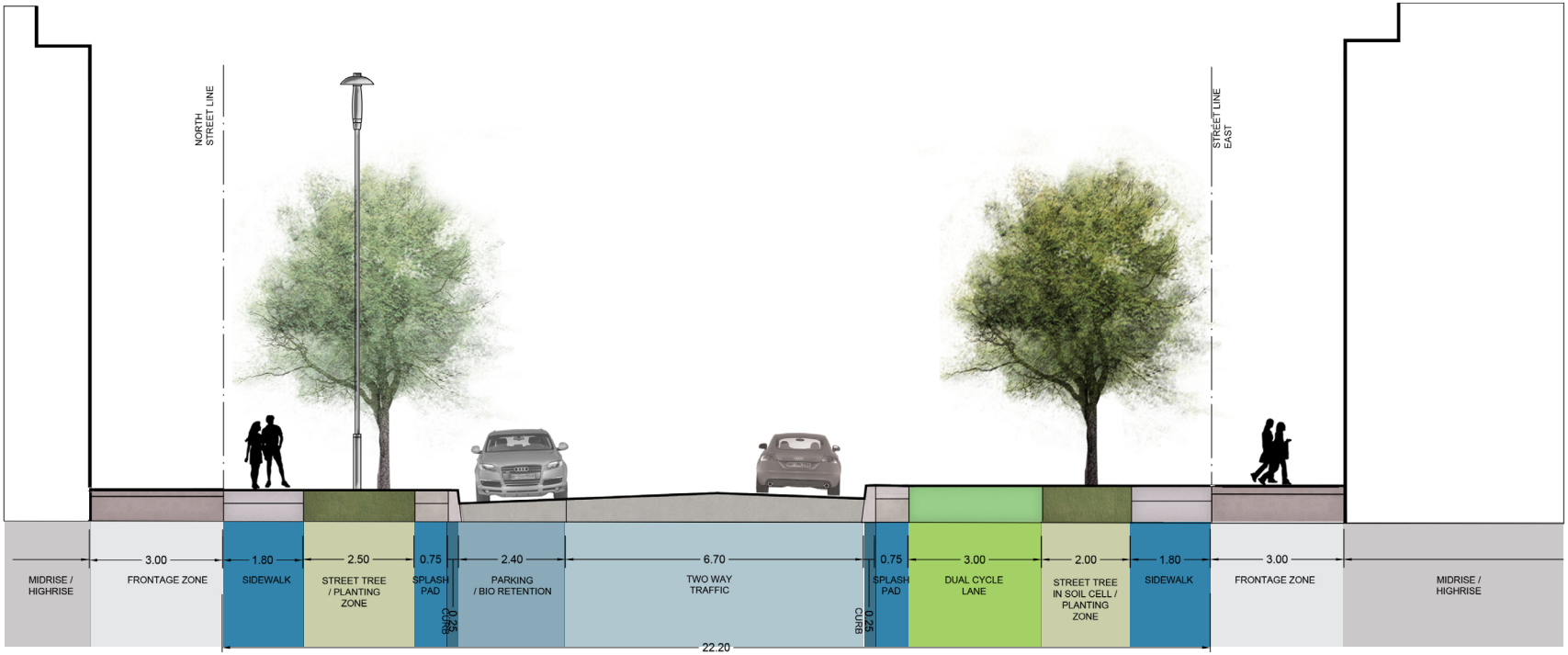
0.75M SPLASH PAD

2.5M STREET TREE

1.8M SIDEWALK

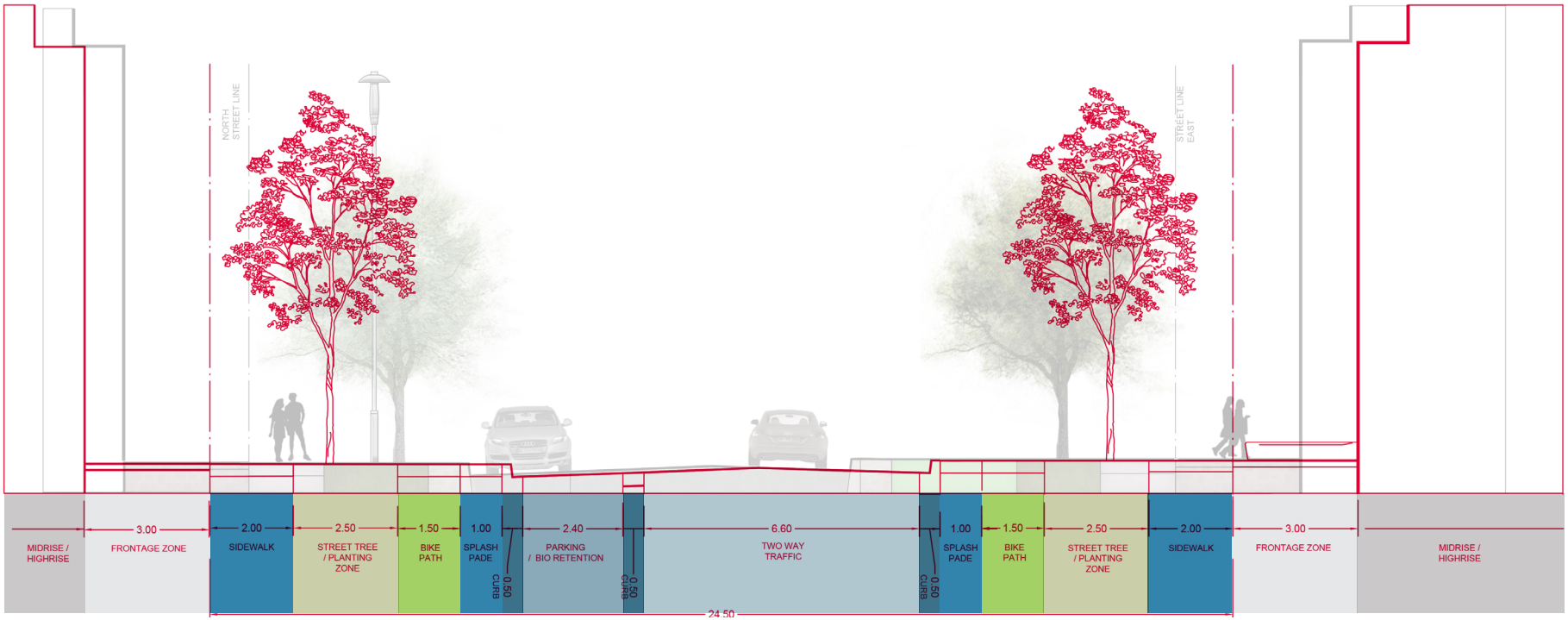
3M FRONTAGE

NEW HAIG / STREET I - MINOR COLLECTOR (CHARACTER SOUTH OF STREET A)



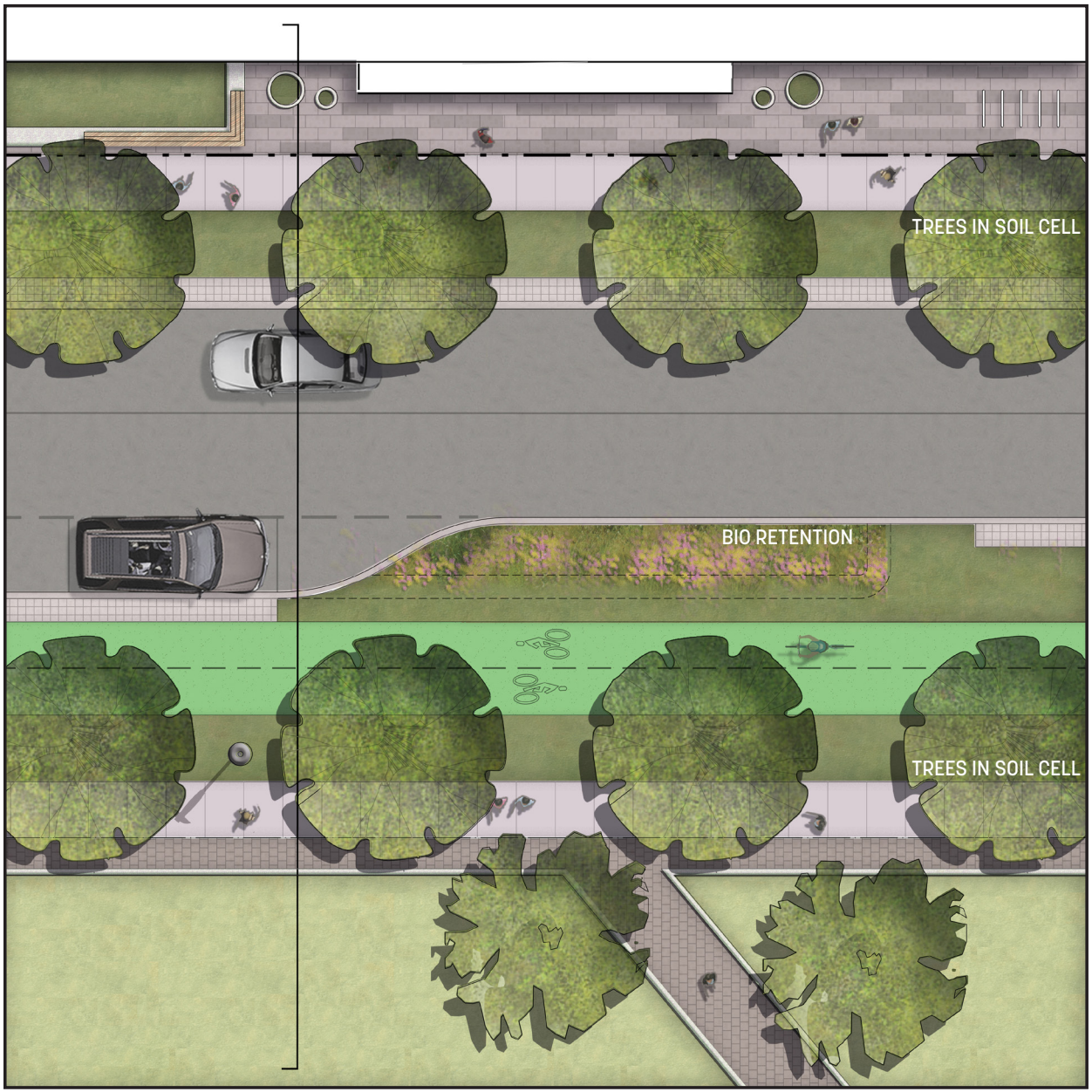
RIGHT-OF-WAY

NEW HAIG / STREET I - MINOR COLLECTOR (CHARACTER SOUTH OF STREET A) WITH CITY PROPOSED CROSS SECTION OVERLAY



2.3M

STREET A, EAST OF STREET H - MINOR COLLECTOR



22M RIGHT-OF-WAY

MID / HIGH RISE

3M FRONTAGE

1.8M SIDEWALK

2.15M STREET TREE

0.75M SPLASH PAD

0.25M CURB

3.35M TRAVEL LANE

3.35M TRAVEL LANE

2.4M PARKING / LID

0.25M CURB

0.75M SPLASH PAD

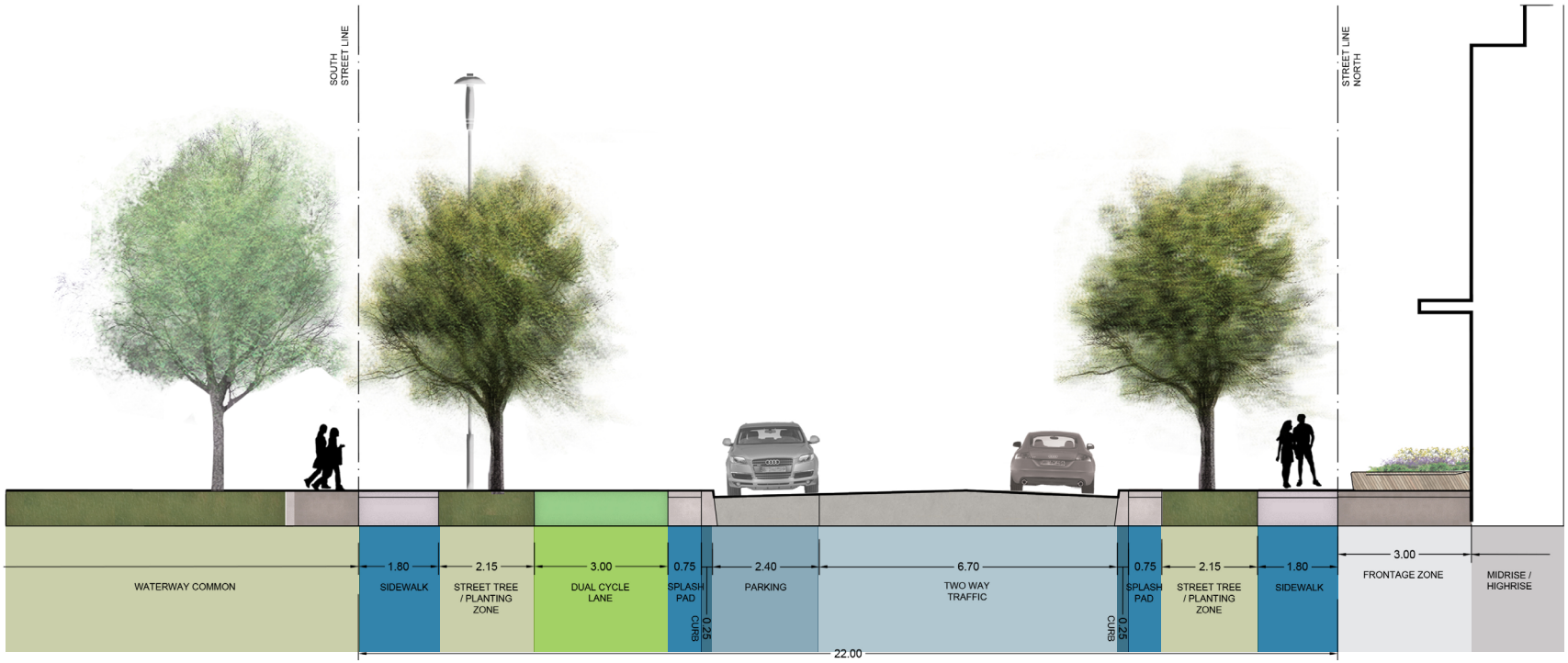
3.0M DUAL BIKE

2.15M STREET TREE

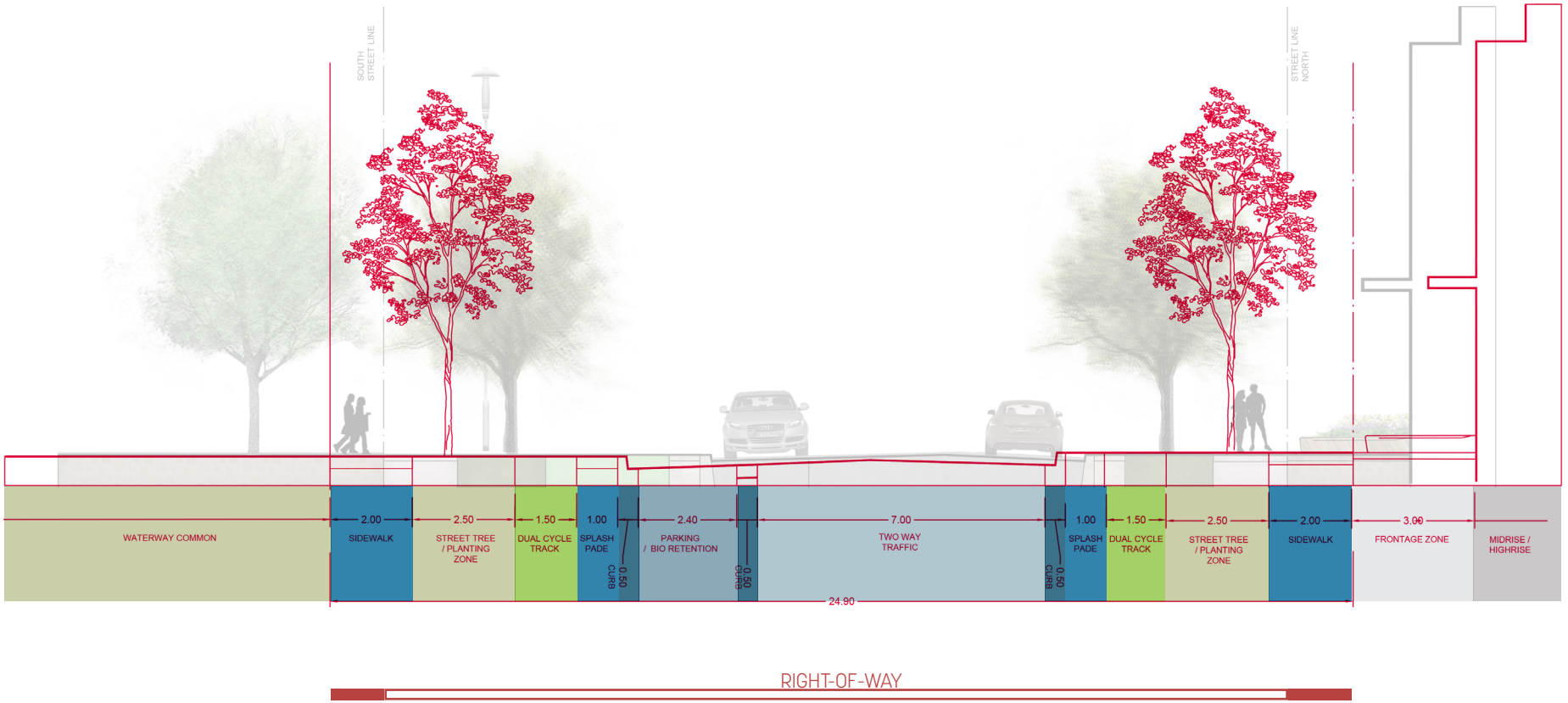
1.8M SIDEWALK

WATERWAY COMMON

STREET A, EAST OF STREET H - MINOR COLLECTOR



STREET A, EAST OF STREET H - MINOR COLLECTOR WITH CITY PROPOSED CROSS SECTION OVERLAY



2.0M

STREET F / OGDEN - MINOR COLLECTOR

22M RIGHT-OF-WAY

OGDEN PARK

1.8M SIDEWALK

2.55M STREET TREE

0.75M SPLASH PAD

0.25M CURB

2.4M PARKING / LID

3.25M TRAVEL LANE

3.25M TRAVEL LANE

2.4M PARKING / LID

0.25M CURB

0.75M SPLASH PAD

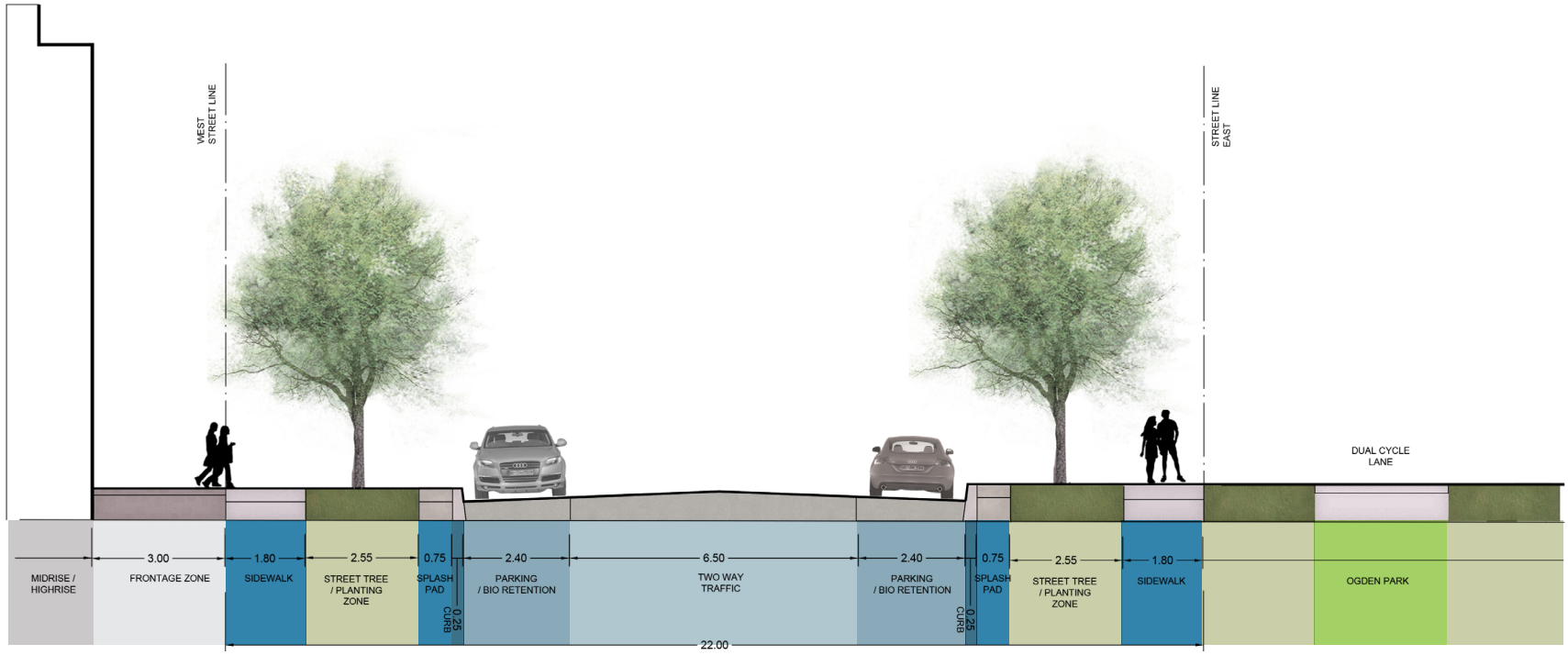
2.55M STREET TREE

1.8M SIDEWALK

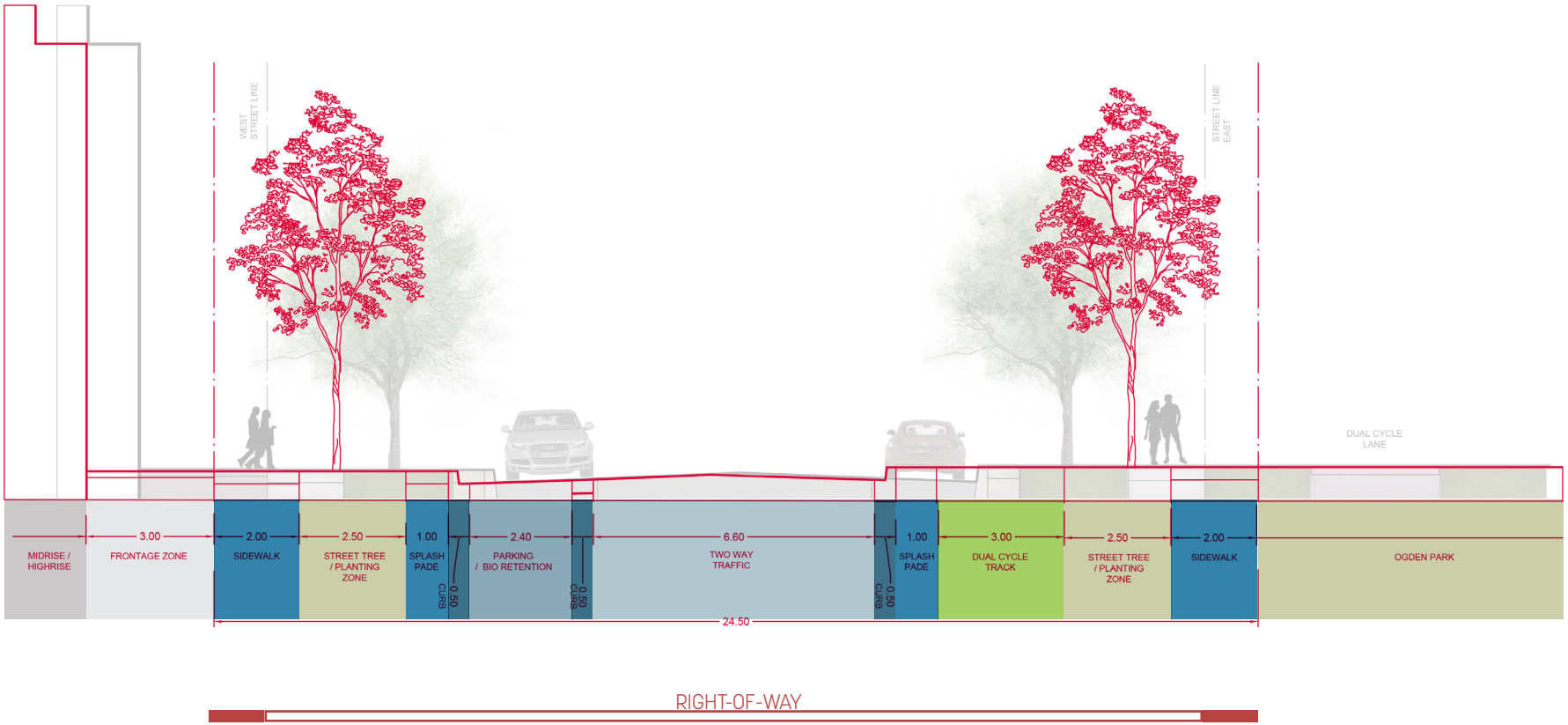
3M FRONTAGE

MID / HIGH RISE

STREET F / OGDEN - MINOR COLLECTOR



STREET F / OGDEN - MINOR COLLECTOR
WITH CITY PROPOSED CROSS SECTION OVERLAY

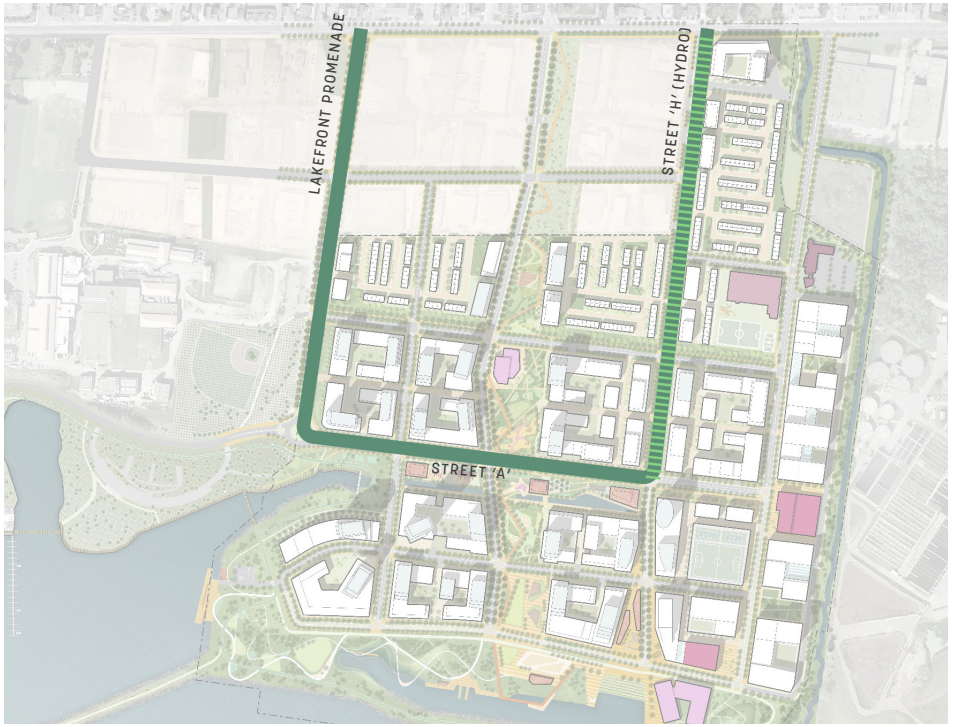


2.5M

MAJOR COLLECTOR

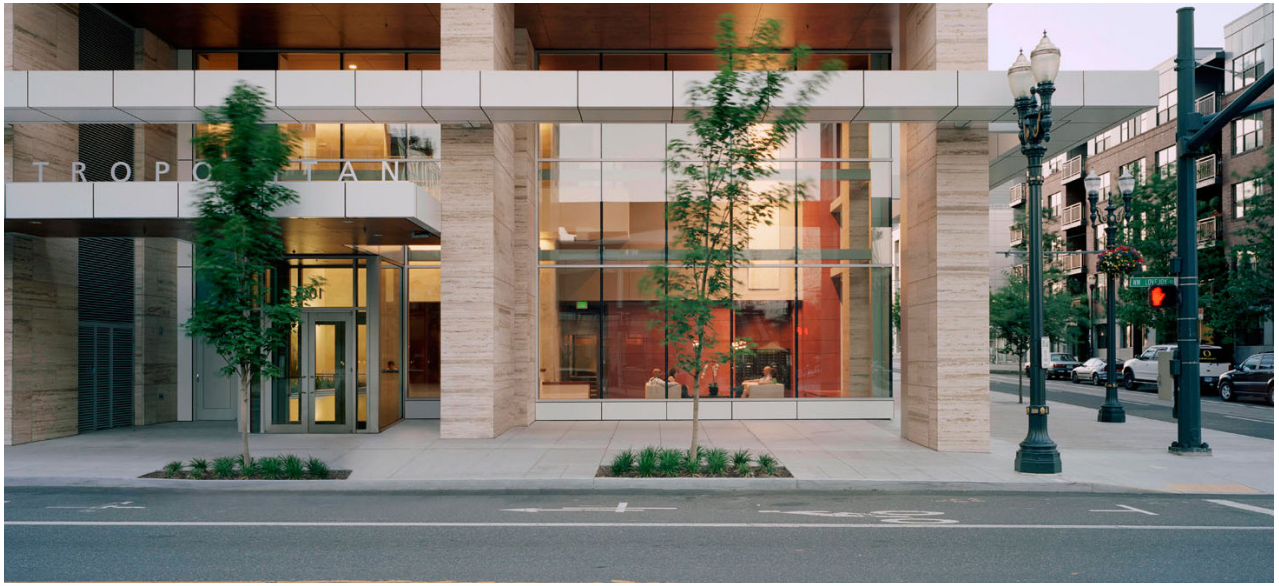
Major collector roads provide primary connections between Lakeview Village districts and community functions, such as parks, recreation centres, and other facilities.

They largely define the community structure, serve as the primary inter-district circulation routes, and accommodate transit. The proposed major collector road right-of-way width is **26.0 metres** with a proposed speed limit of **40km/h.**

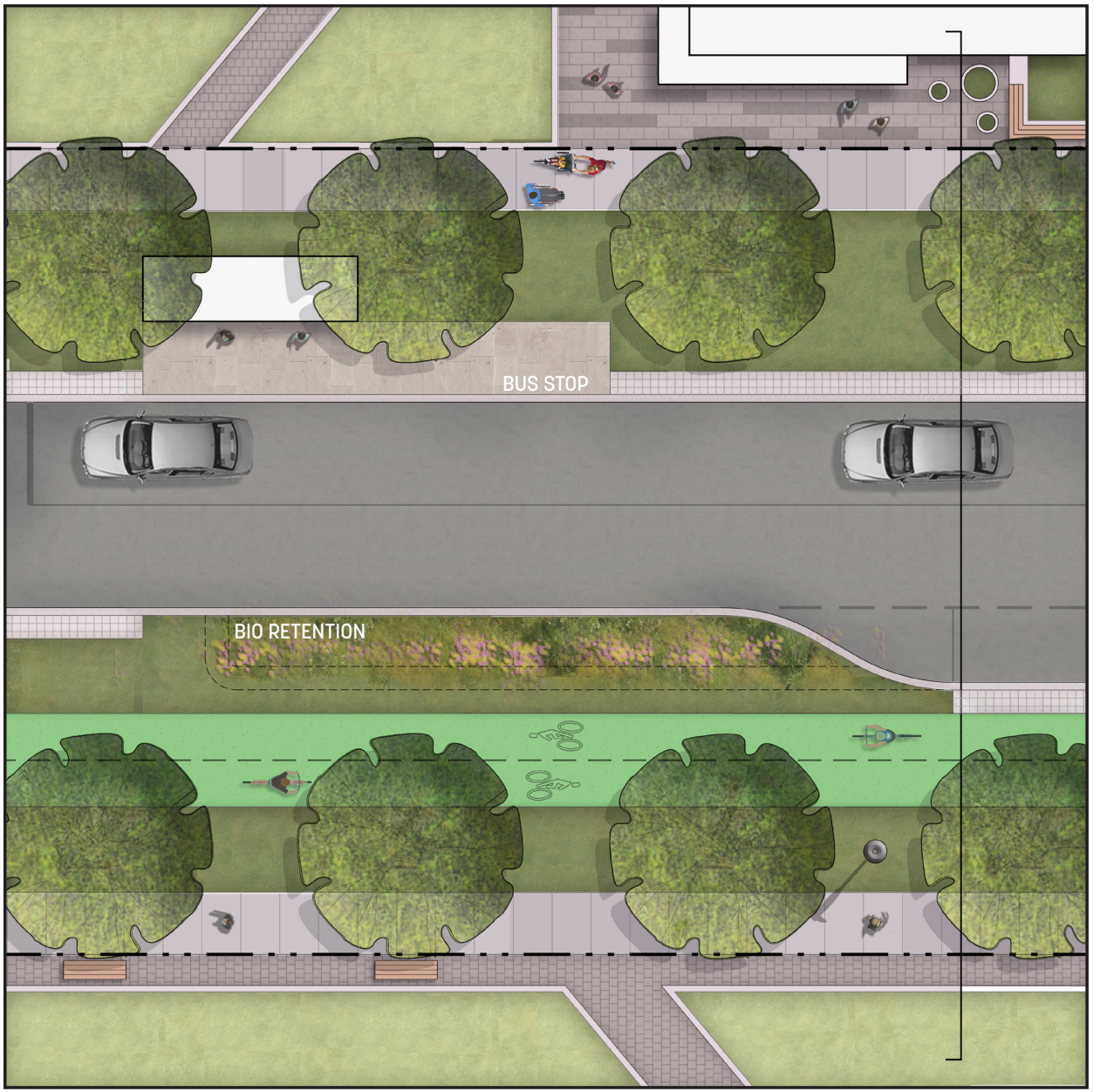


Major Collector

Major Collector - Character



LAKEFRONT PROMENADE + STREET A - MAJOR COLLECTOR WITH BUS ROUTE



26M RIGHT-OF-WAY

MID / HIGH RISE

3M FRONTAGE

2M SIDEWALK

5.15M STREET TREE

0.75M SPLASH PAD

0.25M CURB

3.35M TRAVEL LANE

3.35M TRAVEL LANE

2.4M PARKING / LID

0.25M CURB

0.75M SPLASH PAD

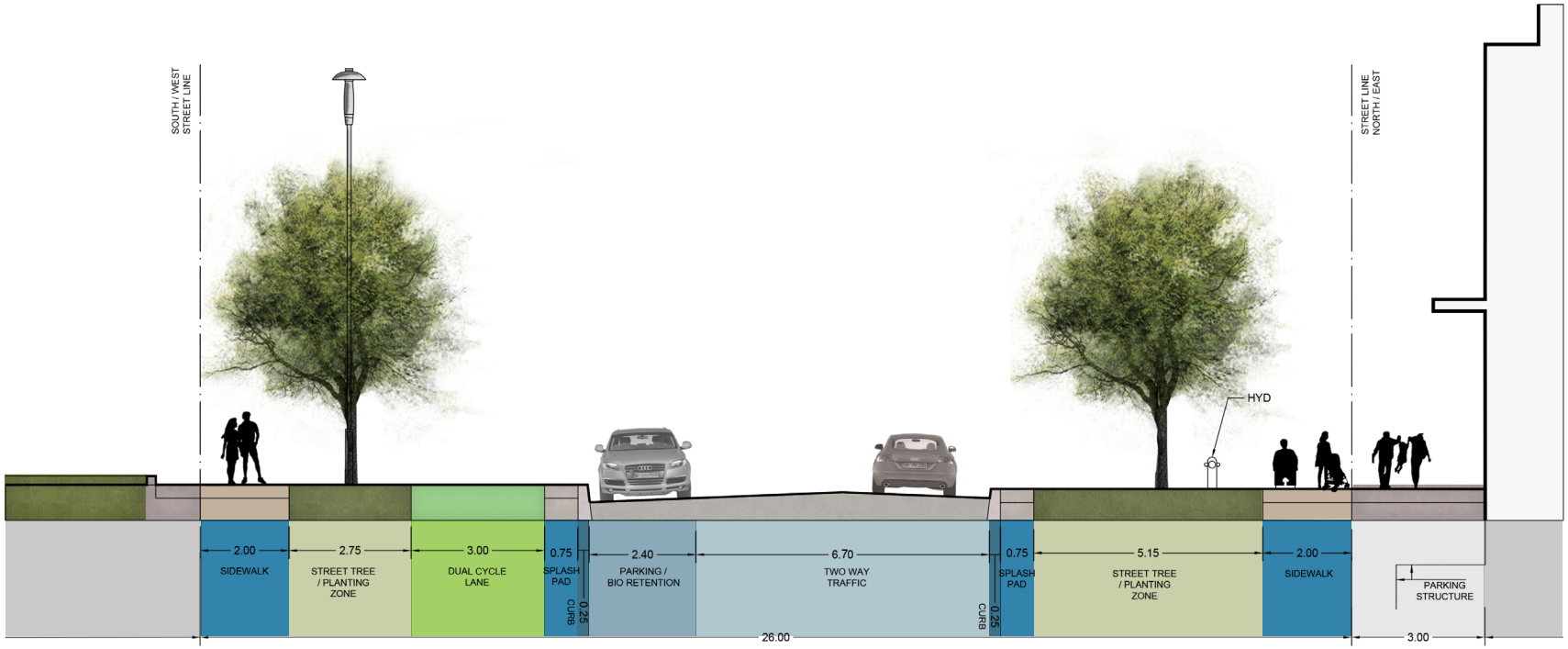
3.0M DUAL BIKE

2.75M STREET TREE

2M SIDEWALK

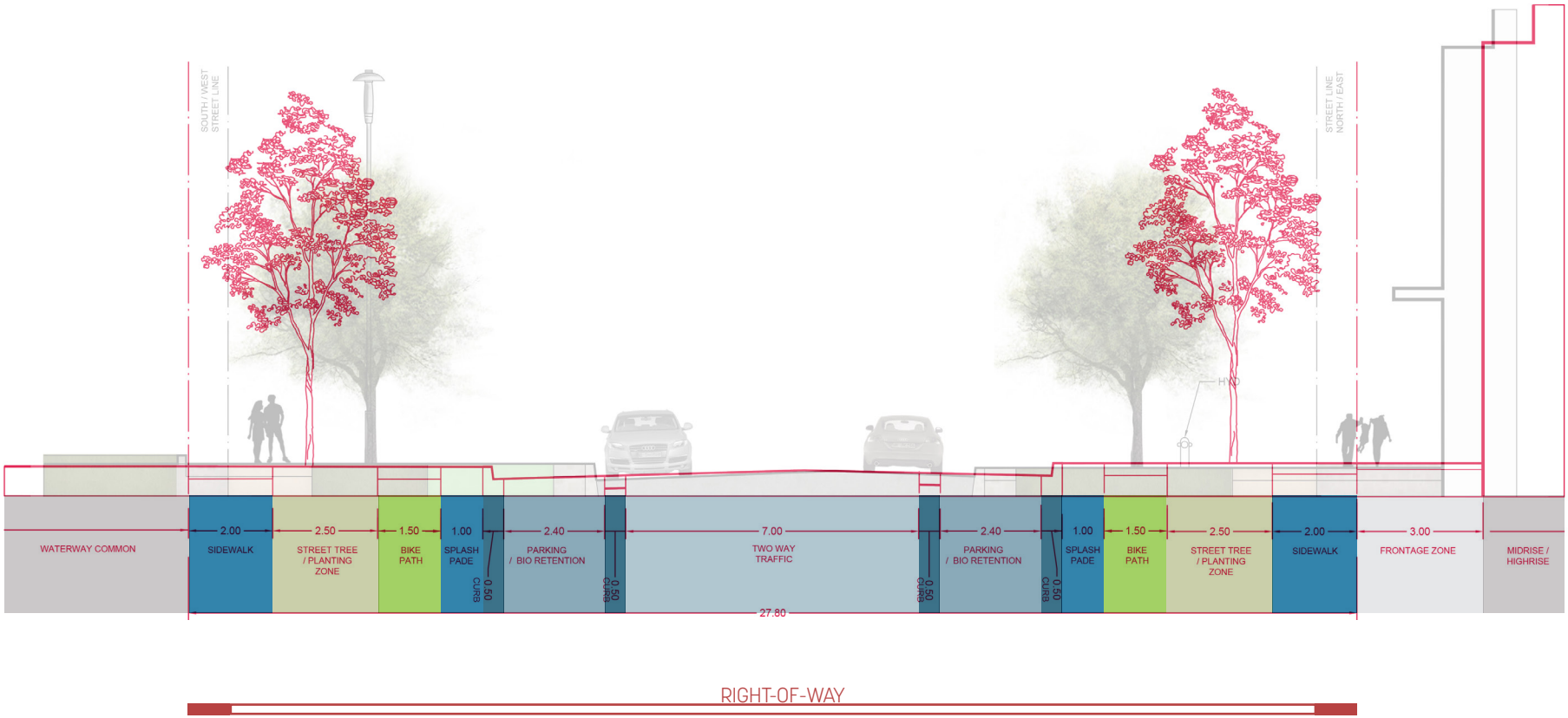
OPEN SPACE

LAKEFRONT PROMENADE + STREET A - MAJOR COLLECTOR WITH BUS ROUTE



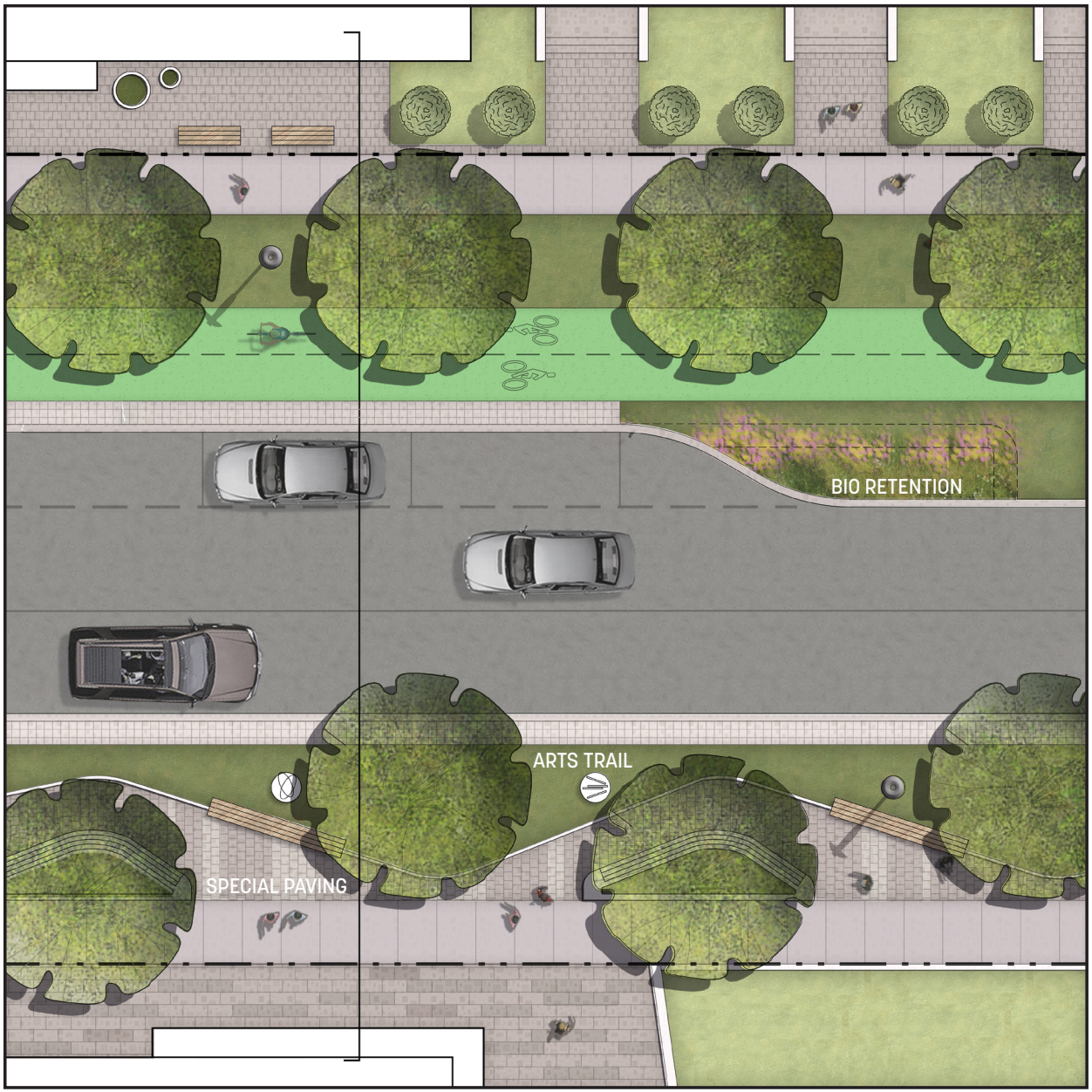
RIGHT-OF-WAY

LAKEFRONT PROMENADE + STREET A - MAJOR COLLECTOR WITH BUS ROUTE WITH CITY PROPOSED CROSS SECTION OVERLAY



+1.8M

HYDRO ROAD / STREET H - MAJOR COLLECTOR (CHARACTER)



26M RIGHT-OF-WAY

MID / HIGH RISE

3M FRONTAGE

2M SIDEWALK

3M STREET TREE

3.0M DUAL BIKE

0.75M SPLASH PAD

0.25M CURB

2.4M PARKING / LID

3.30M TRAVEL LANE

3.30M TRAVEL LANE

0.25M CURB

0.75M SPLASH PAD

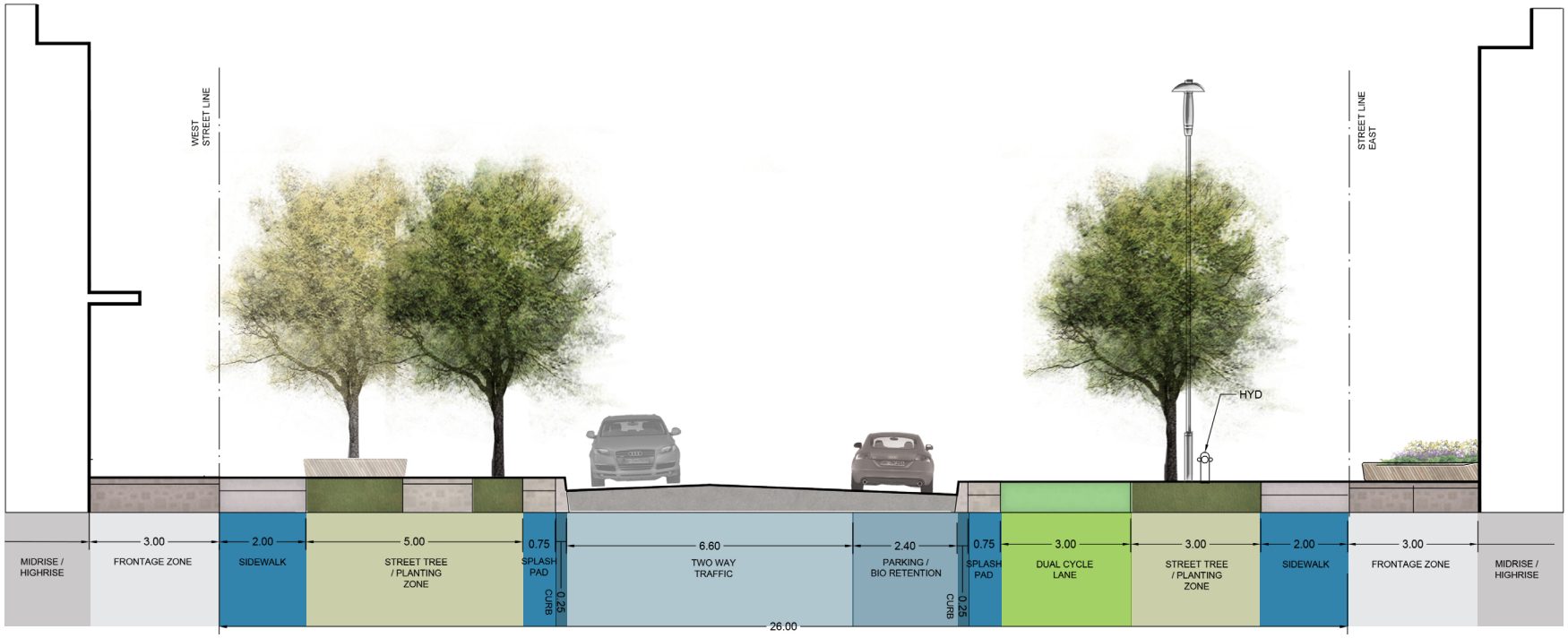
5.0M STREET TREE

2M SIDEWALK

3M FRONTAGE

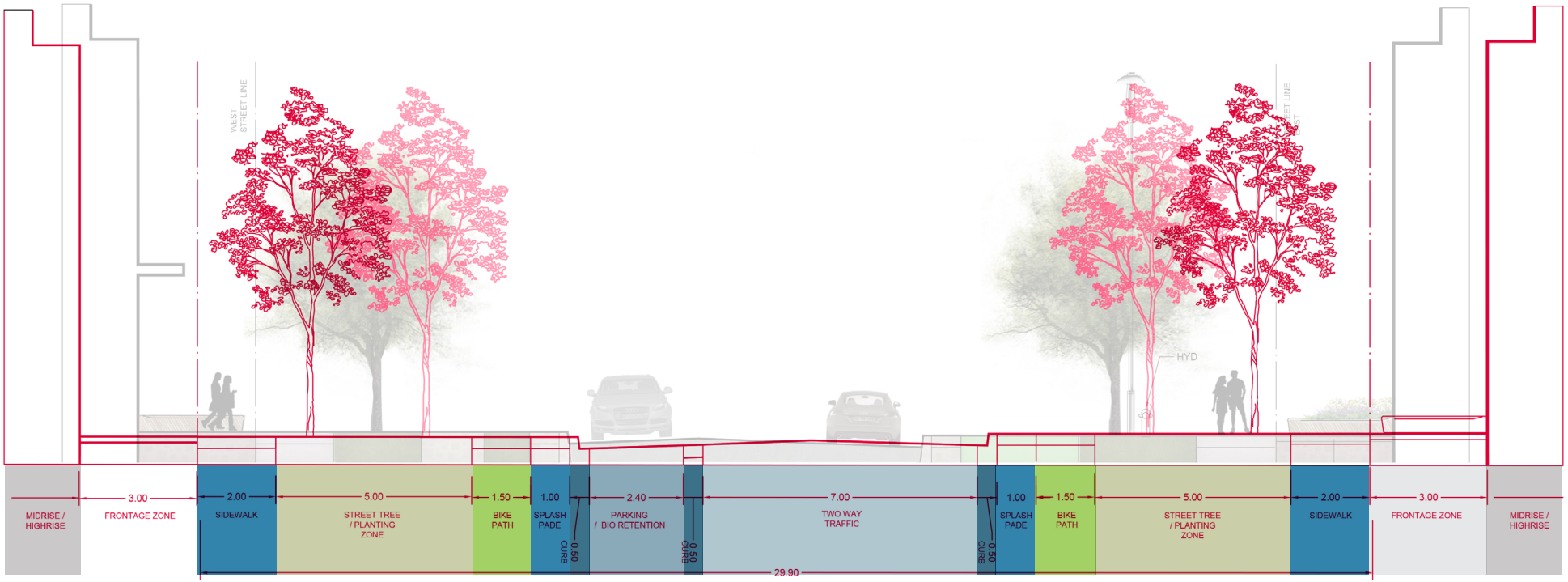
MID / HIGH RISE

HYDRO ROAD / STREET H - MAJOR COLLECTOR (CHARACTER)



RIGHT-OF-WAY

HYDRO ROAD / STREET H - MAJOR COLLECTOR (CHARACTER) WITH CITY PROPOSED CROSS SECTION OVERLAY



+ 3.9M

THANKYOU

APPENDIX A
ROAD DESIGN STANDARDS
CITY vs. LAKEVIEW

DESIGN STANDARDS

	Element	City Suggestion	Lakeview Standard	Rationale
1	Sidewalk	2.0m+	2.0m Major Collectors	Meets City suggested width
			1.8m Minor Collectors 1.8m Local Roads	Exceed City of Mississauga and AODA minimum width of 1.5m. Reduction to 1.8m for Minor Collector and Local Streets assist in maintaining compact streets. All sidewalks located at edge of ROW so additional width is available in frontage zone.
2	Splashpad	1.0m	0.75m Major Collectors 0.75m Minor Collectors 0.0m Local Roads	OTM Book 18 specifies 1.0m buffer between parking lane and cycle track measured to **face of curb.** TAC specifies min 0.6m when cycle track adjacent to parking. wWidth of 0.75m buffer plus curb meets/exceeds these criteria while maintaining compact streets.
3	Curb Type	0.5m Curb + Gutter	Special Curb Detail Specific to Lakeview, with consideration to no concrete gutter.	Assists in creating a sense of place and identity
		0.5m Roll Curb between Through Lane and Parking Lane	No roll curb	Roll curb would intercept storm runnoff into parking layby, reducing runoff capture to bio-retention LID features.
4	Tree Corridor	2.5m+ planting / grass 2m hardscape	2.5m+ Trees in Sod 2.5m+ Trees in Soil-Cell 2.0m+ Trees in Soil-Cell	Meets City suggested minimum width. Corridor to be wider where possible Where adjacent uses warrent hadscape surface treatment. Meets City minimum width.
5	Bike Lanes	1.5m single cycle tracks		
		3.0m dual cycle track	3.0m dual cycle tracks	3.0m dual cycle tracks proposed on Promenade, G, H, and I - geared towards N-S commuter cycling from Lakeshore Road to the Waterfront. Major E-W commuter circulation along Street A
			3.0m dual cycle tracks proposed within adjacent parks	3.0m multi-use trails or 3.0m dual cycle tracks within Ogden Park, Aviator Park and Waterfront Park - geared towards E-W recereational cycling

DESIGN STANDARDS

	Element	City Suggestion	Lakeview Standard	Rationale
6	Travel Lane	3.3 without bus route, 3.5m with bus route	3.3m Major Collector Road. 3.25m Minor Collector 3.35m Minor Collector with Bus Route 3.0m Local Road	Roads meet or exceed TAC minimum of 3.0m for design speeds <60km/hr Reduction of non-bus lanes to 3.25m reflect narrower street widths and slower posted speeds (30km/hr) 3.35m travel lanes for bus routes carried as per City direction in April 2019. Reduction of non-bus lanes to 3.25m reflect narrower street widths and slower posted speeds (30km/hr)
7	Parking Lane	2.4m	2.4m	Measured from face of curb
8	Curb Radii	12m	8m	City standard is 8m for Local and Minor Collector, 12m for Major Collector NACTO standard is 4.5m maximum to slow speeds through intersection turns. Curb radii of 8.0m for Lakeview is proposed through out to encourage slower turn speeds through intersections and to minimize pedestrian crossing distance / time
9	Utility Corridor	Both sides of road	One side of road	Majority of buildings on the site can be serviced by a utility corridor on one side of the road. Of the 100+ buildings, less than 10 would require a road crossing for utility service. See Utility Layout drawing.

APPENDIX B
2-D COMPOSITE PLAN & UTILITY LOCATION PLAN

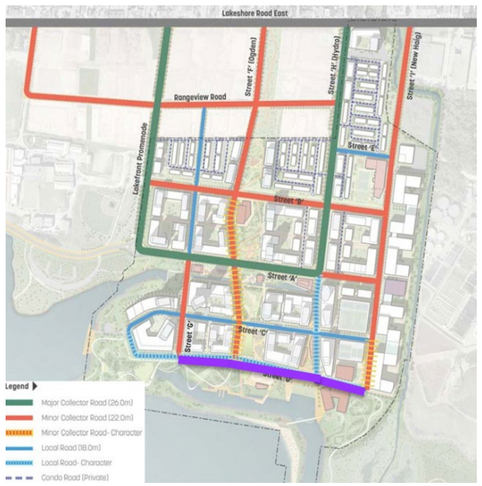
APPENDIX C
DETAILED RESPONCE MATRIX
CITY COMMENTS JUNE 26, 2020

September 28, 2020 PROJECT NUMBER 17201

RESPONSES TO CITY COMMENTS ON RIGHT-OF-WAY PACKAGE
(Written comments recieved June 26, 2020, verbal comments received July 23, 2020 and September 24, 2020)

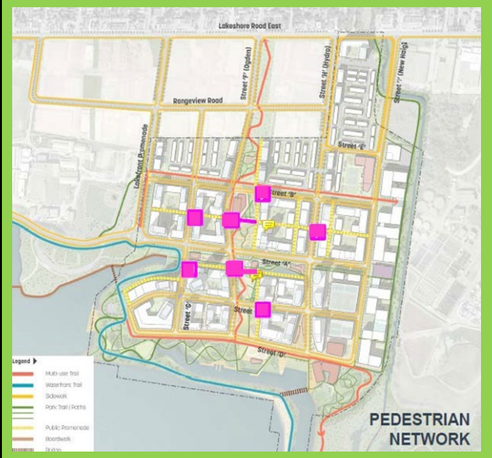
TABLE 1: GENERAL COMMENTS

A. Road Classification

COMMENT	FIGURE	RESPONSE
1. The applicant is required to provide justification for the road classification changes from the Official Plan policies from the following streets are required: a. Street H (from Street A to Street D) changed to local road b. Street D (from Street G to Street H) changed to local road		Chapter 8 of the City's Official Plan states. Section 8.2.2.1, point c. and d. of the City of Mississauga's Official Plan: *c. minor collectors and local roads will be designed to accommodate low levels of traffic and to provide property access. To ensure safety, the efficient function of the thoroughfare and other matters, the access locations to private property will be controlled; and* *d. minor adjustments to the basic right-of-way widths and alignments for roads may be made without further amendment to this Plan subject to the City being satisfied that the role and function of such roads are maintained. Major adjustments to the basic right-of-way widths and alignments for roads will require an amendment to this Plan.* According to the OP, both a minor collector and a local road are given the same functional description although they are two separate road classifications. Furthermore, point d. indicates that "minor" adjustments can be made to the ROW widths (without further amendments to the OP) so long as the role and function of the road classification is maintained. As per Table 8.3 of the OP, Minor Collectors are to have ROW between 20-26m. Table 8.4 indicates that Local Roads are to have a ROW of 17m to 20m. The proposed 18m ROW for the local road section of Street 'H' south of Street 'A' falls within Local Road guidelines, as per the OPA. From a mobility standpoint, the proposed Lakeview Village Local Roads and Minor Collectors (22m ROW) fulfill the same functions: one lane of travel in each direction, one lane of on-street parking, sidewalks on both sides of the road, and provisions for cycling traffic. The key difference between the two cross-sections is the cycling infrastructure. The local road cross-section will make use of "mixed traffic lanes" instead of dedicated cycle tracks on both sides of the road. Regardless, both ROW widths have provision for the efficient movement of automobiles, cyclists, and pedestrians within the ROW. Although separation of automobile and cyclist traffic is 'lost' when mixed traffic lanes are introduced compared to cycle tracks, this is not a negative aspect of the portion of Street 'H' designated as local, as this section of Street 'H' is intended to lead into the heart of Lakeview Village – Lakeview Square. This is envisioned as a high-pedestrian area, and the desire is to

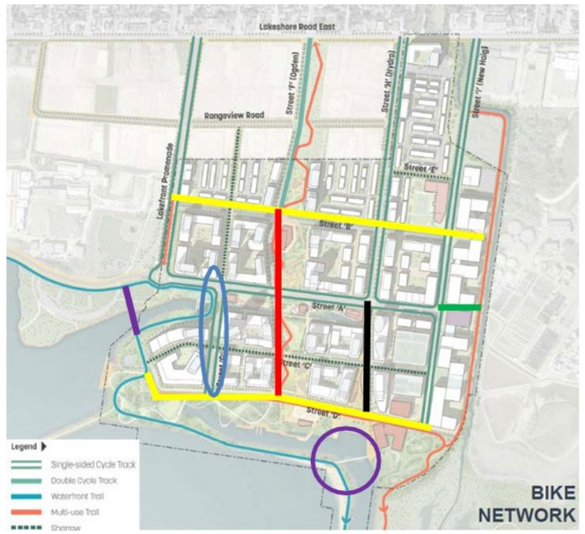
…continued		minimize the number of automobiles using the roads within the higher-density Lakefront area. Lower speed limits will likely be imposed in these areas as well to further enforce the pedestrian-centred zone. Mixed traffic lanes and requiring bicycles and vehicles to share the same lane (even in a single-file fashion) can also be a contributing factor to slowing down automobile traffic to at least the speed of a cyclist. Much of the above reasoning / arguments can also be applied to Street 'D', which directly interfaces with the waterfront. This street is meant to also have a high degree of pedestrian activity, and the priority of automobile traffic is lowered appropriately, so as to provide a more welcoming and safer environment for pedestrians. A Local Road right-of-way provides a more effective urban interface condition where buildings fronting along the north side of Street 'D' will have a stronger relationship with the street and the waterfront park through a reduced setback. This will result in a perceived reduction in the scale of the street that will affect a reduction in vehicular speeds, which is critical to the safety of this character street that will see a high intensity of pedestrian movement throughout. As well, the close relationship between street and building along a local road allows the architecture to better frame the street and contribute to the overall streetscape character. Should accessibility to the waterfront for cyclists be questioned, in particular for Street H, most other north-south streets providing access to the waterfront and Street 'D' all are designed with dedicated cycle tracks or bike path. We note that based on feedback received from City staff on July 23rd and September 24th, the multi-use recreation trail previously proposed within the Lakefront Park lands parallel to Street 'D' has now been changed to a dual cycle track which will provide a cycling route through this park in addition to the Waterfront Trail.
2. Due to function, infrastructure requirements, and proximity to waterfront and the amenities along the waterfront, Street D is required to be minor collector road from Street G to Street I (shown in purple line)		Please see our response to Item No.1. Please also see our supporting comments for Bicycle/Multi-Use Trail Network Item 1, and our responses to the Table 2: Cross-Section Comments for Street D

B. Pedestrian Network

COMMENT	FIGURE	RESPONSE
1. There are a number of proposed pedestrian promenades within blocks, which is welcomed. There are two points along Street F where the promenade on either side should be extended across the park space to complete gaps between them (shown as pink line).		Agreed
2. There are 7 points where the pedestrian promenades meet roadways where pedestrian are likely to cross mid-block. There should be provisions at these points for either pedestrian crossovers (PXOs) or uncontrolled crossings with safety provisions (i.e. break in parking with bump-out of boulevard), shown as pink square.		Agreed: Sasaki has added these crossings to the landscape plan and TMIG has updated the Composite Surface Feature Plan accordingly.
3. On Street B and Street D, there are both sidewalks and multi-use trails, which is redundant. The configuration on these two roads should be changed to cycle tracks plus sidewalks. The sidewalks on the parkland side of each street should be widened.		The Lakeview Team disagrees. The sidewalks and multi-use trails serve different purposes and as a result we do not see these as being redundant. The sidewalk is located within the right-of-way and provides a pathway for pedestrians. The multi-use trail which is identified within the adjacent park lands, provides a pathway for both pedestrians and recreational cyclists. The cycle track system proposed by LCPL provides a pathway intended for more commuter cyclist traffic and as a result, this system has been primarily orientated on north-south streets to bring commuter cyclists from Lakeshore Road down to the Lake and vise-versa. For the roads within a west-east orientation, the cycle pathways have been identified as for recreational cycling uses and pathways for this use have been provided via multi-use trails and mixed traffic lanes. One of the primary purposes of Aviator Park along the north side of Street 'B' is to allow for recreational cycling across the site (i.e. east-west) for students to travel to and from the Urban School. Given that the Aviator Park MUT will provide a key pathway for school children and their parents to and from the urban school, LCPL would prefer the MUT over the CT in this location.

		As noted above, the multi-use recreation trail previously proposed within the Lakefront Park lands parallel to Street 'D' has now been changed to a dual cycle track which will provide a cycling route through this park in addition to the Waterfront Trail.
4. There should be multi-use trail connections on the east ends of streets A and B to the north-south multi-use trail along the river.		Agreed This has been shown on updated figures.
5. For sidewalks, the minimum width of 2.0 m shown in the plans is acceptable. Where there is room along parkland, and suggest that multi-use trail be changed to cycle tracks, so a wider sidewalk can be provided, 2.5 to 3.0 m is desirable.		While our April 2020 ROW package identified minimum sidewalk widths of 2.0m, the updated cross-sections attached reflect a minimum sidewalk width of 1.8m on the local roads and minor collector roads to achieve compact streets and in many cases to generate wider tree corridors.. A minimum width of 2.0m has been maintained on the major collector roads. Both the 1.8m and 2.0m sidewalk widths meets the Ctiy design standards and the provincial AODA standards. It is acknowledged, however, that some areas of the community will experience more intensive foot traffic associated with adjacent land uses (i.e. north side of Street 'D' and Street 'H' through Lakeview Square). As part of the streetscape design program, the 1.8m sidewalks in these areas will be supplemented with an adjacent hardscape boulevard treatment (between sidewalk and curb) that will expand the walkable zone width and continue to reinforce the pedestrian priority for the community. If the City feels strongly about 2.0m sidewalks within the local and minor collector roads, then width could be taken from the tree corridors (which exceed the minimum tree corridor widths). From an environmental standpoint, LCPL's preference is to put the width into the soft landscaped surfaces rather than hard surfaces.
6. In higher pedestrian areas, such as where there may be street-facing commercial activity, then sidewalks should be wider, though alternatively pedestrian space on the private property can be provided.		Additional space for pedestrians in areas such as the Square, can be provided in a number of ways. Utilizing tree pits within the tree corridor in these areas, provide hard paver surfaces between the trees which also assist in pedestrian movements. Please see in the attached Presentation, the typical plan and section for Street D around Lakview Square where we are proposing this condition.

C. BICYCLE / MULTI-USE TRAIL NETWORK

COMMENT	FIGURE	RESPONSE
1. On Street B and Street D, there are both sidewalks and multi-use trails, which is redundant. The configuration on these two roads should be changed to cycle tracks plus sidewalks. The sidewalks on the parkland side of each street should be widened (shown as yellow line).		Please see our response to comment No.3 under 'Pedestrian Network'
2. There should be multi-use trail (MUT) connections on the east ends of streets A and B to the north- south MUT along the river.		Agreed This has now been reflected
3. If any boulevard along Lakeshore Road is being affected, then cycle tracks should be added, as is being done at Port Credit West Village. These would connect to the existing multi-use trail east of Hydro Road.		Agreed. This will be evaluated in conjunction with any road improvement designs for Lakeshore Road.
4. The Waterfront Trail on the west side of the development should be more direct and more scenic by utilizing the proposed bridge, allow for a short connect to roundabout/Street A. It is suggested that it be rerouted there (shown as purple line).		Agreed. We show both the route currently shown and the route across the bridge.
5. The routing of the Waterfront Trail on the east side of the development is unclear. Please clarify if the trail crosses over the channel south of the graphic? If not, it should cross over at the bridge, to connect with the new park under construction to the east, shown as purple circle.		Agreed, there are two crossings envisioned in this area. This has been clarified on the updated figures.

6. Cycle tracks should continue along Street H, down to Street D, as shown with black line.		The Lakeview Team disagrees. The cycle track system proposed by LCPL provides a pathway intended for more commuter cyclist traffic. Given the high pedestrian focus of the Square (Street 'H' from 'A' down to 'D'), the cycle track on Street 'H' has intentionally been left off of this portion of Street 'H'. During normal day events, the roadway will act as a mixed traffic lane for the recreational cyclists, and the commuter cyclists will be routed off Street H south of 'A'. During special events when Street H is closed, cyclists should be directed to dismount.
7. If other adjacent cycling connections are made, this street can be made a local road with mixed traffic lanes instead of cycle tracks, shown as blue circle.		Acknowledged However, we will keep the cycle tracks along Street 'G' as this area will have the highest population density in the neighborhood and will generate the most cycling traffic.
8. Connection to MUT should be provided east of Street I, shown as green line.		Agreed, these connections have now been shown on the updated figures.
9. A MUT travelling from Lakeshore Rd E to Street 'D' along the waterfront park in addition to a double cycle track from Lakeshore Rd E to Street 'B' is proposed. Remove the MUT within future park and replace with a cycle track along Street F – sidewalks are already located within the Minor Collector.		As noted above, The cycle track system proposed by LCPL provides a pathway intended for more commuter cyclist traffic and as a result, this system has been orientated on north-south streets to bring commuter cyclists from Lakeshore Road down to the Lake and vise-versa. Our current plan shows cycle tracks on all four north-south primary linkages, namely on Lakefront Promenade, Street 'F', Street 'H', and Street 'I'. Upon re-evaluation, the Lakeview Team believes that cycle tracks are not warranted on all of these linkages and that the community would be better served by a recreational cyclist pathway along/adjacent Street 'F' instead of cycle tracks The Lakeview Team is proposing, as a result, to eliminate the double cycle tracks on Street 'F' between Lakeshore and Street 'B' and maintain the MUT within the adjacent park for recreational cyclists. The most likely routes for cyclists along Lakeshore Road who want to head south to the waterfront in as quick and direct route as possible will be via the proposed cycle tracks along Lakefront Promenade, Street 'I' (New Haig) and Street 'H' (Hydro). A proposed multi-use trail within Ogden Park, in place of cycle tracks along Street 'F', is intended to engage those cyclists who wish to make connections to the waterfront and points in-between within a park-like setting. This will include the removal of the previously identified cycle track along Street 'F' between Lakeshore Road and Street 'B'. As well, within Ogden Park, the meandering of the path will be minimized somewhat to ensure the cycling connections southward are efficient. These cycling choices are strategic and complementary and are intended to reinforce a comprehensive, experiential, and safe cycling experience for all levels.

10. What is the rational for not continuing the Double Cycle Track on Street “F” from Street “B” to Street “D”? Remove reference to MUT within future Park. A need for MUT will be determined through future park design process. Cycle track should be accommodated within the Street ROW. Pedestrian Network illustrates a multi-use trail along Street ‘B’ and Street ‘D’ but the cross section (Appendix A, Figure 3 and 6) does not show where the MUT will be in relation to the boulevard (shown as red line).		See our response to comment No.9 above.
11. Pedestrian and Cyclist Network illustrate trails along Serson Creek, they are labelled differently (multi- use trail versus park trail), please keep trail labels alike across all plans. This trail is to be determined based off of comments provided as park of Serson Creek Design Brief not yet approved by the City of Mississauga.		Agreed The Composite Surface Feature Plan has been coordinated with drawings for Serson Creek and associated multi-use trail.
12. Cycle tracks as shown are generally sufficient though will require some extra width where adjacent to parking. They should be a minimum of 2.0 m wide (one-way) or 3.5 m wide (two-way) if immediately adjacent to the curb, or 1.5 m and 3.0 m wide respectively if adjacent to the splash pad/buffer.		Our latest x-sections reflect dual cycle tracks with a width of 3.0m adjacent to a 0.75m splash pad/buffer. These meet the minimum widths requested by the City.
13. For cycle tracks/multi-use trails, a minimum 0.5 m wide splash pad/buffer is desired. A 1.0 m wide splash pad/buffer is required if there is adjacent parking, or if the road has more than one lane in each direction.		We recognize the City’s concern regarding the potential for “dooring” of cyclists by parked vehicles and our x-sections have been revised to reflect a 0.75m splashpad when Cycle Tracks are adjacent to parking. It is important to note that this 0.75m pad width meets the OTM Book 18 - Cycling Facilities guide suggested buffer width of 1.0m measured from cycle track to face of curb.
14. The buffer width and material should be shown in the drawings, and can be concrete, bricks, or pavers (something that contrasts with the asphalt).		Agreed. Concrete/Pavers has been reflected on the updated x-sections . Confirm this has been reflected. What material should be shown???

C. TRANSIT NETWORK

COMMENT	FIGURE	RESPONSE
1. What are the proposed land/building uses surrounding the bus stops which are located at the following site intersections: • On Lakefront Promenade at Street 'B' • On Street 'A' at Street 'F' • On Street 'I' at Street 'B'	N/A	• Park/Highrise Residential • Park/Highrise Residential • Employment/School/Highrise Residential
2. What is the distance between the above proposed future bus stops? MiWay's stop spacing standard entails an approximate distance of 400 metres between local stops.		The distance between proposed bus stops are in the range of 400m-600m.
3. All future proposed bus stops are to be located at protected intersections (i.e. 4-way stops or signalized intersections).		TMIG will continue discussions with MiWay. Separate coordination meetings with MiWay would be beneficial. TMIG will initiate.
4. All future proposed bus stops must follow our updated standards as attached within this e-mail. For stops located adjacent to a bike trail/path please also refer to the attached draft standard drawings. Note: MiWay has finalized these standard drawings and we are in the process of going through the approvals with the City. Draft standards will be updated once final copy approval is obtained.		Agreed We don't believe these updated standards were circulated to the LCPL Team. The bus-stops shown in the Composite Surface Feature Plan have been updated accordingly.
5. For the proposed bus stop on Street 'I' at Street 'B': • Northbound stop does not have a platform; please also incorporate space for a 15 metre concrete pad as per our draft standard drawings.		Agreed The bus-stops shown in the Composite Surface Feature Plan have been updated accordingly.
6. Southbound stop is located far side – please move this stop nearside at the stop bar of the protected intersection on Street 'I' at Street 'B'.		Agreed The bus-stops shown in the Composite Surface Feature Plan have been updated accordingly.
7. Articulated bus Auto turn analysis must be completed at the following locations: • Lakefront Promenade / Street 'A' (roundabout) • Street 'A' / Street 'I' (Note: please adjust on-street parking accordingly)		Acknowledged An auto-turn analysis has been included in Appendix D of this package for both articulated buses and standard buses. As you will note, both bus can travel unimpeded through the roundabout.

		Bus travel through the Street A/Street I intersection and the Street A/Street H intersection poses a bit of a challenge for both bus types, with it being worse for the articulated bus.. The design of this intersection will need to be reviewed in light of transit turning. Potential solutions to be discussed with T&W and MiWay include: • Moving offset stop bars back +/-10m from typical locations • Flaring of pavement width at the intersection
8. Please be advised that MiWay will require nearside bus stops that adhere to the above mentioned requirements at Lakeshore Road East (on Lakefront Promenade and on Street 'I').		Agreed The bus-stops shown in the Composite Surface Feature Plan have been updated accordingly.
9. As per recommendations outlined in the Lakeshore Road Transportation Master Plan and Implementation Study, along Lakeshore Road East, where there currently are no shelters/no land that is available to implement a shelter at the existing stops, MiWay requires the protected space for a future bus shelter/concrete pad that adhere to MiWay standards.		This will be reviewed in conjunction with the design of any proposed Lakeshore Road improvements by LCPL.
10. The existing stops adjacent to the Inspiration Lakeview site must also be relocated to the stop bar of intersections (i.e. Stop #0439, #0440, and #2744).		This will be reviewed in conjunction with the design of any proposed Lakeshore Road improvements by LCPL.
11. In the initial submission, Hydro Road was designated as part of the transit path, MiWay will need to change transit reviewer comments provided to pertain to Street 'I' instead of Hydro Road (i.e. 3.5 metre lane width…etc.).		Understood We note that it is expected that transit will follow Hydro Road until Street 'I' can be connected to Lakeshore Rd. This connection is constrained by property ownership.

D. PARKING

COMMENT	FIGURE	RESPONSE
1. Parking lanes are all 2.4m, generally the City uses 2.5m as a minimum when a parking lane is beside a bike lane for door swing – this would apply to having a cycle track with minimal buffer immediately adjacent to the parking lane.	N/A	2.4m parking widths were requested by the City in its consolidated comments to LCPL on April 15, 2019. It is important to note that, the City's Road Design Comment #8 below indicates that: "Layby parking width to be a minimum (2.4-2.6) metres from curb face to back of curb" Our updated sections reflect this 2.4m parking lane width to face of curb.
2. At the March 12, 2020, meeting with LT to discuss the Lakeview development, it was indicated that on-street parking would be paid parking, even though the city will be moving to a minimum standard for pay and display parking machines in favour of a mobile parking app, locations within the ROW for parking pay and display machines will be required. Machines are usually located so that drivers do not have to cross cycle tracks to access machines.		Understood We believe the parking pay and display machines can be accommodated and placed in areas where drivers don't have to cross the cycle tracks to access them. This will be addressed at the detailed design stage.
3. In current configuration drivers parking and exiting their vehicles will need to cross the cycle track and grass/tree corridor to access the sidewalk which may be difficult during winter due to snow rows from winter maintenance and cycle traffic during the summer months.		Agreed This would be the case anywhere in Mississauga where cycle tracks are located adjacent to parking.

E. MUNICIPAL SERVICES – REGION OF PEEL

COMMENT	FIGURE	RESPONSE
1. Infrastructures within contaminated land: Based on the Peer Reviewer recommendation / MECP and Geotechnical Report requirements, the designer will determine if any specialized pipes, pipe gaskets, insulations & waterproofing seals for the manhole/structures, and soil remedial (soil capping) details will be required for the infrastructure proposed in the contaminated lands within the development. Remedial details for the infrastructure installation in the contaminated lands are not yet finalized. The details must be completed and available in order to finalize the R.O.W sections.	N/A	There are no specialized pipes, pipe gaskets, insulations, or waterproofing seals proposed for the manhole structures. The soil capping details are outlined in reports prepared by EXP and are currently being reviewed/discussed with City Staff.
2. Standard clearance to Region's infrastructure: **Watermain** – 2.5m horizontal and 0.5m vertical from other infrastructures **Watermain** – 0.6m from cables and electric poles and 1.2m from structures **Sanitary main** - 2.0m if depth is less than 5.0m and 3.0m if depth is more than 5.0m. The barrel to barrel (edge to edge) clearances between infrastructures/utilities must be maintained as per MECP, PUCC and Region's criteria requirements (within R.O.W)		The proposed rights-of-way, in order to achieve compact streets, only have two travel lanes for a total width of between 6.0m -6.7m. Placing sanitary and storm sewers and catch basins in the paved portion of the right-of-way while maintaining the Region's standard offsets will be challenging. We cannot maintain the requested sanitary offsets when measuring from the outside edge of barrel. We have maintained a minimum 0.9m clearance between outside barrel (san to storm) which would allow for future excavation of the sanitary pipes by use of vertical trench box. Urbantech would like to discuss reducing the standard required offsets between sanitary and storm sewers with the Region for this project. A joint meeting between the Lakeview Team, Region, and City T&W staff is suggested as the best forum for discussion.
3. Proposing Non-typical Regional/ Municipal standards and non-approved (special) materials: • Watermains are proposed under paved areas instead of in green areas (Blvd). • No watermain replacement corridor is provided; future watermain replacement? • Separation distance (horizontally and vertically) from additional infrastructures such as the District Energy pipes and the Vacuum waste pipes within R.O.W. • Protection of infrastructure from contamination within the R.O.W. The above items will cause additional operational and maintenance to Region's Water, Wastewater and Waste Management Operation and Maintenance Divisions. Acceptance from Divisions on the above proposals will be required as to move forward on finalizing the R.O.W sections.		• Watermain are generally in the boulevard under cycle tracks, except for three cross-sections Street B, F, and Local Roads, where there is no space in the boulevards. Due to the number of sub-surface utilities and the proposed right-of-way layout, we can not place the watermain in the green areas of the boulevard everywhere and would like to discuss this issue with the Region. Peel Region has accepted watermain beneath the pavement in other municipalities (Brampton) • The ROW will be utilized for STM, SAN, utilities, LID, and landscaping but certain row's do not contain all standard services. These locations can potentially accommodate a replacement corridor and will be further investigated at detailed design. We note that a replacement corridor is not a Peel Region standard, and this is not accounted for in any of the current City of Mississauga Standard right of ways. • Separation distance between WM, SAN, and STM and DE/ENVAC have be shown on the drawings. • Protection from contaminated is provided by till cap. This can be deferred to detailed design.

4. <u>Initial review comments on the R.O.W sections:</u> • Standard clearances to Region's infrastructure are to be maintained. • Watermain is running parallel almost at the same elevation of the Bio-Retention trenches. Standard horizontal clearance is required between watermain and Bio-Retention trenches. • Show building and underground parking setbacks, F.F & U.F elevations and long and short services on R.O.W. sections • Show online valve & box and the online valve in chambers for the watermain • It is preferred to cut straight instead of step cut for the soil cap limit. • 1.2m Frost depth to be reconsidered and revise the force main depth accordingly The comments must be addressed accordingly.		• We will do our best to maintain the minimum clearances from the Region infrastructure, but it may not be possible everywhere and would like to discuss reductions of standard clearances with the Region. • Where possible we are maintaining a 2.5m clearance with the Bio-retention trenches. Where this offset cannot be met a minimum 0.5m vertical clearance above the subdrain within the trench will be provided in accordance with MECP standards at detailed design. It should be clarified here that the purpose of the bio-retention trench is to provide quality treatment of surface water before entering into the storm sewer via subdrains within the trenches. These trenches are not being designed to infiltrate the native subgrade which could impact the watermain placement. • Building and parking garage elevations are not available at this stage. • Adding long and short services to the cross-sections will make the ROW cross-sections cluttered. We can demonstrate the service connection lateral within the right-of-way in a separate set of drawings. • Agreed, VC's have been added to the cross-sections. (local roads excepted) • Straight cut of the till cap will require a much deeper excavation. This matter can be discussed at the detailed design stage. • The FM is at 1.20m depth.
5. <u>Additional approval clearance requirements</u> • Nonapproved material if required – Material Approval Committee Clearance? • Nonstandard clearances if required – PUCC Committee Clearance? • If all the services cannot be accommodated as per the Region's requirements within the given R.O.W, can the R.O.W be increased? To be determined what additional approvals are needed and if increased R.O.Ws are required.		Acknowledged

F. UTILITIES

COMMENT	FIGURE	RESPONSE
1. Based on a preliminary review of the proposed cross-sections, the City and utility agencies will require the joint utility corridor on both sides of the road to adequately service the development area. This will likely result in increasing the ROW widths. Additionally, Attachment A outlines comments provided by utilities that participate in the PUCC approval process. The applicant is required to include the following setbacks and requirements as part of future submissions.	N/A	The LCPL Team does not agree. The Lakeview development is not a typical suburban single-family development with a large number of properties, driveways and utility connections. The attached Utility Corridor Layout Plan demonstrates that all buildings/blocks can be serviced by a joint utility corridor on one side of the roadway with only seven (7) instances where road crossings would be needed to service a building from the far side of the roadway. Given that there will be over 100 buildings to be serviced within Lakeview Village, we believe it would be overkill and unnecessary to incorporate joint utility corridors on both sides of the road, to accommodate 7 crossings. The attached Utility Corridor Layout Plan has been updated, as requested by the Region of Peel, to show anticipated service locations to each building. As demonstrated, ample room exists for these connections given the large block sizes. LCPL is looking to the City to advise the Utility Companies that this arrangement will be utilized for Lakeview Village as well. It is important to note that a joint utility corridor on one side of the roadway was approved for West Village.

G. STORMWATER MANAGEMENT

COMMENT	FIGURE	RESPONSE
1. Please provide a stand-alone LID network figure indicating which streets and sides are proposed with LID features.	N/A	Acknowledged. This figure will be provided as part of the FSR. The LIDs are also shown on the Composite Surface Feature Plan.
2. The LID features are to be proposed in available/permanent locations in consideration with other ROW uses including parking, driveways, intersection design, street trees, underground utilities, etc.		Acknowledged. The location of LID network has been determined in consideration with other ROW features (i.e. driveways, parking lane, trees, etc.).
3. Plan view locations of/drainage to LID features will be required through the FSR and detailed design to demonstrate how they receive and treat ROW drainage.		Acknowledged This figure will be provided as part of the FSR submission.
4. Please note, surface utility features such as hydrants, street lighting, signage, etc. are not permitted in an LID feature which may result in fragmentation of linear LIDs proposed.		Acknowledged Hydrants, streetlights, signage will not be placed within the LID features.
5. Conceptual cross-sections and engineering sections are not consistent with regards to LIDs proposed. Comments provided are based on the engineered sections.		Acknowledged Conceptual and ROW sections will be updated to ensure they are consistent with each other.
6. Please identify if the proposed SWM tree pits are intended to contribute towards meeting the overall SWM criteria or provide supplemental stormwater management.		Please note that Tree Pits will no longer be proposed for stormwater management. Bio-retention areas between trees in the boulevard will be used for SWM.
7. T&W supports the use of tree pits for additional stormwater management based on the following: a. proposed on select streets/portion of streets considering where they might be most successful b. if the tree pits receive pre-treated stormwater, the design/function of the LID is demonstrated to be technically satisfactory.		Please note that Tree Pits will no longer be proposed for SWM.
8. SWM tree pits are not encumbered by utilities such as hydrants, etc.		Please note that Tree Pits will no longer be proposed for SWM.
9. It is acceptable to Forestry staff		Forestry comments have been addressed below.

10. At this time it is unclear, how drainage from the road would be pre-treated and conveyed to the proposed tree pits.		Please note that Tree pits will no longer be proposed for stormwater management.
11. Through the FSR, details of the LID features will be required to confirm sizing/depths, sub-drain connection, etc.		Acknowledged, these details are provided in the FSR.
12. Should OGS units be proposed, consideration for sizing and placement in the treatment train requires further discussion with City staff.		Acknowledge. Sizing of OGS will be determined during the FSR submission.
13. Compliance to utility off-sets for storm sewers/box culverts, sanitary and other infrastructure (i.e. Envac) is to be confirmed/demonstrated.		Clearance between LID and other utilities, particularly ENVAC, has been confirmed.
14. Off-set of storm sewers and LIDs to soil cap are to be to the satisfaction of Environmental Services, currently off-sets are shown to inside of pipe but requirement is outside of pipe.		Acknowledged. Clearance to soil cap has been proposed by EXP and these details are currently being reviewed by the City

H. ENVIRONMENTAL MANAGEMENT

COMMENT	FIGURE	RESPONSE
1. Unimpacted soil cap of 1.0 m thickness horizontal and 0.5 m thickness below invert of underground infrastructure should be measured from outside diameter of each pipe. Diagrams provided by TMIG show soil cap measured from inside diameter of pipes. Otherwise, soil cap shown correctly.	N/A	Acknowledged The ROW x-sections now appropriately show 1.0m clearance between the soil cap and all other infrastructure.

I. FORESTRY

COMMENT	FIGURE	RESPONSE
1. Trees in sodded boulevard: minimum width is 2.5m.	N/A	Trees in sodded boulevard will have a minimum width of 2.5m Wider tree in sod corridors have been identified for: • Lakefront Promenade and Street A (2.75m) • Street H (5m and 3m) • Street B and Street F (2.55m) • All local streets (2.75m) It is important to note that, if the City feels strongly about 2.0m sidewalks within the local and minor collector roads, in many cases, the width may be taken from these tree corridors to accommodate.
2. Trees in sodded boulevards are to be planted a min of 1.25m to 1.5m (1.5m is preferred) from the back of the curb.		Acknowledged. All trees will be planted minimum 1.25m from the back of the curb.
3. Amended boulevard treatment (trees in soil cells) are not to be used for storm water treatment.		Acknowledged. Stormwater treatment will be provided by bio-retention areas
4. Amended boulevard treatment require a setback form the back of the curb in the form of a 0.75m splash pad (see Streetscape Feasibility Study).		Amended boulevard treatments with 2.0m minimum widths are proposed for Streets G, I, A (east of H), H (south of A) and portions of Street D. An amended boulevard set back from the curb in the form of a 0.75m splash pad has been reflected on the updated x-sections with the exception of Street H (south of A) and Street D. In these two cases, the amended boulevard width is shown as 2.75m. If the City feels strongly about showing a splashpad on Streets H and D, the tree corridor can be reduced to 2.0m. The end result will be a narrower tree cell, with the same surface treatment.
5. Final amended boulevard treatment must include unit paving per the City standard; sod is not an acceptable alternative.		Acknowledged
6. Unencumbered tree corridor (above and below ground).		Acknowledged. Please note that there will not be any utilities below the tree corridor except where service connections have to cross the boulevard to service development blocks. Light poles and fire hydrants are proposed between trees per the City Standards.
7. Sodded boulevard: 2.5m tree corridors are to be unencumbered by utilities; all utilities to be setback a min 1.2m from the base of the truck of the tree.		Acknowledged. All trees are proposed 1.2m from the edge of Joint Utility Trench (JUT).
8. Amended boulevard treatment: all utilities are to be setback 0.3m from the minimum 2m wide tree corridor.		Acknowledged. All trees are proposed 0.30m from the edge of Joint Utility Trench (JUT).
9. All trees are to be setback a min of 3m from underground parking structures		Acknowledged. Based on the ROW cross-sections, the tree corridor will be a minimum 3m from the edge of the parking garage assuming the parking garage is set 1m from the property line.

J. CULTURAL PRIORITIES

COMMENT	FIGURE	RESPONSE

1. Culture's priorities for the Lakeview Village development are to:
• Enable creative industry and cultural uses in the innovation corridor, cultural hub and within the parkland area south of those sites and Ogden Park
  o Open Space and Park Plan
  ▪ Innovation Corridor: LV-04
  ▪ Cultural Hub: LV-01 and LV-02
  ▪ Parkland: OS-12, OS-13, OS-15 and OS-16
• Creative industry is to include, but not be limited to:
  o A creative industry cluster with a hub building at its core
  o Film, television and music enterprises
  o Interactive digital media
  o Complementary information and communications technology
• Cultural uses are to include, but not be limited to:
  o Cultural infrastructure (public art, cultural hub)
  o Musical performances (outdoor amphitheatre, buskers)
  o Festivals & events (art festivals, farmer's markets)
	N/A	Agreed
		A creative industry cluster within the Innovation District will be considered and accommodated if feasible.

2. Roadways around cultural infrastructure and performance, festivals and events spaces will have the most impact on realization of these priorities. These roadways include: • Street 'I' (New Haig), *south end* • Street 'H' (Hydro), *south end along Lakeview Square* • Street 'D', *between Street 'F' (Ogden) and Street 'I'* • Street Street 'C', *between Street 'H' and Street 'I* Culture comments for specific streets provided in Table 1.		Agreed

K. ROAD DESIGN

COMMENT	FIGURE	RESPONSE
1. Number of lanes on Major Collector roadways to be determined in conjunction with traffic studies.	N/A	Acknowledged. The number of lanes on Major Collector roadways are sufficient to service the proposed development.
2. Lane widths for Major Collectors to be minimum of 3.5 m.		Per comments from the City in April 15, 2019, the minimum lane widths are to be 3.30m (3.35m for transit routes). These widths have been reflected in our updated x-sections for the major collector roads (ie Lakefront Promenade, Street A, Street H) For minor collectors we have utilized a travel lane width of 3.25m For local roads we have utilized a travel lane width of 3.0m TMIG has reviewed several Canadian design standards and additional articles that provide guidance in regard to choosing lane widths that are context-sensitive while still allowing for effective flow of vehicular traffic. For example, it is important to note that for all three road classifications, the proposed travel lane widths meet the TAC Geometric Design Guide for Canadian Roads standard, which references a practical minimum travel lane width of 2.7m (all proposed lane widths exceed this standard). During the workshop on September 24th the concern was raised by a City staff member about the potential for reduced traffic capacity as a result of reduced through lane widths. A review of the City of Toronto's Road Engineering Guidelines (Section 2.0 – Lane Widths Guideline) provided recommended lane widths for urban streets that are in line with those being proposed for Lakeview Village. The Toronto guidelines recommend lane widths between 3.0m and 3.5m and states, "Lane widths should vary depending on the speed limit of a road segment. Wider lanes are allowable on roads with higher speed limits", indicating that roads with lower speed limits should be designed with narrower travel lanes. A lane width of 3.0m is recommended for roads with a posted speed limit of 40km/h or less, as per "Table 2.4.1.A Lane Width Dimensions" provided in the Toronto Standards, an excerpt of which is provided as **Figure 1**. **Figure 1 – City of Toronto Recommended Through Lane Widths** Table 2.4.1.A Lane Width Dimensions See table below.

		Minimum (m)	Target (m)	Maximum (m)	TTC			
					TTC Bus Routes	TTC Streetcar Routes	High Truck Volume	Horizontal Alignment Curves
Through Lane	60km/h or more	3.0	3.0	3.5	x	+[1]	+	+
	50km/h		3.0	3.3				
	40km/h or less		3.0	3.0				

		In regard to lane widths impacting capacity of a road, the Toronto Road Engineering Guideline also make the following reference to the Highway Capacity Manual, an industry standard, *"The Highway Capacity Manual indicates that there are no impacts to capacity when reducing lane widths down to 3.0m when traffic flow is interrupted by intersections."* This is further corroborated by a study done by the Florida Department of Transportation which conducted a literature search of recent research across the US on impacts to urban street capacity resulting from lane narrowing. This study found: *"The measured saturation flow rates are similar for lane widths between 10 feet and 12 feet. For lane widths below 10 feet, there is a measurable decrease in saturation flow rate.* ***Thus, so long as all other geometric and traffic signalization conditions remain constant, there is no measurable decrease in urban street capacity when through lane widths are narrowed from 12 feet to 10 feet****". [emphasis added]* For reference: 10 feet is approximately 3.05m, and 12 feet is approximately 3.66m. TMIG also reviewed the HCM 2000 guide directly to review the common factors that are taken into consideration when modifying the base saturation flow rate to best reflect the in-situ elements of a road or intersection for analysis purposes. As seen in **Figure 2**, an excerpt from Chapter 16 of HCM 2000, the lane width is only one of many factors that effect the saturation flow rate. Using the Lane Width adjustment factor formula provided in Exhibit 16-7 of HCM 2000 (provided here in **Figure 2**), the following factors were calculated for the varying proposed road widths within Lakeview Village: • 0.933 for 3.0m lane width • 0.961 for 3.25m lane width • 0.966 for 3.3m lane width Based on these factors, the lane widths in Lakeview Village will only marginally impact the overall saturation flow rate of a given roadway or intersection. As a reference point, HCM 2000 uses 3.6m as its "standard" lane width, which produces a lane width factor of 1.0 (i.e. no impact on the saturation flow rate calculation). Overall, TMIG anticipates that the proposed lane widths in Lakeview Village will not have a noticeable impact on the capacity of the roadways. The reduced lane widths, however, will have an overall positive impact for all road users. From a safety perspective, narrower lanes reduce speeds, shorten mid-block pedestrian crossing distances, and generally make for a better environment for non-auto modes.

Figure 2 – HCM 2000 Chapter 16 Excerpts – Lane Width Adjustment Factor

DETERMINATION OF SATURATION FLOW RATE

A saturation flow rate for each lane group is computed according to Equation 16-4. The saturation flow rate is the flow in vehicles per hour that could be accommodated by the lane group assuming that the green phase were displayed 100 percent of the time (i.e., g/C = 1.0).

$$s = s_o N f_w f_{HV} f_g f_p f_{bb} f_a f_{LU} f_{LT} f_{RT} f_{Lpb} f_{Rpb} \quad (16\text{-}4)$$

See Exhibit 16-7 for formulas. For default values refer to Chapter 10.

where

- s = saturation flow rate for the subject lane group, expressed as a total for all lanes in the lane group, veh/h,
- s_o = base saturation flow rate per lane, pc/h/ln,
- N = number of lanes in the lane group,
- f_w = adjustment factor for lane width (3.6 m width is base condition),
- f_{HV} = adjustment factor for heavy vehicles in the traffic stream,
- f_g = adjustment factor for approach grade,
- f_p = adjustment factor for the existence of a parking lane and parking activity adjacent to the lane group,
- f_{bb} = adjustment factor for the blocking effect of local buses that stop within the intersection area,
- f_a = adjustment factor for area type,
- f_{LU} = adjustment factor for lane utilization,
- f_{LT} = adjustment factor for left turns in the lane group,
- f_{RT} = adjustment factor for right turns in the lane group,
- f_{Lpb} = pedestrian adjustment factor for left-turn movements, and
- f_{Rpb} = pedestrian/bicycle adjustment factor for right-turn movements.

Base Saturation Flow Rate

Computations begin with the selection of a base saturation flow rate, usually 1,900 passenger cars per hour per lane (pc/h/ln), and adjust this value for a variety of conditions. The adjustment factors are given in Exhibit 16-7.

Adjustment for Lane Width

The lane width adjustment factor, f_w , accounts for the negative impact of narrow lanes on saturation flow rate and allows for an increased flow rate on wide lanes. Standard lane widths are 3.6 m. The lane width factor may be calculated with caution for lane widths greater than 4.8 m, or an analysis using two narrow lanes may be conducted. Note that use of two narrow lanes will always result in a higher saturation flow rate than a single wide lane, but in either case, the analysis should reflect the way in which the width is actually used or expected to be used. In no case should the lane width factor be calculated for widths less than 2.4 m.

Do not use width < 2.4 m for calculations

EXHIBIT 16-7. ADJUSTMENT FACTORS FOR SATURATION FLOW RATE

Factor	Formula	Definition of Variables	Notes
Lane Width	$f_w = 1 + \frac{(W - 3.6)}{9}$	W = lane width (m)	W ≥ 2.4 if W > 4.8, a two-lane analysis may be considered

3. Dimensions for curb and gutter to be included at 0.2m and 0.3m, respectively.		As identified in our ROW presentation to City staff on September 24th, the Lakeview Team is interested in incorporating a special curb detail to assist in creating a sense of place. Initial details comprise a barrier curb with narrow gutter (OPSD 600.080) lined with a row of concrete pavers as part of the gutter. The Lakeview Team sees this as a detailed design issue which will not impact the ROW widths as the adjacent lanes are measured to face of curb and the 0.75m splashpad is measured to back of curb. The City's suggested road x-sections dated August 20, 2020 show a mountable curb between the travel lanes and the parking lanes as per City standard 2230.031. While the need for including mountable curbs was not raised in the Ctiy's comments of June 26th, the Lakeview Team notes that they have not incorporated this mountable curb within their road x-sections due to concerns that they would: • Impact runoff capture for use within the adjacent LID's • Un-necessarily impact the ability to create compact streets Figure LID-2 from the FSR (see page 33 of this Response Matrix) provides a detail which shows the direction of flow from the parking layby into the bioswale feature. By eliminating the mountable curb, the road has a continuous slope from the road crown to the parking layby curb. As the layby curb transitions back to the standard road width, a low point in the gutter is naturally created at the curb cut location shown in the figure. This forces the drainage through the entire length of the bioretention swale. Introducing the mountable curb would require curb cuts along the travel lane to direct drainage into the bioswale feature and with a continuous gutter grade along the curbs, the drainage will likely by-pass the curb cuts making them less effective than they would be in the scenario described above. It is important to note that the West Village road designs also do not include the mountable curb for the same reasons noted above. Assuming that the City is in agreement with this approach, we believe this item has been addressed.
4. Signalized intersections will require daylight triangles, not corner rounding.		Acknowledged. The LCPL Team is not currently proposing signalized intersections within the Lakeview Village development. Signalized intersections are anticipated on Lakeshore Road.
5. Road design to conform to TAC Geometric Design Guide for Canadian Roads.		Acknowledged
6. Splash pads to be a minimum 0.75m.		Our updated x-sections reflect a splash pad width of 0.75m on all major and minor collector roads. Splash pads are not utilized on the local roads.
7. Minimum centreline radius of not less than 12m to any change in direction.		Acknowledged

8. Layby parking width to be a minimum (2.4-2.6) metres from curb face to back of curb.		Acknowledged. We provide a minimum lay-by parking lane width of 2.40m measured to front of curb.
9. Storage and taper lengths to be determined through traffic studies.		Acknowledged
10. Lane configurations at intersection will be determined through traffic studies		Acknowledged
11. Signalized/unsignalized intersections and controls to be determined through traffic studies.		Acknowledged

L. URBAN DESIGN

COMMENT	FIGURE	RESPONSE
1. Ensure that the entire boulevard infrastructure has been considered and shown on the plans / sections such as bus shelters and all MiWay infrastructure, street lights, traffic light poles and associated cabinets or pedestals, parking meters, cycling infrastructure, etc.	N/A	Acknowledged. We have shown the location of bus pads; however, the location of streetlights, light poles, cabinets, and pedestals will be shown at the detailed design stage.
2. Clearly label and dimension the entire tree corridor. It is misleading when the tree corridor is dimensioned as 2m with a 0.6m grass strip beside it. It should clearly be shown as 2.6m.		Acknowledged.
3. Tree corridors are to be unencumbered by utilities. Remove all proposed utilities from beneath the street tree corridor and ensure that all min. setbacks to utilities are achieved.		Please note that there will not be any utilities below the tree corridor except where service connections have to cross the boulevard to service development blocks. Light poles and fire hydrants are proposed between trees per the City Standards.
4. Street trees in sodded boulevards shall be 2.5m wide minimum (refer to Urban Forestry's comments).		Acknowledged
5. Amended boulevard treatment (soil cells with paving) to be provided on Street H south of Waterway Commons. The min. width of the street tree corridor for this treatment is 2m.		Acknowledged Amended boulevard treatments (soil cells with paving) are also proposed on Street G, Street I (east side), Street A (east of H), and on portions of Street D
6. Amended boulevard treatment may be considered for the north side of Street D.		Acknowledged
7. Amended boulevard shall be the ultimate street tree installation along Lakeshore.		Acknowledged
8. Show the cycle track buffer (dimension).		Acknowledged. The cycle tracks proposed are 3.0m wide with a 0.75m buffer between cycle track and back of curb. (as per OTM Book 18)

9. Provide all proposed underground garage setbacks dimensions. The proposed minimum setback from an above or below grade parking structure inclusive of external above grade access stairwells to a lot line of 1.0m is not supported at this time. Underground Parking Garage setbacks to the municipal boulevard lot line shall be coordinated with the road sections to ensure that the street trees corridors have adequate setbacks to the building and garage location.		The location of underground garages from the property line has not been determined at this stage. Based on the ROW cross-sections, the tree corridor will be a minimum 3m from the edge of the parking garage assuming the parking garage is set 1m from the property line.
10. Above grade underground garage setbacks to remain as per the base zoning requirements.		Acknowledged
11. Hydro Road has been identified as the Village's main street. The applicant committed to establishing a main street character along Hydro Road by adding a second row of trees on each side of the road. One row of trees has been shown within private lands (east side) however it has been provided on top of an underground garage with an approx. 2m setback to a building façade. The proposed underground garage and building location do not support a sustainable tree in that location and requires a 3m setback of the underground garage to facilitate the second row of trees.		City staff and the Lakeview Team are in agreement that it is important to signify Hydro Road as the main character avenue into Lakeview Village where it will directly link Lakeshore Road East with Lakeview Square and the waterfront. Our design intent is to create a unique pedestrian promenade environment within an expanded boulevard along the west side of the street. This promenade can feature a double row of staggered street trees (planted within soil cells) and utilizing both raised planters and at grade tree openings, decorative paving, unique lighting (pedestrian standards and in-ground lighting features), street furniture (seating, bike racks), LID functions and public art. In doing so, it will achieve a strong presence at the top of the community and draw people into the hub of the community and the lake. The Lakeview Team does not believe it can achieve the same distinctive result and effect by integrating expanded sodded boulevards with double rows of trees on both side of the street. This type of design response is quite common and will not have the impact that is desired for a main character avenue that is unique to Lakeview Village. Details of the Lakeview Team's concept for Hydro Road are enclosed in the attached Summary Sheet for Hydro Road, which can be found near the beginning of this document.
12. Hydro Road's alternative ROW section proposes a zigzag sidewalk pattern within the tree corridor which is not supported (refer to Urban Forestry's comments).		Please note that the zigzag pattern is not the sidewalk. It is pavement stone between trees. The sidewalk is clearly shown adjacent to the tree corridor and is parallel to the property line.
13. The applicant shall ensure that the vacuum waste network connecting to the pier will not be too much of a distance for it to function.		Acknowledged.
14. Street D (Waterfront road) and Street H (south of Waterway Common) through Lakeview Square shall be designed with special streetscape treatments.		Acknowledged

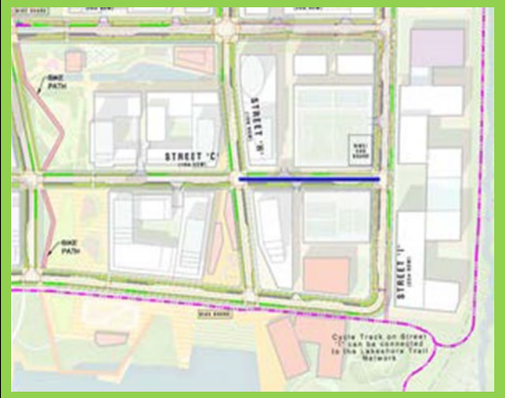
15. The District Energy conduit is only 1.3m away from the underground parking garage. Confirm that this is sufficient.		Acknowledged. We can confirm that the clearance provided is sufficient.
16. Gas line is setback from ROW inconsistently, ranging from 0.3 to 1 m. Please clarify the rationales.		Please note that the 1m clearance is for the dedicated steel gasmain to the District Energy plant, which requires a wider clearance.
17. The width of the sharrow shall be confirmed with T&W as they are typically 4 m in width.		Please note that the minimum Mixed traffic lane width requirement per Table 4.1 of Book 18 of OTM is 3m. We meet our exceed this 3m width.

M. CMS – PARK ASSETS

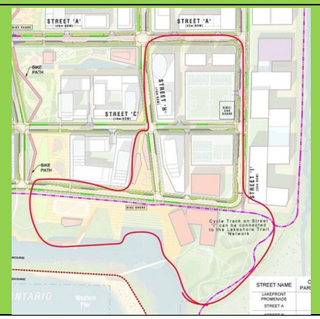
COMMENT	FIGURE	RESPONSE
1. More clarification required for the difference between character areas and any different conditions along the boulevard adjacent to all park frontages	N/A	We believe the x-sections contained in the attached Presentation provides this clarification
2. Additional cross sections are required to illustrate the boulevard conditions on all streets adjacent to future parkland, including on-street parking, multi-use trail locations, and cycle track locations.		Agreed. See the x-sections contained in the attached Presentation
3. Cross sections must illustrate where MUT are located in relation to the ROW, even when located outside of the ROW on private property or future parkland.		Agreed. See the x-sections contained in the attached Presentation
4. Provide clarification on the differences in Waterfront Trail and MUT within Waterfront Park (width, use, etc.)		As noted above, the MUT within the Watefront Park has been revised to reflect a 3.0m dual cycle track.

TABLE 2: CROSS SECTION COMMENTS

A. STREET 'C', BETWEEN STREETS 'H' AND 'I'

COMMENT	FIGURE	RESPONSE
1. Is proposed as a local road		Agreed
2. Culture considers Street 'C' between Streets 'H' and 'I' to be part of the "cultural precinct," as shown with a blue line.		Agreed
3. During Street 'D' closures, Street 'C' will likely accommodate cycling and vehicular access to the south end of the neighborhood.		Agreed, Street 'C' is designed with mixed traffic lane lanes to accommodate cyclist traffic.
4. As indicated in the Streetscape Composite Plan (May 2020), access in the proposed parking structures at the base of the mixed use cultural hub is provided from Street 'C' as well as Street 'D'.		Agreed
5. Alternate routing for cycle track infrastructure could be provided along Street 'C' to enable efficient movement across the neighbourhood for people working and visiting the cultural hub, institutional and employment spaces.		Please see our previous response to comment No.1 and 2 under 'Street Classification' for details.

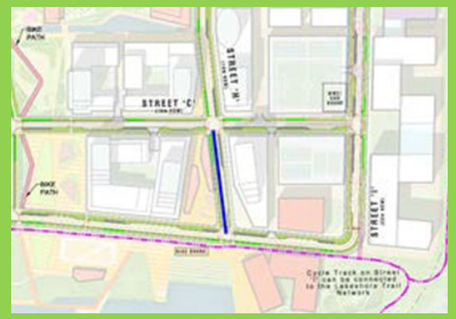
B. STREET 'D', BETWEEN STREETS 'F' (OGDEN) AND 'I'

COMMENT	FIGURE	RESPONSE
1. Is proposed as a local road – character.		Agreed
2. Will play a unique role in the neighbourhood, especially for cultural purposes along the section between Streets 'F' and 'I' (shown with a blue line).		Acknowledged
3. The section of Street 'D' between Streets 'F' and 'I' can be considered part of a "cultural precinct" that includes Lakeview Square, parkland, the mixed use cultural hub on Blocks 19 and 20 and the southern portion of the Innovation Corridor (shown encircled in a red line).		Acknowledg
4. Within this section of Street 'D', dedicated lay-by loading zones and pick up and drop off should be provided on the south side of the street to facilitate activities such as food truck, pick up and drop off, and loading/servicing for festivals, events and performances, and cultural infrastructure. The dedicated loading zones would be best located between Streets 'H' and 'I', and on the south side of Street 'D' east of Ogden Park and West of Lakeview Square to not impede view corridors to the lake (shown encircled in a light blue line).		The Lakeview Team disagrees with the locating of "cultural infrastructure" within the roadway. While these assets are very important, we believe that ample room exists within the designated cultural lands to accommodate festival/event truck parking. We also believe that the space requirement for this infrastructure will be greater than what could be provided within the roadway. Ample space has been identified conceptually within the design of the waterfront park lands adjacent to Street 'D' to better accommodate events related requirements, including food trucks, mobilization, etc. Based on our workshop discussion on July 23rd, we believe that the City Cultural staff are also now supportive of this approach
5. An access point from Street 'D' into the park will need to be created to facilitate access to the amphitheatre. This access point could be created at the head of Street 'H' where it intersects with Street 'D'. The amphitheatre should also be serviced within the park by an internal access road.		Agreed. This internal access road access point will be determined in conjunction with the park design.

6. Smart pole infrastructure should also be included on both sides of Street 'D' between Streets 'F' and 'I' to animate the cultural precinct. The smart poles can support public art, cultural programming and performance by installing digital screens, electrical outlets, Wi-Fi hotspots, etc.		We very much agree and look forward to working with Culture/Parks/T&W/Smart City groups at the city to advance this opportunity
7. During festivals, events and performances, which could be held frequently during the summer months, hundreds to thousands of people could visit the "cultural precinct" at the same time. Use of the cycling facilities may be restricted to ensure the safety of visitors. To allow cyclists unimpeded access to cycling infrastructure during most events, consider integrating cycling into Street 'D' by creating a cycle track within the right-of-way as previously noted and changing the designation of the multi-use trail to be pedestrian only.		As noted above, the LCPL Team disagrees with the notion of incorporating a cycle track on Street D. During special events, we strongly encourage that Street D be closed , and any cyclists in this area would be directed to dis-mount. Street 'D' is a local road that doesn't generate a lot of cycling traffic from within the community on a regular basis. Therefore, a cycle track within the ROW is not required. As noted above, based on feedback received from City staff on July 23rd and September 24th, the multi-use recreation trail previously proposed within the Lakefront Park lands parallel to Street 'D' has now been changed to a dual cycle track which will provide a cycling route through this park in addition to the Waterfront Trail.
8. During larger scale events, Street 'D' between Streets 'F' and 'I' may be closed to car traffic and pedestrianized. This will further restrict cycling access, and so consider providing alternate routing for cycle tracks along Street 'C'.		Please note that Street 'C' is provided with mixed traffic lanes that cyclist can use if Street 'D' is closed. Alternative cycling routes in the area include MUT in Ogden Park and along Street 'D', and cycle tracks along Street 'I'.
9. Consider paving this section of road differently to indicate a change in its character and use, and to clearly identify where the road would periodically become pedestrian-only.		Acknowledged
10. Clarify the condition along Local Road Street "D" and demonstrate boulevard conditions including: a. Add Cycle Track within the ROW of Street "D" b. Remove MUT within Park		As noted above, based on feedback received from City staff on July 23rd and September 24th, the multi-use recreation trail previously proposed within the Lakerfront Park lands parallel to Street 'D' has now been changed to a dual cycle track which will provide a cycling route through this park in addition to the Waterfront Trail.
11. The City is requiring a Cycle Track be added to Street "D" so a MUT is not required along Street "D" abutting Lakefront Park. The conflict between pedestrians and cyclists is proposed to be high in the area between the road and the proposed Lakefront Park (a destination park). A cycle path and proposed sidewalk within Street "D" right- of-way should eliminate possible conflicts.		Please see our previous response.

12. On-Street Parking facilities should be provided this street to serve both the adjacent building and uses and should be provided on the north side of the street.		We are providing parking lanes on the north side of the street.

C. STREET 'H' (HYDRO), BETWEEN STREETS 'C' AND 'D'

COMMENT	FIGURE	RESPONSE
1. Is proposed as a local road – character.		Agreed
2. Culture considers the south end of Street 'H' between Street 'C' and Street 'D' (as shown with a blue line) to be part of a "cultural precinct".		Agreed
3. Culture recommends that Street 'H' is closed to car traffic when events such as art markets, farmers markets or festivals are happening in Lakeview Square. Pedestrianizing the street can increase pedestrian safety, and will create a loading and servicing area where trucks can pull up or remain parked during festivals and events. For instance, many farmers market vendors prefer to set up booths in front of small cube trucks, so that they can easily refresh market stalls with goods such as perishable food items.		Agreed. Street 'H' will be designed as pedestrian centric road. As noted above, during special events, we strongly encourage that Street H be closed south of Street A, and any cyclists in this area would be directed to dis-mount.
4. Smart pole infrastructure should also be included on both sides of Street 'H' between Streets 'C' and 'D' to animate the cultural precinct. The smart poles can support public art, cultural programming and performance by installing digital screens, electrical outlets, Wi-Fi hotspots, etc.		Agreed. See comment above regarding smart pole infrastructure on Street 'D'.

5. Consider paving this section of road differently to indicate a change in its character and use, and to clearly identify where the road would periodically become pedestrian-only.		Acknowledged

D. STREET 'F' (MINOR COLLECTOR)

COMMENT	FIGURE	RESPONSE
1. The Section for Street 'F' (Appendix A, Figure 5) demonstrates the cycle track but not the multi-use trail that appears to meeting the boulevard at multiple points along Street 'F'.	N/A	The alignment of the MUT in Ogden Park has been updated. The MUT will now start south of Street 'B' (north of Street 'B', the MUT will be within the ROW). The MUT will then veer off into the Park and within the ROW it will be replaced with a 3m wide sidewalk.
2. More detail and separate sections must be provided for Street 'F' to demonstrate where the multi-use trail is located in relation to the cycle track, sidewalk, and parkland property line along the different sections of the road.		Acknowledged
3. Include a separate cycle track within the ROW from Street 'B' to Street 'D'.		Please note that the MUT within the park will function as a cycling route along Street 'B'. There is not sufficient commuter cycling demand in this area to warrant a dedicated cycle track. The MUT is to provide a leisure route to traverse the site, especially for parents/children travelling to and from the Urban School

E. STREET 'B' (MINOR COLLECTOR)

COMMENT	FIGURE	RESPONSE
1. A MUT has been identified in Pedestrian and Bike Network, but the cross section, in Appendix A Figure 6 does not show this MUT. The cross section also does not show the open space on the north side of Street "B". An urban condition has been included on both sides of this cross section	N/A	Please note that the "engineered" cross-sections in the attached Appendix are for the infrastructure in the right-of-way only. The schematics of the roadways within the body of this package identify the MUT infrastructure within the adjacent parklands.
2. In ROW package, page 19, it noted "Cycling and additional pedestrian movement accommodated in the adjacent Aviator Linear Park," cross section is required at this point to identify condition of park frontage in addition to Ogden Park frontage.		Acknowledged. The schematics of the roadways within the body of this package identify the MUT infrastructure within the adjacent parklands.

F. STREET 'I' (NEW HAIG), BETWEEN STREETS 'C' AND 'D'

COMMENT	FIGURE	RESPONSE
1. Is proposed as a local road – character.		Agreed
2. Culture considers the south end of Street 'I' between Street 'C' and Street 'D' to be part of the "cultural precinct," as shown with a blue line. Consider adding an additional entrance-way into Block 19 on the west side of Street 'I' for use when events have closed off Street 'D'.		Agreed

STREET 'I' BETWEEN STREETS B AND E

COMMENT	FIGURE	RESPONSE
1. Parking around school sites are generally restricted. Consideration for the building context on both sides of the street should be reviewed if any on street parking facilities to serve the school are proposed.		Acknowledged.

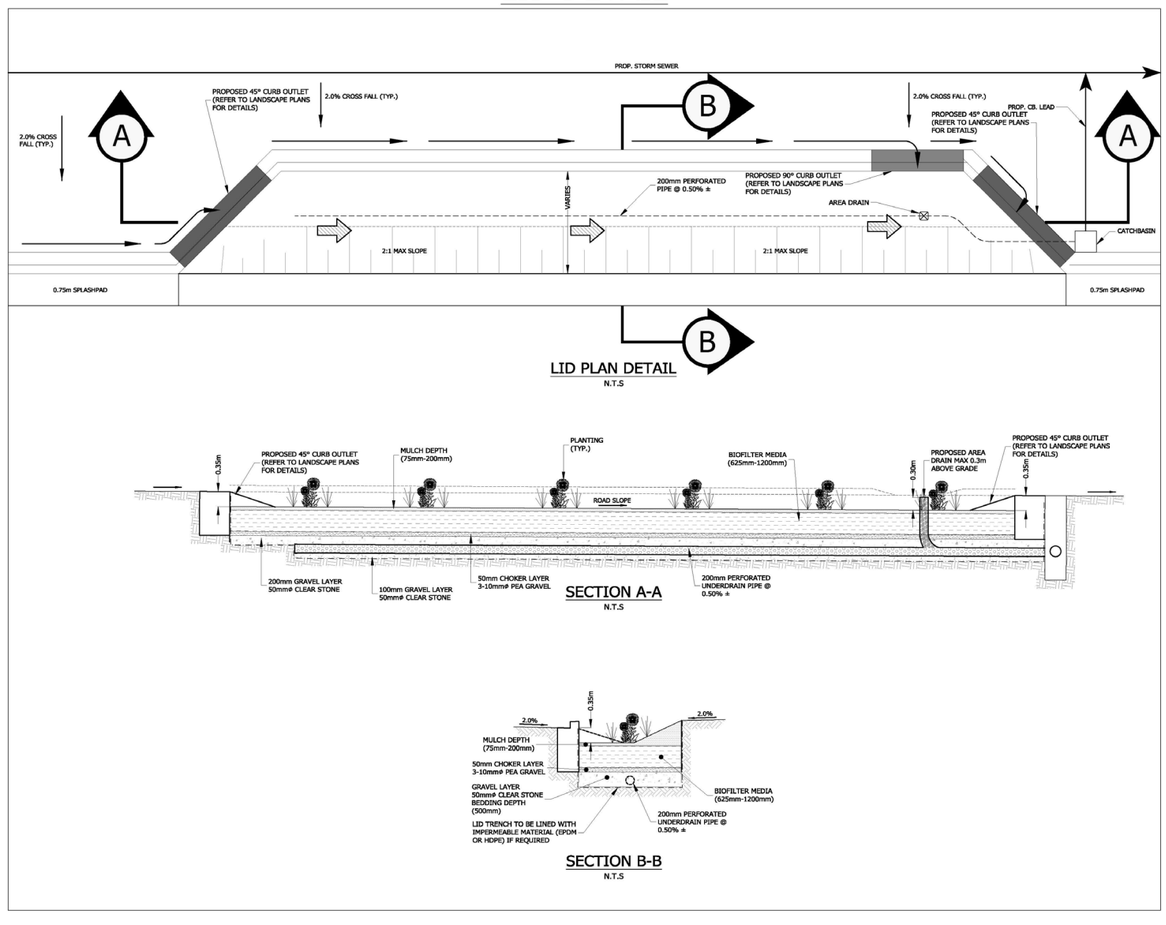
2. It should be noted that pick up and drop off facilities for all school sites should be provided on site and will be based upon an accompanying traffic study at the time of the school development.		The Lakeview Team disagrees. This comment does not recognize the nature of the proposed "urban school" It is the objective of Lakeview Village to prioritize sustainable travel behaviours from day 1, in particular the use of active transportation for accessing local services. This objective is reflected in the Mississauga Official Plan policies for the Lakeview Waterfront Major Node Character Area (LWMNCA) which provides high-level direction on community objectives for the Lakeview Village project. To achieve this, appropriate design and education measures will be instrumental. At this early stage, implementing an urban school design that actively discourages unnecessary parent automobile drop off is an important first step to communicate the intent of this community. Accommodating a dedicated parent drop off will enable the unnecessary use of the automobile in the future and undermine other measures to promote walking and cycling to and from school. Although automotive drop off is to be discouraged, there remains the ability for curbside drop off for the occasional/necessary trip (for example, a student has a large school project or sprained ankle which makes walking or cycling less feasible or safe) that will provide a safe and practical access. The occurrence of these trips are expected to be less than for typical suburban schools and do not warrant a dedicated drop-off. It is anticipated that all future students (from grades K-8) will live within the Lakeview Village and Rangeview lands and will be within walking distance of the proposed public school. This is supported by the PDSB re-zoning comments which identified that the Lakeview Village lands alone will generate 718 Kindergarten to Grade 5 students and 308 Grade 6-8 students. Given this assessment, it is likely that few, if any students, will be coming from beyond the limits of the LWMNCA as there is enough demand generated from just within the LWMNCA. In other words, the compact built form and density planned for the LWMNCA generates a tighter catchment area for the proposed school compared to a typical suburban school thus reinforcing the ability for walking and cycling. As such, parent automobile drop off is not anticipated to be a necessity to support the function of the proposed school in terms of accommodating transportation needs for future students. Lakeview Village represents an opportunity to proactively design for healthy, sustainable transportation behaviours and, in this instance, the proposed urban school concept will contribute to a culture of walking and biking for young people and their families. The proposed urban school design without an on-site parent automobile drop off is therefore appropriate and desirable. This is supported in the York Region School Sites Design Guidelines (Page 28), which identifies that: *"The choice of type of facility to accommodate parent drop-offs and pick-ups depends largely on the site size. In a denser, more urban environment where buildings are set close to the street and a school site might be smaller than average, a layby along the school's street frontage could be preferable."*

		Schools within an urban environment often do not have adequate space available on-site for a bus loop (traditionally used at suburban schools). Even if there is on-site space, it is not preferable for a bus loop to be shared with the parent drop-off and pick-up area, as the parked private vehicles may end up interfering with safe bus operations. The York Region School Sites Design Guidelines (Page 29) also identifies that: *"The dimensions of the drop-off and pick-up layby or loop must be sufficient to accommodate expected vehicle volumes and avoid spillover onto the street and, consequently, impacts on school bus movements and on the safety of children arriving by walking or cycling.* ***The suggested minimum curb length for a layby or loop is 30 m for smaller elementary schools.****"*

*** It should be noted that any non-standard cross sections will be subject to PUCC approval, Fire Operations approval, and review and approval of technical studies such as SWM, Traffic, Parking Strategy, etc...**

**** Should the applicant require clarification or questions on the information provided above, it is suggested that a meeting with both the City and Region be scheduled to discuss**

LID DETAIL



LID PLAN DETAIL
N.T.S

SECTION A-A
N.T.S

SECTION B-B
N.T.S

No.	REVISION	DATE	BY	APP'D
4				
3				
2				
1				

LAKEVIEW COMMUNITY PARTNERS LTD.

CITY OF MISSISSAUGA

TOWN FILE No.:_____ REGION FILE No.:_____

MUNICIPAL

APPROVED IN PRINCIPAL SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO TOWN STANDARDS AND SPECIFICATIONS.

SIGNED:_____ DATE:_____

ENGINEERING SERVICES

REGIONAL

DESIGN OF SANITARY AND WATER SERVICES APPROVED SUBJECT TO DETAIL CONSTRUCTION CONFORMING TO HALTON REGION STANDARDS & SPECIFICATIONS & LOCATION APPROVAL FROM AREA MUNICIPALITY.

SIGNED:_____ DATE:_____

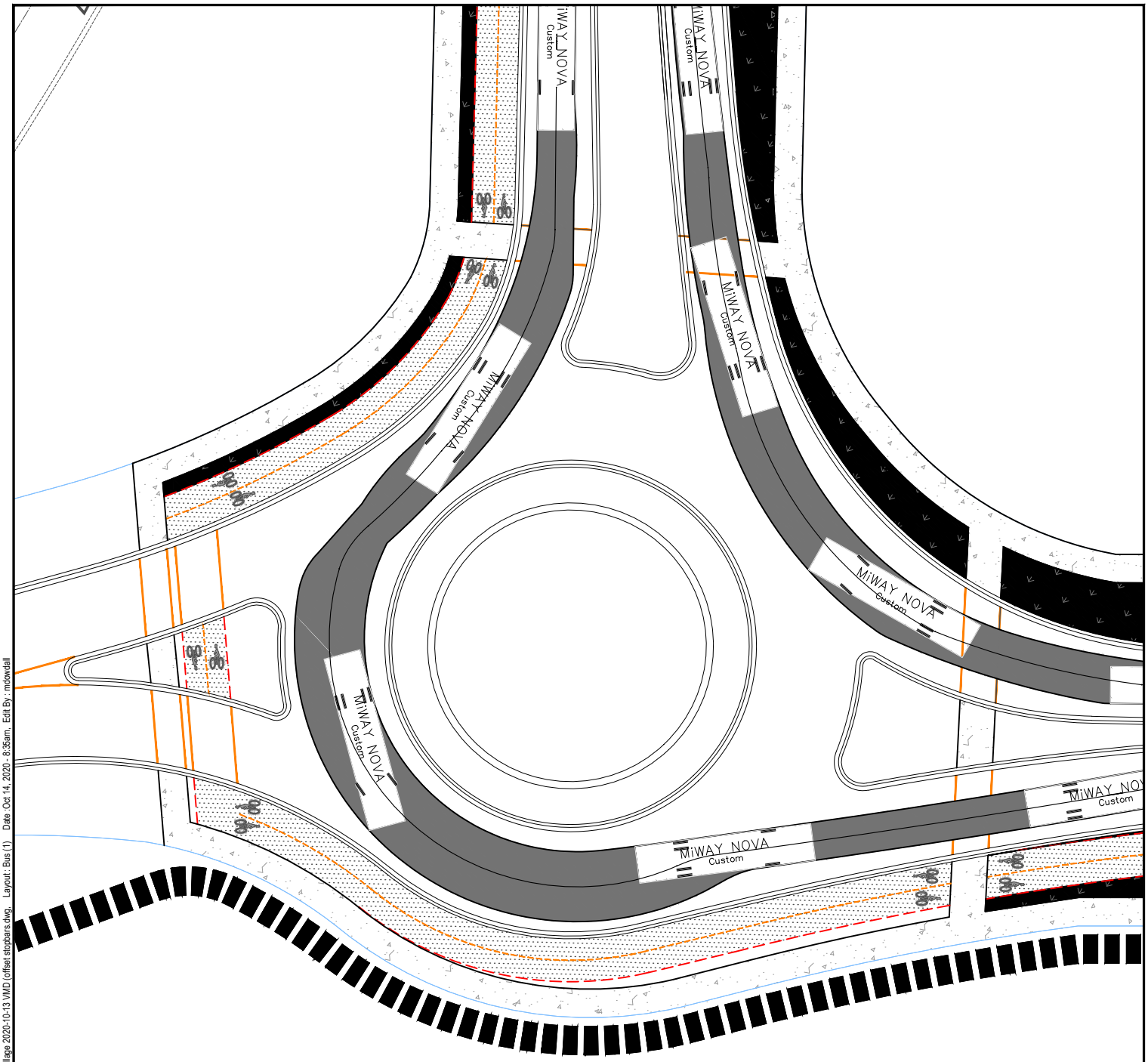
LEGISLATIVE AND PLANNING SERVICES

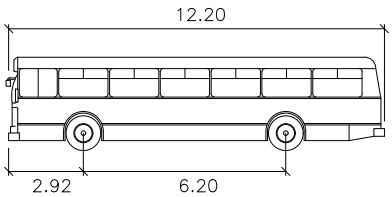
urbantech
Urbantech Consulting, A Division of Leighton Cre Ltd.
3760 14th Avenue , Suite 701 Markham ON L3R 3T7
Tel: 905.946.9461 Fax: 905.946.9595
www.urbantech.com

LID DETAILS

DESIGNED:	J.O.	CHECKED: J.O.	PROJECT No.: 17-549
DRAWN:	R.B.	DATE: AUGUST 2020	SHEET No.:
SCALE: H 1:500 V 1:50			DRAWING No.: LID-2

APPENDIX D
AUTOTURN ANALYSIS FOR ARTICULATED BUSES





MiWay bus
meters

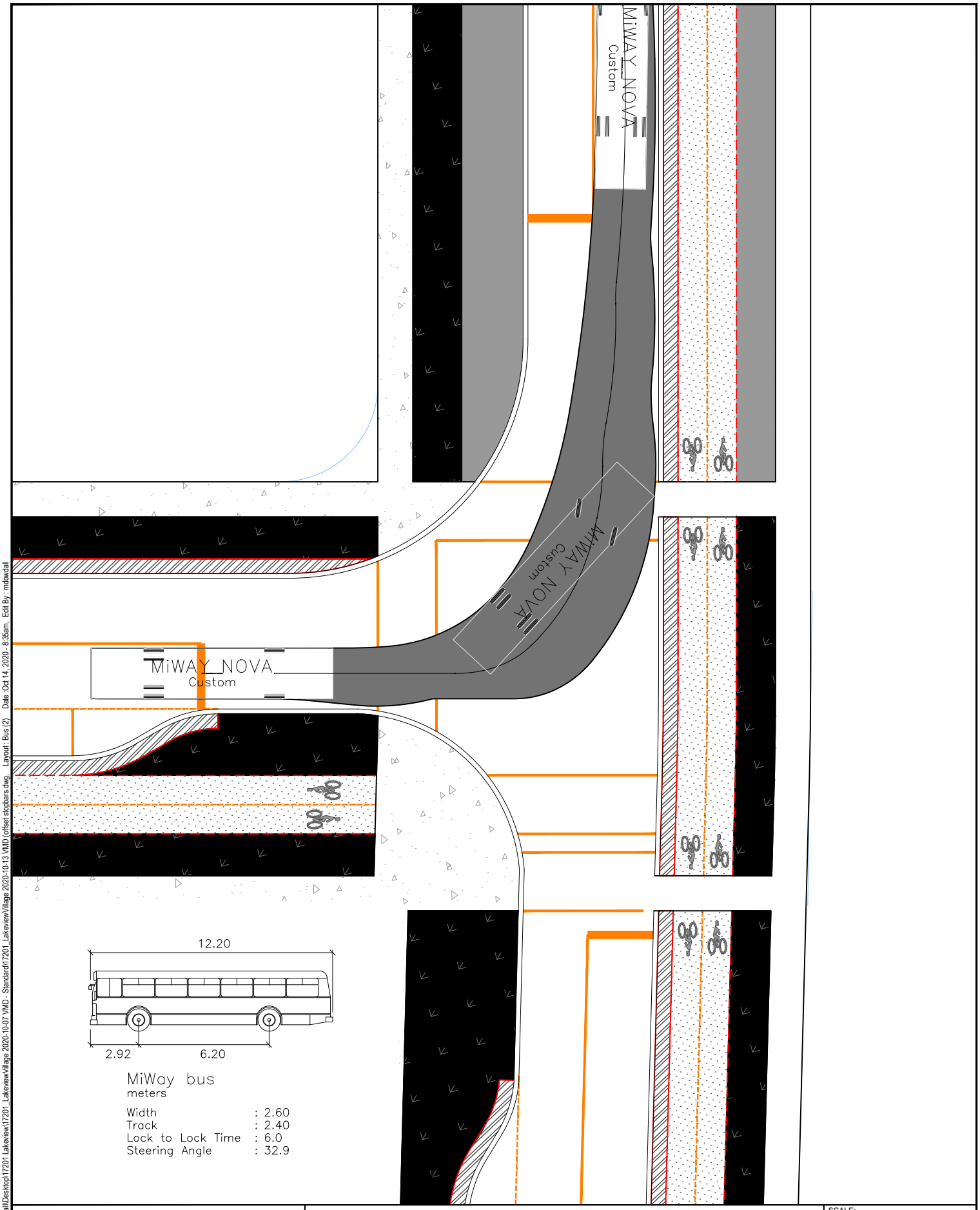
Width	: 2.60
Track	: 2.40
Lock to Lock Time	: 6.0
Steering Angle	: 32.9

TMIG
A TYLIN INTERNATIONAL COMPANY
8800 Dufferin Street,
Suite 200
Vaughan, ON
L4K 0C5
p: 905.738.5700
f: 905.738.0065

LAKEVIEW VILLAGE
MiWAY 40' BUS
VEHICLE MOVEMENT DIAGRAM (ROUNDABOUT)

SCALE: 1 : 250

DRAWING No. VMD-2A



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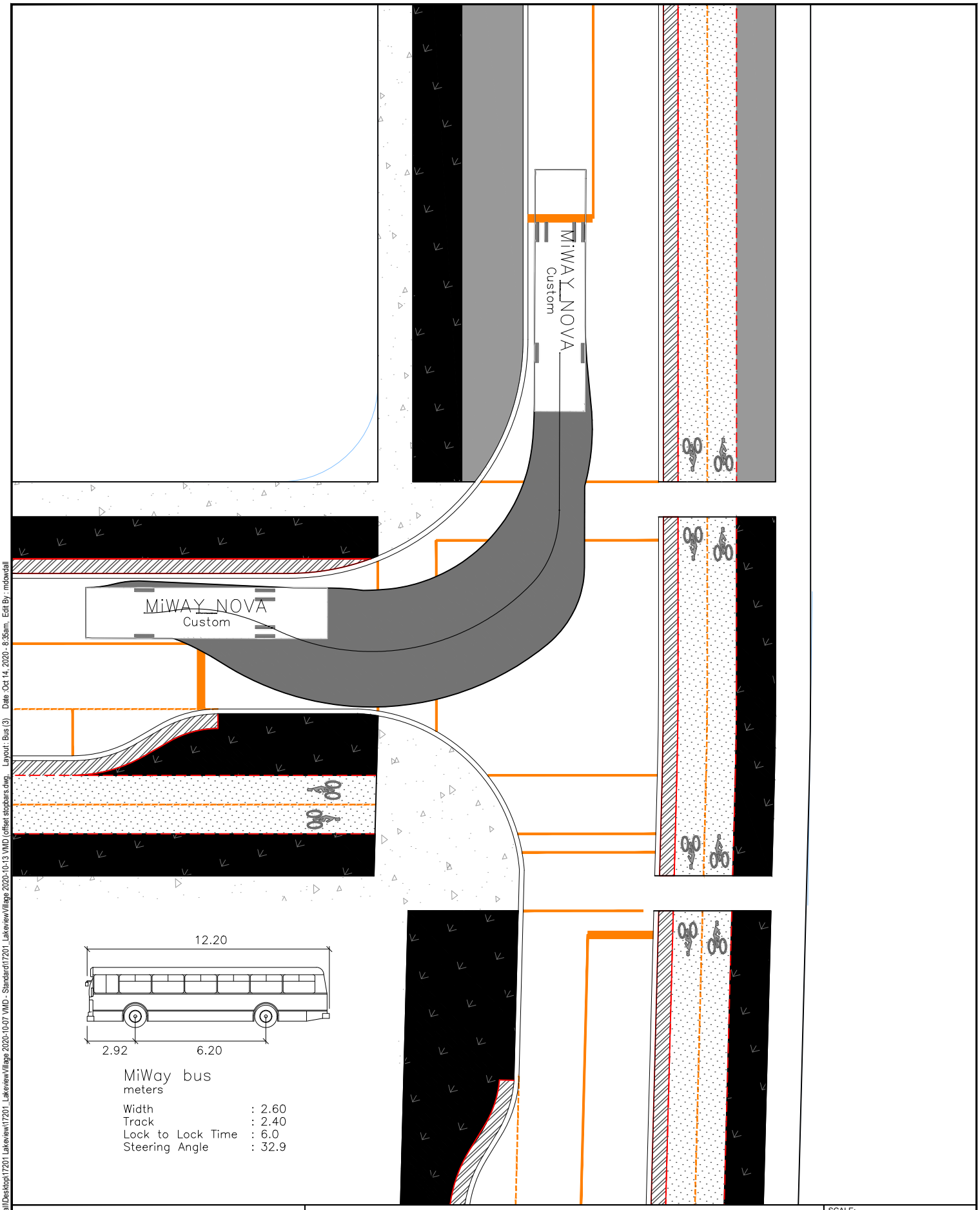
L4K 0C5
p: 905.738.5700
f: 905.738.0065

LAKEVIEW VILLAGE
MiWAY 40' BUS
VEHICLE MOVEMENT DIAGRAM (STREET A & STREET I)

SCALE: 1 : 250

DRAWING No. VMD-2B



MiWay bus
meters

Width	: 2.60
Track	: 2.40
Lock to Lock Time	: 6.0
Steering Angle	: 32.9

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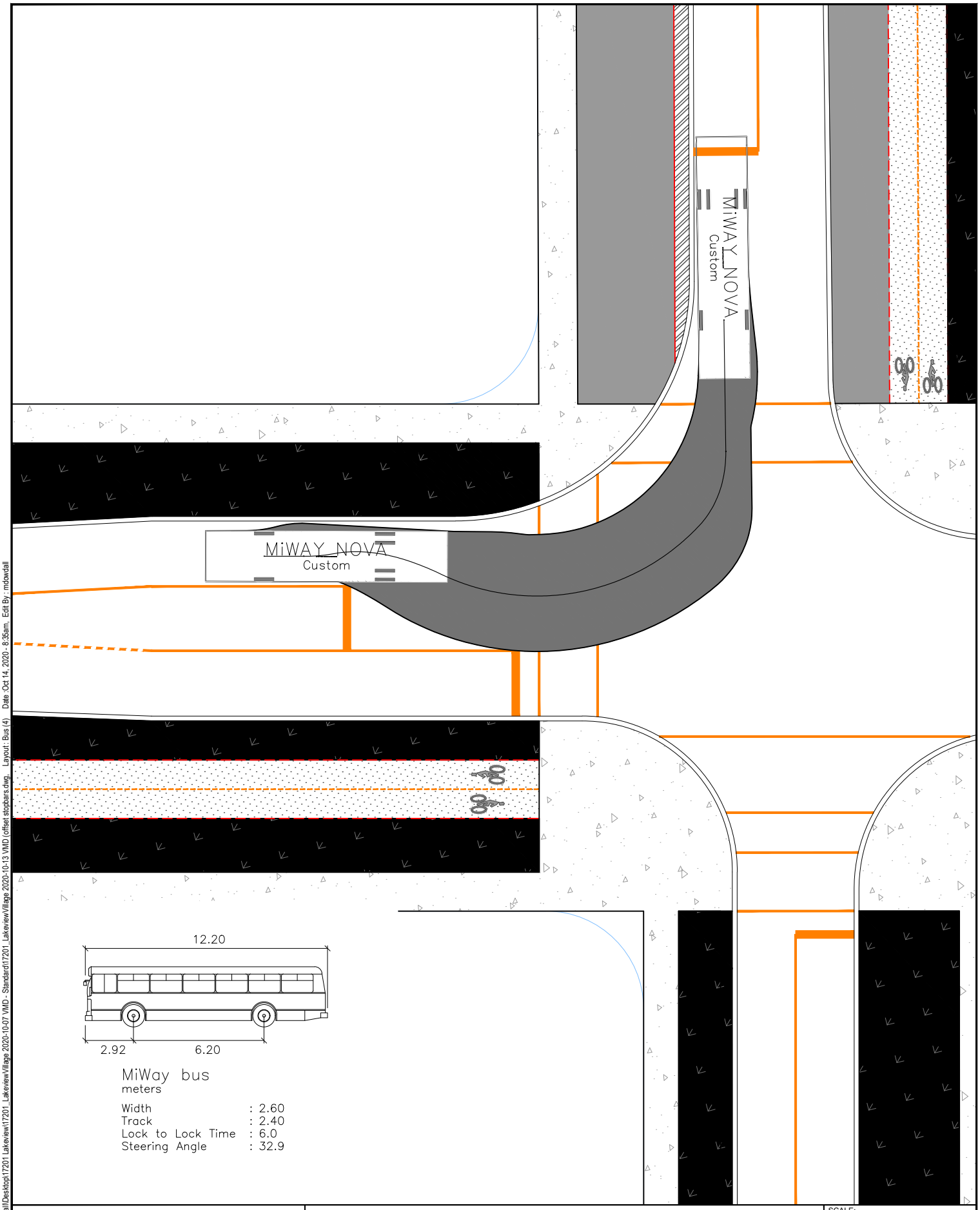
LAKEVIEW VILLAGE
MiWAY 40' BUS
VEHICLE MOVEMENT DIAGRAM (STREET A & STREET I)

SCALE: 1 : 250

DRAWING No. VMD-2C



MiWay bus
meters

Width	: 2.60
Track	: 2.40
Lock to Lock Time	: 6.0
Steering Angle	: 32.9

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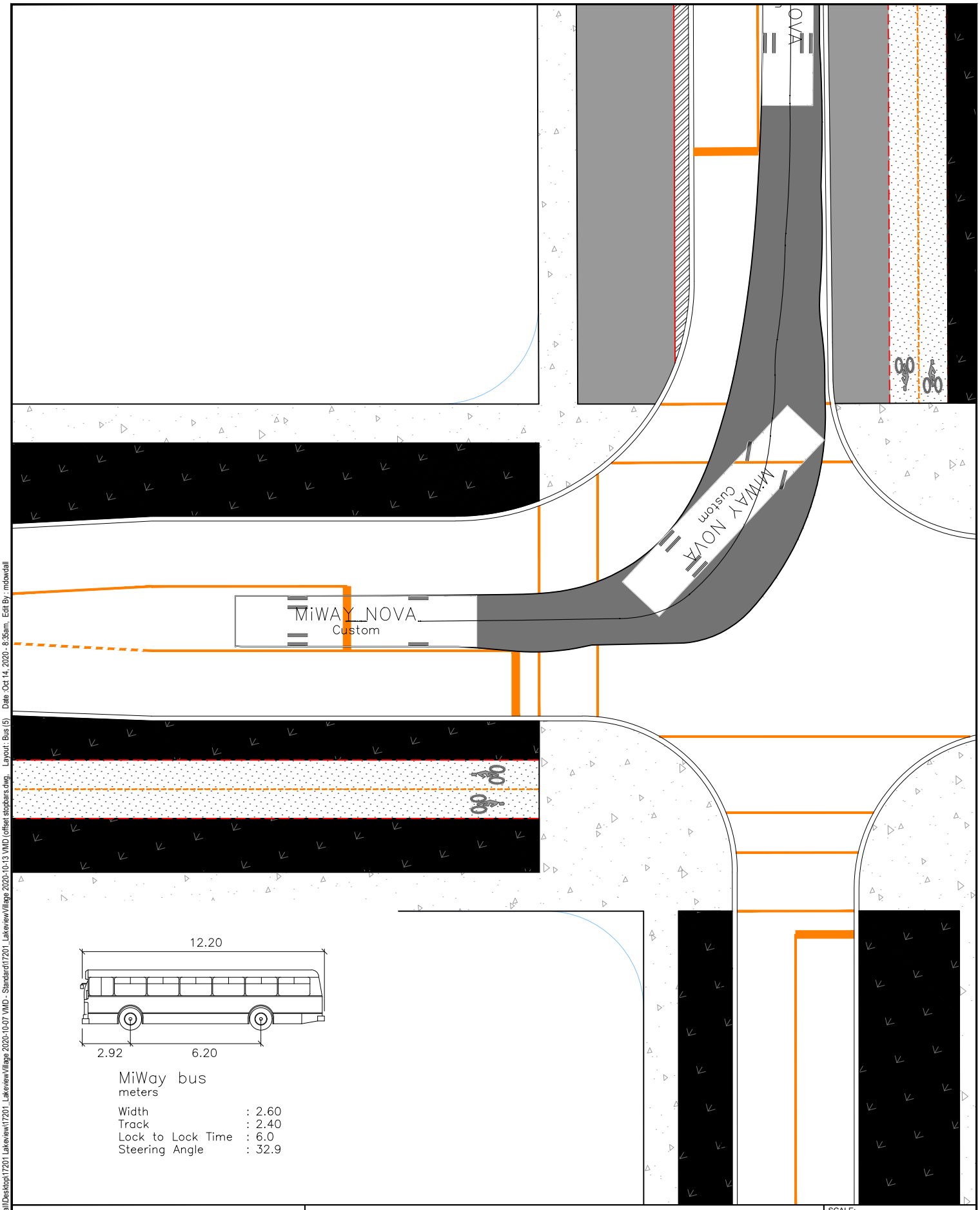
LAKEVIEW VILLAGE
MiWAY 40' BUS
VEHICLE MOVEMENT DIAGRAM (STREET A & STREET H)

SCALE: 1 : 250

DRAWING No. VMD-2D



MiWay bus
meters

Width	: 2.60
Track	: 2.40
Lock to Lock Time	: 6.0
Steering Angle	: 32.9

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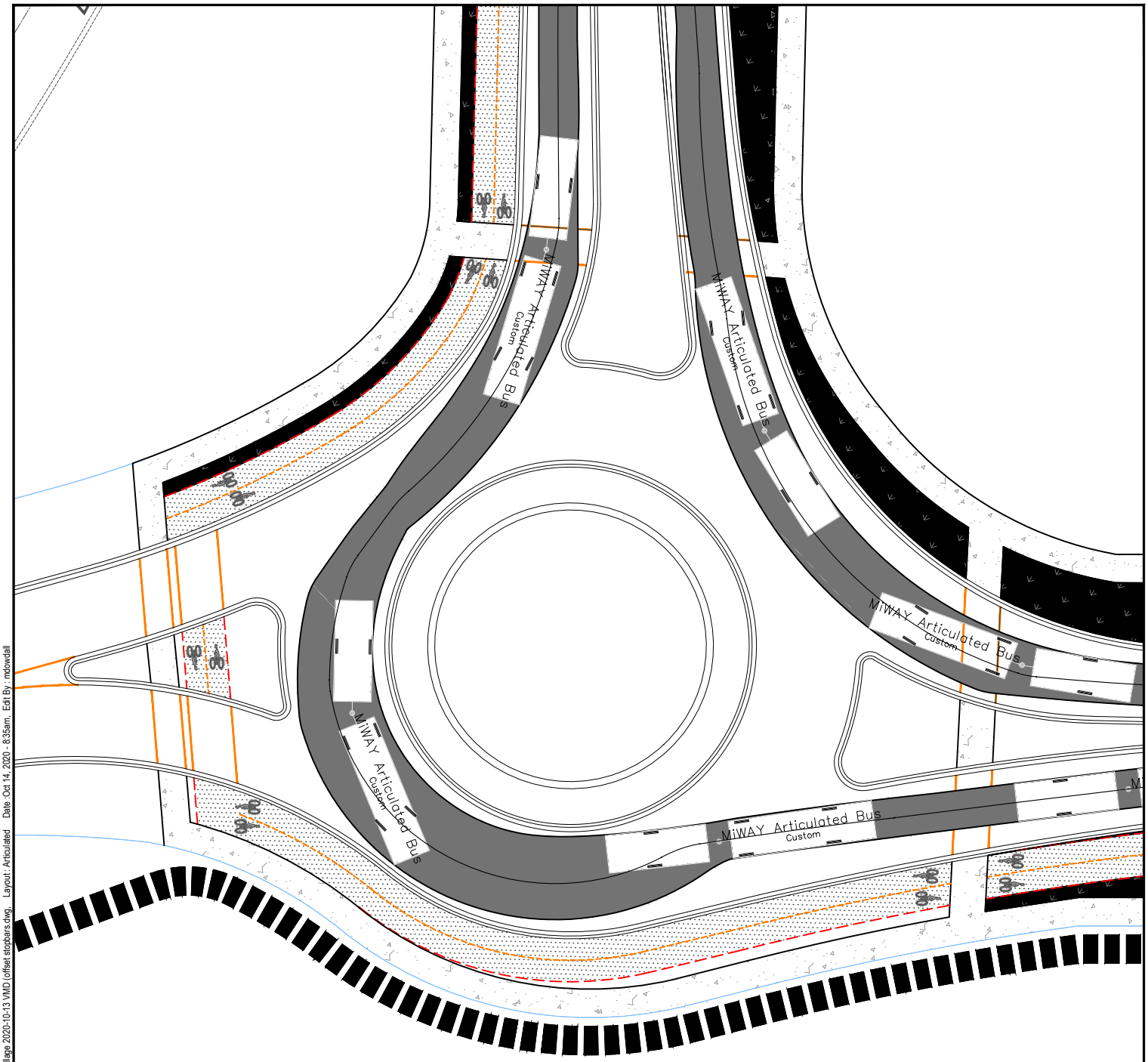
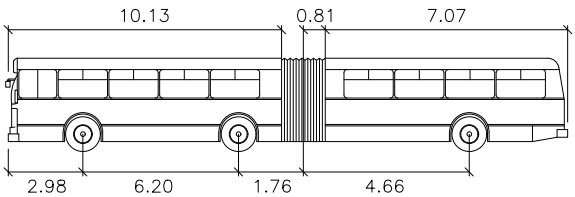
LAKEVIEW VILLAGE
MiWAY 40' BUS
VEHICLE MOVEMENT DIAGRAM (STREET A & STREET H)

SCALE: 1 : 250

DRAWING No. VMD-2E





MiWAY Articulated Bus

meters

Width	: 2.65	Lock to Lock Time	: 6.0
Track	: 2.59	Steering Angle	: 35.6
		Articulating Angle	: 47.0

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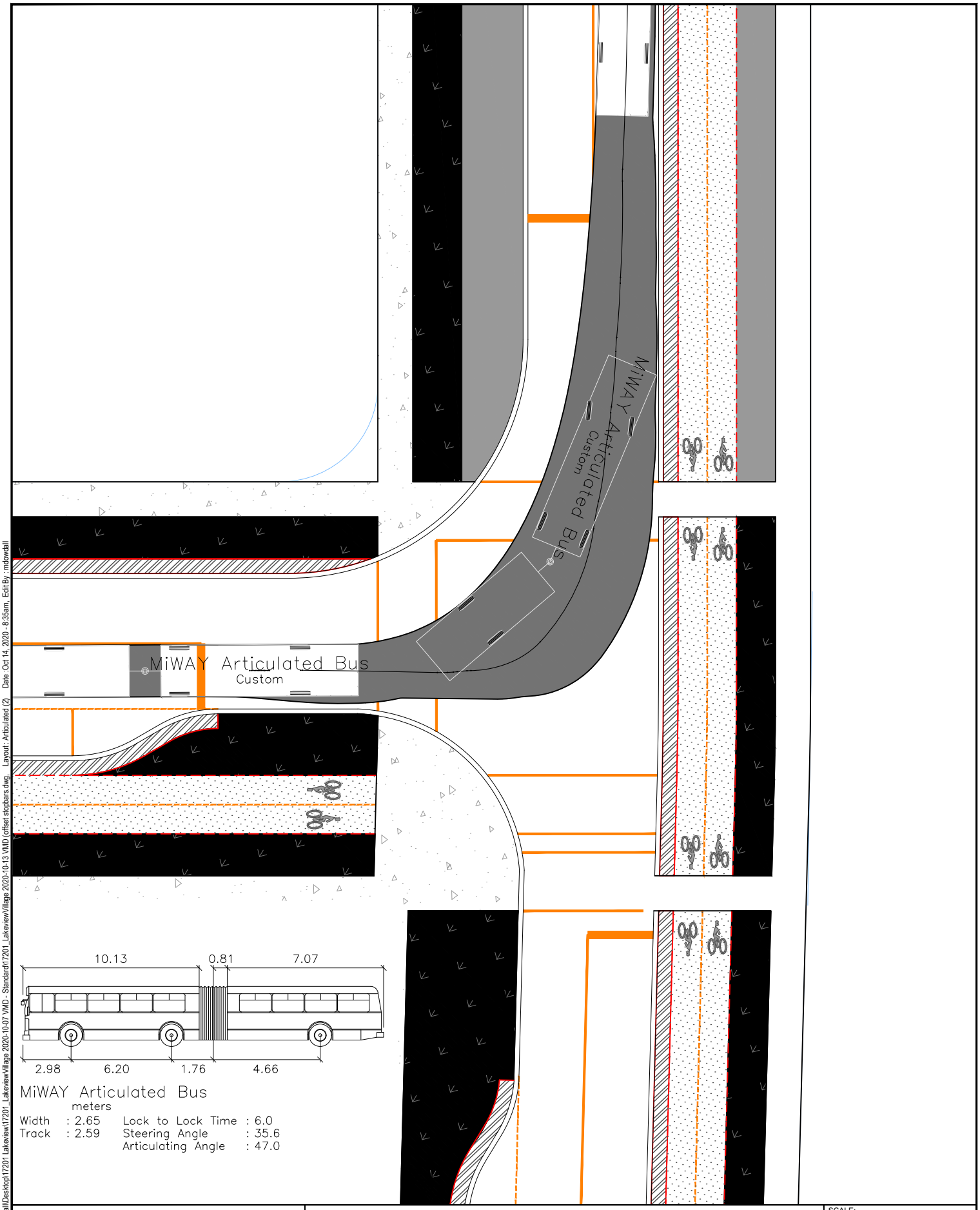
f: 905.738.0065

LAKEVIEW VILLAGE
MiWAY ARTICULATED BUS
VEHICLE MOVEMENT DIAGRAM (ROUNDABOUT)

SCALE: 1 : 250

DRAWING No. VMD-1A



MiWAY Articulated Bus

meters

Width	: 2.65	Lock to Lock Time	: 6.0
Track	: 2.59	Steering Angle	: 35.6
		Articulating Angle	: 47.0

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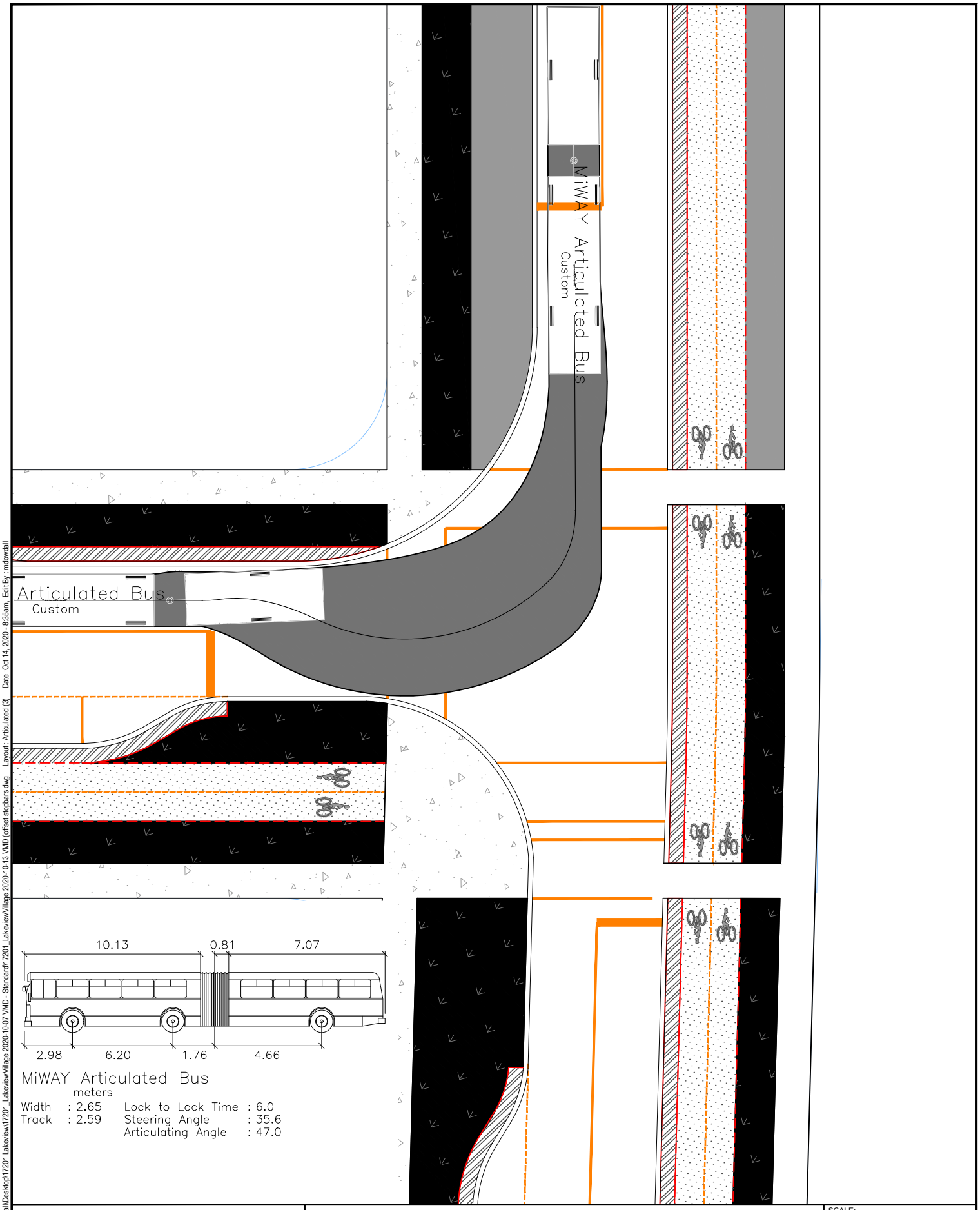
LAKEVIEW VILLAGE
MiWAY ARTICULATED BUS
VEHICLE MOVEMENT DIAGRAM (STREET A & STREET I)

SCALE: 1 : 250

DRAWING No. VMD-1B



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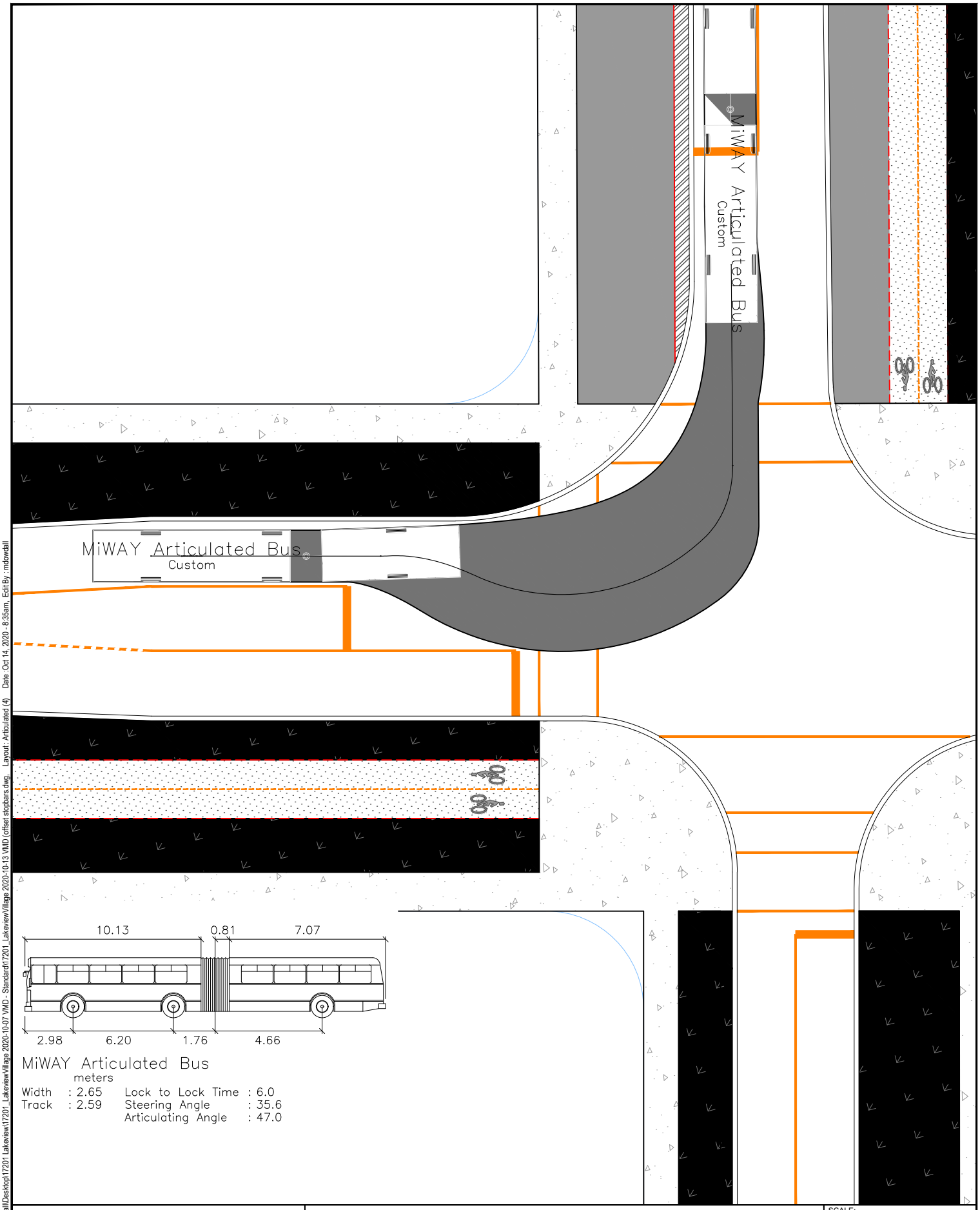
LAKEVIEW VILLAGE
MiWAY ARTICULATED BUS
VEHICLE MOVEMENT DIAGRAM (STREET A & STREET I)

SCALE: 1 : 250

DRAWING No. VMD-1C



MiWAY Articulated Bus

meters

Width	: 2.65	Lock to Lock Time	: 6.0
Track	: 2.59	Steering Angle	: 35.6
		Articulating Angle	: 47.0

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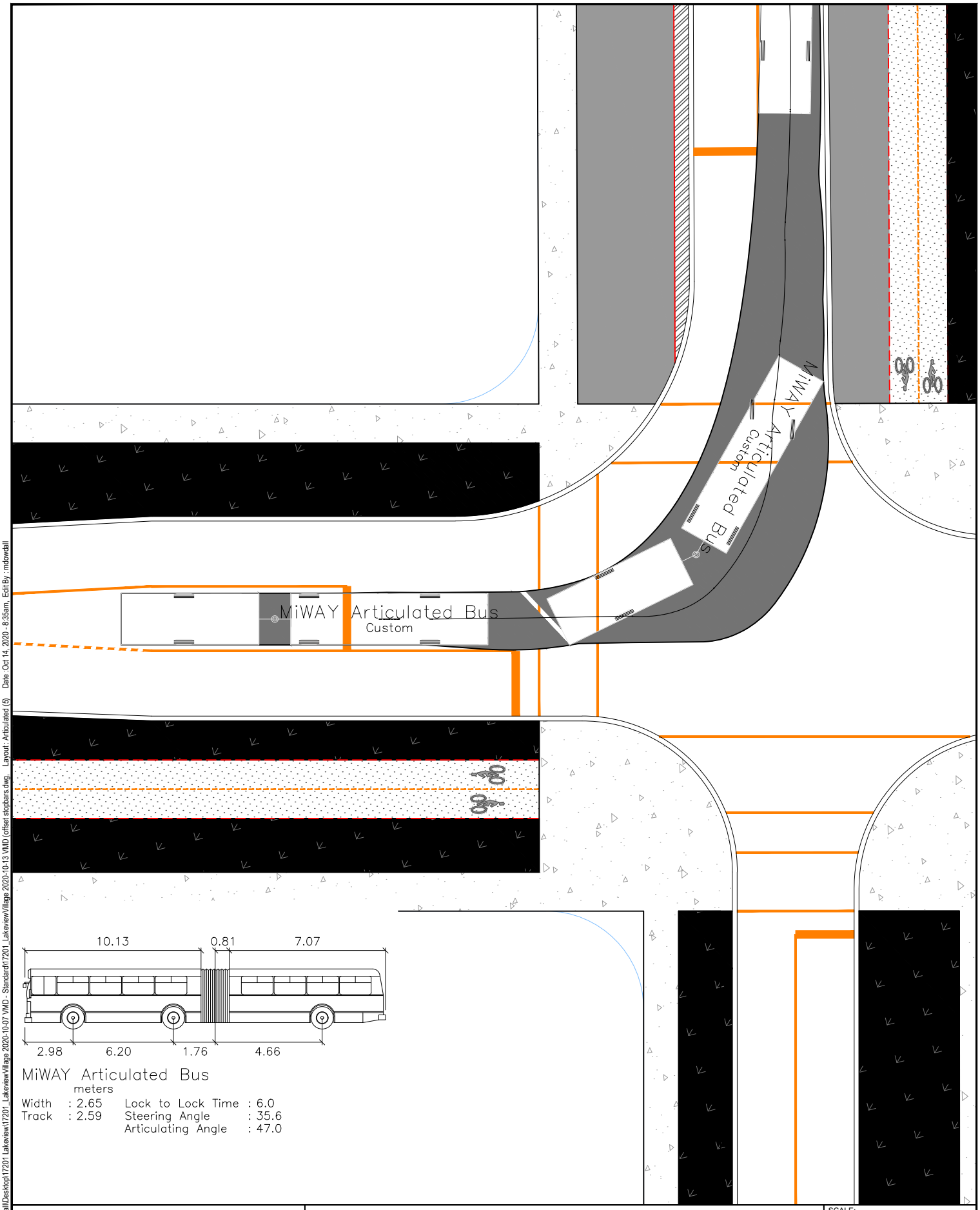
LAKEVIEW VILLAGE
MiWAY ARTICULATED BUS
VEHICLE MOVEMENT DIAGRAM (STREET A & STREET H)

SCALE: 1 : 250

DRAWING No. VMD-1D



MiWAY Articulated Bus

meters

Width	: 2.65	Lock to Lock Time	: 6.0
Track	: 2.59	Steering Angle	: 35.6
		Articulating Angle	: 47.0

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LAKEVIEW VILLAGE
MiWAY ARTICULATED BUS
VEHICLE MOVEMENT DIAGRAM (STREET A & STREET H)

SCALE: 1 : 250

DRAWING No. VMD-1E