



LAKEVIEW VILLAGE

STREET HIERARCHY AND RIGHT-OF-WAY STUDY

TMIG
A TYLIN INTERNATIONAL COMPANY

LAKEVIEW
COMMUNITY PARTNERS LIMITED

APRIL 2020



Purpose and Context

This document is intended to provide additional information on the proposed streets hierarchy and right-of-way configurations for Lakeview Village, to confirm feasibility and provide a basis for design. The street network for Lakeview Village is planned to achieve multiple objectives:

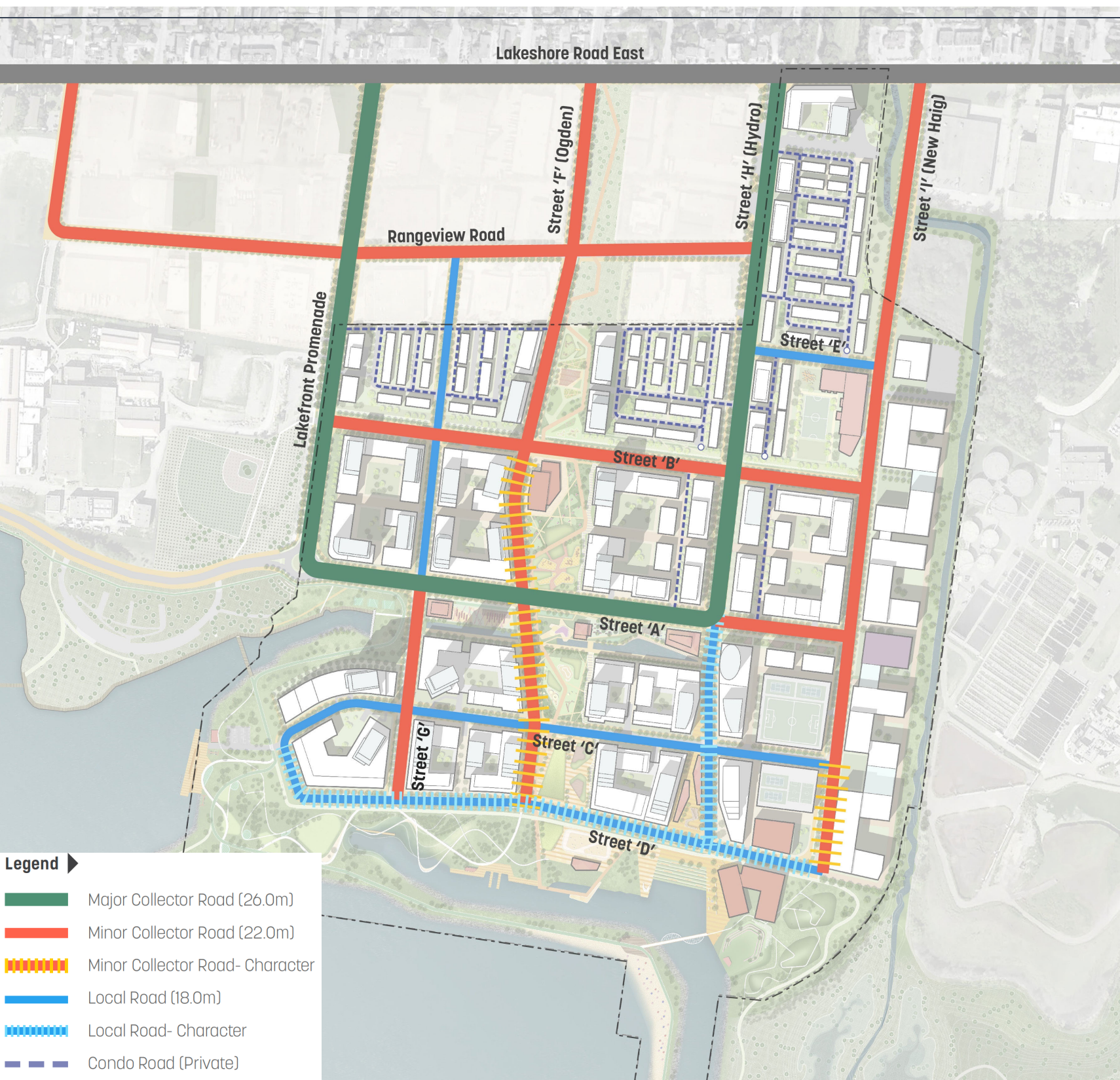
- Pedestrian, cyclist, transit and vehicular movement, with multiple linkage opportunities to reinforce active transportation;
- Streetscaping to complement the community's urban design vision and promote a healthy street tree canopy, integrated with functional water management and planting strategies;
- On-street and lay-by parking;
- Traditional underground storm, sanitary, and water networks to service the community;
- Utilities and street lighting that meets the principles of a connected community;
- Underground vacuum waste network with community-wide receptacles;
- Underground district heating and cooling network.

The key purpose of this evaluation is to describe the constraints and opportunities related to each feature, assess the proposed approaches relative to prevailing criteria, and establish a streets hierarchy and rights-of-way strategy that mitigates potential conflicts and meets the objectives of the community and stakeholders. At this stage in the planning and design process for the community, each ROW element is assumed to require the majority of the infrastructure components (e.g. including vacuum waste and district energy on most roadways), to ensure that any subsequent design refinements will not necessitate an increase in ROW width.

Balancing these objectives is critical to achieving a street network that is responsive to the design and technical requirements for delivering the Lakeview Village vision of a unique, innovative and exciting waterfront community.



Street Hierarchy

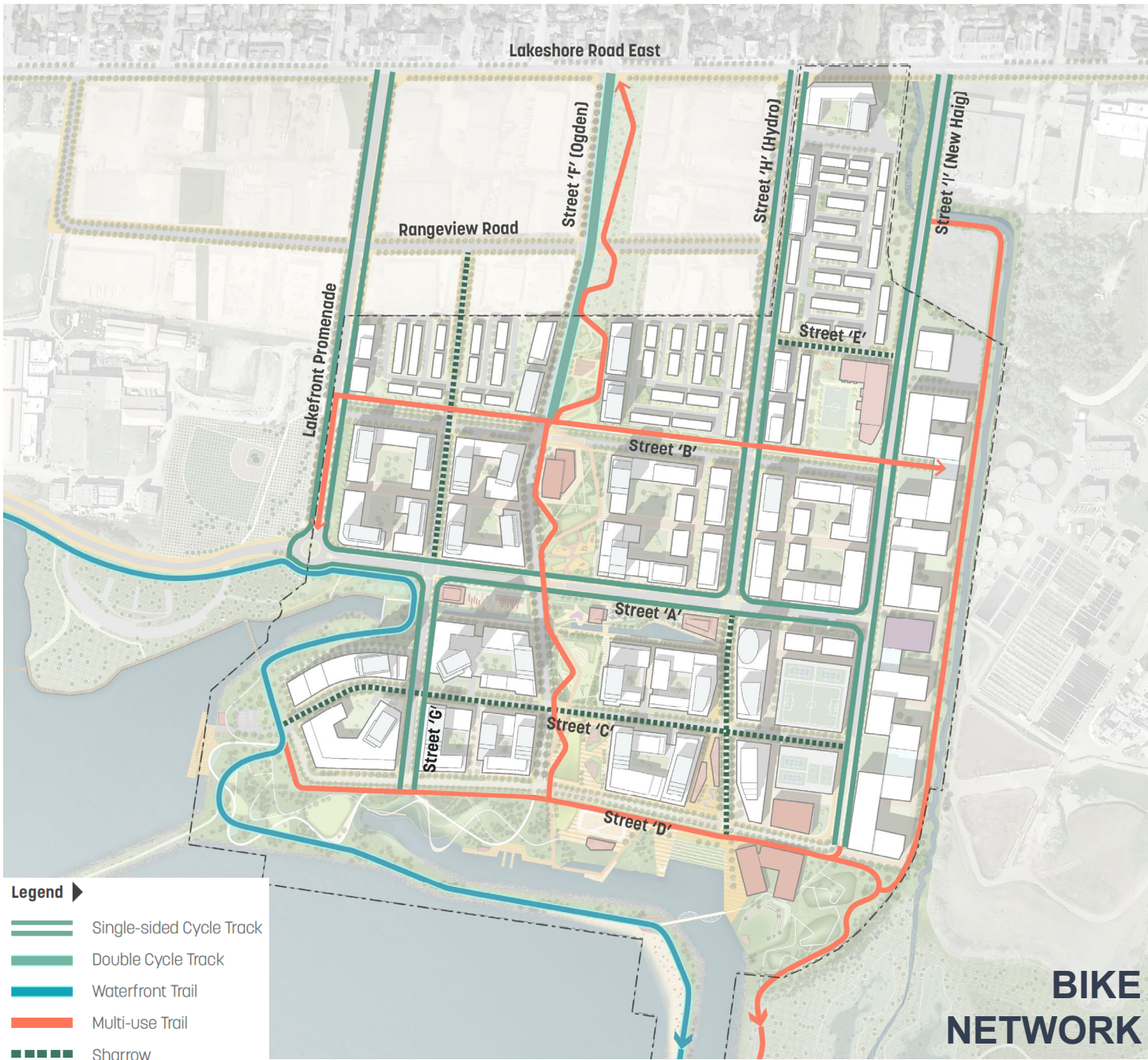
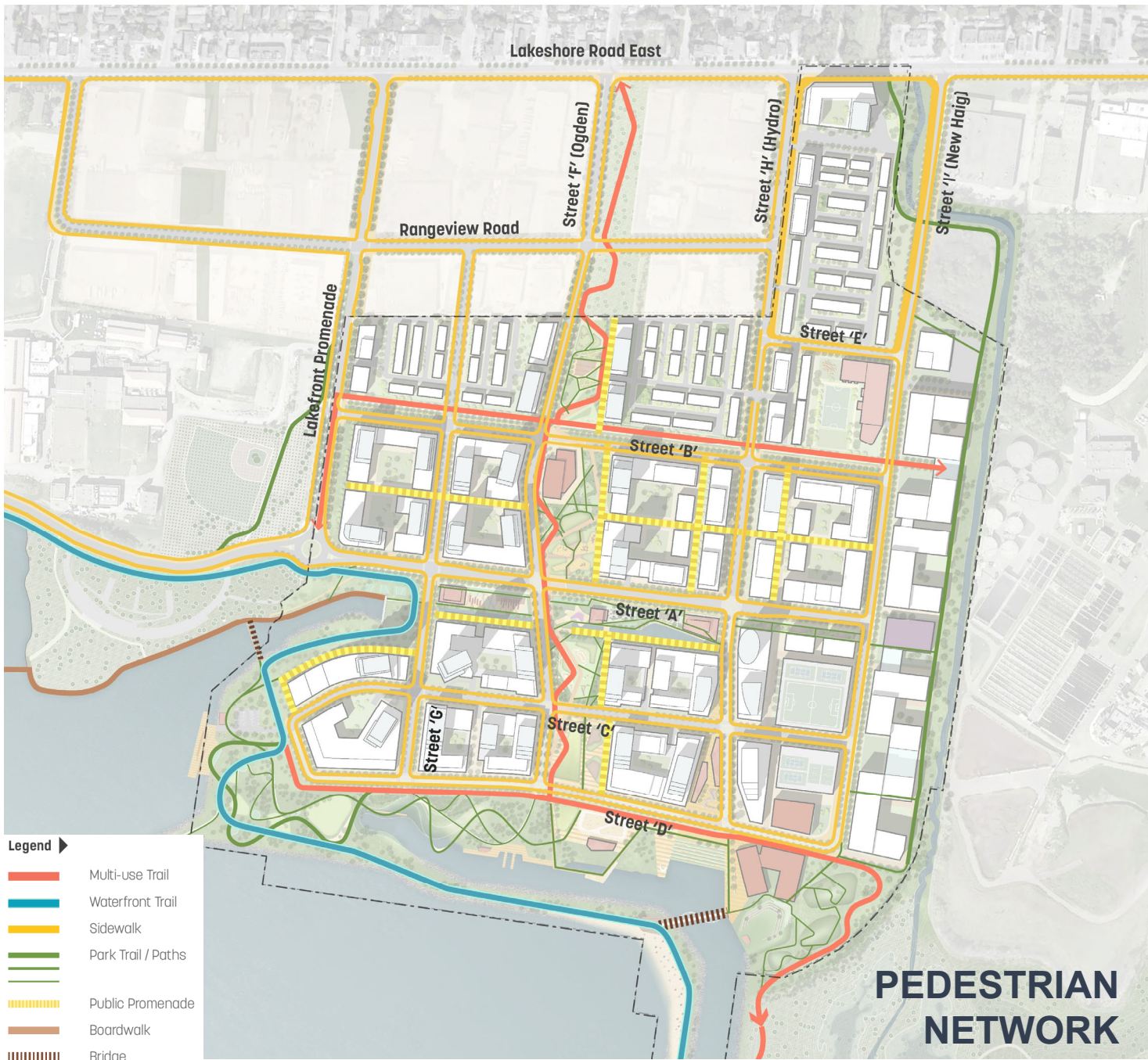


The principles for establishing safe, efficient and convenient movement of pedestrians, cyclists, transit riders and motorists has been reflected in the development of the proposed street hierarchy strategy consistent with the Lakeview Village community vision. Three (3) primary street categories have been defined, with further variations that consider local conditions and objectives.

- 1. MAJOR COLLECTOR ROADS:** 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**.
- 2. MINOR COLLECTOR ROADS:** 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**. Additional variations on the typical configuration accommodate site specific and desired character conditions.
- 3. LOCAL ROADS:** 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. The local street's right-of-way width is **18.0 metres**. Additional variations on the typical configuration accommodate site specific and desired character conditions.

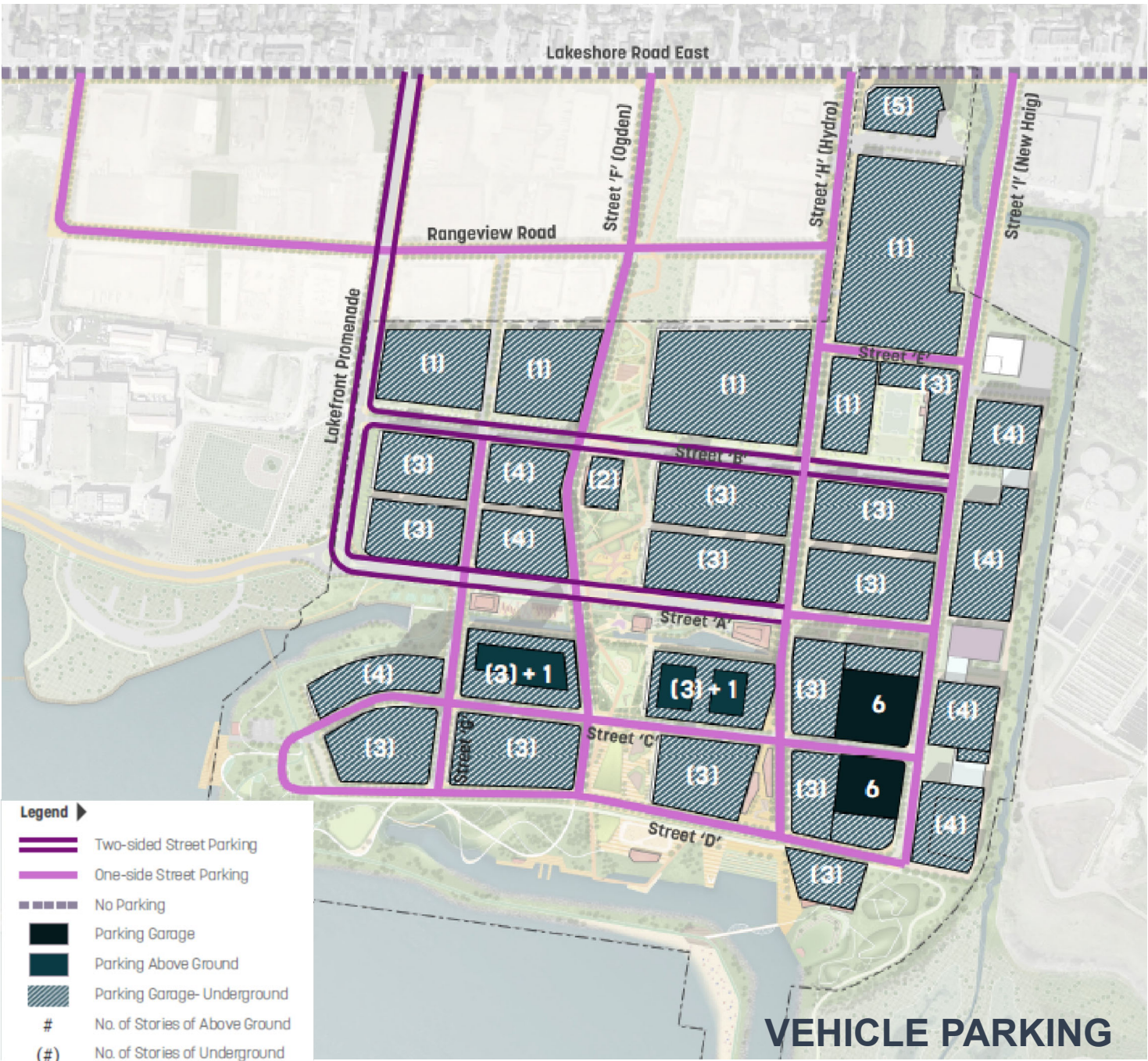
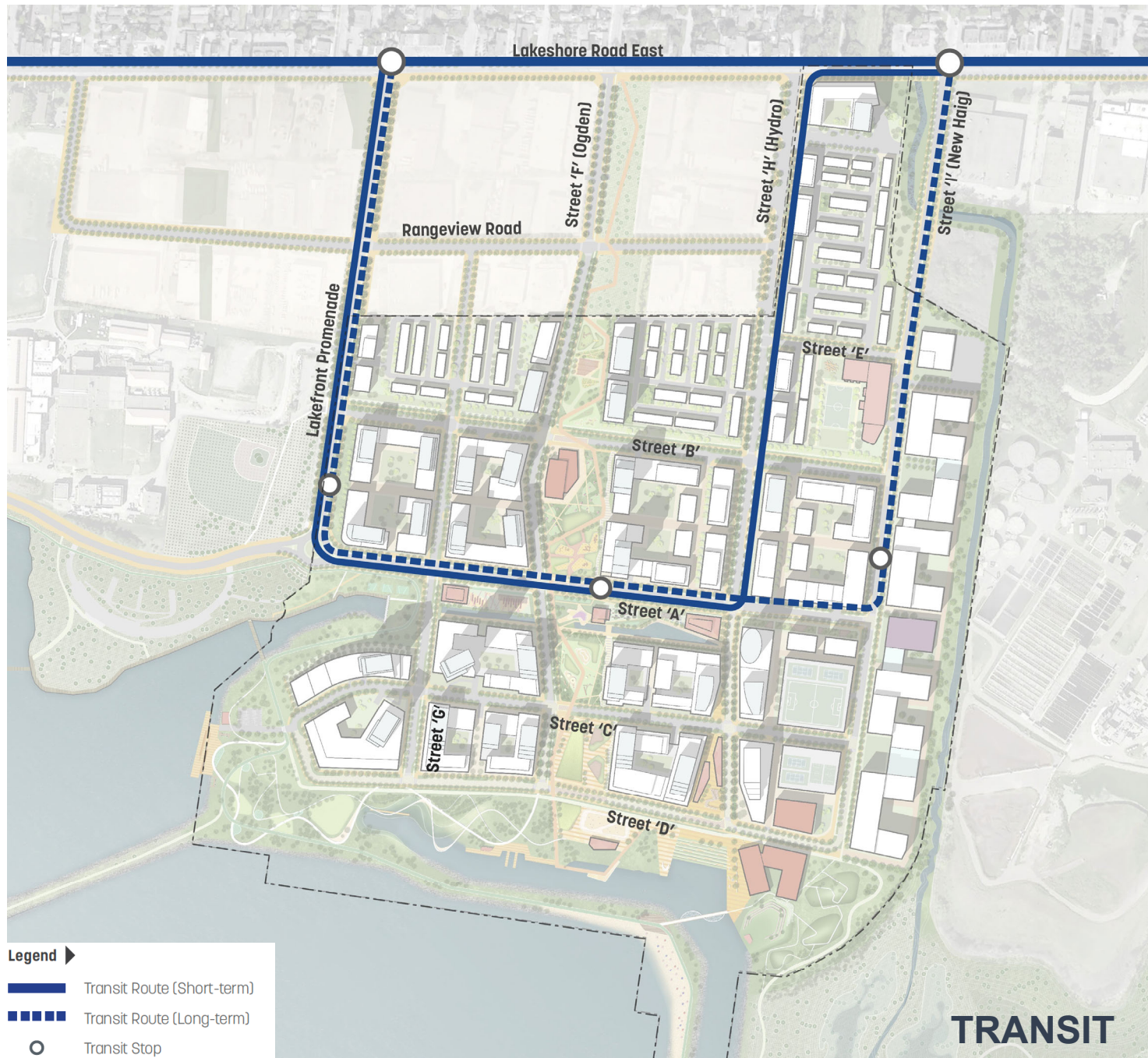
Pedestrians and Cyclists

Lakeview Village is designed to be a multi-modal district that is well-connected to the broader vehicular, pedestrian, transit, and bike network.

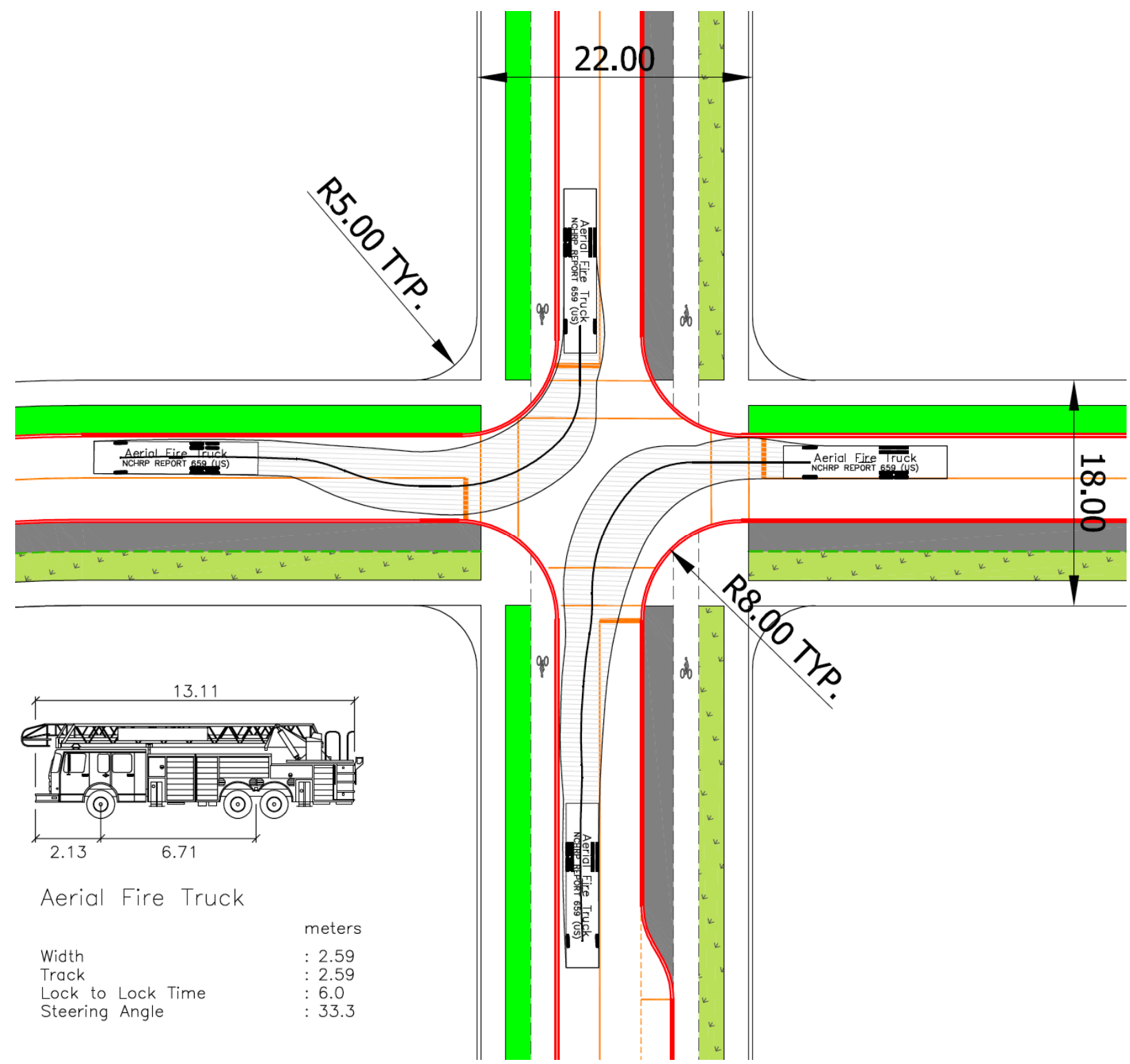


Transit and Vehicle Parking

A staged approach to transit considers both the interim and ultimate needs of the community, along with a variation that provides a dedicated transit lane to support the potential for an autonomous bus. A network of on street layby parking complements planned public and private parking facilities throughout the community. Both transit and on-street parking have been incorporated into the road cross-sections.



Vehicular Movement



SUMMARY OF TRAFFIC INVESTIGATIONS

- One lane of traffic provided in each direction to support the anticipated needs of the community
- Daylighting provided at all intersections in compliance with TAC guidelines
- Vehicle swept path analyses confirm that a fire truck design vehicle will be able to easily access the development and negotiate the proposed internal roads as designed, with further detail provided in separate document.

Streetscape Elements



Harmoniously designed streetscapes that appropriately integrate infrastructure requirements will contribute to the identity of Lakeview Village and each of its districts and neighbourhoods. A unique and inviting public realm experience for residents and visitors that appropriately responds to adjacent land uses can be achieved through a carefully considered combination of streetscape features. Elements such as outdoor furniture, lighting and enhanced paving materials can reinforce the pedestrian priority and reinforce the unique character of the community and districts. The proposed streetscape treatment will be appropriate to the street designation and ensure the safety, comfort and accessibility of pedestrians, cyclists and motorists. Some of the streetscape elements to be considered include:

- Street trees – grass boulevards, tree grates, raised planters, soil cells;
- Street furniture – benches, bollards, bike racks (including bike sharing kiosks), wayfinding and information signage;
- Vacuum waste receptacles;
- Street lights – street and pedestrian scale, pathway, light bollards, banners;
- WIFI hubs; and,
- Public art.

Municipal Services



WATER: a network of watermains will connect the new community to existing trunk infrastructure. Pipe sizes are expected to range from 200mm to 400mm.



SANITARY: a network of sanitary sewers will convey wastewater from the community to the existing Regional network, with lower areas to be conveyed via a proposed pump station at the southeast corner of the neighbourhood. Sanitary sewers are expected to range from 250mm to 600mm.



STORM: Runoff throughout the community will be conveyed by a network of storm sewers, along with road surfaces and a range of stormwater management features on route to the outlets. Storm sewers are expected to range from 300mm to 1.2mx3.6m (box culvert).



The utility corridor will permeate the community and will require space within each right-of-way.

Street cross sections have assigned a utility corridor width of 1.0m throughout the neighbourhood, underneath the sidewalk corridor, with a separate accommodation for gas between the utility corridor and property lines.

The utility corridor will accommodate a conventional utility network, the enhanced connectivity elements under consideration for Lakeview Village, as well as the potential introduction of a ‘microgrid’ network to service the neighbourhood.

Stormwater Management

The stormwater management strategy for Lakeview includes features within the street corridors that will provide water quality treatment for runoff generated by those streets. In general the strategy for the road network relies on bioretention features that intercept and treat runoff before conveyance to the storm drainage network. In some instances consideration will be given to directing **treated runoff** to soil cells to support increased tree canopies while offering tertiary water quality treatment, with due design focus on sustained tree health. In areas where grading or other constraints limit the opportunity to treat runoff with bioretention features, oil-grit separators will be introduced. The specific form of the bioretention features will be established as part of the streetscape design for each district to suitably integrate form and function.



TREE PITS WITH SOIL CELLS



BIORETENTION BUMP-OUTS

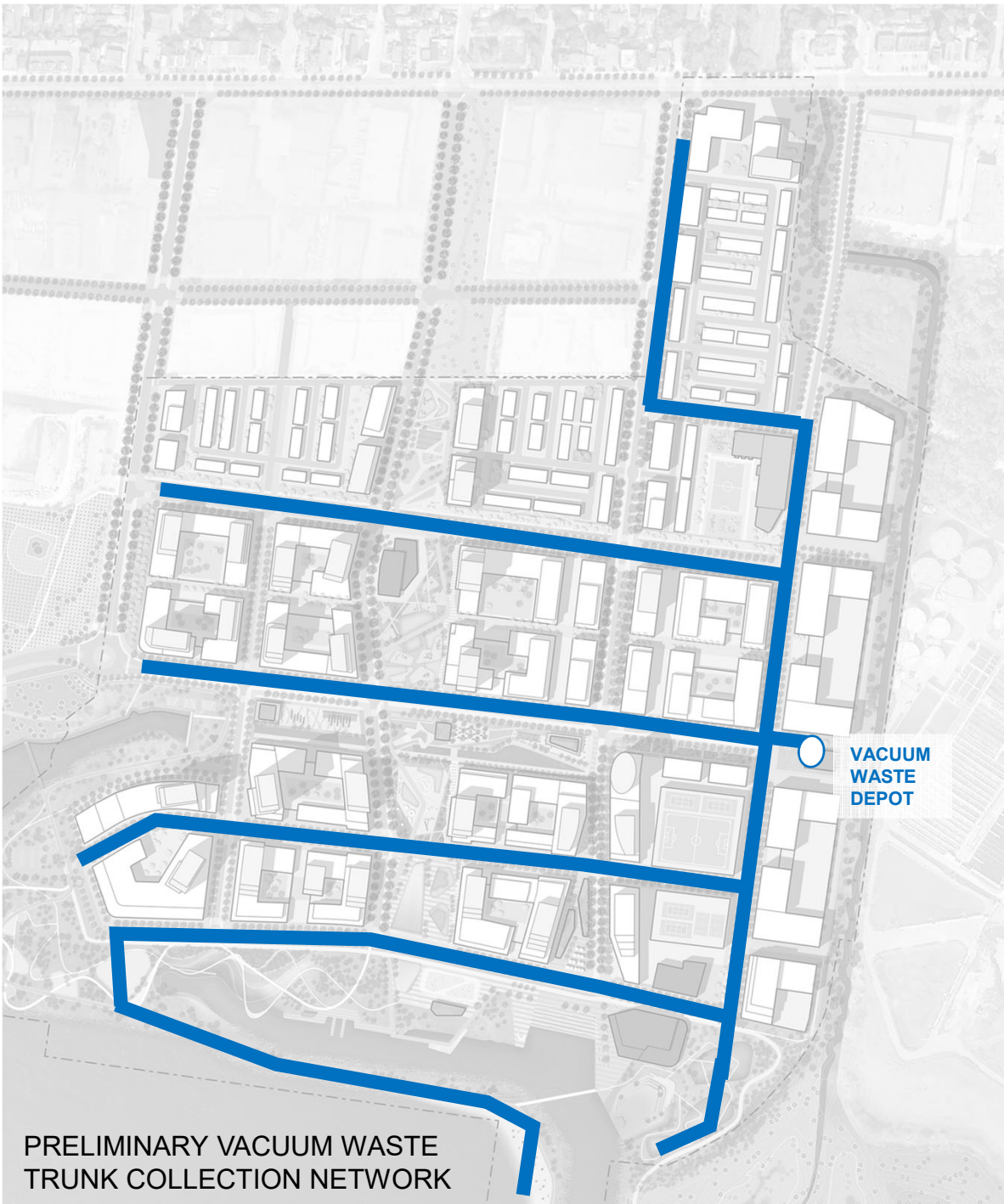


BIORETENTION PLANTERS



BIOSWALES

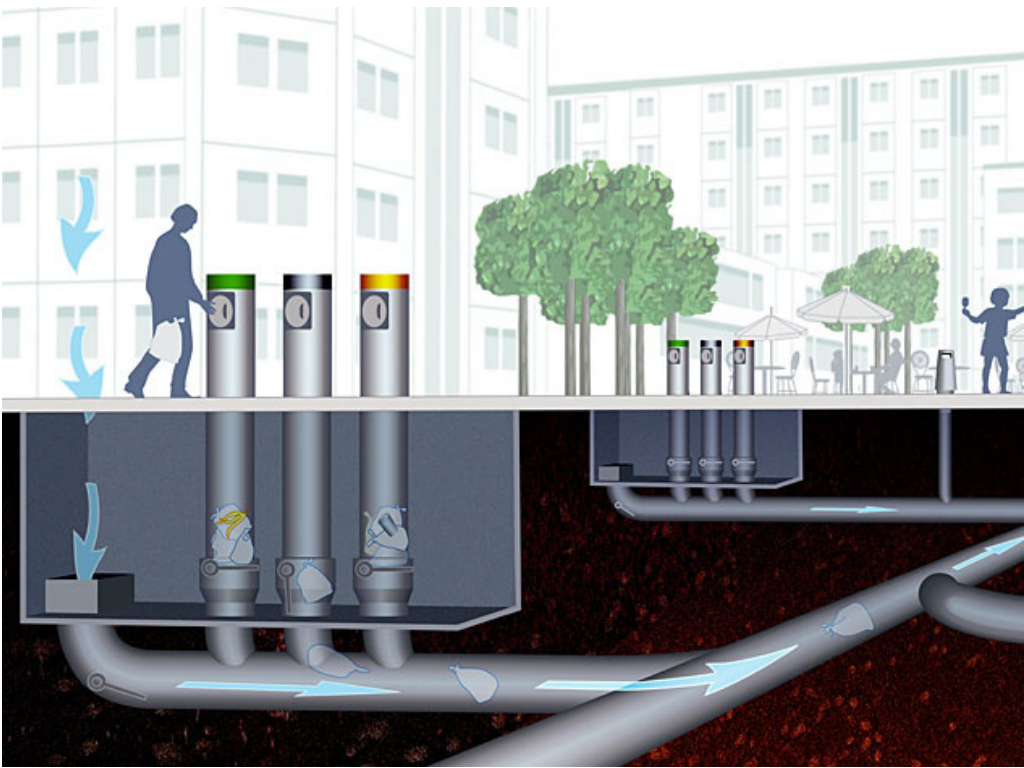
Vacuum Waste Collection



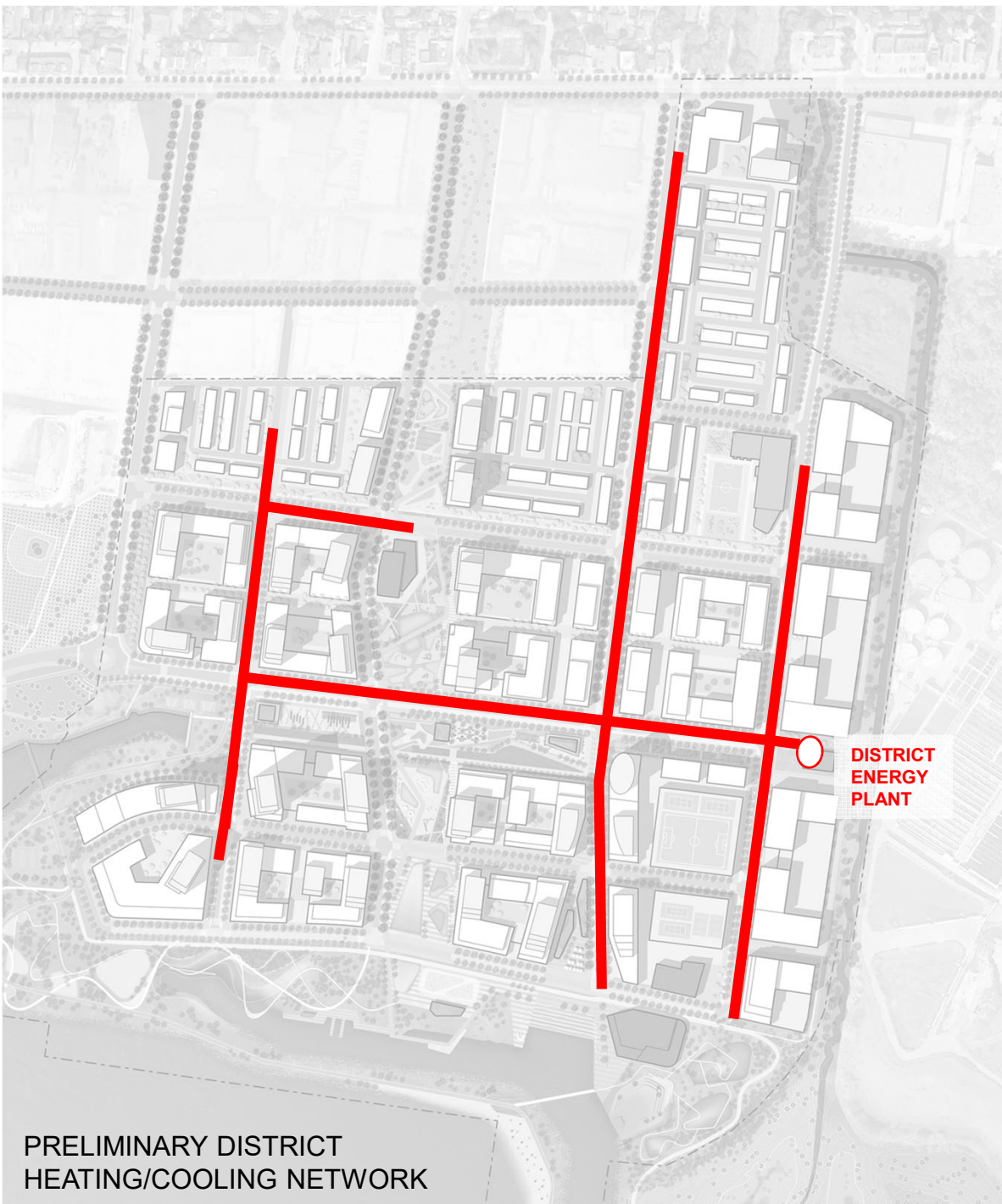
Vacuum waste collection is under consideration for Lakeview Village as an alternative to traditional waste management, due to the location and form of the new community. The technology is not new, and has the potential to elevate the level of service to the community by removing the nuisance and health hazards associated with waste storage and accumulation, and reducing the environmental impact of traditional waste collection.

A trunk network of vacuum tubes will provide connections to each development parcel, along with receptacles distributed throughout public spaces, all connected to a central waste depot from which the three waste streams can be collected daily.

The trunk network is comprised of a 500mm diameter steel pipe located within the right-of-way, which must be coordinated with and respect the other demands on the street corridor.



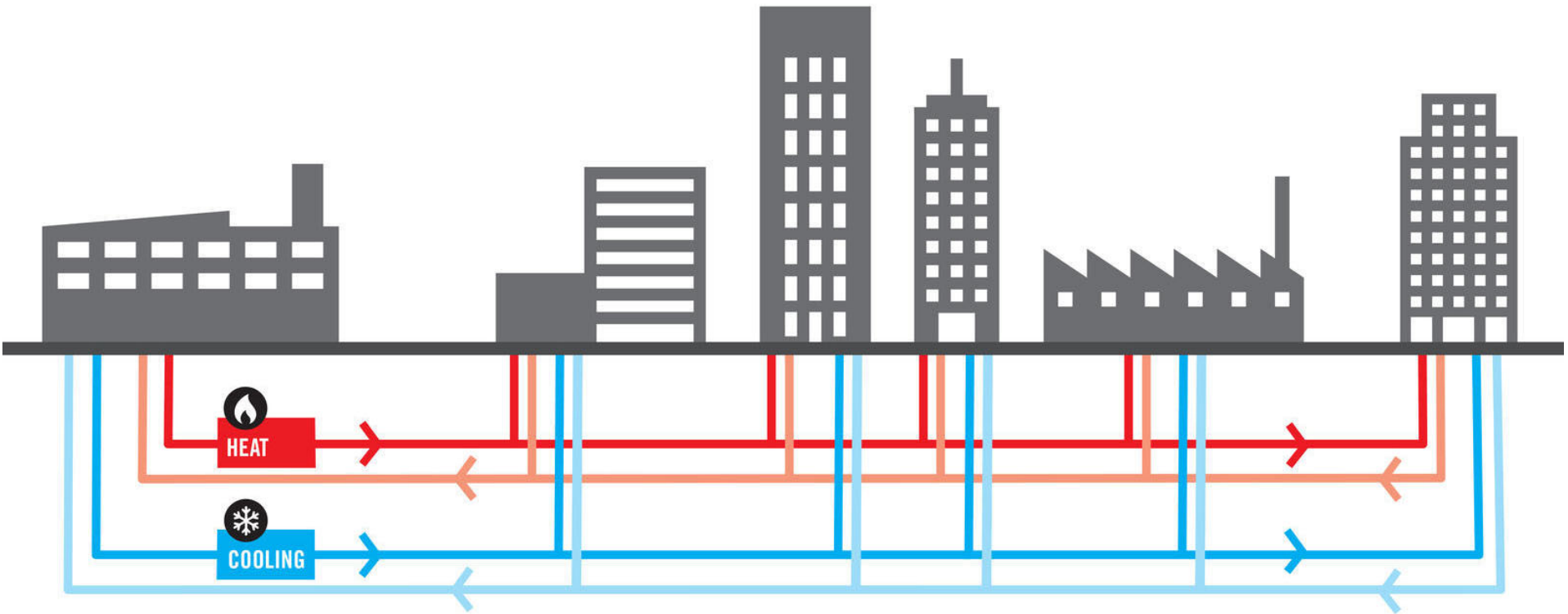
District Heating and Cooling



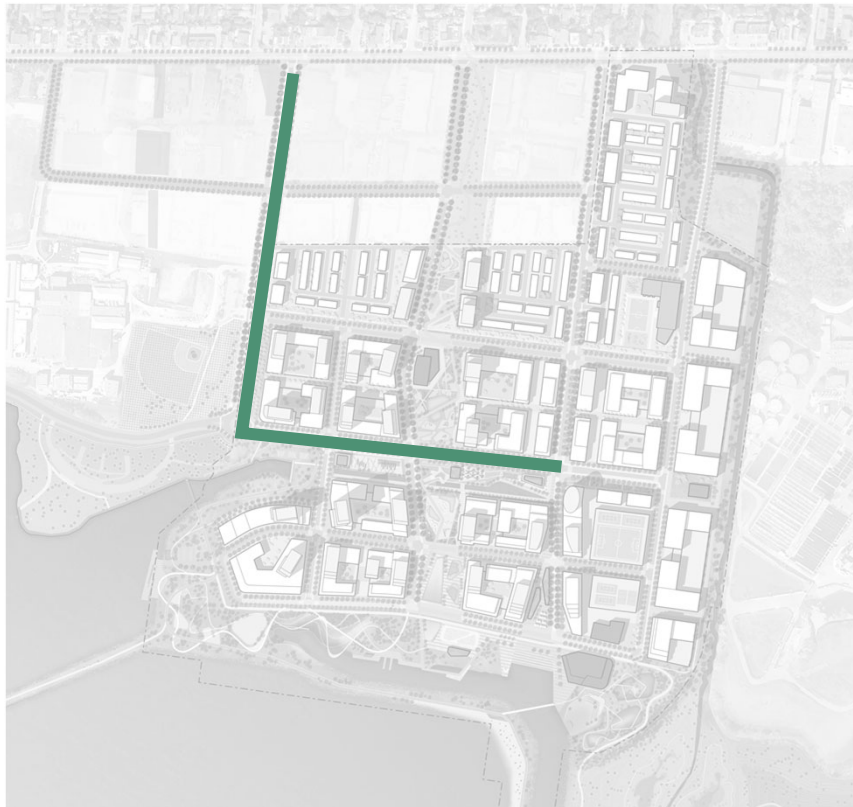
District heating and cooling provides a centralized plant that supplies hot and cold water to a series of pipes distributed throughout a community and used by individual buildings in lieu of traditional boilers and chillers.

For Lakeview, one option involves leveraging the waste heat available at the GE Booth Wastewater Treatment Facility to heat and cool water for distribution throughout the community.

This requires a distributed network of pipes within the street corridors to service the community, which must be coordinated with and respect the other demands on the street corridor. The pipe network is typically comprised of a 4-pipe system ranging in diameter from 150mm to 500mm.

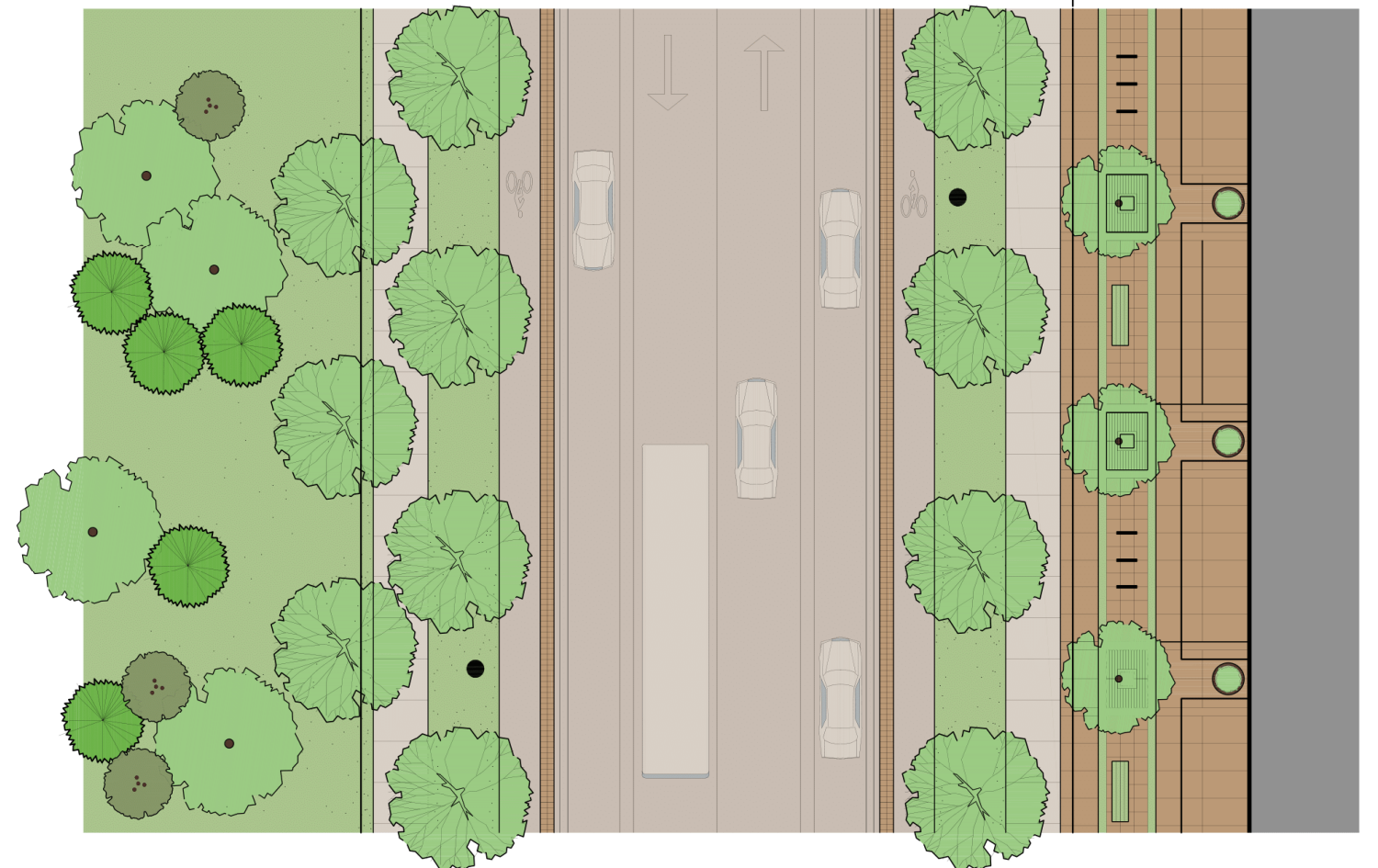
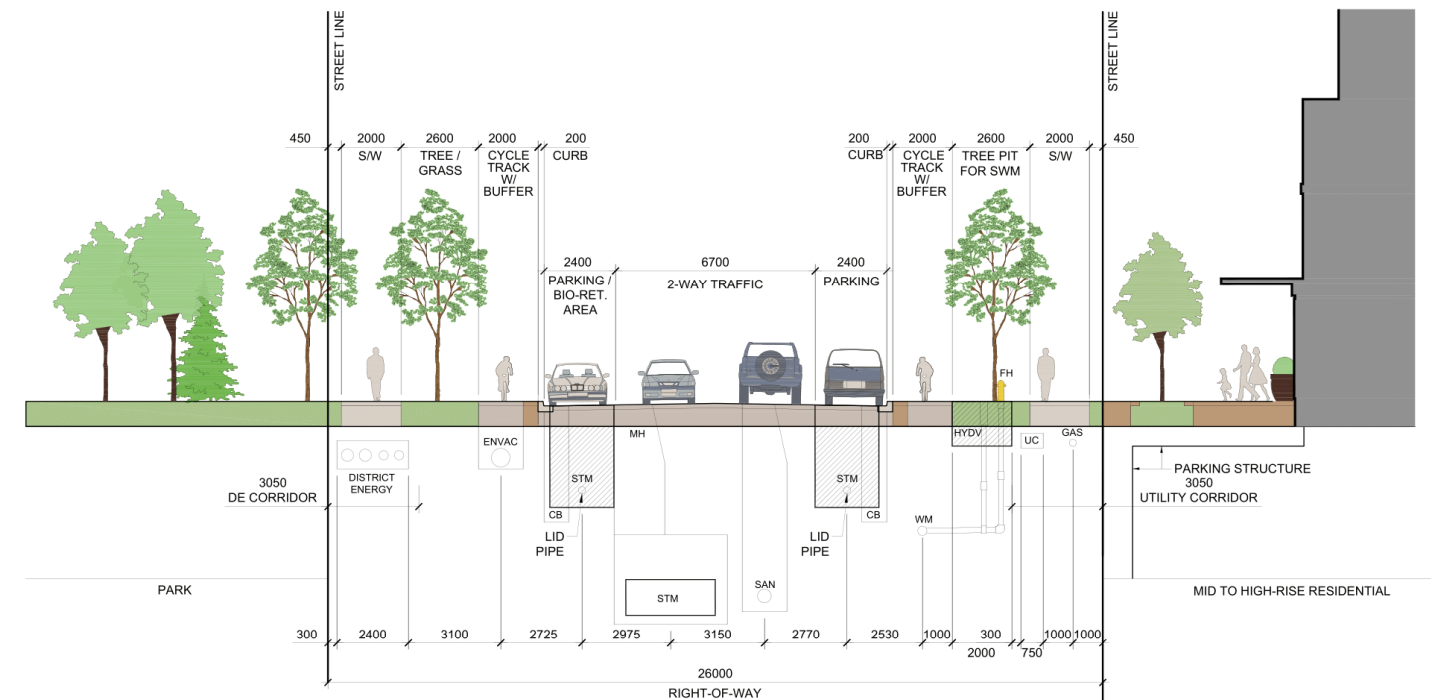


Major Collector



KEY FEATURES AND PRINCIPLES:

- 26.0m wide right-of-way
- Sidewalk on both sides
- 2 thru lanes
- On-street parking on both sides, alternated with bioretention features
- Cycle tracks on both sides
- Grass boulevard on one side
- Grass boulevard with tree pits and potential SWM function on other side
- Refer to Figure 1 in Appendix 'A' for Engineering Cross Sections

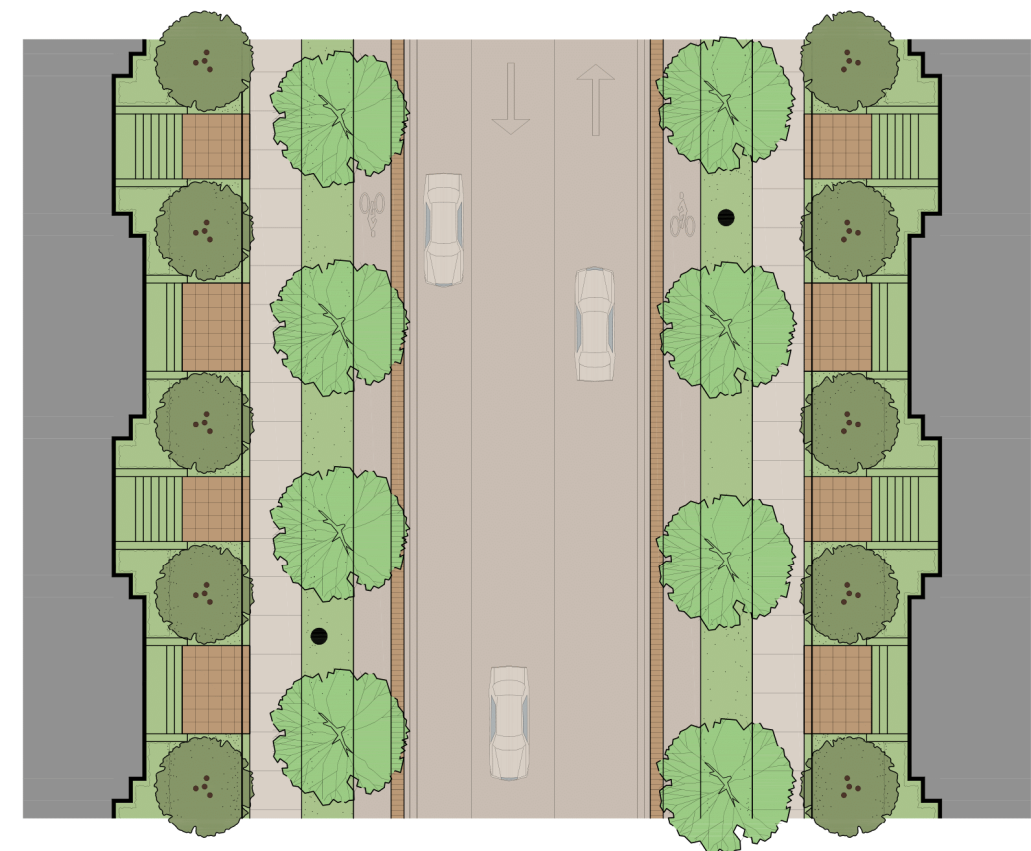
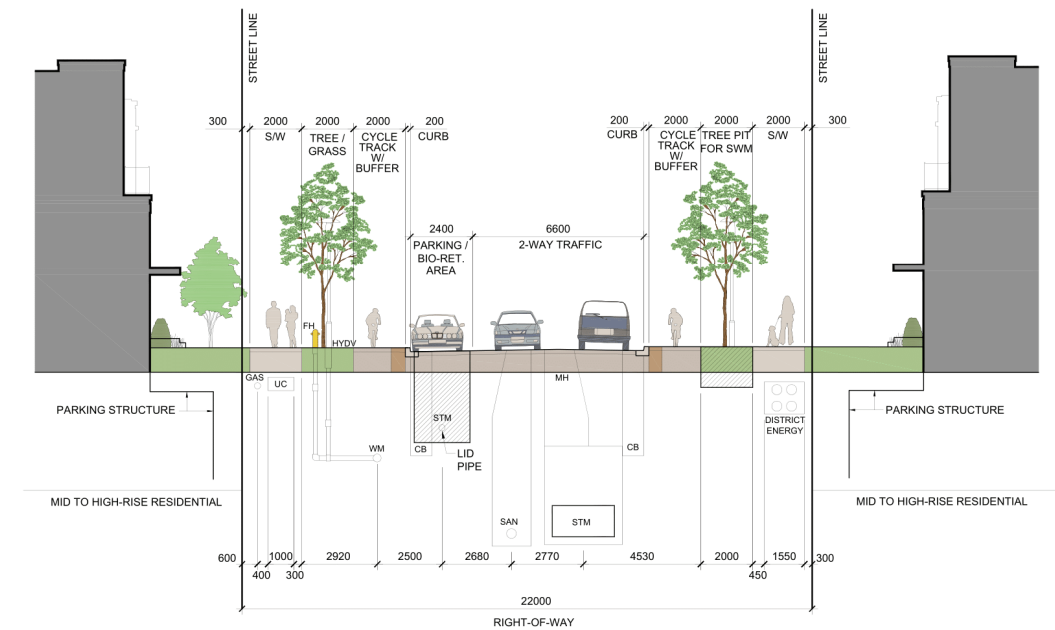


Minor Collector

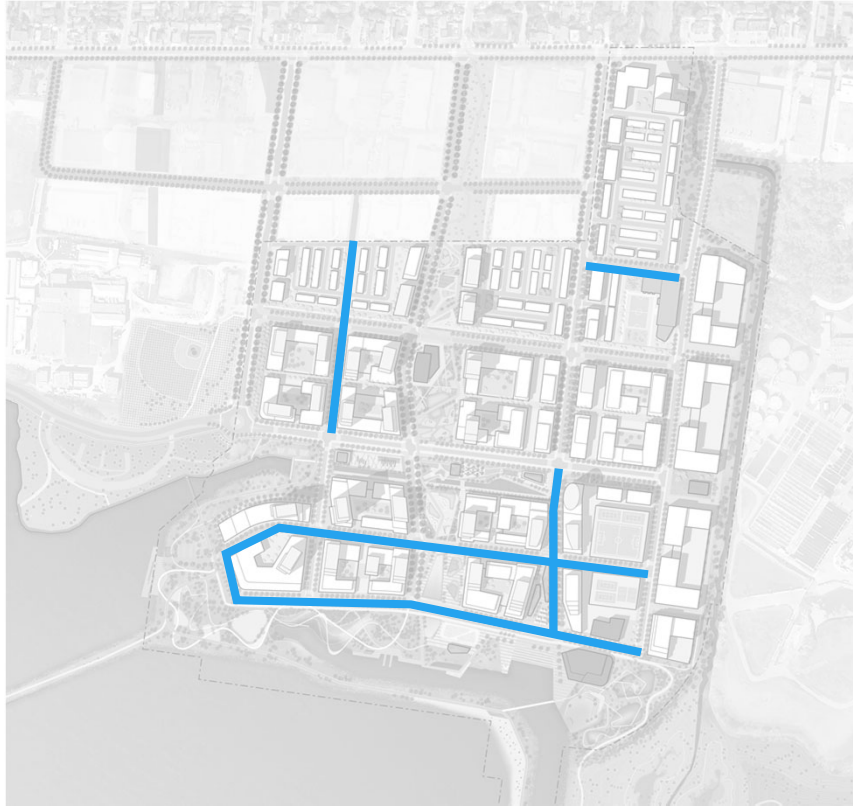


KEY FEATURES AND PRINCIPLES:

- 22.0m wide right-of-way
- Sidewalk on both sides
- 2 thru lanes
- On-street parking on one side, alternated with bioretention features
- Cycle track on both sides
- Grass boulevard on one side
- Grass boulevard with tree pits and potential SWM function on other side
- Refer to Figure 2 in Appendix 'A' for Engineering Cross Sections

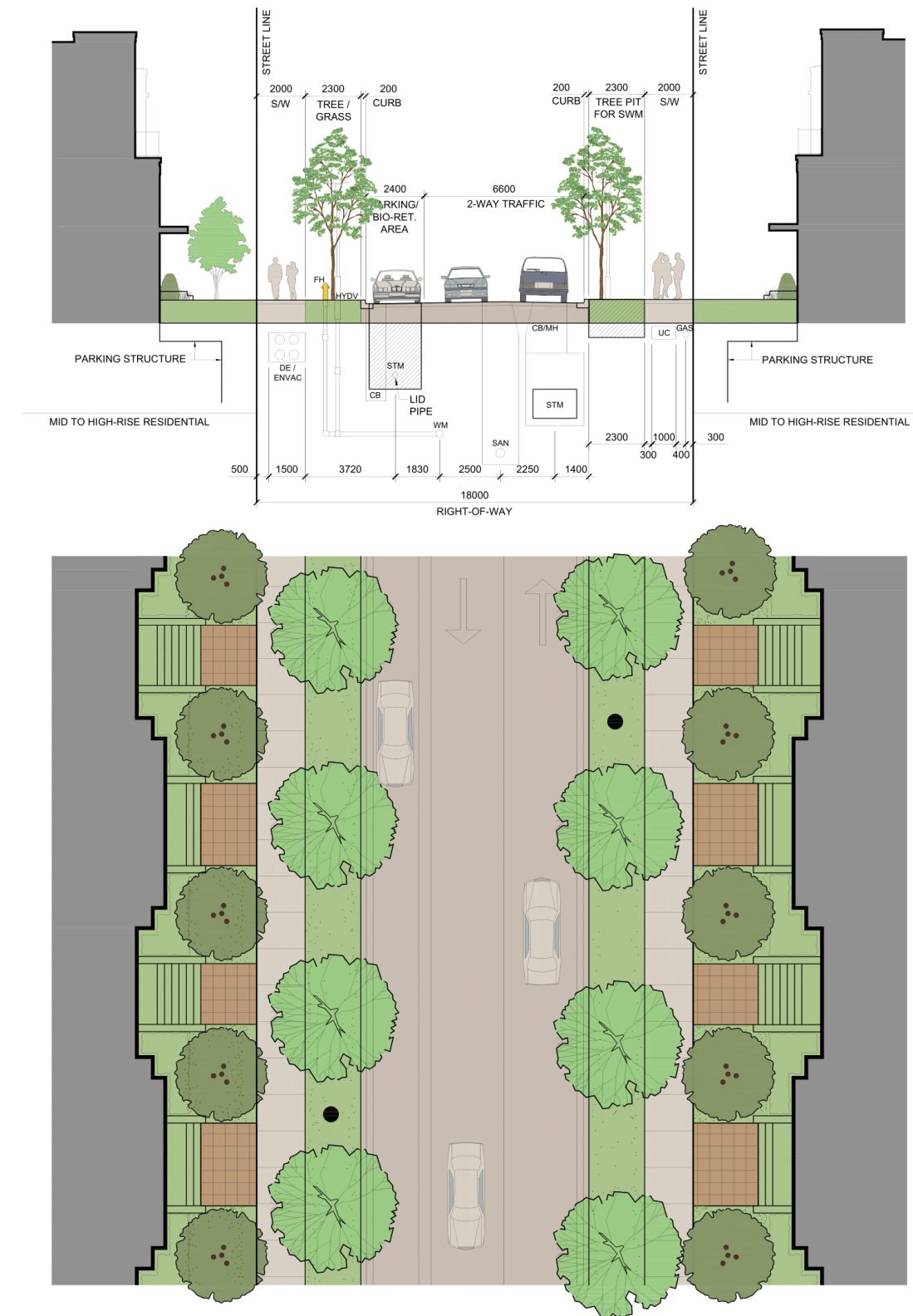


Local Road



KEY FEATURES AND PRINCIPLES:

- 18.0m wide right-of-way
- Sidewalk on both sides
- 2 thru lanes with 'sharrow' markings to accommodate cyclists
- On-street parking on one side with bioretention features
- Grass boulevard on one side
- Grass boulevard with tree pits and potential SWM function on other side
- Refer to Figure 3 in Appendix 'A' for Engineering Cross Sections

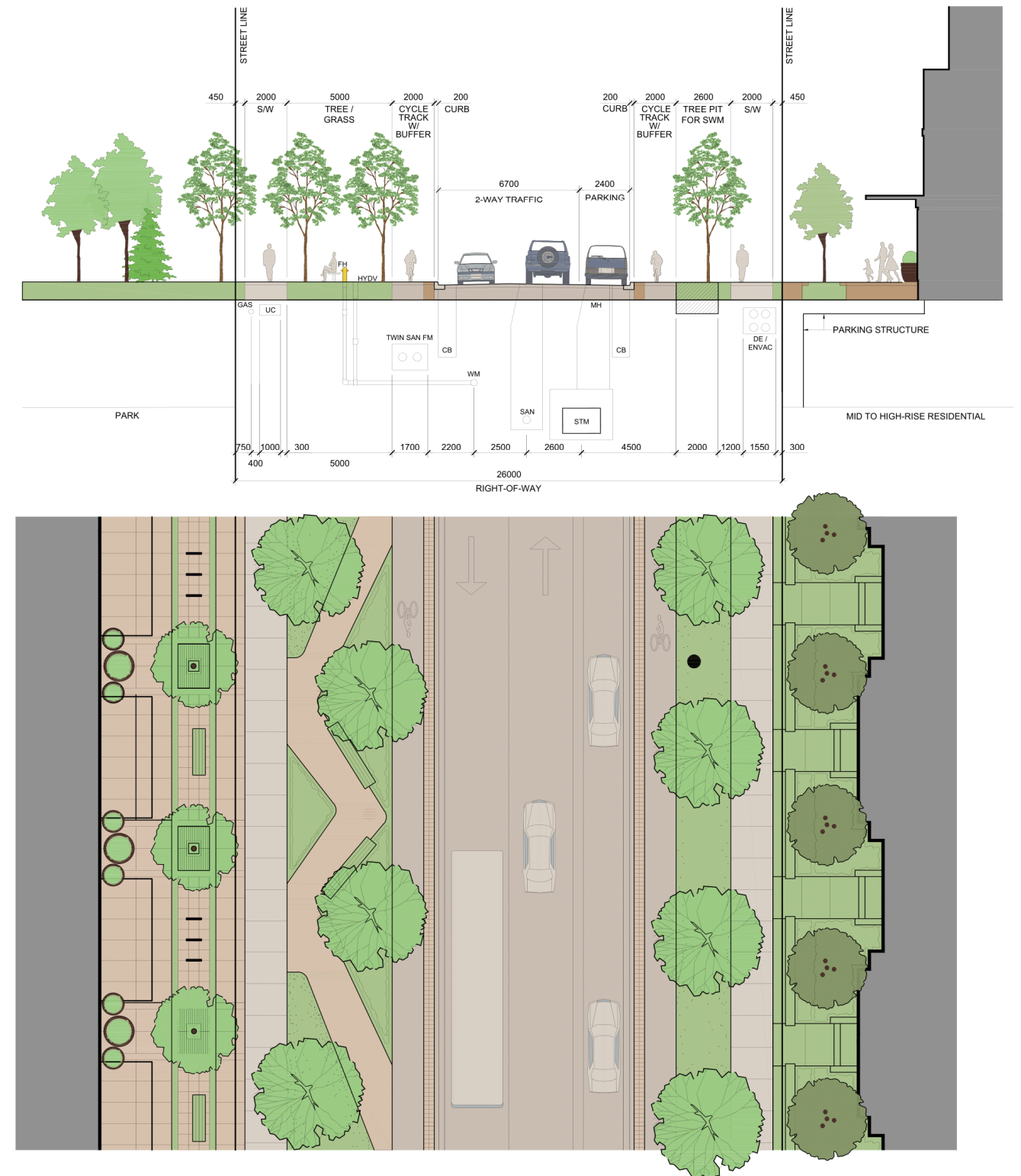


Major Collector Alternate A Hydro Road



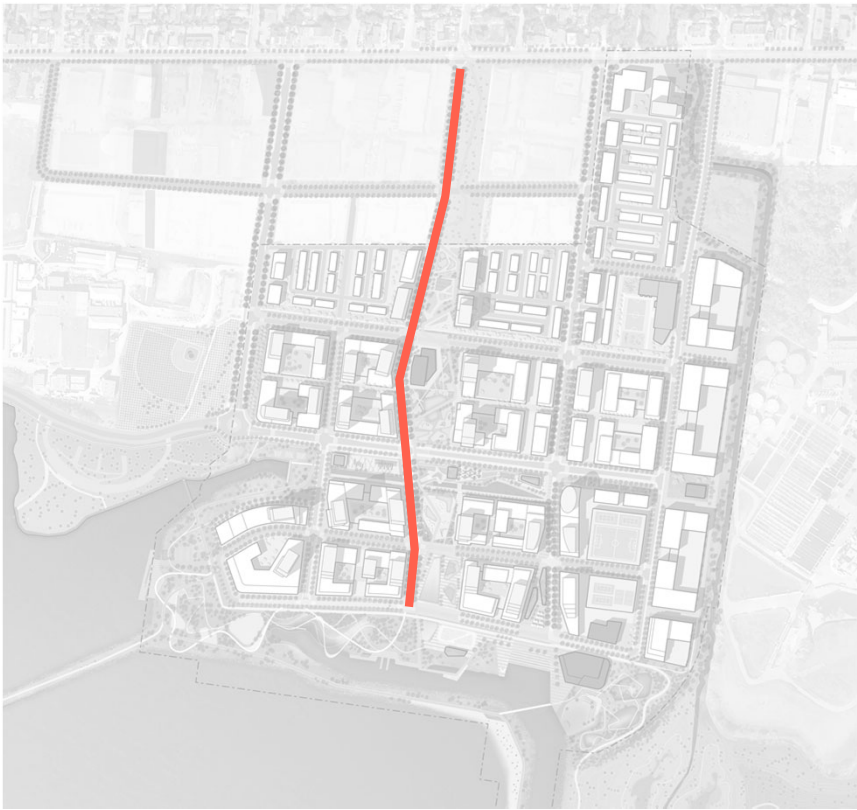
KEY FEATURES AND PRINCIPLES:

- 26.0m wide right-of-way
- Promenade with double-row of trees and potential for integrated bioretention elements
- Sidewalk on both sides
- 2 thru lanes
- On-street parking on one side, alternated with bioretention features
- Cycle tracks on both sides
- Distinctive pedestrian scale lighting
- Refer to Figure 4 in Appendix 'A' for Engineering Cross Sections



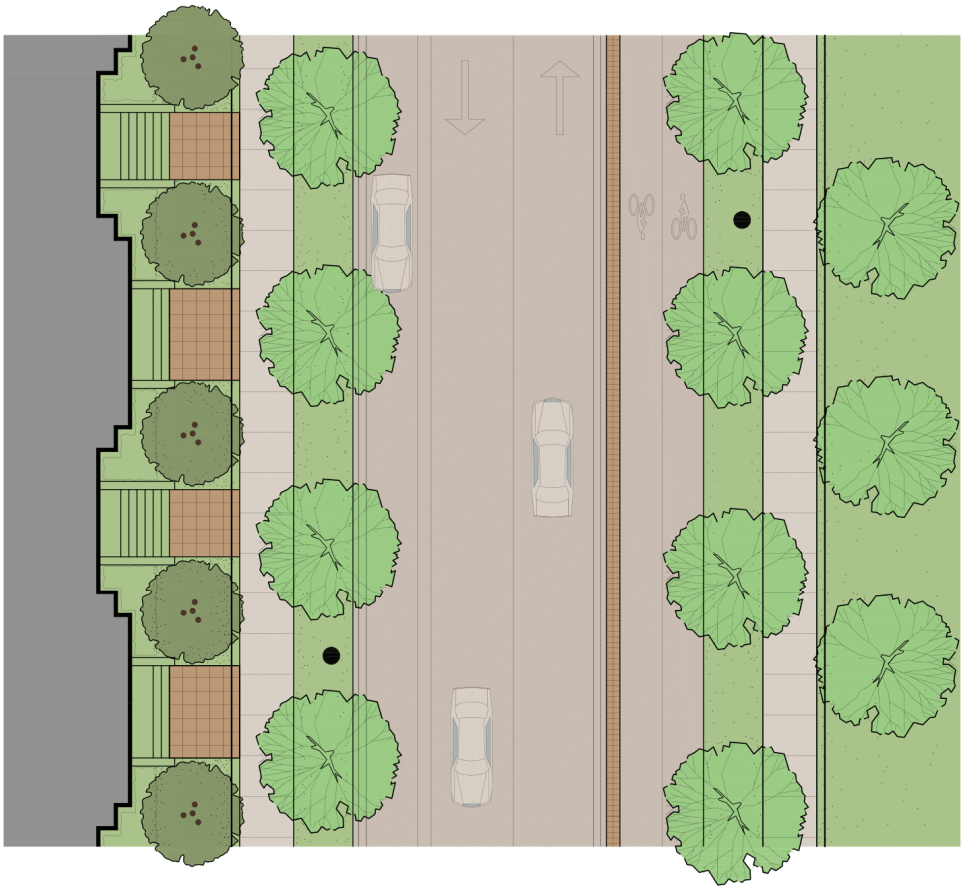
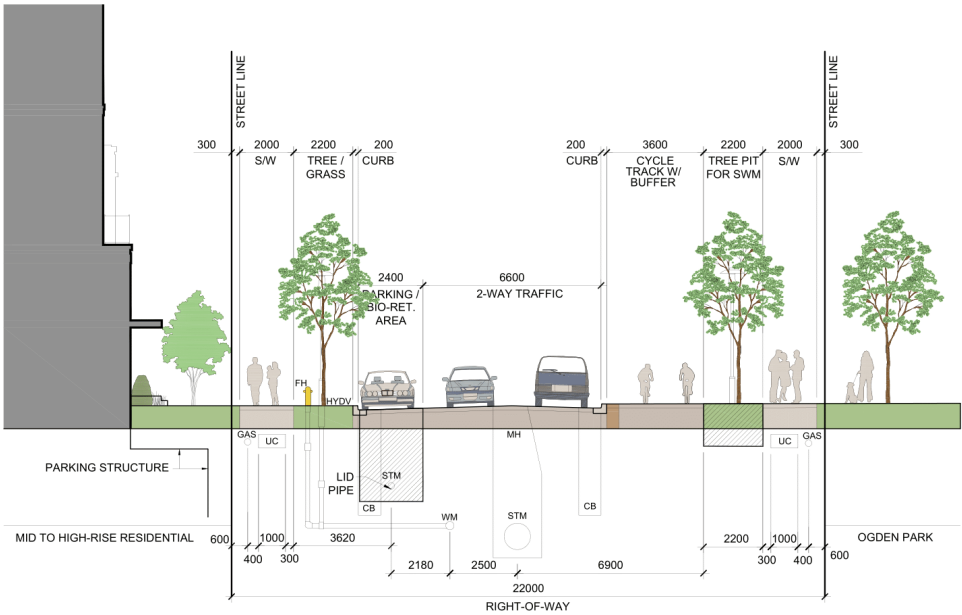
Minor Collector Alternate A

Street 'F' (Ogden)



KEY FEATURES AND PRINCIPLES:

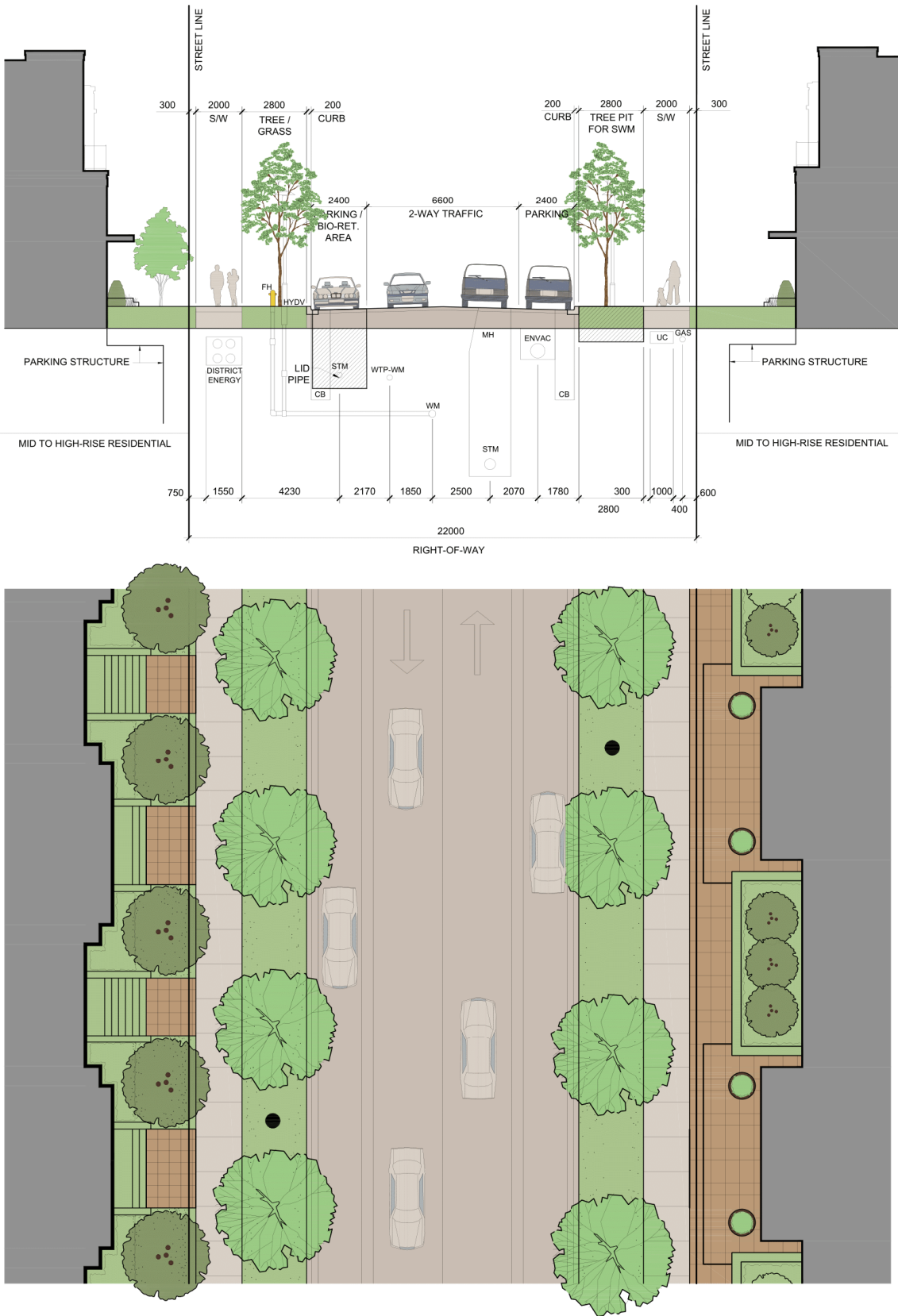
- 22.0m wide right-of-way
- Sidewalk on both sides
- 2 thru lanes
- On-street parking on one side, alternated with bioretention features
- Double cycle track on one side
- Grass boulevard on one side
- Grass boulevard with tree pits and potential SWM function on other side
- Refer to Figure 5 in Appendix 'A' for Engineering Cross Sections



Minor Collector Alternate B Street 'B'



- KEY FEATURES AND PRINCIPLES:**
- 22.0m wide right-of-way
 - Sidewalk on both sides
 - 2 thru lanes
 - On-street parking on both sides, alternated with bioretention features
 - Grass boulevard on one side
 - Grass boulevard with tree pits and potential SWM function on other side
 - Cycling and additional pedestrian movement accommodated in the adjacent Aviator Linear Park
 - Refer to Figure 6 in Appendix 'A' for Engineering Cross Sections



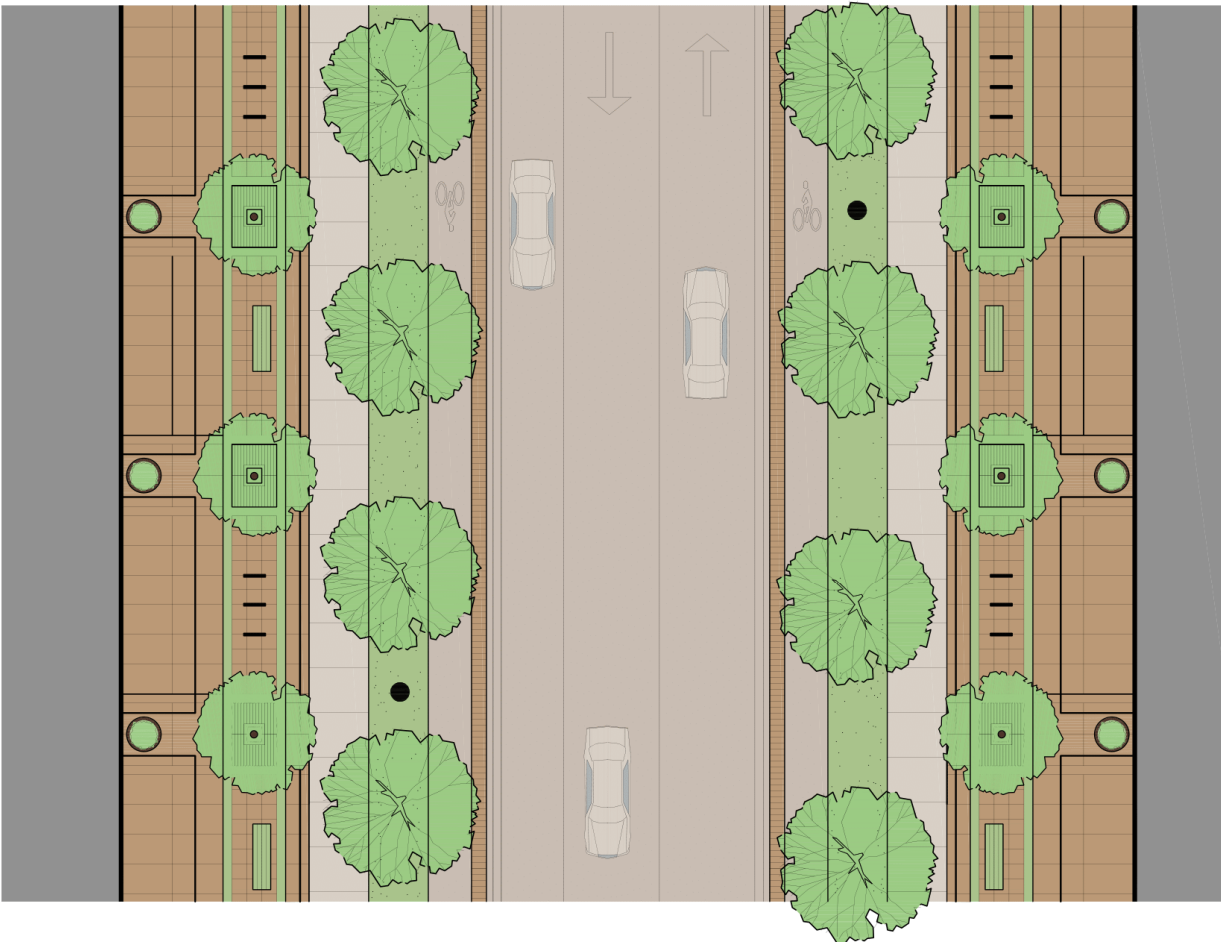
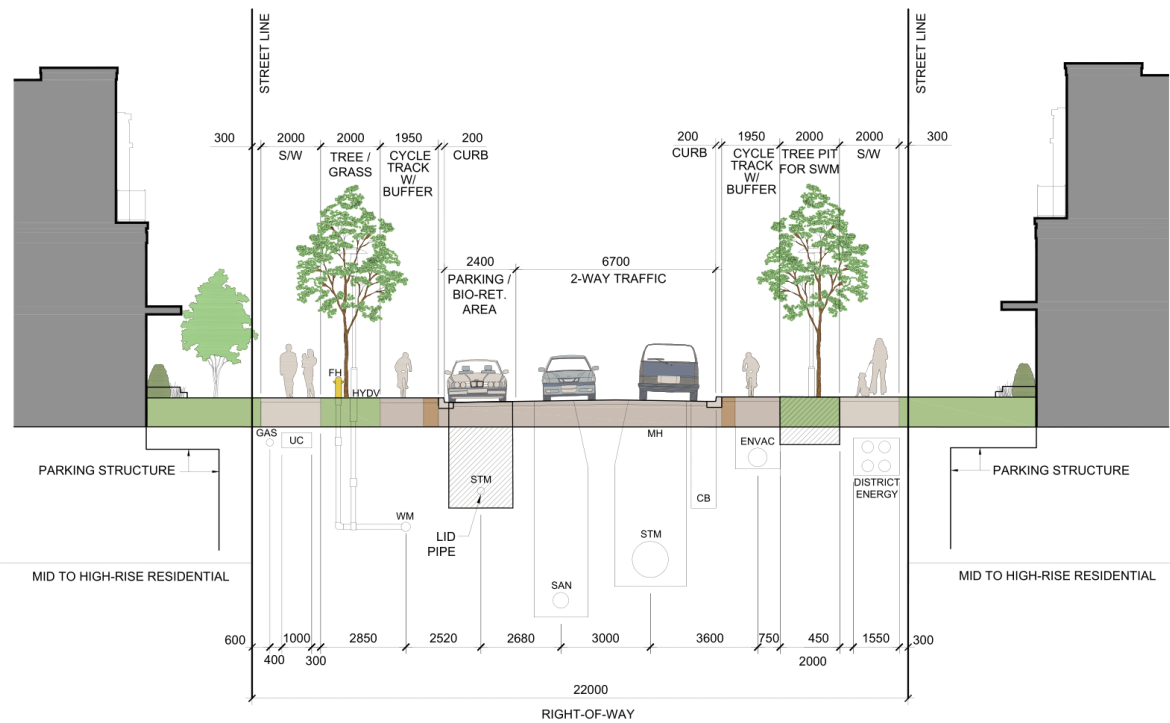
Minor Collector Alternate C

Street 'I'



KEY FEATURES AND PRINCIPLES:

- 22.0m wide right-of-way
- Sidewalk on both sides
- 2-3.35m thru lanes (for transit)
- On-street parking on one side, alternated with bioretention features
- Grass boulevard on one side
- Grass boulevard with tree pits and potential SWM function on other side
- Refer to Figure 7 in Appendix 'A' for Engineering Cross Sections



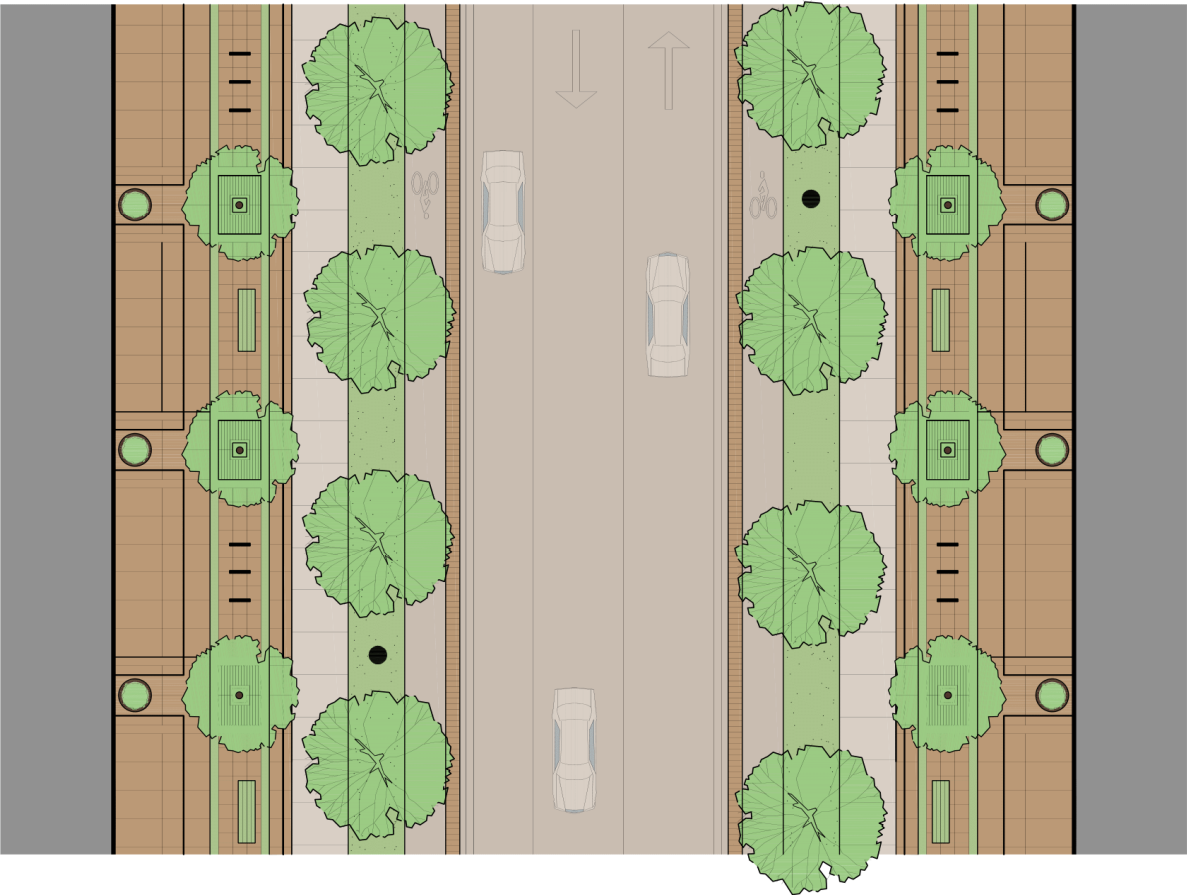
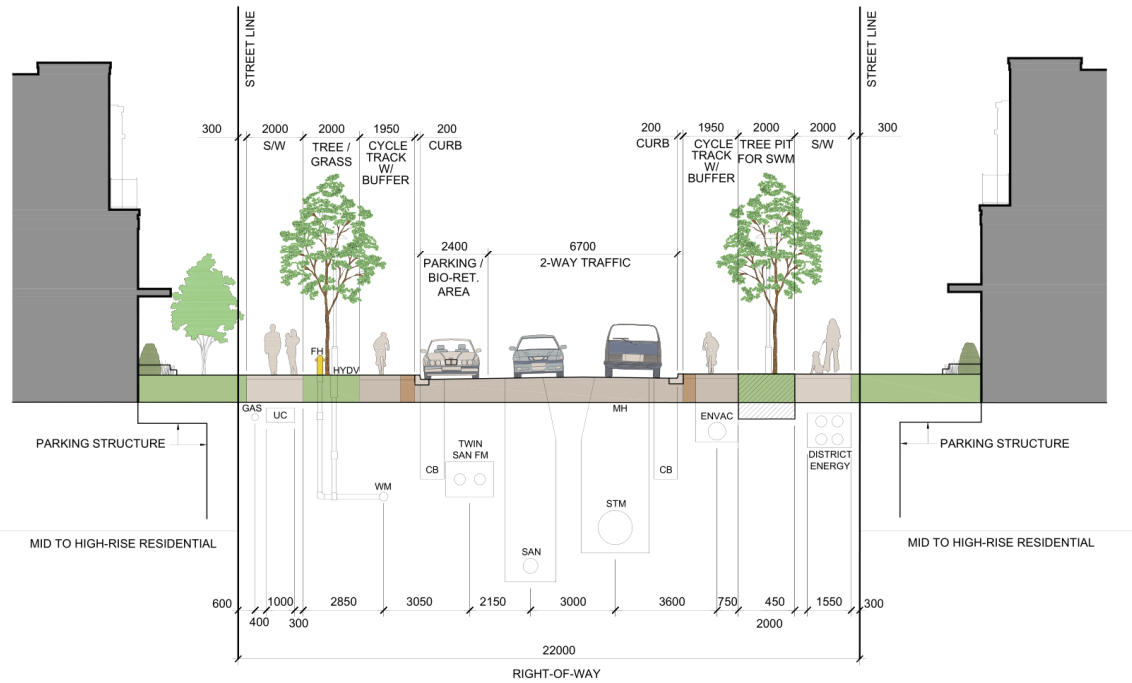
Minor Collector Alternate D

Street 'A'

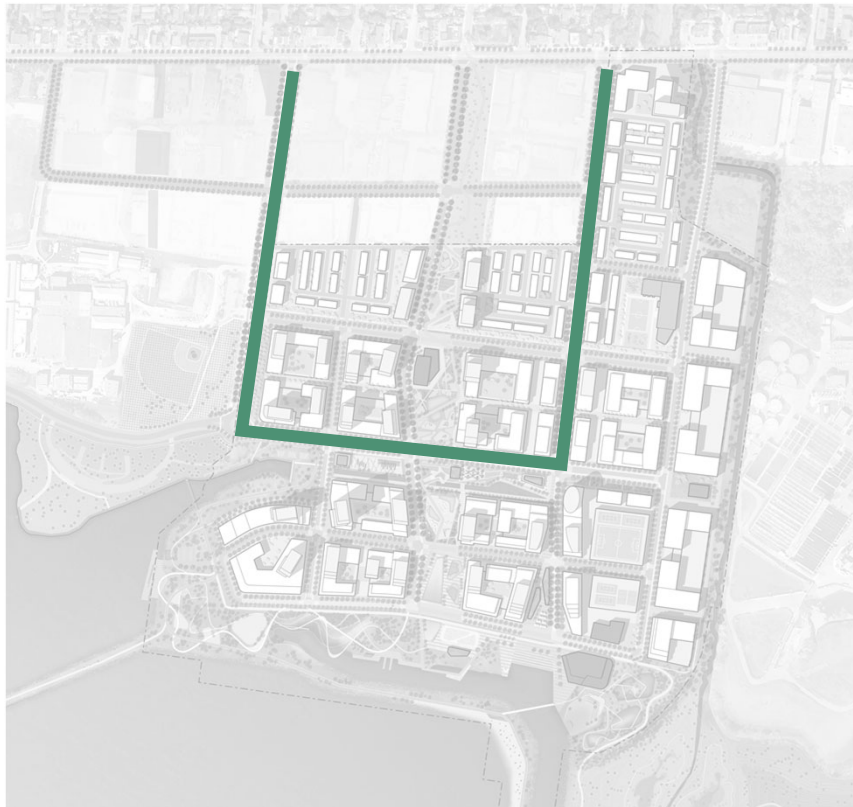


KEY FEATURES AND PRINCIPLES:

- 22.0m wide right-of-way
- Sidewalk on both sides
- 2-3.35m thru lanes (for transit)
- On-street parking on one side, alternated with bioretention features
- Grass boulevard on one side
- Grass boulevard with tree pits and potential SWM function on other side
- Refer to Figure 8 in Appendix 'A' for Engineering Cross Sections

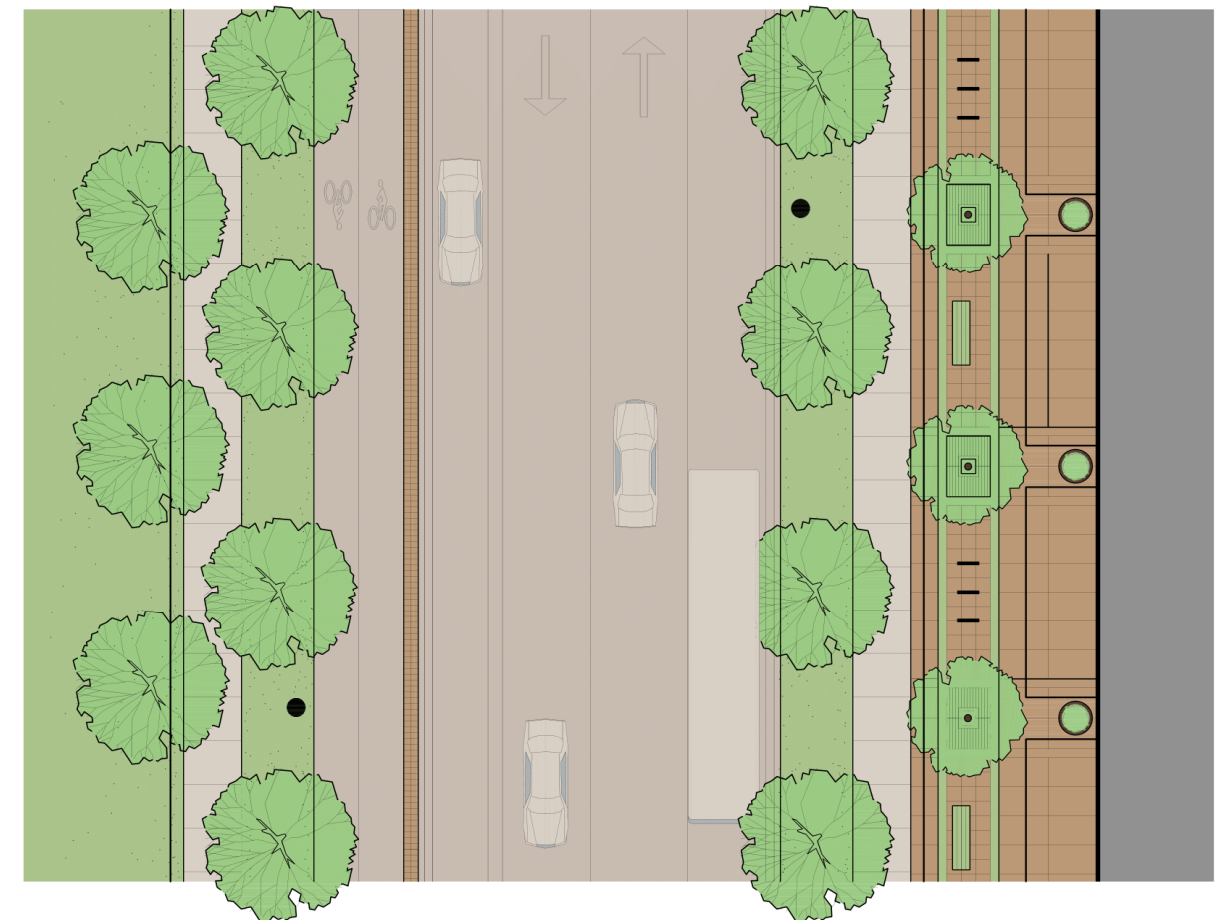
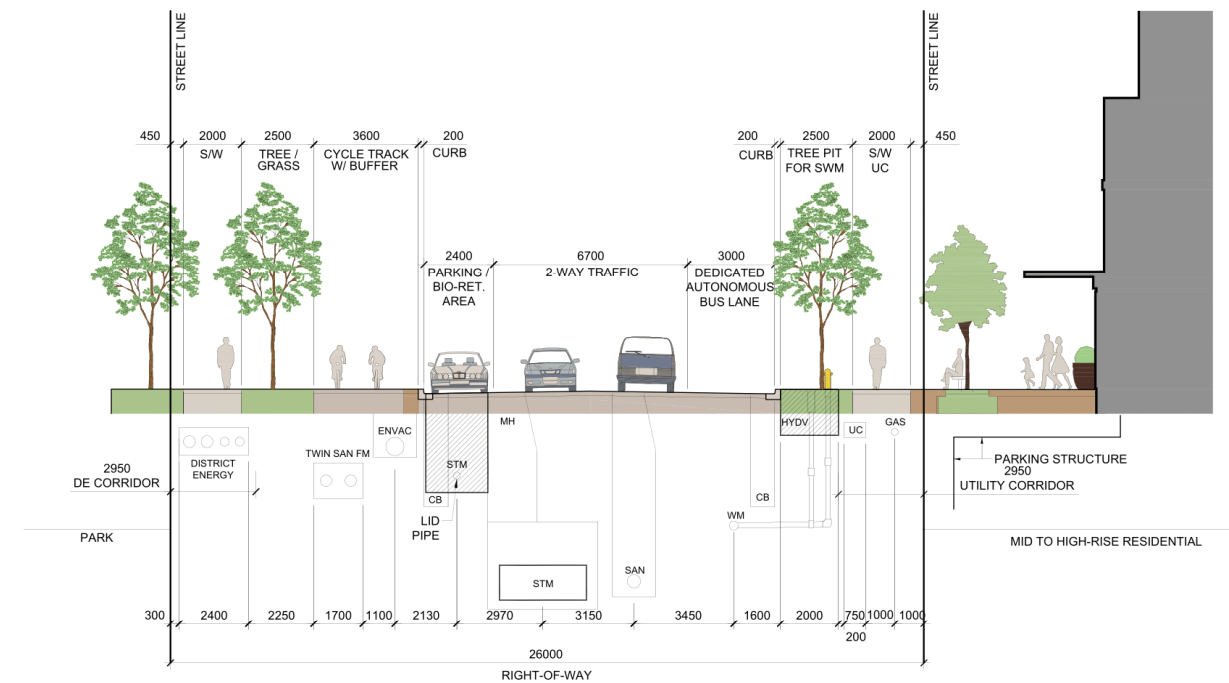


Major Collector Alternate B (dedicated autonomous bus lane)

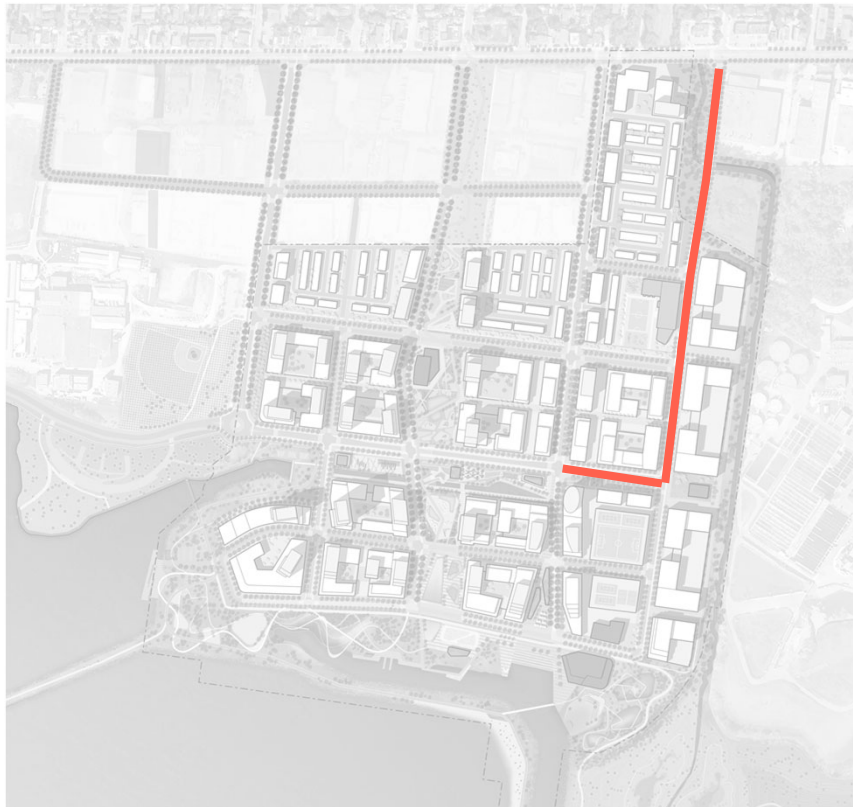


KEY FEATURES AND PRINCIPLES:

- 26m wide right-of-way
- Sidewalk on both sides
- 2 thru lanes
- On-street parking on one side, alternated with bioretention features
- Single direction dedicated autonomous bus lane
- Double cycle track with buffer on one side
- Grass boulevard on one side
- Grass boulevard with tree pits and potential SWM function on other side
- Refer to Figure 9 in Appendix 'A' for Engineering Cross Sections

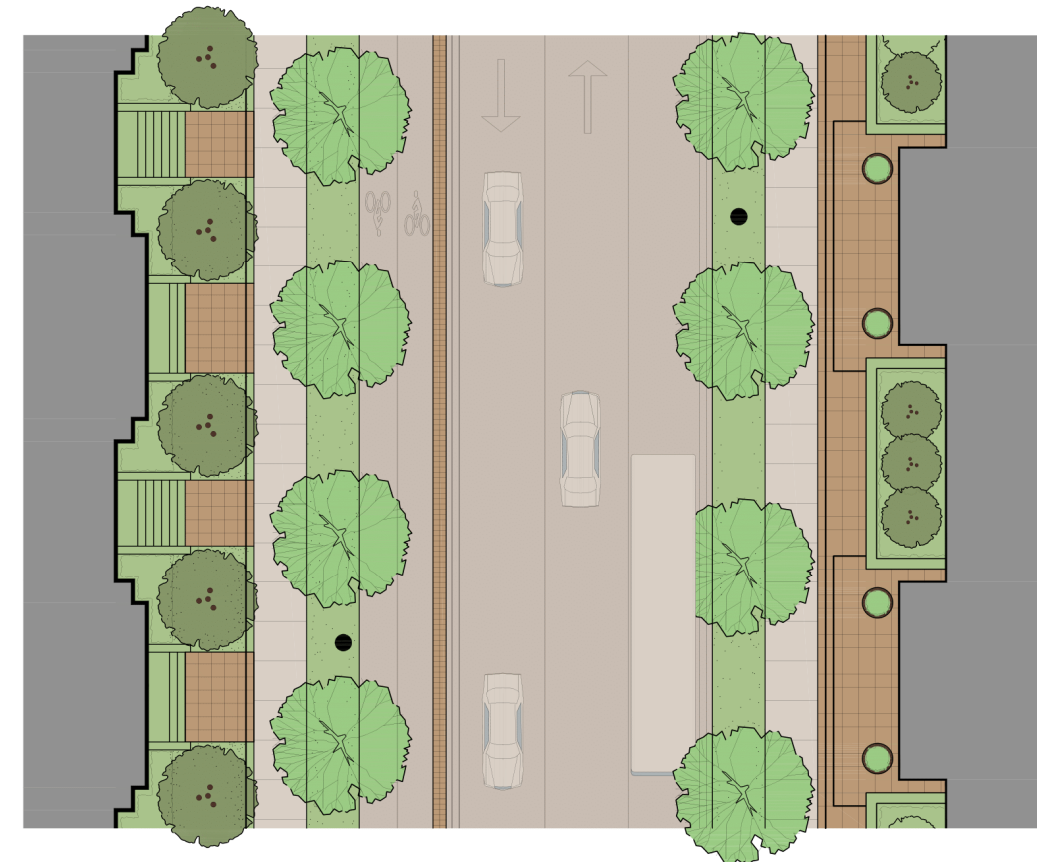
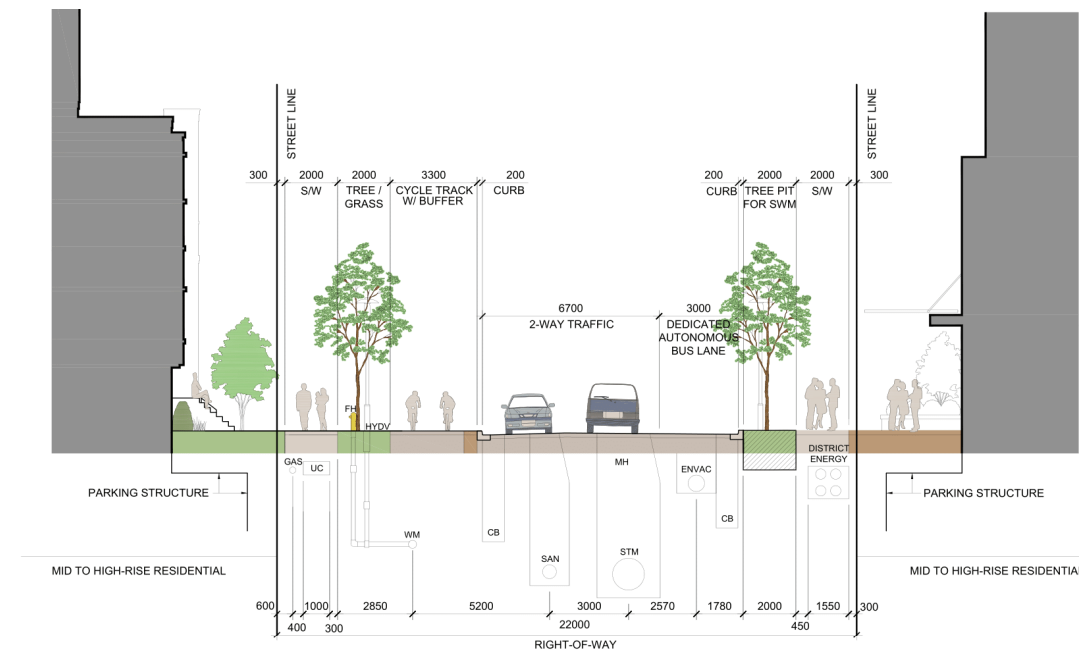


Minor Collector Alternate D (dedicated autonomous bus lane)

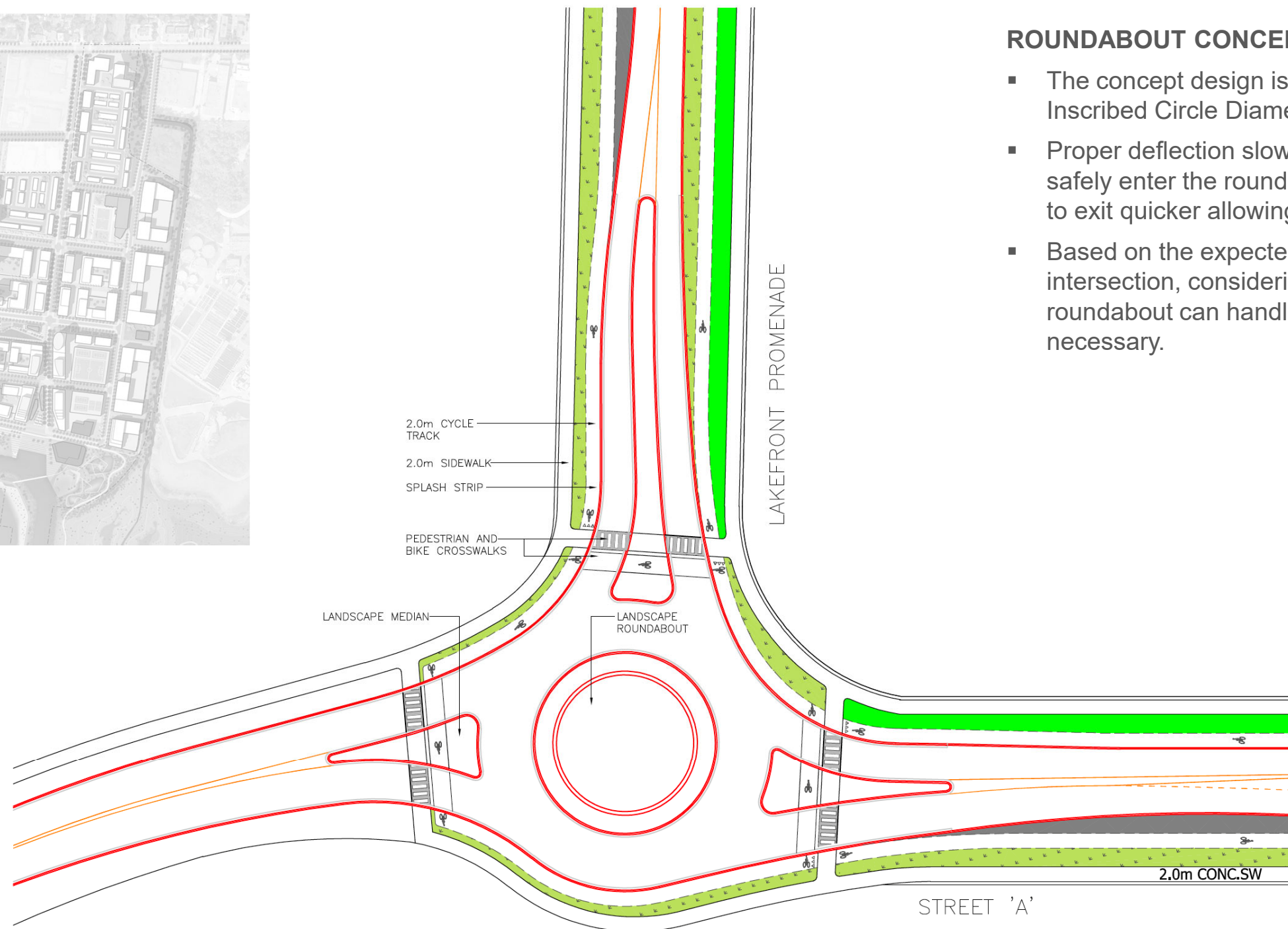


KEY FEATURES AND PRINCIPLES:

- 22.0m wide right-of-way
- Sidewalk on both sides
- 2 thru lanes
- Single direction dedicated autonomous bus lane
- Double cycle track on one side
- Grass boulevard on one side
- Grass boulevard with tree pits and potential SWM function on other side
- Refer to Figure 10 in Appendix 'A' for Engineering Cross Sections



Roundabout



ROUNABOUT CONCEPTUAL DESIGN PRINCIPLES

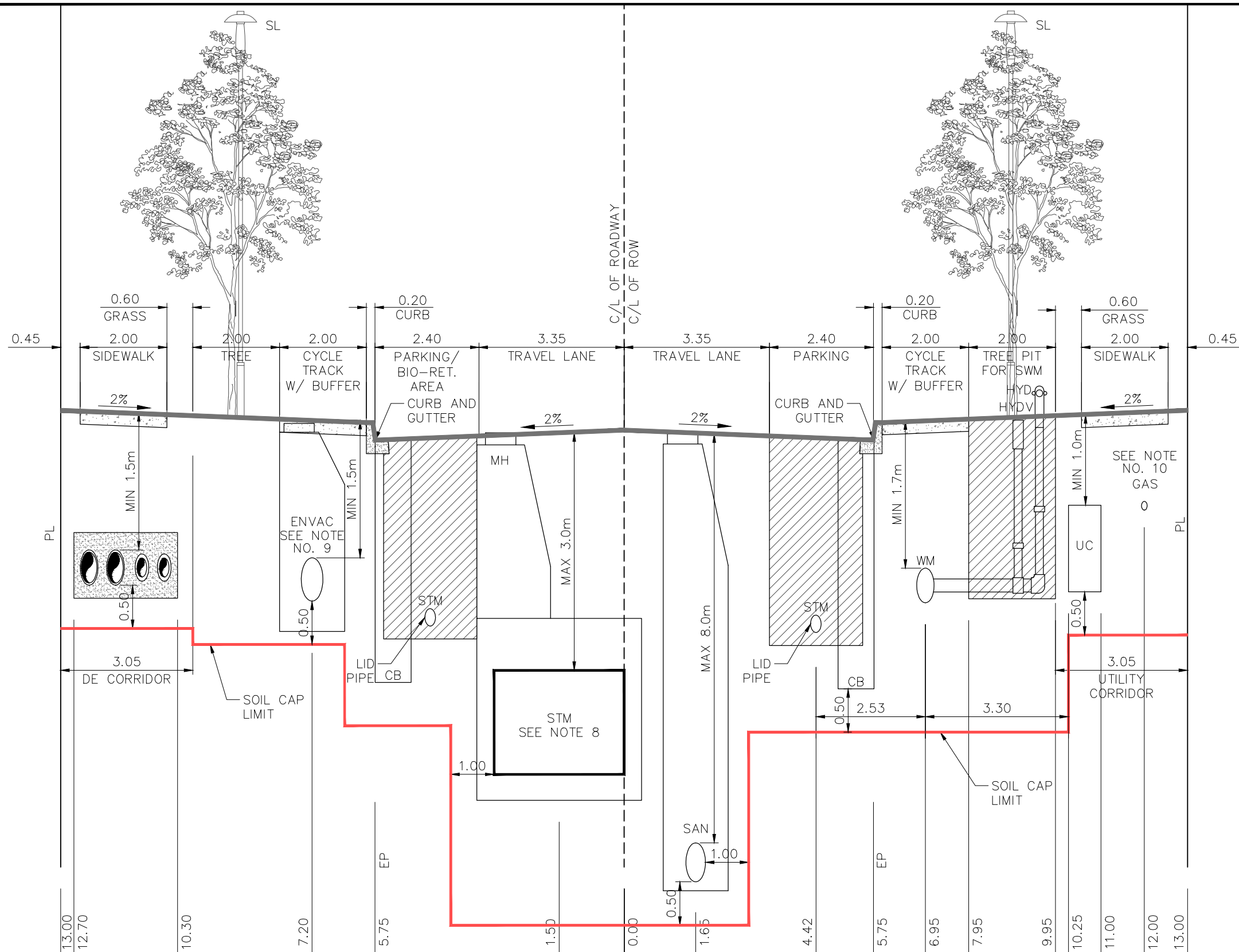
- The concept design is a 3-leg roundabout using a 40m Inscribed Circle Diameter (ICD).
- Proper deflection slows down speeding vehicles so they may safely enter the roundabout, and the flat exit enables vehicles to exit quicker allowing more vehicles to enter.
- Based on the expected future traffic volumes at the intersection, considering the capacity a single lane roundabout can handle, a two-lane roundabout would not be necessary.

Appendices

Appendix ‘A’ – Engineering Cross-Sections of Rights-of-Way (ROW)

- Figure 1: 26m Major Collector – Street ‘K’ (Lakeview Promenade) and Street ‘A’ Between Streets ‘K’ & ‘H’
- Figure 2: 22m Minor Collector – Street ‘G’ Between Streets ‘A’ & ‘D’
- Figure 3: 18m Local Road – Streets ‘C’, ‘D’, ‘E’, ‘J’, and Street ‘G’ North of Street A’
- Figure 4: 26m Major Collector – Street ‘H’ (Hydro Road) Between Lakeshore Blvd & Street ‘A’
- Figure 5: 22m Minor Collector – Street ‘F’
- Figure 6: 22m Minor Collector – Street ‘B’
- Figure 7: 22m Minor Collector – Street ‘I’
- Figure 8: 22m Minor Collector – Street ‘A’ Between Street ‘I’ & Street ‘H’
- Figure 9: 26m Major Collector – Autonomous Bus Lane Scenario
- Figure 10: 22m Minor Collector - Autonomous Bus Lane Scenario

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LEGEND:

ENVAC	—	VACUUM WASTE COLLECTION SYSTEM
DE	—	DISTRICT ENERGY
EP	—	EDGE OF PAVEMENT
CB	—	CATCH BASIN
C/L	—	CENTRELIN
HYD	—	FIRE HYDRANT
HYDV	—	FIRE HYDRANT VALVE
MH	—	MANHOLE
PL	—	PROPERTY LINE
SL	—	STREETLIGHT
SAN	—	SANITARY SEWER
STM	—	STORM SEWER
UC	—	UTILITY CORRIDOR (HYDRO, TELECOMMUNICATIONS, SL)
WM	—	WATERMAIN
WTP	—	WATER TREATMENT PLANT

NOTES:

1. HYDRO, TELECOMMUNICATION PROVIDER, GAS AND SL CORRIDOR TO HAVE MINIMUM COVER OF 1.0m.
2. WATERMAIN TO HAVE MINIMUM COVER OF 1.7m.
3. IF UTILITIES CANNOT BE INSTALLED ACCORDING TO THIS STANDARD, THEY ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE PRESCRIBED LOCATION SUBJECT TO THE APPROVAL OF THE TRANSPORTATION AND WORKS DEPARTMENT OF THE CITY OF MISSISSAUGA.
4. A 0.4m–0.6m CLEARANCE MUST BE MAINTAINED BETWEEN CABLES AND HYDRANTS.
5. A 0.3m CLEARANCE MUST BE MAINTAINED BETWEEN WATERMAINS AND UTILITY POLES.
6. NO TRANSFORMERS TO BE PLACED IN ROW
7. CURBS AND GUTTERS TO BE PER CITY OF MISSISSAUGA STD 2230.010. MOUNTABLE CURBS PER CITY OF MISSISSAUGA STD 2230.030 TO BE PROVIDED BETWEEN TRAVEL AND PARKING LAY-BY LANES.
8. STM SEWER PRESENTED IN THIS CROSS SECTION IS THE LARGEST SEWER ON THE MAJOR COLLECTOR ROAD PER THE URBANTECH FSR DATED FEB 2020 (i.e. 1200x3000 BOX CULVERT WITH 3000X3800 BOX MH).
9. WATERMAIN CONNECTING THE WATER TREATMENT PLANT TO THE WASTE WATER TREATMENT PLANT WILL BE PLACED IN THE ENVAC CORRIDOR ALONG LAKEFRONT PROMENADE BETWEEN STREET 'B' AND THE NORTHERN PROPERTY LINE. THERE WILL NOT BE AN ENVAC SYSTEM IN THIS SECTION OF THE ROW.
10. DEDICATED GASMAIN TO THE DE PLANTS. AS PER DISCUSSIONS WITH RTG, MINIMUM SEPARATION OF 1.0m TO PL AND UC ARE REQUIRED FOR THIS GASMAIN.

*ALL DIMENSIONS IN METRES

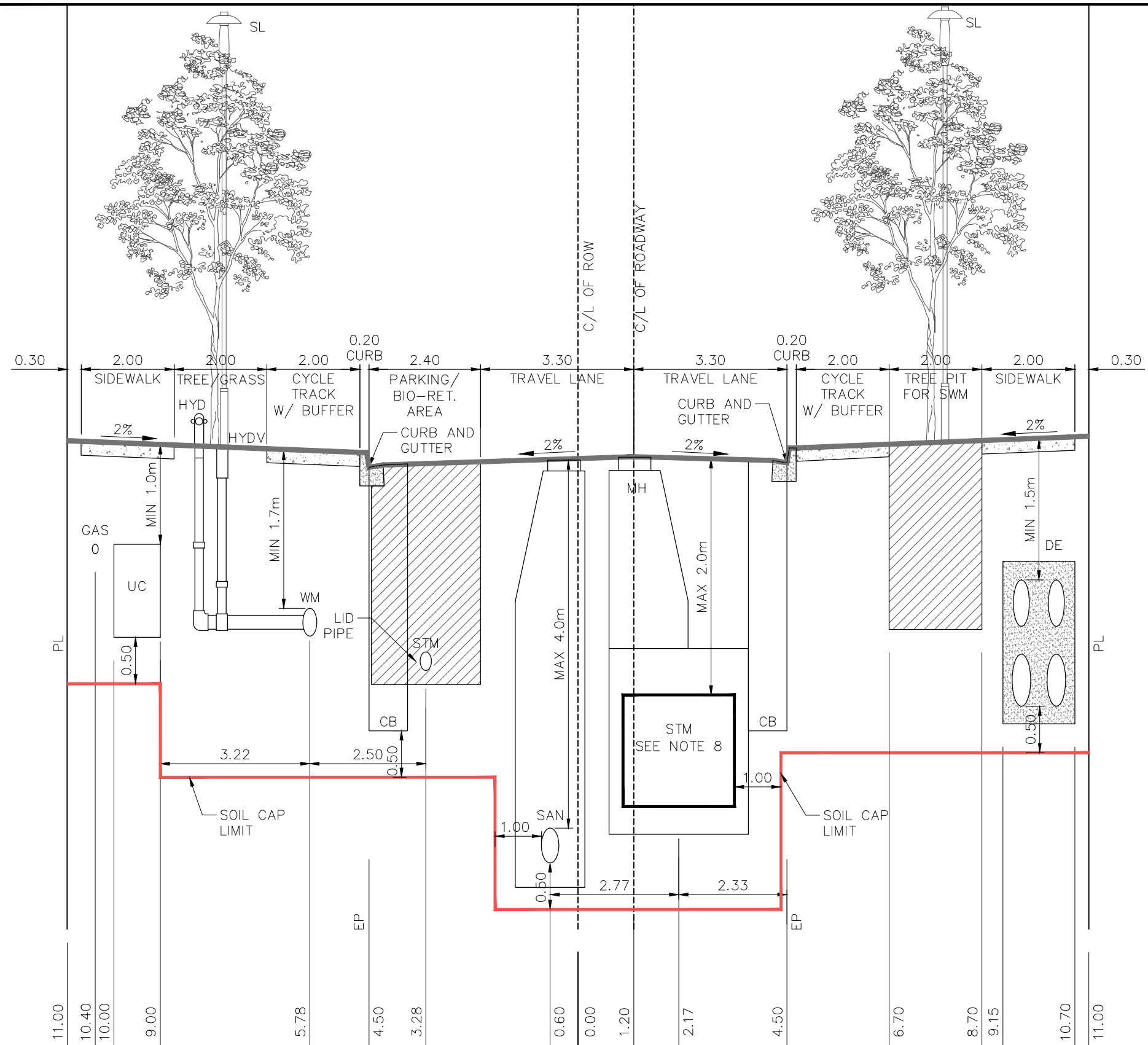


8800 Dufferin Street,
Suite 200
Vaughan, ON
L4K 0C5
p: 905.738.5700
f: 905.738.0065

26.0m MAJOR COLLECTOR
STREET 'K' (LAKEFRONT PROMENADE) & STREET 'A' BETWEEN STREETS 'H' & 'K'
LAKEVIEW COMMUNITY - MISSISSAUGA

SCALE: HOR 1:100 VER 1:50		PROJECT No.
DATE: APRIL 2020		17201
DESIGNED BY: S.V.	DRAWN BY: S.V.	FIGURE No.
CHECKED BY: A.A.	CHECKED BY: A.A.	1

File : G:\Projects\2017\17201 - Lakeview Community - Mississauga\Drawings\Details\Street Cross Sections\02 22m ROW - Minor Collector- Street C.dwg, Layout: 22m ROW- MINOR, Date: Apr 15, 2020 - 5:12pm, Edit By: tanser



LEGEND:

ENVAC	-	VACUUM WASTE COLLECTION SYSTEM
DE	-	DISTRICT ENERGY
EP	-	EDGE OF PAVEMENT
CB	-	CATCH BASIN
C/L	-	CENTRELIN
HYD	-	FIRE HYDRANT
HYDV	-	FIRE HYDRANT VALVE
MH	-	MANHOLE
PL	-	PROPERTY LINE
SL	-	STREETLIGHT
SAN	-	SANITARY SEWER
STM	-	STORM SEWER
UC	-	UTILITY CORRIDOR (HYDRO, TELECOMMUNICATIONS, SL)
WM	-	WATERMAIN
WTP	-	WATER TREATMENT PLANT

NOTES:

1. HYDRO, TELECOMMUNICATION PROVIDER, GAS AND SL CORRIDOR TO HAVE MINIMUM COVER OF 1.0m.
2. WATERMAIN TO HAVE MINIMUM COVER OF 1.7m.
3. IF UTILITIES CANNOT BE INSTALLED ACCORDING TO THIS STANDARD, THEY ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE PRESCRIBED LOCATION SUBJECT TO THE APPROVAL OF THE TRANSPORTATION AND WORKS DEPARTMENT OF THE CITY OF MISSISSAUGA.
4. A 0.4m–0.6m CLEARANCE MUST BE MAINTAINED BETWEEN CABLES AND HYDRANTS.
5. A 0.3m CLEARANCE MUST BE MAINTAINED BETWEEN WATERMANS AND UTILITY POLES.
6. NO TRANSFORMERS TO BE PLACED IN ROW
7. CURBS AND GUTTERS TO BE PER CITY OF MISSISSAUGA STD 2230.010. MOUNTABLE CURBS PER CITY OF MISSISSAUGA STD 2230.030 TO BE PROVIDED BETWEEN TRAVEL AND PARKING LAY-BY LANES.
8. STM SEWER PRESENTED IN THIS CROSS SECTION IS THE LARGEST SEWER ON THE LOCAL ROAD PER THE URBANTECH FSR DATED FEB 2020 (i.e. 1200x2400 BOX CULVERT WITH 3000X3800 BOX MH).

*ALL DIMENSIONS IN METRES

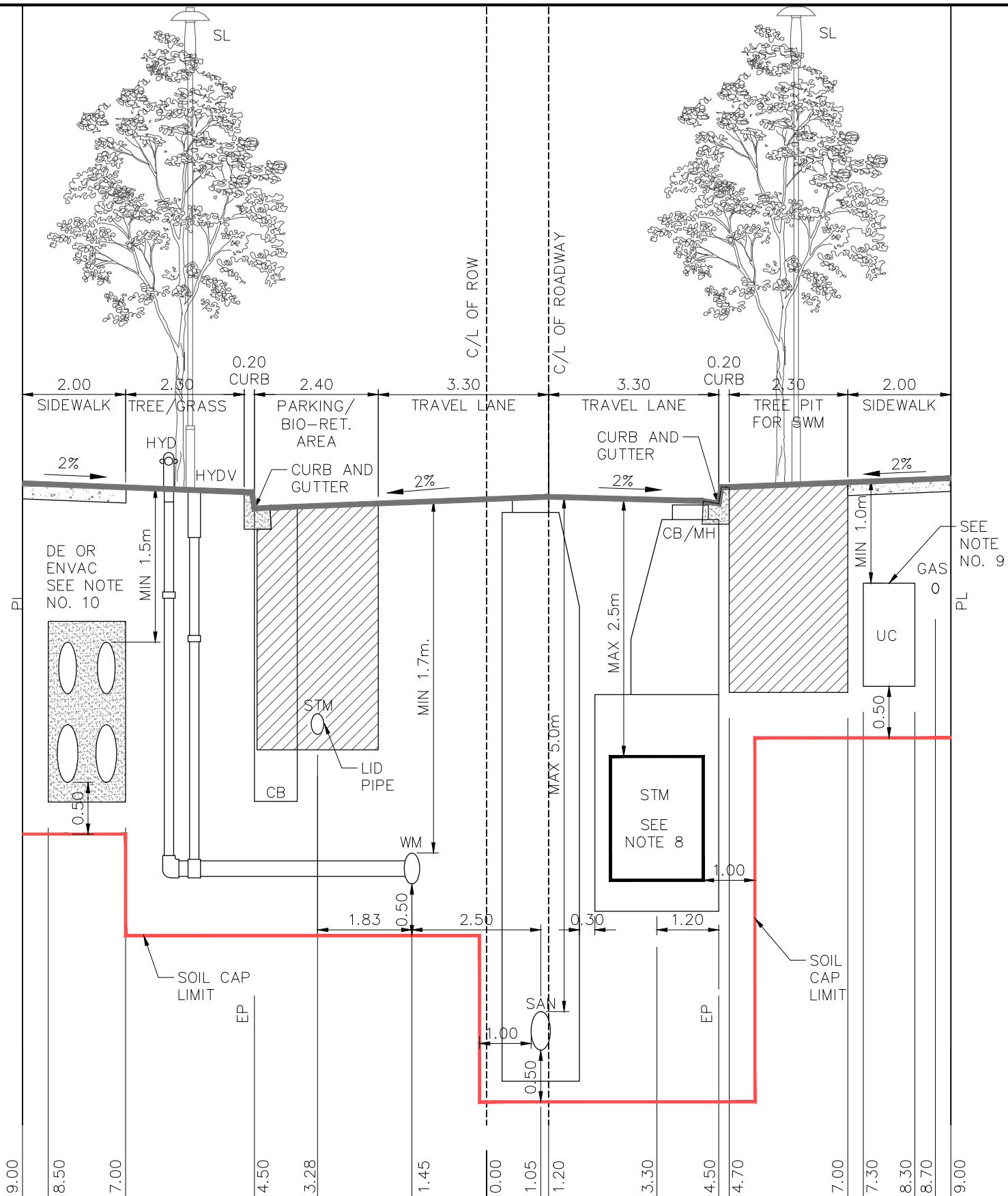


8800 Dufferin Street,
Suite 200
Vaughan, ON
L4K 0C5
p: 905.738.5700
f: 905.738.0065

22.0m MINOR COLLECTOR
STREET 'G' BETWEEN STREETS 'A' & 'D'
LAKEVIEW COMMUNITY - MISSISSAUGA

SCALE: HOR 1:100 VER 1:50		PROJECT No.
DATE: APRIL 2020		17201
DESIGNED BY: S.V.	DRAWN BY: S.V.	FIGURE No.
CHECKED BY: A.A.	CHECKED BY: A.A.	2

File : G:\Projects\2017\17201 - Lakeview Community - Mississauga\Drawings\Details\Street Cross Sections\03 18m ROW - Local Road.dwg Layout : 18m ROW - Local Road Date : Apr 15, 2020 - 4:57pm Edit By : Janser



LEGEND:

- ENVAC - VACUUM WASTE COLLECTION SYSTEM
- DE - DISTRICT ENERGY
- EP - EDGE OF PAVEMENT
- CB - CATCH BASIN
- C/L - CENTRELIN
- HYD - FIRE HYDRANT
- HYDV - FIRE HYDRANT VALVE
- MH - MANHOLE
- PL - PROPERTY LINE
- SL - STREETLIGHT
- SAN - SANITARY SEWER
- STM - STORM SEWER
- UC - UTILITY CORRIDOR (HYDRO, TELECOMMUNICATIONS, SL)
- WM - WATERMAIN
- WTP - WATER TREATMENT PLANT

NOTES:

- HYDRO, TELECOMMUNICATION PROVIDER, GAS AND SL CORRIDOR TO HAVE MINIMUM COVER OF 1.0m.
- WATERMAIN TO HAVE MINIMUM COVER OF 1.7m.
- IF UTILITIES CANNOT BE INSTALLED ACCORDING TO THIS STANDARD, THEY ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE PRESCRIBED LOCATION SUBJECT TO THE APPROVAL OF THE TRANSPORTATION AND WORKS DEPARTMENT OF THE CITY OF MISSISSAUGA.
- A 0.4m-0.6m CLEARANCE MUST BE MAINTAINED BETWEEN CABLES AND HYDRANTS.
- A 0.3m CLEARANCE MUST BE MAINTAINED BETWEEN WATERMAINS AND UTILITY POLES.
- NO TRANSFORMERS TO BE PLACED IN ROW.
- CURBS AND GUTTERS TO BE PER CITY OF MISSISSAUGA STD 2230.010. MOUNTABLE CURBS PER CITY OF MISSISSAUGA STD 2230.030 TO BE PROVIDED BETWEEN TRAVEL AND PARKING LAY-BY LANES.
- STM SEWER PRESENTED IN THIS CROSS SECTION IS THE LARGEST SEWER ON THE LOCAL ROAD PER THE URBANTECH FSR DATED FEB 2020 (i.e. 1200X1800 BOX CULVERT WITH 2400X3000 BOX MH).
- JOINT UTILITY TRENCH AND GASMAIN ARE REQUIRED ON ONLY ONE SIDE OF THE RIGHT-OF-WAY.
- DISTRICT ENERGY CORRIDOR CAN BE USED FOR ENVAC WASTE COLLECTION SYSTEM. ONLY ONE OF THE TWO SYSTEM WOULD BE PRESENT IN THE LOCAL ROAD RIGHT-OF-WAY.

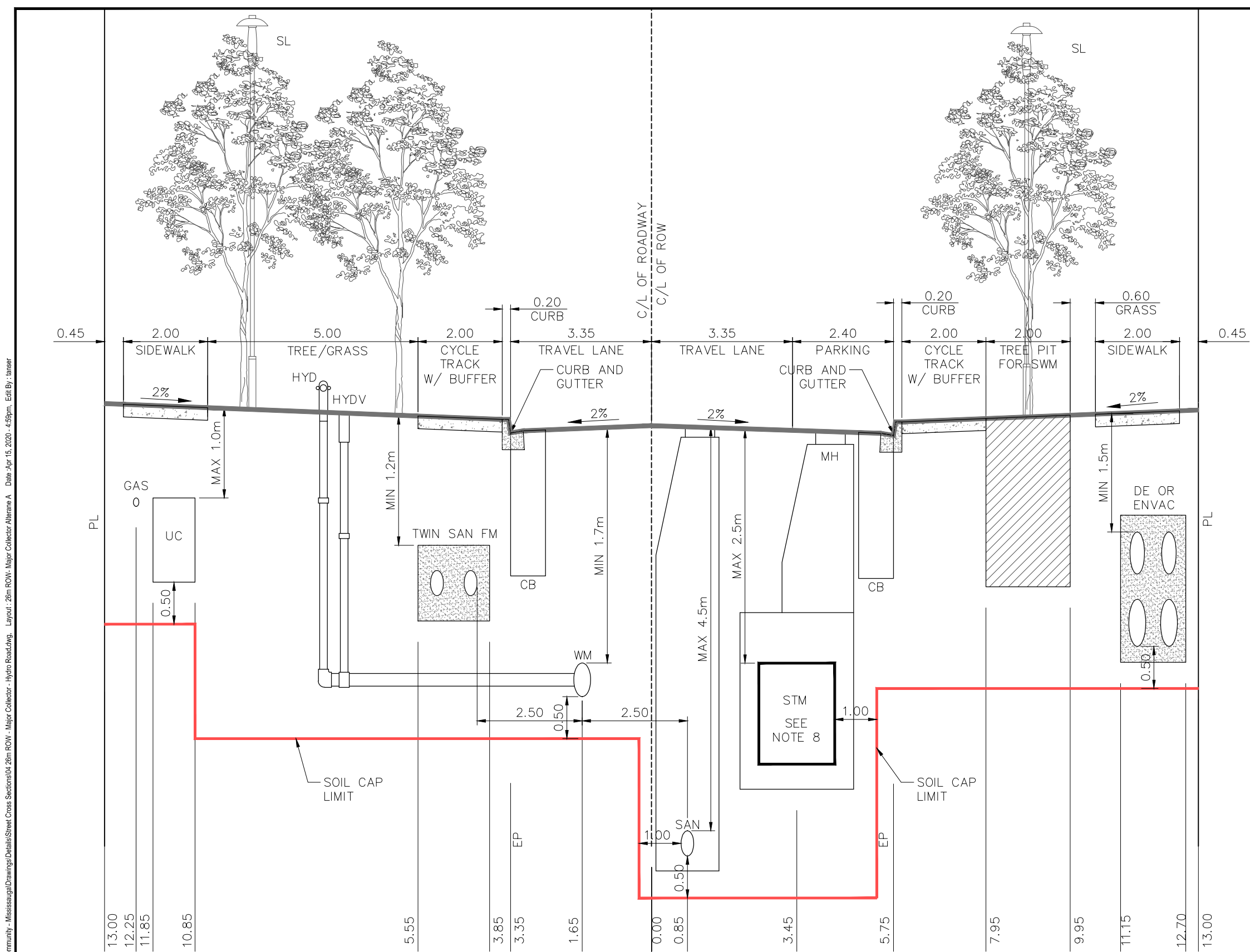
*ALL DIMENSIONS IN METRES



8800 Dufferin Street,
Suite 200
Vaughan, ON
L4K 0C5
p: 905.738.5700
f: 905.738.0065

18.0m LOCAL ROAD
STREETS 'C', 'D', 'E', 'J', AND STREET 'G' NORTH OF STREET 'A'
LAKEVIEW COMMUNITY - MISSISSAUGA

SCALE: HOR 1:100 VER 1:50		PROJECT No.
DATE: APRIL 2020		17201
DESIGNED BY: S.V.	DRAWN BY: S.V.	FIGURE No.
CHECKED BY: A.A.	CHECKED BY: A.A.	3



LEGEND:

- ENVAC - VACUUM WASTE COLLECTION SYSTEM
- DE - DISTRICT ENERGY
- EP - EDGE OF PAVEMENT
- CB - CATCH BASIN
- C/L - CENTRELIN
- HYD - FIRE HYDRANT
- HYDV - FIRE HYDRANT VALVE
- MH - MANHOLE
- PL - PROPERTY LINE
- SL - STREETLIGHT
- SAN - SANITARY SEWER
- STM - STORM SEWER
- UC - UTILITY CORRIDOR (HYDRO, TELECOMMUNICATIONS, SL)
- WM - WATERMAIN
- WTP - WATER TREATMENT PLANT

NOTES:

1. HYDRO, TELECOMMUNICATION PROVIDER, GAS AND SL CORRIDOR TO HAVE MINIMUM COVER OF 1.0m.
2. WATERMAIN TO HAVE MINIMUM COVER OF 1.7m.
3. IF UTILITIES CANNOT BE INSTALLED ACCORDING TO THIS STANDARD, THEY ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE PRESCRIBED LOCATION SUBJECT TO THE APPROVAL OF THE TRANSPORTATION AND WORKS DEPARTMENT OF THE CITY OF MISSISSAUGA.
4. A 0.4m-0.6m CLEARANCE MUST BE MAINTAINED BETWEEN CABLES AND HYDRANTS.
5. A 0.3m CLEARANCE MUST BE MAINTAINED BETWEEN WATERMAINS AND UTILITY POLES.
6. NO TRANSFORMERS TO BE PLACED IN ROW
7. CURBS AND GUTTERS TO BE PER CITY OF MISSISSAUGA STD 2230.010. MOUNTABLE CURBS PER CITY OF MISSISSAUGA STD 2230.030 TO BE PROVIDED BETWEEN TRAVEL AND PARKING LAY-BY LANES.
8. STM SEWER PRESENTED IN THIS CROSS SECTION IS THE LARGEST SEWER ON THE MAJOR COLLECTOR ROAD PER THE URBANTECH FSR DATED FEB 2020 (i.e. 1200x1800 BOX CULVERT WITH 2400X3000 BOX MH).
9. DISTRICT ENERGY CORRIDOR CAN BE USED FOR ENVAC PLANTS. ONLY ONE OF THE TWO UTILITIES WOULD BE PRESENT IN THE RIGHT-OF-WAY AT ANY TIME.

*ALL DIMENSIONS IN METRES

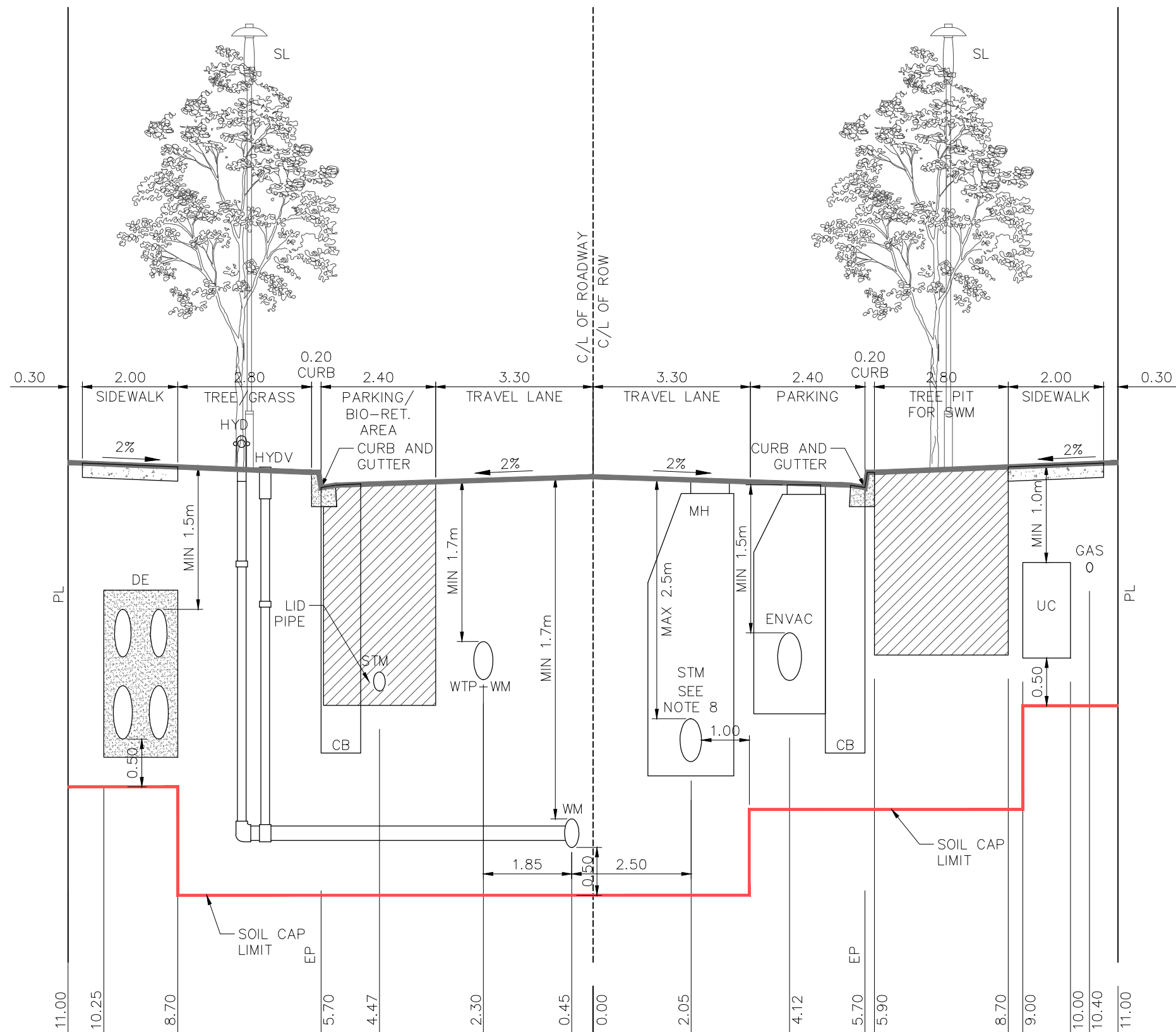


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Suite 200
Vaughan, ON
L4K 0C5
p: 905.738.5700
f: 905.738.0065

26.0m MAJOR COLLECTOR
STREET 'H' (HYDRO ROAD) BETWEEN LAKESHORE BLVD & STREET 'A'
LAKEVIEW COMMUNITY - MISSISSAUGA

SCALE: HOR 1:100 VER 1:50		PROJECT No.
DATE: APRIL 2020		17201
DESIGNED BY: S.V.	DRAWN BY: S.V.	FIGURE No.
CHECKED BY: A.A.	CHECKED BY: A.A.	4

File : G:\Projects\2017\17201 - Lakeview Community - Mississauga\Drawings\Details\Street Cross Sections\06 22m ROW - Minor Collector - Street B.dwg Layout : 22m ROW- Minor Collector Alternate B Date: Apr 15, 2020 - 12:04pm, Edit By : lansen



LEGEND:

ENVAC	-	VACUUM WASTE COLLECTION SYSTEM
DE	-	DISTRICT ENERGY
EP	-	EDGE OF PAVEMENT
CB	-	CATCH BASIN
C/L	-	CENTRELIN
HYD	-	FIRE HYDRANT
HYDV	-	FIRE HYDRANT VALVE
MH	-	MANHOLE
PL	-	PROPERTY LINE
SL	-	STREETLIGHT
SAN	-	SANITARY SEWER
STM	-	STORM SEWER
UC	-	UTILITY CORRIDOR (HYDRO, TELECOMMUNICATIONS, SL)
WM	-	WATERMAIN
WTP	-	WATER TREATMENT PLANT

NOTES:

1. HYDRO, TELECOMMUNICATION PROVIDER, GAS AND SL CORRIDOR TO HAVE MINIMUM COVER OF 1.0m.
2. WATERMAIN TO HAVE MINIMUM COVER OF 1.7m.
3. IF UTILITIES CANNOT BE INSTALLED ACCORDING TO THIS STANDARD, THEY ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE PRESCRIBED LOCATION SUBJECT TO THE APPROVAL OF THE TRANSPORTATION AND WORKS DEPARTMENT OF THE CITY OF MISSISSAUGA.
4. A 0.4m-0.6m CLEARANCE MUST BE MAINTAINED BETWEEN CABLES AND HYDRANTS.
5. A 0.3m CLEARANCE MUST BE MAINTAINED BETWEEN WATERMANS AND UTILITY POLES.
6. NO TRANSFORMERS TO BE PLACED IN ROW
7. CURBS AND GUTTERS TO BE PER CITY OF MISSISSAUGA STD 2230.010. MOUNTABLE CURBS PER CITY OF MISSISSAUGA STD 2230.030 TO BE PROVIDED BETWEEN TRAVEL AND PARKING LAY-BY LANES.
8. STM SEWER PRESENTED IN THIS CROSS SECTION IS THE LARGEST SEWER ON THE MINOR COLLECTOR ROAD PER THE URBANTECH FSR DATED FEB 2020 (i.e. 475Ø PIPE WITH 1800Ø MH).
9. UTILITY CORRIDOR AND GASMAIN WILL ONLY BE PROVIDED ON ONE SIDE OF THE RIGHT-OF-WAY.

*ALL DIMENSIONS IN METRES

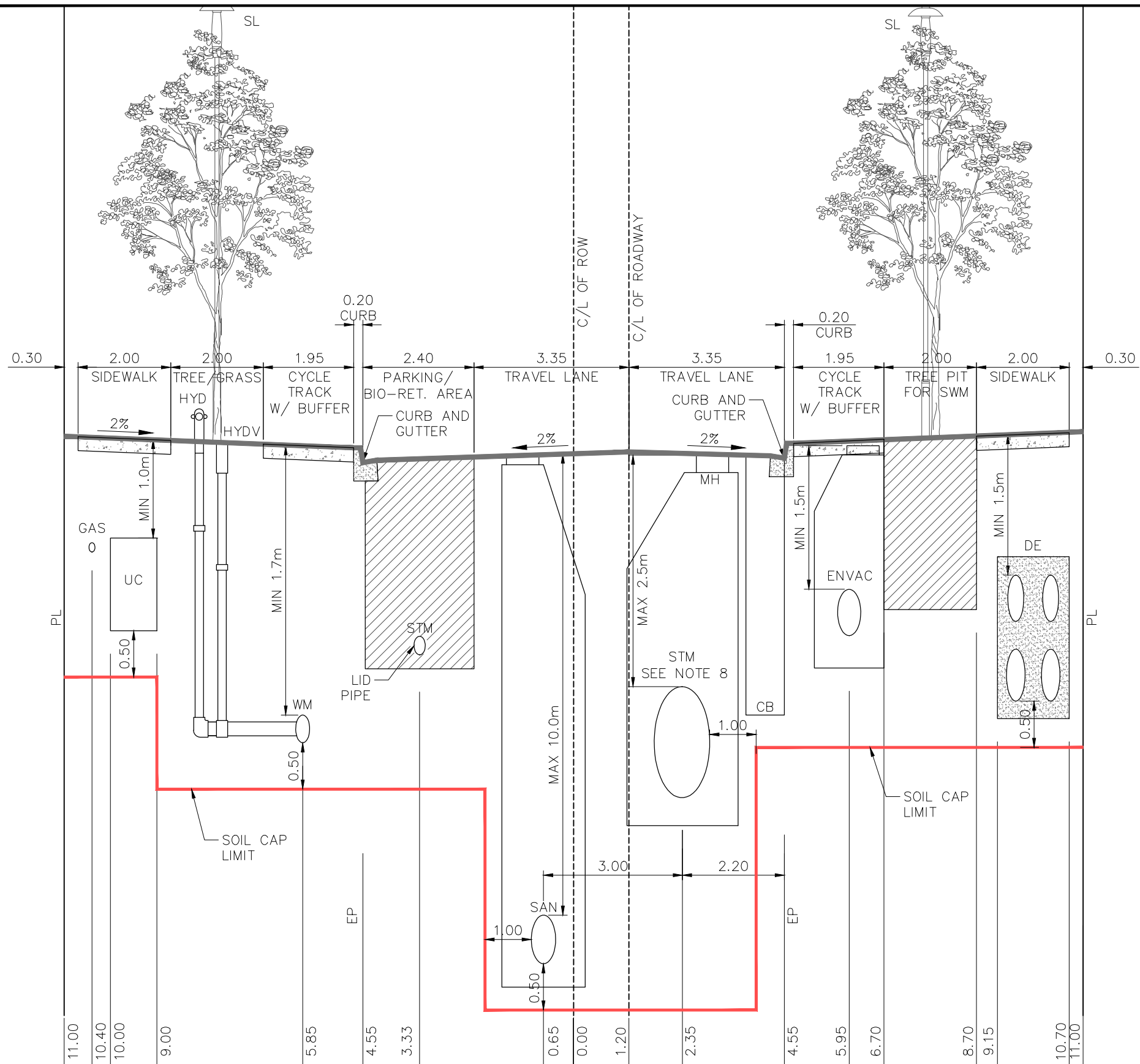


8800 Dufferin Street,
Suite 200
Vaughan, ON
L4K 0C5
p: 905.738.5700
f: 905.738.0065

22.0m MINOR COLLECTOR STREET 'B' LAKEVIEW COMMUNITY - MISSISSAUGA

SCALE: HOR 1:100 VER 1:50		PROJECT No.
DATE: APRIL 2020		17201
DESIGNED BY: S.V.	DRAWN BY: S.V.	FIGURE No.
CHECKED BY: A.A.	CHECKED BY: A.A.	6

File : G:\Projects\2017\17201 - Lakeview Community - Mississauga\Drawings\Details\Street Cross Sections\07 22m ROW - Minor Collector - Street.dwg, Layout : 22m ROW - MINOR - Alternate C Date : Apr 15, 2020 - 4:30pm, Edit By : tanser



LEGEND:

ENVAC	-	VACUUM WASTE COLLECTION SYSTEM
DE	-	DISTRICT ENERGY
EP	-	EDGE OF PAVEMENT
CB	-	CATCH BASIN
C/L	-	CENTRELIN
HYD	-	FIRE HYDRANT
HYDV	-	FIRE HYDRANT VALVE
MH	-	MANHOLE
PL	-	PROPERTY LINE
SL	-	STREETLIGHT
SAN	-	SANITARY SEWER
STM	-	STORM SEWER
UC	-	UTILITY CORRIDOR (HYDRO, TELECOMMUNICATIONS, SL)
WM	-	WATERMAIN
WTP	-	WATER TREATMENT PLANT

NOTES:

1. HYDRO, TELECOMMUNICATION PROVIDER, GAS AND SL CORRIDOR TO HAVE MINIMUM COVER OF 1.0m.
2. WATERMAIN TO HAVE MINIMUM COVER OF 1.7m.
3. IF UTILITIES CANNOT BE INSTALLED ACCORDING TO THIS STANDARD, THEY ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE PRESCRIBED LOCATION SUBJECT TO THE APPROVAL OF THE TRANSPORTATION AND WORKS DEPARTMENT OF THE CITY OF MISSISSAUGA.
4. A 0.4m-0.6m CLEARANCE MUST BE MAINTAINED BETWEEN CABLES AND HYDRANTS.
5. A 0.3m CLEARANCE MUST BE MAINTAINED BETWEEN WATERMAINS AND UTILITY POLES.
6. NO TRANSFORMERS TO BE PLACED IN ROW
7. CURBS AND GUTTERS TO BE PER CITY OF MISSISSAUGA STD 2230.010. MOUNTABLE CURBS PER CITY OF MISSISSAUGA STD 2230.030 TO BE PROVIDED BETWEEN TRAVEL AND PARKING LAY-BY LANES.
8. STM SEWER PRESENTED IN THIS CROSS SECTION IS THE LARGEST SEWER ON THE LOCAL ROAD PER THE URBANTECH FSR DATED FEB 2020 (i.e. 1200Ø PIPE WITH 2400Ø MH).

* ALL DIMENSIONS IN METRES

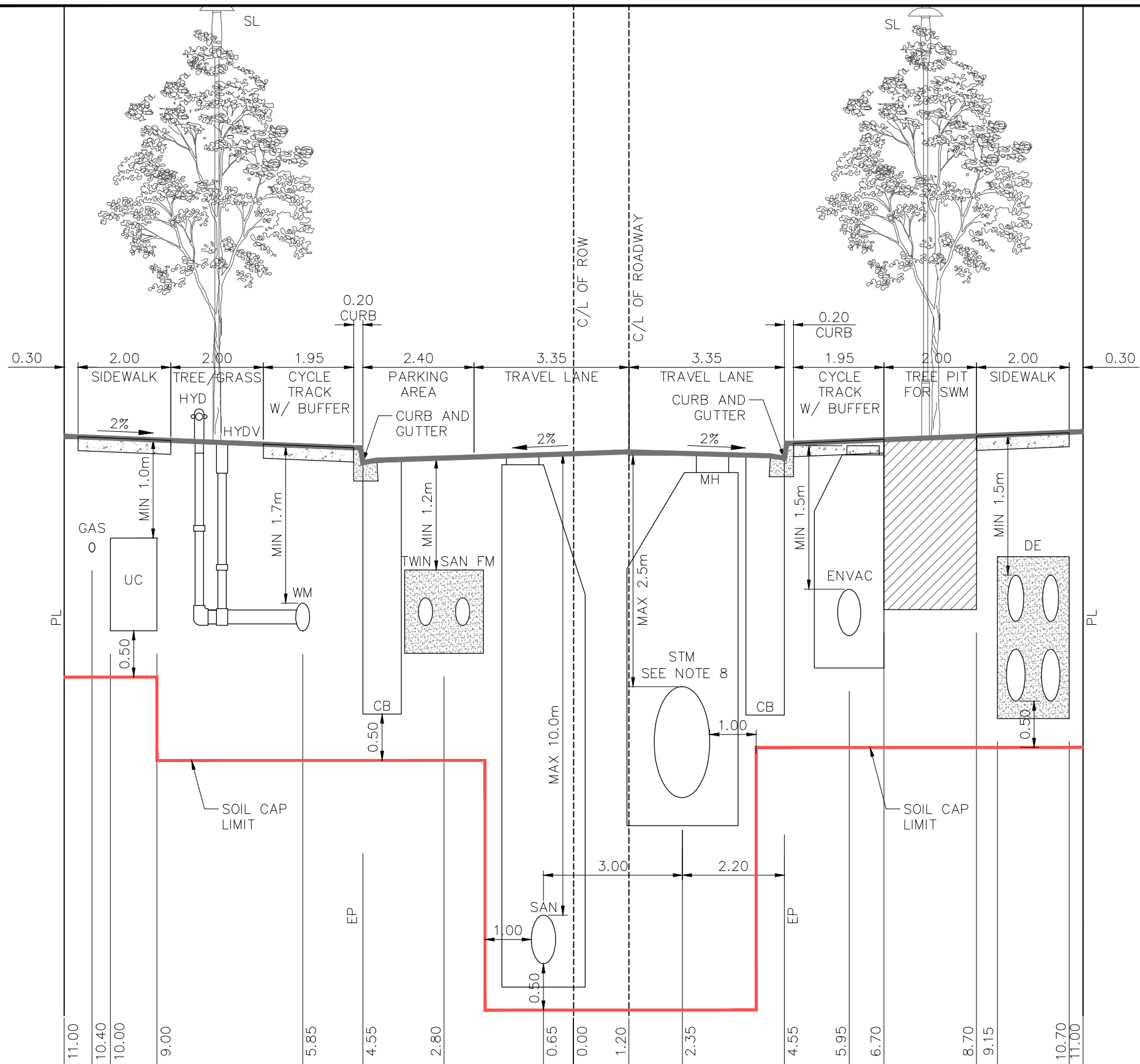


8800 Dufferin Street,
Suite 200
Vaughan, ON
L4K 0C5
p: 905.738.5700
f: 905.738.0065

22.0m MINOR COLLECTOR STREET 'I' LAKEVIEW COMMUNITY - MISSISSAUGA

SCALE: HOR 1:100 VER 1:50		PROJECT No.
DATE: APRIL 2020		17201
DESIGNED BY: S.V.	DRAWN BY: S.V.	FIGURE No.
CHECKED BY: A.A.	CHECKED BY: A.A.	7

File : G:\Projects\2017\17201 - Lakeview Community - Mississauga\Drawings\Details\Street Cross Sections\08 22m ROW - Minor Collector - Street A.dwg Layout : 22m ROW- MINOR- Alternate C Date: Apr 15, 2020 - 5:34pm. Edit By : tanser



LEGEND:

ENVAC	-	VACUUM WASTE COLLECTION SYSTEM
DE	-	DISTRICT ENERGY
EP	-	EDGE OF PAVEMENT
CB	-	CATCH BASIN
C/L	-	CENTRELIN
HYD	-	FIRE HYDRANT
HYDV	-	FIRE HYDRANT VALVE
MH	-	MANHOLE
PL	-	PROPERTY LINE
SL	-	STREETLIGHT
SAN	-	SANITARY SEWER
STM	-	STORM SEWER
UC	-	UTILITY CORRIDOR (HYDRO, TELECOMMUNICATIONS, SL)
WM	-	WATERMAIN
WTP	-	WATER TREATMENT PLANT

NOTES:

1. HYDRO, TELECOMMUNICATION PROVIDER, GAS AND SL CORRIDOR TO HAVE MINIMUM COVER OF 1.0m.
2. WATERMAIN TO HAVE MINIMUM COVER OF 1.7m.
3. IF UTILITIES CANNOT BE INSTALLED ACCORDING TO THIS STANDARD, THEY ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE PRESCRIBED LOCATION SUBJECT TO THE APPROVAL OF THE TRANSPORTATION AND WORKS DEPARTMENT OF THE CITY OF MISSISSAUGA.
4. A 0.4m–0.6m CLEARANCE MUST BE MAINTAINED BETWEEN CABLES AND HYDRANTS.
5. A 0.3m CLEARANCE MUST BE MAINTAINED BETWEEN WATERMAINS AND UTILITY POLES.
6. NO TRANSFORMERS TO BE PLACED IN ROW
7. CURBS AND GUTTERS TO BE PER CITY OF MISSISSAUGA STD 2230.010. MOUNTABLE CURBS PER CITY OF MISSISSAUGA STD 2230.030 TO BE PROVIDED BETWEEN TRAVEL AND PARKING LAY-BY LANES.
8. STM SEWER PRESENTED IN THIS CROSS SECTION IS THE LARGEST SEWER ON THE LOCAL ROAD PER THE URBANTECH FSR DATED FEB 2020 (i.e. 1200Ø PIPE WITH 2400Ø MH).

* ALL DIMENSIONS IN METRES



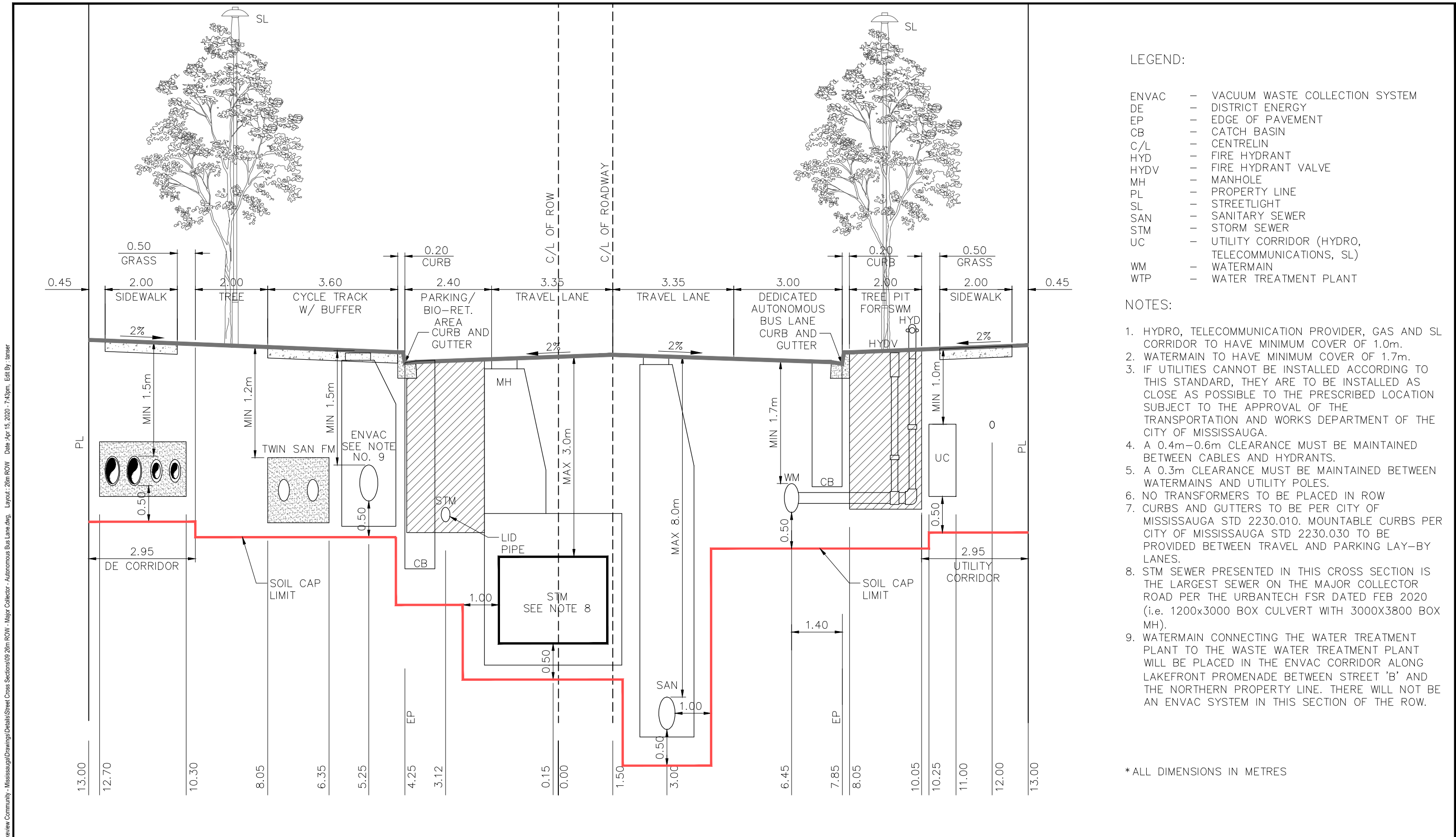
8800 Dufferin Street,
Suite 200
Vaughan, ON
L4K 0C5
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f: 905.738.0065

22.0m MINOR COLLECTOR

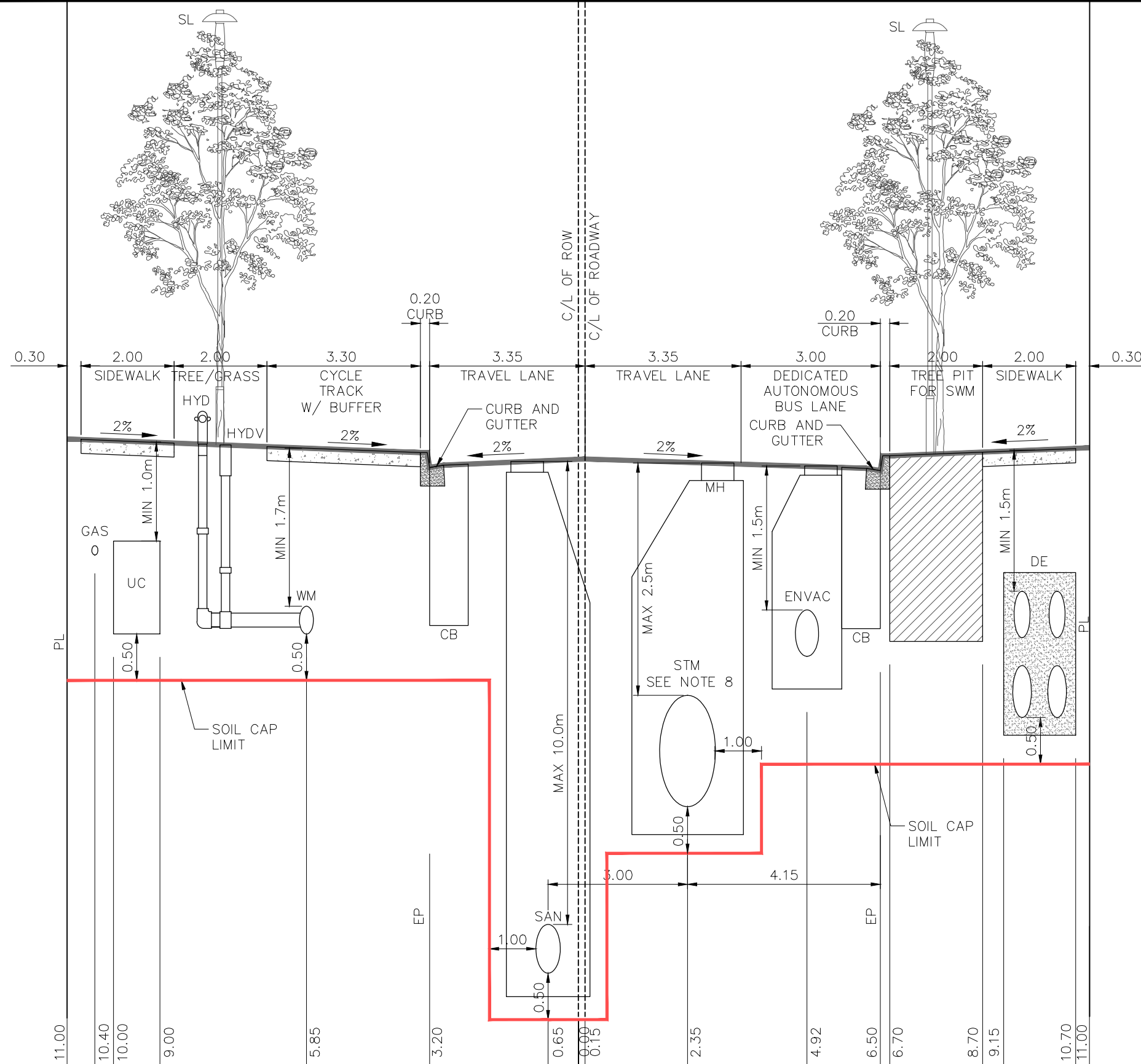
STREET 'A' BETWEEN STREET 'I' & STREET 'H'

LAKEVIEW COMMUNITY - MISSISSAUGA

SCALE: HOR 1:100 VER 1:50		PROJECT No.
DATE: APRIL 2020		17201
DESIGNED BY: S.V.	DRAWN BY: S.V.	FIGURE No.
CHECKED BY: A.A.	CHECKED BY: A.A.	8



File : G:\Projects\2017\17201 - Lakeview Community - Mississauga\Drawings\Details\Street Cross Sections\10 22m ROW - Minor Collector - Autonomous Bus Lane.dwg Layout : 22m ROW- MINOR- Alternate C Date : Apr 15, 2020 - 9:05pm, Edit By : tanser



LEGEND:

ENVAC	-	VACUUM WASTE COLLECTION SYSTEM
DE	-	DISTRICT ENERGY
EP	-	EDGE OF PAVEMENT
CB	-	CATCH BASIN
C/L	-	CENTRELIN
HYD	-	FIRE HYDRANT
HYDV	-	FIRE HYDRANT VALVE
MH	-	MANHOLE
PL	-	PROPERTY LINE
SL	-	STREETLIGHT
SAN	-	SANITARY SEWER
STM	-	STORM SEWER
UC	-	UTILITY CORRIDOR (HYDRO, TELECOMMUNICATIONS, SL)
WM	-	WATERMAIN
WTP	-	WATER TREATMENT PLANT

NOTES:

1. HYDRO, TELECOMMUNICATION PROVIDER, GAS AND SL CORRIDOR TO HAVE MINIMUM COVER OF 1.0m.
2. WATERMAIN TO HAVE MINIMUM COVER OF 1.7m.
3. IF UTILITIES CANNOT BE INSTALLED ACCORDING TO THIS STANDARD, THEY ARE TO BE INSTALLED AS CLOSE AS POSSIBLE TO THE PRESCRIBED LOCATION SUBJECT TO THE APPROVAL OF THE TRANSPORTATION AND WORKS DEPARTMENT OF THE CITY OF MISSISSAUGA.
4. A 0.4m-0.6m CLEARANCE MUST BE MAINTAINED BETWEEN CABLES AND HYDRANTS.
5. A 0.3m CLEARANCE MUST BE MAINTAINED BETWEEN WATERMANS AND UTILITY POLES.
6. NO TRANSFORMERS TO BE PLACED IN ROW
7. CURBS AND GUTTERS TO BE PER CITY OF MISSISSAUGA STD 2230.010. MOUNTABLE CURBS PER CITY OF MISSISSAUGA STD 2230.030 TO BE PROVIDED BETWEEN TRAVEL AND PARKING LAY-BY LANES.
8. STM SEWER PRESENTED IN THIS CROSS SECTION IS THE LARGEST SEWER ON THE LOCAL ROAD PER THE URBANTECH FSR DATED FEB 2020 (i.e. 1200Ø PIPE WITH 2400Ø MH).
9. DISTRICT ENERGY CORRIDOR CAN BE USED FOR THE TWIN 300Ø SAN FORCEMAIN, OR THE 400Ø WATERMAIN TO THE WTP.

* ALL DIMENSIONS IN METRES



8800 Dufferin Street,
Suite 200
Vaughan, ON
L4K 0C5
p: 905.738.5700
f: 905.738.0065

22.0m MINOR COLLECTOR
AUTONOMOUS BUS LANE SCENARIO
LAKEVIEW COMMUNITY - MISSISSAUGA

SCALE: HOR 1:100 VER 1:50		PROJECT No.
DATE: APRIL 2020		17201
DESIGNED BY: S.V.	DRAWN BY: S.V.	FIGURE No.
CHECKED BY: A.A.	CHECKED BY: A.A.	10