



16.5m Right-of-Way & Streetscape Rationale

FEBRUARY 2021

CAIVAN

PREPARED FOR

CAIVAN

CAIVAN COMMUNITIES

2934 Baseline Road, Suite 302
Ottawa, Ontario K2H 1B2
t | 613.518.1864

CAIVAN.COM

PREPARED BY

NAK 
design strategies

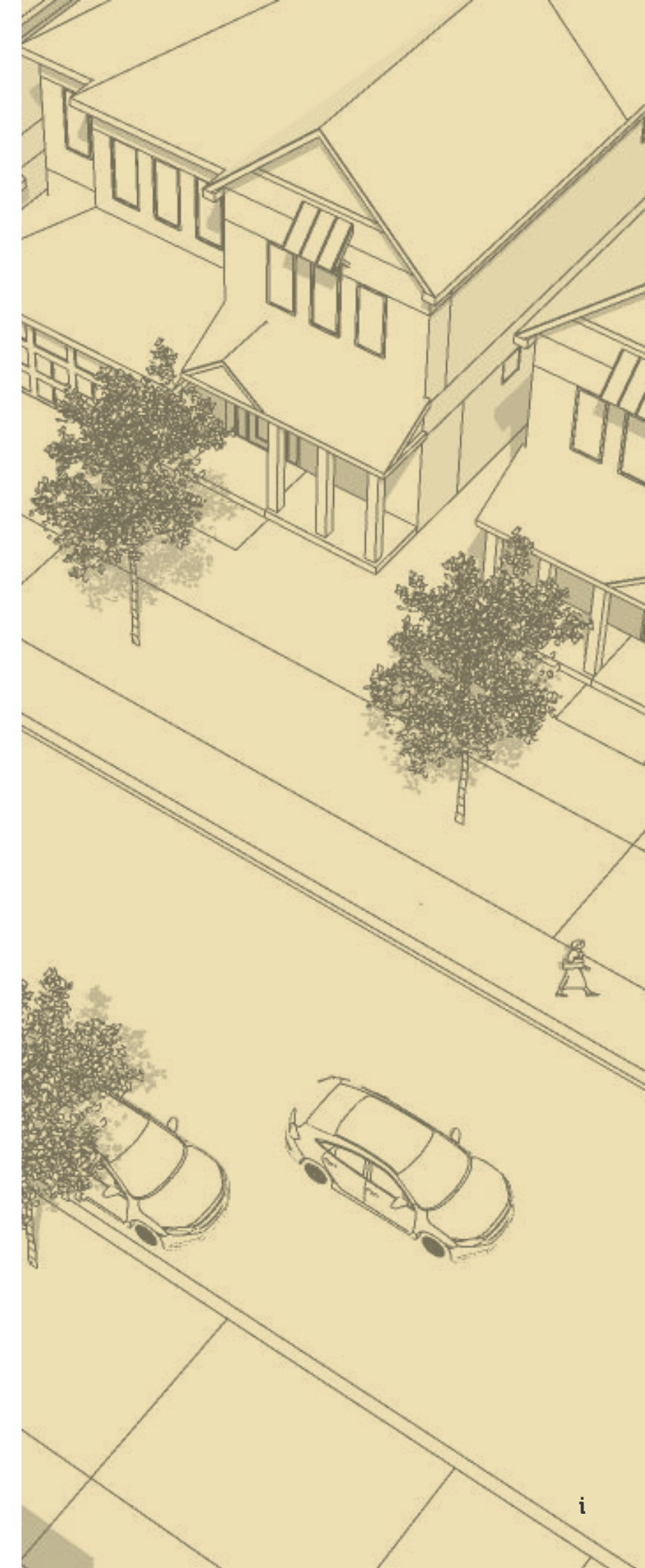
NAK DESIGN STRATEGIES

1285 Wellington Street
Ottawa, Ontario K1Y 3Y8
t | 613.237.2345

NAKDESIGNSTRATEGIES.COM

Table of Contents

Executive Summary	ii
City of Ottawa's 16.5m Right-of-Way	1
Caivan's OpenPlan™	7
Caivan's 16.5m Right-of-Way	9



Executive Summary

Caivan's 16.5m Right-of-Way and Streetscape Rationale has been generated to explore and justify the use of 16.5m right-of-ways, both with and without sidewalks that meet the City of Ottawa's minimum requirements, within Caivan communities. To rationalize the cross-sections, this document examines the City's current 16.5m right-of-way cross-section, compares Caivan's OpenPlan™ designs to typical land development standards in Ottawa, and breaks down the seven key components of the street.

- Sidewalk
- Travel Lanes
- On-Street Parking
- Traffic Calming
- Snow Storage
- Tree Health
- Utilities & Servicing

To begin, this Rationale analyzes the City of Ottawa's 16.5m right-of-way cross-section with typical land development standards through the lens of the seven key components to establish baseline parameters (overall functionality

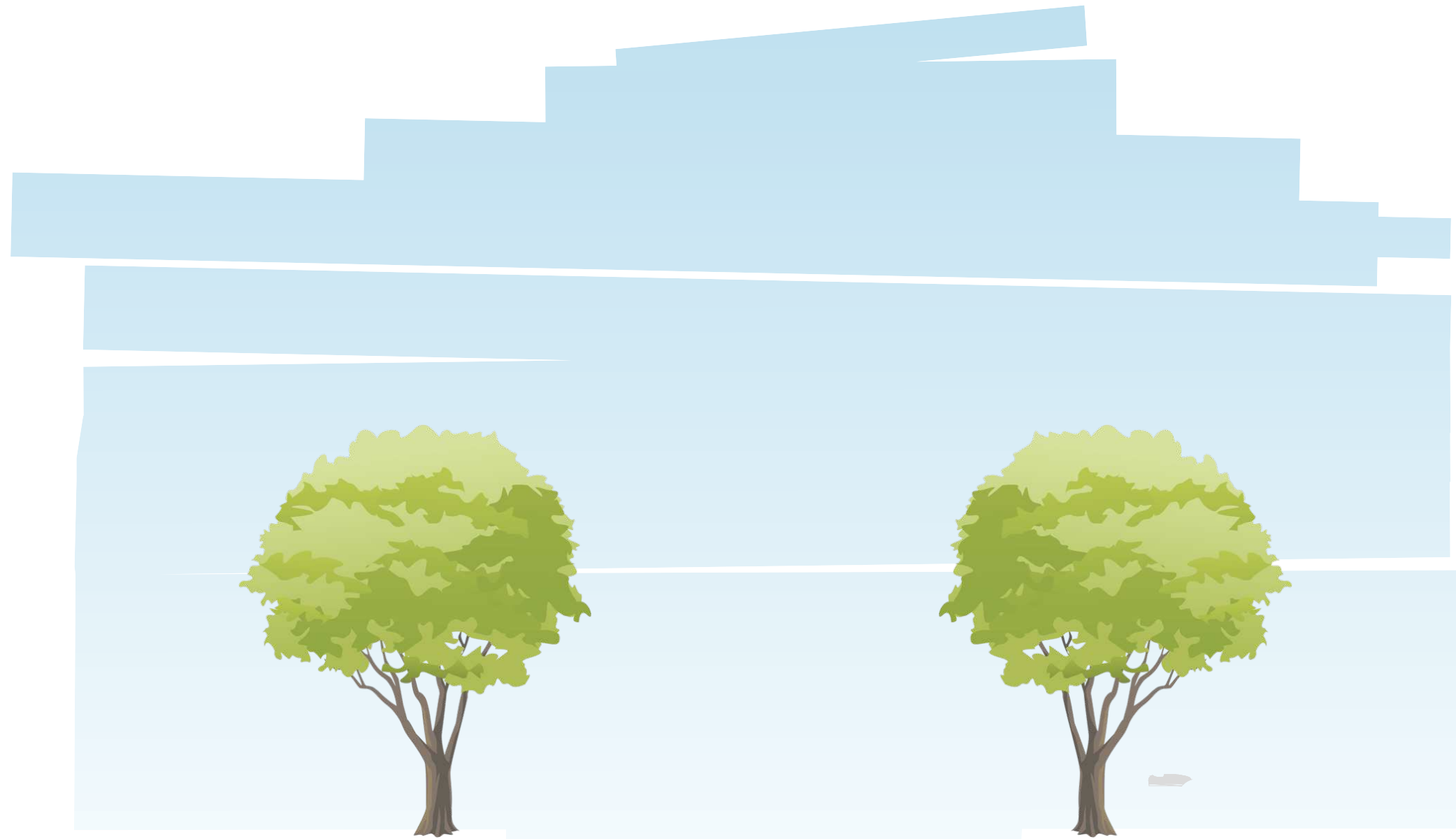


City of Ottawa's 16.5m Right-of-Way

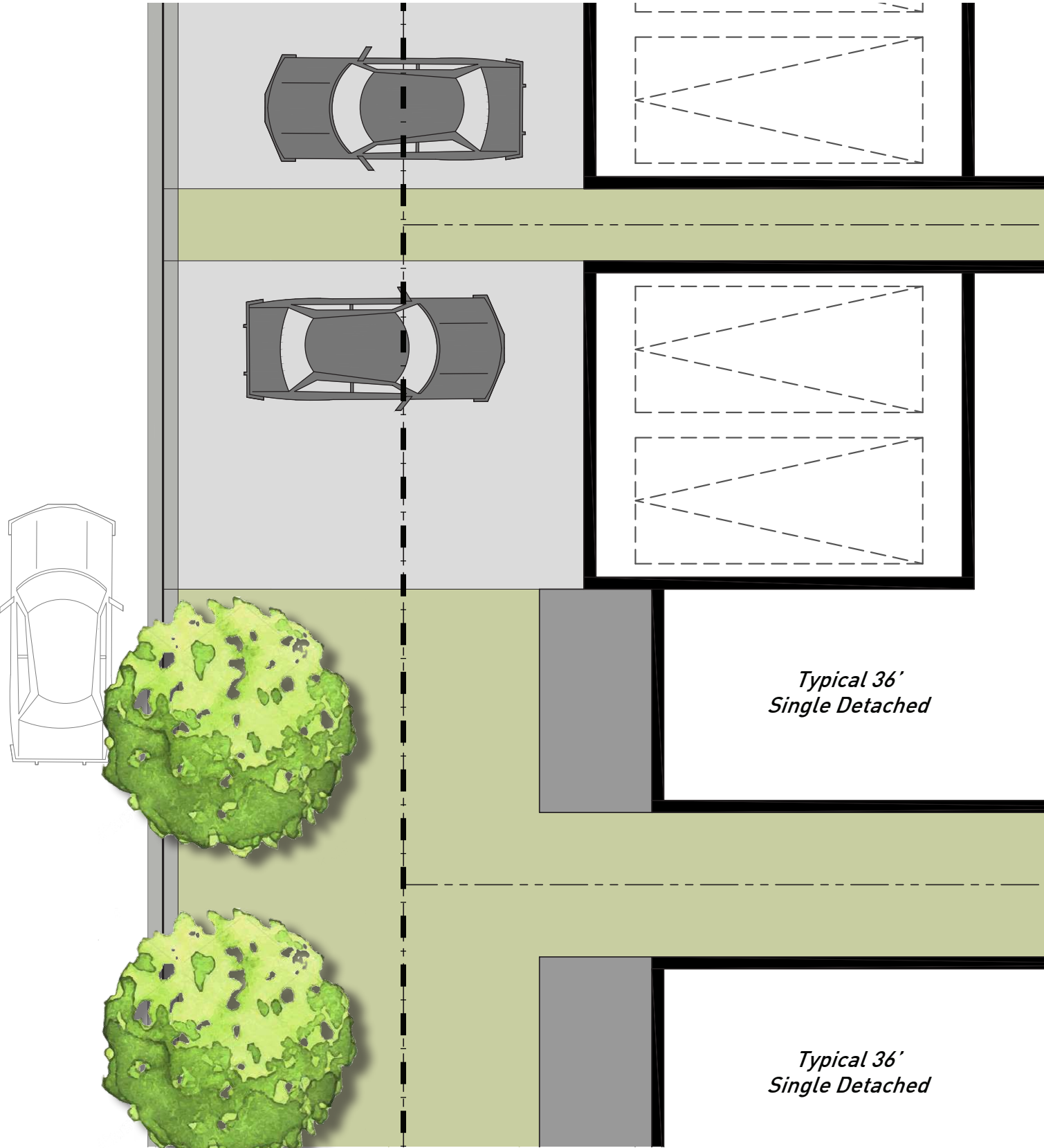
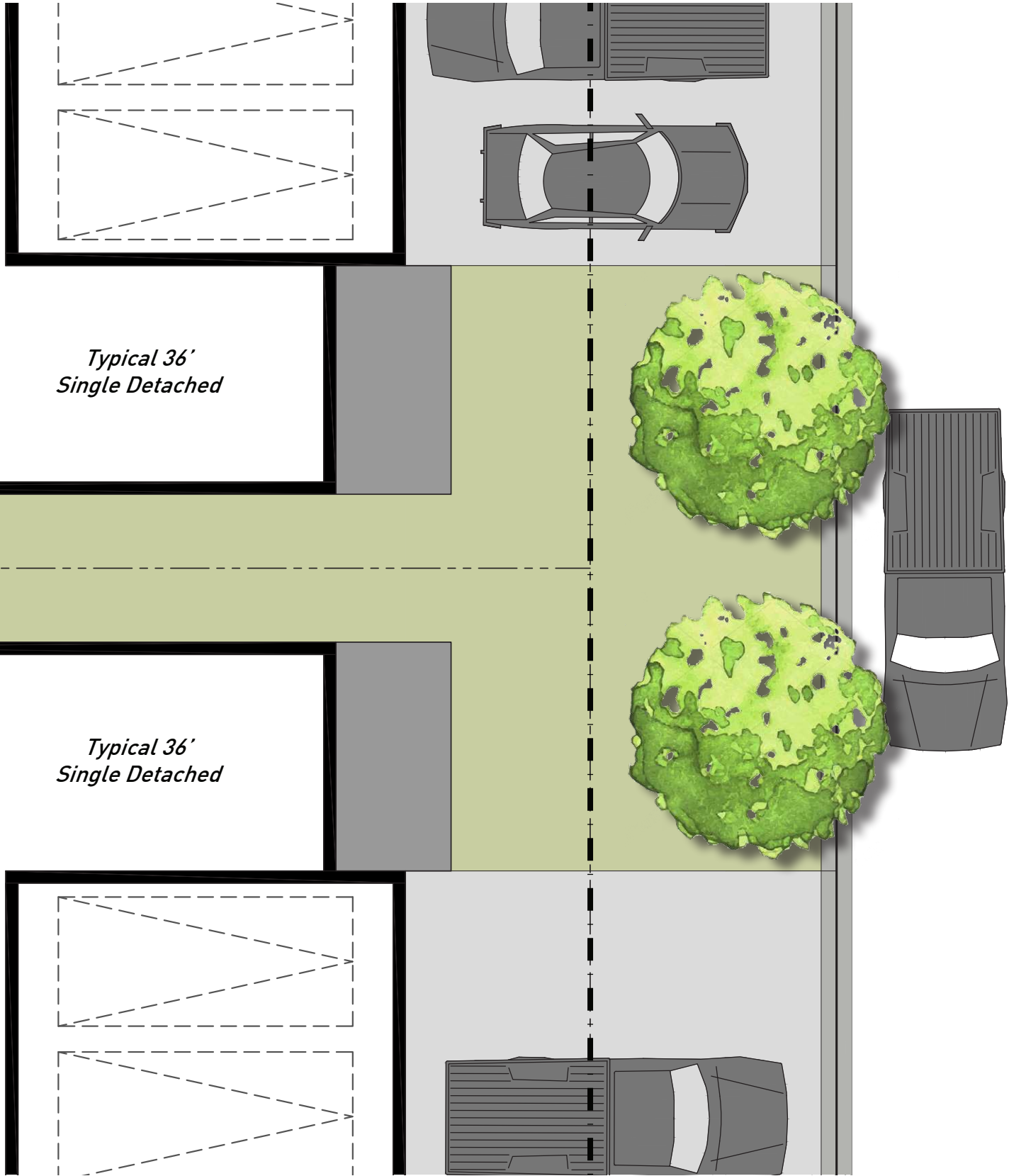
“lost opportunity to use streets as a component of the public realm with trees and sidewalks”

“lack of trees, sidewalks and cycling facilities discourage active transportation”

- Building Better and Smarter Suburbs: Strategic Directions and Action Plan (pg. 45)



City of Ottawa's 16.5m Right-of-Way



City of Ottawa's 16.5m Right-of-Way

COMPONENTS OF THE STREET

Sidewalk

- No Sidewalk Provided

Travel Lanes

- 3.00m Travel Lanes (6.00m Combined)

On-Street Parking

- 9.80m Between Driveways (Typical)
- Accommodates 1 Car Only

Traffic Calming

- On-Street Parking Provides Some Traffic Calming

Snow Storage

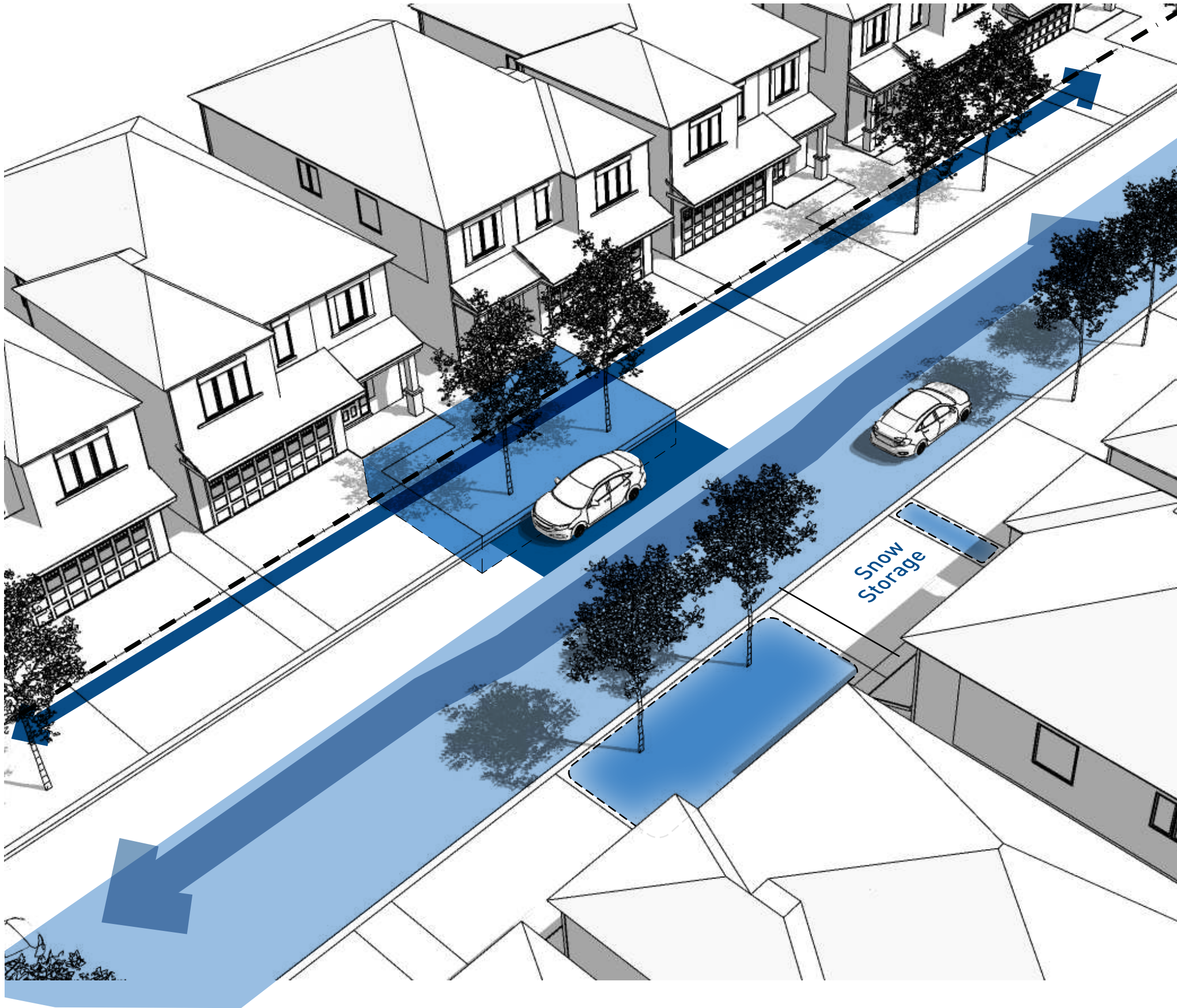
- 41.25m² of Snow Storage (Typical)
(11.00m [9.80m + 1.20m] x 3.75m)

Tree Health

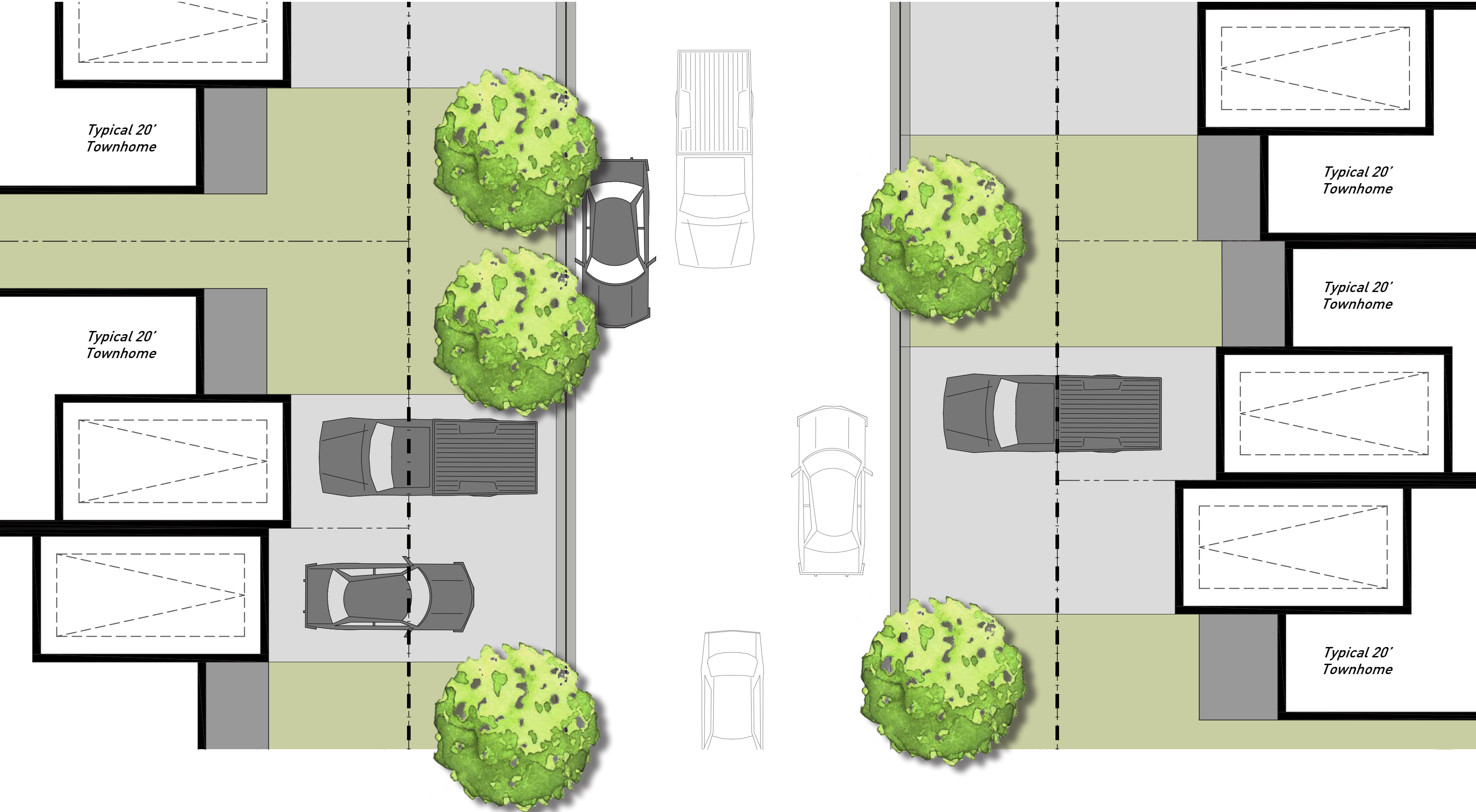
- 88.20m³ of Soil Volume (Typical)
(9.80m x 6.00m x 1.50m)

Utilities & Servicing

- Joint Utility Trenches (1.135m) Located Within



City of Ottawa's 16.5m Right-of-Way



*Typical 20'
Townhome*

*Typical 20'
Townhome*

*Typical 20'
Townhome*

*Typical 20'
Townhome*

*Typical 20'
Townhome*

City of Ottawa's 16.5m Right-of-Way

WITHOUT SIDEWALK | TOWNHOMES

COMPONENTS OF THE STREET

Sidewalk

- No Sidewalk Provided

Travel Lanes

- 3.00m Travel Lanes (6.00m Combined)

On-Street Parking

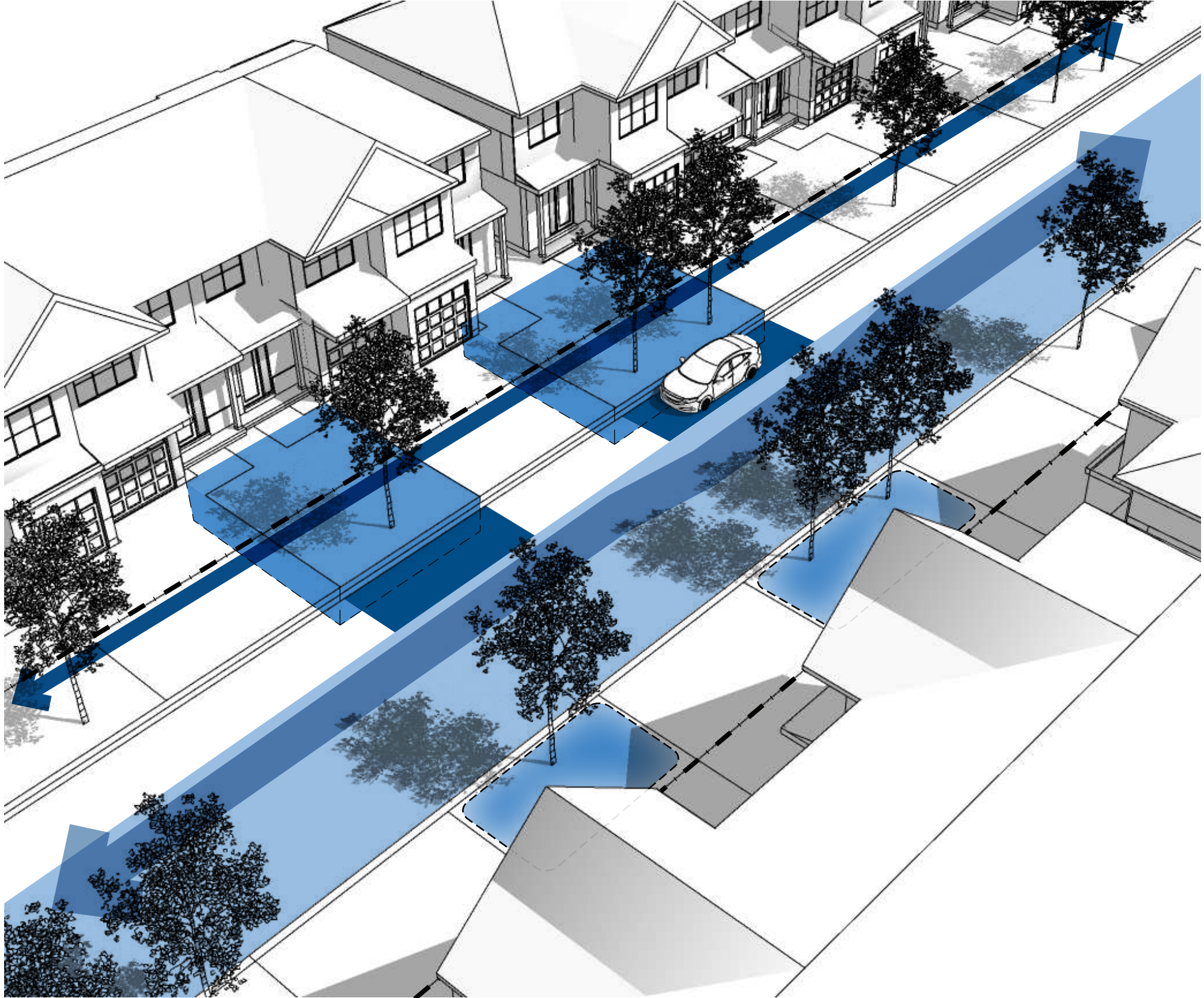
- 5.40m & 7.80m Between Driveways
- Limited Parking Spaces

Traffic Calming

- On-Street Parking Provides Some Traffic Calming

Snow Storage

- 49.50m² of Snow Storage (Typical) (13.20m)



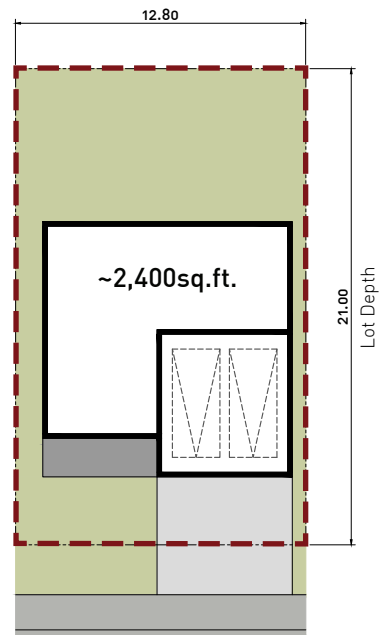
* Typical 20' Townhome Demonstrated

“ROW cross-sections, roadway widths, and design speeds should respond to built form and land use context”

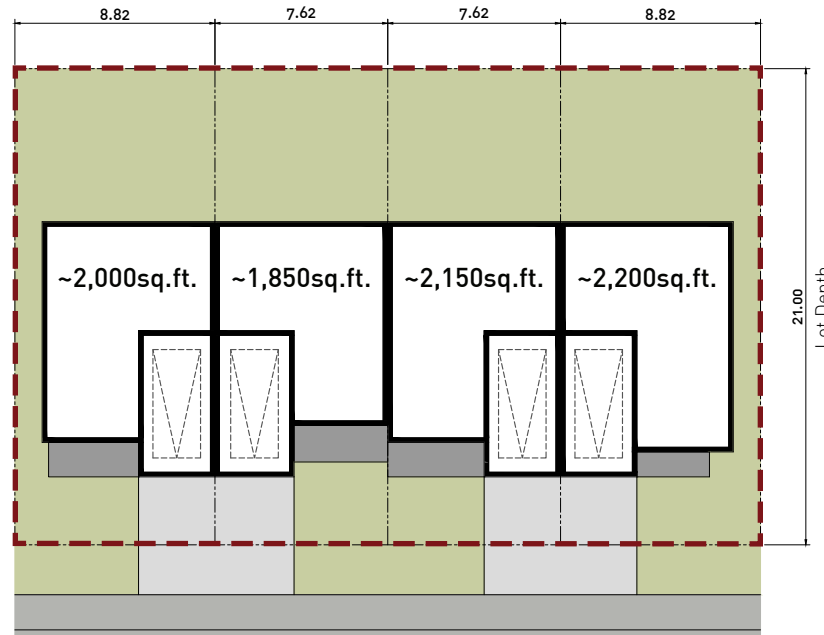
- Building Better and Smarter Suburbs: Strategic Directions and Action Plan (pg. 48)

Caivan's OpenPlan™

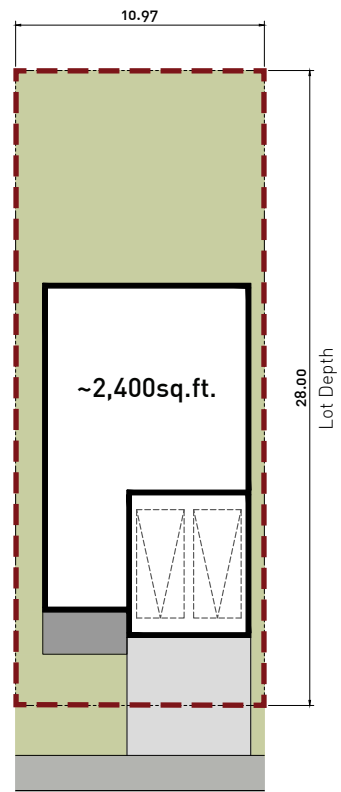
LOT COMPARISON FIGURE



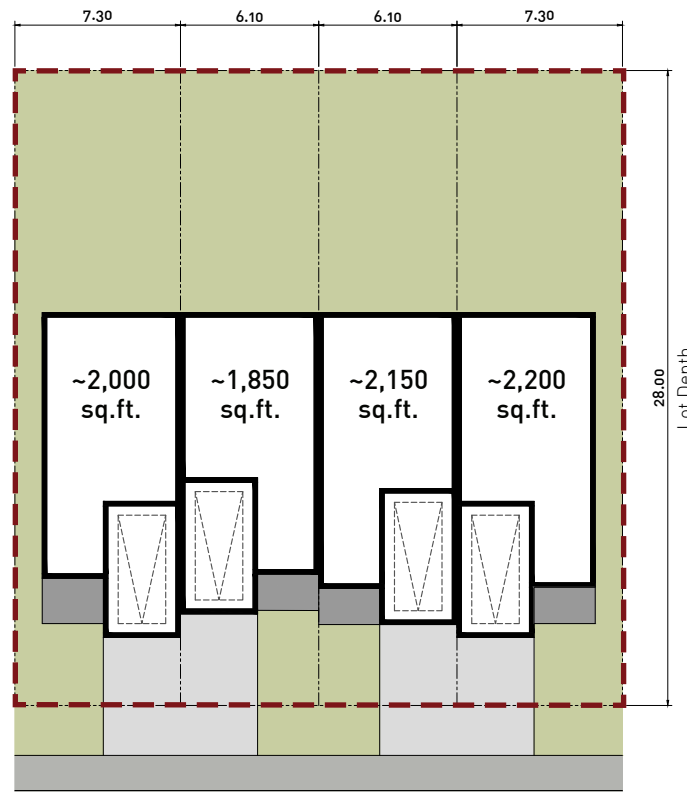
*Caivan's 42'
Single Detached*
LOT AREA: 268.8m²



*Caivan's 25'
Townhome*
LOT AREA: 160.0-185.2m²



*Typical 36'
Single Detached*
LOT AREA: 307.2m²



*Typical 20'
Townhome*
LOT AREA: 170.7-204.4m²

Compared to the typical land development standards in Ottawa, Caivan's OpenPlan™ designs decrease lot depths while increasing lot widths and overall density. As a result, this makes right-of-ways less car-dominated due to the wider lot widths while providing additional on-street parking, snow storage, and soil volume between driveways. In addition, Caivan's OpenPlan™ designs allow for greater community density compared to typical land development standards, provide greater active street frontage, and a sense of safety with more 'eyes on the street'.

Benefits to the OpenPlan

Greater Active Frontage

Less Car-Dominated

Additional On-Street Parking

Increased Soil Volume for Tree Growth

Greater Snow Storage Capacity

More 'Eyes on the Street'

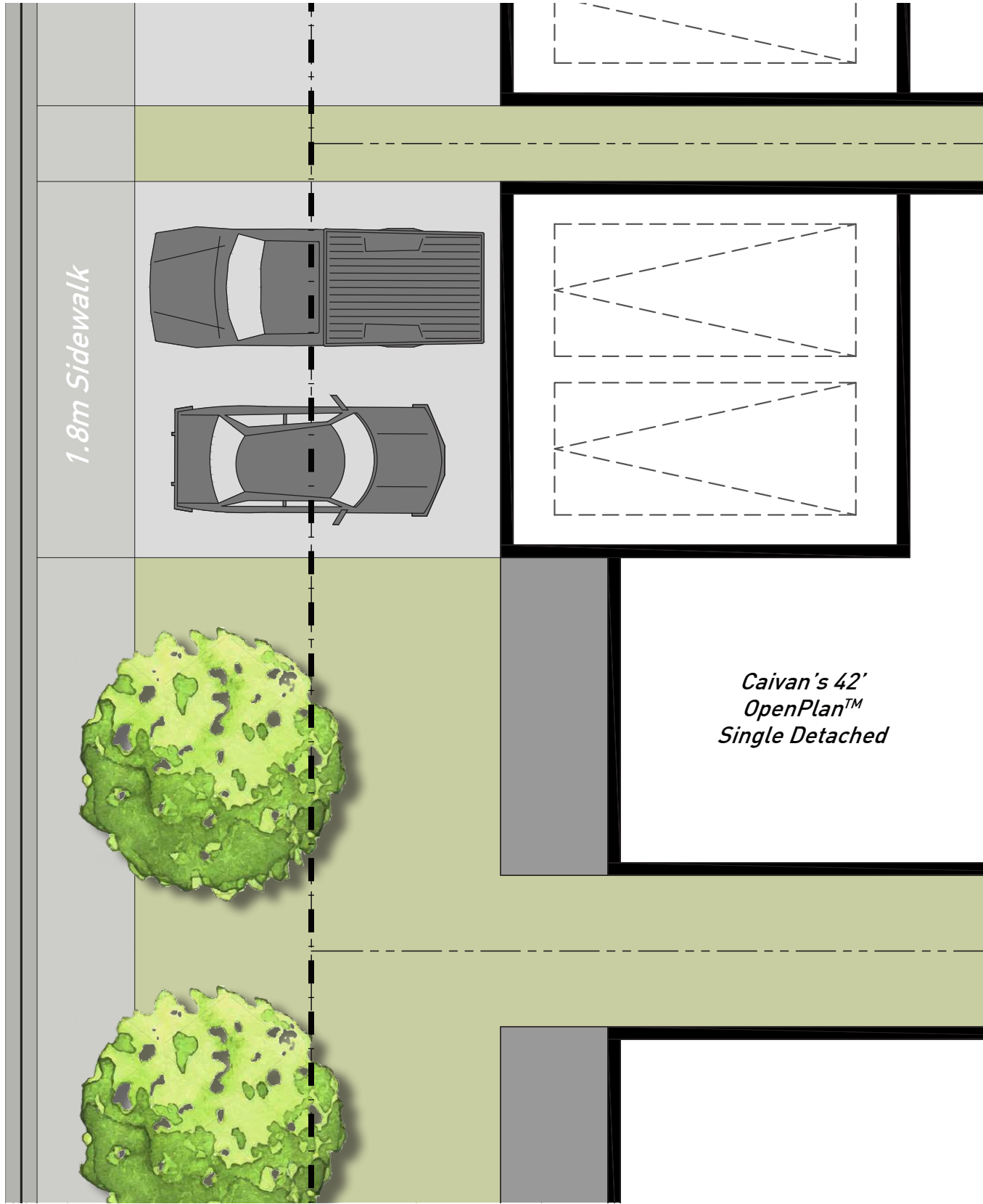
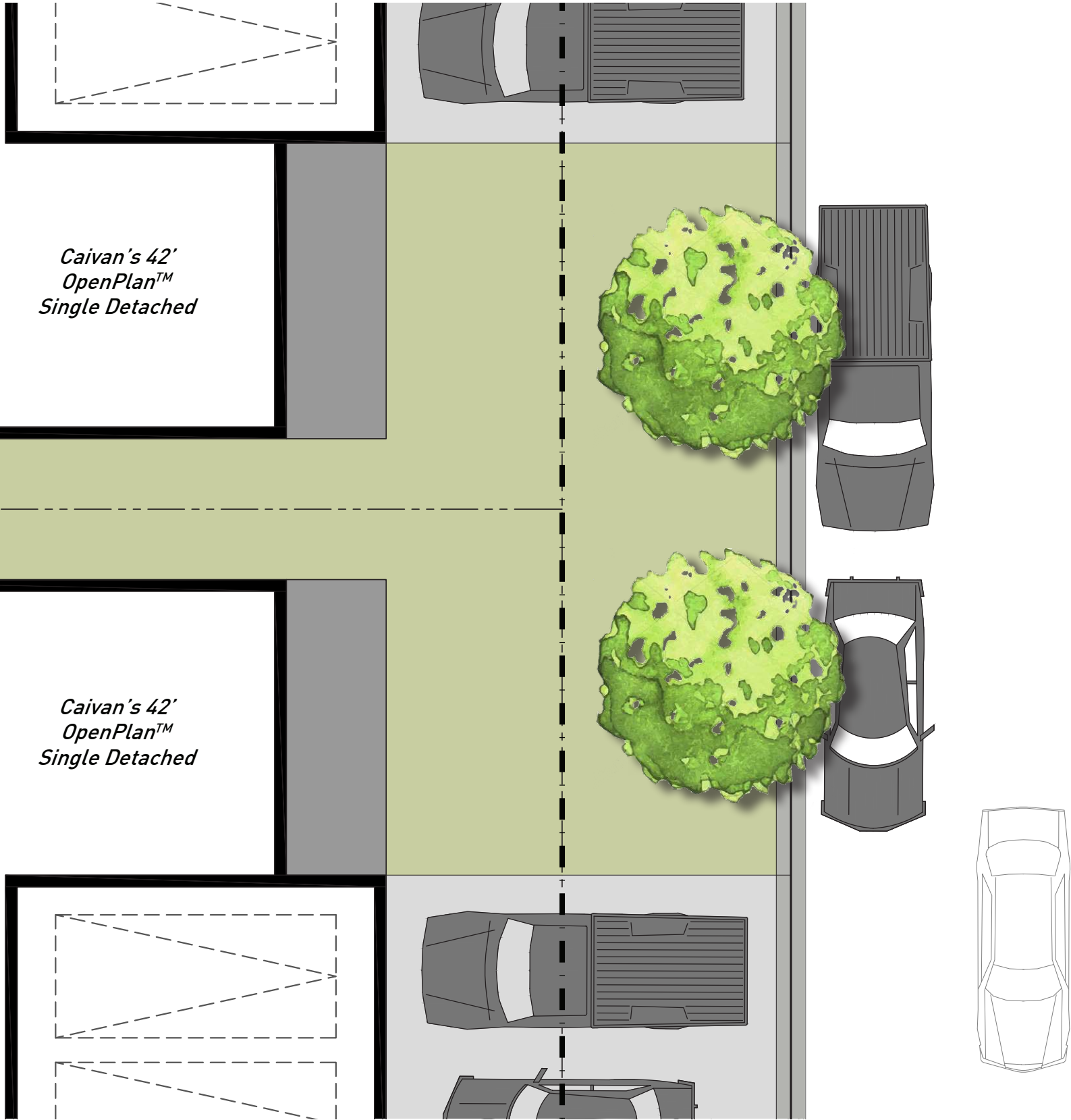
Caivan's 16.5m Right-of-Way

“there is a need to re-examine space requirements in the ROW and consider opportunities for new efficiencies”

- Building Better and Smarter Suburbs: Strategic Directions and Action Plan (pg. 44)

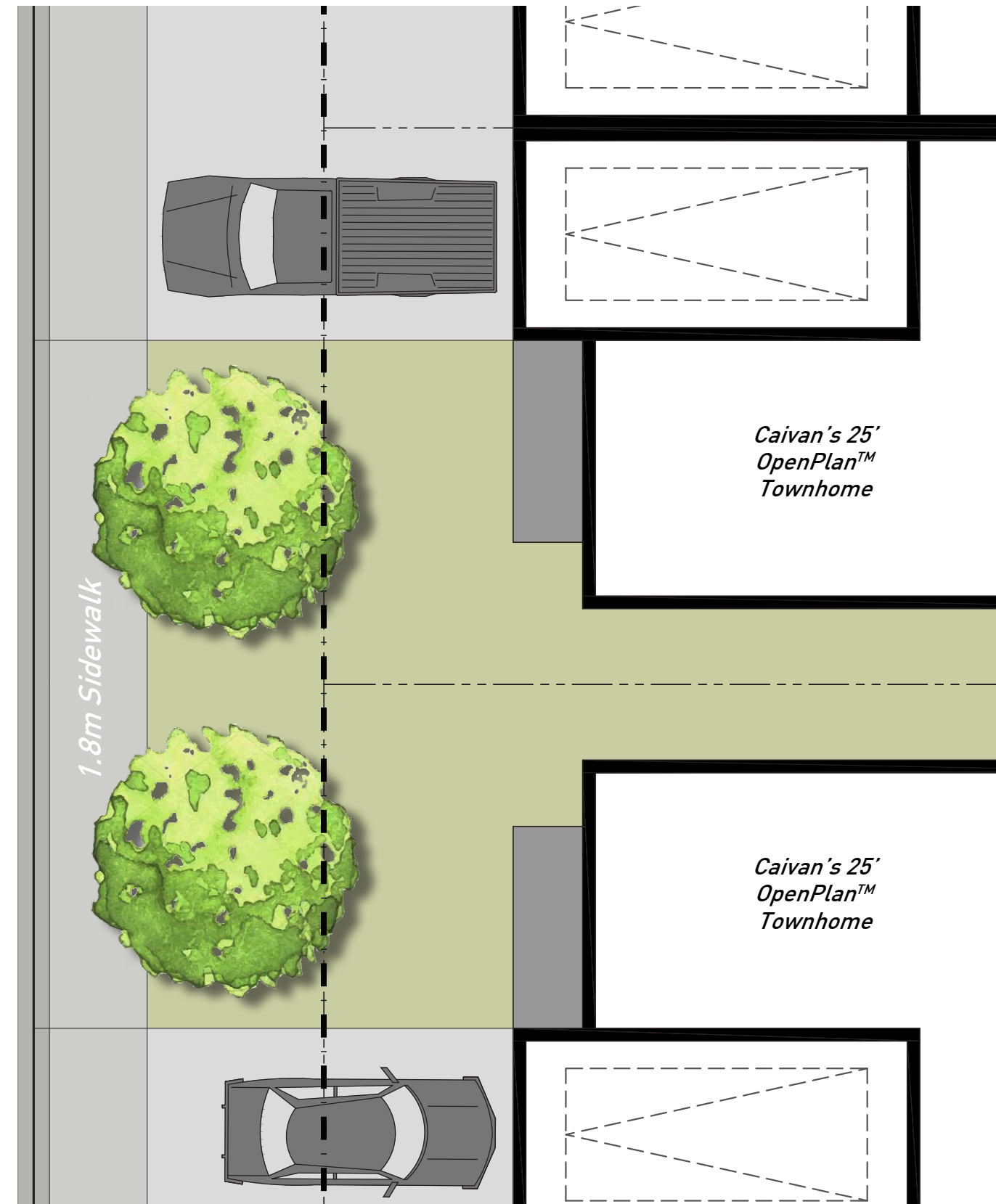
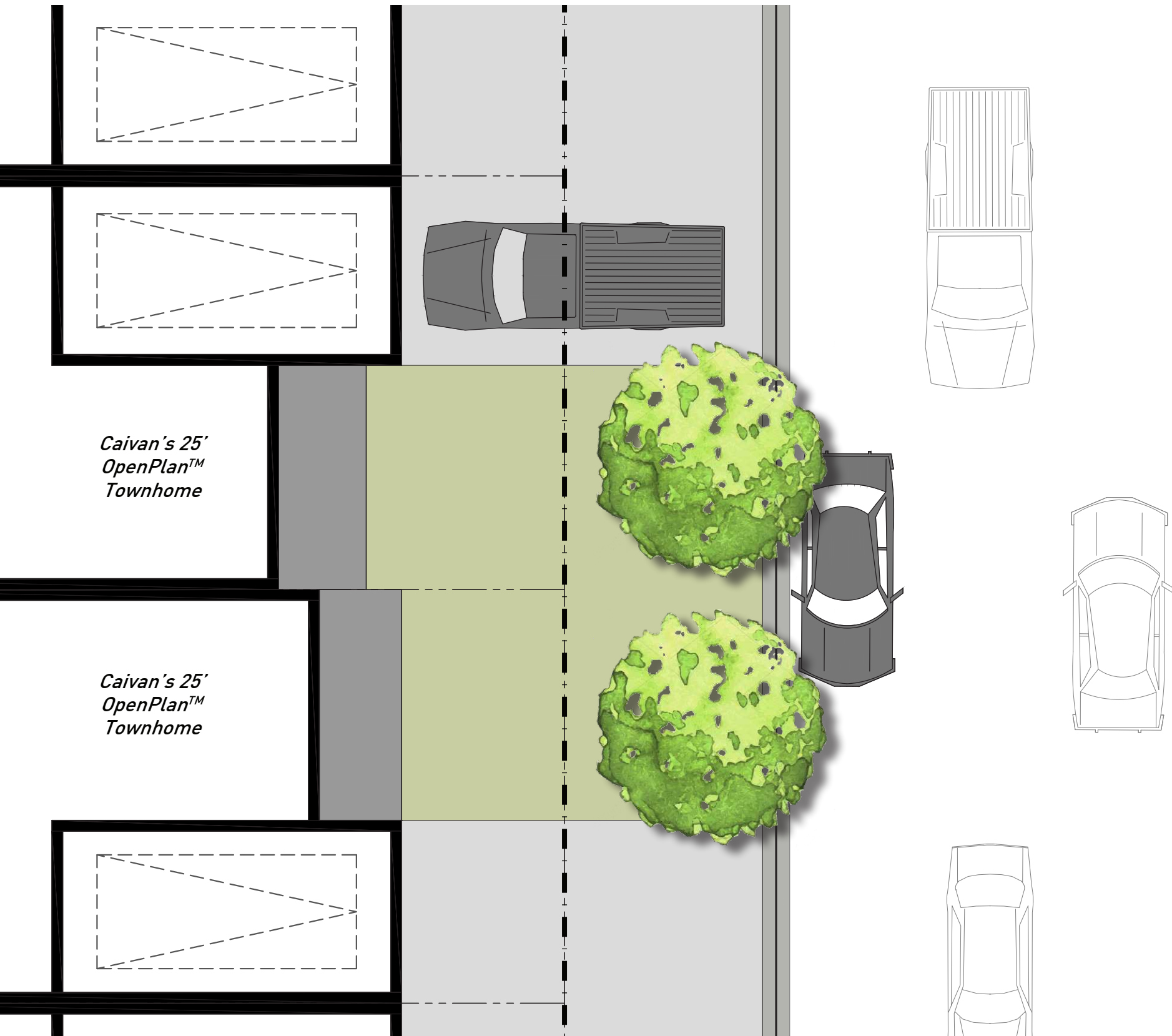


Caivan's 16.5m Right-of-Way
 WITH SIDEWALK | SINGLE DETACHED PLAN



Caivan's 16.5m Right-of-Way

WITH SIDEWALK | TOWNHOMES PLAN



Caivan's 16.5m Right-of-Way WITH SIDEWALK

COMPONENTS OF THE STREET

● Sidewalk

- A 1.8m curb face sidewalk will improve pedestrian connectivity and overall community safety while promoting an active lifestyle and creating a 'complete street'

- Travel Lanes
- On-Street Parking
- Traffic Calming
- Snow Storage
- Tree Health
- Utilities & Servicing



“complete streets that include trees and sidewalks support active transportation”

- Building Better and Smarter Suburbs:
Strategic Directions and Action Plan (pg. 46)








Caivan's 16.5m Right-of-Way WITH SIDEWALK

COMPONENTS OF THE STREET

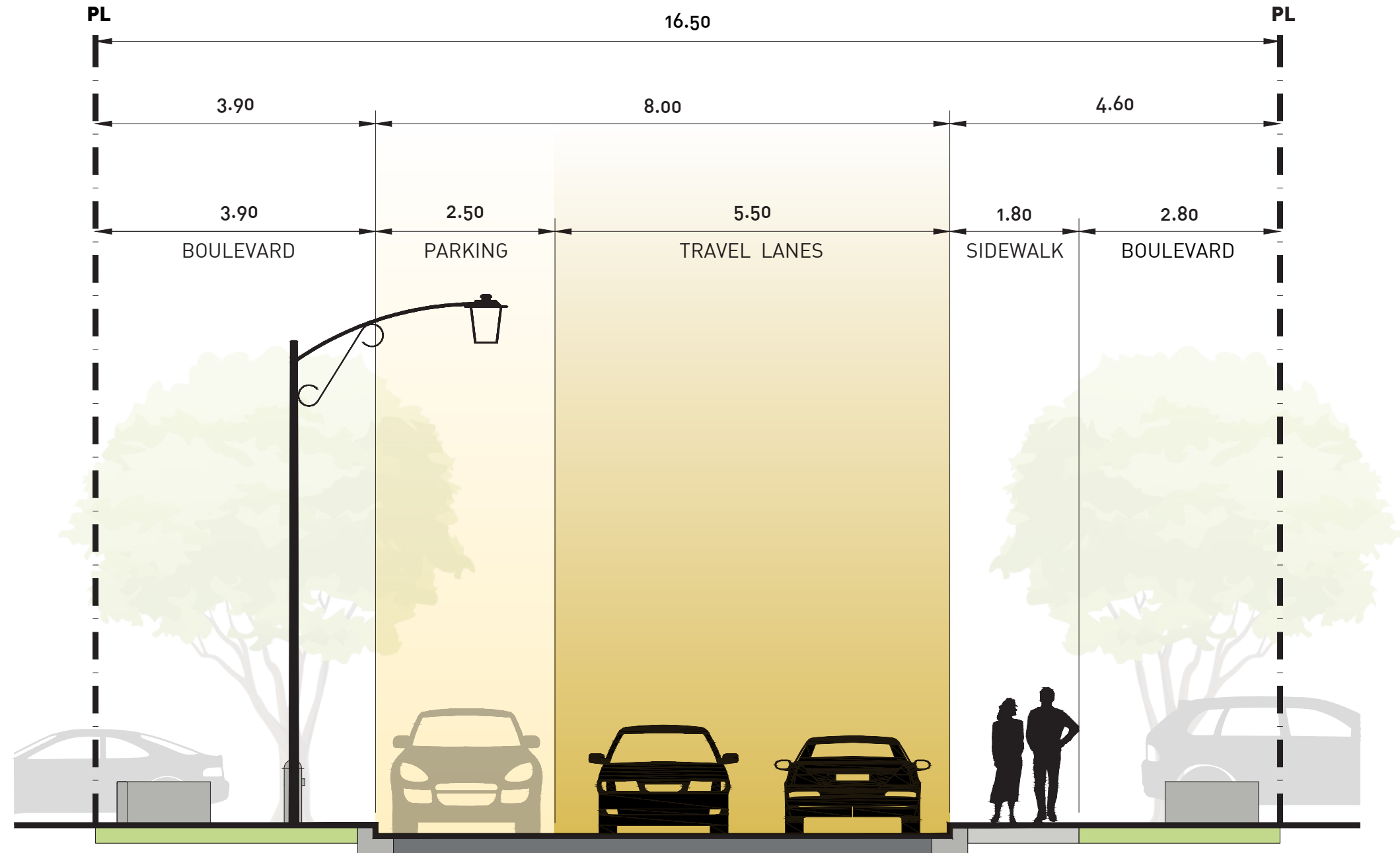
-  Sidewalk
-  Travel Lanes

- Narrower travel lane widths will reduce vehicular speeds and further improve overall pedestrian & cyclist safety

-  On-Street Parking
-  Traffic Calming
-  Snow Storage
-  Tree Health
-  Utilities & Servicing

“reduce width of vehicle travel lanes in new ROW cross-sections”

- Building Better and Smarter Suburbs:
Strategic Directions and Action Plan (pg. 48)

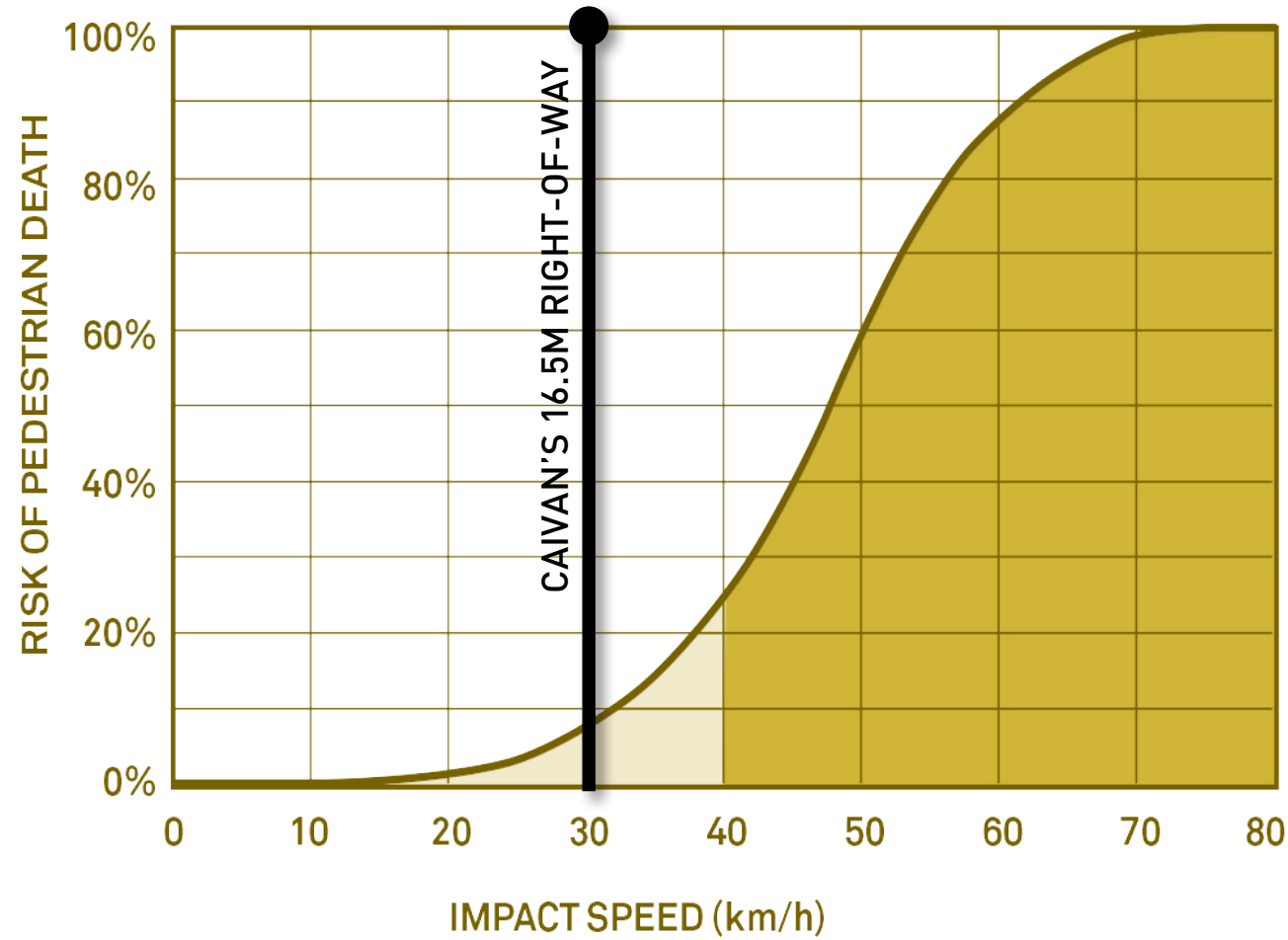


2.75m Travel Lane (-0.25m)
***(-3.75km/h)**

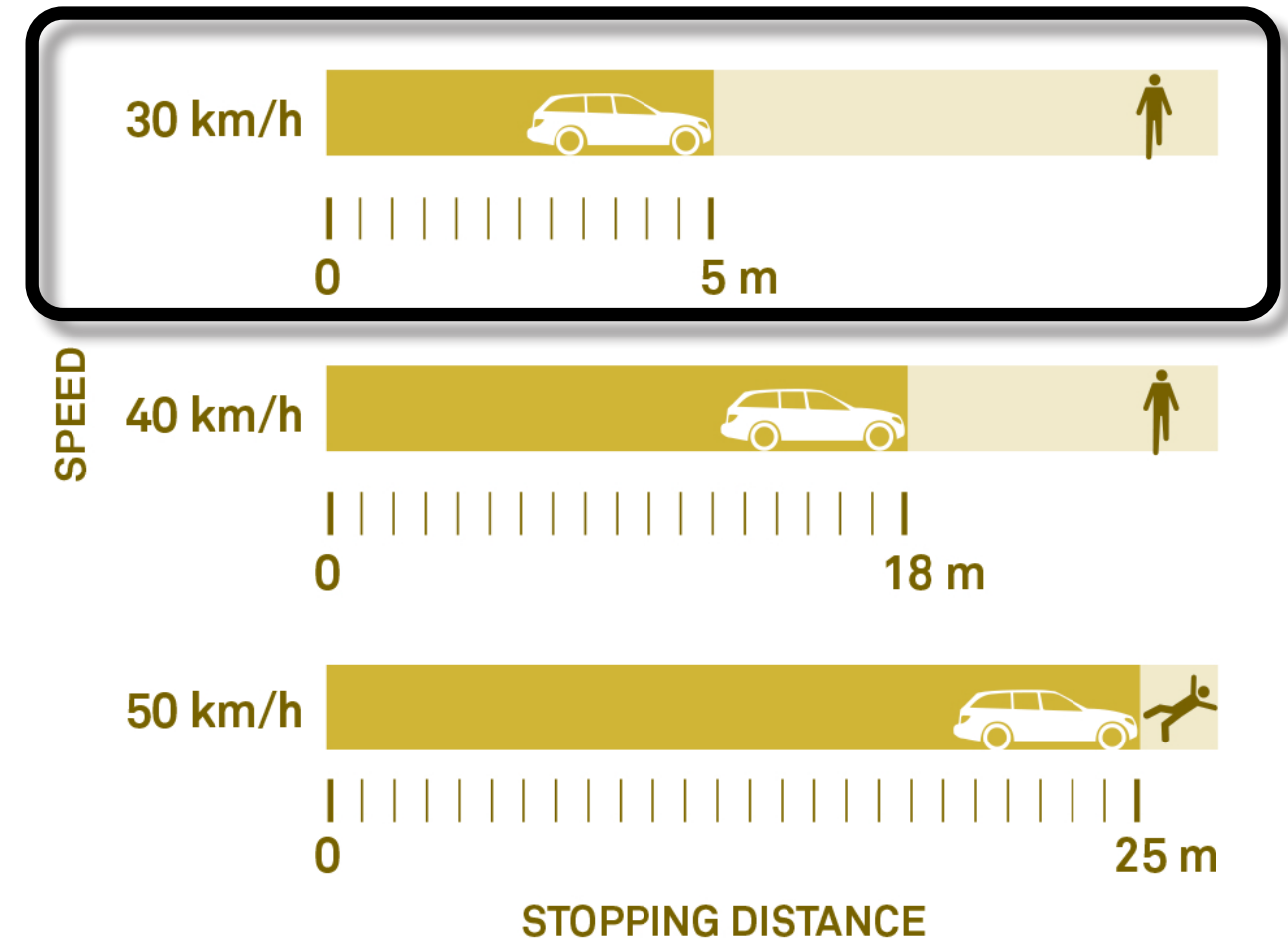
Caivan's 16.5m Right-of-Way

WITH SIDEWALK

TRAVEL SPEEDS



CAIVAN'S 16.5M RIGHT-OF-WAY



- Global Street Design Guide | Safe Streets Save Lives

“excessive road width encourages speeding and increases snow clearing costs”

- Building Better and Smarter Suburbs: Strategic Directions and Action Plan (pg. 45)

Caivan's 16.5m Right-of-Way WITH SIDEWALK

COMPONENTS OF THE STREET

Sidewalk

Travel Lanes

● On-Street Parking

- Caivan's OpenPlan™ allows for an increase in on-street parking between driveways (Single Detached: accommodates 2 cars) (Townhomes: accommodates 1 large car or 2 small cars)

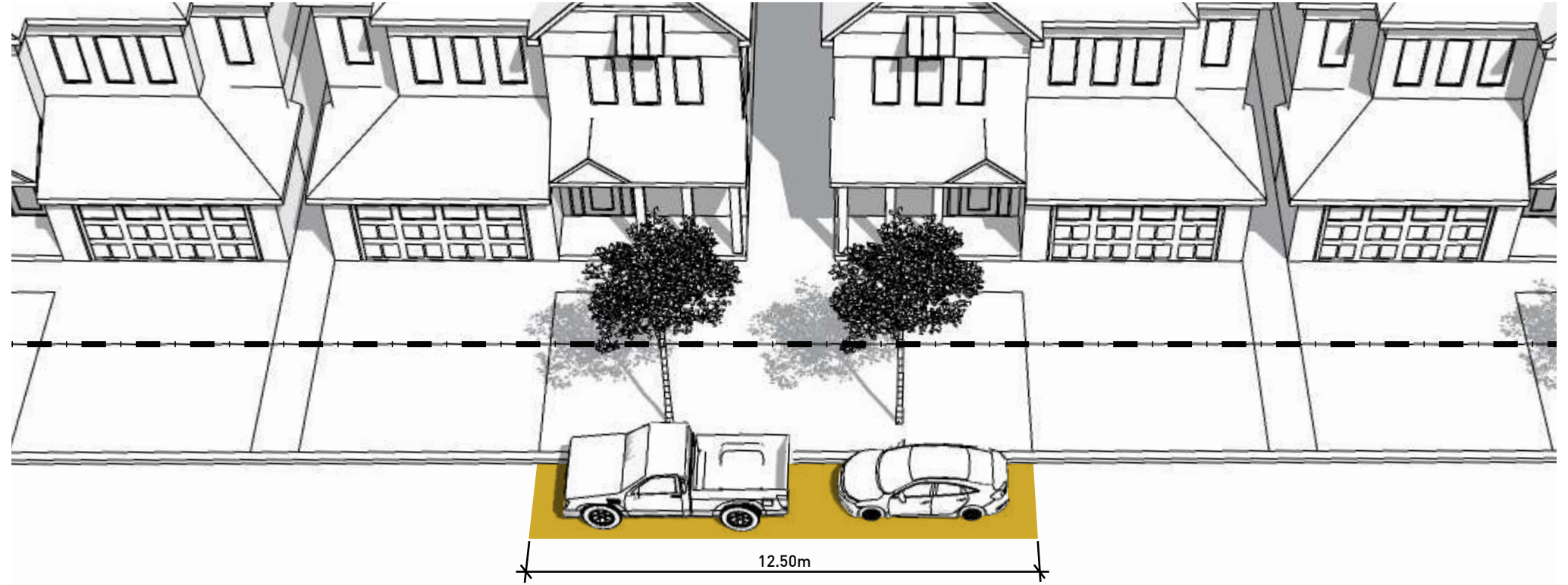
● Traffic Calming

● Snow Storage

● Tree Health

● Utilities & Servicing

Caivan's 42' OpenPlan™
Single Detached
On-Street Parking:



Caivan's 16.5m Right-of-Way WITH SIDEWALK

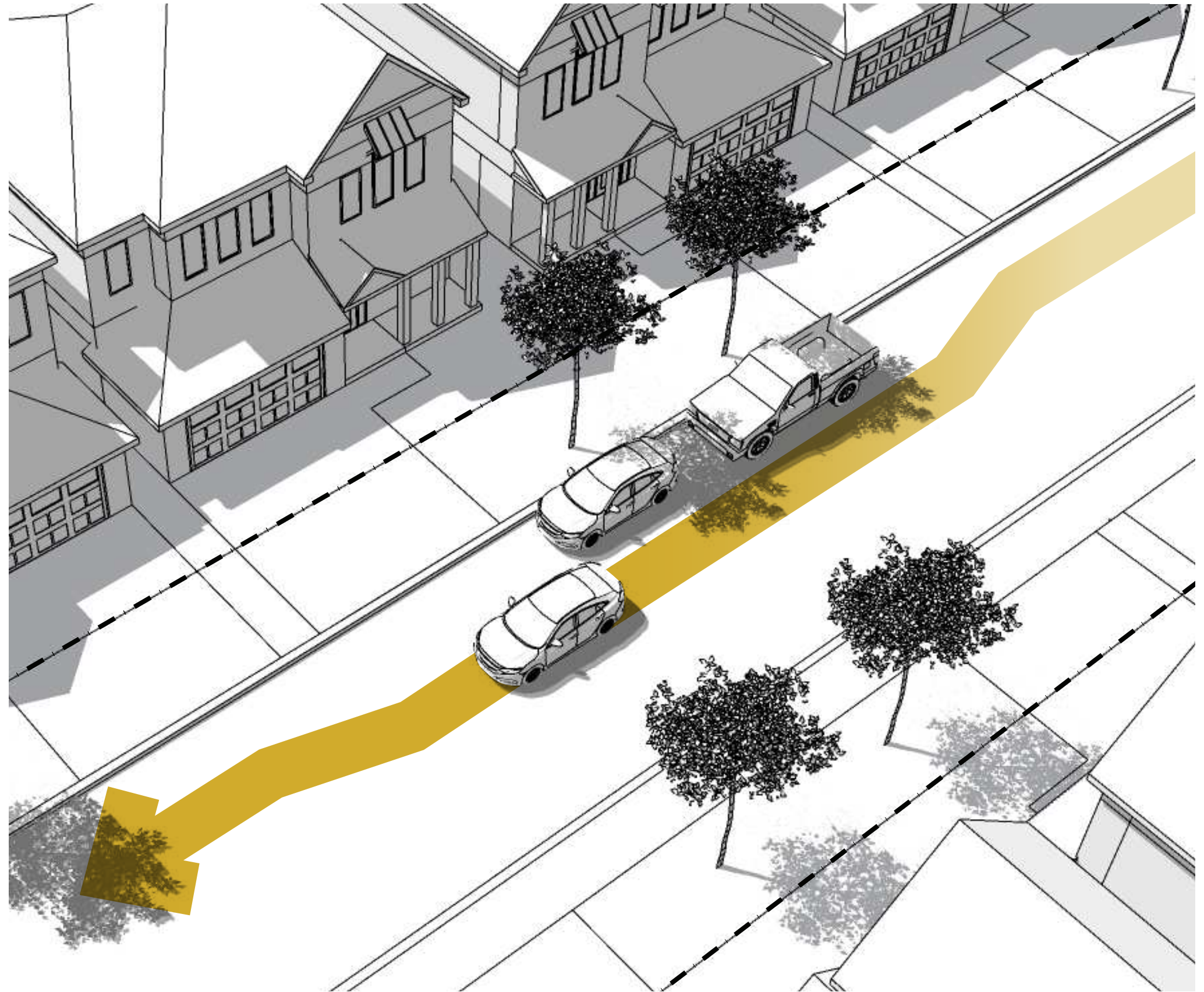
COMPONENTS OF THE STREET

- ✓ Sidewalk
- ✓ Travel Lanes
- ✓ On-Street Parking
- Traffic Calming
 - With the reduced travel lane widths, on-street parking will provide additional traffic calming - along with bulb-outs, pinch points, etc.

- Snow Storage
- Tree Health
- Utilities & Servicing

“use on-street parking as a traffic calming measure on streets already wide enough to accommodate on-street parking”

- Building Better and Smarter Suburbs:
Strategic Directions and Action Plan (pg. 42)



Caivan's 16.5m Right-of-Way WITH SIDEWALK

COMPONENTS OF THE STREET

Sidewalk

Travel Lanes

On-Street Parking

Traffic Calming

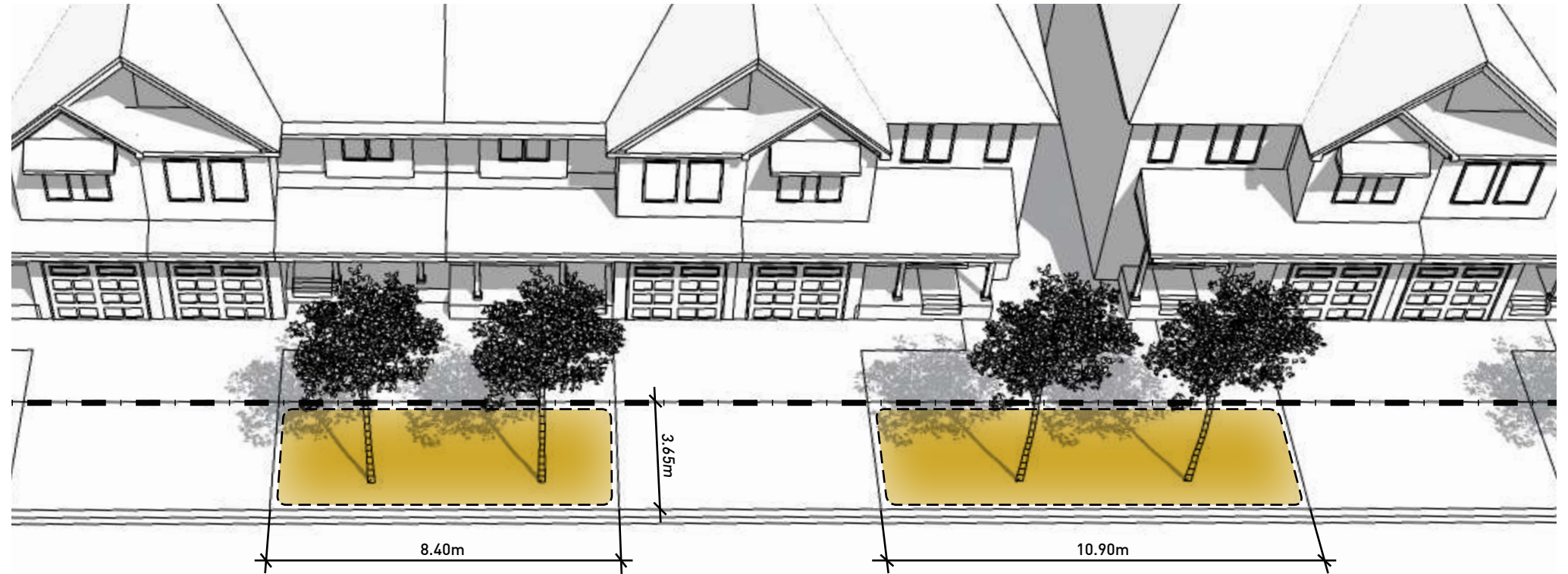
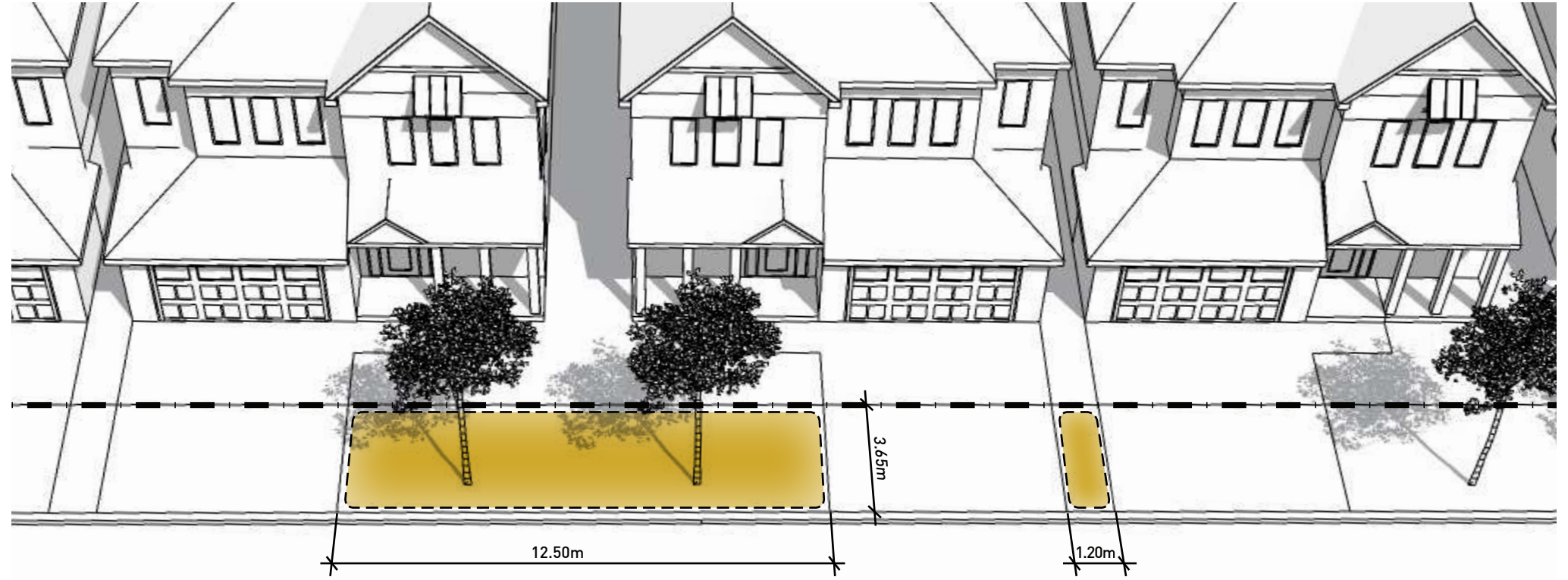
● Snow Storage

- The increased distance between driveways also allows for increased snow storage along local road

● Tree Health

● Utilities & Servicing

Caivan's 42' OpenPlan™
Single Detached
enBBT3i56./22s 42' OpenPlan



Caivan's 16.5m Right-of-Way WITH SIDEWALK

Sidewalk

Travel Lanes

On-Street Parking

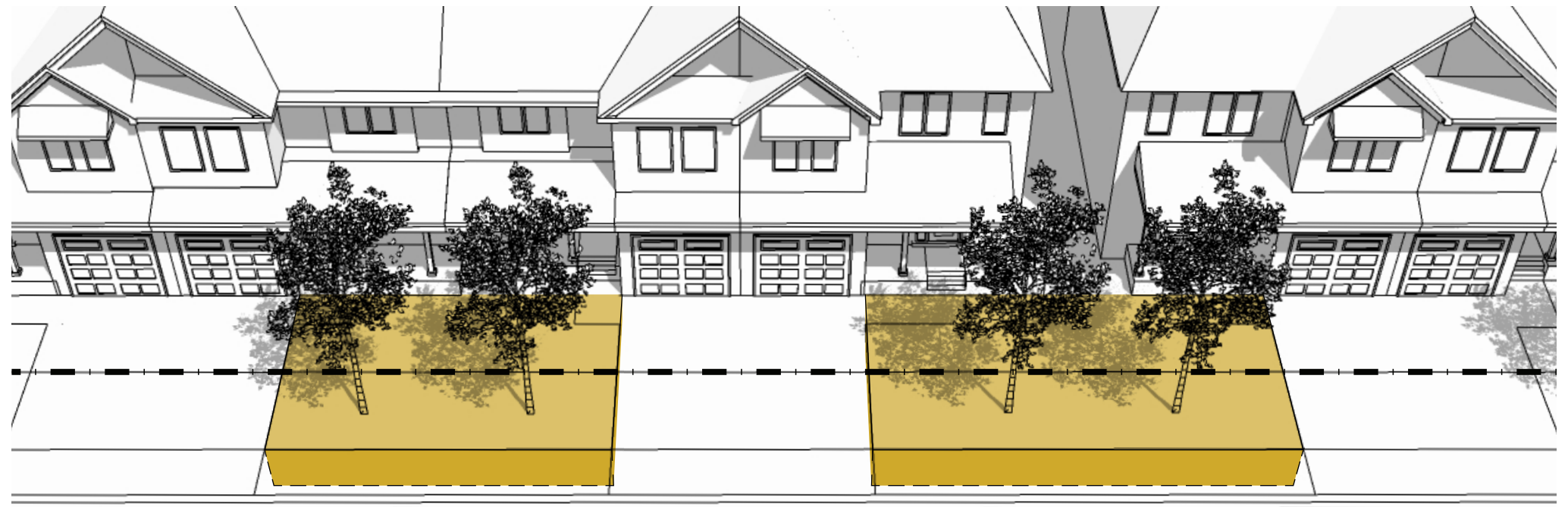
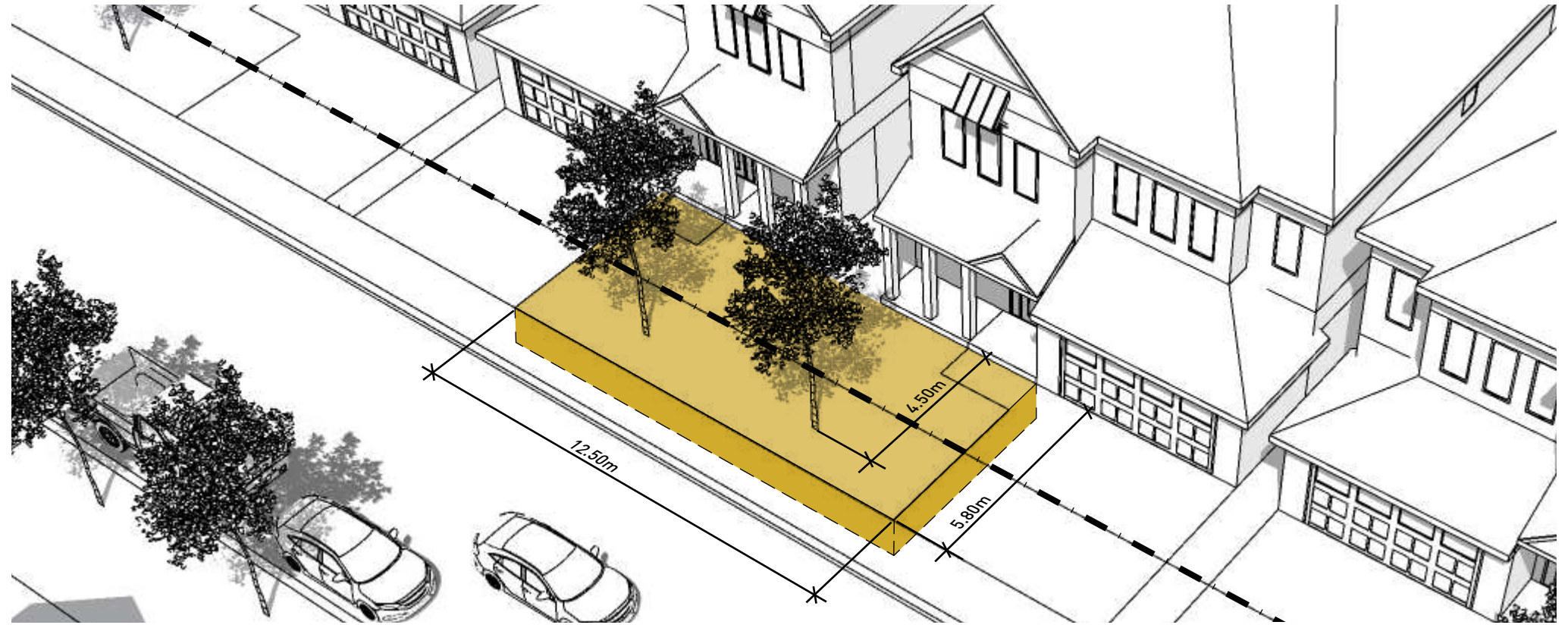
Traffic Calming

Snow Storage

● Tree Health

- Street trees will be located on both sides of the street at a minimum of 4.5m from the building foundation and have an increased amount of soil volume for sufficient root growth

● Utilities & Servicing

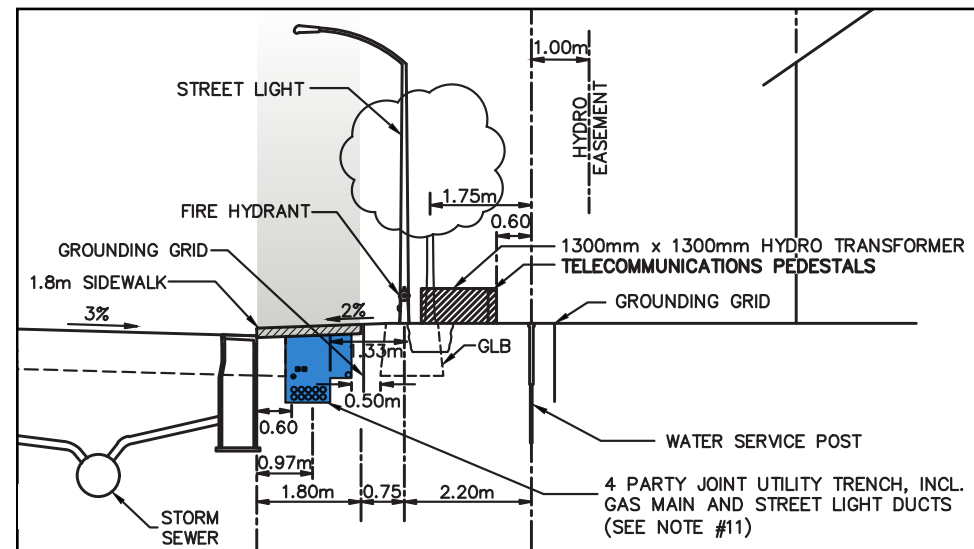


Caivan's 16.5m Right-of-Way WITH SIDEWALK

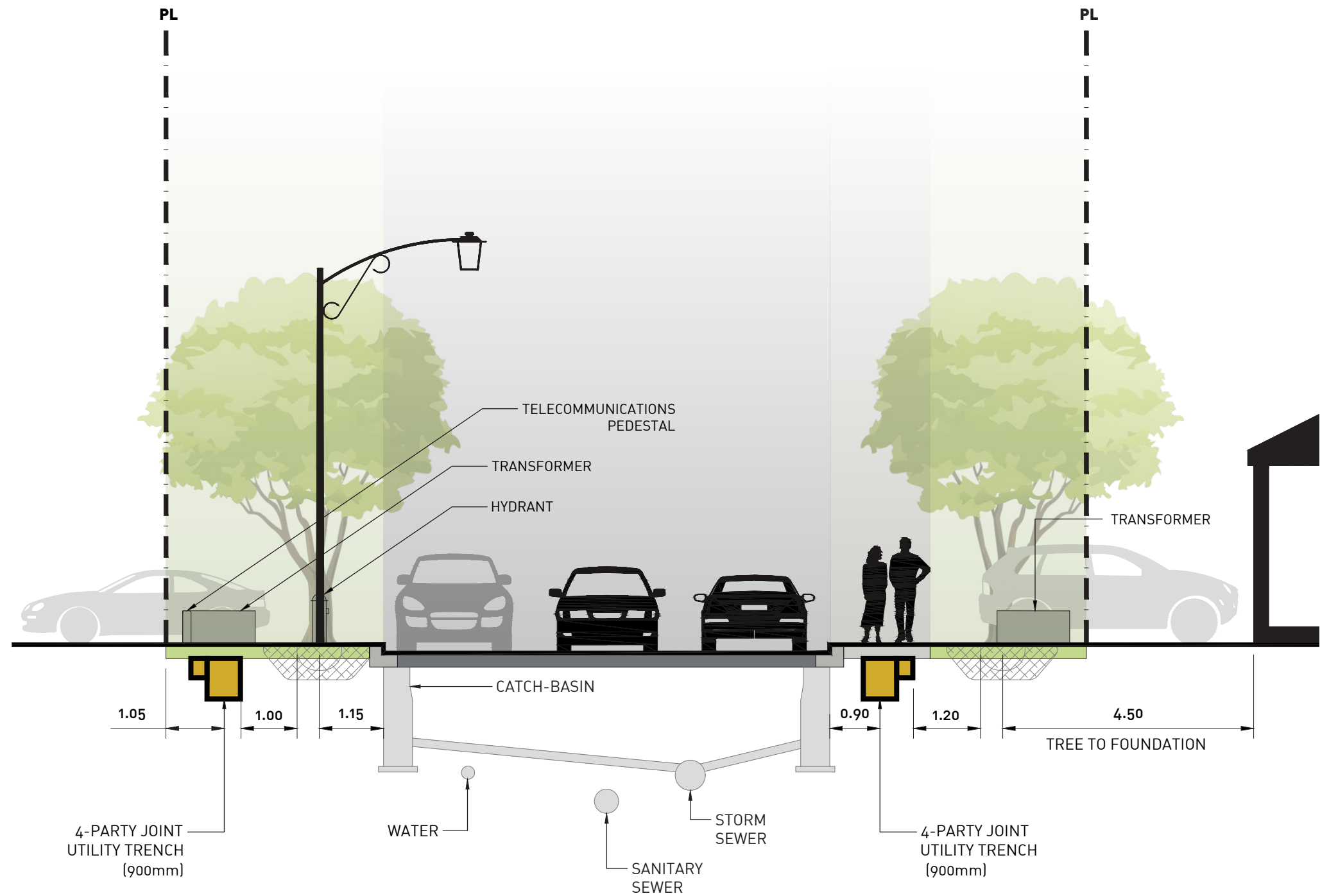
- Sidewalk
- Travel Lanes
- On-Street Parking
- Traffic Calming
- Snow Storage
- Tree Health

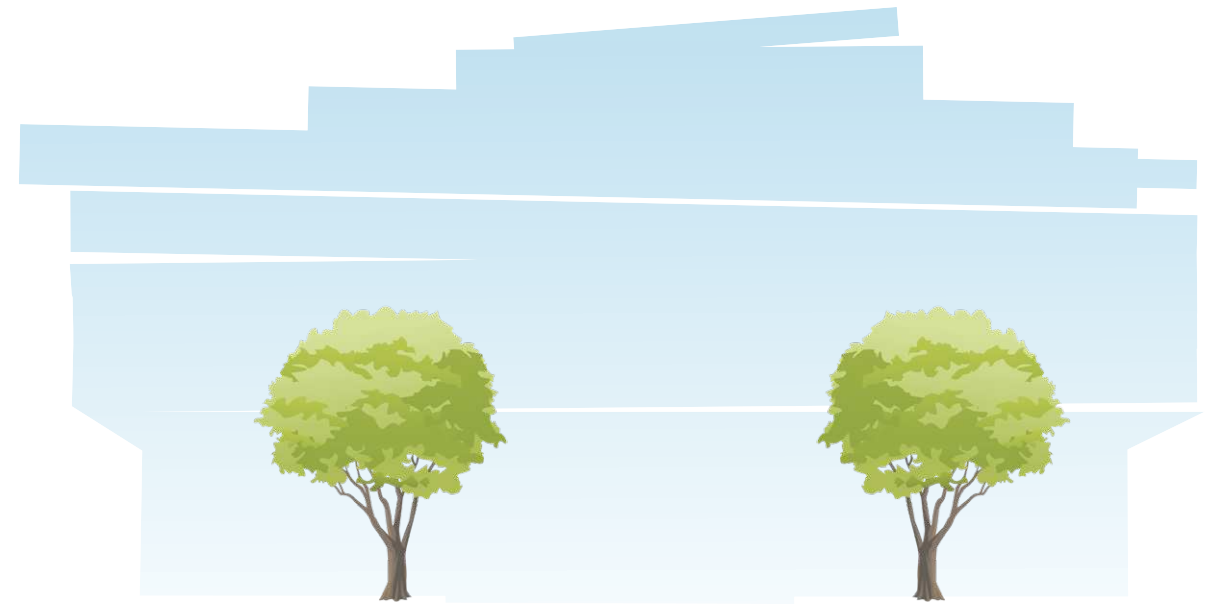
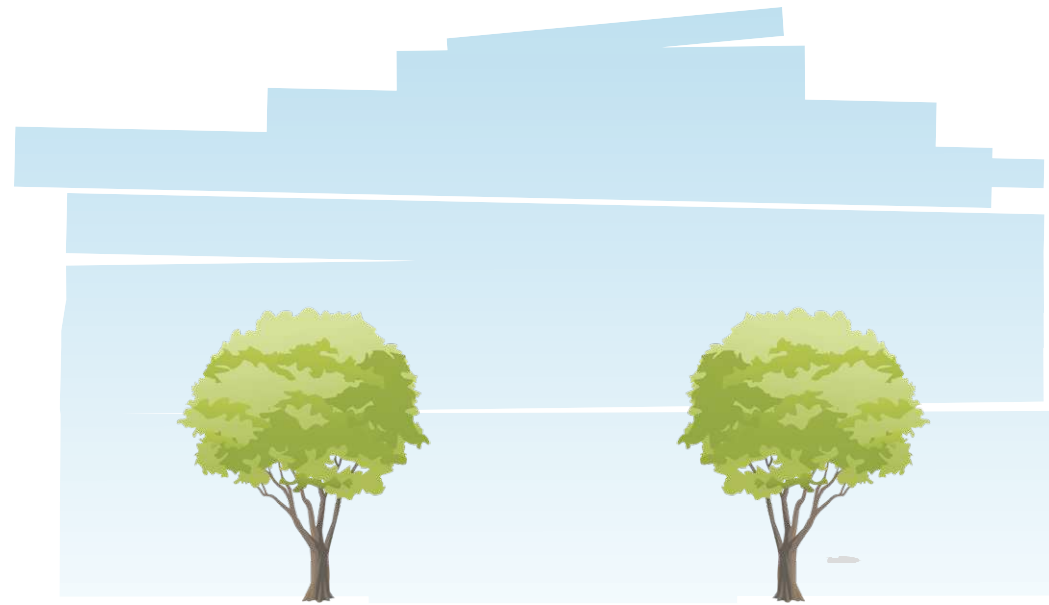
Utilities & Servicing

- Joint Utility Trenches (0.90m) located within the boulevard on one side and under the sidewalk on the other to create a compact streetscape and assure adequate spacing between elements



City of Ottawa's 18m Right-of-Way w. JUT Under Sidewalk





C A I V A N

NAK 
design strategies