



Complete Streets Example Greenfield Cross Sections

Implementation Strategy 5.2 for the Complete Streets Guidelines

June 2014

Complete Streets Example Greenfield Cross Sections -

Accompanying Text

Application Contexts

In greenfield, brownfield and retrofit applications, a specific example cross section will not be limited to the land use context associated with that cross section. While cross sections were designed with a specific context in mind, alternate land-uses may be equally appropriate. Design will undergo the process considerations laid out in Section 3.0 of the Complete Streets Guidelines. A case by case analysis to judge appropriate design will be required to determine application. For example, a non-street oriented design identified for one land use type may be appropriate for other non-street oriented land uses.

Utilities

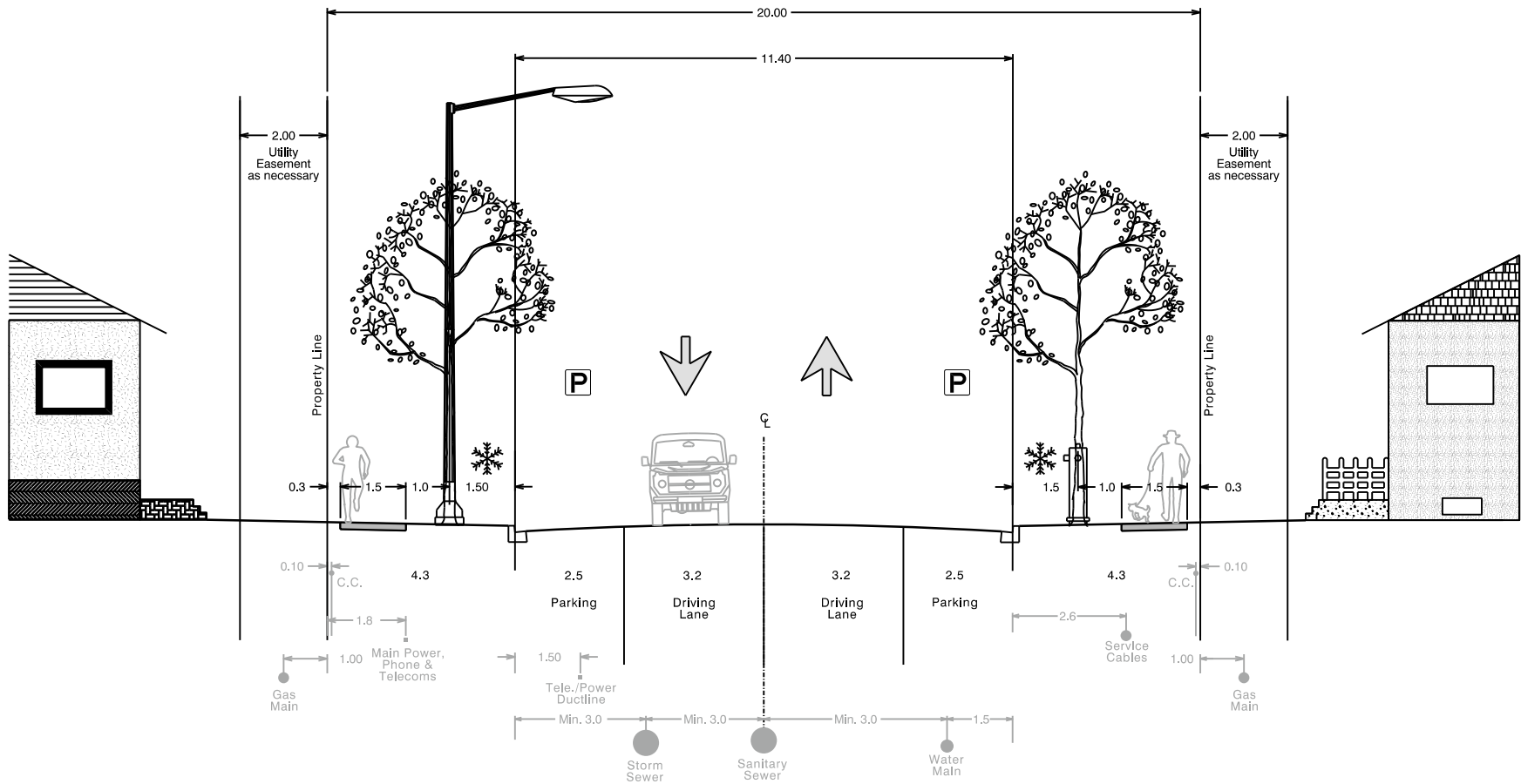
- The provision of utilities within the cross section of narrow collectors must be considered prior to setting the reduced right-of-way widths. Roadway design must take into consideration the minimum clearances between buried utilities and surface breaking infrastructure as provided in the COE Design and Construction Standards. Additional carriageway width may be required to accommodate utilities.
- Locate surface appurtenances associated to underground utilities outside of accesses, crosswalks, bus stops and turning movement areas.
- In greenfield locations, if adequate setbacks from the roadway, sidewalk, cycle track, and/or shared use path cannot be maintained within the narrowed and/or congested rights-of-way, place transformers, pedestals, valves, etc. on easements or utility right of way (URW's) on private property.
- To optimize on-street parking capacity, place hydrants on roadway opposite on-street parking, where parking is only on one side. Parking is banned on either side of hydrant.
- Utility easements depicted on the cross sections may be necessary. It is the designer's responsibility to place gas mains and feeder mains on easement, under the walkway or in an alternate location as necessary. Design must take into consideration minimum clearance from other buried utilities as provided in the COE Design and Construction Standards.
- In locations with curb bulb-outs; catch basins upstream of the bulb-outs would be preferable to swales and grates between the parking and the drive lanes. This is due to storm water flow continuity and maintenance considerations.
- It is the designer's responsibility to ensure adequate on-street drainage of the cycle-tracks.

Cycle Facilities

- Refer to Complete Streets Guidelines for information regarding appropriate bicycle facility selection and design. Facility choice and design should be based on an analysis that includes traffic volumes, speeds, and mix of traffic as well as takes into consideration other local characteristics.

1A

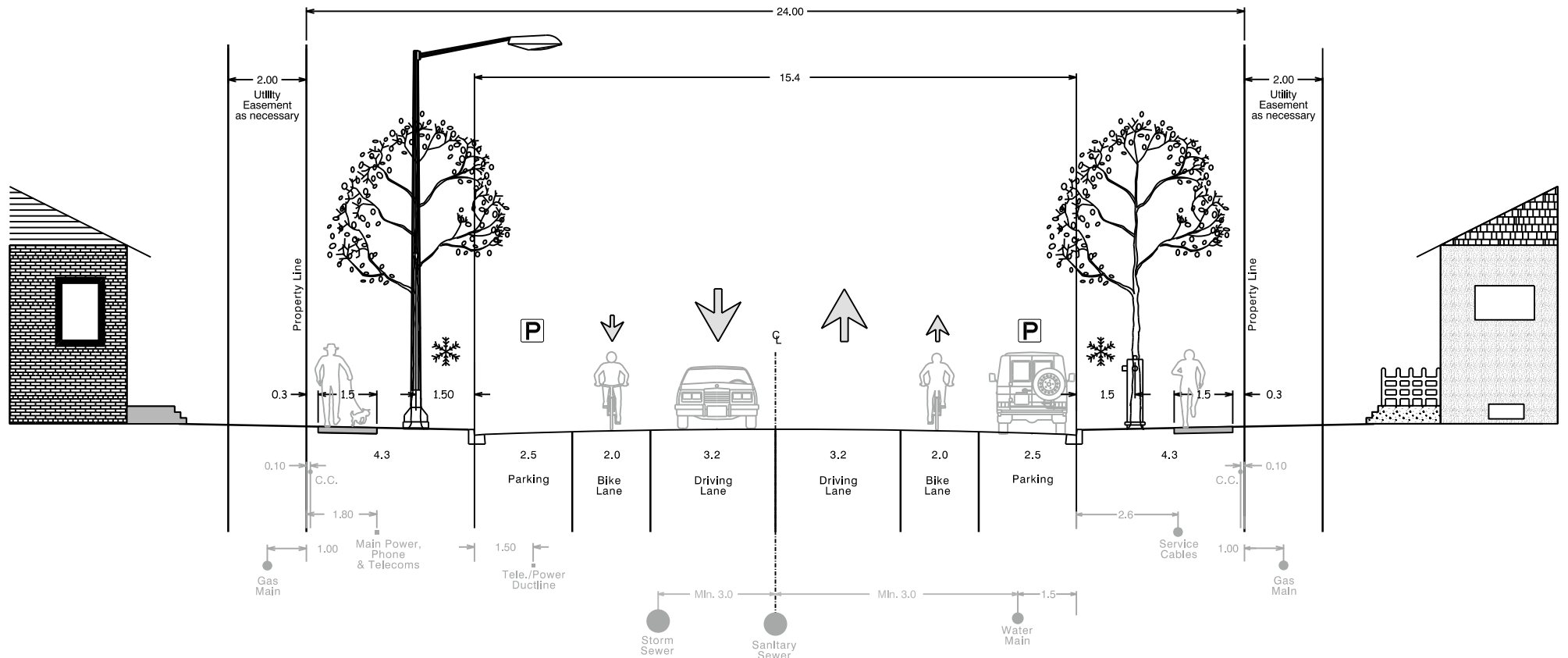
Street Oriented
Residential
Collector (Not on Bike Network)



**All Dimensions In Metres unless
Otherwise Stated**

1B

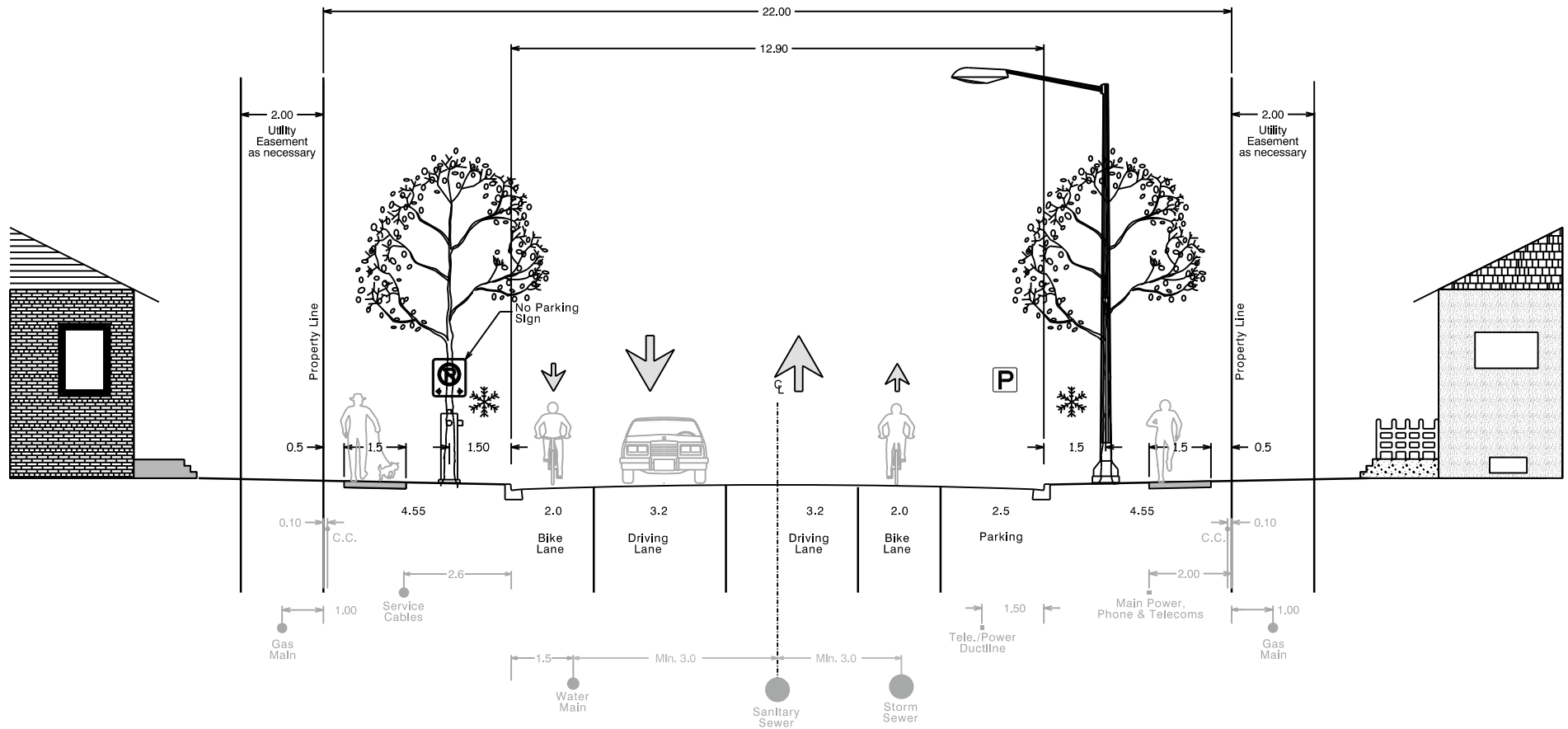
Street Oriented Residential Collector (On Bike Network)



All Dimensions In Metres unless Otherwise Stated

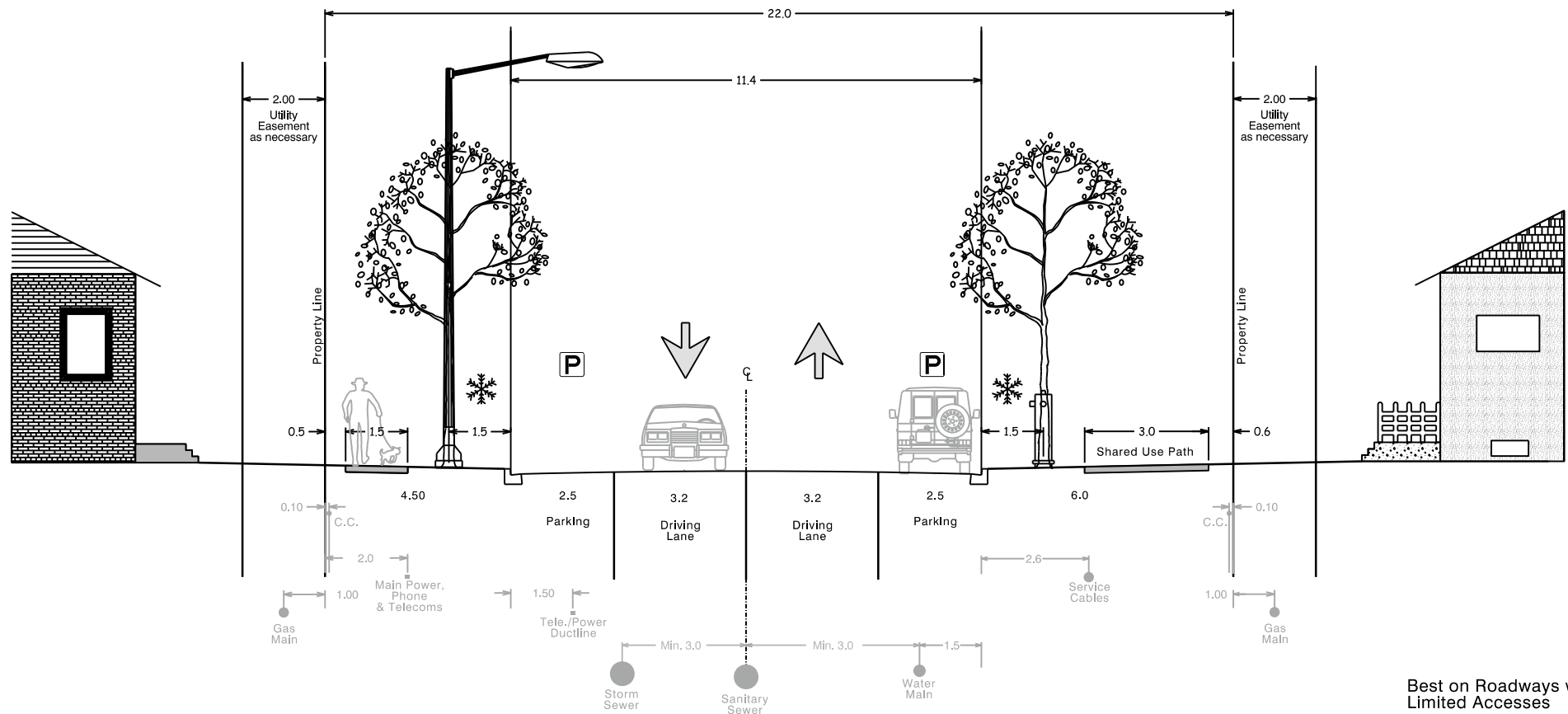
1B - 1

Street Oriented
Residential
Collector (On Bike Network)



**All Dimensions In Metres unless
Otherwise Stated**

Street Oriented Residential Collector (On Bike Network)



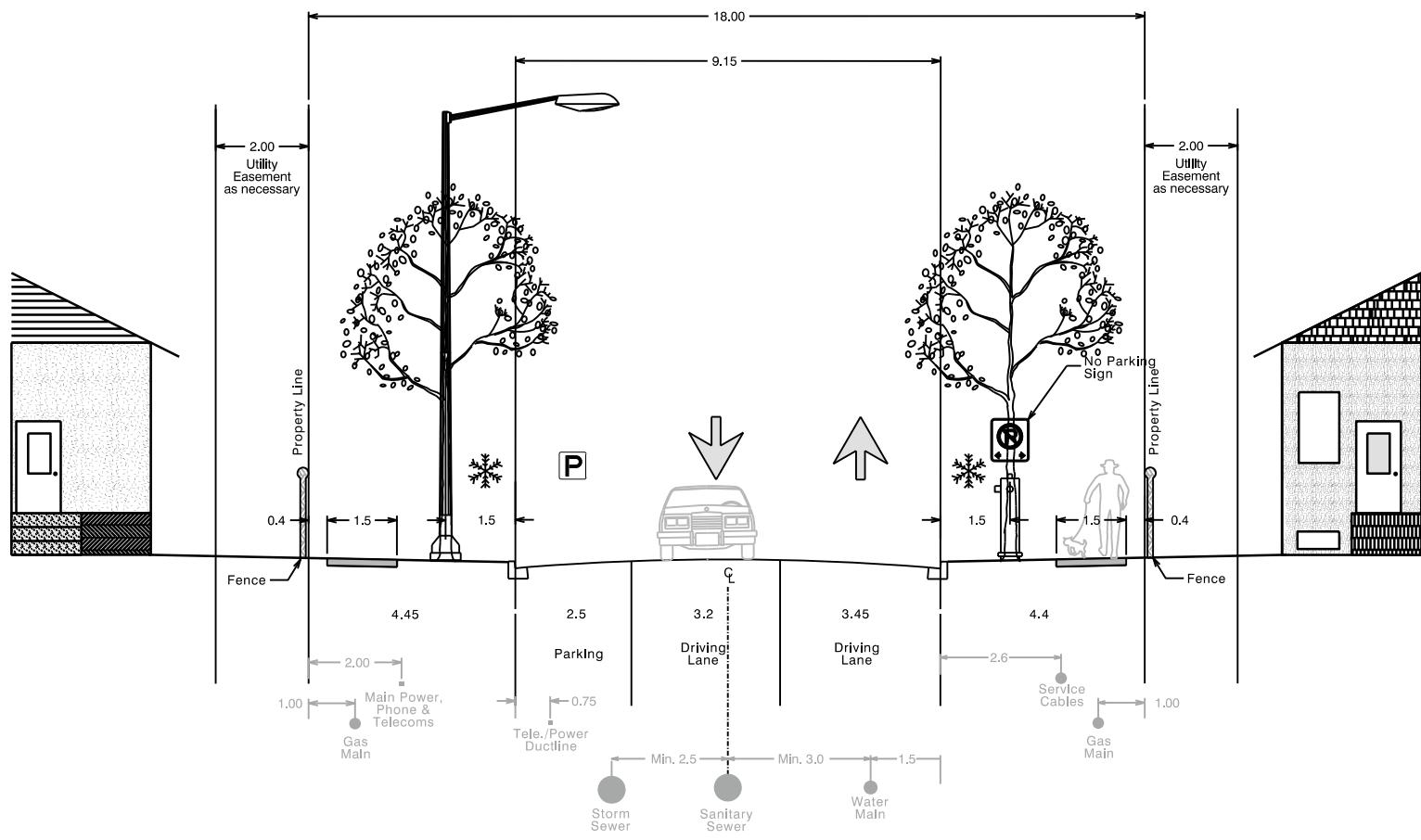
Best on Roadways with
Limited Accesses

Prioritize SUP
at Intersections

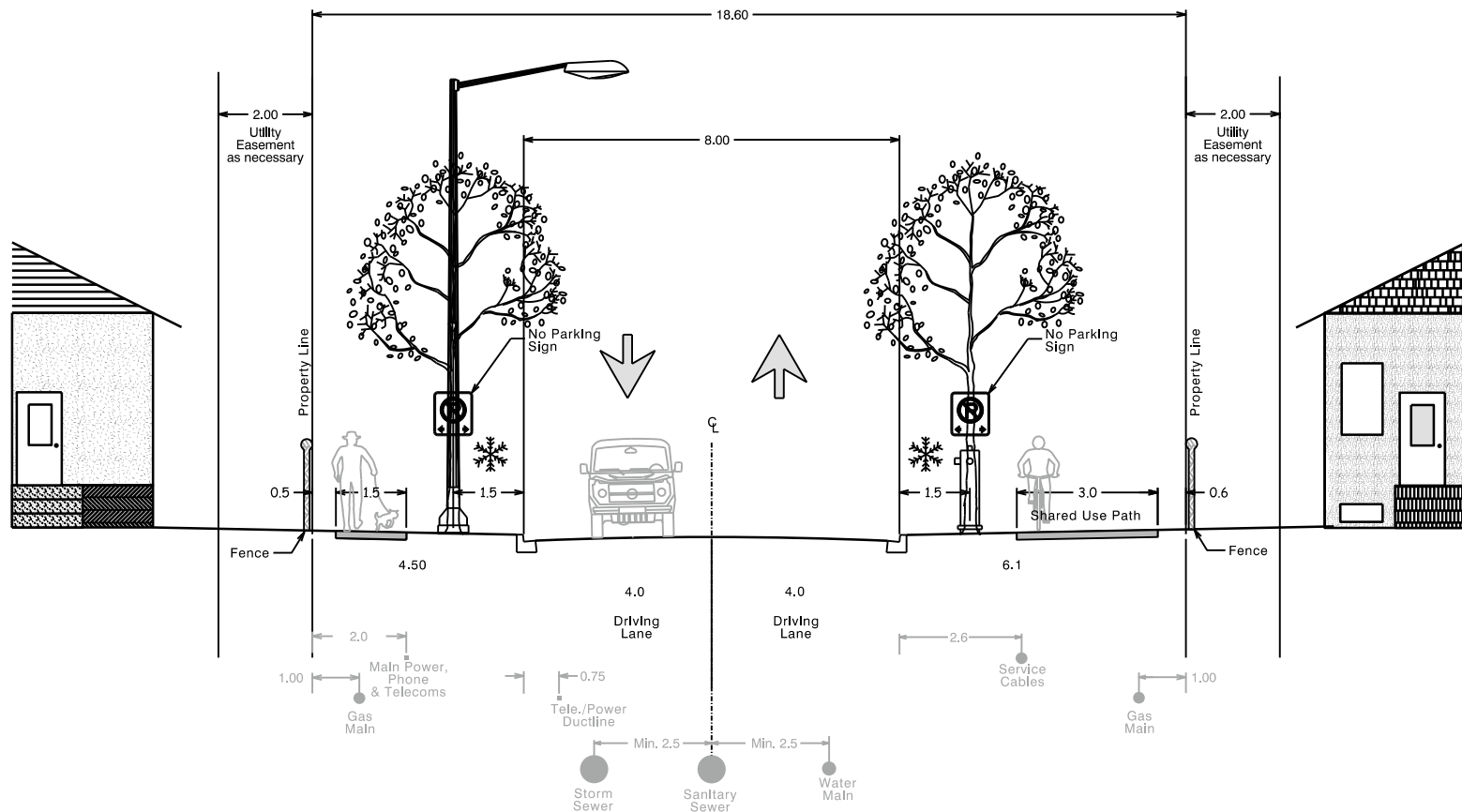
It may be desirable
to limit parking where
appropriate

All Dimensions In Metres unless
Otherwise Stated

Non-Street Oriented
Residential or Commercial/Mixed Use
Collector (Not on Bike Network)



Non-Street Oriented Residential Collector (On Bike Network)

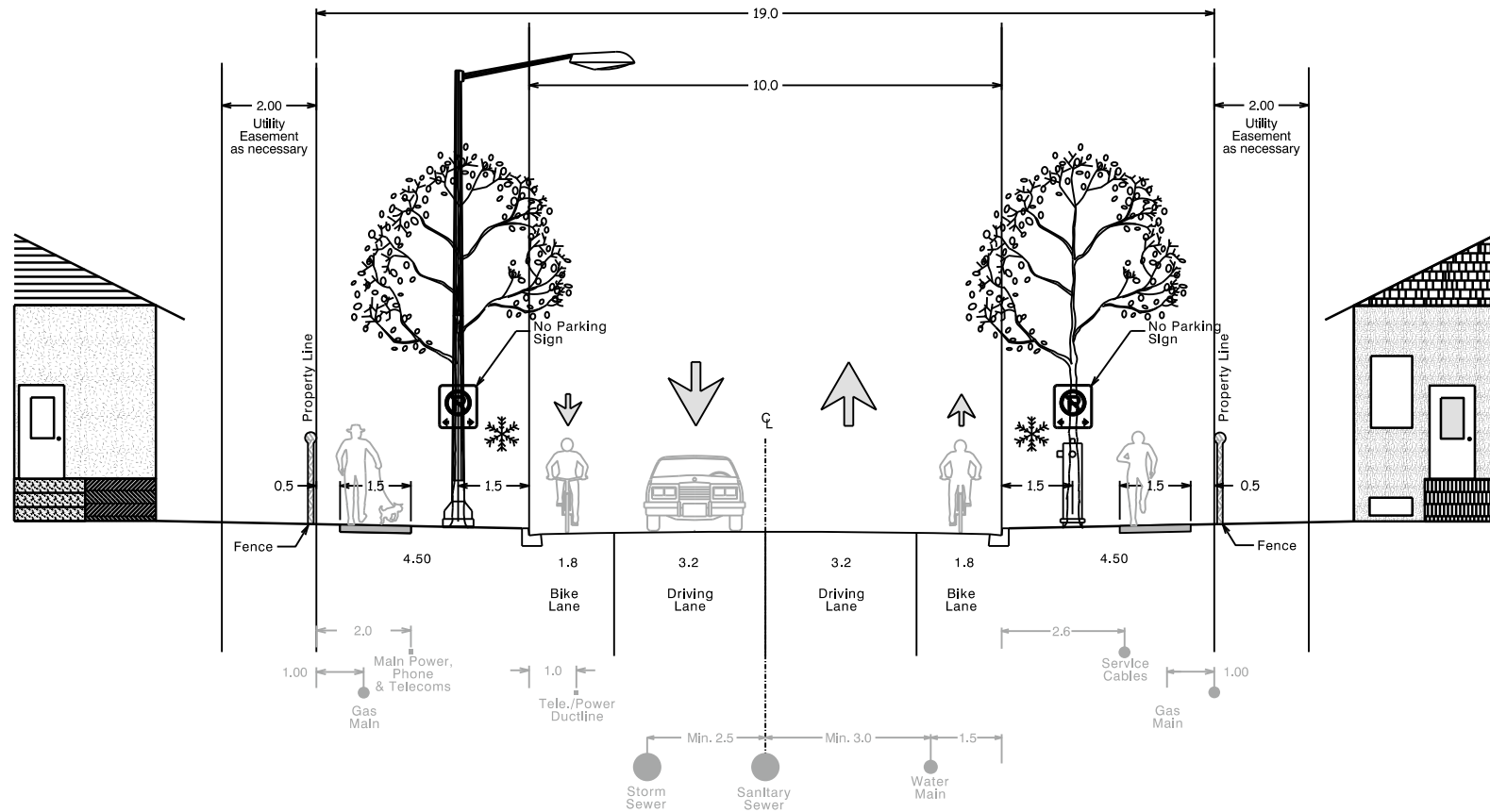


Best on Roadways with
Limited Accesses

Prioritize SUP
at Intersections

All Dimensions In Metres unless
Otherwise Stated

Non-Street Oriented Residential Collector (On Bike Network)

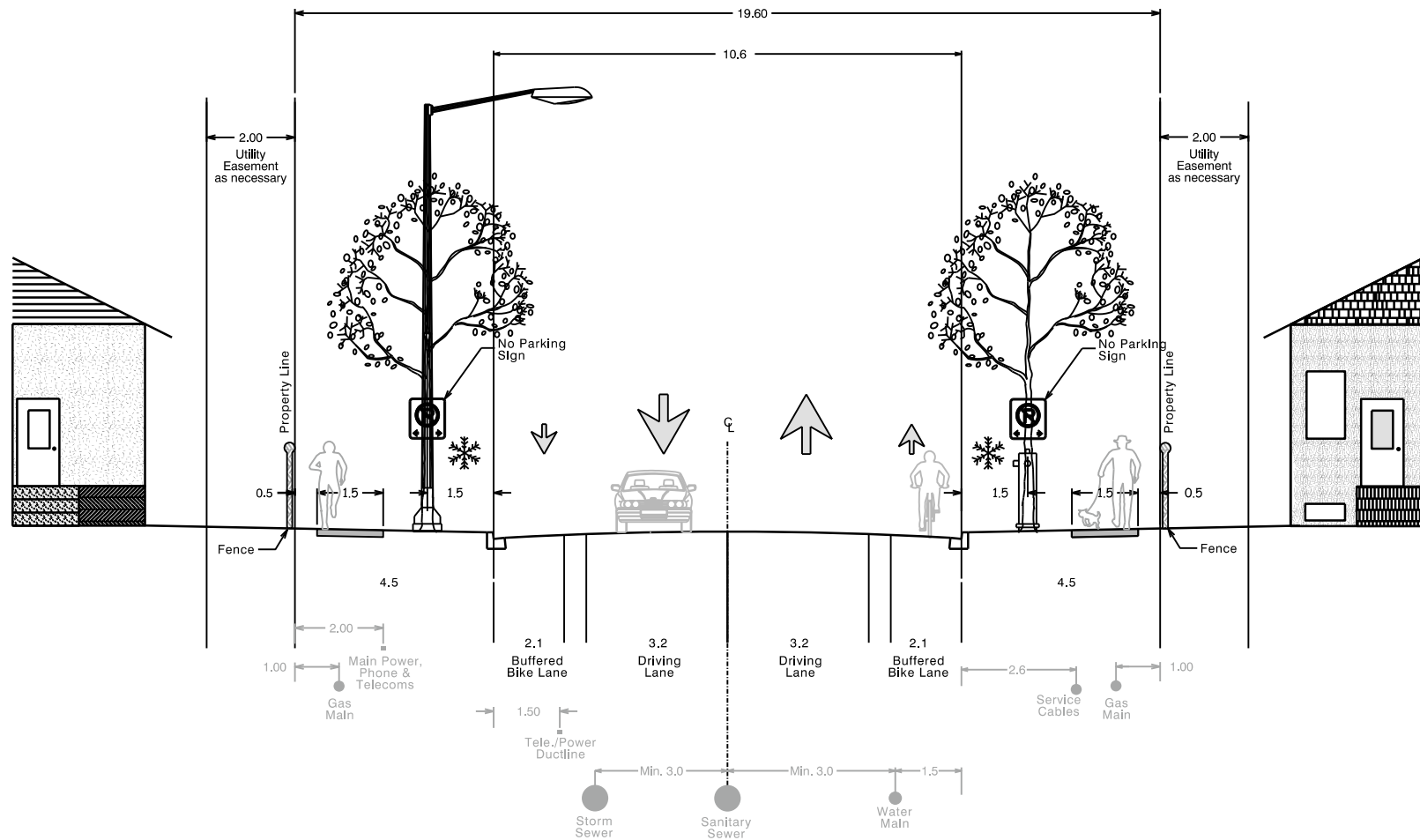


Provide buffers based
on desired comfort
level of cyclists and
vehicle volumes
and speeds

All Dimensions In Metres unless
Otherwise Stated

2B/4B

Non-Street Oriented Residential or Commercial/Mixed Use Collector (On Bike Network)

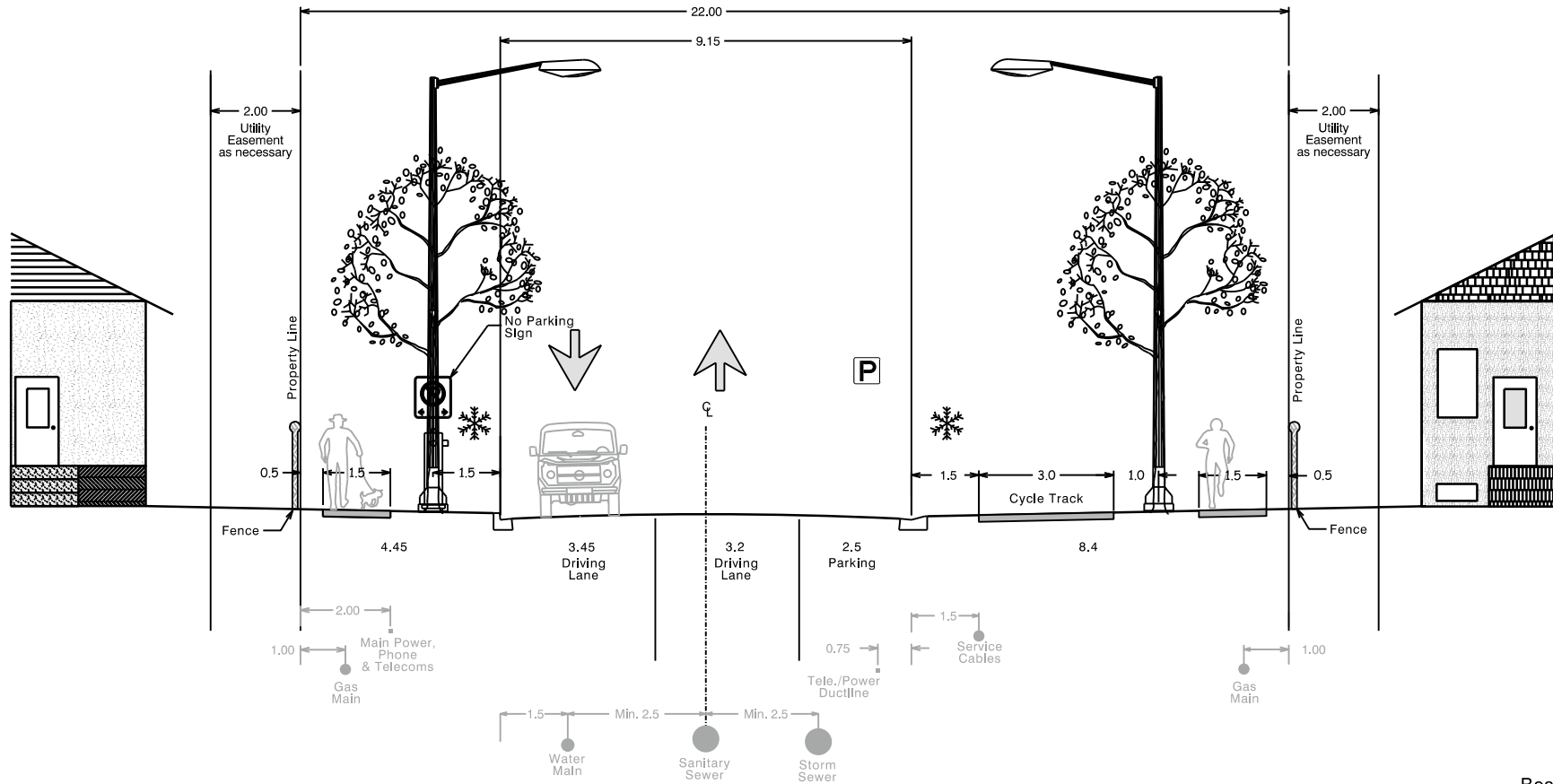


Provide buffers based on desired comfort level of cyclists and vehicle volumes and speeds

All Dimensions In Metres unless Otherwise Stated

2B - 9

Non-Street Oriented Residential Collector (On Bike Network)

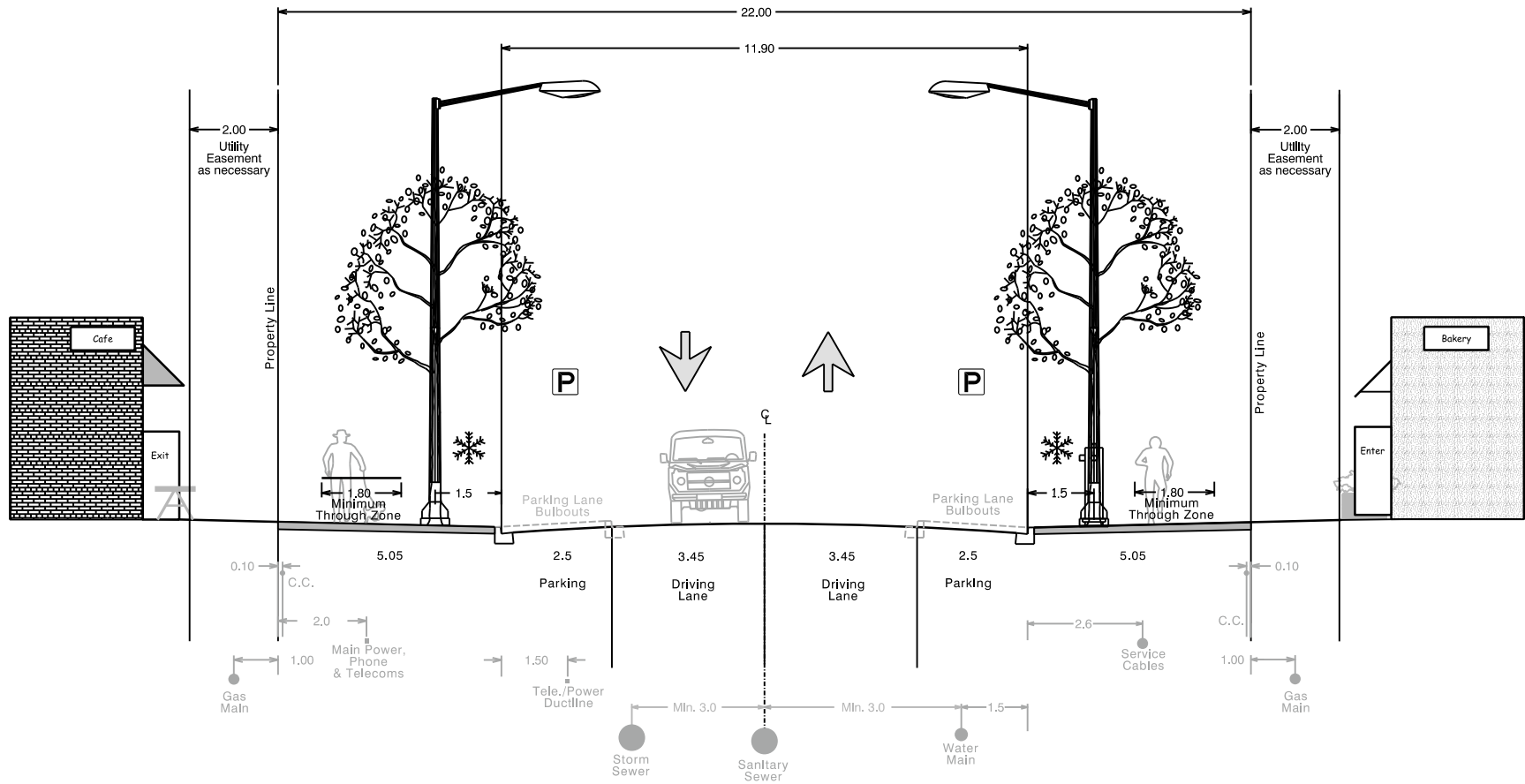


Best on Roadways with
Limited Accesses

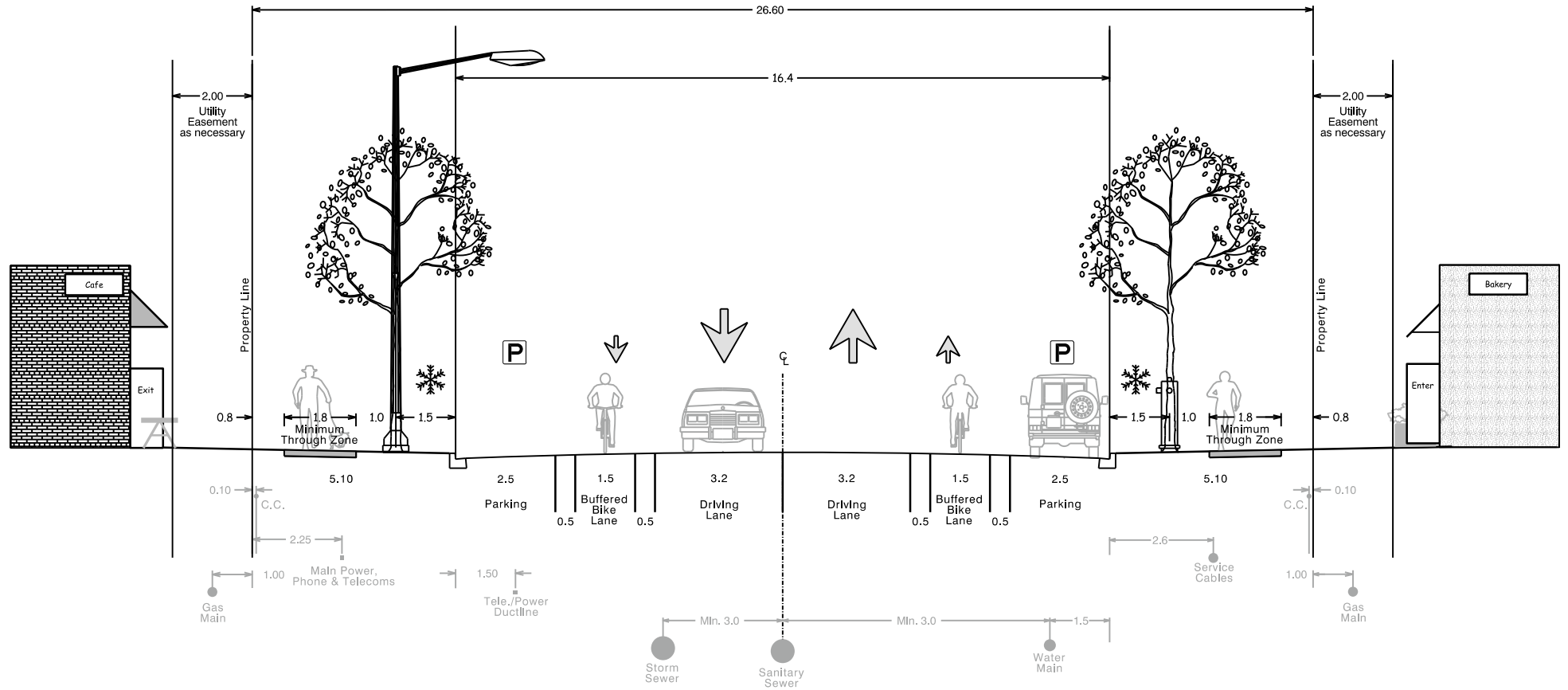
Prioritize Cycle Track
at Intersections

All Dimensions In Metres unless
Otherwise Stated

Street Oriented Commercial/Mixed Use Collector (Not on Bike Network)

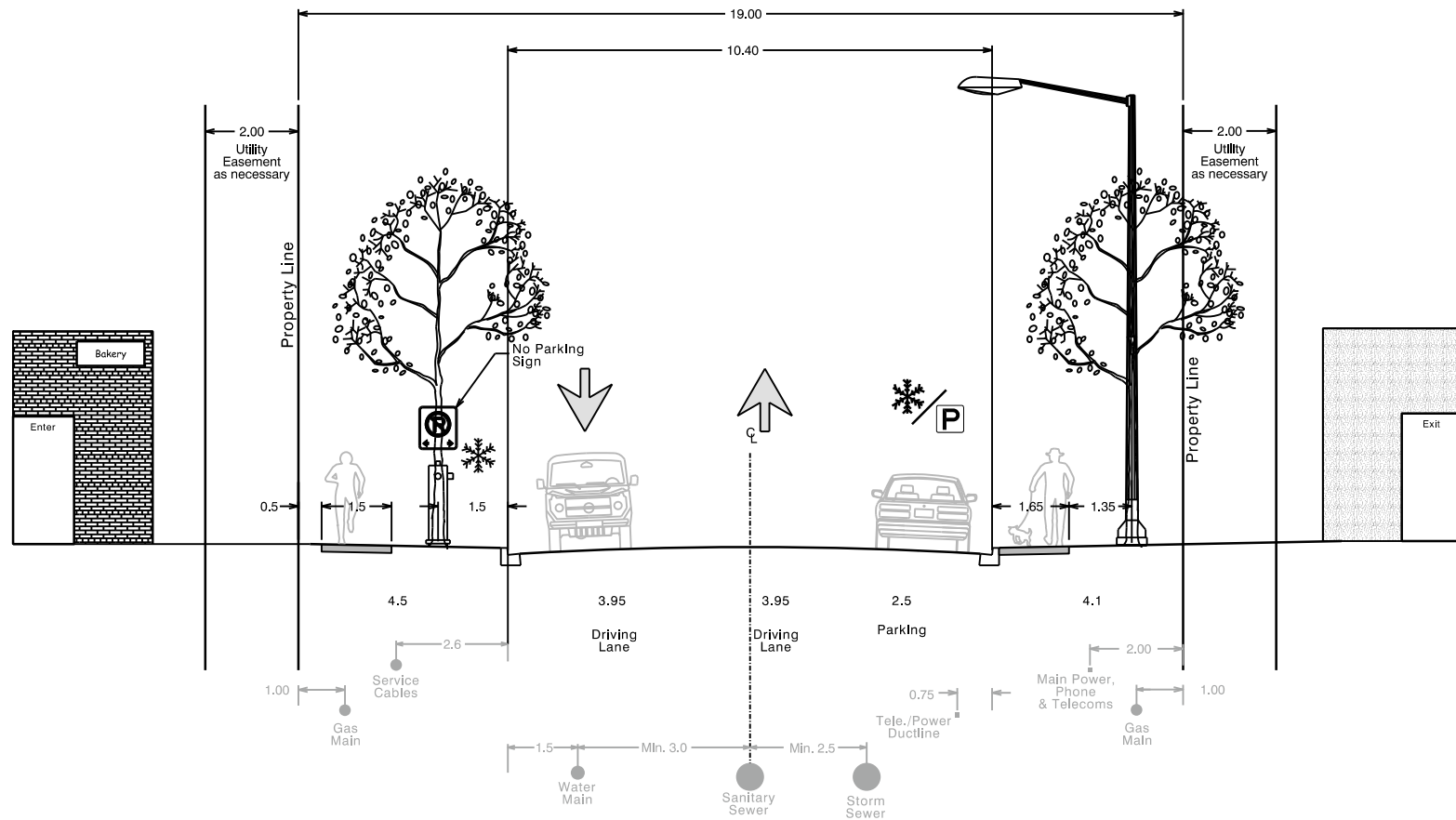


Street Oriented Commercial/Mixed Use Collector (On Bike Network)



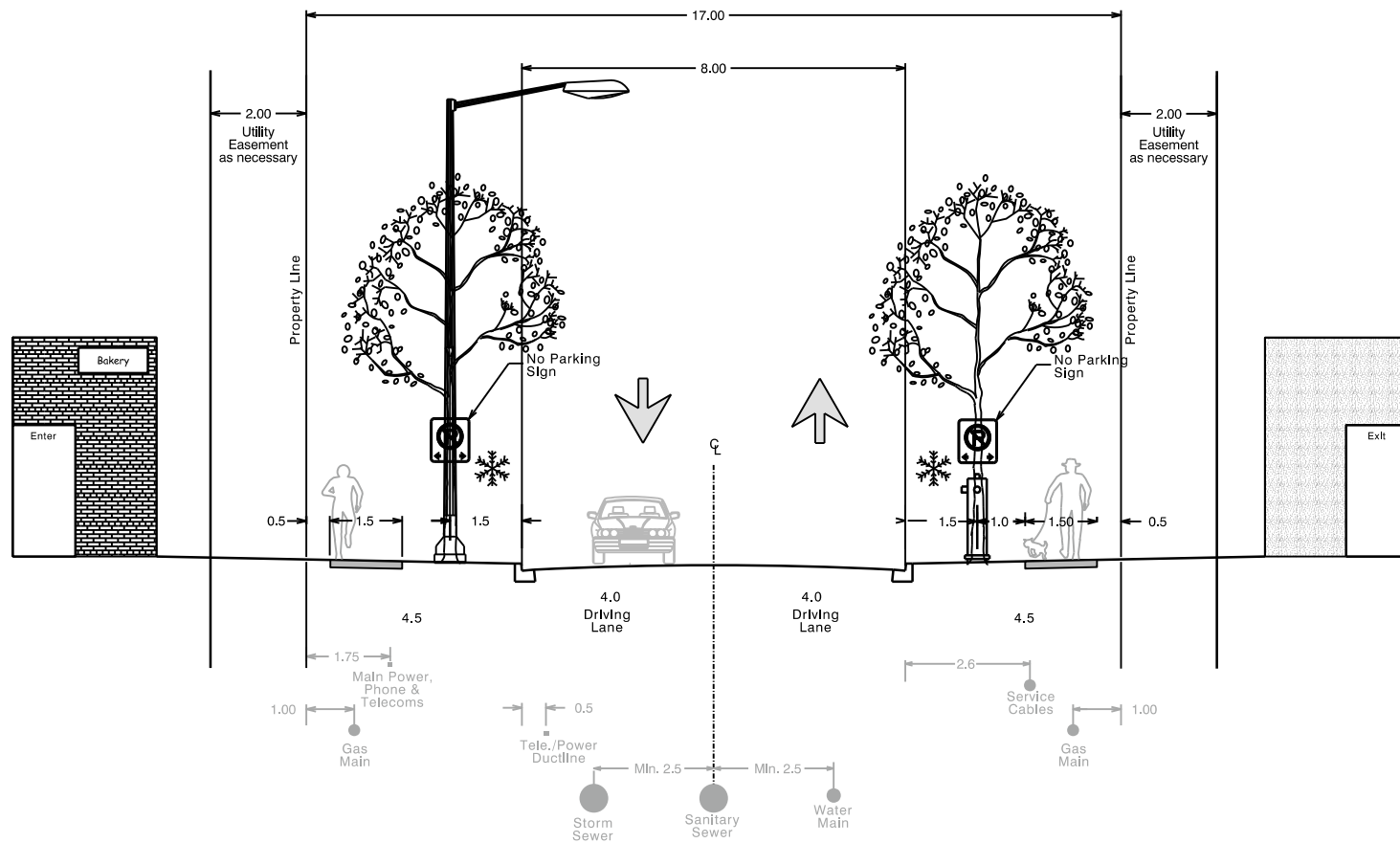
4A - 1

Non-Street Oriented Commercial/Mixed Use Collector (Not on Bike Network)

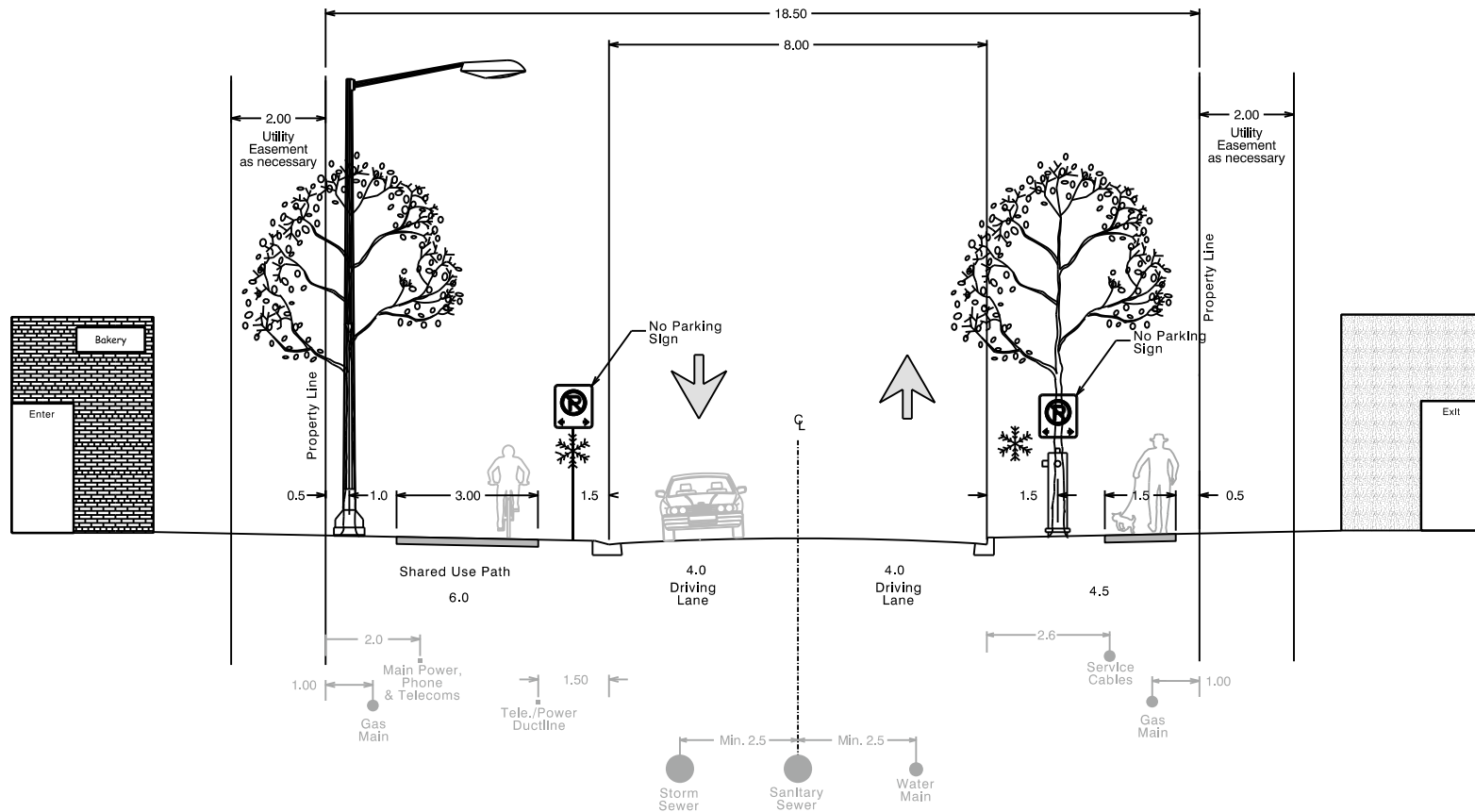


All Dimensions In Metres unless
Otherwise Stated

Non-Street Oriented Commercial/Mixed Use Collector (Not on Bike Network)



Non-Street Oriented Commercial/Mixed Use Collector (On Bike Network)

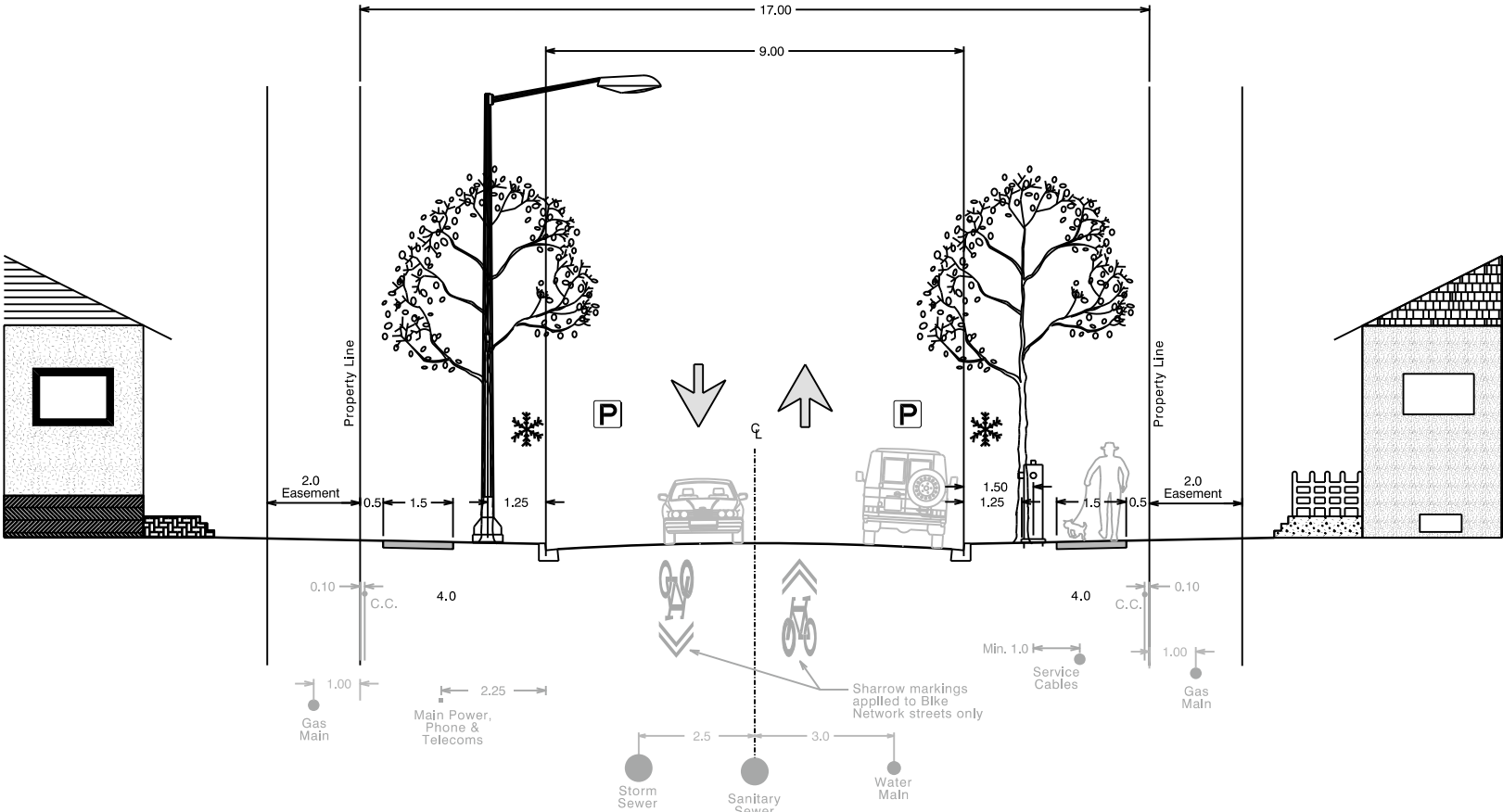


Best on Roadways with
Limited Accesses

Prioritize SUP
at Intersections

All Dimensions In Metres unless
Otherwise Stated

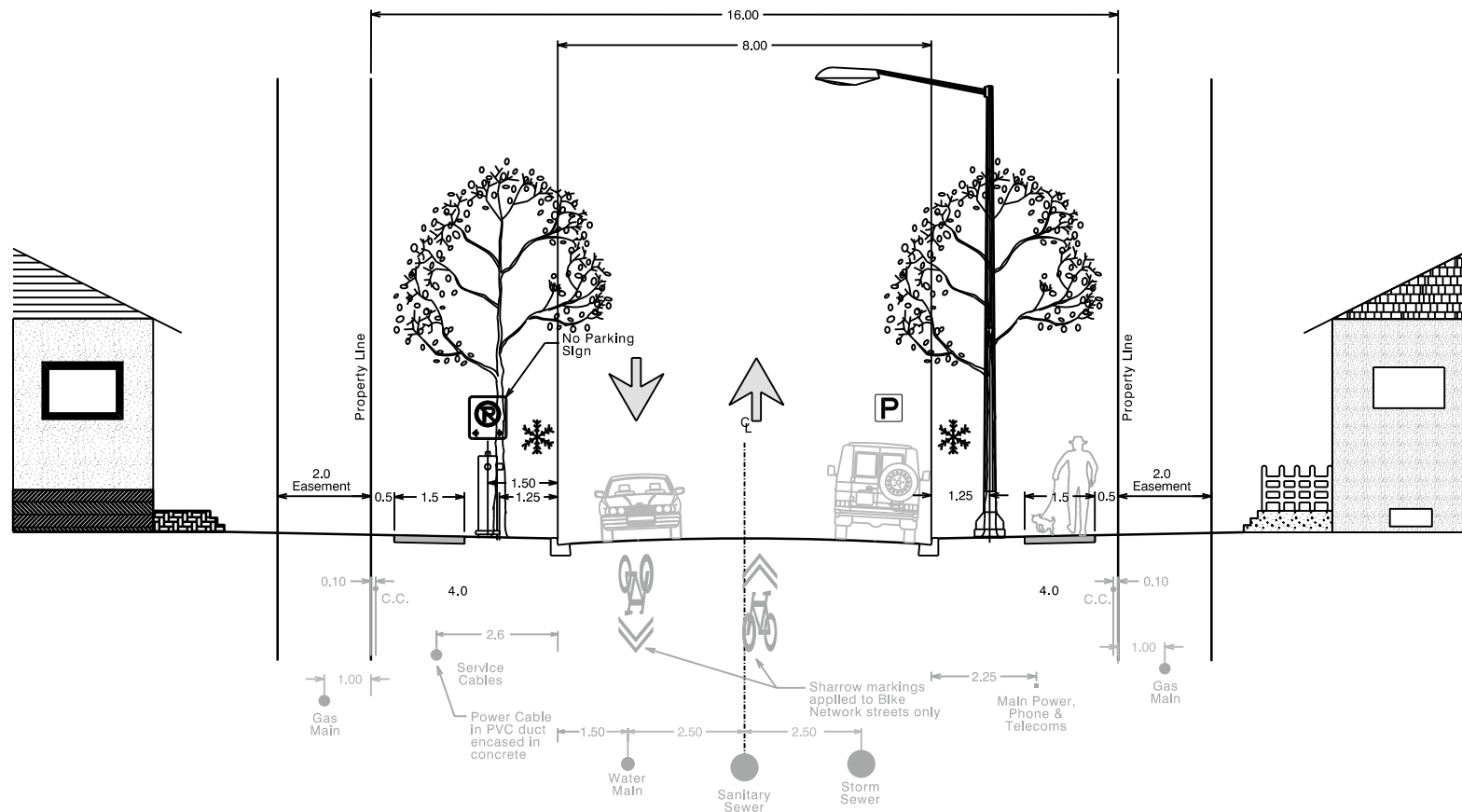
Street Oriented
Residential
Local (On Bike Network / Not on the Bike Network)



Consider speed and volume management measures to enhance comfort levels of cyclists

**All Dimensions In Metres unless
Otherwise Stated**

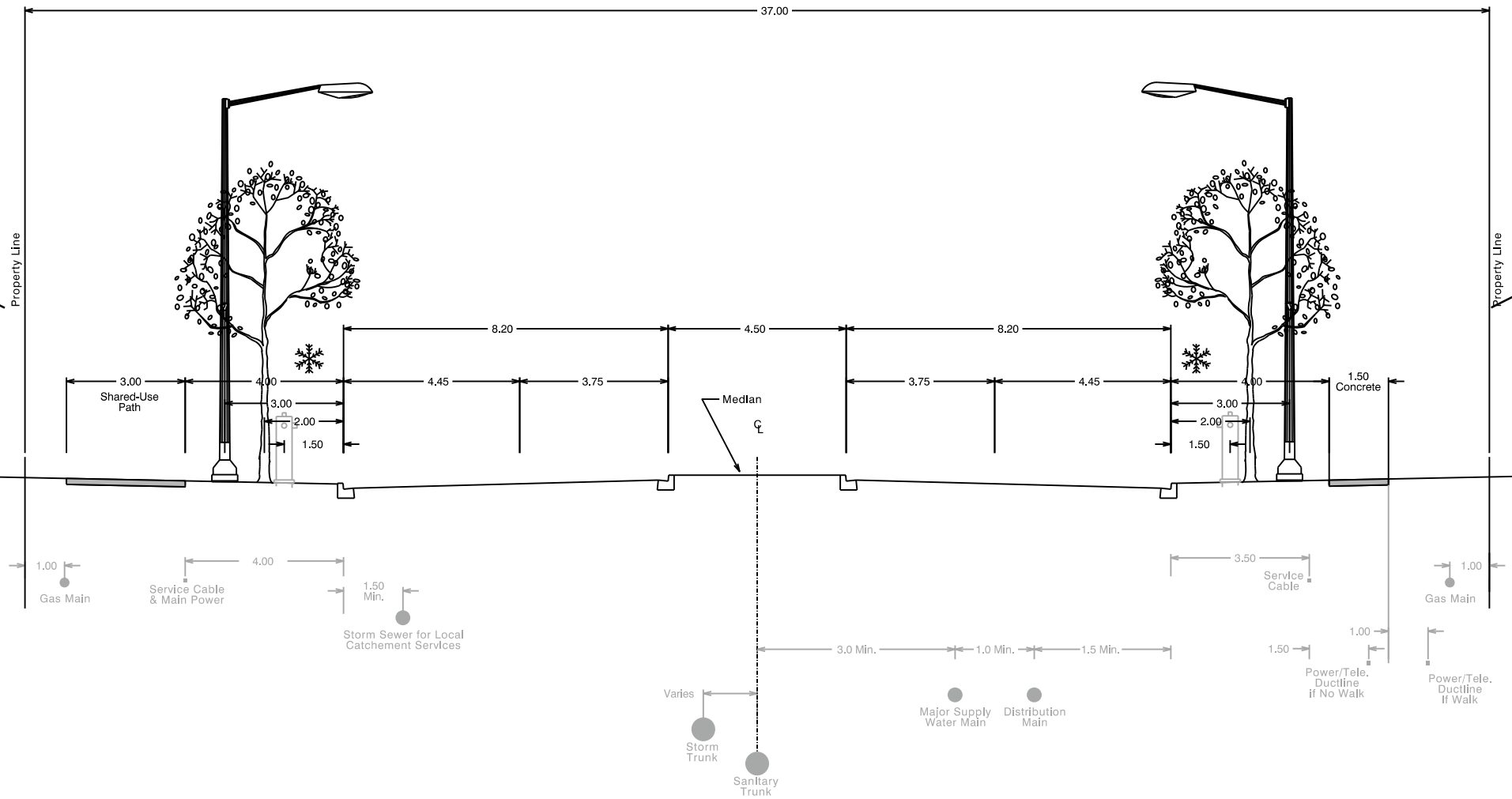
Street Oriented Residential Local (On Bike Network / Not on the Bike Network)



Consider speed and volume management measures to enhance comfort levels of cyclists

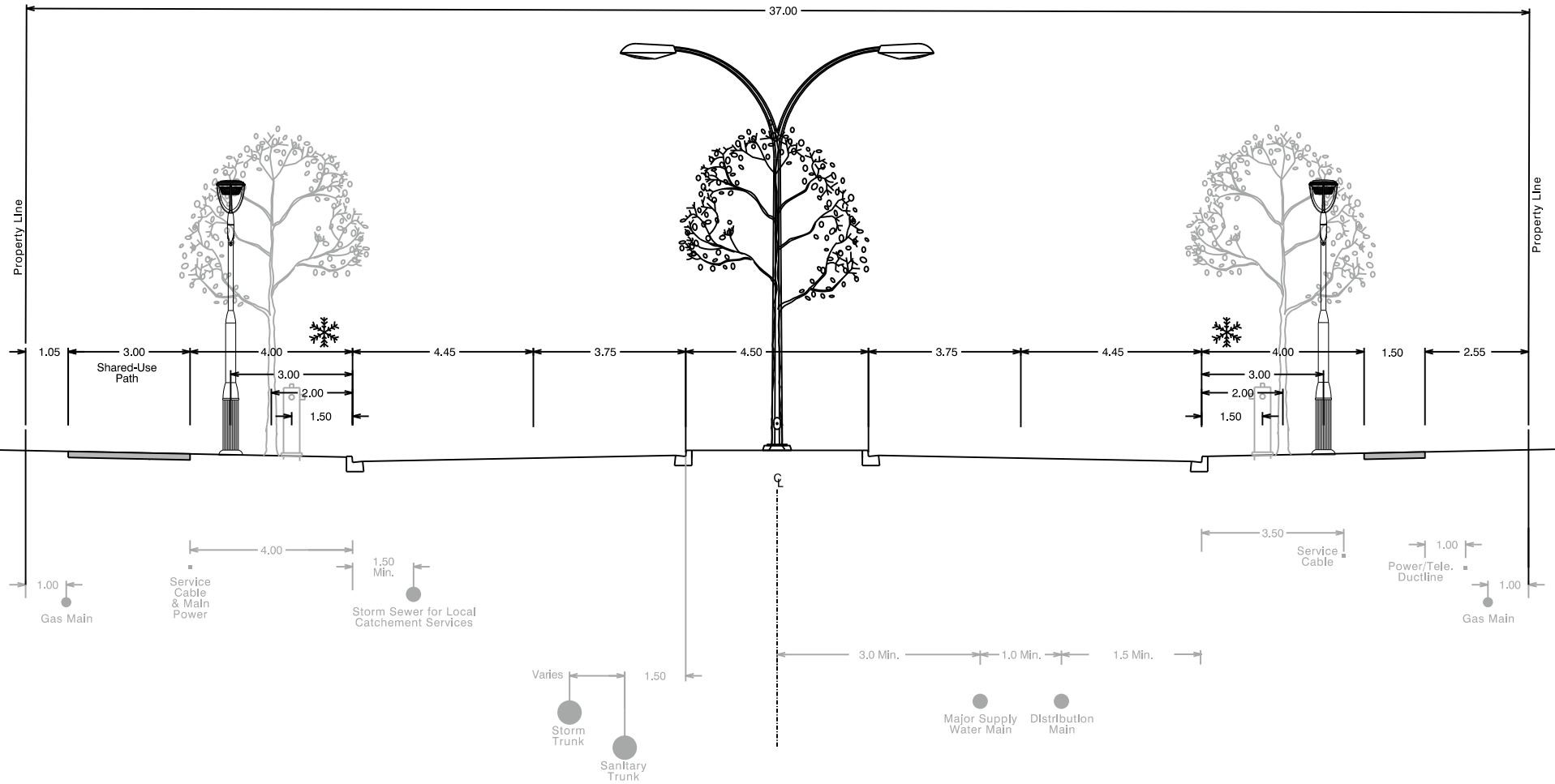
All Dimensions In Metres unless Otherwise Stated

Non Street Oriented Residential Divided Arterial



7 - 1

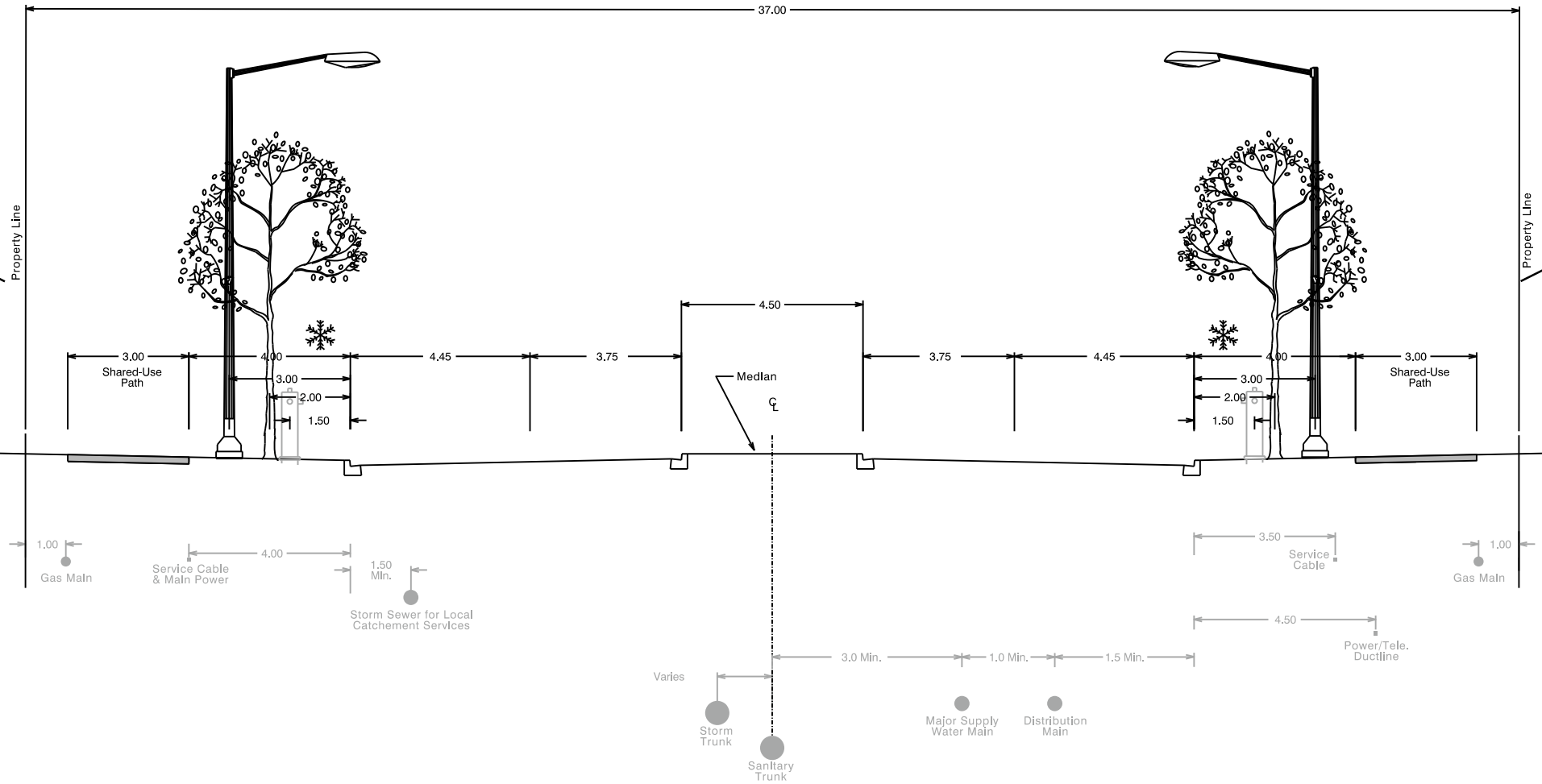
Non Street Oriented Residential Divided Arterial



All Dimensions In Metres unless
Otherwise Stated

7 - 4

Non Street Oriented Residential Divided Arterial

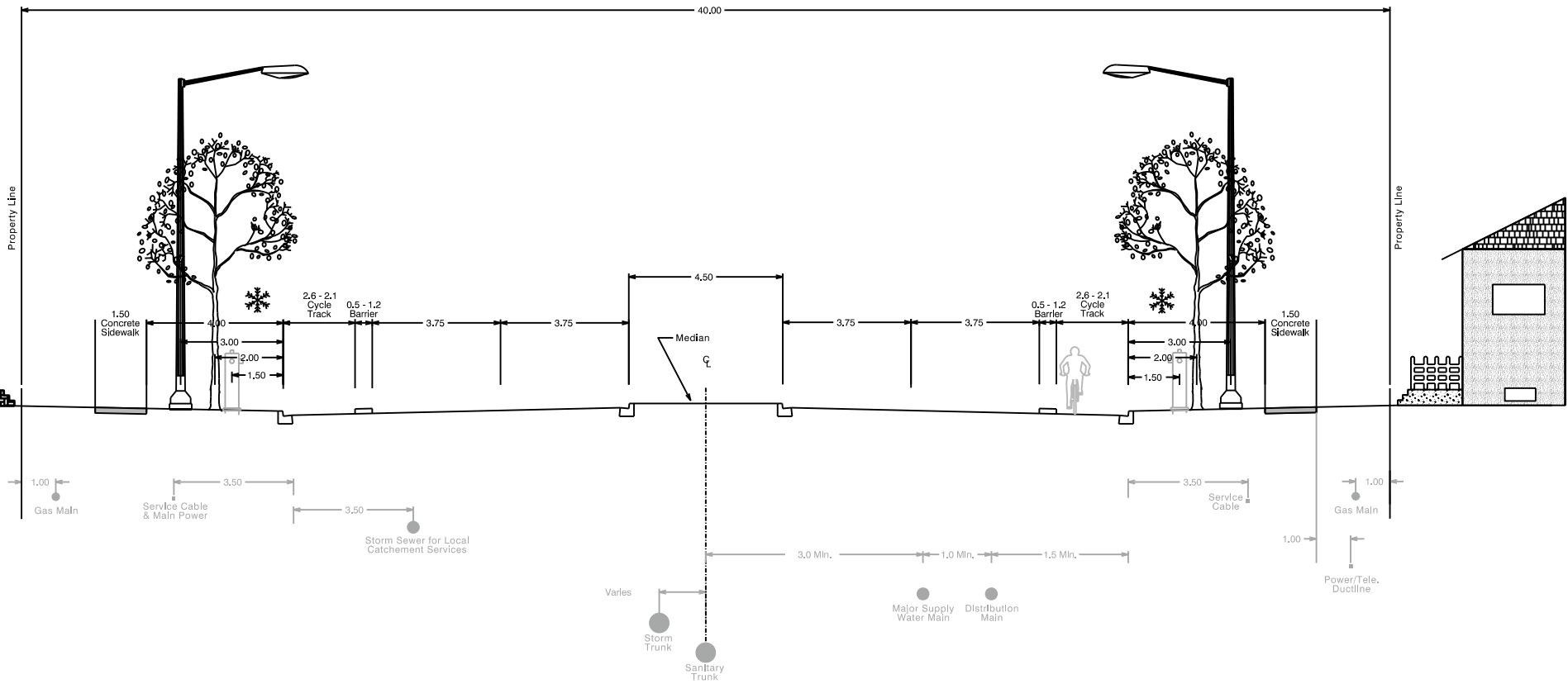


Priority for SUP
at intersections

All Dimensions In Metres unless
Otherwise Stated

7 - Cycle Track

Street Oriented Residential Arterial Divided Arterial



Increase cycle track width and barrier design based on vehicle volumes and speeds

All Dimensions in Metres unless Otherwise Stated