

# Underground Utilities

## Asset & Service Overview



Major services and asset group:

- Water Distribution
  - 349km watermain
  - 1,806 hydrants
  - 1 pump station
- Sanitary Sewer
  - 237km sanitary mains
  - 11 pump stations
- Stormwater
  - 260km storm drains
  - 4 treatment units
  - 7216 catch basins

## Links to OCP



OCP links to major services:

- Well maintained infrastructure, high quality drinking water

## Levels of Service



Major asset groups that provide the major services and whether the service objective is being met.

- Water Distribution
  - 20,883 connections
  - Are service objective being met? **YES**
- Sanitary Sewer
  - 13,775 connections
  - Are service objective being met? **YES**
- Stormwater
  - 10,767 connections
  - Are service objective being met? **YES**

## Asset Condition and Age



Vary depending on asset type:

- Water Distribution
  - 50% of assets built pre1966
  - 20% of assets in poor condition
- Sanitary Sewer
  - Most assets built pre1920
  - 15% of assets in poor condition
- Stormwater
  - Most assets built pre1930
  - 10% of assets in poor condition

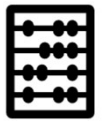
## Asset Risk



Anticipated over next 10 or 20 years

- Water Distribution
  - **MEDIUM**
- Sanitary Sewer
  - **MEDIUM**
- Stormwater
  - **LOW**

## Asset Financial Health



Availability of funds for higher risk assets' replacement cost?

- Water Distribution
  - **SUSTAINABLY FUNDED**
- Wastewater
  - **SUSTAINABLY FUNDED**
- Stormwater
  - **PARTIALLY FUNDED**

## Issues Challenging Assets and LOS



- Climate change impacts
- Seismic vulnerability
- Sanitary sewer Inflow/Infiltration
- Sanitary sewer capacity
- Construction cost inflation
- Soil relocation cost
- Open trench constructability
- Stormwater Quality

# Roads

## Asset & Service Overview



Major services and asset group:

- 106km Major Roads
- 173km Local Roads
- 158 Traffic Signals

## Links to OCP



OCP links to major services:

- Vision Zero
- Reduce Cost Burden
- Safe Compact Communities

## Levels of Service



Major asset groups that provide the major services and whether the service objective is being met.

- Major Roads
  - Maintained and good condition for all modes
  - Is service objective being met? **YES**
- Local Roads
  - Provide access to private property and support Active Transportation
  - Is service objective being met? **YES**
- Traffic Signals
  - Provide safe and reliable flow for all
  - Is service objective being met? **YES**

## Asset Condition



Vary depending on asset type:

- Roadway Pavement
  - 56% Poor or Very Poor (2022)
- Traffic Signals
  - ~ 35% Poor or Very Poor (2023)

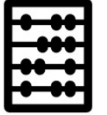
## Asset Risk



Anticipated over next 10 or 20 years

- Major Roads
  - **MEDIUM**
- Minor Roads
  - **HIGH**
- Traffic Signal
  - **MEDIUM**

## Asset Financial Health



Availability of funds for higher risk assets' replacement cost?

- Major Roads
  - **PARTIALLY FUNDED**
- Local Roads
  - **UNDER-FUNDED**
- Traffic Signals
  - **PARTIALLY FUNDED**

## Issues Challenging Assets and LOS



- Increasing Road Failures
- Construction cost inflation
- Decreasing Road condition before it gets better
- Road Safety/Accessibility improvement costs above and beyond asset renewal

# Retaining Walls

## Asset & Service Overview



### Retaining Wall Asset Types:

- Major Walls over 3.0m
  - 33 walls
  - Rep. Value \$116M
- Intermediate Walls between 1.2m and 3.0m
  - 157 walls
  - Rep. Value \$72M
- Minor Walls less than 1.2m
  - 280 walls
  - Rep. Value \$8.5M

## Links to OCP



### OCP links to Retaining Wall functions:

- Reduce Cost Burden
- Safe Compact Communities
- Well maintained infrastructure

## Levels of Service



Major asset groups that provide the major service and whether the service objective is being met

- Major Walls
  - Safely support and delineate large differences in grade
  - Is service objective being met? **YES**
- Intermediate Walls
  - Safely support and delineate moderate differences in grade
  - Is service objective being met? **YES**
- Minor Walls
  - Safely support and delineate low differences in grade
  - Is service objective being met? **YES**

## Asset Condition



- Major Walls
  - 0% poor
  - 55% fair condition
- Intermediate Walls
  - 2% poor or failed
  - 43% fair condition
- Minor Walls
  - 2% poor condition
  - 59% fair condition

*Twelve (12) walls are in a poor or failed state*

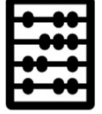
## Asset Risk



Anticipated over next 10 or 20 years

- 20% of Walls
  - **HIGH**
- 80% of Walls
  - **MEDIUM** or **LOW**

## Asset Financial Health



Availability of funds for higher risk assets' replacement cost?

- Major, intermediate and Minor Walls
  - **PARTIALLY FUNDED**

*Private retaining walls adjacent to sidewalk are the responsibility of the landowner.*

## Issues Challenging Assets and LOS



- Climate Change Impacts
- Complex assets and ownership
- High risk private walls out of City's hands.
- Stability of budget due to large value assets.