



Infill and Intensification Development in the Core

Core Area Servicing Studies (CASS)
January 29th, 2018 - SPPC

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Agenda

- CASS Scope
- Assumptions and Objectives
- Policy Framework
- Capital and Growth Works Coordination
- CASS Policy Overview

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Acknowledgments

- External Stakeholders
 - Regular updates at Stakeholder meetings
 - Active participation in policy framework
 - Input at key points in the process
- AECOM and GM Blue Plan
- Environmental and Engineering Services
- Finance and Corporate Services
- Planning Services
- Development and Compliance Services

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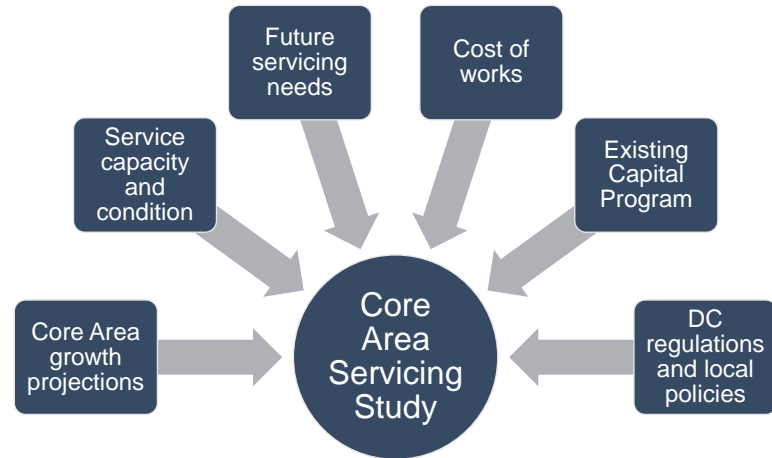


CASS Scope

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Establishing DC Eligible Costs



Assumptions and Objectives

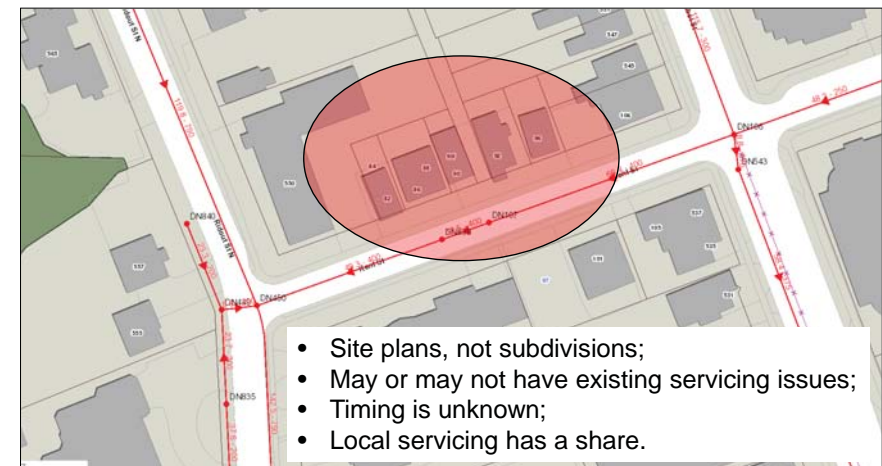


Core Area Assumptions

- 45% Infill and Intensification goal City-wide;
 - 75% in Primary Transit Area;
- Complexity of construction in the core
 - Impacts of/to utilities, pedestrian and traffic movement, transit, businesses, other political or social issues
- Timeliness of construction can benefit growth and lifecycle;
- Greenway can accommodate anticipated growth;
 - Treatment plant capacity is not being examined through CASS



Locations Difficult to Predict



- Site plans, not subdivisions;
- May or may not have existing servicing issues;
- Timing is unknown;
- Local servicing has a share.



CASS Funding Objectives

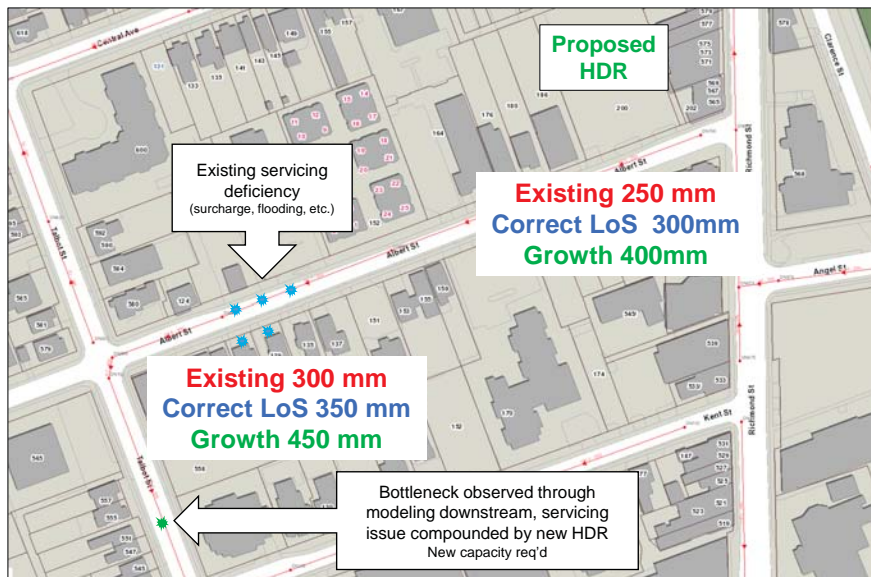
- Ensure that DCs, tax and ratepayer revenues, and developers pay a share;
- Find a proactive approach to assess core area infrastructure funding splits;
- Use existing DC policies and procedures wherever possible;
- Incorporate new DC Act requirements;
- Don't over-complicate.



CASS Policy Framework

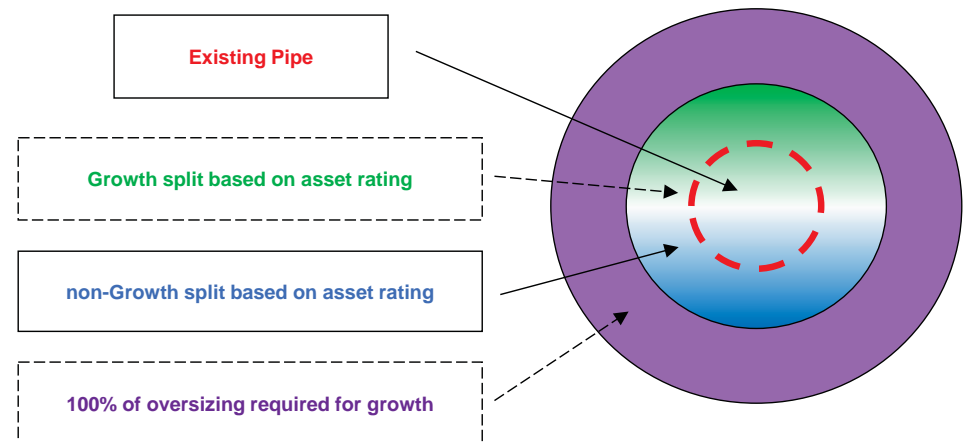


Theoretical Location



Typical Funding Split

Pipe constructed for growth that corrects LoS issues, plus additional oversize required:





Capital and Growth Works Coordination



Coordinating Works

Pre DC Master Plan Phase

- Step 1 – CASS establishes growth splits from anticipated works to build-out;
- Step 2 – Complete Rapid Transit, City Centre Servicing Strategy, etc. identify needs and timing.

- Master Plan information available by end of Q2 2018.



Coordinating Works

DC Master Planning

- Step 1 – Review projects identified in studies;
- Step 2 – Refine projects with updated growth information;
- Step 3 – Coordinate for efficient construction and cost;
- Step 4 – 2019 DC Master Plans identify 20 year list of projects.

- Anticipated that draft DC Master Plans will be complete in Q3 of 2018.



CASS Policy Overview



CASS Policy Overview

- The asset rating will assign a Growth / Non-Growth share;
 - Oversizing will be 100% growth cost.
- For most core area growth works, the City will lead design and construction.
- Ultimate servicing needs may be timed separate to development.
- CASS funding policy will apply to works within the Built Area Boundary.
- Refine through 2019 DC Study process.

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Recommendation

That, on the recommendation of the Managing Director, Development and Compliance Services and Chief Building Official, the following actions be taken with respect to the financing of growth-related infrastructure works for infill and intensification:

- a) the Core Area Servicing Studies for water, wastewater, and stormwater services contained in the attached respective Executive Summaries (Appendix 'A'), and as further described in this report, **BE ENDORSED** to inform the funding of growth-related infrastructure projects to support infill and intensification development; it being noted that the projects identified in the Core Area Servicing Studies will be refined through the 2019 Development Charges Background Study and included in the relevant Multi-year Capital Budget Updates;
- a) the attached Local Servicing Policy (Appendix 'C') **BE ENDORSED** as the funding approach for infill and intensification projects identified in the 2014 Development Charges Background Study and **BE REVIEWED** for inclusion in the 2019 Development Charge Background Study;
- a) the Civic Administration **BE AUTHORIZED** to undertake all administrative acts necessary to integrate the funding policies outlined in the Core Area Servicing Studies for infrastructure improvements required to service infill and intensification developments.

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Asset Management Approach

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Asset Condition Ratings

- EES condition assessment databases
 - WCAP and Sewer Sleuth (CCTV)
- Remaining Useful Life is one component
- Service area experts – greater input
 - WADE, SWM, Water
- Best Practices
 - National Infrastructure Report Card
- Establish a “simple” 1 to 5 rating
 - 1 = Very Good
 - 5 = Very poor



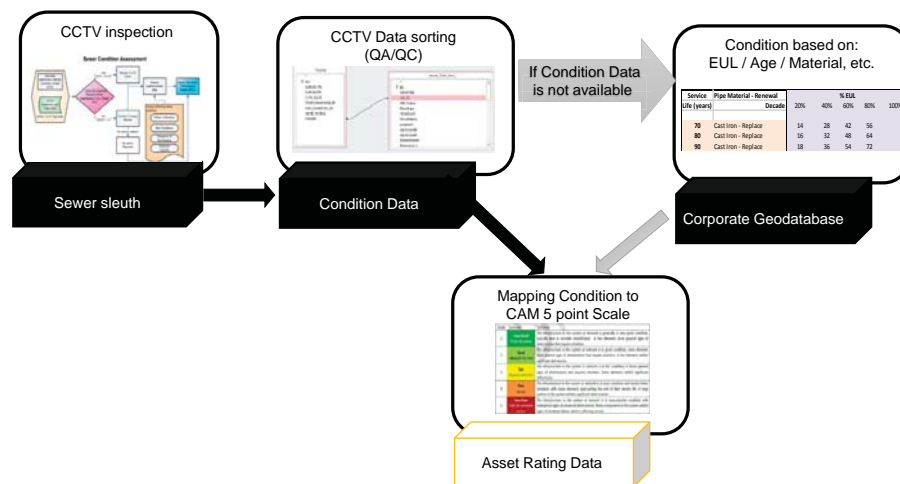
Shared Funding Approach

G	nG	Condition Rating	Asset Def'n
90	10	1	Very Good – Fit for Future
75	25	2	Good – Adequate for now
50	50	3	Fair – Requires attention
25	75	4	Poor – At risk
10	90	5	Very Poor – Unfit for sustained Service

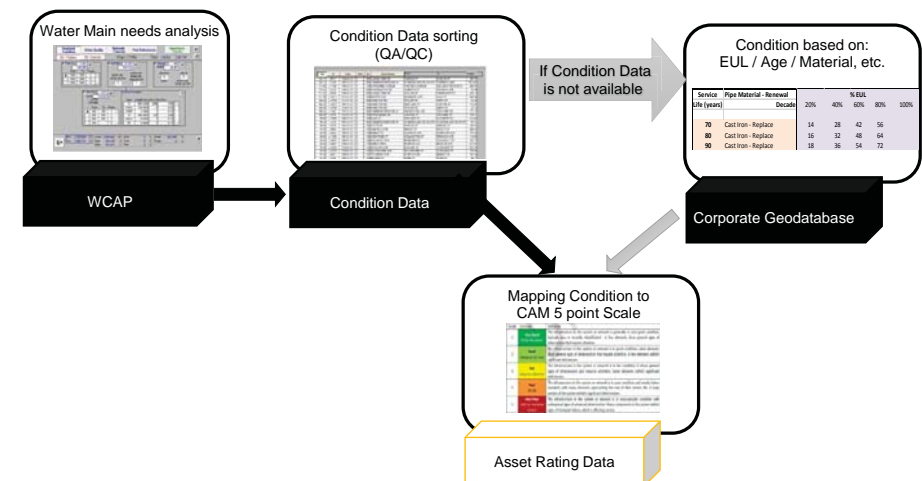
- Condition assessed at time project identification
- Different asset ratings for sections of project
- Project could be small – i.e. small sewer section



Sewer Condition Framework



Water Condition Framework



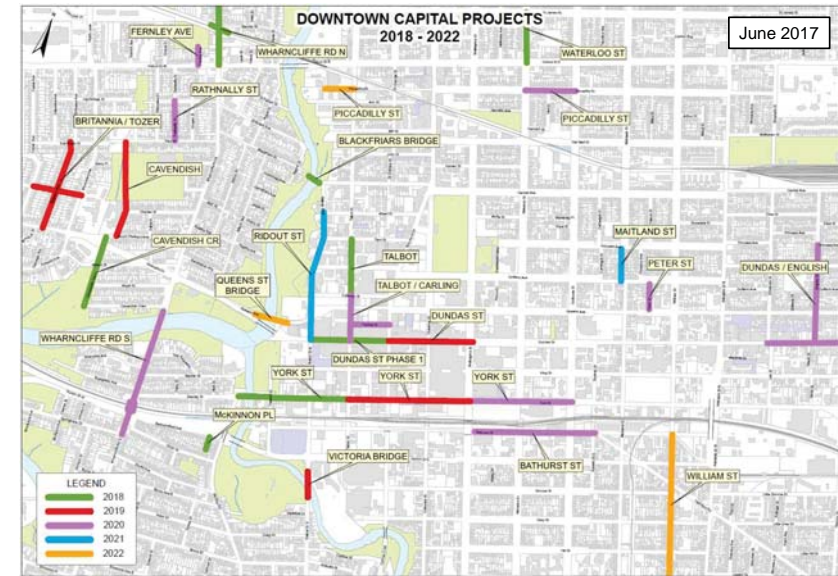


Core Area Maps

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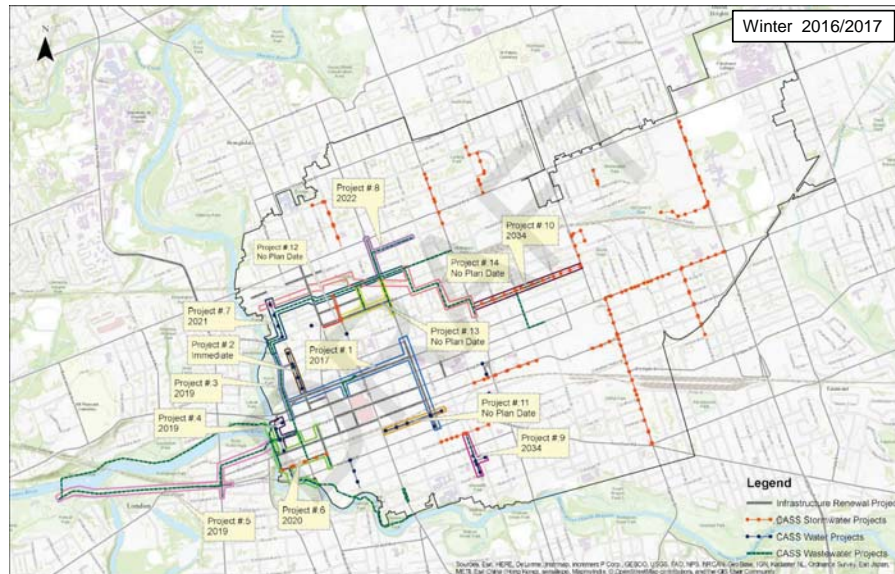
Downtown Works



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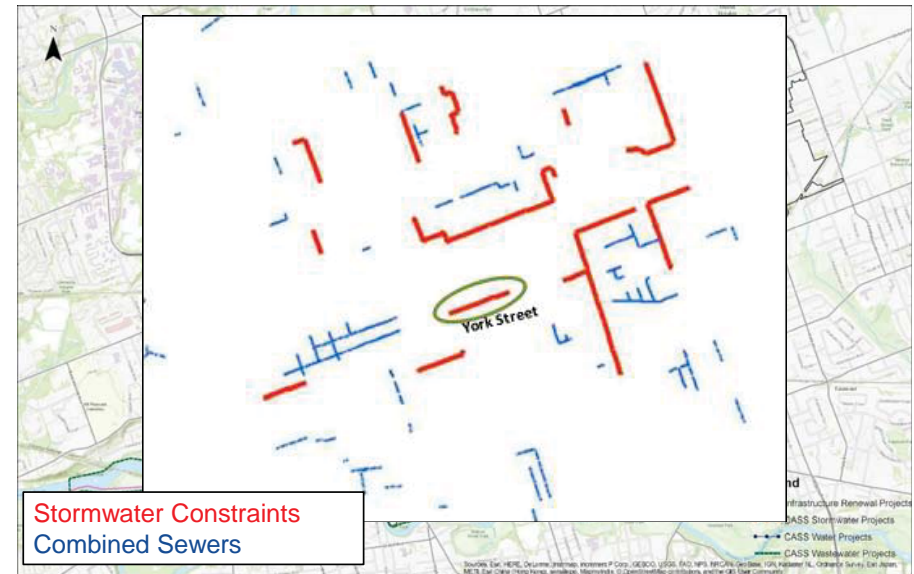
Coordination of CASS Projects



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Overlap with Combined Sewers



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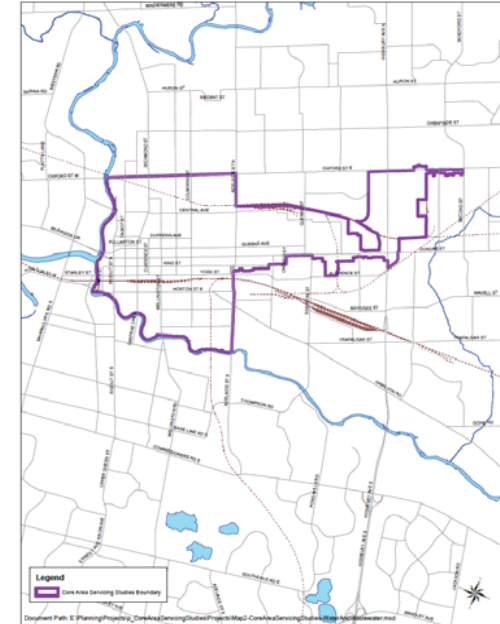


Policy Boundaries

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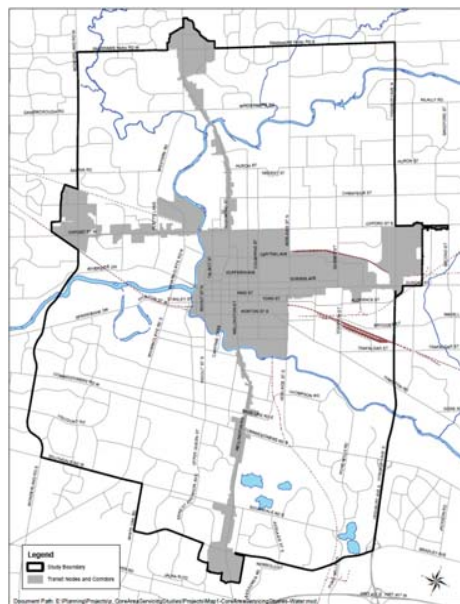
Stormwater and Wastewater



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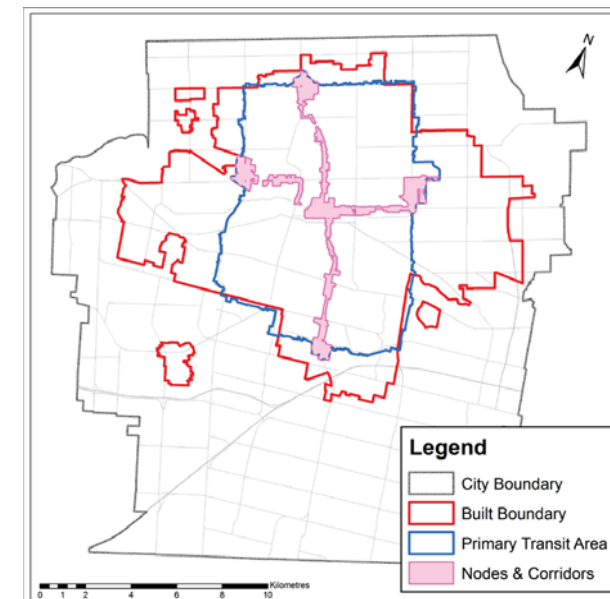
CASS Boundaries - Water



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2. CASS Policy Application



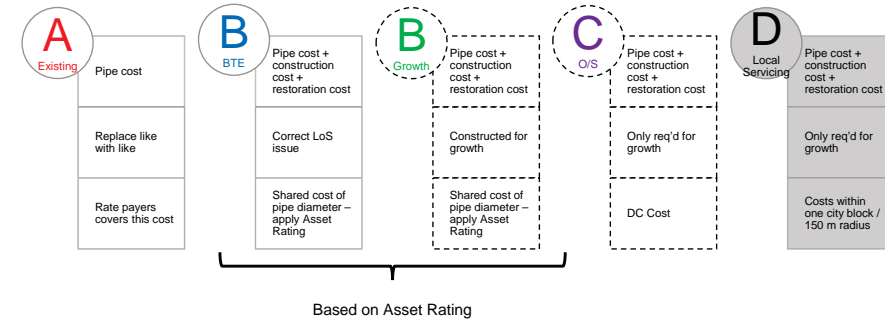
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Shared Funding Formula



CASS Funding Formulas



$$\text{Total Servicing Cost} = A + (B \times (G/nG)) + C + D$$



Program Costs



2014 DC Intensification Projects

DC Project #	Budget (000's)	G/nG	RICI
WD01002 (Water)	\$10,022.2	94.5 / 5.5	82.6 / 10 / 7.4 / 0
MS01002 (Stormwater)	\$13,782.9	93.3 / 6.7	82.6 / 10 / 7.4 / 0
WW02002 (Wastewater)	\$4,376.1	85.1 / 14.9	82.6 / 10 / 7.4 / 0



Shared CASS Program

Using proposed Asset Rating Approach

Service	Growth Share	Non- Growth Share	%
	000's	000's	
Water	\$7,979	\$624	93 / 7
Stormwater	\$34,574	\$52,978	40 / 60
Wastewater	\$30,350	\$57,727	35 / 65
	\$72,903	\$111,329	



Accommodating Growth



CASS Project Assumptions

- Core area can generally accommodate growth under existing servicing conditions,
 - Growth compounds some pre-existing issues;
 - Servicing upgrades may require MSFA if no immediate project planned;
- CASS program based on a snapshot in time
 - Growth can occur anywhere in CASS and is difficult to predict;
 - Servicing scenarios reviewed by consultants assume current condition of assets, recent development applications and VLI;
- Improvements to infrastructure outside of CASS can benefit capacity and reduce overall costs



The "typical" pipe

Split the Growth / non-Growth costs using a condition assessment rating:

