



The UTRCA Experience: Sharing SWM LIDs with Our Municipal Partners

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Environmental Planning and Regulations

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Overview

- UTRCA and SWM LIDs
- UTRCA Survey
- Pilot Projects in the UTRCA Watershed



<http://www.bayactionplan.com/stormwater-management/>



UTRCA and SWM LIDs

- The UTRCA 2014 survey:
 - Municipalities, consultants, and developers
- Gauge familiarity with SWM LIDs
- Identify barriers:
 - Technical
 - Physical
 - Institutional





Barriers to SWM LIDs

- Technical Barriers:
 - Lack of construction experience
 - Absence of LID guidelines
 - Lack of data on LID
- Physical Barriers:
 - High groundwater table
 - Soil not suitable
 - Contaminated soil



Barriers to SWM LIDs

- Institutional Barriers:
 - No incentives for developers and landowners
 - Absence of supportive policies at municipal level
 - Lack of awareness and knowledge



Subdivision - Sebringville

- Conventional: storm sewers, concrete outlet
- LID: dry bio-swale with perforated pipe, check dams, riprap outlet to Black Creek
- Cost savings \$23,515 or 31%
(\$75,417 vs. \$51,902)



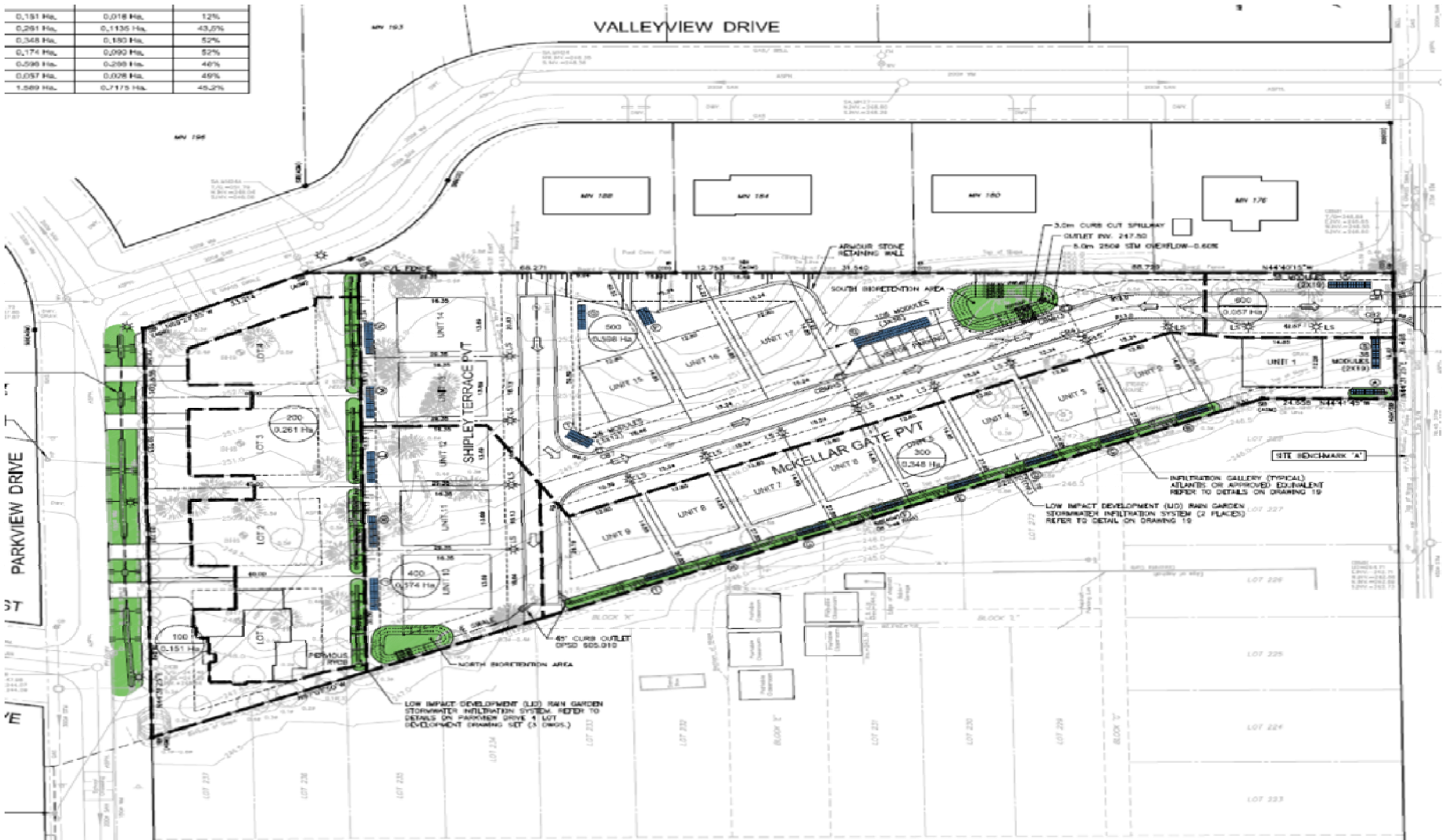
Subdivision - Ingersoll

- 41 unit condo development;
- Conventional: storm sewers and retention pond
- LID: bioswales and rain gardens
- Cost savings \$88,790 or 41% (\$214,668 vs. \$125,878), plus 2 additional units

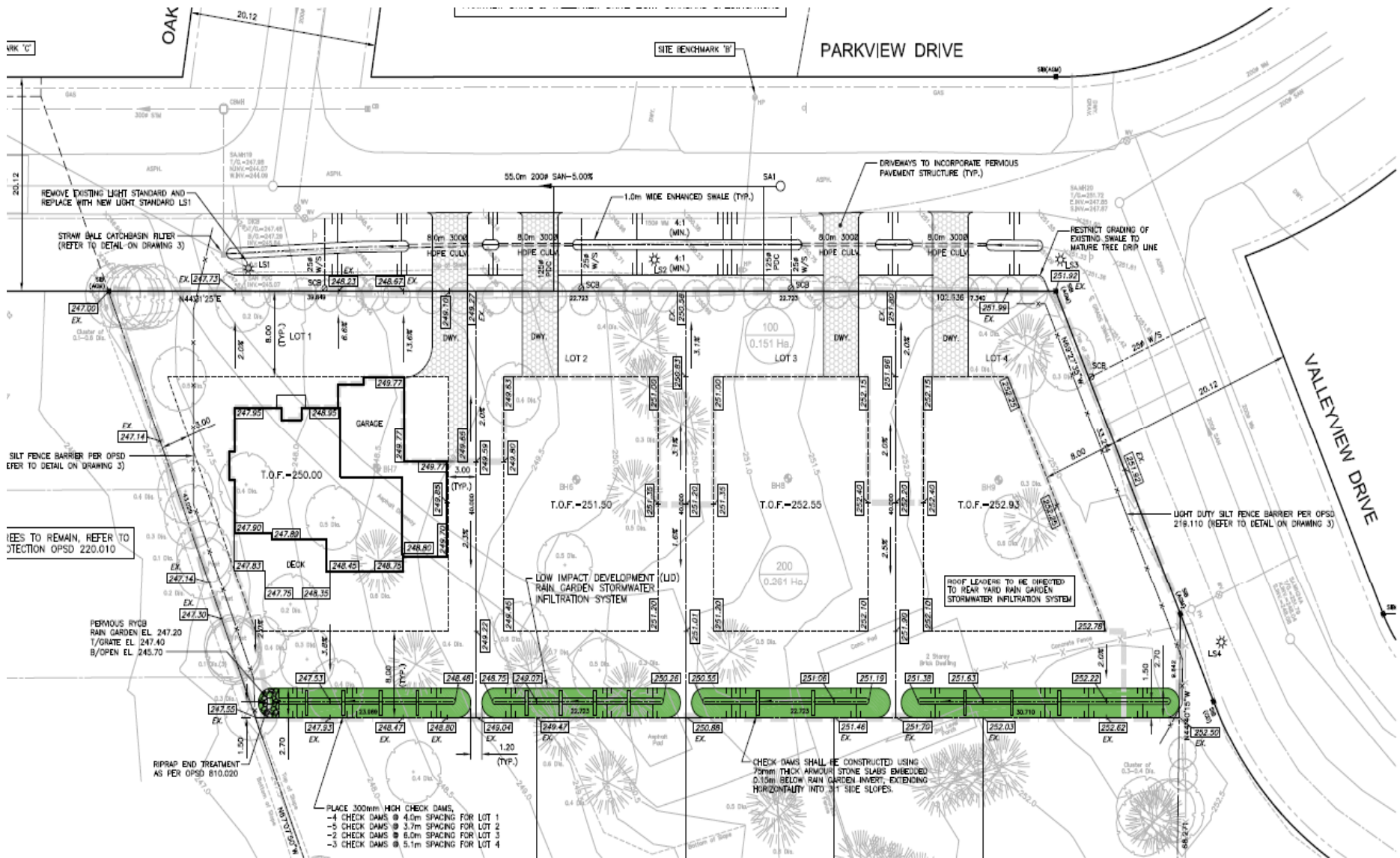


Source: Warren Sinclair Homes

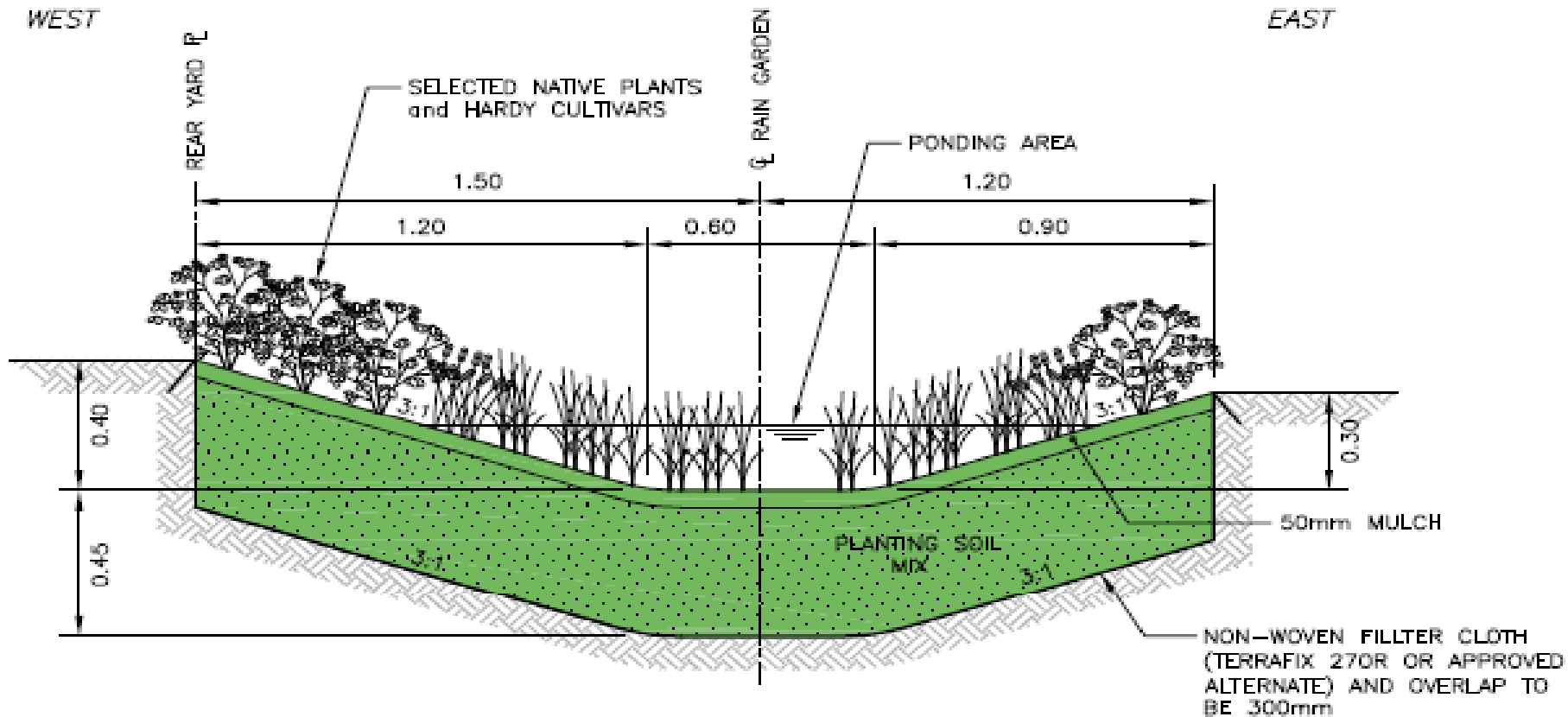
Parkview Drive, Middlesex Centre



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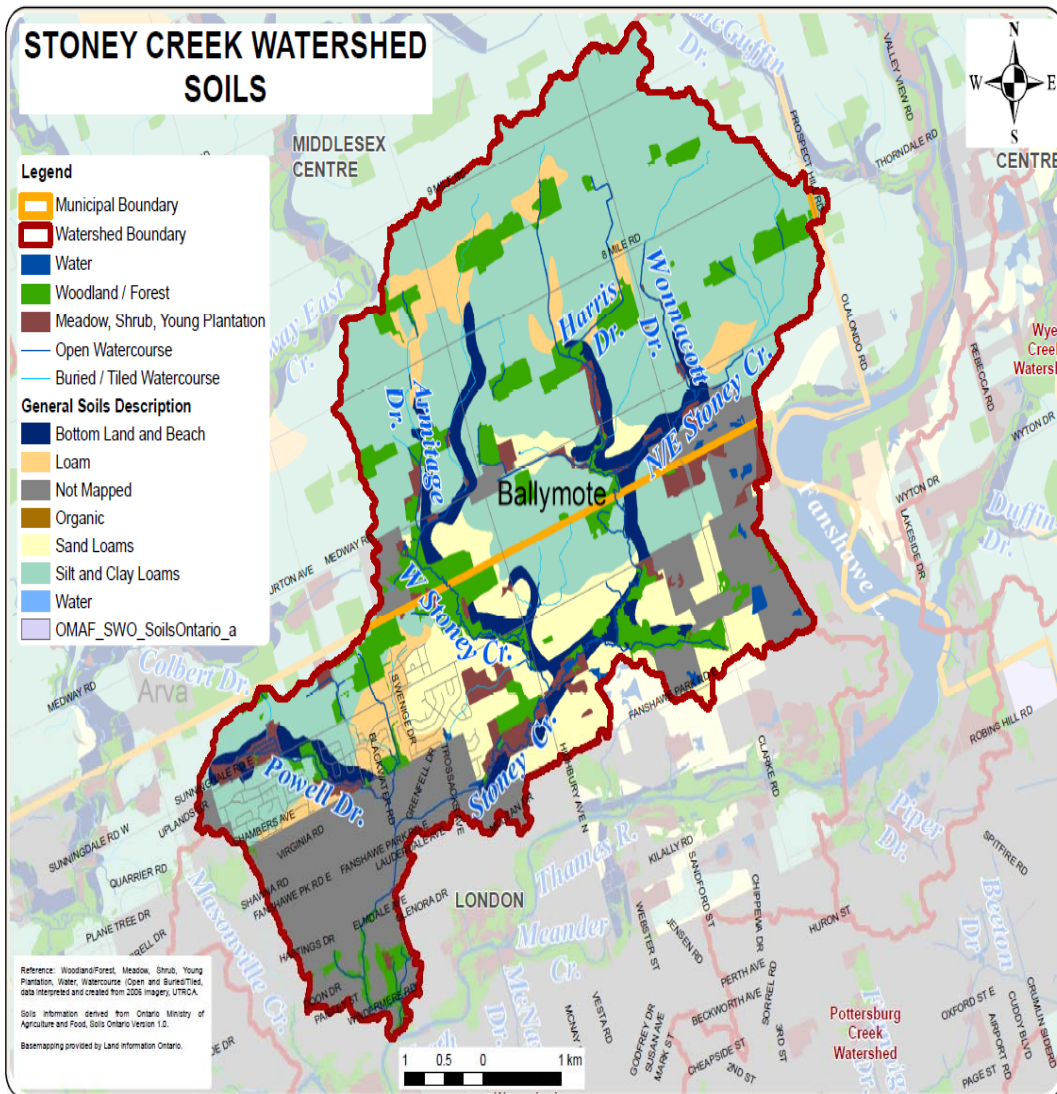
FOR ADDITIONAL INFORMATION ON SUBSURFACE CONDITIONS, REFER TO GEOTECHNICAL ENGINEERING REPORT PREPARED BY LAW ENGINEERING (LONDON) INC. DATED OCTOBER 16, 2015 (REF. No. 14-6-L1)

RAIN GARDEN DETAIL



Water Balance – Stoney Creek

- 38 km²
- Approximately 60% agriculture, 21% urban
- Increased urbanization since 2006





Water Balance – Stoney Creek

- Pre-development and post-development water balance
- Considered recharge, evapotranspiration, runoff and precipitation under the pre and post condition for 55% imperviousness
- The water balance shows:
 - Recharge decrease: 4,742,843 m³/year
 - Runoff increase: 4,321,719 m³/year



For more information

<http://thamesriver.on.ca/low-impact-development/>

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