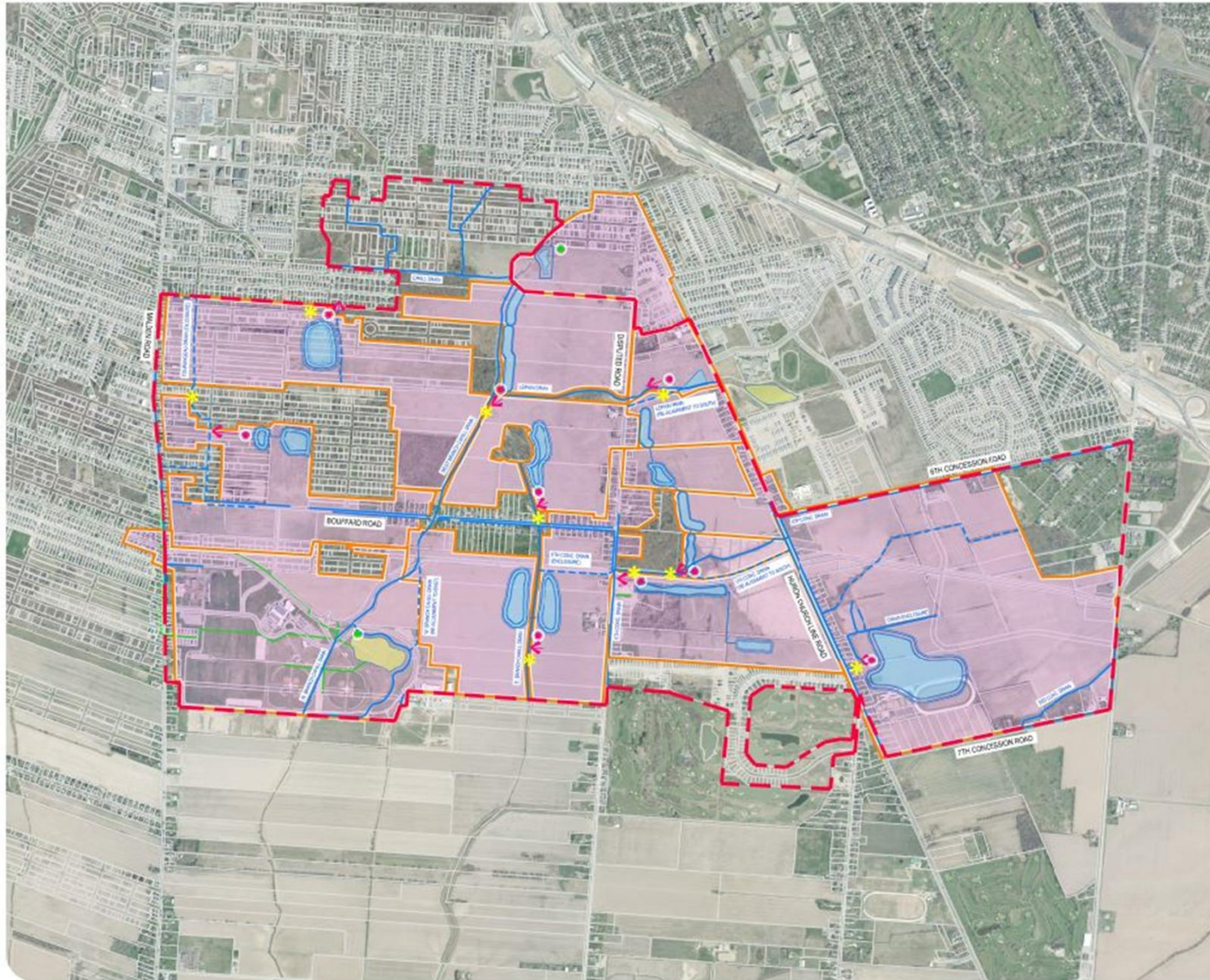


Stormwater Solution – 2017 EA Addendum



CLASS ENVIRONMENTAL ASSESSMENT ADDENDUM
TOWN OF LASALLE, ONTARIO

PREFERRED SOLUTION: STORMWATER MANAGEMENT
FIGURE 6.0

- STUDY AREA
- MUNICIPAL DRAIN ALIGNMENT
- PREFERRED DRAIN ALIGNMENT
- EXISTING STORM SEWER
- DRAINAGE BOUNDARY
- EXISTING POND
- PREFERRED POND
- PREFERRED LINEAR FACILITY
- EXISTING PUMP STATION
- PREFERRED PUMP STATION
- PREFERRED POND OUTLET
- OUTLET CAPACITY ANALYSIS REQUIRED

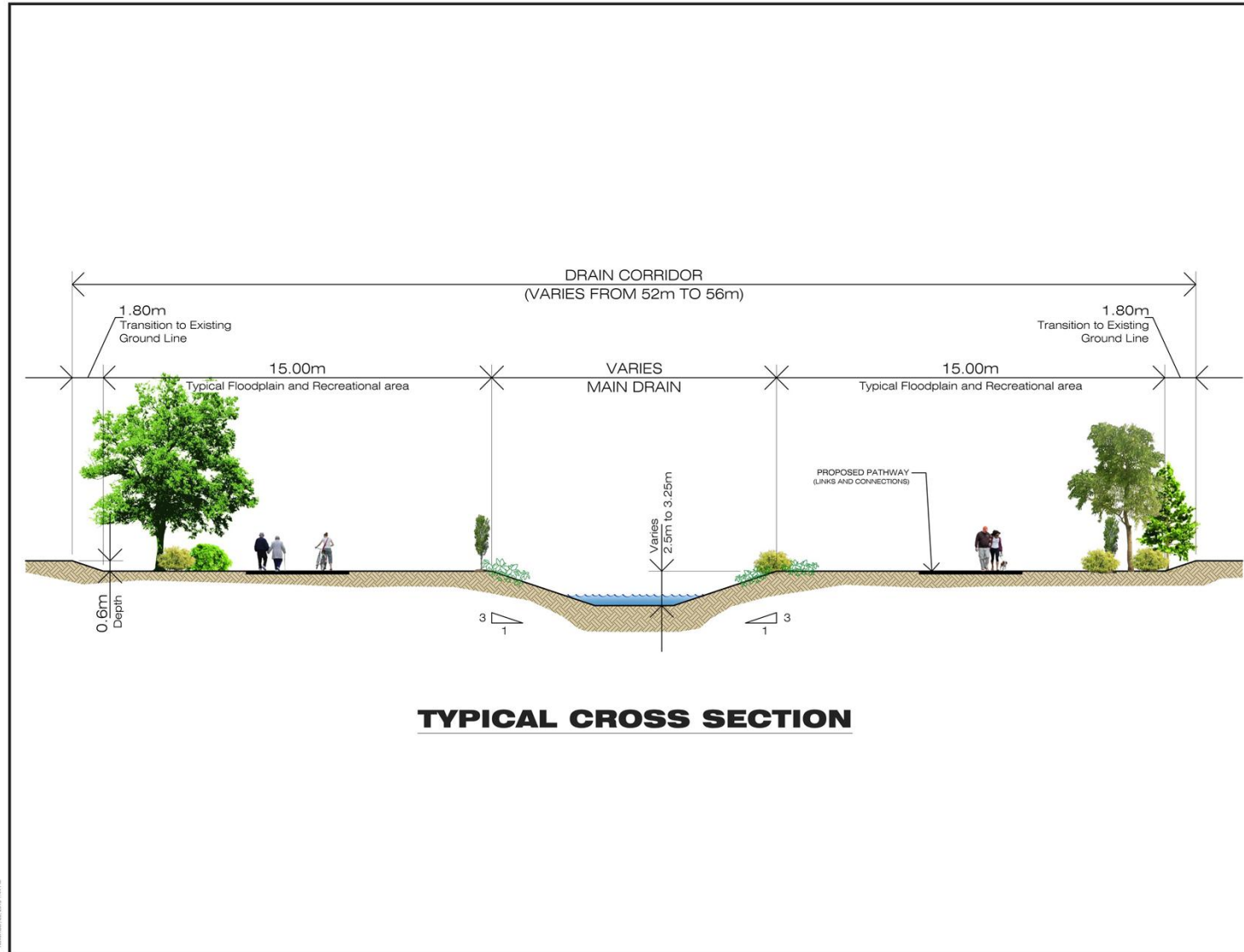


MAP/DRAWING INFORMATION
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. ALL DIMENSIONS AND BOUNDARY INFORMATION SHOULD BE VERIFIED BY AN O.L.S. PRIOR TO CONSTRUCTION.
CREATED BY:
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January 27, 2017 3:10 PM



PROJECT: 16-2470
STATUS: FINAL
DATE: 01/27/2017

Recommended Cross Section



**HOWARD BOUFFARD
PLANNING AREA**
Master Drainage Study

Maximum Ponding Depths in Floodplain
is 0.3m for 100yr, 24hr. Chicago Storm.

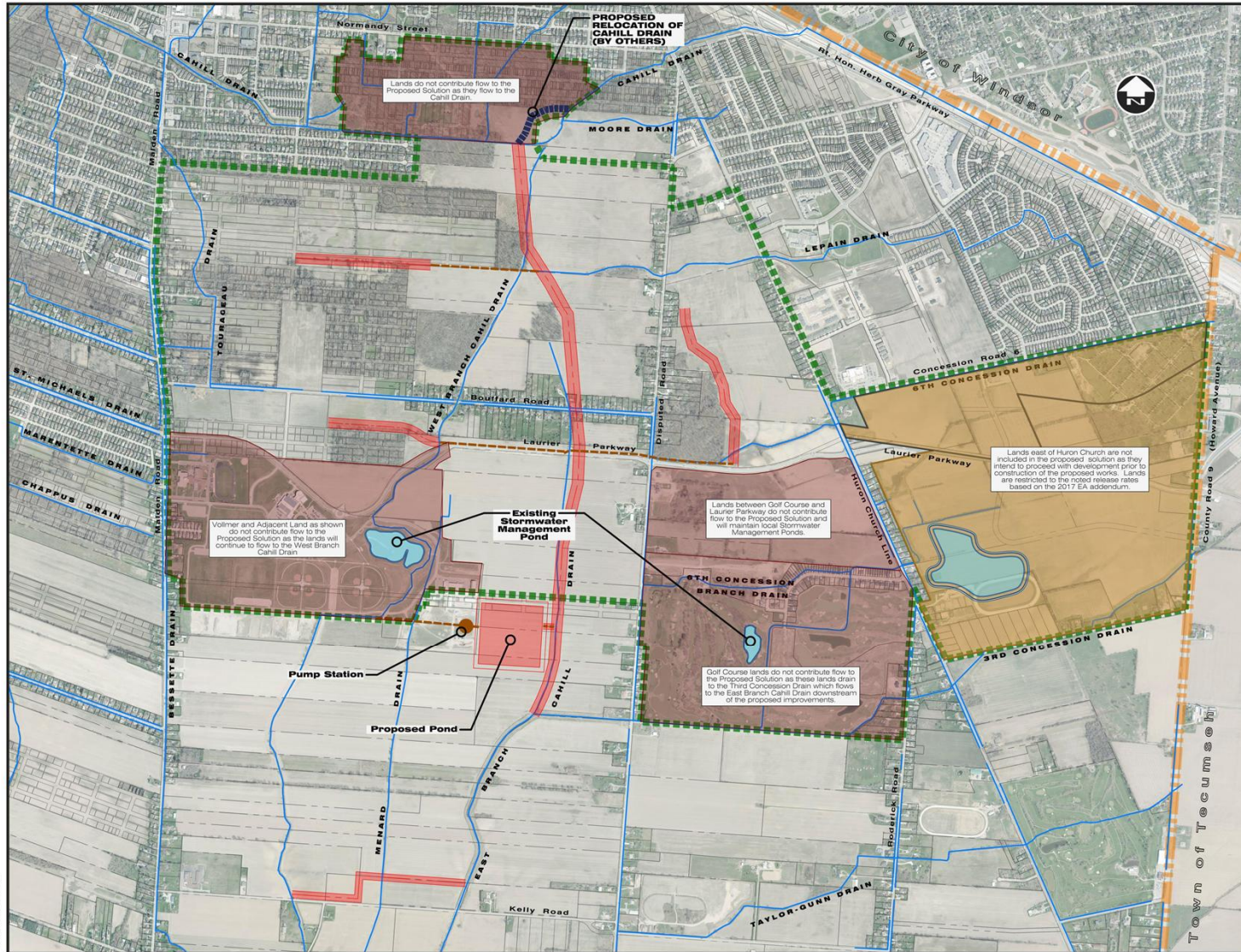
SCALE: N.T.S.

Figure 11
**TYPICAL DRAIN
CROSS
SECTION**

DATE: DECEMBER 2019
Dillon Proj. No. 18-d169-1000

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Lands Not Included in Proposed Solution



HOWARD BOUFFARD PLANNING AREA

Master Drainage Study

LEGEND

- MUNICIPAL BOUNDARY
- HOWARD BOUFFARD STUDY AREA
- Pipe Drain Section
- Proposed Channel Alignment
- Pond Locations Identified in 2017 E.A. Addendum
- Existing Municipal Drains
- Lands which are not subject to Flood Inundation under existing conditions and have and will maintain separate outlet.
- Lands which have and will maintain separate outlet.



Figure 9
LANDS NOT INCLUDED IN THE PROPOSED SOLUTION

DATE: DECEMBER 2019
 Dillon Proj.No. 18-0169-1000

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- Alternatives were subject to an Urban Stress Test
 - Additional 42mm of rain over 24hrs
- Results in approximately 50% increase to storage requirements
 - Additional volume of approximately 157,000m³ for the recommended solution
 - Can also be addressed through depressing park lands and other green space
 - Ideal to locate parks along the drainage corridor
 - Stormwater benefits and connectivity to recreational areas along the corridor
 - The more park land and other green space which can be used to provide storage will decrease the size of the Stormwater Pond accordingly.

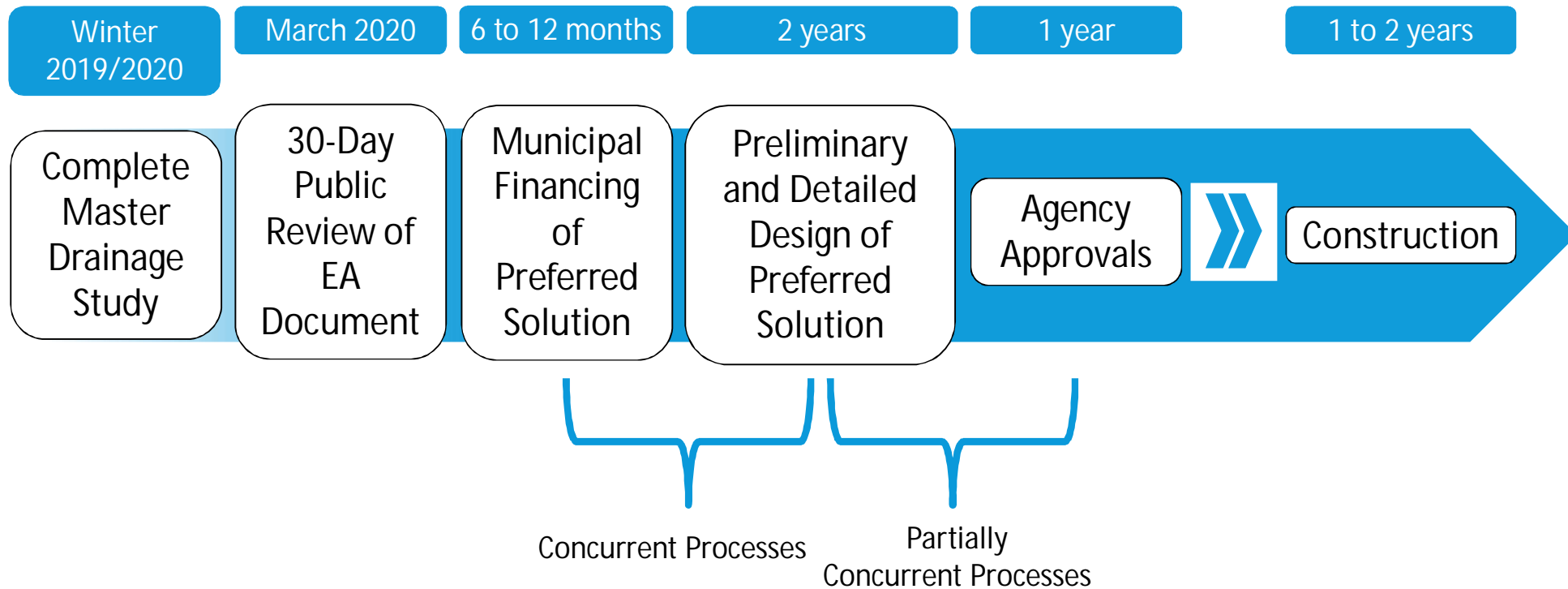
Regional Pond Sizing Comparison



Option	Pond Footprint (m) Top of Bank	Storage Volume Required – 100yr24hr Chicago (m ³)	Pond Depth (m)	Peak Water Depth (m)
Preferred Option #3B (From PIC #1) Excluding Climate Change	277 x 277	212,000	3.72	3.22
Preferred Option #3B (From PIC #1) Including Climate Change	310 x 310	324,000	4.0	3.87
Recommended Solution Excluding Climate Change	315 x 315	342,000	4.5	4.03
Recommended Solution Including Climate Change	355 x 355	499,000	4.5	4.49

§ 5:1 Side Slopes for Pond Banks (All Options)

Anticipated Project Timeline



* Steps beyond completion of the preliminary design require Council approval.

Estimated Construction Costs

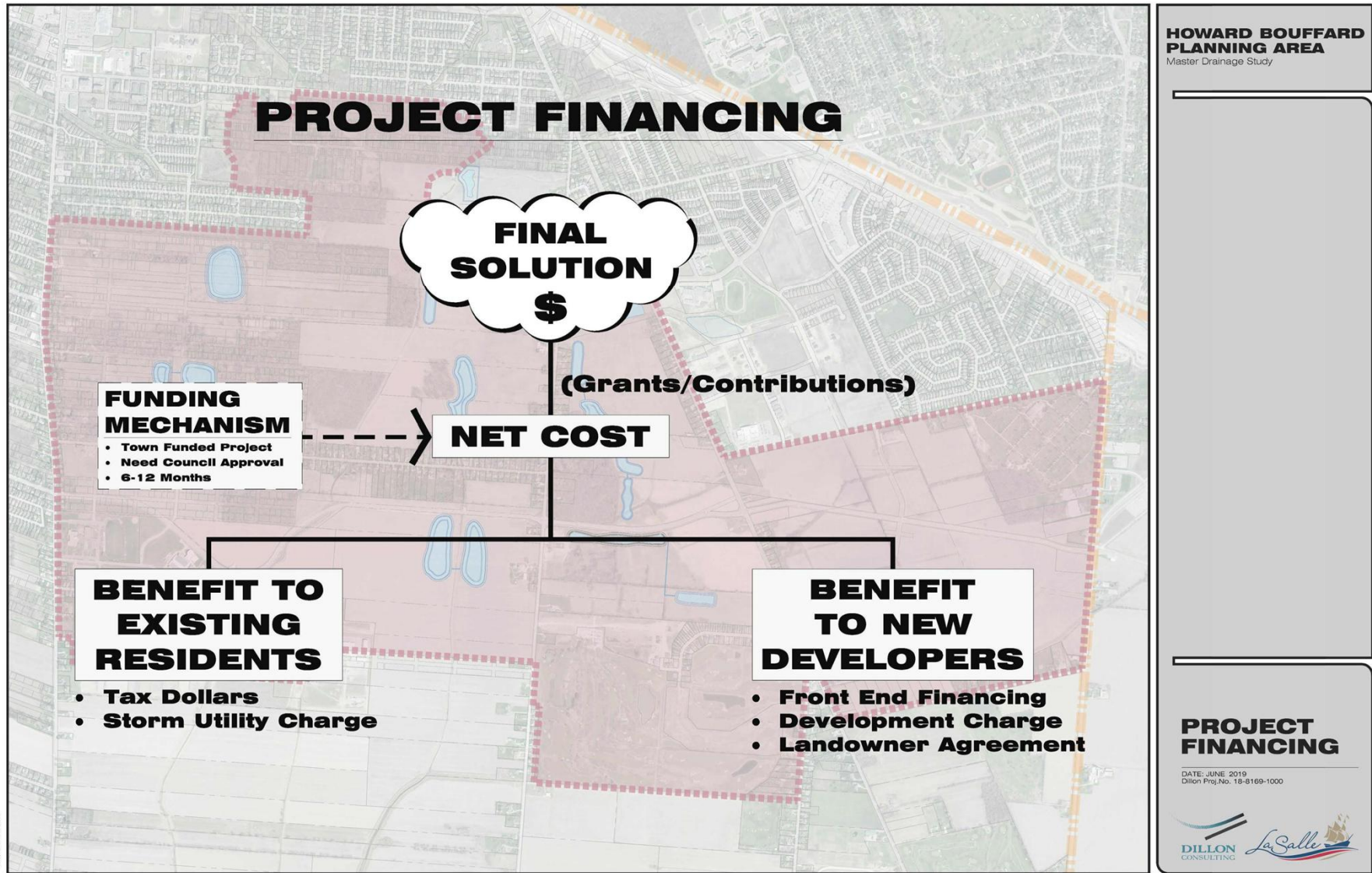


	CAPITAL COSTS (Millions)				BENEFITS	
	Construction	Engineering	Contingency	Total	# Ponds Eliminated	# Pump Stations Eliminated
Option 3B (PIC #1)	\$25.4	\$3.8	\$7.3	\$36.5	14	8
Recommended Solution	\$36.3	\$4.5	\$8.2	\$49.0	12	7

- Excludes land acquisition costs
- Excludes park land and green areas utilized for climate change resiliency
- Excludes future bridge crossings
- There may be an opportunity to reduce the estimated cost by keeping the excavated material onsite. This will be reviewed further through the design phases of the project.

Estimated Construction Cost for Proposed Improvements reduced by:

- ➔ LESS Costs for Construction of Local Stormwater Ponds
- ➔ LESS Costs for Local Pump Stations



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We Need Your Participation



Feedback from the public and the development community is vital as it will directly influence the recommended solution.

- Comment forms have been provided and can be submitted at or following this PIC
- Stakeholders may contact the project leads via mail, email or phone

Please provide us with your comments by:

January 31, 2019

Next Steps



	2019	2020	
	Winter	Spring	Summer
Receive Feedback From this Meeting (PIC)			
Complete EA Report and Make Available for Public Review			
Preliminary Design of Recommended Solution			
Council Consideration of Next Steps			

Thank you for attending.

If you have any questions about this project, please fill out the comment sheets or contact either of the individuals listed below.

Project Website
<http://www.lasalle.ca/hbmds>

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