

Southeast Brandon Drainage Improvements Project

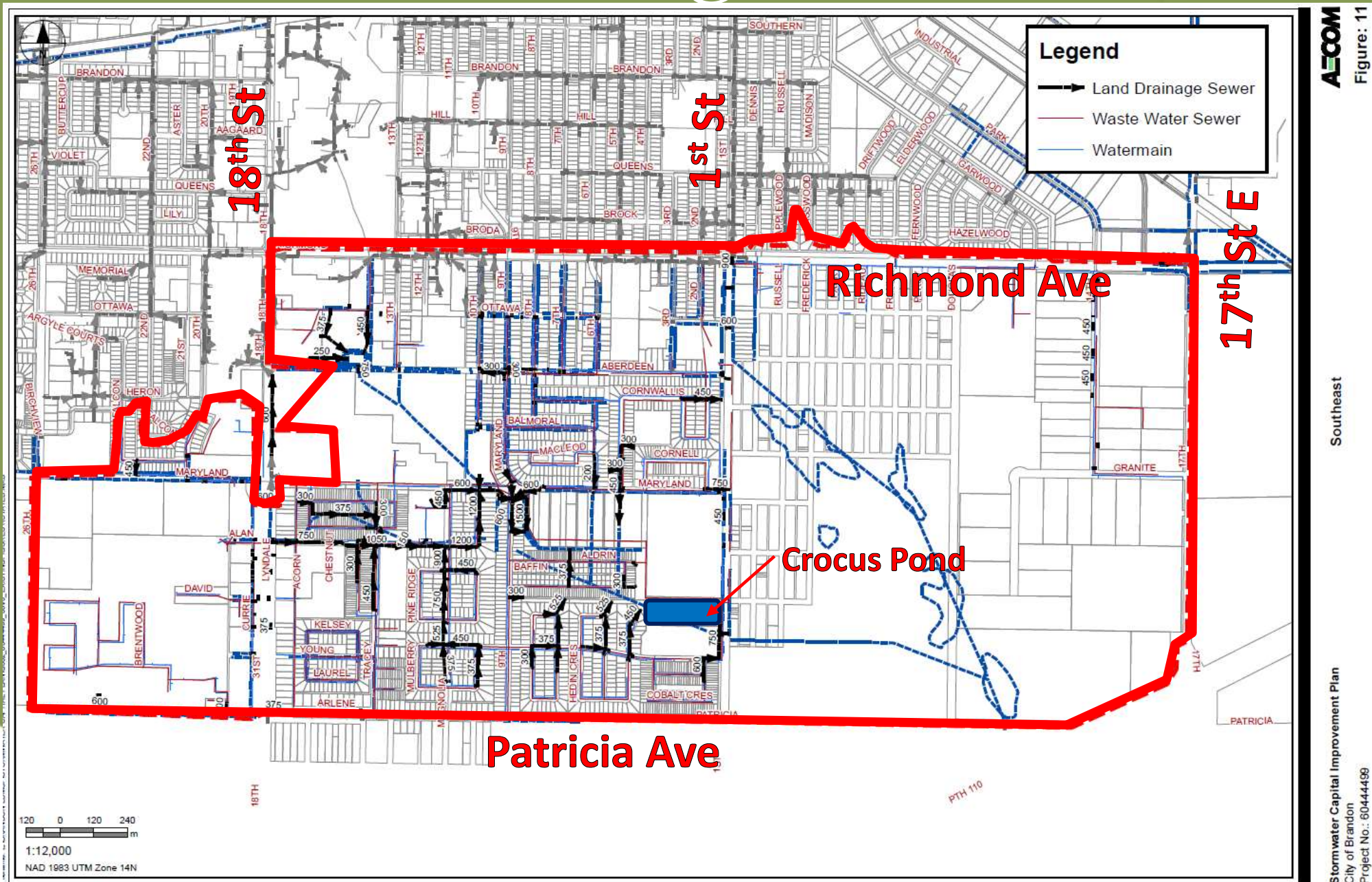
Southeast Brandon Drainage Improvements Project

- **What:** Construction of new stormwater infrastructure in the southeast area of Brandon to augment and expand upon the existing drainage network.
- **Why:** Southeast Brandon has a drainage network that is currently incomplete and inadequate. Continued development in the southeast without the project would increase risk of overland flooding and potential surcharge of domestic sewer systems.

Southeast Brandon Drainage Improvements Project

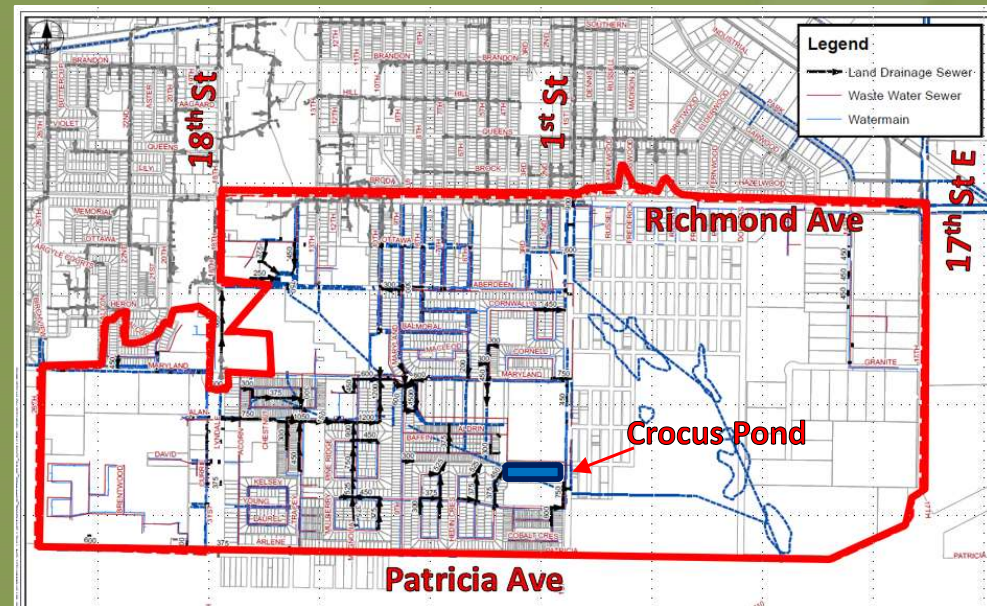
- Project Funding:
City Administration is proposing a debenture through general borrowing, requesting a borrowing authority of \$30.14 million. Several debentures will be issued based on cash flow requirements over the various project phases and multiple years.

Southeast Drainage Catchment

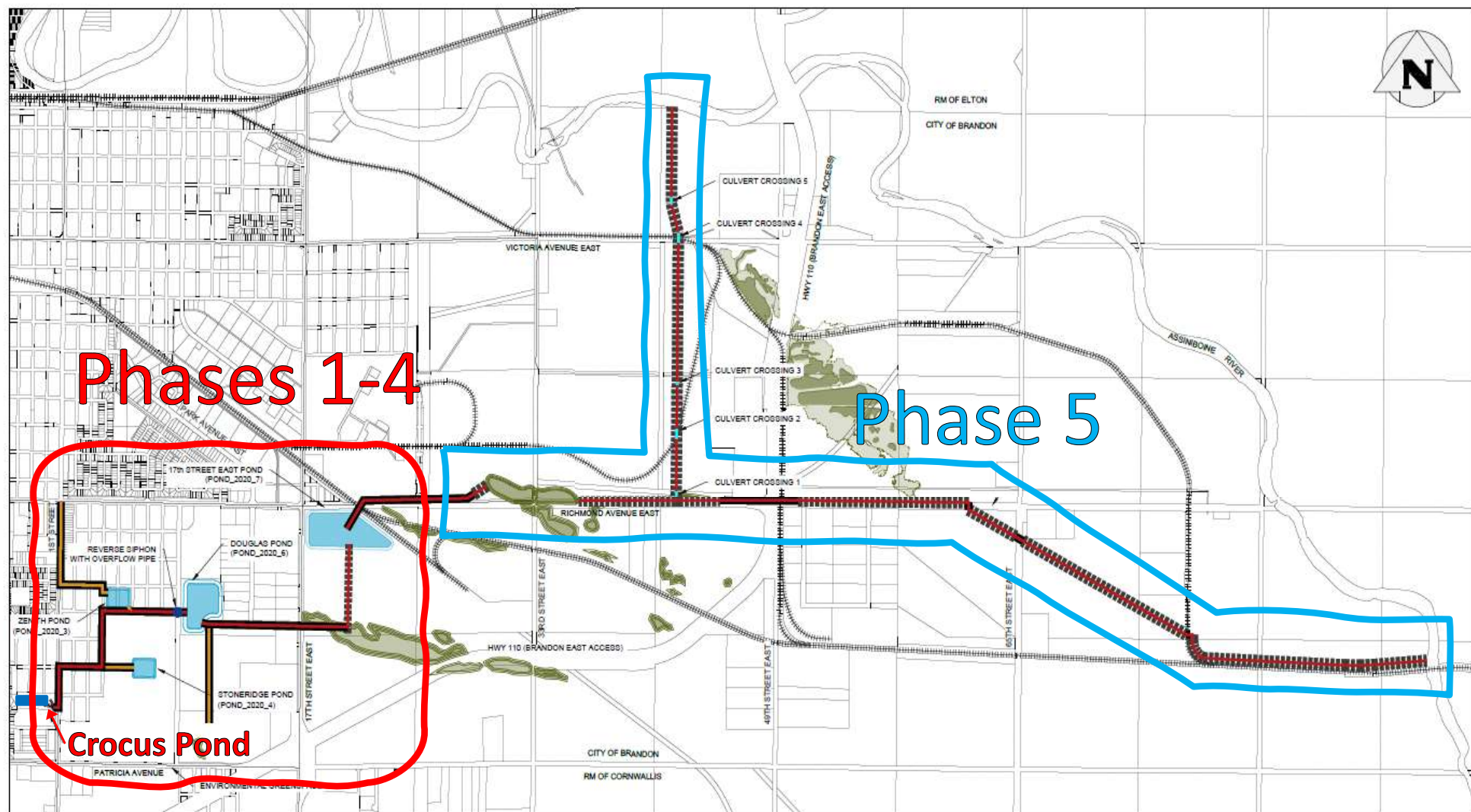


Southeast Drainage Catchment

- Existing catchment is roughly bounded by Richmond Ave, Patricia Ave, 26th St and 17th St E
- Drainage predominantly flows in a southeast direction and currently terminates in the pond south of Crocus Plains Regional Secondary School (Crocus Pond)



Southeast Drainage – Concept Overview



LEGEND

- PRIMARY LAND DRAINAGE ROUTE (PIPED)
- - - PRIMARY LAND DRAINAGE ROUTE (OPEN CHANNEL)
- SECONDARY/FUTURE LAND DRAINAGE ROUTE (PIPED)
- - - SECONDARY/FUTURE LAND DRAINAGE ROUTE (OPEN CHANNEL)
- POTENTIAL SEWER INTERFERENCE
- PROPOSED PONDS
- EXISTING WETLANDS

1:25,000 500 0 500 1000m

DESIGNED BY	BLM	DATE	2021-08-26	REVIEWED BY	KJM	SCALE	1:25,000
CHECKED BY		DATE		APPROVED BY			
DRAWN BY		DATE		PROJECT MANAGER			
DATE		DESCRIPTION	DESIGNED	REVIEW	DATE	STATUS	
2021-08-26		CONCEPT DESIGN	COMPLETE				



PROJECT NAME	STORMWATER RELIEF FOR SOUTHEAST DRAINAGE BASIN AND EAST BRANDON INDUSTRIAL AREA
PROJECT NUMBER	DRAINAGE ROUTE 3-2
PROJECT ID	1904060100-SKT-C0003
FIGURE	FIGURE 4-5

Southeast Drainage – Concept Overview

- A multi-phased drainage project to augment and expand the existing drainage network that currently ends at Crocus Pond along 1st Street South
- Currently proposed with 5 phases of construction
- Detailed design of phases 1-4 currently underway

Southeast Drainage – Phases 1-4

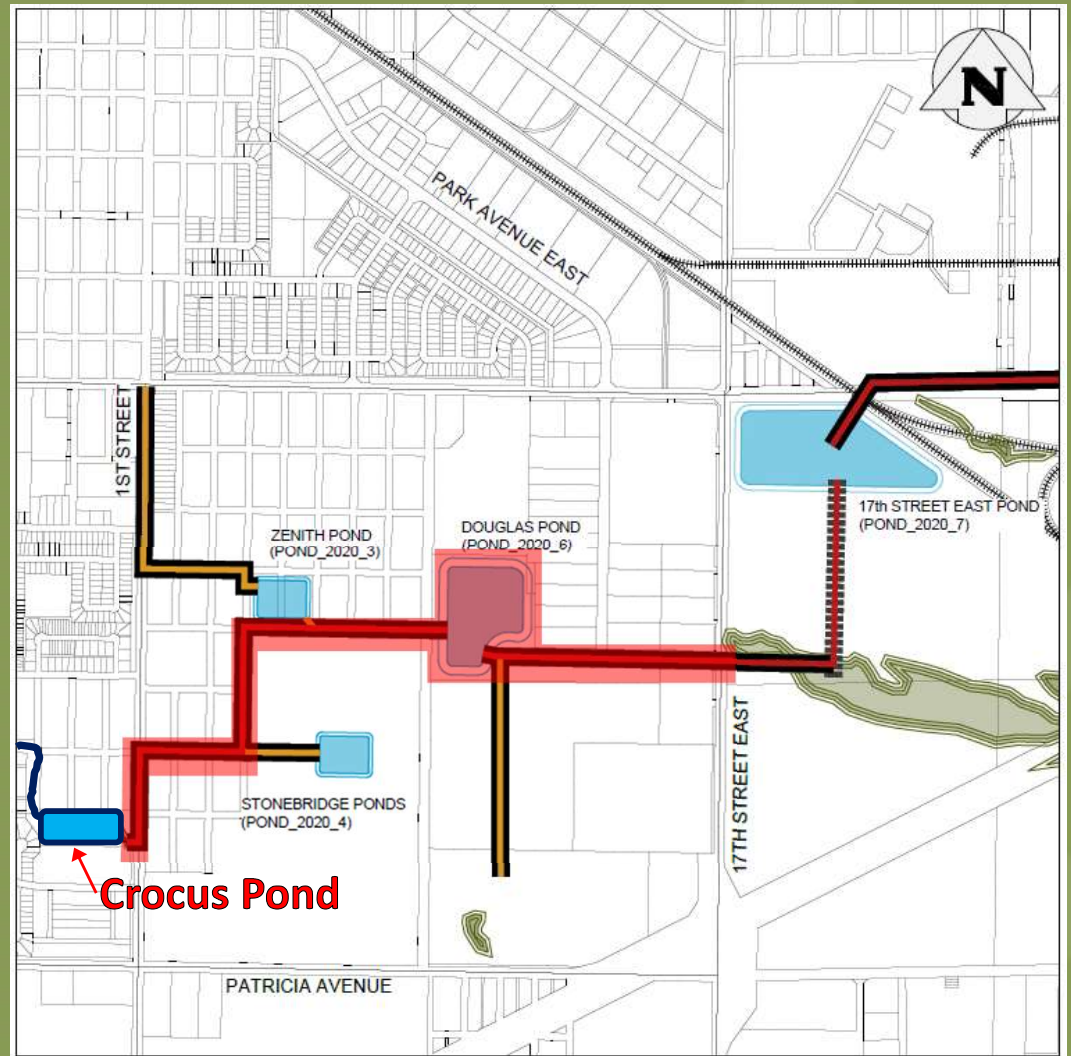
- Phases 1 – 4 include:
 - Construction of new trunk sewer and drainage infrastructure
 - Construction of new stormwater retention ponds
 - Modifications to existing pond and channel
 - Re-establish overland flow to proposed environmental preserve

Southeast Drainage – Phases 1-4

- Proposed drainage works will address:
 - Incomplete drainage network
 - Drainage relief for adjacent sub-catchment areas

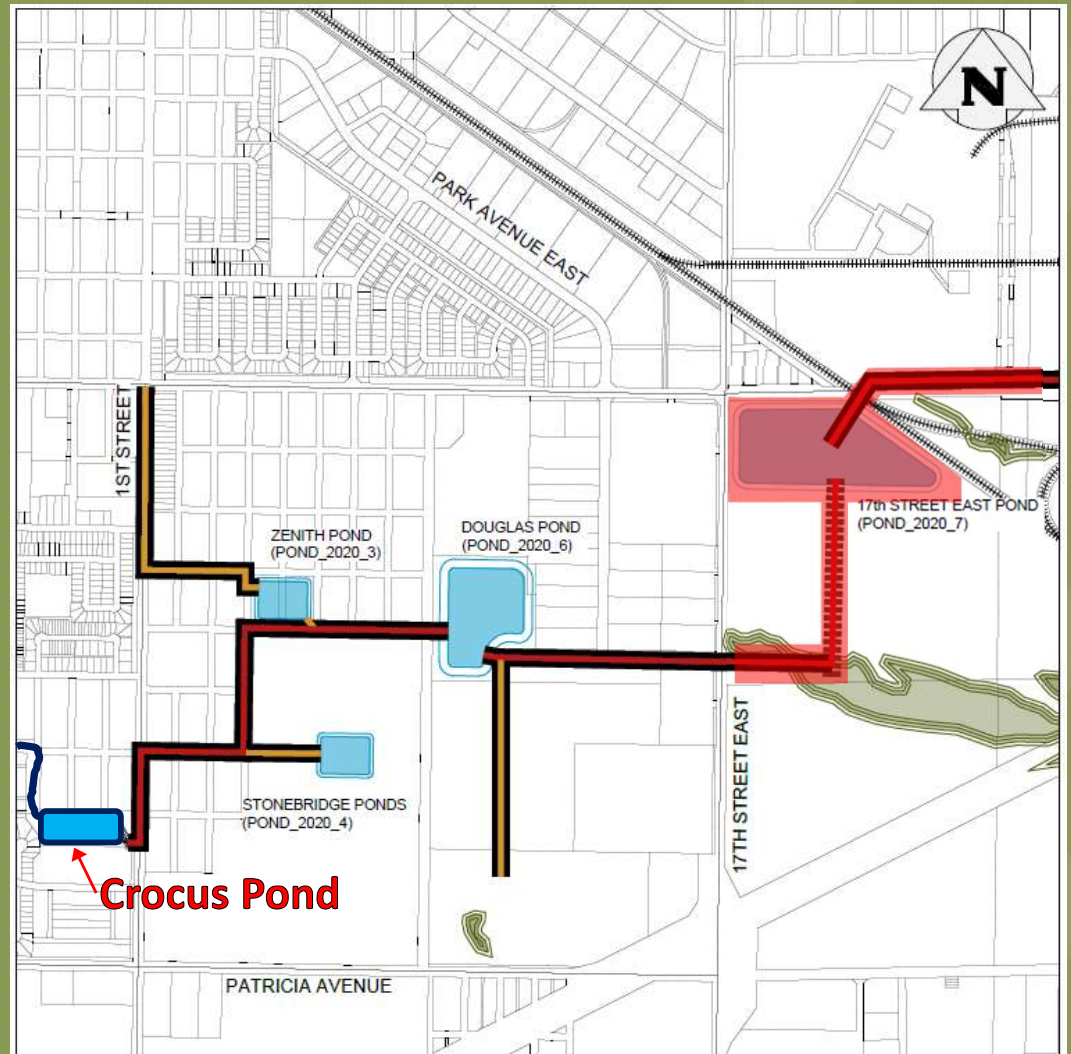
Southeast Drainage – Phase 1

- Outlet from Crocus Pond
- Douglas pond and storm sewer from 1st St to 17th St E
- Anticipated construction commencing Summer 2022



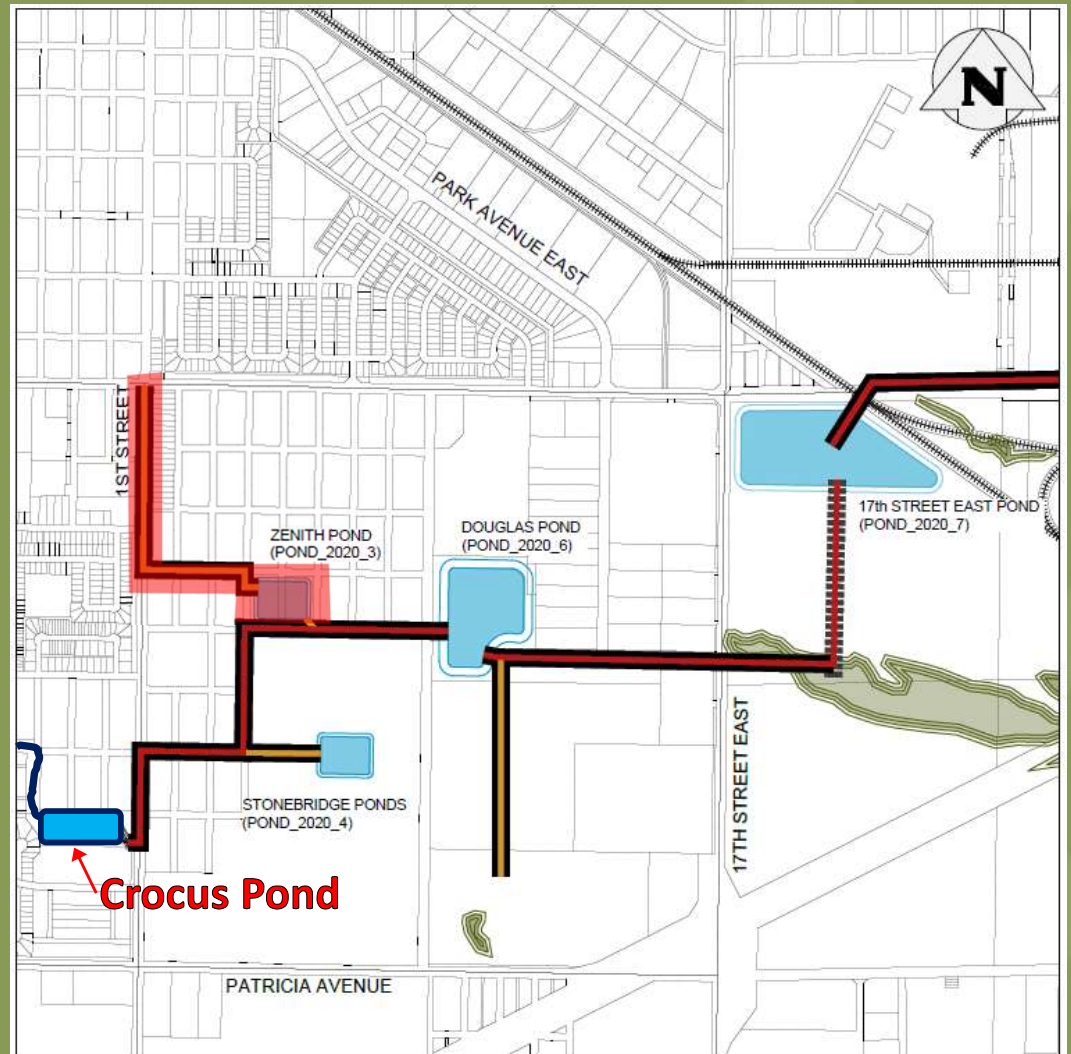
Southeast Drainage – Phase 2

- Extension of Phase 1
- Large retention pond
- Outlet across Richmond Ave
- Maintain flows to existing wetland east of 17th St E



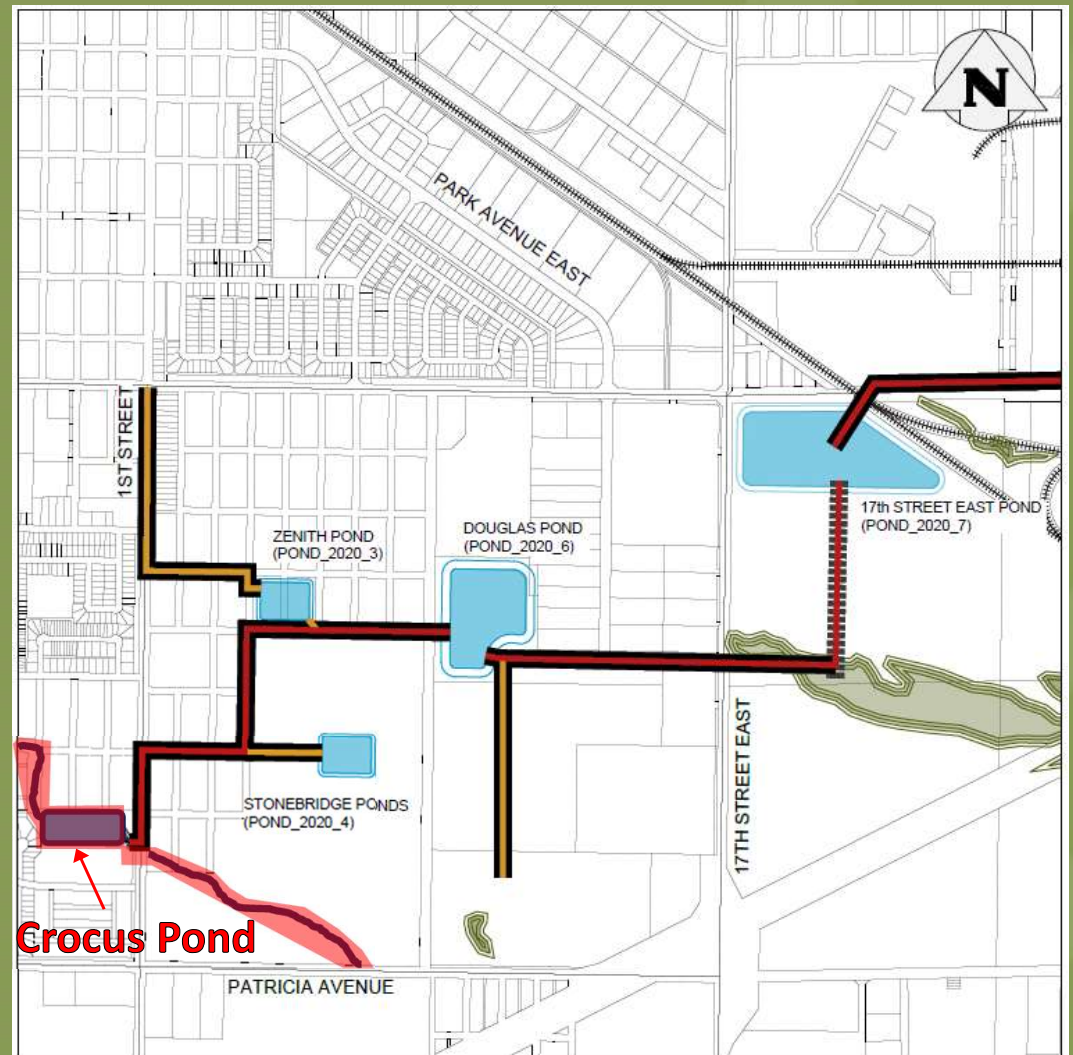
Southeast Drainage – Phase 3

- Relief sewer from 1st St and Richmond Ave
- New retention pond
- Connection to Phase 1 storm sewer



Southeast Drainage – Phase 4

- Construction of small pump station
- Irrigation through environmental preserve



Canadian Tire

Aberdeen Ave

18th St

Maryland Ave

Balmoral Ave

POND OPTION 3

WEIR ELEVATION RAISED TO 389.30 (G.535 m)

REMOVE CB MH AND EXTEND 1500 LGS 6.0 m

UNDERGROUND HYDRO LINE REQUIRED TO BE MOVED TO NORTH AND EAST PERIMETER OF POND

PLANTING BENCHES

LOW FLOW CHANNEL

TIE-IN CULVERT INTO MANHOLE & ABANDON DOWNSTREAM PORTION

INFILL LANDS TO BE RECLAIMED FOR CEMETERY USE

LEGEND

- PROPOSED DITCH
- FLOW ARROW
- PROPOSED STORM WATER SEWER
- PROPOSED MANHOLE
- EXISTING STORM WATER SEWER
- EXISTING MANHOLE
- EXISTING HYDRO OVERHEAD
- EXISTING HYDRO UNDERGROUND
- EXISTING GAS
- EXISTING WESTMAN CABLES
- EXISTING BELLMITS
- EXISTING GRAVEL ROAD
- RIGHT-OF-WAY/PROPERTY LINES

CITY OF BRANDON

Cemetery Pond and Associated Drainage Works

POND 3B

100 YEAR WET POND

10th STREET BACKLOT ALIGNMENT

1904060100-SKT-C0007

FIG 3-6

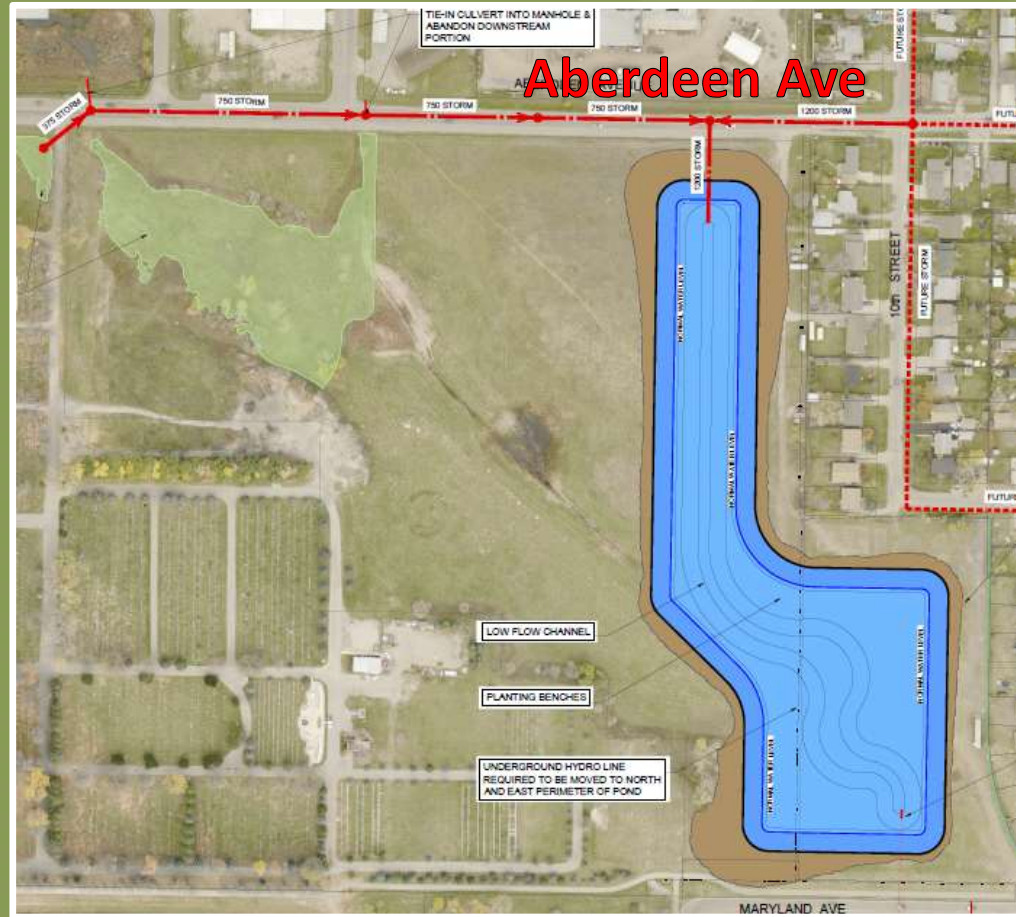
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Cemetery & Associated Drainage

- Works include detailed design and construction of:
 - Stormwater retention pond
 - Stormwater sewers
- Works addresses:
 - Increased drainage capacity
 - High risk overland flood areas

Cemetery & Associated Drainage

- New stormwater retention pond
- New storm sewer along Aberdeen Ave
- Allows for future expansion of storm sewer network



18th St

Sycamore Dr

POND OPTION 3
 BOTTOM: 386.80 m
 NWL: 389.30 m
 HWL (100'-ft): 390.76 m
 PRAIRIE (HIGH): 392.10 m
 PRAIRIE(LOW): 391.30 m

THE LANDING DRY POND

CONNECTION TO POND TO BE PART OF CEMETERY POND WORKS

ABANDON EXISTING LOS AND RE-CONNECT CE LEADS TO NEW STORM SEWER

MANHOLE TO BE REPLACED AND PIPES RECONNECTED

LEGEND

- PROPOSED DITCH
- FLOW ARROW
- PROPOSED STORM WATER SEWER
- PROPOSED MANHOLE
- EXISTING STORM WATER SEWER
- EXISTING MANHOLE
- EXISTING HYDRO UNDERGROUND
- EXISTING GAS
- EXISTING WESTMAN CABLES
- EXISTING BELLMETS
- EXISTING GRAVEL ROAD
- RIGHT-OF-WAY/PROPERTY LINES

City of BRANDON

TETRA TECH
 Complex World Clear Solutions

CITY OF BRANDON CEMETERY POND AND ASSOCIATED DRAINAGE WORKS

UPSTREAM RELIEF UPGRADES

MAGNOLIA DRIVE & 18th STREET CONNECTION

1904060100-SKT-C0007 FIG 5-1 A

Cemetery & Associated Drainage



- New drainage infrastructure along southside of cemetery
- New storm sewer on Magnolia Dr
- Works completed after Cemetery retention pond to provide relief to overland flood prone areas