



Project: 20-115-401

September 15, 2022

Royal Lepage
308 Appleby Line
Burlington, Ontario L7L 2X5
Attention: Ryan Rebello (by email: rebello@royallepage.ca)
Cc: George Cooper – Crozier (by email: gcooper@cfcrozier.ca)

**RE: Geotechnical Review of Preliminary Design of SWM Pond
Proposed Residential Development
425 Union Street
Meaford, Ontario**

Dear Sir:

In conformance with the request of Crozier, DS Consultants Ltd. (DS) have reviewed the preliminary design drawings of the SWM Pond provided to us by Crozier, as attached in **Appendix I**. We understand that the SWM pond slopes will be designed to 3H:1V or flatter above the pond water level and to 4H:1V or flatter below the pond water level, which is generally in line with the recommendations from the geotechnical report by DS (No. 20-115-401, dated May 4, 2021).

The measured groundwater table in the monitoring well in BH21-7 in the proposed SWM pond area was at Elev. 215.5 m. The pond bottom was at Elev. 214.3 to 214.5 m, which is below the groundwater table. A clay liner (or equivalent) will be required for the pond. In the detailed design stage of the SWM pond, uplift analysis of the clay liner will be required to determine the required thickness of the clay liner. Stability analyses of the pond slopes will also be required in the detailed design stage of the pond.

We trust that the information contained in this letter is satisfactory. Should you have any questions, please do not hesitate to contact this office.

Yours Very Truly,

DS Consultants Ltd.

Alka Sangar, M.Eng., P.Eng.

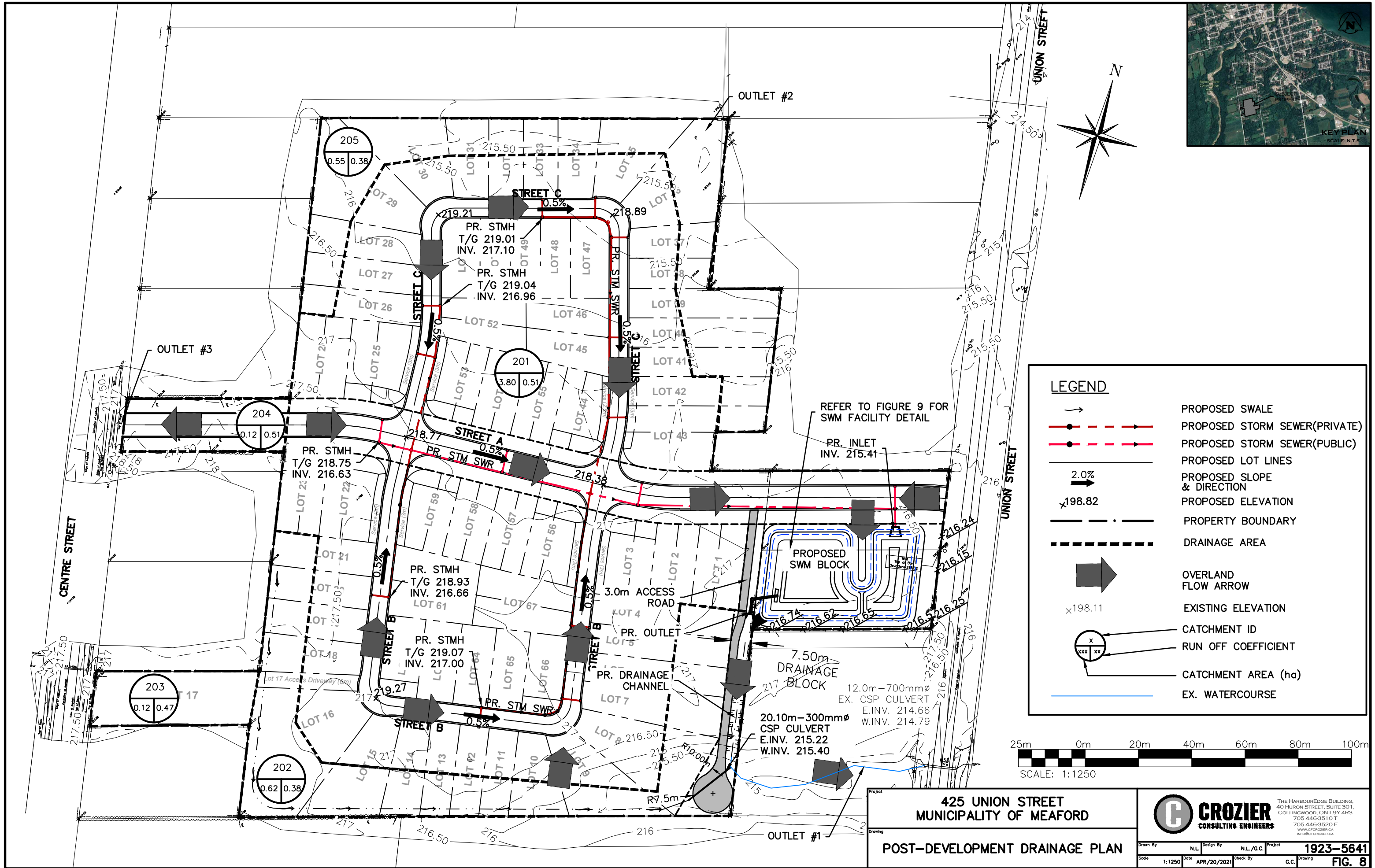
Fanyu Zhu, Ph.D., P.Eng.

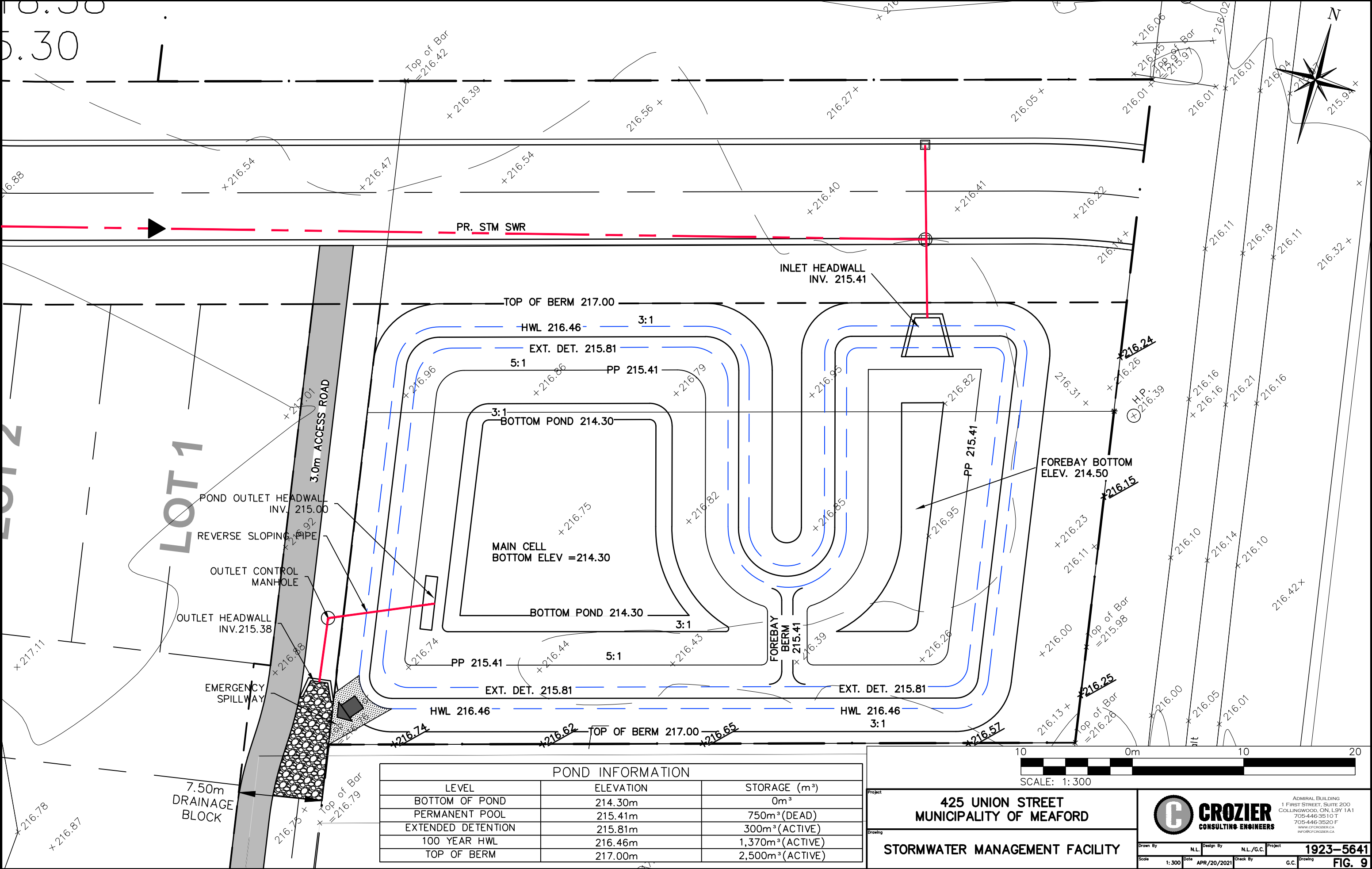
Attachment:

Appendix I – Preliminary Design Drawings of SWM Pond Provided by Crozier



Appendix I - Preliminary Design Drawings of SWM Pond Provided by Crozier





POND INFORMATION		
LEVEL	ELEVATION	STORAGE (m³)
BOTTOM OF POND	214.30m	0m³
PERMANENT POOL	215.41m	750m³ (DEAD)
EXTENDED DETENTION	215.81m	300m³ (ACTIVE)
100 YEAR HWL	216.46m	1,370m³ (ACTIVE)
TOP OF BERM	217.00m	2,500m³ (ACTIVE)

10

0m

10

20

SCALE: 1: 300

Project

425 UNION STREET
MUNICIPALITY OF MEAFORD

Drawing

STORMWATER MANAGEMENT FACILITY

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C

CROZIER

CONSULTING ENGINEERS

Drawn By

N.L.

Design By

N.L./G.C.

Project

1923-5641

Scale

1: 300

Date

APR/20/2021

Check By

G.C.

Drawing

FIG. 9

J:\1900\1923-Royal Lepage\5641-425 Union St\CAD\Civil_Sheets\5641_700.dwg, FIG. 9, 2022-04-13 9:02:56 AM, nlefebvre