

October 11, 2024

From:

KWA Site Development Consulting Inc
2453 Auckland Drive
Burlington, ON
L7L 7A9

To:

Toronto and Region Conservation Authority
101 Exchange Avenue
Vaughan, ON
L4K 5R6

Attention: Stephanie Dore, Senior Planner, Development Planning and Permits

**Re: ZBA Submission Memo – Seaton Commercial Developments
Taunton and Peter Matthews Drive, Pickering, ON**

Dear Ms. Dore,

KWA has been retained by Seaton Commercial Developments Ltd. (“Client”) to prepare this submission memo to support the Zoning Bylaw Amendment (“ZBA”) submission for the proposed commercial development located at Taunton Road and Peter Matthews Drive in the City of Pickering, Ontario.

The area that is subject to this application (herein the “site”) is approximately 5.54 hectares (13.69 acres) and is part of Block 188 within the Taunton Road and Taunton Road West Subdivision. The site is presently stripped of topsoil and rough graded with an erosion control (ESC) pond located in the southeast corner of the site.

The site is square shaped, with an approximate frontage of 245 m on Taunton Road, 185 m on Peter Matthews Drive, and 255m on Marathon Avenue. The Trans-Northern Pipeline (TNP) Easement is located along the south boundary with Marathon Avenue and is between 17 and 18 metres wide and 0.44 hectares in area. There are four (4) existing access points to the site; two (2) off Taunton Road, one (1) off Peter Matthews Drive, and one (1) off Marathon Avenue. A Public Road with a right-of-way width between 17 and 19.85 metres is proposed along the west side of the subject site to provide access from Taunton Road and Marathon Avenue. This proposed Public Road has an area of 0.35 hectares, not including the crossing with the TNP Easement at its southern end.

1 Site Plan Approval Application – April 14, 2023

A Site Plan Approval application was made for the subject site based on a previous 5.34-hectare conceptual design. The site plan proposed a Private Road/Laneway along its western boundary and

contemplated 10 commercial buildings with associated parking and site entrances to the surrounding roadways.

1.1 Grading Design

The grading design for this application proposed sloping the site west to east by approximately 6 metres, to match the proposed elevation of the private laneway and the existing elevations at Peter Matthews Drive. Interim flat landings accommodated the commercial building entrances and sloping (within AODA standards) was utilized between doorways as needed. Strategic walls, 3:1 slopes, and buried/exposed foundations were utilized to allow for adequate access to all entries and exit doors for the various commercial retail units (“CRU’s”).

1.2 Stormwater Management

A Stormwater Management (“SWM”) Report, prepared by Cole Engineering (November 2017) established the target flow rates for all storm events within the commercial block A-8.2 based on an assumed imperviousness of 95%.

The proposed design captured the 100-year storm event and attenuated peak release rates to the allowable release rates using 6 underground storage tanks and orifice plates, in series. The private storm sewer network conveyed flows southeast and connected into the municipal storm network via an existing manhole (MH490). These flows discharged into a 750 mm storm sewer along Peter Matthews Drive, which eventually drained to Stormwater Management Facility 2 (SWMF-2) to the east. Emergency overland flow was designed to be conveyed to Peter Matthews Drive and Marathon Avenue to the southeast.

Quantity control tanks also provide infiltration as they were designed with open bottoms and were sized to meet erosion control (5 mm over the site area) and water balance (10 mm over the impervious site area) guidelines established within the approved subdivision SWM by Cole Engineering.

At the time of this application, groundwater elevation and infiltration characteristics of the founding soils were unknown. An infiltration rate of 5mm/hr and adequately deep high groundwater was assumed for the purpose of this initial Site Plan submission.

2 Groundwater Characteristics and Infiltration Discussions

Groundwater monitoring results and in-situ infiltration tests were provided by Gemtec in September 2023, showing shallow groundwater across the subject site. Additionally, site plan comments were provided by the agencies to KWA on September 19, 2023. The shallow groundwater elevations conflicted with the assumptions of the initial site plan application drawings and calculations, and discussions with the TRCA and City of Pickering staff were scheduled to confirm standard practices and guidelines that would be deemed acceptable for future applications. KWA prepared concept infiltration designs for review by both agencies, and confirmed by September 2024 that infiltration requirements, particularly water balance of 10 mm over the impervious site area, could be accommodated within the subject site by reducing the standard LID to groundwater separation to

0.50m. The initial site plan application and these following discussions with the City of Pickering and TRCA staff serve as the basis for future detailed applications.

3 Proposed ZBA Concept Grading and Stormwater Figures

The documents provided by KWA to support the ZBA application include Grading (1) and Stormwater (2) Figures as shown in the Appendices. The proposed site plan strongly resembles the previous site plan used for the initial SPA application submitted in April of 2023. The changes are generally as follows:

- 1) Change from Private Laneway to Public Road along the west property line.
- 2) Addition of a CRU backing onto Peter Matthews Drive.
- 3) Removal of site loading access onto Peter Matthews Drive.
- 4) Addition of one (1) access at the south of the Public Road to facilitate loading and vehicular movement.
- 5) General site layout adjustments including addition of 0.20 ha of area.

The Site Grading Plan, Figure 1, is a similar design to those provided in the first SPA submission. The site slopes west to east and intends to capture as much stormwater as possible within the various catchbasin inlets around site. Emergency Overland flow is sent safely to Peter Matthews Drive, and all buildings are provided with pedestrian access in accordance with AODA standards.

The Site Stormwater Plan, Figure 2, shows the conceptual storm sewer layout with connections to the inlet low points designed as part of the site grading exercise. Storm sewers will convey the 100-year storm event to infiltration and storage tank locations across the subject site. These tank locations have been selected based on a comparison between finished grade and the high groundwater level, with contours shown on Figure 1 for reference. The storage and infiltration tanks shown on the plan are **potential** locations based previous SPA application work and follow-up discussion with the approval agencies and have not been sized in detail. Future SPA applications will complete detailed sizing of the tanks, orifice plates, and model the entire Stormwater Management System in Visual Otthymo.

The proposed public road will achieve its quantity, quality, and water balance objectives separately with a stormwater connection to Marathon Avenue as shown. A potential infiltration/quantity control gallery location is shown near the outlet and north of the TNP lands to recharge groundwater and attenuate storm flows in accordance with the SWM Report objectives.

Conclusion

Based on the detailed stormwater management calculations completed as part of the previous SPA application, and considering the changes made to the site plan as part of this ZBA application, it is KWA's opinion that the current site plan and future detailed design will be able to accommodate all controls in order to meet the Quantity, Quality, Water Balance, and Erosion Control requirements set forth for the subject site within the approved Stormwater Management Report for the Taunton Road and Taunton Road West Subdivision. Additionally, changes to this site plan that may result in higher imperviousness will not impact the sites' ability to meet the intended targets. It is our opinion that

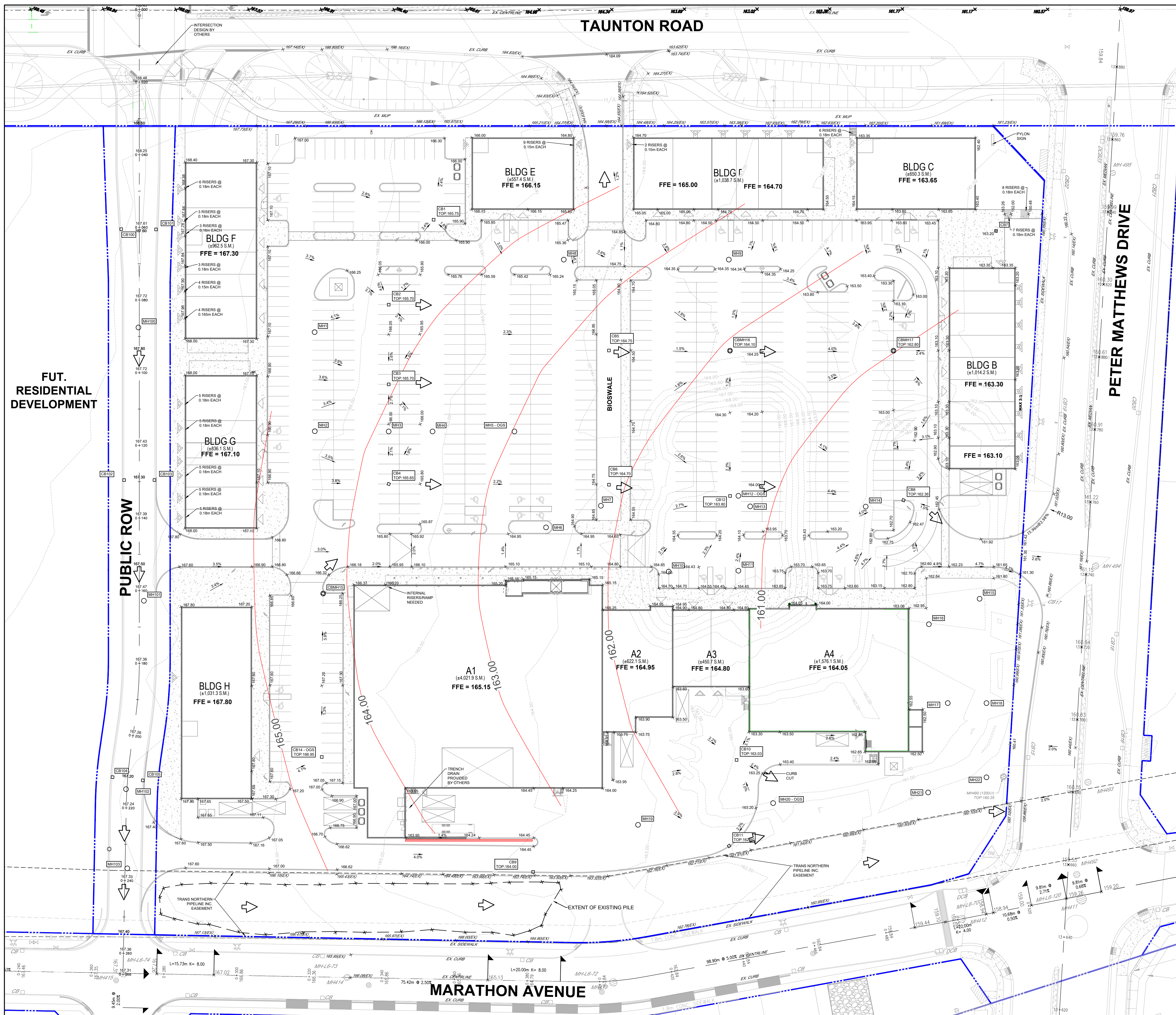
the future detailed design of the grading and stormwater management for the subject site will not impact the re-zoning effort being reviewed as part of this application.

Regards,

A handwritten signature in black ink, appearing to read "Ben Jackson", with a long horizontal flourish extending to the right.

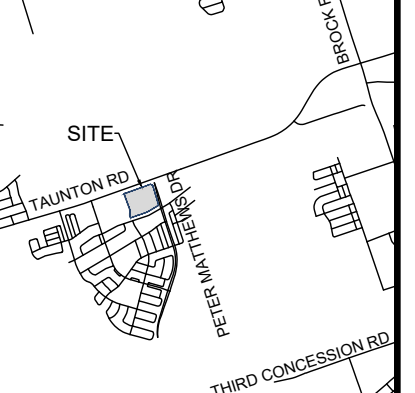
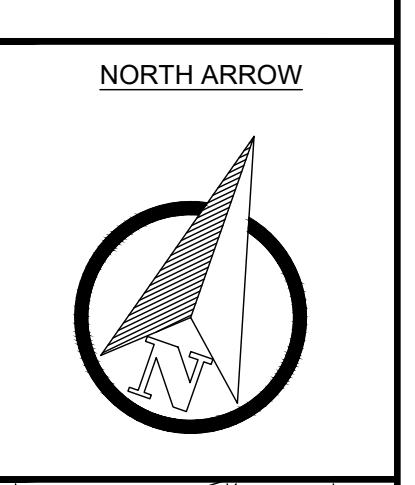
Ben Jackson, P.Eng.
KWA Site Development Consulting Inc.

Appendix A – Figures



REVISION BLOCK		
#	DATE	DESCRIPTION
1	10/11/24	ISSUED FOR ZBA

KWA SITE DEVELOPMENT
 2455 Aspland Drive
 Burlington, ON L7L 7A9



SURVEY AND BENCHMARK NOTE

EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN ARE BASED ON R-P-E SURVEYING LTD. DRAWING (JOB NO. 22273 FILE NO. 22273p01).

ELEVATIONS ARE GEODETIC AND ARE REFERRED TO CITY OF PICKERING VERTICAL BENCH MARK NUMBER 4-031 HAVING AN ORTHOMETRIC ELEVATION OF 151.957 METRES. ELEVATIONS ARE REFERENCED TO THE CANADIAN GEODETIC VERTICAL DATUM OF 1928, 1978 ADJUSTMENT (CGVD-1928/1978).

BRASS CAP SET VERTICALLY IN CHANGE ANCHOR 27.6m EAST OF CENTRELINE OF NORTH SECTION OF SIDELINE ROAD #16, 10.0m SOUTH OF CENTRELINE OF CONCESSION 5 ROAD AND 0.20m BELOW GRADE.

METRIC SCALE

0 5 10 20

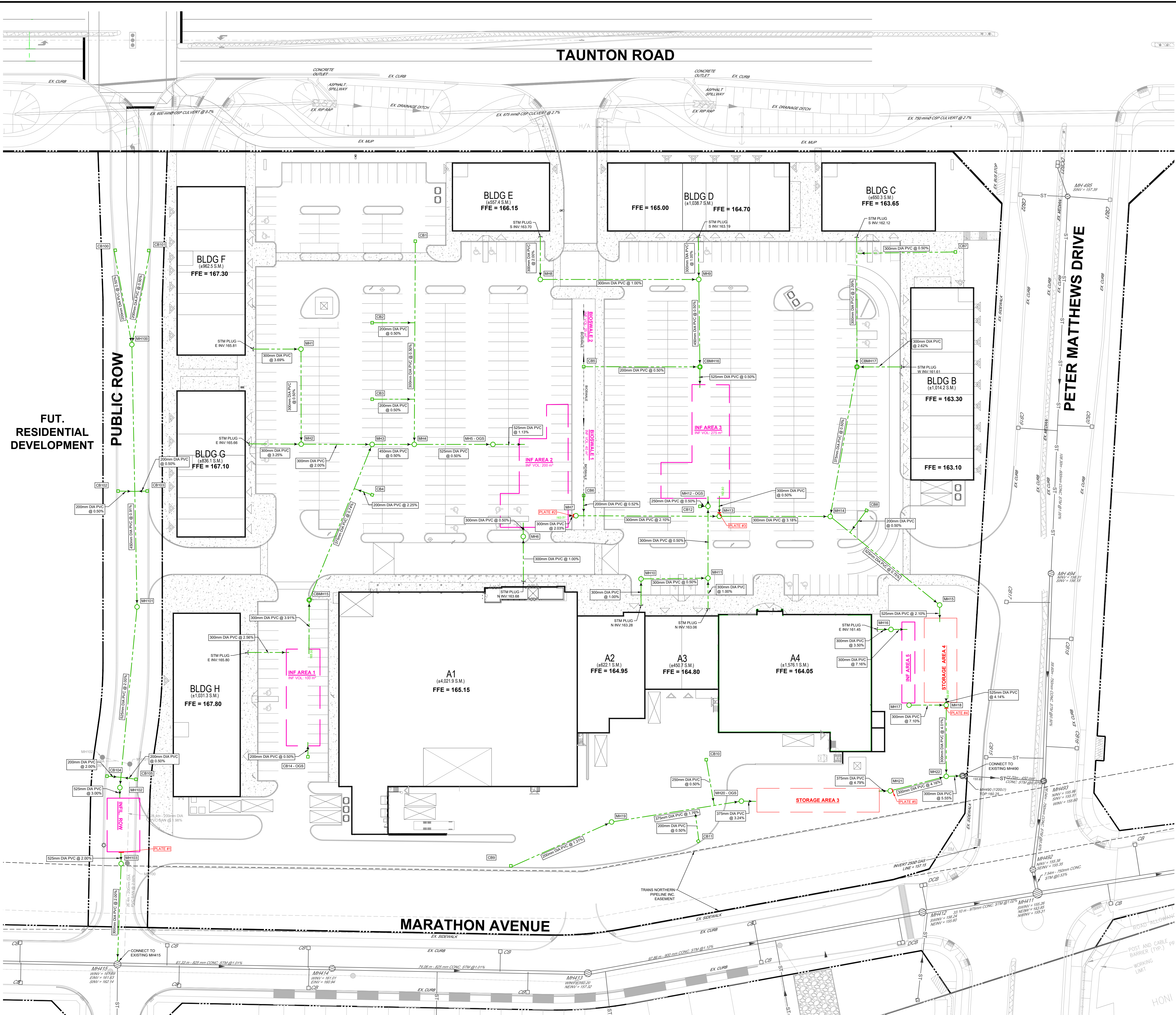
1:500

X 100.00	PROPOSED ELEVATION
X 100.00 (SW)	PROPOSED SWALE ELEVATION
X (100.00)	PROPOSED ELEVATION BY OTHERS
X 100.00 (TC)	TOP OF CURB ELEVATION
X 100.00 (TW)	TOP OF WALL ELEVATION
X 100.00 (BW)	BOTTOM OF WALL ELEVATION
X 100.00 (EX)	EXISTING ELEVATION
	PROPOSED CATCHBASIN
	PROPOSED STORM MANHOLE
	EXISTING CONTOUR
	PROPOSED BOTTOM OF SWALE
	EMERGENCY OVERLAND FLOW ROUTE
	PROPERTY LINE
	PROPOSED RETAINING WALL
	PROPOSED TRANSFORMER
	EXISTING STORM MANHOLE
	ESTIMATED GROUNDWATER CONTOURS FROM GEMTC INVESTIGATIONS

SITE GRADING PLAN
 FIELDGATE COMMERCIAL
 TAUNTON RD/PETER MATTHEWS DR.
 PICKERING, ONTARIO

PROJECT NO. 23810 | DRAWN BY: BS | CHECKED BY: BJ

FIG - 1



TAUNTON ROAD

PETER MATTHEWS DRIVE

MARATHON AVENUE

FUT. RESIDENTIAL DEVELOPMENT

PUBLIC ROW

BLDG F
(#962.5 S.M.)
FFE = 167.30

BLDG E
(#502.4 S.M.)
FFE = 166.15

BLDG D
(#1,035.7 S.M.)
FFE = 165.00

BLDG C
(#560.3 S.M.)
FFE = 164.70

BLDG B
(#1,014.2 S.M.)
FFE = 163.30

BLDG G
(#650.1 S.M.)
FFE = 167.10

BLDG H
(#1,031.3 S.M.)
FFE = 167.80

A1
(#4,021.9 S.M.)
FFE = 165.15

A2
(#622.1 S.M.)
FFE = 164.95

A3
(#450.7 S.M.)
FFE = 164.80

A4
(#1,576.1 S.M.)
FFE = 164.05

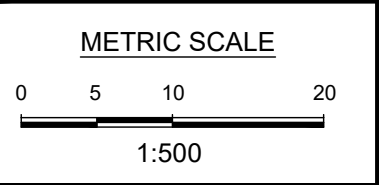
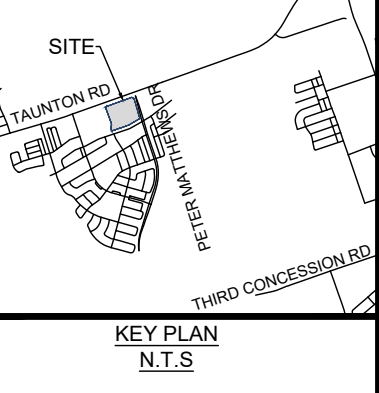
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LEGEND

- PROPOSED STORM SEWER ($\leq 600\text{mm}$)
- PROPOSED STORM SEWER ($\leq 600\text{mm}$)
- PROPOSED STORM MANHOLE
- PROPOSED STORM CATCHBASIN MANHOLE
- PROPOSED CATCHBASIN
- POTENTIAL UNDERGROUND STORAGE AND INFILTRATION GALLERY
- POTENTIAL UNDERGROUND STORAGE
- EXISTING STORM MANHOLE
- EXISTING CATCHBASIN
- EXISTING STORM SEWER ($\leq 600\text{mm}$)
- EXISTING STORM SEWER ($\leq 600\text{mm}$)

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SITE STORMWATER PLAN
 FIELDGATE COMMERCIAL
 TAUNTON RD/PETER MATTHEWS DR.
 PICKERING, ONTARIO

PROJECT No: 23810
 DRAWN BY: RB
 CHECKED BY: BJ