Servicing Brief
Sykes Street North Chiropractic Clinic

Town of Meaford
Town File No.: PRE02-2022
(Commercial SPA)

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Town File No.: PRE02-2022
(Commercial SPA)

R.J. Burnside & Associates Limited
3 Ronell Crescent
Collingwood ON L9Y 4J6 CANADA

February 2024
300054437.2000

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Revision	Date	Description
-	February 28, 2024	Initial Submission

R.J. Burnside & Associates Limited

Report Prepared By:

Jordan McIntyre, P.Eng.
Project Engineer
JM:smm

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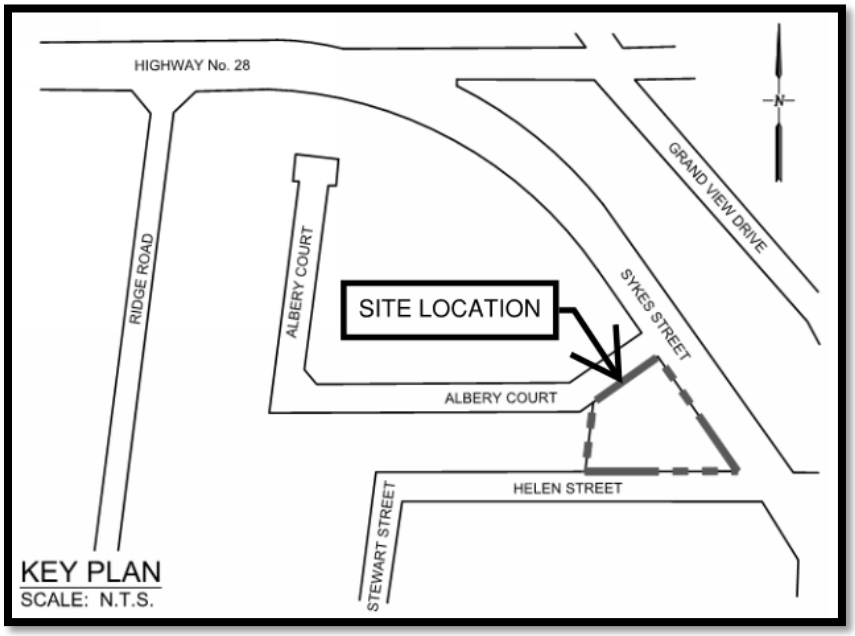
1.0 Introduction

R.J. Burnside & Associates Limited (Burnside) has been retained by James V. Thompson (Property Owner) to prepare a Servicing Brief in support of a Site Plan Application for a proposed chiropractic clinic located at the corner of Albery Court and Highway 26 (Sykes Street). The site location plan is shown in Figure 1, below. This report has been prepared to demonstrate the subject lands can be provided with sanitary and water supply servicing in accordance with applicable regulatory requirements and criteria.

Figure 1: Site Location Plan



1.1 Background Information

Burnside has used the following background information in the preparation of this report:

- Legal survey prepared by J.C. Milne, O.L.S; (April 1989)
- Topographic survey prepared by JoeTOPO; (November 2021)
- Technical Memorandum – Sykes Street North Floodplain Study by R.J. Burnside & Associates Limited (March 2022)
- Geotechnical Investigation Letter by G.M BluePlan (February 2024)

1.2 Site Description

The subject lands are currently zoned Highway Commercial (C2) which permits a Medical Office use. The proposed building will be a single-story structure with adjacent

parking supportive of an anticipated two practitioners. Accessible parking and barrier free access to the building have been provided.

The existing lands include Environmental Protection (EP) where Margret Marshall Saunders Creek intersects the subject lands. The proposed commercial site plan is fully located within the northern half of the subject lands zoned C2, with proposed entrance access from Albery Court. The subject lands undertook a minor variance request (A07-2023) regarding a reduction of minimum front yard setback from 15.0 m to 7.5 m as well as confirmation of the frontage definition as Albery Court, and this minor variance was approved in May 2023.

Adjacent lands to the west are comprised of existing residential. Adjacent land north of Albery Court ROW include future residential. Adjacent lands to the south include commercial and industrial lands south of Helen Street.

Albery Court is a typical 20.0 m road right-of-way (ROW) cross section following Town of Meaford standard STD. DWG.No.1, and is serviced by storm sewer which discharges to Georgian Bay. The existing site includes a 7.5 m wide entrance which will be relocated to suite the site plan.

A 6.0 m wide municipal servicing easement exists along the west boundary of the site. Existing servicing connections include a 100 mm water service lateral and 150 mm sanitary service lateral stubbed at property line as indicated on the As-Constructed drawings for the Alderdice Subdivision by Gamsby and Mannerow Ltd., dated November 1990, available in Appendix B.

2.0 Water Supply and Distribution

2.1 Existing Water Infrastructure

Albery Court includes an existing 250 mm ductile iron watermain which turns south and enters the 6 m wide servicing easement adjacent to the subject site. An existing 100 mm water main lateral extends to the subject lands and includes a valve located along the west property limit. An existing fire hydrant is located on the north side of Albery Court a distance of 53 m from the proposed front building entrance providing fire suppression for the subject lands.

Refer to the as-constructed drawing 4 by Gamsby and Mannerow Limited, dated November 1990, available in Appendix B.

2.2 Proposed Water Servicing

The proposed development will be serviced by a 38 mm dia. copper water service connecting to the existing 100 mm watermain lateral located near the west property limit.

The water meter and check valve will be located internal to the proposed building to ensure compliance with the Town Standard STD.DWG.No.15.

Refer to drawing Site Servicing Plan (SSP) within the civil drawing set.

3.0 Sanitary Servicing

Sanitary servicing for the subject land will be designed in accordance with the OBC and Town of Meaford Engineering Design Standards.

Sanitary design flows will be based on the following criteria:

Table 1: Sanitary Design Criteria

Variable	Value	Reference
Average Day Per Capita Flow	275 L/c/d	OBC 8.2.1.3.(2).9
Populations	2 Practitioners	Site Plan Stats
Peaking Factor	4.46 (M=1+(14/(4+(p/10^3)^.5))	MOE 5.5.2.1
Infiltration	0.1 L/s/ha	Typical
Total Site Area	0.15 ha	Approximate

3.1 Residential Sanitary Contribution

Peak Factor – Harmon Formula:

=1+(14/(4+0.002^.5))
=4.46

Average Day Flow:

=Avg. Per Capita Flow x Population (in Thousands) / 86.4
=275 L/c/d x 0.002 / 86.4
=0.006 L/s

Peak Flow:

=0.006 L/s x 4.46
=0.03 L/s

Infiltration – per TOA 2.06:

=Infiltration Allowance x Total Site Area
=0.1 L/s/ha x 0.15 ha
=0.015 L/s

Total Sanitary Peak Flow:

=Peak Flow + Infiltration
=0.03 L/s + 0.015 L/s
=0.045 L/s

Refer to drawing Site Servicing Plan (SSP) within the civil drawing set.

3.2 Existing Sanitary Sewer Infrastructure

The existing municipal servicing easement along the west limit of the site contains a 200 mm PVC sanitary sewer that conveys sanitary flows from the Albery Sanitary Sewer Extension, Albery Court, and Pine Hurst Avenue south to Helen Street at an approximately 0.5% slope. From here, a 250 mm PVC sanitary sewer conveys flows east toward Sykes Street at a 1.4% slope along Helen Street.

An existing 150 mm sanitary service stub connection is located at the west property limit of the subject lands.

Refer to the as-constructed drawing 4 by Gamsby and Mannerow Limited, dated November 1990, available in Appendix B.

3.3 Proposed Sanitary Servicing

A 150 mm continuous sanitary service connection is proposed at a 2.0% slope from the building to the existing 150 mm sanitary stub at property line. The conveyance capacity of this pipe was found to be 22 L/s, exceeding the required sanitary peak flow of 0.045 L/s.

Refer to the sanitary calculations in Appendix A.

4.0 Stormwater Management

4.1 Existing Drainage

Under existing conditions, the majority of the subject development area drains to Margaret Marshall Saunders (MMS) Creek. Catchment 102 consists of 0.12 ha of area draining northeast to a localized vegetated swale that has positive drainage to the HWY26 ditch and is then conveyed southeast to the creek. Catchment 103 consists of 0.12 ha of area that drains by sheet flow south to the creek. Catchment 101 consists of a small area of 0.04 ha draining toward the existing asphalt driveway apron within the municipal ROW and is then conveyed within the curb and gutter to an existing catchbasin located on the south side of Albery Court at HWY26. This catch basin is tributary to a 375 mm storm sewer which transitions to a 900 mm storm sewer located

within the HWY26 ROW and ultimately traverses the Water Treatment Plant property discharging to Georgian Bay.

Refer to the Pre-Development Drainage Plan (FIG1).

4.2 Proposed Drainage

Existing drainage patterns have been largely preserved under the proposed conditions.

Quantity control was not pursued for the subject site due to the very small drainage area and proximity to Georgian Bay. Upstream of the subject land's discharge point to MMS Creek includes approximately 423 ha of contributing watershed with a Time of Concentration of approximately 2 hours based on the Airport Method (Burnside 2022). Therefore a "beat the peak" approach is appropriate given the subject lands geography within that much larger watershed.

Catchment 202 consists of 0.06 ha comprising proposed impervious roof and asphalt parking as well as pervious areas including landscaping and the raingarden feature. Site grading directs runoff from this catchment to the proposed raingarden feature which offers opportunity for filtration, plant nutrient uptake, evapotranspiration, and infiltration into underlying soils prior to discharge from site toward the existing HWY26 ditch following existing conditions.

Catchment 201 consists of 0.04 ha of clean roof and pervious area runoff directed to the proposed western vegetated side yard swale draining to Albery Court ROW and ultimately the municipal storm sewer.

Catchment 203 consists of 0.18 ha with the majority being proposed landscaping and maintained environmental protection area draining as sheet flow per existing conditions toward MMS. The rear roof, which produces clean runoff, discharges to proposed splash pads and drains overland to MMS creek.

5.0 Grading

Propose grading provides a minimum of 0.15 m from apron grade to top of foundation. Positive drainage has been provided away from the proposed building to side yard swales or appropriate outlets. Barrier curb has been provided adjacent to the drive isle to protect the structure. Proposed asphalt parking has been graded to encourage distributed sheet flow at about 4% to the proposed raingarden feature. The enhanced swale raingarden feature was deliberately graded at a minimum 0.5% slope and omits an underdrain to maximized quality treatment performance following design guidance contained within the Sustainability Technologies Evaluation Program (STEP) Low Impact Development Stormwater Management Planning and Design Guide.

An accessible barrier-free path of travel exists between the accessible parking space and the front entrance at a maximum slope of 6.5% and width of 1.8 m following Accessibility for Ontarians with Disabilities Act (AODA) requirements.

An extension of the existing ROW curb and gutter along the site entrance in combination with a 2% boulevard slope encourage continued conveyance of external Albery Court drainage along the road and prevents external drainage from entering the private site.

6.0 Conclusion and Recommendations

The above servicing brief was prepared in support of Site Plan Approval and has demonstrated that the proposed Medical Clinic can be serviced in accordance with Municipal Standards, MECP guidelines and industry best management practices.

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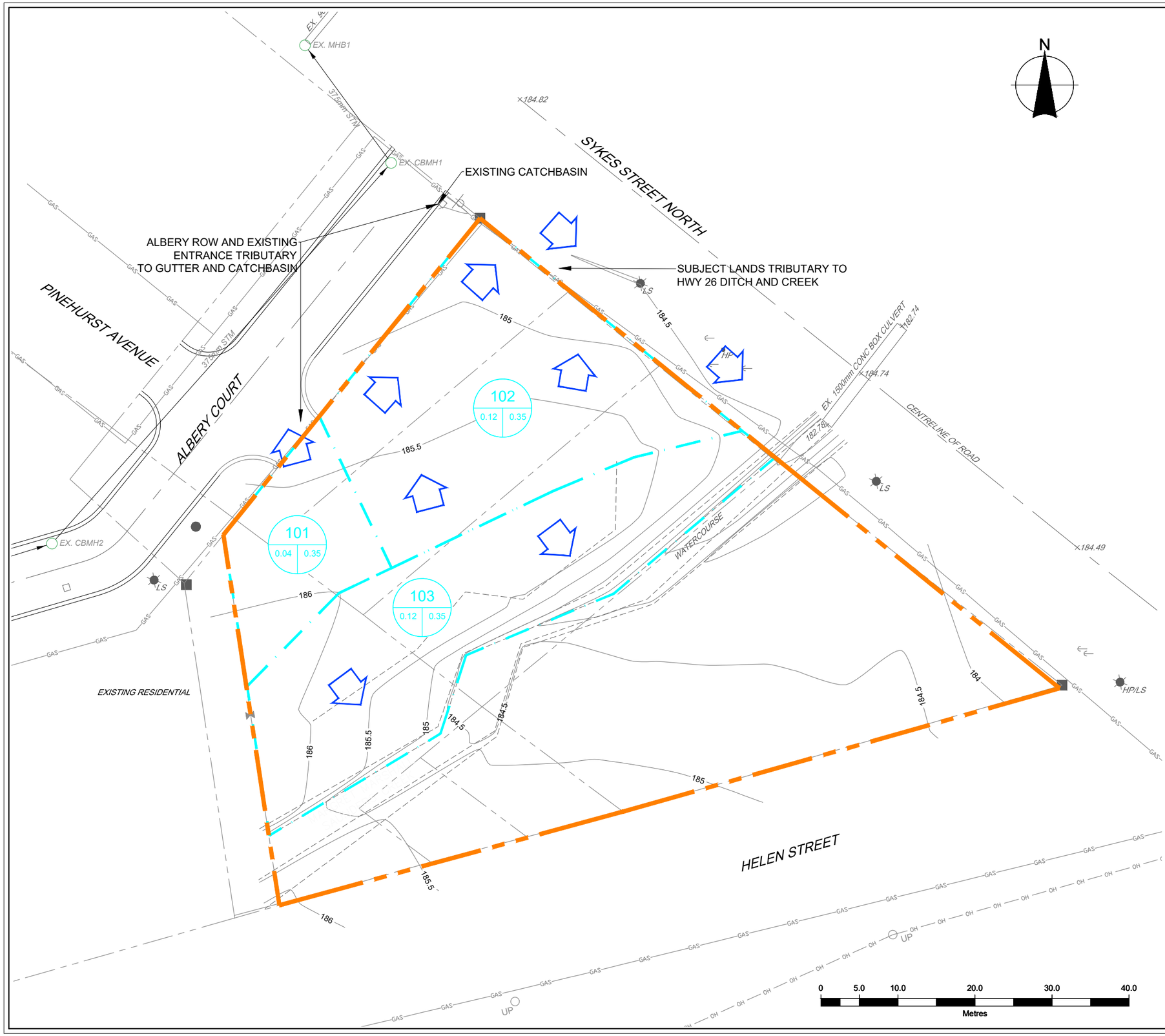
Figures



LEGEND

- 100 / 0.10 / 0.50 — DRAINAGE AREA ID; RUNOFF COEFFICIENT; DRAINAGE AREA IN HECTARES
- CATCHMENT AREA BOUNDARY
- PROPOSED OVERLAND FLOW DIRECTION (MAJOR SYSTEM)
- MH1 — PROPOSED STORM MANHOLE
- CBMH3 — PROPOSED STORM CATCHBASIN MANHOLE
- PROPOSED STORM SEWER
- CB1 — PROPOSED SINGLE CATCHBASIN
- PROPOSED BUILDING ENTRANCE
- EXMH31 — EXISTING STORM MANHOLE
- 300mm STM — EXISTING STORM SEWER
- EXISTING SINGLE CATCHBASIN
- PROPERTY LIMIT

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Client

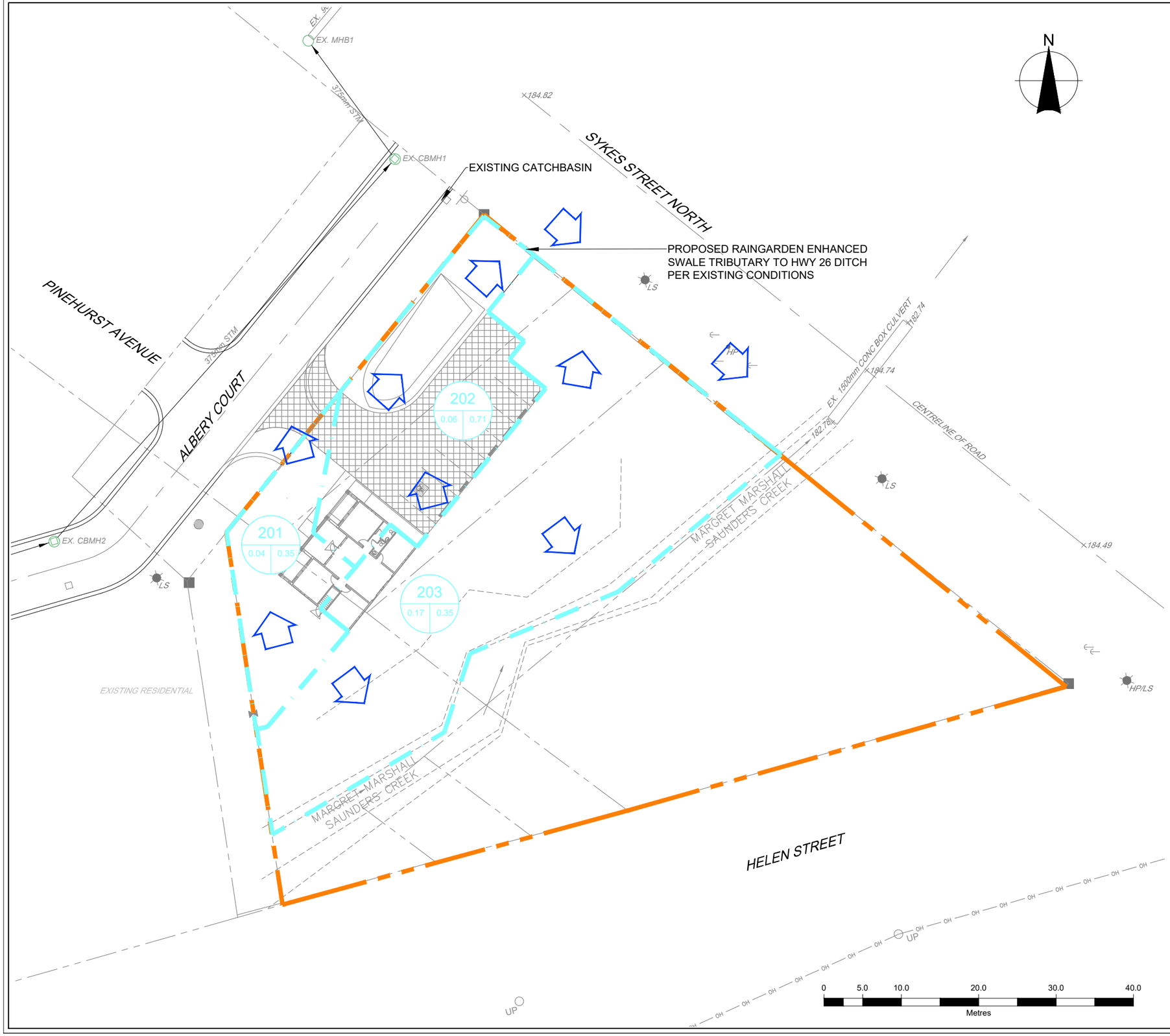
JAMES V. THOMPSON

Figure Title

SYKES STREET NORTH
PROPOSED CHIROPRACTIC CLINIC
PRE-DEVELOPMENT DRAINAGE PLAN

Drawn	Checked	Date	Figure No.
JM	JM	24/02/20	**FIG2**
Scale		Project No.	
1:500		300054437.3000	

File: \\collingwood\Shared Work Areas\054437 - Sykes Street North\07_Figures\054437 - PRE-DEVELOPMENT DRAINAGE PLAN.dwg Date Plotted: February 27, 2024 - 4:40 PM



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LEGEND

- 100 / 0.10 / 0.50 — DRAINAGE AREA ID; RUNOFF COEFFICIENT; DRAINAGE AREA IN HECTARES
- CATCHMENT AREA BOUNDARY
- PROPOSED OVERLAND FLOW DIRECTION (MAJOR SYSTEM)
- MH1 — PROPOSED STORM MANHOLE
- CBMH3 — PROPOSED STORM CATCHBASIN MANHOLE
- PROPOSED STORM SEWER
- CB1 — PROPOSED SINGLE CATCHBASIN
- PROPOSED BUILDING ENTRANCE
- EXMH31 — EXISTING STORM MANHOLE
- 300mm STM — EXISTING STORM SEWER
- EXISTING SINGLE CATCHBASIN
- PROPERTY LIMIT

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Client

JAMES V. THOMPSON

Figure Title

SYKES STREET NORTH
PROPOSED CHIROPRACTIC CLINIC
CONCEPTUAL POST-DEVELOPMENT DRAINAGE PLAN

Drawn	Checked	Date	Figure No.
JM	JM	24/02/20	**FIG3**
Scale		Project No.	
1:500		300054437.3000	

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Appendix A

Calculations

Project Name: Sykes St. North Chiropractic
Project No.: 300054437.3000
Location: Meaford
Created By: Jordan McIntyre
Checked By:
Date Created:
Date Modified: 2/23/2024

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web www.rjburnside.com

150mm PVC SANITARY SERVICE PIPE @ 2.0% SLOPE

Manning's Equation

Circular Culvert

Pipe Diameter (mmø) =	150		R =	0.0375	
Area =	0.018	m^2	Sf =	0.0200	
Slope (%) =	2.00				
Manning 'n' =	0.013				
			Velocity, V		
Nom'l Pipe Capacity, Q =	0.022	m^3/sec	1.22	nominal, m/s	
Actual Pipe Capacity, Q =	0.022	m^3/sec	1.27	actual, m/s	

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CALCULATION SHEET

Project: Sykes St. North Chiropractic Clinic
Sanitary Flow Calculations

Prepared by:	J. McIntyre
Checked by:	
Project No:	300054437.3
Date	2/23/2024
Updated:	

Commercial Sanitary Contribution			Reference	Notes
Average Day per Capita Flow =	275	L/c/d	OBC 8.2.1.3.(2).9	275L/practitioner
Number of Proposed Units =				
Residential Density =		p.p.u		
Population =	2		Per Site Plan Stats	
Average Day Flow =	550.00	L/d		
=	0.006	L/s		
=	275	L/d/person		
Peak Factor =	4.46		Harmon Forumla	M=1+(14/(4+p^0.5))
Peak Flow =	0.03	L/s	MOE 5.5.2.1	
Infiltration				
Infiltration Allowance =	0.1	L/s/ha	COB Eng. Guidelines 3.3.4	
Total Site Area =	0.15	ha		
Infiltration =	0.015	L/s		
Total Peak Flow =	**0.04**	**L/s**		

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Appendix B

Background Information

February 20, 2024
Our File: 223085

Via Email: yeschiro@bmts.com

James and Deborah Thompson
36 Sykes Street
Meaford, Ontario,

Attention: James and Deborah Thompson

Re: Proposed Chiropractic Clinic
Sykes St. North & Albery Court
Meaford, ON

Dear James,

We understand that you are proposing a Chiropractic Clinic within the town of Meaford. The site is located at the corner of Sykes Street North and Albery Court. The current proposal includes a building with approximate dimensions of 14.2m by 12.6m and gravel parking lot.

The Margret Marshall Saunders Creek (MMS Creek) runs along the south of the property, to a concrete box culvert that crosses Sykes Street North and outlets into Georgian Bay. As part of the development review process, the floodplain elevation and subsequently the erosion hazard limit need to be defined to place the building on site. It is understood that R.J. Burnside and Associates is the Civil consultant for this project and is preparing the site plan and various reports, including the determination of the floodplain limits.

A proposal for a geotechnical investigation and erosion hazard limit assessment to support the development was prepared by GM BluePlan Engineering (GMBP) that included the excavation of three (3) testholes across the development area along with reviewing the existing condition along Saunders Creek in the vicinity of the property.

This letter report is to provide a summary of the soil conditions and groundwater conditions observed during the testhole excavation and the existing conditions of the creek. Recommendations for bearing capacity for the proposed structure, and anticipated depth for underside of foundations are provided. Based on the existing conditions of the creek and the observed subsurface conditions, the erosion hazard limit along the MMS Creek will be established.

Site Investigation

The geotechnical investigation was undertaken on April 6, 2023. The excavation of three (3) testholes was carried out, with care to be made to locate the holes outside of the proposed building envelope if possible. The testholes were excavated with an excavator provided by Chapple Excavating and Trucking Limited. The testhole locations are presented on the appended testhole location figure.

In general, the subsurface consisted of a surficial layer of sandy topsoil and organics, underlain by fill with silty sand and gravel. The silty sand and gravel fill is generally 0.40 m to 0.60 m thick, with the fill thickness greater on the east and tapering out to the west. It is evident that historical fill was placed to create a level pad within the centre of the property. From aerial photographs, it appears that the site sloped downwards from west to east. Under the fill, a native gravelly sand and silt layer was encountered that varied in thickness and elevation. The groundwater observed on the site was found within this layer. At TH-1, the layer was found between 2.1 to 2.4 mbgs, and the groundwater infiltration was noted at 2.3 mbgs.

At the location of TH-2, the fill was underlain by the native brown sandy silt with some gravel and a little clay and boulder inclusions. The native soils were probed with a steel rod and inferred to be undisturbed and very stiff to hard. A grain-size analysis was performed on a sample of the native material, collected from TH-2 at a depth of 2.0 mbgs. The results yielded 32.5% gravel, 34.7% sand, 23.7% silt and 9.1% clay. The estimated coefficient of permeability of the native gravelly sand and silt with a little clay is 1.0×10^{-6} cm/s.

Foundation Loading

Frost protected foundations are to be extended down to suitable inorganic bearing soil. For the Meaford area, frost penetration of 1.2 mbgs. It is understood that the proposed building is to be 1-storey and feature a crawl space. The fill soils are to be removed along with and loose to compact silty sand and gravel, and the foundations are expected to be constructed on the native clayey silt till with some gravel and boulder inclusions. The native clayey silt was found between 184.24m, and 183.43m on the northeast side of the site to 185.58m on the southwest side. The encountered shallow groundwater varied in elevation, from 184.13m to 183.44m at TH-2 and TH-1 respectively. This coincided with the encountered layers of silty sand and gravel. Based on the groundwater elevation, the minimum founding elevation is ±184.20m. The finished floor elevation grade of the structure is anticipated to be near ±186.30m to accommodate the crawl space. The foundation height is expected to be 1.82m (6 ft.) with a 0.2m (8") thick footing, placing the underside of footing grade ±184.30m. The floor for the crawl space can be placed at higher elevation such as ±184.80m.

The building is proposed to be located towards the southwest corner of the site. For the chiropractic clinic building founded near ±184.30m on the undisturbed very stiff native clayey silt till, the recommended design bearing capacity is 150 kPa at Serviceability Limit States (SLS) and 210 kPa at Ultimate Limit States (ULS). There is a possibility, based on the encountered soils at TH-2, a portion of the footings may be founded on the gravelly silt and sand that was observed to be loose to compact, and the recommended bearing capacity would be 100 kPa at Serviceability Limit States (SLS) and 140 kPa at Ultimate Limit States (ULS). Based on discussion with the Contractor, the proposed footings are to be 0.6m (24") wide with 3 continuous runs of reinforcing steel to reduce potential cracking from differential soils.

If there is fill encountered in the foundation excavation and to avoid the differential bearing capacities, consideration should be given to removing the gravelly silt and sand to reach the underlying stiff native clayey silt and restoring the grade to underside of footing with engineered fill. With a layer of engineered fill below footing grade, an increase of soil bearing capacity to 150 kPa SLS and 210 kPa ULS is achievable, provided that full time review and compaction testing is undertaken by the Geotechnical Consultant.

Constructing the engineered fill is to be completed using imported Granular 'B' that satisfies the grading requirements of OPSS 1010 Type 1 or 2. The material is to be installed and compacted in 300 mm lifts. If the engineered fill option is selected, the work should be undertaken in the drier months. Based on the groundwater observations, the excavation for deeper engineered fill placement would likely penetrate the observed water table and temporary dewatering would be required during construction of the engineered fill. Due to the presence of shallow groundwater, the initial lift should be static rolled, with subsequent lifts compacted with the vibratory equipment.

Excavations and Dewatering

Excavations for the foundation across the site will extend through the overburden fill materials and terminate in the native clayey silt till soil at a depth to accommodate the minimum 1.2 m for frost protection. Temporary excavations must comply with Ontario Occupational Health and Safety Act for Construction Projects (O.Reg. 213/91). The

overburden fill soils fall into the Type 3 as defined in the regulation and therefore, temporary side slopes in Type 3 soils must be cut at an inclination of 1 horizontal to 1 vertical to the base of the excavation (exclusive to groundwater effects). The native clayey that is very stiff is considered a Type 2 soil and the excavation can near vertical for the bottom 1.2m and then cut back to a 1 to 1 slope.

During the excavation of the testholes, groundwater infiltration was encountered at TH-1 and TH-2, within the layer of silty sand and gravel. At the location of TH-3, no groundwater was observed within the excavation. The groundwater observed was perched above the underlying clayey silt till and was flowing into excavation quickly. During construction, perched groundwater conditions could develop above the clayey silt till, within the silty sand and gravel layer. Temporary dewatering with conventional sump pumps at excavated low points are expected to be able to control the seepage of perched water or groundwater moving into the excavation.

Erosion Hazard Limit Assessment

During the site investigation, the MMS Creek was reviewed along the south side of the property. When establishing the erosion hazard for a watercourse, The Ontario Ministry of Natural Resources has created a Technical Guide titled; River and Stream Systems: Erosion Hazard Limit (2002). There are two types of systems, unconfined and confined. Unconfined systems are those with no discernible valley slope or bank. The MMS creek along the property for the purpose of establishing the erosion limit is considered an unconfined system, as the valley slopes of system are beyond the 15m within the creek edge. From the excavated testholes, the soil composition of the site is predominately silt and clay soil.

For the purposes of this assessment, the reach is delineated as beginning at the southwest corner of the property to the southeast corner at the concrete box culvert that crosses Sykes Street North. This section of the reach features a slight sinuous planform. Upstream of the property, the MMS creek has been straightened for residential development. It is expected that the hydraulic regime of the creek will be unaffected by the proposed development, with runoff from the development directed to the storm sewer along Albery Court.

At the time of review, a significant rainfall event had occurred a day prior, and the creek was under bank full conditions, based on vegetative growth along the creek and the height of water up the creek banks. The vegetation along the steam was noted, with coniferous and deciduous tree growth along the bank full width and full canopy of trees over the creek. There was evidence of bank scouring, with some trees uprooted along the creek edge, and there were other trees with exposed root systems. Based on the uprooted trees and exposed roots, the most prominent form of historical adjustment along the MMS Creek section is channel widening.

Walking along the creek, the bank full width was measured and varied from 3m at the east end of the site, to 6m at the west end. The depth of creek was measured to be between 0.45m and 0.75m along the reach. The bank slopes are 20° to 30° along the main channel. The slope angle of the historic fill pad is closer to 40° to 30° and support existing tree growth. As the creek meanders through the lot, the fill pad forms a section of the creek bank, and then meanders away. As noted above, there is evidence of bank scouring at the creek edge, with no other signs of erosion higher up the creek banks or fill slope. In addition, the meander amplitudes along the MMS Creek section ranged from 8.5m to 13.5m. For this length of reach, the meander amplitude measurement is considered to encompass the meander belt for the MMS creek.

A factor of safety of 20% is utilized based on the evidence of scouring and channel widening. Applying the factor of safety of 20% to the largest measured meander amplitude to allow for changes in creek morphology over time, provides the overall meander allowance of 16.2m, or 8.1m on either side of the creek. The erosion hazard limit is

applied from the edge of the watercourse. In addition, an erosion access allowance of 6m is to be included to form the overall erosion hazard limit for the development. The hazard limit and access allowance are shown on the appended figure.

Statement of Limitations

The discussion and recommendations in this report are based upon information gathered at the testhole locations and available geological and physiographical information of general nature for the area. Sub-surface and groundwater conditions are variable and will differ in area beyond the investigated testholes. As a result, conditions may become apparent during further investigation or construction, which would not be detected or anticipated at the time the site investigation was performed and when this report was prepared.

The information in this report is intended for the sole use of James and Deborah Thompson and their agents. GM BluePlan Engineering Limited accepts no liability for use of this information by third parties on the basis of information provided in this initial investigation is made at the sole risk of the third parties.

The final shape, location and grading of the proposed site have not been confirmed and therefore, comments made within this report are made in general only to assist the owner and designers involved with the project in question. Furthermore, the number of testholes may not be sufficient to determine all the factors that may affect the design, construction methods and costs. Additional investigation would be necessary to increase the confidence level. For this reason, Contractors bidding on this project or undertaking the construction should make their own interpretation of the information presented within this report and then draw their own conclusion on the sub-surface conditions and how it will affect the methods and cost of construction. Additionally, since the grading of the site is relatively unknown, excess soil may be generated during the construction. If the soil is to leave the site, an excess soil management plan may be required, which can be completed by our office with advanced notice.

We recommend that we be retained to provide comment for the selected design and during construction to ensure that all the necessary stripping, sub-grade preparation, and compaction requirements are met, and to be available to confirm that the soil conditions do not deviate from those presented within this report.

Yours truly,

GM BLUEPLAN ENGINEERING LIMITED

Per:

Reviewed by:

Ethan C.J. Webb, P.Eng.
EW/

Wm. E. Dubeau, P.Eng.

Encl.
cc: R.J. Burnside & Associates Limited: Jordan McIntyre, via Email – Jordan.McIntyre@rjburnside.com
File No. 223085

BASE MAPPING INFORMATION
FROM BURNSIDE FLOODPLAIN
STUDY PROJECT No. 300054437
DATED FEBRUARY 3, 2023

223085
36 SYKES ST, MEAFORD, ON
JAMES V. THOMPSON

ALBERY COURT

SYKES STREET NORTH

EXISTING CANADA POST BOX

5m SIGHT TRIANGLE NO OBSTRUCTIONS

ZONING BY LAW 7.5m MIN. EXTERIOR SIDE YARD

REGIONAL FLOOD CONTOUR

1.2m SPAN X 0.9m RISE CONCRETE BOX CULVER
W INV = 182.78
E INV = 182.74

EX. 1500mm CONC BOX CULVERT

CENTRELINE OF ROAD

TH-2
GRD 185.43

TH-1
GRD 185.80

TH-3
GRD 185.98

6.00m

8.12m

8.12m EROSION HAZARD LIMIT

6m EROSION ACCESS ALLOWANCE

WATERCOURSE

MARGRET MARSHALL SAUNDERS CREEK

PROPOSED BUILDING
(LOCATION TO BE VERIFIED)

HELEN STREET

REGIONAL FLOOD CONTOUR

REGIONAL FLOOD CONTOUR

REGIONAL FLOOD CONTOUR

LEGEND

TH-10
GRD 201.50 — GMBP TEST HOLE 2023 LOCATION & ELEVATION AT GRADE

SCALE = 1:500
FEBRUARY 2024

TESTHOLE LOCATION PLAN

VACANT LANDS ON ALBERY COURT
PART LOT 1565, 1575-1576 PLAN 309;
PART HELEN ST PLAN 309 MEAFORD
CLOSED BY R275560 AS IN R288575
(FIRSTLY), PART 4, 5,6, 7, 10, 11, AND 12
TOWN OF THE BLUE MOUNTAINS

Figure No. 1

BluePlan ENGINEERING

LAST SAVED BY:Agibbons, 2/20/2024 3:53:26 PM PLOTTED BY:Anthony Gibbons - GM BluePlan 2/20/2024 3:54:07 PM

Log of Testhole: TH-1

Project No: 223085

Project: Sykes & Albery Chiropractic Clinic

Client: James & Deborah Thompson

Location: Meaford, ON

Excavation Date: April 7, 2023

Field Technician: E. Webb

Excavation Company: Chapple Exc. & Trucking Ltd.

SUBSURFACE PROFILE				PROPERTIES	HYDROLOGY
Depth (ft / m)	Elevation	Symbol	Description	% Moisture (5 – 15 – 25)	Ground Water and Sampling Details
0 / 0	185.74		Ground Surface		
	185.54		Brown Sand and Gravel with Organics. Moist.		
1			Brown Silty Sand and Gravel Fill with a little Clay. Moist and Compact when probed with a Steel Rod.		
	185.14				
2			Brown Grey Clayey Silt Till with some Gravel and Boulders. Moist and Stiff when probed with a Steel Rod		
3 / 1					
4	184.24				
5			Grey Clayey Silt Till. Moist and Very Stiff from Excavator Resistance.		
6 / 2					
7	183.64		Silty Sand and Gravel. Wet and Compact from Excavator Resistance.		Groundwater Infiltration @ 2.3m.
	183.34				
8			Grey Clayey Silt Till. Moist and Very Stiff from Excavator Resistance..		
	183.14				
9					

Notes:

Equipment:

GM BluePlan Engineering Limited
Guelph, Owen Sound, Listowel, Kitchener, Exeter, Hamilton, GTA
1260 Second Ave East, Unit 1, Owen Sound, ON N4K 2J3
519-376-1805 Fax 519-376-8977 www.gmblueplan.ca

Log of Testhole: TH-2

Project No: 223085

Project: Sykes & Albery Chiropractic Clinic

Client: James & Deborah Thompson

Location: Meaford, ON

Excavation Date: April 7, 2023

Field Technician: E. Webb

Excavation Company: Chapple Exc. & Trucking Ltd.

SUBSURFACE PROFILE				PROPERTIES	HYDROLOGY
Depth (ft / m)	Elevation	Symbol	Description	% Moisture (5 – 15 – 25)	Ground Water and Sampling Details
0 / 0	185.43		Ground Surface		
			Brown Sand and Gravel with Organics. Moist.		
	185.13				
1			Brown Silty Sand and Gravel Fill with a little Clay. Moist and Compact when probed with a Steel Rod.		
2					
	184.53				
3 / 1			Brown Gravelly Silt and Sand. Wet and Loose to Compact when probed with a Steel Rod.		Groundwater Infiltration @ 1.3m.
4					
5					
6					
	183.43				
2			Grey Clayey Silt Till. Moist and Very Stiff from Excavator Resistance.		
7					
	183.13				
8					
9					

Notes:

Equipment:

GM BluePlan Engineering Limited

Guelph, Owen Sound, Listowel, Kitchener, Exeter, Hamilton, GTA

1260 Second Ave East, Unit 1, Owen Sound, ON N4K 2J3

519-376-1805 Fax 519-376-8977 www.gmblueplan.ca

Log of Testhole: TH-3

Project No: 223085

Project: Sykes & Albery Chiropractic Clinic

Client: James & Deborah Thompson

Location: Meaford, ON

Excavation Date: April 7, 2023

Field Technician: E. Webb

Excavation Company: Chapple Exc. & Trucking Ltd.

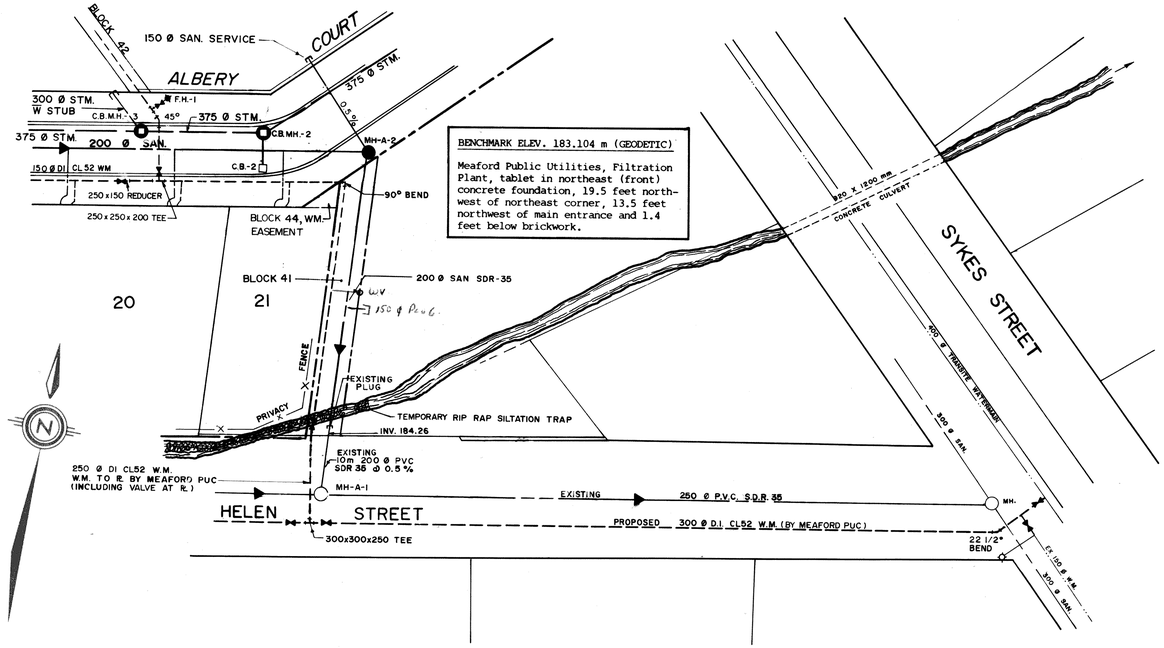
SUBSURFACE PROFILE				PROPERTIES	HYDROLOGY
Depth (ft / m)	Elevation	Symbol	Description	% Moisture (5 – 15 – 25)	Ground Water and Sampling Details
0 / 0	185.98		Ground Surface		
			Topoil and Organics. Moist.		
1			Brown Silty Sand and Gravel Fill with a little Clay.. Moist and Compact when probed with a Steel Rod.		
	185.58		Grey Clayey Silt Till. Moist and Very Stiff.		
2					
3 / 1					
4					
5					
6 / 2					
7	183.78				
8					
9					

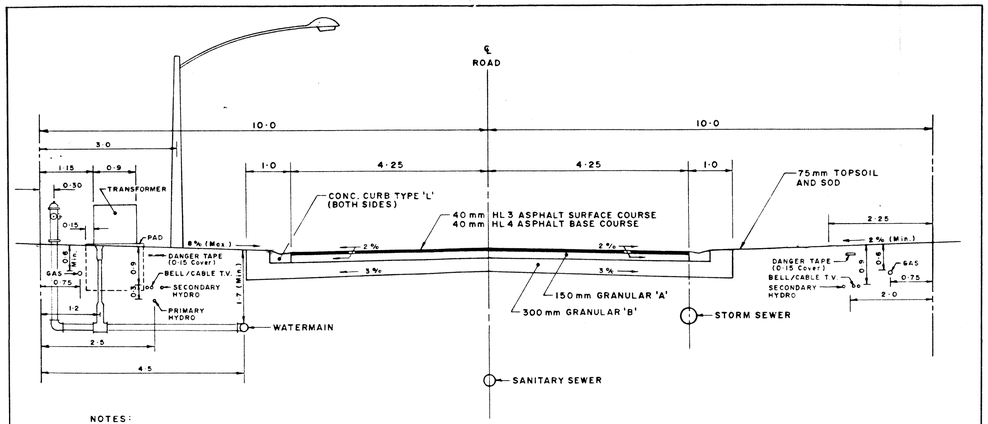
Notes:

Equipment:

GM BluePlan Engineering Limited
Guelph, Owen Sound, Listowel, Kitchener, Exeter, Hamilton, GTA
1260 Second Ave East, Unit 1, Owen Sound, ON N4K 2J3
519-376-1805 Fax 519-376-8977 www.gmblueplan.ca

188328 #002 4



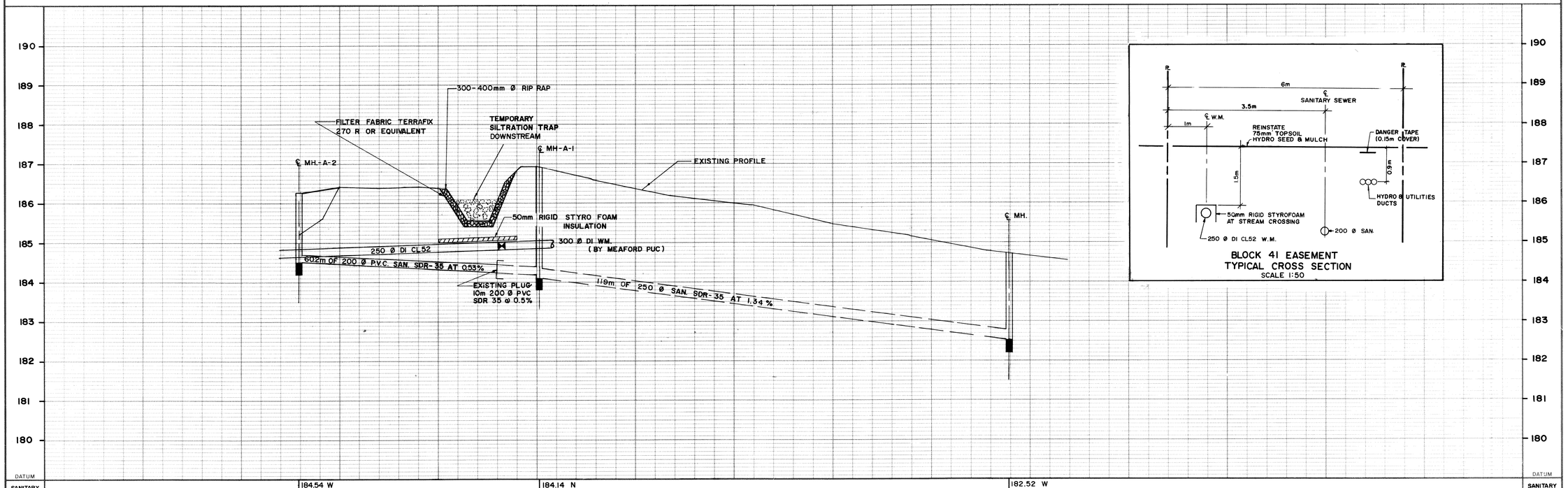


NOTES:
1. TOPSOIL TO BE REMOVED TO ITS FULL DEPTH ALONG ENTIRE WIDTH OF RIGHT-OF-WAY.
2. ORGANIC MATERIAL WITHIN 1·2m OF TOP OF PAVEMENT TO BE REMOVED.
3. BOULEVARDS TO BE FULLY SODDED AS SPECIFIED.
4. ROAD CROSSING DEPTHS FOR UTILITIES – BELL TELEPHONE 0·75 m Min.
   – GAS 1·0m Min.
   – HYDRO 1·2 m Min.

TOWN OF MEAFORD

TYPICAL ROAD CROSS-SECTION AND SERVICE LOCATIONS

NOT TO SCALE	MAR 1989	STD.DWG.No.1



BLOCK 41 EASEMENT
TYPICAL CROSS SECTION
SCALE 1:50

NOTES:

1) Bedding for sanitary sewers and storm sewers to be 20 mm clear crushed stone.
2) Bedding for watermain to be approved Granular with a maximum stone size of 25 mm ϕ.

THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED.

BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE DONE TO THEM.

NO	DATE	REVISION DESCRIPTION	CHECKED
3	NOV. 1990	AS CONSTRUCTED	J.V.D.
1	JULY 1990	AS PER DRAFT PLAN CONDITIONS	J.S.G.

REGISTERED PROFESSIONAL ENGINEER J. S. GOURLEY PROVINCE OF ONTARIO

J.S. Gourley P.Eng.

BLOCK 41

TOWN OF MEAFORD

THOM DEVELOPMENTS INC.

PLAN & PROFILE

GAMSBY AND MANNEROW LIMITED
Consulting Professional Engineers
GUELPH – HALTON HILLS – OWEN SOUND

DRAWN BY: L.V.M.	APPROVED BY: J.S.G.	PROJECT NO: S-1180	DRAWING NO: 4
DESIGNED BY: J.S.G.	DATE: AUGUST 1989	SCALE: HORIZ. 1:500 VERT. 1:50	

R.J. Burnside & Associates Limited