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Discovery Center Relocation & P2 Parking Area

FUNCTIONAL SERVICING REPORT

Blue Mountain Resorts LP

File 124002-11 | December 9, 2025

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Issue	Date	Description
1	December 9, 2025	Site Plan Application

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1 Introduction

Tatham Engineering Limited (Tatham) has been retained by Blue Mountain Resorts LP to prepare a Functional Servicing Report in support of the proposed relocation of the Discovery Center building and P2 Parking area alterations located at 218 Jozo Weider Boulevard in the Town of the Blue Mountains.

1.1 PURPOSE

This servicing report summarizes the engineering review completed to date for the proposed alterations and provides a guide to establish the associated servicing requirements. More specifically, the requirements to address water supply for domestic and fire-fighting purposes, sanitary sewage servicing, stormwater management, transportation and parking, and utility distribution (hydro, telephone, cable TV and gas).

1.2 GUIDELINES AND BACKGROUND INFORMATION

The following references and standards were used in preparation for this report and was developed recognizing the pertinent municipal and provincial guidelines on municipal design, water resources, and the environment, including the following:

- Town of Blue Mountains Engineering Standards. (November 2024);
- Design Guidelines for Drinking-Water Systems, Ministry of the Environment (2008);
- Ontario Building Code;
- Water Supply for Public Fire Protection, Fire Underwriters Survey (FUS), (2020);
- Environmental Compliance Approval (ECA), The Blue Mountains Municipal Stormwater Management System (August 2022); and
- Stormwater Management Practices, Planning and Design Manual. Ministry of the Environment [now Ministry of Environment, Conservation and Parks (MECP)] (March 2003).

2 Proposed Alterations

2.1 SITE LOCATION

The existing Discovery Center is currently located at the northeast end of the P2 parking area at the Blue Mountain resort. The building is proposed to be relocated to the base of the Easy Rider ski run and the P2 parking area will be re-graded to allow for additional parking spaces. A site location plan (Figure 1) illustrates the proposed Discovery Center relocation and P2 parking area.

2.2 EXISTING SITE CONDITIONS

The subject area includes the base of the Easy Rider ski run and P2 parking area. The proposed building site is currently utilized for recreation (ski hill) while P2 is utilized for resort parking.

Detailed topographic survey of the subject areas have been completed and indicate that drainage generally sheet flows from the ski area north east, is intercepted by ditches and/or storm sewer system and ultimately conveyed to the BMR stormwater management facilities (Ponds 2 & 3).

2.3 PROPOSED ALTERATIONS

The Discovery Center is proposed to be relocated from northeast corner of P2 parking area to the base of the Easy Rider ski run.

The Discovery Center will retain its existing building footprint, with a revised interior layout to accommodate a mix of uses. The updated facility will include commercial retail space, a cafe, an outdoor patio, storage areas, and office space. A summary of the land uses and associated floor areas are as follows:

- retail 86.7 m^2;
- Café 105 m^2;
- office 87.2 m^2; and
- storage 125.1 m^2.

Refer to Architectural Drawings ID101 & ID102 by Strategy + Design Mackaywong dated November 27, 2025, enclosed.

The northeast corner of the P2 parking area will be re-graded to establish approximately 55 new parking stalls and a stormwater management feature to service the proposed alterations. The details of the Discovery Center and P2 parking area are illustrated in the engineering drawing sets and should be referenced when reviewing the following sections.

2.4 LAND USES

The subject lands are located within the Village Commercial (C5-67) Zone as per the Zoning By-Law Amendment dated May 21, 2025. The Zoning By-law amendment permits the "Base Lodge" and the relocation of the existing Discovery Center Building to the Village Commercial (C5-67) Zone.

The land uses surrounding the site are summarized below:

- Resort Residential (RR) to the North of the P2 Parking Area; and
- Village Commercial Core (C5-67) surrounding all other areas.

3 Water Supply

3.1 WATER DEMAND

Based on the *Town of the Blue Mountains Engineering Standards* (2024), *MECP Design Guidelines, Ontario Building Code Part 8,* and *MECP CLI ECA Design Criteria* (2023), the following criteria were used to determine the water demands to be generated by the Discovery Center:

- Average Daily Flow Rates
  - 2.5 L/m^2/day (shopping center)
  - 75 L/9.3 m^2/day (office building)
  - 190 L/9.25 m2/day (take-out restaurant, no seating area)
- Maximum Day Peaking Factor – 2.0
- Peak Hour Demand Factor – 4.0

Fire flow for the proposed development was determined using the *Fire Underwriters Survey* (2020). Table 1 summarizes the expected water demands and detailed calculations are provided in Appendix A.

Table 1: Water Demands

WATER DEMANDS	FLOW RATE	
Average Daily Demand	0.04 L/s	3.08 m^3/day
Maximum Daily Demand	0.07 L/s	6.2 m^3/day
Peak Hour Demand	0.14 L/s	12.30 m^3/day
Fire Flow	58 L/s	
Maximum Day + Fire Flow	58.07 L/s	

3.2 SERVICING STRATEGY

The proposed Discovery Center will be serviced by a new 50 mm diameter water service connection to the existing 200 mm diameter watermain immediately east of the proposed relocation servicing the surrounding buildings within the Blue Mountain Village. The proposed water service connection is detailed on Drawing SSG.1 in the engineering drawing set.

Fire protection for the proposed development will be provided by the existing fire hydrant located at the southwest corner of the proposed building location, approximately 15 meters from the proposed building (the existing hydrant provides adequate coverage for the proposed building).

4 Sanitary Sewage Collection

4.1 SANITARY SEWAGE DEMAND

Based on the *Town of the Blue Mountains Engineering Standards (2024), Ontario Building Code Part 8,* and *MECP CLI ECA Design Criteria* (2023), the following criteria were used to determine the demands generated by the proposed Discovery Center:

- Average Daily Flow Rates
  - 2.5 L/m^2/day (shopping center)
  - 75 L/9.30m^2/day (office)
  - 190 L/9.25m^2/day (take-out restaurant, no seating area)
- Peaking Factor – 2.0
- Infiltration – 0.28 L/s/ha

Table 2 summarizes the expected peak sanitary sewage flows from the proposed Discovery Center; detailed calculations are included in Appendix B.

Table 2: Sanitary Sewage Demands

SANITARY DEMANDS	FLOW RATE
Average Daily Flow	0.04 L/s
Infiltration	0.08 L/s
Peak Flow	0.08 L/s
Peak Flow + Infiltration	0.16 L/s

4.2 SERVICING STRATEGY

The existing sanitary sewer servicing the Frand Central Lodge and Activity Central buildings is proposed to be realigned to service the relocated Discovery Center. A new 200 mm diameter sanitary sewer will be installed from the existing maintenance hole immediately north of Activity Central and extend approximately 49.0 m to the existing maintenance hole located at the northwest corner of the Grand Georgian building.

Per TOBM engineering standards, a 200 mm diameter sanitary service connection will be provided to adequately convey the expected flows from the Discovery Center into the existing Village Way sanitary sewer. A new 1,200 mm diameter maintenance hole will be provided at the proposed Discovery Center building connection.

5 Stormwater Management

A separate report entitled *Discovery Center Relocation & P2 Parking Area, Stormwater Management Report* has been prepared by Tatham Engineering and is intended to be read in conjunction with this Functional Servicing Report. The highlights of the stormwater management plan for the proposed alterations are as follows:

- The proposed alterations will result in no increase in peak flow rates;
- a grassed swale LID is proposed at the northeast corner of the P2 Parking Area to provide quantity controls and attenuate peak flows under the post development condition;
- the existing BMR SWM facilities (Ponds 2 & 3) have sufficient capacity to provide water quality treatment for the proposed development. The existing ponds will provide Level 1, enhanced water quality treatment as outlined in the MECP SWM Manual; and
- erosion and sediment controls will be implemented and maintained during construction.

6 Transportation & Parking

6.1 ACCESS AND DELIVERIES

The existing access route (Village Way) adjacent to the proposed building location will be maintained. As such, sufficient access is provided for operations and emergencies.

Similar to site access, the existing loading area adjacent to the Grand Central Lodge and Activity Central will be maintained. The existing loading area provides sufficient space to facilitate delivery to the relocated Discovery Center.

6.2 TRAFFIC

The proposed relocation of the Discovery Center will be a component of the overall Blue Mountain Resort development and thus is considered ancillary and supportive in nature to the mountain recreational activities.

During the winter period, the ski hill and associated mountain activities are the primary attractors of the Blue Mountain Resort area. As the comfortable carrying capacity (ie. the number of visitors that can be accommodated based on the size of the ski terrain and service operations) of the mountain will not increase as a result of the Discovery Center relocation, no significant increase in site trips or related traffic is expected during the peak winter period (the comfortable carrying capacity is otherwise the independent variable to establishing resort trips).

During the summer period, a wide range of mountain activities are available (and continue to be expanded) and thus the Discovery Center will serve a similar role – expanding the ability of the resort to service existing patrons. Given the proximity of the Discovery Center relocation to the Village, it is also considered complimentary to the Village amenities, providing additional retail, food and beverage choices to Village patrons.

Although the Discovery Center is primarily a resort supportive use, it is complementary to the Village activity attractors and is designed to be a seamless adjunct. As a resort use, it is not, in and of itself, expected to generate any significant volume of new traffic to the resort area.

6.3 PARKING

As the relocated Discovery Center is not expected to generate significant new visitor vehicle trips to the resort area, in turn it will not generate significant additional parking demand. Patrons of the Discovery Center will already be on site and thus will already have a parking spot associated with their primary trip.

Further, the removal of the Discovery Center from the P2 parking area will increase available parking supply by approximately 55 new parking spaces.

7 Utility Servicing

Utility services for the relocated Discovery Center are readily available. A brief description of the existing infrastructure and proposed connection/collection strategy is provided below.

7.1 HYDRO SERVICING

There is existing underground Hydro One infrastructure in the immediate area. The proposed commercial building will be connected to the existing Hydro One owned infrastructure. A new transformer will be installed on site to service the proposed development.

7.2 NATURAL GAS

There is an existing 100 mm diameter Enbridge natural gas main within the Village Way Corridor. A connection to the existing gas main can be provided to service the building.

7.3 COMMUNICATIONS

There is an existing Bell service line that will be realigned to service the proposed development. A connection to the existing bell line can be provided to service the building.

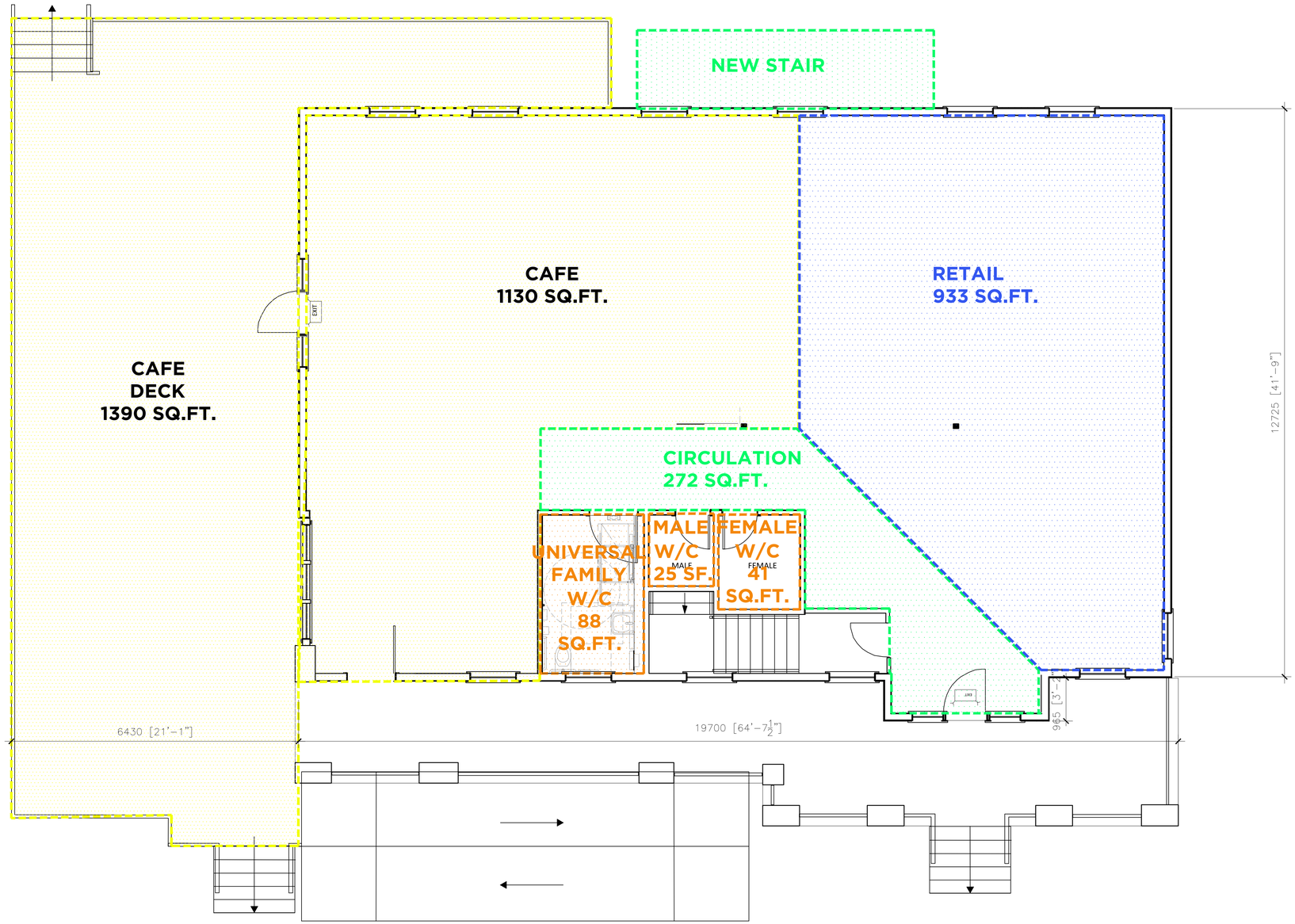
8 Summary

The Functional Servicing Report confirms that adequate servicing exists for the proposed relocation of the Discovery Center. A summary of the findings and recommendations are as follows:

- a new 50 mm diameter water service will service the proposed development and connect to the existing Village Way watermain;
- a new 200 mm diameter sanitary service will be installed to service the proposed development and connect to the existing Village Way sanitary sewer;
- a grassed swale LID is proposed at the northeast corner of the P2 parking area to provide quantity controls for the proposed alterations. Water quality control will continue to be provided by the BMR owned SWMF's (Ponds 2 & 3);
- existing access routes and unloading areas for deliveries will be maintained to service the proposed development;
- no increase to traffic or parking demand is anticipated, therefore no change to the transportation network is anticipated;
- approximately 55 new parking spaces will be added to enhance the existing P2 parking supply; and
- utility servicing is readily available in the immediate area, some existing utilities will require re-alignment in order to accommodate the proposed relocation.

Discovery Centre & P2 Parking, Blue Mountain Ski Resorts, The Town of Blue Mountains

Figure 1 – Site Location Plan



1 ID101 ARC BUILDING - GROUND FLOOR PLAN
SCALE 1:50

ISSUANCES	DATE
SITE PLAN APPLICATION	27-NOV-25

REVISION	DATE

GENERAL NOTES

Verify all dimensions, materials and structural members on site. Any and all discrepancies are to be reported to the designers before proceeding with the work. Drawings not to be scaled. All construction is to be executed in a good workman-like fashion with materials and detail suitable for the intended end use. All works to conform to applicable national and local building codes and requirements. All designs, drawings and specifications are property of the designers and are not to be reproduced or used without the express written consent of the designers.

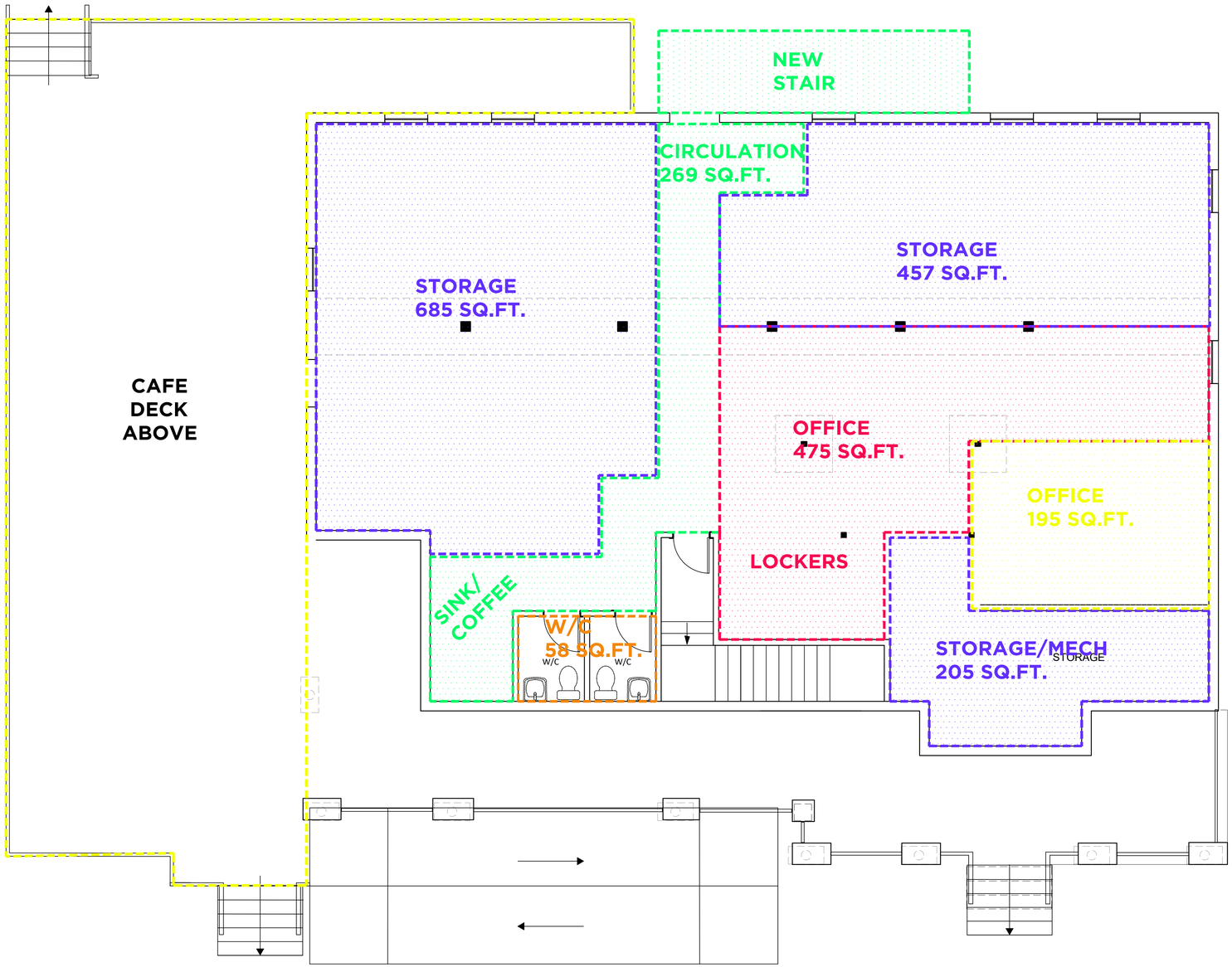
mackaywong STRATEGY + DESIGN
TORONTO • SAN FRANCISCO

CONSULTANT

PROJECT: BLUE MOUNTAIN RESORT ARC DISCOVERY CENTRE RELOCATION

SHEET TITLE: ARC BUILDING GROUND FLOOR

SCALE	1:50		
DRAWN BY	LT	CHKED BY	HM
PROJECT NO.	25-036		
DWG NO.	ID101		



1 / ID102 ARC BUILDING - BASEMENT PLAN
SCALE 1:50

ISSUANCES	DATE
SITE PLAN APPLICATION	27-NOV-25

REVISION	DATE

GENERAL NOTES

mackaywong STRATEGY + DESIGN
TORONTO • SAN FRANCISCO

CONSULTANT

PROJECT: BLUE MOUNTAIN RESORT
ARC DISCOVERY CENTRE
RELOCATION

SHEET TITLE: ARC BUILDING
BASEMENT PLAN

SCALE	1:50		
DRAWN BY	LT	CHKED BY	HM
PROJECT NO.	25-036		
DWG NO.	ID102		

Appendix A:
Water Demands

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Water Demand Design Worksheet

Project Details

Discovery Centre Relocation	124002-11

Prepared By

KB	Nov./25

Municipality

Town of the Blue Mountains

Checked By

EL	Nov./25

Commercial/Industrial/ Institutional Flow

Land Use	Retail[1]	Restaurant[2]	Office[3]	Total
Area (m^2)	86.7	105.0	87.2	278.94
Area Demand ($L/m^2/day$)	2.5	20.5	8.1	-
Average Day Demand (L/day)	216.8	2153	706.6	3075.9
Average Day Demand (m^3/day)	0.22	2.15	0.71	3.08

Reference	1	MECP CLI ECA Design Guidelines
	2	Retaurant Area Flow is 190 L/9.25m^2/day as per OBC Table 8.2.1.3B. (20.5 $L/m^2/day$)
	3	Office Area Flow is 75 L/9.3m^2/day as per OBC Table 8.2.1.3B. (8.1 $L/m^2/day$)

Fire Demand

Max Required Fire Demand (L/s)	**58**	FUS (2020)

Peaking Factors

Land Use	Commercial	Institutional	Residential	Industrial
Max Day Factor[3]	2.0			
Peak Hour Factor[4]	4.0			

Reference	3	MECP Drinking Water System Design Guidelines
	4	MECP Drinking Water System Design Guidelines

Total Design Flows

Average Day Demand (m^3/day)	**3.08**	**Peak Hour Demand (m^3/day)**	**12.30**
Maximum Day Demand (m^3/day)	**6.2**	**Maximum Day + Fire Demand (L/s)**	**58.07**

Additional Notes

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Fire Flow Calculations

Project Details		Prepared By	
Discovery Centre Relocation	124002-11	KB	Nov./25
Municipality		**Checked By**	
Town of the Blue Mountains		EL	Nov./25

$$RFF = 220C\sqrt{A}$$ [1]

[1] *Water Supply for Public Fire Protection, Fire Underwriters Survey (2020)*

RFF= the Required Fire Flow in litres per minutes (LPM)

C = the Construction Coeffcient is related to the type of construction of the building

A = the Total effective Floor Area (effective building area) in square metres of the building

C = 1.0 (Ordinary Construction)

A = 250 m^2

RFF = 3478 LPM

RFF = 58 L/s

Appendix B:
Sanitary Sewage Flows

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Wastewater Flow Design Worksheet

Project Details

Discovery Centre Relocation	124002-11

Prepared By

KB	Nov./25

Municipality

Town of the Blue Mountains

Checked By

EL	Nov./25

Commercial/Industrial/ Institutional Flow

Land Use	Retail[1]	Restaurant[2]	Office[3]	Total
Area (m^2)	86.7	105	87.2	278.94
Area Flow ($L/m^2/day$)	2.5	20.5	8.1	-
Average Day Flow (L/day)	216.8	2153	706.6	3075.9
Average Day Flow (L/s)	0.003	0.025	0.008	0.04

Reference	1	MECP CLI ECA Design Guidelines (Shopping Centre)
	2	Retaurant Area Flow is 190 $L/9.25m^2/day$ as per OBC Table 8.2.1.3B. ($20.5\ L/m^2/day$)
	3	Office Area Flow is 75 $L/9.3m^2/day$ as per OBC Table 8.2.1.3B. ($8.1\ L/m^2/day$)

Peaking Factors

Land Use	Commercial	Residential	Industrial	Institutional
Peaking Factor[4]	2.0			

Reference	4	MECP CLI ECA Design Guidelines

Infiltration

Serviced Area (ha)	0.3	Infiltration(L/s/ha)[5]	**0.28**	Infiltration (L/s)	0.08

Reference	5	Town of the Blue Mountains Engineering Standards

Total Design Flows

Average Day Flow (L/day)	**3075.89**	**Peak Hour Flow (L/s)**	**0.08**
Average Day Flow (L/s)	**0.04**	**Peak Hour Flow + Infiltration (L/s)**	**0.16**