Functional Servicing and Stormwater Management Report

2476 and 2482 Confederation Parkway
Mississauga, Ontario
TPB188171

Prepared for:

Preeminent Developments Inc.
58 Six Point Road, Etobicoke, ON, Canada, M8Z 2X2

2/27/2020

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Prepared by:

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2/27/2020

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1.0 Introduction

Wood Environment & Infrastructure Solutions, a division of Wood Canada Ltd. (Wood) has been retained by Preeminent Developments Inc. to prepare a Functional Servicing and Stormwater Management Report (FSSR) in support of a Rezoning By-law Amendment application for a proposed residential re-development. The proposed development is located at 2476 and 2482 Confederation Parkway, in the City of Mississauga.

The 0.14 ha +/- site is situated on the southwest corner of the intersection of Confederation Parkway and Dunbar Road. The subject lands are located within the Mary Fix Creek Watershed and presently consist of low-density residential land use (ref. Figure 1 – Existing Conditions Storm Drainage Plan).

The current Site Plan proposes to sever both properties to create two (2) new semi-detached houses (i.e. four (4) residential units). The Site Plan is provided in Appendix A.

The purpose of this FSSR is to demonstrate that the proposed development can be serviced and graded in accordance with the City of Mississauga (City) and the Region of Peel (Region) design criteria.

2.0 Background

2.1 Consultation

As part of the preparation of this report, consultation with the City has been carried out by Sajecki Planning (Sajecki). The consultation is summarized in the Project Status Report (ref. Appendix A) and provides the City's requirements for the proposed development, including the stormwater management (SWM) criteria.

The March 29, 2019 version of this report was submitted to the City for review as part of the re-zoning by-law amendment application package. The City subsequently issued review comments on August 19, 2019. This report has been revised to address the City's comments, as well as to reflect the revised proposed Site Plan, accordingly.

2.2 Documents and Drawings

The following documents, background drawings, digital files and associated sources have been provided for use in the preparation of the FSSR. All documents are provided in Appendix A.

- Plan No. C-28465, Dunbar Road, Confederation Pkwy to Argyle Rd, STN. 0+000 to STN. 0+240, dated May 1991;
- Plan No. C46482, Confederation Parkway, Burnhamthorpe Rd W to Queensway St W, STA 12+660 to STA 12+940, dated March 2008.
- Plan No. 1934-D, Confederation Parkway, 16" Watermain, King Street West to Queensway West, STN. 0+00 to STN. 8+00, dated August 1968,
- Plan No. 1943-D, Confederation Parkway, Watermain Relocation, Dunbar Rd. to Floradale Dr., dated August 1969,
- Plan No. 36280-D, Confederation Pkwy, From Burnhamthorpe Rd. to Paisley Blvd., Prop 600 Sanitary Sewer, STA 12+660 to STA 12+940, dated Jan. 2008,
- Plan No. C-4047, Hook Ave. & Royal Windsor Way, -1+65 6+00, dated April 1959,
- CCTV report titled "Formula-based TV Inspection Report (Full) – Region of Peel)", dated June 23, 2015,
- SSL Inventory Cards for 2476 & 2482,
- WSL Inventory Cards for 2476 & 2482,

- WSL Inventory Tie Cards for 2476 & 2482,
- Sanitary Lateral Plan Schematic,
- Subject Property Aerial Image.
- Various Alectra Buried Plant Locate Forms,
- Various Rogers Cable Buried Plant Forms,
- Various Promark Telecon Primary & Auxiliary Locate Sheets.
- Topographic Survey & Base Information prepared by Land Survey group, date unknown,
- Drawing A101, Site Plan, prepared by Trevor McIvor Architect Inc., dated January 27, 2020.
- Borehole Logs and Lab Results, prepared by Wood, dated January 3, 2020.

3.0 Site Grading

3.1 Existing Grades

The existing site slopes in three directions; toward Confederation Parkway, toward Dunbar Road, and toward 2470 Confederation Parkway. The existing grades range from 108.70 m to 108.33 m. Refer to Figure 1 for the Existing Conditions Storm Drainage Plan.

3.2 Proposed Grades

The proposed development is proposed to maintain existing drainage patterns to the extent possible and ensure that stormwater runoff from within the proposed development is collected and released in a controlled manner, without impacting adjacent properties. A low-height retaining wall (i.e. toe wall – OPSD 3120.100) will be required along the south and west property lines to facilitate a positive grade from the south west corner of the proposed development towards Dunbar Road. The maximum preliminary height of the proposed toe wall is approximately 0.76 m (+/-). Refer to Drawing 1 for the Functional Grading Plan.

4.0 Site Servicing

4.1 Water Servicing

4.1.1 Existing

Based on Wood's review of the background drawings provided by the Region (ref. Appendix A), a 400 mm dia. concrete watermain exists within the Confederation Parkway right-of-way (R.O.W.), and a 200 mm dia. watermain (unknown material) exists within the Dunbar Road R.O.W. The depth of the watermain within the Confederation Parkway R.O.W. ranges from 2.73 m to 3.14 m deep, along the frontage of the proposed development. The depth of the watermain within the Dunbar Road R.O.W. is unknown.

The existing houses are serviced by 20 mm dia. water service laterals (material unknown) connected to the 400 mm dia. watermain located within the Confederation Parkway R.O.W. Refer to Drawing 2 for the Functional Servicing Plan which provides a schematic representation of the existing watermains and service laterals.

4.1.2 Proposed

There is opportunity to re-use one (1) of the existing water service laterals at 2476 and 2482 Confederation Parkway to service one (1) of the four (4) proposed units. Three (3) new service laterals will need to be

installed to service the three (3) remaining units. As per Region standards, the new service laterals must be 19 mm dia. copper or 25 mm dia. of another approved material. The three (3) new service laterals are proposed to connect from the existing 200 mm dia. watermain within the Dunbar Road R.O.W.

The estimated water demands for the proposed development (i.e. all four (4) units) is 12,320 L/day (Population = 70 persons/ha, Average Consumption Rate = 280 L/cap-day). Given that only two (2) new units are proposed, the expected increase in water demands is 6,160 L/day.

Refer to Drawing 2 for the Functional Servicing Plan.

4.2 Sanitary Servicing

4.2.1 Existing

Based on Wood's review of the background drawings provided by the Region (ref. Appendix A), a 450 mm dia. and a 600 mm dia. sanitary sewer exists within the Confederation Parkway R.O.W. draining north to south, and a 375 mm dia. sanitary sewer exists within the Dunbar Road R.O.W. draining west to east. The material of all sanitary sewers is unknown. The depth of the 450 mm diameter sanitary sewer within the Confederation Parkway R.O.W. ranges from 3.65 m to 3.80 m deep along the frontage of the proposed development. The depth of the 375 mm dia. sanitary sewer within the Dunbar Road R.O.W. ranges from 3.40 m to 3.50 m deep along the frontage of the proposed development.

The existing houses are serviced by 125 mm dia. sanitary service laterals connected to the 450 mm dia. sanitary sewer located within the Confederation Parkway R.O.W. Refer to Drawing 2 for the Functional Servicing Plan which provides a schematic representation of the existing sanitary sewers and service laterals.

4.2.2 Proposed

There is opportunity to re-use one (1) of the existing sanitary service laterals at 2476 and 2482 Confederation Parkway for one (1) of the four (4) proposed units. Two (2) new service laterals will need to be installed to service the other units. As per the Region design standards, a 'Y' connection can be installed on the service lateral for Lots 30A and 30B to service both units. The new service lateral for Lot 29A must be 125 mm dia. PVC, and the 'Y' connection for Lots 30A and 30B must be 125 mm x 100 mm x 100 mm.

The estimated sanitary generation rate for the proposed development (i.e. all four (4) units) is 0.17 L/s (Population = 70 persons/ha, Average Consumption Rate = 302.8 L/cap-day, Harmon Peaking Factor = 4.41). Given that only two (2) new units are proposed, the expected increase in sanitary demands is 0.09 L/s.

Based on the proposed basement elevations relative to the obverts of the receiving sanitary sewers within the Confederation Parkway R.O.W. and the Dunbar Road R.O.W., the proposed basements cannot drain via gravity. As such, individual sanitary lift pumps will be required to connect the basement floor drains to the sanitary service laterals. The other floors within the proposed units will drain via gravity.

Refer to Drawing 2 for the Functional Servicing Plan.

4.3 Storm Servicing

4.3.1 Existing

Based on Wood's review of the background drawings provided by the City (ref. Appendix A), a 375 mm dia. storm sewer exists within the Confederation Parkway R.O.W. draining north to south (material unknown), and a 300 mm dia. concrete storm sewer exists within the Dunbar Road R.O.W. draining east to west. The depth of the 375 mm diameter storm sewer within the Confederation Parkway R.O.W. is approximately 1.30 m deep along the frontage of the proposed development. The depth of the storm sewer within the

Dunbar Road R.O.W. is approximately 1.80 m along the frontage of the proposed development. Background records received from the City do not show that storm service laterals exist for either property which suggests that foundation drainage for the existing houses is accommodated via sump pumps. Refer to Drawing 2 for the Functional Servicing Plan which provides a schematic representation of the existing storm sewers.

4.3.2 Proposed

Surface runoff from the proposed development is proposed to be conveyed to Confederation Parkway and Dunbar Road via a combination of overland drainage and proposed storm sewer connections. The proposed storm sewers are to be located within the front yard areas of the proposed units and would connect to the existing 300 mm dia. concrete storm sewer within the Dunbar Road R.O.W. The proposed storm sewer will be used to provide the requisite stormwater management (SWM) (ref. Section 5.0). Rooftop drainage is proposed to discharge at grade, and be directed toward the front yard pup catchbasins.

Based on the proposed basement elevations relative to the obvert of the receiving storm sewer within the Dunbar Road R.O.W., the foundation drains cannot drain via gravity. As such, sump pumps will be required in each home to connect the foundation drains to the storm service laterals.

5.0 Stormwater Management

5.1 Stormwater Runoff Control Criteria

As stated in Section 2.1, pre-consultation was carried out between the City and Sajecki Planning prior to the submission of this FSSR. As part of the pre-consultation, the SWM criteria applicable to the proposed development were defined by the City. The SWM criteria, as outlined in the Project Status Report (ref. Appendix A), are as follows:

1. **Flood Control** - The site is within the Mary Fix Creek watershed. It will be necessary to implement on-site stormwater management techniques into the design to limit the post development stormwater discharge from the ten (10) year post-development storm event to the two (2) year pre-development levels.
2. **Water Balance** - The first 5mm of runoff shall be retained on site.
3. **General Criteria** - The applicant is required to implement low-impact development (LID) measures such as permeable pavement, green roofs, landscape irrigation with stormwater re-use, etc.

5.2 Existing Conditions Storm Drainage

Existing site drainage is split between three (3) outlets. As shown on Figure 1, Subcatchment 101 (0.04 ha) drains east toward the Confederation Parkway R.O.W., Subcatchment 102 (0.09 ha) drains north toward the Dunbar Road R.O.W., and Subcatchment 103 (0.01 ha) drains south toward the residential lot at 2470 Confederation Parkway. Is it assumed that currently the 5 year storm event peak flows generated by the existing site are captured and conveyed by the storm sewer systems (i.e. minor systems) located within the Confederation Parkway and Dunbar Road R.O.W.s. Furthermore, it is also assumed that flows in excess of the 5 year, up to the 100 year storm peak flow generated by the existing site are conveyed overland through the respective R.O.W.s (i.e. major system).

The Rational Method has been used to determine the anticipated peak flows to the various outlet points for the 2 year storm event. The results are summarized in Table 1, and supporting calculations are provided in Appendix B. The existing impervious coverages and runoff coefficients of each subcatchment have been calculated using the City's standard runoff coefficients.

Table 1. Existing Conditions Peak Flows

Outlet	Subcatchment	Area (ha)	2 Year Peak Flow (m^3/s)
Confederation Parkway	101	0.04	0.004
Dunbar Road	102	0.09	0.008
2470 Confederation Parkway	103	0.01	0.001

The 2 year peak flow rates for Subcatchments 101 and 102 have been taken as the target rates for the proposed development per Municipal criteria.

5.3 Proposed Conditions Storm Drainage

As outlined in Section 3.2, the proposed development will be graded such that stormwater runoff from within the proposed development is collected and released in a controlled manner, without impacting adjacent properties.

As shown on Figure 2, Subcatchment 201 (0.04 ha) consists of rear yard areas, with overland drainage directed toward Confederation Parkway. Subcatchments 202 through 205 ((0.10 ha) consists of front yard, side yard, and rooftop areas, with overland drainage directed toward the proposed pup catchbasins located within the front yard areas adjacent to Dunbar Road. The pup catchbasins and storm sewers proposed within the front yard areas will capture and convey the 10 year peak flows generated by their respective Subcatchments (i.e. Subcatchments 202 through 205) to the existing storm sewer located within the Dunbar Road R.O.W. Subcatchment 206 (0.002ha) consists of driveway areas directed toward Dunbar Road.

The Rational Method has been used to determine the anticipated peak flows under proposed conditions to the various outlet points for the 10 year storm event. The results are summarized in Table 2 with a comparison to the target rates, and supporting calculations are provided in Appendix B.

Table 2. Proposed Conditions Peak Flows

Outlet	Subcatchment(s)	Area (ha)	10 Year Peak Flow (m^3/s)	Comparison to Target Rate (%)
Confederation Parkway	201	0.02	0.003	-25%
Dunbar Road	202 - 206	0.12	0.020	150%

The results presented in Table 2 indicate that the proposed conditions peak flow to Confederation Parkway for the 10 year storm event would be lower than the target rate for this outlet. This result is expected as the drainage area and impervious coverage of lands directed to Confederation Parkway are significantly reduced under proposed conditions. Furthermore, the proposed conditions peak flow rate to Dunbar Road for the 10 year storm event would exceed the target rate for this outlet. As such, flood control is required for Subcatchments 202 through 206 to reduce the 10 year proposed conditions peak flow rate to the target rate to Dunbar Road.

5.4 Flood Control

As outlined in Section 4.3.2, overland drainage from Subcatchments 202 through 205 is proposed to be directed to the pup catchbasins and storm sewers located within the front yard areas. The storm sewers are proposed to be used to control the 10 year proposed conditions peak flow rates from Subcatchments 202 through 205 to the Dunbar Road R.O.W. via the implementation of peak flow control and detention storage. The Modified Rational Method has been used to determine the detention storage volumes required to reduce the proposed conditions peak flow rates to the target rate. Overland drainage from Subcatchment 206 is proposed to drain uncontrolled to Dunbar Road. As such, the peak flow control and detention storage for Subcatchments 202 through 205 has been designed to account for this portion of uncontrolled drainage to Dunbar Road. A summary of the proposed conditions peak flow rates and required detention volumes is provided in Table 3. Supporting calculations are provided in Appendix B.

Table 3. Proposed Conditions with SWM Peak Flow & Storage Volume

Subcatchment	Target Rate (m^3/s)	Proposed Conditions Peak Flow (m^3/s)	Required Detention Volume (m^3)
202	0.008	0.002	2.50
203		0.002	2.44
204		0.002	2.62
205		0.002	3.82
206		0.0004	N/A
Total		**0.008**	**11.38**

The results in Table 3 show that the 10 year proposed conditions peak flow rates can be reduced to the 2 year existing land use target rate by incorporating flood controls. Based on a review of site constraints, it has been determined that the required detention volumes for Subcatchments 202 through 205 can be provided by underground storage tanks located within the front yard areas (ref. Drawing 2). The Brentwood ST-18 has been selected for Subcatchments 202 through 206 to provide the required detention volumes. The tank layouts are shown schematically on Drawing 2 and Figure 2. Supporting calculations are provided in Appendix B.

Peak flow control can be implemented at the downstream side of the storage tanks, at the storm sewer connections (ref. Drawing 2 and Figure 2). Due to relatively small release rate, it is not possible to achieve the target release rate using an orifice tube or plate with a minimum diameter of 75 mm. As such, the Vortex Valve FC9 is proposed to provide the peak flow control, with an effective opening size of 76 mm at a head of 0.457 m. Preliminary sizing calculations for the Vortex Valve are provided in Appendix B.

5.5 Water Balance

As outlined in Section 5.1, the first 5mm of runoff shall be retained on site. The impervious coverage of the proposed development is approximately 52% (0.08 ha +/-), which corresponds to an on-site retention volume of 3.75 m^3.

Borehole logs provided in Appendix A show that groundwater was not encountered on site up to a depth of 4.1 m. Given this, as well as consideration for other site constraints, subsurface infiltration has been selected to provide the requisite retention volume.

The proposed Brentwood detention tank product is perforated, and is installed on top of a stone bed. When the tank and stone bed are installed with a permeable geotextile liner, water collected within the tank can infiltrate into the surrounding soils. As such, subsurface infiltration can be accommodated within the void space of the proposed stone beds. The depth of each stone bed can be adjusted (i.e. increased or decreased) to accommodate any given retention volume. Given the approximate footprint areas of the detention tanks, a stone bedding depth of 0.36 m would be required for detention tanks proposed within Subcatchments 202 through 205 and a bedding depth of 0.27 m would be required for the detention tank proposed within Subcatchment 206 (void ratio = 0.4). The details of the detention tanks and subsurface abstraction approach will be refined at the detailed design stage.

It is noted that the implementation of subsurface infiltration would also satisfy the general criteria outlined in Section 5.1.

6.0 Conclusions

The following can be concluded from the information provided in this report:

- The proposed development can be serviced (water and sanitary) and graded in accordance with City of Mississauga and Region of Peel design requirements.
- Proposed Conditions peak runoff rates can be managed by implementing stormwater management flood controls within the proposed front yard areas.
- Water balance requirements can be achieved by implementing LID measures (subsurface infiltration) within the front yard areas.

We trust the details provided in this Functional Servicing and Stormwater Management Report are sufficient for the Re-Zoning By-Law Amendment application . Should you have any questions or concerns please do not hesitate to contact our office.

Sincerely,

Wood Environment & Infrastructure Solutions a Division of Wood Canada Limited

Matt Britton, P. Eng.
Water Resources Engineer

Reviewed by:

Ron Scheckenberger, M. Eng., P. Eng.
Principal Consultant

MB/mb

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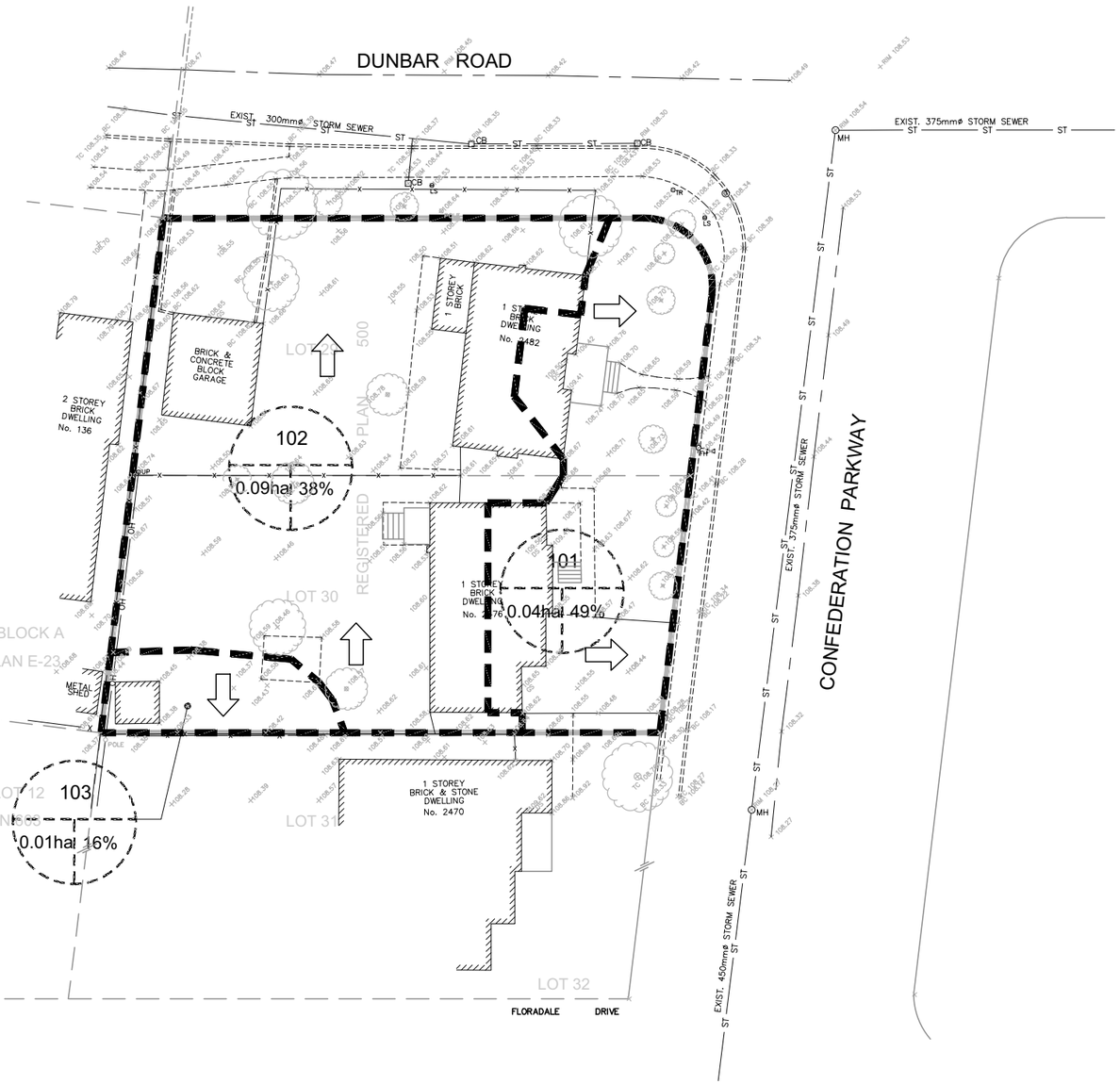

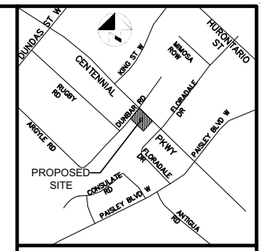

KEY PLAN

TRUE NORTH

LEGEND

- EXISTING STORM SEWER — ST
- EXISTING CATCHBASIN — CB
- EXISTING STORM MANHOLE — MH
- EXISTING SUBCATCHMENT DRAINAGE BOUNDARY
- SUBCATCHMENT ID — 102
- DRAINAGE AREA (IN HECTARES) — 0.10ha
- IMPERVIOUS % — 35%
- OVERLAND DRAINAGE DIRECTION
- PROPERTY BOUNDARY

SCALE VALID ONLY FOR 24"x36" VERSION

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CONFEDERATION PARKWAY

PREEMINENT DEVELOPMENTS INC.

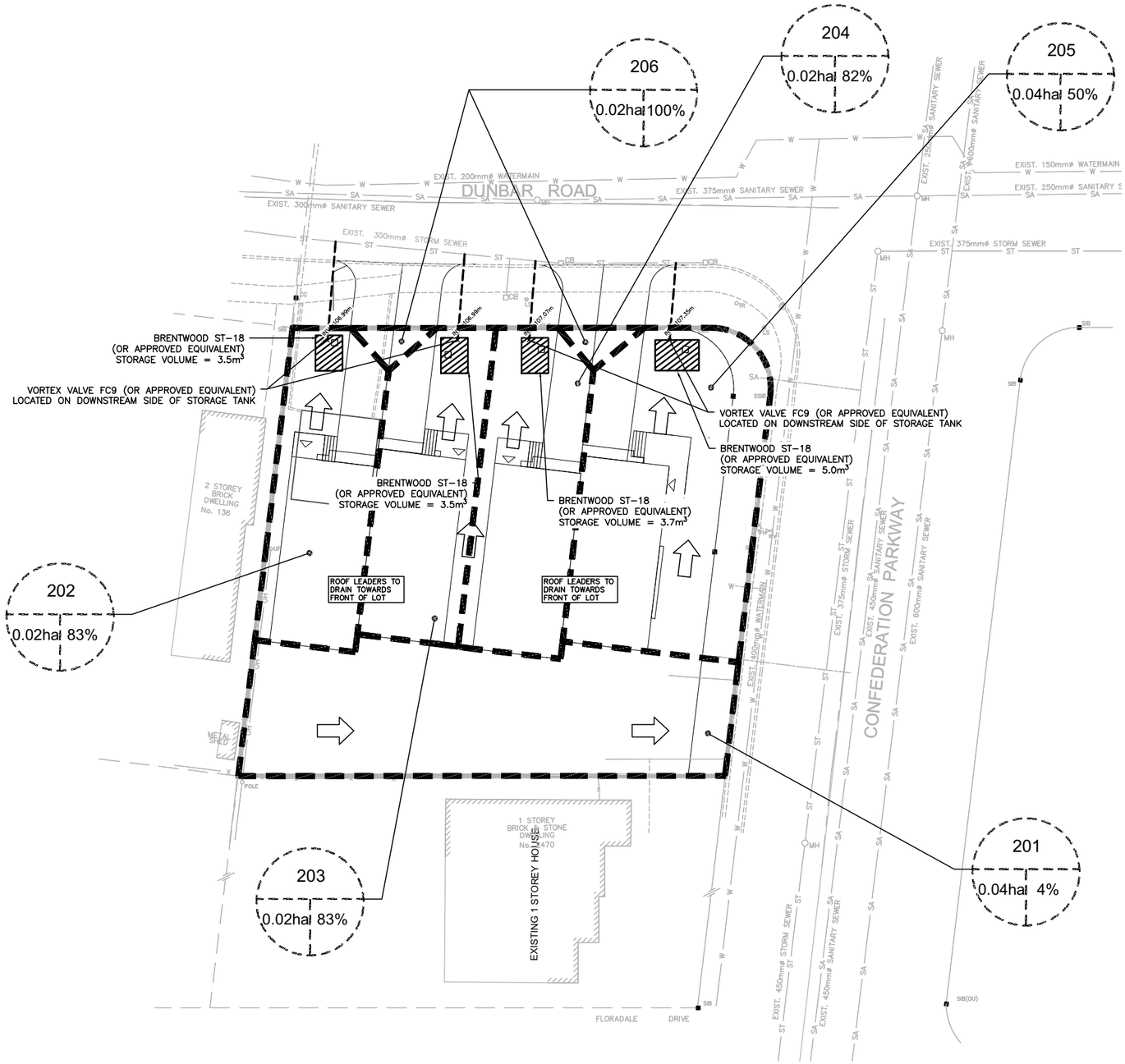
EXISTING CONDITIONS STORM DRAINAGE PLAN

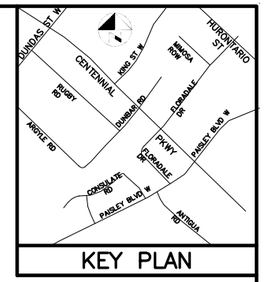
wood.

Scale 1:200

Consultant File No. TPB188171

Figure No. 1





KEY PLAN

TRUE NORTH

LEGEND

EXISTING CATCHBASIN — ST —
EXISTING CATCHBASIN — CB
EXISTING STORM MANHOLE — MH
PROPOSED SUBCATCHMENT DRAINAGE BOUNDARY

SUBCATCHMENT ID
102
0.10ha 35%
DRAINAGE AREA (IN HECTARES)
IMPERVIOUS %

OVERLAND DRAINAGE DIRECTION

PROPERTY BOUNDARY

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	CONFEDERATION PARKWAY PREEMINENT DEVELOPMENTS INC.	PROPOSED CONDITIONS STORM DRAINAGE PLAN	wood.	Scale 1:200 Consultant File No. TPB188171 Figure No. 2

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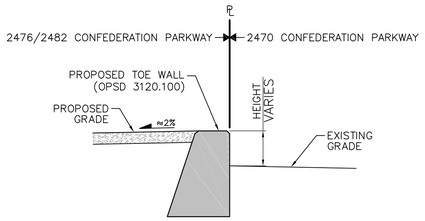

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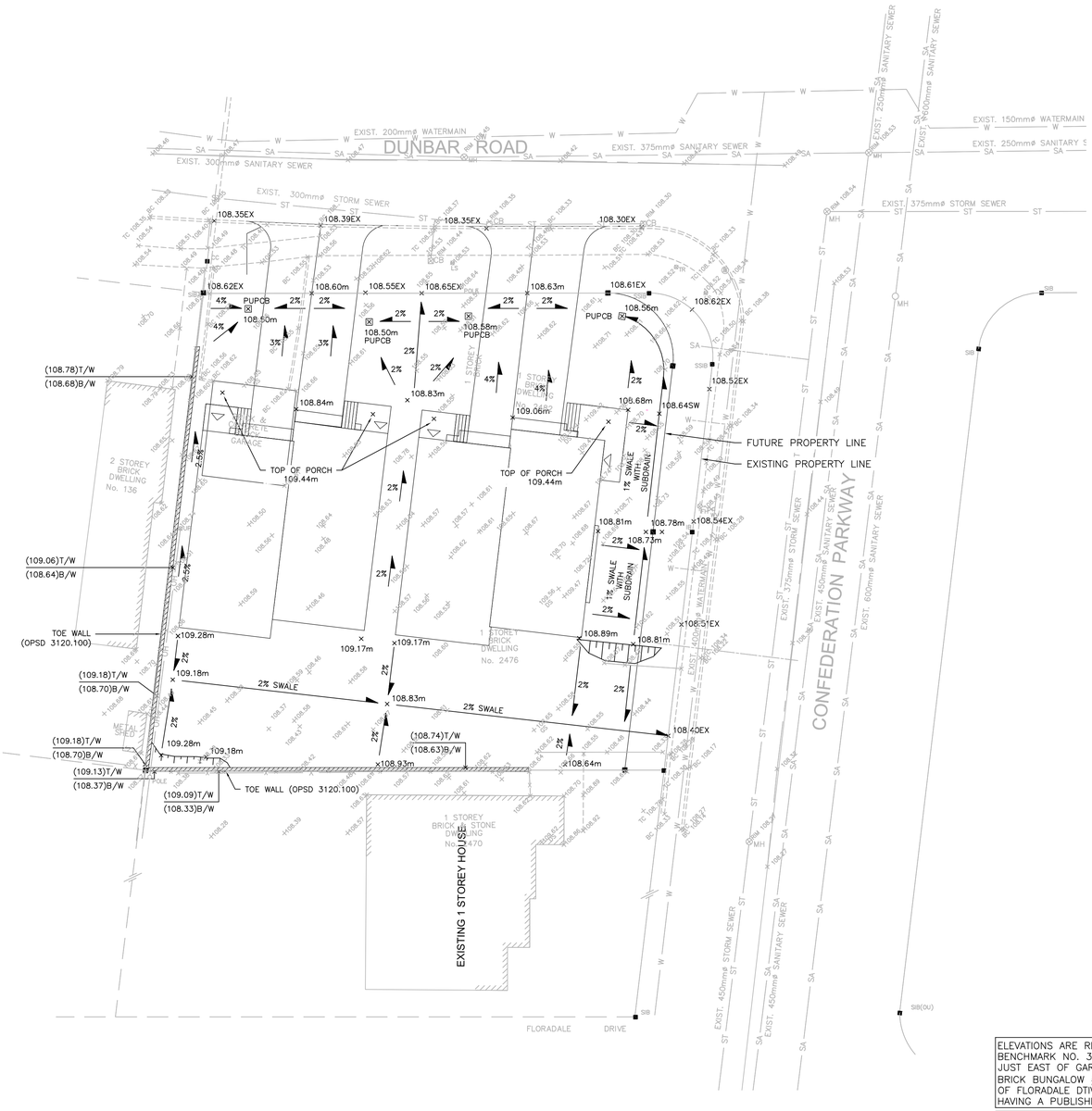

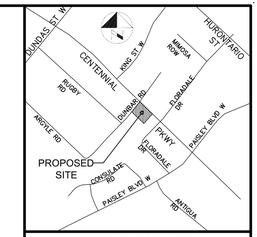

KEY PLAN

TRUE NORTH

LEGEND

EXISTING GROUND ELEVATION	108.00
PROPOSED GROUND ELEVATION AT BUILDING	100.00
PROPOSED GROUND ELEVATION	×(100.00)
PROPOSED GROUND ELEVATION TO MATCH EXISTING	×(100.00)EX
PROPOSED SWALE ELEVATION	×(100.00)SW
PROPOSED TOP OF WALL ELEVATION	×(100.00)T.W
PROPOSED BOTTOM OF WALL ELEVATION	×(100.00)B/W
DIRECTION OF SURFACE DRAINAGE SWALE	
DIRECTION OF SHEET FLOW	
PROPOSED MANHOLE	
CATCHBASIN	
CATCHBASIN/MANHOLE	
HYDRANT	
LIGHT STANDARD	
HYDRO PADMOUNT TRANSFORMER	
EXISTING CATCHBASIN	CB
EXISTING DOUBLE CATCHBASIN	DCB
EXISTING HYDRANT	FH
EXISTING LIGHT STANDARD	LS
EXISTING HYDRO POLE	HP
EXISTING HYDRO VAULT	
MAJOR OVERLAND FLOW ROUTE	
PROPERTY BOUNDARY	
PROPOSED TOE WALL (OPSD 3120.100)	
PROPOSED 3:1 SLOPE	

ELEVATIONS ARE REFERRED TO THE CITY OF MISSISSAUGA BENCHMARK NO. 337, LOCATED AT THE SOUTH FACE JUST EAST OF GARAGE DOOR OF A GRAY AND YELLOW BRICK BUNGALOW #111 AT THE NORTH–EAST CORNER OF FLORADALE DTIVE AND CONFEDERATION PARKWAY, HAVING A PUBLISHED ELEVATION OF 108.73 METRES

REFERENCE PLAN NO. 43R

SCALE VALID ONLY FOR 24"x36" VERSION

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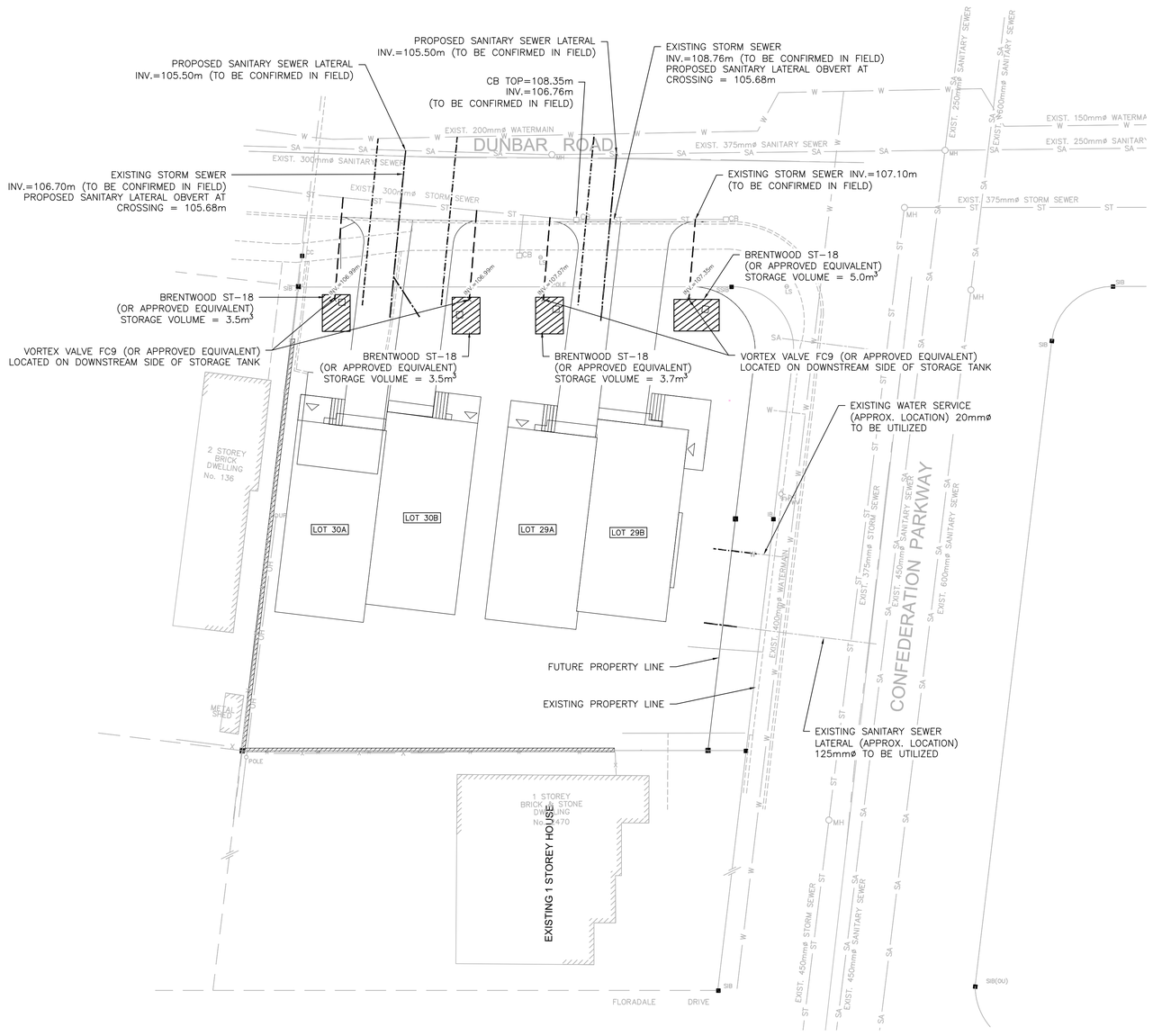
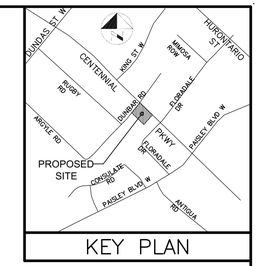
	CONFEDERATION PARKWAY PREEMINENT DEVELOPMENTS INC.	FUNCTIONAL GRADING PLAN	wood.	Scale 1:200 Consultant File No. TPB188171 Drawing No. 1





KEY PLAN

TRUE NORTH

LEGEND

PROPOSED STORM SEWER SERVICE 150mmø	
PROPOSED SANITARY SERVICE 125mmø	SA
PROPOSED WATER SERVICE 19mmø COPPER	W
PROPOSED STORM MANHOLE	
PROPOSED CATCHBASIN MANHOLE	
PROPOSED CATCHBASIN	
EXISTING STORM SEWER	ST
EXISTING SANITARY SEWER	SA
EXISTING WATERMAIN	W
EXISTING MANHOLE	MH
EXISTING CATCHBASIN	CB
EXISTING LIGHT STANDARD	LS
EXISTING SANITARY SERVICE	SA
EXISTING WATER SERVICE	W
PROPERTY BOUNDARY	

REFERENCE PLAN NO. 43R

SCALE VALID ONLY
FOR 24"x36" VERSION

	CONFEDERATION PARKWAY PREEMINENT DEVELOPMENTS INC.	FUNCTIONAL SERVICING PLAN	wood.	Scale 1:200 Consultant File No. TPB188171 Drawing No. 2

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Plotted By: peter.kiriakos
Last Saved By: peter.kiriakos
Path: P:\2018\Projects\TPB188171 - Rezoning Study At 2476 & 2482 Confed Pkwy\06_DES-ENG\01_CAD\02_DWGS\05_WR\JANUARY 2020\TPB188171-1 REVISED SITE.dwg

Appendix A

Application for Rezoning, Official Plan Amendment, and/or Plan of Subdivision - Submission Requirements Checklist

Planning and Building Department
Development and Design Division
300 City Centre Drive
Mississauga, ON L5B 3C1
Tel: 905-896-5511
www.mississauga.ca

Application File No.

MISSISSAUGA

General Information		
Address / Legal Description of Site 2476 & 2482 Confederation Pkwy (ZBLA only)	Ward No. 7	Meeting Date Oct. 17, 2018
Description of Proposal 2 semi-detached dwellings		
Applicant Name D.Sajecki, Sajecki Planning	Planner Name S.Hussen	Pre-Application Meeting No. DARC 18-279

General Requirements	Required Reports / Studies (7 copies each, unless noted below)
☒ Complete Application Form	☒ Planning Justification Report
☒ City Application Fees / Deposits	☐ Parking Utilization Study
☐ Commenting Agency Fee Collection Form	☐ Urban Design Study
☐ Region of Peel Commenting Fee	☐ Shadow Study
☐ Conservation Authority Review Fee	☐ Wind Study
☒ Cover Letter	☒ Acoustical Feasibility Study
☒ Context Plan / Map (40 copies)	☒ Arborist Report/Plan (Tree Inventory)
☒ Concept / Site Plan (40 copies)	☒ Tree Preservation Plan
☒ Grading / Site Servicing Plan (35 copies)	☒ Easements / Restrictions on Title
☒ Survey Plan (40 copies)	☐ Streetscape Feasibility Study
☐ Draft Plan of Subdivision (50 copies)	☐ Traffic Impact Assessment / Study
☒ Building Elevations (7 copies)	☐ Transportation Demand Management Strategy
☐ Draft Official Plan Amendment (3 copies)	☐ Traffic Safety Impact Study
☒ Draft Zoning By-law (3 copies)	☒ Storm Water Management Plan / Report
☒ Draft Notice Sign Mock-up (1 copy)	☒ Functional Servicing Report (FSR) (9 copies)
☒ Digital copy (PDF format) of all required documents, plans, drawings, studies and reports on USB memory stick (2 memory sticks)	☐ Environmental Impact Statement – Type (i.e. minor or major) to be determined following site visit prior to application submission (9 copies)
☒ List of Low Impact Design Features for Site and Building (1 copy)	☐ Slope Stability Study / Top of Bank Survey
☐ Urban Design Advisory Panel	☐ Geotechnical Report
Other Requirements / Notes	☒ Phase 1 Environmental Site Assessment
	☐ Phase 2 Environmental Site Assessment
	☐ Heritage Impact Statement
	☐ Archaeological Assessment
	☐
	☐
	☐

Other Information

- Application forms can be obtained at http://www.mississauga.ca/portal/residents/pbformscentre
- Drawings / Plans must be folded to letter size (8 ½" x 11"). Rolled drawings/plans will not be accepted
- Additional information/reports/studies/plans may be required upon submission of the application
- As part of the Public Consultation Strategy for a complete application, the applicant will required to host a Community Meeting with respect to the application in the event: the Ward Councillor decides not to host a Community Meeting; and the application includes of a residential component or the subject lands are located within 120m of residential uses
- Application submission is by appointment only. To book an appointment, please phone 905-615-3200 ext. 4199 or by email at sanja.blagojevic@mississauga.ca
- Applicants should consult with the Planning Services Centre of the Development and Design Division to verify the application fee calculation before preparing a cheque. Send your completed Fee Calculation Worksheet (in the application form) to eplans.devdes@mississauga.ca for review

Project Status Report

Project Review Status

Please click on the '+' sign for the Review Cycle to expand the Project Review Status information.

Project Number	Site Address	Project Description	Report Run Date
DARC 18-279 W7	2476 & 2482 Confederation Pkwy	two semi-detached dwellings	10/24/2018 3:43:34 PM

Review Cycle	Review Group	Review Status	Reviewer Contact Information
1			
	DEVELOPMENT ENGINEERING REVIEW	Comments Provided	Cynthia Urdaneta cynthia.urdaneta@mississauga.ca 905-615-3200 x3128
	ENVIRONMENTAL ENG REV STORM	Comments Provided	Ghazwan Yousif ghazwan.yousif@mississauga.ca 905-615-3200 x3526
	ENVIRONMENTAL ENG REVIEWER	Comments Provided	Valeriya Danylova valeriya.danylova@mississauga.ca 905-615-3200 x5930
	HERITAGE PLANNER	Comments Provided	Brooke Herczeg brooke.herczeg@mississauga.ca 905-615-3200 x4061
	LANDSCAPE ARCH - DEV DESIGN	Comments Provided	Julia Van der Laan de Vries julia.vanderlaandevries@mississauga.ca 905-615-3200 x 5761
	PLANNER - COMM SERVICES	Comments Provided	Sangita Manandhar sangita.manandhar@mississauga.ca 905-615-3200 x4426
	PLANNER - DEV DESIGN	Comments Provided	Shaesta Hussen shaesta.hussen@mississauga.ca 905-615-3200 x5532
	PUBLIC ART COORDINATOR	No Comments	Chloe Catan chloe.catan@mississauga.ca 905-615-3200 x8281
	REGION OF PEEL	Comments Provided	Angelo Ambrico angelo.ambrico@peelregion.ca 9057917800 x4612
	TRAFFIC REVIEW (PPP)	Comments Provided	Zain Zia zain.zia@mississauga.ca 905-615-3200 x5318

Project Status Report

Review Cycle	Review Group	Review Status	Reviewer Contact Information
1	URBAN DESIGNER	Comments Provided	Michael Karowich michael.karowich@mississauga.ca 905-615-3200 x4249

Review Status Legend	
“Approved”	Review Group has completed the review and has no outstanding conditions.
“Comments Provided”	Review Group has completed the review and has provided comments.
“In-Review”	Reviewer in the Review Group has accepted the task and is in the process of reviewing the project.
“No Comments”	Review Group has completed the review and has no comments.
“No Review Required”	Review Group has determined that no review is required for the project.
“Not Reviewed this Cycle”	Review Group did not review the project for the applicable review cycle.
“Withheld”	Review Group has completed the applicable review cycle and the project has outstanding conditions that need to be addressed.

Outstanding Checklist Items

Please be advised that the information noted below is subject to change until all the required review groups have completed the applicable review cycle. You will not be able to respond to any of outstanding checklist items or changemarks until you have been assigned a "Prescreen Corrections" or an "Applicant Resubmit" task. Please refer to the Applicant User Guide for more information.

Group Name	Cycle	Comment Text	Applicant Response	Seq #	Resolved Status	Create Date (M/D/Y)
	1	SUBMISSION REQUIREMENT: (i) Grading Plan (ii) Servicing Plan (iii) Cross-Sections Plan			Note	10/16/2018
DEVELOPMENT ENGINEERING REVIEW	1	SUBMISSION REQUIREMENT: Acoustical Feasibility Study that includes the following: (i) A technical assessment of the existing and predicted future noise and vibration levels from all transportation (road, rail, aircraft) and stationary noise sources on the indoor and outdoor environment; (ii) Description of impacts of noise generated by a proposed development on the surrounding environment, the impact of noise from the surrounding environment on the proposed development and the impact of noise from the proposed development on itself; (iii) Recommendation of mitigative measures and features (e.g. building materials, ventilation requirements, noise barrier (berm/fence) design and height, building orientation, warning clauses) required to meet indoor and outdoor sound level limits, in accordance with the applicable Ministry of the Environment and Climate Change and City/Region of Peel Guidelines.			Note	10/16/2018
ENVIRONMENTAL ENG REV STORM	1	COMMENT: The applicant is required to implement low impact development measure such as permeable pavement, green roofs, landscape irrigation with stormwater re-use, etc.			Note	10/04/2018

Project Status Report

Group Name	Cycle	Comment Text	Applicant Response	Seq #	Resolved Status	Create Date (M/D/Y)
ENVIRONMENTAL ENG REV STORM	1	COMMENT: Please be advised that the Stormwater Charge has come into effect as of January 2016. Credits of up to 50% are available for on-site stormwater management on non-residentil and multi-residential properties. Learn more at www.stormwatercharge.ca			Note	10/04/2018
	1	SUBMISSION REQUIREMENT: A Functional Servicing Report with Stormwater Management is required. The site is within the Mar Fix Creek watershed. It will be necessary to implement on-site stormwater management techniques into the design to limit the post development stormwater discharge? from the 10 year post development storm event to the two year pre-development levels. The first 5mm of runoff shall be retained on site.			Note	10/04/2018
	1	The storm sewer outlet for 2/3 of the subject site is the existing 375mm diameter storm sewer on Confederation Parkway, 1/3 of the site drain into the existing 300mm diameter storm sewer on Dunber Rd.			Note	10/04/2018
ENVIRONMENTAL ENG REVIEWER						
	1	A completed Environmental Site Screening Questionnaire and Declaration (ESSQD) form, signed by the Owner and a Commissioner of Oaths, must be submitted to the Transportation and Works Department for review.			Note	10/09/2018

Project Status Report

Group Name	Cycle	Comment Text	Applicant Response	Seq #	Resolved Status	Create Date (M/D/Y)
ENVIRONMENTAL ENG REVIEWER	1	A current Phase One Environmental Site Assessment must be submitted to the Transportation and Works Department for review. The report must be signed by a Qualified Person as defined in Ontario Regulation 153/04 (as amended) and include a clause or be accompanied by a letter signed by the author of the report or a Principal of the Consulting Firm, which allows the City of Mississauga to make reliance on the findings and conclusions presented in the report. If the Phase One ESA indicates potential for contamination, a Phase Two Environmental Site Assessment will be required. If contamination is confirmed, a Remedial Action Plan that appropriately addresses the contamination will be required. Recommendations contained within the plan will be implemented by way of conditions to development approval.			Note	10/09/2018
	1	Please be advised that if lands are to be dedicated to the City, they will be in a condition acceptable to the City in its sole and unfettered discretion that such land is environmentally suitable for the proposed use, as determined by the City, and shall be certified as such by a Qualified Person, as defined in Ontario Regulation 153/04 (as amended).			Note	10/09/2018
	1	Please be advised that if dewatering is required as part of development, approval will be required from the Transportation and Works Department to discharge to the City's storm sewer network.			Note	10/09/2018
	1	Further comments may be provided upon receipt and review of the requested materials.			Note	10/09/2018
HERITAGE PLANNER						
	1	No heritage concerns			Note	10/11/2018

Project Status Report

Group Name	Cycle	Comment Text	Applicant Response	Seq #	Resolved Status	Create Date (M/D/Y)
	1	CHECK MARK COMMENTS: Refer to comments provided directly on the plans for such things as: -Front yard setback -Driveway location -Tree preservation		1	NotMet	10/16/2018
LANDSCAPE ARCH - DEV DESIGN	1	SUBMISSION REQUIREMENT: A Tree Survey & Inventory Plan, Tree Preservation Plan and Arborist Report is required. The Tree Survey & Inventory Plan should locate all trees (over 80mm dbh) on-site and immediately adjacent to the site (within 5m/10m of the property line); accurately illustrate the canopy size; and identify the species, condition, and size (dbh) of the trees. Tree Preservation Plan should identify all trees to be preserved, removed or transplanted with proposed location and type of tree preservation fencing. The Arborist Report is to be completed by a certified arborist and should evaluate tree condition and define the requirements and methodologies for tree preservation and/or transplanting (including Tree Protection Zones, Soil Compaction Mitigation, Crown Elevation, Surface Treatments, and inspection schedule).		2	NotMet	10/16/2018
	1	COMMENT: Provide appropriate landscape buffers and landscape setbacks in keeping with the proposed zoning.		3	NotMet	10/16/2018
	1	DUNBAR ROAD FRONTAGE: -Consider providing driveways accessed via Dunbar Road, in order to reduce the number of driveways along Confederation Parkway.		4	NotMet	10/16/2018
PLANNER - COMM SERVICES	1	COMMENT: Please be advised that prior to the issuance of building permit, for each lot or block cash-in-lieu for park or other public recreational purposes is required pursuant to Section 42(6) of the Planning Act (R.S.O.1990, c.P. 13, as amended) and in accordance with the City's Policies and By-laws.			Note	10/16/2018
	1	SUBMISSION REQUIREMENT: Tree Inventory and Protection Plan			Note	10/16/2018

Project Status Report

Group Name	Cycle	Comment Text	Applicant Response	Seq #	Resolved Status	Create Date (M/D/Y)
PLANNER - DEV DESIGN						
	1	IMPORTANT NOTICE: The comments provided from all City departments are for preliminary information and/or discussion purposes only and shall not be construed as the City's position on the project. Comments are not comprehensive and additional comments will be provided through a formal application submission review.		1	Note	10/18/2018
	1	COMMENT: A Zoning By-law Amendment Application is required for the proposed development.		2	Note	10/18/2018
	1	SUBMISSION REQUIREMENT: Planning Justification Report prepared by a Registered Professional Planner (RPP).		3	Note	10/18/2018
PUBLIC ART COORDINATOR						
	1	There are no comments or concerns from a public art perspective.			Note	10/24/2018
REGION OF PEEL						
	1	The Region will require two (2) paper copies of the site servicing plan.			Note	10/18/2018
	1	Regional site servicing approvals are required prior to the local municipality issuing building permit. Servicing of the proposed development must comply with the local municipality's requirements for the Ontario Building Code and most current Region of Peel standards. All works associated with the servicing of this site will be at the applicant's expense.			Note	10/18/2018
	1	The Region of Peel will provide curbside collection of garbage, recyclable materials, household organics and yard waste. For more information please refer to the Waste Collection Design Standards Manual available at: https://www.peelregion.ca/pw/standards/design/waste-collection-design-manual-2016.pdf			Note	10/18/2018

Project Status Report

Group Name	Cycle	Comment Text	Applicant Response	Seq #	Resolved Status	Create Date (M/D/Y)
REGION OF PEEL	1	For the location of existing water and sanitary sewer infrastructure, please contact Records at (905) 791-7800 ex. 7882 or by email at: PWServiceRequests@peelregion.ca For Underground Locate Requests, please visit the following link: https://www.peelregion.ca/pw/locaterequest/ For Water Service Connection Fees and latest User-Fee By-law, please visit the following link: http://www.peelregion.ca/pw/water/rates/connect-rates.htm			Note	10/18/2018
TRAFFIC REVIEW (PPP)						
	1	As per the Mississauga Cycling Master Plan, Confederation Parkway has been identified as a proposed primary on-road bike route. The applicant is advised that fee requirements will be identified in support of this route upon review of a formal submission.			Note	10/16/2018
	1	The proposed Driveway accesses for 2482 Confederation Parkway do not meet the minimum corner clearance of 20m. The driveways are to be relocated.			Note	10/17/2018
	1	The applicant will be required to gratuitously dedicate to the City of Mississauga: - a road allowance widening towards the ultimate 26 meter right-of-way of Confederation Parkway as identified in the Official Plan. - a 5 meter radius rounding at the south-west corner of Confederation Parkway & Dunbar Road			Note	10/17/2018

Outstanding changemarks

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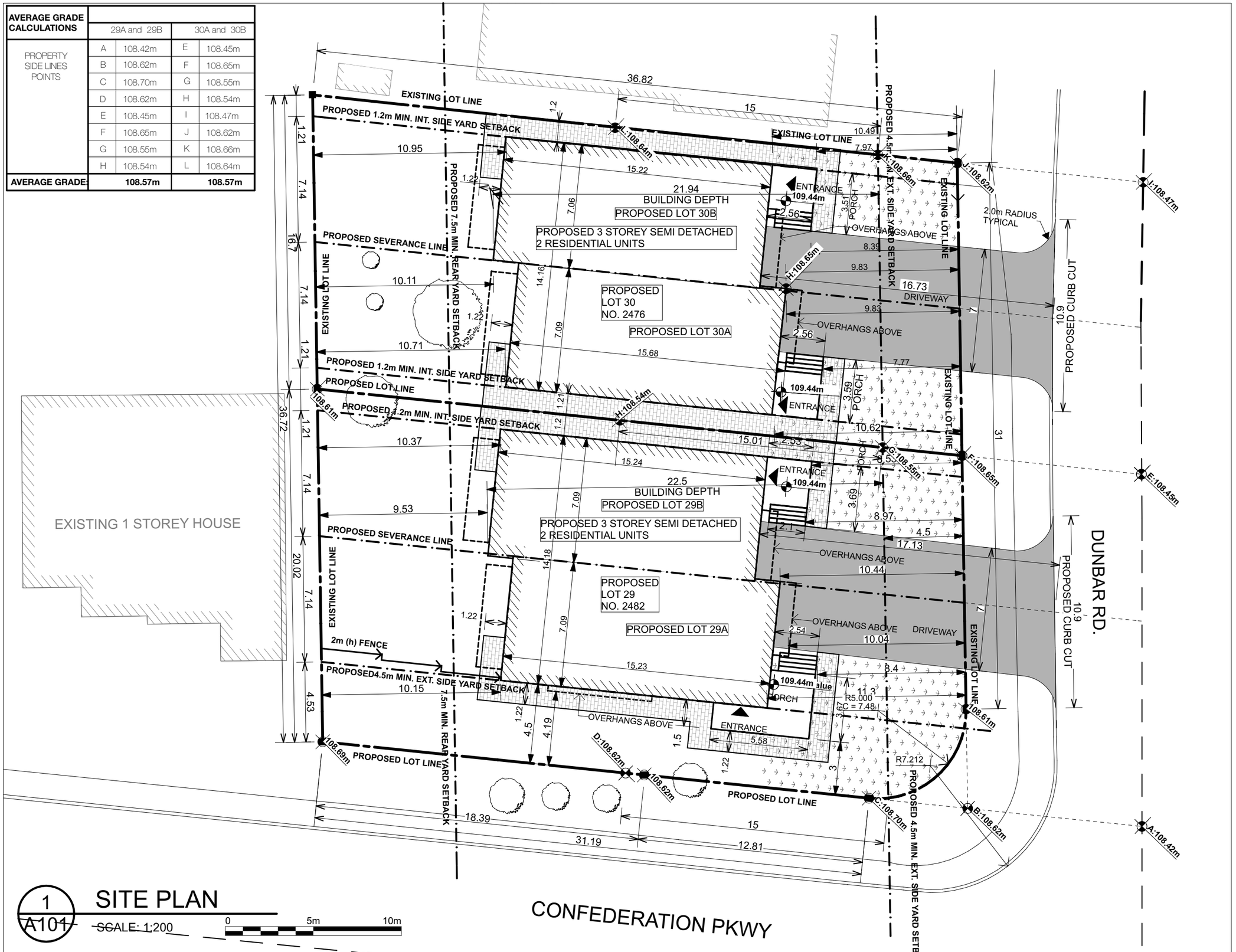
File Name	Cycle	Group Name	Subject	Comment / Condition	Applicant Response	Create Date (M/D/Y)
A101 - Site Plan 2476.pdf						
	1	URBAN DESIGNER	Street widening	There may be a requiremet for land along the street frontage, which will result in moving the building back at achieve a 3 metre setback condition behind the street allowance.		10/24/2018
	1	URBAN DESIGNER	Rear Access	Subject to approval by the Transportation and Works Department, in order to avoid a series of curb cuts, driveways and garage doors fronting onto Confederation Parkway which will become more pedestrian in order to support the higher order transit plans for Hurontario Street and Dundas Street, consider creating a private rear lane with access to garages.		10/24/2018
	1	URBAN DESIGNER	Driveways	The proposal for curb cuts are discouraged as Confederation Parkway is a major street where pedestrian movement is anticipated to intensify. Alternatively, consider access to the rear with a consoliated parking area.		10/24/2018
A101 - Site Plan 2482.pdf						
	1	URBAN DESIGNER	Setbacks, Driveways and Access From the Rear	See Site Plan for 2nd Semi-Detached homes for same comments.		10/24/2018

Project Status Report

File Name	Cycle	Group Name	Subject	Comment / Condition	Applicant Response	Create Date (M/D/Y)
A401 - Elevations 2482.pdf						
	1	URBAN DESIGNER	Garages along Confederation Parkway	As Confederation Parking pedestrian movement will only increase, consider alternative parking at the rear of the building.		10/24/2018

AVERAGE GRADE CALCULATIONS		29A and 29B		30A and 30B
PROPERTY SIDE LINES POINTS	A	108.42m	E	108.45m
	B	108.62m	F	108.65m
	C	108.70m	G	108.55m
	D	108.62m	H	108.54m
	E	108.45m	I	108.47m
	F	108.65m	J	108.62m
	G	108.55m	K	108.66m
	H	108.54m	L	108.64m
AVERAGE GRADE:		**108.57m**		**108.57m**



1 SITE PLAN
A101
SCALE: 1:200
0 5m 10m

Issue Name	Change ID	Issue Date
Issued for Zoning By-Law Amendment		**2020-02-27**
Issued for Zoning By-Law Amendment		**2019-04-16**

TREVOR MCIVOR ARCHITECT INC

Architecture:

Trevor McIvor
Trevor McIvor trevor@trevormcivor.com

Reza Kolahdouzan
reza@trevormcivor.com

134 Peter St., #1301
Toronto, ON M5A 4M2
t: (416) 525 7772
w: www.trevormcivor.com

Consultant | Architect

ONTARIO ASSOCIATION OF ARCHITECTS TREVOR MCIVOR LICENCE 6907

N

2476-2482 Confederation Parkway

Mississauga, ON, Canada

SITE PLAN

A101

Drawn: TB

1
A401

NORTH / FRONT ELEVATION - FACING DUNBAR ROAD

SCALE: 1/8" = 1'-0"

Issue Name	Change ID	Issue Date
Issued for Zoning By-Law Amendment		**2020-02-27**
Issued for Zoning By-Law Amendment		**2019-04-16**

TREVOR MCIVOR ARCHITECT INC

Architecture:

Trevor McIvor
Trevor McIvor trevor@trevormcivor.com

Reza Kolahdouzan
reza@trevormcivor.com

134 Peter St., #1301
Toronto, ON M5A 4M2
t: (416) 525 7772
w: www.trevormcivor.com

Consultant	Architect
	ONTARIO ASSOCIATION OF ARCHITECTS TREVOR MCIVOR LICENCE 8807

2476-2482 Confederation Parkway

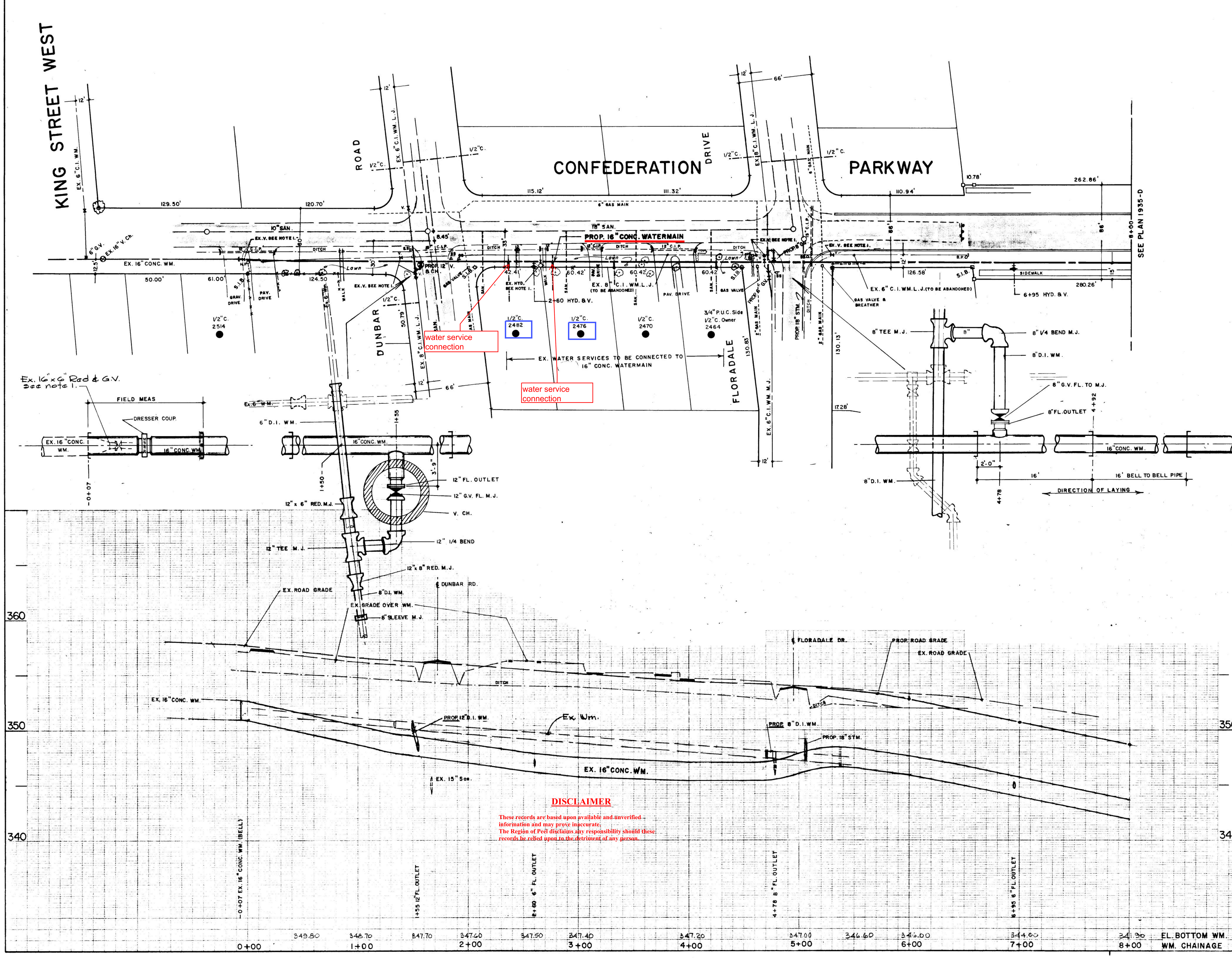
Mississauga, ON, Canada

ELEVATIONS

A401

Drawn: TB

REVISIONS		
DATE	DETAILS	INIT.
JAN/70	AS CONSTRUCTED	R.K.



NOTE :

1.) TO BE REMOVED AND RETURNED TO P.U.C. YARD.

GENERAL NOTES

- ALL DRIVEWAYS GRAVEL UNLESS OTHERWISE NOTED.
- ALL SERVICE LOCATIONS ARE APPROXIMATE AND MUST BE LOCATED ACCURATELY IN FIELD.
- ● DENOTES BUILDING — NOT LOCATED.
- ⊏ DENOTES BUILDING LOCATED.
- T.T.B.M. No. 337 ELEV 356.73
- TEMP. BENCH MARK ELEV.

THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES PRIOR TO AND DURING CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER J. D. McKICHAN PROVINCE OF ONTARIO

DESIGNED BY ______ CHKD. L.H.

REGISTERED PROFESSIONAL ENGINEER A. P. KENNEDY PROVINCE OF ONTARIO

APPROVED BY ______

NOTICE TO CONTRACTOR

48 HOURS PRIOR TO COMMENCING WORK

NOTIFY THE FOLLOWING

WORKS DEPT., TOWN OF MISSISSAUGA	279-7600	LOC. 347
PUBLIC UTILITIES COMM. TOWN OF MISSISSAUGA	279-0391	LOC. 325
HYDRO-ELECTRIC COMM. TOWN OF MISSISSAUGA	277-9441	LOC. 75
HYDRO-ELECTRIC POWER COMM. OF ONT.	223-5000	
BELL TELEPHONE COMPANY	114	
CONSUMERS GAS COMPANY	451-5840	LOC. 34
COUNTY OF PEEL (IF APPLICABLE)	277-9428	LOC. 33
DEPT. OF HIGHWAYS OF ONT. (IF APPLICABLE)	248-3331	

THE PUBLIC UTILITIES COMMISSION OF THE TOWN OF MISSISSAUGA

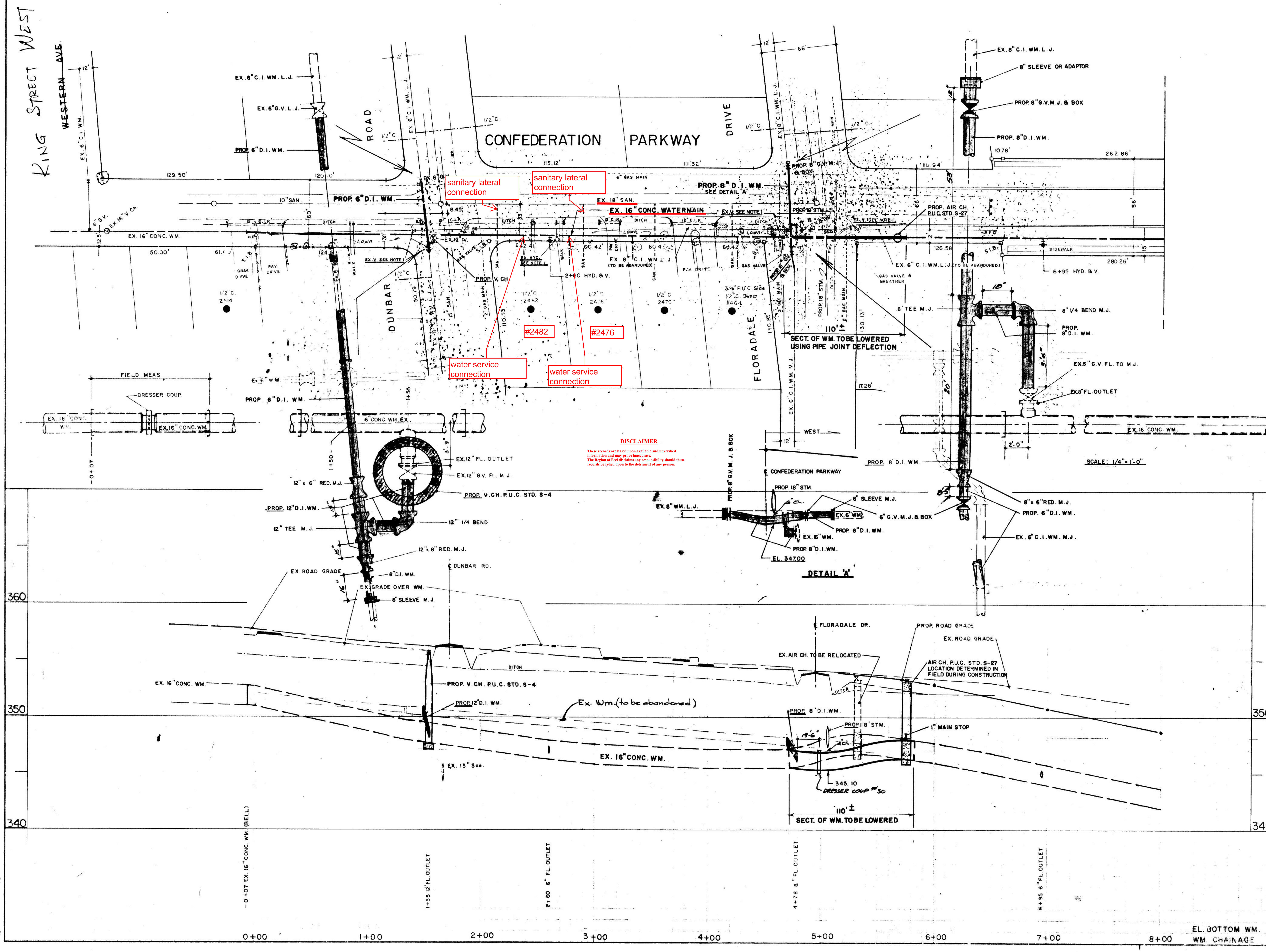
CONFEDERATION PARKWAY
16" WATERMAIN
KING STREET WEST TO QUEENSWAY WEST

STN. 0+00 TO STN. 8+00

LOT/S 16	CON. I S.D.S - RANGE 2 S.D.S	PROJECT NO. W-6819
SCALE HOR. 1" = 40' VERT. 1" = 4'	DRAWN BY R. KELERIS	CHECKED BY L.H.
DATE Aug./68	SHEET 1 OF 4	PLAN NO. 1934-D

1934-D

DATE	REVISIONS DETAILS	INIT
Oct. 24/69	AS CONSTRUCTED	R.K.



— · — · — SAN. CONNECTION
— · — · — WATER

NOTE:
1.) TO BE REMOVED AND RETURNED TO P.U.C. YARD.

GENERAL NOTES

- ALL DRIVEWAYS GRAVEL UNLESS OTHERWISE NOTED.
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REGISTERED PROFESSIONAL ENGINEER J. D. McKICHAN PROVINCE OF ONTARIO
DESIGNED BY CHKD.

REGISTERED PROFESSIONAL ENGINEER A. P. KENNEDY PROVINCE OF ONTARIO
APPROVED BY

NOTICE TO CONTRACTOR

48 HOURS PRIOR TO COMMENCING WORK
NOTIFY THE FOLLOWING

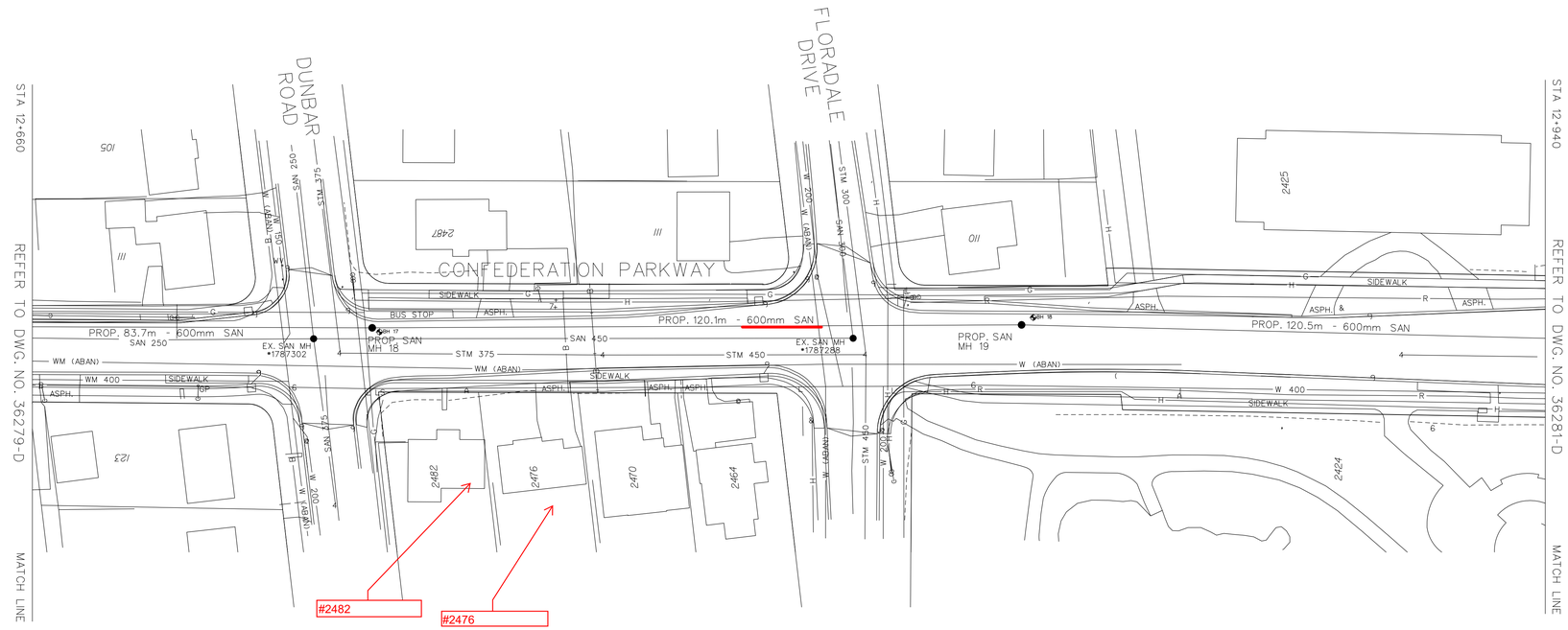
WORKS DEPT., TOWN OF MISSISSAUGA	279-7600	LOC. 347
PUBLIC UTILITIES COMM. TOWN OF MISSISSAUGA	277-0391	LOC. 325
HYDRO-ELECTRIC COMM. TOWN OF MISSISSAUGA	279-9050	LOC. 75
HYDRO-ELECTRIC POWER COMM. OF ONT.	223-5000	
BELL TELEPHONE COMPANY	114	
CONSUMERS GAS COMPANY	451-5840	LOC. 34
COUNTY OF PEEL (IF APPLICABLE)	277-9428	LOC. 33
DEPT. OF HIGHWAYS OF ONT. (IF APPLICABLE)	248-3331	

THE PUBLIC UTILITIES COMMISSION
OF THE
TOWN OF MISSISSAUGA

CONFEDERATION PARKWAY
WATERMAIN RELOCATION
DUNBAR RD. TO FLORADALE DR.

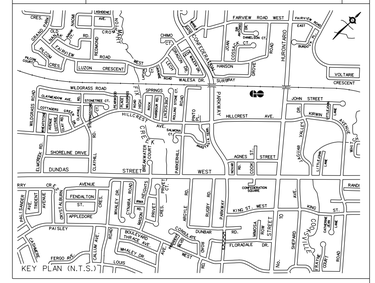
LOT/S 16	CON. 1 S.D.S. - RANGE 2 S.D.S.	PROJECT NO. W-6926
SCALE HOR. 1" = 40' VERT. 1" = 4'	DRAWN BY R. KELERIS	CHECKED BY
DATE Aug. 6/69	SHEET 1 OF 1	PLAN NO. 1943-D

1943-D



SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS			GAS MAINS		
STORM SEWERS			BELL U/G CABLE		
WATERMAINS			HYDRO U/G CABLE		
TRANSIT			HYDRO ONE		
PARKS & REC.			CTV		
ONT. CLEAN WATER			COMMUNIC. CABLES		

REVISIONS		
DATE	DETAILS	INIT.
OCT. 08	AS RECORDED	

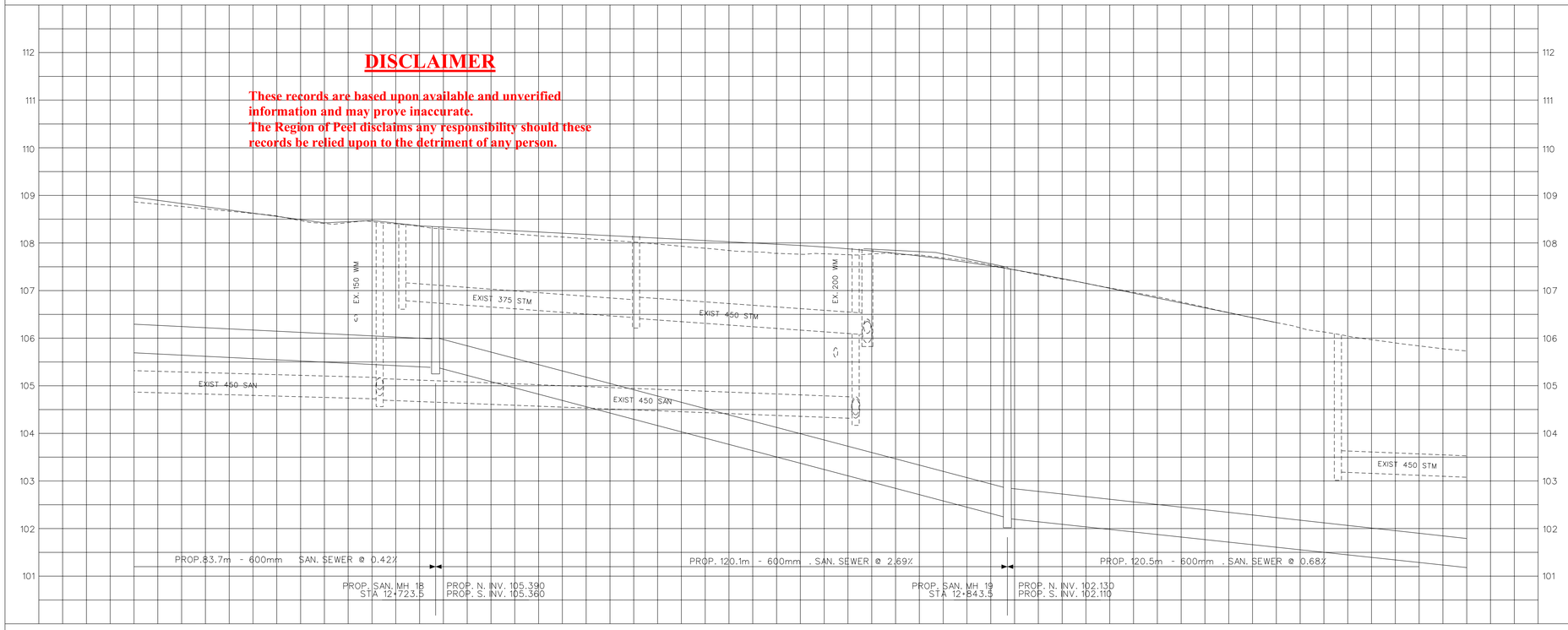


THIS DRAWING TO BE USED FOR SANITARY SEWER CONSTRUCTION ONLY.

FOR NOTES, LEGEND & DETAIL SEE DWG. 36282-D

DISCLAIMER

These records are based upon available and unverified information and may prove inaccurate.
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.



108.860	108.670	108.410	108.350	108.190	108.050	107.890	107.760	107.760	107.540	107.150	106.760	106.330	105.970	105.730	EX. ROAD ELEV.
12+660	12+680	12+700	12+720	12+740	12+760	12+780	12+800	12+820	12+840	12+860	12+880	12+900	12+920	12+940	ROAD CHAINAGE

General Notes

- All Driveways ASPHALT Unless Otherwise Noted.
- All Service Locations Are Approximate And Must Be Located Accurately In The Field
- Denotes Building - Not Located
- Denotes Building Located
- Type 'B' Bedding Unless Otherwise Noted (SAN)

B.M. No. Elev.

The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction Location of Existing Utilities Approximate Only, To Be Verified In Field By Contractor.

Designed by

Chkd.

Approved by

NOTICE TO CONTRACTOR

48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEL
CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
BELL CANADA
ENBRIDGE INCORPORATED-GAS DISTRIBUTION
ONTARIO MINISTRY OF TRANSPORTATION
ONTARIO CLEAN WATER AGENCY
HYDRO ONE NETWORKS
ENERSOURCE, HYDRO MISSISSAUGA
HYDRO ONE BRAMPTON

CABLE TELEVISION/FIBREOPTIC PROVIDERS:
BELL CANADA
ENERSOURCE TELECOM
HYDRO ONE TELECOM
ROGERS CABLE
ALLSTREAM
PSN (PUBLIC SECTOR NETWORK)
FUTUREWAY (FCI BROADBAND)

10m 0 10 20 30m HORIZONTAL SCALE

1m 0 1 2 3m VERTICAL SCALE

Region of Peel
Working for you

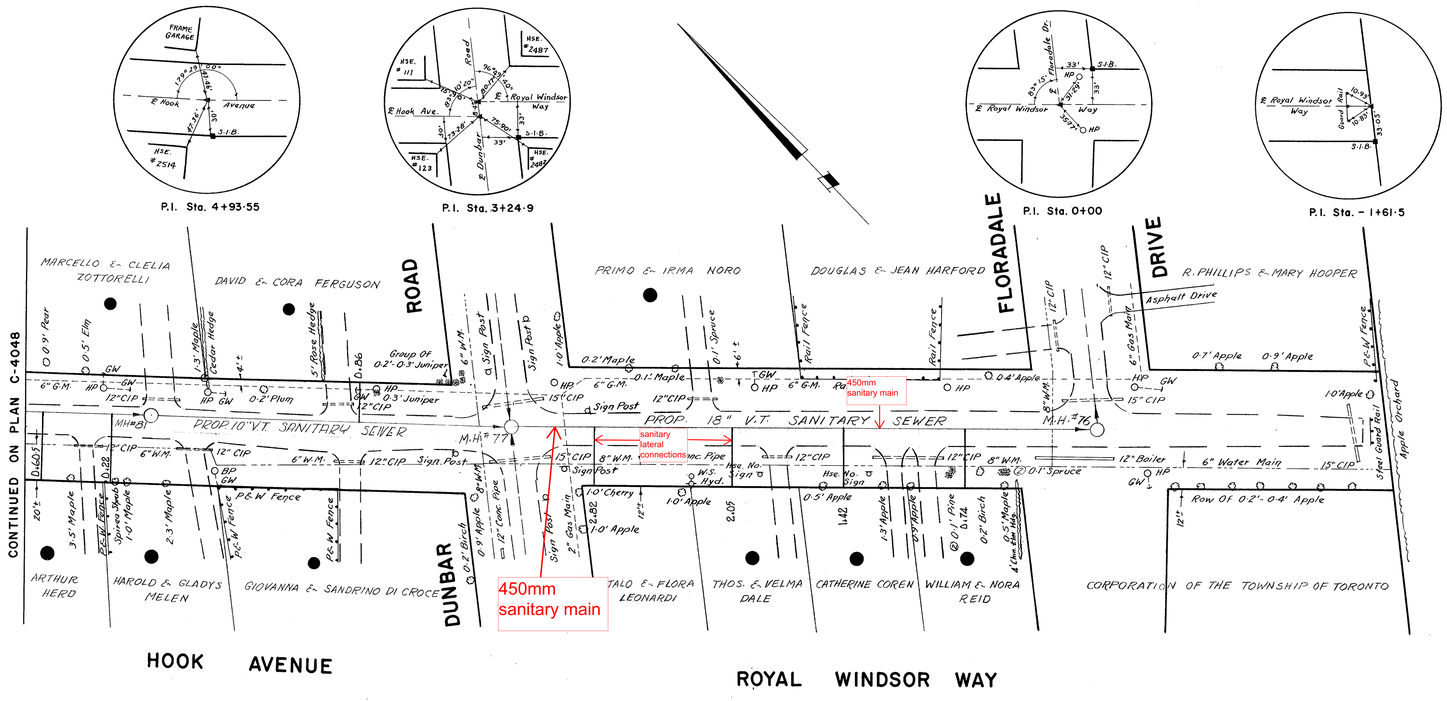
CONFEDERATION PKWY

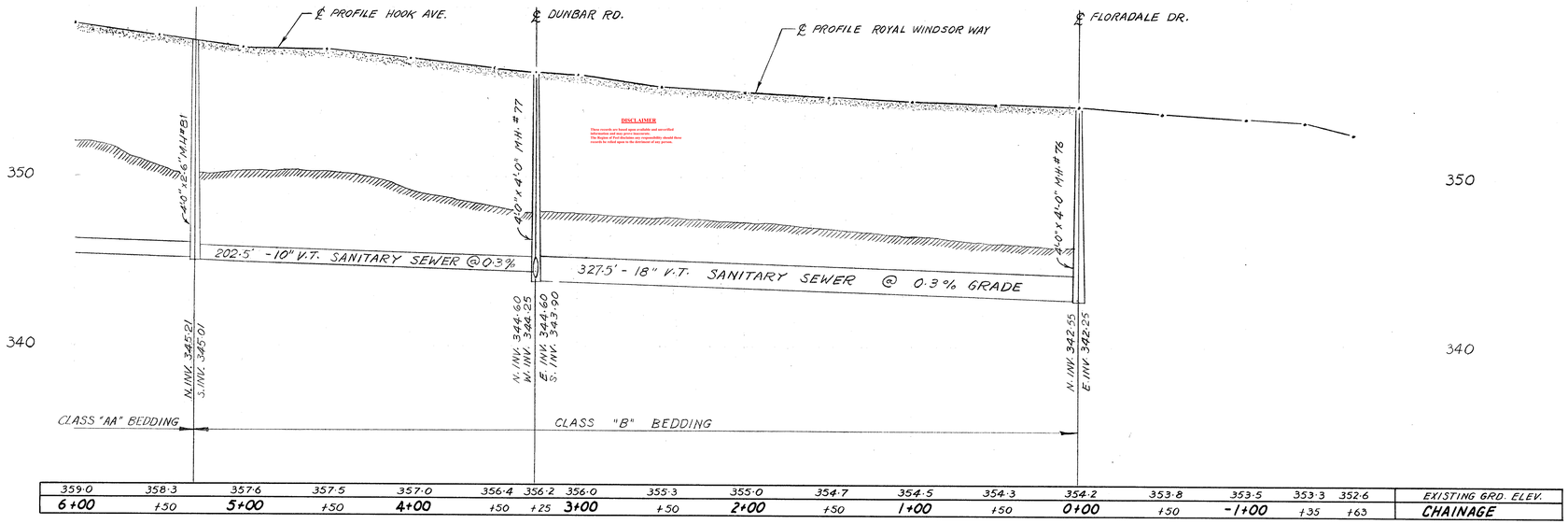
(FROM BURNHAMTHORPE RD. TO PAISLEY BLVD.)

PROP. 600 SANITARY SEWER

STA. 12+660 TO STA. 12+940

CAD Area	Area Z-22	Project No.	08-2260
Checked by	Drawn by P.W.		
Date JAN. 2008	Sheet 12 of 14	Plan No.	36280-D





REGISTERED PROFESSIONAL ENGINEER
W. J. ANDERSON
PROVINCE OF ONTARIO

REGISTERED PROFESSIONAL ENGINEER
CIVIL
M. J. M. MAUGHAN
PROVINCE OF ONTARIO

HOOK AVE. & ROYAL WINDSOR WAY

C-4047

	-1+65	6+00	
16	1 S.D.S.		1S4
M. Maughan	E. Nelham		30-59
April 13, 1959	1	2	C-4047

Formula-based TV Inspection Report (Full) - Region Of Peel

(New Format)

TV- Inspection # (in Hansen): 796441

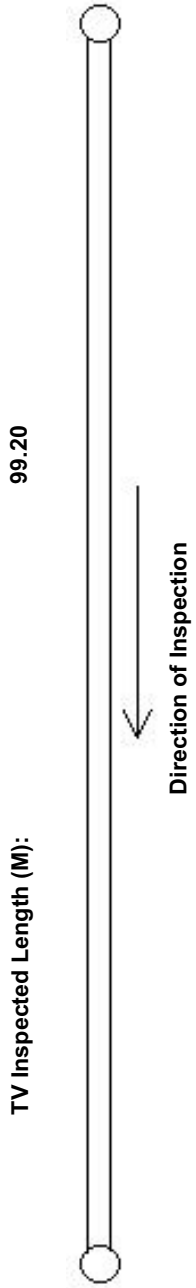
Inspection Date: 23-Jun-2015 **Project #:** **Weather:** 3

Upstream MH: 1787302 **Dnstream MH:** 1787288 **Depth of Upstream MH (m):** **Tile #:** 0160

Address: CONFEDERATION PKY MISSISSAUGA **Installation Date:** 18-Mar-1960

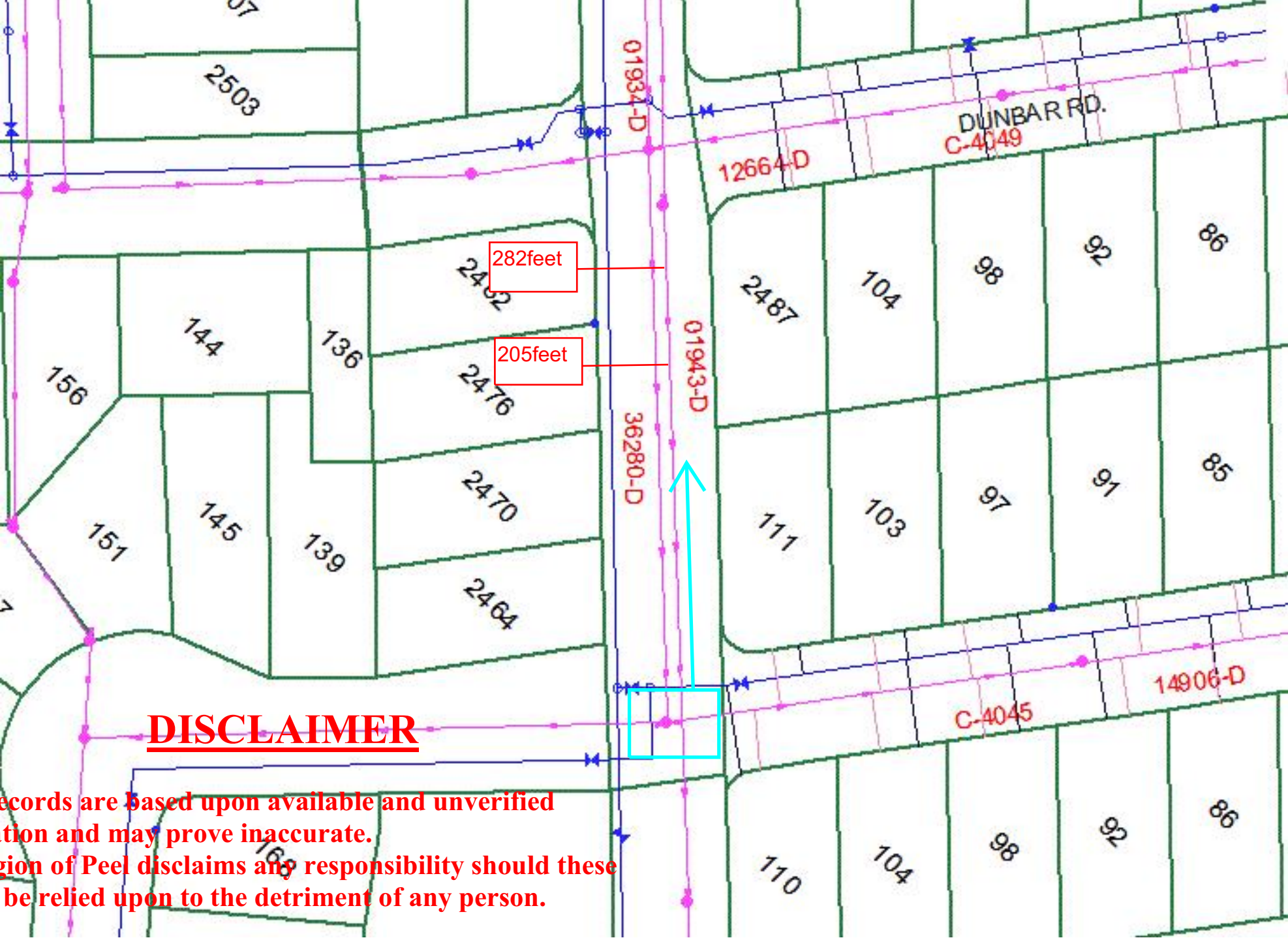
Diameter (mm): 450 **Length (m):** 100.50 **Pipe Material:** VIT **Drawing #:** C4047

Starting MH: Upstream MH - 1787302



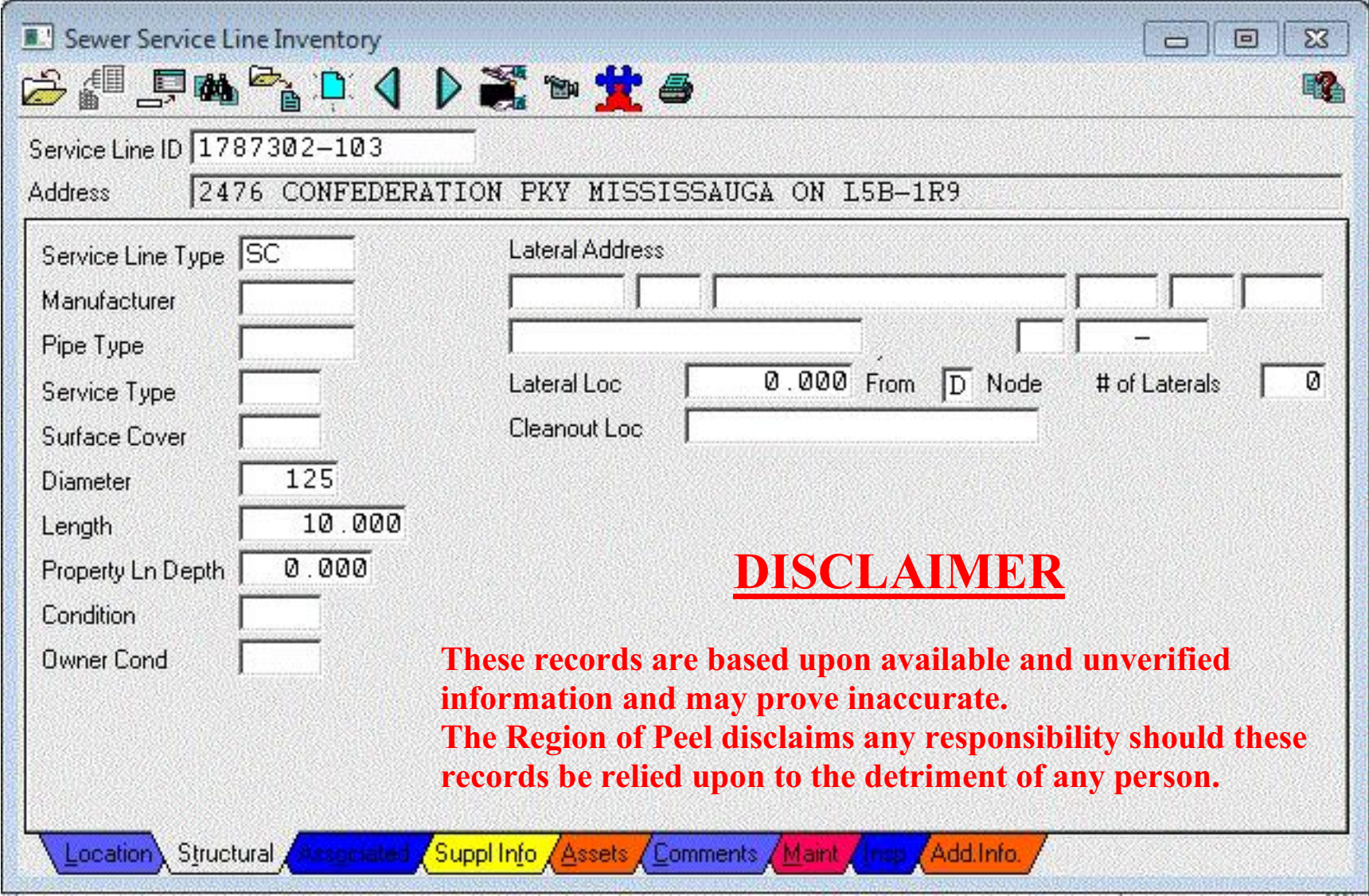
Meas From	Upst-MH	Meas.%	Observation	Observation Details
From	To			
0.00	0.00		MANHOLE NODE	
0.00	0.00		GENERAL OBSERVATION	
0.00	0.00		GENERAL OBSERVATION	
0.00	0.00	10.0	WATER LEVEL	
0.00	99.20		SUR WEAR SLIGHT/ROUGHNESS INCR	At 08 To 04 O'clock
0.00	99.20	5.0	DEBRIS GREASE/ATTACHED GREASE	At 05 O'clock
0.00	99.20	5.0	DEBRIS GREASE/ATTACHED GREASE	At 07 O'clock
2.20	17.80	5.0	DEPOSITS ATTACHED ENCRUSTATION	At 07 To 05 O'clock
25.70	25.70		JUNCTION/TAP FACTORY DECTIVE	At 01 O'clock
37.00	37.00		JUNCTION/TAP FACTORY #2476	At 01 O'clock
56.00	56.00		TAP FACTORY ACTIVE	At 01 O'clock
77.00	77.00		JUNCTION/TAP FACTORY	At 01 O'clock
82.50	82.50	5.0	DEPOSITS ATTACHED ENCRUSTATION	At 07 To 09 O'clock
99.20	99.20		MANHOLE NODE	
99.20	99.20		GENERAL OBSERVATION	

Ending MH: **Dnstream MH - 1787288**



DISCLAIMER

ecords are based upon available and unverified
tion and may prove inaccurate.
gion of Peel disclaims any responsibility should these
be relied upon to the detriment of any person.


Sewer Service Line Inventory
Service Line ID 1787302-103
Address 2476 CONFEDERATION PKY MISSISSAUGA ON L5B-1R9
Service Line Type SC
Manufacturer
Pipe Type
Service Type
Surface Cover
Diameter 125
Length 10.000
Property Ln Depth 0.000
Condition
Owner Cond
Lateral Address
Lateral Loc 0.000 From D Node
# of Laterals 0
Cleanout Loc
DISCLAIMER
These records are based upon available and unverified information and may prove inaccurate.
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.
Location
Structural
Associated
Suppl Info
Assets
Comments
Maint
Insp
Add.Info.

Sewer Service Line Inventory

Service Line ID: 1787302-102

Address: 2482 CONFEDERATION PKY MISSISSAUGA ON L5B-1R9

Service Line Type: SC

Manufacturer:

Pipe Type:

Service Type:

Surface Cover:

Diameter: 125

Length: 10.000

Property Ln Depth: 0.000

Condition:

Owner Cond:

Lateral Address

Lateral Loc: 0.000 From: D Node

# of Laterals: 0

Cleanout Loc:

DISCLAIMER

These records are based upon available and unverified information and may prove inaccurate.
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.

Location | Structural | Associated | Suppl Info | Assets | Comments | Maint | Insp | Add.Info.

2482 Confederation Pkwy

2476 Confederation Pkwy

DUNBAR ROAD

CONFEDERATION PARKWAY

DISCLAIMER

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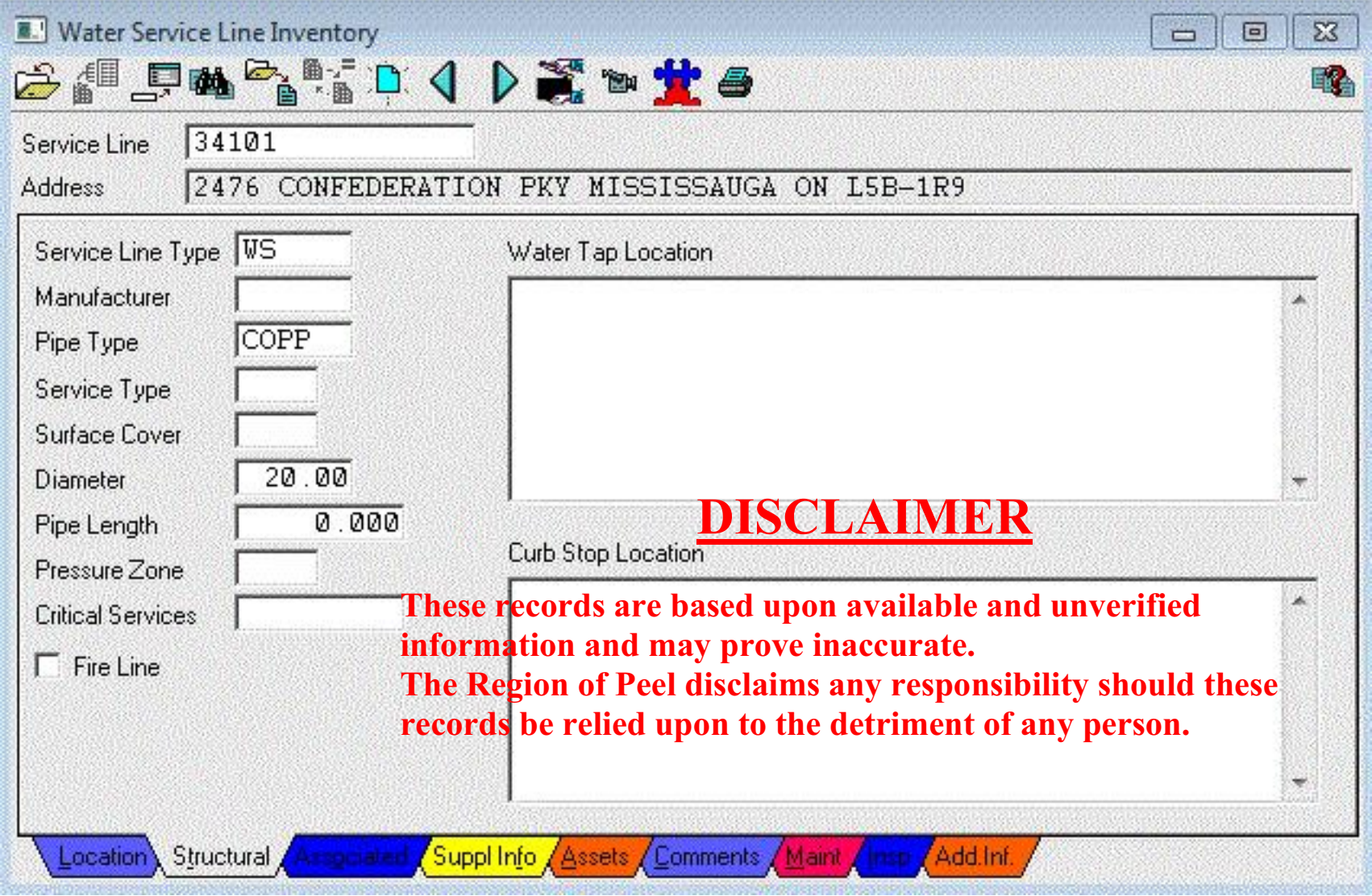
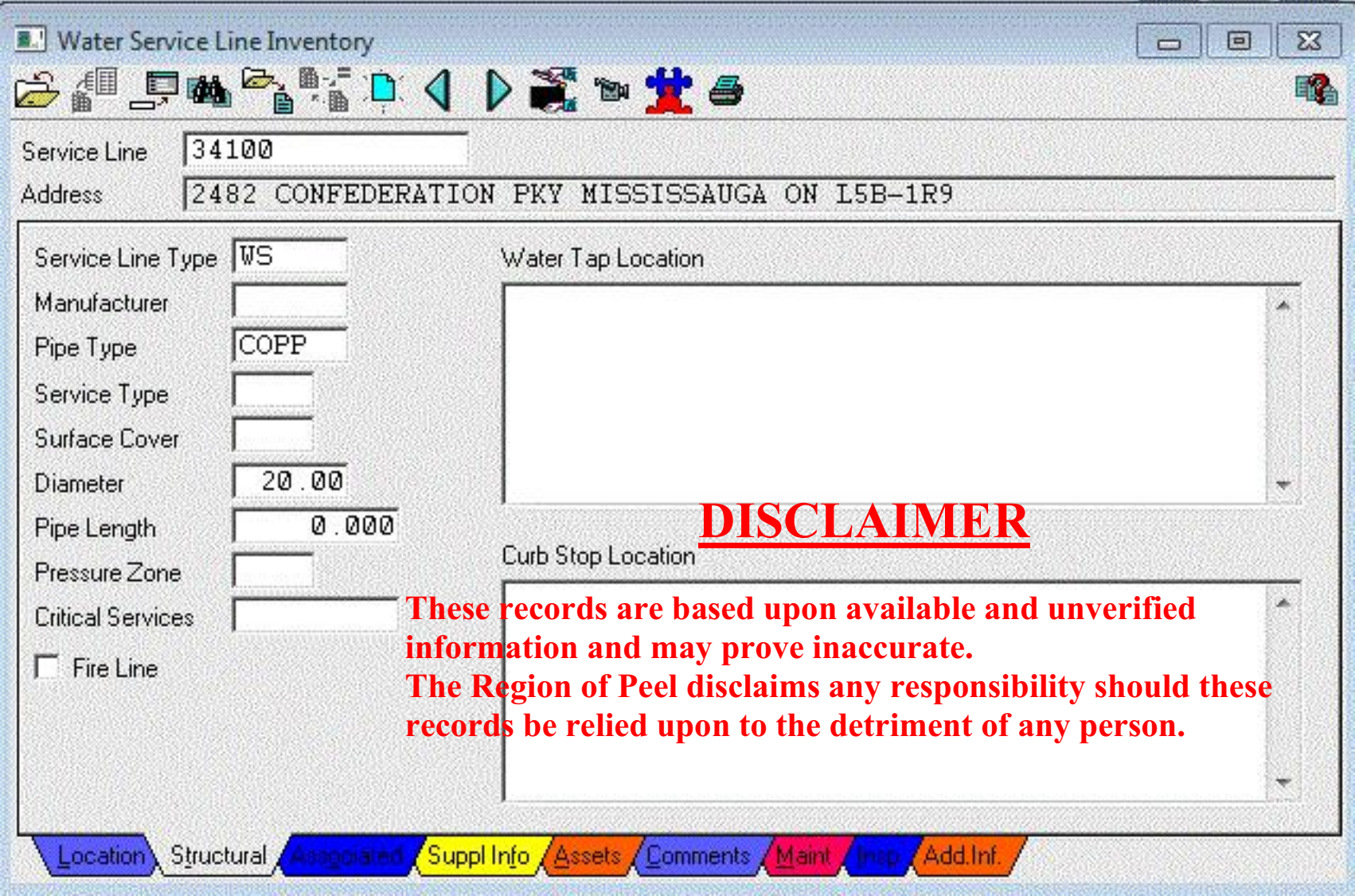
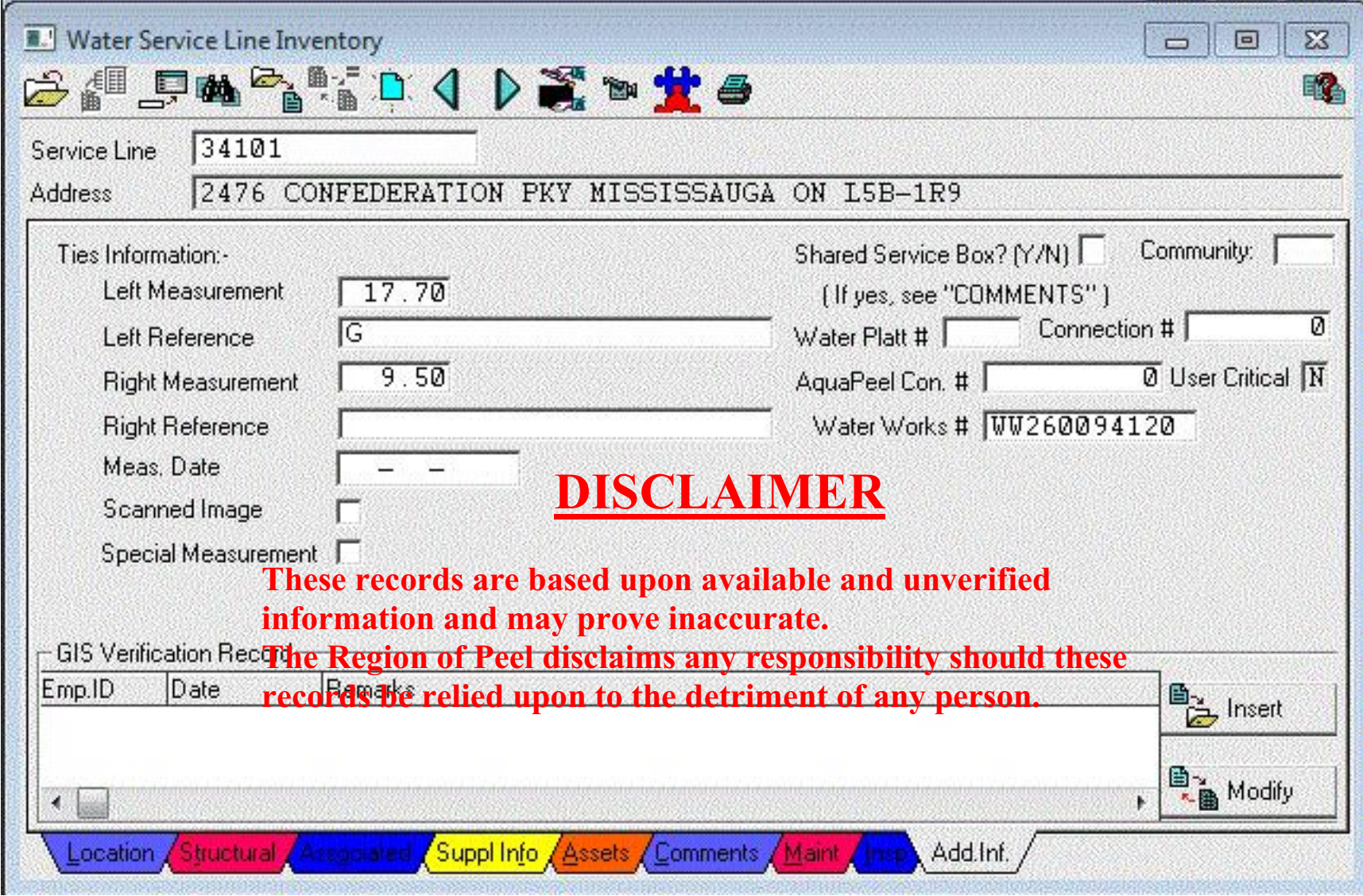
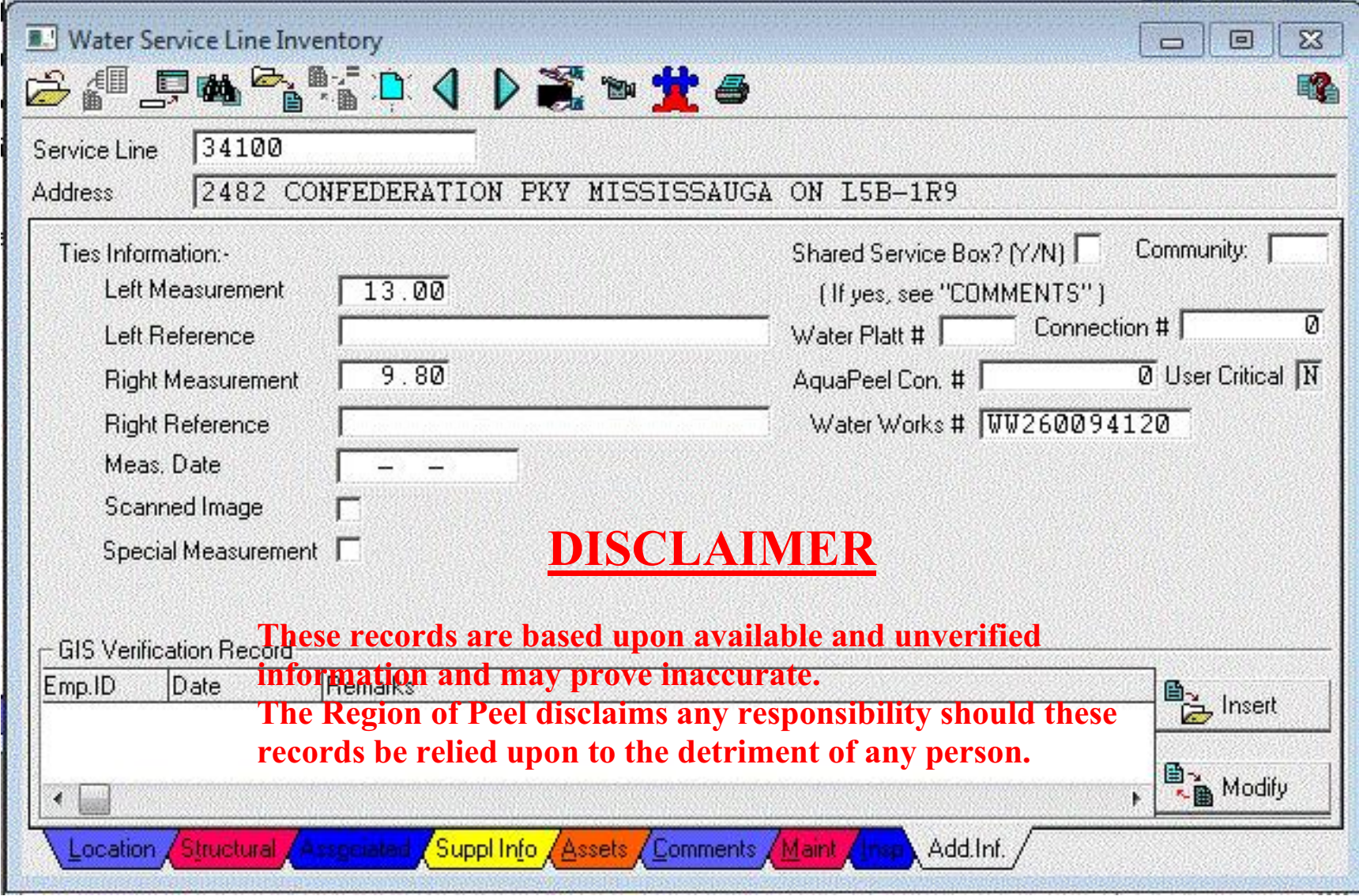
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.


Water Service Line Inventory
Service Line
34101
Address
2476 CONFEDERATION PKY MISSISSAUGA ON L5B-1R9
Service Line Type
WS
Manufacturer
Pipe Type
COPP
Service Type
Surface Cover
Diameter
20.00
Pipe Length
0.000
Pressure Zone
Critical Services
Fire Line
Water Tap Location
Curb Stop Location
DISCLAIMER
These records are based upon available and unverified information and may prove inaccurate.
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.
Location
Structural
Associated
Suppl Info
Assets
Comments
Maint
Insp
Add.Inf.

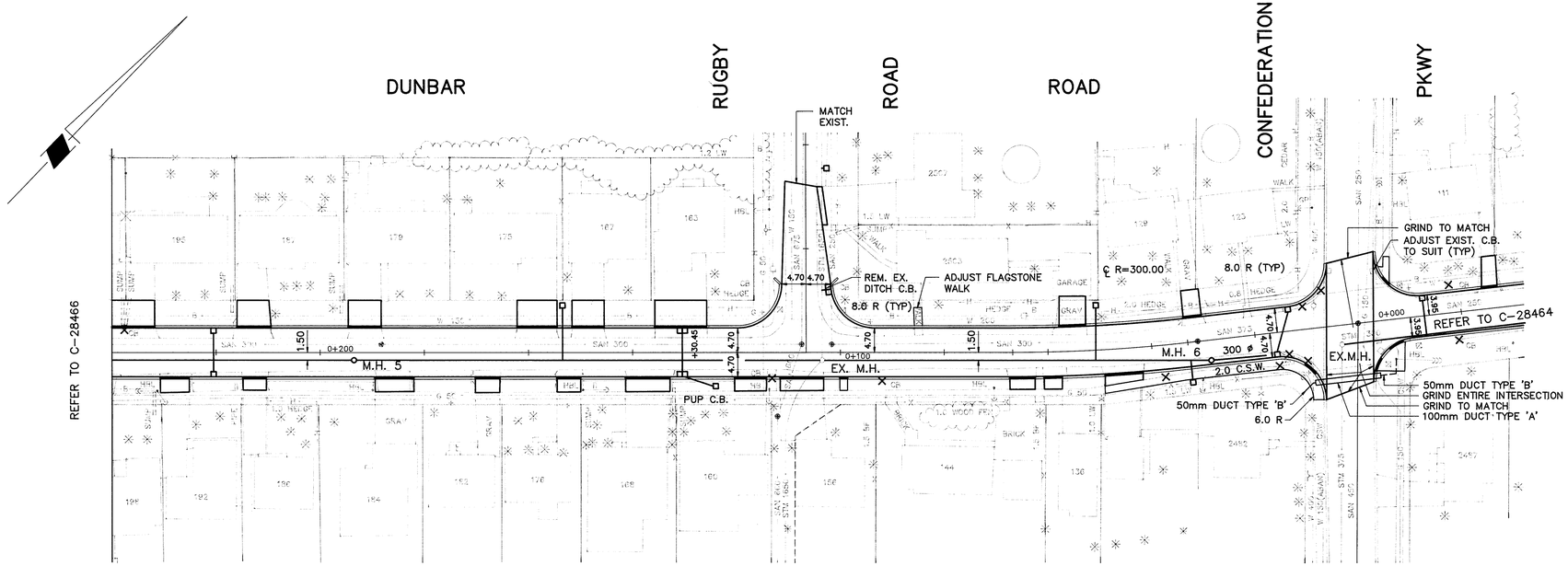

Water Service Line Inventory
Service Line 34100
Address 2482 CONFEDERATION PKY MISSISSAUGA ON L5B-1R9
Service Line Type WS
Manufacturer
Pipe Type COPP
Service Type
Surface Cover
Diameter 20.00
Pipe Length 0.000
Pressure Zone
Critical Services
Fire Line
Water Tap Location
Curb Stop Location
DISCLAIMER
These records are based upon available and unverified information and may prove inaccurate.
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.
Location
Structural
Associated
Suppl Info
Assets
Comments
Maint
Insp
Add.Inf.


Water Service Line Inventory
Service Line 34101
Address 2476 CONFEDERATION PKY MISSISSAUGA ON L5B-1R9
Ties Information:-
Left Measurement 17.70
Left Reference G
Right Measurement 9.50
Right Reference
Meas. Date - -
Scanned Image
Special Measurement
Shared Service Box? (Y/N)
Community:
(If yes, see "COMMENTS")
Water Platt #
Connection # 0
AquaPeel Con. # 0
User Critical N
Water Works # WW260094120
DISCLAIMER
These records are based upon available and unverified information and may prove inaccurate.
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.
GIS Verification Record
Emp.ID
Date
Remarks
Insert
Modify
Location
Structural
Associated
Suppl Info
Assets
Comments
Maint
Insp
Add.Inf.


Water Service Line Inventory
Service Line 34100
Address 2482 CONFEDERATION PKY MISSISSAUGA ON L5B-1R9
Ties Information:-
Left Measurement 13.00
Left Reference
Right Measurement 9.80
Right Reference
Meas. Date - -
Scanned Image
Special Measurement
Shared Service Box? (Y/N)
Community:
(If yes, see "COMMENTS")
Water Platt #
Connection # 0
AquaPeel Con. # 0
User Critical N
Water Works # WW260094120
DISCLAIMER
These records are based upon available and unverified information and may prove inaccurate.
The Region of Peel disclaims any responsibility should these records be relied upon to the detriment of any person.
GIS Verification Record
Emp.ID
Date
Remarks
Insert
Modify
Location
Structural
Associated
Suppl Info
Assets
Comments
Maint
Insp
Add.Inf.

SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN. SEWERS	1990 12 10	TJ	GAS MAINS	1990 12 10	TJ
STM. SEWERS	1990 12 10	TJ	BELL U/G CABLE	1990 12 19	TJ
WATERMAINS	1990 12 10	TJ	HYDRO U/G CABLE	1990 12 10	TJ
M.O.E.	1990 12 10	TJ			

REVISIONS		
DATE	DETAILS	INIT.



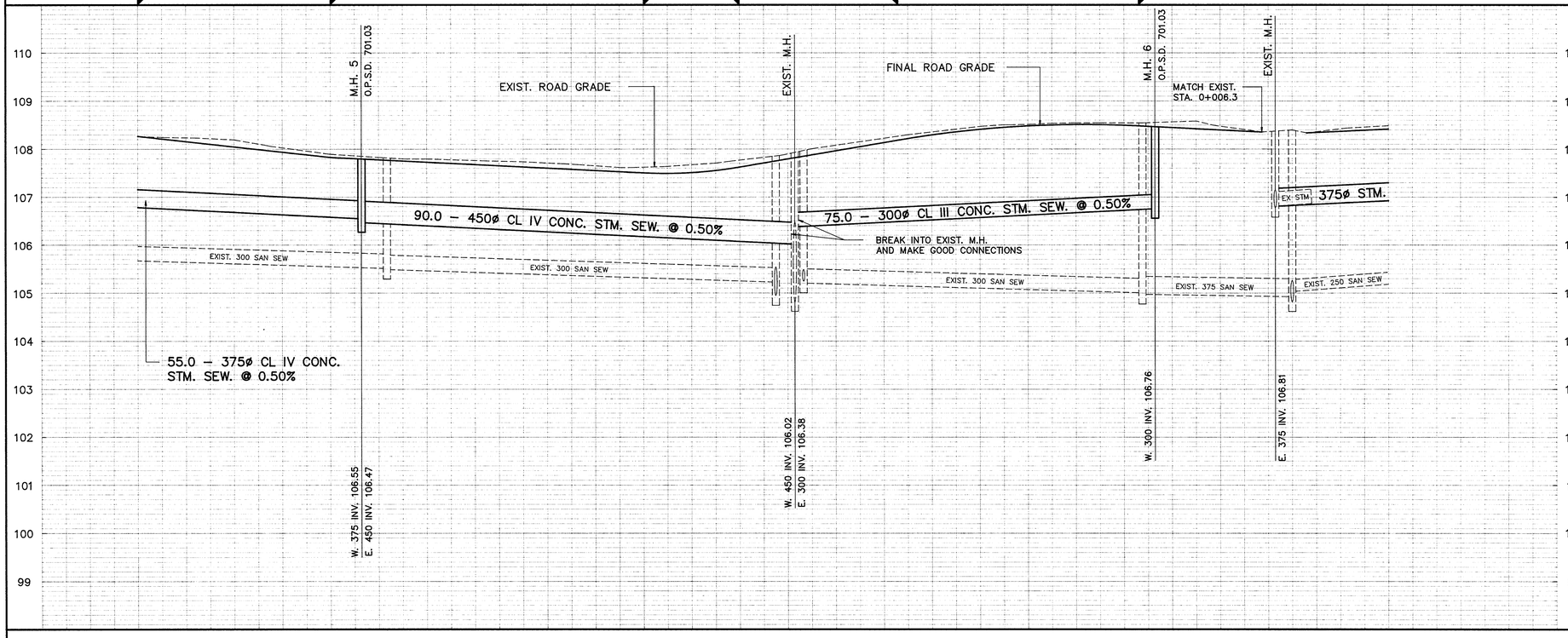
B.V.C. STA. 0+240.00 ELEV. 108.272 — +1.10% — P.I. STA. 0+200.00 ELEV. 107.832 — +0.50% — E.V.C. STA. 0+135.00 ELEV. 107.507

V.C. DATA: L = 20.000; PVI STN 0+125.000; PVI EL 107.457

B.V.C. STA. 0+115.00 ELEV. 107.627 — −1.70% — E.V.C. STA. 0+082.00 ELEV. 108.188

V.C. DATA: L = 50.000; PVI STN 0+057.000; PVI EL 108.613

B.V.C. STA. 0+032.00 ELEV. 108.488 — +0.50%



108.27	108.05	107.83	107.73	107.63	107.53	107.56	107.88	108.22	108.46	108.51	108.43			FINAL RD GR
108.27	108.20	107.90	107.80	107.74	107.62	107.71	108.01	108.30	108.51	108.55	108.59	108.40		EXIST RD GR
0+240	0+220	0+200	0+180	0+160	0+140	0+120	0+100	0+080	0+060	0+040	0+020	0+000		CHAINAGE

LICENSED PROFESSIONAL ENGINEER — A. W. McANSH — PROVINCE OF ONTARIO

DESIGN BY

APPROVED BY

MISSISSAUGA Transportation and Works

DUNBAR ROAD

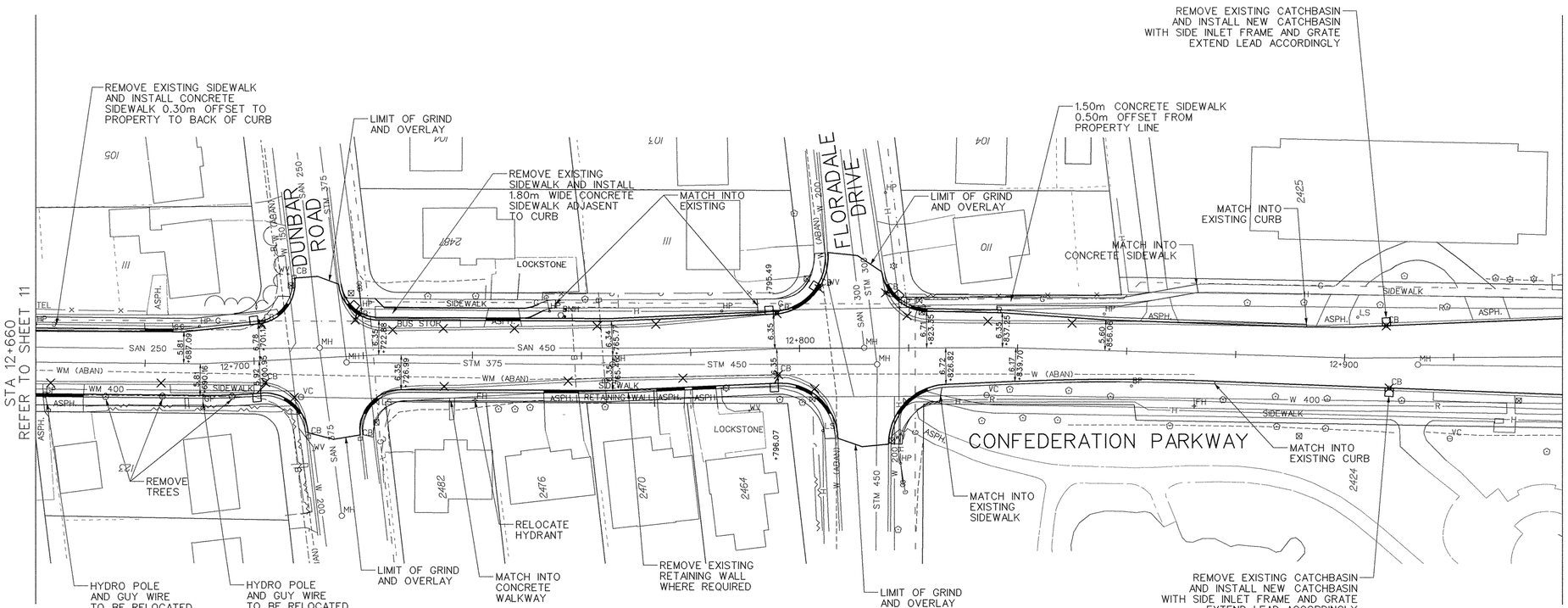
CONFEDERATION PKWY TO ARGYLE RD

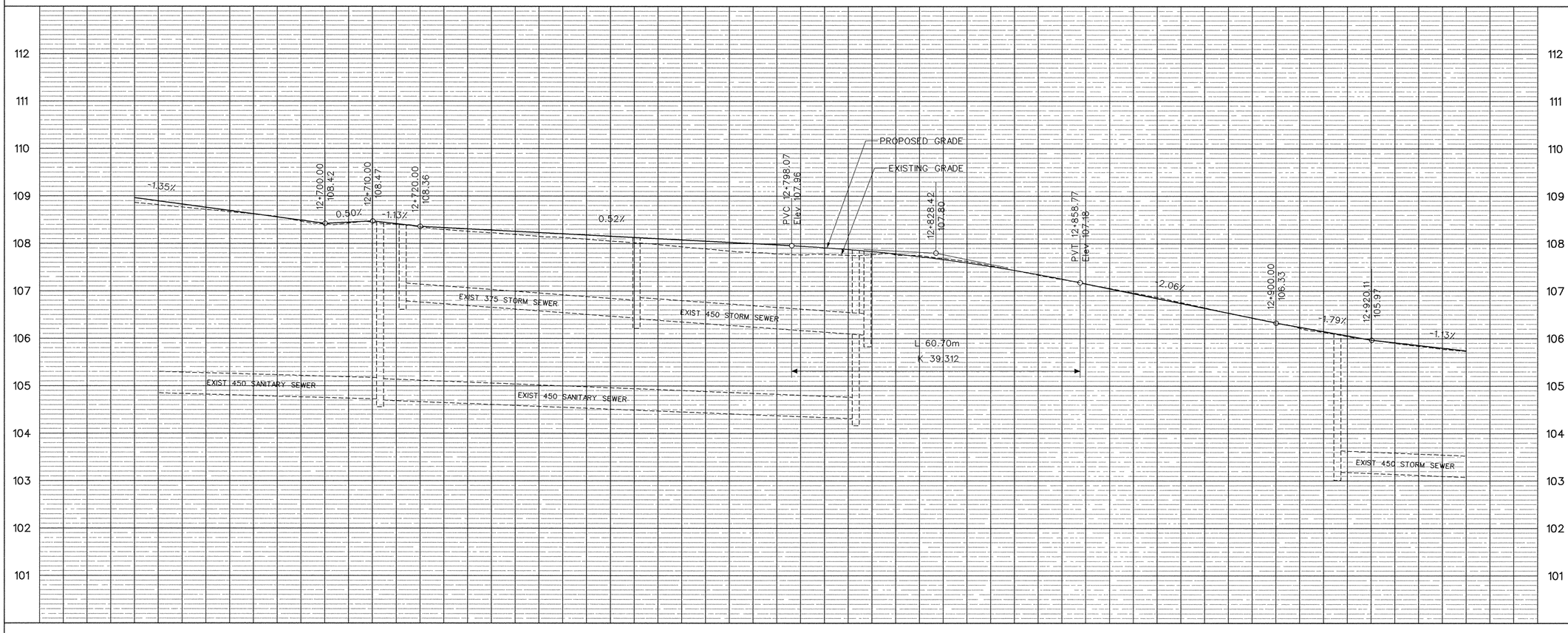
STN. 0+000 TO STN. 0+240

SCALE HOR. 1:500 VERT. 1:50	AREA Z-15		PROJECT No. 90-124
DRAWN BY TJ	CHECKED BY		PLAN No. C-28465
DATE MAY 1991	SHEET 2 OF 5		

SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN. SEWERS			GAS MAINS		
STM. SEWERS			BELL U/G CABLE		
WATERMAINS			HYDRO U/G CABLE		
M.O.E.					

REVISIONS		
DATE	DETAILS	INIT.





108.96	108.69	108.42	108.36	108.26	108.15	108.05	107.95	107.78	107.52	107.15	106.74	106.33	105.97	105.74	FINAL RD. GR.
108.86	*108.67*	*108.41*	*108.35*	*108.19*	*108.05*	*107.89*	*107.76*	*107.76*	*107.54*	*107.15*	*106.76*	*106.33*	*105.97*	*105.73*	EXIST RD. GR.
12+660	12+680	12+700	12+720	12+740	12+760	12+780	12+800	12+820	12+840	12+860	12+880	12+900	12+920	12+940	CHAINAGE

GENERAL NOTES

1. ALL DRIVEWAYS ASPHALT UNLESS OTHERWISE NOTED
2. ALL SERVICE LOCATIONS ARE APPROXIMATE AND MUST BE LOCATED ACCURATELY IN FIELD
3. ALL MEASUREMENTS FOR THIS PROJECT ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE INDICATED
4. ALL SINGLE C.B. LATERALS TO BE 250mm Ø CL 65-D ALL OTHERS TO BE 300mm Ø CL 65-D
5. ALL TREES AND SHRUBS NOT MARKED IN THE FIELD FOR REMOVAL, TO BE PROTECTED
6. ALL SEWERS AND LATERALS TO HAVE CLASS 'B' BEDDING AND SAND COVER BACKFILL UNLESS OTHERWISE INDICATED
7. ALL UTILITY RELOCATION BY OTHERS
8. "X" - DENOTES REMOVALS
9. DURING SEWER CONSTRUCTION, WATERMAINS TO BE PROTECTED TO THE SATISFACTION OF THE PUBLIC WORKS DEPARTMENT OF THE REGIONAL MUNICIPALITY OF PEEL
10. COLD GRINDS TO BE MAX. 50mm IN DEPTH UNLESS OTHERWISE NOTED
11. INFORMATION SHOWN HEREON IS FOR USE BY THE CITY OF MISSISSAUGA, TRANSPORTATION AND WORKS DEPARTMENT, AND IS NOT INTENDED FOR USE BY ANY OTHER PARTIES UNLESS EXPRESSED WRITTEN CONSENT IS OBTAINED. MEASUREMENTS SHOWN MUST BE CONFIRMED BY FIELD SURVEY BEFORE USE.
12. PROTECTED BY COPYRIGHT. MAY NOT BE REPRODUCED WITHOUT PERMISSION
13. THIS IS NOT A PLAN OF SURVEY

DESIGN BY
BORIS LENCE/RON SARMIENTO

DEPARTMENTAL APPROVAL
EZIO SAVINI P.ENG.

APPROVED BY
LICENSED PROFESSIONAL ENGINEER
K.A. DEDMAN
04/21/08
PROVINCE OF ONTARIO

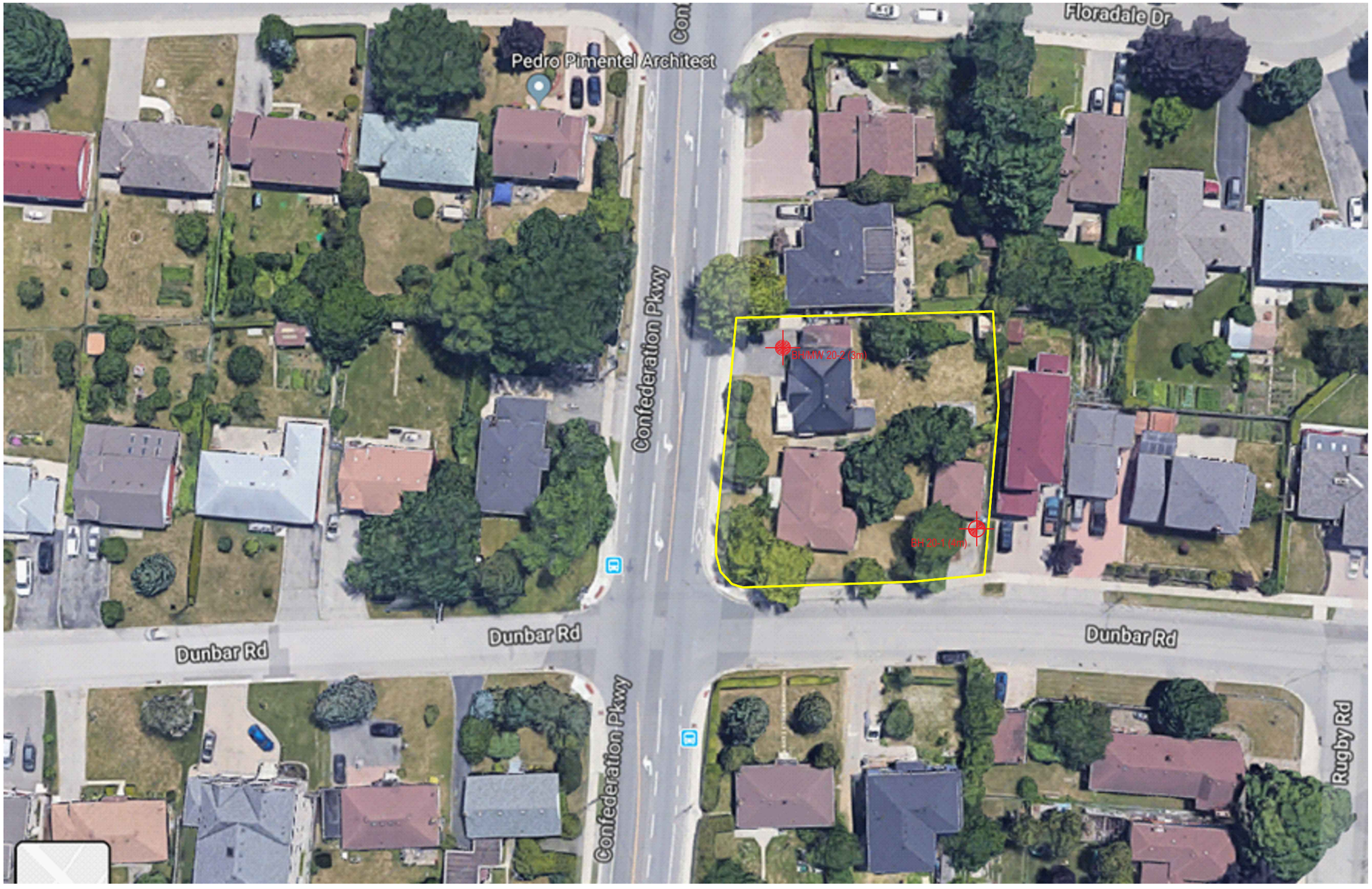
MISSISSAUGA
Leading today for tomorrow
PRODUCED FOR - T&W, ENGINEERING AND WORKS

CONFEDERATION PARKWAY

BURNHAMTHORPE RD W TO QUEENSWAY ST W

STA 12+660 TO STA 12+940

SCALE HOR. 1:500 VERT. 1:50	AREA Z-15	PROJECT No. 08-113	
C.A.D.D. BY KK	CHECKED BY BL/RS	PLAN No. C46482	
DATE MARCH 2008	SHEET 12 OF 24		



NOTES: SITE FEATURES AND LOCATIONS ARE APPROXIMATE ONLY. IMAGES FROM GOOGLE EARTH PRO AND TOPO MAPS.

LEGEND:
BOREHOLE LOCATION
MONITORING WELL LOCATION
SITE PROPERTY

NOTE: Distances are Approximate

REVISION	BY	DATE
----	----	----

CLIENT:
PREEMINENT DEVELOPMENTS INC.
58 Six Point Road,
Etobicoke, Ontario, M8Z 2X2, Canada

wood.
900 Maple Grove Road, Unit 10
Cambridge, Ontario, N2H 4R7, Canada

DWN BY: OL
CHK'D BY: ---
DATUM: ---
PROJECTION: ---
SCALE: NOT TO SCALE

GEOTECHNICAL INVESTIGATION
2476 & 2482 CONFEDERATION PARKWAY
MISSISSAUGA, ONTARIO

BOREHOLE LOCATION PLAN

DATE: JANUARY 2020
PROJECT NO.: TPB 188171
REV. NO.: 0
FIGURE NO: 1

RECORD OF BOREHOLE No. BH20-1

Project Number: **TPB188171**
Project Client: **Preemient Developments**
Project Name: **2476 & 2482 Confederation PKWY.**
Project Location: **Confederation Parkway, Mississauga ON.**
Drilling Location: **UTM 17T N4825582 E611739**

Drilling Method: **150 mm O.D. Solid Stem Auger**
Drilling Machine: **Track Mounted Drill**
Date Started: **03 Jan 2020** Date Completed: **03 Jan 2020**
Logged by: **OL** Compiled by: **OL**
Reviewed by: **JW** Revision No.: **1**

wood.

Lithology Plot	DESCRIPTION Geodetic Ground Surface Elevation: 110.0 m		Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	FIELD TESTING PenetrationTesting: ○ SPT ● DCPT; MTO Vane* △ Intact ▲ Remould; Nilcon Vane* ◇ Intact ◆ Remould; ■ Undrained Shear Strength (kPa) (from P. Penetrometer tests) 20 40 60 80	LAB TESTING Atterberg Limits W_P W W_L Plastic Liquid; ✳ Passing 75 um (%); ○ Moisture Content (%); ★ Unit Weight (KN/m3) 20 40 60 80	INSTRUMENTATION INSTALLATION	COMMENTS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	ASPHALT	109.9										
	Approx. 65mm	0.1										
	FILL (fine sand) Some silt, trace gravel, trace clay & asphalt granules, loose, brown, trace black staining, moist		SS	1	67	6			○	7		
		109.1										
	FILL (fine sand)	0.9										
	Some silt, rootlets, oxidation, loose, redish brown, trace black staining, moist		SS	2	100	7	1	109	○	6		
		108.5										
	FINE SAND	1.5										
	Some silt, trace gravel, trace clay, oxidation, compact, light brown, moist		SS	3	84	22	2	108	○	6		SS3 Submitted for Hydrometer Testing: Gravel: 1%, Sand: 84%, Silt: 14%, Clay: 1%
	-Moist to wet		SS	4	100	>50/ 355mm				13		
		107.4										
	SHALE	2.6										Spoon Bouncing
	Very Brittle Highly Weathered Grey						3	107				
			SS	5	100	50/ 100mm				5		
												Auger Grinding
			SS	6	100	50/ 50mm	4	106		5		
		105.9										Auger Grinding
	END OF BOREHOLE	4.1										
	Auger Refusal						5	105				

Wood
Environment & Infrastructure Solutions

900 Maple Grove Road
Cambridge, Ontario, Canada N3H 4R7
Tel: (519) 650-7100
Fax: (519) 653-6554
www.woodplc.com

▽ No freestanding groundwater observed in open borehole upon completion of drilling.

■ Cave in measured at a depth of 3.5 m upon completion of drilling.

RECORD OF BOREHOLE No. BH/MW20-2

Project Number: **TPB188171**
Project Client: **Preemient Developments**
Project Name: **2476 & 2482 Confederation PKWY.**
Project Location: **Confederation Parkway, Mississauga ON.**
Drilling Location: **UTM 17T N4825587 E611781**

Drilling Method: **150 mm O.D. Solid Stem Auger**
Drilling Machine: **Track Mounted Drill**
Date Started: **03 Jan 2020** Date Completed: **03 Jan 2020**
Logged by: **OL** Compiled by: **OL**
Reviewed by: **JW** Revision No.: **1**

wood.

LITHOLOGY PROFILE			SOIL SAMPLING						FIELD TESTING	LAB TESTING		
Lithology Plot	DESCRIPTION Geodetic Ground Surface Elevation: 110.0 m		Sample Type	Sample Number	Recovery (%)	SPT 'N' Value	DEPTH (m)	ELEVATION (m)	PenetrationTesting: SPT, DCPT; MTO Vane* Intact/Remould; Nilcon Vane* Intact/Remould; Undrained Shear Strength (kPa) (from P. Penetrometer tests) 20 40 60 80	Atterberg Limits: W_P, W, W_L; Plastic; Liquid; Passing 75 um (%); Moisture Content (%); Unit Weight (KN/m3); 20 40 60 80	INSTRUMENTATION INSTALLATION	COMMENTS & GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	ASPHALT	110.0										
	Approx. 40mm	109.9										
	FILL (silty sand & gravel) Loose, brown, moist	0.7										
	FILL (fine sand) Some silt, some gravel, trace clay, oxidation, loose, orange- brown, trace dark brown to black staining, moist		SS	1	67	5			○	10		BH equipped with a 50mm fludhmount monitoring well. SS1 Submited for Hydrometer Testing: Gravel: 11%, Sand: 71%, Silt: 16%, Clay: 2%
		109.3										
	FILL (fine sand) Some silt, trace gravel, oxidation, loose to compact, light brown, moist 100mm orange-brown seam	0.7	SS	2	67	10	1	109	○	8		
		108.5										
	FINE AND Some silt, compact, light brown, moist	1.5	SS	3	67	27	2	108	○	7		
		107.8										
	FINE SAND Some silt, dense, brown, wet to saturated	2.2	SS	4	73	43			○	17		
		107.2										
	SHALE Brittle Grey	2.8					3	107				Spoon Bouncing Auger Grinding
		107.0										
	END OF BOREHOLE Auger Refusal	3.0					4	106				BH/MW20-2 was DRY during water level measurement on 13 January 2020.
							5	105				

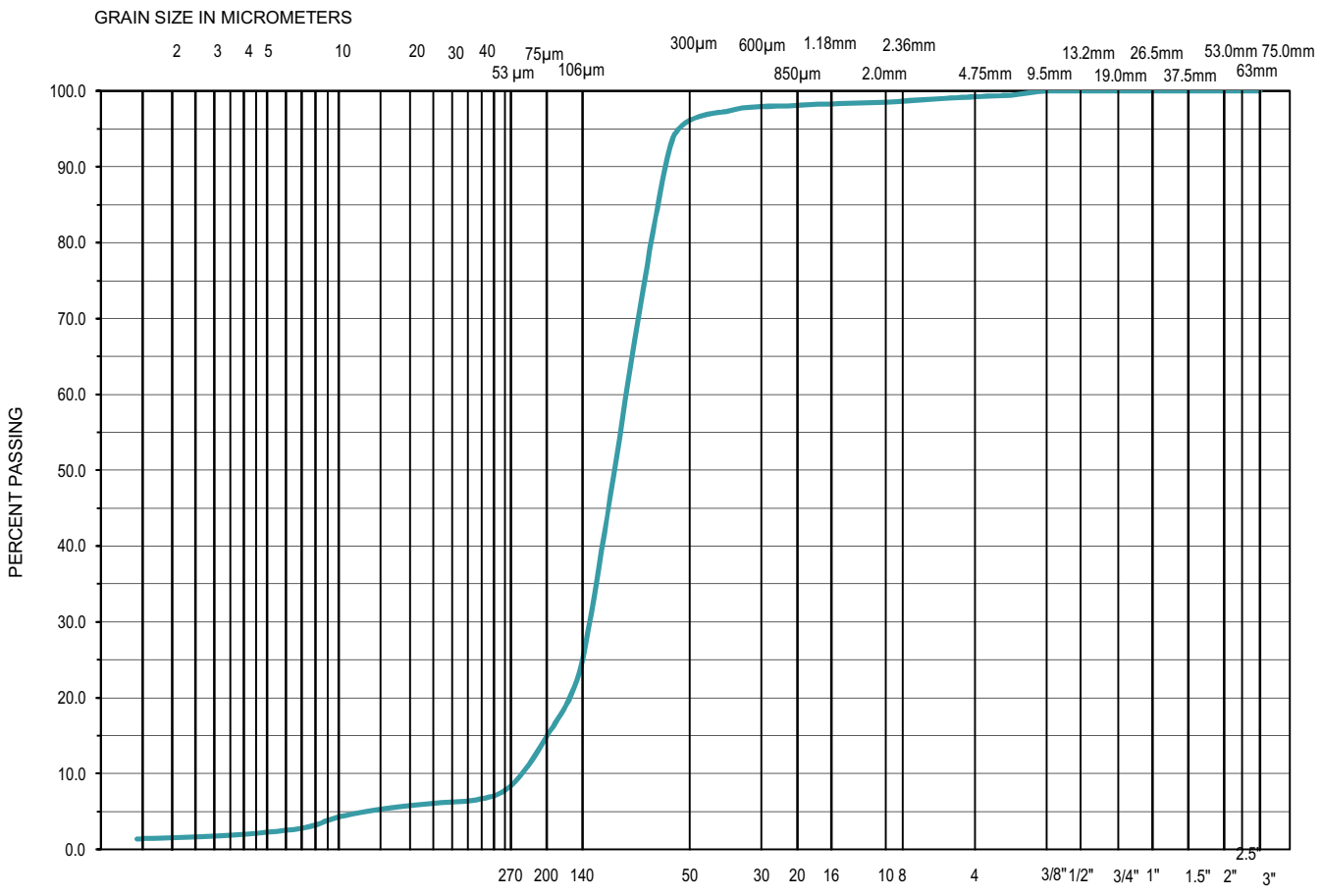
Wood
Environment & Infrastructure Solutions

900 Maple Grove Road
Cambridge, Ontario, Canada N3H 4R7
Tel: (519) 650-7100
Fax: (519) 653-6554
www.woodplc.com

▽ No freestanding groundwater observed in open borehole upon completion of drilling.

◪ Cave in measured at a depth of 2.8 m upon completion of drilling.

UNIFIED SOIL CLASSIFICATION SYSTEM - GRAINSIZE DISTRIBUTION



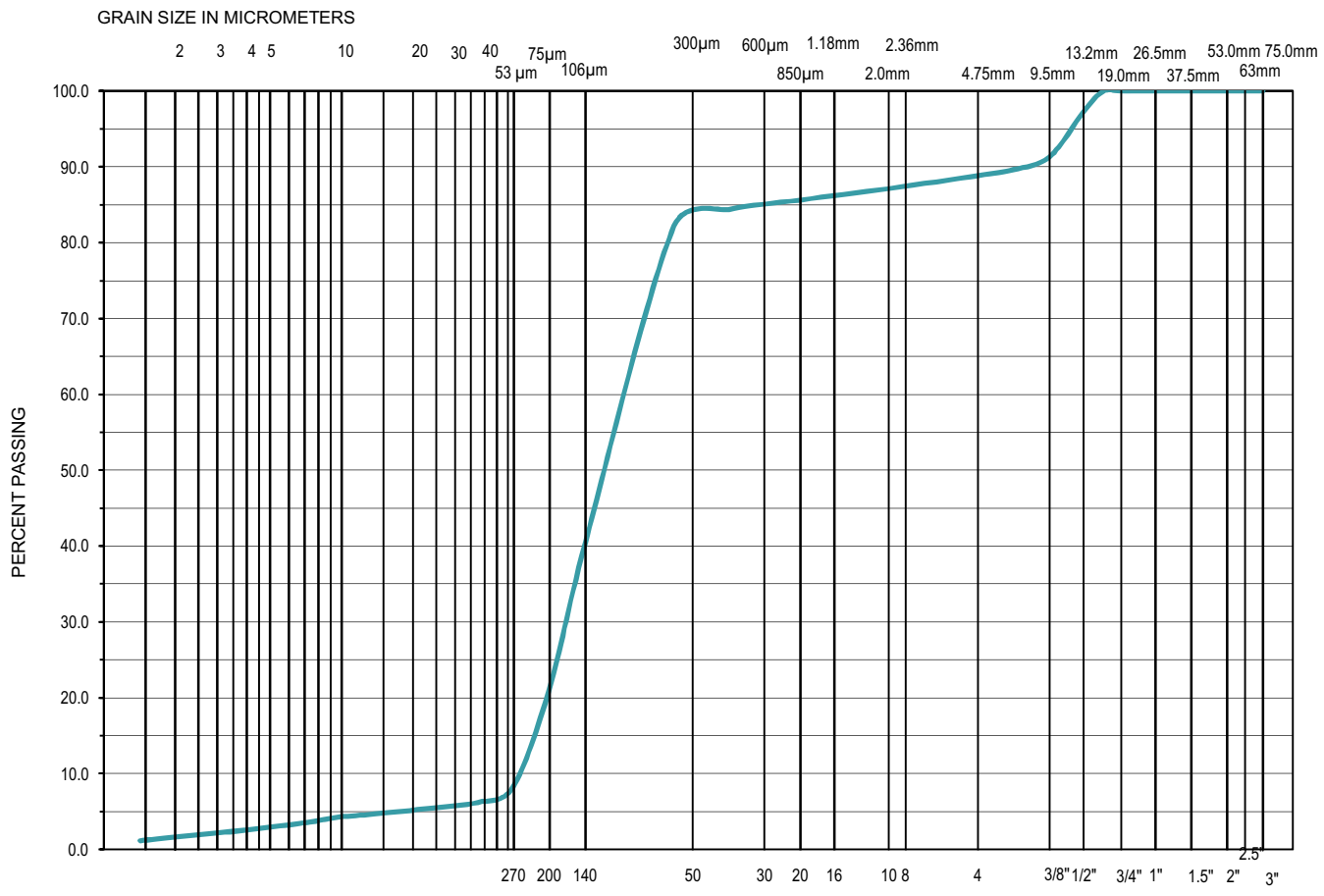
Particle Size	Percent Passing
75	100.0
63	100.0
37.5	100.0
26.5	100.0
19	100.0
16	100.0
13.2	100.0
9.5	100.0
6.7	99.5
4.75	99.3
2	98.6
0.85	98.12
0.425	97.31
0.25	93.13
0.106	24.94
0.075	14.93
0.0529	8.38
0.0377	6.52
0.0239	6.05
0.0138	5.12
0.0098	4.19
0.0070	2.79
0.0034	1.86
0.0014	1.40

Lab No.: 20012

Client: Preeminent	**Soil Class:** SP-SM	**Moisture:** 6.0%	**Date Sampled:** 3 January 2020	**Enclosure: 1**
Project: 2476 & 2482 Confederation Pkwy	**Location:** BH 20-01, SS#3, 5 - 7' depth		**Date Received:** 6 January 2020	
Project No.: TPB188171	**Depth (m):** 1.52 - 2.13		**Report Date:** 10 January 2020	

Wood Environment & Infrastructure Solutions
A Division of Wood Canada Limited
900 Maple Grove Road, Unit 10
Cambridge, ON N3H 4R7
Tel: (519) 650-7100
woodplc.com

UNIFIED SOIL CLASSIFICATION SYSTEM - GRAINSIZE DISTRIBUTION



Particle Size	Percent Passing
75	100.0
63	100.0
37.5	100.0
26.5	100.0
19	100.0
16	100.0
13.2	97.3
9.5	91.3
6.7	89.6
4.75	88.9
2	87.1
0.85	85.65
0.425	84.40
0.25	82.20
0.106	40.50
0.075	21.31
0.0524	8.16
0.0374	6.22
0.0238	5.44
0.0138	4.66
0.0098	4.27
0.0069	3.50
0.0034	2.33
0.0014	1.17

Lab No.: 20013

Client: Preeminent	**Soil Class:** SP-SM	**Moisture:** 9.7%	**Date Sampled:** 3 January 2020	**Enclosure: 2**
Project: 2476 & 2482 Confederation Pkwy	**Location:** BH 20-02, SS#1, 0 - 2' depth		**Date Received:** 6 January 2020	
Project No.: TPB188171	**Depth (m):** 0 - 0.61		**Report Date:** 10 January 2020	

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900 Maple Grove Road, Unit 10
Cambridge, ON N3H 4R7
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Appendix B

Existing Conditions

Hydrologic Parameterization and Target Peak Flows

Location	Sub #	Area (ha)	Perv (ha)	Imp (ha)	Outlet	Weighted C*	ent Peak Flows (All Un Q=CIA/360	
							2 year	10 year
Overland to Confed. Pkwy.	101	0.042	0.021	0.021	Confed. Pkwy.	0.50	0.004	0.006
Overland to Dunbar Rd.	102	0.094	0.058	0.035	Dunbar Rd.	0.49	0.008	0.013
Overland to 2470 Confed. Pkwy.	103	0.009	0.007	0.001	2470 Confed. Pkwy.	0.36	0.001	0.001
	Total	**0.144**	**0.087**	**0.057**				

*Note: Per City of Mississauga Development Requirements (2016), maximum runoff coefficient to be used for existing conditions is 0.5.

Cperv= 0.25

Cimp= 0.90

Rainfall Depths

City of Toronto IDF Parameters

Storm (year)	a	b	c	td (min)	i (mm/hr)
2	610	4.6	0.78	15	59.89
5	820	4.6	0.78	15	80.51
10	1010	4.6	0.78	15	99.17
25	1160	4.6	0.78	15	113.89
50	1300	4.7	0.78	15	127.13
100	1450	4.9	0.78	15	140.69

Proposed Conditions

Hydrologic Parameterization and Future Condition Peak Flows

Location	Sub #	Area (ha)	Perv (ha)	Imp (ha)	Outlet	Weighted C	ent Peak Flows (All Un **Q=CIA/360**	
							2 year	10 year
Uncontrolled Overland to Confed. Pkwy.	201	0.041	0.040	0.002	Confed. Pkwy.	0.27	0.002	0.003
Overland to Dunbar Rd.	202	0.021	0.004	0.017	Dunbar Rd.	0.79	0.003	0.005
Overland to Dunbar Rd.	203	0.021	0.004	0.017	Dunbar Rd.	0.79	0.003	0.004
Overland to Dunbar Rd.	204	0.022	0.004	0.018	Dunbar Rd.	0.78	0.003	0.005
Overland to Dunbar Rd.	205	0.037	0.019	0.019	Dunbar Rd.	0.58	0.004	0.006
Uncontrolled Overland to Dunbar Rd.	206	0.002	0.000	0.002		0.90	0.0004	0.001
	Total	**0.145**	**0.070**	**0.075**				

Cperv= 0.25

Cimp= 0.90

Rainfall Depths

City of Toronto IDF Parameters

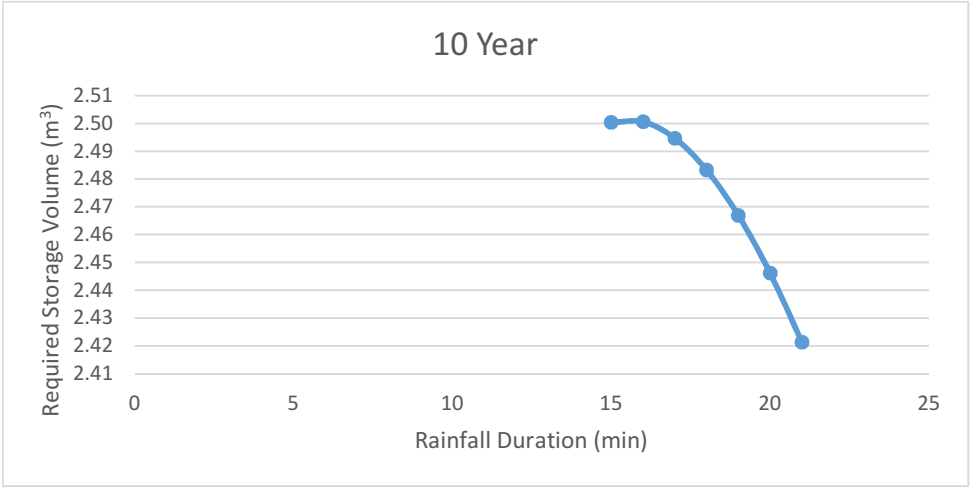
Storm (year)	a	b	c	td (min)	i (mm/hr)
2	610	4.6	0.78	15	59.89
5	820	4.6	0.78	15	80.51
10	1010	4.6	0.78	15	99.17
25	1160	4.6	0.78	15	113.89
50	1300	4.7	0.78	15	127.13
100	1450	4.9	0.78	15	140.69

Subcatchment 202-Future Conditions Required Storage

10 Year Storm		C =	0.79	
		A =	0.02	ha
		Allowable Discharge=	0.002	m^3/s
		Actual Orifice Discharge=	0.002	m^3/s
		Min Tc =	15	min

a	b	c
1010	4.6	0.78

Rainfall Duration (min)	Rainfall Intensity (mm/hr)	Peak Flow (m^3/s)	Runoff Volume (m^3)	Release Volume (m^3)	Required Storage Volume (m^3)
15	99.17	0.005	4.10	1.60	2.50
16	95.39	0.004	4.21	1.71	2.50
17	91.93	0.004	4.31	1.81	2.49
18	88.74	0.004	4.40	1.92	2.48
19	85.79	0.004	4.49	2.03	2.47
20	83.06	0.004	4.58	2.13	2.45
21	80.52	0.004	4.66	2.24	2.42
				MAX	**2.50**



Subcatchment 203-Future Conditions Required Storage

10 Year Storm

C = 0.79

A = 0.02 ha

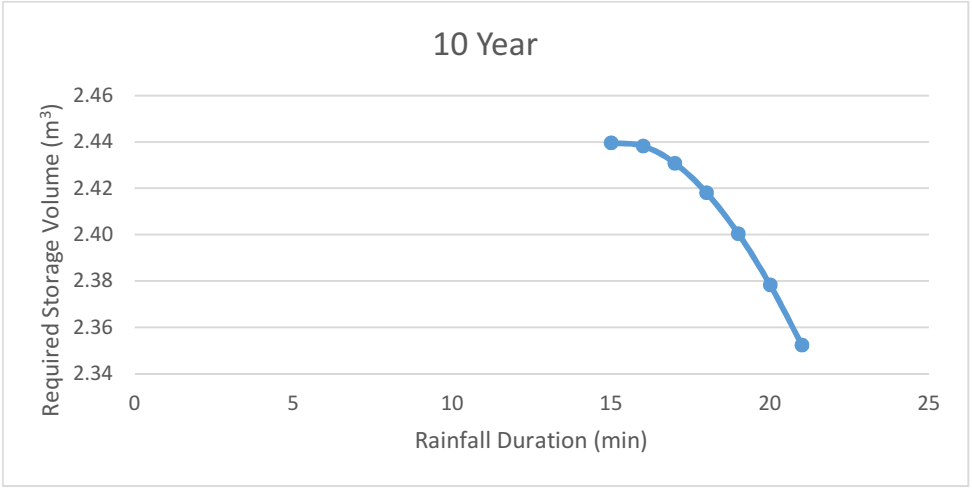
Allowable Discharge= 0.002 m^3/s

Actual Orifice Discharge= 0.002 m^3/s

Min Tc = 15 min

a	b	c
1010	4.6	0.78

Rainfall Duration (min)	Rainfall Intensity (mm/hr)	Peak Flow (m^3/s)	Runoff Volume (m^3)	Release Volume (m^3)	Required Storage Volume (m^3)
15	99.17	0.004	4.04	1.60	2.44
16	95.39	0.004	4.14	1.71	2.44
17	91.93	0.004	4.24	1.81	2.43
18	88.74	0.004	4.34	1.92	2.42
19	85.79	0.004	4.43	2.03	2.40
20	83.06	0.004	4.51	2.13	2.38
21	80.52	0.004	4.59	2.24	2.35
				MAX	**2.44**



Subcatchment 204-Future Conditions Required Storage

10 Year Storm

C = 0.78

A = 0.02 ha

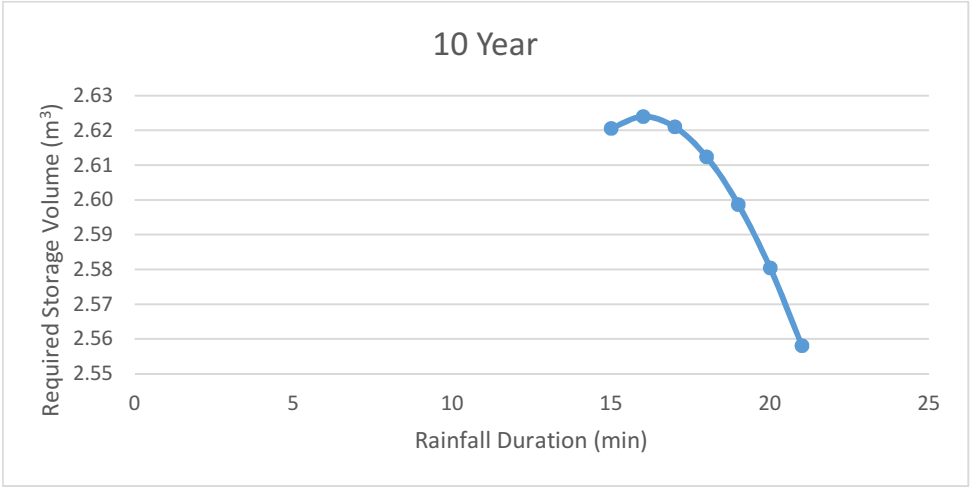
Allowable Discharge= 0.002 m^3/s

Actual Orifice Discharge= 0.002 m^3/s

Min Tc = 15 min

a	b	c
1010	4.6	0.78

Rainfall Duration (min)	Rainfall Intensity (mm/hr)	Peak Flow (m^3/s)	Runoff Volume (m^3)	Release Volume (m^3)	Required Storage Volume (m^3)
15	99.17	0.005	4.22	1.60	2.62
16	95.39	0.005	4.33	1.71	2.62
17	91.93	0.004	4.43	1.81	2.62
18	88.74	0.004	4.53	1.92	2.61
19	85.79	0.004	4.62	2.03	2.60
20	83.06	0.004	4.71	2.13	2.58
21	80.52	0.004	4.80	2.24	2.56
				MAX	**2.62**



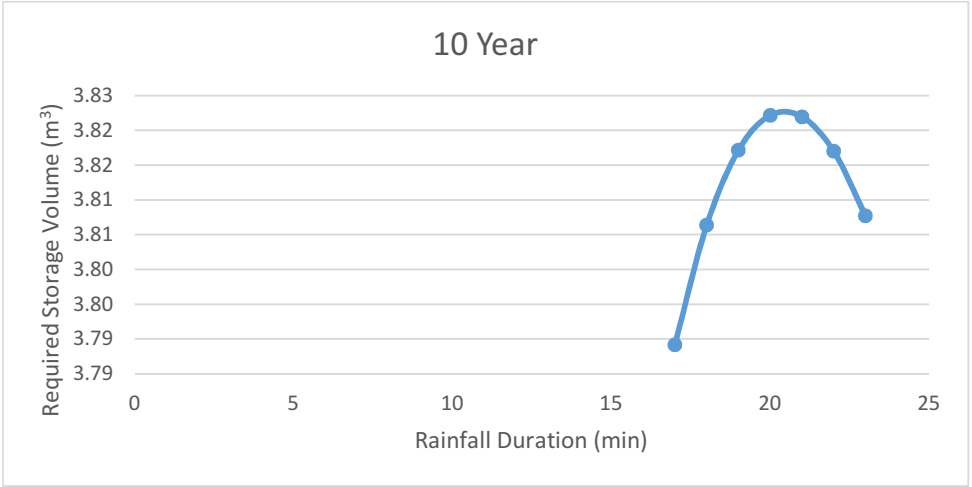
Subcatchment 205-Future Conditions Required Storage

10 Year Storm

C =	0.58	
A =	0.04	ha
Allowable Discharge=	0.002	m^3/s
Actual Orifice Discharge=	0.002	m^3/s
Min Tc =	15	min

a	b	c
1010	4.6	0.78

Rainfall Duration (min)	Rainfall Intensity (mm/hr)	Peak Flow (m^3/s)	Runoff Volume (m^3)	Release Volume (m^3)	Required Storage Volume (m^3)
17	91.93	0.005	5.60	1.81	3.79
18	88.74	0.005	5.73	1.92	3.81
19	85.79	0.005	5.84	2.03	3.82
20	83.06	0.005	5.95	2.13	3.82
21	80.52	0.005	6.06	2.24	3.82
22	78.15	0.005	6.16	2.35	3.82
23	75.93	0.005	6.26	2.45	3.81
				MAX	**3.82**



STORMTANK® Module Volume Calculator

Inputs

Project Name:	Confederation Parkway-Subcatchment 202			
Engineer:	Wood	Date:	27-Feb-20	
Units:	SI			
Liner:	No	Location:	N/A	
Stacking:	Single	Height:	457.2	
Stone Storage:	All	Porosity:	40%	

Dimensions

Module		
Footprint:	6.4	m^2
Perimeter:	10.18	m
Excavation		
Footprint:		m^2
Perimeter:		m
Stone		
Leveling Bed:		m
Top Backfill:		m
Compacted Fill:		m

Results

Capacity:

Stone Storage Volume:	0.00	m^3
Module Storage Volume:	2.79	m^3
Total Storage Volume:	**2.79**	m^3

STORMTANK® Module Volume Calculator

Inputs

Project Name:	Confederation Parkway-Subcatchment 203			
Engineer:	Wood	Date:	27-Feb-20	
Units:	SI			
Liner:	No	Location:	N/A	
Stacking:	Single	Height:	457.2	
Stone Storage:	All	Porosity:	40%	

Dimensions

Module		
Footprint:	6.4	m^2
Perimeter:	10.18	m
Excavation		
Footprint:		m^2
Perimeter:		m
Stone		
Leveling Bed:		m
Top Backfill:		m
Compacted Fill:		m

Results

Capacity:

Stone Storage Volume:	0.00	m^3
Module Storage Volume:	2.79	m^3
Total Storage Volume:	**2.79**	m^3

STORMTANK® Module Volume Calculator

Inputs

Project Name:	Confederation Parkway-Subcatchment 204			
Engineer:	Wood	Date:	27-Feb-20	
Units:	SI			
Liner:	No	Location:	N/A	
Stacking:	Single	Height:	457.2	
Stone Storage:	All	Porosity:	40%	

Dimensions

Module		
Footprint:	6.4	m^2
Perimeter:	10.18	m
Excavation		
Footprint:		m^2
Perimeter:		m
Stone		
Leveling Bed:		m
Top Backfill:		m
Compacted Fill:		m

Results

Capacity:

Stone Storage Volume:	0.00	m^3
Module Storage Volume:	2.79	m^3
Total Storage Volume:	**2.79**	m^3

STORMTANK® Module Volume Calculator

Inputs

Project Name:	Confederation Parkway-Subcatchment 205			
Engineer:	Wood	Date:	27-Feb-20	
Units:	SI			
Liner:	No	Location:	N/A	
Stacking:	Single	Height:	457.2	
Stone Storage:	All	Porosity:	40%	

Dimensions

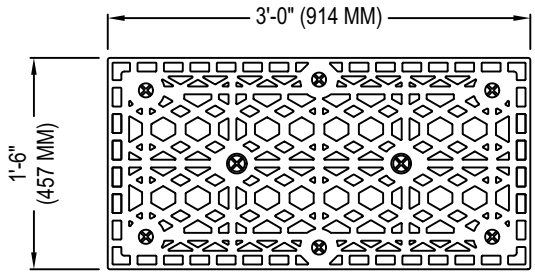
Module		
Footprint:	8.88	m^2
Perimeter:	12.11	m
Excavation		
Footprint:		m^2
Perimeter:		m
Stone		
Leveling Bed:		m
Top Backfill:		m
Compacted Fill:		m

Results

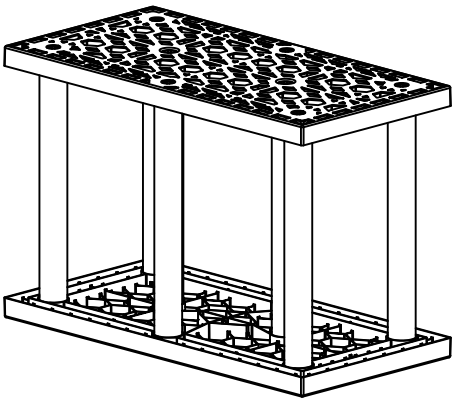
Capacity:

Stone Storage Volume:	0.00	m^3
Module Storage Volume:	3.87	m^3
Total Storage Volume:	**3.87**	m^3

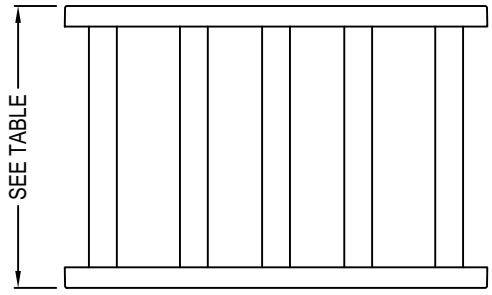
STORMTANK (BRENTWOOD INDUSTRIES)
621 BRENTWOOD DRIVE
READING, PA 19611
PHONE: (610) 374-5109
www.stormtank.com



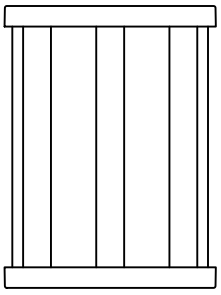
TOP



ISOMETRIC VIEW



FRONT



SIDE

STORMTANK MODULES				
DESCRIPTION	HEIGHT IN. (MM)	CAPACITY CF (CU. M.)	NOMINAL VOID RATIO	WEIGHT LBS. (KG)
ST-18	18 (457)	6.436 (0.18)	95.5%	22.7 (10)
ST-24	24 (610)	8.656 (0.25)	96.0%	26.3 (12)
ST-30	30 (762)	10.876 (0.31)	96.5%	29.5 (13)
ST-36	36 (914)	13.096 (0.37)	97.0%	33.1 (15)

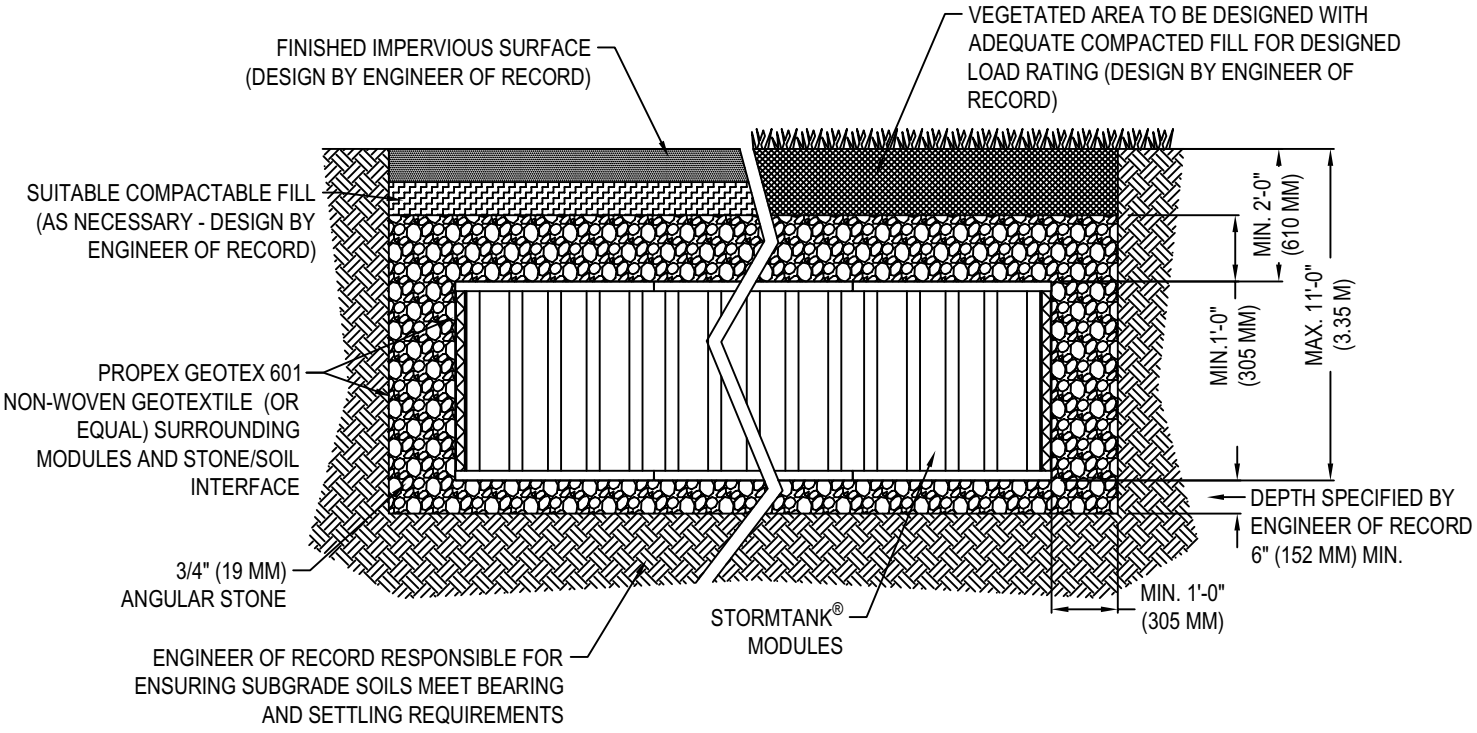
NOTES:

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 4907-008.

STORMTANK MODULE

DETAIL

STORMTANK (BRENTWOOD INDUSTRIES)
621 BRENTWOOD DRIVE
READING, PA 19611
PHONE: (610) 374-5109
www.stormtank.com



CROSS SECTION

NOTES:

1. IMPERMEABLE LINER IS REQUIRED TO BE INSTALLED AROUND BOTTOM AND SIDES OF EXCAVATION ONLY
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 4907-024.

STORMTANK MODULE

SINGLE-STACK INFILTRATION BASIN CROSS-SECTION DETAIL

	FC9 with 76 mm Outlet	FC9 with 89 mm Outlet	FC9 with 102 mm Outlet	FC9 with 114 mm Outlet
Head (m)	Flow (l/s)	Flow (l/s)	Flow (l/s)	Flow (l/s)
0.000	0.000	0.000	0.000	0.000
0.152	2.830	3.964	5.663	7.787
0.305	3.100	4.875	6.371	8.778
0.457	2.750	4.530	6.512	9.061
0.610	3.100	4.700	7.070	9.627
0.686	3.496	5.306	7.688	9.832
0.762	3.685	5.593	8.104	10.364
0.838	3.865	5.866	8.500	10.869
0.914	4.037	6.127	8.878	11.353
0.991	4.201	6.377	9.240	11.816
1.067	4.360	6.618	9.589	12.262
1.143	4.513	6.850	9.926	12.693
1.219	4.661	7.075	10.251	13.109
1.295	4.805	7.292	10.567	13.512
1.372	4.944	7.504	10.873	13.904
1.448	5.079	7.709	11.171	14.285
1.524	5.211	7.910	11.461	14.656
1.600	5.340	8.105	11.744	15.018
1.676	5.466	8.296	12.020	15.372
1.753	5.588	8.482	12.291	15.717
1.829	5.709	8.665	12.555	16.055
1.905	5.826	8.843	12.814	16.386
1.981	5.942	9.018	13.068	16.711
2.057	6.055	9.190	13.316	17.029
2.134	6.166	9.359	13.561	17.342
2.210	6.275	9.524	13.801	17.649
2.286	6.382	9.687	14.037	17.950
2.362	6.488	9.847	14.269	18.247
2.438	6.592	10.005	14.497	18.539
2.515	6.694	10.160	14.722	18.826
2.591	6.795	10.313	14.943	19.109
2.667	6.894	10.463	15.161	19.388
2.743	6.992	10.612	15.377	19.663
2.819	7.088	10.758	15.589	19.935
2.896	7.183	10.903	15.798	20.202
2.972	7.277	11.045	16.004	20.466
3.048	7.370	11.186	16.208	20.727

NOTES

1. FLUIDIC-CONE SIZES VARY BASED ON SITE REQUIREMENTS (SEE FLOW CHARTS)

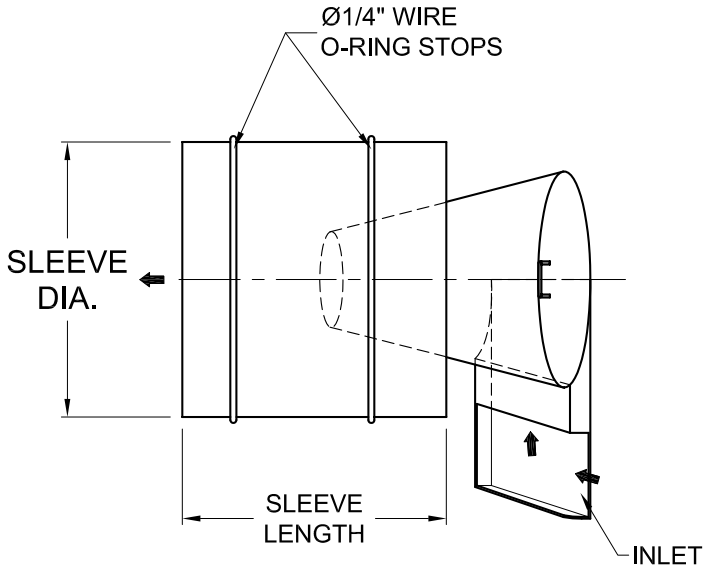
2. SLEEVE DIAMETER & LENGTH DEPEND ON PIPE SIZE AND MATERIAL.

3. ATTACHMENT MAY BE MADE BY A PLATE, A SLEEVE (AS SHOWN) OR A BOLTING FLANGE

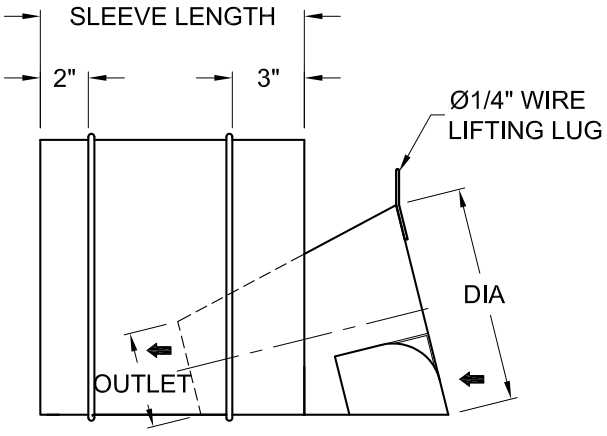
4. OUTLET SIZE VARIES BASED ON DESIRED OUTFLOW RATES (Ø3" MINIMUM)

5. ALL WELDS CONTINUOUS UNLESS NOTED OTHERWISE

MATERIALS:
12 GA. 304L STAINLESS STEEL
(1) Ø5/8" AND (1) Ø9/16"
BUNA N, 50 DUROMETER O-RINGS



TOP VIEW



SIDE VIEW

CONTECH® STORMWATER SOLUTIONS™
contechstormwater.com

TYPICAL DETAIL
FLUIDIC-CONE™ HYDROBRAKE
WITH SLEEVE ATTACHMENT & BOX INLET

NOT INTENDED FOR CONSTRUCTION PURPOSES

DATE: 4/10/06	SCALE: NONE	FILE NAME: TYPFCSLV	DRAWN: JBS	CHECKED: NDG

Water Balance Volumes

Sub #	Drainage Area (ha)	Impervious Area (ha)	Rainfall Depth (mm)	Water Balance Infiltration Volume (m^3)	Additional Volume Required in Tank (m^3)
201	0.04	0.002	5	0.08	
202	0.02	0.017	5	0.87	0.90
203	0.02	0.017	5	0.86	0.89
204	0.02	0.018	5	0.89	0.92
205	0.04	0.019	5	0.94	0.97
206	0.0024	0.0024	5	0.12	