SERVICING AND STORMWATER MANAGEMENT REPORT
256 HIGH STREET
CARLETON PLACE

Prepared By:
Inverness Homes Inc.
38 Auriga Drive, Suite 200
Nepean, ON
K2E 8A5

Project Number: 226
Dated: November 22nd 2023

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1.0 PURPOSE

This Servicing and Stormwater Management Report has been prepared in support of the Development Permit Application for the proposed building conversion of the existing Stoneridge Manor Long-Term Care Home located at 256 High Street within the Town of Carleton Place into 34 residential apartment units.

The purpose of this servicing design brief is to provide a comprehensive overview of the proposed servicing design, ensuring that the development permit application aligns with the applicable regulations, standards, and guidelines of the Town of Carleton Place. This report will address water, sanitary and stormwater management to confirm sufficient servicing capacity exists to accommodate the proposed development.

2.0 SITE DESCRIPTION

The site is located at 256 High Street and includes an existing long-term care facility with a footprint of approximately 1395 square meters. The total site area is approximately 5050 square metres and is located between Joseph Street and Lockhard Campbell Way within the Town of Carleton Place. The front of the existing site adjacent to High street includes asphalt parking and a vehicle turning circle graded toward the Municipal right of way. Toward the rear of the building, the property is graded toward the Mississippi River where surface drainage is routed overland and ultimately outlets into the river.

The Site has operated as a Retirement and Long-term Care Facility for approximately 50 years. The property includes easement rights over the adjacent property 276 High street, the easements have been delineated on the site plan and form a portion of the drive aisles servicing the property.

The site is constructed on shallow bedrock as evidenced by observed surficial bedrock. Existing parking and drive aisle areas consist of a combination of both gravel and asphalt surfaces.

3.0 WATERMAIN

The site is serviced by an existing 100mm water service connected to a 200mm municipal watermain within the High street Right of Way. The existing water service has effectively serviced the existing 60 bed Long-term Care Home for approximately 50 years which operated complete with approximately 40 staff, commercial laundry and kitchen facilities. The proposed development will continue utilizing the existing water service.

An existing municipal hydrant is located within the High Street Right of Way directly in front of the existing building. The hydrant is approximately 58 metres to the existing principle entrance of the building. Additional hydrants are located approximately 130m to the East and 138m to the West of the aforementioned hydrant.

The method prescribed in the Ontario Building Code (OBC) was utilized to calculate the Required Fire Flow (RFF) resulting in a calculated RFF of 3600 L/min. This calculation took into account factors such as a non-combustible construction type, residential occupancy, and all relevant exposures from neighboring buildings and property lines.

To assess the maximum flow available in the vicinity of the site under a fire flow scenario, a review was conducted of the 2021 WaterCAD Model Update report prepared by J.L. Richards & Associates (JLR) for the Town of Carleton Place, dated March 11th 2021. The JLR Report indicates that the High Street watermain provides an estimated fire flow of approximately 120 L/sec (7200 L/min). Based on this information, it can be concluded that the fire flow available on High Street surpasses the required fire flow as per the OBC prescribed method.

For detailed calculations regarding the OBC fire flow calculations, please refer to Appendix 'C'.

Water Demands are summarized in the below table:

Table 1. Water Demands and Fire Flow Requirements

Site Area (ha)	0.57
Average Day Demand (L/s)	0.2
Maximum Daily Demand (L/s)	1.65
Peak Hourly Demand (L/s)	2.48
OBC Fire Flow Requirements (L/min)	3600

An assessment was also conducted on the combined flow capacity of all fire hydrants located near the site, taking into account the guidelines provided in the City of Ottawa's Technical Bulletin ISTB-2018-02, Appendix I. Within a clear distance of 75 meters from the existing building there is one existing hydrant located directly in front of the Site on High Street and two additional hydrants within 150m of the existing building. The rating of this hydrant was evaluated based on an on-site confirmation of colour coded hydrants which determined that all three hydrants located with 150m of the building are rated as Class AA (blue). Considering these classifications, it was determined that the aggregate fire flow from all hydrants amounted to 13,300 L/min.

The evaluation of pressures and available flow on High Street was conducted by referring to the JLR Water Model Report. The purpose of this review was to assess whether the proposed water service for the development is adequate. The findings indicate that there is an expected minimum pressure of 394 kPa (57 psi) available at the watermain during peak hour demands as represented by node J-358 in the JLR Report. This pressure is deemed sufficient to support domestic drinking water supply for the building. See below Table 2 for applicable excerpts from J.L Richards Carleton Place 2021 Model Update.

Table 2: Carleton Place 2021 Model Update Excerpts

<table>
<tr><th colspan="9">Peak Hour Junction Table:</th></tr>
<tr><th>ID</th><th>Label</th><th>Zone</th><th colspan="2">Elevation (m)</th><th>Demand (L/s)</th><th colspan="2">Hydraulic Grade (m)</th><th>Pressure (kPa)</th></tr>
<tr><td>296</td><td>J-358</td><td>Zone-1</td><td colspan="2">140.00</td><td>0.97</td><td colspan="2">180.23</td><td>394 kPa</td></tr>
<tr><th colspan="9">Fire Flow Table:</th></tr>
<tr><th>ID</th><th>Label</th><th>Zone</th><th>Fire Flow (Available) (L/s)</th><th>Flow (Total Available) (L/s)</th><th>Pressure (Residual Lower Limit)(kPa)</th><th>Pressure (Calculated Residual) (kPa)</th><th>Junction with Minimum Pressure (Zone)</th><th>Pressure (Calculated Zone Lower Limit) (kPa)</th></tr>
<tr><td>296</td><td>J-358</td><td>Zone-1</td><td>120</td><td>121</td><td>140</td><td>140</td><td>J-949</td><td>167</td></tr>
</table>

4.0 SANITARY

The site is serviced by an existing 150mm sanitary service connected to the existing 300mm sanitary sewer main located within the High Street Right of Way. The existing sanitary service has serviced the existing Long term Care Facility complete with staffing, commercial laundry and kitchen facilities for approximately 50 years.

Population projection for the proposed apartments results in an estimated population of 62 people. Given that the existing long term care facility operated at a capacity of 60 beds including 40 full-time staff and the operation of commercial kitchen and laundry facilities, sewage flow rates will be reduced as a result of the change of use.

The existing sanitary lateral to be utilized will have sufficient capacity to accommodate the change of use. As per the existing Site Servicing and Drainage Design (See Appendix E) a minimum of 1% slope was specified for the existing sanitary lateral. A slope of 1% on the existing service lateral provides an approximate sanitary lateral capacity of 15.2 l/s (see Appendix C for applicable calculations) therefore exceeding the calculated peak sewage flow rates of 1.1 l/s that will be generated by the proposed residential use.

5.0 STORMWATER

Stormwater currently drains from the site uncontrolled as per the existing site servicing and drainage plan for the original site development. The front portions of the site currently drain overland toward High Street and the rear portions of the site including all roof drainage drain South toward the Mississippi River; see existing "Site Plan, Site Services" Drawing M-1 for further details on existing drainage paths and the existing site grading design for the site prepared in 1974. The existing roof drainage is serviced by three drains which currently outlet uncontrolled on the East Side of the building subsequently draining South toward the Mississippi River; see pre-existing "Lower Floor Plan, Plumbing, Drainage and Fire Protection" Drawing M-3 for specifications on existing roof drainage outlets and locations.

The objective of this stormwater management plan is to match the existing drainage paths established through the original site development and match or reduce runoff rates for the 5 year and 100 year design storm events. The rational method has been selected to calculate the pre-development and post-development runoff rates for the selected design storms. Stormwater quality will be addressed through best management practices, directing runoff onto grassed surfaces where feasible.

Overall the proposed site plan will see a moderate increase in run-off potential primarily due to proposed asphalt paving of existing gravel areas and the increase in on-site parking stalls necessary to accommodate the parking requirements of the Town Development Permit By-Law. To address the proposed increased hard surfacing, the flat roof of the building will be utilized for stormwater management and roof drains will be modified and equipped with flow controls to balance post-development stormwater flow rates with pre-development rates. See below Table 3 for projected pre-development and post-development flow rates and summarized storage requirements.

Table 3: Stormwater Management Results

Design Storm	Pre-Development (Existing) Total Flow Rate	Uncontrolled Post Development Total Flow Rate	Storage Requirements (cubic metres)
5 Year	109.60 l/s	119.71 l/s	6.1
100 Year	234.77 l/s	247.78 l/s	7.8

In order to balance Post Development Flow rates with Pre-Development rate a maximum 5 yr flow rate of 26.35 l/s and a maximum 100 yr flow rate of 56.24 l/s cumulative from all roof drainage outlets will be utilized in the design of roof outlets. The controlled flow rates result in a minimum roof-top storage volume requirement of 7.8 cubic metres. Given the total building footprint of approximately 1395 square metres, the maximum required storage volume represents an average roof ponding depth of 56 millimeters. During the detailed mechanical design for the building, the Mechanical Engineer retained will provide written confirmation that the roof drainage design conforms with the aforementioned design criteria and position roof drains to outlet to the East side of the building in order to be consistent with the existing established drainage paths.

6.0 SUMMARY

1. The existing 100mm water service and 150mm sanitary service will adequately service the proposed change in use.
2. The existing municipal sewer and water mains and overall systems provide adequate capacity to service the proposed change in use.
3. The existing hydrants in proximity to the building will provide the required fire flows for fire protection.
4. Stormwater will be controlled to pre-existing conditions and outlet the site utilizing pre-existing drainage patterns.

7.0 RECOMMENDATIONS

Based on the results of this report we recommend that the Town of Carleton Place grants approval for this Servicing and Stormwater Management Report prepared in support for the proposed development.

Best regards,

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Inverness Homes
Email: robin@invernesshomes.ca

LICENSED PROFESSIONAL ENGINEER
22-11-2023
R. E. J. DAIGLE
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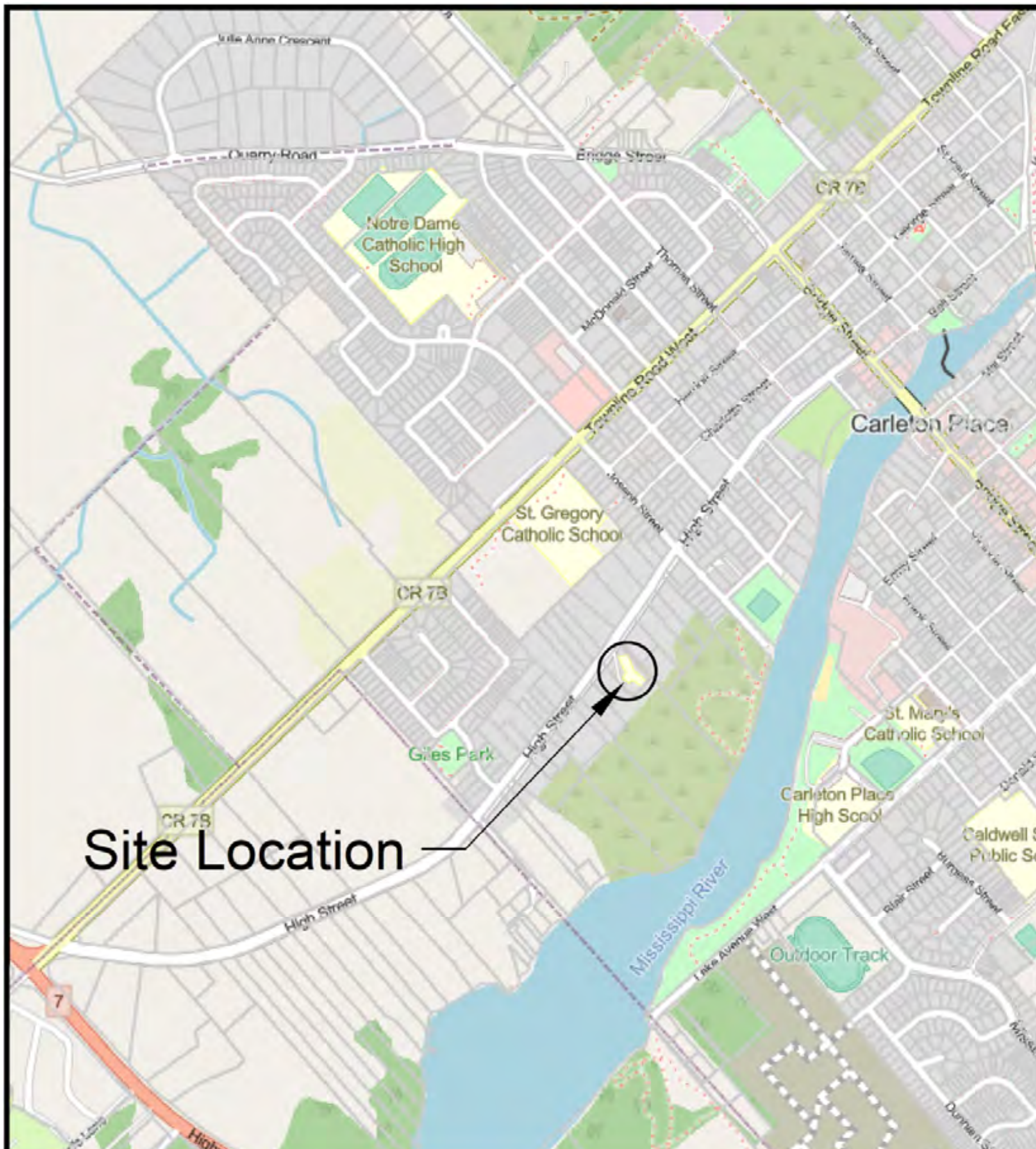
PROVINCE OF ONTARIO

LEGAL NOTIFICATION

This report was prepared for the sole use of Inverness Homes Inc. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Inverness Homes Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

APPENDIX 'A' - Site Location Key Plan



OWNER	DRAWING TITLE
INVERNESS HOMES	KEY PLAN
PROJECT	
256 HIGH STREET CARLETON PLACE	KP

APPENDIX 'B' - Watermain Calculations

OBC FIRE CALCULATIONS

INVERNESS HOMES

Project: 256 High Street, Carleton Place Ontario
Sheets: 1 of 1
Revision: November 21st 2023
Building: Building 'A'

Ontario Building Code (OBC) Fire Flow Requirements

Formula:

$Q = KVS_{Tot}$

Where

Q = minimum supply of water in litres (L)

K = water supply coefficient from Table 1

V = total building volume in cubic metres

S_{Tot} = total of spatial coefficient values from propertyline exposures on all sides, as obtained from the formula:

$$S_{Tot} = 1.0 + [S_{Side1} + S_{Side2} + S_{Side3} + \ldots etc.]$$

Minimum Supply of Water (Litres)

Q = 115087.5 Litres

Water Supply Coefficient (K):

Classification: C (See Table 1)

K = 10 (Non-Combustible)

Total Building Volume (V):

Area:	1395	Sq. meters
Height:	5.5	meters
Volume (V):	7672.5	Cubic meters

Total Spatial Coefficient (S_Tot):

Side ID	Distance	Sside
Sside1	30	0
Sside2	10.5	0
Sside3	22	0
Sside4	1.5	0.5
Stot:		1.5

Table 2	
Part 3 Buildings under the Building Code	Required Minimum Water Supply Flow Rate, L/min
One-storey building with building area not exceeding 600 m²	1 800
All other buildings	2 700 (if Q ≤ 108 000 L)(1) 3 600 (if Q > 108 000 L and ≤ 135 000 L)(1) 4 500 (if Q > 135 000 L and ≤ 162 000 L)(1) 5 400 (if Q > 162 000 L and ≤ 190 000 L)(1) 6 300 (if Q > 190 000 L and ≤ 270 000 L)(1) 9 000 (if Q > 270 000 L)(1)

Minimum Water Supply Flow Rates:

Qreq = 3600 L/min (See Table 2)

Minimum Supply Volume Over 30 mins:

Vmin= 3600 L/min x 30 min

Vmin= 108000 L

Vmin= 108 m3

APPENDIX 'C' - Sanitary Calculations

SANITARY CALCULATIONS

SANITARY SEWER DESIGN SHEET

Project: 256 High Street
Sheets: 1 of 1
Revision: November 22nd 2023

PROPOSED	Pipe Section		Residential			Commulative				Institutional			Extraneous Flow				Design Flow	Pipe Data					Sewage Flow Results	
Street	From	To	Area (Ha)	Units	Pop.	Area (Ha)	Pop.	Peaking Factor	Peak Pop. Flow (l/s)	Area	Accum Area	Institutional Flow (l/s)	Total Area	Accum Area	Ext. Flow (l/s)	Cumm. Ext. Flow (l/s)	Peak Design Flow (l/s)	Diam. (mm)	Slope (%)	Manning Coef.	Full Flow Velocity (m/s)	Capacity (l/s)	Capacity used (%)	Available Capacity (l/s)
256 High Street	Bldg	Mains	0.5706	34	61.2	0.571	61.2	4.00	0.992	0.000	0.000	0.000	0.571	0.571	0.131238	0.131238	1.123	150	1.0	0.013	0.862	15.229	7.4	14.11

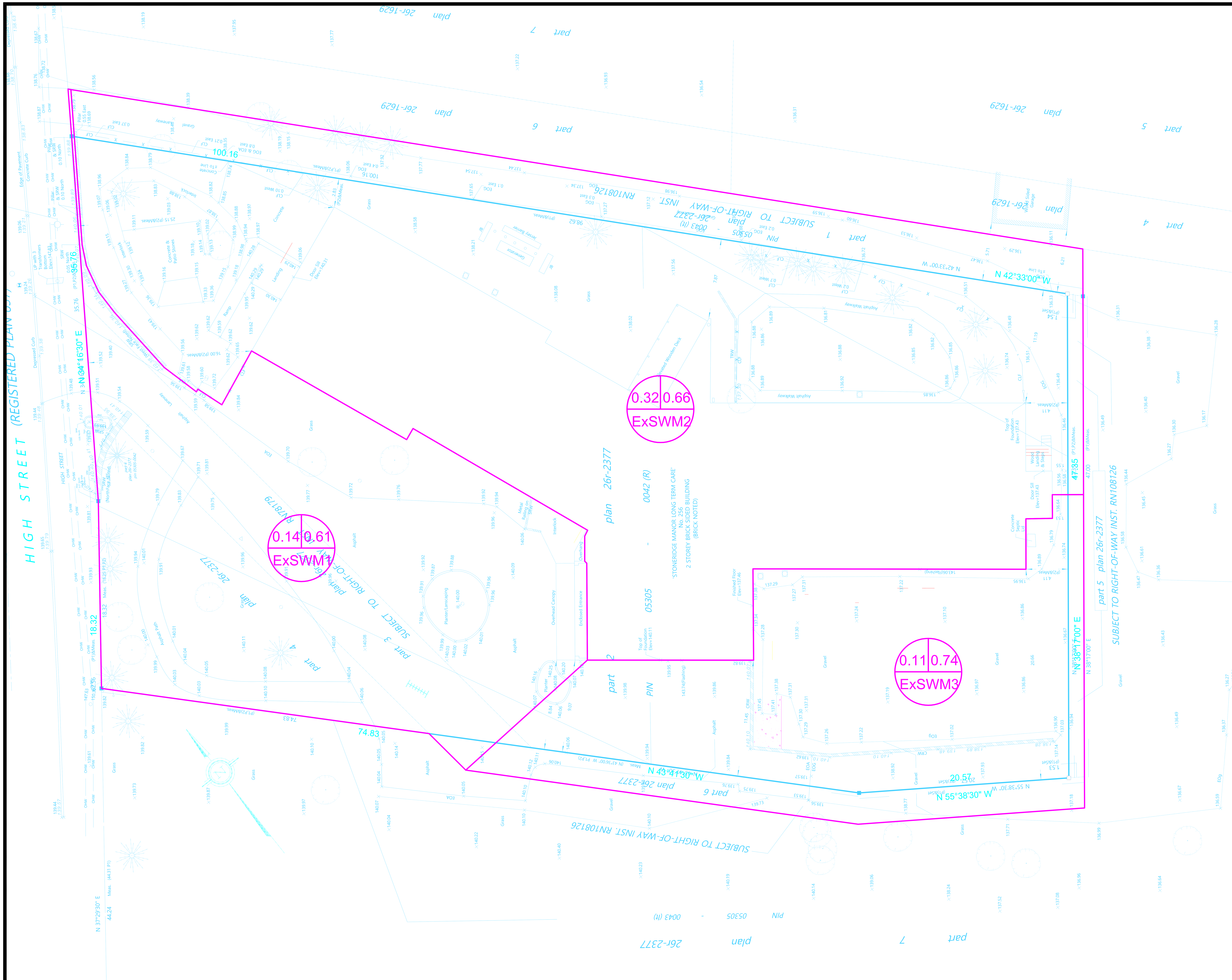
SEWER DESIGN CRITERIA		
Residential: Single Family	3.4	ppl/unit
Residential: Semi/Townhomes	2.7	ppl/unit
Residential: Apartments	1.8	ppl/unit
Residential: Average Day Demand	350	l/cap/day
Residential Peaking Factor	Harmons Equation	
Infiltration Rate	0.23	l/s/ha
Commercial/Institutional Average Day	28000	l/ha/day
Comm./Instit. Peaking Factor	2.7	
PVC Sewer Roughness Coefficient	0.013	

APPENDIX 'D' – STORMWATER MANAGEMENT

PRE-DEVELOPMENT DRAINAGE PLAN

POST-DEVELOPMENT DRAINAGE PLAN

STORMWATER MANAGEMENT CALCULATIONS



INVERNESS HOMES

SCALE: NTS

No.	REVISIONS	BY	DATE
01	EXISTING CONDITIONS	RD	22 NOV 2023

OWNER

INVERNESS HOMES

DESIGNED BY:	DRAWN BY:	APPROVED BY:
RD	RD	JL

PROJECT

256 HIGH STREET

DRAWING TITLE

PRE-DEVELOPMENT GRADING AND DRAINAGE

DATE

22 NOV 2023

PRE1

SCALE: NTS

No.	REVISIONS	BY	DATE
01	Development Permit Subm.	RD	22 NOV 2023

OWNER
INVERNESS HOMES

DESIGNED BY:	DRAWN BY:	APPROVED BY:
RD	RD	JL

PROJECT
256 HIGH STREET

DRAWING TITLE
POST-DEVELOPMENT DRAINAGE AREAS

DATE
10 NOV 2023

POST1

INVERNESS HOMES

Project: 256 High Street, Carleton Place Ontario
Sheets: 1 of 1
Revision: November 22nd 2023
Building: Building 'A'

PRE-DEVELOPMENT

Runoff Coefficient Calculations:

Drainage Area ID	Total Area (ha)	Impervious Area (m2) C=0.9	Gravel Area (m2) C=0.7	Pervious Area (m2) C=0.2	C (5 yr)	C(100 yr) = 1.25 5yr C (Max 1)
EX SWM1	0.142234	838.41	0	584.12	0.61	0.77
EX SWM2	0.317262	1793.85	398.82	979.85	0.66	0.82
EX SWM3	0.111121	286.68	799.85	24.93	0.74	0.93
Overall Site	0.570617	2918.94	1198.67	1588.9	0.66	0.83

IDF curve equations (Intensity in mm/hr)

100 year Intensity = 1735.688 / (Time in min + 6.014) $^{0.820}$
50 year Intensity = 1569.580 / (Time in min + 6.014) $^{0.820}$
25 year Intensity = 1402.884 / (Time in min + 6.018) $^{0.819}$
10 year Intensity = 1174.184 / (Time in min + 6.014) $^{0.816}$
5 year Intensity = 998.071 / (Time in min + 6.053) $^{0.814}$
2 year Intensity = 732.951 / (Time in min + 6.199) $^{0.810}$

Pre Development Drainage

Areas		C Value		TC	Intensity		Flow Rate	
Area ID	Area (ha)	C (5-yr)	C (100-yr)	TIME OF CONC.	5-yr RAINFALL INTENSITY (mm/hr)	100-yr RAINFALL INTENSITY (mm/hr)	5 yr PEAK FLOW Q (l/s)	100 yr PEAK FLOW Q (l/s)
EX SWM1	0.142234	0.61	0.76570705	10	104.19	178.56	25.24	54.06
EX SWM2	0.317262	0.66	0.823323809	10	104.19	178.56	60.53	129.66
EX SWM3	0.111121	0.74	0.925464029	10	104.19	178.56	23.83	51.05
Total:	**0.570617**						**109.60**	**234.77**

POST-DEVELOPMENT

Runoff Coefficient Calculations:

Drainage Area ID	Total Area (ha)	Impervious Area (m2) C=0.9	Gravel Area (m2) C=0.7	Pervious Area (m2) C=0.2	C (5 yr)	C(100 yr) = 1.25 5yr C (Max 1)
SWM1	0.134271	909.93	0	432.78	0.67	0.84
SWM2	0.176204	1042.99	0	719.05	0.61	0.77
SWM3	0.120635	925.81	0	280.54	0.74	0.92
SWM4 - Bldg	0.1395	1395	0	0	0.90	1.00
Overall Site	0.57061	4273.73	0	1432.37	0.72	0.91

Post-Development Drainage - Uncontrolled

Areas		C Value		TC	Intensity		Flow Rate	
Area ID	Area (ha)	C (5-yr)	C (100-yr)	TIME OF CONC.	5-yr RAINFALL INTENSITY (mm/hr)	100-yr RAINFALL INTENSITY (mm/hr)	5 yr PEAK FLOW Q (l/s)	100 yr PEAK FLOW Q (l/s)
SWM1	0.134271	0.67	0.84	10	104.19	178.56	26.23	56.19
SWM2	0.176204	0.61	0.77	10	104.19	178.56	31.36	67.17
SWM3	0.120635	0.74	0.92	10	104.19	178.56	25.76	55.18
SWM4 - Building	0.1395	0.90	1.00	10	104.19	178.56	36.37	69.25
Total:	**0.57061**						**119.71**	**247.78**

Post-Development Drainage - Controlled

Areas		C Value		TC	Intensity		Flow Rate	
Area ID	Area (ha)	C (5-yr)	C (100-yr)	TIME OF CONC.	5-yr RAINFALL INTENSITY (mm/hr)	100-yr RAINFALL INTENSITY (mm/hr)	5 yr PEAK FLOW Q (l/s)	100 yr PEAK FLOW Q (l/s)
SWM1	0.134271	0.67	0.84	10	104.19	178.56	26.23	56.19
SWM2	0.176204	0.61	0.77	10	104.19	178.56	31.36	67.17
SWM3	0.120635	0.74	0.92	10	104.19	178.56	25.76	55.18
SWM4 - Building (Controlled)	0.1395	0.90	1.00	10	104.19	178.56	26.25	56.24
Total:	**0.57061**						**109.60**	**234.77**

Maximum Controlled Flow Rates

100 Yr Storage Requirements

TIME OF CONC.	RAINFALL INTENSITY (mm/hr)	PEAK FLOW Q(l/s)	Allowable Flow (L/S)	Stored Flow (L/S)	Storage (m3)
10	178.5590247	247.78	234.77	13.01	7.804038572
15	142.894168	198.29	234.77	-36.48326905	-32.83494214
20	119.9504301	166.45	234.77	-68.32326905	-81.98792286
25	103.8470776	144.11	234.77	-90.66326905	-135.9949036
30	91.86818695	127.48	234.77	-107.293269	-193.1278843
35	82.57856215	114.59	234.77	-120.183269	-252.384865

5 Yr Storage Requirements

TIME OF CONC.	RAINFALL INTENSITY (mm/hr)	PEAK FLOW Q(l/s)	Allowable Flow (L/S)	Stored Flow (L/S)	Storage (m3)
10	178.5590247	119.71	109.60	10.11379536	6.068277219
15	142.894168	96	109.60	-13.59620464	-12.23658417
20	119.9504301	80.71	109.60	-28.88620464	-34.66344556
25	103.8470776	69.97	109.60	-39.62620464	-59.43930695
30	91.86818695	61.96	109.60	-47.63620464	-85.74516834
35	82.57856215	55.74	109.60	-53.85620464	-113.0980297

Average Storage Volume Depth on Roof:

Building Area:	1395 sq. m
Required Storage Volume:	7.80 cubic m.
Required Average Storage Depth:	5.5943 mm

APPENDIX 'E' – EXISTING ENGINEERING PLANS

EXISTING SERVICING AND GRADING PLAN

EXISTING ROOF DRAINAGE PLAN

MECHANICAL DRAWING LIST

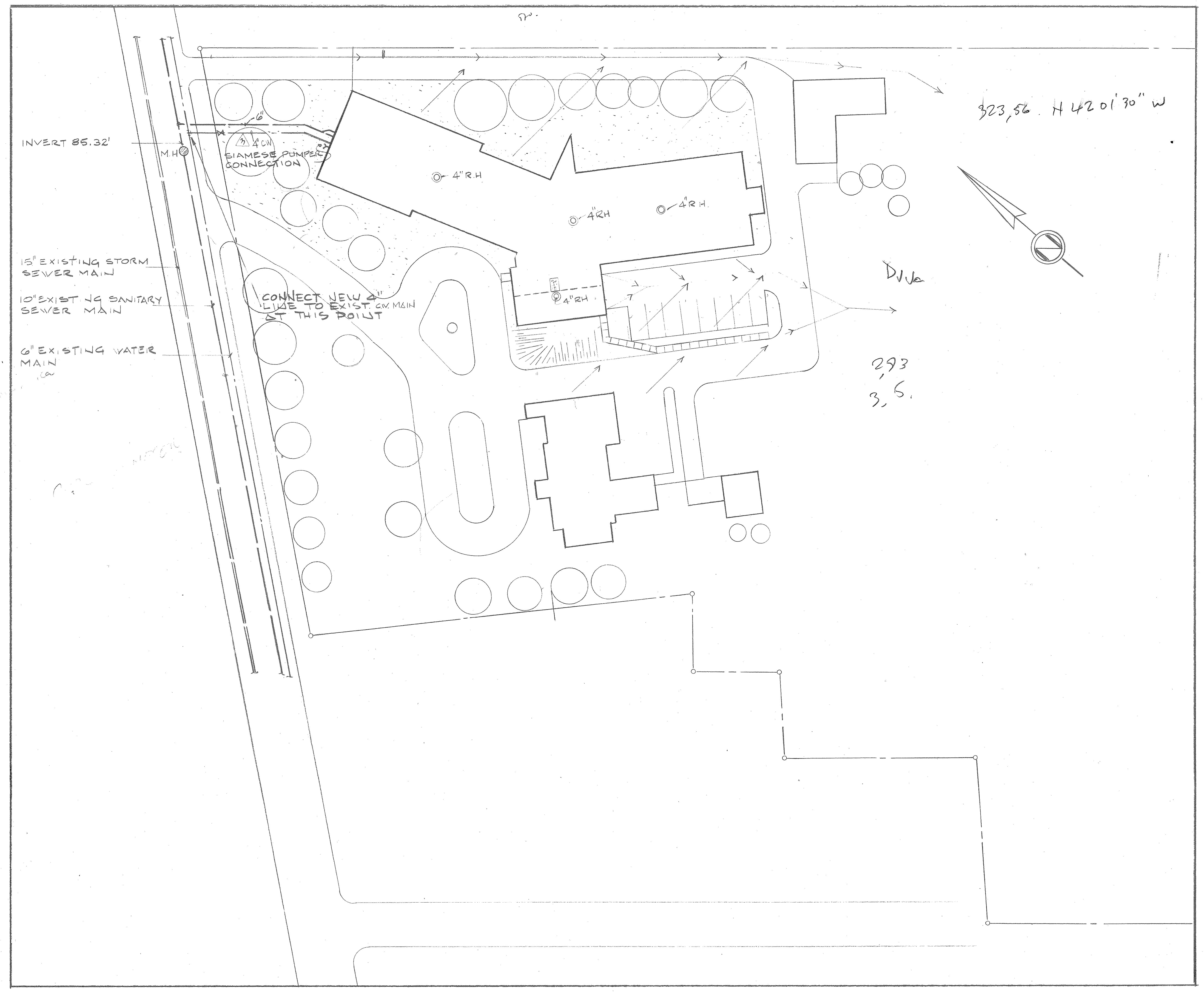
DWG Nº	
M - 1	SITE PLAN SITE SERVICES SCHEDULES
M - 2	MAIN FLOOR PLAN PLUMBING, DRAINAGE AND FIRE PROTECTION
M - 3	LOWER FLOOR PLAN PLUMBING, DRAINAGE AND FIRE PROTECTION
M - 4	MAIN FLOOR PLAN VENTILATION AND EXHUAST SYSTEMS
M - 5	LOWER FLOOR PLAN VENTILATION AND EXHUAST SYSTEMS

PLUMBING LEGEND

SYMBOL	
	SANITARY DRAIN AT CEILING LEVEL
	SANITARY DRAIN BURIED
	PLUMBING VENT PIPE
	STORM DRAIN AT CEILING
	STORM DRAIN BURIED
F	FIRE PROTECTION LINE
	COLD WATER LINE
	HOT WATER LINE
	HOT WATER RECIRCULATION LINE
	DIRECTION OF FLOW
	DIRECTION OF SLOPE DOWNWARD
F.D. / F.F.D.	FLOOR DRAIN (FUNNEL FLOOR DRAIN)
	GLOBE VALVE
	GATE VALVE
	CHECK VALVE
N.F.W.H.	NON FREEZE WALL HYDRANT
S.C.	SIAMESE CONECTION
	HOSE BIBB
AD.	AREA DRAIN
R.D.	ROOF DRAIN

SCHEDULE OF FIXTURE CONECTIONS

FIXTURE	CW CON	H W CON	DRAIN	VENT
WATER CLOSET (FLUSH TANK)	1/2"		4"	1 1/2"
LAVATORY	1/2"	1/2"	1 1/4"	1 1/4"
SINGLE SINK	1/2"	1/2"	1 1/2"	1 1/4"
DOUBLE COMPARTMENT SINK	1/2"	1/2"	1 1/2"	1 1/4"
LAUNDRY TUBS	1/2"	1/2"	1 1/2"	1 1/4"
SHOWER	1/2"	1/2"	3"	1 1/2"
URINAL	3/4"		2"	1 1/4"
SERVICE SINK	1/2"	1/2"	3"	1 1/2"
SHAMPOO SINK	1/2"	1/2"	1 1/2"	1 1/4"
WASHER (CLOTHES)	3/4"	3/4"	2"	1 1/2"
NON FREEZE WALL HYDRANT	3/4"			
HOSE BIBB	3/4"			



SITE PLAN
SCALE 1" = 40'-0"

NOTES

1. THE INSTALLATION AND DRAINAGE PIPING SHALL NATIONAL BUILDING LOCAL BY-LAWS.
2. ALL HORIZONTAL DRAIN PIPE SHALL SLOPE A MINIMUM OF 1/8 PER HUNDRED FEET.
3. THE INSTALLATION OF FIRE PROTECTION EQUIPMENT AND PIPING SHALL COMPLY WITH THE "UNDRWRITER ASSOCIATION" AND LOCAL BY-LAWS.
4. KITCHEN LAYOUT AND EQUIPMENT SHALL BE CONFIRMED WITH FINAL AND APPROVED DRAWINGS FROM KITCHEN EQUIPMENT SUPPLIER AND ARCHITECT.

NO	DATE	REVISIONS	BY
3	MAR.31/75	RELOCATED WATER MAIN	F
2	JAN.17/75	GENERAL REVISIONS	F
1	NOV.4/74	FOR CONSTRUCTION	ES
0	AUG.1974	ORIGINAL	ES

L.F. SMITH ENGINEERING GROUP
124 CUMBERLAND STREET STE 300
TORONTO ONTARIO M5R 1A6

TELEPHONE: 416 922 5353

REGISTERED PROFESSIONAL ENGINEER
H. U. KHAWJA
PROVINCE OF ONTARIO

ROBINSON & HEINRICHS ARCHITECTS

NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY ARCHITECT.

DATE ISSUED

PROJECT

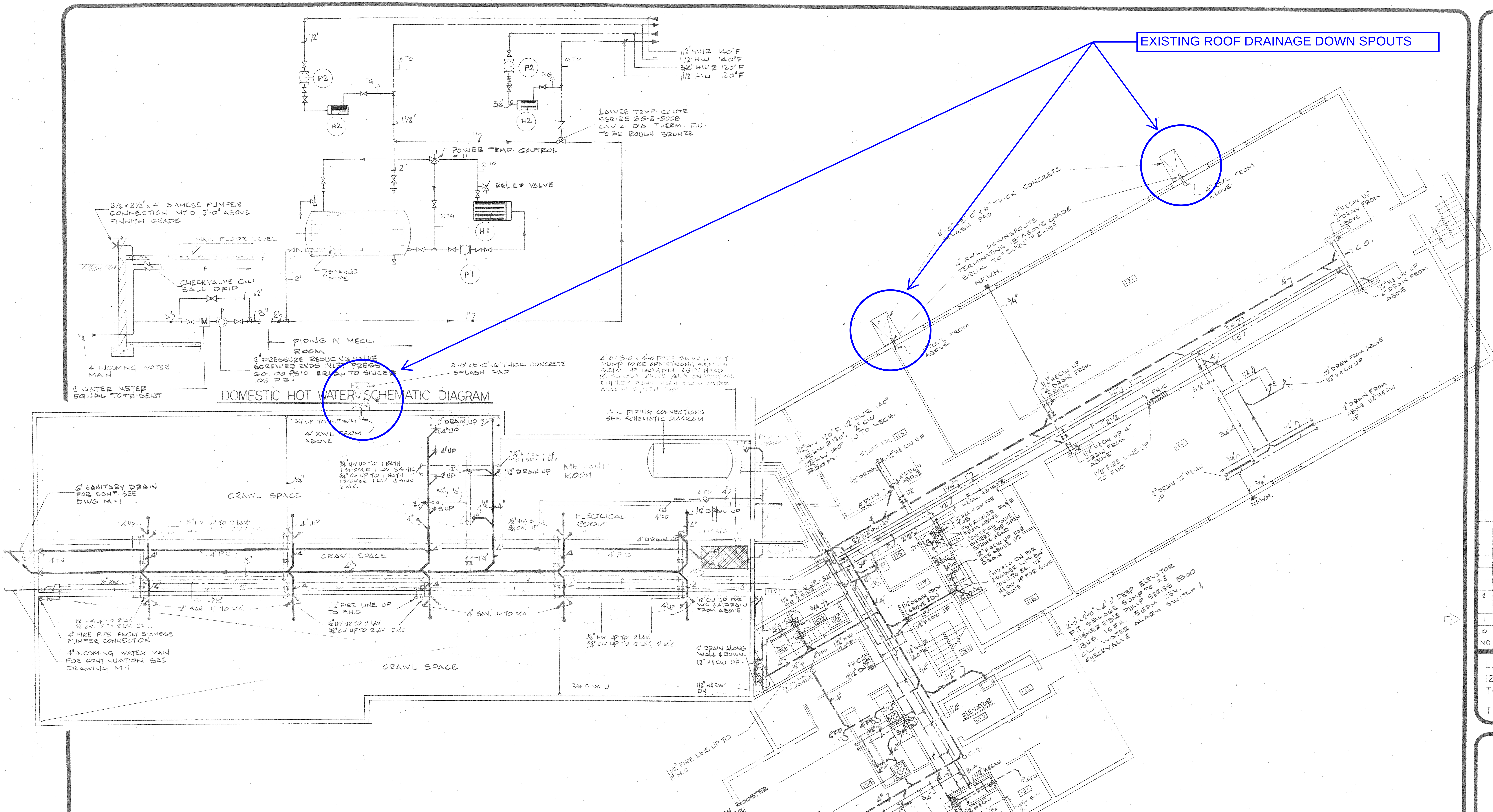
TWELVE ACRES
NURSING HOME

CARLETON PLACE, ONTARIO

SCALE	DATE DRAWN	DRAWN	CH'K'D	PROJECT NO.
AS NOTED	JULY 74	DM		02556

DRAWING
SITE PLAN
SITE SERVICES
SCHEDULES

DRAWING NO.
M - 1



DOMESTIC HOT WATER EQUIPMENT SCHEDULE					MOTOR		
SYMBOL	DESCRIPTION	LOCATION	MODEL	PERFORMANCE	H.P	V/Ø	REMARKS
H-1	DHW HEATER	MECHANICAL ROOM	COATES ELECTR. L2242KB	42KW 3PHASE 208V			C/W TEMP CONTROL 3 STEP CONTROLLER
H-2	RECIRC HEATER 2 REQ'D	MECHANICAL ROOM	COATES ELECTR S-206KB	6KW 3PHASE 208V			C/W TEMP. CONTROL
P-1	CIRCULATING PUMP - 1 REQ'D	MECHANICAL ROOM	ARMSTRONG MODEL S35	CAP. 10 GPM 11 FT HEAD	1/6	115/1Ø	C/W BRONZE BODY
T-1	HOT WATER STOR TANK	MECHANICAL ROOM	FERRO TANK "FERRO KRETE"	1800 GAL. CAP. 5'-6" DIA x 14'-0" H			C/W MANHOLE AND EXTERNALLY INSULATED HORIZONTAL TANK
P-2	CIRCULATING PUMP - 2 REQ'D	MECHANICAL ROOM	ARMSTRONG MODEL S-35	CAPACITY 12 GPM - 10	1/6	115/1Ø	

KITCHEN SERVICE LIST

ITEM	QTY	DESCRIPTION	WATER HOT	WATER COLD	DRAIN	STEAM IN	STEAM OUT	ELECTRICAL CHAR.		REMARKS
1	1	POT WASHING SINK	1/2"	1/2"	1"					
2	1	VEGETABLE PREPARATION SINK	1/2"	1/2"	1 1/2"					
3	1	CLEAN DISH TABLE	1/2"	1/2"	1 1/2"					
4	1	BOOSTER	3/4"		1"					
5	1	EXHAUST HOOD	3/4"	3/4"	2"					
6	1	DISH WASHER	1/2"	1/2"	2"					
7	1	SOILED DISH TABLE	1/2"	1/2"	2"					
8	1	COOKS TABLE	1/2"	1/2"	1 1/2"					
9	1	BEVERAGE COUNTER		1/2"	1"					
10	1	HOT WATER DISPENSER		1/4"						
11	1	COFFEE MAKER		1/4"						

NO	DATE	REVISIONS	BY
2	DEC. 17-74	CHANGED MECH. RM., ELE. RM., STORM. SUMP PIT SAN.	
		FOR CONSTRUCTION	ES
1	NOV. 4/74	ADDED CHECK VALVE	ES
0	AUG 1974	ORIGINAL	ES

L.F. SMITH ENGINEERING GROUP
124 CUMBERLAND STREET STE 300
TORONTO ONTARIO M5R 1A6
TELEPHONE 416 922-5353

REGISTERED PROFESSIONAL ENGINEER
H. U. KHAWJA
PROVINCE OF ONTARIO

ROBINSON & HEINRICHS ARCHITECTS
819 YONGE STREET, TORONTO, ONTARIO M4W 2G9 (416) 961-5500

NOT TO BE USED FOR CONSTRUCTION UNLESS SIGNED BY ARCHITECT.

DATE ISSUED

PROJECT
TWELVE ACRES
NURSING HOME
CARLETON PLACE, ONTARIO

SCALE	DATE DRAWN	DRAWN	CH'K'D	PROJECT NO.
1/8" = 1'-0"	JULY 74	DM	[illegible]	02556

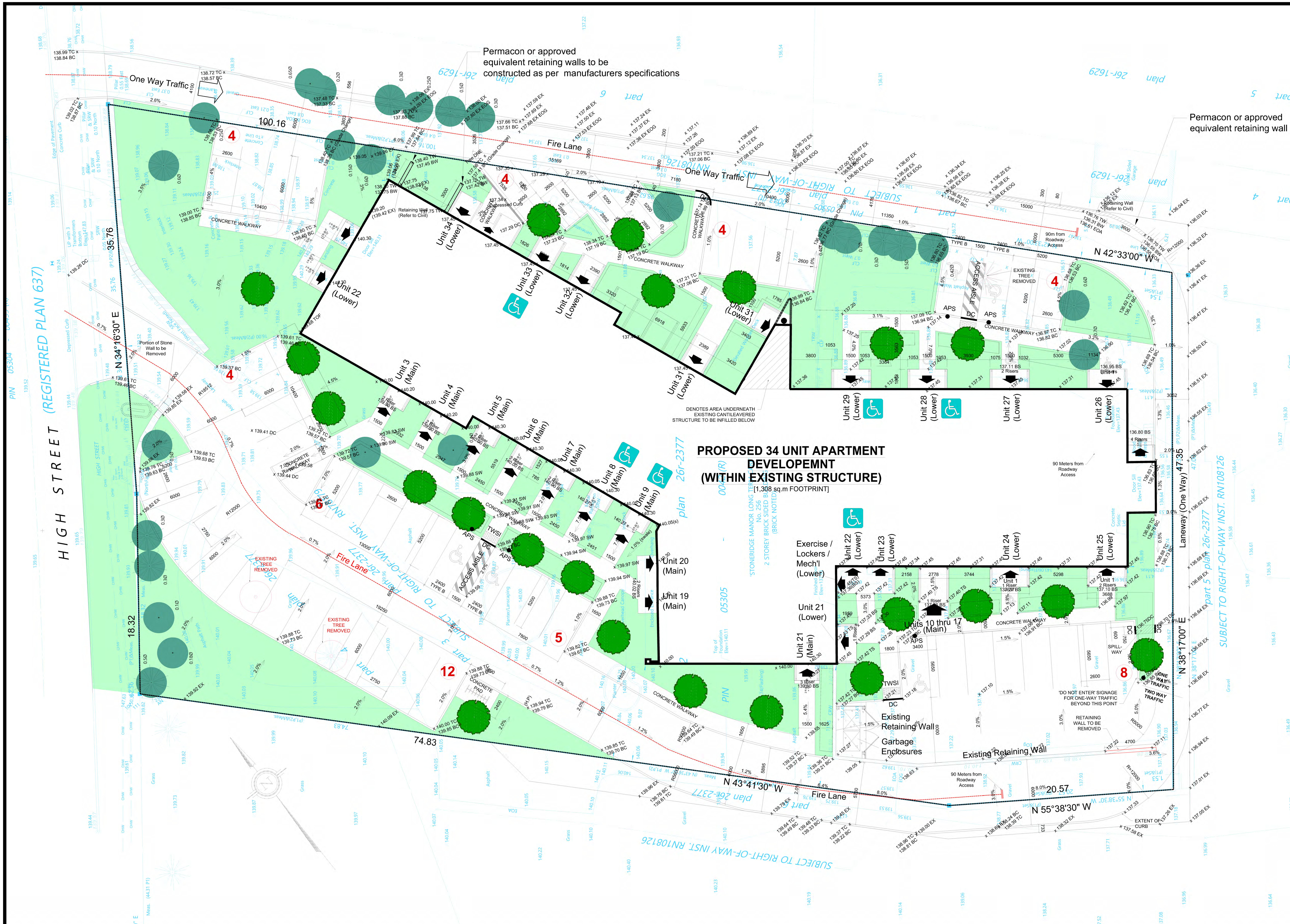
DRAWING
LOWER FLOOR PLAN PLUMBING, DRAINAGE & FIRE PROTECTION

DRAWING NO. M-3

TM-36 BRUNING 5-73

APPENDIX 'F' – PROPOSED GRADING PLAN

PROPOSED GRADING PLAN



INVERNESS HOMES

Notes:

1. ALL GRANULAR BASE & SUB BASE COURSE MATERIALS SHALL BE COMPACTED TO 95% STANDARD PROCTOR MAX. DRY DENSITY.
2. EMBANKMENTS TO BE SLOPED AT MAX. 3:1, UNLESS OTHERWISE NOTED
3. CONTRACTOR SHALL TIE IN TO EXISTING GRADES ALONG ALL SHARED PROPERTY LINES.
4. ANY DISTURBED AREAS ON ADJACENT PROPERTIES SHALL BE REINSTATED TO EQUAL OR BETTER CONDITIONS
5. ASPHALT PAVEMENT STRUCTURE SHALL CONSIST OF THE FOLLOWING UNLESS OTHERWISE DIRECTED BY THE OWNER:
   ---- 50mm HL3 Asphalt
   ---- 150mm Granular 'A'
   ---- 300mm Granular 'B'
6. ALL PARKING AND DRIVE AISLE AREAS SHALL BE PAVED
7. ALL CURBING SHALL BE CONCRETE BARRIER CURB AS PER OPSD 600.110
8. ALL SIDEWALK SHALL BE AS PER OPSD 310.010.
9. ALL GRASSED AREAS SHALL BE SLOPED MINIMUM 2%. SWALE GRADES ARE PERMITTED TO BE 1%.
10. FOR PROPOSED DRIVE AISLES, PARKING STALLS AND SIDEWALKS, CONTRACTOR SHALL REMOVE ALL ORGANIC MATERIAL AND COMPACT SUBGRADE TO THE SATISFACTION OF THE OWNER PRIOR TO PLACING GRANULAR.

SCALE: 1:150

No.	REVISIONS	BY	DATE
01	Development Permit Subm.	RD	22 NOV 2023

OWNER
INVERNESS HOMES

DESIGNED BY:	DRAWN BY:	APPROVED BY:
RD	RD	JL

PROJECT
256 HIGH STREET

DRAWING TITLE
GRADING AND DRAINAGE

DATE
22 NOV 2023

GRD