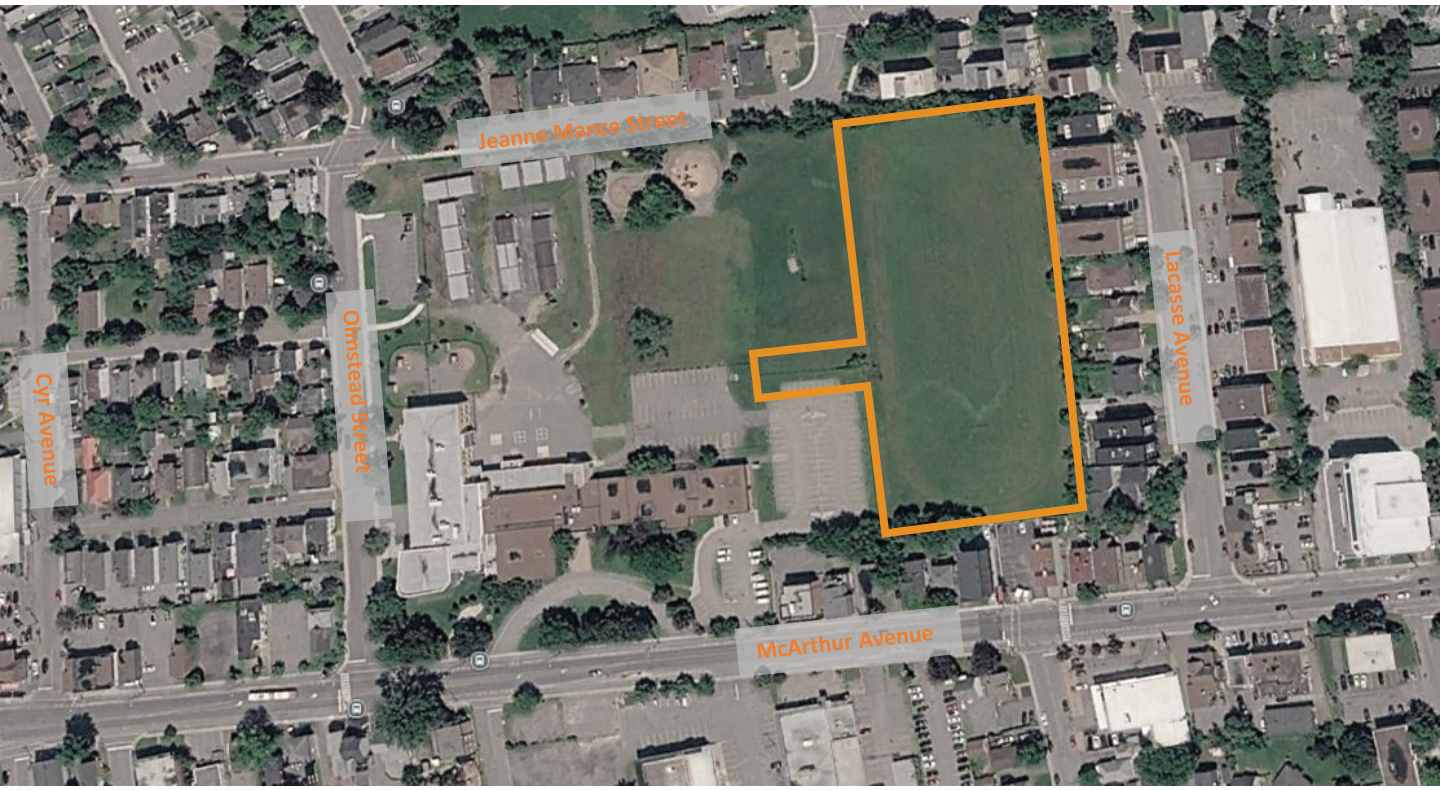


APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

Conseil des écoles catholique du Centre-Est, Horizon-Jeunesse; Ottawa Footy Sevens

349 Olmstead Street, Ottawa

Horizon-Jeunesse Dome

500-1000 Innovation Drive, Kanata, On K2K 3E7
OTTAWA@APLINMARTIN.COM| (905) 582-0630

Project No: 25-7824

September 18, 2026

Aplin & Martin Consultants Ltd.

Quality Information

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Aplin & Martin Consultants

Name: Sogand Samedani
Title: Engineering Designer



Approved By:
Aplin & Martin Consultants

Name: Micheal Melanson, P.Eng.
Title: Project Manager

Revision History

Revision	Date	Details	Name	Title
1	16-Sep-26	1st Submission	Micheal Melanson	Project Manager

Distribution List

# Hard Copies	PDF Submission	Company/Association
1	1	Conseil des écoles catholique du Centre Est, Horizon Jeunesse; Ottawa Footy Sevens

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1.0 INTRODUCTION

Aplin Martin has been retained by Conseil des écoles catholique du Centre-Est, Horizon-Jeunesse; Ottawa Footy Sevens to prepare a Functional Servicing & Stormwater Management Report (FSRSWM) in support of a Site Plan Application for the Horizon-Jeunesse Dome Field on the property located at 349 Olmstead Street, Ottawa.

The purpose of this report is to assess and identify the storm servicing infrastructure requirements for this development. Additionally, this FSRSWM will discuss stormwater management (SWM) objectives regarding water quantity control and water quality control in accordance with City of Ottawa standards.

The subject site is approximately 1.96 hectares or (19600m^2) in size. Refer to *Figure 1* below for an aerial photo of the site under current conditions.

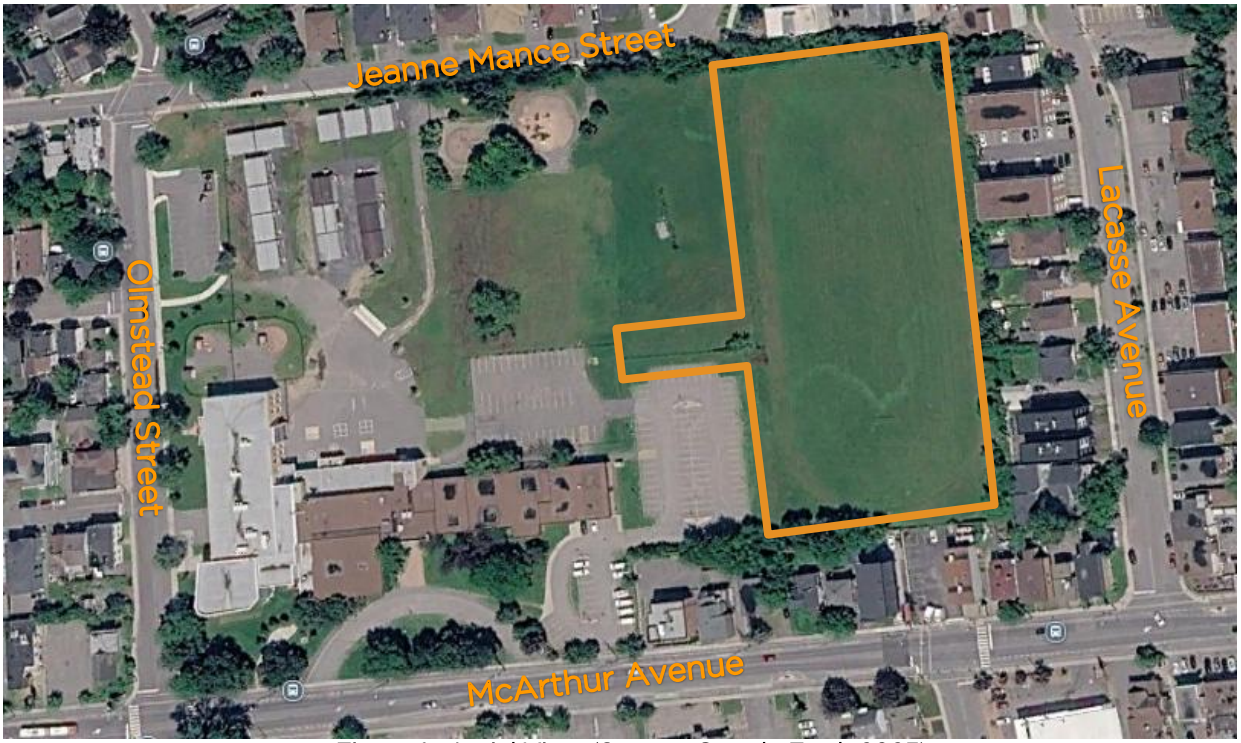


Figure 1 : Aerial View (Source: Google Earth 2025)

2.0 SITE CONDITIONS

2.1. EXISTING SITE CONDITIONS

The existing site consists of an open grass area with existing paved parking areas in the southwest portion. The site is bounded by residential properties to the north, east, and south, and by the existing school property to the west. Refer to Appendix A for the site's topographic survey.

2.2. PROPOSED SITE CONDITIONS

The proposed site development will consist of a new soccer dome and associated site improvements, including a proposed asphalt access laneway, concrete sidewalks, loading area, bicycle parking, and landscaped areas. Existing asphalt access and parking areas will be retained where indicated.

Refer to Appendix A for the architecture plans.

3.0 DOMESTIC AND FIREFIGHTING WATER SUPPLY AND SANITARY SERVICING

No new domestic water, firefighting water or sanitary service connections are proposed as part of the subject development. As such, these servicing components are not applicable to the proposed works and are not discussed further in this report.

4.0 STORM DRAINAGE

4.1 EXISTING STORM SERVICING

Based on the as-built information provided by the City of Ottawa, an existing 300 mm municipal storm sewer is located within the site and connects to the existing 457 mm municipal storm sewer along Jeanne Mance Street. Refer to Appendix A for record drawings provided by the city of Ottawa.

4.2 PROPOSED STORM SERVICING

Catch Basins and area drains are proposed within the site to collect runoff, which will be conveyed via private storm sewers to a proposed underground stormwater management tank prior to discharge to the existing municipal storm sewer system. The proposed storm sewer will connect to the existing storm manhole located on Jeanne Mance Street.

5.0 STORMWATER MANAGEMENT

5.1 DESIGN CRITERIA

Stormwater Management (SWM) for the proposed development will be designed in accordance with the City of Ottawa's Ottawa Sewer Design Guidelines (SDG002, October 2012), including applicable technical bulletins and updates, as well as the Ontario Ministry of the Environment, Conservation and Parks (MECP) Stormwater Management Planning and Design Manual (March 2003). The applicable SWM criteria for the proposed development are summarized below.

- Quantity Control – As per the City's requirements, the site must control the 100-year post-development flow rate to the 5-year pre-development flow rate calculated using a pre-development runoff coefficient of 0.25 for grassed/pervious areas.

5.2 QUANTITY CONTROL

5.2.1 PRE-DEVELOPMENT CONDITIONS

Under existing conditions, site runoff is conveyed uncontrolled by overland sheet flow across the existing grass and paved areas toward the site perimeter. Runoff generally drains toward the surrounding roadways and existing municipal storm drainage system. The site is considered as two pre-development drainage areas (A1 and A2).

As noted above, City of Ottawa design criteria requires that post-development site runoff be controlled to the 5-year storm event pre-development runoff rate calculated using a runoff coefficient of 0.25 for grassed/pervious areas . Refer to *Table 1* below for a summary of the target release rate established for this development using the City's IDF parameters.

Area ID	Area (ha)	Runoff Coefficient	5-Year Intensity (mm/hour)	5-Year Release Rate (L/s)
A1 Pre	1.87	0.25	104.19	135.30
A2 Pre	0.09	0.25	104.19	6.50
Site Target Release Rate:				141.8

Table 1: Target Release Rate Summary

Refer to the pre-development drainage area plan Fig-01 in Appendix B.

5.2.2 POST-DEVELOPMENT CONDITIONS

Under proposed conditions, the site will consist of three catchment areas: A1, which includes the soccer dome and landscaped areas; A2, which includes the remaining portion of the soccer dome and landscaped areas; and A3, which includes the concrete-paved area. Runoff from Catchment Area A1 will be controlled and discharged to the existing municipal storm sewer along Jeanne Mance Street through the proposed storm sewer connection. Runoff from Catchment Area A2 will be controlled and discharged to the existing catch basin located on the southwest side of the site, while runoff from Catchment Area A3 will be discharged to the existing catch basin located on the north side of the site.

Refer to the post-development drainage area plan (Fig-02) in Appendix B.

Rational method calculations were performed using the city of Ottawa IDF parameters to determine the peak flows to be experienced from the catchment areas under post-

development conditions. See *Table 2* below for a summary of the post-development peak flows.

Storm Event	A1 Post Site Peak Flow (L/s)	A2 Post Site Peak Flow (L/s)	A3 Post Site Peak Flow (L/s)	Total Post Site Peak Flow (L/s)
5-Year	253.40	41.20	39.10	333.70
100-Year	495.10	82.10	74.40	651.60

Table 2: Post-Development Peak Flow Summary

Table 2 summarizes the post-development peak flows prior to the application of the proposed stormwater quantity controls. The proposed SWM system provides quantity control to restrict the site discharge to the allowable target release rate. Refer to Appendix B for detailed calculations.

The quantity control measures proposed include:

- 252 m^3 of storage provided in an underground storage tank located on the north side of the site.
- 12.30 m^3 of storage provided within the proposed underground storm pipe system.
- 209 mm orifice plate proposed to restrict flows existing the site.

See *Table 3* below for details on the proposed SWM strategy.

Storm Frequency (years)	Controlled Release Rate (L/s)	Max. Head on Flow Regulator (m)	Total Release Rate (L/s)	Target Release Rate (L/s)	Storage Required (m^3)	Storage Provided (m^3)
2	52	0.3	133	135	239.20	264.30
100	133	2				

Table 3: Post-Development Discharge/Storage Summary

As shown above in *Table 3*, the proposed 209mm orifice Plate will restrict flows during all storm events to below the pre-development limits. Refer to detailed calculations for each storm event in *Appendix B.*

5.4 SWM SUMMARY

Refer to *Table 4* below for a site SWM summary of the quantity and quality design objectives for this development.

SWM Measure	Design Criteria	
	Required	Provided
Quantity - 100-Yr Peak Flow	239.20 m^3	**264.30 m^3**
Quantity – Release Rate	135 L/s	**133 L/s**

6.0 EROSION AND SEDIMENT CONTROL MEASURES

An Erosion and Sediment Control program will be implemented prior to and throughout the duration of construction to minimize the potential for erosion and sediment migration from the site. The erosion and sediment control measures will be implemented in accordance with OPSS 805 and applicable City of Ottawa specifications.

The proposed Erosion and Sediment Control program for the site will include the following temporary measures:

- A siltation control barrier round the perimeter of the site;
- Sediment traps on catch basins or area drains internal to the site;
- Sediment traps on external catch basins adjacent to the site;
- Mud mat(s) at the access point(s) of construction to prevent / minimize mud On-site dust control measures;
- Regular maintenance of the above-listed Erosion / Sediment Control measures; and,
- Inspection of the above-listed Erosion/Sediment Control measures before and after rainfall events.

An Erosion & Sediment Control program for the site will be prepared at the Site Plan Approval stage of the project in the form of a comprehensive Erosion & Sediment Control Plan.

7.0 PUBLIC UTILITIES

In addition to storm servicing, utilities such as Bell, Rogers, gas, and hydro will be constructed to service the proposed redevelopment as required; the design of which will be undertaken and coordinated by others.

Refer to the Site Servicing Plan in Appendix C for the location and extent of the existing private and public utilities.

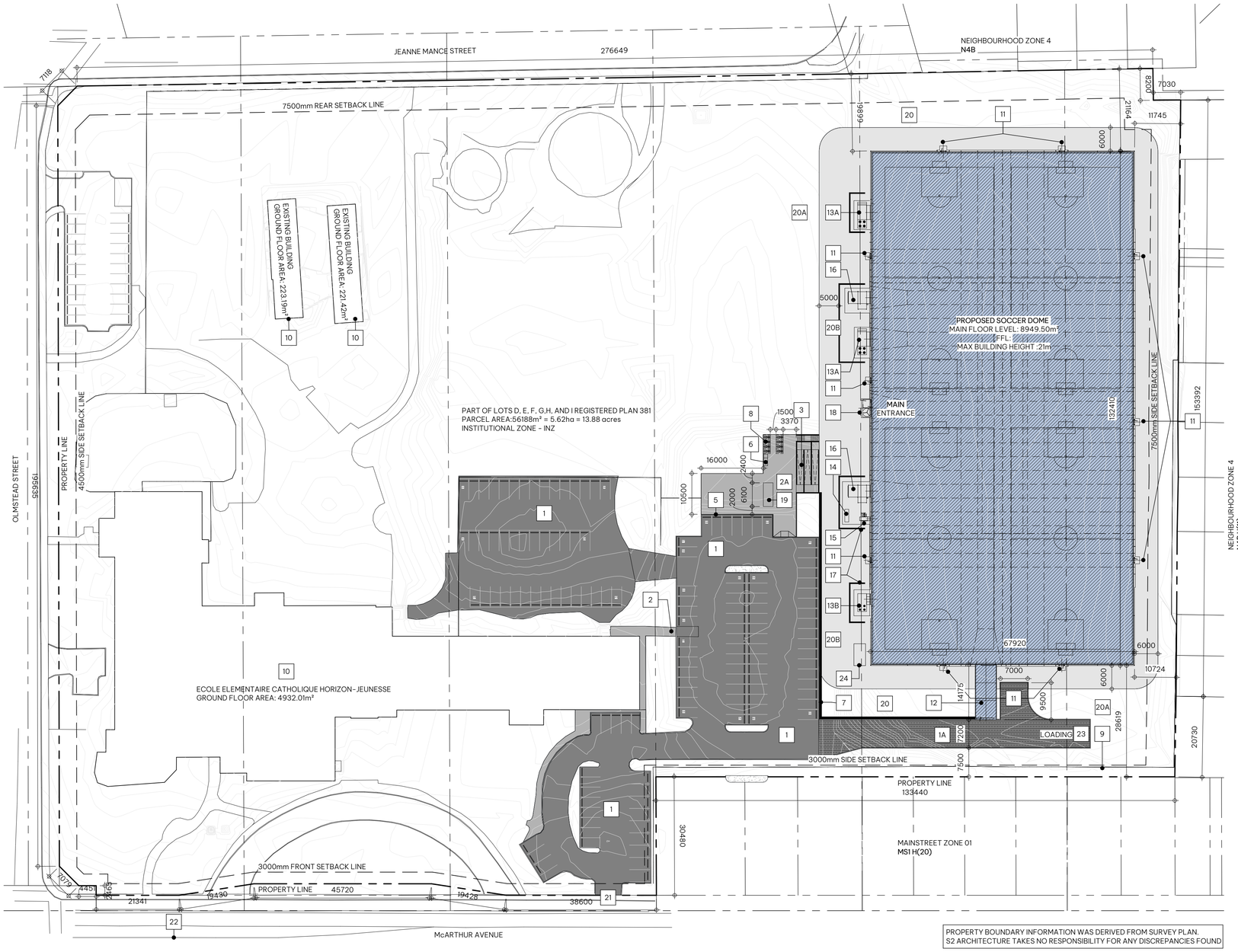
8.0 CONCLUSIONS AND RECOMMENDATIONS

Based on our reflection of the proposed development along with all supporting documentation, the following conclusions and recommendations are made:

- Storm servicing for the proposed site will be achieved via a 300mm storm sewer connection into the existing 450mm diameter municipal sewer on Jeanne Mance Street
- SWM quantity control is achieved using on-site storage tank, and a 209mm orifice plate to restrict flows.

APPENDIX A

SUPPORTING DOCUMENTATION



1 DP - Site / Concept Plan

DP0.03 SCALE:1 : 600

Site Plan - Keynote Legend

1	EXISTING ASPHALT ACCESS LANEWAY AND PARKING	8	PROPOSED BIKE PARKING (16 STALLS)	17	4m HIGH SOUND BARRIER
1A	PROPOSED ASPHALT ACCESS LANEWAY	9	FENCE	18	COMBO UNIT ENTRANCE TO DOME
2	EXISTING CONCRETE SIDEWALK	10	EXISTING SCHOOL BUILDING	19	SELF- CONTAINED WASHROOMS
2A	PROPOSED CONCRETE SIDEWALK	11	SINGLE EMERGENCY EXIT	20A	SNOW STORAGE AREA
3	ACCESSIBLE RAMP	12	VEHICLE AIRLOCK	20B	ASPHALT SNOW REMOVAL PATHWAY
4	PROPOSED SOFTSCAPE LANDSCAPING - REFER TO LANDSCAPING	13A	A/C RECIRC UNIT (40TON)	21	EXISTING SITE ENTRANCE CURB CUT
5	CONCRETE CURB	13B	A/C RECIRC UNIT (30TON)	22	CENTRE LINE OF ROAD
6	WASTE AND RECYCLING BINS	14	BACKUP GENERATOR	23	LOADING STALL
7	RETAINING WALL WITH GUARDRAIL - REFER TO LANDSCAPE AND CIVIL DRAWINGS FOR DETAILS	15	STANDBY INFLATION FAN	24	ELECTRICAL ROOM
		16	HEAT AND INFLATION UNIT		

Site Plan - General Notes

1. REFER TO SITE SERVICING PLAN FOR SPECIFIC RELATED REQUIREMENTS
2. REFER ALSO TO THE LANDSCAPE PLAN
3. ALL EXISTING FENCING TO BE REMOVED UNLESS OTHERWISE INDICATED
4. ALL EXISTING TREES TO REMAIN UNLESS OTHERWISE INDICATED
5. ALL AREAS NOT INDICATED AS PAVED/HARD SURFACING TO BE GRASSED

Site Plan - Symbol Legend

- INDICATES EXTENT AND LOCATION OF PROPOSED BUILDING
- INDICATES EXTENT AND LOCATION OF CONCRETE SIDEWALK
- INDICATES EXTENT AND LOCATION OF ASPHALT (EXISTING)
- INDICATES EXTENT AND LOCATION OF ASPHALT (PROPOSED)
- INDICATES EXTENT AND LOCATION OF ASPHALT SNOW REMOVAL PATHWAY
- INDICATES EXTENT AND LOCATION OF SOFT LANDSCAPING - REFER TO LANDSCAPE DRAWINGS
- INDICATES PROPERTY LINE (SCALED DOWN FOR CLARITY)
- INDICATES SETBACK LINE (SCALED DOWN FOR CLARITY)
- INDICATES LINE OF FENCE
- INDICATES LOCATION OF PROPOSED CATCH BASIN
- OR INDICATES LOCATION OF EXISTING CATCH BASIN
- INDICATES LOCATION OF PROPOSED MANHOLE
- INDICATES LOCATION OF EXISTING MANHOLE
- INDICATES LOCATION OF PROPOSED FIRE HYDRANT
- INDICATES LOCATION OF EXISTING FIRE HYDRANT
- INDICATES LOCATION OF BUILDING SIAMESE CONNECTION
- INDICATES LOCATION OF PROPOSED TRANSFORMER / PEDESTAL
- INDICATES LOCATION OF EXISTING TRANSFORMER / PEDESTAL
- INDICATES LOCATION OF PROPOSED LIGHT STANDARD
- INDICATES LOCATION OF EXISTING LIGHT STANDARD
- INDICATES LOCATION OF PROPOSED POWER POLE
- INDICATES LOCATION OF PROPOSED POWER POLE ANCHOR
- INDICATES LOCATION OF EXISTING POWER POLE
- INDICATES LOCATION OF EXISTING POWER POLE ANCHOR
- INDICATES LOCATION OF PROPOSED LIGHT BOLLARD
- INDICATES LOCATION OF EXISTING LIGHT BOLLARD
- INDICATES LOCATION OF PROPOSED CAR PLUG POST
- INDICATES LOCATION OF PROPOSED CONCRETE WHEEL STOP
- INDICATES HANDICAP PARKING SYMBOL PAINTED ON ASPHALT SURFACE
- INDICATES PARKING LINE PAINTED ON ASPHALT
- INDICATES LOCATION OF PROPOSED GUARD BOLLARD
- INDICATES LOCATION OF BIKE RACK
- INDICATES LOCATION OF PROPOSED FLAG POLE
- EV INDICATES "EMERGENCY VEHICLE NO PARKING" POST MOUNTED SIGNAGE
- H C INDICATES "HANDICAP PARKING SYMBOL" POLE MOUNTED SIGNAGE
- LZ INDICATES "LOADING ZONE" POST MOUNTED SIGNAGE
- NP INDICATES "NO PARKING" POST MOUNTED SIGNAGE
- ST INDICATES "STOP" POST MOUNTED SIGNAGE
- VP INDICATES "VISITOR PARKING" POST MOUNTED SIGNAGE
- INDICATES EXISTING GEODETIC SPOT ELEVATION
- INDICATES PROPOSED GEODETIC SPOT ELEVATION

S2ARCHITECTURE
CALGARY | EDMONTON | VANCOUVER

CONSULTANT INFORMATION

OTTAWA FOOTY SEVENS DOME
Recreational Dome

349 Olmstead Street Ottawa ON K1L 7K2, OTTAWA, ONTARIO

CLIENT
OTTAWA FOOTY SEVENS (OFS)

NOTE

- This drawing supercedes previous issues. Do not scale these drawings.
- Verify all dimensions, elevations and datums, and report any discrepancies to the Architect prior to construction.
- The Contract Documents (Drawings and Specifications) are complimentary, what is required by one shall be as binding as required by all.
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SEALS

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SCALE As indicated
DATE 8/31/2026 9:00:27 AM
DRAWN BY Author
CHECKED BY Checker
PROJECT NO. 225105

TRUE NORTH

DRAWING TITLE
SITE PLAN

DRAWING NO.
DP0.03

C:\Revit Projects\225105-A-Base_JJtionUD6H8.rvt



Stantec

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TOPOGRAPHIC PLAN OF SURVEY OF
PART OF LOTS D, E, F, G H & I
REGISTERED PLAN 381

CITY OF OTTAWA

Scale 1:300

5 0 5 10 15 20 METRES

Stantec Geomatics Ltd.
ONTARIO LAND SURVEYORS

METRIC CONVERSION
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

HORIZONTAL DATUM NOTE
PROJECTION: MODIFIED TRANSVERSE MERCATOR (MTM, ZONE 9, CM76°30'W)
DATUM: NAD 83 (ORIGINAL)

DISTANCES ON THIS PLAN ARE GROUND AND MAY BE CONVERTED TO GRID DISTANCES BY DIVIDING BY A COMBINED SCALE FACTOR OF 0.99994.

VERTICAL DATUM NOTE
ELEVATIONS ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD-1928:1978)

CONTOURS ARE TO 0.10 METRES

LEGEND

■	DENOTES	FOUND MONUMENTS
□	"	SET MONUMENTS
IB	"	IRON BAR
IBø	"	ROUND IRON BAR
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
CC	"	CUT CROSS
CP	"	CONCRETE PIN
WIT	"	WITNESS
PIN	"	PROPERTY IDENTIFICATION NUMBER
M/MEAS	"	MEASURED
PROP	"	PROPORTIONED
OU	"	ORIGIN UNKNOWN
SG	"	STANTEC GEOMATICS LTD.
PL	"	PLAN BY STANTEC GEOMATICS DATED SEPTEMBER 4th 2021
PL1	"	PLAN BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. SEPTEMBER 19, 2025
PL2	"	PLAN BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD. JANUARY 20, 2025
ACU	"	AIR CONDITIONING UNIT
AN	"	ANCHOR
AP	"	AIR PUMP
ANT	"	ANTENNA
BH	"	BOREHOLE
BIB	"	HOSE BIB
BKR	"	BIKE RACK
BENCH	"	BENCH
BOL	"	BOLLARD
BOUL	"	BOULDER
CB	"	CATCH BASIN
DICB	"	DOUBLE CB
CBMH	"	CB MANHOLE
DCBMH	"	DOUBLE CB MANHOLE
SICB	"	SIDE INLET CB
CHM	"	CHIMNEY
CO	"	CLEAN OUT
CSV	"	CURB STOP VALVE
DRN	"	DRAIN
EPOST	"	ELECTRICAL OUTLET
FP	"	FLAG POLE
FL	"	FLOOD LIGHT
FTF	"	FUEL TANK FILLER CAP
GC	"	GARBAGE CAN
GFL	"	PIPE FLANGE (GAS)
GFP	"	GAS FUEL PUMP
GP	"	POLE GUYWIRE
GSR	"	GAS SERVICE REGULATOR
GV	"	GAS VALVE
HIC	"	HICKENBOTTOM
HDS	"	HEADSTONE
HLS	"	HYDRO LIGHT STANDARD
HM	"	HYDRO METER
HTN	"	HYDRO TRANSFORMER
HW	"	HAND WELL
HYD	"	FIRE HYDRANT
JBX	"	JUNCTION BOX
LS	"	LIGHT STANDARD
MB	"	MAILBOX
MP	"	MONITORING PIN
MH	"	MAINTENANCE HOLE UNIDENTIFIED
MHB	"	MAINTENANCE HOLE BELL
MHF	"	MAINTENANCE HOLE FIBRE OPTIC
MHH	"	MAINTENANCE HOLE HYDRO
MHSAN	"	MAINTENANCE HOLE SANITARY
MHSTM	"	MAINTENANCE HOLE STORM
MHT	"	MAINTENANCE HOLE TRAFFIC
MW	"	MONITORING WELL
NPB	"	NEWS PAPER BOX
OLS	"	LIGHT STANDARD ORNAMENTAL
OW	"	OBSERVATION WELL
PKM	"	PARKING METER
PLBX	"	PULL BOX
PLQ	"	PLAQUE
PLR	"	PILLAR
PZ	"	PIEZOMETER
RLC	"	RED LIGHT CAMERA
RWSL	"	RAILWAY SIGNAL LIGHT
RWSS	"	RAILWAY SWITCH STAND
SAT	"	SATELLITE DISH
SCLP	"	SCULPTURE
SCP	"	SUMP/CATCH PIT
SCV	"	SPRINKLER CONTROL VALVE
SH	"	SPRINKLER HEAD
SIA	"	SIAMESE CONNECTION
SN	"	SIGN
SPAN	"	SOLAR PANEL
SPT	"	SEPTIC TANK LID
TBL	"	TABLE
TB BELL	"	TERMINAL BOX - BELL
TB CATV	"	TERMINAL BOX - CABLE
TCB	"	TRAFFIC CONTROL BOX
TPIT	"	TEST PIT
TSL	"	TRAFFIC SIGNAL LIGHT
UMB	"	MARKER BELL UNDERGROUND
UMC	"	MARKER CABLE UNDERGROUND
UMG	"	MARKER GAS UNDERGROUND
UMO	"	MARKER OIL UNDERGROUND
UP	"	UTILITY POLE
VB	"	VALVE BOX
VC	"	VALVE CHAMBER
WV	"	WATER VALVE
	"	TREE STUMP
	"	TREE CONIFEROUS (D.B.H. SHOWN)
	"	TREE DECIDUOUS (D.B.H. SHOWN)
—— T ——	"	UNDERGROUND TELEPHONE
—— P ——	"	UNDERGROUND HYDRO
—— WTM ——	"	WATERMAIN
—— G ——	"	GASMAIN
—— STM ——	"	STORM SEWER
—— FOTS ——	"	UNDERGROUND FIBRE OPTIC
—— OHW ——	"	OVERHEAD WIRE
—— SAN ——	"	SANITARY SEWER
—— CATV ——	"	UNDERGROUND CABLE
—— P ——	"	UNDERGROUND HYDRO
—— T ——	"	UNDERGROUND TELEPHONE

SURVEYOR'S CERTIFICATE
I CERTIFY THAT :
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 8th DAY OF JULY, 2026.

DATE

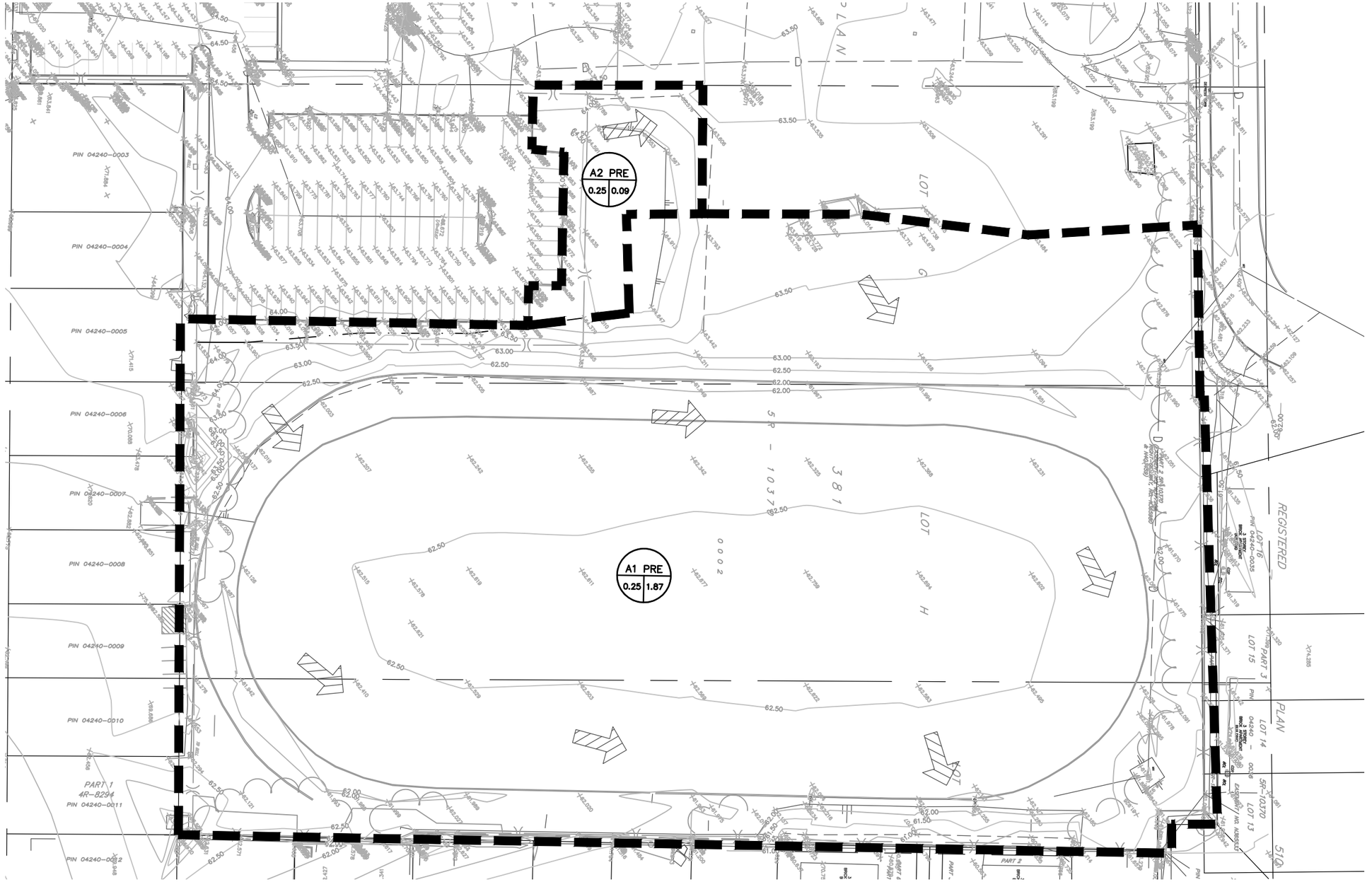
ADAM PAINE
ONTARIO LAND SURVEYOR

THIS PLAN OF SURVEY RELATES TO AOLS PLAN SUBMISSION FORM NUMBER ######.

DRAWN: DM CHECKED: AP PM: AP FIELD: CA\ZL\RJ\AW PROJECT No.: 161614940-111

APPENDIX B

STORMWATER MANAGEMENT



APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

CLIENT: CONSEIL DES ÉCOLESCATHOLIQUE DU CENTRE-EST,HORIZON-JEUNESSE; OTTAWA FOOTY SEVENS

PROJECT: HORIZON-JEUNESSE DOME
349 OLMSTEAD STREET, OTTAWA

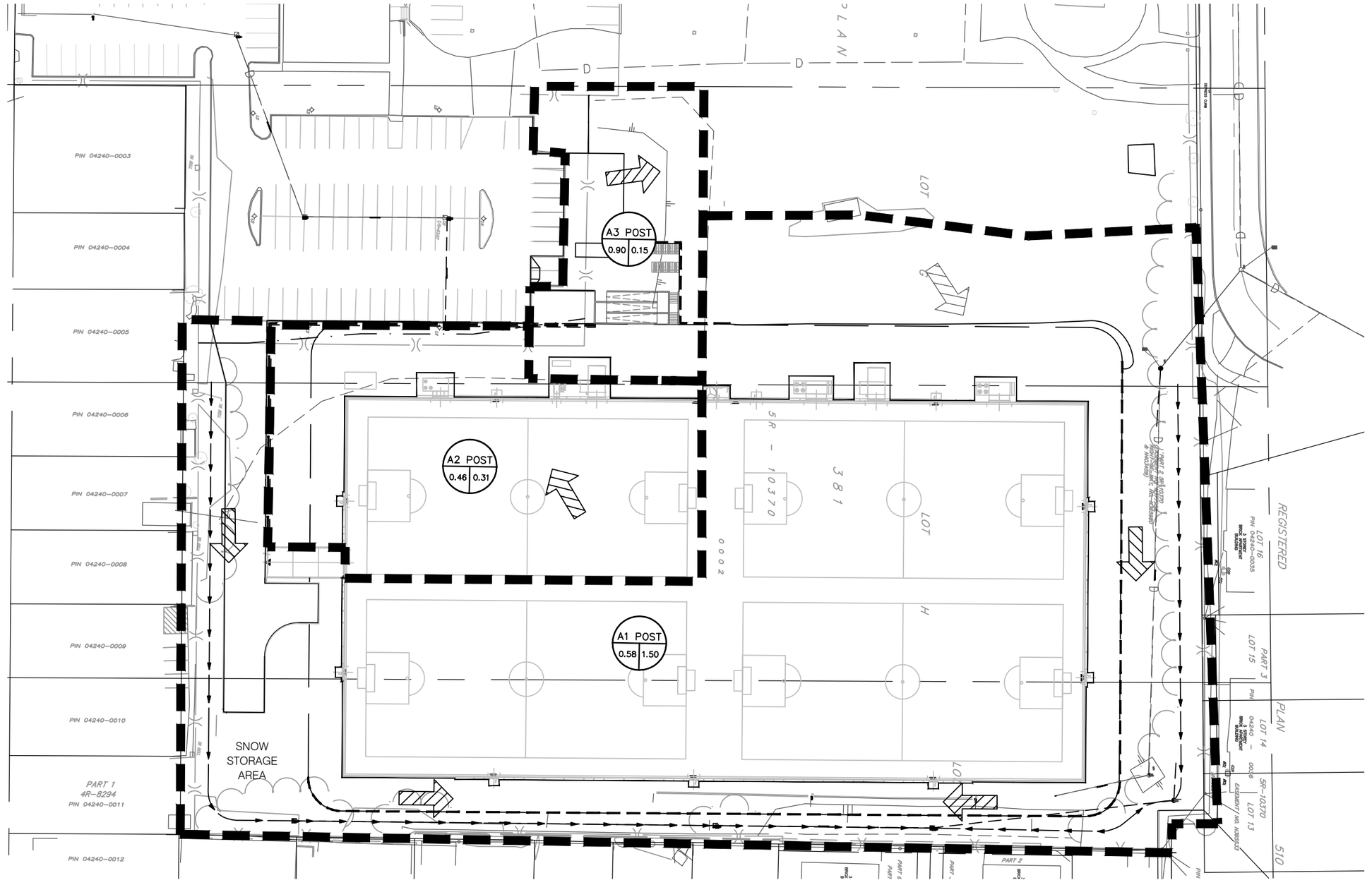
LEGEND:
PRE-DEVELOPMENT DRAINAGE AREA
EX. GRADE ×62.50
EX. OVERLAND FLOW DIRECTION

A1 PRE (DRAINAGE AREA ID)
0.20 (RUN OFF COEFFICIENT) 2.00 (DRAINAGE AREA (ha))

TITLE: **PRE-DEVELOPMENT DRAINAGE AREA PLAN**

PROJECT NO.	DRAWING DATE:
25-7824	SEPTEMBER 2026
FIGURE NO. FIG-01	SCALE : 1:750

Sep 18 2026 - 2:12pm M:\YOR\2025\25-7824\DWG\ONSITE PRODUCTION\Figures\25-7824 - FIG 01 PRE DEV DAP.dwg/PRE-DEVELOPMENT DRAINAGE AREA PLAN ssomebdini



APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

CLIENT: **CONSEIL DES ÉCOLESCATHOLIQUE DU CENTRE-EST,HORIZON-JEUNESSE; OTTAWA FOOTY SEVENS**

PROJECT: **HORIZON-JEUNESSE DOME**
349 OLMSTEAD STREET, OTTAWA

LEGEND:

POST–DEVELOPMENT DRAINAGE AREA

PROP. GRADE ×62.50

PROP. OVERLAND FLOW DIRECTION

A1 POST (0.20 | 2.00) — RUN OFF COEFFICIENT; DRAINAGE AREA ID; DRAINAGE AREA (ha)

TITLE: **POST-DEVELOPMENT DRAINAGE AREA PLAN**

PROJECT NO.	DRAWING DATE:
25-7824	SEPTEMBER 2026
FIGURE NO.	SCALE :
FIG-02	1:750

Sep 18 2026 – 2:13pm M:\TOR\2025\25-7824\plan\ONSITE PRODUCTION\Figures\25-7824 – FIG 01 POST DEV DAP.dwg/POST ssamsodini

Project:	Horizon-Jeunesse Dome
A&M File:	25-7824
Date:	18Sep-26
By:	SS

Pre-Development Runoff Coefficient

A1 Pre	Total Area	1.87	C (2-10 YR)	C (25 YR)	C (50 YR)	C (100 YR)
	Pervious	1.87	0.25	0.28	0.30	0.31
	Impervious	0.00	0.90	0.99	1.00	1.00
	Composite 'C'		0.25	0.28	0.30	0.31

A2 Pre	Total Area	0.09	C (2-10 YR)	C (25 YR)	C (50 YR)	C (100 YR)
	Pervious	0.09	0.25	0.28	0.30	0.31
	Impervious	0.00	0.90	0.99	1.00	1.00
	Composite 'C'		0.25	0.28	0.30	0.31

Pre-Development Peak Flows

Area ID	A (ha)	C	Tc (min)
A1 + A2 Pre	1.96	0.31	10.00

City/Town of: Ottawa

Storm Frequency (Yr)	a	b	c
2	733	6.20	0.81
5	998	6.05	0.81
10	1174	6.01	0.82
25	1403	6.02	0.82
50	1570	6.01	0.82
100	1736	6.01	0.82

Storm Frequency: 2 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Pre	0.47	76.81	0.10	99.7
A2 Pre	0.02	76.81	0.00	4.8
A1+A2 Pre	0.49	76.81	0.10	104.5

Storm Frequency: 5 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Pre	0.47	104.19	0.14	135.3
A2 Pre	0.02	104.19	0.01	6.5
A1+A2 Pre	0.49	104.19	0.14	141.8

Storm Frequency: 10 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Pre	0.47	122.14	0.16	158.6
A2 Pre	0.02	122.14	0.01	7.6
A1+A2 Pre	0.49	122.14	0.17	166.2

Storm Frequency: 25 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Pre	0.51	145.90	0.21	208.4
A2 Pre	0.02	145.90	0.01	10.0
A1+A2 Pre	0.54	145.90	0.22	218.4

Storm Frequency: 50 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Pre	0.56	161.47	0.25	251.6
A2 Pre	0.03	161.47	0.01	12.1
A1+A2 Pre	0.59	161.47	0.26	263.7

Storm Frequency: 100 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Pre	0.58	178.56	0.29	289.8
A2 Pre	0.03	178.56	0.01	13.9
A1+A2 Pre	0.61	178.56	0.30	303.8

Project:	Horizon-Jeunesse Dome
A&M File:	25-7824
Date:	18Sep-26
By:	SS

Post-Development Runoff Coefficient

A1 Post	Total Area	1.50	C (2-10 YR)	C (25 YR)	C (50 YR)	C (100 YR)
	Pervious	0.73	0.25	0.28	0.30	0.31
	Impervious	0.77	0.90	0.99	1.00	1.00
	Composite 'C'		0.58	0.64	0.66	0.67

A2 Post	Total Area	0.31	C (2-10 YR)	C (25 YR)	C (50 YR)	C (100 YR)
	Pervious	0.21	0.25	0.28	0.30	0.31
	Impervious	0.10	0.90	0.99	1.00	1.00
	Composite 'C'		0.46	0.51	0.53	0.53

A3 Post	Total Area	0.15	C (2-10 YR)	C (25 YR)	C (50 YR)	C (100 YR)
	Pervious	0.00	0.25	0.28	0.30	0.31
	Impervious	0.15	0.90	0.99	1.00	1.00
	Composite 'C'		0.90	0.99	1.00	1.00

Post-Development Peak Flows

Area ID	A (ha)	C	Tc (min)
A1+A2+A3 Post	1.96	0.67	10.00

IDF Data : Ottawa

Storm Frequency (Yr)	a	b	c
2	732.95	6.20	0.81
5	998.07	6.05	0.81
10	1174.18	6.01	0.82
25	1402.88	6.02	0.82
50	1569.58	6.01	0.82
100	1735.69	6.01	0.82

Storm Frequency: 2 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Post	0.88	76.81	0.19	186.8
A2 Post	0.14	76.81	0.03	30.4
A3 Post	0.14	76.81	0.03	28.8
A1+A2+A3 Post	1.15	76.81	0.25	246.0

Storm Frequency: 5 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Post	0.88	104.19	0.25	253.4
A2 Post	0.14	104.19	0.04	41.2
A3 Post	0.14	104.19	0.04	39.1
A1+A2+A3 Post	1.15	104.19	0.33	333.7

Storm Frequency: 10 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Post	0.88	122.14	0.30	297.0
A2 Post	0.14	122.14	0.05	48.3
A3 Post	0.14	122.14	0.05	45.8
A1+A2+A3 Post	1.15	122.14	0.39	391.2

Storm Frequency: 25 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Post	0.96	145.90	0.39	390.3
A2 Post	0.16	145.90	0.06	63.5
A3 Post	0.15	145.90	0.06	60.2
A1+A2+A3 Post	1.27	145.90	0.51	514.0

Storm Frequency: 50 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Post	0.99	161.47	0.44	443.6
A2 Post	0.16	161.47	0.07	73.1
A3 Post	0.15	161.47	0.07	67.3
A1+A2+A3 Post	1.30	161.47	0.58	584.0

Storm Frequency: 100 Year

Area ID	AC	I (mm/hr)	Q (m^3/s)	Q (L/s)
A1 Post	1.00	178.56	0.50	495.1
A2 Post	0.17	178.56	0.08	82.1
A3 Post	0.15	178.56	0.07	74.4
A1+A2+A3 Post	1.31	178.56	0.65	651.6

APLIN MARTIN

Project: Horizon-Jeunesse Dome
A&M File: 25-7824

Date: 18Sep-26
By: SS

Storage Volume Required - Modified Rational Method(5 Year Design Storm)

Area	1.50	ha
Runoff Coefficient	0.58	
AC	0.88	
Controlled Target Release Rate	0.135	m^3/s
Controlled Release Rate	0.058	m^3/s
Required Storage	135.6	m^3

Town's IDF Data		Controlled			
Rainfall Duration Tr	Rainfall Intensity I	Storm Runoff	Runoff Volume	Released Volume	Required Storage
min	mm/hour	cms	cm	cm	cm
10	104	0.25	152.04	34.73	**117.31**
15	84	0.20	182.89	52.09	**130.80**
20	70	0.17	205.02	69.45	**135.57**
25	61	0.15	222.14	86.81	**135.33**
30	54	0.13	236.07	104.18	**131.89**
35	49	0.12	247.78	121.54	**126.24**
40	44	0.11	257.89	138.90	**118.99**
45	41	0.10	266.78	156.26	**110.51**
50	38	0.09	274.71	173.63	**101.08**
55	35	0.09	281.88	190.99	**90.89**
60	33	0.08	288.42	208.35	**80.07**
65	31	0.08	294.44	225.72	**68.72**
70	29	0.07	300.01	243.08	**56.93**
75	28	0.07	305.20	260.44	**44.76**
80	27	0.06	310.07	277.80	**32.26**
85	25	0.06	314.64	295.17	**19.48**
90	24	0.06	318.97	312.53	**6.44**
95	23	0.06	323.06	329.89	**0.00**
100	22	0.05	326.96	347.26	**0.00**
105	22	0.05	330.67	364.62	**0.00**
110	21	0.05	334.22	381.98	**0.00**
115	20	0.05	337.62	399.34	**0.00**
120	19	0.05	340.88	416.71	**0.00**

Storage Volume Calculation

U/G Superpipe	Equivalent Diameter	Area	Length	Volume
	(mm)	(m^2)	(m)	(m^3)
	300	0.07	174.00	12.30
Sum				**12.30**

U/G Tank	Depth	Wdith	Length	Volume
	(m)	(m)	(m)	(m^3)
	1.4	4.00	60.00	252.00
Sum				**252.00**

Total Storage Provided				**264.30**

APLIN MARTIN

Project: Horizon-Jeunesse Dome
A&M File: 25-7824

Date: 18Sep-26
By: SS

Storage Volume Required - Modified Rational Method(100 Year Design Storm)

Area	1.50	ha
Runoff Coefficient	0.67	
AC	1.00	
Controlled Target Release Rate	0.135	m^3/s
Controlled Release Rate	0.133	m^3/s
Required Storage	239.2	m^3

Town's IDF Data		Controlled			
Rainfall Duration Tr	Rainfall Intensity I	Storm Runoff	Runoff Volume	Released Volume	Required Storage
min	mm/hour	cms	cm	cm	cm
10	179	0.50	297.04	79.94	217.10
15	143	0.40	356.57	119.92	236.65
20	120	0.33	399.09	159.89	239.20
25	104	0.29	431.88	199.86	232.02
30	92	0.25	458.48	239.83	218.65
35	83	0.23	480.81	279.81	201.00
40	75	0.21	500.03	319.78	180.25
45	69	0.19	516.91	359.75	157.16
50	64	0.18	531.95	399.72	132.23
55	60	0.17	545.53	439.70	105.83
60	56	0.15	557.90	479.67	78.23
65	53	0.15	569.27	519.64	49.63
70	50	0.14	579.79	559.61	20.18
75	47	0.13	589.59	599.59	0.00
80	45	0.12	598.75	639.56	0.00
85	43	0.12	607.37	679.53	0.00
90	41	0.11	615.51	719.50	0.00
95	39	0.11	623.21	759.48	0.00
100	38	0.11	630.53	799.45	0.00
105	36	0.10	637.51	839.42	0.00
110	35	0.10	644.17	879.39	0.00
115	34	0.09	650.55	919.36	0.00
120	33	0.09	656.66	959.34	0.00

Storage Volume Calculation

U/G Superpipe	Equivalent Diameter	Area	Length	Volume
	(mm)	(m^2)	(m)	(m^3)
	300	0.07	174.00	12.30
Sum				12.30

U/G Tank	Depth	Wdith	Length	Volume
	(m)	(m)	(m)	(m^3)
	1.4	4.00	60.00	252.00
Sum				252.00

Total Storage Provided				264.30

APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

Horizon-Jeunesse Dome

Project: Horizon-Jeunesse Dome
A&M File: 25-7824

Date: 18Sep-26
By: SS

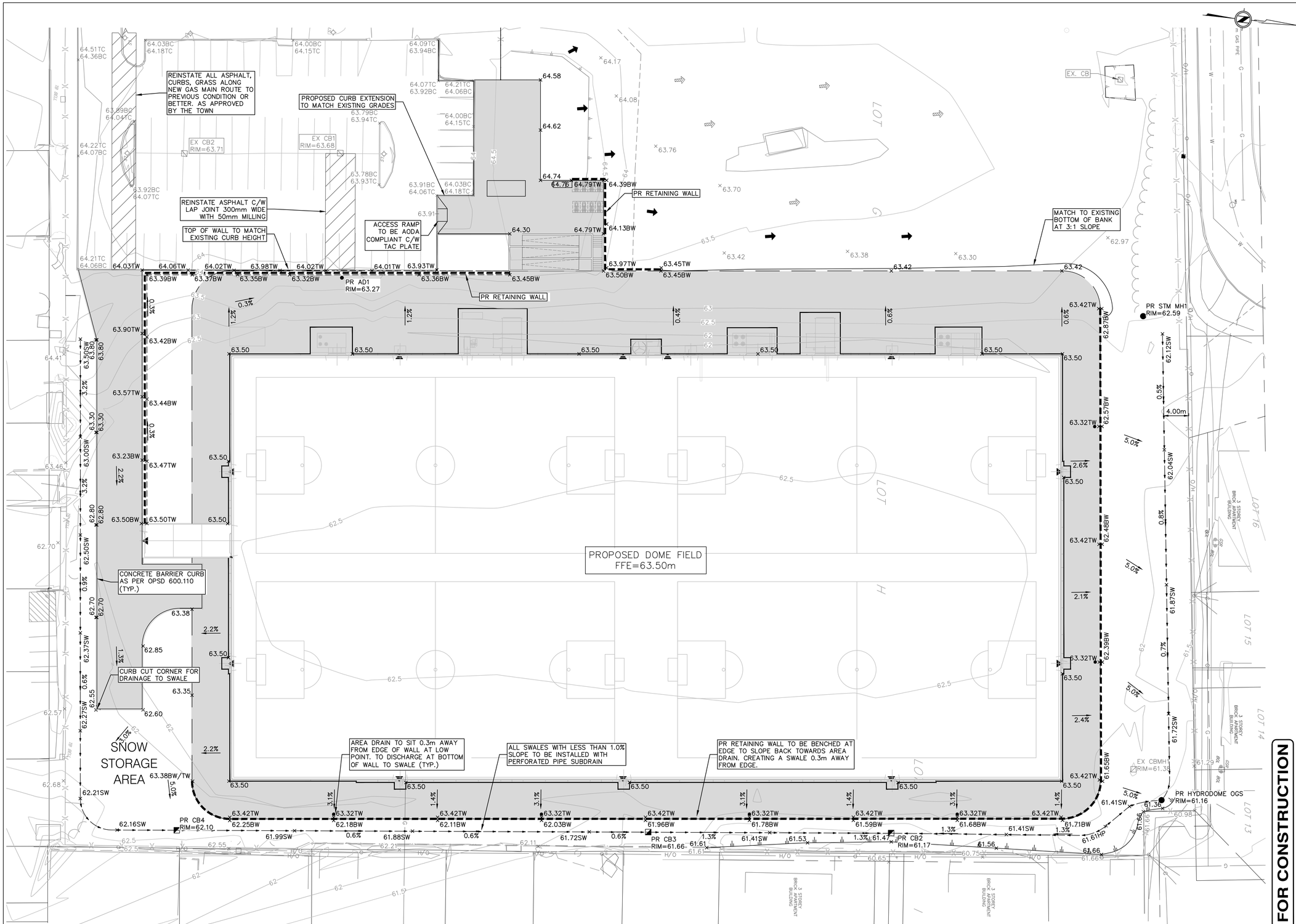
Orifice Plate Calculations

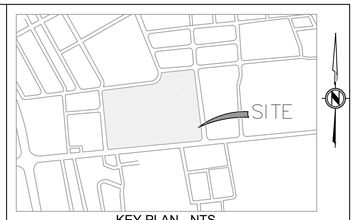
Orifice Equation: $$Q = C \times A \times \sqrt{2 \times g \times h}$$

Storm Frequency	Coefficient	Post-Development Flowrate	Pre-Development Target	Head	Proposed Diameter	Area	Release Rate
Yr		m^3/s	m^3/s	m	mm	m^2	m^3/s
2	0.62	0.187	0.100	0.30	209	0.034	0.052
100	0.62	0.495	0.135	2.00	209	0.034	0.133

APPENDIX C

ENGINEERING DRAWINGS





LEGEND

- PROPERTY LINE
- BUILDING UNDERGROUND LIMIT
- PROPOSED SWALE
- PROPOSED TOP OF BANK
- PROPOSED BARRIER CURB
- ASPHALT
- CONCRETE
- ROAD RESTORATION
- EXISTING/PROPOSED ELEVATION ×252.76 / ×252.76
- PROPOSED SWALE ELEVATION ×249.69SW
- PROPOSED TOP/BOTTOM OF STAIR ELEVATION ×249.69BST/×249.69TST
- TOP/BOTTOM OF CURB ELEVATION ×274.78TC/BC
- GRADE 2.0%
- EXISTING/PROPOSED OVERLAND FLOW ROUTE
- FFE – FIRST FLOOR ELEVATION (m) FFE=90.35
- BUILDING ENTRANCE
- OVERHEAD DOOR ENTRANCE
- EXISTING/PROPOSED CATCH BASIN
- EXISTING/PROPOSED MANHOLE
- PROPOSED CATCH BASIN MANHOLE
- EXISTING/PROPOSED FIRE HYDRANT
- PROPOSED AREA DRAIN
- PROPOSED TREE PROTECTION FENCE
- PROPOSED TRENCH DRAIN

Ottawa ENGINEERING AND CONSTRUCTION SERVICES DIVISION

ACCEPTED TO BE IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS

THIS ACCEPTANCE IS NOT TO BE CONSTRUED AS VERIFICATION OF ENGINEERING CONTENT.

MANAGER, DEVELOPMENT ENGINEERING

REV	DATE	DESCRIPTION	BY	APP
1	09/18/2026	ISSUED FOR SPA SUBMISSION	KH	JS

LICENSED PROFESSIONAL ENGINEER M.A.MELANSON 100569759 2026-09-18 PROVINCE OF ONTARIO

ENGINEER STAMP

TOPOGRAPHICAL PLAN OF SURVEY OF PART OF LOTS D, E, F, G H & I REGISTERED PLAN 381 CITY OF OTTAWA

LEGAL DESCRIPTION

ELEVATIONS ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD–1928:1978)

DATUM NOTE

APLIN MARTIN

Aplin & Martin Consultants Ltd.
1000 Innovation Drive, Suite 500, Kanata, ON Canada K2K 3E7
Tel: (613) 809-3889, Email: general@aplinmartin.com

CLIENT
CONSEIL DES ÉCOLES CATHOLIQUE DU CENTRE-EST, HORIZON-JEUNESSE; OTTAWA FOOTY SEVENS
349 OLMSTEAD STREET, OTTAWA

PROJECT
HORIZON-JEUNESSE DOME
349 OLMSTEAD STREET, OTTAWA

DRAWING TITLE
SITE GRADING PLAN

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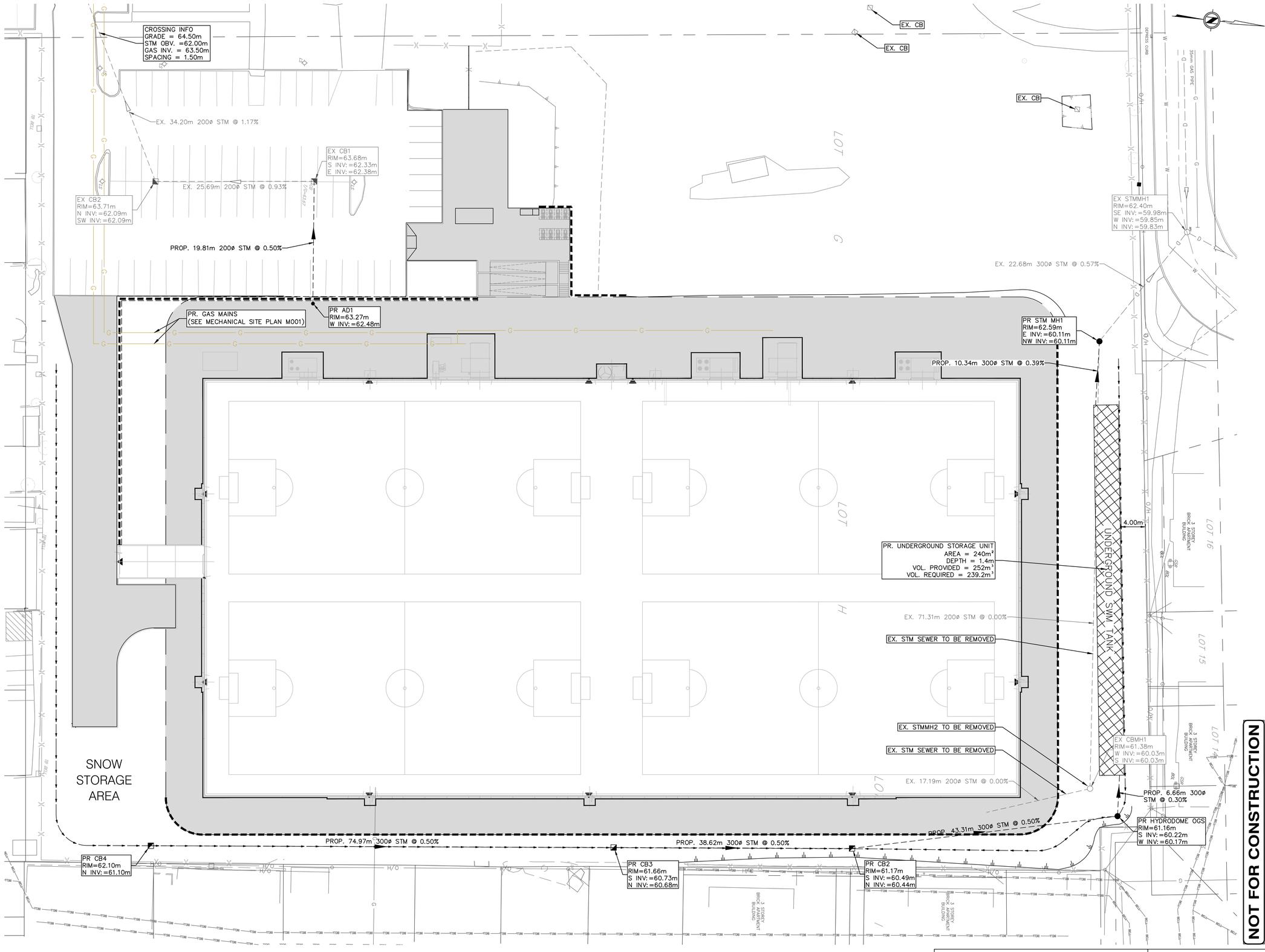
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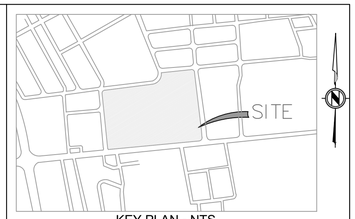
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DESIGN KH	DRAWING START DATE AUGUST 2026	SCALE 1: 300	
DRAWN SS	PROJECT NO. 25–7824		
CHECKED MM	DRAWING NO. C01	REV. 1	
APPROVED MM			

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Sep 18 2026 – 2:48pm M:\TOR\2025\25–7824\DWG\ONSITE PRODUCTION\25–7824 – C01 – Site Grading Plan.dwg/SITE GRADING PLAN ssamedoni





KEY PLAN - NTS

LEGEND

PROPERTY LINE	
BUILDING UNDERGROUND LIMIT	
PROPOSED SWALE	
PROPOSED TOP OF BANK	
PROPOSED BARRIER CURB	
ASPHALT	
CONCRETE	
CONCRETE	
ROAD RESTORATION	
EXISTING/PROPOSED ELEVATION	×252.76 / ×252.76
PROPOSED SWALE ELEVATION	×249.69SW
PROPOSED TOP/BOTTOM OF STAIR ELEVATION	×249.69BST/×249.69TST
TOP/BOTTOM OF CURB ELEVATION	×274.78TC/BC
GRADE	2.0%
EXISTING/PROPOSED OVERLAND FLOW ROUTE	/
FFE – FIRST FLOOR ELEVATION (m)	FFE=90.35
BUILDING ENTRANCE	
OVERHEAD DOOR ENTRANCE	
EXISTING/PROPOSED CATCH BASIN	/
EXISTING/PROPOSED MANHOLE	/
PROPOSED CATCH BASIN MANHOLE	
EXISTING/PROPOSED FIRE HYDRANT	/
PROPOSED AREA DRAIN	
PROPOSED TREE PROTECTION FENCE	
PROPOSED TRENCH DRAIN	

Ottawa ENGINEERING AND CONSTRUCTION SERVICES DIVISION

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MANAGER, DEVELOPMENT ENGINEERING

REV	DATE	DESCRIPTION	BY	APP
1	09/18/2026	ISSUED FOR SPA SUBMISSION	KH	JS

LICENSED PROFESSIONAL ENGINEER
M.A.MELANSON
100569759
2026-09-18
PROVINCE OF ONTARIO

ENGINEER STAMP

TOPOGRAPHICAL PLAN OF SURVEY OF PART OF LOTS D, E, F, G H & I REGISTERED PLAN 381 CITY OF OTTAWA

LEGAL DESCRIPTION

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CLIENT
CONSEIL DES ÉCOLES CATHOLIQUE DU CENTRE-EST, HORIZON-JEUNESSE; OTTAWA FOOTY SEVENS
349 OLMSTEAD STREET, OTTAWA

PROJECT
HORIZON-JEUNESSE DOME
349 OLMSTEAD STREET, OTTAWA

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DESIGN	KH	DRAWING START DATE	AUGUST 2026
DRAWN	SS	PROJECT NO.	25–7824
CHECKED	MM	SCALE	1: 300
APPROVED	MM	DRAWING NO.	C02
		REV.	1

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