Storage Requirements

2-year **1.75 m³**

100-year **7.37 m³**

Surface Type	ID	Area (ha)	Percent of total Area	Required Storage 5 year	Required Storage 100 year	Max Allowed Drain Outflow l/s	Max Allowed Drain Outflow GPM
Roof	A1	0.0087	50.0%	0.88	3.68	1.04	8.20
Roof	A2	0.0087	50.0%	0.88	3.68	1.04	8.20
TOTAL		0.0175	100.0%	1.75	7.37	2.07	16.41

Stage-Storage

Roof A1 (Scupper 1)			Roof A2 (Scupper 2)		
Depth m	Area m^2	Volume m^3	Depth m	Area m^2	Volume m^3
0.020	9.10	0.09	0.020	9.10	0.09
0.04	**40.00**	**0.80**	**0.04**	**40.00**	**0.80**
0.055	**65.00**	**1.79**	**0.055**	**65.00**	**1.79**
0.065	**115**	**3.74**	**0.065**	**115**	**3.74**

Legend:
- data for 2-year event
- data for 100-year event

DETAIL 2: INTERIOR DRAINAGE WITH DISCHARGE TO SURFACE

DETAIL 3: BALCONY & RAMP DRAIN

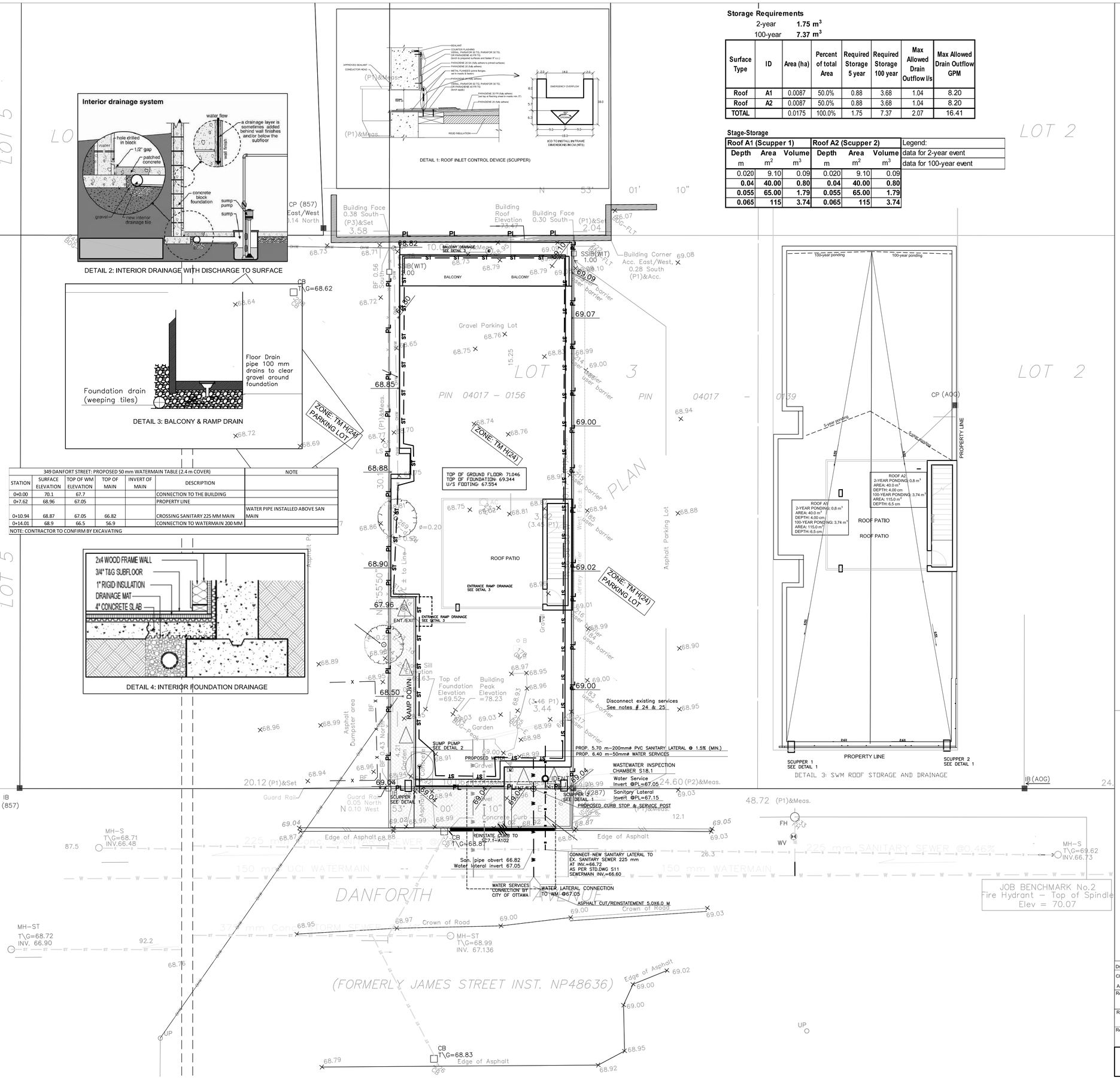
349 DANFORT STREET: PROPOSED 50 mm WATERMAIN TABLE (2.4 m COVER)						NOTE
STATION	SURFACE ELEVATION	TOP OF WM ELEVATION	TOP OF MAIN	INVERT OF MAIN	DESCRIPTION	
0+0.00	70.1	67.7			CONNECTION TO THE BUILDING	
0+7.62	68.96	67.05			PROPERTY LINE	
0+10.94	68.87	67.05	66.82		CROSSING SANITARY 225 MM MAIN	WATER PIPE INSTALLED ABOVE SAN MAIN
0+14.01	68.9	66.5	56.9		CONNECTION TO WATERMAIN 200 MM	

NOTE: CONTRACTOR TO CONFIRM BY EXCAVATING

DETAIL 4: INTERIOR FOUNDATION DRAINAGE

DETAIL 1: ROOF INLET CONTROL DEVICE (SCUPPER)

DETAIL 3: SWM ROOF STORAGE AND DRAINAGE



NOTES:

1. EXISTING SERVICES AND UTILITIES SHOWN ON THIS DRAWING WERE TAKEN FROM THE BEST AVAILABLE RECORDS. CONTRACTOR IS REQUESTED TO CHECK IN THE FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH AUTHORITIES AND UTILITIES TO HIS SATISFACTION BEFORE DIGGING.
2. CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS AS DEEMED NECESSARY.
3. PROPOSED SITING DETAILS FOR THIS PROPOSED BUILDING WERE TAKEN FROM THE SITE PLAN PREPARED BY 'unPoised architecture'.
4. EXISTING HORIZONTAL AND VERTICAL SURVEY DATA SHOWN ON THIS PLAN INCLUDING SITE BENCHMARK, ROAD ELEVATIONS AND THE TOPOGRAPHICAL INFORMATION OF THE LOT SHOWN WERE PROVIDED BY 'JANNIS, O'SULLIVAN, VOLLEBEKK LTD.' (June 24, 2020) &AND ARCH-NOVA DESIGN INC. IS NOT RESPONSIBLE FOR THE SURVEY PROVIDED.
5. ALL SERVICES INFORMATION WERE PROVIDED BY THE CITY OF OTTAWA AND ARCH-NOVA IS NOT RESPONSIBLE FOR THE ACCURACY OF PLANS AND INFORMATION. CONTRACTOR IS ADVISED TO CHECK ACCURACY ON THE SITE AND CONFIRM WITH THE CITY STAFF BEFORE ANY WORK ON THE SITE.
6. ALL GRADING SHALL BE DONE TO THE SATISFACTION OF THE CITY OF OTTAWA.
7. ALL GRADES SHOWN ARE METRIC. EXISTING AND PROPOSED GRADES SHOWN ON THIS DRAWING ARE BASED ON A GEODETIC BENCHMARK PROVIDED BY 'unPoised architecture.' AS SHOWN ON THEIR SITE PLAN.
8. USE SADDLE CONNECTIONS WITH CORP STOPS FOR THE 50 MM WATER SERVICES.
9. CONSTRUCT ALL SANITARY PIPES IN ACCORDANCE WITH CITY OF OTTAWA'S LATEST REVISED STANDARDS OTHERWISE AS PER OPSS AND OPSD SPECIFICATIONS.
10. ALL WORKS CONSTRUCTED BY THE CONTRACTOR SHALL MEET CITY OF OTTAWA'S CURRENT ENGINEERS' STANDARDS AND PER CITY'S REQUIREMENTS.
11. THE CONTRACTOR SHALL CONSTRUCT AND ENSURE THAT THE 50 mm WATER SERVICES ON THIS LOT SHALL HAVE A MINIMUM OF 2.4m OF GROUND COVER; OTHERWISE THERMAL INSULATION IS REQUIRED AS PER CITY SPECIFICATIONS W 21, W 22 AND W 23. THE WATER SERVICE INSTALLATION SHALL BE STEEL PIPE AND CONSTRUCTED IN ACCORDANCE WITH STD DWG W26.
12. IF WATER SERVICE IS LESS THAN 0.3 m FROM SEWER, MANHOLE OR CATCH BASIN, CONTRACTOR IS REQUESTED TO INSULATE BETWEEN THEM WITH S/M RIGID INSULATION (AS PER CITY DETAIL W-23).
13. ALL WATERMAIN SERVICE AND FITTINGS SHALL CONFORM TO APPROVED AWWA AND/OR CSA STANDARDS.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS TO COMPLETE THE WORKS.
15. WATER SERVICES CONNECTION ON DANFORTH STREET SHALL BE DONE BY THE CITY. EXCAVATION, BACKFILLING AND REINSTATEMENTS BY CONTRACTOR.
16. THE OWNER AND/OR HIS CONTRACTOR SHALL CONTACT ALL THE UTILITY COMPANIES REGARDING RELOCATION REQUIREMENTS FOR ANY EXISTING OVERHEAD UTILITY POLE.
17. WATER SERVICE AND WATERMAIN TRENCH DETAILS AS PER CITY W-17 DETAIL.
18. PROPOSED SANITARY SERVICES LATERAL SHALL BE PVC-SDR28 OR EQUIVALENT AND CONNECTION TO THE EXISTING SEWER SHALL BE AS PER CITY OF OTTAWA DWG. S11. SEWER TRENCH DETAILS AS PER STD DWG S6 & S7. CONNECT TO CITY SEWER PIPES USING SADDLE SEWER TRENCH DETAILS AS PERR STD DWG S6 & S7, SADDLE CONNECTIONS (MAX 300 MM), MANUFACTURED 'T' CONNECTIONS OR FOR LARGE DIAMETERS NEW MANHOLES.
19. SANITARY AND STORM SEWER SERVICES BENDS AND RISERS USED MUST BE CONSTRUCTED TO THE CITY'S SATISFACTION.
20. DETAILS OF THE EXISTING SEWERS AND WATERMAIN SHOWN ON DANFORTH STREET PLANS OBTAINED FROM THE CITY MAY NOT BE CURRENT. THE CONTRACTOR SHALL REFER TO THE CITY'S SEWER AND WATERMAIN DRAWINGS FOR DETAILS. CONTRACTOR IS ADVISED TO EXCAVATE AND INVESTIGATE THE SEWER ELEVATIONS IN FRONT OF THIS PROPERTY FIRST TO ENSURE THAT 1.5% (MIN.) PIPE SLOPE OF THE SANITARY LATERAL CAN BE ACHIEVED USING THE PROPOSED UNDERSIDE OF CONCRETE FOOTINGS ELEVATIONS. IF 1.5% (MIN.) SLOPE IS NOT POSSIBLE FROM THE HOUSE TO THE SEWER THEN THE CONTRACTOR SHOULD INFORM THE OWNER'S PROJECT MANAGER AND THE CITY ACCORDINGLY FOR FURTHER DIRECTION.
21. FOR DEVELOPMENT OF THIS LOT, THE CONTRACTOR MUST CONSTRUCT THE UNDERGROUND SANITARY AND WATER SERVICES FROM SEWER AND WATERMAIN TO THE PROPERTY FIRSTLY, PRIOR TO HOUSE CONCRETE FOUNDATION POURING.
22. IF THE DEPTH FROM UNDERSIDE OF HOUSE CONCRETE FOOTING TO PROPOSED FINISHED GROUND ELEVATION IS LESS THAN 1.5 M THAN AN INSULATION (500 mm THICK) MINIMUM IS TO BE INSTALLED AT THE BUILDING'S FOOTING AND FOUNDATION OF THE HOUSE TO PROVIDE SUFFICIENT FROST COVER FOR THE FOUNDATION STRUCTURES. THE FOOTINGS WILL NEED TO BE REVIEWED FOR INSULATION BY THE OWNER'S SOILS ENGINEER. EXACT INSULATION REQUIREMENTS SHALL BE AS PER ARCHITECT'S INSULATION DETAILS AS SHOWN ON THEIR ARCHITECTURAL DRAWINGS AND CONFIRMED BY THE OWNER'S SITE SOILS ENGINEER.
23. WATER SERVICE LINES AS PER STD.DWG W26.
24. BLANK WATER SERVICES AT CITY WATERMAIN BY CITY FORCES.
25. EXISTING SEWERS TO BE CAPPED AT THE PROPERTY LINE TO THE SATISFACTION OF CITY'S SEWER OPERATIONS
26. BACKWATER VALVES WILL BE USED ON SERVICES PER SC14, SC14.1 AND SC14.2
27. ASPHALT AND GRAVEL SURFACES TO BE CLEARED AND REPLACED WITH SOFT LANDSCAPING AS SHOWN ON ARCHITECTURAL AND LANDSCAPING PLANS.
28. ALL SERVICE LATERALS UNDER THE BUILDING FOOTINGS TO BE SLEEVED IF THE PIPE IS LESS THAN 0.3 M BELOW THE FOOTING.
29. PROPOSED SANITARY AND STORMWATER SERVICES LATERALS SHALL BE PVC-SDR28 OR EQUIVALENT AND CONNECTIONS TO THE EXISTING CITY SYSTEM SHALL BE AS PER CITY OF OTTAWA DWG.S11. SEWER TRENCH DETAILS AS PER STD DWG S6 & S7.
30. ALL PROPOSED STORM PIPES WITH OBVERT LESS THAN 2.0 M BELOW THE SURFACE ARE TO BE INSULATED FOR FROST PROTECTION.
31. ROOF DRAINS TO BE MANUFACTURED OR SELECTED BY CONTRACTOR AND PRESENTED TO ENGINEER FOR ACCEPTANCE. ROOF DRAINS SHOULD PROVIDE REQUIRED OUTFLOW FROM THE ROOF STORAGE. SEE DETAIL 1.
32. BALCONY DRAIN TO BE CONNECTED TO THE FOUNDATION DRAIN OR SUMP BY 100 MM PVC (SEE DETAIL 3)

LEGEND

56.63	PROPOSED ELEVATION
57.87	EXISTING ELEVATION
U/S FOOTING	PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION
— W —	PROPOSED 50mmø WATER SERVICES COPPER TYPE "K"
— ▪ — ▪ —	PROPOSED 150mmø PVC SANITARY LATERAL SERVICES @ 1% (MIN.) SLOPE
— ST —	PROPOSED 200mmø PVC STORM SEWER
— P —	EXISTING UNDERGORUND POWER LINE/CONDUIT
	EXISTING CATCH BASIN
	EXISTING STORM MANHOLE
	EXISTING SANITARY MANHOLE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING UTILITY POLE
	PROPOSED CURB STOP & SERVICE POST
	PROPOSED METER & REMOTE METER
D⊙R	ROOF DRAIN
PL	PROPERTY LINE
D4	DRAIN

0 1 2 3 4 5 10 m

349 DANFORTH AVE.: KEY MAP

Drawn by:	Z.M.	
Checked by		
Approved by	Z.M.	
Rev 1	Date: June 2021	Description: City's Comments
Rev 2	Date: Aug 2021	Description: City's Comments
Rev 3	Date:	Description:

ARCH-NOVA Design Inc. 45 Banner Road NEPEAN ON K2H 8X5 613-702-3403 contact@archnova.ca

Servicing & Grading Plan

Location	349 DANFORTH AVENUE, OTTAWA, ON
Owner	FRANK PORCARI 337 Sunnyside Ave., Suite 101 Ottawa, ON, K1S 0R9
Project No	CW-03-20
Date	September 2020
Drawing No	W-01
Scale	1:100

LICENSED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO Z. MIGLIN 29.08.2021

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