

VARIES

INSULATION REFERENCE TABLE	
EFFECTIVE EARTH COVER	REQUIRED INSULATION THICKNESS
1.8m - 1.5m	0.25"
1.5m - 1.2m	0.50"
1.2m - 0.9m	0.75"

1. SEWER INSTALLATION (INCLUDING BEDDING AND COVER) TO BE PER CITY OF OTTAWA TRENCH DETAIL S6

2. INSULATION POINTS TO BE STAGGERED, WITH MINIMUM 0.3 OVERLAP

3. INSULATION TO BE CENTERED OVER PIPE WITH MINIMUM WIDTH OF 1.2m

4. INSULATION TO BE PROVIDED AT ALL SEWER LOCATIONS WHERE MINIMUM COVERAGE OF 1.8m IS NOT ACHIEVED.

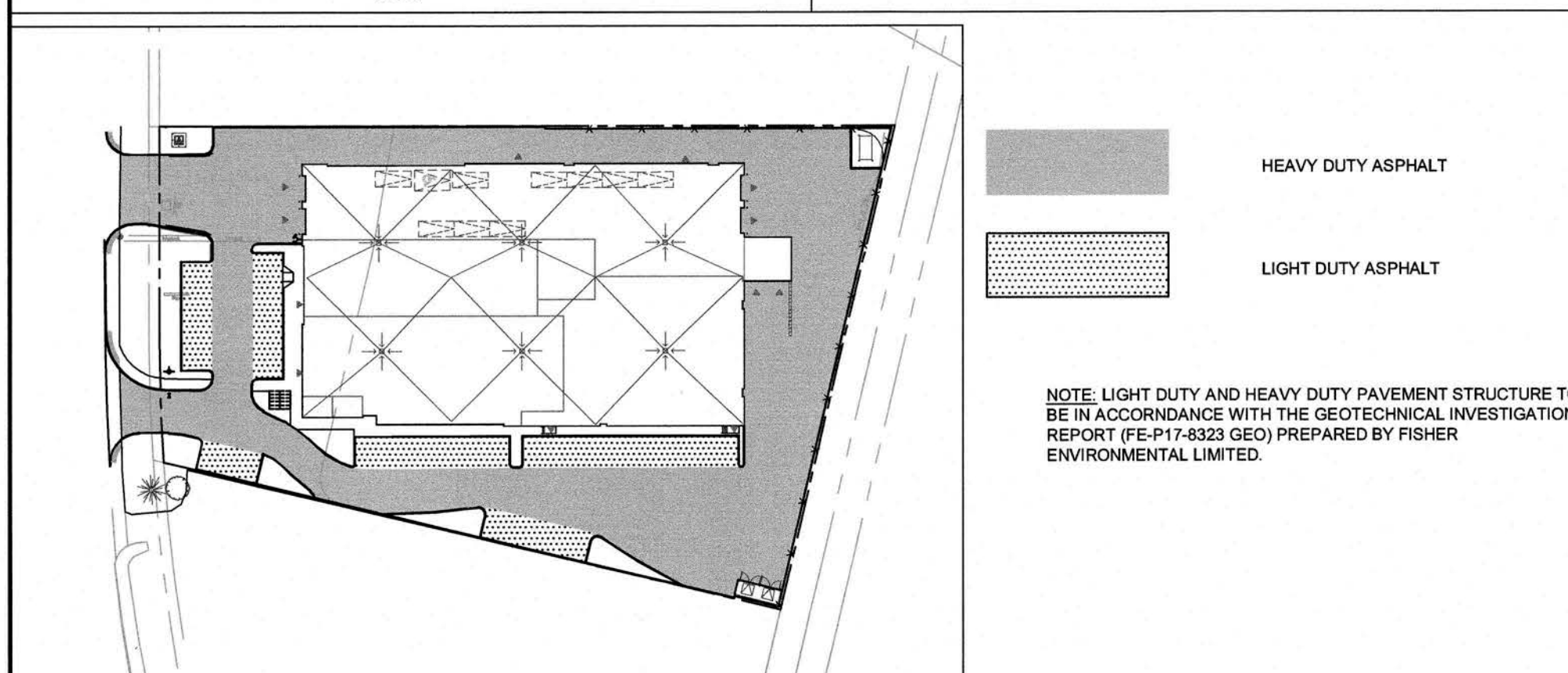
WATERMAIN TABLE-Sta. 1+000.00 TO 1+046.45

PVC DR-18 CL150

STATION ALONG WM	DETAIL	FINISHED GRADE	TOP OF WM
1+000	305 x 203 TEE CONNECTION TO EXISTING	73.50	71.10
1+022.60	PROPERTY LINE & VALVE & VENT	73.40	71.00
1+024.00	HYDRANT	73.38	70.98
1+032.20	WM CROSSING UNDER STORM	73.18	70.29
1+046.45	CONNECTION @ BUILDING	73.18	70.78

NOTE: ALL WM TO BE CONSTRUCTED AT 2.4m BELOW FINISHED GRADE

STORM SEWER INVERT AT WATERMAIN CROSSING EQUAL TO 70.79m, TOP OF WATERMAIN EQUAL TO 70.29m; THEREFORE 0.5m CLEARANCE PROVIDED.



ICD TABLE

ICD #	OUTLET PIPE DIA. (mm)	Qr (L/s)	OUTLET INVERT (m)	TOP OF GRATE (m)	MAX PONDING (m)	DESIGN HEAD (m)	HYDROVEX MODEL #
ICD 1 - CB 2	250	53.43	70.91	72.80	72.90	1.99	200 VHV-2
ICD 2 - CB 3	200	10.00	70.51	72.30	72.60	2.09	100 VHV-1
ICD 3 - CB 4	200	38.00	70.67	71.95	72.15	1.48	200 VHV-2
ICD 4 - CBMH1	300	8.00	70.81	72.65	72.95	2.14	75 VHV-1

1:5 YEAR PONDING TABLE

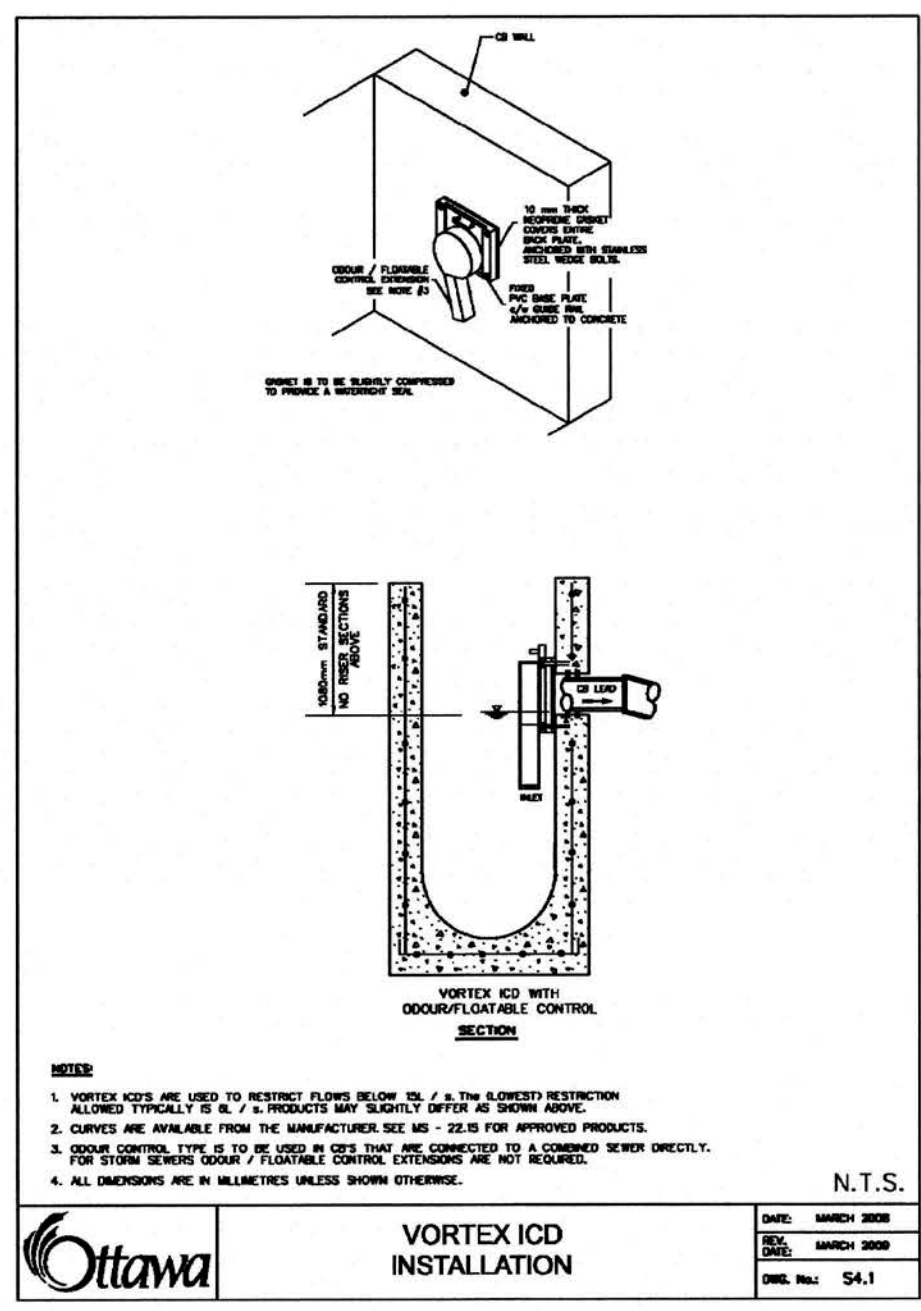
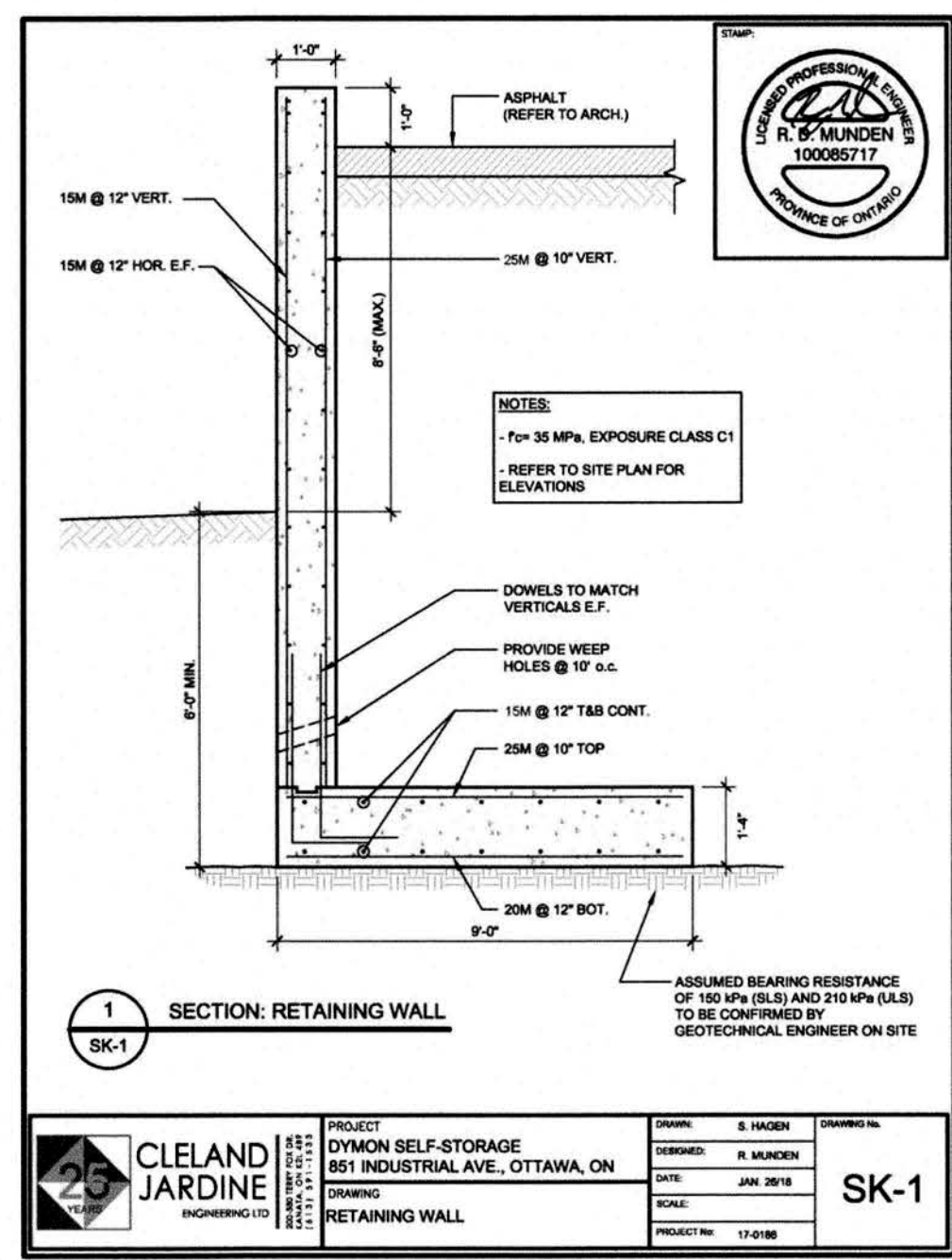
CATCH BASIN	PONDING AREA	Qp (L/s)	Qp ICD (L/s)	PONDING VOLUME (m3)	PONDING AREA (m2)	PONDING DEPTH (m)	MAX PONDING ELEV. (m)
CB 1	--	14.37	N/A	0.00	0.00	0.00	73.00
CB 2 - ICD 1	Area 1	13.67	26.00	0.00	0.00	0.00	72.80
CB 3 - ICD 2	Area 2	27.37	10.00	10.76	188.24	0.17	72.47
CB 4 - ICD 3	Area 3	40.06	38.00	1.24	87.00	0.04	71.99
CBMH1 - ICD 4	Area 4	20.86	8.00	7.85	140.77	0.17	72.82

1:100 YEAR PONDING TABLE

CATCH BASIN	PONDING AREA	Qp (L/s)	Qp ICD (L/s)	PONDING VOLUME (m3)	PONDING AREA (m2)	PONDING DEPTH (m)	MAX PONDING ELEV. (m)
CB 1	--	27.43	N/A	0.00	0.00	0.00	73.00
CB 2 - ICD 1	Area 1	26.18	26.00	0.11	16.39	0.02	72.82
CB 3 - ICD 2	Area 2	52.25	10.00	30.58	317.39	0.29	72.59
CB 4 - ICD 3	Area 3	76.32	38.00	22.99	375.26	0.18	72.13
CBMH1 - ICD 4	Area 4	39.71	8.00	22.64	239.04	0.28	72.93

ROOF DRAIN TABLE

BUILDING	ROOF DRAIN	WER OPENING	MAX PONDING DEPTH (mm)	ROOF DRAIN TYPE	RELEASE RATE (L/S)
PROPOSED DYMON BUILDING	RD1	1/4 EXPOSED	152	WATTS ADJUSTABLE ACCUTROL WER	0.945
	RD2	1/4 EXPOSED	152	WATTS ADJUSTABLE ACCUTROL WER	0.945
	RD3	1/4 EXPOSED	152	WATTS ADJUSTABLE ACCUTROL WER	0.945
	RD4	1/4 EXPOSED	152	WATTS ADJUSTABLE ACCUTROL WER	0.945
	RD5	1/4 EXPOSED	152	WATTS ADJUSTABLE ACCUTROL WER	0.945
	RD6	1/4 EXPOSED	152	WATTS ADJUSTABLE ACCUTROL WER	0.945
TOTAL FLOW RATE=					5.87



- GENERAL CONSTRUCTION NOTES :

1. ALL MATERIAL (SANITARY, STORM & WATERMAIN) AND CONSTRUCTION METHODS TO BE IN ACCORDANCE WITH THE CURRENT OPSS, OPSS AND CITY OF OTTAWA STANDARD DRAWINGS AND SPECIFICATIONS.

2. UNLESS OTHERWISE NOTED, DIMENSIONS FROM STREET LINE ARE TO THE CENTRELINE OF SEWER OR MANHOLE.

3. THE INSIDE DIAMETER OF PIPES ARE REFERRED TO IN PLAN VIEW.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATES FROM ALL UTILITY COMPANIES TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL, REINSTATEMENT OF ALL AREAS DISTURBED DURING CONSTRUCTION AND ALL ASSOCIATED WORKS TO THE SATISFACTION OF THE ENGINEER AND CITY OF OTTAWA.

6. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE, VIA EXCAVATION, THE EXACT LOCATION AND ELEVATION OF THE EXISTING WATERMANS, SEWERS AND UNDERGROUND STRUCTURES AS REQUIRED FOR ALL CONNECTIONS, RELOCATIONS AND BLANKINGS.

7. EXISTING STORM SEWER SYSTEM AND CATCH BASIN NETWORK TO BE REMOVED AND DISPOSED OF OFFSITE.

8. SERVICING DESIGN DRAWINGS TO BE READ IN CONJUNCTION WITH THE SITE SERVICING REPORT (OCTOBER 2017) PREPARED BY J.L. RICHARDS & ASSOCIATES (LR 27296-002.1) AS WELL AS THE GEOTECHNICAL INVESTIGATION REPORT (SEPTEMBER 2017) PREPARED BY FISHER ENVIRONMENTAL LTD. (FE-P17-8323 GEO).

9. ALL WATERMANS SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD) AND SPECIFICATIONS (OPSS).

10. WATERMANS CROSSING BELOW OR OVER A SEWER SHALL BE IN ACCORDANCE WITH CITY STANDARD DRAWING W25 AND W25.2.

11. PROVIDE A MINIMUM OF 2.4m COVER ON ALL WATERMANS AND WATER SERVICES. OTHERWISE PROVIDE THERMAL INSULATION AS PER CITY STANDARD DRAWING W22 (IN SHALLOW TRENCHES) AND W23 (AT OPEN STRUCTURES).

12. AT ALL CONNECTION POINTS, REINSTATE SURFACES TO EXISTING CONDITION OR BETTER. -ASPHALT RESTORATION SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DRAWING No. R10. -THICKNESS OF GRANULES AND ASPHALT LAYERS SHALL MATCH EXISTING -BOULEVARDS SHALL BE REINSTATED WITH 100mm TOPSOIL AND SOD.

13. -SANITARY SERVICE LATERAL TO BE 150mmØ PVC DR 35 -STORM SEWERS TO BE PVC SDR 35 c/w INSULATION WHERE MINIMUM COVERAGE OF 1.8m IS NOT ACHIEVED (REFER TO INSULATION DETAIL). -WATERMANS TO BE PVC DR 18.

14. ALL STORM & SANITARY MANHOLES TO BE 1200Ø UNLESS OTHERWISE NOTED AS PER OPSD 701.010 c/w FRAME AND COVERS AS PER CITY STANDARD DRAWINGS 24 AND 24.1. SANITARY AND STORM MANHOLES (INCLUDING WOU MH010A) TO HAVE WATER-TIGHT COVERS AS PER OPSD 401.030. CATCH BASIN MANHOLE COVER TO BE PER CITY STANDARD DRAWING S28.1.

15. ALL CATCH BASINS TO BE 600x600mm PRECAST CONCRETE PER OPSD 705.010 c/w FRAME AND COVER AS PER CITY STANDARD DRAWING S19.

16. DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE ARCHITECTURAL SITE PLAN PREPARED BY NICHOLAS CARAGIANIS ARCHITECT INC.

17. SERVICES TO BE TERMINATED 1.0m FROM BUILDING WALL (TYPICAL).

18. CONCRETE CURB TO BE BARRIER TYPE AS PER CITY STANDARD DRAWING SC1.1.

19. SIDEWALKS AND WALKWAYS TO BE CONSTRUCTED AS PER CITY OF OTTAWA DETAIL SC2 (OR SC1.4) AND SC4.

20. PAVEMENT DESIGN TO BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY FISHER ENVIRONMENTAL LIMITED (FE-P17-8323 GEO), REFER TO ARCHITECTURAL SITE PLAN PREPARED BY NICHOLAS CARAGIANIS ARCHITECT INC. FOR FIRE ROUTES.

21. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT THE SITE BENCHMARK(S) HAS NOT BEEN ALTERED OR DISTURBED AND THAT ITS RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION DEPICTED ON THIS PLAN. FROM THE SURVEY COMPLETED BY AJOY ON JULY 11, 2017 THE SITE BENCHMARK IS LOCATED ON THE EXISTING CONCRETE TRANSFORMER PAD, HAVING AN ELEVATION OF 73.77m.

22. EXCAVATION FOR THE INSTALLATION OF SERVICES ALONG OR IN PROXIMITY OF A BUILDING OR A STRUCTURE IS TO BE CONTAINED WITHIN A TRENCH BOX WIDTH AND IS TO ENSURE NO CONFLICT WITH ANY FUTURE FOOTINGS. SELECT SUBGRADE MATERIAL COMPACTED TO 100% SPD TO 1.0m BELOW EXISTING GRADE FOR FULL TRENCH WIDTH OF DISTURBED AREA SHALL BE USED FOR BACKFILL, INCLUDING ALONG ANY SEWERS AND WATERMANS ADJACENT TO A BUILDING OR OTHER STRUCTURE.

23. HYDRANT SHALL BE INSTALLED AS PER CITY STANDARD DRAWING W19.

24. EXISTING SITE SANITARY SERVICE AND STORM SERVICE TO BE LOCATED BY CONTRACTOR AND CAPPED AT THE PROPERTY LINE TO THE SATISFACTION OF THE CITY SEWER OPERATIONS AND IN ACCORDANCE WITH CITY OF OTTAWA STANDARD DETAIL DRAWING S11.4.

25. THE PERIMETER WEEPING TILE SYSTEM TO BE INSTALLED IN ACCORDANCE WITH THE PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT (SEPTEMBER 2017) PREPARED BY FISHER ENVIRONMENTAL LTD. (REPORT NO. FE-P17-8323 GEO). WEEPING TILE TO BE GRAVITY FED TO MAIN STORM LATERAL c/w BACKWATER VALVE LOCATED 1.0m DOWNSTREAM OF WEEPING TILE CONNECTION. REFER TO ARCHITECTURAL DRAWINGS FOR WEEPING TILE DETAIL.
- APPROVED ☐ REFUSED ☐

THIS \_\_\_\_ DAY OF \_\_\_\_, 20 \_\_\_\_

DON HERWEYER, MANAGER

DEVELOPMENT REVIEW SOUTH

PLANNING, INFRASTRUCTURE AND ECONOMIC

DEPARTMENT, CITY OF OTTAWA

LEGEND

EXISTING CATCH BASIN

CATCH BASIN c/w ICD

CATCH BASIN MAINTENANCE HOLE

PROPOSED CATCH BASIN & LEAD

PROPOSED WATERMAIN, HYDRANT, VALVE & VALVE BOX AND REDUCER

PROPOSED VALVE BOX

EXISTING WATERMAIN, VALVE & HYDRANT

PROPOSED STORM SEWER & MANHOLE

WATER QUALITY UNIT (WQU)

EXISTING STORM SEWER & MANHOLE

PROPOSED SANITARY SEWER & MANHOLE

EXISTING SANITARY SEWER & MANHOLE

PROPOSED ELEVATION

EXISTING ELEVATION

EDGE OF PAVEMENT ELEVATION

TOP OF WALL ELEVATION

BOTTOM OF WALL ELEVATION

PROPOSED TERRACING (MAX 3:1)

SURFACE SLOPE

FLOW DIRECTION

FINISHED FLOOR ELEVATION

CONCRETE SURFACE

GRASS SURFACE

DEPRESSED CURB

RETAINING WALL

RETAINING WALL c/w CHAINLINK FENCE

PROPOSED HYDRO TRANSFORMER

SIAMESE CONNECTION

2

RE-ISSUED FOR SITE PLAN CONTROL

30/01/18

1

ISSUED FOR SITE PLAN CONTROL

05/10/2017

No.

ISSUE / REVISION

DDMMYY

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VERIFY SHEET SIZE AND SCALES. BAR TO THE RIGHT IS 25mm IF THIS IS A FULL SIZE DRAWING.

SCALE: 1:300

CLIENT:

DYMON SELF STORAGE

www.jrichards.ca

CONSULTANT:

J.L. Richards

ENGINEERS - ARCHITECTS - PLANNERS

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J.L. Richards

ENGINEERS - ARCHITECTS - PLANNERS

PROFESSIONAL STAMP

LICENCED PROFESSIONAL ENGINEER

M. N. L. DALRYMPLE

PROVINCE OF ONTARIO

PROJECT NORTH

PROJECT:

SELF STORAGE FACILITY

851 INDUSTRIAL AVE.

DRAWING:

SITE SERVICING GRADING PLAN

DESIGN: JW

DRAWN: C.J.M

CHECKED: LD

JLR #: 27296-002.1

DRAWING #:

SSG

