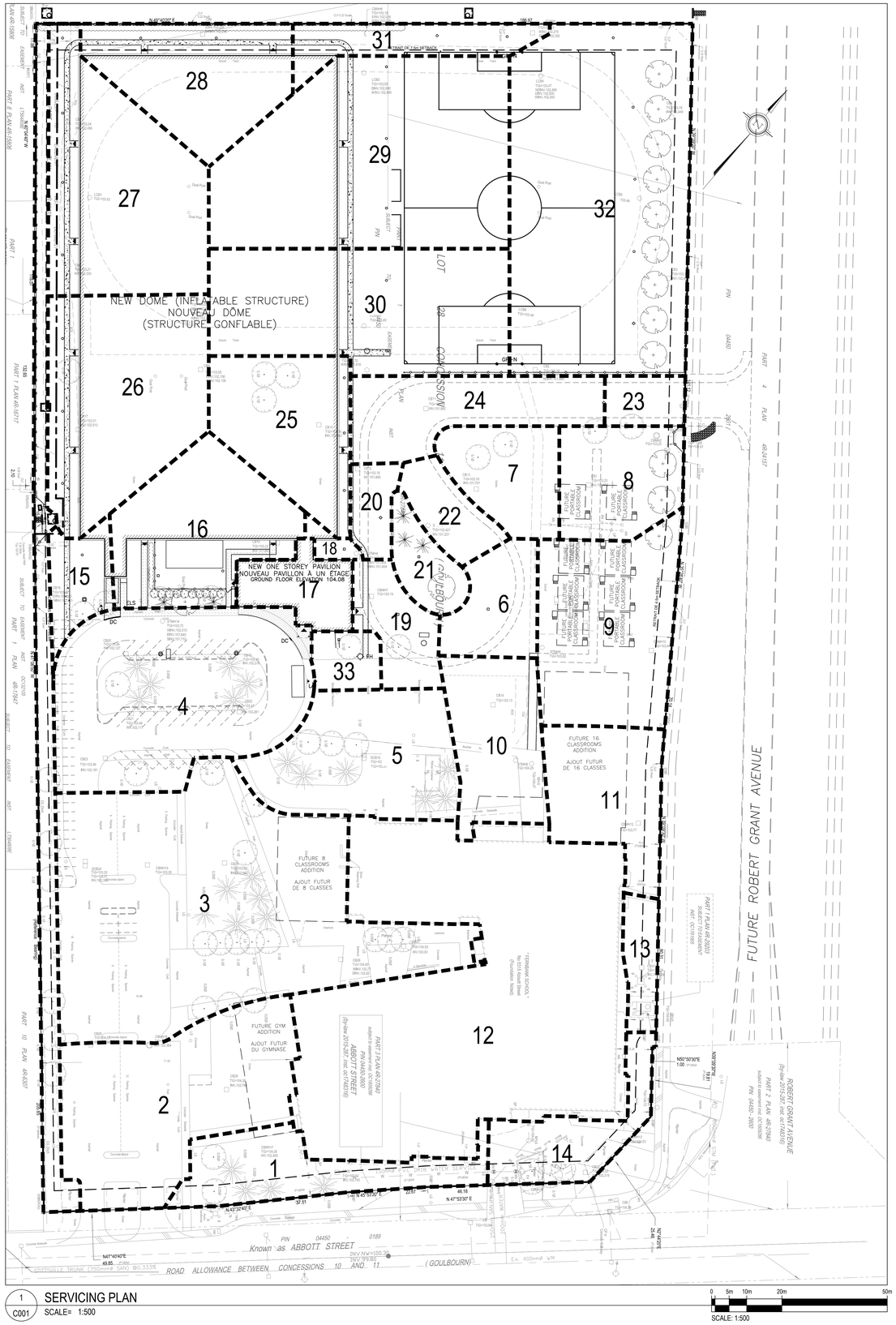

1 C001 SERVICING PLAN

SCALE= 1:500

SCALE: 1:500

NOTE: BACKGROUND SHOWS EXISTING CONDITIONS

GENERAL NOTES:

1. ALL WORK TO BE COORDINATED WITH OTHER PLANS FOR THIS SITE. REFER TO M AND E DRAWINGS FOR GAS, ELECTRICAL, PLUMBING AND COMMUNICATION SERVICES. ARCHITECTURAL SITE PLAN TO BE USED FOR SITE LAYOUT AND PHASING. ARCHITECTURAL DRAWINGS AND SPECIFICATIONS PROVIDE THE LOCATIONS FOR THE SURFACE FINISHES.
2. VERIFY THAT JOB BENCHMARKS HAVE NOT BEEN ALTERED OR DISTURBED AND THAT THEIR RELATIVE ELEVATION AND DESCRIPTION AGREE WITH THE INFORMATION SHOWN ON THE DRAWINGS. REFER TO SURVEY PLAN FOR EXISTING CONDITIONS.
3. LOCATION OF SERVICES, CHAMBERS, UTILITIES AND ALL UNDERGROUND WORKS ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND ELEVATION OF ALL SERVICES, UTILITIES, AND UNDERGROUND STRUCTURES PRIOR TO ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND REINSTATEMENT.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL REMOVALS NECESSARY TO SATISFY ENGINEERING WORKS.
5. CONFORM TO RECOMMENDATIONS OF GEOTECHNICAL REPORT. INCLUDING REQUIREMENTS FOR DEWATERING SYSTEMS. PROVIDE ENGINEERING SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE OWNER'S GEOTECHNICAL ENGINEER FOR DEWATERING SYSTEMS. OBTAIN A PERMIT TO TAKE WATER FROM THE ONTARIO MINISTRY OF THE ENVIRONMENT IF THE QUANTITY OF WATER TO BE REMOVED WILL EXCEED 50,000 LITERS PER DAY.
6. CONTRACTOR RESPONSIBLE FOR OBTAINING ROAD CUT PERMIT, AND PROVIDING ALL ASSOCIATED TRAFFIC CONTROL. CONTRACTOR TO RECORD VERTICAL AND HORIZONTAL LOCATION OF ALL UNDERGROUND WORKS FOR RECORD DRAWINGS.
7. CONTRACTOR TO PROVIDE POST CONSTRUCTION TOPOGRAPHIC SURVEY COMPLETED BY OLS OR PROFESSIONAL ENGINEER CONFIRMING COMPLIANCE WITH GRADING AND SERVICING DESIGN.

GENERAL NOTES

1. SETTLEMENT SENSITIVE SERVICES SHALL BE HUNG FROM THE STRUCTURAL SLAB, REFER TO MECHANICAL DESIGN.
2. SERVICE TRENCH BEDDING THICKNESS TO BE INCREASED WHERE THE SUBGRADE IS SILT AND SUBJECT TO DISTURBANCE OR WHEN TRENCH BASE IS SOFT OR FLOODED. TRENCH TO BE STABILIZED BY REMOVAL OF ANY LOOSE SILT MATERIAL AND THEN PLACEMENT OF GRANULAR B TYPE II SUB-BEDDING COMPLETELY WRAPPED IN A NON-WOVEN GEOTEXTILE.

SEWER NOTES

1. CONSTRUCT SEWERS AND APPURTENANCES AS PER OTTAWA AND MINISTRY OF THE ENVIRONMENT STANDARDS. CONFIRM EXISTING TIE IN ELEVATIONS PRIOR TO CONSTRUCTION. SEWER TRENCH SHALL INCLUDE CLASS 'B' BEDDING AS PER OTTAWA S6 AND S7. COMPACTION TO BE A MINIMUM OF 95% SPMDD FOR PIPE AND DRAINAGE STRUCTURE BEDDING AND BACKFILL. IN PAVED AREAS, INCREASE THE GRANULAR 'B' SUB-BASE DEPTH BY 150mm, AND PROVIDE A GEOTEXTILE AT SUBGRADE LEVEL OVER THE SEWER TRENCHES.
2. PVC STORM SEWERS AND CATCH BASIN LEADS TO BE PVC DR 35 CERTIFIED TO CAN/CSA-B182.2. REINFORCED CONCRETE STORM SEWERS TO BE CLASS 100D TO CSA A257.2.
3. PROVIDE FLEXIBLE BOOT CONNECTION FOR ALL PVC SEWER CONNECTIONS AT MANHOLES. PROVIDE RUBBER CONNECTORS IN ACCORDANCE WITH CSA A257.3-09 FOR CONCRETE PIPE CONNECTORS TO MANHOLES.
4. PROVIDE FLEXIBLE PIPE JOINT AT CONNECTION TO BUILDING STORM AND SANITARY SERVICE STUBS. PRODUCT TO BE FLEX-TEND DOUBLE BALL JOINT WITH MECHANICAL CONNECTION, MANUFACTURED BY EBAA IRON (OR APPROVED ALTERNATIVE).
5. STORM CATCHBASINS (CB) TO BE AS PER OPSD 705.010 WITH FRAMES AND ROUND GRATE AS PER OPSD 400.070. SUMP TO BE 600mm. PROVIDE WEEP HOLES ON ALL FOUR SIDES AT SUBGRADE LEVEL FOR CATCHBASINS IN PAVED AREAS.
6. SEWERS AND SERVICES SHALL BE CONSTRUCTED WITH A MINIMUM CLEARANCE OF 2.0m FROM TREES.
7. REFER TO TABLE ON DRAWING C003 FOR MANHOLE SIZES. STORM MANHOLES TO HAVE 300mm MINIMUM SUMP BELOW LOW INVERT. SANITARY MANHOLES TO BE BENCHED AS PER OPSD 701.021. PROVIDE A MINIMUM OF FOUR WEEP HOLES, EVENLY SPACED AROUND THE CIRCUMFERENCE AT SUBGRADE DEPTH FOR EACH MANHOLE LOCATED IN PAVED AREAS.
8. CBMH FRAMES AND ROUND GRATES AS PER OPSD 400.070. SANITARY MANHOLES TO HAVE FRAME AND COVER AS PER TYPE A, OPSD 401.010. STORM MANHOLE TO HAVE TYPE B COVER AND FRAME AS PER OPSD 401.010.
9. PROVIDE CAMERA INSPECTION OF ALL SEWERS FOLLOWING COMPLETION OF CONSTRUCTION AND PROVIDE TO ENGINEER. MAINTAIN SEWERS IN CLEAN CONDITION UNTIL OWNER ACCEPTANCE.
10. COORDINATE WITH MECHANICAL CONTRACTOR AND PROVIDE DYE TEST CERTIFIED BY PROFESSIONAL ENGINEER (RETAINED BY CONTRACTOR) ON BUILDING STORM AND SANITARY SEWER SERVICES TO CONFIRM THAT NO CROSS CONNECTIONS OCCUR ON WORKS BEING CONSTRUCTED IN THIS CONTRACT.
11. TEMPORARY FLOW CONTROLS TO BE PLACED ON SEWER OUTLETS AS PER OTTAWA TECHNICAL BULLETIN ISD 2010-1. INLET CONTROL DEVICE PLACEMENT TO BE CERTIFIED BY QUALITY VERIFICATION ENGINEER RETAINED BY CONTRACTOR. LOCATIONS OF PROPOSED CLAY DYKES SHOWN ON PLAN 1/C003.
12. PROVIDE HIGH DENSITY GRADE A POLYSTYRENE INSULATION ACROSS WIDTH OF TRENCH (MINIMUM 1220mm) AT 150mm ABOVE STORM SEWERS AND CATCH BASINS LEADS WHERE INDICATED ON SEWER TABLE.
13. PROVIDE CLAY DYKES IN SERVICE TRENCHES DOWNSTREAM OF EACH MANHOLE TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER WHEN GRANULAR SOILS ARE USED FOR BACKFILL.
14. PROVIDE 150mm DIA. SUBDRAINS AS PER OTTAWA DRAWING R1, EXTENDING FROM ALL NEW CATCHBASINS AND CATCHBASIN MANHOLES LOCATED IN PAVED AREAS BEING CONSTRUCTED IN THIS CONTRACT. SUBDRAINS TO EXTEND 5m IN ALL ORTHOGONAL DIRECTIONS. PROVIDE CONTINUOUS SUBDRAINS BETWEEN CATCHBASINS ON THE BUS LOOP. OBTAIN APPROVAL OF GEOTECHNICAL ENGINEER FOR PAVEMENT SUBDRAIN INSTALLATION. SUBDRAINS ARE NOT REQUIRED IN THIS CONTRACT FOR FUTURE BUS LOOP.
15. PERFORM LEAKAGE TESTING OF SANITARY SEWERS IN ACCORDANCE WITH OPSS 410.07.01.15 AND 407.07.25. TESTING SHALL BE OBSERVED BY AN ONTARIO REGISTERED PROFESSIONAL ENGINEER, RETAINED BY THE CONTRACTOR, WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.

EXISTING ROOF STORAGE

THIRTY FLOW CONTROL DRAINS ON SCHOOL ROOF - WATTS RD-100-A1 OR APPROVED ALTERNATIVE WITH MAXIMUM RELEASE PER DRAIN 1.9 L/S FOR 150mm DEPTH. TOTAL RELEASE RATE AT MAXIMUM STORAGE = 57 L/S. STORAGE CAPACITY = 227.4m³ BASED ON FLOW BALANCE CALCULATIONS. REFER TO SERVICING REPORT.

WATER NOTES

1. ALL WATER SERVICE AND VALVE MATERIALS TO CONFORM WITH CITY OF OTTAWA STANDARDS. SITE WATER SERVICE AND MAIN TO BE PVC DR18.
2. OBTAIN AND PAY FOR WATER PERMIT FROM CITY OF OTTAWA. HYDROSTATIC AND BACTERIOLOGICAL TESTING REQUIRED AS PER OTTAWA STANDARDS. ALL MATERIALS, EXCAVATION, BACKFILL, LABOUR AND REINSTATEMENT BY CONTRACTOR. CITY PROVIDED SERVICES WILL BE PAID UNDER THE WATER PERMIT.
3. COMPLY WITH THE FOLLOWING OTTAWA STANDARD DRAWINGS:
   W17 STANDARD TRENCH DETAIL
   W18 HYDRANT LOCATION
   W19 HYDRANT INSTALLATION
   W21 THERMAL INSULATION IN DITCHED AREAS
   W23 THERMAL INSULATION OF WATERMAINS AT OPEN STRUCTURES - APPLICABLE AT CB7
   W24 VALVE BOX ASSEMBLY
   W25-3 CONCRETE THRUST BLOCKS
   W25-4 THRUST BLOCK DIMENSION TABLES
   W25-5 RESTRAINING AND RETAINING RINGS
   W25-6 TABLES OF RESTRAINED LENGTHS
   W25 WATERMAIN CROSSING BELOW SEWER - MIN. CLEARANCE 500mm
   W32 TYPICAL WATER METER INSTALLATION 75MM & LARGER
   W36 TRACER WIRE INSTALLATION
   W40 CATHODIC PROTECTION
   W42 TYPICAL ANODE INSTALLATION
4. PROVIDE MINIMUM 2.4m COVER. IF NOT ACHIEVABLE, PROVIDE THERMAL INSULATION TO THE SATISFACTION OF THE CITY, AND IN ACCORDANCE WITH OTTAWA DRAWINGS W21, W22 AND W23.
5. COORDINATE SUPPLY AND INSTALLATION OF METER AND REMOTE WITH MECHANICAL CONTRACTOR.
6. REINSTATEMENT REQUIRED AS PER NOTE 9 ON DRAWING C.01.
7. PROVIDE FLEXIBLE PIPE JOINT AT CONNECTION TO BUILDING WATER SERVICE STUB. PRODUCT TO BE FLEX-TEND DOUBLE BALL JOINT WITH MECHANICAL CONNECTION, MANUFACTURED BY EBAA IRON (OR APPROVED ALTERNATIVE).
8. PROVIDE FLOW TESTING FOR NEW FIRE HYDRANT AND PAINT HYDRANT BASED ON FLOW RATING IN ACCORDANCE WITH CITY OF OTTAWA REQUIREMENTS FOR PRIVATE HYDRANTS.

BEST MANAGEMENT PRACTICES

THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATER COURSE DURING CONSTRUCTION ACTIVITIES.

THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.

EROSION AND SEDIMENTATION SHOULD BE CONTROLLED BY THE FOLLOWING TECHNIQUES:

INSTALL FILTER SOCKS BETWEEN FRAME AND COVER ON ALL PROPOSED CATCH BASINS AND CATCH BASIN MANHOLES AND ON ALL EXISTING CATCH BASINS THAT WILL RECEIVE RUN-OFF FROM THE WORK SITE. PROVIDE SILT FENCE AS PER OPSD 219.110 ALONG NORTH PROPERTY LINE AND ALONG NORTH HALF OF EAST PROPERTY LINE. MINIMIZE DURATION OF EXPOSED SOILS.

MAINTAIN ALL SEC MEASURES THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVE UPON ESTABLISHMENT OF GRASS AND COMPLETION OF CONSTRUCTION.

FOR TRENCH DEWATERING, DIRECT PUMP DISCHARGE TO A FILTER TRAP CONSTRUCTED OF GEOTEXTILES AND STRAW BALES SIMILAR TO OPSD 219.240 - DEWATERING TRAP. FILTER GROUNDWATER COLLECTED PRIOR TO DISCHARGE FROM SITE.

MINIMIZE AREA OF DISTURBED SOIL BY STAGING CLEARING AND GRUBBING WORK, PREVENT RUNOFF FROM FLOWING ACROSS DISTURBED AREAS. PLACE REQUIRED FILL MATERIALS AND PERMANENT SURFACE FINISH AS SOON AS POSSIBLE FOLLOWING SITE CLEARING. ENSURE ALL DISTURBED AREAS ARE STABILIZED. PROVIDE TEMPORARY SEEDING, MULCHING OR COVER OF DISTURBED AREAS AND TOPSOIL STOCK PILES IF SUCH LOCATIONS ARE TO REMAIN UNSTABILIZED FOR PERIODS EXCEEDING TWO MONTHS.

PROVIDE MUD MATS CONSTRUCTED OF COARSE GRANULAR MATERIAL AT ALL VEHICULAR EXITS FROM THE SITE WHICH DO NOT USE EXISTING PAVED SURFACES.

SITE LOCATION PLAN - N.T.S.

DRAINAGE AREAS

	Impervious Area (m²)	Landscape Area (m²)	Gravel Track (m²)	Total
1	95	1087	0	1182
2	2229	496	0	2725
3	4619	1259	0	5878
4	2440	876	0	3316
5	1258	594	0	1852
6	512	220	0	732
7	0	890	0	890
8	156	862	62	1080
9	837	1146	118	2101
10	380	863	0	1243
11	767	471	0	1238
12	7160	0	0	7160
13	11	339	0	350
14	423	437	0	860
15	76	376	43	495
16	1310	539	0	1849
17	581	0	0	581
18	35	75	0	110
19	578	57	0	635
20	259	40	28	327
21	0	439	0	439
22	492	0	0	492
23	326	0	0	326
24	1137	128	19	1284
25	1342	155	40	1537
26	1982	504	108	2594
27	1912	586	116	2614
28	1091	454	95	1640
29	1430	2602	87	4119
30	1117	1682	72	2871
31	69	607	28	704
32	0	5053	0	5053
33	184	139	0	323
West Easement	0	1576	0	1576
	34808	24552	816	60176

AREAS ARE CALCULATED BASED ON FUTURE SCENARIO PROVIDING MAXIMUM IMPERVIOUS AREA, INCLUDING ALL IDENTIFIED FUTURE BUILDING ADDITIONS, FUTURE BUS LOOP, FULL PARKING, AND EIGHT PORTABLE CLASSROOMS.

PAVEMENT DESIGN
(REFER TO GEOTECHNICAL REPORT-OTT-00212742-A0
TABLE NO. III: PROVIDED BY EXP. SERVICES INC.
DATED NOVEMBER 1, 2013)

Table No. III: Recommended Pavement Structure Thicknesses for Running Tracks, Playground, Light & Heavy Duty Pavement

Pavement Layer	Compaction Requirements	Computed Pavement Structure			
		Running Tracks and Unpaved Pathways	Asphalt Paths	Light Duty (Cars Only)	Heavy Duty (Bus & Truck Routes)
Asphaltic Concrete (PG 58-34)	92-96% MRD	-	50mm SC	65mm SC	50mm SC 60mm BC
Stone Dust	100% SPMDD	75mm	-	-	-
OPSS 1010 Granular 'A' Base (crushed limestone)	100% SPMDD*	NA	150mm	150mm	150mm
OPSS 1010 Granular 'B' II Sub-Base	100% SPMDD**	300mm	200mm	450mm**	600mm**
Subgrade	Engineered Fill/approved Fill as per specifications or Native Subgrade Material				

Notes:
*SPMDD denotes standard Proctor maximum dry density, ASTM, D-698.
MRD denotes Maximum Relative Density, ASTM D2041.
The upper 300mm of the subgrade fill must be compacted to 98% SPMDD.
SC Denotes Surface course asphalt and may comprise of Marshall HL3 Mix or SP 12.5mm (Cat C) Superpave Mix.
BC Denotes Base course asphalt and may comprise of Marshall HL8 Mix or SP 19mm (Cat C) Superpave Mix.
**INCREASE THE SUB-BASE DEPTH BY 150mm OVER THE SEWER TRENCHES AND PROVIDE A GEOTEXTILE OVER THE SUBGRADE.

CONSEIL DES ÉCOLES CATHOLIQUES DE LANGUE FRANÇAISE DU CENTRE-EST
Le meilleur conseil qu'un patron vous donnera

APPROVED ☐ REFUSED ☐

DATE _____

Felice Petti. P. Eng., Manager, Development Review, Suburban Services

wsp
300-2011 QUEENSVIEW DRIVE
OTTAWA ONTARIO CANADA K2B 8K2
TEL.: 1-613-829-2800 | FAX: 1-613-829-8299 | WWW.WSP.COM

ISSUE NO.	REV. NO.	DATE YY/MM/DD	ISSUE
4	3	2018-03-08	RE-ISSUED FOR SITE PLAN CONTROL
3	2	2018-02-05	ISSUED FOR SITE PLAN CONTROL
2	1	2018-01-30	ISSUED FOR REVIEW
1	0	2018-01-23	SITE PLAN REVISION

LEGEND

- EXISTING GRADE ELEVATION
- STMH3 EXISTING STORM MANHOLE
- CB2 EXISTING CATCH BASIN
- MH3 EXISTING SANITARY MANHOLE
- WV EXISTING VALVE AND BOX
- EXISTING FIRE HYDRANT
- ST EXISTING STORM SEWER
- S EXISTING SANITARY SEWER
- W EXISTING WATERMAIN
- EXISTING STORM TO BE REMOVED
- EXISTING SUBDRAIN TO BE REMOVED
- STMH4 EXISTING STORM MANHOLE TO BE REMOVED
- CB2 EXISTING CATCH BASIN TO BE REMOVED
- LCB3 EXISTING LANDSCAPE CATCH BASIN TO BE REMOVED
- TG103.47 PROPOSED TOP OF GRATE
- 103.87TC 103.72 3.4% PROPOSED TOP AND BOTTOM OF CURB
- PROPOSED GRADE SLOPE
- LCB 17-11 PROPOSED LANDSCAPE CATCH BASIN
- STMH PROPOSED STORM MANHOLE
- CB PROPOSED STORM CATCH BASIN
- CBMH PROPOSED STORM CATCH BASIN MANHOLE
- SANMH PROPOSED SANITARY MANHOLE
- STM PROPOSED STORM SEWER
- SAN PROPOSED SANITARY SEWER
- W PROPOSED WATERMAIN
- PROPOSED VALVE AND BOX
- PROPOSED REDUCER
- FH PROPOSED FIRE HYDRANT
- M NEW WATER METER FOR DOME
- R NEW REMOTE READOUT FOR WATER METER
- DRAINAGE SUB-AREA BOUNDARY
- PONDING LIMIT
- PROPOSED CLAY DYKE

TRUE NORTH PLAN NORTH

J. C. JOHNSTON
March 8, 2018
PROFESSIONAL ENGINEER PROVINCE OF ONTARIO

PROJECT TITLE/TITRE DU PROJET
ÉCOLE SECONDAIRE CATHOLIQUE PAUL-DESMARAIS - DOME
5315 ABBOTT STREET
OTTAWA, ON

CONSEIL DES ÉCOLES CATHOLIQUES DE DU CENTRE-EST
4000, RUE LABELLE, OTTAWA, ON K1J 1A1

DRAWING TITLE/TITRE DU DESSIN

DRAINAGE AREA PLAN
SEDIMENT AND EROSION CONTROL PLAN

SCALE ÉCHELLE	AS NOTED	PROJ. No	17M-02044-00	ISSUE No. 4	REV. No 3
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