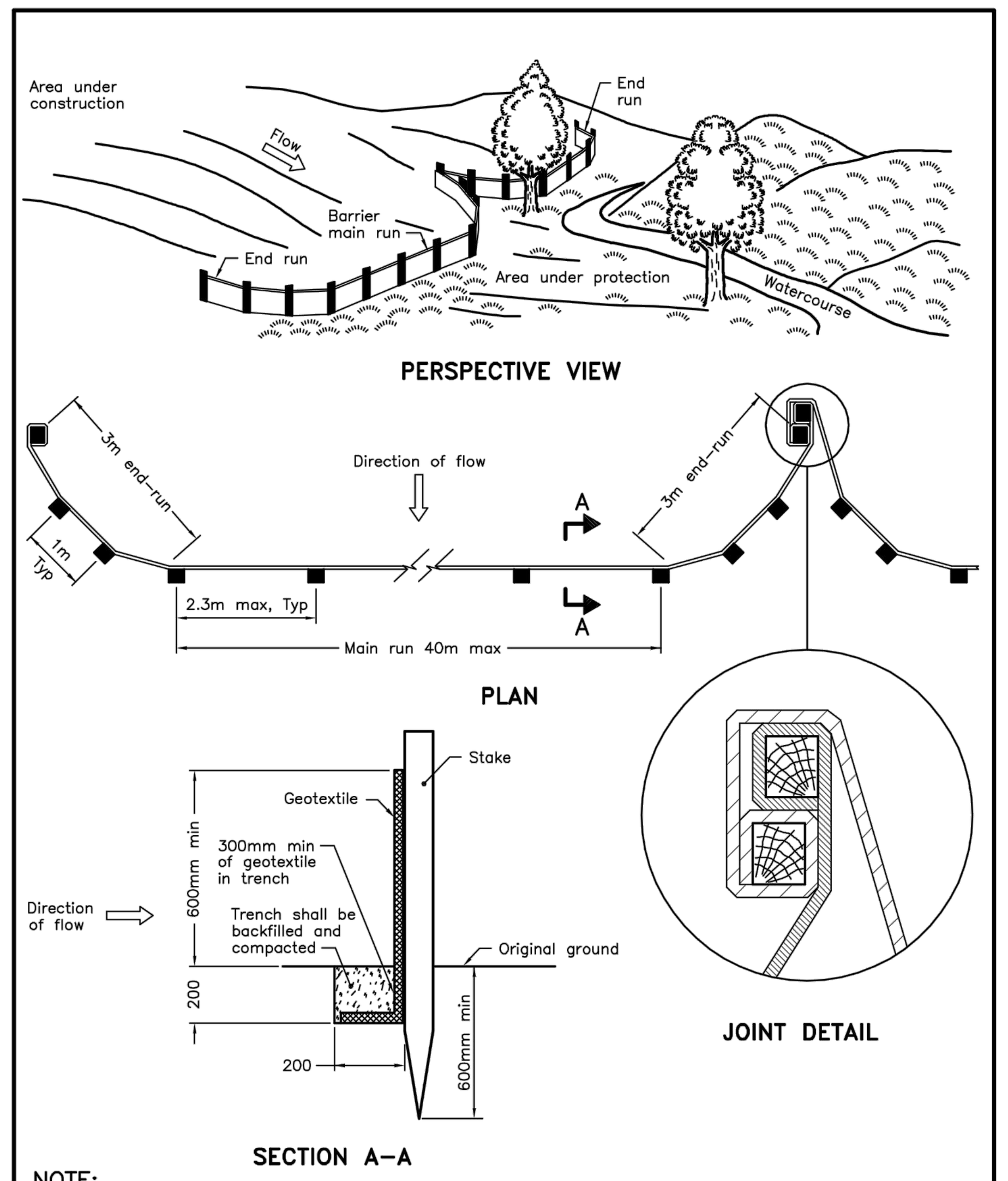
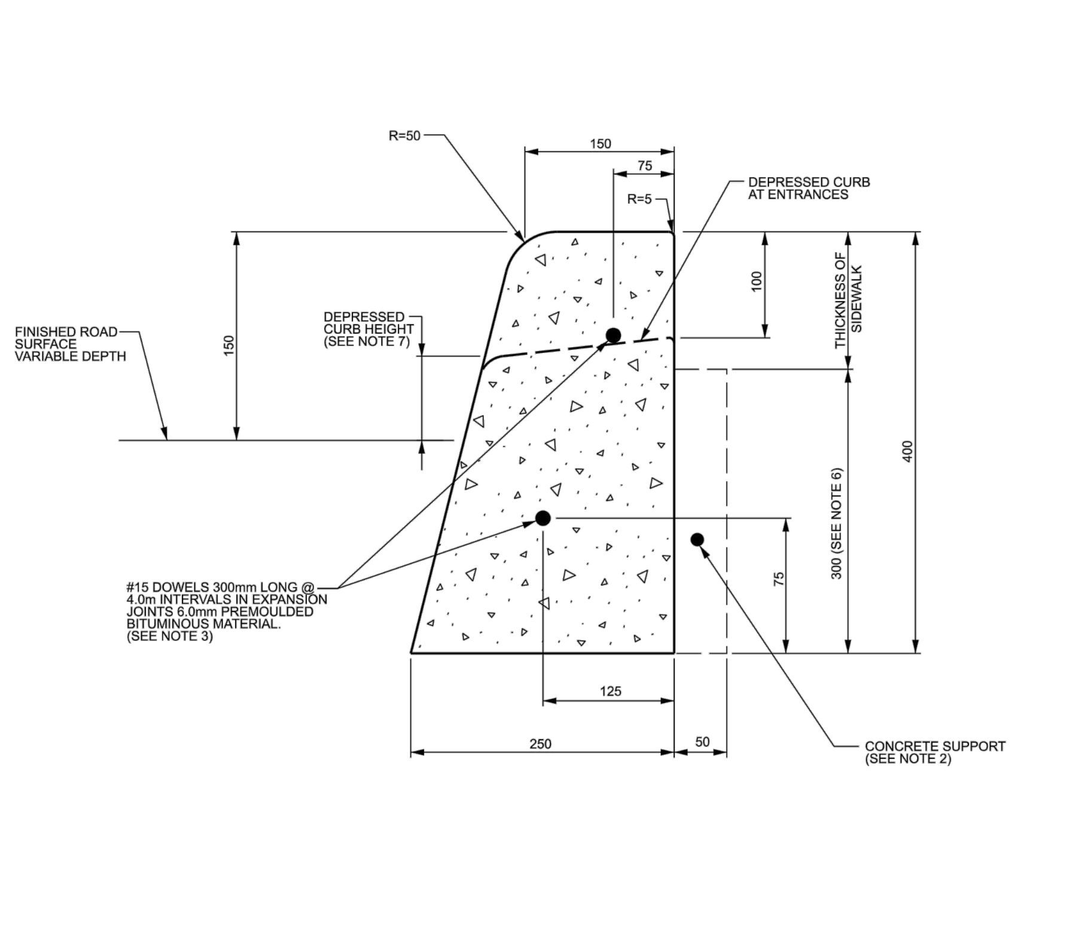


NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
LIGHT-DUTY SILT FENCE BARRIER		OPSD 219.110



CONCRETE BARRIER CURB

NOTES:

1. THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING.
2. A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
3. IF AN EXTRUSION CURBING MACHINE IS USED, THE EXPANSION BITUMINOUS MATERIAL AND THE #15 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. DUMMY JOINTS SHALL BE 25mm DEEP, FRONT, BACK AND TOP OF SECTION AT 4m SPACING OR MATCH JOINTING WHERE SIDEWALK IS ADJACENT.
6. FOR DEPRESSED CURB AT ENTRANCES USE 250.
7. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 25mm.

N.T.S.

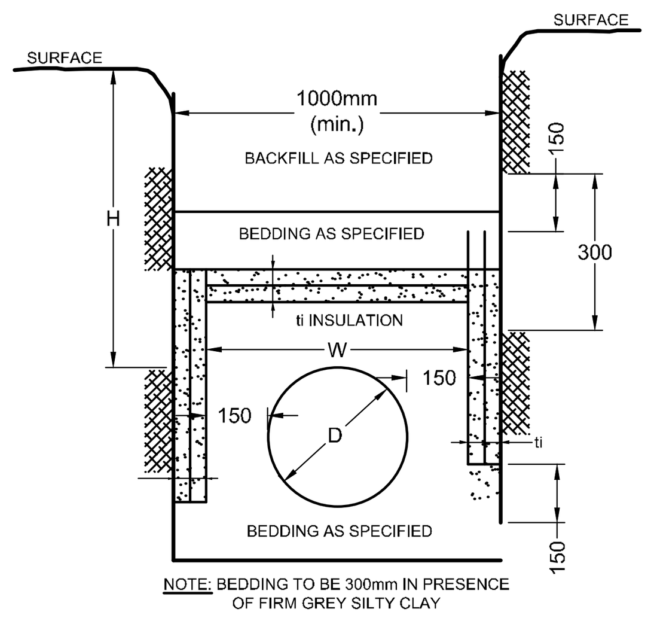
Ottawa	CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD-600.110)	DATE:	JANUARY 2003
		REV. DATE:	MARCH 2019
		DWG. No.:	SC1.1

SEWER & WATERMAIN INSULATION NOTES:

1. INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 1.5m COVER AND ALL WATERMAIN WITH LESS THAN 2.4m OF COVER WITH EXPANDED POLYSTYRENE INSULATION AS PER OPSD 1109.030.
2. THE THICKNESS OF INSULATION SHALL BE THE EQUIVALENT OF 25mm FOR EVERY 300mm REDUCTION IN THE REQUIRED DEPTH OF COVER WITH 50mm MINIMUM (SEE TABLE)

T = THICKNESS OF INSULATION (mm)
W = WIDTH OF INSULATION (mm)
W = D + 300 (1000 min.)
D = O.D OF PIPE (mm)

COVER SEWER / WATER (mm)	INSULATION THICKNESS (mm)
1500-1200 / 2400-2100	50
1200-900 / 2100-1800	75
900-600 / 1800-1500	100



NOTE: BEDDING TO BE 300mm IN PRESENCE OF FIRM GREY SILTY CLAY

INSULATION DETAIL FOR SHALLOW SEWERS & WATERMAIN

GENERAL NOTES:

1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR $2,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED AND THE CITY OF OTTAWA AS THIRD PARTY.
5. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA.
6. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ALL ORGANIC MATERIAL AND DEBRIS. ALL CONTAMINATED MATERIAL (IF ANY) SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
7. ALL ELEVATIONS ARE GEODETIC. THE SITE BENCHMARK IS THE FIRE HYDRANT TOP OF SPINDLE LOCATED AT THE SOUTH CORNER OF THE DEALERSHIP DRIVE AND STRANDHERD DRIVE INTERSECTION (ELEV. = 96.26). REFER TO ANNIS, O'SULLIVAN, VOLLEBEKK LTD. TOPOGRAPHIC SKETCH OF BLOCK 4, REGISTERED PLAN 4M-1538, CITY OF OTTAWA).
8. REFER TO GEOTECHNICAL REPORT No. PG5045-1 PREPARED BY PATERSON GROUP INC. DATED SEPTEMBER 13, 2019 , FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
9. REFER TO THE DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT No. R-2019-187, DATED MARCH 04, 2020 PREPARED BY NOVATECH.
10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
11. SAW CUT AND KEYGRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10). ALL ROAD CUTS TO BE REINSTATED WITH FULL MILL OVERLAY AS PER CITY OF OTTAWA STANDARDS (R10).
12. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES AND GRADING PLAN INDICATING ALL AS-BUILT INFORMATION SHOWN ON THE PLANS. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS, ANY ALIGNMENT CHANGES, AND ALL SURFACE ELEVATION AS BUILT GRADES.

GRADING NOTES:

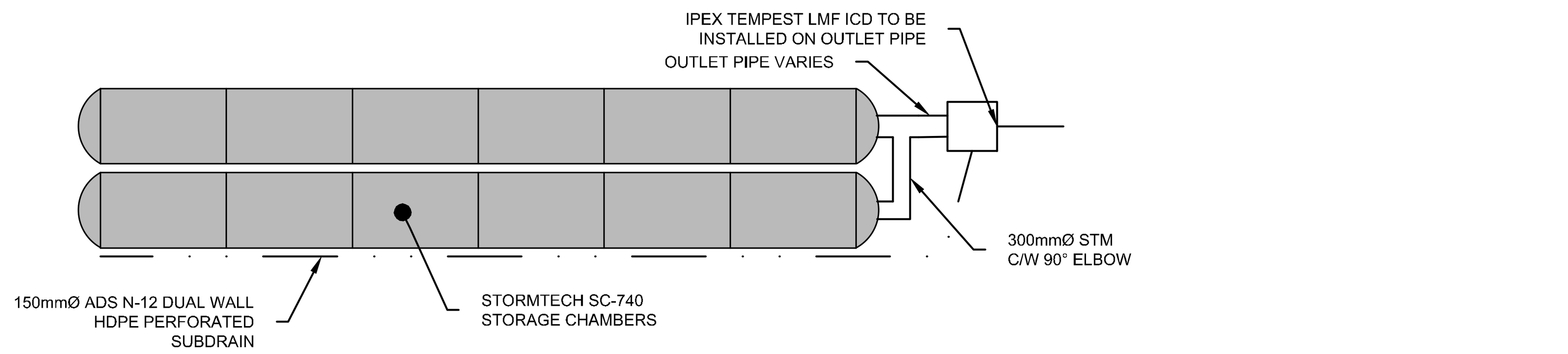
1) ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS.
2) EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE PROOF ROLLED WITH A LARGE STEEL DRUM ROLLER AND INSPECTED BY THE GEOTECHNICAL CONSULTANT.
3) ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUBEXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS.
4) THE GRANULAR BASE SHOULD BE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
5) GRADE AND/OR FILL BEHIND PROPOSED CURB AND BETWEEN BUILDINGS AND CURBS, WHERE REQUIRED TO PROVIDE POSITIVE DRAINAGE.
6) MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
7) ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC1.1).
8) AS PER PRIVATE APPROACH BY-LAW NO. 2004-447 SECTION 26 (h) THE GRADE OF ANY PART OF A PRIVATE APPROACH TO A BUILDING MAY BE GREATER THAN 6% BUT SHALL NOT EXCEED 12% PROVIDED THAT A SUBSTANCE MELTING DEVICE SUFFICIENT TO KEEP THE PRIVATE APPROACH FREE OF ICE AT ALL TIMES IS INSTALLED AND PROPERLY MAINTAINED BY THE OWNER.

EROSION AND SEDIMENT CONTROL NOTES:

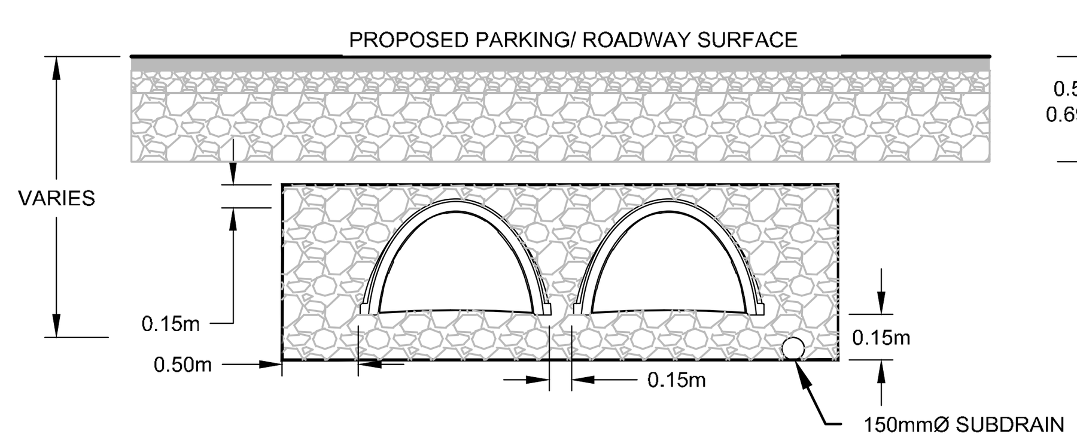
REFER TO ESC PLAN 117148-ESC FOR FURTHER DETAILS

THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, 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.

1) THE OWNER AGREES TO PREPARE AND IMPLEMENT AN EROSION AND SEDIMENT CONTROL PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA, APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL SUCH AS BUT NOT LIMITED TO INSTALLING FILTER CLOTHS ACROSS MANHOLE/CATCHBASIN LIDS TO PREVENT SEDIMENTS FROM ENTERING STRUCTURES AND INSTALL AND MAINTAIN A LIGHT DUTY SILT FENCE BARRIER AS REQUIRED.
2) THE CONTRACTOR SHALL PLACE FILTER BAGS UNDER THE CATCHBASIN AND MANHOLE GRATES FOR THE DURATION OF CONSTRUCTION AND WILL REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION.
3) SILT FENCING FOR ENTIRE PERIMETER OF SITE, SHALL BE UTILIZED TO CONTROL EROSION FROM THE SITE DURING CONSTRUCTION.
4) THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
5) PROVIDE MUD MATS AT ALL CONSTRUCTION ACCESS POINTS TO MINIMIZE SEDIMENT TRANSPORT OFFSITE.
6) EROSION AND SEDIMENT CONTROL MEASURES MAY BE MODIFIED IN THE FIELD AT THE DISCRETION OF THE CITY OF OTTAWA SITE INSPECTOR OR CONSERVATION AUTHORITY.



STORMTECH CHAMBER PLAN VIEW
SCALE 1:100



TYPICAL CHAMBER CROSS SECTION
SCALE 1:50

STORMTECH SC-740 NOTES:

1. CHAMBER DIMENSIONS:
   LENGTH = 2.17m
   WIDTH = 1.30m
   HEIGHT = 0.76m
2. STORAGE VOLUME PER CHAMBER (INCLUDING 150mm STONE BASE) = $2.12m^3$
3. EMBEDMENT STONE SHALL BE A CLEAN, CRUSHED AND ANGULAR STONE WITH AN AASHTO M43 DESIGNATION BETWEEN #3 AND #57
4. REFER TO STORMTECH INSTALLATION GUIDE FOR FURTHER DETAILS

200mmØ WATERMAIN TABLE

STATION	ELEVATION	TOP OF WATERMAIN	DESCRIPTION
0+000.0	95.75	93.56	CONNECTION TO EXISTING 250mmØ WATERMAIN (INSULATION MAY BE REQUIRED)
0+004.4	95.72	93.32	SAN SEWER CROSSING (0.5m CLEARANCE MIN)
0+006.7	95.69	92.54	STM SEWER CROSSING (0.5m CLEARANCE MIN)
0+016.0	95.89	93.49	VALVE AND VALVE BOX
0+017.2	95.90	93.50	11.25° HORIZONTAL BEND
0+029.6	95.80	93.40	CROSS CONNECTION WITH 150mm HYDRANT LEADS
0+037.7	95.74	93.33	STM SEWER CROSSING (0.5m CLEARANCE MIN)
0+066.3	95.71	93.31	TEE CONNECTION WITH 150mm BUILDING SERVICE
0+070.6	95.71	93.31	VALVE AND VALVE BOX
0+073.5	95.76	93.36	CROSS CONNECTION WITH 150mm BUILDING SERVICES
0+076.5	95.81	93.41	SAN SEWER CROSSING (0.5m CLEARANCE MIN)
0+079.0	95.86	93.45	STM SEWER CROSSING (0.5m CLEARANCE MIN)
0+113.6	95.76	93.25	STM SEWER CROSSING (0.5m CLEARANCE MIN)
0+126.0	95.93	93.53	VALVE AND VALVE BOX
0+128.4	95.92	93.37	45° HORIZONTAL BEND
0+133.4	95.68	93.28	SAN SEWER CROSSING (0.5m CLEARANCE MIN)
0+135.3	95.65	93.25	45° HORIZONTAL BEND
0+136.7	95.62	92.80	STM SEWER CROSSING (0.5m CLEARANCE MIN)
0+165.9	95.63	93.23	TEE CONNECTION WITH 150mm HYDRANT LEAD
0+181.9	95.80	93.40	STM SEWER CROSSING (0.5m CLEARANCE MIN)
0+191.2	95.73	93.33	TEE CONNECTION WITH 150mm BUILDING SERVICE
0+204.0	95.77	93.37	VALVE AND VALVE BOX
0+219.6	95.72	93.32	TEE CONNECTION WITH 150mm BUILDING SERVICE
0+261.1	96.01	93.61	VALVE AND VALVE BOX
0+271.5	95.76	93.36	SAN SEWER CROSSING (0.5m CLEARANCE MIN)
0+278.6	95.86	93.46	STM SEWER CROSSING (0.5m CLEARANCE MIN)
0+299.0	95.77	93.37	CONNECTION TO EXISTING 400mmØ WATERMAIN (INSULATION MAY BE REQUIRED)

150mmØ WATERMAIN TABLES

STATION	ELEVATION	TOP OF WATERMAIN	DESCRIPTION
1+000.0	95.85	93.30	FIRE HYDRANT
1+001.4	95.64	93.24	VALVE AND VALVE BOX
1+006.1	95.51	93.11	STM SEWER CROSSING (0.5m CLEARANCE MIN)
1+016.2	95.78	93.18	VALVE AND VALVE BOX
1+019.2	95.60	93.20	CROSS CONNECTION TO 200mmØ WATERMAIN
1+049.0	95.93	93.53	45° HORIZONTAL BEND
1+060.0	95.88	93.48	VALVE AND VALVE BOX
1+062.0	95.87	93.47	FIRE HYDRANT

STATION	ELEVATION	TOP OF WATERMAIN	DESCRIPTION
2+000.0	96.11	93.71	CAP 1.0m FROM FOUNDATION
2+028.4	95.95	93.40	VALVE AND VALVE BOX
2+031.7	95.71	93.31	TEE CONNECTION TO 200mm WATERMAIN

STATION	ELEVATION	TOP OF WATERMAIN	DESCRIPTION
3+000.0	96.08	93.68	CAP 1.0m FROM FOUNDATION
3+027.1	95.84	93.29	VALVE AND VALVE BOX
3+030.5	95.76	93.36	CROSS CONNECTION TO 200mmØ WATERMAIN
3+033.5	95.70	93.30	SAN SEWER CROSSING (0.5m CLEARANCE MIN)
3+036.0	95.64	93.00	STM SEWER CROSSING (0.5m CLEARANCE MIN)
3+040.3	95.58	93.18	VALVE AND VALVE BOX
3+052.5	96.07	93.50	CAP 1.0m FROM FOUNDATION

STATION	ELEVATION	TOP OF WATERMAIN	DESCRIPTION
4+000.0	95.73	93.33	TEE CONNECTION TO 200mm WATERMAIN
4+001.0	95.74	93.34	VALVE AND VALVE BOX
4+007.0	96.07	93.50	CAP 1.0m FROM FOUNDATION

STATION	ELEVATION	TOP OF WATERMAIN	DESCRIPTION
5+000.0	95.72	93.32	TEE CONNECTION TO 200mm WATERMAIN
5+001.0	95.76	93.36	VALVE AND VALVE BOX
5+007.0	95.08	93.50	CAP 1.0m FROM FOUNDATION

STATION	ELEVATION	TOP OF WATERMAIN	
6+000.0	95.62	93.22	TEE CONNECTION TO 200mm WATERMAIN
6+005.3	95.69	93.29	VALVE AND VALVE BOX
6+000.9	95.87	93.32	FIRE HYDRANT

INLET CONTROL DEVICE TABLE:

	TEMPEST LMF/MHF ICDs		
LOCATION	T/G ELEVATION	OUTLET INVERT	MODEL NO.
CBMH101	95.35	93.68	TEMPEST LMF VORTEX 86
CBMH103	95.60	93.58	TEMPEST LMF VORTEX 93
CBMH108	95.50	93.82	TEMPEST LMF VORTEX 78
CBMH111	95.45	93.89	TEMPEST LMF VORTEX 62
CBMH113	95.50	93.78	TEMPEST LMF VORTEX 93
CBMH117	95.40	93.96	TEMPEST LMF VORTEX 62
CBMH119	95.45	93.94	TEMPEST LMF VORTEX 93

ROOF DRAIN INFORMATION

Area ID (Roof Drain ID)	Drainage Area (ha)	Static Ponding Area (m^2)	Watts Roof Drain Setting (# Drains)	Controlled Peak Flow (L/s)		Ponding Depth (m)		Provided Storage Volume (m^3)
				1:5 Year	1:100 Year	1:05 Year	1:100 Year	
BLDG 'A'	0.13	975	Fully Open (x6)	7.6	11.4	0.11	0.14	48.8
BLDG 'B'	0.13	975	Fully Open (x6)	7.6	11.4	0.11	0.14	48.8
BLDG 'C'	0.18	1350	Fully Open (x8)	10.1	15.1	0.11	0.14	67.5
TOTAL	**0.44**	**3300**	-	**25.2**	**37.9**	-	-	**165**

THIS TABLE PROVIDES ASSUMED ROOF DRAIN INFORMATION FOR STORMWATER MANAGEMENT DESIGN. REFER TO MECHANICAL DRAWINGS FOR DETAILS ON ROOF DRAINS

PAVEMENT STRUCTURE:

HEAVY DUTY PAVEMENT
40mm SP 12.5
50mm SP 19.0
150mm OPSS GRANULAR "A"
450mm OPSS GRANULAR "B" TYPE II

LIGHT DUTY PAVEMENT
50mm SP 12.5
150mm OPSS GRANULAR "A"
300mm OPSS GRANULAR "B" TYPE II

NOTES:
1. MINIMUM PG 58-34 ASPHALT CEMENT
2. SOFT SPOTS IN SUBGRADE FOUND DURING CONSTRUCTION TO BE EXCAVATED AND REPLACED WITH OPSS GRANULAR "B" TYPE II

SEWER NOTES:

1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
2. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
STORM / SANITARY MANHOLE (1200Ø)	701.010	OPSD
STORM MANHOLE (1500Ø)	701.011	OPSD
STORM MANHOLE (1800Ø)	701.012	OPSD
CATCHBASIN (600x600mm)	705.010	OPSD
CB, FRAME & COVER	400.020	OPSD
STORM / SANITARY MH FRAME	S25	CITY OF OTTAWA
SANITARY COVER	S24	CITY OF OTTAWA
STORM COVER (CLOSED)	S24.1	CITY OF OTTAWA
STORM COVER (OPEN)	S28.1	CITY OF OTTAWA
SEWER TRENCH	S6 & S7	CITY OF OTTAWA
STORMTECH CHAMBERS	SC-740	ADS Inc.
STORM SEWER < 450mmØ	PVC SDR 35 (UNLESS SPECIFIED OTHERWISE)	
STORM SEWER >= 450mmØ	CONC 65D (UNLESS SPECIFIED OTHERWISE)	
SANITARY SEWER	PVC DR 35	CITY OF OTTAWA

3. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
3. ALL STORM AND SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH BACKFLOW PREVENTION DEVICES AS PER THE CITY OF OTTAWA STANDARD DETAILS S14 AND S14.1 OR S14.2.
4. ALL WEEPING TILE CONNECTIONS TO BE MADE TO THE PROPOSED STORM SEWER SYSTEM DOWNSTREAM OF ANY INLET CONTROL DEVICES.
5. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER PER INSULATION DETAIL FOR SHALLOW SEWERS. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
6. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
7. STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
8. ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO HAVE 600mm SUMPS.
9. ALL CATCHBASINS AND CATCHBASIN MANHOLES ARE TO BE PROVIDED WITH MINIMUM 3 METER LONG PERFORATED SUBDRAINS WHICH EXTEND IN TWO DIRECTIONS LONGITUDINALLY AT THE SUBGRADE LEVEL.
10. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES AND RE CCTV PRIOR TO ACCEPTANCE.
11. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.

WATERMAIN NOTES:

1. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN	PVC DR 18	

2. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
4. PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
5. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.

LILY XU, MCIP, RPP
MANAGER, DEVELOPMENT REVIEW SOUTH
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

APPROVED
By Lily Xu at 11:49 am, Nov 16, 2020

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

NOT FOR CONSTRUCTION

No.	REVISION	DATE	BY
4.	REVISED PER CITY COMMENTS AND ISSUED FOR FINAL APPROVAL	OCT 28/20	CJR
3.	REVISED SITE PLAN	AUG 21/20	CJR
2.	REVISED PER CITY COMMENTS	MAR 04/20	CJR
1.	ISSUED FOR SITE PLAN APPLICATION	NOV 06/19	CJR

SCALE: AS NOTED

DESIGN: ARM
CHECKED: CJR
DRAWN: ARM
CHECKED: CJR
APPROVED: JLS

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER
C.J. RUDDLE
OCT 28/20
PROVINCE OF ONTARIO

NOVATECH
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Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

LOCATION
4149 STRANDHERD DRIVE, CITY OF OTTAWA

DRAWING NAME
NOTES AND DETAILS

PROJECT No. 117148
REV: REV # 4
DRAWING No. 117148-ND

D07-12-19-0182 #18069

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