

- ALL STANDARDS AND MATERIALS SHALL CONFORM TO THE LATEST REVISION OF THE STANDARDS AND SPECIFICATIONS FOR THE CITY OF OTTAWA'S STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES. ANY DEVIATION FROM THESE STANDARDS OR SPECIFICATIONS FOR ALL WORKS AND MINISTRY OF TRANSPORTATION STANDARDS WILL APPLY WHERE REQUIRED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES ADJACENT TO THE PROJECT SITE AND ADJACENT WORK AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION OVER SUCH UTILITIES. IF ANY UTILITIES ARE DAMAGED OR DISTURBED DURING CONSTRUCTION, TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.
- ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IN WRITING OF ANY POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S RISK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED TO BEAT THE COST OF THE SAME.
- ANY AREAS BEYOND THE LIMIT OF THE SITE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER.
- RELOCATION OF EXISTING SERVICES AND/OR UTILITIES SHALL BE AS SHOWN ON THE DRAWINGS OR DIRECTED BY THE ENGINEER AT THE EXPENSE OF THE DEVELOPER.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE "OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS". THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE "CONTRACTOR AS DEFINED IN THE ACT."
- ALL WORK SHALL BE SUBJECT TO THE MINISTRY OF TRANSPORTATION OF ONTARIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR LATER AMENDMENT.
- THE CONTRACTOR IS ADVISED THAT WORKS BY OTHERS MAY BE ONGOING DURING THE PERIOD OF THIS CONTRACT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH SUCH OTHERS.
- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED THEREOF.
- ALL CONDITIONS SHALL BE SUBSTITUTION OF FACTS UNLESS A WRITTEN APPROVAL IS RECEIVED FROM THE ENGINEER.
- ALL CONSTRUCTION SHALL BE COMPLETED OUTSIDE OF THE ROADWAY WITH THE RECOMMENDATIONS MADE IN GEOTECHNICAL INVESTIGATION (PG05-1-), PREPARED BY PATRICKSON GROUP AND DATED FEBRUARY, 2020.
- ALL SEWERS CONSTRUCTED WITH GRADES LESS THAN 1.0% SHALL BE INSTALLED USING LAUNCH ALUMINOUM AND CHECKED WITH LEVEL INSTRUMENT PRIOR TO BACKFILLING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED AND TO BEAT THE COST OF THE SAME.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL BEDDING, OR ADDITIONAL STRENGTH PIPE IF THE MAXIMUM TRENCH WIDTH EXCEEDS THE MANUFACTURED PIPE SIZE.
- ALL PIPE / CURVED SECTION SIZES REFER TO INSIDE DIMENSIONS.
- SHOULD BURIED ARCHAEOLOGICAL REMAINS BE FOUND ON THE PROPERTY DURING CONSTRUCTION ACTIVITIES, THE HERITAGE CONSULTANT SHALL BE NOTIFIED IMMEDIATELY.
- ALL NECESSARY CLEARING AND GRUBBING SHALL BE COMPLETED BY THE CONTRACTOR. REVIEW WITH CONTRACT ADMINISTRATOR FOR ANY SPECIAL REQUIREMENTS.
- DRAWINGS SHALL BE READ IN CONNECTION WITH THE ARCHITECTURAL SITE PLAN.
- THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER ONE SET OF AS CONSTRUCTED SITE SERVicing AND GRADING DRAWINGS.
- ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IN WRITING OF ANY POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION WILL BE AT THE CONTRACTOR'S RISK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED TO BEAT THE COST OF THE SAME.

1. PRIOR TO THE COMMENCEMENT OF THE SITE GRADING WORKS, ALL SILTATION CONTROL DEVICES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

2. ALL GRANULAR AND PAVEMENT FOR ROADS/PARKING AREAS SHALL BE CONSTRUCTED IN ACCORDANCE WITH GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

3. ALL TOPSOIL MATERIAL SHALL BE STRIPPED WITHIN THE ROAD AND PARKING AREAS ALLOWANCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

4. CONCRETE IN ACCORDANCE WITH CITY OF OTTAWA STD. SCL1.1, PROPOSED SHALL BE MADE FOR CURB DEPRESSIONS AS INDICATED ON ARCHITECTURAL SITE PLAN. CONCRETE SIDEWALK SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD SPECIFICATIONS FOR CONCRETE SIDEWALKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE PORTION OF THE CONTRACT.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SERVICE AND UTILITY CUTS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA STD. R10 AND OPS 508.010, AND OPS 30.1.

6. GRANULAR 'A' SHALL BE PLACED TO A MINIMUM THICKNESS OF 300mm around ALL STRUCTURES WITHIN THE PAVEMENT AREA.

7. SUB-BASE GRANULAR 'B' SHALL BE PLACED WITH GRANULAR 'S' COMPACTED IN MAXIMUM 300mm LIFTS.

8. ALL WORK ON THE MUNICIPAL RIGHT OF WAY AND EASEMENTS TO BE INSPECTED BY THE MUNICIPALITY PRIOR TO BACKFILLING.

9. CONTRACTOR TO BE ON SITE FOR A MINIMUM OF SEVENTEEN (17) HOURS PRIOR TO COMMENCING ANY WORK WITHIN THE MUNICIPAL ROAD RIGHT-OF-WAY PURSUED BY THE MUNICIPALITY.

Figure 1 shows two cross-sections of road pavement. The left section is labeled 'LIGHT DUTY' and has a total thickness of 500mm. It consists of 50mm HL3 ASPHALTIC CONCRETE, 150mm GRANULAR 'A', and 300mm GRANULAR 'B' TYPE II, all on a SUBGRADE. The right section is labeled 'FIRE ROUTE / HEAVY DUTY' and has a total thickness of 600mm. It consists of 50mm HL3 ASPHALTIC CONCRETE, 150mm GRANULAR 'A', and 450mm GRANULAR 'B' TYPE II, all on a SUBGRADE. A double-headed arrow indicates the width of the sections.

2. ALL WATERMAIN INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARDS.
3. ALL P.V.C. WATERMANS SHALL BE AWWA C-300 CLASS 150, DR 18 OR APPROVED EQUIVALENT.
4. ALL PIPES AND BEDDING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE PROJECT. UNLESS SPECIFIED OTHERWISE, THE MINIMUM PERMISSIBLE COVER SHALL BE 1.0m.
5. ALL P.V.C. WATERMANS SHALL BE INSTALLED WITH A 10 GAUGE STRANDED COPPER TIE OR RWU TRACER WIRE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE PROJECT.
6. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS PER CITY OF OTTAWA STD. W4.0 AND W4.2.
7. ALL WATERMANS SHALL BE INSTALLED PER CITY OF OTTAWA STD. W2.1 AND W2.2.
8. WATERMAIN IN FIELD AREAS TO BE INSTALLED WITH RESTRAINED JOINTS PER CITY OF OTTAWA STD. W2.5.5 AND W2.5.6.
9. THRUST BLOCKING OF WATERMANS TO BE INSTALLED PER CITY OF OTTAWA STD. W2.3.3 AND W2.3.4.
10. ALL WATERMANS SHALL BE INSTALLED WITH THE FOLLOWING: ALL TEMPORARY CAPS, PLUGS, BLOW-OUTS, AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
11. WATERMAIN CROSSING OVER AND BELOW SEWERS SHALL BE IN ACCORDANCE WITH CITY OF OTTAWA STD. W2.3.2 AND W2.3.4, RESPECTIVELY.
12. WATER SERVICES ARE TO BE INSTALLED PER CITY STD. W2.3 WHERE SEPARATION BETWEEN SERVICES AND MAINTENANCE HOLES ARE REQUIRED.
13. THE MINIMUM VERTICAL CLEARANCE BETWEEN WATERMAIN AND SEWER / UTILITY IS 0.50m per OWS GUIDELINES. FOR CROSSING UNDER, THE MINIMUM VERTICAL CLEARANCE SHALL BE 0.75m. FOR CROSSING OVER, THE MINIMUM VERTICAL CLEARANCE SHALL BE 1.0m. AND SETTLING. THE LENGTH OF WATER PIPE SHALL BE CENTERED AT THE POINT OF CROSSING TO ENSURE THAT THE JOINTS WILL NOT BE AT THE POINT OF CROSSING.
14. ALL WATERMANS SHALL HAVE A MINIMUM COVER OF 2.4m, OTHERWISE THUNDER INSULATION IS REQUIRED AS PER STD. W2.2.
15. GENERAL WATER PLANT TO UTILITY CLEARANCE AS PER STD. W2.0
16. ALL WATERMANS SHALL BE INSTALLED WITH A MINIMUM 10% MINIMUM HYDRANT FLANGE ELEVATIONS TO BE INSTALLED 0.10m ABOVE PROPOSED FINISHED GRADE AT HYDRANT. FIRE HYDRANT LOCATION AS PER STD. W2.0 WITH UNLESS OTHERWISE NOTED.
17. BUILDING SERVICE TO BE CAPPED 1.0m OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED AND MUST BE RESTRAINED A MINIMUM OF 1.0m.
18. ALL WATERMANS SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES.
19. ALL WATERMANS SHALL BE BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH THE CITY OF OTTAWA AND ONTARIO GUIDELINES.
20. ALL WATERMANS SHALL BE INSTALLED WITH THE FOLLOWING: ALL TEMPORARY CAPS, PLUGS, BLOW-OUTS, AND NOZZLES REQUIRED FOR TESTING AND DISINFECTION OF THE WATERMAIN.
21. ALL WATERMANS SHALL BE TREATED SUO AS NOT TO ADVERSELY EFFECT THE ENVIRONMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA.
22. ALL WATERMAIN STUDS SHALL BE TERMINATED WITH A PLUG AND 50mmH BLOW OFF UNLESS OTHERWISE NOTED.

2. LAYER ALIGNMENT CONTACT TO BE UTILIZED ON ALL SEWER INSTALLATIONS.
3. CLAY SEALS TO BE INSTALLED AS PER CITY STANDARD DRAWINGS. THE SEALS SHOULD BE AT LEAST 1.5m LONG (IN THE TRENCH DIRECTION) AND SHOULD EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEALS SHOULD EXTEND FROM THE FROST LINE TO THE TOP OF THE TRENCH. THE BARRIERS SHALL BE MADE OF 3mm THICK POLYETHYLENE OR 1.5mm THICK BUTYR RUBBER DRY AND COMPACTED BROWN SILTY CLAY PLACED IN MAXIMUM 25mm LIFTS AND COMPACTED TO A MINIMUM OF 98% SPD.
4. SERVICES TO BUILDINGS TO BE TERMINATED 1.0m FROM THE OUTSIDE FACE OF BUILDING UNLESS OTHERWISE NOTED.
5. ALL MAINDRAIN, STRUCTURE AND CATCH BASIN EXCAVATIONS TO BE BACKFILLED WITH GRANULAR MATERIAL COMPACTED TO 98% SPD.
6. STRUCTURE TO BE CONSTRUCTED TO THE CITY STANDARD DRAWINGS.
7. "MODULOG" OR APPROVED PER-CAST MAINDRAIN STRUCTURE AND CATCH BASIN SHALL BE USED IN LIEU OF BRICKING.
8. SAFETY PLATFORMS SHALL BE PRE-AS PER OPS# 404.02.
9. DROP STRUCTURES SHALL BE IN ACCORDANCE WITH OPS# 1003.01 AND 1003.02, IF APPLICABLE.
10. THE CONTRACTOR MUST PROVIDE VIDEO INSPECTIONS OF ALL SEWERS, INCLUDING PICTORIAL, ONE (1) CD COPY AND TWO (2) VIDEO RECORDINGS IN A FORMAT ACCEPTABLE TO THE ENGINEER. ALL SEWERS ARE TO BE FLUSHED PRIOR TO VIDEO INSPECTIONS. THE VIDEO INSPECTIONS SHALL BE CONDUCTED PRIOR TO THE START OF ANY REPAIRS HAVE BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER.
11. THE CONTRACTOR SHALL BE REQUIRED TO CONSULT WITH THE CONSULTANT FOR SANITARY SEWERS IN ACCORDANCE WITH OPS# 410 AND OPS# 407. CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF ALL SEWERS. A COPY OF THE VIDEO AND INSPECTION REPORT SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT OF NEW CURB OR ASPHALT.
12. FROST PROTECTION RECOMMENDATIONS FOR STORM SEWERS WITH LESS THAN 1.5m AND SANITARY SEWERS WITH LESS THAN 1.5m

SANITARY

11. ALL SANITARY SEWER INSTALLATION SHALL CONFORM TO THE LATEST REVISIONS OF THE CITY OF OTTAWA AND THE INTERNATIONAL PROTECTION OF CORROSION ASSOCIATION (NACE) STANDARD.
 12. ALL SANITARY GRAVITY SEWER SHALL BE PVC SD 36, 30, IPX "RING-TITE" (OR APPROVED EQUIVALENT) PER CSA STANDARD B182.2.
 13. EXISTING MAINTENANCE STRUCTURES TO BE RE-ENGINEERED WHEN A NEW CONNECTION IS MADE.
 14. SANITARY GRAY SEWER TRENCH AND BEDDING SHALL BE PER CITY OF OTTAWA SD. 56 AND SD. 57 CLASS "B" BEDDING, UNLESS OTHERWISE SPECIFIED.
 15. SANITARY MAINTENANCE STRUCTURE FRAME AND COVERS SHALL BE PER CITY OF OTTAWA SD. 524 AND 525.
 16. SANITARY MAINTENANCE STRUCTURES SHALL BE BENCH PER (OSD 70.021).
- STORM**
17. NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A252.2, OR LATEST AMENDMENT. ALL NON-REINFORCED CONCRETE STORM SEWER PIPE SHALL BE IN ACCORDANCE WITH CSA A257.1, OR LATEST AMENDMENT. PIPE SHALL JOINTED WITH SD. RUBBER JOINTS AS PER CSA A257.1, OR LATEST AMENDMENT.
 18. ALL STORM SEWER SHALL BE 1500 MM DIA. UNLESS OTHERWISE SPECIFIED. CITY OF OTTAWA SD. 56 AND SD. 57 CLASS "B" BEDDING, UNLESS OTHERWISE SPECIFIED. BEDDING AND COVER MATERIAL, SHALL BE SPECIFIED BY PROJECT GEOTECHNICAL ENGINEER.
 19. ALL STORM SEWER SHALL BE 1500 MM DIA. UNLESS OTHERWISE SPECIFIED. CITY OF OTTAWA SD. 516.2 OR LATEST AMENDMENT, UNLESS OTHERWISE SPECIFIED.
 20. CATCH BASINS SHALL BE IN ACCORDANCE WITH OSD 705.010.
 21. CATCH BASIN LEADS SHALL BE 200MM DIA. AT 1% SLOPE (MIN) UNLESS OTHERWISE SPECIFIED.
 22. ALL CATCH BASIN LEADS SHALL BE 600MM SLOPS, UNLESS OTHERWISE SPECIFIED.
 23. ALL CATCH BASIN LEAD INVERTS TO BE 1.5m BELOW FINISHED GRADE UNLESS OTHERWISE SPECIFIED.
 24. THE STORM SEWER CLASSES HAVE BEEN DESIGNED BASED ON BEDDING CONDITIONS SPECIFIED ABOVE. WHERE THE SPECIFIED BEDDING CONDITIONS ARE NOT AVAILABLE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXTRA TREATMENT, REPAIRS AND/OR PERMANENT REPAIRS MADE NECESSARY BY THE WROGHTEN TRENCH.
 25. ALL STORM SEWER ROAD AND PARKING LOT CATCH BASIN SHALL BE INSTALLED PER CITY SD. 521 AND GEOTECHNICAL RECOMMENDATIONS UNLESS OTHERWISE NOTED.
 26. REINFORCED SUBSIDIARY FOR REAR YARD AND LANDSCAPING APPLICATIONS SHALL BE INSTALLED PER CITY SD. 529, 530, AND 531, WHERE APPLICABLE.
 27. RP-RAP TREATMENT FOR SEWER AND CULVERT OUTLETS PER OSD 810.010.
 28. ALL CATCH BASIN, INSTALLED WITH A 1% SLOPE, SHALL BE PER OSD 803.031 AND PER OSD 524, 530, AND 531.
 29. STORM MAINTENANCE STRUCTURE FRAME AND COVERS SHALL BE PER CITY OF OTTAWA SD. 525 AND 524.1, UNLESS OTHERWISE SPECIFIED.
 30. CATCH BASIN FRAME AND COVER SHALL BE PER OSD 400.002 AND CITY SD. 519.1, UNLESS OTHERWISE NOTED.

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 DETRIMENTAL TO THE RECEIVING WATERCOURSE AND THE ADJACENT PROPERTY.

THE CONTRACTOR ACKNOWLEDGES THAT SURFACE EROSION AND SEDIMENT RUNOFF RESULTING FROM THEIR CONSTRUCTION OPERATIONS HAS POTENTIAL TO CAUSE A DETRIMENTAL IMPACT TO ANY DOWNSTREAM WATERCOURSE OR SEWER, AND THAT ALL CONSTRUCTION OPERATIONS THAT MAY IMPACT UPON WATER QUALITY SHALL BE CONDUCTED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:

AS SUCH, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THEIR OPERATIONS, AND SUPPLYING AND INSTALLING ANY APPROPRIATE CONTROL MEASURES, SO AS TO PREVENT SEDIMENT LADEEN RUNOFF FROM ENTERING ANY SEWER OR WATERCOURSE WITHIN OR DOWNSTREAM OF THE WORKING AREA.

THE CONTRACTOR ACKNOWLEDGES THAT NO ONE MEASURE IS LIKELY TO BE 100% EFFECTIVE FOR EROSION PROTECTION AND CONTROLLING SEDIMENT RUNOFF AND THAT THE CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING THE EFFECTIVENESS OF SUCH MEASURES IN THE SAME MANNER AS THAT REQUIRED TO MITIGATE SEDIMENT RELEASE FROM THE CONSTRUCTION OPERATIONS AND ACHIEVE SPECIFIC MAXIMUM PERMITTED CRITERIA WHERE APPLICABLE. SUGGESTED ON-SITE MEASURES TO PREVENT EROSION AND SEDIMENT RELEASE MAY INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: SLOPE PROTECTION, MULCHING, STRAW BALES, FILTER CLOSURES, CATCH BASIN FILTERS, CHECK DAMS AND/OR BERM, OR OTHER RECOGNIZED TECHNOLOGIES AND METHODS AVAILABLE AT THE TIME OF CONSTRUCTION. SPECIFIC MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF OPSS 577 WHERE APPROPRIATE, OR IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY.

WHERE, IN THE OPINION OF THE CONTRACT ADMINISTRATOR OR REGULATORY AGENCY, THE INSTALLED CONTROL MEASURES FAIL TO PERFORM ADEQUATELY, THE CONTRACTOR SHALL SUPPLY AND INSTALL ADDITIONAL OR ALTERNATIVE MEASURES AS DIRECTED BY THE CONTRACT ADMINISTRATOR OR REGULATORY AGENCY. AS SUCH, THE CONTRACTOR SHALL HAVE ADDITIONAL CONTROL MATERIALS ON SITE AT ALL TIMES WHICH ARE EASILY ACCESSIBLE AND MAY BE IMPLEMENTED BY HIM AT ANY MOMENT'S NOTICE.

PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL SUBMIT TO THE CONTRACT ADMINISTRATOR SIX COPIES OF A DETAILED EROSION AND SEDIMENT CONTROL PLAN (ESCP). THE ESCP WILL CONSIST OF A WRITTEN DESCRIPTION AND DETAILED DRAWINGS INDICATING THE ON-SITE ACTIVITIES AND MEASURES TO BE USED TO CONTROL EROSION AND SEDIMENT MOVEMENT FOR EACH STEP OF THE WORK.

CONTRACT

THE CONTRACTOR SHALL ENSURE THAT ALL WORKERS, INCLUDING SUB-CONTRACTORS, IN THE WORKING AREA ARE AWARE OF THE IMPORTANCE OF THE EMISSION AND SEDIMENT CONTROL MEASURES AND INFORMED OF THE CONSEQUENCES OF THE FAILURE TO COMPLY WITH THE REQUIREMENTS OF ALL REGULATORY AGENCIES.

THE CONTRACTOR SHALL PERIODICALLY, AND WHEN REQUESTED BY THE CONTRACT ADMINISTRATOR, CLEAN OUT ACCUMULATED SEDIMENT DEPOSITS AS REQUIRED AT THE EMISSION CONTROL DEVICES, INCLUDING THOSE DEPOSITS THAT ORIGINATE FROM OUTSIDE THE CONSTRUCTION AREA. ACCUMULATED SEDIMENT SHALL BE REMOVED TO AN APPROPRIATE LOCATION FOR THE DISPOSITION OF THIS MATERIAL INTO ANY SEWER OR WATERCOURSE AND AVOIDS DAMAGE TO THE CONTROL MEASURES.

SEDIMENT SHALL BE REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE AND MANAGED IN COMPLIANCE WITH THE REQUIREMENTS FOR EXCESS EARTH MATERIAL, AS SPECIFIED ELSEWHERE IN THE CONTRACT.

THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE CONTRACT ADMINISTRATOR ANY ACCIDENTAL DISCHARGES OF SEDIMENT MATERIAL INTO EITHER THE WATERCOURSE OR THE STORM SEWER SYSTEM. FAILURE TO REPORT WILL BE CONSTITUTE A BREACH OF THIS SPECIFICATION AND THE CONTRACTOR MAY ALSO BE SUBJECT TO THE PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY. APPROPRIATE RESPONSE MEASURES, INCLUDING ANY REPAIRS TO EXISTING CONTROL MEASURES OR THE IMPLEMENTATION OF ADDITIONAL CONTROL MEASURES, SHALL BE CARRIED OUT BY THE CONTRACTOR WITHOUT DELAY.

THE SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED WHEN, IN THE OPINION OF THE CONTRACT ADMINISTRATOR, THE MEASURE OR MEASURES, IS NO LONGER REQUIRED. NO CONTROL MEASURE MAY BE PERMANENTLY REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE CONTRACT ADMINISTRATOR. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED IN A MANNER THAT AVOIDS THE ENTRY OF ANY EQUIPMENT, OTHER THAN HAND-HELD EQUIPMENT, INTO ANY WATERCOURSE, AND PREVENTS THE RELEASE OF ANY SEDIMENT OR DEBRIS INTO ANY SEWER OR WATERCOURSE WITHIN OR DOWNSTREAM OF THE WORKING AREA. ALL ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE WORKING AREA AT THE CONTRACTOR'S EXPENSE AND MANAGED IN COMPLIANCE WITH THE REQUIREMENTS FOR EXCESS EARTH MATERIAL.

WHERE, IN THE OPINION OF EITHER THE CONTRACT ADMINISTRATOR OR A REGULATORY AGENCY, ANY OF THE TERMS SPECIFIED HEREIN HAVE NOT BEEN COMPLIED WITH OR PERFORMED IN A SUITABLE MANNER, OR AT ALL, THE CONTRACT ADMINISTRATOR OR REGULATORY AGENCY HAS THE RIGHT TO IMMEDIATELY WITHDRAW ITS PERMISSION TO CONTINUE THE WORK BUT MAY RENEW ITS PERMISSION UPON BEING SATISFIED THAT THE DEFAULTS OR DEFICIENCIES IN THE PERFORMANCE OF THIS SPECIFICATION BY THE CONTRACTOR HAVE BEEN REMEDIED.

2. ALL CONSTRUCTION EQUIPMENT SHALL BE RE-FUELED, MAINTAINED, AND STORED NO LESS THAN 30 METRES FROM WATERCOURSES, STREAMS, CREEKS, WOODLOTS, AND WETLANDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AUTHORITIES. THE CONTRACTOR MUST IMPLEMENT ALL NECESSARY MEASURES IN ORDER TO PREVENT LEAKS, DISCHARGES OR SPILLS OF POLLUTANTS, DELETERIOUS MATERIALS, AND OTHER SUBSTANCES THAT COULD CAUSE DAMAGE TO THE ENVIRONMENT. IN THE EVENT OF A LEAK, DISCHARGE OR SPILL OF A POLLUTANT, DELETERIOUS MATERIAL OR OTHER SUCH MATERIAL OR SUBSTANCE WITH WOULD OR COULD CAUSE DAMAGE TO THE ENVIRONMENT, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE APPROPRIATE FEDERAL, PROVINCIAL, AND LOCAL GOVERNMENT MINISTRIES, DEPARTMENTS, AGENCIES, AND AUTHORITIES OF THE INCIDENT IN ACCORDANCE WITH ALL CURRENT LAWS, LEGISLATION, ACTS, BY-LAWS, PERMITS, APPROVALS, ETC.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AUTHORITIES TO MITIGATE AGAINST ADVERSE IMPACTS TO THE NATURAL ENVIRONMENT.

3.3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AUTHORITIES TO MITIGATE AGAINST ADVERSE IMPACTS TO THE ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE AUTHORITIES HAVING JURISDICTION.

1. THE GRANULAR MATERIAL WILL REQUIRE PERIODIC REPLACEMENT AS IT BECOMES CONTAMINATED BY VEHICLE TRAFFIC.
2. SEDIMENT SHALL BE CLEARED FROM PUBLIC ROADS AT THE END OF EACH DAY.
3. SEDIMENT SHALL BE REMOVED FROM PUBLIC ROADS BY SHOVELING OR SWEEPING AND DISPOSED OF PROPERLY IN A CONTROLLED SEDIMENT DISPOSAL AREA.

INLET CONTROL DEVICE
PLASTIC CAP TO BE
INSTALLED IN DOWNSTREAM
END OF STORM MAINTENANCE
STRUCTURE

DIA

CIRCULAR OPENING AS SPECIFIED
TO BE SITUATED AT INVERT
OF OUTLET SEWER

PHASE I DITCH GRADING

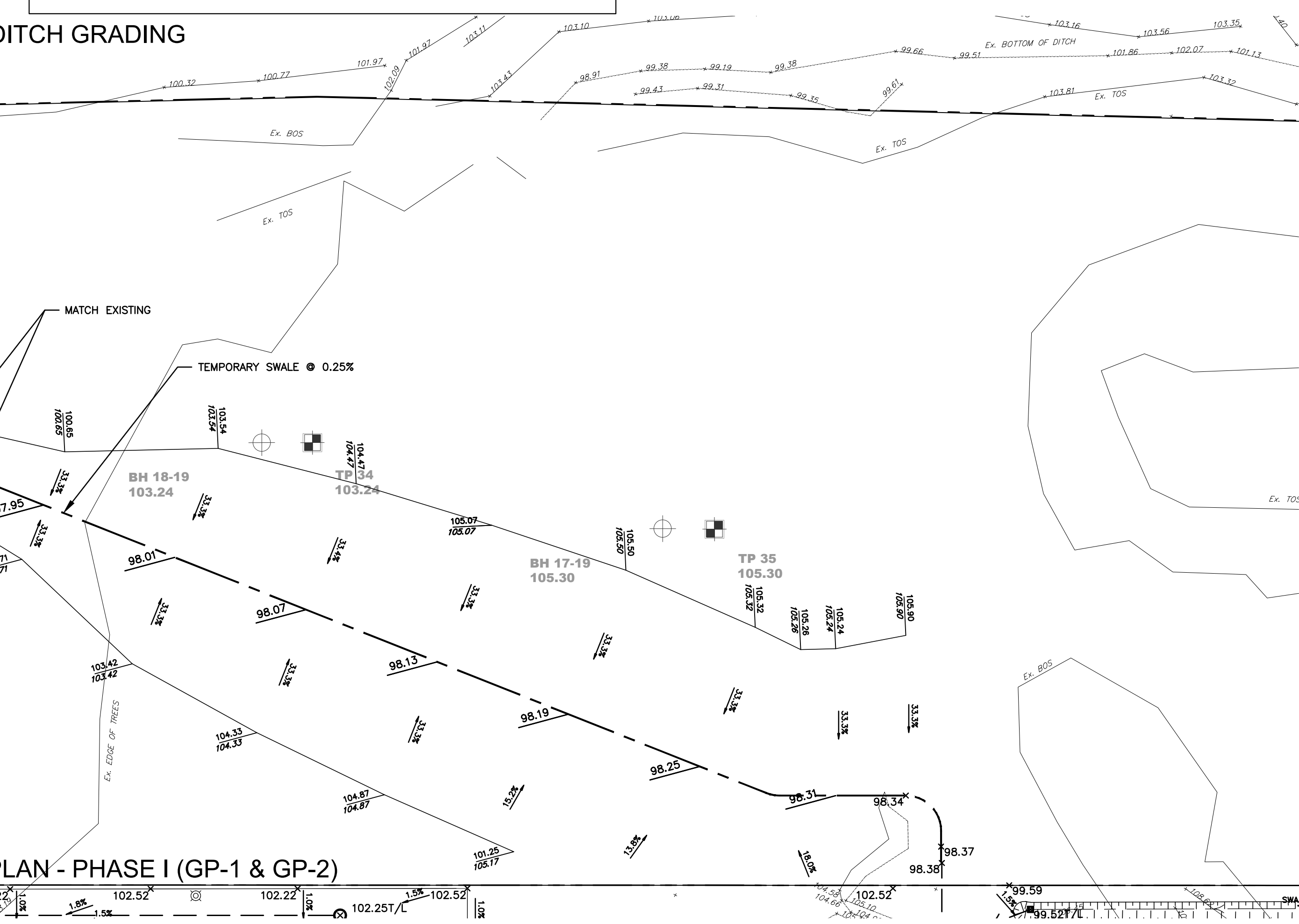


Diagram illustrating the Siltsack® assembly components and dimensions:

- INSERT 1" REBAR FOR BAG REMOVAL FROM INLET (REBAR NOT INCLUDED)**: A vertical rebar used for bag removal.
- OPTIONAL OVERFLOW**: A feature on the top of the bag.
- SILTSACK®**: The main collection bag.
- DUMP LOOPS (REBAR NOT INCLUDED)**: Loops on the side of the bag for dumping.
- DEPTH = D**: The vertical dimension of the bag.
- WIDTH = W**: The horizontal dimension of the bag.
- LENGTH = L**: The horizontal dimension of the base.

NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION PROVIDED BY J.D. BARNES LIMITED
PROJ. NO. 18-10-145-00
DATED JULY 10, 2019

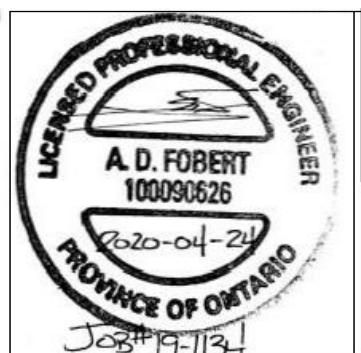
SITE PLAN PROVIDED BY
PROJ. NO. FIGURR COLLECTIF D'ARCHITECTES
DATED APRIL 17, 2020

GEOTECHNICAL RECOMMENDATIONS PROVIDED BY PATERSON GROUP
 PROJ. NO. PG5155-1
 DATED FEBRUARY 10, 2020

SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DSEL
PROJ. NO. 19-1134
DATED APRIL 2020

LOCATION: CONCRETE ROAD BRIDGE OVER JOCK RIVER (N45°15'39, w75°44'06)
ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM AND ARE DERIVED FROM THE
MUNICIPALITY BENCHMARK No. 001196403710 HAVING A PUBLISHED ELEVATION OF 91.724 METERS

2	A.J.G.	20.04.24	ISSUED FOR MUNICIPAL REVIEW
1	A.J.T.	20.01.15	ISSUED FOR MUNICIPAL REVIEW
No.	BY	YY.MM.DD	DESCRIPTION



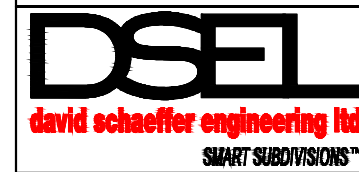
PROJECT No. 19-1134

REVIEWED BY

© DSEL

CAIVAN GREENBANK NORTH INC.

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120 Iber Road Unit 103

DRAWN BY:	A.J.G.	CHECKED BY:	R.D.F.	DRAWING NO.
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SHEET NO.

DESIGNED BY:	B.N.C.	C
CHECKED BY:		

DS-1

11 of 11

SCALE:	1: #####	
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DECEMBER 2019

[illegible]