GENERAL NOTES

1. ALL MEASUREMENTS ARE IN METRES EXCEPT PIPE SIZES ARE IN MILLIMETRES, UNLESS OTHERWISE NOTED.

2. THE DESIGN BY URBAN ECOSYSTEMS LIMITED IS RESTRICTED TO SITE GRADING, STORM SEWERS, SANITARY SEWERS AND WATER DISTRIBUTION SYSTEMS, INCLUDING APPURTENANCES. PLUMBING, DRAINS AND WATER SYSTEMS WITHIN THE BUILDING STRUCTURES ARE SPECIFICALLY EXCLUDED FROM THE DESIGN BY URBAN ECOSYSTEMS LIMITED. FOR THOSE WORKS, THE CONTRACTOR SHALL REFER TO ARCHITECTURAL AND MECHANICAL DESIGN DRAWINGS.

3. THE LOCATION AND DIMENSIONS OF PROPOSED BUILDINGS, PARKING LOTS AND LANDSCAPE AREAS HAVE BEEN OBTAINED FROM THE SITE PLAN(S) PREPARED BY PETROFF PARTNERSHIP ARCHITECTS. FOR DIMENSIONS AND OTHER DETAILS, THE CONTRACTOR SHALL REFER TO THE ARCHITECT'S SITE PLAN(S).

4. ALL EXISTING TOPOGRAPHICAL INFORMATION HAS BEEN OBTAINED FROM A SURVEY BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD., O.L.S.

5. ALL CONSTRUCTION WORK, INCLUDING TRENCHING, SHALL BE DONE IN STRICT ACCORDANCE WITH THE ONTARIO OCCUPATIONAL HEALTH AND SAFETY ACT.

6. FOR DETAILS AND DIMENSIONS, THE CONTRACTOR SHALL REFER TO STANDARD DRAWINGS APPROVED BY THE CITY OF OTTAWA. FOR WORK NOT SPECIFICALLY COVERED BY APPROVED CITY SPECIFICATIONS, OPSD STANDARDS SHALL APPLY.

7. THE CONTRACTOR SHALL THOROUGHLY EXAMINE THE SITE AND SATISFY HIMSELF OF THE ACTUAL CONDITIONS TO BE ENCOUNTERED AND THE REQUIREMENTS OF THE WORK.

8. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR OMISSIONS ON THE DRAWINGS.

9. ALL TRAFFIC CONTROL AND SIGNAGE SHALL BE IN ACCORDANCE WITH THE MTO TRAFFIC CONTROL MANUAL.

10. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A DETAILED CONSTRUCTION SCHEDULE 48 HOURS PRIOR TO COMMENCING ANY WORK.

11. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE CITY OF OTTAWA 48 HOURS PRIOR TO COMMENCING ANY WORK WITHIN A MUNICIPAL ROAD ALLOWANCE.

12. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE, PROTECT AND SUPPORT, AS NECESSARY, ALL EXISTING UTILITIES AND MUNICIPAL SERVICES.

13. ANY TRENCH OR EXCAVATION WITHIN THE TRAVELED PORTION OF A ROAD ALLOWANCE SHALL BE BACKFILLED WITH UNSHRINKABLE FILL, UNLESS OTHERWISE NOTED.
14. ALL AREAS WITHIN AN EXISTING ROAD ALLOWANCE, DISTURBED BY CONSTRUCTION, SHALL BE RESTORED TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA.

15. ALL EXISTING MANHOLES, CATCHBASINS, VALVE CHAMBERS, HYDRANTS, VALVES, ETC, ARE TO BE ADJUSTED TO FINAL GRADES TO THE SATISFACTION OF THE ENGINEER.

16. WHEREVER PIPES, MANHOLES, CATCHBASINS, VALVE CHAMBERS OR APPURTENANCES ARE CONSTRUCTED IN FILL AREAS OR IN DISTURBED GROUND, THE TRENCH SHALL BE EXCAVATED TO UNDISTURBED GROUND AND BACKFILLED WITH GRANULAR "A" OR OTHER SUITABLE MATERIAL, APPROVED BY THE GEOTECHNICAL ENGINEER, AND COMPACTED TO 100 STANDARD PROCTOR DENSITY

17. PRIOR TO COMMENCING ANY WORK, ALL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE IN PACE.

18. ALL WORK SHALL COMPLY WITH STANDARD DRAWINGS AND SPECIFICATIONS OF THE CITY OF OTTAWA AND THE ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS.

19. ROAD OCCUPANCY OR ACCESS PERMITS MUST BE OBTAINED 48 HOURS PRIOR TO COMMENCING ANY WORKS WITHIN A MUNICIPAL ROAD ALLOWANCE.

20. DUE TO STORM WATER MANAGEMENT CONTROL, FOUNDATION DRAINS SHALL NOT BE CONNECTED TO THE STORM SEWERS ON THIS SITE.

21. UNLESS OTHERWISE NOTED, ALL BUILDINGS SHALL BE EQUIPPED WITH ROOF CONTROL DRAINS. REFER TO DRAWING 2 OF 8 FOR NUMBER AND MODEL OF CONTROL DRAINS REQUIRED FOR EACH BUILDING.

22. SERVICE CONNECTIONS TO BUILDINGS SHALL TERMINATE 1.0 METRES FROM THE OUTSIDE BUILDING FACE, UNLESS OTHERWISE NOTED.

23. ALL BUILDING SERVICE CONNECTIONS SHALL BE CAPPED AND MARKED WITH A "4X4" PAINTED GREEN (SANITARY), YELLOW (STORM) AND BLUE (WATER). THE "4X4" SHALL EXTEND 0.6 METRES ABOVE GRADE.

SANITARY SEWERS AND APPURTENANCES

1. ALL SANITARY SEWER WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPROVED CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.

2. ALL SANITARY SEWERS, MANHOLES AND APPURTENANCES SHALL CONFORM TO THE CITY OF OTTAWA "SEWER MATERIAL SPECIFICATIONS".

3. ALL SANITARY SEWERS SHALL BE PVC SDR 35, MEETING CSA 182.2-02. FITTINGS FOR PVC SANITARY SEWER PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH A.S.T.M. SPECIFICATION D 03034. JOINTS SHALL BE BELL AND SPIGOT WITH RUBBER GASKETS.

4. BEDDING FOR SANITARY SEWERS SHALL BE CLASS "B" OR AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.

5. WHERE SANITARY SEWERS CROSS OTHER UTILITIES, THE MINIMUM CLEARANCE BETWEEN OUTSIDE OF PIPE WALLS SHALL BE 0.3 METRES, UNLESS OTHERWISE NOTED.

6. "MODULOC", OR OTHER APPROVED PRE-CAST MANHOLE ADJUSTING UNITS, SHALL BE USED, PARGED ON THE OUTSIDE ONLY.

7. THE CONTRACTOR SHALL CCTV CAMERA INSPECT ALL SANITARY SEWERS PRIOR TO ASPHALT PLACEMENT AND AGAIN PRIOR TO EXPIRATION OF THE MAINTENANCE PERIOD. ALL SEWERS SHALL BE FLUSHED PRIOR TO CAMERA INSPECTION.

8. ALL SANITARY MANHOLES SHALL BE BENCHED TO THE CROWN OF ALL PIPES ON A VERTICAL PROJECTION FROM SPRINGLINE, UNLESS OTHERWISE NOTED.

STORM SEWERS AND APPURTENANCES

1. ALL STORM SEWER WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPROVED CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.

2. ALL STORM SEWERS, MANHOLES, CATCHBASINS, CATCHBASIN MANHOLES AND APPURTENANCES SHALL CONFORM TO THE CITY OF OTTAWA "SEWER MATERIAL SPECIFICATIONS".

3. ALL STORM SEWERS, 450 mm DIAMETER AND SMALLER, SHALL BE PVC SDR 35, MEETING CSA 182.2-02. FITTINGS FOR PVC STORM SEWER PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH A.S.T.M. SPECIFICATION D 03034. JOINTS SHALL BE BELL AND SPIGOT WITH RUBBER GASKETS.

ALL STORM SEWERS, 525 mm DIAMETER AND LARGER, SHALL BE CONCRETE, RUBBER GASKET, CONFORMING TO CSA SPECIFICATION A 257.2, CLASS 65-D, UNLESS OTHERWISE NOTED.

4. BEDDING FOR STORM SEWERS SHALL BE CLASS "B" OR AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.

5. ALL CATCHBASIN LEADS SHALL BE 250 mm DIAMETER, UNLESS OTHERWISE NOTED.

6. WHERE STORM SEWERS CROSS OTHER UTILITIES, THE MINIMUM CLEARANCE BETWEEN OUTSIDE OF PIPE WALLS SHALL BE 0.3 METRES.

7. "MODULOC", OR OTHER APPROVED PRE-CAST MANHOLE AND CATCHBASIN ADJUSTING UNITS, SHALL BE USED, PARGED ON THE OUTSIDE ONLY.

8. THE CONTRACTOR SHALL CCTV CAMERA INSPECT ALL STORM SEWERS PRIOR TO ASPHALT PLACEMENT AND AGAIN PRIOR TO EXPIRATION OF THE MAINTENANCE PERIOD. ALL SEWERS SHALL BE FLUSHED PRIOR TO CAMERA INSPECTION.

9. ALL STORM MANHOLES SHALL BE BENCHED TO THE CROWN OF ALL PIPES ON A VERTICAL PROJECTION FROM SPRINGLINE, UNLESS OTHERWISE NOTED.

10. ALL CATCHBASINS AND CATCHBASIN MANHOLES SHALL BE ENCIRCLED WITH A 100 mm DIAMETER PERFORATED SUBDRAIN COMPLETE WITH FILTER SOCK AND STONE SURROUND AS SHOWN ON DRAWING 5 OF 5.

SURFACE WORKS

1. ALL CONCRETE CURBS SHALL CONFORM TO THE CITY OF OTTAWA STANDARD DRAWINGS SC 1.1 AND SC 1.4 AS APPLICABLE.

2. ALL SIDEWALKS SHALL CONFIRM TO THE CITY OF OTTAWA STANDARD DRAWINGS SC 4 AND SC 5.
ALL SITE ENTRANCES SHALL CONFORM TO CITY OF OTTAWA STANDARD DRAWINGS SC 7.1

3. ALL ASPHALT PAVEMENTS SHALL BE CONSTRUCTED AS SHOWN ON THE ARCHITECTS SITE PLAN(S) AND AS SPECIFIED BY THE GEOTECHNICAL ENGINEER.

MATERIAL	LIGHT DUTY	LIGHT DUTY
HL3	50 mm	40 mm
HL8	---	50 mm
GRAN A.	150 mm	150 mm
GRAN B.	400 mm	450 mm

4. ALL LANDSCAPED AREA SHALL BE GRADED AND CONSTRUCTED AS SPECIFIED ON THE LANDSCAPE ARCHITECTS DRAWINGS AND SPECIFICATIONS.

WATERMAINS AND APPURTENANCES

1. ALL WATERMAIN MATERIAL, INCLUDING APPURTENANCES SHALL CONFORM TO THE CITY OF OTTAWA "WATERMAIN MATERIAL SPECIFICATIONS".

2. ALL WATERMAINS FROM 100 mm TO 300 mm DIAMETER SHALL BE PVC CL-150 DR18 CONFORMING TO CSA B137.3 AND AWWAC900 AND INSTALLED WITH 14 GAGE TRACER WIRE. THE PIPE JOINTS SHALL BE APPROVED PUSH ON, MECHANICAL OR FLANGED AS REQUIRED FOR 1,000 KPA RATED PRESSURE. ALL WATERMAINS 50 mm DIAMETER AND SMALLER SHALL BE TYPE K COPPER.

3. ALL WATERMAINS SHALL HAVE A MINIMUM COVER OF 2.4 METRES TO THE TOP OF PIPE.

4. THRUST BLOCKING SHALL CONFIRM TO THE CITY OF OTTAWA SPECIFICATIONS.

5. PIPE BEDDING SHALL CONFIRM TO THE CITY OF OTTAWA SPECIFICATIONS.

6. ALL CONSTRUCTION METHODS SHALL CONFORM TO CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.

7. 50 mm DIAMETER BLOW OFFS SHALL BE INSTALLED AT ALL DEAD ENDED WATERMAINS FOR BLEEDING OFF, CHARGING AND FLUSHING THE WATER SYSTEM.

8. UPON COMPLETION OF CONSTRUCTION OF THE WATERMAINS, THE CONTRACTOR SHALL FLUSH, PRESSURE TEST AND DISINFECT THE ENTIRE WATER DISTRIBUTION SYSTM AS DIRECTED BY THE ENGINEER AND THE CITY OF OTTAWA.

9. WATERMAINS SHALL BE INSTALLED TO LINES AND GRADES AS SHOWN ON THE APPROVED SITE SERVICING PLANS. A COPY OF ALL GRADE SHEETS SHALL BE SUPPLIED TO THE ENGINEER PRIOR TO COMMENCEMENT OF WORK.

10. WATERMAINS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 0.30 METRES OVER AND 0.50 METRES UNDER CROSSING SEWERS AND OTHER UTILITIES.

11. ALL WATERMAINS SHALL HAVE A MINIMUM OF 1.2 METRE HORIZONTAL CLEARANCE FROM MANHOLES, CATCHBASINS AND ALL UTILITIES.

12. PROVISIONS FOR FLUSHING THE WATERMAINS PRIOR TO TESTING SHALL BE PROVIDED WITH A LEAST A 50 mm DIAMETER OUTLET ON 100 mm DIAMETER AND LARGER MAINS. COPPER LINES ARE TO HAVE FLUSHING POINTS AT THE END, THE SAME SIZE AS THE LINE. THE FLUSHING POINTS MUST ALSO BE HOSED OR PIPED TO ALLOW THE WATER TO BE DISCHARGED TO A DRAIN. ON FIRE LINES, THE FLUSHING OUTLET IS TO BE 100 mm DIAMETER MINIMUM ON A HYDRANT.

13. THE PROPOSED WATER DISTRIBUTION SYSTEM MUST BE ISOLATED FROM EXISTING WATERMAINS TO ALLOW INDEPENDENT TESTING AND CHLORINATING FROM THE EXISTING SYSTEMS.
14. ALL LIVE TAPPING AND OPERATION OF THE CITY OF OTTAWA WATER VALVES SHALL BE ARRANGED THROUGH THE CITY.

15. CATHODIC PROTECTION OF THE WATER DISTRIBUTION SYSTEM SHALL BE PROVIDED IN CONFORMITY WITH THE CITY OF OTTAWA SPECIFICATIONS.

16. ALL BUILDING SERVICE CONNECTIONS SHALL TERMINATE WITH A CAPPED VALVE, SET 1.0 METRES FROM THE FACE OF THE BUILDING, UNLESS OTHERWISE NOTED, AND MUST BE MECHANICALLY RESTRAINED FOR A MINIMUM DISTANCE OF 12 METRES BACK FROM THE VALVE.

17. FIRE HYDRANTS SHALL BE FLOW TESTED AND COLOUR CODED IN CONFORMANCE WITH THE CITY OF OTTAWA AND THE FIRE DEPARTMENT REQUIREMENTS.

EROSION AND SILT CONTROL NOTES

1. ALL SEDIMENT CONTROL WORKS SHALL BE INSTALLED PRIOR TO COMMENCING ANY CONSTRUCTION.

2. ALL SILT CONTROL FENCING, MUD MATS, ROCK CHECK DAMS AND OTHER SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED DAILY AS WELL AS IMMEDIATELY FOLLOWING A SIGNIFICANT RAINFALL EVENT AND MAINTAINED OR CLEANED AS REQUIRED.

3. IF IT IS DETERMINED THAT THE EROSION AND SEDIMENT CONTROL MEASURES ARE NOT ADEQUATELY PREVENTING THE RELEASE OF SEDIMENT TO THE EXISTING STORM SEWERS OR SWALES, ADDITIONAL MEASURES SHALL IMMEDIATELY BE PUT IN PLACE, AS DIRECTED BY THE ENGINEER.

4. ALL CONSTRUCTION VEHICLES SHALL ENTER AND EXIT THE SITE AT A DESIGNATED POINT, PROVIDED WITH MUD MATS AS SPECIFIED ON THE DRAWINGS, TO ENSURE THAT MATERIAL IS NOT TRACKED OFF THE SITE ONTO ADJACENT ROADS.

5. THE CONTRACTOR SHALL, AT HIS EXPENSE, CLEAN THE ADJACENT ROADS AS REQUIRED.

6. THE CONTRACTOR SHALL INSTALL ROCK CHECK DAMS AS MAY BE REQUIRED, OR AS DIRECTED BY THE ENGINEER.

7. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES ON THE DRAWINGS OR ANY UNUSUAL CONDITIONS ENCOUNTERED DURING THE WORK.

8. ADDITIONAL SILT CONTROL FENCING SHALL BE INSTALLED AS REQUIRED AROUND ALL STOCKPILES OF EXCAVATED MATERIAL.

9. ANY EXTERNAL AREAS DISTURBED DUE TO CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER.

10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SEDIMENT AND EROSION CONTROL WORKS FOR THE DURATION OF THE CONSTRUCTION PERIOD, TO THE SATISFACTION OF THE ENGINEER.

11. LOCATION OF ADDITIONAL SILT CONTROL FENCE OR OTHER MEASURES MAY BE REQUIRED AND WILL BE REVIEWED AND APPROVED BY THE ENGINEER AS THE WORK PROGRESSES.

12. THE CONTRACTOR SHALL USE APPROPRIATE CONSTRUCTION METHODS TO ELIMINATE ANY TRENCH WATER, MUD, DEBRIS, SILT ETC., FROM ENTERING EXISTING STORM SEWER SYSTEMS, CULVERTS OR DRAINAGE CHANNEL.

13. HALF BULK HEADS SHALL BE INSTALLED IN ALL NEW STORM MANHOLES AND MAINTAINED UNTIL THEIR REMOVAL IS APPROVED BY THE ENGINEER. THE BULK HEADS SHALL BE INSPECTED ON A REGULAR BASIS AND ANY SILT BUILD-UP SHALL BE REMOVED AS REQUIRED.

14. ALL DISTURBED AREAS SHALL BE REINSTATED AS SOON AS PRACTICAL, FOLLOWING COMPLETION OF THE WORK.

15. ONCE THE CATCHBASINS HAVE BEEN INSTALLED AND CONNECTED TO THE STORM SEWER SYSTEM, SEDIMENT BARRIERS SHALL BE INSTALLED.

16. ALL CATCHBASIN SUMPS SHALL BE INSPECTED FREQUENTLY, AND CLEANED AS REQUIRED.

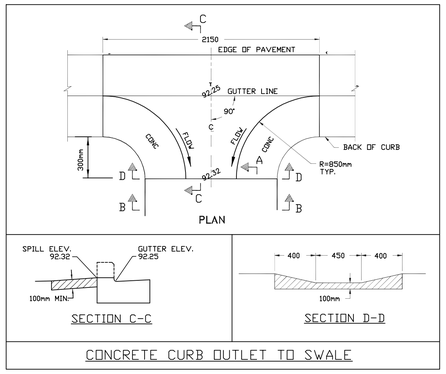
17. ALL DISTURBED AREAS WITHIN THE SITE THAT ARE NOT OCCUPIED BY BUILDINGS, ROADWAY OR DRIVEWAYS SHALL BE TOPSOILED AND SODDED OR SEEDED IMMEDIATELY FOLLOWING COMPLETION OF FINAL GRADING OPERATIONS.

18. ADDITIONAL EROSION AND SEDIMENT CONTROL MATERIALS INCLUDING SILT FENCE, STRAW BALES, CLEAR STONES ETC. ARE TO BE KEPT ON SITE FOR EMERGENCIES AND REPAIRS.

19. AN AFTER HOURS CONTACT PHONE NUMBER IS TO BE VISIBLY POSTED ON THE SITE FOR EMERGENCIES.

20. ANY SPILL FROM THE SITE SHALL BE REPORTED TO MINISTRY OF THE ENVIRONMENT, SPILL ACTION CENTRE, AT 1-800-268-6060 AND TO THE ENGINEER.

21. THE EROSION AND SEDIMENT CONTROL METHODS SHALL HAVE REGARD TO "APPLICATION OF EROSION & SEDIMENT CONTROLS ON RMOC CONSTRUCTION PROJECT" (1998) AND "EROSION & SEDIMENT CONTROL GUIDELINES FOR URBAN CONSTRUCTION" (2006).

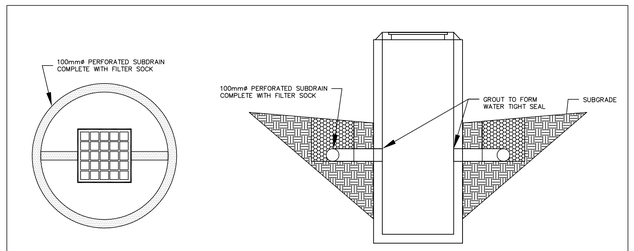


PLAN

SECTION C-C

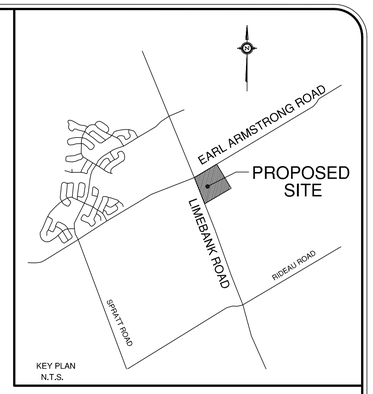
SECTION D-D

CONCRETE CURB OUTLET TO SWALE

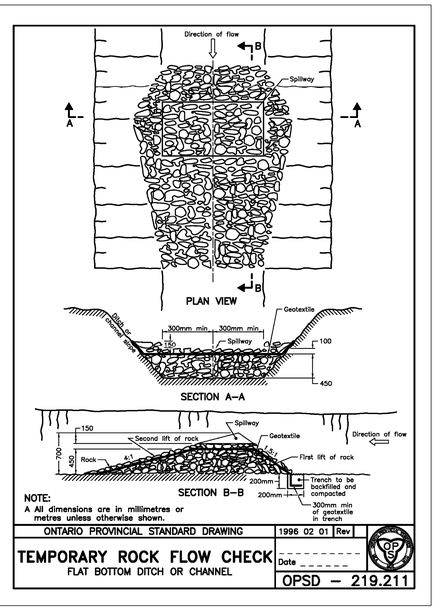


CATCHBASIN & CATCHBASIN MANOLE
TYPICAL SUBDRAIN DETAIL

N.T.S.



KEY PLAN
N.T.S.



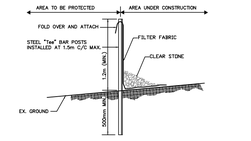
NOTE:
A All dimensions are in millimetres or metres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING | 1996 02 01 | Rev

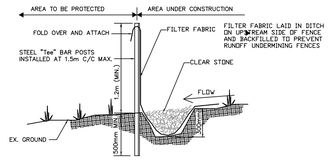
TEMPORARY ROCK FLOW CHECK
FLAT BOTTOM DITCH OR CHANNEL

Date

OPSD – 219.211

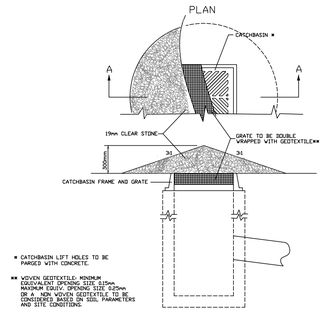


SILT CONTROL FENCE IN PAVED AREAS
(CITY STD. 406)
N.T.S.



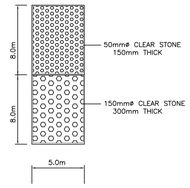
SILT CONTROL FENCE IN LANDSCAPED AREAS
(CITY STD. 406)
N.T.S.

LIMEBANK ROAD



CATCHBASIN / MANHOLE SEDIMENT BARRIER

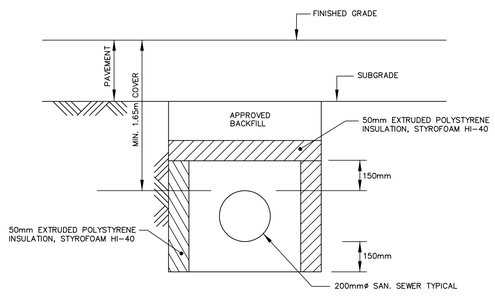
N.T.S.



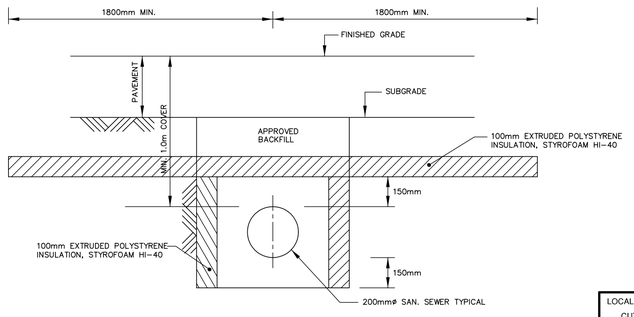
MUD MAT
DETAIL

N.T.S.

EROSION CONTROL MEASURES

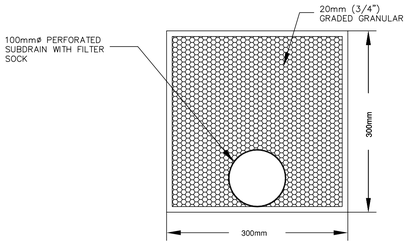


TYPICAL DETAIL "A"



TYPICAL DETAIL "B"

THERMAL PIPE INSULATION DETAILS



SUBDRAIN DETAIL (TYPICAL)

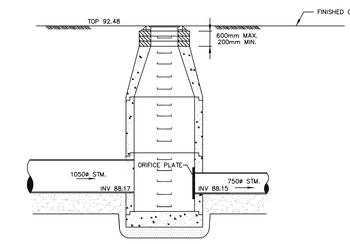
N.T.S.

SPECIAL NOTES

1. CLAY SEALS SHALL BE INSTALLED IN THE SERVICE TRENCHES. THE SEALS SHALL BE 1.5m LONG (IN THE TRENCH DIRECTION) AND SHALL EXTEND FROM TRENCH WALL TO TRENCH WALL. THE SEALS SHALL EXTEND FROM THE FROST LINE AND FULLY PENETRATE THE BEDDING, SUBBEDDING AND COVER MATERIAL. THE SEALS SHALL CONSIST OF RELATIVELY DRY AND COMPACTABLE BROWN SILTY CLAY, COMPACTED TO A MINIMUM OF 95% OF THE SPMDD. THE CLAY SEALS SHALL BE PLACED AT THE SITE BOUNDARIES AND AT STRATEGIC LOCATIONS AT NO MORE THAN 60m INTERVALS ALONG THE SERVICE TRENCHES, AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

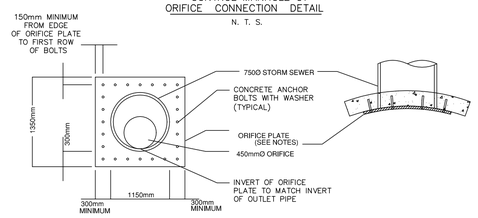
2. A PERIMETER DRAINAGE SYSTEM IS TO BE USED AROUND ALL BUILDINGS. THE SYSTEM SHALL CONSIST OF A 100mm DIAMETER PERFORATED CORRUGATED PLASTIC PIPE, SURROUNDED ON ALL SIDES BY 150mm OF 10mm CLEAR CRUSHED STONE, PLACED AT THE FOOTING LEVEL AROUND THE EXTERIOR PERIMETER OF THE STRUCTURES. THE PIPE SHALL HAVE A POSITIVE OUTLET, USING A GRAVITY CONNECTION TO THE STORM SEWER.

BACKFILL AGAINST THE EXTERIOR SIDES OF THE FOUNDATION WALLS SHALL CONSIST OF FREE-DRAINING NON FROST SUSCEPTIBLE GRANULAR MATERIALS, SUCH AS CLEAN SAND OR OPSS GRANULAR B TYPE I GRANULAR MATERIAL.



CONTROL MANHOLE 01
ORIFICE CONNECTION DETAIL

N. T. S.



Notes:

1. ORIFICE PLATE SHALL BE INSTALLED ON DOWNSTREAM SIDE OF MANHOLE (OUTLET PIPE)
2. MANHOLE CONTAINING ORIFICE PLATE SHALL HAVE A 0.30m SUMP
3. ORIFICE PLATE TO BE 6mm STAINLESS OR GALVANIZED STEEL OR 25mm STRUCTURAL POLYETHYLENE
4. ORIFICE PLATE TO BE ATTACHED WITH 9mm CONCRETE ANCHOR BOLTS OR APPROVED EQUIVALENT
5. BOLTS NOT TO PROTRUDE GREATER THAN 25mm FROM FACE OF ORIFICE PLATE
6. ONE WASHER MAXIMUM TO BE INSTALLED ON EACH BOLT UNLESS INSTRUCTED OTHERWISE

DETAIL OF ORIFICE PLATE AT CONTROL MH 01

N.T.S.

LOCAL BENCHMARK:
CUT CROSS IN CONCRETE TRAFFIC ISLAND AT THE NORTH-EAST CORNER OF EARL ARMSTRONG ROAD AND LIMEBANK ROAD AS ESTABLISHED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD, O.L.S.

ELEVATION 92.87

No.	By	Date	Revision	Checked
6.	D.S.	Aug. 26/15	REVISED AS PER CITY COMMENTS	O.B.C.
5.	D.S.	Aug. 14/15	SITE PLAN REVISIONS	O.B.C.
4.	C.R.M.	Jan 28/15	REVISED AS PER CITY COMMENTS	O.B.C.
3.	J.H.	July 18/14	ISSUED FOR SECOND SUBMISSION	O.B.C.
2.	J.H.	May 20/14	REVISED AS PER CITY COMMENTS	O.B.C.
1.	C.R.M.	Apr 9/14	ISSUED FOR SITE PLAN APPROVAL	O.B.C.

APPROVED AS TO FORM IN RELIANCE UPON THE PROFESSIONAL SKILL AND ABILITY OF URBAN ECOSYSTEMS LIMITED AS TO DESIGN AND SPECIFICATION.

Director of Engineering — Date

REGISTERED PROFESSIONAL ENGINEER
ROSARIO.SACCO
NOV 21, 2016
PROVINCE OF ONTARIO

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TOWN SQUARE CENTRE
RIVERSIDE SOUTH
CITY OF OTTAWA

MORGUARD INVESTMENTS LTD.
55 CITY CENTER DRIVE
MISSISSAUGA, ONTARIO

FILE No D07-12-14-0067

NOTES & DETAILS

Designed By O.B.C.	Date APR 2014	Checked By R.S.	
Drawn By J.H.		Approved By	
Scale; 1:500	Project No. 12007	Drawing No. 5 of 8	

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