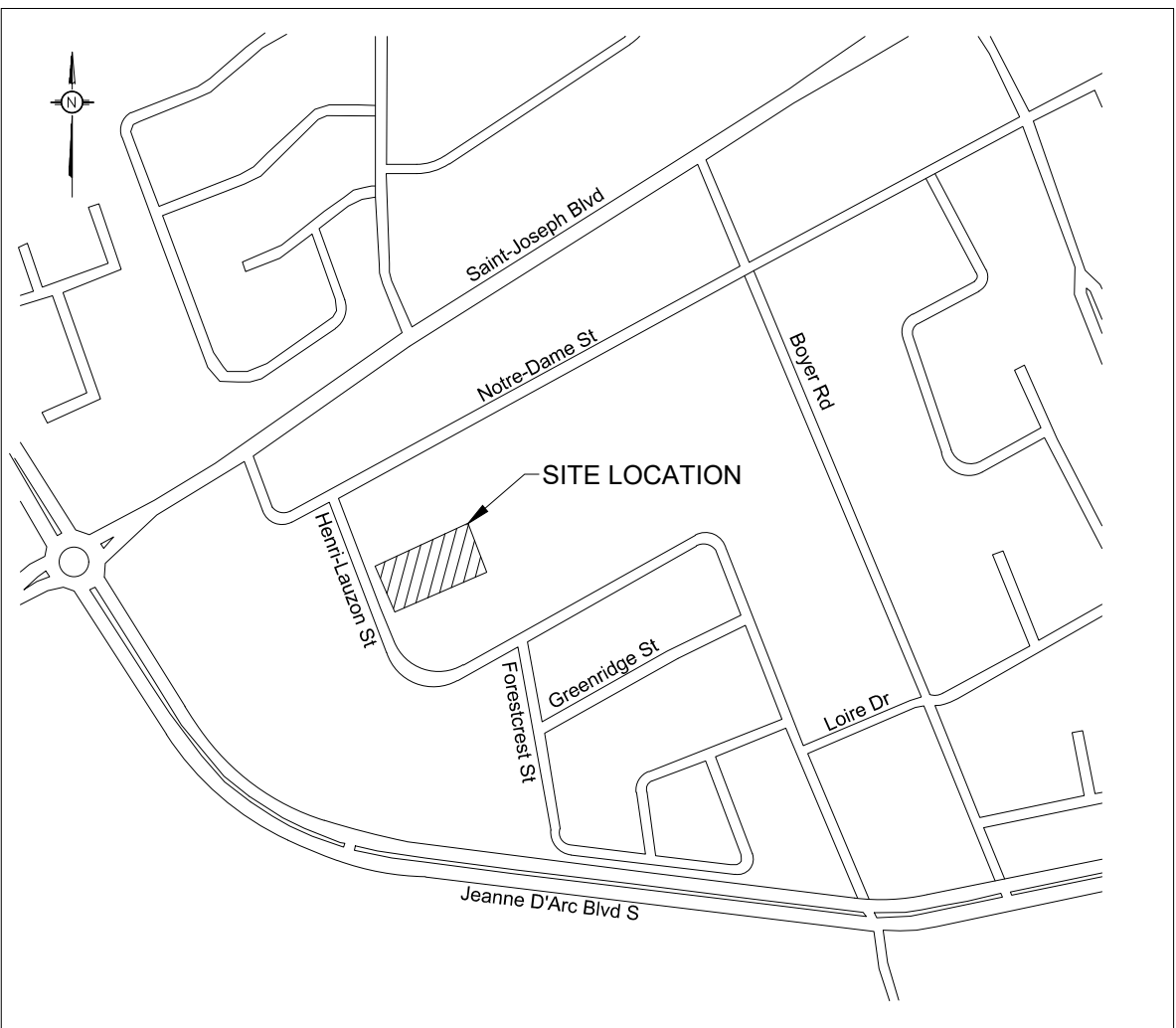


# PROPOSED RESIDENTIAL DEVELOPMENT

1401-1411 HENRI LAUZON STREET  
ORLEANS, ONTARIO  
REVISION NO. 04



KEY PLAN (N.T.S.)



**LRL**

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5430 Canotek Road | Ottawa, ON, K1J 9G2  
www.lrl.ca | (613) 842-3434

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1401-1411 HENRI LAUZON STREET

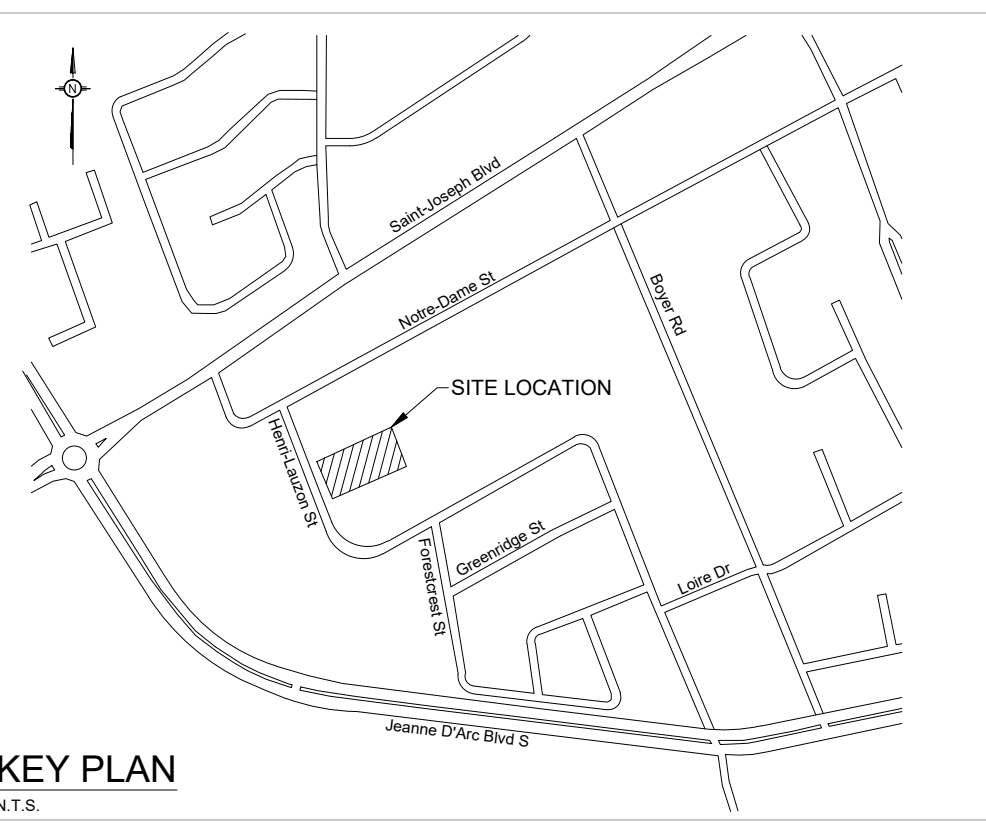
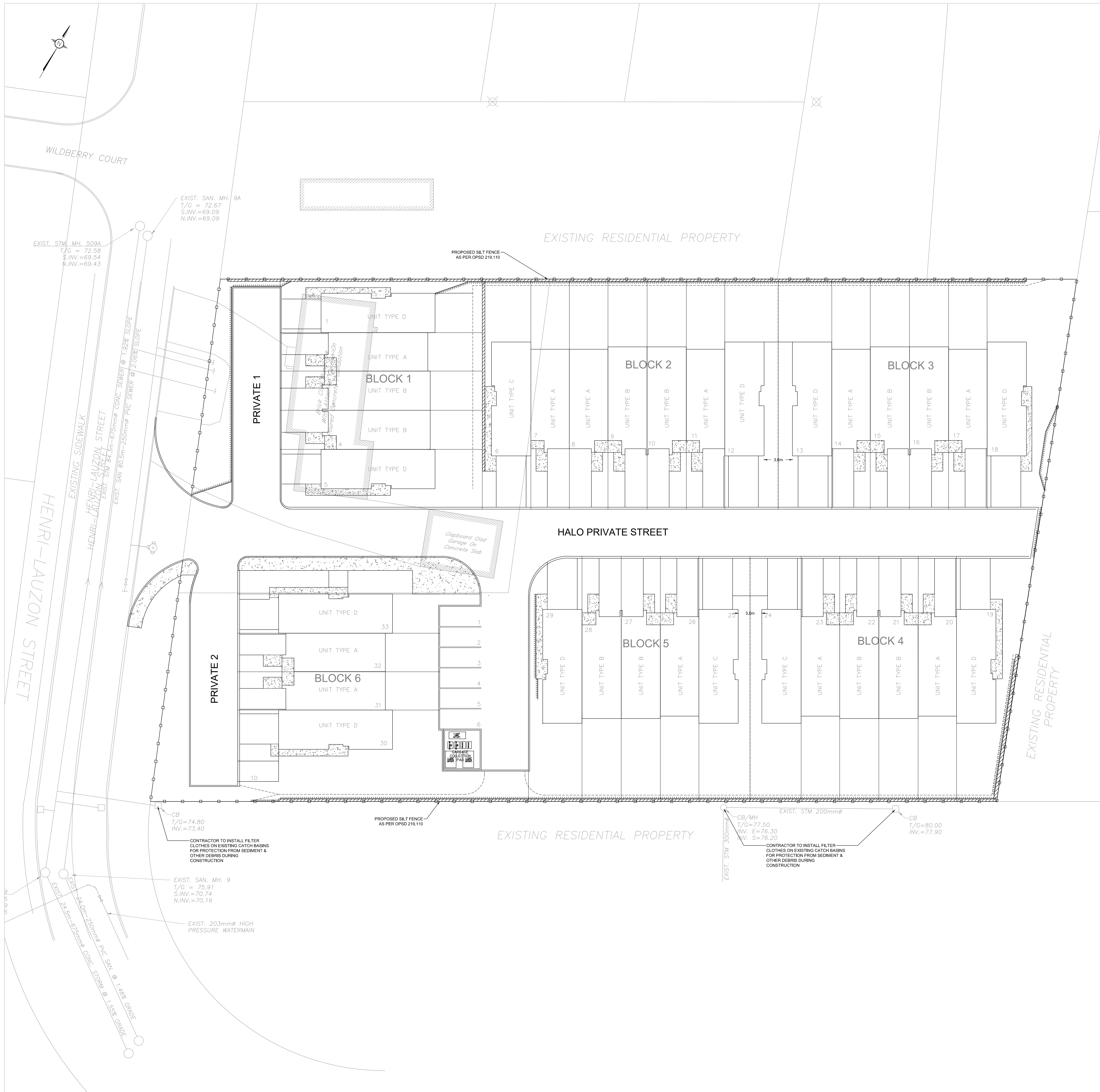
ORLEANS, ONTARIO

REVISION NO. 04

LRL PROJECT NO. 08181

D07-12-15-0004





- EROSION AND SEDIMENT CONTROL MEASURES:**
- CONTRACTOR IS RESPONSIBLE FOR ALL INSTALLATION, MONITORING, REPAIR AND REMOVAL OF ALL EROSION AND SEDIMENT CONTROL FEATURES \*\*
- 1. PRIOR TO START OF CONSTRUCTION:**
- PRIOR TO THE REMOVAL OF ANY VEGETATIVE COVER, MOVING OF SOIL AND CONSTRUCTION:
  - INSTALL SILT FENCE ALONG DITCHES IMMEDIATELY DOWNSTREAM FROM AREAS TO BE DISTURBED (SEE PLAN FOR LOCATION).
  - INSTALL SILTTRACK FILTERS IN ALL CONCRETE CATCH BASINS STRUCTURES IN THE VICINITY AND DOWNSTREAM
  - INSPECT MEASURES IMMEDIATELY AFTER INSTALLATION.
- 2. DURING CONSTRUCTION:**
- WORK TO BE DONE IN THE VICINITY OF MAJOR WATERWAYS TO BE CARRIED OUT FROM JULY AND SEPTEMBER ONLY.
  - MINIMIZE THE EXTENT OF DISTURBED AREAS AND THE DURATION OF EXPOSURE.
  - PROTECT DISTURBED AREAS FROM RUNOFF.
  - PROVIDE TEMPORARY COVER SUCH AS SEEDING OR MULCHING IF DISTURBED AREA WILL NOT BE REHABILITATED WITHIN 30 DAYS.
  - INSPECT SILT FENCES, FILTER CLOTHS AND CATCH BASIN SUMPS WEEKLY AND AFTER EVERY MAJOR STORM EVENT, CLEAN AND REPAIR WHEN NECESSARY.
  - CONSTRUCT SWALES AS PER DETAIL.
  - PLAN TO BE REVIEWED AND REVISED AS REQUIRED DURING CONSTRUCTION
  - EROSION CONTROL FENCING TO BE ALSO INSTALLED AROUND THE BASE OF ALL STOCKPILES.
  - DO NOT LOCATE TOPSOIL PILES AND EXCAVATION MATERIAL CLOSER THAN 2.5m FROM ANY PAVED SURFACE, OR ONE WHICH IS TO BE PAVED BEFORE THE PILE IS REMOVED. ALL TOPSOIL PILES ARE TO BE SEED IF THEY ARE TO REMAIN ON SITE LONG ENOUGH FOR SEEDS TO GROW LONGER THAN 30 DAYS).
  - CONTROL WIND-BLOWN DUST OFF SITE TO ACCEPTABLE LEVELS BY SEEDING TOPSOIL PILES AND OTHER AREAS TEMPORARILY (PROVIDE WATERING AS REQUIRED).
  - ALL EROSION CONTROL STRUCTURE TO REMAIN IN PLACE UNTIL ALL DISTURBED GROUND SURFACES HAVE BEEN DESTABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE GROUND COVER.
  - NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVES BY THIS CONSULTING ENGINEER AND THE CITY DEPARTMENT OF PUBLIC WORKS.
  - CONTRACTOR RESPONSIBLE FOR CITY ROADWAY AND SIDEWALK TO BE CLEANED OF ALL SEDIMENT FROM VEHICULAR TRACKING ETC. AT THE END OF EACH WORK DAY.
  - PROVIDE GRAVEL ENTRANCE WHEREVER EQUIPMENT LEAVES THE SITE TO PROVIDE MUD TRACKING ONTO PAVED SURFACES. GRAVEL BED SHALL BE A MINIMUM OF 15m LONG, 4M WIDE AND 0.3m DEEP AND SHALL CONSIST OF COARSE (50mm CRUSHED-RUN LIMESTONE) MATERIAL. MAINTAIN GRAVEL ENTRANCE IN CLEAN CONDITION.
  - DURING WET CONDITIONS, TIRES OF ALL VEHICLES/EQUIPMENT LEAVING THE SITE ARE TO BE SCRAPED.
  - ANY MUD/MATERIAL TRACKED ONTO THE ROAD SHALL BE REMOVED IMMEDIATELY BY HAND OR RUBBER TIRE LOADER.
  - TAKE ALL NECESSARY STEPS TO PREVENT BUILDING MATERIAL, CONSTRUCTION DEBRIS OR WASTE BEING SPILLED OR TRACKED ONTO ADJUTING PROPERTIES OR PUBLIC STREETS DURING CONSTRUCTION AND PROCEED IMMEDIATELY TO CLEAN UP ANY AREAS SO AFFECTED.
- 3. AFTER CONSTRUCTION:**
- PROVIDE PERMANENT COVER CONSISTING OF TOPSOIL AND SEED TO DISTURBED AREAS.
  - REMOVE SILT FENCES AND FILTER CLOTHS ON CATCH BASINS AND MANHOLE COVERS AFTER DISTURBED AREAS HAVE BEEN REHABILITATED AND STABILIZED.
  - INSPECT AND CLEAN CATCH-BASIN SUMPS AND STORM SEWERS.

- LEGEND**
- PROPOSED SILT FENCE AS PER OPSD 219.110
  - PROPOSED TERRACING
  - PROPOSED BOTTOM OF GRASS SWALE
  - PROPOSED ASPHALT ROAD
  - EXISTING BUILDING ENVELOPE
  - EXISTING ROAD CENTRELINE
  - EXISTING ROAD

USE AND INTERPRETATION OF DRAWINGS

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UNAUTHORIZED CHANGES:

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE MAKES OR PERMITS TO BE MADE ANY CHANGES TO ANY REPORTS, PLANS, SPECIFICATIONS OR OTHER CONSTRUCTION DOCUMENTS PREPARED BY LRL ASSOCIATES LTD. (LRL) WITHOUT OBTAINING LRL'S PRIOR WRITTEN CONSENT, THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST LRL AND TO RELEASE LRL FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES TO INCLUDE IN ANY CONTRACTS FOR CONSTRUCTION APPROPRIATE LANGUAGE THAT PROHIBITS THE CONTRACTOR OR ANY SUBCONTRACTORS, OR ANY TIER FROM MAKING ANY CHANGES OR MODIFICATIONS TO LRL'S CONSTRUCTION DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF LRL AND THAT FURTHER REQUIRES THE CONTRACTOR TO INDEMNIFY BOTH LRL AND THE CLIENT FROM ANY LIABILITY OR COST ARISING FROM SUCH CHANGES MADE WITHOUT SUCH PROPER AUTHORIZATION.

GENERAL NOTES:

EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT MAY NOT BE COMPLETE OR TO DATE. CONTRACTOR SHALL VERIFY IN FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING OR PERFORMING WORK.

CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT WITHIN CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

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5m 0 5 10m  
SCALE: 1:250

No.	REVISIONS	BY	DATE
04	ISSUED FOR APPROVAL	M.L.	MAY. 27, 2020
03	ISSUED AS PER CITY COMMENTS	D.M.	DEC. 10, 2018
02	ISSUED AS PER CITY COMMENTS	D.M.	OCT. 16, 2018
01	ISSUED AS PER CITY COMMENTS	D.M.	AUG. 23, 2018
00	ISSUED FOR SPC	A.E.	FEB. 29, 2016

NOT AUTHENTIC UNLESS SIGNED AND DATED

**LRL**  
ENGINEERING | INGÉNIERIE  
5430 Canotek Road | Ottawa, ON, K1J 9G2  
www.lrl.ca | (613) 842-3434

CLIENT: **BILBERRY GROUP**

DESIGNED BY: **A.E.** DRAWN BY: **D.S.** APPROVED BY: **G.B.**

PROJECT: **PROPOSED RESIDENTIAL DEVELOPMENT**  
**1401-1411 HENRI LAUZON STREET ORLEANS (OTTAWA), ONTARIO**

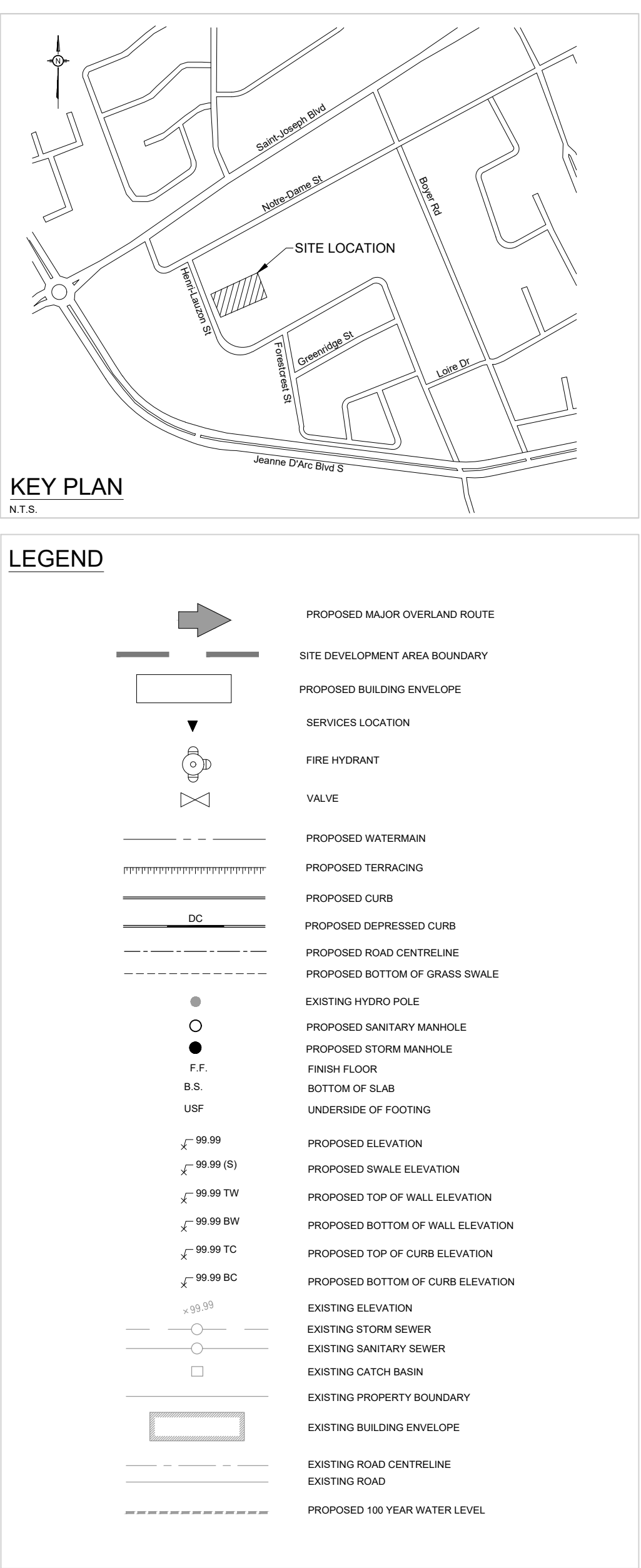
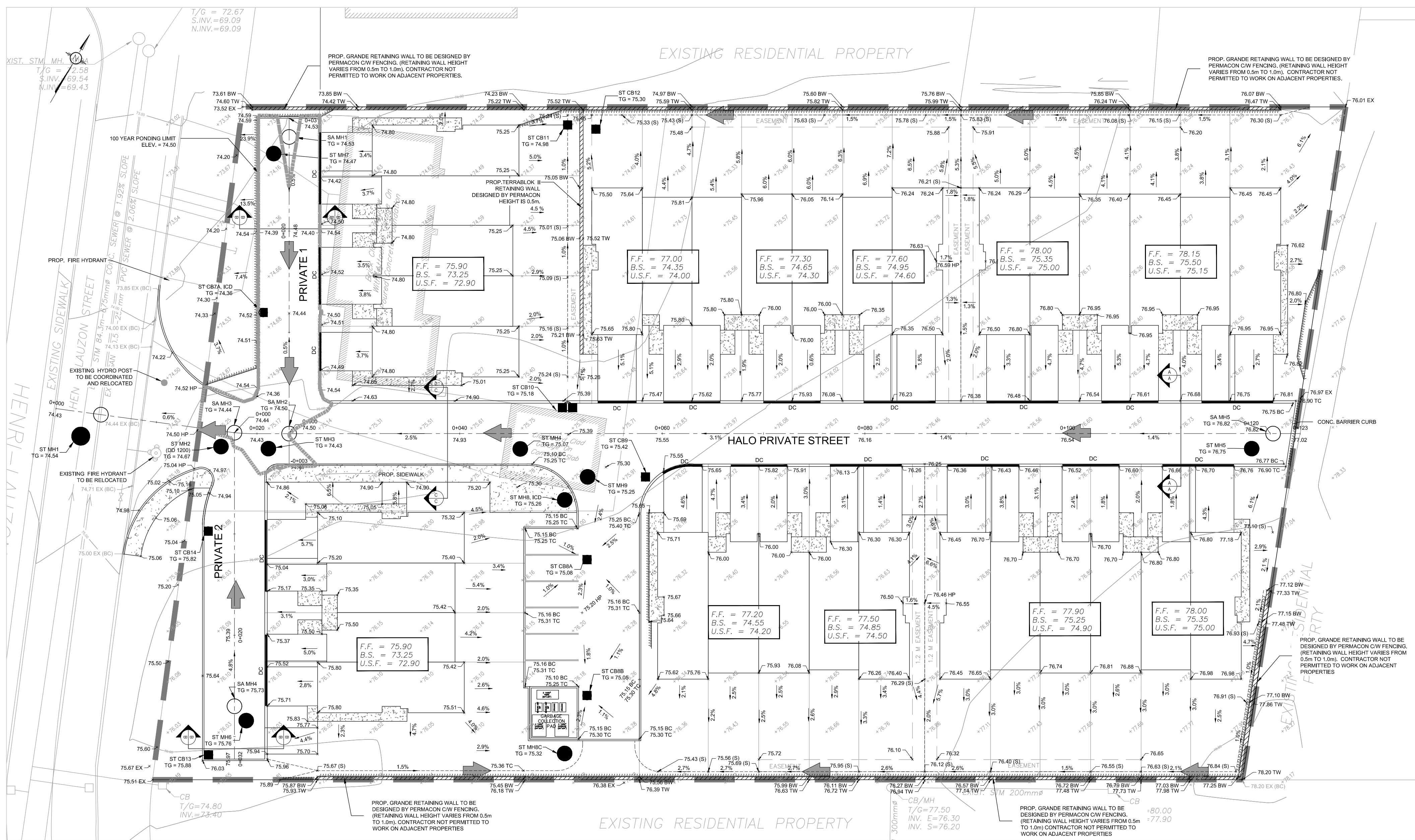
DRAWING TITLE: **EROSION AND SEDIMENT CONTROL PLAN**

PROJECT NO. **08181** DATE **DEC. 10, 2018**

**C101**

D07-12-15-0004





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IN ADDITION, THE CLIENT AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS LRL FROM ANY DAMAGES, LIABILITIES OR COST, INCLUDING REASONABLE ATTORNEY'S FEES AND COST OF DEFENSE, ARISING FROM SUCH CHANGES.

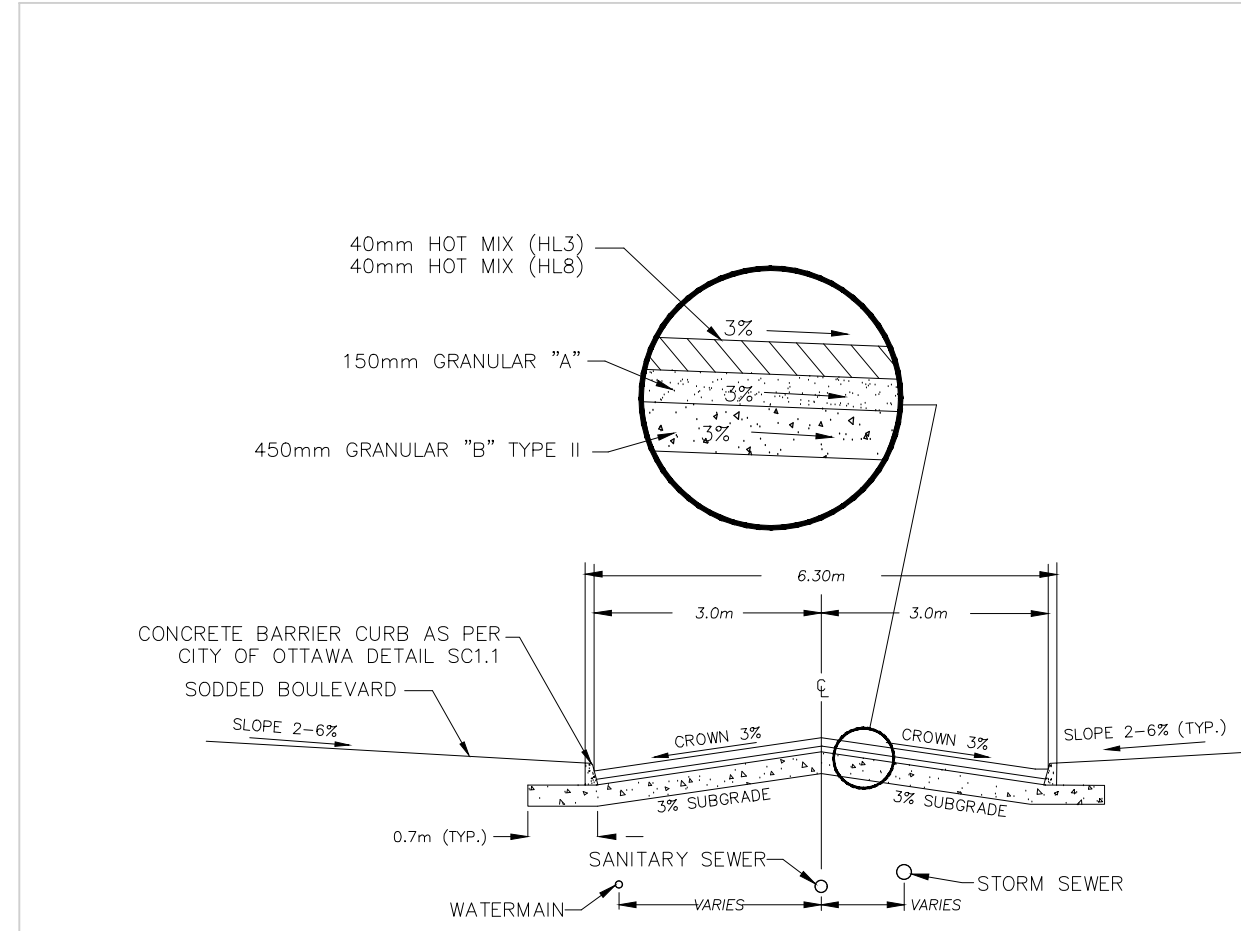
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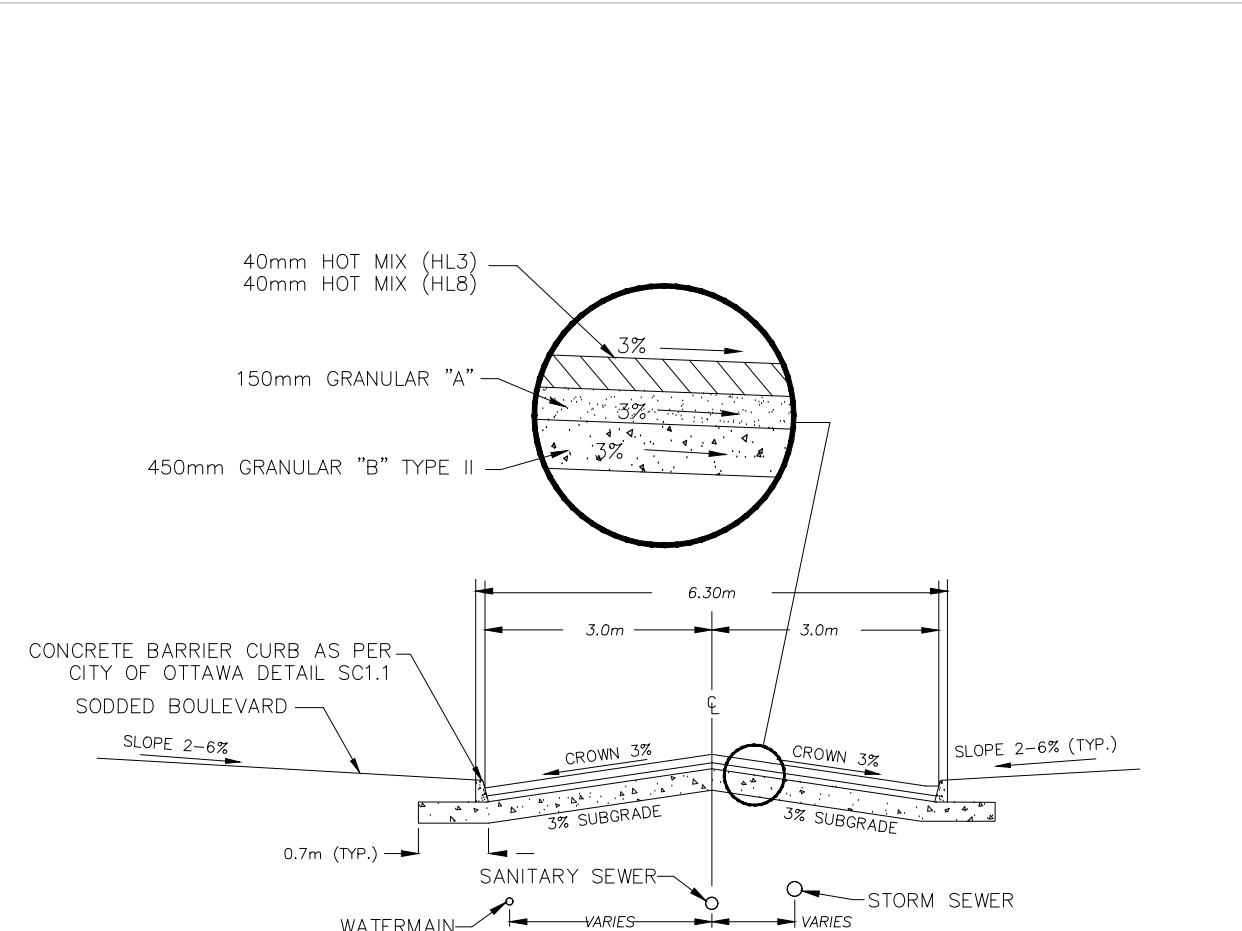
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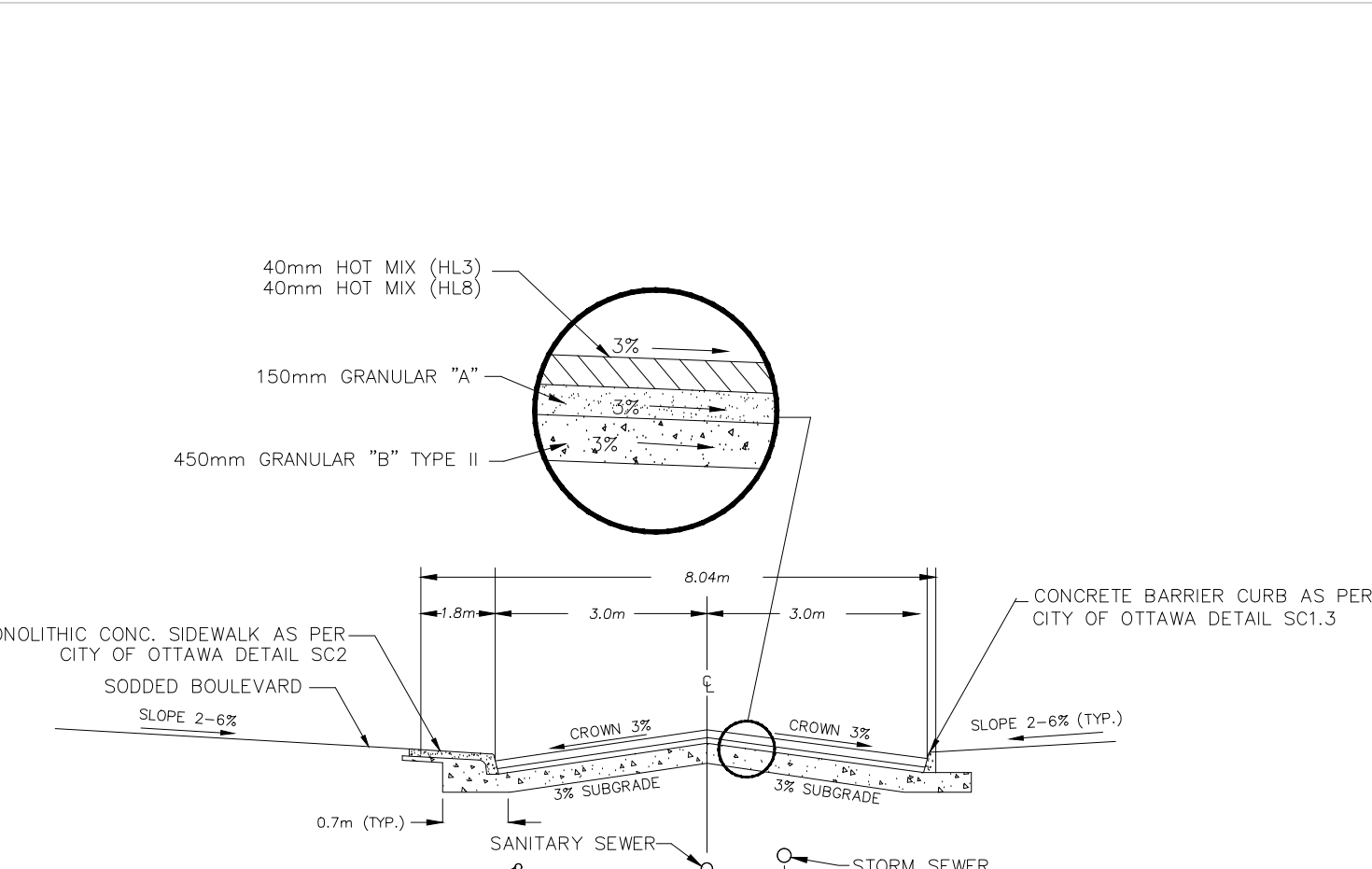
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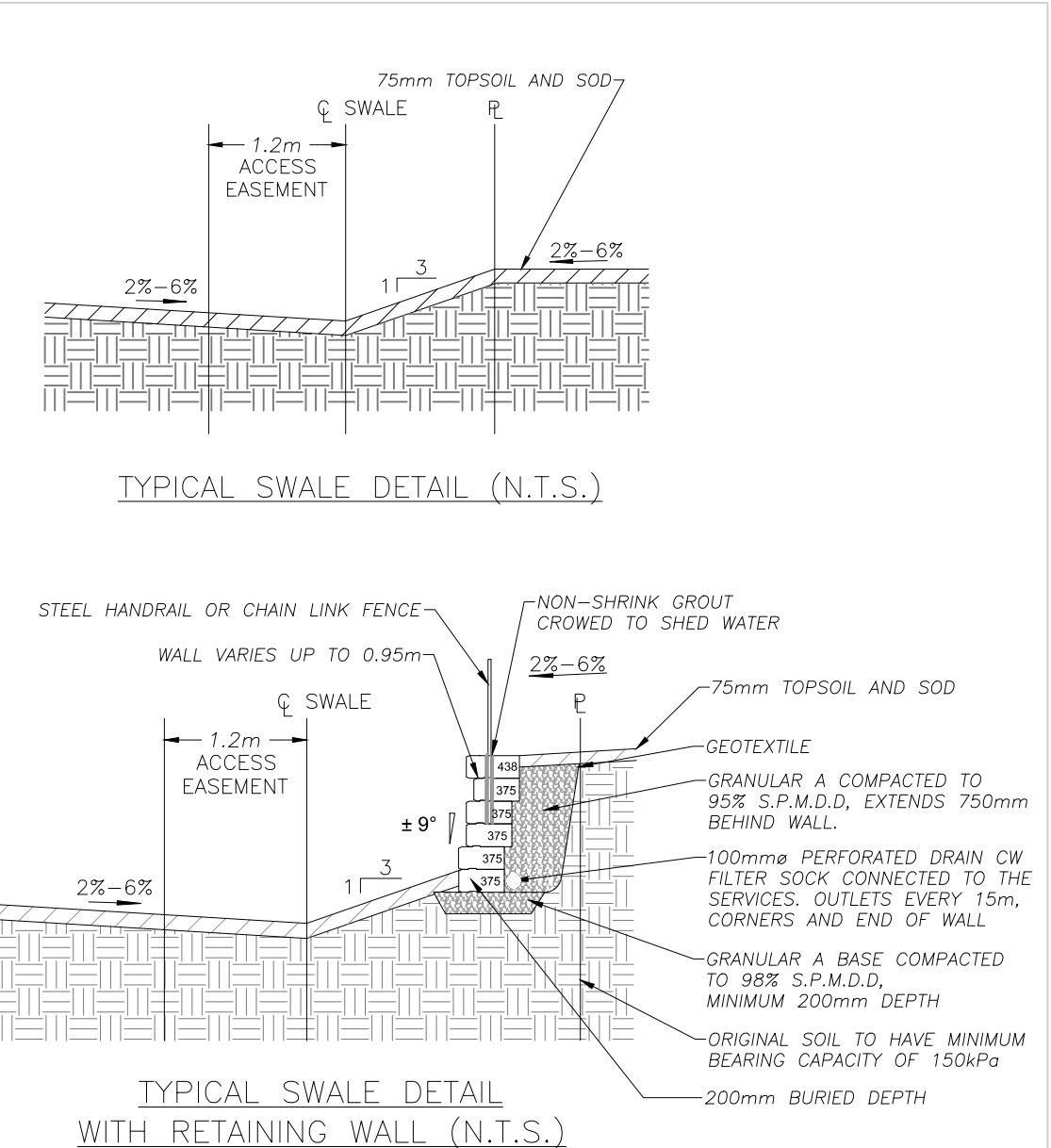
TYPICAL ROAD SECTION  
HALO PRIVATE A-A (N.T.S.)



TYPICAL ROAD SECTION  
PRIVATE 1 & 2 B-B (N.T.S.)



TYPICAL ROAD SECTION  
HALO PRIVATE C-C (N.T.S.)



TYPICAL SWALE DETAIL  
WITH RETAINING WALL (N.T.S.)

NOT AUTHENTIC UNLESS SIGNED AND DATED

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DESIGNED BY: **A.E.** DRAWN BY: **M.B.** APPROVED BY: **G.B.**

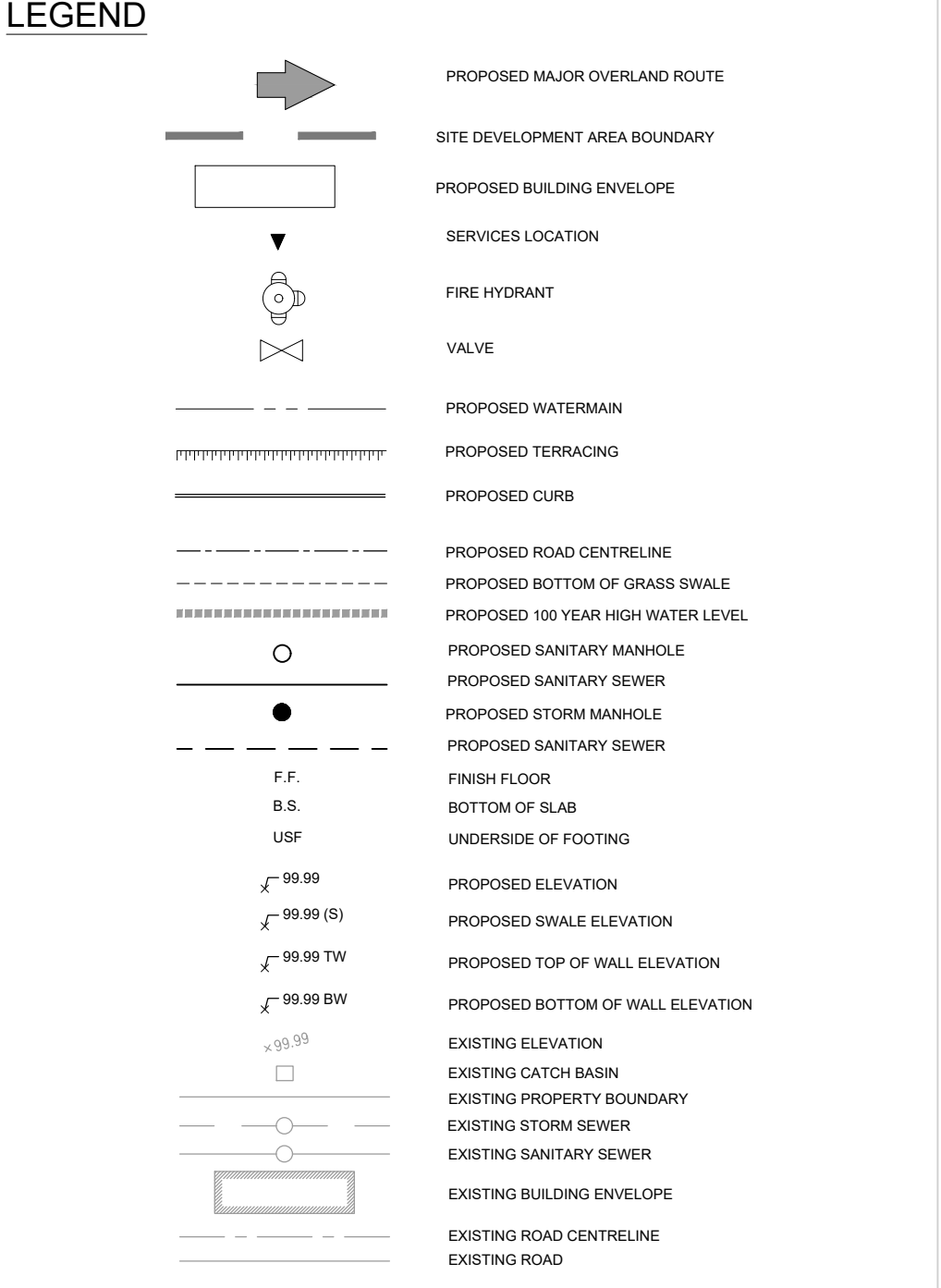
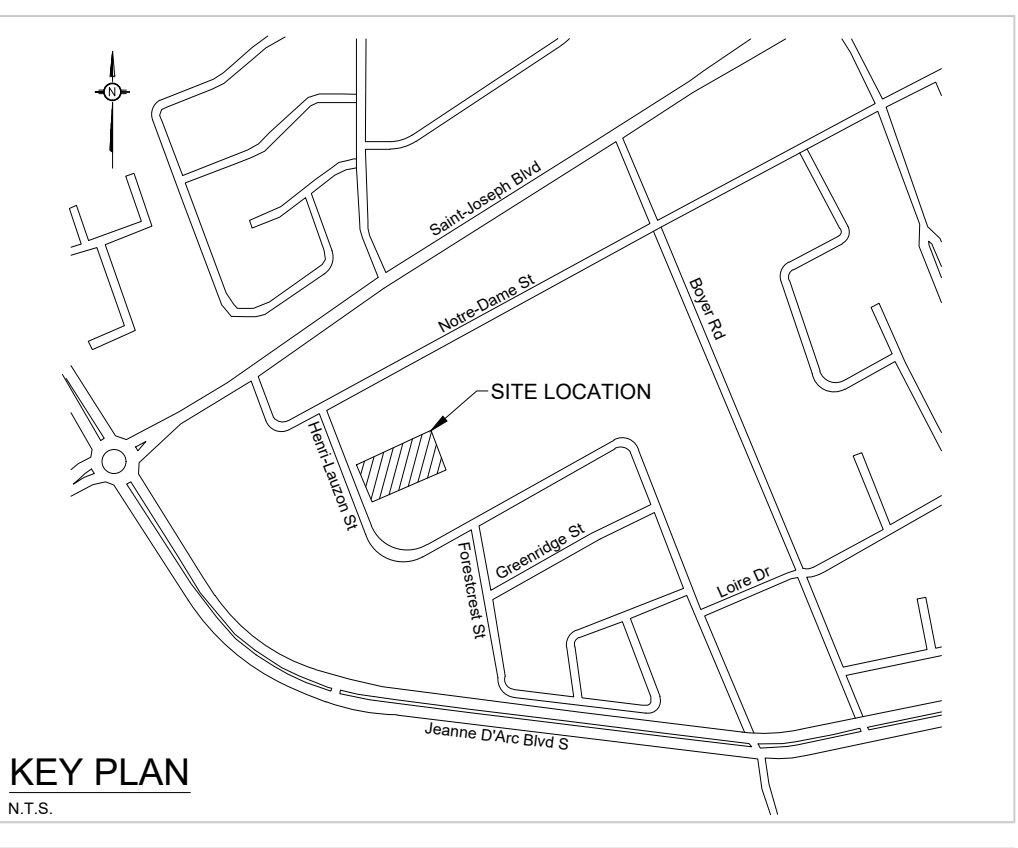
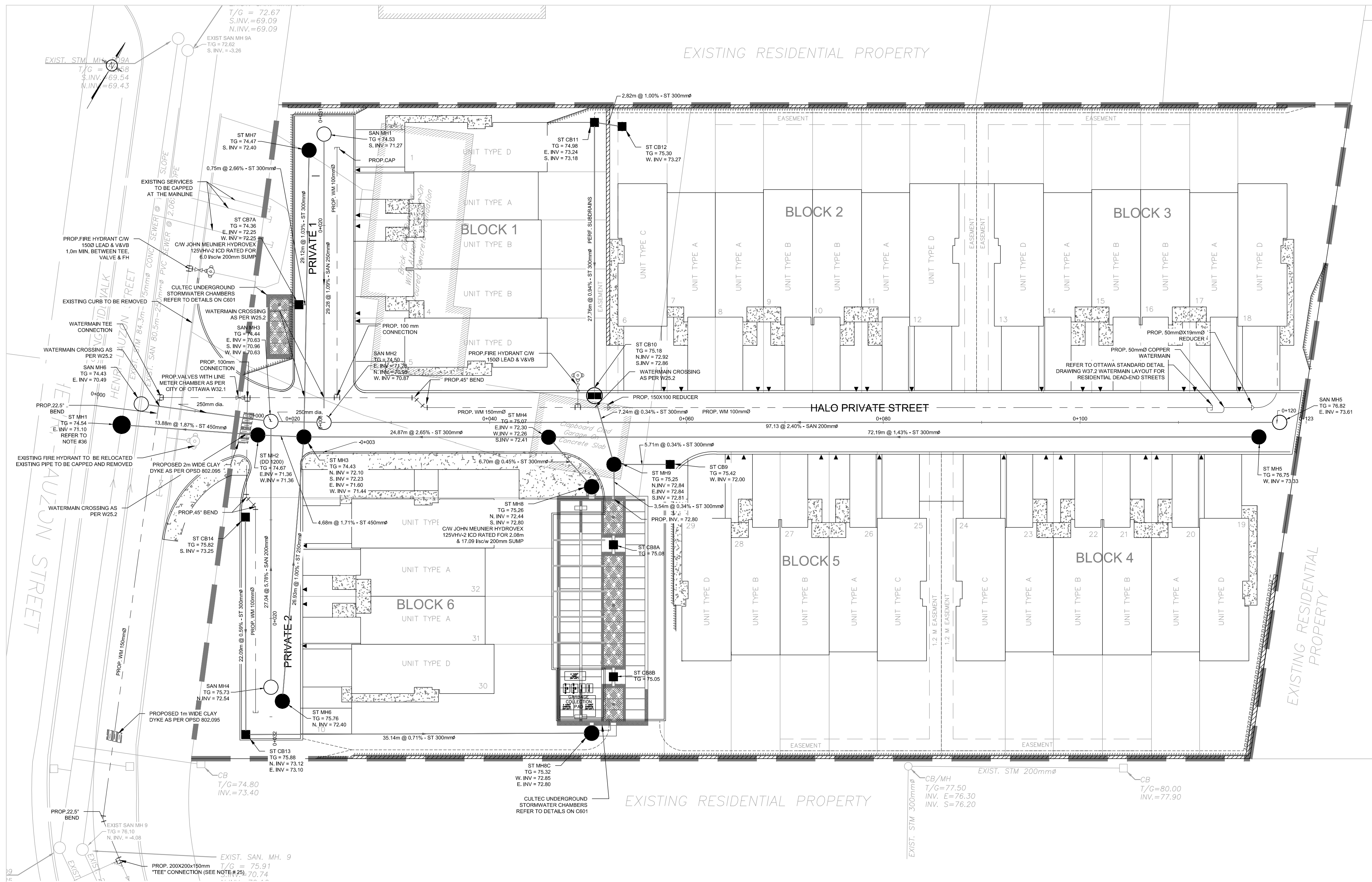
PROJECT: **PROPOSED RESIDENTIAL DEVELOPMENT**  
**1401-1411 HENRI LAUZON STREET**  
**ORLEANS (OTTAWA), ONTARIO**

DRAWING TITLE: **GRADING PLAN**

PROJECT NO.: **08181**  
DATE: **JAN. 20, 2016**

**C301**





- NOTES: GENERAL
- CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
  - ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
  - JOB BENCH MARK TO BE OBTAINED FROM DUTCHMAN SURVEYING LTD. REFERENCE PLAN 48-18358.
  - APPROVED SMALL OR CATCH BASIN OUTLETS ARE PROVIDED.
  - STOP AND REMOVE ALL SPILLS FROM WORKED AREAS.
  - COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADERS AND CONTRACTORS.
  - ALL EXISTING DETACHED DRIVEWAYS SHALL BE WITH STEP JOINTS OF 500mm MINIMUM.
  - PAVEMENT REPAIRMENT SHALL BE WITH STEP JOINTS OF 500mm MINIMUM.
  - RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE MUNICIPAL AUTHORITIES.
  - ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 204, 310 & 314, MATERIALS TO OPSS 1001, 1003 & 1010.
  - ABUTTING PROPERTY GRADE TO BE MATCHED.
  - OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS FROM THE MUNICIPAL AUTHORITIES PRIOR TO COMMENCING CONSTRUCTION.
  - MANAGE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
  - REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, UNLESS OTHERWISE DIRECTED FROM THE ENGINEER.
  - THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS BUT NOT LIMITED TO: ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC.
  - AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (IE: STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PROPOSED LOCATION AND DEPTH OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
  - THE LATEST GEOTECHNICAL REPORT FOR THIS SITE SHALL BE ADHERED TO AND FORMS PART OF THE REQUIREMENTS OF THIS CONSTRUCTION SITE.
  - PRIOR TO CONSTRUCTION, A GEOTECHNICAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO IS TO INSPECT ALL SUB SURFACES FOR FOOTINGS, SERVICES, RETAINING WALLS AND PAVEMENT STRUCTURES.
- NOTES: WATERMAIN
- ALL WATER MAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE OR THERMAL INSULATION SHALL BE PROVIDED AS PER W22.
  - WATER MAIN BEING TO BE AS PER CITY OF OTTAWA DETAIL W22.
  - CONCRETE THRUST BLOCKS AND RESTRAINTS AS PER CITY OF OTTAWA DETAIL W22.3.
  - CATHODIC PROTECTION REQUIRED FOR ALL NON-FERROUS AS PER CITY OF OTTAWA DETAIL W22.4.
  - IF WATER MAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
  - ALL WATERMAIN PIPES TO BE PVC DR-18 OR EQUIVALENT.
  - ALL CONNECTIONS OF NEW WATERMAIN TO EXISTING WATERMAIN & ALL BANKINGS OF EXISTING MAINS AND SERVICES SHALL BE PERFORMED BY THE CITY OF OTTAWA. THE CONNECTION SHALL PROVIDE EXCAVATION, BACKFILL AND REINSTATEMENT.
  - WATER METER & METER RACK TO BE INSTALLED AS PER CITY OF OTTAWA STANDARD W22.
- NOTES: SEWER
- ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407, AND 410.
  - ALL SEWERS WITH LESS THAN 1.5m SHALL BE INSULATED WITH MINIMUM 50mm STYROFOAM THICK INSULATION.
  - ALL SEWER PIPES (SAN & STORM) AS PER DRAWING, UNLESS APPROVED OR SPECIFIED OTHERWISE.
  - REAR YARD SMALLS TO BE INSTALLED WITH 250mm DIAMETER PERFORATED DRAIN AS PER CITY OF OTTAWA STANDARD S28.
  - CATCH BASINS TO BE AS PER OPSD 705.010 WITH FRAME AND COVER TO CITY OF OTTAWA STANDARD S28.
  - MINOR VENTS TO BE 150mm DIA. WITH FRAME TO CITY OF OTTAWA STANDARD S28 AND COVER TO CITY OF OTTAWA STANDARD S28.1.
  - STORM AND SANITARY MANHOLES TO BE TO OPSD 705.010 WITH FRAME TO CITY OF OTTAWA STANDARD S28 AND COVER TO CITY OF OTTAWA STANDARD S28.1.
  - CB COVER IN THE REAR YARD SHALL BE BACKFILLED USING GRANULAR B-TYPE 1.
  - THE JOINTS BETWEEN CATCHBASIN AND MANHOLE SECTIONS ARE TO BE WRAPPED WITH NON-WOVEN GEOTEXTILE AS PER OPSD W20.1 - TYPE 1 IN ORDER TO PREVENT FINE PARTICLES FROM ENTERING THE SEWER.
  - CONNECTING TO THE EXISTING 675mm STORM SEWER ALONG HENRI-LAUZON STREET SHALL BE BY REMOVING A PIECE OF EXISTING SEWER AND INSTALLING 1.0m LONG STIFF AND FLEXIBLE COUPLERS ON EITHER SIDE OF THE MAINTENANCE HOLE.

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UNAUTHORIZED CHANGES

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE MAKES OR PERMITS TO BE MADE ANY CHANGES TO ANY REPORTS, PLANS, SPECIFICATIONS OR OTHER CONSTRUCTION DOCUMENTS PREPARED BY LRL ASSOCIATES LTD. (LRL) WITHOUT OBTAINING LRL'S PRIOR WRITTEN CONSENT, THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST LRL AND TO RELEASE LRL FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS LRL FROM ANY DAMAGES, LIABILITIES OR COST, INCLUDING REASONABLE ATTORNEY'S FEES AND COST OF DEFENSE, ARISING FROM SUCH CHANGES.

IN ADDITION, THE CLIENT AGREES TO INCLUDE IN ANY CONTRACTS FOR CONSTRUCTION APPROPRIATE LANGUAGE THAT PROHIBITS THE CONTRACTOR OR ANY SUBCONTRACTORS OF ANY TIER FROM MAKING ANY CHANGES OR MODIFICATIONS TO LRL'S CONSTRUCTION DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF LRL AND THAT FURTHER REQUIRES THE CONTRACTOR TO INDEMNIFY BOTH LRL AND THE CLIENT FROM ANY LIABILITY OR COST ARISING FROM SUCH CHANGES MADE WITHOUT SUCH PROPER AUTHORIZATION.

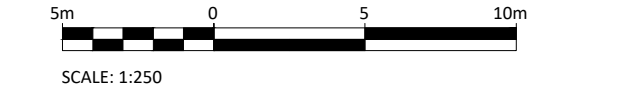
GENERAL NOTES:

EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT MAY NOT BE COMPLETE OR TO DATE. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF EXISTING UTILITIES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING OR PERFORMING WORK.

CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.



Structure Name	Structure Details	Description
MH1	1/6 = 74.54 E INV IN = 71.10	1500mm dia AS PER OPSD 701.011 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S28.1. PERFORATED LID
MH2	1/6 = 74.67 E INV IN = 71.36 W INV OUT = 71.36	1200mm DIAMETER DOWNSTREAM DEFENDER BY HYDRO INTERNATIONAL REFER TO DETAIL DWG C-601
MH3	1/6 = 74.43 N INV IN = 72.10 S INV IN = 72.23 E INV IN = 71.60 W INV OUT = 71.44	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S28.1. PERFORATED LID
MH4	1/6 = 75.07 S INV IN = 72.41 E INV IN = 72.30 W INV OUT = 72.26	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S28.1. PERFORATED LID
MH5	1/6 = 76.75 E INV OUT = 73.33	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S28.1. PERFORATED LID
MH6	1/6 = 75.76 N INV OUT = 72.40	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S28.1. PERFORATED LID
MH7	1/6 = 74.47 S INV OUT = 72.40	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S28.1. PERFORATED LID
CB7A	1/6 = 74.36 E INV IN = 72.25 W INV OUT = 72.25	600mm dia AS PER OPSD 705.010 FRAME & COVER AS PER CITY OF OTTAWA S19 ICD - JOHN MEUNIER HYDROVEX 125VW-2 ICD RATED FOR 6.00 l/sec/w
MH8	1/6 = 75.19 S INV IN = 72.80 N INV OUT = 72.44	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S28.1. PERFORATED LID - ICD - JOHN MEUNIER HYDROVEX 125VW-2 ICD RATED FOR 19.00 l/sec/w
CB8A	1/6 = 75.08	600mm dia AS PER OPSD 705.010 FRAME & COVER AS PER CITY OF OTTAWA S19 SUMP DEPTH 1.0m
CB8B	1/6 = 75.05	600mm dia AS PER OPSD 705.010 FRAME & COVER AS PER CITY OF OTTAWA S19 SUMP DEPTH 1.0m
MH9C	1/6 = 75.32 W INV IN = 72.85 E INV OUT = 72.80 N INV OUT = 72.80	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S28.1. PERFORATED LID
CB9	1/6 = 75.42 W INV OUT = 72.84	600mm dia AS PER OPSD 705.010 FRAME & COVER AS PER CITY OF OTTAWA S19
CB10	1/6 = 75.18 N INV IN = 72.91 S INV OUT = 72.85	600mm dia AS PER OPSD 705.010 FRAME & COVER AS PER CITY OF OTTAWA S19
CB11	1/6 = 75.89 E INV IN = 73.24 S INV OUT = 73.18	600mm dia AS PER OPSD 705.010 FRAME & COVER AS PER CITY OF OTTAWA S19
CB12	1/6 = 75.44 W INV OUT = 73.27	600mm dia AS PER OPSD 705.010 FRAME & COVER AS PER CITY OF OTTAWA S19
CB13	1/6 = 75.88 N INV IN = 73.12 E INV OUT = 73.10	600mm dia AS PER OPSD 705.010 FRAME & COVER AS PER CITY OF OTTAWA S19
CB14	1/6 = 75.82 S INV OUT = 73.25	600mm dia AS PER OPSD 705.010 FRAME & COVER AS PER CITY OF OTTAWA S19
MH9	1/6 = 75.25 E INV IN = 72.84 N INV OUT = 72.84 S INV OUT = 72.81	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S28.1. PERFORATED LID

Structure Name	Structure Details	Description
MH1	1/6 = 74.53 S INV OUT = 71.27	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S24.1
MH2	1/6 = 74.50 E INV IN = 71.28 W INV IN = 70.90 W INV OUT = 70.87	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S24.1
MH3	1/6 = 74.44 E INV IN = 70.61 S INV IN = 70.96 W INV OUT = 70.63	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S24.1
MH4	1/6 = 75.73 N INV OUT = 72.52	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S24.1
MH5	1/6 = 76.82 W INV OUT = 73.61	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S24.1
MH6	1/6 = 74.43 E INV IN = 70.49	1200mm dia AS PER OPSD 701.010 FRAME AS PER CITY OF OTTAWA STD. S25 & COVER AS PER CITY OF OTTAWA STD. S24.1

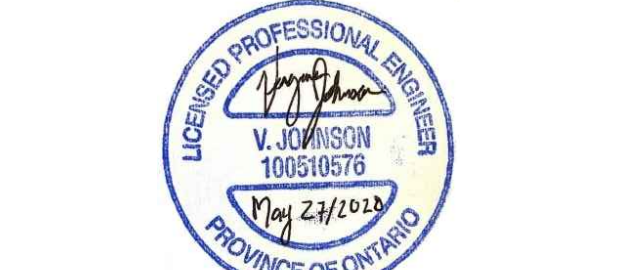
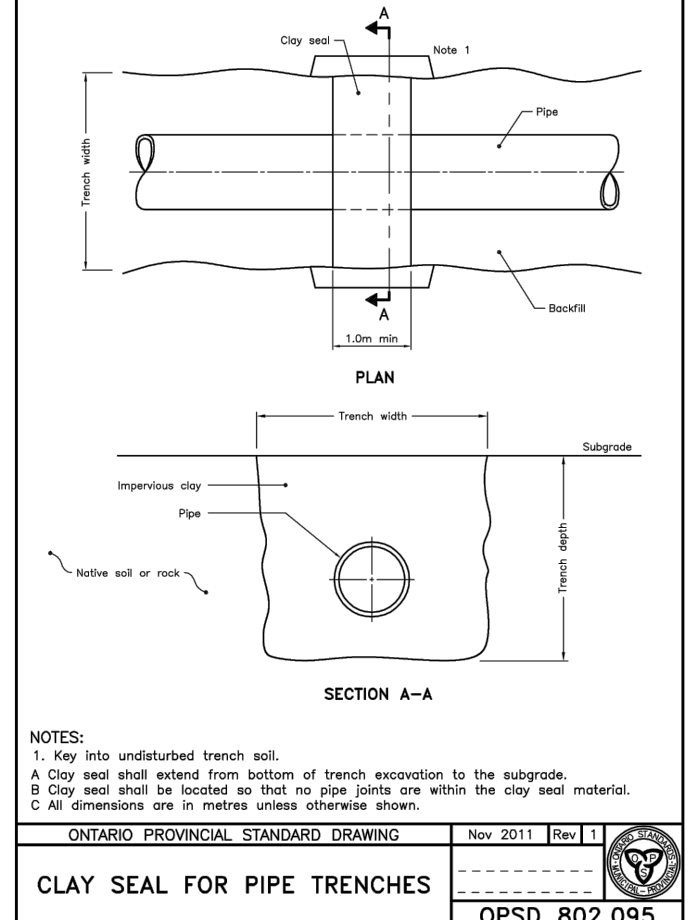
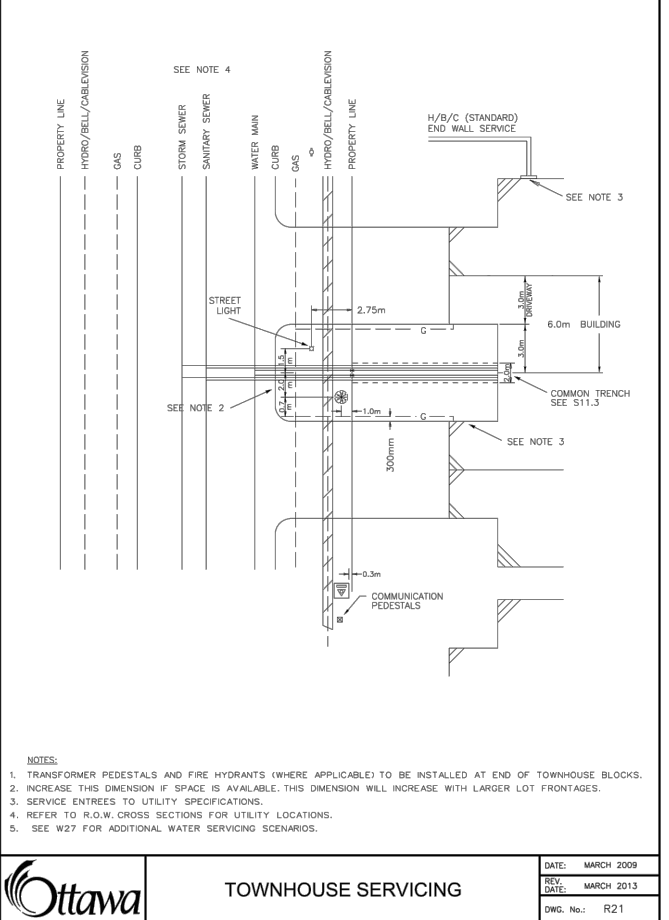
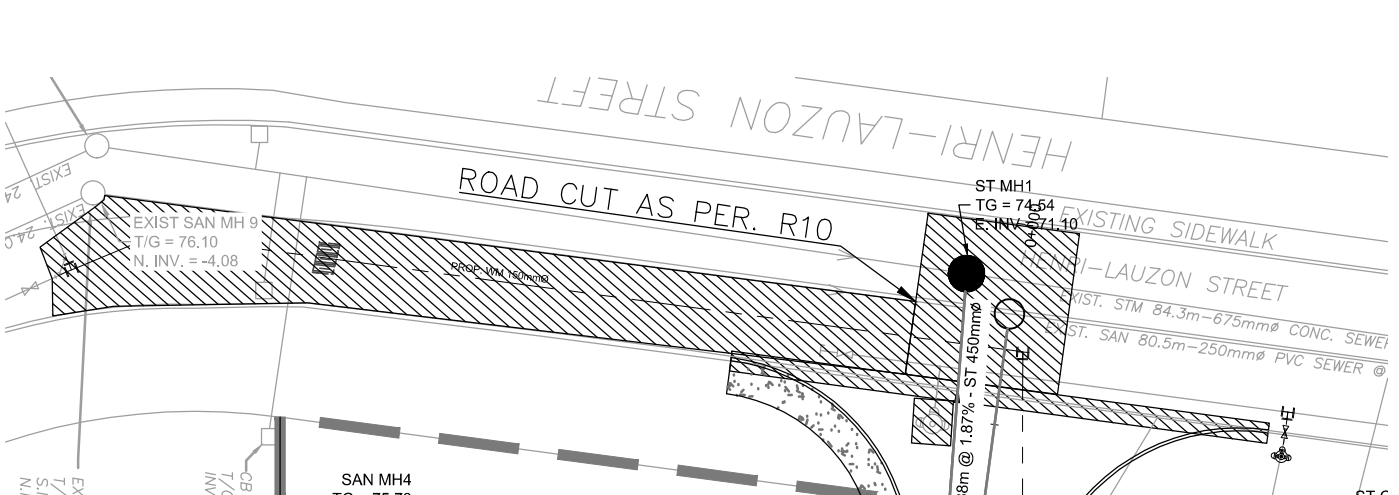
CHAINAGES	DESCRIPTION	TOP OF GROUND	TOP OF WATERMAIN	TOP OF SEWER
0-002	150x150x150mm Tee	74.49	72.09	-
0-001	SAN SEWER CROSSING	74.43	72.09	70.60
0-001	STORM SEWER CROSSING	74.47	71.34	72.35
0-008	50mm 45° BEND	75.35	72.95	-
0-009	50mm 45° BEND	75.35	72.95	-
0-030	CAP	75.80	73.40	-
0-002	150x150x150mm Tee	74.47	72.07	-
0-028	CAP	74.49	72.07	-
0-015	150mm VALVE	74.50	72.10	-
0-016	SAN SEWER CROSSING	74.47	73.30	71.50
0-019	STORM SEWER CROSSING	74.47	73.30	72.35
0-042	50mm 45° BEND	74.60	72.24	-
0-043	50mm 45° BEND	74.70	72.30	-
0-040	FIRE HYDRANT	75.16	72.74	-
0-051	STORM SEWER CROSSING	75.20	73.80	72.85
0-053	150x75 REDUCER	75.30	72.90	-
0-100	50mm REDUCER AND CAP	76.39	74.29	-

PROPOSED 1500mm WM.

PROP. 200X200X150mm "TEE" CONNECTION (SEE NOTE # 25)

EXISTING WM. TO BE ABANDONED

EXISTING VALVE



NOT AUTHENTIC UNLESS SIGNED AND DATED



5430 Canotek Road | Ottawa, ON K1J 9G2  
www.lrl.ca | (613) 842-3434

CLIENT: BILBERRY GROUP

DESIGNED BY: A.E. DRAWN BY: M.B. APPROVED BY: G.B.

PROJECT: PROPOSED RESIDENTIAL DEVELOPMENT  
1401-1411 HENRI LAUZON STREET  
ORLEANS (OTTAWA), ONTARIO

DRAWING TITLE: SERVICING PLAN

PROJECT NO.: 08181  
DATE: JAN. 20, 2016

C401







# 1401 HENRI LAUZON STREET OTTAWA, ON

## DRAWING INDEX

TITLE	SHEET NO.
SOUTH SYSTEM LAYOUT SHEET	1 OF 7
SOUTH SYSTEM CALCULATION SHEET	2 OF 7
NORTH SYSTEM LAYOUT SHEET	3 OF 7
NORTH SYSTEM CALCULATION SHEET	4 OF 7
SYSTEM OVERLAY SHEET	5 OF 7
DETAIL SHEET	6 OF 7
SEPARATOR ROW DETAIL SHEET	7 OF 7

PROJECT INFORMATION	
PROJECT NO:	18-1222.02
CULTEC SALES REP:	KENT FRAME (GEOSTORM) 416-570-4876 KENT@GEOSTORM.CA
CULTEC TECHNICAL MANAGER:	DAN DERA 479-289-7064 DERA@CULTEC.COM
CULTEC CAD TECH:	YESHA PERA 479-289-7103 YPERA@CULTEC.COM
COMMENTS:	



**CULTEC, Inc.**  
Subsurface Stormwater Management Systems  
P.O. Box 280 PH: (203) 775-4416  
878 Federal Road PH: (800) 4-CULTEC  
Brookfield, CT 06804 FX: (203) 775-1462  
www.cultec.com tech@cultec.com

NOTE: THESE SHOP DRAWINGS MAY CONTAIN COMPONENTS INCLUDING BUT NOT LIMITED TO MANHOLLS, CATCH BASINS, STORM PIPES AND FITTINGS, MANIFOLDS, GATES/DOES AND OTHER NECESSARY APPURTENANCES THAT MAY NOT BE SUPPLIED BY CULTEC, INC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND/OR SUPPLIER TO CONFIRM WITH CULTEC THE MATERIALS PROVIDED.

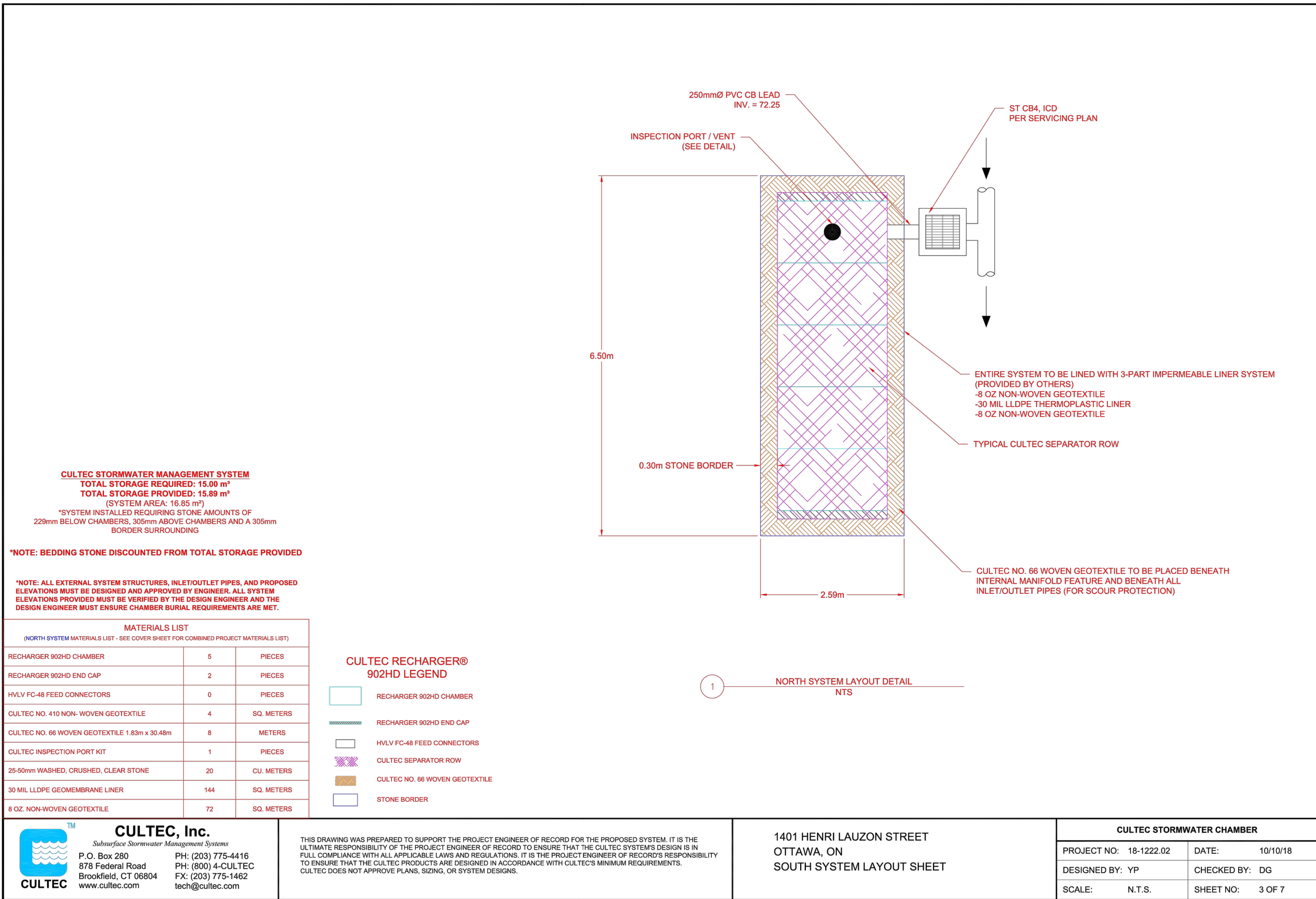
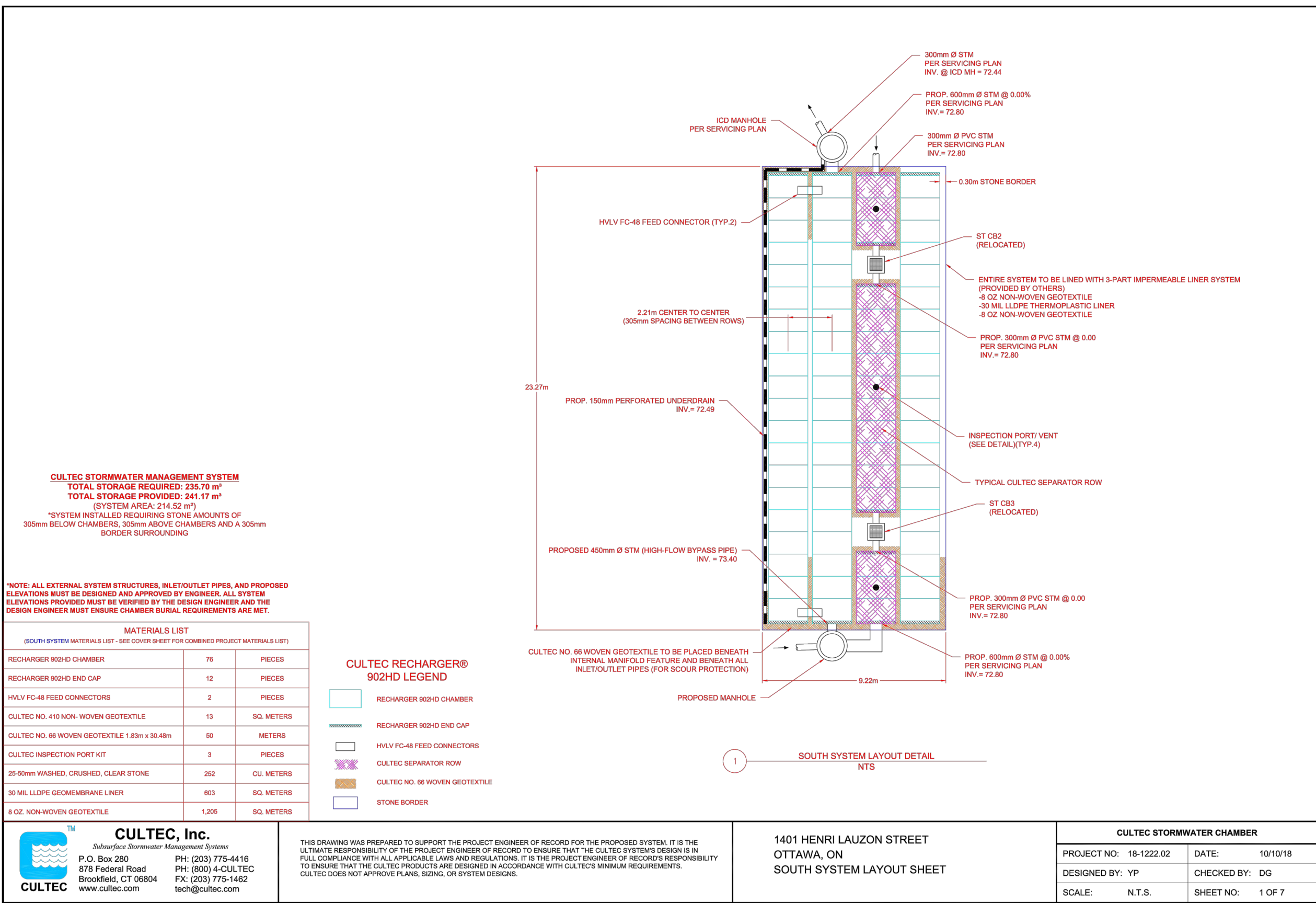
THIS DRAWING WAS PREPARED TO SUPPORT THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM. IT IS THE ULTIMATE RESPONSIBILITY OF THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE CULTEC SYSTEM'S DESIGN IS IN FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IT IS THE PROJECT ENGINEER OF RECORD'S RESPONSIBILITY TO ENSURE THAT THE CULTEC PRODUCTS ARE DESIGNED IN ACCORDANCE WITH CULTEC'S MINIMUM REQUIREMENTS. CULTEC DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS.

## BEFORE YOU BEGIN - REQUIRED MATERIALS AND EQUIPMENT

- PROPER GEOTECHNICAL SOIL EVALUATION BY A QUALIFIED ENGINEER OR SOIL SCIENTIST TO DETERMINE SUITABILITY OF STRUCTURAL INSTALLATION
- OSHA COMPLIANCE
- CULTEC WARNING TAPE, OR EQUIVALENT
- ASSURANCES FROM LOCAL UTILITIES THAT NO UNDERGROUND GAS, ELECTRICAL OR OTHER POTENTIALLY DANGEROUS PIPELINES OR CONDUITS ARE ALREADY BURIED AT THE SITE
- ACCEPTABLE 25 - 50mm WASHED, CRUSHED, CLEAR STONE AS DETAILED IN CULTEC'S INSTALLATION INSTRUCTIONS. CLEANLINESS OF STONE TO BE VERIFIED BY ENGINEER
- ACCEPTABLE FILL MATERIAL AS SHOWN IN CULTEC'S INSTALLATION INSTRUCTIONS
- ALL CULTEC CHAMBERS AND ACCESSORIES AS SPECIFIED IN THE ENGINEER'S PLANS INCLUDING CULTEC NO. 410 NON-WOVEN GEOTEXTILE, CULTEC STORM/FILTER AND CULTEC NO. 66 WOVEN GEOTEXTILE, WHERE APPLICABLE
- RECIPROCATING SAW OR ROUTER
- STONE BUCKET
- STONE CONVEYOR AND/OR TRACKED EXCAVATOR
- TRANSIT OR LASER LEVEL MEASURING DEVICE
- COMPACTOR EQUIPMENT WITH MAXIMUM GROSS VEHICLE WEIGHT OF 12,000 LBS (5,440 KGS), VIBRATORY ROLLERS MAY ONLY BE USED ON THE STONE BASE PRIOR TO THE INSTALLATION OF CHAMBERS
- CHECK CULTEC CHAMBERS FOR DAMAGE PRIOR TO INSTALLATION. DO NOT USE DAMAGED CULTEC CHAMBERS. CONTACT YOUR SUPPLIER IMMEDIATELY TO REPORT DAMAGE OR PACKING-LIST DISCREPANCIES.

## REQUIREMENTS FOR CULTEC CHAMBER SYSTEM INSTALLATIONS

- INSTALLING CONTRACTORS ARE EXPECTED TO COMPREHEND AND USE THE MOST CURRENT INSTALLATION INSTRUCTIONS PRIOR TO BEGINNING A SYSTEM INSTALLATION. IF THERE IS ANY QUESTION AS TO WHETHER YOU POSSESS THE MOST CURRENT INSTRUCTIONS, CONTACT CULTEC AT (203) 775-4416 OR VISIT WWW.CULTEC.COM.
- CONTACT CULTEC AT LEAST THIRTY DAYS PRIOR TO SYSTEM INSTALLATION TO ARRANGE FOR A PRE-CONSTRUCTION MEETING.
- ALL CULTEC SYSTEM DESIGNS MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.
- USE CULTEC INSTALLATION INSTRUCTIONS AS A GUIDELINE ONLY FOR MINIMUM/MAXIMUM REQUIREMENTS. ACTUAL DESIGN MAY VARY. REFER TO APPROVED CONSTRUCTION DRAWINGS FOR JOB-SPECIFIC DETAILS. BE SURE TO FOLLOW THE ENGINEER'S DRAWINGS AS YOUR PRIMARY GUIDE.
- THE FOUNDATION STONE SHALL BE LEVEL AND COMPACTED PRIOR TO CHAMBER INSTALLATION.
- OVERLAPPING JOINT CONNECTIONS OF CHAMBERS SHALL BE FULLY SHOULDERED PRIOR TO STONE PLACEMENT.
- CENTER-TO-CENTER SPACING SHALL BE CHECKED AND MAINTAINED THROUGHOUT INSTALLATION PROCESS.
- ANY DISCREPANCIES WITH THE SYSTEM SUB-GRADE SOILS BEARING CAPACITY MUST BE REPORTED TO THE DESIGN ENGINEER.
- NON-WOVEN GEOTEXTILE MUST BE USED AS SPECIFIED IN THE ENGINEER'S DRAWINGS.
- CULTEC REQUIRES THE CONTRACTOR TO REFER TO CULTEC'S INSTALLATION INSTRUCTIONS CONCERNING VEHICULAR TRAFFIC. RESPONSIBILITY FOR PREVENTING VEHICLES THAT EXCEED CULTEC'S REQUIREMENTS FROM TRAVELING ACROSS OR PARKING OVER THE CHAMBER SYSTEM LIES SOLELY WITH THE CONTRACTOR THROUGHOUT THE ENTIRE SITE CONSTRUCTION PROCESS. THE PLACEMENT OF WARNING TAPE, TEMPORARY FENCING, AND/OR APPROPRIATELY LOCATED SIGNS IS HIGHLY RECOMMENDED. PRINTED WARNING TAPE IS AVAILABLE FROM CULTEC. FOR ACCEPTABLE VEHICLE LOAD INFORMATION, REFER TO CULTEC INSTALLATION INSTRUCTIONS.
- TRAFFIC OF INSTALLATION EQUIPMENT OR OTHER VEHICULAR TRAFFIC OVER TOP OF THE CULTEC STORMWATER SYSTEM IS STRICTLY RESTRICTED AND PROHIBITED UNTIL SATISFACTORY COVER AND COMPACTION IS ACHIEVED ACCORDING TO CULTEC'S MANUFACTURER INSTALLATION INSTRUCTIONS.
- EROSION AND SEDIMENT CONTROL MEASURES MUST MEET LOCAL CODES AND THE DESIGN ENGINEER'S SPECIFICATIONS THROUGHOUT THE ENTIRE SITE CONSTRUCTION PROCESS.
- CULTEC SYSTEMS MUST BE DESIGNED AND INSTALLED IN ACCORDANCE WITH CULTEC'S MINIMUM REQUIREMENTS. FAILURE TO DO SO WILL VOID THE LIMITED WARRANTY.
- CONTACT CULTEC, INC. AT 203-775-4416 WITH ANY QUESTIONS OR FURTHER CLARIFICATION OF REQUIREMENTS.
- PLACEMENT OF EMBEDMENT STONE MUST BE IN ACCORDANCE WITH CULTEC'S INSTALLATION INSTRUCTIONS. STONE COLUMN HEIGHT DIFFERENTIAL MUST NEVER EXCEED 12" (305 mm) BETWEEN CHAMBER ROWS. ADJACENT CHAMBERS OR STONE PERIMETER. STONE MUST BE PLACED OVER THE CROWN OF THE CHAMBERS TO ANCHOR THE CHAMBERS IN PLACE AND MAINTAIN ROW SPACING.
- EMBEDMENT STONE MUST ONLY BE PLACED BY EXCAVATOR OR TELESCOPING CONVEYOR BOOM. PLACEMENT OF EMBEDMENT STONE WITH BULLDOZER IS NOT AN ACCEPTABLE METHOD OF INSTALLATION AND MAY CAUSE DAMAGE TO THE CHAMBERS. ANY CHAMBERS DAMAGED USING AN UNACCEPTABLE METHOD OF BACKFILL ARE NOT COVERED UNDER THE CULTEC LIMITED WARRANTY.



## USE AND INTERPRETATION OF DRAWINGS

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE USE AND INTENT OF THE DRAWING. THE CONTRACT DOCUMENTS INCLUDE NOT ONLY THE DRAWINGS, BUT ALSO THE OWNER-CONTRACTOR AGREEMENTS, CONDITIONS OF THE CONTRACT, THE SPECIFICATIONS, ADDENDA, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT. THESE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ANY ONE SHALL BE BINDING AS REQUIRED BY ALL. WORK NOT COMPLETELY DELINEATED HEREON SHALL BE CONSTRUCTED OF THE SAME MATERIALS AND DETAILED SIMILARLY AS WORK SHOWN MORE COMPLETELY ELSEWHERE IN THE CONTRACT DOCUMENTS.

BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER CONFIRMS THAT HE HAS REVIEWED AND APPROVED THE DRAWINGS. THE CONTRACTOR CONFIRMS THAT HE HAS VISITED THE SITE, FAMILIARIZED HIMSELF WITH THE LOCAL CONDITIONS, VERIFIED FIELD DIMENSIONS AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

UNLESS THE REVISION TITLE IS ISSUED FOR CONSTRUCTION, THESE DRAWINGS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.

THESE DRAWINGS ILLUSTRATE THE WORK TO BE DONE. THE ENGINEER IS NOT RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES USED TO DO THE WORK, OR THE SAFETY ASPECTS OF CONSTRUCTION, AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. CONTRACTOR SHALL DETERMINE ALL CONDITIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A BID TO PERFORM THIS WORK IS ACKNOWLEDGEMENT OF THE RESPONSIBILITIES, AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK, AND THE BID PRICE. NO CLAIMS FOR EXTRA CHARGES DUE TO THESE CONDITIONS WILL BE FORTHCOMING.

## UNAUTHORIZED CHANGES:

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE MAKES OR PERMITS TO BE MADE ANY CHANGES TO ANY REPORTS, PLANS, SPECIFICATIONS OR OTHER CONSTRUCTION DOCUMENTS PREPARED BY IRL ASSOCIATES LTD. (IRL) WITHOUT OBTAINING IRL'S PRIOR WRITTEN CONSENT, THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST IRL AND TO RELEASE IRL FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS IRL FROM ANY DAMAGES, LIABILITIES OR COST, INCLUDING REASONABLE ATTORNEY'S FEES AND COST OF DEFENSE, ARISING FROM SUCH CHANGES.

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## GENERAL NOTES:

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CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.

04	ISSUED FOR APPROVAL	M.L.	MAY. 27, 2020
03	ISSUED AS PER CITY COMMENTS	D.M.	DEC. 10, 2018
02	ISSUED AS PER CITY COMMENTS	D.M.	OCT. 16, 2018
01	ISSUED AS PER CITY COMMENTS	D.M.	AUG. 23, 2018
00	ISSUED FOR SPC	A.E.	FEB. 29, 2016
No.	REVISIONS	BY	DATE



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## ENGINEERING | INGÉNIERIE

5430 Canotek Road | Ottawa, ON K1J 9G2  
www.lrl.ca | (613) 842-3434

## CLIENT

BILBERRY GROUP

DESIGNED BY:	DRAWN BY:	APPROVED BY:
A.E.	D.S.	G.B.

## PROJECT

PROPOSED RESIDENTIAL DEVELOPMENT  
1401-1411 HENRI LAUZON STREET  
ORLEANS (OTTAWA), ONTARIO

## DRAWING TITLE

UNDERGROUND STORAGE AND  
STORMWATER SEPARATOR DETAILS

## PROJECT NO.

08181


## DATE

DEC. 10, 2018

C601




[illegible]



NOT AUTHENTIC UNLESS SIGNED AND DATED

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# LRJ

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5430 Canotek Road | Ottawa, ON, K1J 9G2  
[www.lrl.ca](http://www.lrl.ca) | (613) 942-3434

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CLIENT

## BILBERRY GROUP

DESIGNED BY:	DRAWN BY:	APPROVED BY:
A.E.	D.S.	G.B.

PROJECT

## PROPOSED RESIDENTIAL DEVELOPMENT

### 1401-1411 HENRI LAUZON STREET ORLEANS (OTTAWA), ONTARIO

DRAWING TITLE

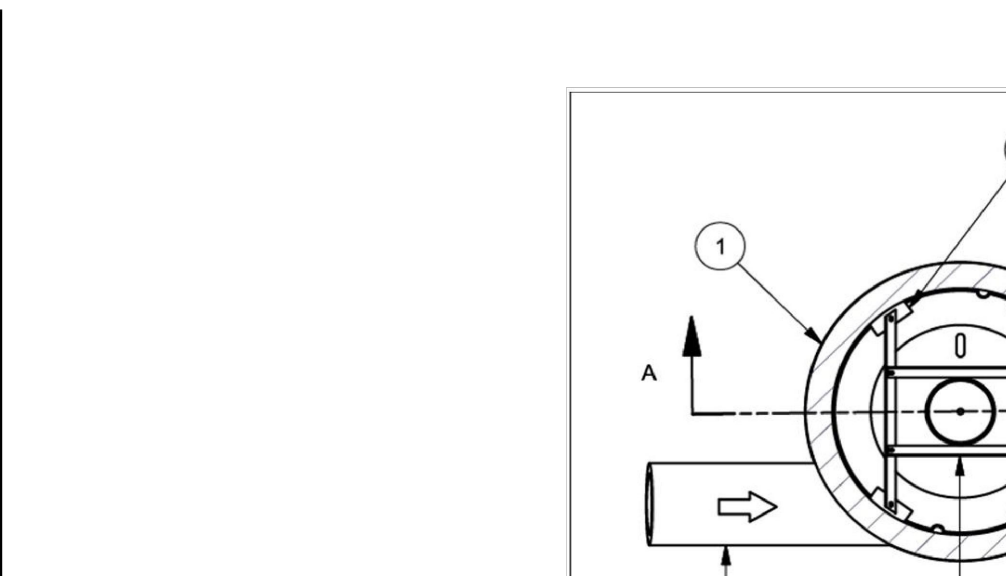
## UNDERGROUND STORAGE AND STORMWATER SEPARATOR DETAILS

PROJECT NO.

08181

6/02



[illegible]

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE USE AND INTENT OF THE DRAWING. THE CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: THE OWNER-CONTRACTOR AGREEMENTS, CONDITIONS OF THE CONTRACT, THE SPECIFICATIONS, ADDENDA, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT. THESE CONTRACT DOCUMENTS ARE COMPLEMENTARY AND WHAT IS REQUIRED BY ANY ONE SHALL BE BINDING AS IF REQUIRED BY ALL. WORK NOT COMPLETELY DEFINED IN THE CONTRACT DOCUMENTS SHALL BE CONSIDERED MATERIALS AND DETAILLED SIMILARLY AS WORK SHOWN MORE COMPLETELY ELSEWHERE IN THE CONTRACT DOCUMENTS.

BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER CONFIRMS THAT HE HAS REVIEWED AND APPROVED THE DRAWINGS. THE CONTRACTOR CONFIRMS THAT HE HAS VISITED THE SITE, FAMILIARIZED HIMSELF WITH THE LOCAL CONDITIONS, AND HAS REVIEWED AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

AS INSTRUMENTS OF SERVICE, ALL DRAWINGS, SPECIFICATIONS, CAD FILES OR OTHER ELECTRONIC MEDIA AND COPIES THEREOF FURNISHED BY THE ENGINEER ARE HIS PROPERTY. THEY ARE NOT TO BE REPRODUCED, COPIED, REPRODUCED, OR TO BE USED ON ANY OTHER PROJECT, INCLUDING REPEATS OF THE PROJECT. CHANGES TO THE DRAWINGS MUST BE MADE BY THE ENGINEER.

UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THESE DRAWINGS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.

**CULTEC RECHARGER 902HD HEAVY DUTY PLAN VIEW**

RECHARGER 902HD HEAVY DUTY CHAMBER IN SEPARATOR ROW CONFIGURATION

100 MM CONCRETE FILL

PAVEMENT OR FINISHED GRADE

25 MM WELDED, CURVED CLEAR STONE SUPPORTING CHAMBERS

30 MM, NON-INTRUSIVE LINEAR BETWEEN TWO LAYERS OF A 12 MM SAND GEOTEXTILE (90% OPEN)

CULTEC NO. 902HD SYSTEM TO BE PLACED BENEATH ALL METEOTEST PINS FOR AUGUR PROTECTION

300 MM FINE SAND

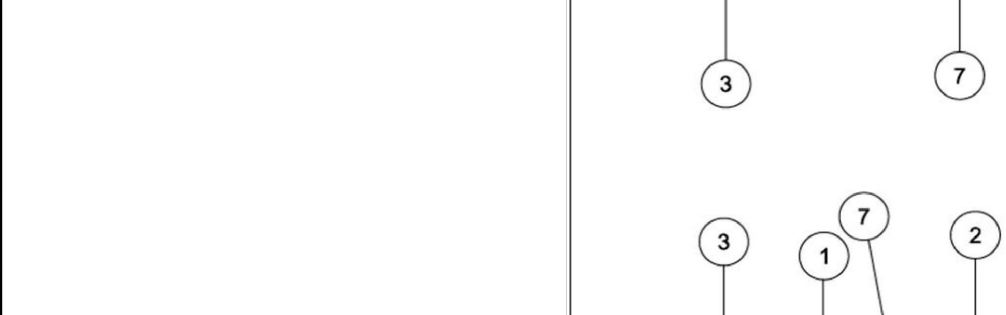
300 MM CONCRETE

300 MM

300 MM

NOTE: RECHARGER UNITS MUST BE PLACED IN SEPARATOR ROWS TO PREVENT TRAFFIC FROM ENTERING THE RECHARGER

TOP OF STONE SANDS EXPOSED TO 100 MM



THESE DRAWINGS ILLUSTRATES THE WORK TO BE DONE. THE ENGINEER IS NOT RESPONSIBLE FOR THE VARIATIONS, SEQUENCES, SCHEDULES, METHODS AND PROCEDURES USED TO DO THE WORK, OR THE SAFETY ASPECTS OF CONSTRUCTION AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A REQUEST FOR INFORMATION DOES NOT RELIEVE THE ENGINEER OF HIS RESPONSIBILITIES, AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK, AND THE BID PRICE. NO CLAIMS FOR EXTRA CHARGES DUE TO THIS CONDITION MAY BE FORTHCOMING.

UNAUTHORIZED CHANGES:

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE GRANTS OR PERMITS TO BE MADE ANY CHANGES TO ANY REPRESENTS, PLANS, SPECIFICATIONS OR OTHER CONSTRUCTION DOCUMENTS, THE CLIENT SHALL BE RESPONSIBLE FOR THE OBTAINING RLI'S PRIOR WRITTEN CONSENT. THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF ANY CHANGES. IF THE CLIENT AGREES TO MAKE A CLAIM AGAINST RLI AND TO RELEASE RLI FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES TO THE FOLLOWING TEXT, REBATED BY TWO (2) LINES:

TOP OF FORMER EXISTING PILE +12.10

1215mm

250mm MIN.

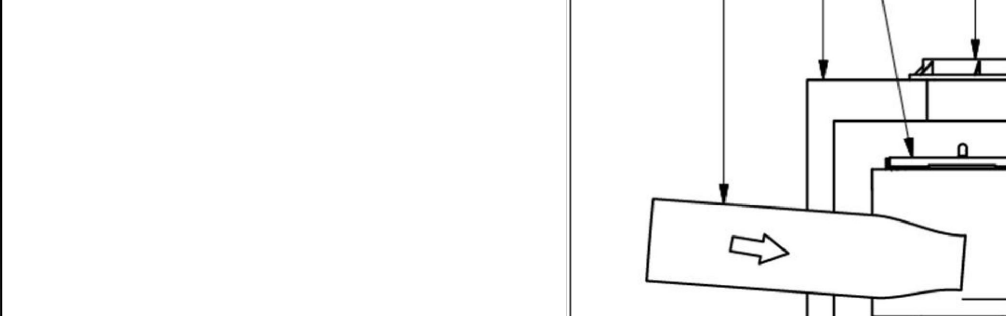
1825mm

300mm MIN.

BOTTOM OF CHAMBER ELEVATION +12.00

BOTTOM OF PILE ELEVATION +12.00

THE DESIGN ENGINEER IS RESPONSIBLE FOR ENSURING THAT THE REQUIRED BEARING CAPACITY OF SUB-GRADE SOILS HAS BEEN MET



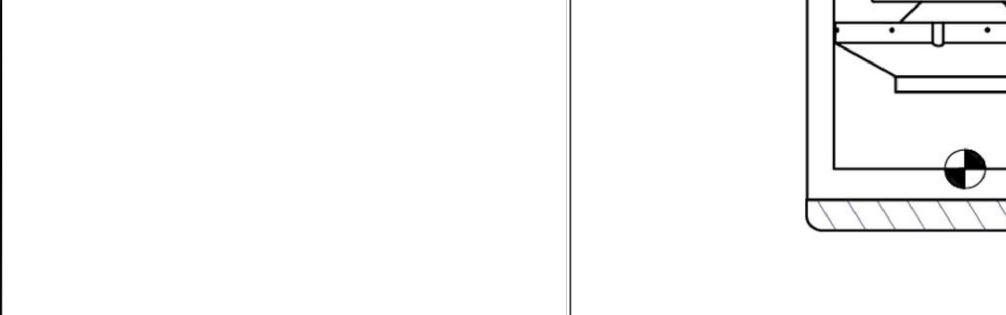
TO INDEMNIFY AND HOLD HARMLESS LIRL FROM ANY DAMAGES, LIABILITIES OR COST, INCLUDING REASONABLE ATTORNEY'S FEES AND COST OF DEFENSE, ARISING FROM SUCH CHANGES.

IN ADDITION, THE CLIENT AGREES TO INCLUDE IN ANY CONTRACTS FOR CONSTRUCTION APPROPRIATE LANGUAGE THAT PROHIBITS THE CONTRACTOR OR ANY SUBCONTRACTORS OF ANY TIER FROM MAKING ANY CHANGES OR MODIFICATIONS TO LIRL'S CONSTRUCTION DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF LIRL AND THAT FURTHER REQUIRES THE CONTRACTOR TO INDEMNIFY BOTH LIRL AND THE CLIENT FROM ANY LIABILITY OR COST ARISING FROM SUCH CHANGES MADE WITHOUT SUCH PROPER AUTHORIZATION.

GENERAL NOTES:

EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT MAY NOT BE COMPLETE OR TO DATE. CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES, AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING OR PERFORMING WORK.

CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

[illegible]

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.

48mm

30mm

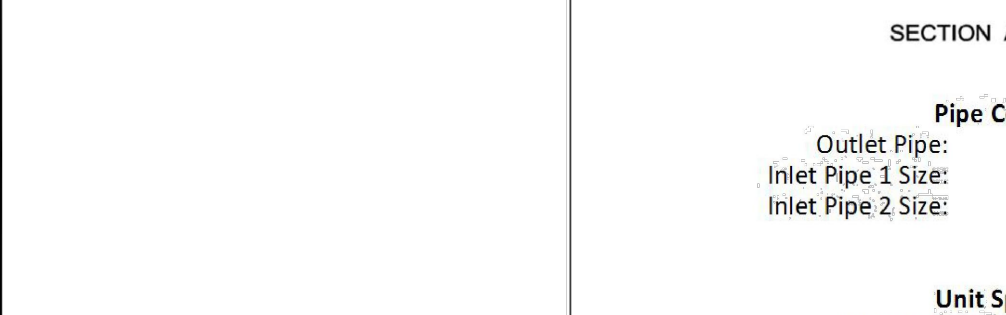
30mm

48mm

CULTEC HW-V-FC48

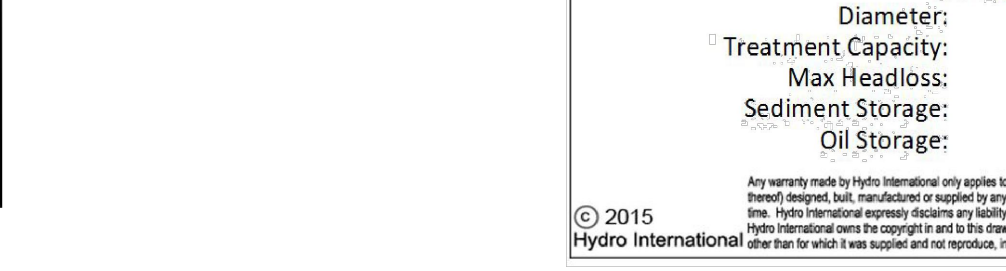
INSPECTION PORT / VENT - ZOOM DETAIL

HEAVY DUTY L.P.D. AND CLEAN-OUT CAP  
 150mm SDR35 SJC4 40 PVC PROTECTED  
 ENDOFIT CLEAN-OUT ADAPTER IN BETWEEN IN CAP  
 150mm SDR35 SJC4 40 PVC COUPLING  
 150mm SDR35 SJC4 40 PVC INSPECTION STONE LAYER  
 100mm SDR35 SJC4 40 PVC RIGID PIPE  
 THIN CHAMBER INSPECTION PORT ACCESS OUT  
 TO MATCH D.O.D. OF 150mm INSPECTION PORT PIPE  
 150mm SDR35 SJC4 40 PVC  
 (INSERTED TO 30mm WITH CHAMBER)



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<p>17. THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM, IT IS THE ENGINEER OF RECORD TO ENSURE THAT THE CULTEC SYSTEMS DESIGN IS IN ACCORDANCE WITH THE REGULATIONS. IT IS THE PROJECT ENGINEER OR RECORDS RESPONSIBILITY ARE DESIGNED IN ACCORDANCE WITH CULTEC'S MINIMUM REQUIREMENTS. OR, OR SYSTEM DESIGNS.</p>	<p>RECHARGER 002 DETAIL SHEET TRAFFIC APPLICATION</p>
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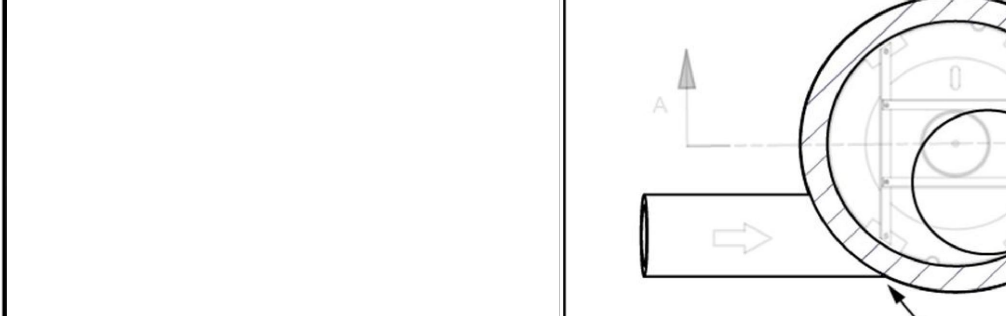


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OVERFLOW PIPE (OVER 100% SEPARATION TIME BY DESIGN)

SEPARATION STAGES (MINIMUM SPACED)

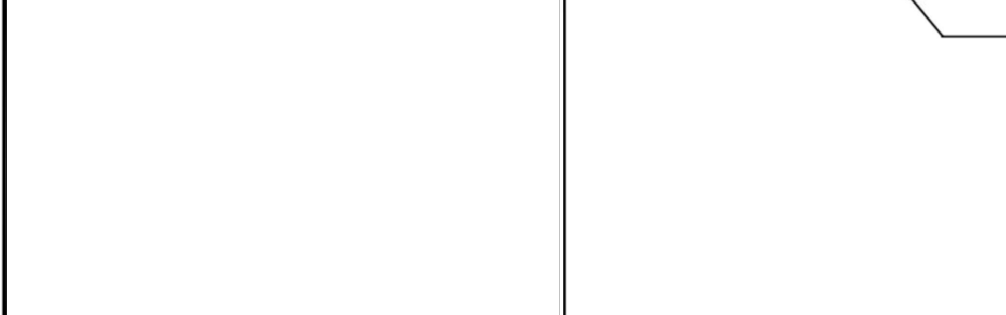
ENTIRE SEPARATION NOW TO BE COMPLETED IN THIS STAGE (NO 410 NON-BROWNS)



04	ISSUED FOR APPROVAL	M.L.	MAY. 27, 2020
03	ISSUED AS PER CITY COMMENTS	D.M.	DEC. 10, 2018
02	ISSUED AS PER CITY COMMENTS	D.M.	OCT. 16, 2018
01	ISSUED AS PER CITY COMMENTS	D.M.	AUG. 23, 2018
00	ISSUED FOR SPC	A.E.	FEB. 29, 2016
No.	REVISIONS	BY	DATE



CULTEC CHAMBER MODEL						
DESCRIPTION	CONTRACTOR 1090D	RECHARGER 190X160D	RECHARGER 280D	RECHARGER 330X160D	RECHARGER V8HD	RECHARGER 9620D
LINE BASE	152mm	152mm	152mm	152mm	152mm	228mm



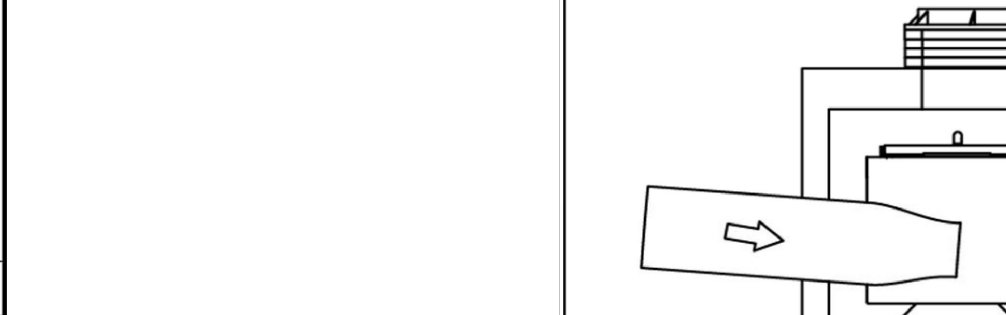
NOT AUTHENTIC UNLESS SIGNED AND DATED


	318mm	470mm	673mm	775mm	813mm	1219mm
MIN. REQUIRED ABOVE APPLICABLE	152mm	152mm	152mm	152mm	152mm	152mm
RED OF 9% COMPACTED WFC	203mm	203mm	203mm	254mm	305mm	305mm
MIN. ALLOWED ABOVE OR	3.65m	3.65m	3.65m	3.65m	2.44m	2.53m
CHAMBER	250mm	300mm	400mm	600mm	600mm	600mm

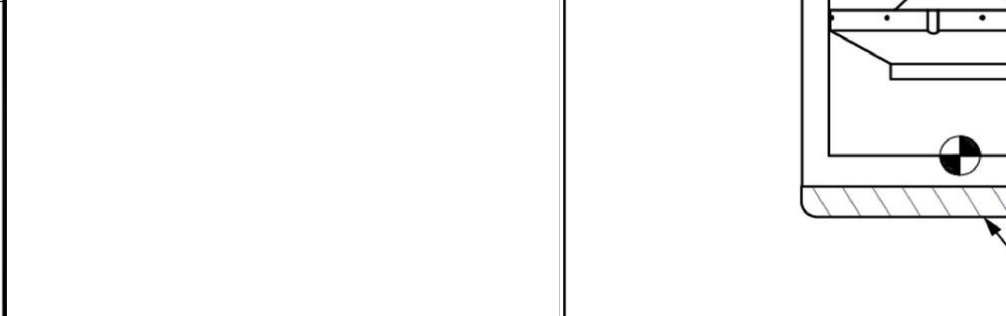
NOTE: STONE ABOVE AND BELOW UNITS MAY VARY PER SYSTEM.  
SEE SYSTEM MANUAL FOR STONE REQUIREMENTS

## CROSS SECTION TABLE REFERENCE

15



		
<b>ENGINEERING   INGENIERIE</b>		
5430 Carleton Road   Ottawa, ON, K1J 9G2		
<a href="http://www.lri.ca">www.lri.ca</a>   (613) 842-3434		
CLIENT		
BILBERRY GROUP		
DESIGNED BY:	DRAWN BY:	APPROVED BY:
A.E.	D.S.	G.B.
PROJECT		
PROPOSED RESIDENTIAL		

[illegible]

DEVELOPMENT

1401-1411 LAUREN STREET  
ORLEANS (OTTAWA), ONTARIO

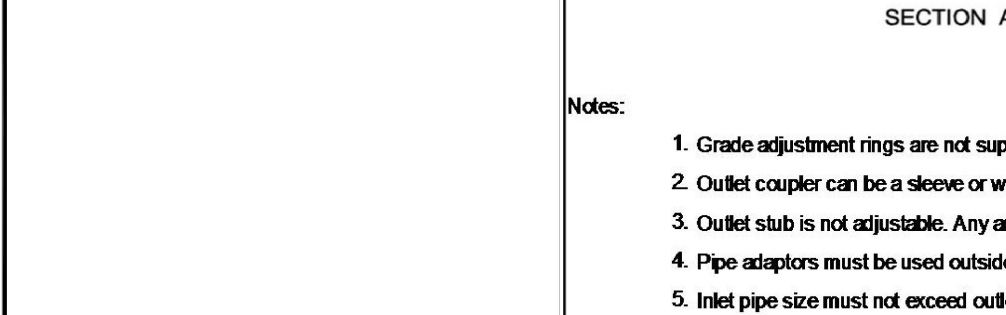
DRAWING TITLE

UNDERGROUND STORAGE AND  
STORMWATER SEPARATOR DETAILS

PROJECT NO.  
08181

6403


\* SEE SR 3.0 - CROSS SECTION TABLE REFERENCE

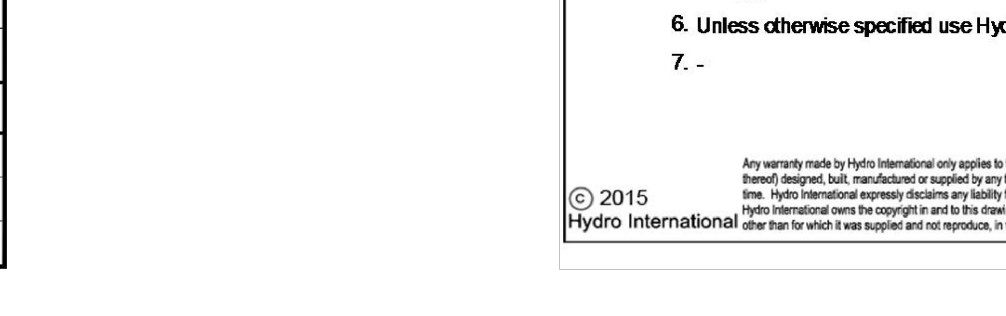


DATE  
DEC. 10, 2018

C603

# 1654

SEPARATOR ROW CONFIGURATION CROSS SECTION			SEPARATOR ROW
<p>THE PROJECT ENGINEER OF RECORD FOR THE PROPOSED SYSTEM, IT IS THE PROJECT ENGINEER OF RECORD TO ENSURE THAT THE CALTEC SYSTEMS DESIGN IS IN ACCORDANCE WITH ALL APPLICABLE STATE AND FEDERAL LAWS AND REGULATIONS. IT IS THE PROJECT ENGINEER OF RECORDS RESPONSIBILITY TO ENSURE THAT THE SYSTEMS DESIGN MEETS THE MINIMUM REQUIREMENTS AS SET FORTH IN THE CALTEC DESIGN MANUAL, AND/OR SYSTEM DESIGNS.</p>		<p>SEPARATOR ROW DETAIL SHEET TRAFFIC APPLICATION</p>	

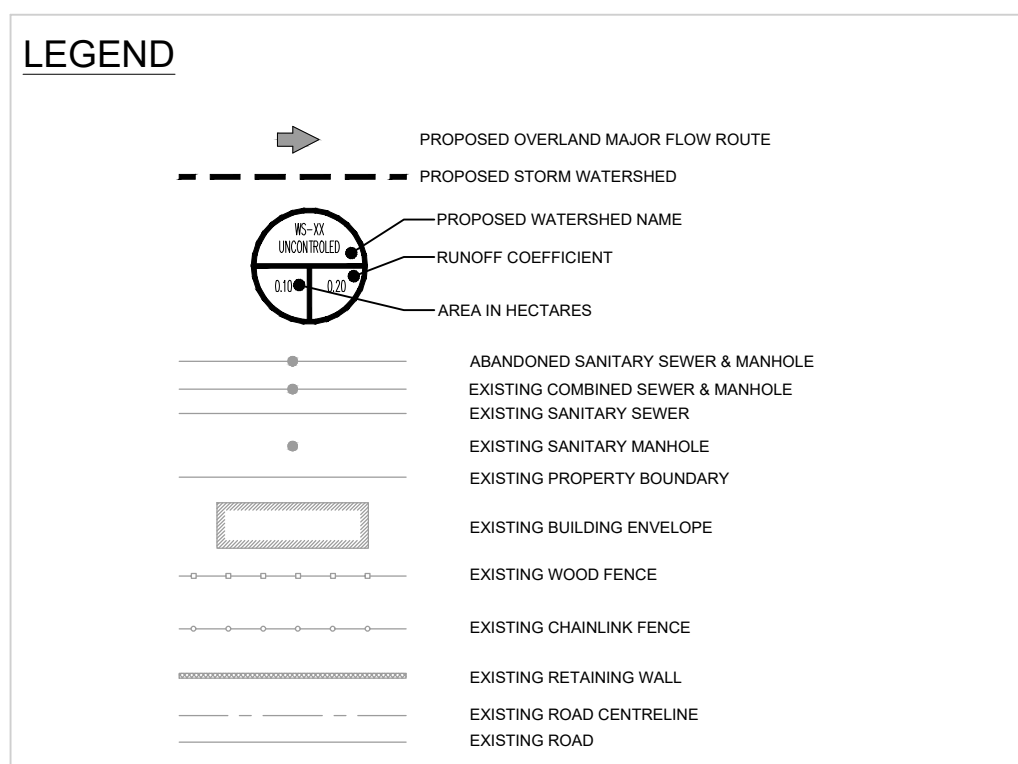
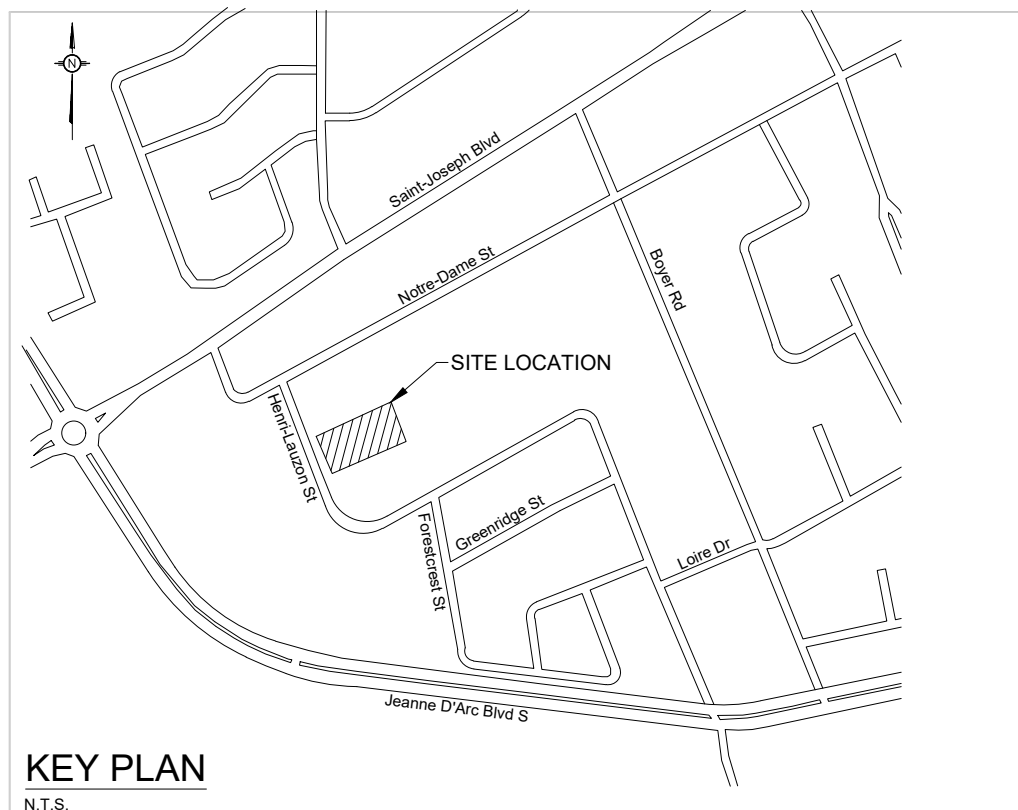
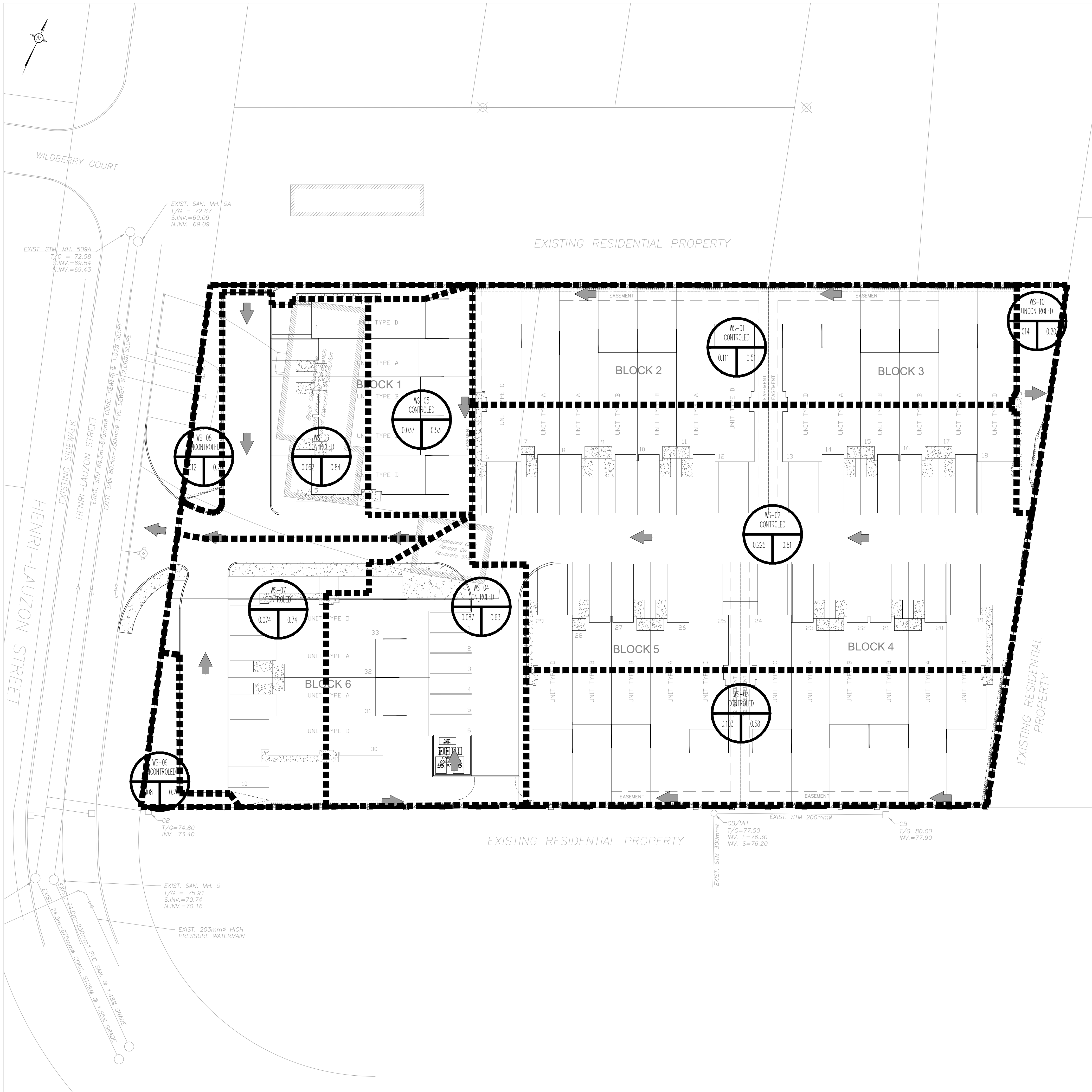


DATE  
DEC. 10, 2018

C603

# 1654





USE AND INTERPRETATION OF DRAWINGS

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE THE USE AND INTENT OF THE DRAWINGS. THE CONTRACT DOCUMENTS INCLUDE, BUT NOT LIMITED TO, THE DRAWINGS, BUT ALSO THE OWNER-CONTRACTOR AGREEMENT, CONDITIONS OF THE CONTRACT, THE SPECIFICATIONS, ADDENDA, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT. THESE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ANY ONE SHALL BE BINDING AS IF REQUIRED BY ALL. WORK NOT COMPLETELY DELINEATED HEREON SHALL BE CONSTRUCTED OF THE SAME MATERIALS AND DETAILED SIMILARLY AS WORK SHOWN MORE COMPLETELY ELSEWHERE IN THE CONTRACT DOCUMENTS.

BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER CONFIRMS THAT HE HAS REVIEWED AND APPROVED THE DRAWINGS. THE CONTRACTOR CONFIRMS THAT HE HAS VISITED THE SITE, FAMILIARIZED HIMSELF WITH THE LOCAL CONDITIONS, VERIFIED FIELD DIMENSIONS AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

AS INSTRUMENTS OF SERVICE, ALL DRAWINGS, SPECIFICATIONS, CADD FILES OR OTHER ELECTRONIC MEDIA AND COPIES THERE OF FURNISHED BY THE ENGINEER ARE HIS PROPERTY. THEY ARE TO BE USED ONLY FOR THIS PROJECT AND ARE NOT TO BE USED ON ANY OTHER PROJECT, INCLUDING REPEATS OF THE PROJECT. CHANGES TO THE DRAWINGS MAY ONLY BE MADE BY THE ENGINEER.

UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THESE DRAWINGS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.

THESE DRAWINGS ILLUSTRATES THE WORK TO BE DONE. THE ENGINEER IS NOT RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES USED TO DO THE WORK, OR THE SAFETY ASPECTS OF CONSTRUCTION, AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. CONTRACTOR SHALL DETERMINE ALL CONDITIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A BID TO PERFORM THIS WORK IS ACKNOWLEDGEMENT OF THE RESPONSIBILITIES, AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK, AND THE BID PRICE. NO CLAIMS FOR EXTRA CHARGES DUE TO THESE CONDITIONS WILL BE FORTHCOMING.

UNAUTHORIZED CHANGES:

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE MAKES OR PERMITS TO BE MADE ANY CHANGES TO ANY REPORTS, PLANS, SPECIFICATIONS OR OTHER CONSTRUCTION DOCUMENTS PREPARED BY LRL ASSOCIATES LTD. (LRL) WITHOUT OBTAINING LRL'S PRIOR WRITTEN CONSENT, THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST LRL AND TO RELEASE LRL FROM ANY LIABILITY ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES TO INCLUDE IN ANY CONTRACTS FOR CONSTRUCTION APPROPRIATE LANGUAGE THAT PROHIBITS THE CONTRACTOR OR ANY SUBCONTRACTORS OF ANY TIER FROM MAKING ANY CHANGES OR MODIFICATIONS TO LRL'S CONSTRUCTION DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF LRL AND THAT FURTHER REQUIRES THE CONTRACTOR TO INDEMNIFY BOTH LRL AND THE CLIENT FROM ANY LIABILITY OR COST ARISING FROM SUCH CHANGES MADE WITHOUT SUCH PROPER AUTHORIZATION.

GENERAL NOTES:

EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT MAY NOT BE COMPLETE OR TO DATE. CONTRACTOR SHALL VERIFY IN FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING OR PERFORMING WORK.

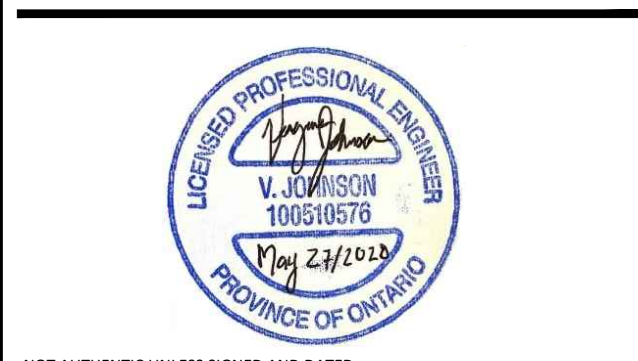
CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

THE ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE ENGINEER'S GUIDANCE WITH RESPECT TO ANY OMISSIONS, OMISSIONS, INCONSISTENCIES AMBIGUITIES OR CONFLICTS WHICH ARE ALLEGED.

CONTRACTOR TO VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE WORK COMMENCES. DO NOT SCALE DRAWINGS.



04	ISSUED FOR APPROVAL	M.L.	MAY. 27, 2020
03	ISSUED AS PER CITY COMMENTS	D.M.	DEC. 10, 2018
02	ISSUED AS PER CITY COMMENTS	D.M.	OCT. 16, 2018
01	ISSUED AS PER CITY COMMENTS	D.M.	AUG. 23, 2018
00	ISSUED FOR SPC	A.E.	FEB. 29, 2016



NOT AUTHENTIC UNLESS SIGNED AND DATED

**LRJ**  
ENGINEERING | INGÉNIERIE  
5430 Canotek Road | Ottawa, ON, K1J 9G2  
www.lrl.ca | (613) 842-3434

CLIENT		
BILBERRY GROUP		
DESIGNED BY:	DRAWN BY:	APPROVED BY:
A.E.	D.S.	G.B.

PROJECT

**PROPOSED RESIDENTIAL DEVELOPMENT**

1401-1411 HENRI LAUZON STREET  
ORLEANS (OTTAWA), ONTARIO

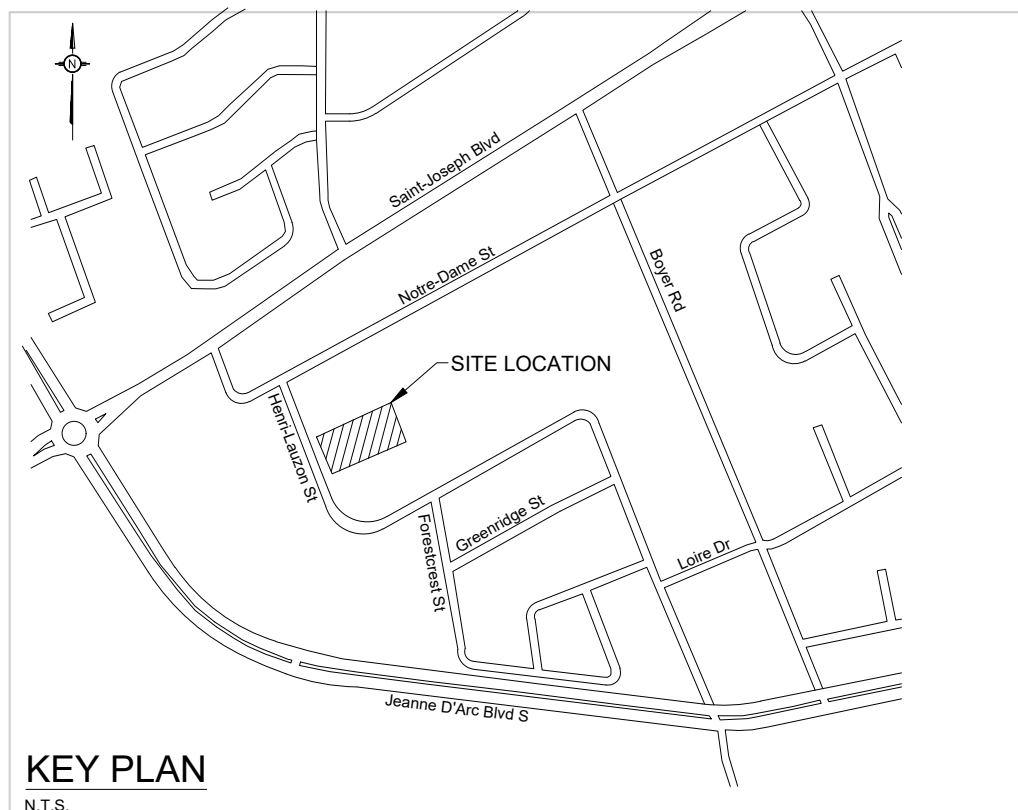
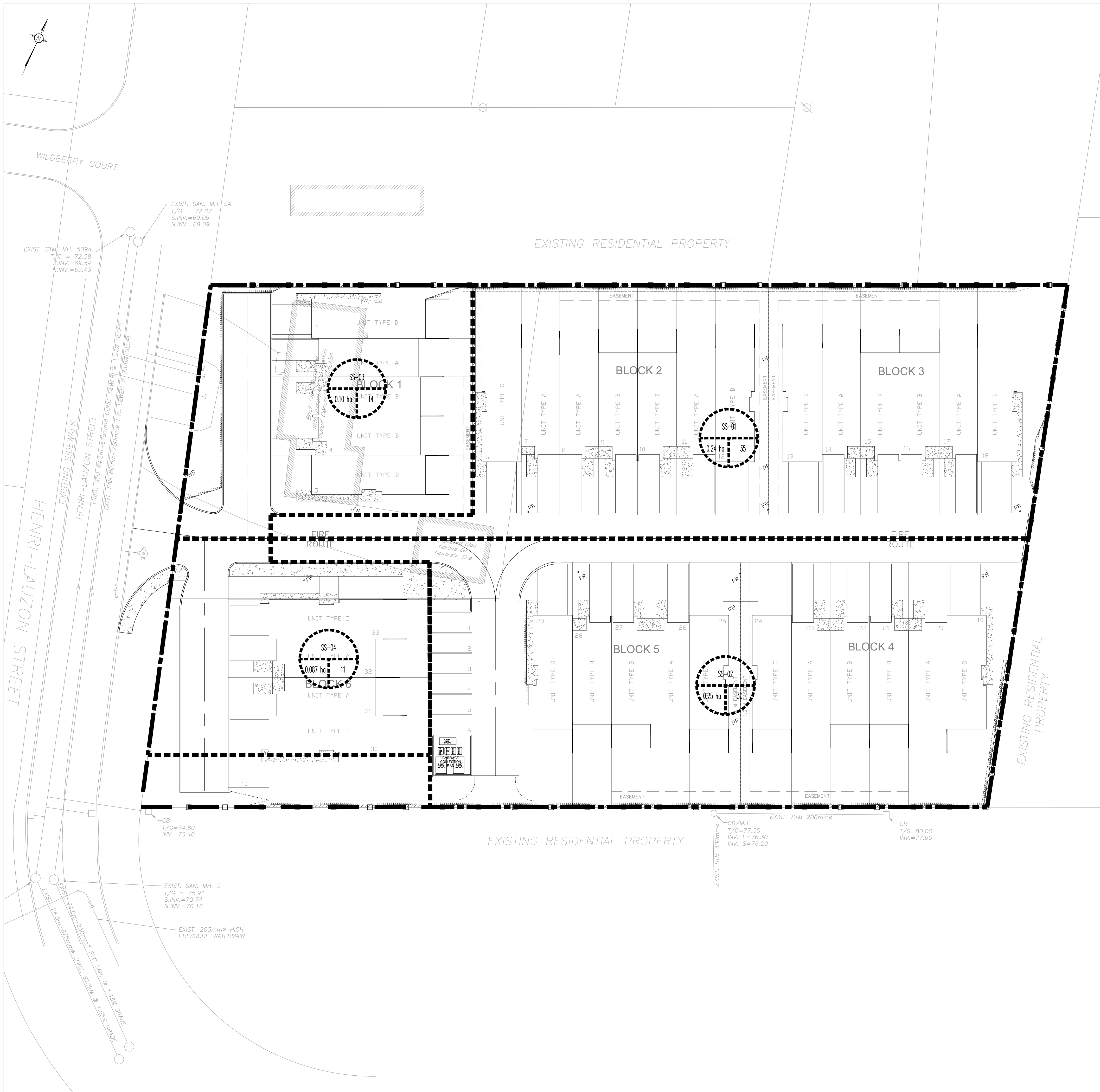
DRAWING TITLE

**POST-DEVELOPMENT STORM WATERSHED PLAN**

PROJECT NO.	C701
08181	
DATE	
DEC. 10, 2018	

D07-12-15-0004





- KEY PLAN**  
N.T.S.
- LEGEND**
- PROPOSED STORM WATERSHED
  - PROPOSED SEWERSHED NAME
  - POPULATION
  - AREA IN HECTARES
  - ABANDONED SANITARY SEWER & MANHOLE
  - EXISTING COMBINED SEWER & MANHOLE
  - EXISTING SANITARY SEWER
  - EXISTING SANITARY MANHOLE
  - EXISTING PROPERTY BOUNDARY
  - EXISTING BUILDING ENVELOPE
  - EXISTING WOOD FENCE
  - EXISTING CHAINLINK FENCE
  - EXISTING RETAINING WALL
  - EXISTING ROAD CENTRELINE
  - EXISTING ROAD

**USE AND INTERPRETATION OF DRAWINGS**

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION ARE PART OF THE CONTRACT DOCUMENTS AND DESCRIBE USE AND INTENT OF THE DRAWINGS. THE CONTRACT DOCUMENTS INCLUDE, BUT NOT ONLY, THE DRAWINGS, BUT ALSO THE OWNER-CONTRACTOR AGREEMENTS, CONDITIONS OF THE CONTRACT, THE SPECIFICATIONS, ADDENDA, AND MODIFICATIONS ISSUED AFTER EXECUTION OF THE CONTRACT. THESE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ANY ONE SHALL BE BINDING AS IF REQUIRED BY ALL. WORK NOT COMPLETELY DELINEATED HEREON SHALL BE CONSTRUCTED OF THE SAME MATERIALS AND DETAILING SIMILARLY AS WORK SHOWN MORE COMPLETELY ELSEWHERE IN THE CONTRACT DOCUMENTS.

BY USE OF THE DRAWINGS FOR CONSTRUCTION OF THE PROJECT, THE OWNER CONFIRMS THAT HE HAS REVIEWED AND APPROVED THE DRAWINGS. THE CONTRACTOR CONFIRMS THAT HE HAS VISITED THE SITE, FAMILIARIZED HIMSELF WITH THE LOCAL CONDITIONS, VERIFIED FIELD DIMENSIONS AND CORRELATED HIS OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

AS INSTRUMENTS OF SERVICE, ALL DRAWINGS, SPECIFICATIONS, CADD FILES OR OTHER ELECTRONIC MEDIA AND COPIES THERE OF FURNISHED BY THE ENGINEER ARE HIS PROPERTY. THEY ARE TO BE USED ONLY FOR THIS PROJECT AND ARE NOT TO BE USED ON ANY OTHER PROJECT, INCLUDING REPEATS OF THE PROJECT. CHANGES TO THE DRAWINGS MAY ONLY BE MADE BY THE ENGINEER.

UNLESS THE REVISION TITLE IS "ISSUED FOR CONSTRUCTION", THESE DRAWINGS SHALL BE CONSIDERED PRELIMINARY AND SHALL NOT BE USED AS A CONSTRUCTION DOCUMENT.

THESE DRAWINGS ILLUSTRATES THE WORK TO BE DONE. THE ENGINEER IS NOT RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES USED TO DO THE WORK, OR THE SAFETY ASPECTS OF CONSTRUCTION, AND NOTHING ON THESE DRAWINGS EXPRESSED OR IMPLIED CHANGES THIS CONDITION. CONTRACTOR SHALL DETERMINE ALL CONDITIONS AT THE SITE AND SHALL BE RESPONSIBLE FOR KNOWING HOW THEY AFFECT THE WORK. SUBMITTAL OF A BID TO PERFORM THIS WORK IS ACKNOWLEDGEMENT OF THE RESPONSIBILITIES, AND THAT THEY HAVE BEEN FULLY CONSIDERED IN PLANNING OF THE WORK, AND THE BID PRICE. NO CLAIMS FOR EXTRA CHARGES DUE TO THESE CONDITIONS WILL BE FORTHCOMING.

UNAUTHORIZED CHANGES:

IN THE EVENT THE CLIENT, THE CLIENT'S CONTRACTORS OR SUBCONTRACTORS, OR ANYONE FOR WHOM THE CLIENT IS LEGALLY LIABLE, MAKES OR PERMITS TO BE MADE ANY CHANGES TO ANY REPORTS, PLANS, SPECIFICATIONS OR OTHER CONSTRUCTION DOCUMENTS PREPARED BY LRL ASSOCIATES LTD. (LRL) WITHOUT OBTAINING LRL'S PRIOR WRITTEN CONSENT, THE CLIENT SHALL ASSUME FULL RESPONSIBILITY FOR THE RESULTS OF SUCH CHANGES. THEREFORE THE CLIENT AGREES TO WAIVE ANY CLAIM AGAINST LRL AND TO RELEASE LRL FROM ANY LIABILITY, ARISING DIRECTLY OR INDIRECTLY FROM SUCH UNAUTHORIZED CHANGES.

IN ADDITION, THE CLIENT AGREES TO INCLUDE IN ANY CONTRACTS FOR CONSTRUCTION APPROPRIATE LANGUAGE THAT PROHIBITS THE CONTRACTOR OR ANY SUBCONTRACTORS OF ANY TIER FROM MAKING ANY CHANGES OR MODIFICATIONS TO LRL'S CONSTRUCTION DOCUMENTS WITHOUT THE PRIOR WRITTEN APPROVAL OF LRL AND THAT FURTHER REQUIRES THE CONTRACTOR TO INDEMNIFY BOTH LRL AND THE CLIENT FROM ANY LIABILITY OR COST ARISING FROM SUCH CHANGES MADE WITHOUT SUCH PROPER AUTHORIZATION.

GENERAL NOTES:

EXISTING SERVICES AND UTILITIES SHOWN ON THESE DRAWINGS ARE TAKEN FROM THE BEST AVAILABLE RECORDS, BUT MAY NOT BE COMPLETE OR TO DATE. CONTRACTOR SHALL VERIFY IN FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH THE UTILITY COMPANIES BEFORE DIGGING OR PERFORMING WORK.

CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS BEFORE START OF CONSTRUCTION.

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5m 0 5 10m  
SCALE: 1:250

No.	REVISIONS	BY	DATE
04	ISSUED FOR APPROVAL	M.L.	MAY. 27, 2020
03	ISSUED AS PER CITY COMMENTS	D.M.	DEC. 10, 2018
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01	ISSUED AS PER CITY COMMENTS	D.M.	AUG. 23, 2018
00	ISSUED FOR SPC	A.E.	FEB. 29, 2016

**PROFESSIONAL ENGINEER**  
V. JOHNSON  
100510576  
May 24/2020  
PROVINCE OF ONTARIO

NOT AUTHENTIC UNLESS SIGNED AND DATED

**LRJ**  
ENGINEERING | INGÉNIÉRIE  
5430 Canotek Road | Ottawa, ON, K1J 9G2  
www.lrl.ca | (613) 842-3434

CLIENT: **BILBERRY GROUP**

DESIGNED BY: A.E. DRAWN BY: D.S. APPROVED BY: G.B.

PROJECT: **PROPOSED RESIDENTIAL DEVELOPMENT**  
1401-1411 HENRI LAUZON STREET  
ORLEANS (OTTAWA), ONTARIO

DRAWING TITLE: **POST-DEVELOPMENT SANITARY SEWERSHED PLAN**

PROJECT NO: 08181  
DATE: DEC. 10, 2018

**C801**