- 2. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING
- CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES. WHETHER OR NOT SHOWN ON THIS 3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
- 4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR \$2,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS
- 5. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
- 6. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
- 7. ALL DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
- 8. ALL ELEVATIONS ARE GEODETIC. THE SITE BENCHMARKS ARE THE FIRE HYDRANT TOP OF SPINDLE . BM NO.1 IS LOCATED APPROXIMATELY 105m FROM MERIVALE RD AND CLYDE AVE INTERSECTION, LOCATED ON THE EAST SIDE OF CLYDE AVE. BM NO.2 IS LOCATED AT THE EAST SIDE OF CLYDE AVE AND APPROXIMATELY 155m FROM BASELINE ROAD AND CLYDE AVE INTERSECTION.(BM NO. 1 ELEV = 95.96, BM NO. 2 ELEV = 96.25). REFER TO ANNIS, O'SULLIVAN, VOLLEBEKK LTD. TOPOGRAPHICAL PLAN OF SURVEY PART OF LOTS 18 AND 19, 20 AND 21 REGISTERED PLAN 30 CITY OF OTTAWA.
- 9. REFER TO GEOTECHNICAL INVESTIGATION REPORT PATERSON GROUP, REPORT PG5561-1, DATED FEBRUARY 23, 2021 FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE
- 10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
- 11. REFER TO THE STORMWATER MANAGEMENT REPORT R-2023-152, DATED NOVEMBER 29, 2024 PREPARED BY NOVATECH. 12. SAW CUT AND KEYGRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS
- (R10 AND R25). 13. PROVIDE LINE/PARKING PAINTING.
- 14. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.
- 15. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.

SEWER NOTES:

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

SPECIFICATIONS:		
<u>ITEM</u>	SPEC. No.	REFERENCE
SANITARY/STORM/CATCHBASIN MANHOLE (1200Ø)	701.010	OPSD
STORM MANHOLE (1500Ø)	701.011	OPSD
STORM MANHOLE (1800Ø)	701.012	OPSD
CATCHBASIN (600x600)	705.010	OPSD
DOUBLE CATCH BASIN (600 X 1450)	705.020	OPSD
CATCHBASIN FRAME AND COVER	400.020	OPSD
STORM/SANITARY MH FRAME	S25	CITY OF OTTAWA
SANITARY COVER	S24	CITY OF OTTAWA
STORM COVER (CLOSED)	S24.1	CITY OF OTTAWA
STORM COVER (OPEN)	S28.1	CITY OF OTTAWA
SEWER TRENCH	S6 &S7	CITY OF OTTAWA
STORM SEWER < 450mmØ	PVC DR 35(UNLESS SPECIFIED OT	
STORM SEWER >= 450mmØ	CONC 65D (UNLESS SPECIFIED OT	HERWISE)
SANITARY SEWER	PVC DR 35	CITY OF OTTAWA
CATCHBASIN LEAD	PVC DR 35	
CATCHBASIN COVER	S19	CITY OF OTTAWA
ROAD SUBDRAIN (CONTINUOUS)	R1	CITY OF OTTAWA
WATERTIGHT FRAME & COVER	401.030	OPSD

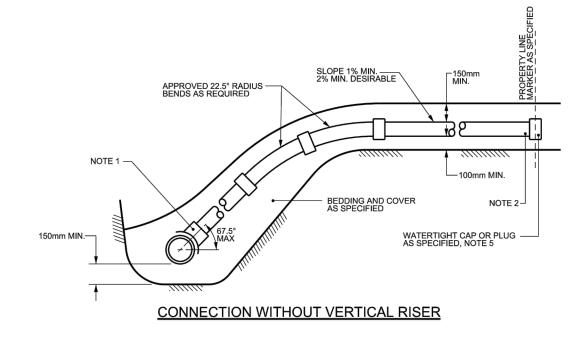
- 2. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 2.0m COVER WITH 50mmX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION (REFER TO DETAIL)
- 3. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0% (2.0% PREFERRED) 4. ALL STORM AND SANITARY LATERALS SHALL BE EQUIPED WITH BACKFLOW PREVENTION DEVICES AS PER THE CITY OF OTTAWA STANDARD DETAILS S14 AND S14,1 OR S14.2.
- 5. A MINIMUM OF 150 mm OF OPSS GRANULAR A SHOULD BE PLACED FOR BEDDING FOR SEWER OR WATER PIPES WHEN PLACED ON SOIL SUBGRADE. IF THE BEDDING IS PLACED ON BEDROCK, THE THICKNESS OF THE BEDDING SHOULD BE INCREASED TO 300 mm FOR SEWER PIPES. THE BEDDING SHOULD EXTEND TO THE SPRING LINE OF THE PIPE. COVER MATERIAL, FROM THE SPRING LINE TO A MINIMUM OF 300 mm ABOVE THE OBVERT OF THE PIPE SHOULD CONSIST OF OPSS GRANULAR A (CONCRETE OR PSM PVC PIPES) OR SAND (CONCRETE PIPE). THE BEDDING AND COVER MATERIALS SHOULD BE PLACED IN MAXIMUM 225 mm THICK LIFTS AND COMPACTED TO 95% OF THE SPMDD. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED
- 6. WHERE HARD SURFACE AREAS ARE CONSIDERED ABOVE THE TRENCH BACKFILL, THE TRENCH BACKFILL MATERIAL WITHIN THE FROST ZONE (ABOUT 1.8 m BELOW FINISHED GRADE) SHOULD MATCH THE SOILS EXPOSED AT THE TRENCH WALLS TO REDUCE THE POTENTIAL DIFFERENTIAL FROST HEAVING. THE TRENCH BACKFILL SHOULD BE PLACED IN MAXIMUM 300 mm
- THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE SPMDD. 7. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE
- SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED. 8. ALL STORM MANHOLES MANHOLES WITH PIPE SIZES LESS THAN 900mm ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. ALL STORM MANHOLES WITH PIPE SIZES 900mm AND LARGER ARE TO BE BENCHED.
- 9. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS 200mm OR GREATER IN DIAMETER PRIOR TO BASE COURSE ASPHALT TO ENSURE THAT THEY ARE CLEAN AND OPERATIONAL. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES AND RE CCTV PRIOR TO ACCEPTANCE. OBTAIN APPROVAL FROM THE CITY'S SEWER OPERATIONS. PROVIDE THE CCTV INSPECTION AND REPORT TO THE ENGINEER FOR
- REVIEW AND APPROVAL. 10. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL APPLICABLE SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS,
- SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS AND ANY ALIGNMENT CHANGES, ETC. 11. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
- 12. ALL CATCHBASINS AND CATCHBASIN MANHOLES TO BE PROVIDED WITH MINIMUM 3 METER LONG PERFORATED SUBDRAINS EXTENDING IN TWO DIRECTIONS AT THE SUBGRADE LEVEL. SUBDRAIN IS TO BE PROVIDED AT THE TRANSITIONS BETWEEN DIFFERENT PAVEMENT COMPOSITIONS. THE SUBGRADE SURFACE SHOULD BE SHAPED TO PROMOTE WATER FLOW TO THE
- 11. ALL WORKS SHALL BE PERFORMED AS APPLICABLE IN ACCORDANCE WITH CITY OF OTTAWA STANDARD SPECIFICATIONS, AND IN PARTICULAR O.P.S.S. 407 AND 410.

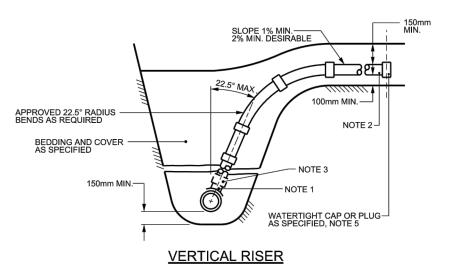
WATERMAIN NOTES:

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

SPECIFICATIONS:		
<u>ITEM</u>	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
THERMAL INSULATION BY OPEN STRUCTURES	W23	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN CROSSING ABOVE SEWER	W25.2	CITY OF OTTAWA
HYDRANT	WSD-24	CITY OF OTTAWA
VALVE AND VALVE BOX	WSD-19	CITY OF OTTAWA
WATERMAIN	PVC DR 18	

- 3. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARD AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE
- PERFORMED BY CITY OFFICIALS. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED, ANY WATERMAIN WITH LESS
- THAN 2.4m COVER TO BE INSULATED PER THE SEWER AND WATERMAIN NOTES AND DETAIL 4. PROVIDE MINIMUM CLEARANCE, BETWEEN OUTSIDE OF PIPES, AT ALL CROSSINGS AS PER CITY DETAILS W25 AND W25.2. WATERMAIN MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.25m OVER AND 0.50m UNDER SEWERS AND ALL OTHER
- UTILITIES WHEN CROSSING. 5. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE
- 6. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS CITY OF OTTAWA STANDARD DETAILS WSD-39, 40, 41, 42, 43 AND
- 8. IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.





- APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS.

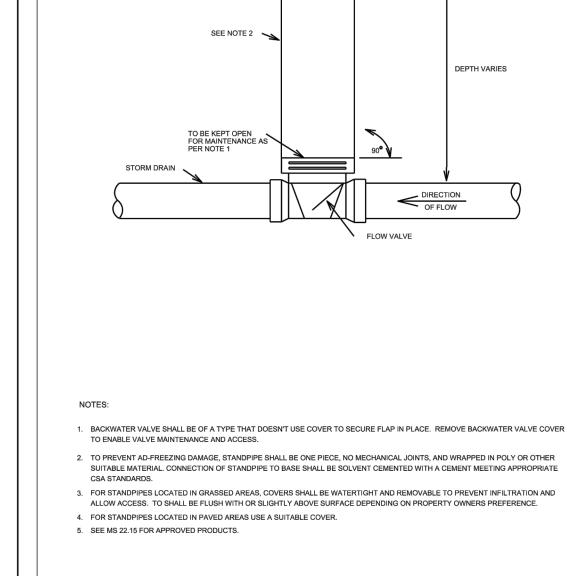
(MODIFIED OPSD-1006.010)

5. CAP OR PLUG AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE. 6. FOR NEW CONSTRUCTION, INSERTS MUST BE INSTALLED ON THE MAIN PIPE BEFORE THAT PIPE IS LAID.

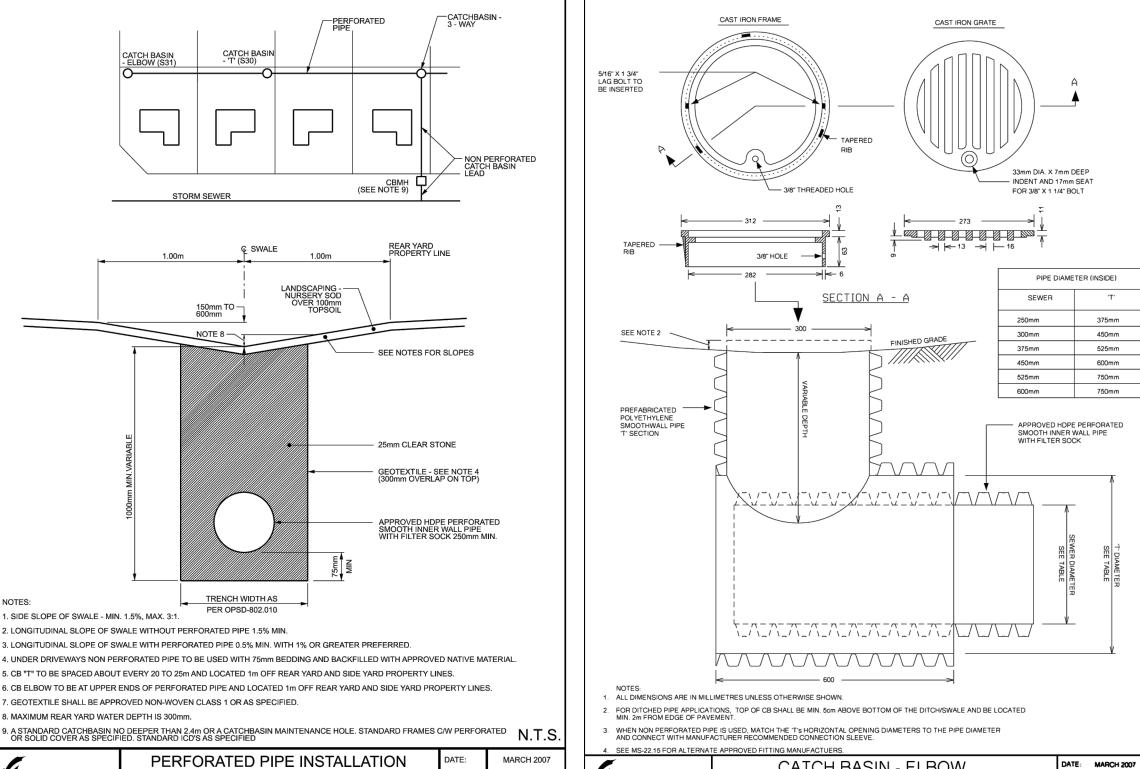
	<u>r</u>	SEWER SERVICE CONNECTIONS				
	8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.					
7. APPROVED CUT-IN TOOL MUST BE USED FOR FIELD MADE CONNECTIONS.						
	FOR SERVICES/BRANCHES 3	75mm DIA. OR LESS, APPROVED "CORED TEES" MAY BE USED.				

STORM SEWER

VERTICAL RISER SHALL BE SAME AS SERVICE PIPE UNLESS OTHERWISE SPECIFIED.



N.T.S. DATE: MAY 2001 TYPICAL DEPRESSED DRIVEWAY . MARCH 2016 BACKWATER VALVE AND STANDPIPE DETAIL DWG. No.: S18



DATE: MARCH 2007 CATCH BASIN - ELBOW . E: MARCH 2019 FOR REAR YARD, DITCHED PIPE AND LANDSCAPING APPLICATIONS

AREA DRAIN TABLE (PHASE 1) AD No. | T/G ELEVATION | INVERT 94.35 REFER TO MECHANICAL FOR CONNECTION DETAILS

LANDSCAPE DRAIN TABLE (PHASI					
LD. No.	T/G ELEVATION	INVERT			
2000	94.70	NE=93.20			
2001	94.25	SW=93.66			

CA ⁻	TCHBASI	N MAI	NHOLE TA	BLE
CBMH ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)
110	1+088.14	1200	94.60	NE=92.86

CATCHBASIN TABLE (PHASE 1)						
CB ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)	ICD DIA (mm)	
01	1+047.60	610X1450	93.95	NE=92.77	152	
02	1+047.60	610X1450	93.95	SW=92.77	178	
03	1+095.25	610X610	94.89	NE=93.67	83	
04	1+095.25	610X610	94.85	SW=93.67	83	

1								
	STM MANHOLE TABLE (PHASE 1)							
	MANHOLE ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)			
	102	1+035.35	1800mmØ	94.08	NW=92.35 SE=92.27 SW=92.70 NE=92.65			
	103	1+057.70	1500mmØ	94.06	NW=92.50 SE=92.42 SW=92.78			
	104	1+087.73	1500mmØ	94.70	NW=92.73 SE=92.58 NE=92.85 SW=92.78			

OGS TABLE (PHASE 1)					
MANHOLE ID	STATION	SIZE (mm)	T/G ELEV (m)	INVERT (m)	MODEL
101 1+028.17		1800mmØ	94.12	NW=92.25 SE=92.24	STORMCEPTOR MODEL EF06

PROPOSED WATER SERVICE (1+000.0)					
STATION SURFACE T/WM ELEVATION			COMMENTS		
1+000.0	94.10	91.70	CONNECTION TO PROPOSED 200mmØ SERVIC		
1+004.5	94.12	91.72	CROSS BELOW 300mm STM AS PER CITY OF OTTAWA DETAIL W25.2 (CLEARANCE =0.54)		
1+012.0	94.34	91.94	V&VB		
1+014.1	94.25	91.80	CAP SERVICE 1.0m FROM THE FOUNDATION WA		
	PROP	OSED WAT	ER SERVICE (2+000.0)		
STATION SURFACE T/WM COMMENTS		COMMENTS			
1+000.0	93.98	91.58	CONNECTION TO PROPOSED 200mmØ SERVIC		
1+013.9	94.35	91.95	V&VB		
1+015.0	94.38	91.98	CAP SERVICE 1.0m FROM THE FOUNDATION WA		

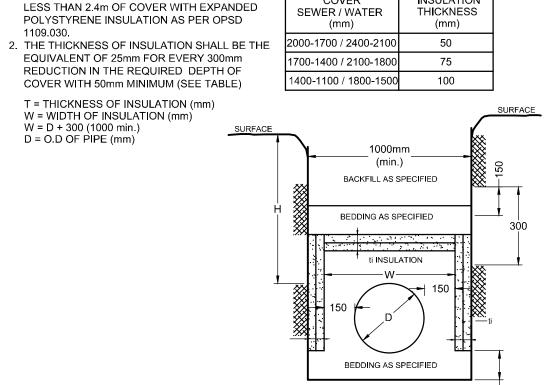
SAN MANHOLE TABLE (PHASE 1)							
ANHOLE ID	STATION	T/G ELEV (m)	INVERT (m)				
701 ???		1200mmØ	94.35	NW=91.60 SE=91.59			

SEWER & WATERMAIN INSULATION NOTES: 1. INSULATE ALL SEWER PIPES THAT HAVE LESS

THAN 2.0m COVER AND ALL WATERMAIN WITH

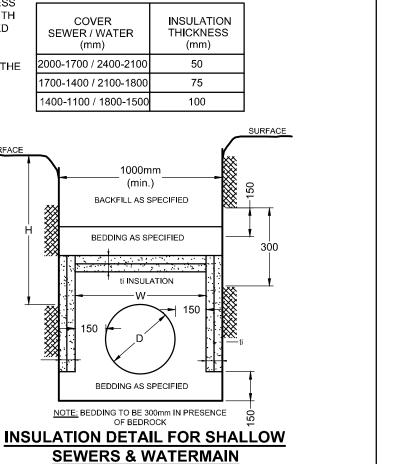
1. SIDE SLOPE OF SWALE - MIN. 1.5%, MAX. 3:1.

8. MAXIMUM REAR YARD WATER DEPTH IS 300mm.



FOR REAR YARD AND

LANDSCAPING APPLICATIONS

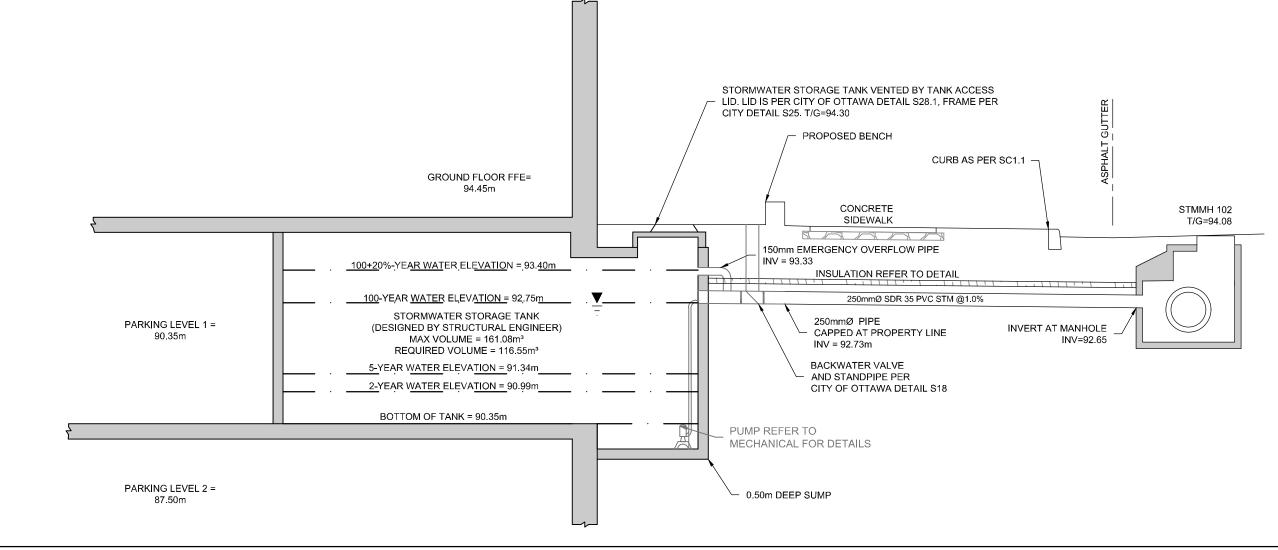


MARCH 2019

S29

MARCH 2006

MARCH 2014



DATE B

PHASE 1 CISTERN

Engineers, Planners & Landscape Architects Suite 200, 240 Michael Cowpland Drive

1000 MERIVALE 1500 MERIVALE, CITY OF OTTAWA

DRAWING NAME

NOTES AND DETAILS GENERAL SERVICING (PHASE 1)

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

CLARIDGE HOMES

CLARIDGE HOMES 505 PRESTON STREET, 2ND FLOOR OTTAWA, ONTARIO K1S 4N7



NOT FOR CONSTRUCTION

REVISED PER CITY COMMENTS NOV 29/2024 G REVISED PER CITY COMMENTS SEPT 27/2024 GJM REVISED PER CITY COMMENTS MAR 21/2024 | GJM REISSUED PHASE 1 ONLY OCT 27/2023 | GJN REVISED AND ISSUED FOR CITY APPROVAL DEC 09/2022 GJ ISSUED WITH SITE PLAN APPLICATION SEPT 03/2021 JA

REVISION

CJF/ARM

SCALE





Ottawa, Ontario, Canada K2M 1P6 (613) 254-9643 Facsimile (613) 254-5867 Website www.novatech-eng.com

REV#6 21009-NDGP1 CITY PLAN No. 18612

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