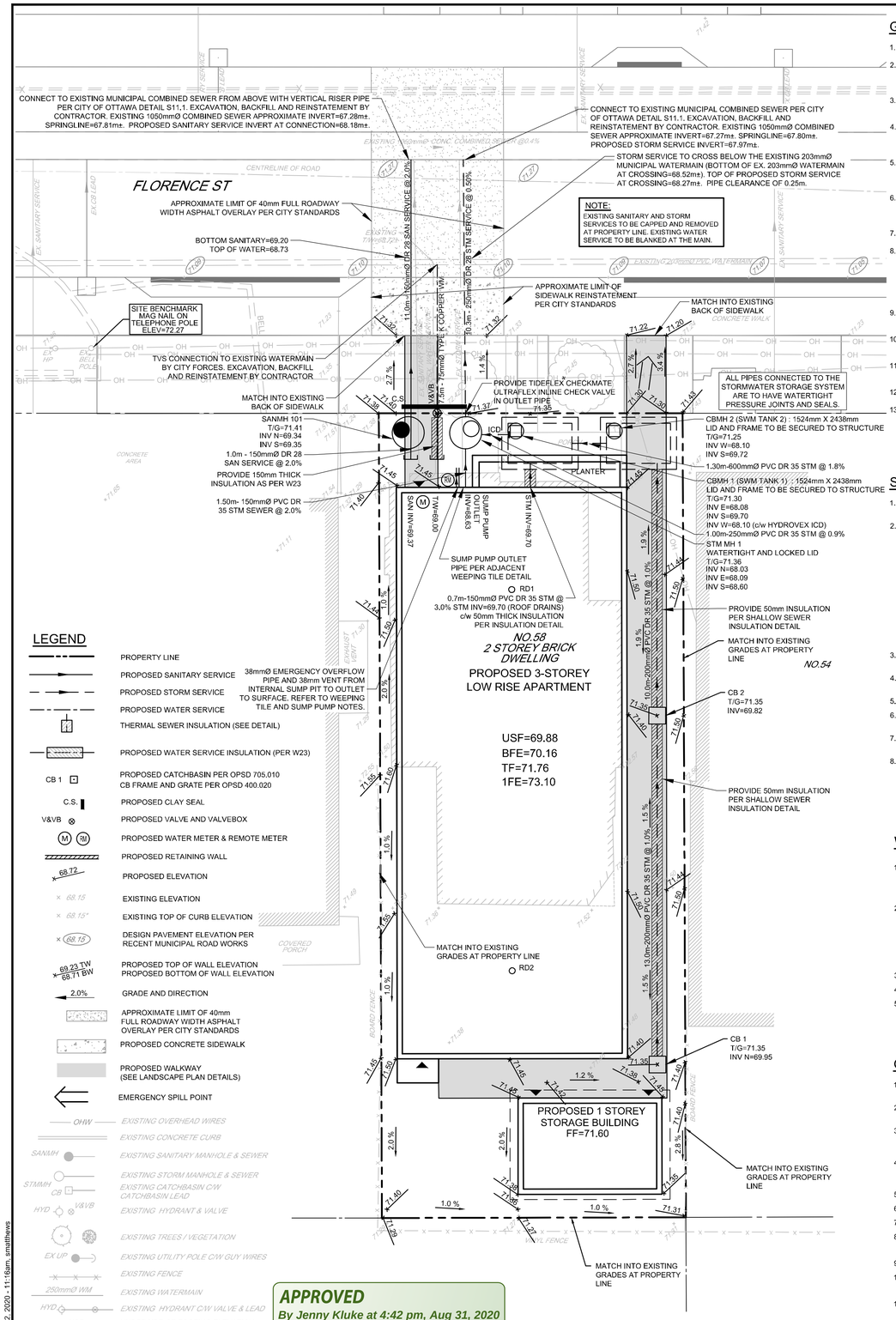


LEGEND

- PROPERTY LINE
- PROPOSED SANITARY SERVICE
- PROPOSED STORM SERVICE
- PROPOSED WATER SERVICE
- THERMAL SEWER INSULATION (SEE DETAIL)
- PROPOSED WATER SERVICE INSULATION (PER W23)
- CB 1 — PROPOSED CATCHBASIN PER OPSD 705.010 CB FRAME AND GRATE PER OPSD 400.020
- C.S. — PROPOSED CLAY SEAL
- V&VB — PROPOSED VALVE AND VALVEBOX
- M / RM — PROPOSED WATER METER & REMOTE METER
- PROPOSED RETAINING WALL
- 68.72 — PROPOSED ELEVATION
- × 68.15 — EXISTING ELEVATION
- × 68.15* — EXISTING TOP OF CURB ELEVATION
- × (68.15) — DESIGN PAVEMENT ELEVATION PER RECENT MUNICIPAL ROAD WORKS
- × 69.23 TW / 68.71 BW — PROPOSED TOP OF WALL ELEVATION / PROPOSED BOTTOM OF WALL ELEVATION
- 2.0% — GRADE AND DIRECTION
- APPROXIMATE LIMIT OF 40mm FULL ROADWAY WIDTH ASPHALT OVERLAY PER CITY STANDARDS
- PROPOSED CONCRETE SIDEWALK
- PROPOSED WALKWAY (SEE LANDSCAPE PLAN DETAILS)
- EMERGENCY SPILL POINT
- OHW — EXISTING OVERHEAD WIRES
- EXISTING CONCRETE CURB
- SANMH — EXISTING SANITARY MANHOLE & SEWER
- STMMH / CB — EXISTING STORM MANHOLE & SEWER / EXISTING CATCHBASIN C/W CATCHBASIN LEAD
- HYD / V&VB — EXISTING HYDRANT & VALVE
- EXISTING TREES / VEGETATION
- EX UP — EXISTING UTILITY POLE C/W GUY WIRES
- EXISTING FENCE
- 250mmØ WM — EXISTING WATERMAIN
- HYD — EXISTING HYDRANT C/W VALVE & LEAD

38mmØ EMERGENCY OVERFLOW PIPE AND 38mm VENT FROM INTERNAL SUMP PIT TO OUTLET TO SURFACE, REFER TO WEEPING TILE AND SUMP PUMP NOTES.

USF	UNDERSIDE OF FOOTING ELEVATION
BFE	BASEMENT FLOOR ELEVATION
TF	TOP OF FOUNDATION ELEVATION
1FE	FIRST FLOOR ELEVATION

GENERAL NOTES:

1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR $5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
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 ELEVATIONS ARE GEODETIC.
8. REFER TO GEOTECHNICAL REPORT (#190186, DATED APRIL 02, 2020). PREPARED BY KOLLARD ASSOCIATES FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL. THE GEOTECHNICAL CONSULTANT IS TO REVIEW AND APPROVE THE CONCRETE MIX FOR UNDERGROUND STRUCTURES TO ENSURE IT IS ADEQUATE FOR THE CORROSIVE SOIL ENVIRONMENT.
9. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
10. REFER TO STORMWATER MANAGEMENT REPORT (R-2019-103) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
11. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
12. REFER TO TOPOGRAPHICAL SURVEY No. 19-10-009-00 PREPARED BY J.D. BARNES DATED MARCH 25, 2019.
13. RECENT MUNICIPAL ROAD WORKS DESIGN INFORMATION WAS INTEGRATED TO THE PLAN AS EXISTING INFORMATION PER THE "INTEGRATED ROAD, SEWER & WATERMAIN CONSTRUCTION - FLORENCE STREET AND McLEOD STREET" DRAWINGS, ISSUED FOR CONSTRUCTION ON APRIL 25, 2019, CONTRACT NUMBER "CP000157".

SEWER NOTES:

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

ITEM	SPEC. No.	REFERENCE
STORM/CATCHBASIN MANHOLE (1200Ø)	701.010	OPSD
STORM/CBMH FRAME AND COVER	401.010 (TYPE B)	OPSD
SAN MH FRAME AND COVER	401.010 (TYPE A)	OPSD
WATERTIGHT MANHOLE FRAME AND COVER	401.030	OPSD
SWM TANK FRAME & COVER SECURED TO CONC.	S.P.No.: F-4070	CITY OF OTTAWA
CATCHBASIN (600x600mm)	705.010	OPSD
CB, FRAME & COVER	400.020	OPSD
SEWER TRENCH	S6	CITY OF OTTAWA
STORM SEWER	PVC DR 35 / HDPE NON-PERFORATED	
BUILDING STORM SERVICE	PVC DR 28	
BUILDING SANITARY SERVICE	PVC DR 28	

3. ALL STORM AND SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH BACKFLOW PREVENTION DEVICES AS PER THE CITY OF OTTAWA STANDARD DETAILS S14 AND S14.1 OR S14.2.
4. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH HI-40 INSULATION PER INSULATION DETAIL FOR SHALLOW SEWERS. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
5. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
6. PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
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. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.

WATERMAIN NOTES:

1. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMAINS BY THE CONTRACTOR. CONNECTIONS, SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OF OTTAWA FORCES.
2. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
INSULATION ADJACENT TO OPEN STRUCTURES	W23	CITY OF OTTAWA
75mmØ WATER SERVICE COPPER TYPE K		CITY OF OTTAWA

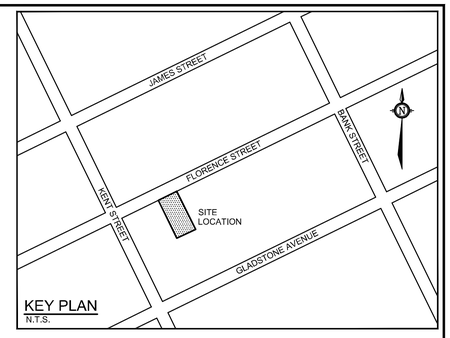
3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
4. PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
5. PROPOSED WATER SERVICES ARE TO BE CONSTRUCTED TO WITHIN 1,0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.

GRADING NOTES:

1. ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
2. EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE PROOF ROLLED WITH A LARGE STEEL DRUM ROLLER AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
3. ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST COMPATIBLE WITH THE EXISTING SOILS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
4. THE GRANULAR BASE SHOULD BE COMPACTED TO AT LEAST 100% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
5. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
6. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
7. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
8. ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC1.1).
9. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
10. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.
11. NO EXCESS DRAINAGE, EITHER DURING OR AFTER CONSTRUCTION, WILL BE DIRECTED TOWARDS NEIGHBOURING PROPERTIES. NO ALTERATION OF EXISTING GRADES AND DRAINAGE PATTERNS ON PROPERTY BOUNDARIES. ENSURE POSITIVE DRAINAGE AWAY FROM FOUNDATIONS.

EROSION AND SEDIMENT CONTROL NOTES:

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

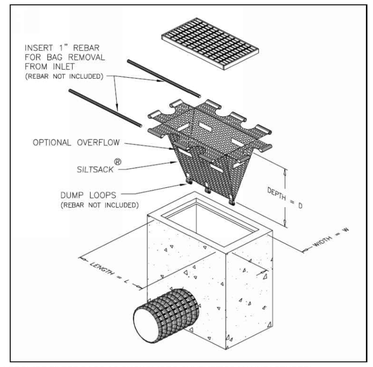


KEY PLAN
N.T.S.

WEEPING TILE & SUMP PUMP NOTES:

1. SUPPLY AND CONSTRUCT ALL WEEPING TILE & SUMP PUMP SYSTEMS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
2. PROVIDE A DUPLEX PUMP SYSTEM AND BACKUP POWER SUPPLY FOR THE WEEPING TILE AND SUMP PUMP SYSTEM IN ACCORDANCE WITH THE CITY OF OTTAWA TECHNICAL BULLETIN ISTB-2018-04; CLAUSES 5,12.2.1 (SUMP PUMP CRITERIA), 5.12.2.2 (SUMP PITS) AND 5,12.2.4 (BACK-UP SYSTEM) .
3. PROVIDE A 38mmØ EMERGENCY OVERFLOW PIPE OUTLETTING TO THE SURFACE AT THE FRONT OF THE BUILDING AS INDICATED ON THE DRAWING, IN ACCORDANCE WITH THE CITY OF OTTAWA TECHNICAL BULLETIN ISTB-2018-04; CLAUSE 5.12.2.3 (DISCHARGE PIPE SYSTEM).
4. PROVIDE A 38mmØ VENT PIPE FROM THE INTERNAL SUMP PIT AS INDICATED ON THE DRAWING, IN ACCORDANCE WITH THE CITY OF OTTAWA TECHNICAL BULLETIN ISTB-2018-04; CLAUSE 5.12.2.3 (DISCHARGE PIPE SYSTEM).
5. PROVIDE A CLAY SEAL WITHIN THE SERVICE TRENCH AS INDICATED ON THE DRAWING. IN ACCORDANCE WITH THE CITY OF OTTAWA TECHNICAL BULLETIN ISTB-2018-04.

CONSTRUCTION ENTRANCE



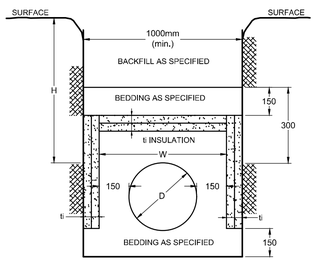
* PROVIDE FILTER BAGS AS SHOWN (GEO-SYNTHETICS MANUFACTURER) OR APPROVED EQUIVALENT

FILTER BAG DETAIL
NOT TO SCALE

INLET CONTROL DEVICE DATA - CBMH 1

DESIGN EVENT	ICD TYPE (HYDROVEX MODEL)	DIAMETER OF OUTLET PIPE (mm)	DESIGN FLOW (L/s)	DESIGN HEAD (m)	STORAGE VOLUME (m^3)
1:5 YR	HYDROVEX 32	250	1.05	0.71	5.8
1:100 YR	SVHV-1, 10, OF		1,50	1.56	12.0

STORMWATER STORAGE FACILITY
NOT TO SCALE



ti = THICKNESS OF INSULATION (mm)
h = DEPTH OF COVER
W = D + 300 (1000 min.)
W = WIDTH OF INSULATION (mm)
D = O.D OF PIPE (mm)

COVER (mm)	INSULATION THICKNESS (mm)
1500-1200	50
1200-900	75
900-600	100

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

INSULATION DETAIL FOR SHALLOW SEWERS ONLY
NOT TO SCALE

APPROVED
By Jenny Kluke at 4:42 pm, Aug 31, 2020

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

JENNY KLUKE
PLANNER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVEVELOPMENT DEPARTMENT, CITY OF OTTAWA

OWNER INFORMATION
SALVATORE FALSETTO
52 SULLIVAN AVENUE,
NEPEAN, ONTARIO, K2G 1V2
PHONE: (613) 324-3570
falsettohomes@rogers.com

No.	REVISION	mm/dd/yy	BY
6	REVISED PER CITY COMMENTS	JUL 2/20	MS
5	REVISED PER CITY COMMENTS	MAY 21/20	MS
4	REVISED PER CITY COMMENTS	MAR 25/20	MS
3	ISSUED FOR COORDINATION	MAR 03/20	MS
2	REVISED PER CITY COMMENTS	JAN 07/20	MS
1	ISSUED FOR SITE PLAN APPLICATION	JULY 18/19	MS

SCALE
1:100
1:100
0 1 2 3 4

DESIGN LSC/MS
CHECKED MS
DRAWN LSC
CHECKED MS
APPROVED MS

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER — M. SAVIC 100102651 — July 2, 2020 — PROVINCE OF ONTARIO

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

LOCATION
CITY OF OTTAWA
58 FLORENCE STREET

DRAWING NAME
GRADING, SERVICING AND EROSION & SEDIMENT CONTROL PLAN

PROJECT No. 119051
REV REV 6
DRAWING No. 119051-GS

D07-12-19-0141

#18002

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PLAN1.DWG - 594mmx841mm