

STORM SEWERS

ALL MANHOLES AND CATCHBASIN MANHOLES ARE TO BE 1200mmØ PRECAST AS PER OPSD 701.01

MANHOLE AND CATCHBASIN, FRAMES, GRATES, CASTINGS AND LIDS TO BE QUALITY GREY IRON ASTM A48 CLASS 30B.

STORM MANHOLE LIDS TO BE PER OPSD 401.010.

ALL CATCHASINS AND CATCHBASIN MANHOLES TO HAVE 600mm SUMP.

THE USE OF PROFILE PVC IS NOT PERMITTED WITHIN THE MUNICIPAL RIGHT OF WAY.

ALL STORM SEWER TO BE PVC SMOOTH WALL SDR 35

BEDDING COVER AND BACKFILL PER OPSD 802.01

INSULATION USED FOR FROST COVER - POLYSTYRENE FOAM BOARD SHALL BE USED FOR PIPE INSULATION AND MUST BE 25mm THICK FOR EVERY 300mm REDUCTION IN DEPTH OF COVER. IT MUST BE LAID IN 50mm THICKNESS WITH A WIDTH OF THE INSULATION THAT COMPLIES WITH SECTION 7.3.5.4 OF THE OBC.

2. SANITARY SEWERS

PVC SDR 35 AS PER OPSS 1841 FOR GRAVITY SEWERS, SAND OR GRANULAR 'A' BEDDING, GRANULAR 'B' BACKFILL.

BEDDING, COVER AND BACKFILL OPSD 802.010, FERNCO COUPLERS TO BE USED

3. WATERMAIN

WATERMAIN SHALL BE CLASS 150 PCV C900 PIPE.

PIPE BEDDING FOR RIGID PIPE TO BE CLASS B AS PER OPSD 802.030. PIPE BEDDING FOR FLEXIBLE PIPE TO BE AS PER OPSD 802.010. BEDDING MATERIAL AND COVER MATERIAL TO BE GRANULAR 'A' TRENCH BACKFILL TO BE NATIVE MATERIAL REPLACED IN 300mm LIFTS AND COMPACTED TO 95% STANDARD PROCTOR DENSITY.

WATERMAIN VALVES, 100mm AND LARGER, SHALL BE AS PER AWWA C509 - MUELLER K2360-23 OR APPROVED EQUIVALENT (OPEN LEFT) INCLUDING VALVE BOX AND 2.3 KG ANODE.

PVC WATERMAIN SHALL HAVE TWO SOLID COPPER, AWG10 TRACER WIRE STRAPPED TO TOP AS PER DGSMS STANDARDS AT 5 METRE INTERVALS.

ANODES CONNECTED TO EACH METALLIC FITTING USING BRASS GROUNDING CLAMPS, AND SHALL NOT BE ATTACHED TO TRACER WIRES, AND TRACER WIRE SHALL NOT BE CONNECTED TO WATERMAIN FITTINGS.

ALL METALLIC WATERMAIN FITTING AND APPURTENANCES ARE TO BE WRAPPED WITH AN APPROVED PETROLEUM SYSTEM.

ALL WATERMANS AND SERVICES TO HAVE MINIMUM 2m COVER.

CITY OF WATERLOO TO SUPPLY WATER METER. CONTRACTOR TO INSTALL METER, ALL VALVES, PIPING AND REMOTE METER READOUT AT LOCATION ON BUILDING EXTERIOR ACCEPTABLE TO THE CITY.

BACKFLOW PREVENTION DEVICES ARE REQUIRED AT THE WATER METER AND OTHER LOCATION AS NECESSARY IN ACCORDANCE WITH CSA AND OBC REGULATIONS. DEVICES TO BE TESTED ANNUALLY BY A LICENSED PLUMBER WITH A COPY OF THE CERTIFICATION REPORT SUBMITTED TO THE REGION.

SERVICE PROVIDING FIRE FLOWS MUST BE PRESSURE TESTED TO 200psi AS PER OBC PLUMBING CODE.

WATER SERVICE TESTING AND COMMISSIONING SHALL COMPLY WITH DGSMS SECTION D.2.8. 'COMMISSIONING'.

THE DESIGN, CONSTRUCTION, INSTALLATION AND TESTING OF WATERMAIN AND SERVICE PIPING SHALL BE IN CONFORMANCE WITH OPSS 441.

THE TRENCH SHALL BE BACKFILLED BETWEEN JOINTS BEFORE TESTING TO PREVENT MOVEMENT OF PIPE.

THE AMOUNT OF LEAKAGE SHALL NOT EXCEED THE ALLOWABLE LEAKAGE SPECIFIED IN OPSS 441.

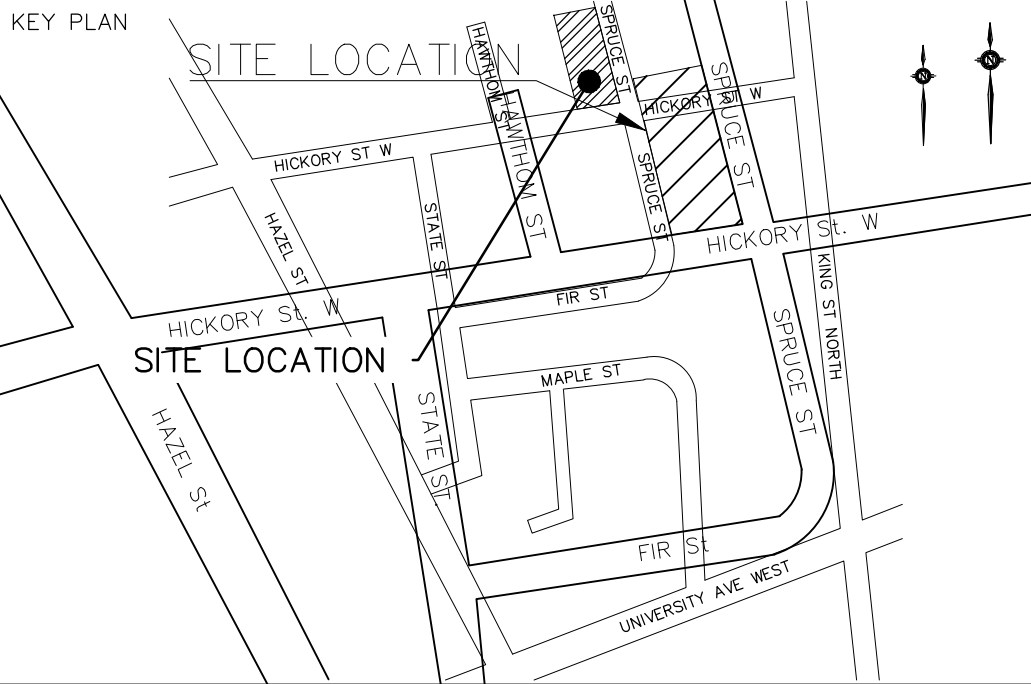
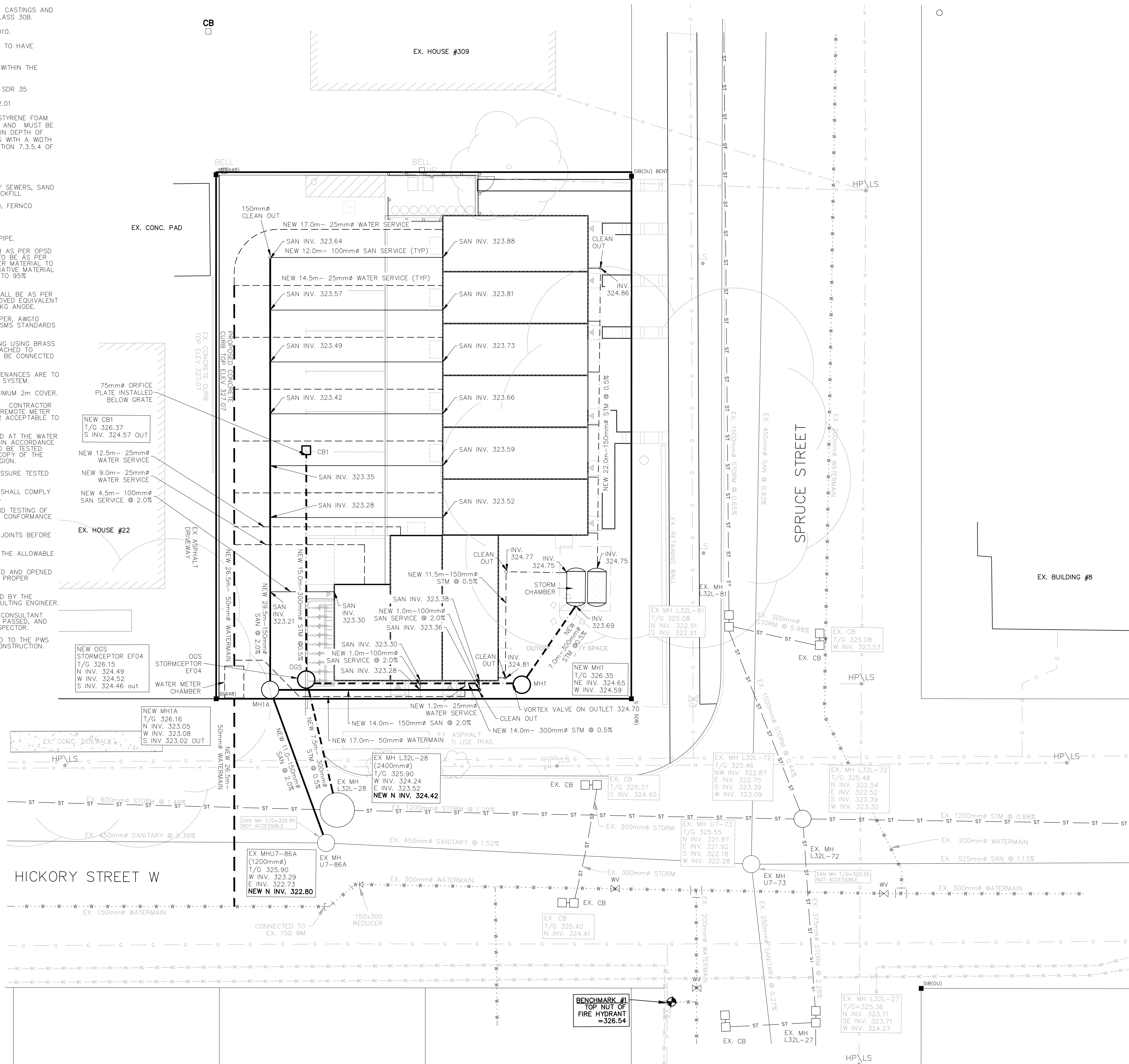
ALL CONTROL VALVES SHALL BE FULLY CLOSED AND OPENED UNDER SYSTEM WATER PRESSURE TO ENSURE PROPER OPERATION.

PRESSURE LEAKAGE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE CONSULTING ENGINEER.

CERTIFICATION SHALL BE COMPLETED BY THE CONSULTANT INDICATING THE TESTS WERE COMPLETED AND PASSED, AND SUBMITTED TO THE ENGINEERING SERVICES INSPECTOR.

THE COMMISSIONING PLAN MUST BE SUBMITTED TO THE PWS WATER SERVICES FOR APPROVAL PRIOR TO CONSTRUCTION.

CB



- NOTES:
- EXISTING SANITARY
 - EXISTING STORM
 - EXISTING WATERMAIN
 - EXISTING HYDRO
 - EXISTING GAS
 - EXISTING BELL
 - PROPOSED SANITARY
 - PROPOSED SANITARY SERVICE
 - PROPOSED STORM
 - PROPOSED ROOF LEADER
 - PROPOSED WATERMAIN
 - PROPOSED WATER SERVICE

SITE BENCHMARK

ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM GPS OBSERVATION (RTK CAN-NET HT2).

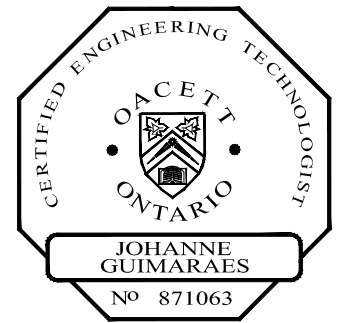
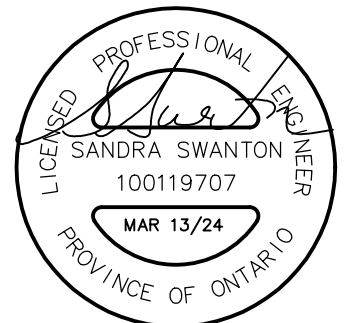
BM #1 TOP NUT OF FIRE HYDRANT ELEV. 326.54

No.	REVISIONS	BY	DATE
	CONSTRUCTION		
	TENDER		
	ISSUE FOR APPROVALS		
	ISSUE BLOCK		

HICKORY DEVELOPMENT
18 & 20 HICKORY STREET WEST
REGION OF WATERLOO CITY OF WATERLOO

SERVICNG PLAN

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY



DESIGNED BY: J.G.	0 3 6	DATE: MAR. 13, 2024
CHECKED BY: S.S.	SCALE: 1:150	SHEET SSP
DRAWN BY: T.B.	REVISION No.	
CHECKED BY: J.G.		
FILE No. 23-218		