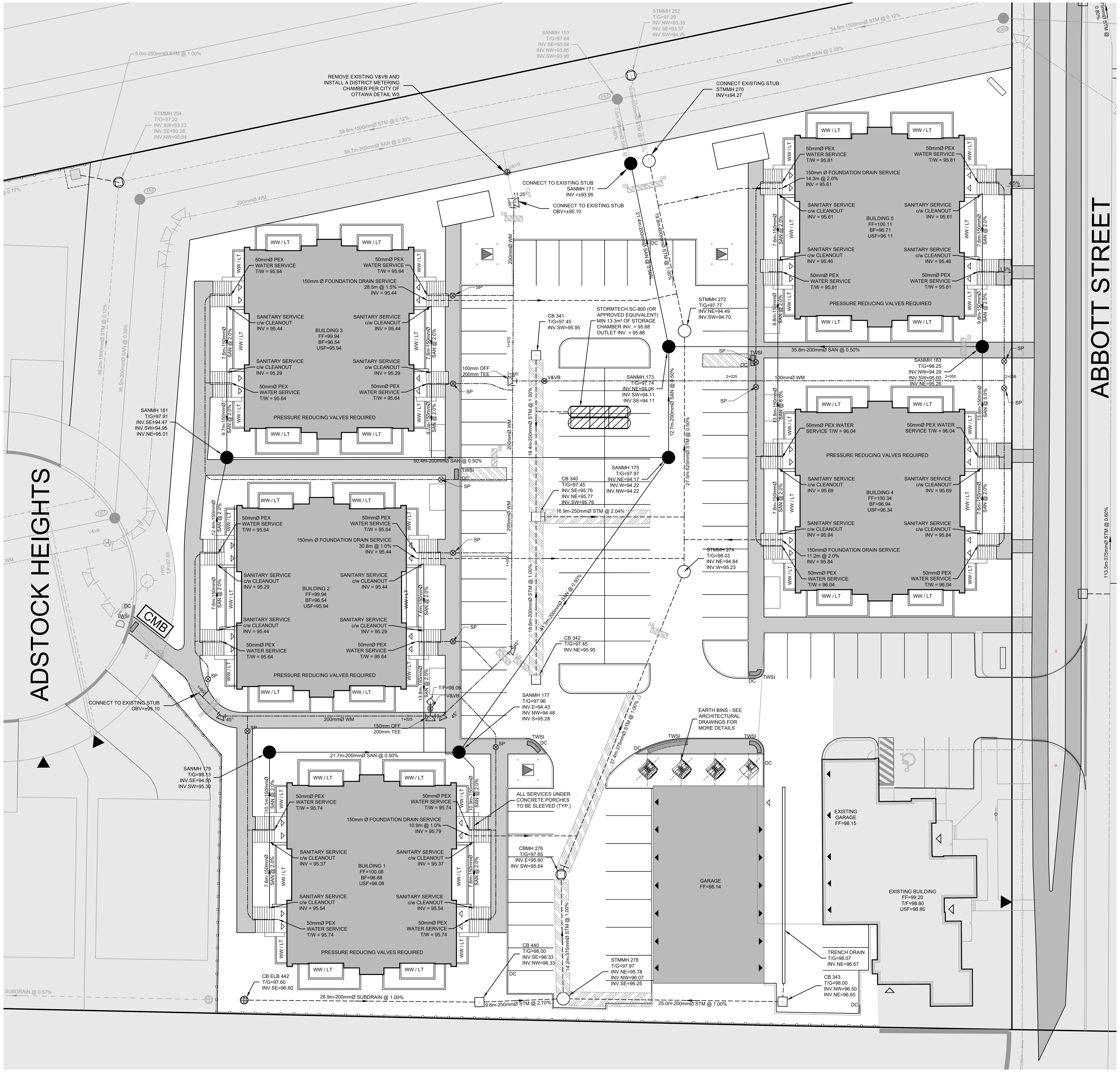

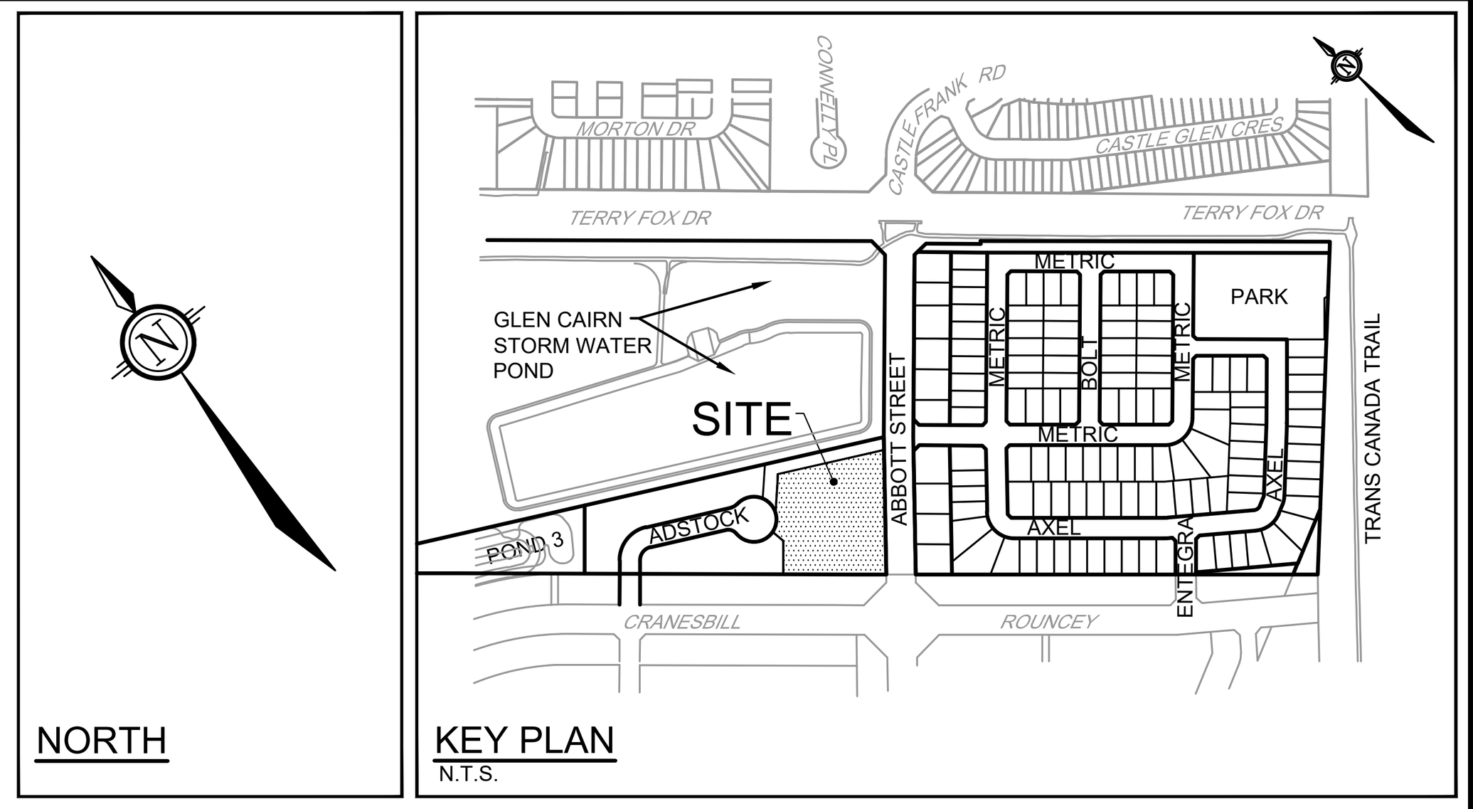

LEGEND

- 200mmØ WM — PROPOSED WATERMAIN AND DIAMETER
- ⊗ V&VB — PROPOSED VALVE AND VALVE BOX
- PROPOSED HYDRANT C/W VALVE & LEAD
- T/F = 98.45 — PROPOSED TOP OF BOTTOM FLANGE
- PROPOSED BEND AND THRUSTBLOCK 11.25°, 22.5°, 45° or TEE
- ⊗ SP — PROPOSED WATER SERVICE STANDPOST
- 200mmØ STM — PROPOSED STORM SEWER AND FLOW DIRECTION
- 200mmØ SAN — PROPOSED SANITARY SEWER AND FLOW DIRECTION
- ● PROPOSED SANITARY MH
- ○ PROPOSED STORM MH
- □ PROPOSED CATCHBASIN
- WW / LT — WINDOW WELL / LOWERED TERRACE - SEE ARCHITECTURAL DRAWING FOR MORE DETAILS
- SB — PROPOSED SEEPAGE BARRIER
- THERMAL INSULATION PER CITY OF OTTAWA STANDARD DETAIL S35
- PROPOSED TRANSFORMER c/w PAD AND BOLLARDS
- BARRIER CURB
- DEVELOPMENT BY OTHERS PART OF SEPARATE APPLICATION

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 (No. PG2855-3, DATED FEBRUARY 21, 2025), PREPARED BY PATERSON GROUP 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.
9. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
10. REFER TO STORMWATER MANAGEMENT REPORT (R-2025-013) 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. PROVIDE LINE/PARKING PAINTING.
13. 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.

ICD DATA TABLE

STRUCTURE No.	T/G ELEVATIAON	INVERT OUT ELEVATION	ICD DIA. (mm)	OUTLET DIA. (mm)
CB 340	97.65	95.76	135	200
CBMH 276	97.65	95.60	117	375

WATERMAIN NOTES:

1. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN	PVC DR 18	

2. 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 AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
3. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
4. PROVIDE MINIMUM 0.25m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
5. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.

SEWER NOTES:

1. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200Ø)	701.010	OPSD
CB, FRAME & COVER	S19.1, S22, & S 23	CITY OF OTTAWA
STORM / SANITARY MH FRAME & COVER	S24, S24.1, & S25	CITY OF OTTAWA
SEWER TRENCH - BEDDING (GRANULAR A) COVER (GRANULAR A OR GRANULAR B TYPE I, WITH MAXIMUM PARTICLE SIZE=25mm)		
STORM SEWER	PVC DR 35, CONC. (> 450mmØ)	
SANITARY SEWER	PVC DR 35	
CATCHBASIN LEAD	PVC DR 35	

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.
3. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
4. 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.
5. 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.
6. 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.
7. STORM MANHOLES AND CBMHS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
8. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.

100mmØ WATERMAIN TABLE

STATION	SURFACE ELEVATION	TOP OF WM ELEVATION	DESCRIPTION
2+000	97.51	95.00	100 OFF 200 TEE c/w ISOLATION VALVE
2+002	97.48	95.00	CROSS UNDER 200mmØ CB LEAD (INV = 95.93, 0.9m CLEARANCE)
2+004	97.50	95.00	100mmØ VALVE AND VALVE BOX
2+018	97.80	95.30 **	CROSS OVER 200mmØ SAN (OBV = 94.32, 0.9m CLEARANCE)
2+020	97.85	95.80 **	CROSS OVER 525mmØ STM (OBV = 95.15, 0.3m CLEARANCE) c/w VERTICAL BENDS AND INSULATION
2+025	98.00	95.60 **	100mmØ WM
2+028	98.17	95.80	50 OFF 100 CROSS (BUILDING 4 & 5 SERVICE) c/w STANDPOSTS
2+030	98.24	95.80	CROSS UNDER 150mmØ SAN SERV (INV = 94.49, 0.4m CLEARANCE)
2+050	98.40	95.95	100mmØ WM
2+054	98.35	95.95	CROSS UNDER 150mmØ SAN SERV (INV = 94.49, 0.4m CLEARANCE)
2+056.1	98.28	95.85	100 OFF 50 TEE (BUILDING 4 & 5 SERVICE) c/w STANDPOSTS

200mmØ WATERMAIN TABLE

STATION	SURFACE ELEVATION	TOP OF WM ELEVATION	DESCRIPTION
1+000	97.95	±95.10 *	CONNECT TO EXISTING 200mmØ WM STUBOUT
1+001	97.96	95.10	50 OFF 200 TEE (BUILDING 2 SERVICE) c/w STANDPOST
1+004	97.98	95.25	45° HORIZONTAL BEND
1+008	97.99	95.40	50 OFF 200 TEE (BUILDING 1 SERVICE) c/w STANDPOST
1+025	97.97	95.40	200mmØ WM
1+027	97.95	94.50	CROSS UNDER 150mmØ SAN SERV (INV = 95.01, 0.5m CLEARANCE) c/w VERTICAL BENDS
1+028	97.93	94.70	150 OFF 200 FIRE HYDRANT TEE
1+029	97.91	94.70	45° HORIZONTAL BEND
1+032	97.74	95.10	50 OFF 200 TEE (BUILDING 1 SERVICE) c/w STANDPOST
1+037	97.63	95.10	50 OFF 200 TEE (BUILDING 2 SERVICE) c/w STANDPOST
1+040	97.56	95.10	45° HORIZONTAL BEND
1+050	97.59	95.00	200mmØ WM
1+050.3	97.58	95.00	CROSS UNDER 150mmØ STM SERV (INV = 95.31, 0.5m CLEARANCE) c/w VERTICAL BENDS
1+050.9	97.57	95.00	50 OFF 200 TEE (BUILDING 2 SERVICE) c/w STANDPOST
1+059	97.53	95.10	50 OFF 200 TEE (BUILDING 3 SERVICE) c/w STANDPOST
1+061	97.56	95.20 **	CROSS OVER 200mmØ SAN (OBV = 94.50, 0.4m CLEARANCE) c/w INSULATION
1+068	97.53	95.00	50 OFF 200 TEE (BUILDING 3 SERVICE) c/w STANDPOST
1+069	97.51	95.00	100 OFF 200 TEE c/w ISOLATION VALVE
1+075	97.53	95.00	200mmØ WM
1+079.7	97.54	94.70	CROSS UNDER 150mmØ STM SERV (INV = 95.20, 0.5m CLEARANCE) c/w VERTICAL BENDS
1+080.3	97.55	94.70	50 OFF 200 TEE (BUILDING 3 SERV.) c/w STANDPOST
1+090.9	97.71	95.10	11.25° HORIZONTAL BEND
1+091.0	97.71	±95.10 *	CONNECT TO EXISTING 200mmØ WM STUBOUT

* CONNECTION TO EXISTING 200mmØ WATERMAIN. EXACT ELEVATION TO BE FIELD DETERMINED.
** PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W23 AND DETAIL W22 WHERE COVER IS LESS THAN 2.4m AND/OR ADJACENT TO OPEN STRUCTURES.

REVIEWED BY DEVELOPMENT REVIEW BRANCH
Signed ______
Date ______ 2026
Plan Number 19360

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.

No.	REVISION	DATE	BY
8.	REVISED PER CITY AND MVCA COMMENTS	FEB 12/26	ARM
7.	REVISED PER CITY AND MVCA COMMENTS	FEB 2/26	ARM
6.	ISSUED FOR COORDINATION	DEC 5/25	ARM
5.	ISSUED FOR REVIEW	JUN 13/25	ARM
4.	ISSUED FOR COORDINATION	JUN 05/25	ARM
3.	ISSUED FOR COORDINATION	FEB 18/25	ARM
2.	ISSUED WITH ADDENDUM #3	OCT 19/22	ARM
1.	ISSUED FOR PHASE 4/5 TENDER	OCT 6/22	ARM

SCALE 1:200

DESIGN MJB
CHECKED ARM
DRAWN MJB
CHECKED ARM
APPROVED ARM

LICENSED PROFESSIONAL ENGINEER
A.R. MCAULEY
100141256
Feb 12, 2026
PROVINCE OF ONTARIO

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Website www.novatech-eng.com

SPB DEVELOPMENT INC.
(METRIC HOMES) SUBDIVISION - BLOCK 123
950 TERRY FOX DRIVE

DRAWING NAME
GENERAL PLAN OF SERVICES BLOCK 123

PROJECT No. 110037
REV REV # 8
DRAWING No. 110037-GP123

D02-02-25-0040/D07-12-25-0084

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