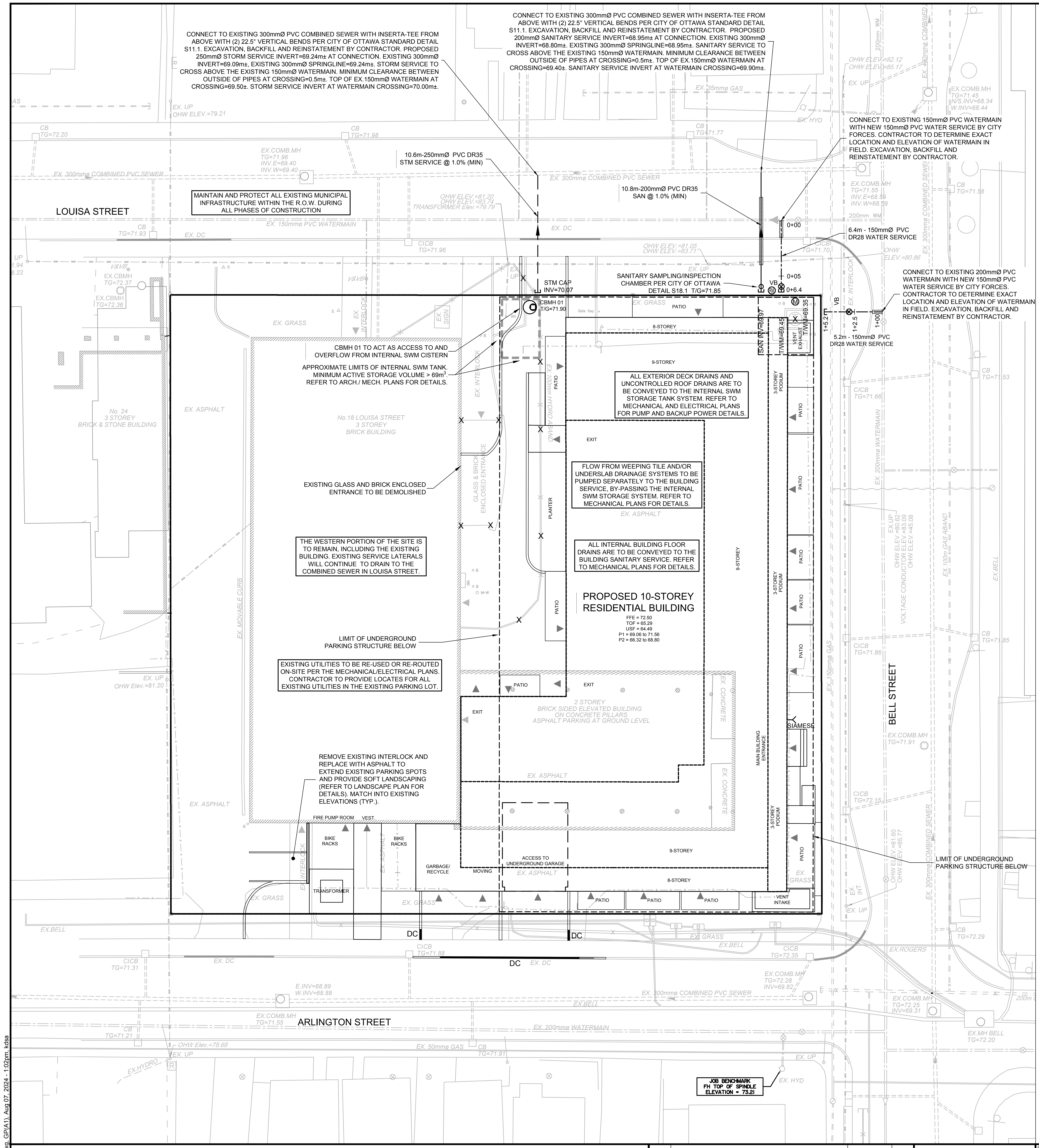


CONNECT TO EXISTING 300mmØ PVC COMBINED SEWER WITH INSERTA-TEE FROM ABOVE WITH (2) 22.5° VERTICAL BENDS PER CITY OF OTTAWA STANDARD DETAIL S11.1. EXCAVATION, BACKFILL AND REINSTATEMENT BY CONTRACTOR. PROPOSED 250mmØ STORM SERVICE INVERT=69.24m± AT CONNECTION. EXISTING 300mmØ INVERT=69.09m±, EXISTING 300mmØ SPRINGLINE=69.24m±. STORM SERVICE TO CROSS ABOVE THE EXISTING 150mmØ WATERMAIN. MINIMUM CLEARANCE BETWEEN OUTSIDE OF PIPES AT CROSSING=0.5m±. TOP OF EX.150mmØ WATERMAIN AT CROSSING=69.50±. STORM SERVICE INVERT AT WATERMAIN CROSSING=70.00m±.

CONNECT TO EXISTING 300mmØ PVC COMBINED SEWER WITH INSERTA-TEE FROM ABOVE WITH (2) 22.5° VERTICAL BENDS PER CITY OF OTTAWA STANDARD DETAIL S11.1. EXCAVATION, BACKFILL AND REINSTATEMENT BY CONTRACTOR. PROPOSED 200mmØ SANITARY SERVICE INVERT=68.95m± AT CONNECTION. EXISTING 300mmØ INVERT=68.80m±. EXISTING 300mmØ SPRINGLINE=68.95m±. SANITARY SERVICE TO CROSS ABOVE THE EXISTING 150mmØ WATERMAIN. MINIMUM CLEARANCE BETWEEN OUTSIDE OF PIPES AT CROSSING=0.5m±. TOP OF EX.150mmØ WATERMAIN AT CROSSING=69.40±. SANITARY SERVICE INVERT AT WATERMAIN CROSSING=69.90m±.

CONNECT TO EXISTING 150mmØ PVC WATERMAIN WITH NEW 150mmØ PVC WATER SERVICE BY CITY FORCES. CONTRACTOR TO DETERMINE EXACT LOCATION AND ELEVATION OF WATERMAIN IN FIELD. EXCAVATION, BACKFILL AND REINSTATEMENT BY CONTRACTOR.

MAINTAIN AND PROTECT ALL EXISTING MUNICIPAL INFRASTRUCTURE WITHIN THE R.O.W. DURING ALL PHASES OF CONSTRUCTION

SANITARY SAMPLING/INSPECTION CHAMBER PER CITY OF OTTAWA DETAIL S18.1 T/G=71.85

CONNECT TO EXISTING 200mmØ PVC WATERMAIN WITH NEW 150mmØ PVC WATER SERVICE BY CITY FORCES. CONTRACTOR TO DETERMINE EXACT LOCATION AND ELEVATION OF WATERMAIN IN FIELD. EXCAVATION, BACKFILL AND REINSTATEMENT BY CONTRACTOR.

CBMH 01 TO ACT AS ACCESS TO AND OVERFLOW FROM INTERNAL SWM CISTERN

APPROXIMATE LIMITS OF INTERNAL SWM TANK. MINIMUM ACTIVE STORAGE VOLUME > 69m³. REFER TO ARCH./ MECH. PLANS FOR DETAILS.

ALL EXTERIOR DECK DRAINS AND UNCONTROLLED ROOF DRAINS ARE TO BE CONVEYED TO THE INTERNAL SWM STORAGE TANK SYSTEM. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR PUMP AND BACKUP POWER DETAILS.

EXISTING GLASS AND BRICK ENCLOSED ENTRANCE TO BE DEMOLISHED

FLOW FROM WEEPING TILE AND/OR UNDERSLAB DRAINAGE SYSTEMS TO BE PUMPED SEPARATELY TO THE BUILDING SERVICE, BY-PASSING THE INTERNAL SWM STORAGE SYSTEM. REFER TO MECHANICAL PLANS FOR DETAILS.

THE WESTERN PORTION OF THE SITE IS TO REMAIN, INCLUDING THE EXISTING BUILDING. EXISTING SERVICE LATERALS WILL CONTINUE TO DRAIN TO THE COMBINED SEWER IN LOUISA STREET.

ALL INTERNAL BUILDING FLOOR DRAINS ARE TO BE CONVEYED TO THE BUILDING SANITARY SERVICE. REFER TO MECHANICAL PLANS FOR DETAILS.

LIMIT OF UNDERGROUND PARKING STRUCTURE BELOW

EXISTING UTILITIES TO BE RE-USED OR RE-ROUTED ON-SITE PER THE MECHANICAL/ELECTRICAL PLANS. CONTRACTOR TO PROVIDE LOCATES FOR ALL EXISTING UTILITIES IN THE EXISTING PARKING LOT.

REMOVE EXISTING INTERLOCK AND REPLACE WITH ASPHALT TO EXTEND EXISTING PARKING SPOTS AND PROVIDE SOFT LANDSCAPING (REFER TO LANDSCAPE PLAN FOR DETAILS). MATCH INTO EXISTING ELEVATIONS (TYP.).

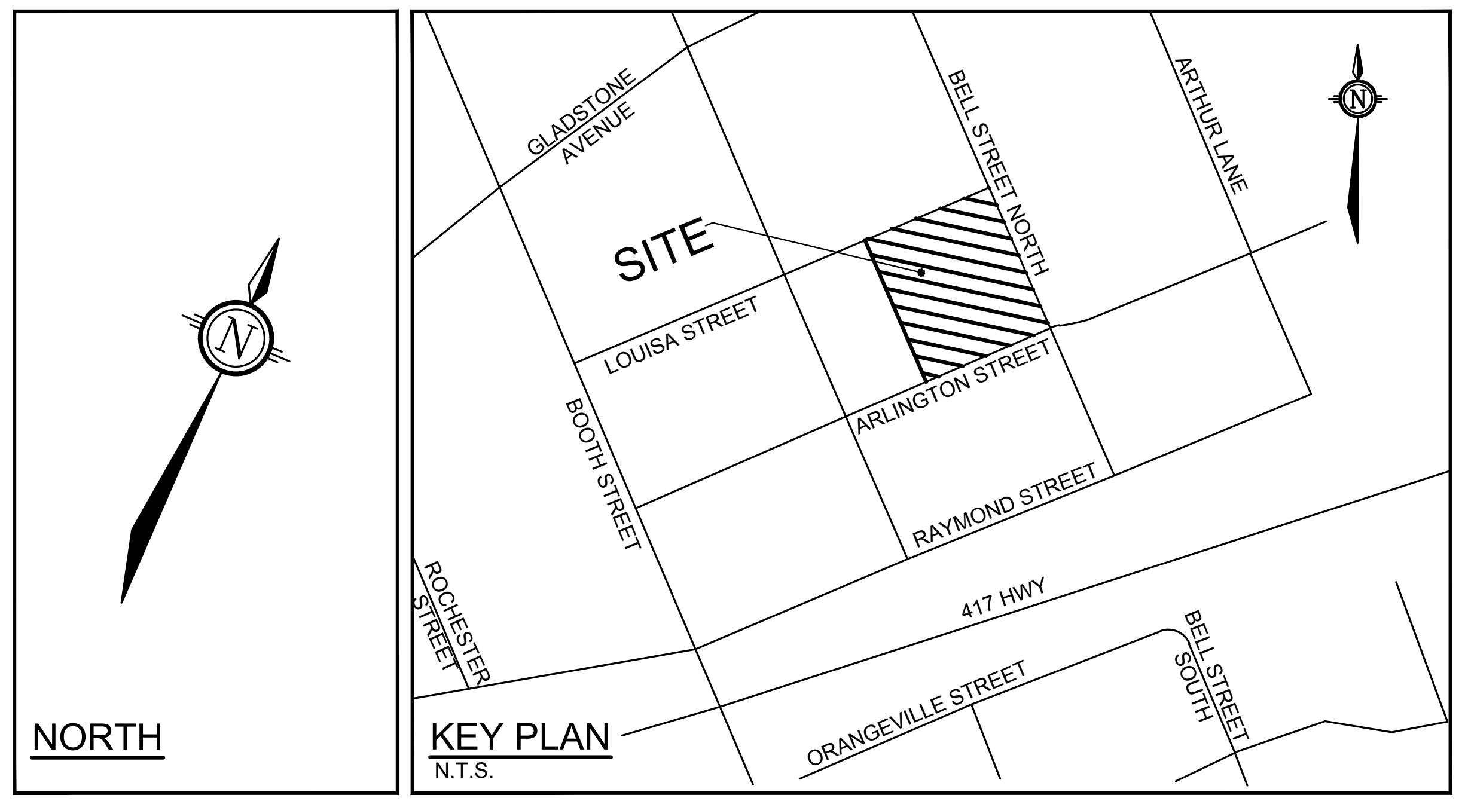
LIMIT OF UNDERGROUND PARKING STRUCTURE BELOW

INTERNAL SWM STORAGE SYSTEM

DESIGN EVENT	STORAGE SYSTEM CONTROLLED FLOW	STORAGE VOLUMES	
		REQUIRED	PROVIDED
1:2 YR	4.5 L/s	18.9 m³	> 69 m³
1:5 YR		28.9 m³	
1:100 YR		68.3 m³	

NOTES:

1. ALL DRAINAGE FROM AREA A-2 (ALL ROOF + DECK DRAINS) TO BE DIRECTED TO THE INTERNAL STORMWATER STORAGE SYSTEM. REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR DETAILS.
2. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT SIZE AND DETAILS OF INTERNAL STORMWATER STORAGE SYSTEM.
3. REFER TO MECHANICAL PLANS FOR PUMP INFORMATION AND DETAILS OF THE INTERNAL STORMWATER STORAGE SYSTEM.



LEGEND:

▬ ▬ ▬	PROPERTY LINE
RD ○	PROPOSED CONTROLLED FLOW ROOF DRAIN
Ⓜ (RM)	PROPOSED WATER METER AND REMOTE METER
═	PROPOSED BARRIER CURB
DC	PROPOSED DEPRESSED CURB
▼	PROPOSED BUILDING ENTRANCE
— - —	PROPOSED WATER SERVICE
- - ► - -	PROPOSED STORM SERVICE
V&VB ⊗	PROPOSED VALVE AND VALVE BOX
▨	PROPOSED THERMAL INSULATION
GPRS	PROPOSED GAS PRESSURE REGULATING STATION
FFE	FINISHED FLOOR ELEVATION
T/FND	TOP OF FOUNDATION WALL ELEVATION
USF	UNDERSIDE OF FOOTING ELEVATION
X	REMOVAL AND/OR ABANDONMENT
— - ⊐	WATERMAIN CAP
— x —	PROPOSED FENCE AND GATE
(TP)	PROPOSED TEST PORT
—►—	PROPOSED SANITARY SERVICE
—► —	PROPOSED STORM SERVICE
◎	CBMH LID FOR SWM TANK OVERFLOW
⅄	PROPOSED SIAMESE CONNECTION
— OHW —	EXISTING OVERHEAD WIRES
═	EXISTING CONCRETE CURB
SANMH ●	EXISTING SANITARY MANHOLE & SEWER
CBMH ○	EXISTING CATCHBASIN MANHOLE
STMMH ○	EXISTING STORM MANHOLE & SEWER
CB □	EXISTING CATCHBASIN C/W CATCHBASIN LEAD
HYD ○ V&VB ⊗	EXISTING HYDRANT & VALVE
○	EXISTING TREES / VEGETATION
EX UP ○	EXISTING UTILITY POLE
—x—x—x—	EXISTING FENCE
300mmØ WM	EXISTING WATERMAIN
HYD ○—⊗	EXISTING HYDRANT C/W VALVE & LEAD
Ⓣ	EXISTING HYDRO TRANSFORMER

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. COMPLETE ALL WORKS IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS USING THE CURRENT GUIDELINES, BYLAWS AND STANDARDS INCLUDING MATERIALS OF CONSTRUCTION, DISINFECTION AND ALL RELEVANT REFERENCES TO OPSS, OPSD & AWWA GUIDELINES - ALL CURRENT VERSIONS AND 'AS AMENDED'.
6. 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 MUNICIPAL AUTHORITIES.
7. 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.
8. ALL ELEVATIONS ARE GEODETIC.
9. REFER TO GEOTECHNICAL INVESTIGATION REPORT (PATERSON REPORT NUMBER PG5405-1 REVISION 3), DATED JULY 24 2024, PREPARED BY PATERSON GROUP INC., 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.
10. REFER TO MECHANICAL PLAN FOR UN-CONTROLLED ROOF DRAIN INFORMATION.
11. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACED AREAS AND DIMENSIONS.
12. REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2020-130) PREPARED BY NOVATECH.
13. SAW CUT AND KEYGRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE-IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).

SEWER NOTES:

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

ITEM	SPEC. No.	REFERENCE
CBMH FRAME AND COVER	401.010 - TYPE "B"	OPSD
STORM SERVICE	PVC DR 35	
SANITARY SERVICE	PVC DR 35	
SEWER TRENCH - BEDDING (GRANULAR 'A') COVER (GRANULAR 'A' OR GRANULAR 'B' TYPE I WITH MAXIMUM PARTICLE SIZE=25mm)		

3. THE SANITARY SERVICE LATERAL SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14.1 OR S14.2. REFER TO MECHANICAL PLANS FOR DETAILS.
4. THE STORM SERVICE LATERAL SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14. REFER TO MECHANICAL PLANS FOR DETAILS.
5. 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.
6. INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 1.5m COVER WITH UP TO 125mm THICK HI-40 RIGID INSULATION.
7. 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.
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 WATERMAIN AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND "AS AMENDED".
2. SPECIFICATIONS:

ITEM	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 SEWERS	W25	CITY OF OTTAWA
WATERMAIN MATERIAL	PVC DR 18 (100mm AND LARGER)	

3. 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. EXCAVATION, INSTALLATION OF SERVICE, BACKFILL AND RESTORATION BY THE CONTRACTOR.
4. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
5. PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, UNLESS OTHERWISE INDICATED.
6. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.

PROPOSED 150mmØ WATER SERVICE TABLE - LOUISA STREET

STATION	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS
0+00	71.60±	69.40± ✱ ✱✱	150mmØ WM CONNECTION TO EX. 150mmØ WM
0+05.9	71.83	69.43	150mmØ V&VB
0+06.4	71.84	69.45	CAP 0.5m FROM PROPERTY LINE

✱ CONNECTION TO EXISTING 150mmØ WATERMAIN. EXACT ELEVATIONS TO BE FIELD DETERMINED.

✱✱ PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W22 IN SHALLOW TRENCHES AND/OR CITY OF OTTAWA DETAIL W23 ADJACENT TO OPEN STRUCTURES.

PROPOSED 150mmØ WATER SERVICE TABLE - BELL STREET

STATION	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS
1+00	71.60±	69.37± ✱ ✱✱	150mmØ WM CONNECTION TO EX. 200mmØ WM
1+03.0	71.74	69.34	150mmØ V&VB
1+04.5	71.74	69.34	CROSS UNDER 150mm GAS (T/GAS=70.84±, CLEARANCE = 1.35m±)
1+05.2	71.75	69.35	CAP 0.5m FROM PROPERTY LINE

✱ CONNECTION TO EXISTING 200mmØ WATERMAIN. EXACT ELEVATIONS TO BE FIELD DETERMINED.

✱✱ PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W22 IN SHALLOW TRENCHES AND/OR CITY OF OTTAWA DETAIL W23 ADJACENT TO OPEN STRUCTURES.

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.

BENCHMARK INFO:

TOP OF SPINDLE OF EXISTING ON-SITE FIRE HYDRANT LOCATED NEAR THE SOUTH-WEST CORNER OF THE INTERSECTION OF ARLINGTON AVENUE AND BELL STREET.

GEODETIC ELEVATION = 73.21m. ALL ELEVATIONS ARE REFERRED TO THE CGVD28 GEODETIC DATUM, DERIVED FROM VERTICAL CONTROL MONUMENT NO. 3603 HAVING AN ELEVATION OF 76.959 METRES.

THE EXISTING GRADES SHOWN ON THE PLANS ARE TAKEN DIRECTLY FROM TOPOGRAPHICAL SURVEY PLAN (Ref. # 21029-20 JRE Lt 7 PL 49 T F), PREPARED BY ANNIS, O'SULLIVAN, VOLLEBEKK SIGNED AND DATED NOVEMBER 20, 2020.

SURROUNDING BACKGROUND TOPO INFORMATION BEYOND THE LIMITS OF THE SITE SURVEY ARE SHOWN FROM CITY OF OTTAWA 1:1000 MAPPING FOR CONTEXT ONLY.

OWNER INFORMATION
IRONWOOD FUND LIMITED PARTNERSHIP
18 LOUISA STREET, SUITE 370
OTTAWA, ONTARIO, K1R 6Y6
NAME: KEN JENNINGS
PHONE: (343) 961-8380
admin@jenningsdevelopments.com

No.	REVISION	DATE	BY
3	ISSUED FOR SITE PLAN CONTROL APPROVAL	AUG 07/24	FST
2	REVISED PER CITY COMMENTS	NOV 10/21	FST
1	ISSUED FOR SITE PLAN APPROVAL	MAY 28/21	FST

SCALE
1:200

1:200
0 2 4 6 8

DESIGN	DM / SM
CHECKED	FST
DRAWN	DM
CHECKED	SM
APPROVED	FST

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER
F.S. THAUVETTE
100041399
August 7, 2024
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
18 LOUISA STREET

DRAWING NAME
GENERAL PLAN OF SERVICES

PROJECT No. 120206
REV REV # 3
DRAWING No. 120206-GP

D07-12-21-0102

PLAN #18564

PLANA1.DWG - 841mmx594mm

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