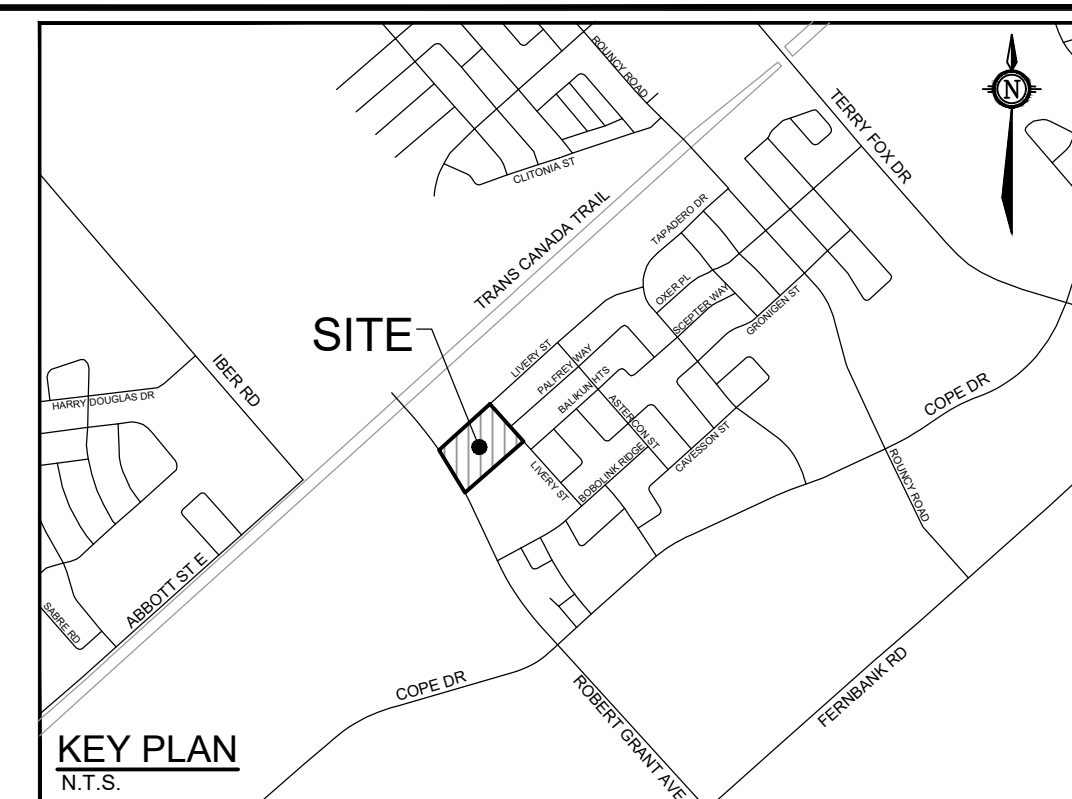


THIS PLAN IS TO BE READ IN CONJUNCTION WITH CIVIL PLANS 117151-DET AND 117151-GR



KEY PLAN N.T.S.

BENCHMARK INFO:

OLS JOB BENCHMARK ON THE TOP OF SPINDLE OF THE EXISTING MUNICIPAL FIRE HYDRANT LOCATED NEAR THE NORTH-EAST INSIDE CORNER WHERE JOURNEMAN STREET TURNS 90 DEGREES IN FRONT OF THE SUBJECT SITE. GEODETIC ELEVATION = 103.82m. (AS SHOWN ON THE SURVEYOR'S PLAN Ref. No. 18413-17 Lepine Corp.Bkls2028203 4M-1503 T.F. PREPARED BY ANNIS, OSULLIVAN, VOLLEBEKK LTD.)

INLET CONTROL DEVICE DATA TABLE: AREA A-2 (OUTLET PIPE of CBMH 01)

LEGEND

- SITE BOUNDARY
- - - - - PROPOSED LIMITS OF UNDERGROUND PARKING STRUCTURE
- - - - - PROPOSED LIMITS OF BALCONY ABOVE
- - - - - PROPOSED LIMIT OF BUILDING OVERHANG
- - - - - SWALE AND DIRECTION OF FLOW
MH100 O PROPOSED STORM MANHOLE
CB1 O PROPOSED CATCHBASIN
CB1 T O PROPOSED CATCHBASIN WITH TEMPORARY SILTSACK
CBE1 O PROPOSED CATCHBASIN TEE
PD 15 O PROPOSED PODIUM DRAIN (WATTS FD-490-4 or equiv. PER MECH)
CIPD 02 O PROPOSED CURB INLET PODIUM DRAIN (PER MECHANICAL)
- - - - - PROPOSED STORM SEWER AND DIRECTION OF FLOW
- - - - - PROPOSED CATCHBASIN LEAD AND DIRECTION OF FLOW
- - - - - PROPOSED CATCHBASIN SUBDRAIN AND DIRECTION OF FLOW
MH101 O PROPOSED SANITARY MANHOLE
- - - - - PROPOSED SANITARY SEWER AND DIRECTION OF FLOW
- - - - - PROPOSED WATERMAIN
BEND PROPOSED BEND AND THRUSTBLOCK 11.25', 22.5', 45' OR TEE
VVB O PROPOSED VALVE AND VALVE BOX
HYD O PROPOSED HYDRANT C/W VALVE & LEAD
- - - - - PROPOSED CAP
- - - - - PIPE CROSSING LOCATION
DC PROPOSED BARRIER CURB (per SC1.1)
DMC PROPOSED MOUNTABLE CURB (per SC1.3)
DMC PROPOSED MOUNTABLE CURB
PROPOSED TWIS (per SC7.3)
PROPOSED LIGHT STANDARD
PROPOSED SIAMENSE CONNECTION
PROPOSED GAS METER LOCATION
PROPOSED HYDRO METER LOCATION
PROPOSED TRANSFORMER PAD C/W BOLLARDS
PROPOSED CLAY DIKE AS PER CITY OF OTTAWA DETAIL S8
PROPOSED RIP-RAP
PROPOSED HOPE CULVERT

CONCRETE PAVEMENT 150mm CONCRETE w/ REINFORCEMENT MESH 150mm GRANULAR "A" *INSTALLED PER CITY OF OTTAWA DETAILS SC2, SC4 AND / OR SC7.1

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.
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 OPS, OPS, 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 THE CITY OF OTTAWA AND ENGINEER.
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 THE GEOTECHNICAL INVESTIGATION REPORT (NO. PG4562-1, REV. 6, DATED JANUARY 29, 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 MATERIALS.
10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACED AREAS AND DIMENSIONS.
11. REFER TO THE 'SITE SERVICING AND STORMWATER MANAGEMENT REPORT' (R-2023-122) PREPARED BY NOVATECH.
12. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
13. PROVIDE LINE / PARKING LOT PAINTING AS REQUIRED BY ARCHITECT.

SEWER NOTES:

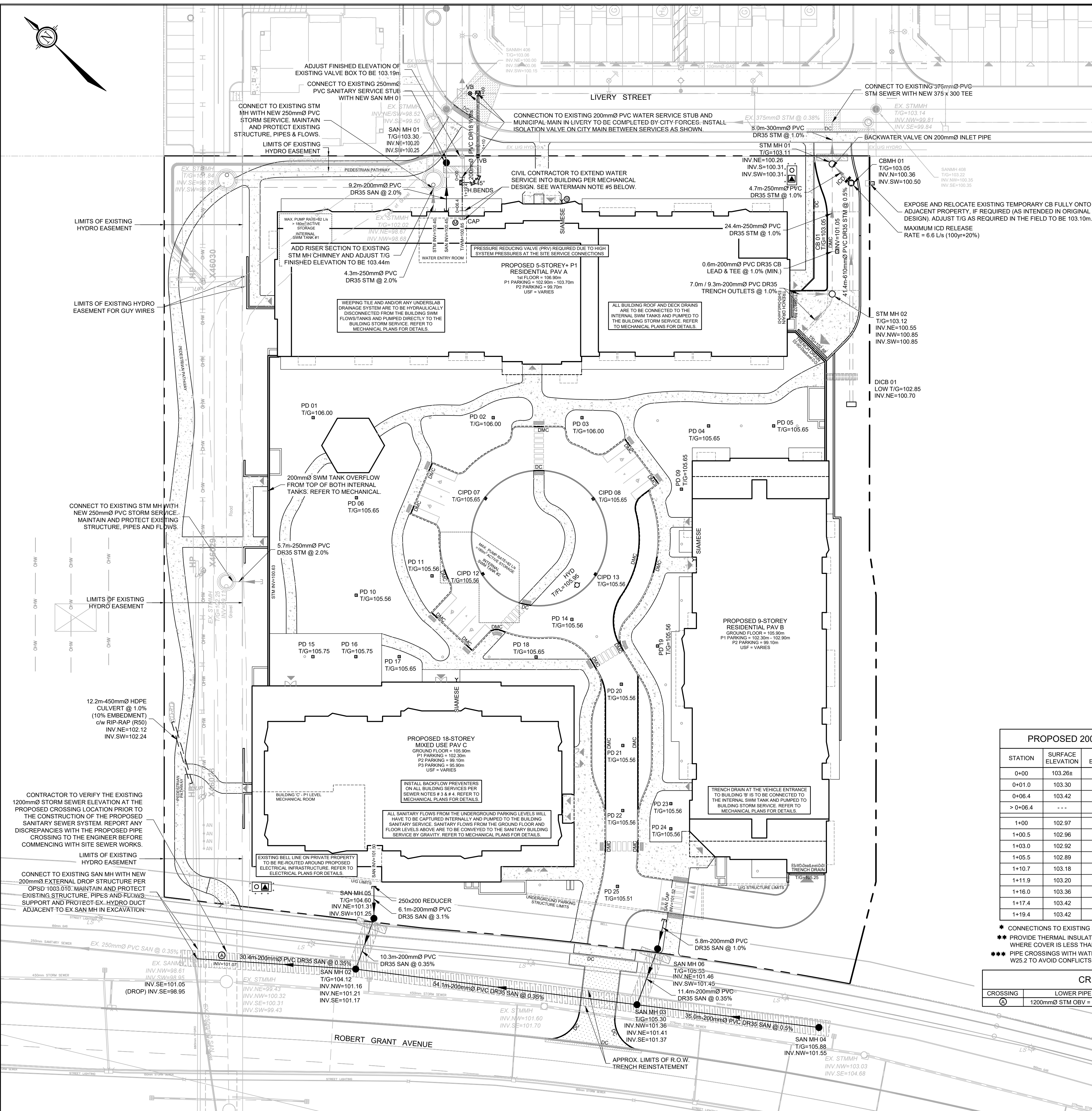
- 1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'.
2. SPECIFICATIONS:
ITEM SPEC. No. REFERENCE
CATCHBASIN (600x600mm) 705.010 CITY OF OTTAWA
CB INSTALLATION S14 / S2 CITY OF OTTAWA
DITCH INLET CB 'TYPE A' (600x1200mm) 'DIBC' 705.040 OPSD
STORM / SANITARY MANHOLE (1200mm) 701.010 OPSD
CB FRAME & COVER S24 / S24.1 / S25 CITY OF OTTAWA
SANITARY / STORM MH FRAME & COVER S24.2 CITY OF OTTAWA
WATERTIGHT MH FRAME AND COVER S24.2 CITY OF OTTAWA
DITCH INLET GRATING 403.010 OPSD
TRENCH DRAINS c/w DUCTILE IRON GRATING ES-1WD-DeadLevel-D-I WATTS
SEWER TRENCH S6 WATTS
SANITARY / STORM SEWER / CB LEAD PVC DR 35 CITY OF OTTAWA
3. THE SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH A BACKFLOW PREVENTION DEVICE 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 LATERALS SHALL BE EQUIPPED WITH A BACKFLOW PREVENTION DEVICE WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14. REFER TO MECHANICAL PLANS FOR DETAILS.
5. THE WEeping TILE SERVICE SHALL BE EQUIPPED WITH A BACKFLOW PREVENTION DEVICE AS PER THE CITY OF OTTAWA STANDARD DETAIL S14.
6. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.8m COVER WITH HI-40 INSULATION PER INSULATION DETAIL FOR SHALLOW SEWERS. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
7. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
8. 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.
9. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX, POSITIVE SEAL AND DURASEAL). THE CONCRETE GRADE FOR THE PIPE CAN BE ELIMINATED.
10. 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 OPS 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.
11. TYPICAL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMP UNLESS OTHERWISE INDICATED. ALL CATCHBASINS ARE TO HAVE 600mm SUMP UNLESS OTHERWISE INDICATED.
12. ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO HAVE 600mm SUMPS.
13. ALL WEeping TILE CONNECTIONS TO BE MADE TO THE PROPOSED STORM SEWER SYSTEM DOWNSTREAM OF ANY INLET CONTROL DEVICES.
14. THE CONTRACTOR IS TO TELEVISION (CCTV) ALL PROPOSED SEWERS, 200mm Ø OR GREATER PRIOR TO BASE COURSE ASPHALT UPON COMPLETION OF CONTRACT. THE CONTRACTOR IS RESPONSIBLE TO FLUSH, CLEAN AND RE-TELEVISION (CCTV) ALL SEWERS & APPURTENANCES. PROVIDE A COPY OF ALL CCTV INSPECTION REPORTS TO THE ENGINEER FOR REVIEW.

WATERMAIN NOTES:

- 1. SUPPLY AND CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN BY CITY OF OTTAWA FORCES. CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE CITY OF OTTAWA FORCES.
2. SPECIFICATIONS:
ITEM SPEC. No. REFERENCE
WATERMAIN TRENCHING W119 CITY OF OTTAWA
HYDRANT INSTALLATION W22 CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES W23 CITY OF OTTAWA
THERMAL INSULATION AT OPEN STRUCTURES W24 CITY OF OTTAWA
VALVE BOX ASSEMBLY W25 CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER W25.2 CITY OF OTTAWA
WATERMAIN CROSSING OVER SEWER W25.2 CITY OF OTTAWA
CATHODIC PROTECTION FOR PVC WATERMAIN W40 CITY OF OTTAWA
ANODE INSTALLATION FOR PVC WATERMAIN W42 CITY OF OTTAWA
WATERMAIN MATERIAL PVC DR 18
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, WHERE POSSIBLE UNLESS OTHERWISE INDICATED.
5. CIVIL CONTRACTOR TO EXTEND THE WATER SERVICE THROUGH THE FOUNDATION WALL AND CAP INSIDE THE BUILDING. REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR DESIGN & INFORMATION ON WATER SERVICE FROM 1.0m OUTSIDE THE FACE OF BUILDING (H-06.4) TO THE BUILDING INTERIOR. THE WATER SERVICE SHALL BE PROPERLY LEVEL AND PERPENDICULAR TO THE FOUNDATION WALL AT THE BUILDING INTERFACE. COORDINATE WORK WITH THE PLUMBING CONTRACTOR. PROVIDE THE APPROPRIATE LINK SEAL, OR APPROVED EQUIVALENT SEAL, AT THE PENETRATION THROUGH THE BUILDING FOUNDATION WALL.

PROPOSED 200mmØ WATERMAIN / REDUNDANT SERVICE TABLE

CRITICAL SEWER PIPE CROSSING TABLE



NOTE: THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, 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.

Revision table with columns: No., REVISION, DATE, BY

SCALE 1:400 and a graphical scale bar showing 0, 4, 8, 12, 16 meters.

FOR REVIEW ONLY stamp with professional engineer signature and details: C.J. RUDDLE, MAR 3/26, PROVINCE OF ONTARIO.

NOVATECH logo and contact information: Engineers, Planners & Landscape Architects, Suite 200, 240 Michael Cowland Drive, Ottawa, Ontario, Canada K2M 1P6.

LOCATION CITY OF OTTAWA, 5000 ROBERT GRANT - RESIDENTIAL DEVELOPMENT, DRAWING NAME GENERAL PLAN OF SERVICES, PROJECT No. 117151, REV 1.F, DRAWING No. 117151-GP, PLAN #18690.