

**GENERAL NOTES:**

- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
- 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.
- OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA, MINISTRY OF THE ENVIRONMENT AND THE MISSISSIPPI VALLEY CONSERVATION AUTHORITY BEFORE COMMENCING CONSTRUCTION.
- 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.
- 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.
- 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.
- ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
- TO PROTECT BREEDING BIRDS, NO TREE OR SHRUB REMOVAL IS TO OCCUR BETWEEN APRIL 1ST AND AUGUST 15TH (MUNCASTER ENVIRONMENTAL PLANNING).
- NO IN-STREAM WORKS WITHIN THE WATERCOURSE IS TO OCCUR BETWEEN MARCH 15TH AND JUNE 30TH (MUNCASTER ENVIRONMENTAL PLANNING).
- REFER TO STORMWATER MANAGEMENT REPORT (R-2023-010) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
- SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
- PROVIDE LINE/PARKING PAINTING.
- CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVING AS-BUILT INFORMATION SHOWN ON THIS PLAN, AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND TIG ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, TWM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

**GRADING NOTES:**

- ALL WORKS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH CURRENT CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARDS.
- MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
- MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
- ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
- ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC1.1).
- MATCH EXISTING ELEVATIONS AT ALL BOUNDARIES WITH ADJACENT LOTS.
- SIDEWALK CROSSFALL NOT TO EXCEED 2%.
- MINIMUM REARYARD SWALE GRADE IS 1.5%, MINIMUM REARYARD SWALE GRADE WITH THE INSTALLATION OF A SUBDRAIN SYSTEM IS 1.0%, SWALES TO BE 0.9m OFFSET FROM REAR PROPERTY LINE.
- ALL DRIVEWAY SLOPES ARE TO BE BETWEEN 2% AND 6%.
- IF MINIMUM PERMISSIBLE USF (MUSF) IS TO BE USED FOR A LOT, THEN TOP OF FOUNDATION, LOT GRADING, ETC IS TO BE ADJUSTED ACCORDINGLY.
- REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
- CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.

**SEWER NOTES:**

- | SPECIFICATIONS ITEM  | SPEC. No. | REFERENCE      |
|--|-----------|----------------|
| CATCHBASIN (600x600mm)   | 705.010   | OPSD           |
| STORM MANHOLE (1200)   | 701.010   | OPSD           |
| 2.0 FRAM & COVER   | 400.020   | OPSD           |
| STORM MH FRAME   | 401.010   | OPSD           |
| STORM MH COVER   | 524.1     | CITY OF OTTAWA |
| SEWER TRENCH - BEDDING (GRANULAR A) COVER (GRANULAR A OR GRANULAR B TYPE I, WITH MAXIMUM PARTICLE SIZE <math>25\text{mm}</math>) |           |                |
| STORM SEWER (200mm ID to 375mm ID)   | PVC DR 35 |                |
| STORM SEWER (450mm ID to 1650mm ID)  | CONC 65-D |                |
| CATCHBASIN LEAD  | PVC DR 35 |                |
| ROAD SUBDRAIN (6m STUBS (3m/2) AT EACH CB)   | R1        | CITY OF OTTAWA |
- INSULATE ALL STORM PIPES THAT HAVE LESS THAN 1.5m COVER WITH 50mmx1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
  - SERVICES ARE TO BE CONSTRUCTED TO 2.0m PAST PROPERTY LINE AT A MINIMUM SLOPE OF 1.0%.
  - 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.
  - 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.
  - STORM MANHOLES AND CBMS ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
  - CONTRACTOR TO TELEVIEW (CCTV) ALL PROPOSED SEWERS, 200mm OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.
  - THE CONTRACTOR IS ADVISED THAT THE EXISTING VORTECHS UNIT WILL REMAIN IN SERVICE DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN FREE OF DEBRIS, MONITOR ON A REGULAR BASIS, AND CLEAN AS REQUIRED AND ONCE CONSTRUCTION IS COMPLETE.

**GEOTECHNICAL NOTES:**

- REFER TO GEOTECHNICAL INVESTIGATION REPORT (PG2450.2, REVISION 1, DATED JANUARY 16, 2023), PREPARED BY GEOTEC 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.
- ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED ROADWAYS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
- EXPOSED SUBGRADE 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.
- 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.
- 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.
- THE SUBGRADE SHOULD BE SHAPED AND CROWNED TO PROMOTE DRAINAGE OF THE ROADWAY GRANULARS.
- FOR AREAS OF THE ROADWAY THAT REQUIRE THE SUBGRADE TO BE RAISED, IT IS CONSIDERED THAT SOME OF THE DRIER NATIVE MATERIALS COULD BE USED FOR THIS PURPOSE OR THE MATERIAL COULD CONSIST OF OPSS SELECT SUBGRADE MATERIAL OR OPSS GRANULAR B TYPE I OR TYPE II. ANY MATERIALS PROPOSED FOR THIS USE MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER BEFORE PLACEMENT.
- GEOTECHNICAL INSPECTION OF SUBGRADE AND CONFIRMATION OF PAVEMENT STRUCTURE IS REQUIRED BEFORE PLACEMENT OF ANY GRANULAR MATERIAL.
- GRANULAR MATERIALS (GRANULAR A AND GRANULAR B) SHOULD BE COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT.

**WATERMAIN NOTES:**

- | 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 HYDRANT VALVE AND VALVE BOX  | PVC DR 18 WSD-24 | CITY OF OTTAWA |
|  | WSD-19           | CITY OF OTTAWA |
- SUPPLY AND CONSTRUCT ALL WATERMANS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS. EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS.
  - WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
  - PROVIDE MINIMUM 0.3m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
  - WATER SERVICE IS TO BE CONSTRUCTED 2.0m PAST PROPERTY LINE, PLUS AN 8m COIL, UNLESS OTHERWISE INDICATED.

**PAVEMENT STRUCTURE NOTES:**

- REFER TO GEOTECHNICAL NOTES.
- ALL ROADWAYS TO HAVE 3% CROSSFALL INCLUDING SUBGRADE AND GRANULAR BASE.
  - SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS ARE PER CITY OF OTTAWA STANDARD DETAIL (R10).
  - PERFORATED PIPE SUB-DRAINS TO BE PROVIDED AT SUBGRADE LEVEL EXTENDING FROM THE CATCHBASIN FOR A DISTANCE OF 3.0m, PARALLEL TO THE CURB IN TWO DIRECTIONS. REFER TO CITY OF OTTAWA SUBDRAIN INSTALLATION DETAIL (R1).
  - TYPICAL ROADSIDE CATCHBASINS SHALL BE INSULATED AS PER CITY OF OTTAWA STANDARD W23, WHERE REQUIRED.
  - PROVIDE LINE PAINTING.

PAVEMENT STRUCTURE:  
RESIDENTIAL ROADWAYS:  
40mm ASPHALTIC CONCRETE (WEAR COURSE, SUPERPAVE 12.5, PG 58 - 34)  
50mm ASPHALTIC CONCRETE (BINDER COURSE, SUPERPAVE 19.0, PG 58 - 34)  
150mm OPSS GRANULAR "A" CRUSHED STONE  
450mm OPSS GRANULAR "B" TYPE II  
690mm

**EROSION AND SEDIMENT CONTROL NOTES:**

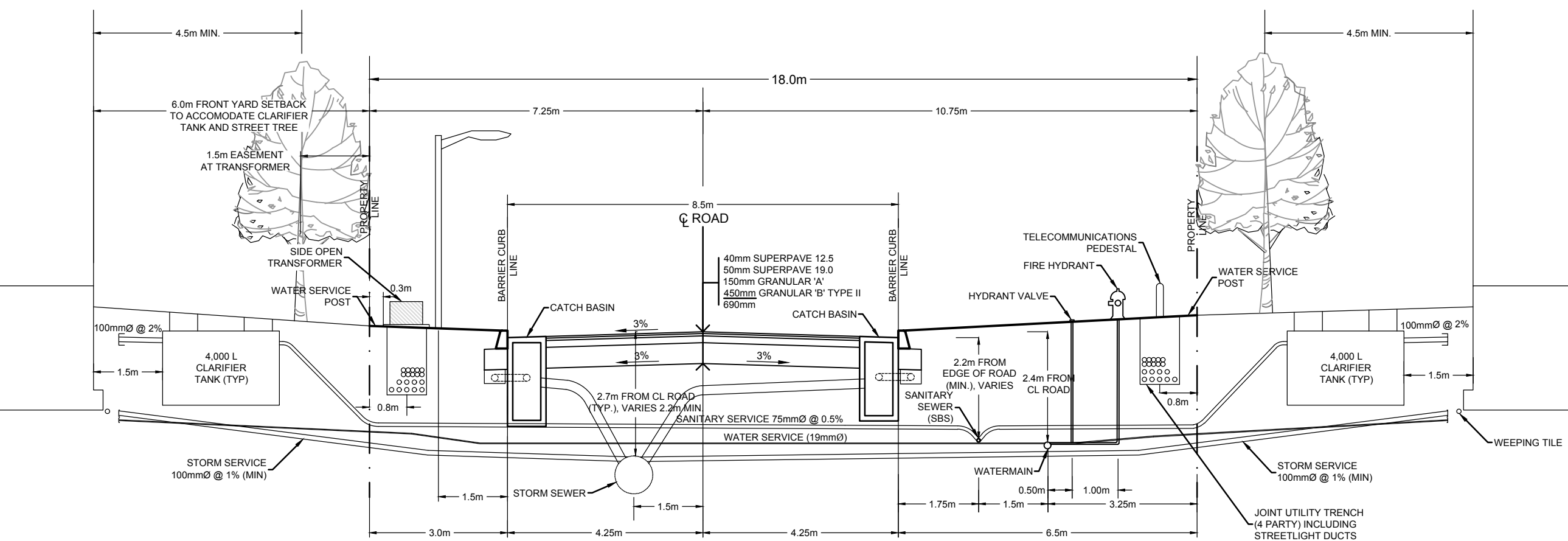
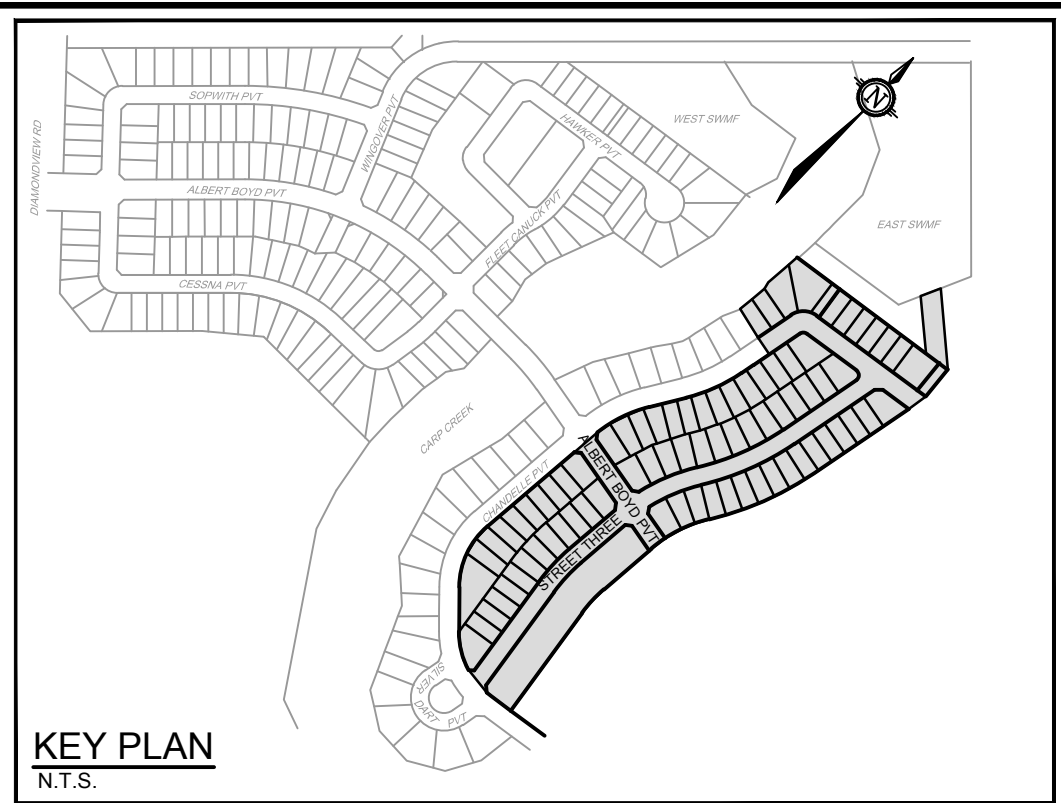
(REFER TO DRAWING 102085-ESC FOR EROSION AND SEDIMENT CONTROL NOTES)

**SEEPAGE BARRIERS NOTES:**

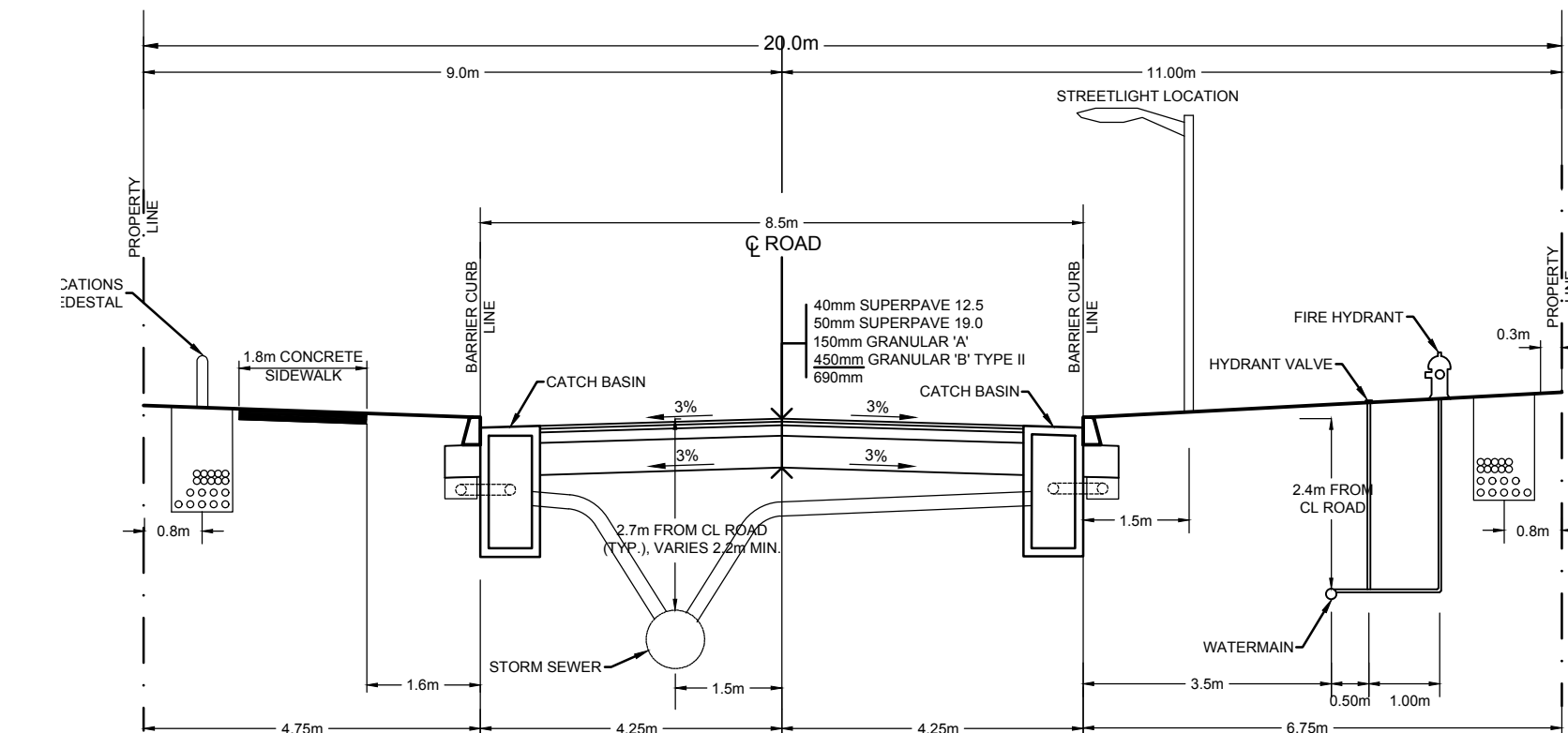
- INSTALL SEEPAGE BARRIERS AS PER CITY OF OTTAWA STANDARD (S8).
- SEEPAGE BARRIER SHALL EXTEND FROM TRENCH WALL TO TRENCH WALL AND FROM SEWER SUB GRADE LEVEL TO TERMINATE EITHER WITHIN THE NATIVE SOIL BACK FILL OR TOP OF THE EXISTING SUB SURFACE ROCK.
- SEEPAGE BARRIERS SHALL CONSIST OF 1.5m WIDE WEATHERED DRY (COMPATIBLE) SILTY CLAY COMPACTED IN THIN LIFTS TO AT LEAST 95% STANDARD PROCTOR DENSITY.
- REFER TO PLAN AND PROFILE DRAWINGS FOR LOCATION OF SEEPAGE BARRIERS.

**LOT DEVELOPMENT NOTES:**

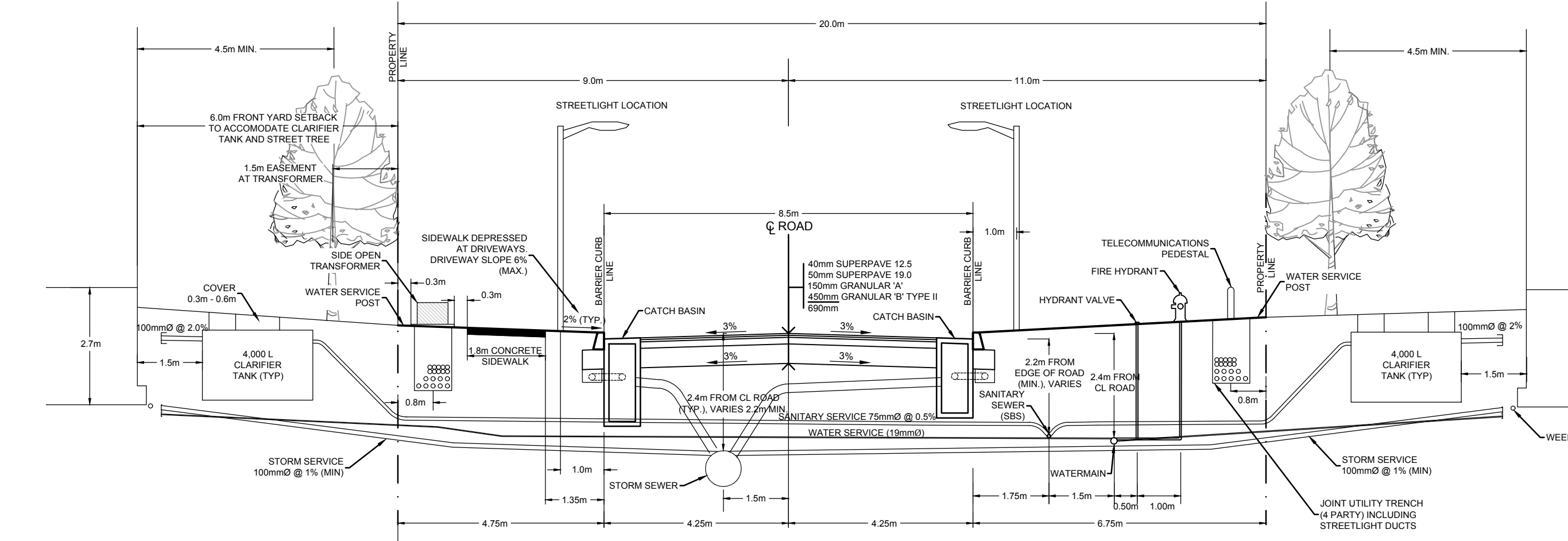
- HOUSE FOOTPRINTS ARE CONCEPTUAL ONLY AND ARE TO BE FINALIZED AT THE TIME OF APPLICATION FOR BUILDING PERMIT.
- MAINTAIN A MINIMUM 200mm CLEARANCE BETWEEN THE PROPOSED TOP OF FOUNDATION AND THE FINISHED GRADE AT THE STRUCTURE. MAINTAIN POSITIVE SURFACE DRAINAGE AWAY FROM THE FOUNDATION WALL.
- HOUSE SETBACK REQUIRED PER ZONING BY-LAW (URBAN RESIDENTIAL)  
FRONT YARD - 4.0m (min) (DWELLING UNIT)  
FRONT YARD - 8.0m (min) (GARAGE)  
REAR YARD - 7.5m (min)  
EXTERIOR SIDE YARD - 4.0m (min)  
INTERIOR SIDE YARD - 1.2m (min)
- HOUSE SETBACK REQUIRED PER ZONING BY-LAW (TOWNHOMES)  
FRONT YARD - 4.0m (min) (DWELLING UNIT)  
FRONT YARD - 8.0m (min) (GARAGE)  
REAR YARD - 7.5m (min)  
EXTERIOR SIDE YARD - 4.0m (min)  
INTERIOR SIDE YARD - 1.5m (min)
- ROOF LEADERS ARE TO BE DIRECTED TO GRASSED AREAS.



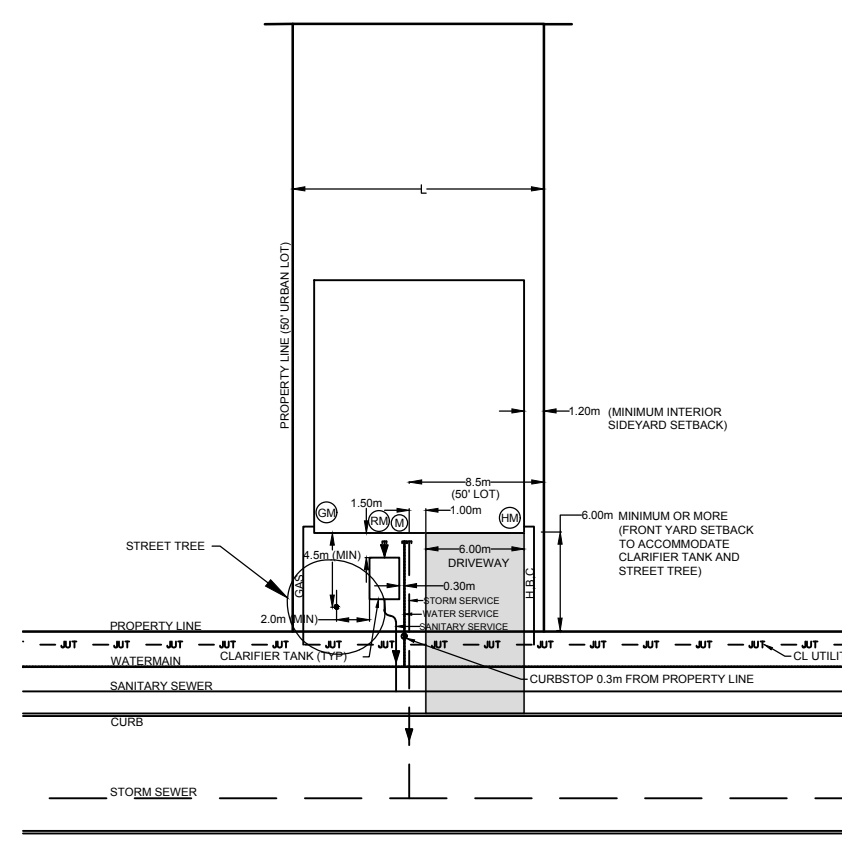
RESIDENTIAL ROAD 18.0m ROAD ALLOWANCE  
URBAN SECTION 4 PARTY JOINT USE TRENCH  
STREET THREE  
1:100



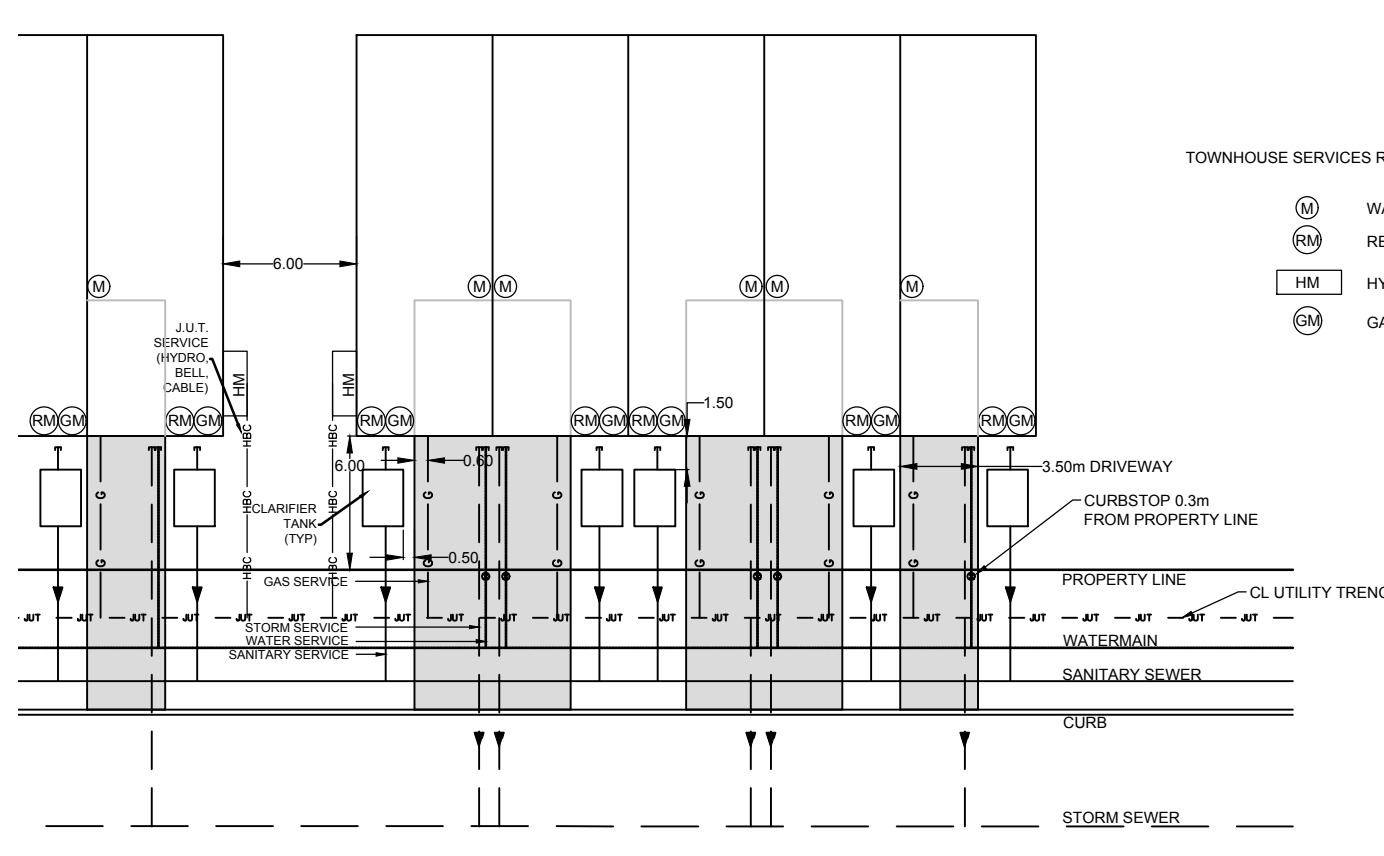
RESIDENTIAL ROAD 20.0m ROAD ALLOWANCE  
URBAN SECTION 4 PARTY JOINT USE TRENCH  
ALBERT BOYD PVT.  
1:100



RESIDENTIAL ROAD 20.0m ROAD ALLOWANCE  
URBAN SECTION 4 PARTY JOINT USE TRENCH  
CHANDELLE PVT  
1:100

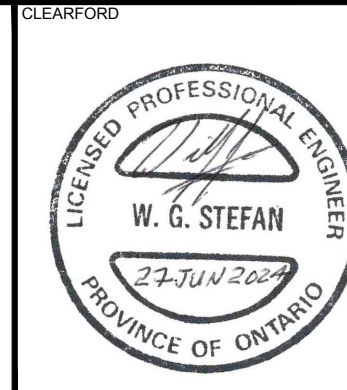


TYPICAL LOT SERVICING DETAIL - URBAN LOT  
N.T.S.



TYPICAL LOT SERVICING DETAIL - TOWNHOUSE  
N.T.S.

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.



No.	REVISION	DATE	BY
8.	ISSUED FOR REGISTRATION AND ECA	JUN 19/24	ARM
7.	REVISED PER CITY COMMENTS	FEB 20/24	ARM
6.	REVISED PER CITY COMMENTS	FEB 9/24	ARM
5.	ISSUED WITH ADDENDUM #2	JAN 5/24	ARM
4.	ISSUED FOR TENDER	DEC 7/23	ARM
3.	ISSUED FOR REVIEW	JUL 25/23	ARM
2.	ISSUED FOR COORDINATION	JUL 11/23	ARM
1.	ISSUED FOR COORDINATION	JAN 18/23	ARM

SCALE	REVISION
	MNP
	ARM
	MNP
	ARM
	SMG

LOCATION  
CITY OF OTTAWA  
WEST CAPITAL AIRPARK

DRAWING NAME  
PHASE 1B-2 RESIDENTIAL  
NOTES AND DETAILS PLAN

PROJECT No. 102085  
REV # 8  
DRAWING No. 102085-ND182



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