

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 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 DIMENSIONS AND INVERTS MUST BE VERIFIED PRIOR TO CONSTRUCTION. IF THERE IS ANY DISCREPANCY THE CONTRACTOR IS TO NOTIFY THE ENGINEER PROMPTLY.
- THE SITE BENCHMARK IS CURRENTLY SET ON TOP OF THE FIRE HYDRANT SPINDLE (ELEV. = 109.12), LOCATED AT THE INTERSECTION OF CULDAFF ROAD AND BERMONDSEY WAY. BENCHMARK #2 IS THE TOP OF HYDRANT SPINDEL (ELEV. = 109.29), LOCATED ON DERREEN AVENUE ACCROSS THE ROAD FROM THE PROJECTION OF THE EAST PROPERTYLINE. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD-1928-1978 GEODETIC DATUM. REFER TO THE FARLEY, SMITH & DENIS SURVEYING LTD. 2024 TOPOGRAPHIC SKETCH OF # 425 CULDAFF ROAD, CITY OF OTTAWA.
- REFER TO GEOTECHNICAL REPORT (No. PG7040-1, DATED MAY 21, 2024), 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.
- REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
- REFER TO SERVICING AND STORMWATER MANAGEMENT REPORT PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD. (DATED FEBRUARY 28, 2025).
- SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
- PROVIDE LINE/PAINTING.
- 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 TIG ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, TWM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.
- CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.

SEWER NOTES:

SPECIFICATIONS:	SPEC. No.	REFERENCE
ITEM		
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (12000)	701.010	OPSD
STORM / SANITARY MANHOLE (15000)	701.011	OPSD
CB, FRAME & COVER	400.020	OPSD
STORM / SANITARY MH FRAME	S25	CITY OF OTTAWA
SANITARY COVER	S24	CITY OF OTTAWA
STORM COVER (CLOSED)	S24.1	CITY OF OTTAWA
STORM COVER (OPEN)	S28.1	CITY OF OTTAWA
SEWER TRENCH	S6 & S7	CITY OF OTTAWA
STORM SEWER	PVC DR 35	
SANITARY SEWER	PVC DR 35	
CATCHBASIN LEAD	PVC DR 35	

INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 2.0m COVER WITH 50mmX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION (REFER TO DETAIL).

- SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0% (2.0% IS PREFERRED).
- SEWER SERVICE CONNECTIONS PER CITY OF OTTAWA DETAILS S11 AND S11.1.
- THE PIPE BEDDING FOR THE SEWER AND WATER PIPES SHOULD CONSIST OF AT LEAST 150 MM OF OPSS GRANULAR A. THE BEDDING LAYER THICKNESS SHOULD BE INCREASED TO A MINIMUM OF 300 MM WHERE THE SUBGRADE WILL CONSIST OF GREY SILTY CLAY. THE MATERIAL SHOULD BE PLACED IN A MAXIMUM 225 MM THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 99% OF ITS SPMD. THE BEDDING MATERIAL SHOULD EXTEND AT LEAST TO THE SPRING LINE OF THE PIPE.
- THE COVER MATERIAL, WHICH SHOULD CONSIST OF OPSS GRANULAR A, SHOULD EXTEND FROM THE SPRING LINE OF THE PIPE TO AT LEAST 300 MM ABOVE THE OVERT OF THE PIPE. THE MATERIAL SHOULD BE PLACED IN MAXIMUM 225 MM THICK LIFTS AND COMPACTED TO A MINIMUM OF 99% OF ITS SPMD.
- WHERE HARD SURFACE AREAS ARE CONSIDERED ABOVE THE TRENCH BACKFILL, THE TRENCH BACKFILL MATERIAL WITHIN THE FROST ZONE (ABOUT 1.8 M BELOW FINISHED GRADE) SHOULD MATCH THE SOILS EXPOSED AT THE TRENCH WALLS TO MINIMIZE DIFFERENTIAL FROST HEAVING. THE TRENCH BACKFILL SHOULD BE PLACED IN MAXIMUM 300 MM THICK LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF THE MATERIAL'S SPMD.
- 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.
- 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.
- STORM MANHOLES AND CBMHs ARE TO HAVE 300mm SUMP'S UNLESS OTHERWISE INDICATED.
- CONTRACTOR TO TELEWISE (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.
- ALL CATCHBASINS AND CATCHBASIN MANHOLES TO BE PROVIDED WITH MINIMUM 3 METER LONG PERFORATED SUBDRAINS EXTENDING IN TWO DIRECTIONS AT THE SUBGRADE LEVEL. SUBDRAIN IS TO BE PROVIDED AT THE TRANSITIONS BETWEEN DIFFERENT PAVEMENT COMPOSITIONS. THE SUBGRADE SURFACE SHOULD BE SHAPED TO PROMOTE WATER FLOW TO THE DRAINAGE LINES.

WATERMAIN NOTES:

- SPECIFICATIONS:
- SPEC. No.
- REFERENCE
- ITEM
- WATERMAIN TRENCHING
- W17
- CITY OF OTTAWA
- THERMAL INSULATION IN SHALLOW TRENCHES
- W22
- CITY OF OTTAWA
- WATERMAIN CROSSING BELOW SEWER/ABOVE SEWER
- W25 / W25.2
- CITY OF OTTAWA
- WATERMAIN
- PVC DR 18
-
- VALVE AND VALVE BOX
- W24
- CITY OF OTTAWA
- 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.
- WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED. ANY WATERMAIN WITH LESS THAN 2.4m COVER TO BE INSULATED PER THE SHOWN DETAIL.
- PROVIDE MINIMUM 0.25m ABOVE, 0.5m IF BELOW. CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS PER CITY OF OTTAWA STANDARDS W25/W25.2.
- WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.
- CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS CITY OF OTTAWA STANDARD DETAILS W-39, 40, 41, 42, 43 AND 44.
- PROVIDE THERMAL INSULATION FOR WATERMAIN AT OPEN STRUCTURES PER CITY OF OTTAWA STANDARD DETAIL W-23.
- IF WATERMAIN MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.

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.

GRADING NOTES:

- TOPSOIL AND FILL, SUCH AS THOSE CONTAINING SIGNIFICANT AMOUNTS OF ORGANIC OR DELTERIOUS MATERIALS, SHOULD BE STRIPPED FROM UNDER ANY PAVED AREAS, PIPE BEDDINGS AND OTHER SETTLEMENT SENSITIVE STRUCTURES. AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
- SITE-EXCAVATED SOIL CAN BE PLACED AS GENERAL LANDSCAPING FILL WHERE SETTLEMENT IS A MINOR CONCERN OF THE GROUND SURFACE. THESE MATERIALS SHOULD BE SPREAD IN THIN LIFTS AND AT LEAST COMPACTED BY THE TRACKS OF THE SPREADING EQUIPMENT TO MINIMIZE VOIDS. IF THESE MATERIALS ARE TO BE PLACED TO INCREASE THE SUBGRADE LEVEL FOR AREAS TO BE PAVED, THE FILL SHOULD BE COMPACTED IN MAXIMUM 300 mm THICK LIFTS AND TO A MINIMUM DENSITY OF 95% OF THE RESPECTIVE SPMD.
- CONSIDERATION MAY BE GIVEN FOR LEAVING IN-SITU FILL IN PLACE AT THE SUBGRADE LEVEL OF PAVED AREAS PROVIDED IT IS REVIEWED IN THE FIELD AT THE TIME OF CONSTRUCTION BY PATERSON PERSONNEL AND SUBSEQUENTLY PROOF-ROLLER BY A SUITABLY-SIZED SHEEPSFOOT ROLLER. PROOF-ROLLING SHOULD BE COMPLETED UNDER DRY AND ABOVE-FREEZING CONDITIONS AND UNDER THE SUPERVISION OF PATERSON PERSONNEL PRIOR TO THE PLACEMENT OF GRANULARS.
- IF SOFT SPOTS DEVELOP IN THE SUBGRADE DURING COMPACTION OR DUE TO CONSTRUCTION TRAFFIC, THE AFFECTED AREAS SHOULD BE EXCAVATED AND REPLACED WITH OPSS GRANULAR B TYPE II MATERIAL, AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- FILL USED FOR GRADING BENEATH THE BASE AND SUBBASE LAYERS OF PAVED AREAS SHOULD CONSIST, UNLESS OTHERWISE SPECIFIED, OF CLEAN IMPORTED GRANULAR FILL, SUCH AS OPSS GRANULAR A, GRANULAR B TYPE I OR SELECT SUBGRADE MATERIAL. THIS MATERIAL SHOULD BE TESTED AND APPROVED PRIOR TO DELIVERY TO THE SITE. THE FILL SHOULD BE PLACED IN LIFTS NO GREATER THAN 300 mm THICK AND COMPACTED USING SUITABLE COMPACTION EQUIPMENT FOR THE LIFT THICKNESS. FILL PLACED BENEATH THE PAVED AREAS SHOULD BE COMPACTED TO AT LEAST 95% OF ITS SPMD.
- THE PAVEMENT GRANULAR BASE AND SUBBASE SHOULD BE PLACED IN MAXIMUM 300 MM THICK LIFTS AND COMPACTED TO A MINIMUM OF 100% OF THE SPMD WITH SUITABLE VIBRATORY EQUIPMENT.
- 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.
- BACKFILL MATERIAL BELOW SIDEWALK AND WALKWAY SUBGRADE AREAS OR OTHER SETTLEMENT SENSITIVE STRUCTURES WHICH ARE NOT ADJACENT TO THE BUILDINGS SHOULD CONSIST OF FREE-DRAINING, NON-FROST SUSCEPTIBLE MATERIAL. THIS MATERIAL SHOULD BE PLACED IN MAXIMUM 300 MM THICK LOOSE LIFTS AND COMPACTED TO AT LEAST 98% OF ITS SPMD UNDER DRY AND ABOVE FREEZING CONDITIONS.
- 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.

PAVEMENT STRUCTURE:

CAR ONLY PARKING AREAS

- 50mm HL3 OR SUPERPAVE 12.5
- 150mm OPSS GRAN "A" CRUSHED STONE
- 300mm OPSS GRAN "B" TYPE II (SUBGRADE - EITHER IN SITU SOIL, FILL OR OPSS GRANULAR B TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL.)

HEAVY-TRUCK TRAFFIC AND LOADING AREAS

- 40mm HL3 OR SUPERPAVE 12.5
- 50mm HL8 OR SUPERPAVE 19.0
- 150mm OPSS GRAN "A" CRUSHED STONE
- 450mm OPSS GRAN "B" TYPE II (SUBGRADE - EITHER IN SITU SOIL, FILL OR OPSS GRANULAR B TYPE I OR II MATERIAL PLACED OVER IN SITU SOIL.)

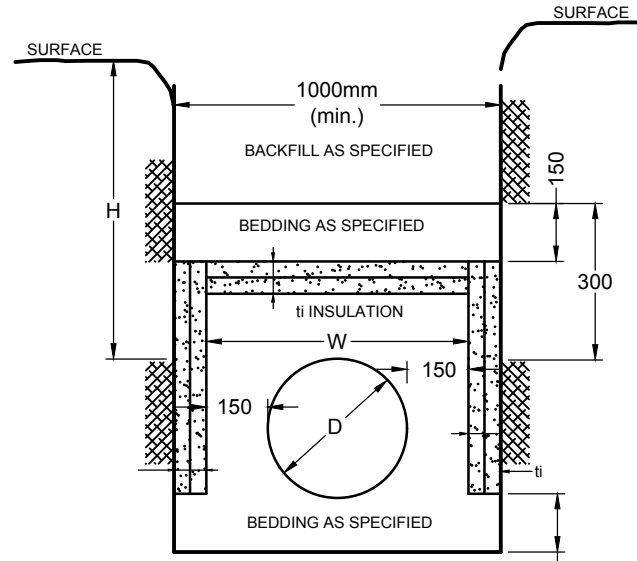
NOTE:

- MINIMUM PERFORMANCE GRADED (PG) 58-34 ASPHALT CEMENT.

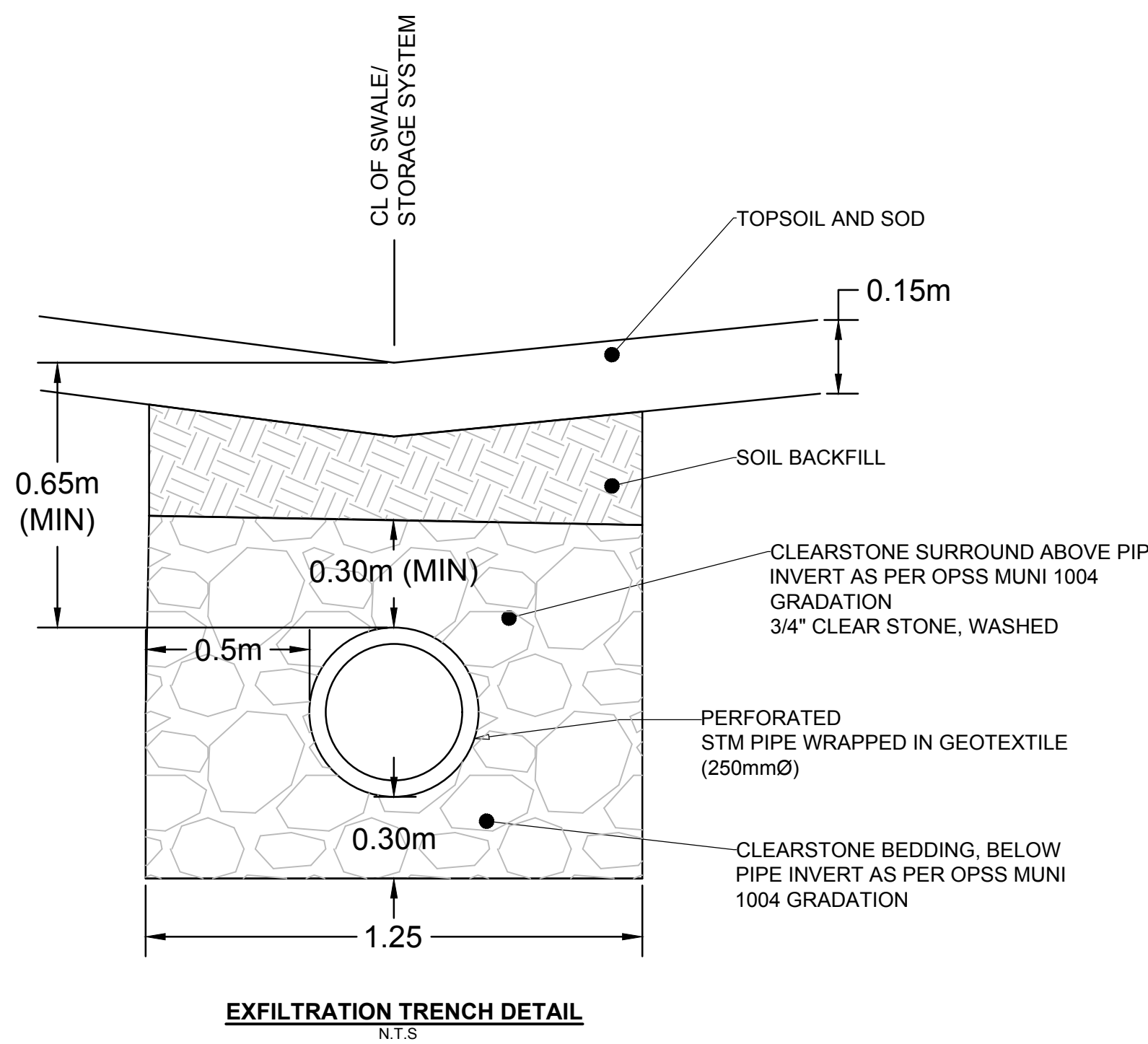
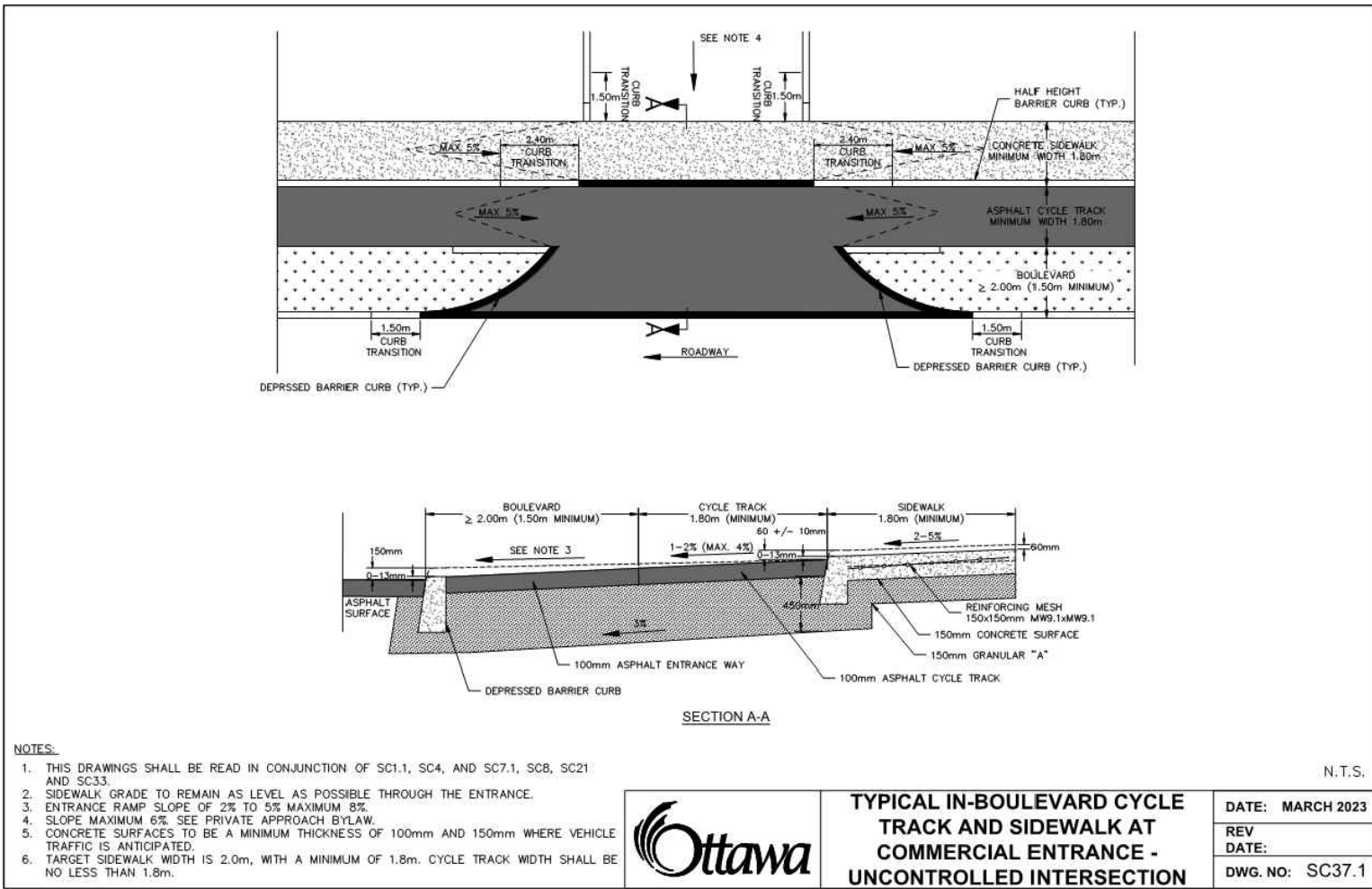
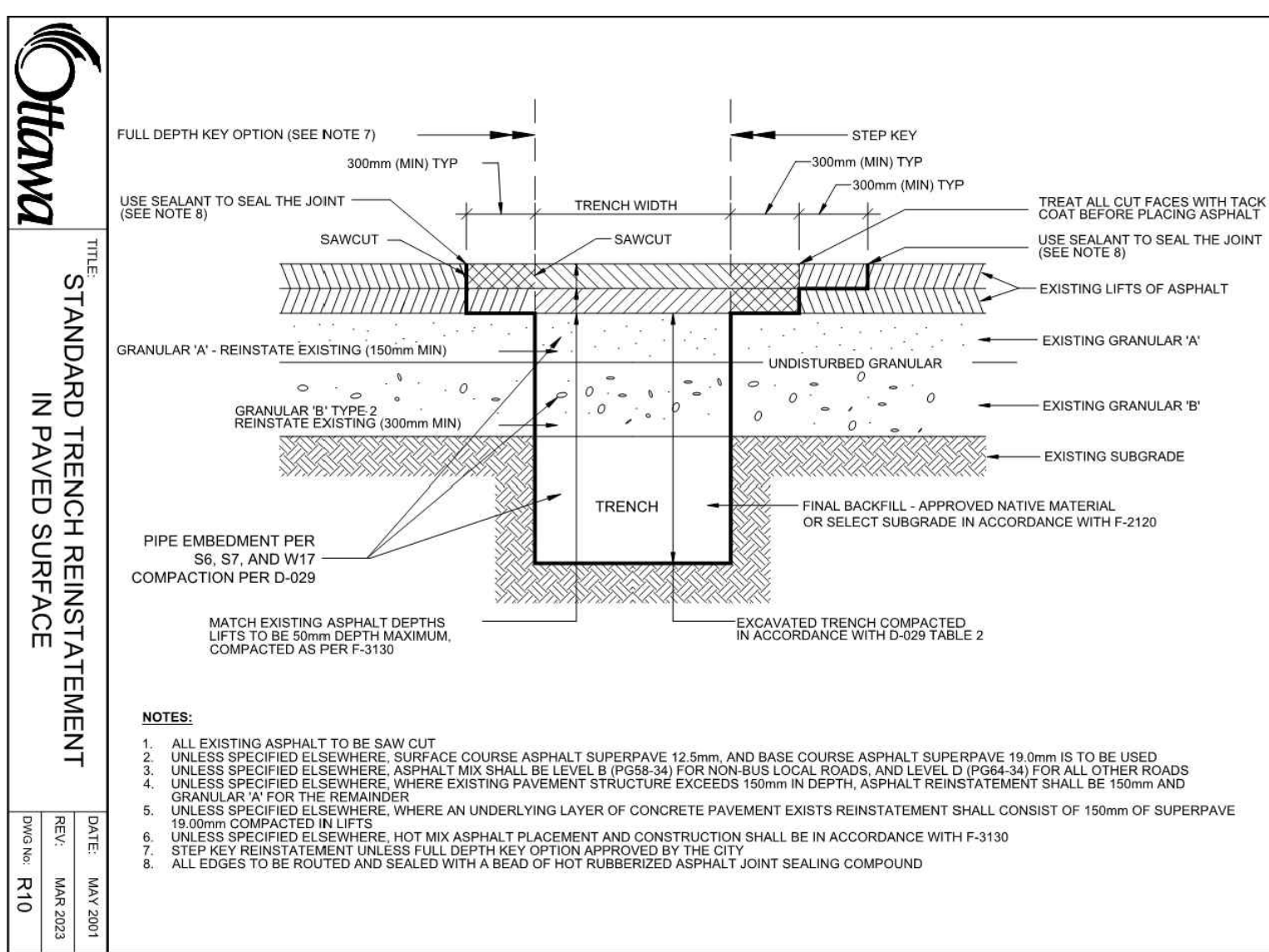
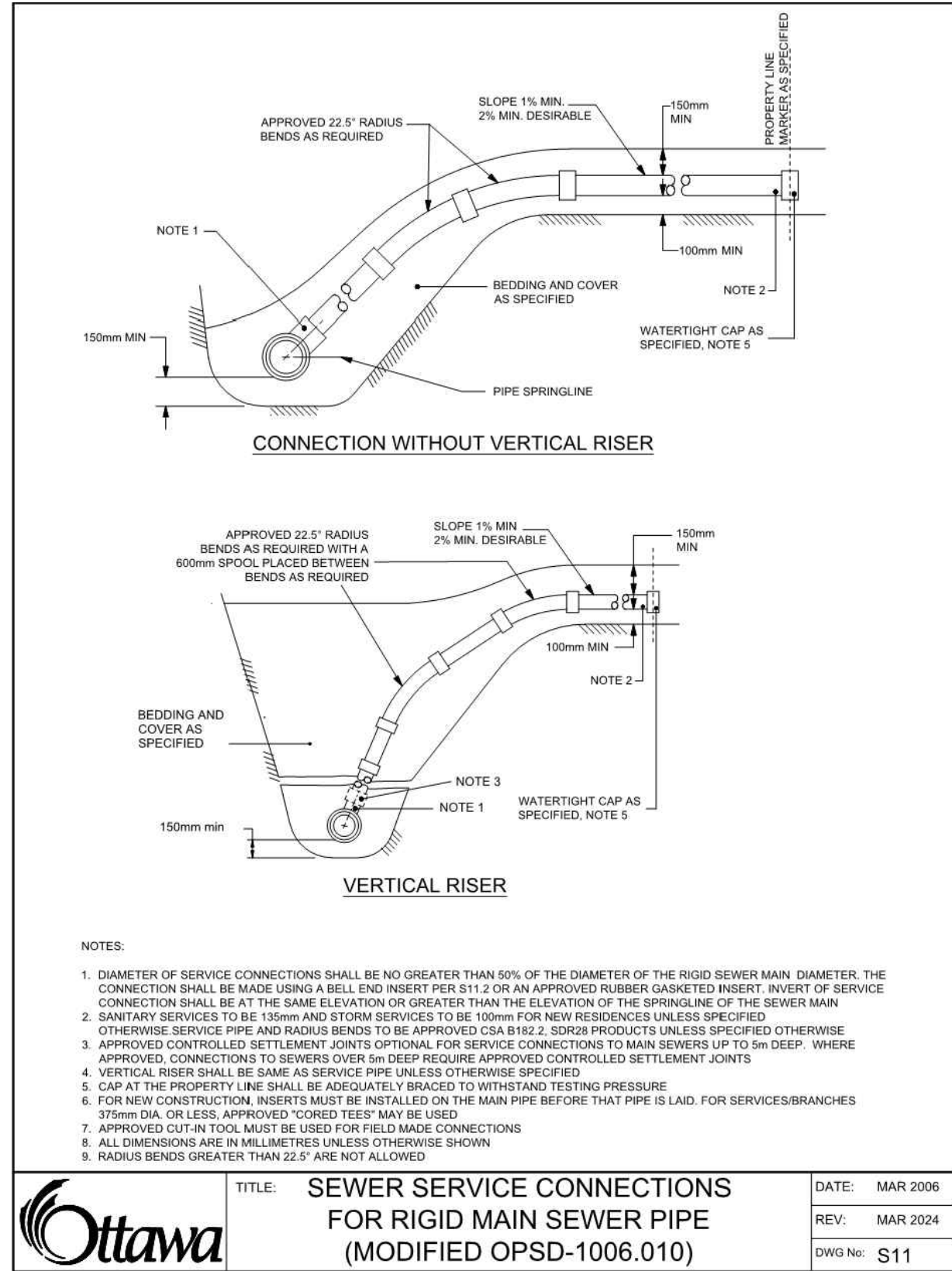
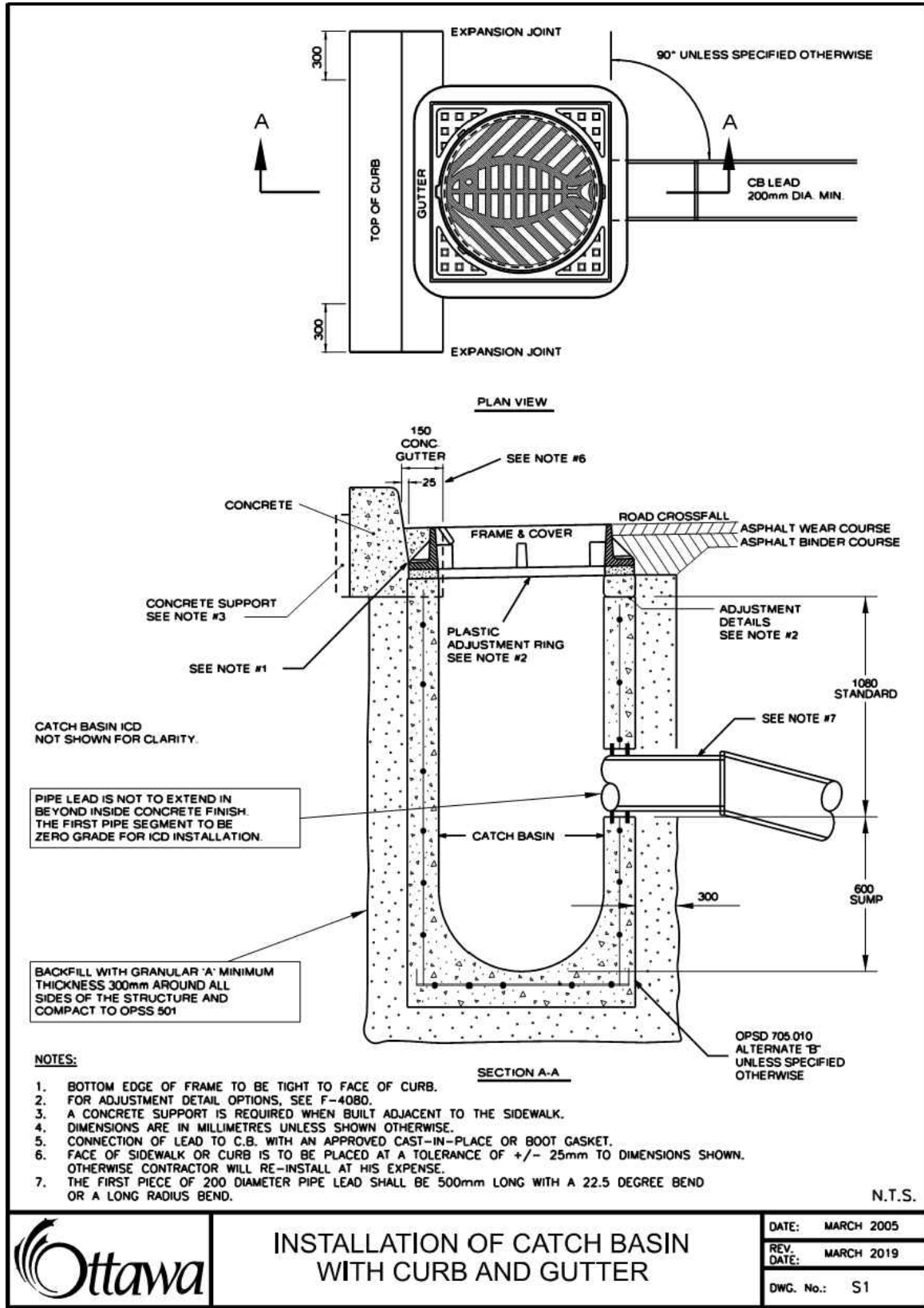
SEWER & WATERMAIN INSULATION NOTES:


- INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 2.0m COVER AND ALL WATERMAIN WITH LESS THAN 2.4m OF COVER WITH EXPANDED POLYSTYRENE INSULATION AS PER OPSD 1109.030.
- THE THICKNESS OF INSULATION SHALL BE THE EQUIVALENT OF 25mm FOR EVERY 300mm REDUCTION IN THE REQUIRED DEPTH OF COVER WITH 50mm MINIMUM (SEE TABLE)

T = THICKNESS OF INSULATION (mm)
W = WIDTH OF INSULATION (mm)
W = D + 300 (1000 mm.)
D = O.D OF PIPE (mm)



INSULATION DETAIL FOR SHALLOW SEWERS & WATERMAIN N.T.S



				SCALE		DESIGN		
				AS SHOWN		ARM		
						CHECKED		
						GJM		
						DRAWN		
						MF/ARM		
						CHECKED		
						ARM		
						APPROVED		
						GJM		

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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.

3.	ISSUED FOR CITY APPROVAL	JUNE 10/2025	ARM
2.	REVISED PER CITY COMMENTS	FEB 28/2025	ARM
1.	ISSUED FOR SITEPLAN APPLICATION	OCT/17/24	ARM

No.	REVISION	DATE	BY
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SCALE

1:250

1:250
0 2 4 6 8 10

DESIGN

ARM

CHECKED

GJM

DRAWN

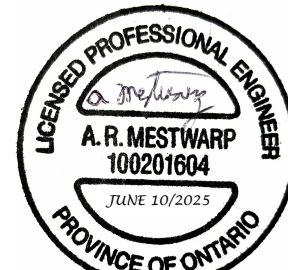
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APPROVED

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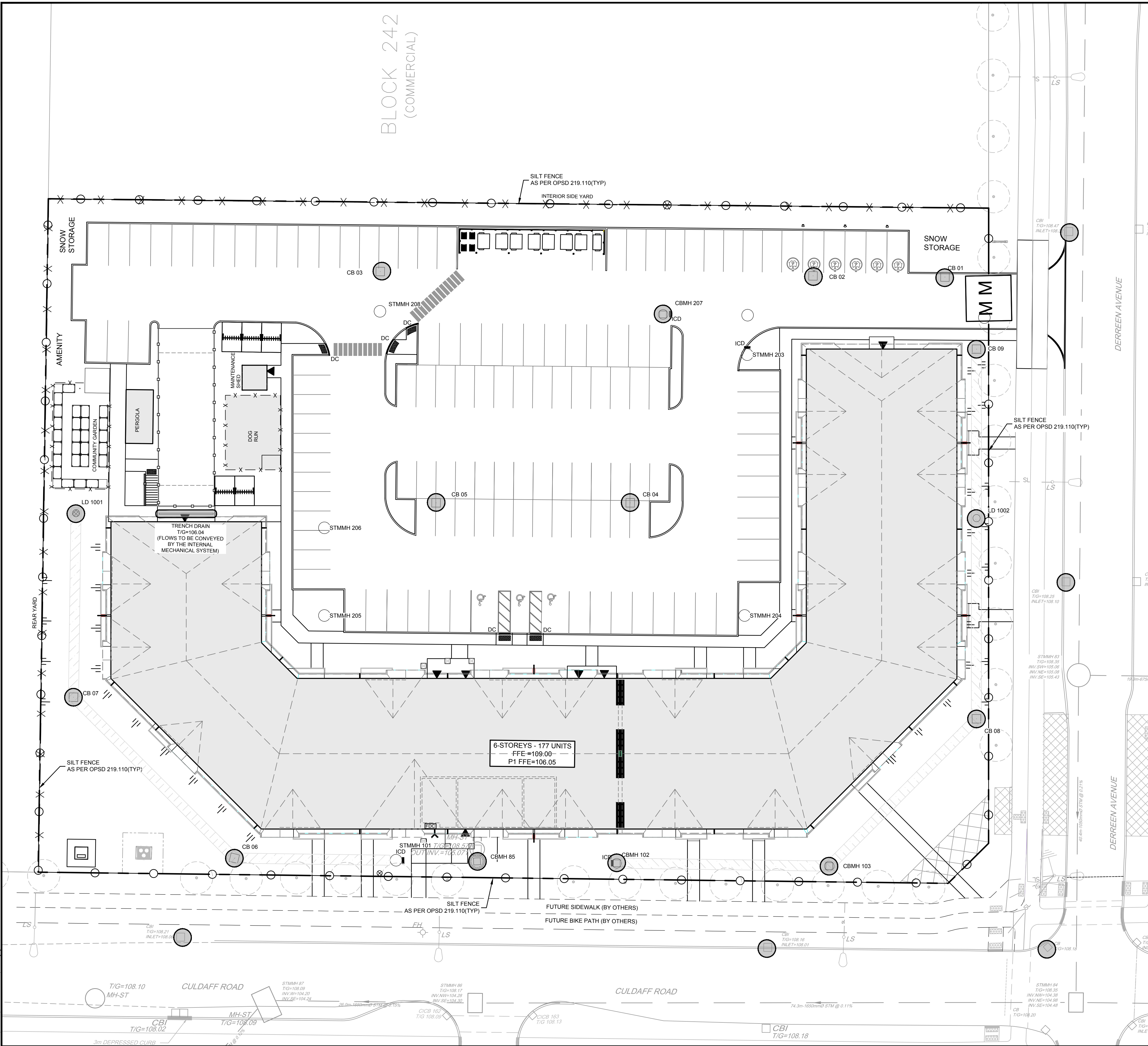


LOCATION
CITY OF OTTAWA
425 CULDAFF ROAD

DRAWING NAME
EROSION AND SEDIMENT
CONTROL PLAN

PROJECT No.	123194
REV	REV#3
DRAWING No.	123194-ESC

CITY PLAN No. 19281

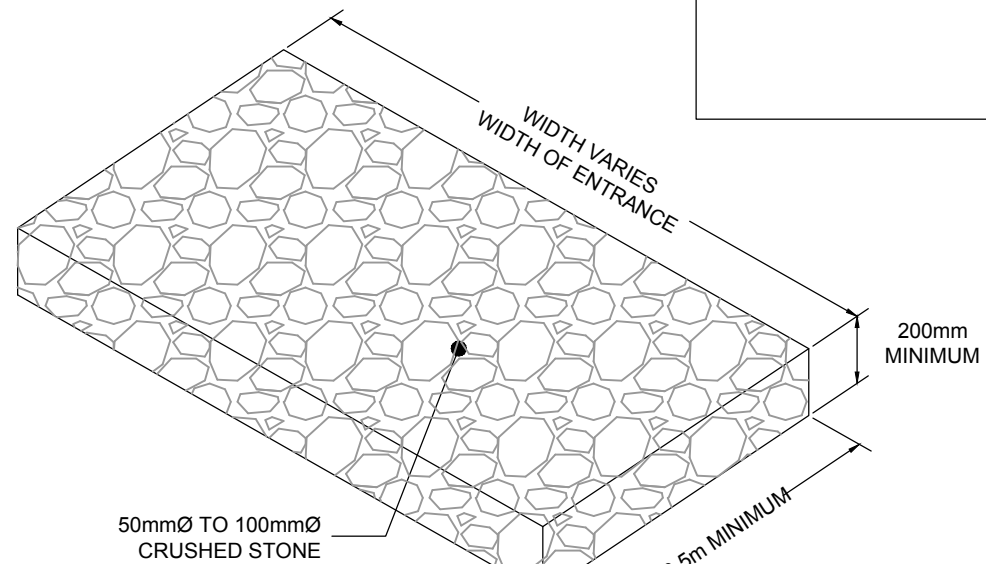
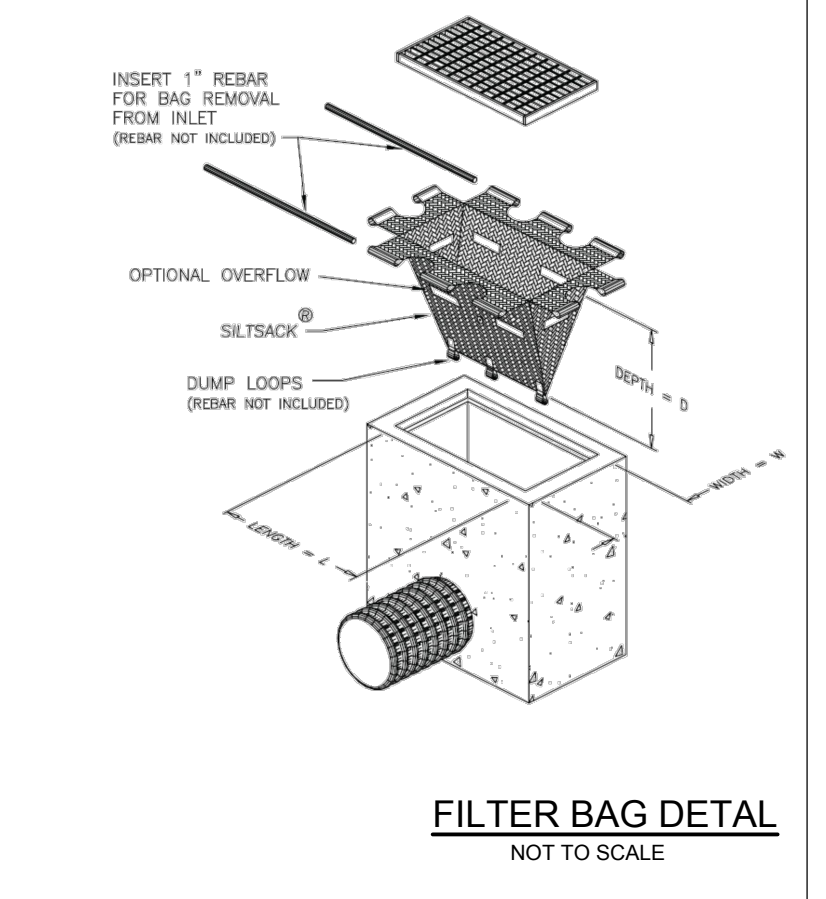


LEGEND

- PROPERTY LINE
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- PROPOSED FOUNDATION WALL C/W RAILING
- PROPOSED CAP
- PROPOSED STORM SEWER AND MANHOLE
- PROPOSED CATCHBASIN MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED LANDSCAPE DRAIN
- PROPOSED TRENCH DRAIN
- PROPOSED BUILDING ENTRANCE
- SWALE c/w SUBDRAIN AND DIRECTION OF FLOW
- TERRACING 3:1 SLOPE MAX (UNLESS OTHERWISE INDICATED)
- PROPOSED FIREWALL
- PROPOSED ROOF LIMITS
- PROPOSED TRANSFORMER
- PROPOSED FILTER BAGS AT CATCHBASINS, CATCHBASIN MANHOLES AND TRENCHDRAINS
- PROPOSED MUD MAT
- LIGHT DUTY SILT FENCE (OPSD 219.110)
- EXISTING STORM MANHOLE
- EXISTING CATCHBASIN
- EXISTING LIGHT STANDARD
- EXISTING FENCE

EROSION AND SEDIMENT CONTROL NOTES:

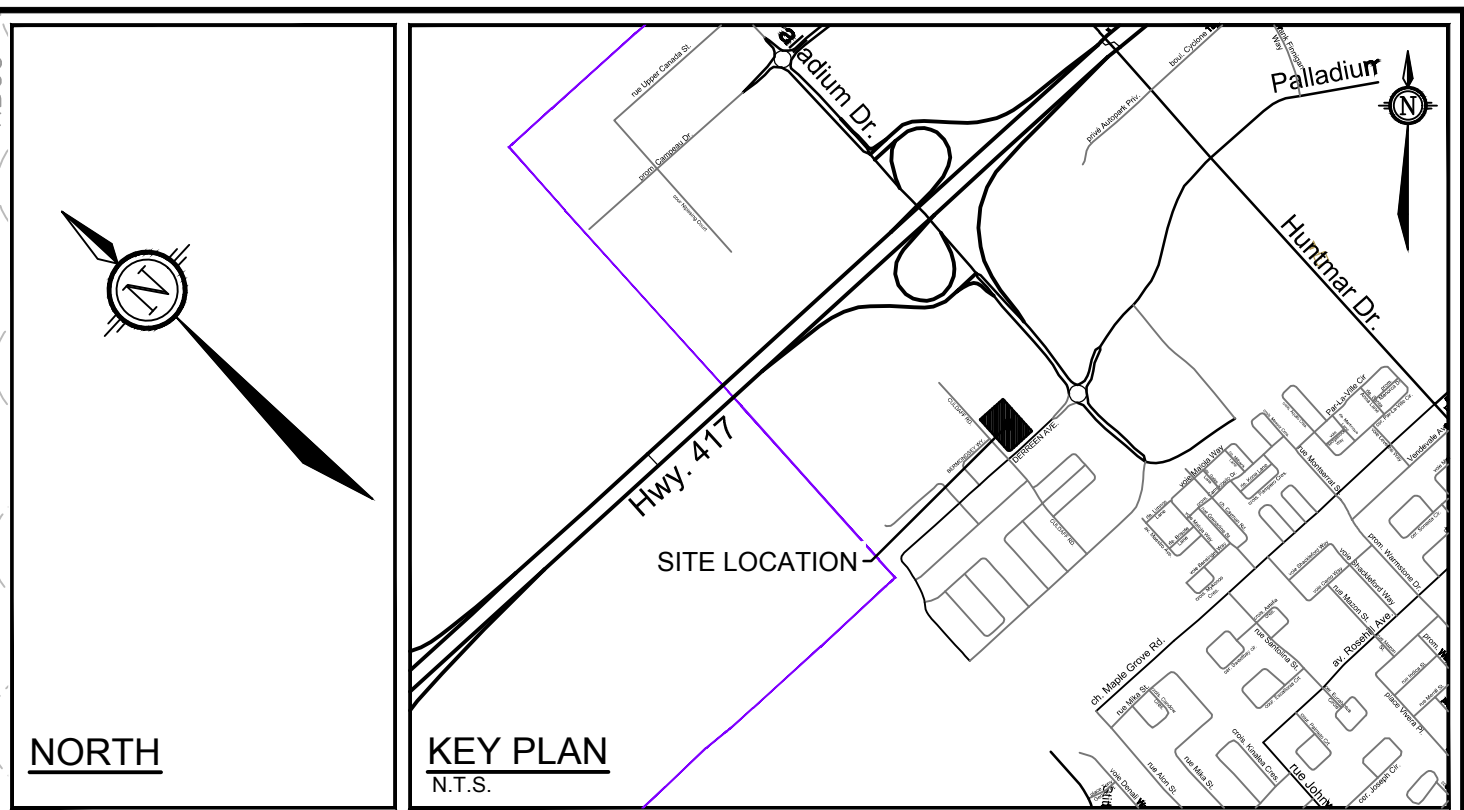
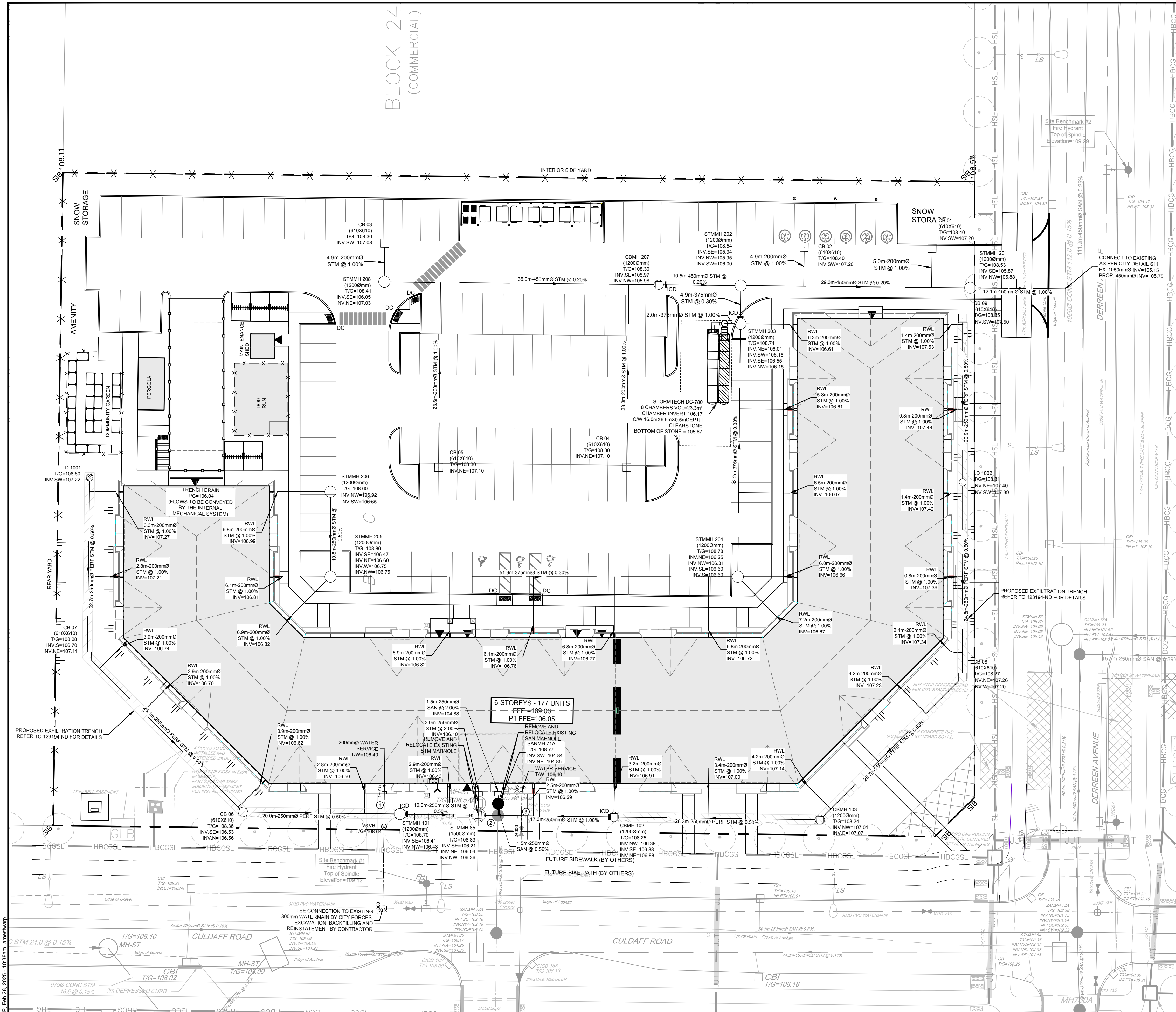
- THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
- THE OWNER AGREES TO PREPARE AND IMPLEMENT AN EROSION AND SEDIMENT CONTROL PLAN TO THE SATISFACTION OF THE CITY OF OTTAWA, APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION, ETC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL SUCH AS BUT NOT LIMITED TO INSTALLING FILTER CLOTHS ACROSS MANHOLE/CATCHBASIN LIDS TO PREVENT SEDIMENTS FROM ENTERING STRUCTURES AND INSTALL AND MAINTAIN A LIGHT DUTY SILT FENCE BARRIER AS REQUIRED.
 - THE CONTRACTOR SHALL PLACE FILTER BAGS UNDER THE CATCHBASIN AND MANHOLE GRATES FOR THE DURATION OF CONSTRUCTION AND WILL REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION.
 - SILT FENCING FOR ENTIRE PERIMETER OF SITE, SHALL BE UTILIZED TO CONTROL EROSION FROM THE SITE DURING CONSTRUCTION.
 - THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY.
 - PROVIDE MUD MATS AT ALL CONSTRUCTION ACCESS POINTS TO MINIMIZE SEDIMENT TRANSPORT OFFSITE.
 - EROSION AND SEDIMENT CONTROL MEASURES MAY BE MODIFIED IN THE FIELD AT THE DISCRETION OF THE CITY OF OTTAWA SITE INSPECTOR OR CONSERVATION AUTHORITY.



MUD MAT DETAIL

NOT TO SCALE

REFER TO 123194-ND FOR ADDITIONAL NOTES & DETAILS



LEGEND	
PROPERTY LINE	PROPOSED BUILDING ENTRANCE
PROPOSED CURB	PROPOSED FIREWALL
DC	PROPOSED DEPRESSED CURB
PROPOSED TWISI	PROPOSED GARBAGE COLLECTION BINS
PROPOSED FOUNDATION WALL C/W RAILING	PROPOSED BIKE RACKS
PROPOSED CAP	PROPOSED CROSSWALK PAINTING
PROPOSED SANITARY SERVICE c/w MANHOLE	PROPOSED LINE PAINTING
PROPOSED STORM SEWER AND MANHOLE	PROPOSED ROOF LIMITS
PROPOSED CATCHBASIN MANHOLE	PROPOSED TRANSFORMER
PROPOSED CATCHBASIN	DIRECTION OF FLOW
PROPOSED LANDSCAPE DRAIN	EXISTING UTILITY POLE C/W GUY WIRES
PROPOSED TRENCH DRAIN	EXISTING WATERMAIN C/W VALVE & VALVE CHAMBER
PROPOSED INLET CONTROL DEVICE	EXISTING HYDRANT C/W VALVE & LEAD
RAIN WATER LEADER CONNECTION LOCATION	EXISTING SANITARY MANHOLE & SEWER
PROPOSED PIPE CROSSING (REFER TO 123050-ND FOR DETAILS)	EXISTING STORM MANHOLE & SEWER
PROPOSED SIAMSE CONNECTION	EXISTING CATCHBASIN
PROPOSED WATER SERVICE	EXISTING JOINT UTILITY TRENCH
PROPOSED HYDRANT c/w LEAD & VALVE	EXISTING STREETLIGHT
PROPOSED VALVE AND VALVE BOX	EXISTING ROAD SIGNAGE
PROPOSED WATER METER	EXISTING STREET TREE
PROPOSED REMOTE WATER METER	

PIPE CROSSING TABLE			
CROSSING	LOWER PIPE	HIGHER PIPE	CLEARANCE
1	200mmØ WM OBV = 105.93	250mmØ STM INV = 106.43	±0.50m
2	250mmØ SAN OBV = 105.08	250mmØ STM INV = 106.24	±1.16m
3	200mmØ WM OBV = 105.76	250mmØ STM INV = 106.26	±0.50m

PROPOSED WATER SERVICE (1+000.0)			
STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
1+000.00	108.32	105.85*	CONNECTION TO EXISTING 300mmØ WATERMAIN
1+010.39	108.64	106.24	PROPOSED VALVE AND VALVE BOX
1+012.01	108.70	105.93	CROSS BELOW 250mm STM AS PER CITY OF OTTAWA DETAIL W25 (CLEARANCE ±0.50m)
1+014.88	108.90	106.40	CAP SERVICE 1.0m FROM THE FOUNDATION WALL

PROPOSED WATER SERVICE (2+000.0)			
STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
2+000.0	108.63	106.23*	CONNECTION TO EXISTING 200mm VALVE EXISTING CAP AND PIPE PAST VALVE TO BE REMOVED
2+002.0	108.70	105.76	CROSS ABOVE 300mm STM AS PER CITY OF OTTAWA DETAIL W25.2 (CLEARANCE ±0.50m)
2+005.06	108.80	106.40	CAP SERVICE 1.0m FROM THE FOUNDATION WALL

ICD SIZING AND FLOWS						
STRUCTURE	ORIFICE ICD SIZE	ICD INVERT (m)	T/G (m)	100-yr HGL (m)	100-yr HEAD (m)	100-yr RELEASE RATE (L/s)
STMMH 101	83mm PLATE	106.43	108.70	108.17	1.70	18.8
CBMH 102	83mm PLATE	106.38	108.25	107.48	1.06	14.8
STMMH 203	94mm PLATE	106.02	108.74	107.81	1.74	23.8
CBMH 207	152mm PLATE	105.97	108.30	108.42	2.37	73.0

- NOTE:
- ALL SERVICE CONNECTIONS AND CATCHBASIN CONNECTIONS TO BE MADE PER CITY OF OTTAWA DETAIL S11, S11.2, AND S1.
 - BACKWATER VALVES TO BE PROVIDED ON ALL STORM AND SANITARY LATERALS AS PER CITY OF OTTAWA DETAILS S14, S14.1, AND S14.2, DOWNSTREAM OF ANY GRAVITY OUTLET FROM THE BUILDING. REFER TO MECHANICAL PLANS FOR DETAILS.
 - ALL FLOWS FROM THE UNDERGROUND PARKING GARAGE ARE TO BE CONVEYED TO THE SANITARY SERVICE. SANITARY FLOWS ARE TO BE PUMPED TO THE PROPOSED SANITARY SERVICE (TYP).
 - PROPOSED SERVICES TO BE SLEEVED THROUGH FOUNDATION WALL. FOUNDATION DRAINS ARE TO BE PUMPED TO STORM SERVICE.
 - PROPOSED TRENCHDRAINS ARE TO BE CONVEYED TO THE FREE FLOWING STM OUTLET CONNECTION TO STMMH 85. REFER TO THE MECHANICAL DRAWINGS FOR DETAILS.
 - ROOF DOWNSPOUTS ARE TO BE DIRECTLY CONNECTED TO THE PROPOSED STORMWATER MANAGEMENT SYSTEM. REFER TO ARCHITECT AND MECHANICAL PLANS FOR DETAILS.
 - REFER TO MECHANICAL DRAWINGS FOR FURTHER DETAILS ON INTERNAL PLUMBING (TYP).
- REFER TO 123194-ND FOR ADDITIONAL NOTES & DETAILS

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
3.	ISSUED FOR CITY APPROVAL	JUNE 10/2025	ARM
2.	REVISED PER CITY COMMENTS	FEB 28/2025	ARM
1.	ISSUED FOR SITEPLAN APPLICATION	OCT/17/24	ARM

SCALE

1:250

0 2 4 6 8 10

DESIGN

ARM

CHECKED

GJM

DRAWN

MF/ARM

CHECKED

ARM

APPROVED

GJM

PROFESSIONAL ENGINEER

A.R. MESTWAP

100201604

JUNE 10/2025

PROVINCE OF ONTARIO

PROFESSIONAL ENGINEER

G.J. MacDONALD

JUNE 10/2025

PROVINCE OF ONTARIO

NOVATECH

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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

425 CULDAFF ROAD

DRAWING NAME

GENERAL PLAN OF SERVICES

PROJECT No.

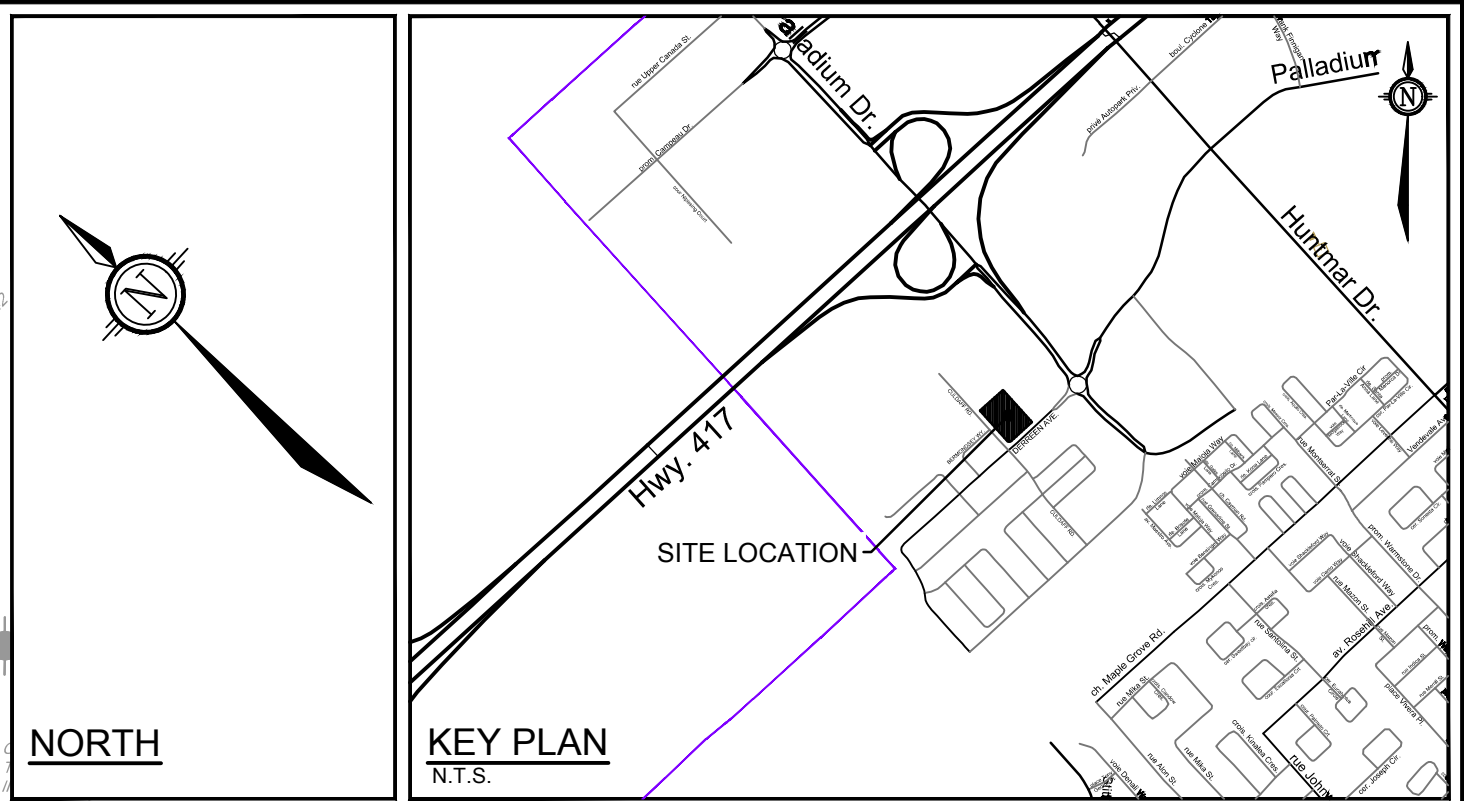
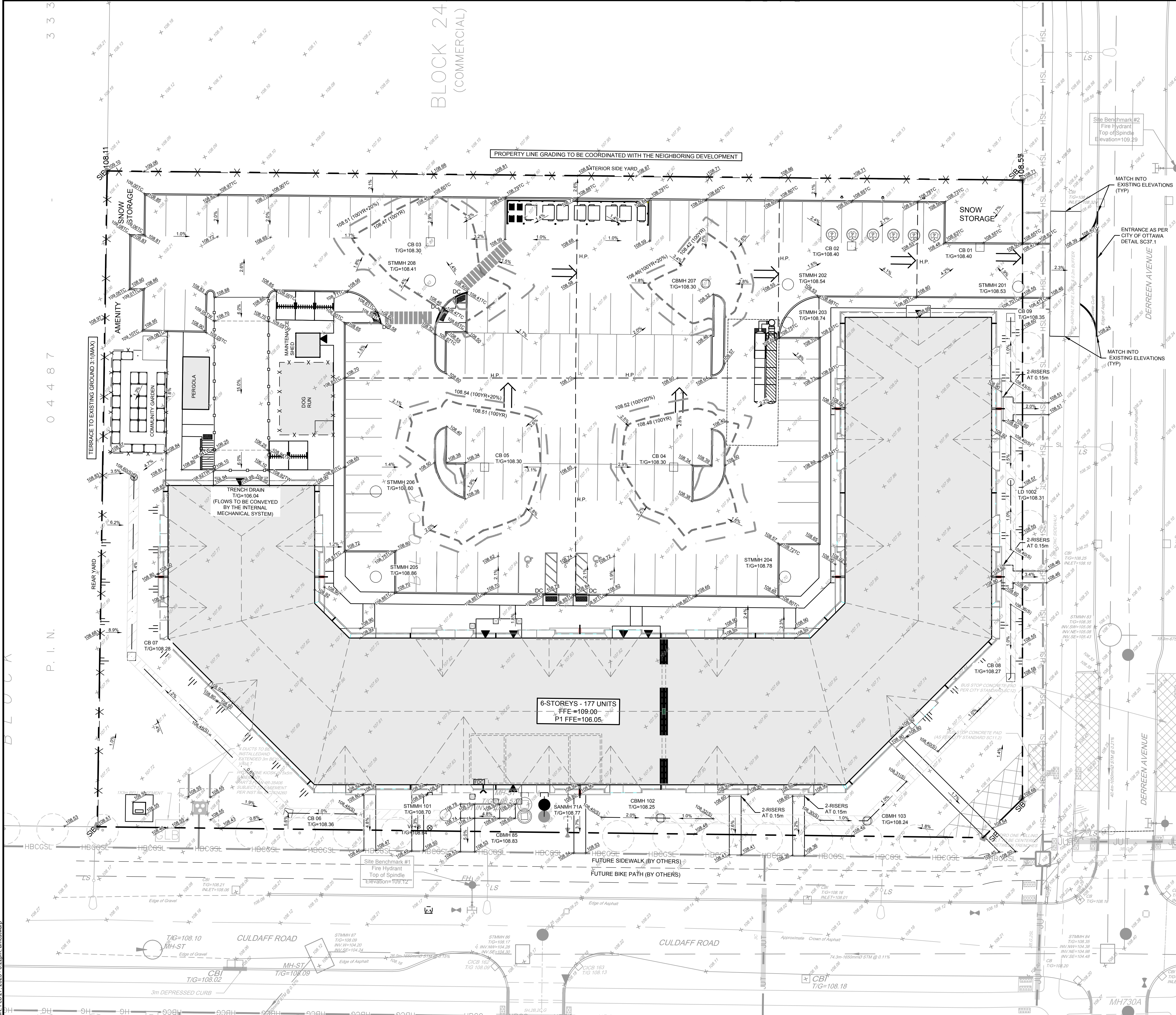
123194

REV

REV#3

DRAWING No.

123194-GP



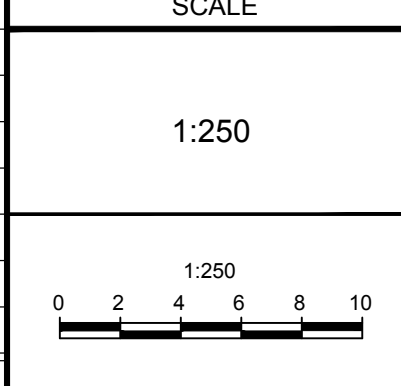
LEGEND

- PROPERTY LINE
- PROPOSED BARRIER CURB
- PROPOSED DEPRESSED CURB
- PROPOSED TACTILE WALKING SURFACE INDICATOR (TWSI)
- PROPOSED VALVE AND VALVE BOX
- FIRE DEPARTMENT SIAMESE CONNECTION
- PROPOSED BUILDING ENTRANCE
- PROPOSED HIGH POINT
- SWALE w/ SUBDRAIN AND DIRECTION OF FLOW
- TERRACING 3:1 SLOPE MAX (UNLESS OTHERWISE INDICATED)
- PROPOSED FOUNDATION WALL C/W RAILING SLOPE AND DIRECTION
- DIRECTION OF MAJOR OVERLAND FLOW
- PROPOSED LANDSCAPE DRAIN
- PROPOSED CATCHBASIN MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED AREA DRAIN
- PROPOSED ROOF DRAINS
- PROPOSED TRENCH DRAIN
- 100-YR+20% PONDING
- 100-YR PONDING
- 5-YR PONDING
- PROPOSED FIREWALL
- PROPOSED BIKE RACKS
- PROPOSED CROSSWALK PAINTING
- PROPOSED LINE PAINTING
- PROPOSED ROOF LIMITS
- PROPOSED TRANSFORMER
- SAN MH
- STM MH
- PROPOSED SANITARY MANHOLE
- PROPOSED STORM MANHOLE
- PROPOSED HYDRANT & VALVE
- PROPOSED VALVE AND VALVE BOX
- EXISTING VALVE & VALVE BOX
- EXISTING VALVE & LEAD
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCHBASIN
- EXISTING DITCH CENTERLINE
- EXISTING UTILITY POLE
- EXISTING UTILITY POLE ANCHORS
- EXISTING STREETLIGHT
- EXISTING ROAD SIGNAGE
- EXISTING CULVERT
- EXISTING DITCH/ BOTTOM OF SLOPE

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DESIGN	ARM
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LOCATION CITY OF OTTAWA 425 CULDAFF ROAD	PROJECT No. 123194
DRAWING NAME GRADING PLAN	REV REV#3
	DRAWING No. 123194-GR

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CITY FILE No. D07-12-24-0140