GENERAL NOTES

- 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.
- 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
- 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 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.
- 9. REFER TO THE GEOTECHNICAL INVESTIGATION REPORT (NO. PG6394-1, REV. 3, DATED MAY 31, 2023) AND THE GEOTECHNICAL RECOMMENDATIONS MEMORANDUM (NO. PG6394-MEMO.02, DATED MAY 30, 2023) BOTH 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 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-2022-209) 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
- 13. PROVIDE LINE / PARKING LOT PAINTING AS REQUIRED BY ARCHITECT.
- 14. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A SERVICING PLAN OF 122151-GP1 AND 122151-GP2 INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THE SERVICING PLANS. 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.

SEWER NOTES:

. 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.	SPECIFICATION
	<u>ITEM</u>

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200mmØ)	701.010	OPSD
STORM / CATCHBASIN MANHOLE (2400mmØ)	701.013	OPSD
CB, FRAME & COVER	400.020	OPSD
STORM / SANITARY MH FRAME & COVER	401.010	OPSD
WATERTIGHT MH FRAME AND COVER	401.030	OPSD
SEWER TRENCH	S6	CITY OF OTTAV
SANITARY / STORM SEWER / CB LEAD	PVC DR 35	
STORM SUPER-PIPE (600mm DIAMETER AND OVER)	CONCRETE 65-D	

- THE WEEPING TILE SERVICE SHALL BE EQUIPPED WITH A BACKFLOW PREVENTION DEVICE AS PER THE CITY OF OTTAWA STANDARD DETAIL S18
- 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.
- 5. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
- 6. 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
- 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.
- . TYPICAL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. ALL CATCHBASINS ARE TO HAVE 600mm SUMPS UNLESS OTHERWISE INDICATED.
- 10. ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE
- 11. $\,$ ALL WEEPING TILE CONNECTIONS TO BE MADE TO THE PROPOSED STORM SEWER SYSTEM DOWNSTREAM OF ANY INLET
- 12. THE CONTRACTOR IS TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH, CLEAN AND RE-TELEVISE (CCTV) ALL SEWERS & APPURTENANCES. PROVIDE A COPY OF ALL CCTV INSPECTION REPORTS TO THE ENGINEER FOR

GRADING NOTES

- 1. ALL TOPSOIL. ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
- EXPOSED SUBGRADES 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 98% 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.
- MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
- 6. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED
- 7. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
- 8. ALL CURBS SHALL BE BARRIER CURB (150mm) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC1.1).
- 9. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
- 10. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON PLANS 122151-GR1 AND 122151-GR2.

PAVEMENT STRUCTURES:

- LIGHT DUTY PAVEMENT 1 50mm HL-3 or SUPERPAVE 12.5 150mm GRANULAR "A" 300mm GRANULAR "B" TYPE II ASPHALT GRADE PG 58-34 - TRAFFIC LEVEL 'B' *INSTALLED PER GEOTECHNICAL REPORT
- HEAVY DUTY PAVEMENT 40mm HL-3 or SUPERPAVE 12.5 50mm HL-8 or SUPERPAVE 19.0 150mm GRANULAR "A" 400mm GRANULAR "B" TYPE II
 - ASPHALT GRADE PG 58-34 TRAFFIC LEVEL 'B' *INSTALLED PER GEOTECHNICAL REPORT
- HEAVY DUTY CONCRETE PAD CONCRETE AND HEAVY DUTY GRANULAR BASE INSTALLED PER GEOTECHNICAL REPORT SLOPED CONCRETE (ADJACENT TO LOADING RAMPS)
- 150mm CONCRETE PER CITY STANDARD SC22 (MAX. 2:1 SLOPE) <u> HEAVY DUTY PAVEMENT - ROADWAY RE-INSTATEMEN'</u> MATCH EXISTING GRANULAR STRUCTURE OF ROADWAY IN TRENCHES MATCH EXISTING ASPHALT THICKNESSES IN TRENCHES NEW ASPHALT GRADE: PG 58-34
 - PROVIDE MUNICIPAL ROADWAY ASPHALT OVERLAY AS SHOWN, PER CITY STANDARD DETAIL R10. REFER TO AMENDED ROAD ACTIVITY BY-LAW 2003-445.

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

- 1. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF OTTAWA. THEY ARE TO BE APPROPRIATE TO THE SITE CONDITIONS, PRIOR TO UNDERTAKING ANY SITE ALTERATIONS (FILLING, GRADING, REMOVAL OF VEGETATION FTC.) AND DURING ALL PHASES OF SITE PREPARATION AND CONSTRUCTION THESE PRACTICES ARE TO BE IMPLEMENTED IN ACCORDANCE WITH THE CURRENT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL AND SHOULD INCLUDE AS A MINIMUM THOSE MEASURES INDICATED ON THE PLAN.
- 2. EROSION AND SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED DURING CONSTRUCTION IN ACCORDANCE WITH THE "GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES" (GOVERNMENT OF ONTARIO, MAY 1987). THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MEETING ALL REGULATORY AGENCY REQUIREMENTS.
- 3. TO PREVENT SURFACE EROSION FROM ENTERING ANY STORM SEWER SYSTEM DURING CONSTRUCTION, FILTER BAGS WILL BE PLACED UNDER GRATES OF NEARBY CATCHBASINS AND STRUCTURES. A LIGHT DUTY SILT FENCE BARRIER WILL ALSO BE INSTALLED AROUND THE CONSTRUCTION AREA (WHERE APPLICABLE). THESE CONTROL MEASURES WILL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
- 4. TO LIMIT EROSION: MINIMIZE THE AMOUNT OF EXPOSED SOILS AT ANY GIVEN TIME, RE-VEGETATE EXPOSED AREAS AND SLOPES AS SOON AS POSSIBLE AND PROTECT EXPOSED SLOPES WITH NATURAL OR SYNTHETIC MULCHES.
- 5. FOR MATERIAL STOCKPILING: MINIMIZE THE AMOUNT OF EXPOSED MATERIALS AT ANY GIVEN TIME: APPLY TEMPORARY SEEDING, TARPS, COMPACTION AND/OR SURFACE ROUGHENING AS REQUIRED TO STABILIZE STOCKPILED MATERIALS THAT WILL NOT BE USED WITHIN 14
- 6. THE SEDIMENT CONTROL MEASURES SHALL ONLY BE REMOVED WHEN, IN THE OPINION OF THE ENGINEER, THE MEASURES ARE NO LONGER REQUIRED. NO CONTROL MEASURES MAY BE PERMANENTLY REMOVED WITHOUT PRIOR AUTHORIZATION FROM THE ENGINEER.
- 7. THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ENGINEER ANY ACCIDENTAL DISCHARGES OF SEDIMENT MATERIAL INTO ANY STORM SEWER SYSTEM. APPROPRIATE RESPONSE MEASURES. INCLUDING ANY REPAIRS TO EXISTING CONTROL MEASURES OR THE IMPLEMENTATION OF ADDITIONAL CONTROL MEASURES, SHALL BE CARRIED OUT BY THE CONTRACTOR WITHOUT DELAY.
- 8. 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.
- 9. ROADWAYS ARE TO BE SWEPT AS REQUIRED OR AS DIRECTED BY THE ENGINEER AND/OR THE MUNICIPALITY.
- 10. THE CONTRACTOR SHALL ENSURE PROPER DUST CONTROL IS PROVIDED WITH THE APPLICATION OF WATER (AND IF REQUIRED, CALCIUM CHLORIDE) DURING DRY PERIODS. MONITOR DUST LEVELS DURING SITE PREPARATION/EXCAVATION. AND CONSTRUCTION ACTIVITIES. AND WHEN DUST LEVELS BECOME VISUALLY APPARENT SPRAY WATER TO MINIMIZE THE RELEASE OF DUST FROM GRAVEL. PAVED AREAS AND EXPOSED SOILS. USE CHEMICAL DUST SUPPRESSANTS ONLY WHERE NECESSARY ON PROBLEM AREAS.

WATERMAIN NOTES

1 SUPPLY AND CONSTRUCT ALL WATERMAINS 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 WATERMAINS 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 CITY OF OTTAWA FORCES.

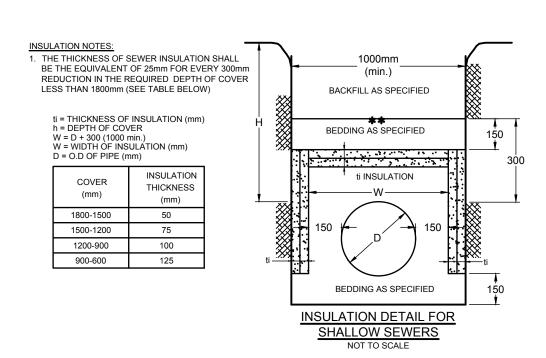
REFERENCE

SPEC. No.

2. SPECIFICATIONS:

WATERMAIN TRENCHING	W17	CITY OF OTTAWA
HYDRANT INSTALLATION	W19	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
THERMAL INSULATION AT OPEN STRUCTURES	W23	CITY OF OTTAWA
VALVE BOX ASSEMBLY	W24	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER	W25	CITY OF OTTAWA
WATERMAIN CROSSING OVER SEWER	W25.2	CITY OF OTTAWA
CONCRETE THRUST BLOCKS	W25.3 & W25.4	CITY OF OTTAWA
CATHODIC PROTECTION	W40	CITY OF OTTAWA
ANODE INSTALLATION	W42	CITY OF OTTAWA

- WATERMAIN MATERIAI 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. WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.



	INLET CONTROL DEVICE DATA TABLE: AREA A-1 (OUTLET PIPE of CB 01)										
DESIGN EVENT	ICD TYPE (PLUG TYPE)	DIAMETER OF OUTLET PIPE (mm)	PEAK DESIGN FLOW (L/s)	½ PEAK DESIGN FLOW (L/s)	DESIGN HEAD (m)	WATER ELEVATION (m)	VOLUME (m³)	AVAILABLE STORAGE			
1:2 YR	CIRCULAR	050	61.2	30.6	0.94	101.55	8.9				
1:5 YR	171mmØ	1 PW///11835	62.8	31.4	0.99	101.60	17.5	> 120 m ³			
1:100 YR	ORIFICE PLUG		65.6	32.8	1.08	101.69	55.7				

IN	INLET CONTROL DEVICE DATA TABLE: AREA A-4 (OUTLET PIPE of STM MH 04)									
DESIGN EVENT	ICD TYPE (PLUG TYPE)	DIAMETER OF OUTLET PIPE (mm)	PEAK DESIGN FLOW (L/s)	½ PEAK DESIGN FLOW (L/s)	DESIGN HEAD (m)	WATER ELEVATION (m)	VOLUME (m³)	AVAILABLE STORAGE		
1:2 YR	CIRCULAR	0.75	109.4	54.7	1.32	99.15	230			
1:5 YR	210mmØ	375mmØ PVC DR35	145.0	72.5	2.32	100.15	311	> 1,100 m ³		
1:100 YR	ORIFICE PLUG	PVC DR35	167.0	83.5	3.08	100.91	721			

PROP	OSED 300)mmØ WATE	ERMAIN TABLE: EAST / WEST ON-SITE LOOP
STATION	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS
0+000	102.05±	99.65 *	CONNECTION TO EXISTING 300mmØ WATERMAIN TEE
0+009.5	102.10	99.70	300mmØ VALVE & VALVE BOX @ PROPERTY LINE
0+012.2	102.05	99.65	300 x 300 x 300 TEE (1+000)
0+013.0 0+025	102.05 102.03	99.65 99.63	300mmØ VALVE & VALVE BOX
0+050	102.46	100.06	
0+075	102.26	99.86	
0+100	102.33	99.93	
0+125 0+139.0	102.24	99.84	 45° HORIZONTAL BEND
0+141.9	102.10	99.70	45° HORIZONTAL BEND
0+150	102.10	99.70	
0+151.6	102.09	99.69	300 x 150 x 300 TEE (HYDRANT No. 05)
0+175	102.21	99.81	
0+200 0+225	101.95 101.87	99.55	
0+250	101.84	99.44	
0+275	101.56	99.16	
0+286.8	101.40	99.00	300mmØ VALVE & VALVE BOX
0+289.3	101.35	98.95	22.5° HORIZONTAL BEND
0+297.3	101.20	98.80	300 x 150 x 300 TEE (HYDRANT No. 04) 22.5° HORIZONTAL BEND
0+323.6	101.28	98.88	CROSS BELOW 250mmØ STM [Inv=99.70m] (±0.8m CLEARANCE)
0+350	101.65	98.75	
0+375	101.60	98.45	
0+386.6	101.45	98.45	45° HORIZONTAL BEND
0+390.9	101.00 100.85	98.45 98.45	45° HORIZONTAL BEND
0+400	100.85	98.45	45° HORIZONTAL BEND
0+410.5	101.05	98.65	45° HORIZONTAL BEND
0+419.0	101.15	98.75	300 x 250 x 300 TEE (2+000)
0+425	101.15	98.75	
0+433.5 0+442.0	101.15 101.15	98.75 98.75	300 x 250 x 300 TEE (3+074.9) 22.5° VERTICAL BEND
0+444.2	100.90	97.90	22.5° VERTICAL BEND
0+448.6	100.28	97.88	300mmØ VALVE & VALVE BOX @ PROPERTY LINE (5+000)
1+000	102.05	99.65	300 x 300 x 300 TEE (0+012.2)
1+000.5	102.05	99.65	45° HORIZONTAL BEND
1+001.1	102.04	99.64	300 x 250 REDUCER
1+001.7	102.03	99.63	22.5° VERTICAL BEND
1+003.0	102.02 101.99	99.90 ** 99.90 ***	22.5° VERTICAL BEND CROSS ABOVE 250mmØ SAN [Obv=98.01m] (±1.6m CLEARANCE)
1+006.4	101.98	99.90 ***	CROSS ABOVE 23011119 SAIN [OBV=99.29m] (±0.3m CLEARANCE)
1+010.0	101.96	99.90	
1+012.5	102.17	99.90 ***	CROSS ABOVE 450mmØ STM [Obv=99.34m] (±0.3m CLEARANCE)
1+013.7	102.20	99.85	250 x 150 x 250 TEE (HYDRANT No. 06)
1+015.2	102.07 102.07	99.85 ** 100.20 **	22.5° VERTICAL BEND 22.5° VERTICAL BEND
1+018.1	102.06	100.20***	CROSS ABOVE 200mmØ STM [Obv=99.70m] (±0.25m CLEARANCE)
1+021.0	102.05	100.20***	CROSS ABOVE 200mmØ STM [Obv=99.70m] (±0.25m CLEARANCE)
1+025	102.07	100.00 **	
1+025.5	102.07	99.90 **	22.5° VERTICAL BEND
1+026.3	102.08 102.08	99.68	22.5° VERTICAL BEND 250 x 200 REDUCER
1+037.7	102.01	99.61	45° HORIZONTAL BEND
1+038.7	102.03	99.63	200 x 200 x 200 TEE (HYDRANT No. 07)
1+042.9	102.13	99.73	200mmØ VALVE & VALVE BOX
1+047.1	102.38	99.75	200mmØ BUILDING 'B' SERVICE CAP (1.0m FROM FOUNDATION WALL)
2+000	101.15	98.75	300 x 250 x 300 TEE (0+419.0)
2+012.0 2+025	101.57 101.55	99.17 99.15	250mmØ VALVE & VALVE BOX
2+025	101.55	99.15	
2+075	101.60	99.20	
2+095.2	101.63	99.23	250 x 150 x 250 TEE (3+000 @ HYDRANT No. 02)
2+097.2	101.63	99.23	250 x 200 REDUCER
2+099.2 2+100	101.63 101.64	99.23 99.24	200mmØ VALVE & VALVE BOX
2+100	101.64	99.24	
2+140.2	101.63	99.23	200 x 200 x 200 BUILDING 'A' SERVICE TEE (4+000)
2+150	101.71	99.30	
2+150.6	101.71	99.30	45° HORIZONTAL BEND
2+152.0 2+153.5	101.69 101.67	99.30 99.27	45° HORIZONTAL BEND 200mmØ VALVE & VALVE BOX
2+153.5	101.67	99.27	200 x 150 REDUCER
2+157.4	101.75	99.25	FIRE HYDRANT No. 01
3+000	101.63	99.23	200 x 150 x 200 TEE (2+066.0)
3+002.0	101.61	99.20	150mmØ VALVE & VALVE BOX
3+006.8	101.75	99.20	FIRE HYDRANT No. 02
4+000	101.63	99.23	200 x 200 x 200 BUILDING 'A' SERVICE TEE (2+140.2)
4+002.5	101.68	99.28	200mmØ VALVE & VALVE BOX
4+004.9	101.75	99.30	200mmØ BUILDING 'A' SERVICE CAP (1.0m FROM FOUNDATION WALL)
			200mmØ WATERMAINS. EXACT ELEVATIONS TO BE FIELD DETERMINED CITY OF OTTAWA DETAILS W22 IN SHALLOW TRENCHES
WHERE CO	VER IS LESS	ΓHAN 2.4m AND/O	R W23 ADJACENT TO OPEN STRUCTURES.
	SINKES WITH W	VALERMAINS ARE	TO BE IN ACCORDANCE WITH CITY STANDARDS W25 AND

PROPOSED 300mmØ WATERMAIN TABLE: EAST / WEST ON-SITE LOOP

- W25.2 TO AVOID CONFLICTS, WHERE POSSIBLE.

P	OSED 300)mmØ WATE	ERMAIN TABLE: EAST / WEST ON-SITE LOOP	LEGEND	
	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS		SITE BOUNDARY © SWALE AND DIRECTION OF FLOW
	102.05±	99.65 *	CONNECTION TO EXISTING 300mmØ WATERMAIN TEE	.07 55	PROPOSED ELEVATION
	102.10	99.70	300mmØ VALVE & VALVE BOX @ PROPERTY LINE	× 127.45	EXISTING ELEVATION
	102.05 102.05	99.65 99.65	300 x 300 x 300 TEE (1+000) 300mmØ VALVE & VALVE BOX	x 127.55(S)	PROPOSED SWALE ELEVATION
	102.03	99.63		127.55	PROPOSED TERRACE ELEVATION
	102.46	100.06			MAXIMUM 3: 1 SIDESLOPE
	102.26	99.86		1 1 1	
	102.33 102.24	99.93		2.0%	PARKING GRADE AND DIRECTION
	102.24	99.70	45° HORIZONTAL BEND	FFE	PROPOSED FINISHED FLOOR ELEVATION
	102.10	99.70	45° HORIZONTAL BEND	USF	PROPOSED UNDER SIDE OF FOOTING ELEV
	102.10	99.70		<i>(</i> 	PROPOSED BUILDING ENTRANCE PROPOSED LIMIT OF BUILDING OVERHANG
	102.09 102.21	99.69	300 x 150 x 300 TEE (HYDRANT No. 05)	T/G=	TOP OF GRATE ELEVATION
	101.95	99.55		MH100 🔵	PROPOSED STORM MANHOLE
	101.87	99.47		CB1☐	PROPOSED CATCHBASIN
	101.84	99.44		CB1☐ CBT1○	PROPOSED CATCHBASIN WITH TEMPORAR
	101.56 101.40	99.16	300mmØ VALVE & VALVE BOX	CBE1	PROPOSED CATCHBASIN TEE PROPOSED CATCHBASIN ELBOW
	101.35	98.95	22.5° HORIZONTAL BEND		PROPOSED STORM SEWER AND
	101.20	98.80	300 x 150 x 300 TEE (HYDRANT No. 04)		DIRECTION OF FLOW PROPOSED CATCHBASIN LEAD AND
	101.30 101.28	98.90 98.88	22.5° HORIZONTAL BEND CROSS BELOW 250mmØ STM [Inv=99.70m] (±0.8m CLEARANCE)		DIRECTION OF FLOW
	101.26	98.75			PROPOSED CATCHBASIN SUBDRAIN AND DIRECTION OF FLOW
	101.60	98.45		MH101	PROPOSED SANITARY MANHOLE
	101.45	98.45	45° HORIZONTAL BEND		PROPOSED SANITARY SEWER AND DIRECTION OF FLOW
	101.00 100.85	98.45 98.45	45° HORIZONTAL BEND		PROPOSED WATERMAIN
	101.00	98.60	45° HORIZONTAL BEND	BEND	PROPOSED BEND AND THRUSTBLOCK 11.25°, 22.5°, 45° OR TEE
	101.05	98.65	45° HORIZONTAL BEND	VVB ⊗	PROPOSED VALVE AND VALVE BOX
	101.15	98.75	300 x 250 x 300 TEE (2+000)	HYD -	PROPOSED HYDRANT C/W VALVE & LEAD
	101.15 101.15	98.75 98.75	300 x 250 x 300 TEE (3+074.9)	·	PROPOSED CAP
	101.15	98.75	22.5° VERTICAL BEND	(A)	PIPE CROSSING LOCATION
	100.90	97.90	22.5° VERTICAL BEND	Ø	PROPOSED ROOF DRAIN
	100.28	97.88	300mmØ VALVE & VALVE BOX @ PROPERTY LINE (5+000)		PROPOSED BARRIER CURB
	102.05	99.65	300 x 300 x 300 TEE (0+012.2)	DC	PROPOSED DEPRESSED CURB
	102.05 102.04	99.65 99.64	45° HORIZONTAL BEND 300 x 250 REDUCER	00000000000000000000000000000000000000	TACTILE WALKING SURFACE INDICATOR (T
	102.03	99.63	22.5° VERTICAL BEND	©a=Ma.J	CURB CUTOUT
	102.02	99.90 **	22.5° VERTICAL BEND	\Diamond	PROPOSED LIGHT STANDARD
	101.99	99.90 ***	CROSS ABOVE 250mmØ SAN [Obv=98.01m] (±1.6m CLEARANCE)	,	PROPOSED SIAMESE CONNECTION
	101.98 101.96	99.90 *** 99.90 **	CROSS ABOVE 610mmØ STM [Obv=99.29m] (±0.3m CLEARANCE)	GM	PROPOSED GAS METER LOCATION
	102.17	99.90 ***	CROSS ABOVE 450mmØ STM [Obv=99.34m] (±0.3m CLEARANCE)	(HM)	PROPOSED HYDRO METER LOCATION
	102.20	99.85	250 x 150 x 250 TEE (HYDRANT No. 06)	\mathbb{Z}	PROPOSED TRANSFORMER PAD & BOLLAR
	102.07 102.07	99.85 ** 100.20 **	22.5° VERTICAL BEND 22.5° VERTICAL BEND		CLAY DIKE AS PER CITY DETAIL S8
	102.07	100.20	CROSS ABOVE 200mmØ STM [Obv=99.70m] (±0.25m CLEARANCE)		SILT FENCE AS PER OPSD 219.110
	102.05	100.20***	CROSS ABOVE 200mmØ STM [Obv=99.70m] (±0.25m CLEARANCE)		MAJOR OVERLAND FLOW ROUTE
	102.07	100.00 **			STRAW BALES AS PER OPSD 219.100
	102.07 102.08	99.90 ** 99.68	22.5° VERTICAL BEND 22.5° VERTICAL BEND	мм	CONSTRUCTION ACCESS MUD MAT
	102.08	99.68	250 x 200 REDUCER	ICD	PROPOSED INLET CONTROL DEVICE
	102.01	99.61	45° HORIZONTAL BEND		
	102.03	99.63	200 x 200 x 200 TEE (HYDRANT No. 07)	1:5 YR	APPROXIMATE PONDING LIMITS
	102.13 102.38	99.73 99.75	200mmØ VALVE & VALVE BOX 200mmØ BUILDING 'B' SERVICE CAP (1.0m FROM FOUNDATION WALL)		
	101.15	98.75	300 x 250 x 300 TEE (0+419.0)		STORM DRAINAGE BOUNDARY
	101.57	99.17	250mmØ VALVE & VALVE BOX		
	101.55	99.15		(0.637) A-1	AREA (ha) SUB-CATCHMENT AREA ID
	101.85	99.45		0.36	1:5 YR POST-DEVELOPMENT RUNOFF COEF
	101.60 101.63	99.20	250 x 150 x 250 TEE (3+000 @ HYDRANT No. 02)	+102.52	EXISTING ELEVATION
	101.63	99.23	250 x 200 REDUCER	710	EXISTING STORM MANHOLE AND SEWER
	101.63	99.23	200mmØ VALVE & VALVE BOX		EXISTING SANITARY MANHOLE AND SEWER
	101.64 101.75	99.24		EX. WMH	EXISTING WATERMAIN
	101.63	99.23	200 x 200 x 200 BUILDING 'A' SERVICE TEE (4+000)	VVB⊗	EXISTING WATER MANHOLE EXISTING VALVE AND VALE BOX
	101.71	99.30		-	EXISTING FIRE HYDRANT
	101.71	99.30	45° HORIZONTAL BEND	EX.CB	EXISTING CATCHBASIN
	101.69 101.67	99.30 99.27	45° HORIZONTAL BEND 200mmØ VALVE & VALVE BOX	T/G	EXISTING TOP OF GRATE
	101.65	99.25	200 x 150 REDUCER	EX UP ()	EXISTING UTILITY POLE C/W GUY WIRES EXISTING LIGHT STANDARD
	101.75	99.25	FIRE HYDRANT No. 01	<i>LS</i> ♥ •—□ <i>TSL</i>	EXISTING TRAFFIC STREET LIGHT
	101.63	99.23	200 x 150 x 200 TEE (2+066.0)		EXISTING FENCE
	101.61	99.20	150mmØ VALVE & VALVE BOX		EXISTING UNDERGROUND GASMAIN
	101.75	99.20	FIRE HYDRANT No. 02	— UH —	EXISTING UNDERGROUND HYDRO
	101.63 101.68	99.23 99.28	200 x 200 x 200 BUILDING 'A' SERVICE TEE (2+140.2) 200mmØ VALVE & VALVE BOX	—— UB ———	EXISTING UNDERGROUND BELL CABLE EXISTING BELL PEDESTAL
	101.75	99.28	200mmØ BUILDING 'A' SERVICE CAP (1.0m FROM FOUNDATION WALL)		EXISTING TREES / SHRUBS
IC	NS TO EXISTI	NG 300mmØ and 2	200mmØ WATERMAINS. EXACT ELEVATIONS TO BE FIELD DETERMINED.		
			CITY OF OTTAWA DETAILS W22 IN SHALLOW TRENCHES OF W23 ADJACENT TO OPEN STRUCTURES.		HEAVY DUTY ASPHALT/FIRE ROUTE
S	SINGS WITH W		TO BE IN ACCORDANCE WITH CITY STANDARDS W25 AND		INTERIORIES CONTRACTORIST
•	UUINI LI	, <u></u>			INTERLOCK DAVING STONES

HEAVY DUTY ASPHALT/FIRE ROUTE INTERLOCK PAVING STONES

KEY PLAN BENCHMARK INFO

OLS JOB BENCHMARK No. 2 ON THE TOP OF SPINDLE OF THE EXISTING MUNICIPAL FIRE HYDRANT LOCATED NEAR THE NORTH-EAST CORNER OF THE INTERSECTION OF JOURNEYMAN STREET AND CAMPEAU DRIVE. GEODETIC ELEVATION = 102.98m. (JOB BENCHMARKS No.1 + No.3 & 4 ARE ALSO SHOWN ON THE SURVEYOR'S PLAN Ref. No. 23334-22 Rosefellow PtL 4 CI HU T DI)

ALL ELEVATIONS ARE REFERRED TO THE CGVD28 GEODETIC DATUM. BEARINGS ARE GRID, DERIVED FROM THE NORTHERLY LIMIT OF CAMPEAU DRIVE SHOWN TO BE N48°07'05"E ON PLAN 4R-28637 AND ARE REFERRED TO THE CENTRAL MERIDIAN OF MTM ZONE 9 (76°30' WEST LONGITUDE) NAD-83 (ORIGINAL)

THE EXISTING GRADES SHOWN ON THE PLANS ARE TAKEN DIRECTLY FROM TOPOGRAPHICAL SURVEY PLAN (Ref. No. 23334-22 Rosefellow Ptl. 4 CLHU T.DI.) PREPARED BY ANNIS O'SULLIVAN VOLLEBEKK SIGNED AND DATED SEPTEMBER 27, 2021

SURROUNDING BACKGROUND TOPO INFORMATION BEYOND THE LIMITS OF THE SITE SURVEY ARE SHOWN FROM CITY OF OTTAWA 1:2000 MAPPING FOR CONTEXT ONLY.

PROPOSED 300mmØ WATERMAIN TABLE: OFF-SITE EXTENSION							
STATION	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS				
5+000	100.26	97.86	300mmØ VALVE & VALVE BOX @ PROPERTY LINE (0+448.6)				
5+009.6	99.62	97.82 **	INSULATE WATERMAIN AT CROSSING BELOW ROADSIDE DITCH				
5+025	100.42	67.65					
5+025.6 100.31 67.65 ***			CROSS BELOW EX. STREETLIGHT WIRING (±1.7m CLEARANCE)				
5+026.7	100.09	67.64 ***	CROSS BELOW EX. 150mmØ GAS MAIN (±1.4m CLEARANCE)				
5+028.5	100.00	100.00 97.60 45° HORIZONTAL BEND					
5+032.8	99.98	99.98 97.58 45° HORIZONTAL BEND					
5+050	99.96	97.50					
5+075	100.17	97.58					
5+087.3	99.99	97.60	45° HORIZONTAL BEND				
5+088.2	99.99	97.60	300 x 200 REDUCER				
5+090.2	99.99	97.55	200mmØ VALVE & VALVE BOX				
5+091.7	99.98±	97.55 *	CONNECTION TO EXISTING WATERMAIN - NEW 200 x 200 x 200 TEE				

* CONNECTIONS TO EXISTING 300mmØ and 200mmØ WATERMAINS. EXACT ELEVATIONS TO BE FIELD DETERMINED. ** PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAILS W22 IN SHALLOW TRENCHES WHERE COVER IS LESS THAN 2.4m AND/OR W23 ADJACENT TO OPEN STRUCTURES.

*** PIPE CROSSINGS WITH WATERMAINS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS W25 AND W25.2 TO AVOID CONFLICTS, WHERE POSSIBLE.

AREA (ha) SUB-CATCHMENT AREA ID 1:5 YR POST-DEVELOPMENT RUNOFF COEFFICIENT
EXISTING ELEVATION
EXISTING STORM MANHOLE AND SEWER
EXISTING SANITARY MANHOLE AND SEWER
EXISTING WATERMAIN
EXISTING WATER MANHOLE
EXISTING VALVE AND VALE BOX
EXISTING FIRE HYDRANT
EXISTING CATCHBASIN
EXISTING TOP OF GRATE

LEGEND

PROPOSED TRANSFORMER PAD & BOLLARDS

TACTILE WALKING SURFACE INDICATOR (TWSI)

PROPOSED UNDER SIDE OF FOOTING ELEVATION

PROPOSED CATCHBASIN WITH TEMPORARY SILTSACK

ROADCUT REINSTATEMENT

CROSSING	LOWER PIPE	HIGHER PIPE	CLEARANCE	SURFACE ELEVATION
A	250mmØ SAN OBV=97.79	300mmØ U/S WM=99.36	± 1.6m	± 102.06 m
B	250mmØ SAN OBV=97.80	200mmØ STM INV=100.00	± 2.2m	± 102.06 m
©	250mmØ SAN OBV=98.01	250mmØ U/S WM=99.65	± 1.6m	101.99 m
0	610mmØ STM OBV=99.29	250mmØ U/S WM=99.65	± 0.3m	101.98 m
€1	450mmØ STM OBV=99.34	250mmØ U/S WM=99.65	± 0.3m	102.17 m
€2	450mmØ STM OBV=99.35	150mmØ U/S WM=99.75	± 0.4m	102.07 m
F1	200mmØ STM OBV=99.70	250mmØ U/S WM=99.95	± 0.25m	102.06 m
F2	200mmØ STM OBV=99.70	250mmØ U/S WM=99.95	± 0.25m	102.05 m
G	250mmØ SAN OBV=98.08	250mmØ STM INV=100.04	± 2.0m	101.92 m
H	250mmØ SAN OBV=96.70	610mmØ STM INV=97.82	± 1.1m	101.45 m
0	300mmØ T/WM=98.88	250mmØ STM INV=99.70	± 0.8m	101.28 m

* SEE 122151-GP1 AND GP2 PLANS FOR SEWER CROSSING LOCATIONS

ALL PROJECT NOTES, DETAILS AND SPECIFICATIONS ARE TO MEET THE MOST CURRENT AND AMENDED VERSIONS OF THE CITY OF OTTAWA AND PROVINCIAL STANDARDS

THIS PLAN IS TO BE READ IN CONJUNCTION WITH CIVIL PLANS 122151-GP1&2, 122151-GR1&2 AND 122151-PR1

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.

SCALE SM / BM / DDE RE-ISSUED FOR SITE PLAN APPROVAL NOT TO SCALE ISSUED FOR SITE PLAN APPROVAL AUG 4/23 DD ISSUED FOR BUILDING PERMIT JUL 14/23 D REVISED PER CITY COMMENTS MAY 31/23 D REVISED PER CITY COMMENTS MAR 30/23 BM / DDE ISSUED FOR CITY OF OTTAWA REVIEW DEC 16/22 DATE REVISION



WATERMAIN INSULATION AREA AS

PER CITY OF OTTAWA DETAIL W22



Facsimile

(613) 254-5867

www.novatech-eng.com

CITY of OTTAWA DRAWING NAME

405 HUNTMAR DRIVE - WAREHOUSE DEVELOPMENT

NOTES, LEGEND AND DETAILS

REV # 6 122151-NLD1

* REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2022-209) PREPARED BY NOVATECH FOR DRAINAGE AREA IDENTIFIERS AND STORMWATER MANAGEMENT DETAILS.

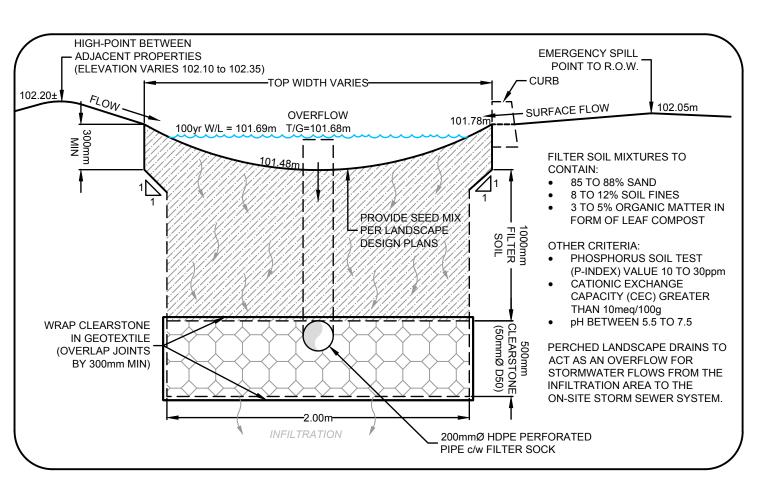
**ALL CONTROLLED FLOW ROOF DRAINS FOR THE PROPOSED BUILDINGS TO BE WATTS 'ADJUSTABLE ACCUTROL' ROOF DRAINS.

	BUILDING 'B' F	ROOF DRAIN T	ABLE: AREA	R-2 (ROOF D	RAINS B1 to	B42)
AREA ID *	ROOF DRAIN No. (WATTS MODEL)	ROOF DRAIN OPENING SETTING	1:5 YEAR RELEASE RATE	APPROX. 5-YR PONDING DEPTH	1:100 YEAR RELEASE RATE	APPROX. 100-YR PONDING DEPTH
R-2	RD 1 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 2 (RD-100-A-ADJ)	1/4 EXPOSED	0.79 L/s	10 cm	0.87 L/s	13 cm
R-2	RD 3 (RD-100-A-ADJ)	1/4 EXPOSED	0.79 L/s	10 cm	0.87 L/s	13 cm
R-2	RD 4 (RD-100-A-ADJ)	1/4 EXPOSED	0.79 L/s	10 cm	0.87 L/s	13 cm
R-2	RD 5 (RD-100-A-ADJ)	1/4 EXPOSED	0.79 L/s	10 cm	0.87 L/s	13 cm
R-2	RD 6 (RD-100-A-ADJ)	FULLY EXPOSED	0.79 L/s	6 cm	0.95 L/s	8 cm
R-2	RD 7 (RD-100-A-ADJ)	1/2 EXPOSED	1.10 L/s	11 cm	1.26 L/s	15 cm
R-2	RD 8 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 9 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 10 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 11 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 12 (RD-100-A-ADJ)	1/2 EXPOSED	1.10 L/s	11 cm	1.26 L/s	15 cm
R-2	RD 13 (RD-100-A-ADJ)	1/2 EXPOSED	1.10 L/s	11 cm	1.26 L/s	15 cm
R-2	RD 14 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 15 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 16 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 17 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 18 (RD-100-A-ADJ)	1/2 EXPOSED	1.10 L/s	11 cm	1.26 L/s	15 cm
R-2	RD 19 (RD-100-A-ADJ)	1/2 EXPOSED	1.10 L/s	11 cm	1.26 L/s	15 cm
R-2	RD 20 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 21 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 22 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 23 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 24 (RD-100-A-ADJ)	1/2 EXPOSED	1.10 L/s	11 cm	1.26 L/s	15 cm
R-2	RD 25 (RD-100-A-ADJ)	1/2 EXPOSED	1.10 L/s	11 cm	1.26 L/s	15 cm
R-2	RD 26 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 27 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 28 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 29 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 30 (RD-100-A-ADJ)	1/2 EXPOSED	1.10 L/s	11 cm	1.26 L/s	15 cm
R-2	RD 31 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 32 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 33 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 34 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 35 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 36 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 37 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 38 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 39 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 40 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 41 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm
R-2	RD 42 (RD-100-A-ADJ)	1/4 EXPOSED	0.87 L/s	11 cm	0.95 L/s	15 cm

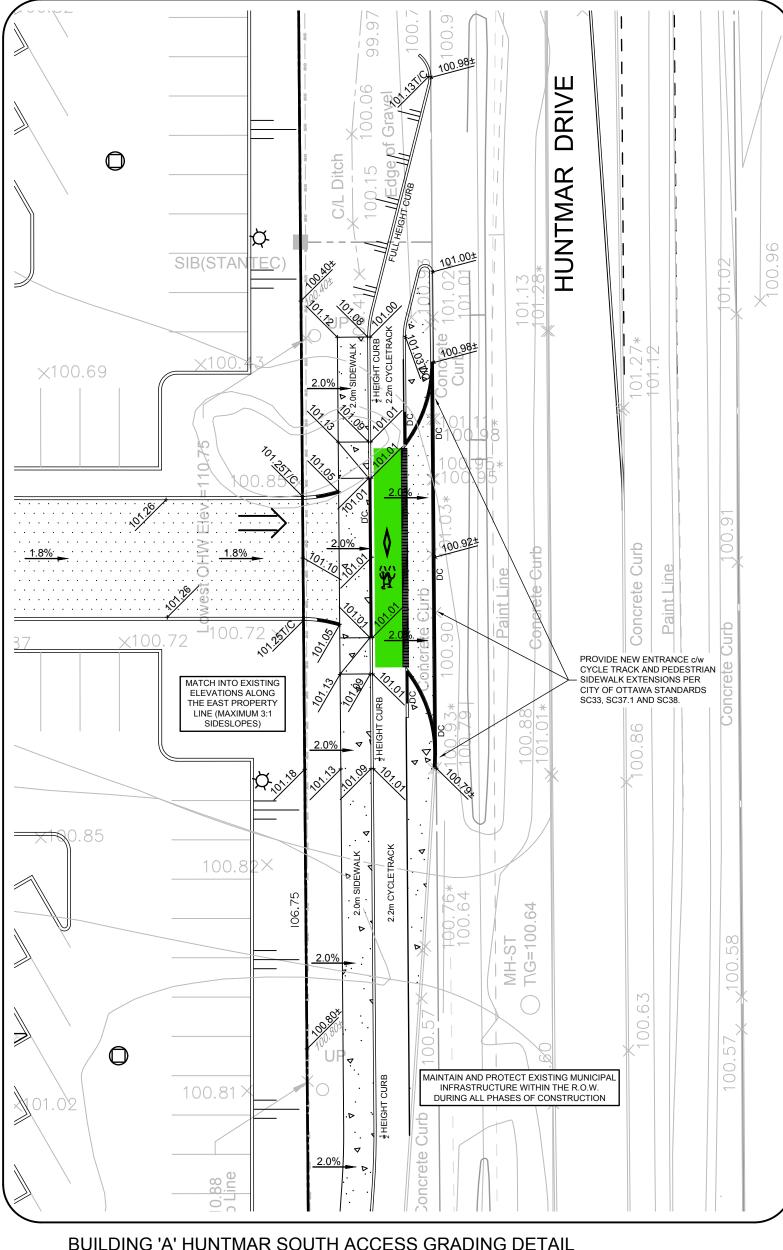
* REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2022-209) PREPARED BY

NOVATECH FOR DRAINAGE AREA IDENTIFIERS AND STORMWATER MANAGEMENT DETAILS.

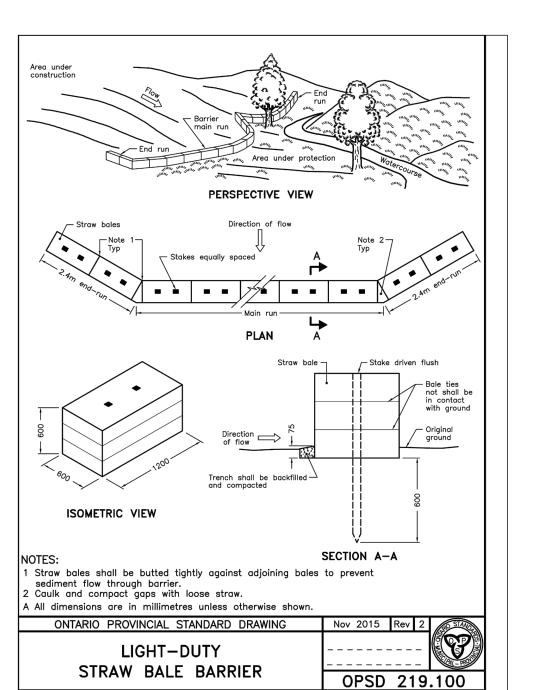
**ALL CONTROLLED FLOW ROOF DRAINS FOR THE PROPOSED BUILDINGS TO BE WATTS 'ADJUSTABLE ACCUTROL' ROOF DRAINS.

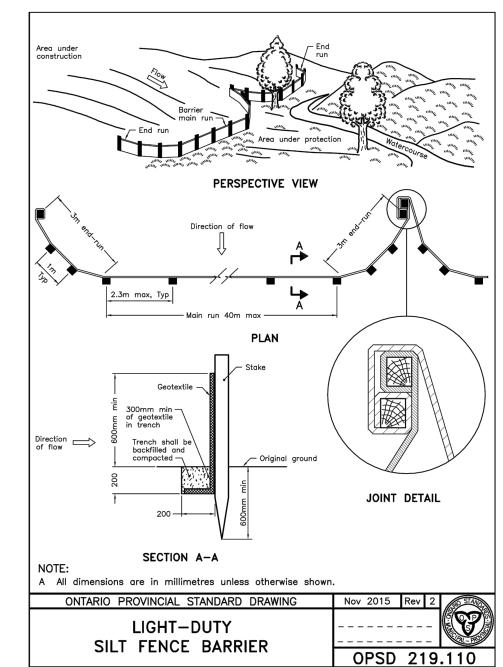


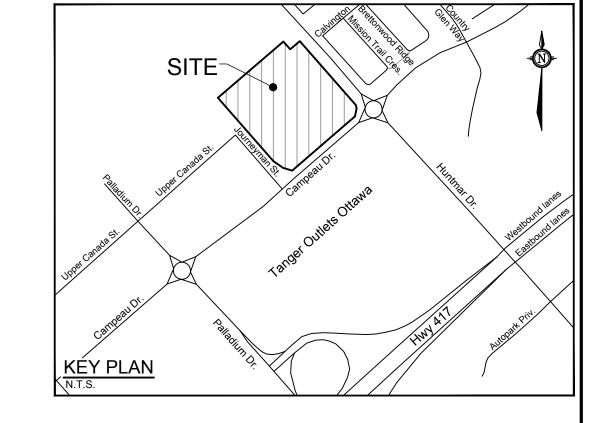
RAIN GARDENS INFILTRATION DETAIL WITH OVERFLOW DRAINS
SCALE 1:25

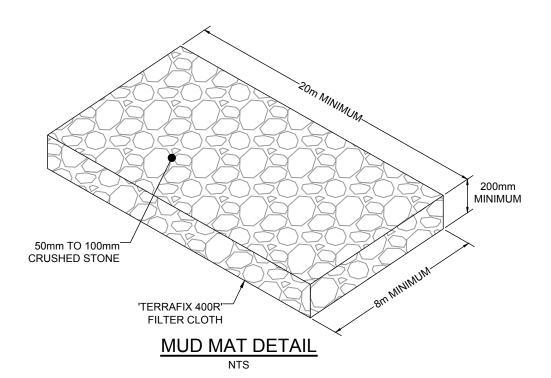


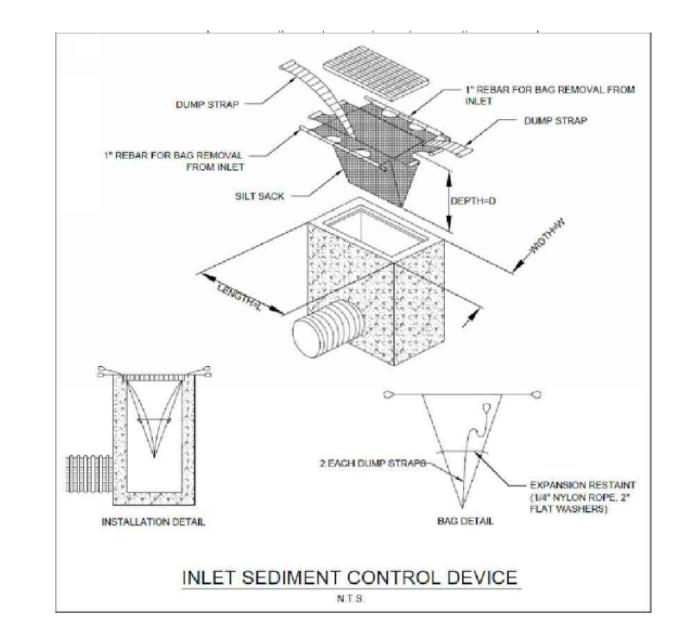
BUILDING 'A' HUNTMAR SOUTH ACCESS GRADING DETAIL NOT TO SCALE

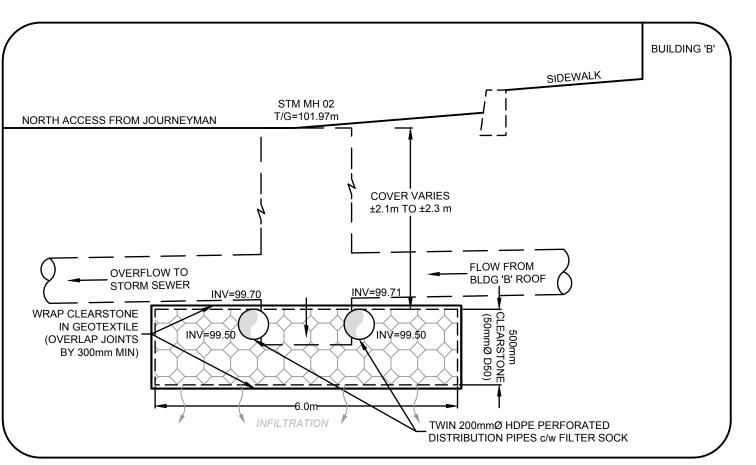






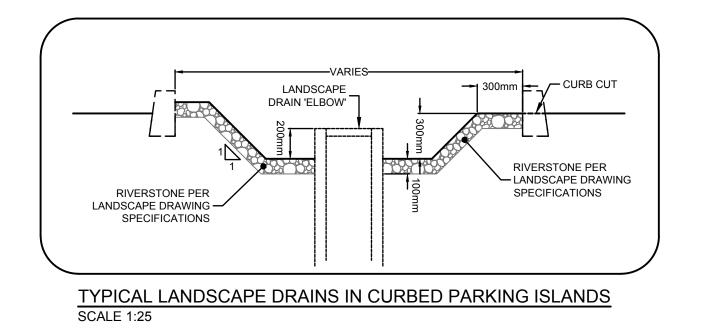






BUILDING 'B' RAINWATER INFILTRATION GALLERY DETAIL

Erosior	n and Sedime	nt Contro	l Responsib	<u>ilities:</u>					
					During Construction		After Construction Price	r to Final Acceptance	After Final Acceptance
	ESC Measure	Symbol	Specification	Installation Responsibility	Inspection/Maintenance Responsibility	Inspection Frequency	Approval to Remove	Removal Responsibility	Inspection/Maintenand Responsibility
	Straw Bale Barrier (Light Duty)	000	OPSD 219.100	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
	Silt Fence (Light Duty)		OPSD 219.110	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
	Filter Bags	Location as Indicated in ESC Note #3	Erosion and Sediment Control Notes	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
Tomporory	Mud Mat	ММ	Drawing Details	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Developer's Contractor	Developer's Contractor	N/A
Temporary Measures	Dust Control	Location as Required Around Site	Erosion and Sediment Control Notes	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
	Stabilized Material Stockpiling	Location as Required by Contractor	Erosion and Sediment Control Notes	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Developer's Contractor	Developer's Contractor	N/A
	Sediment Basin (for flows being pumped out of	Location as Required by Contractor		Developer's Contractor	Developer's Contractor	After Every Rainstorm	Developer's Contractor	Developer's Contractor	N/A

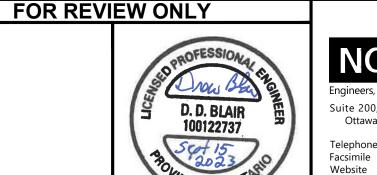


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THIS PLAN IS TO BE READ IN CONJUNCTION WITH CIVIL PLANS 122151-GP1&2, 122151-GR1&2 AND 122151-PR1

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.

				SCALE	DESIGN	
				NOT TO SCALE	SM / BM / DDB	
6	RE-ISSUED FOR SITE PLAN APPROVAL	SEPT 15/23	DDB		CHECKED	
5	ISSUED FOR SITE PLAN APPROVAL	AUG 4/23	DDB		DDB	
4	ISSUED FOR BUILDING PERMIT	JUL 14/23	DDB			
3	REVISED PER CITY COMMENTS	MAY 31/23	DDB		SM CHECKED	
2	REVISED PER CITY COMMENTS	MAR 30/23	DDB		BM / DDB	
1	ISSUED FOR CITY OF OTTAWA REVIEW	DEC 16/22	DDB		APPROVED	
No.	REVISION	DATE	BY		DDB	



		(
OETAVC		4		
Engineers, Planners & Landscape Architects Suite 200, 240 Michael Cowpland Drive Ottawa, Ontario, Canada K2M 1P6				

www.novatech-eng.com

LOCATION
CITY of OTTAWA
405 HUNTMAR DRIVE - WAREHOUSE DEVELOPMENT

NOTES, LEGEND AND DETAILS

REV # 6
DRAWING No.
122151-NLD2

8906