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
- 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
- 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 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. PG4811-1, REV. 1, DATED MAY 31, 2021). 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 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2020-059) 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 PAINTING.
- 14. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A SERVICING PLAN OF 119171-GP INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THE SERVICING PLAN. 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

- 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:

SPECIFICATIONS:		
<u>ITEM</u>	SPEC. No.	REFERENCI
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200mmØ)	701.010	OPSD
STORM / CATCHBASIN MANHOLE (1800mmØ)	701.012	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 OT
SANITARY / STORM SEWER / CB LEAD	PVC DR 35	

- STORM SUPER-PIPE (1.0m 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, AS INDICATED ON THE PLAN 119171-GP. 4. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m 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. 7. 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, 200mm@ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS &

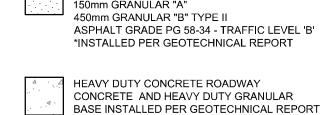
GRADING NOTES:

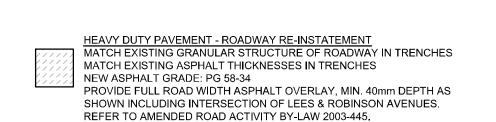
- ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED
- PAVED AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE PROOF ROLLED WITH A LARGE STEEL DRUM ROLLER AND
- INSPECTED BY THE GEOTECHNICAL 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. 5. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
- 6. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
- 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

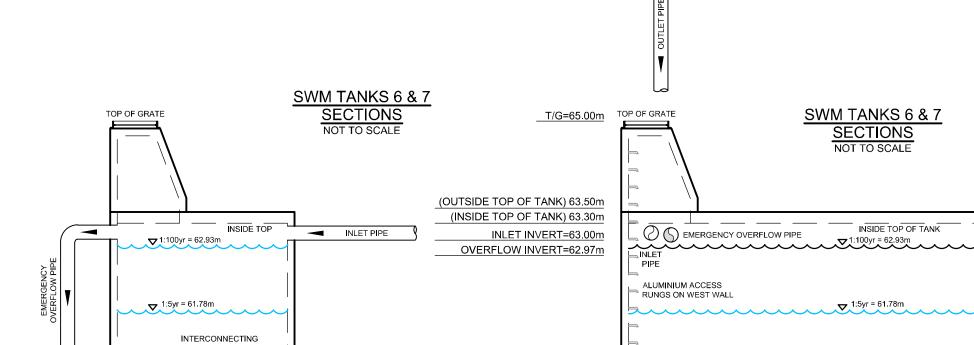
PAVEMENT STRUCTURES



LIGHT DUTY PAVEMEN







(UNDERSIDE OF TANK) 60.45m

SUMP=60.05m (UNDERSIDE OF SUMP) 59.90m

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, ETC.) 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

THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND

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.

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

4. TO LIMIT EROSION: MINIMIZE THE AMOUNT OF EXPOSED SOILS AT ANY GIVEN TIME, RE-VEGETATE EXPOSED AREAS AND SLOPES AS SOON

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.

AS POSSIBLE AND PROTECT EXPOSED SLOPES WITH NATURAL OR SYNTHETIC MULCHES.

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.

ECIFICATIONS:	
EM_	SPEC No.
/ATERMAIN TRENCHING	W17
YDRANT INSTALLATION	W19
HERMAL INSULATION IN SHALLOW TRENCHES	W22
HERMAL INSULATION AT OPEN STRUCTURES	W23
ALVE BOX ASSEMBLY	W24
ATERMAIN CROSSING BELOW SEWER	W25
/ATERMAIN CROSSING OVER SEWER	W25.2

EROSION AND SEDIMENT CONTROL NOTES

DISTRICT METERING CHAMBER WATERMAIN MATERIAL PARK WATER SERVICE MATERIAL

PVC DR 18 PEX / TYPE 'K' SOFT COPPER

- 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.

CITY OF OTTAWA

Erosion and Sediment Control Responsibilities

SWM TANKS 6 & 7

CHEMATIC PLAN VIEV

I 0m INTERCONNECTIN

TANK PIPE 300mmØ PVC

TOP OF GRAT

SWM TANK 6

ANCHOR CONCRETE [or APPROVED EQUIVALENT]

45.000L (3000mm x 6150mm)

c/w INTERNAL BLUESKIN

WATERPROOFING

____ INSIDE TOP OF TANK

OUTLET PIPE INSIDE BOTTOM OF TANK ____

▽ 1:5yr = 61.78m

MAINTENANCE ACCESS

/ c/w ALUMINIUM LADDEI

					During Construction		After Construction Price	orto Final Acceptance	After Final Acceptance
	ESC Measure	Symbol	Specification	Installation Responsibility	Inspection/Maintenance Responsibility	Inspection Frequency	Approval to Remove	Removal Responsibility	Inspection/Maintenance Responsibility
	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
	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 excavations)	Location as Required by Contractor		Developer's Contractor	Developer's Contractor	After Every Rainstorm	Developer's Contractor	Developer's Contractor	N/A

	CRITICAL S	SEWER PIPE CRO	SSING TABLE	
CROSSING	LOWER PIPE	HIGHER PIPE	CLEARANCE	SURFACE ELEVATION
A	375mmØ STM OBV=60.03	250mmØ SAN INV=61.51	± 1.5m	64.58 m
B	300mmØ STM OBV=60.86	200mmØ SAN INV=61.87	± 1.0m	64.93 m
0	1050mmØ STM OBV=61.05	150mmØ U/S WM=61.45	± 0.3m	63.67 m
0	250mmØ SAN OBV=60.95	150mmØ U/S WM=61.45	± 0.5m	63.69 m
E	1050mmØ STM OBV=63.45	150mmØ U/S WM=64.25	± 0.7m	66.85 m
(F)	250mmØ SAN OBV=63.30	150mmØ U/S WM=64 25	+ 0.95m	66 80 m

\bigcirc	375mmØ STM OBV=60.03	250mmØ SAN INV=61.51	± 1.5m	64.58 m
B	300mmØ STM OBV=60.86	200mmØ SAN INV=61.87	± 1.0m	64.93 m
0	1050mmØ STM OBV=61.05	150mmØ U/S WM=61.45	± 0.3m	63.67 m
0	250mmØ SAN OBV=60.95	150mmØ U/S WM=61.45	± 0.5m	63.69 m
ⅎ	1050mmØ STM OBV=63.45	150mmØ U/S WM=64.25	± 0.7m	66.85 m
F	250mmØ SAN OBV=63.30	150mmØ U/S WM=64.25	± 0.95m	66.80 m

CRITICAL SEWER PIPE CROSSING TABLE				
CROSSING	LOWER PIPE	HIGHER PIPE	CLEARANCE	SURFACE ELEVATION
lack	375mmØ STM OBV=60.03	250mmØ SAN INV=61.51	± 1.5m	64.58 m
B	300mmØ STM OBV=60.86	200mmØ SAN INV=61.87	± 1.0m	64.93 m
©	1050mmØ STM OBV=61.05	150mmØ U/S WM=61.45	± 0.3m	63.67 m
O	250mmØ SAN OBV=60.95	150mmØ U/S WM=61.45	± 0.5m	63.69 m
(E)	1050mmØ STM OBV=63.45	150mmØ U/S WM=64.25	± 0.7m	66.85 m
Ē	250mmØ SAN OBV=63.30	150mmØ U/S WM=64.25	± 0.95m	66.80 m

SWM TANK 7

for APPROVED EQUIVALENT

45.000L (3000mm x 6150mm)

c/w INTERNAL BLUESKIN

WATERPROOFING

▽ 1:100yr = 62.93m

MAINTENANCE ACCESS

c/w ALUMINIUM LADDER

T/G=65.10m



PROPOSED 250mmØ WATERMAIN TABLE - EAST / WEST SITE LOOP

SURFACE

STATION

CONNECTIONS TO EXISTING 150mmØ and NEW 300mmØ 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.

	SURFACE	T/WM	
STATION	ELEVATION	ELEVATION	COMMENTS
5+000	64.48	62.08	250 x 250 x 250 TEE (4+197.2)
5+001.0	64.46	62.10 **	250mmØ VALVE & VALVE BOX
5+002.5	64.45	** 62.10 ***	CROSS ABOVE 300mmØ STM [Obv=60.10m] (±1.75m CLEARAN
5+004.5	64.45	** 62.15 ***	CROSS ABOVE 250mmØ SAN [Obv=61.62m] (±0.3m CLEARANG
5+005.6	64.45	62.15 **	22.5° HORIZONTAL BEND
5+008.0	64.43	62.03	22.5° HORIZONTAL BEND
5+011.0	64.48	62.08	150mmØ HYDRANT TEE
5+025	64.05	61.65 **	
5+040.4	63.72	61.32 ***	CROSS BELOW 200mmØ STM [Inv=61.91m] (±0.6m CLEARANG
5+048.3	63.76	61.26	45° HORIZONTAL BEND
5+049.3	63.75	61.25	150mmØ HYDRANT TEE
5+049.7	63.75	61.25	45° HORIZONTAL BEND
5+050.6	63.60	61.20	250mmØ VALVE & VALVE BOX
5+051.4	63.60	61.20 ***	CROSS ABOVE 375mmØ STM [Obv=59.58m] (±1.35m CLEARAN
5+052.9	63.60	61.20	45° HORIZONTAL BEND
5+054.3	63,58	61.18	45° HORIZONTAL BEND
5+062.3	63.53	61.13 **	INSULATE IN PROXIMITY TO OPEN STRUCTURE
5+075	63.88	61.48	
5+078.8	64.08	61.68 ***	CROSS ABOVE 200mmØ STM [Obv=59.83m] (±1.6m CLEARANG
5+091.9	64.50	62.10	150 x 250 x 250 BUILDING SERVICE TEE
5+093.2	64.55	62.15	250mmØ VALVE & VALVE BOX
5+094.4	64.60	62.20	150 x 250 x 250 BUILDING SERVICE TEE
5+098.0	64.66	62.32 ** *	CROSS ABOVE 250mmØ SAN [Obv=61.82m] (±0.25m CLEARAN
5+100.0	64.66	62.25 ***	CROSS ABOVE 300mmØ STM [Obv=60.55m] (±1.45m CLEARAN
5+102.5	64.65	62.20	250 x 250 x 250 TEE (4+203.3)

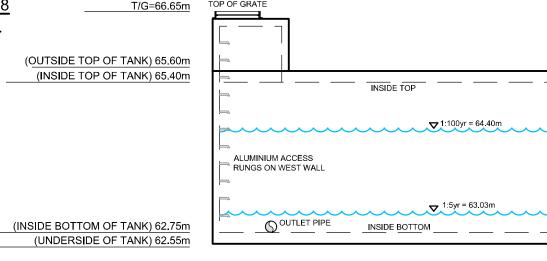
* CONNECTIONS TO EXISTING 150mmØ and NEW 300mmØ WATERMAINS. EXACT ELEVATIONS TO BE FIELD DETERMINED. ** PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAILS W22 IN SHALLOW TRENCHES WHERE COVER IS LESS THAN 2.4m AND/OR W23 ADJACENT TO OPEN STRUCTURES.

*** PIPE CROSSINGS WITH WATERMAINS ARE TO BE IN ACCORDANCE WITH CITY STANDARDS W25 AND W25.2 TO AVOID CONFLICTS, WHERE POSSIBLE. T/G=66.65m (OUTSIDE TOP OF TANK) 65.60m (INSIDE TOP OF TANK) 65.40m ___ ___ INSIDE TOP **▽**1:100yr = 64.40m

REVISION

▽ 1:5yr = 63.03m

__ INSIDE BOTTOM_



(C)ttawa

INLET CONTROL DEVICE DATA TABLE: AREA A-2.1 (TANK 1

ĎESIGN

INLET CONTROL DEVICE DATA TABLE: AREA A-2,2 (TANK 2)

INLET CONTROL DEVICE DATA TABLE: AREA A-2.3 (TANK 3)

INLET CONTROL DEVICE DATA TABLE: AREA A-3,1 (TANK 4)

¹2 PEAK

INLET CONTROL DEVICE DATA TABLE: AREA A-3.2 (TANK 5)

INLET CONTROL DEVICE DATA TABLE: AREA A-4 (TANK 6 & 7)

INLET CONTROL DEVICE DATA TABLE: AREA A-5 (STM MH 08)

¹⁄₂ PEAK

INLET CONTROL DEVICE DATA TABLE: AREA A-6 (CBMH 05)

17.5 8.8 0.69

9.0 4.5 2.03

8.0 4.0

DESIGN DESIGN

OF OUTLET DESIGN

OF OUTLET

200mmØ PVC

OF OUTLET

DIAMETER

PIPE (mm) | FLOW (L/s) | FLOW (L/s) |

PIPE (mm) | FLOW (L/s) | FLOW (L/s) |

DIAMETER PEAK 1/2 PEAK
OF OUTLET DESIGN DESIGN

PIPE (mm) | FLOW (L/s) | FLOW (L/s) |

OF OUTLET DESIGN DESIGN

PIPE (mm) | FLOW (L/s) | FLOW (L/s) |

PIPE (mm) | FLOW (L/s) | FLOW (L/s) |

OF OUTLET DESIGN DESIGN

PIPE (mm) | FLOW (L/s) | FLOW (L/s) |

1:5 YR TEMPEST LMF 250mmØ PVC 9.7 4.9 1.00 61.78

PEAK

PIPE (mm) | FLOW (L/s) | FLOW (L/s) |

OF OUTLET DESIGN DESIGN

PIPE (mm) | FLOW (L/s) | FLOW (L/s) |

OF OUTLET | DESIGN | DESIGN

17.5 8.8

DESIGN DESIGN

(PLUG TYPE)

IPEX

CUSTOM

(PLUG TYPE)

IPEX

ICD TYPE

IPEX

(PLUG TYPE)

(PLUG TYPE)

(PLUG TYPE)

IPFX

(PLUG TYPE)

IPEX

ICD TYPE

(PLUG TYPE)

CUSTOM

TEMPEST MHF 300mm@ PVC

TEMPEST LMF | 300mmØ PVC

i = THICKNESS OF INSULATION (mm)

THICKNESS

75

100

THE THICKNESS OF SEWER INSULATION SHALL

LESS THAN 1500mm (SEE TABLE BELOW)

BE THE EQUIVALENT OF 25mm FOR EVERY 300mm

REDUCTION IN THE REQUIRED DEPTH OF COVER

W = WIDTH OF INSULÁTION (mm)

D = O.D OF PIPE (mm)

1500-1200

COVER

(mm)

NSULATION NOTES:

:100 YR CUSTOM

1:100 YR CUSTOM

TEMPEST LMF | 200mmØ PVC

1:100 YR MODEL 85

1.5 YR TEMPEST MHF

1:100 YR MODEL 'A'

(PLUG TYPE)

1:100 YR MODEL 100

TEMPEST LMF 200mmØ PVC

TEMPEST LMF 200mmØ PVC

1:5 YR TEMPEST LMF 200mmØ PVC

FVFNT

DESIGN

EVENT

DESIGN

EVENT

DESIGN

EVENT

DESIGN

EVENT

DESIGN

EVENT

DESIGN

EVENT

EVENT

DESIGN

12.0 6.0 0.75 61.15

7.5 3.8 0.72 61.12 13.8 7.5 7.5 7.5 19.2 7.5 12.0 6.0 1.80 62.20 43.3

3.5 1.8 0.30 60.40

 4.5
 2.3
 0.50
 60.60

 6.0
 3.0
 0.85
 60.95

20.0 10.0 1.18 61.58

15.0 7.5 0.90 61.30 C 16.5 8.3 1.40 61.80 18.0 9.0 2.00 62.40

DESIGN

14.2 7.1 2.15 62.93

36.0 18.0 2.90 62.86

0.68

14.0 7.0 0.80 61.20

16.5 8.3 1.50 61.90

| WATER | VOLUME | AVAILABLE

19.2

l storage

 $> 65 \, \mathrm{m}^3$

> 45 m³

STORAGE

 $> 70 \text{ m}^3$

STORAGE

STORAGE

> 75 m³

STORAGE

STORAGE

106 m³

STORAGE

HEAD (m) | ELEVATION (m) | (m³)

DESIGN | WATER | VOLUME | AVAILABLE

HEAD (m) | ELEVATION (m) | (m³) | STORAGE

DESIGN WATER VOLUME AVAILABLE

DESIGN | WATER | VOLUME | AVAILABLE

DESIGN WATER VOLUME AVAILABLE

DESIGN | WATER | VOLUME | AVAILABLE

DESIGN | WATER | VOLUME | AVAILABLE

| WATER | VOLUME | AVAILABLE

40.4

50.1

36.4

HEAD (m) ELEVATION (m) (m³)

HEAD (m) | ELEVATION (m) | (m³)

 0.58
 60.90
 20.5

 0.93
 61.25
 29.7

HEAD (m) | ELEVATION (m) | (m³)

HEAD (m) | ELEVATION (m) | (m³)

HEAD (m) | ELEVATION (m) | (m³)

60.65

HEAD (m) | ELEVATION (m) | (m³)

2.25 63.03

3.62

BACKFILL AS SPECIFIED

ti INSULATION

BEDDING AS SPECIFIED

INSULATION DETAIL FOR

SHALLOW SEWERS

BEDDING AS SPECIFIED

62.81 l

SWM TANK 8 ANCHOR CONCRETE or APPROVED EQUIVALENT 45,000L (3000mm x 6150mm) c/w INTERNAL BLUESKIN WATERPROOFING c/w ALUMINUM LADDER SWM TANK 8 SCHEMATIC PLAN VIEW **FOR REVIEW ONLY**

CIRCULAR CHAMBER

GATE VALVES

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 119171-GP, 119171-GR, 119171-PR1 AND 119171-PR2

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

STRUCTURES AND ASSUME ALL LIABILITY FOR

LOCATION OF ALL SUCH UTILITIES AND

OUTLET PIPE

DAMAGE TO THEM.

OWNER INFORMATION 2 ROBINSON AVENUE LIMITED PARTNERSHIP 88 ALBERT STREET OTTAWA, ONTARIO, K1P 5E9 CONTACT: MR. KIERAN WAUGH PHONE: (416) 903-1377 EMAIL: kwaugh@placedoree.com

(OUTSIDE TOP OF TANK) 63.55m

(INSIDE TOP OF TANK) 63.35m

(UNDERSIDE OF TANK) 60.50m

SCALE NOT TO SCALE RE-ISSUED FOR SITE PLAN APPROVAL MAR 1/23 RE-ISSUED FOR SITE PLAN APPROVAL JAN 10/23 RE-ISSUED FOR SITE PLAN APPROVAL OCT 07/22 REVISED PER CITY COMMENTS / UPDATED SITE PLAN MAR 30/21 ISSUED FOR SITE PLAN APPROVAL NOV 15/21

DATE

Kracis The F.S. THAUVETTE 100041399 MAR 1, 2023

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

LOCATION CITY OF OTTAWA 320 LEES AVENUE (2 ROBINSON AVENUE)

DRAWING NAME CIVIL NOTES, DETAILS & TABLES

119171-NDT # 18357

KEY PLAN BENCHMARK INFO CITY OF OTTAWA MONUMENT No. 2011-0127 LOCATED NEAR THE SOUTH-WEST CORNER OF THE INTERSECTION OF LEES AVENUE AND ROBINSON AVENUE. GEODETIC ELEVATION = 63.60m. ALL ELEVATIONS ARE REFERRED TO THE CGVD28 GEODETIC DATUM, DERIVED FROM VERTICAL CONTROL MONUMENT NO. 3603 HAVING AN ELEVATION OF 76.959 METRES. BEARINGS ARE GRID, DERIVED FROM THE NORTHERLY LIMIT OF PART 1 ON PLAN 4R-1381 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. # 21029-20 JRE Lt 7 PL 49 T F), PREPARED BY ANNIS, O'SULLIVAN, VOLLEBEKK SIGNED AND DATED AUGUST 14, 2020.

SURROUNDING BACKGROUND TOPO INFORMATION BEYOND THE LIMITS OF THE SITE

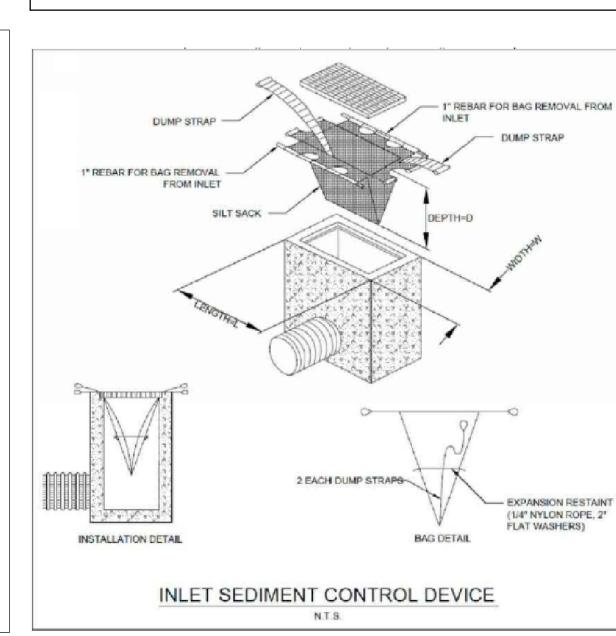
SURVEY ARE SHOWN FROM CITY OF OTTAWA 1:1000 MAPPING FOR CONTEXT ONLY.

50mm DIA GALV PIPE 1.2m DIA STONEDUST REMOTE METER POST
 2- 150mm x 150mm BOLTED TO CHAMBER
 1000min-1200max ABOVE FINISH GRADE MIN 2 STAINLESS STEEL STRAPS TO ATTACH PIPE TO WOOD POST ADJUSTMENT SECTION ___ AS REQUIRED 20mm DIA WIRE CONDUIT THROUGH CONCRETE INTO CHAMBER UPPER SECTION, COVER — AND PLUG PER W35 — FRAME AND COVER — AS PER W15 BOLTED TO CHAMBER CSHUT-OFF VALVE-WATER HAMMER ARRESTER - APPROVED 50mm CURB STOR SECONDARY PARK SUPPLY COMPACTED GRANULAR VALVE BY MUELLER, FORD OR CAMBRIDGE BRASS 1.2m DIAMETER STONE DUST PAD FROM TOP OF CHAMBER TO SURFACE ----REMOTE READER ∠ BOLTED TO CHAMBER REMOTE METER POST DETERMINED BY INTERIOR PIPE LAYOUT) - STAND PIPE 50mm DIA. GALVANIZE SECONDARY PARK SUPPLY TEE OFF LINE WITH APPROVED 19mm BRASS SEDIMENT VALVE APPROVED 50mm CURB STOP 50mm WATERLINE - CSA B64.5 BACKFLOW PREVENTER C/W STRAINER DUAL CHECK BACKFLOW رجم سے بید بید بید است کے لیے کے کہ کہ بیتے ہیں ہے۔ بید بید بید کے بیان کے بید کے کہ کہ کہ کہ ا 3/8" DIA. x 1" H.D. GAL. BOI WELDED TO TOP OF CAP 1/4" H.D. GAL. CHAIN WELDED TO SIDE OF PIPE 1" H.D. GAL. TAND CAP LOCKING HASP ---DRAWING VALID FOR 50mm SERVICES ONLY DRDER OF PLACEMENT FOR INTERNAL ELEMENTS MUST REMAIN AS SHOWN, ALIGNMENT WELDED -OWN IS ONLY SCHEMATIC AND CAN BE ADJUSTED TO FIT ALL ITEMS INTO THE CHAMBER PIPE FROM STOP AND -MPRESSION STYLE FITTINGS ARE NOT PERMITTED

AMP ANODE CABLE TO COPPER PIPE USING PIPE CLAMP COVERED WITH DIELECTRIC INSULATING PUTTY/SEALANT. ANODE NOT REQUIRED FOR PEA FIFE

1. CATHODIC PROTECTTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W39, W40 AND W42.

1. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W36. TYPICAL PARK WATER METER **INSTALLATION 50mm** DWG No: W31.1



REV#5