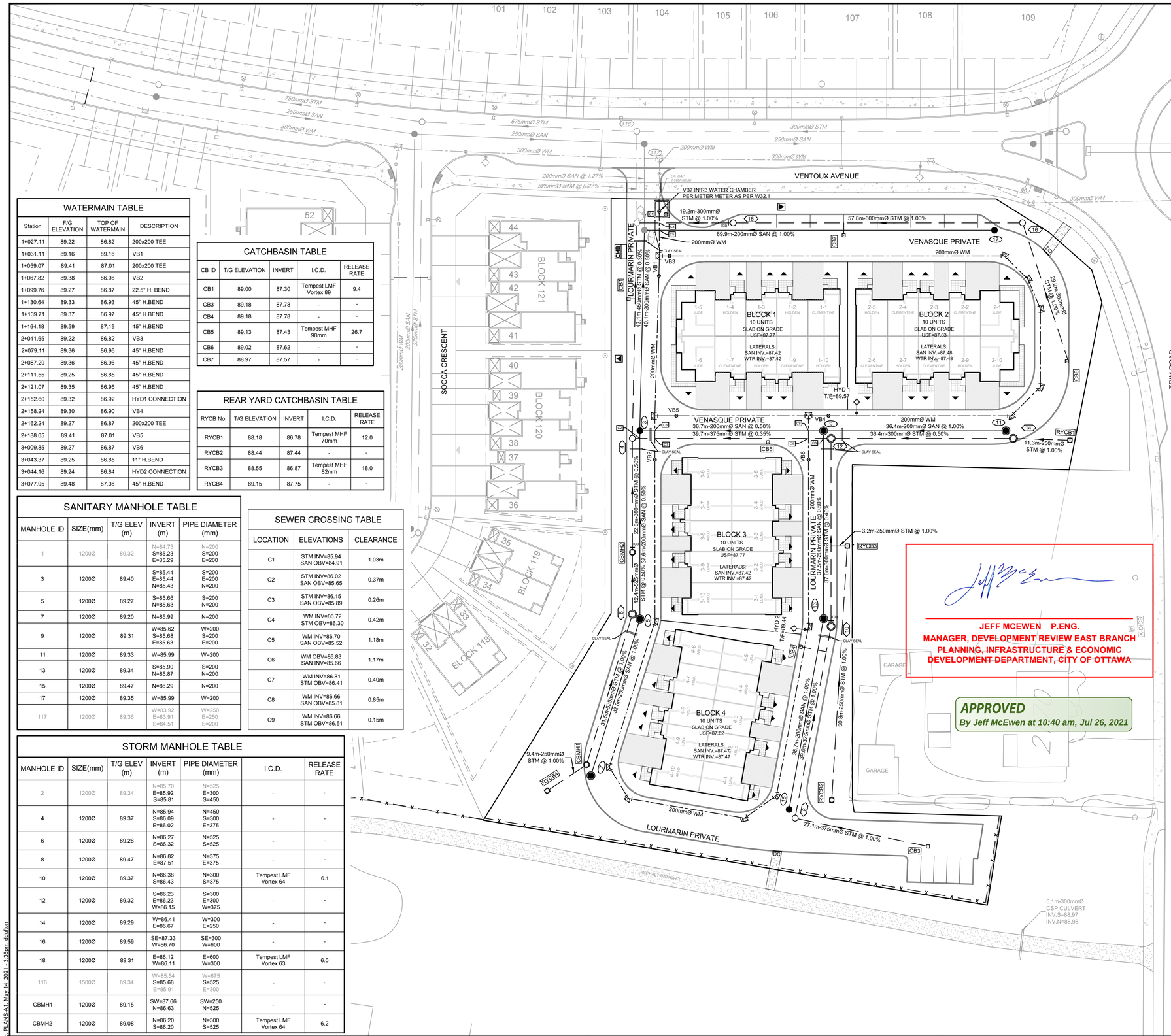

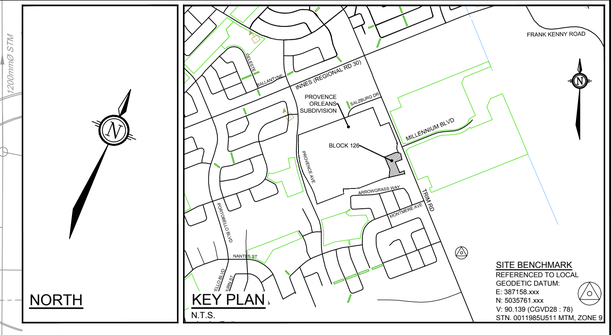

WATERMAIN TABLE

Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
1+027.11	89.22	86.82	200x200 TEE
1+031.11	89.16	89.16	VB1
1+059.07	89.41	87.01	200x200 TEE
1+067.82	89.38	86.98	VB2
1+099.76	89.27	86.87	22.5° H. BEND
1+130.64	89.33	86.93	45° H.BEND
1+139.71	89.37	86.97	45° H.BEND
1+164.18	89.59	87.19	45° H.BEND
2+011.65	89.22	86.82	VB3
2+079.11	89.36	86.96	45° H.BEND
2+087.29	89.36	86.96	45° H.BEND
2+111.55	89.25	86.85	45° H.BEND
2+121.07	89.35	86.95	45° H.BEND
2+152.60	89.32	86.92	HYD1 CONNECTION
2+158.24	89.30	86.90	VB4
2+162.24	89.27	86.87	200x200 TEE
2+188.65	89.41	87.01	VB5
3+009.85	89.27	86.87	VB6
3+043.37	89.25	86.85	11° H.BEND
3+044.16	89.24	86.84	HYD2 CONNECTION
3+077.95	89.48	87.08	45° H.BEND

CATCHBASIN TABLE

CB ID	T/G ELEVATION	INVERT	I.C.D.	RELEASE RATE
CB1	89.00	87.30	Tempest LMF Vortex 89	9.4
CB3	89.18	87.78	-	-
CB4	89.18	87.78	-	-
CB5	89.13	87.43	Tempest MHF 98mm	26.7
CB6	89.02	87.62	-	-
CB7	88.97	87.57	-	-

REAR YARD CATCHBASIN TABLE

RYCB No.	T/G ELEVATION	INVERT	I.C.D.	RELEASE RATE
RYCB1	88.18	86.78	Tempest MHF 70mm	12.0
RYCB2	88.44	87.44	-	-
RYCB3	88.55	86.87	Tempest MHF 82mm	18.0
RYCB4	89.15	87.75	-	-

SANITARY MANHOLE TABLE

MANHOLE ID	SIZE(mm)	T/G ELEV (m)	INVERT (m)	PIPE DIAMETER (mm)
1	1200Ø	89.32	N=84.73 S=85.23 E=85.29	N=200 S=200 E=200
3	1200Ø	89.40	S=85.44 E=85.44 N=85.43	S=200 E=200 N=200
5	1200Ø	89.27	S=85.66 N=85.63	S=200 N=200
7	1200Ø	89.20	N=85.99	N=200
9	1200Ø	89.31	W=85.62 S=85.68 E=85.63	W=200 S=200 E=200
11	1200Ø	89.33	W=85.99	W=200
13	1200Ø	89.34	S=85.90 N=85.87	S=200 N=200
15	1200Ø	89.47	N=86.29	N=200
17	1200Ø	89.35	W=85.99	W=200
117	1200Ø	89.36	W=83.92 E=83.91 S=84.51	W=250 E=250 S=200

SEWER CROSSING TABLE

LOCATION	ELEVATIONS	CLEARANCE
C1	STM INV=85.94 SAN OBV=84.91	1.03m
C2	STM INV=86.02 SAN OBV=85.65	0.37m
C3	STM INV=86.15 SAN OBV=85.89	0.26m
C4	WM INV=86.72 STM OBV=86.30	0.42m
C5	WM INV=86.70 SAN OBV=85.52	1.18m
C6	WM OBV=86.83 SAN INV=85.66	1.17m
C7	WM INV=86.81 STM OBV=86.41	0.40m
C8	WM INV=86.66 SAN OBV=85.81	0.85m
C9	WM INV=86.66 STM OBV=86.51	0.15m

STORM MANHOLE TABLE

MANHOLE ID	SIZE(mm)	T/G ELEV (m)	INVERT (m)	PIPE DIAMETER (mm)	I.C.D.	RELEASE RATE
2	1200Ø	89.34	N=85.70 E=85.92 S=85.81	N=525 E=300 S=450	-	-
4	1200Ø	89.37	N=85.94 S=86.09 E=86.02	N=450 S=300 E=375	-	-
6	1200Ø	89.26	N=86.27 S=86.32	N=525 S=525	-	-
8	1200Ø	89.47	N=86.82 E=87.51	N=375 E=375	-	-
10	1200Ø	89.37	N=86.38 S=86.43	N=300 S=375	Tempest LMF Vortex 64	6.1
12	1200Ø	89.32	S=86.23 E=86.23 W=86.15	S=300 E=300 W=375	-	-
14	1200Ø	89.29	W=86.41 E=86.67	W=300 E=250	-	-
16	1200Ø	89.59	SE=87.33 W=86.70	SE=300 W=600	-	-
18	1200Ø	89.31	E=86.12 W=86.11	E=600 W=300	Tempest LMF Vortex 63	6.0
116	1500Ø	89.34	W=85.54 S=85.68 E=85.91	W=675 S=525 E=300	-	-
CBMH1	1200Ø	89.15	SW=87.66 N=86.63	SW=250 N=525	-	-
CBMH2	1200Ø	89.08	N=86.20 S=86.20	N=300 S=525	Tempest LMF Vortex 64	6.2

LEGEND

- SANITARY MANHOLE, SEWER & DIRECTION OF FLOW WITH COVER PER S28.1
- SANITARY MANHOLE WITH COMPRESSION ASSEMBLY TOP
- STORM MANHOLE, SEWER & DIRECTION OF FLOW WITH COVER PER S28.1
- STORM MANHOLE WITH COMPRESSION ASSEMBLY TOP
- 300mmØ — WATERMAIN AND DIAMETER
- VB — VALVE & VALVE BOX
- VC — VALVE & VALVE CHAMBER
- BEND AND THRUST BLOCK
- ROAD CATCHBASIN
- ROAD CATCHBASIN WITH ICD
- REAR YARD CATCH BASIN
- REAR YARD CATCH BASIN WITH ICD
- HYDRANT C/W VALVE & LEAD; TF= TOP OF FLANGE ELEVATION
- CAP
- HYDRO TRANSFORMER
- CMB — COMMUNITY MAIL BOX

GENERAL NOTES:

1. DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO START OF CONSTRUCTION.
2. THE ORIGINAL TOPOGRAPHY AND GROUND ELEVATIONS, SERVICING AND SURVEY INFORMATION SHOWN ON THIS PLAN ARE SUPPLIED FOR INFORMATION PURPOSES ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF ALL INFORMATION OBTAINED FROM THIS PLAN.
3. CO-ORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
4. BEFORE COMMENCING CONSTRUCTION, PROVIDE PROOF OF COMPREHENSIVE ALL RISK AND OPERATIONAL LIABILITY INSURANCE INCLUDING BLASTING. INSURANCE POLICY TO NAME THE OWNER, ENGINEER AND THE CITY AS CO-INSURED.
5. CONNECT TO EXISTING SYSTEMS AS DETAILED, INCLUDING ALL RESTORATION WORK NECESSARY TO REINSTATE SURFACES TO EXISTING CONDITIONS OR BETTER.
6. 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 THESE DRAWINGS.
7. OBTAIN AND PAY FOR ALL NECESSARY PERMITS AND APPROVALS BEFORE COMMENCING CONSTRUCTION.
8. RESTORE ALL TRENCHES AND SURFACE FEATURES TO EXISTING CONDITIONS OR BETTER AND TO THE SATISFACTION OF MUNICIPAL AUTHORITIES.
9. REMOVE FROM SITE ALL DEBRIS AND EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER.
10. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
11. REFER TO GEOTECHNICAL INVESTIGATION PG4278-3 (DATED MARCH 30, 2021), PREPARED BY PATERSON GROUP INC. FOR SUBSURFACE CONDITIONS AND CONSTRUCTION RECOMMENDATIONS.
12. PERFORATED PIPE SUB-DRAINS TO BE PROVIDED AT SUBGRADE LEVEL EXTENDING FROM THE ROADSIDE CATCHBASIN FOR A DISTANCE OF 3.0m, PARALLEL TO THE CURB IN TWO DIRECTIONS.

SEWER NOTES:

1. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
CATCHBASIN MANHOLE (1200Ø)	701.010	OPSD
STORM / SANITARY MANHOLE (1200Ø)	701.010	OPSD
ROADSIDE CB, FRAME & COVER	S2 & S19	CITY of OTTAWA
CBMH FRAME & COVER	S25 & S28.1	CITY of OTTAWA
STORM / SANITARY MH FRAME & COVER	S24.1 / S24 & S25	CITY of OTTAWA
STORM SEWER	PVC DR 35 OR CONC.	(CLASS SPECIFIED ON PROFILE DRAWINGS)
SANITARY SEWER	PVC DR 35	
CATCHBASIN LEAD	PVC DR 35	

2. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.8m COVER WITH 50mmX1200mm HI-40 INSULATION. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
3. SERVICES ARE TO BE CONSTRUCTED TO PROPERTY LINE AT MINIMUM SLOPE OF 1.0% (2.0% IS PREFERRED).
4. PIPE BEDDING AND COVER ARE TO BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. WHERE THE BEDDING IS LOCATED WITHIN FIRM TO SOFT GREY SILTY CLAY, THE THICKNESS OF THE BEDDING MATERIAL SHOULD BE INCREASED TO A MINIMUM OF 300m. THE COVER MATERIAL SHALL CONSIST OF OPSS GRANULAR 'A' AND SHOULD EXTEND FROM THE SPRING LINE OF THE PIPE TO AT LEAST 300mm ABOVE THE OBVERT OF THE PIPE.
5. SEWER SERVICE CONNECTIONS PER CITY OF OTTAWA DETAILS S11 AND S11.1.
6. THE SITE SERVICING CONTRACTOR SHALL PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16 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 THE ENGINEER.
7. STORM MANHOLES AND CBMHS SHALL HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED.
8. CONTRACTOR TO TELEVISE (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.
9. SAN & STM COMPRESSION ASSEMBLY TOP BY EJ GROUP INC. PRODUCT NUMBERS: SAN-41420049W01 & STM-41420050W01

WATERMAIN NOTES:

1. GENERAL:

ITEM	DETAIL No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
WATERMAIN CROSSING BELOW SEWER / OVER SEWER	W25 / W25.2	CITY OF OTTAWA

2. THE WATERMAIN SHALL BE PVC DR 18 IN ACCORDANCE WITH MATERIAL SPECIFICATION MW-18.1, UNLESS OTHERWISE INDICATED.
3. 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.
4. WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
5. PROVIDE MINIMUM CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS PER W25 (0.50m) AND W25.2 (0.25m).
6. WATER LATERAL AND SERVICE POST ARE TO BE CONSTRUCTED 2.0m FROM BACK OF CURB USING 19mmØ PEX.

JEFF MCEWEN P.ENG.
MANAGER, DEVELOPMENT REVIEW EAST BRANCH
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

APPROVED
By Jeff McEwen at 10:40 am, Jul 26, 2021

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.

No.	REVISION	DATE	BY
8.	CITY SUBMISSION	MAY 14/21	MAB
7.	CITY SUBMISSION	MAY 3/21	MAB
6.	CITY SUBMISSION	APR 06/21	MAB
5.	CITY SUBMISSION	MAR 24/21	MAB
4.	CITY COMMENTS	NOV 24/20	MAB
3.	CITY COMMENTS	OCT 16/20	MAB
2.	CITY COMMENTS	SEP 24/20	MAB
1.	ISSUED FOR APPROVAL	JUN 29/20	MAB

SCALE: 1:400 (1:400 0 4 8 12 16)

DESIGN: DTD
CHECKED: MAB
DRAWN: DTD
CHECKED: MAB
APPROVED: JGR

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER — L. R. WILSON — 100160065 — PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER — M.A. BISSETT — 2021.05.14 — PROVINCE OF ONTARIO

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CITY OF OTTAWA
PROVENCE ORLEANS - 2128 TRIM ROAD (BLOCK 126)

GENERAL PLAN OF SERVICE

PROJECT No. 120057
REV REV # 8
DRAWING No. 120057-GP

D07-12-20-0095
PLAN #18172

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PLANA1.DWG - 841mmx594mm