SANITARY MANHOLE TABLE

MANHOLE ID	SIZE(mm)	T/G ELEV (m)	INVERT (m)	PIPE DIAMETER (mm)
1	1200Ø	55.74	N=53.52 S=53.51 W=53.57	N=250 S=250 W=200
3	1200Ø	56.52	E=53.69 W=53.70 N=53.75	E=200 W=200 N=200
5	1200Ø	56.45	E=53.89 N=53.95 W=53.90	E=200 N=200 W=200
7	1200Ø	56.48	E=54.06	E=200
9	1200Ø	56.44	S=54.07 N=54.08 E=54.26	S=200 N=200 E=200
11	1200Ø	56.58	S=54.25	S=200
13	1200Ø	56.52	N=53.87 S=53.86 W=53.92	N=200 S=200 W=200
15	1200Ø	56.61	N=53.98 S=53.97 W=54.03	N=200 S=200 W=200
17	1200Ø	56.70	N=54.09 S=54.08 W=54.14	N=200 S=200 W=200
19	1200Ø	56.72	E=54.44	E=200
21	1200Ø	56.78	S=54.20	S=200
23	1200Ø	56.05	W=53.61 E=53.60	W=200 E=200
25	1200Ø	56.65	E=54.33	E=200

STORM MANHOLE TABLE

MANHOLE ID	SIZE(mm)	T/G ELEV (m)	INVERT (m)	PIPE DIAMETER (mm)
2	1200Ø	55.72	N=52.31 S=52.31 W=52.68	N=900 S=900 W=525
4	1200Ø	56.51	E=52.74 W=52.81 N=52.88	E=525 W=450 N=375
6	1200Ø	56.44	E=52.92 W=54.64 N=53.00	E=450 W=300 N=375
8	1200Ø	56.45	N=53.15 S=53.08	N=300 S=375
10	1200Ø	56.54	N=53.25 S=53.25 W=53.80	N=300 S=300 W=300
12	1200Ø	56.75	E=54.41 S=53.38	E=200 S=300
14	1200Ø	56.50	N=52.96 S=52.96 W=53.09	N=375 S=375 W=250
16	1200Ø	56.59	N=53.11 S=53.04 E=54.39 W=53.16	N=300 S=375 E=200 W=250
18	1200Ø	56.79	W=55.14 S=53.27 E=55.12	W=250 S=300 E=250
20	1200Ø	56.01	W=52.70 E=52.70	W=525 E=525
22	1200Ø	56.64	E=53.29 W=54.82	E=250 W=200
24	1200Ø	56.66	E=53.36 W=54.87	E=250 W=200
26	1200Ø	56.66	N=53.21 S=53.21 W=53.26	N=300 S=300 W=250
28	1200Ø	56.73	E=53.46 W=54.93	E=250 W=200

REAR YARD CATCHBASIN TABLE

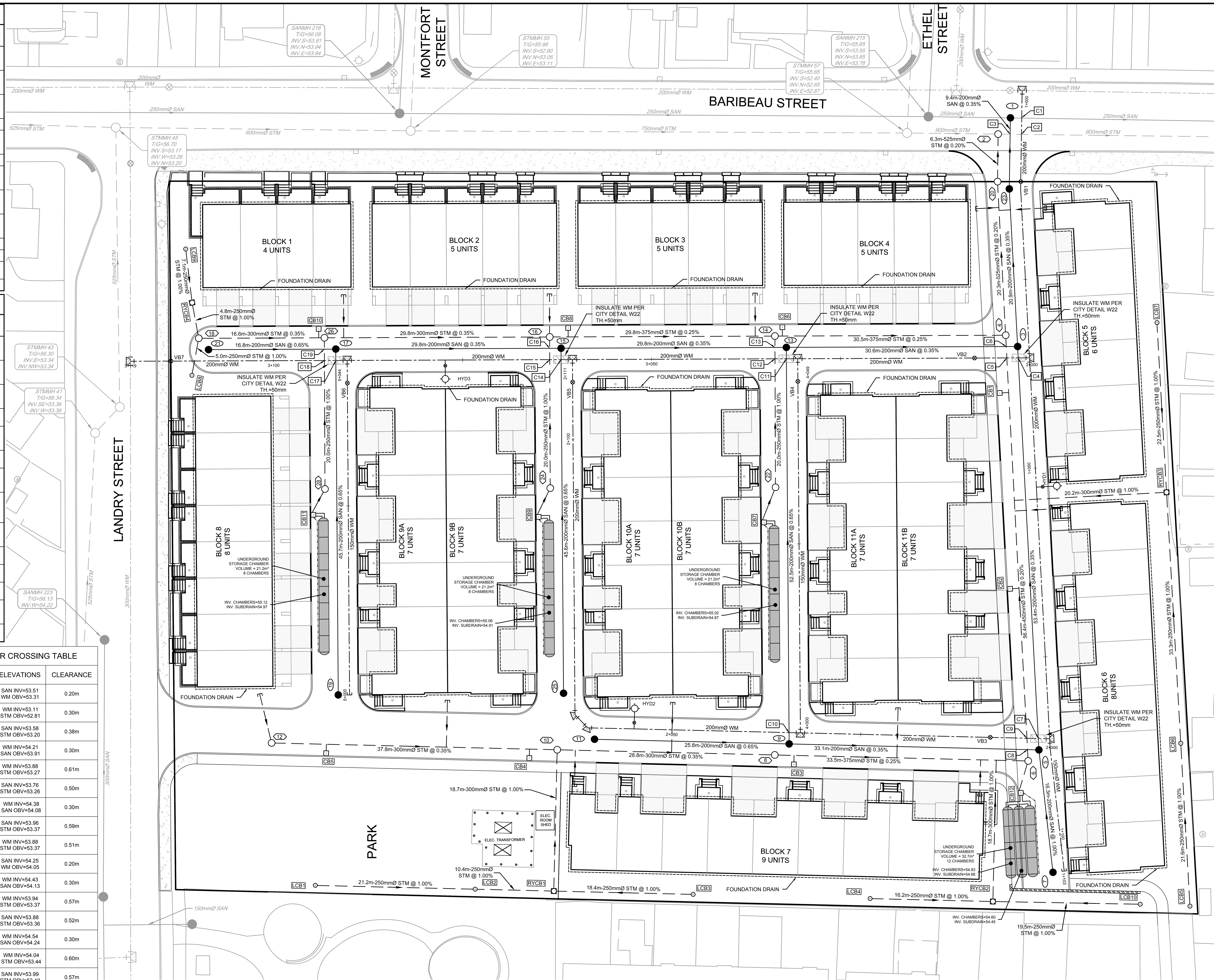
RYCB No.	T/G ELEVATION	INVERT	I.C.D.
LCB1	55.65	54.65	-
LCB2	55.65	54.44	-
LCB3	55.55	54.22	-
LCB4	55.45	54.45	-
LCB5	55.45	54.45	-
LCB6	55.41	54.23	-
LCB7	55.66	54.26	-
RYCB1	54.82	53.69	TEMPEST LMF (VORTEX 78)
RYCB2	55.61	53.68	TEMPEST LMF (VORTEX 78)
RYCB3	55.59	53.45	TEMPEST LMF (VORTEX 70)

CATCHBASIN TABLE

CB ID	T/G ELEVATION	INVERT	I.C.D.
CB1	56.43	55.03	TEMPEST LMF (VORTEX 86)
CB2	56.38	54.98	TEMPEST LMF (VORTEX 86)
CB3	56.43	55.03	TEMPEST LMF (VORTEX 86)
CB4	56.50	55.10	TEMPEST LMF (VORTEX 78)
CB5	56.56	55.16	TEMPEST LMF (VORTEX 78)
CB6	56.48	55.08	TEMPEST LMF (VORTEX 78)
CB7	56.57	54.87	TEMPEST LMF (VORTEX 71)
CB8	56.55	55.15	TEMPEST LMF (VORTEX 78)
CB9	56.61	54.91	TEMPEST LMF (VORTEX 71)
CB10	56.63	55.23	TEMPEST LMF (VORTEX 78)
CB11	56.67	54.97	TEMPEST LMF (VORTEX 71)
CB12	56.38	54.68	TEMPEST LMF (VORTEX 71)

SEWER CROSSING TABLE

LOCATION	ELEVATIONS	CLEARANCE
C1	SAN INV=53.51 WM OBV=53.31	0.20m
C2	WM INV=53.11 STM OBV=52.81	0.30m
C3	SAN INV=53.58 STM OBV=53.20	0.38m
C4	WM INV=54.21 SAN OBV=53.91	0.30m
C5	WM INV=53.88 STM OBV=53.27	0.61m
C6	SAN INV=53.76 STM OBV=53.26	0.50m
C7	WM INV=54.38 SAN OBV=54.08	0.30m
C8	SAN INV=53.96 STM OBV=53.37	0.59m
C9	WM INV=53.88 STM OBV=53.37	0.51m
C10	SAN INV=54.25 WM OBV=54.05	0.20m
C11	WM INV=54.43 SAN OBV=54.13	0.30m
C12	WM INV=53.94 STM OBV=53.37	0.57m
C13	SAN INV=53.88 STM OBV=53.36	0.52m
C14	WM INV=54.54 SAN OBV=54.24	0.30m
C15	WM INV=54.04 STM OBV=53.44	0.60m
C16	SAN INV=53.99 STM OBV=53.42	0.57m
C17	WM INV=54.65 SAN OBV=54.35	0.30m
C18	WM INV=54.13 STM OBV=53.54	0.59m
C19	SAN INV=54.10 STM OBV=53.52	0.58m



WATERMAIN TABLE

Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
1+000.00	55.75	53.35	CONNECT TO EXISTING
1+012.06	56.03	53.63	VB1
1+025.00	56.59	54.19	-
1+035.39	56.56	54.16	200 X 200 TEE
1+050.00	56.56	54.16	-
1+052.51	56.57	54.17	HYD1 TEE
1+075.00	56.50	54.10	-
1+085.85	56.49	54.09	200 X 150 TEE
1+100.00	56.47	54.07	-
1+103.45	56.47	54.07	CAP

WATERMAIN TABLE

Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
2+000.00	56.49	54.09	200 X 150 TEE
2+000.49	56.48	54.08	V. BEND
2+001.00	56.47	54.58	V. BEND
2+002.00	56.48	54.58	V. BEND
2+002.51	56.48	54.08	V. BEND
2+007.87	56.52	54.12	VB3
2+025.00	56.50	54.10	-
2+032.99	56.45	54.05	200 X 150 TEE
2+050.00	56.59	54.19	-
2+054.99	56.63	54.23	HYD2 TEE
2+061.12	56.58	54.18	45° HORIZONTAL BEND
2+063.53	56.60	54.20	45° HORIZONTAL BEND
2+075.00	56.76	54.36	-
2+100.00	56.74	54.34	-
2+110.52	56.63	54.23	200 X 200 TEE

WATERMAIN TABLE

Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
3+000.00	56.56	54.16	200 x 200 TEE
3+000.71	56.54	54.14	V. BEND
3+001.00	56.53	54.41	V. BEND
3+002.00	56.51	54.41	V. BEND
3+002.29	56.50	54.10	V. BEND
3+007.29	56.53	54.13	VB2
3+025.00	56.55	54.15	-
3+030.67	56.53	54.13	200 X 150 TEE
3+031.18	56.53	54.13	V. BEND
3+031.67	56.54	54.63	V. BEND
3+032.67	56.54	54.63	V. BEND
3+033.16	56.54	54.14	V. BEND
3+050.00	56.69	54.29	-
3+060.47	56.63	54.23	200 X 200 TEE
3+060.97	56.63	54.23	V. BEND

WATERMAIN TABLE

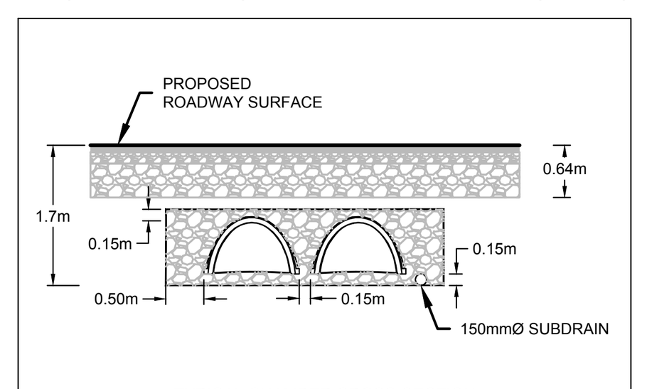
Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
3+061.47	56.63	54.74	V. BEND
3+062.47	56.64	54.74	V. BEND
3+062.97	56.64	54.24	V. BEND
3+075.00	56.71	54.31	-
3+077.30	56.74	54.34	HYD3 TEE
3+090.27	56.73	54.33	200 X 150 TEE
3+090.75	56.73	54.33	V. BEND
3+091.27	56.73	54.85	V. BEND
3+092.27	56.73	54.85	V. BEND
3+092.79	56.73	54.33	V. BEND
3+100.00	56.77	54.37	-
3+113.60	56.35	53.95	VB7
3+118.94	56.27	53.87	CONNECT TO EXISTING

WATERMAIN TABLE

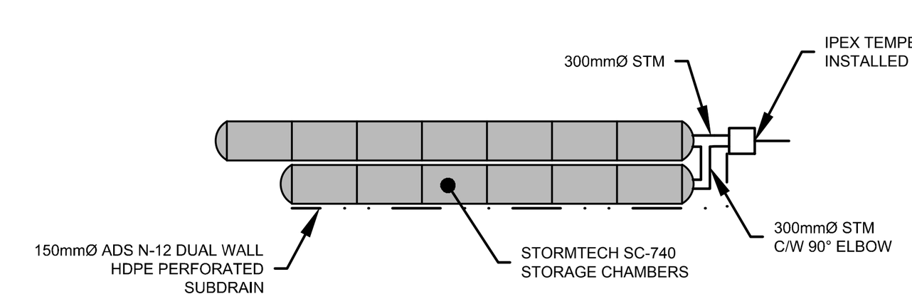
Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
4+000.00	56.45	54.05	200 X 150 TEE
4+025.00	56.64	54.24	-
4+046.49	56.67	54.27	VB4
4+049.49	56.53	54.13	200 X 150 TEE

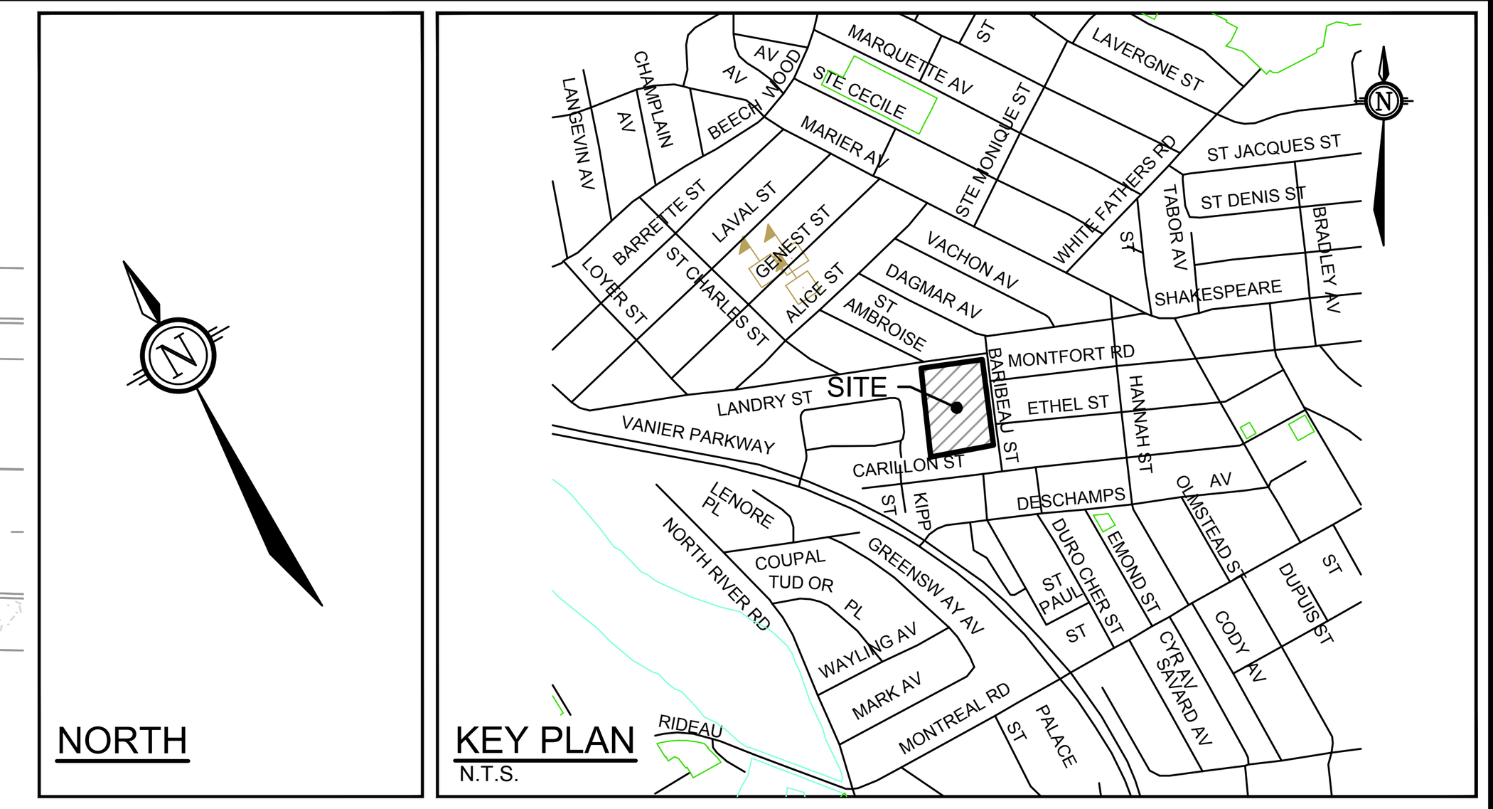
WATERMAIN TABLE

Station	F/G ELEVATION	TOP OF WATERMAIN	DESCRIPTION
5+000.00	56.71	54.31	CAP
5+025.00	56.78	54.38	-
5+041.24	56.82	54.42	VB4
5+044.24	56.73	54.33	200 X 150 TEE



TYPICAL CHAMBER CROSS-SECTION
SCALE 1:75





LEGEND

SANITARY MANHOLE, SEWER & DIRECTION OF FLOW	ROAD CATCHBASIN
STORM MANHOLE, SEWER & DIRECTION OF FLOW	ROAD CATCHBASIN WITH ICD
WATERMAIN AND DIAMETER	LANDSCAPE TYPE CATCHBASIN
VB VALVE & VALVE BOX	REAR YARD CATCH BASIN
VC VALVE & VALVE CHAMBER	UNDERGROUND STORAGE CHAMBERS WITH SUBDRAIN
BEND AND THRUST BLOCK	
HYD HYDRANT C/W VALVE & LEAD	
CAP	

NOTES:

RIDEAU RIVER REGULATORY FLOOD LEVEL (REDUCED FLOOD RISK) = 56.44

ALL BUILDING ARE SLAB ON GRADE

GENERAL NOTES:

1. DIMENSIONS AND LAYOUT INFORMATION SHALL BE CONFIRMED PRIOR TO COMMENCEMENT 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 PG4278-1 (DATED JULY 5, 2018), 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 1.5m 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, 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.
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.

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 0.50m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS.
6. WATER SERVICE SHALL BE CONSTRUCTED TO SERVICE POST AT PROPERTY LINE, UNLESS OTHERWISE INDICATED.
7. PRESSURE REDUCING VALVES SHALL BE INSTALLED AT ALL UNITS.

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.

parkriver PROPERTIES

No.	REVISION	DATE	BY
3.	SITE PLAN APPLICATION	AUG 24/20	MAB
2.	RVCA APPROVAL IN PRINCIPAL APPLICATION	MAY 28/20	MAB
1.	ISSUED FOR RVCA REVIEW	MAR 26/20	MAB

SCALE 1:300

DESIGN	DTD
CHECKED	LRW
DRAWN	DTD
CHECKED	LRW
APPROVED	MAB

FOR REVIEW ONLY

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

M.A. BISSETT 2020.08.24

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CITY OF OTTAWA
200 BARIBEAU STREET

SERVICING PLAN

PROJECT No. 119068
REV #3
DRAWING No. 119068-GP