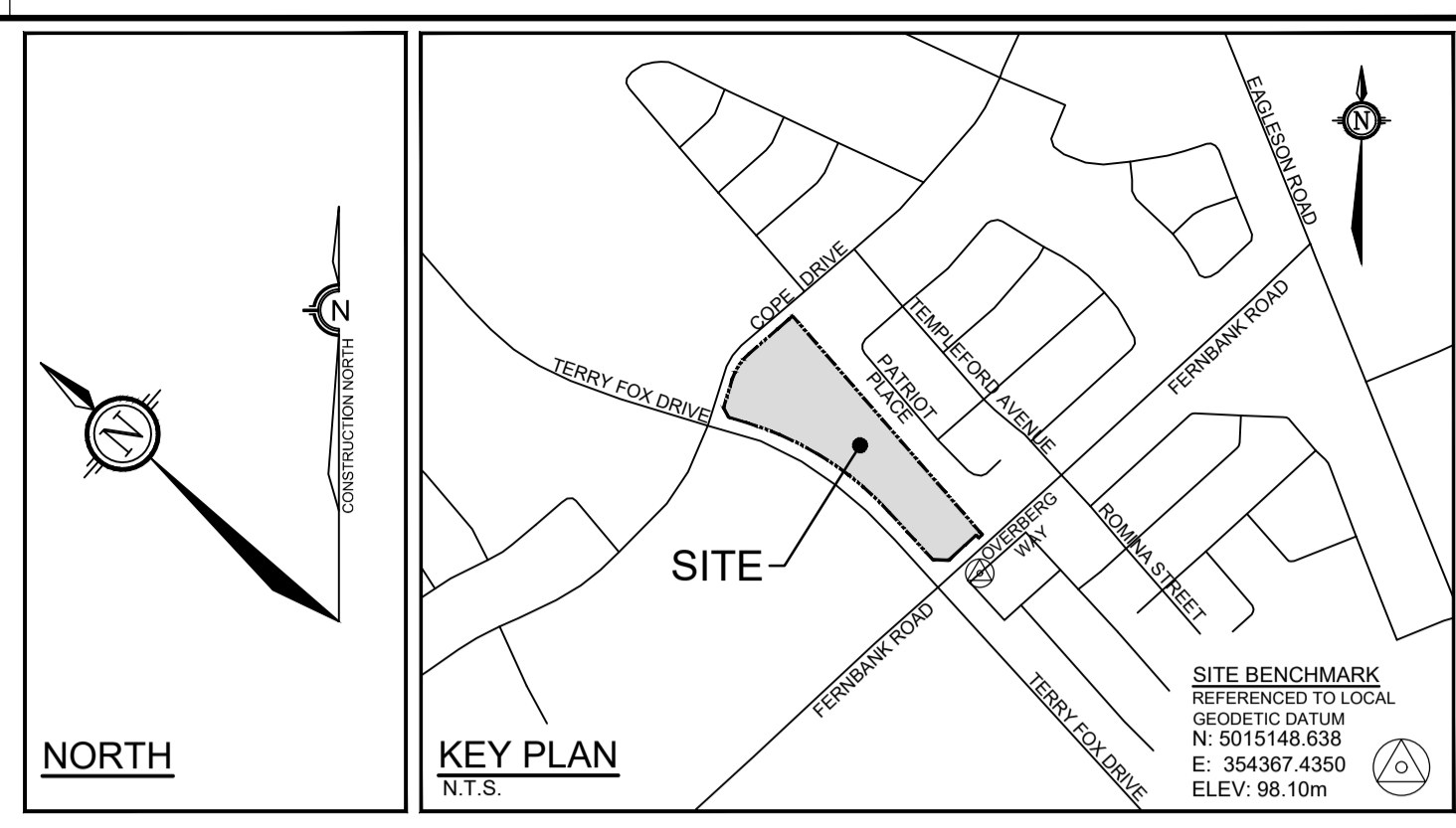


LEGEND

- SITE BOUNDARY
- PROPOSED STORM MANHOLE & SEWER
- PROPOSED SANITARY MANHOLE & SEWER
- PROPOSED WATERMAIN
- PROPOSED VALVE & VALVE BOX
- PROPOSED CURB STOP LOCATION
- PROPOSED WATER CHAMBER (AS PER CITY OF OTTAWA DETAIL W3)
- PROPOSED VALVE & VALVE CHAMBER (AS PER CITY OF OTTAWA DETAIL W3)
- PROPOSED HYDRANT C/W VALVE
- PROPOSED TREES
- PROPOSED CATCHBASIN
- PROPOSED CATCHBASIN MANHOLE
- PROPOSED REAR YARD ELBOW
- PROPOSED REAR YARD TEE
- PROPOSED HYDRO METER LOCATION
- PROPOSED CURB STOP DOWN TRANSFORMER LOCATION
- PROPOSED WATER METER LOCATION
- PROPOSED REMOTE WATER METER LOCATION
- PROPOSED GAS METER LOCATION
- PROPOSED PRESSURE REDUCING VALVE
- PROPOSED RETAINING WALL
- EXISTING STORM MANHOLE AND SEWER
- EXISTING SANITARY MANHOLE AND SEWER
- EXISTING WATERMAIN
- EXISTING UNDERGROUND GAS
- EXISTING VALVE AND VALVE BOX
- EXISTING FIRE HYDRANT
- EXISTING CATCHBASIN
- EXISTING TOP OF GRATE
- EXISTING HYDRAULIC GRADE LINE
- EXISTING UTILITY POLE C/W GUY WIRES
- EXISTING STREETLIGHT



PIPE CROSSING TABLE

CROSSING #	WATERMAIN	SANITARY	STORM
1		INV = 93.14 OVB = 93.34	INV = 94.10 OVB = 95.04
2		INV = 93.55 OVB = 93.75	INV = 94.13 OVB = 95.07
3		INV = 93.46 OVB = 93.66	INV = 94.52 OVB = 95.05
4		INV = 93.69 OVB = 93.89	INV = 94.26 OVB = 95.12
5		INV = 94.63 OVB = 93.80	INV = 94.63 OVB = 95.09
6*	INV = 92.96 OVB = 93.11	INV = 93.61 OVB = 93.81	INV = 94.33 OVB = 95.11
7*	INV = 92.96 OVB = 93.11	INV = 93.75 OVB = 93.95	INV = 94.39 OVB = 95.17
8	INV = 92.76 OVB = 94.70	INV = 93.81 OVB = 93.95	INV = 94.39 OVB = 95.17
9	INV = 92.76 OVB = 94.70	INV = 93.81 OVB = 93.95	INV = 94.39 OVB = 95.17
10*	INV = 92.76 OVB = 92.96	INV = 93.81 OVB = 93.81	INV = 94.60 OVB = 95.06
11*	INV = 92.96 OVB = 92.96	INV = 93.81 OVB = 93.81	INV = 94.60 OVB = 95.06
12*	INV = 92.96 OVB = 93.16	INV = 93.86 OVB = 94.06	INV = 94.77 OVB = 95.14
13*	INV = 92.96 OVB = 93.16	INV = 94.01 OVB = 94.21	INV = 94.77 OVB = 95.14
14*	INV = 94.68 OVB = 94.88	INV = 93.95 OVB = 94.15	INV = 94.53 OVB = 95.23
15	INV = 94.68 OVB = 94.88	INV = 94.01 OVB = 94.21	INV = 94.53 OVB = 95.23
16	INV = 94.68 OVB = 94.88	INV = 93.87 OVB = 94.07	INV = 94.84 OVB = 95.21
17*	INV = 93.24 OVB = 93.39	INV = 93.89 OVB = 94.09	INV = 94.84 OVB = 95.21
18*	INV = 93.24 OVB = 93.39	INV = 93.81 OVB = 94.01	INV = 94.61 OVB = 95.22
31	INV = 94.15 OVB = 94.35	INV = 93.78 OVB = 93.98	INV = 94.76 OVB = 94.96
33	INV = 94.15 OVB = 94.35	INV = 93.70 OVB = 93.90	INV = 94.95 OVB = 95.12
37*	INV = 94.15 OVB = 94.35	INV = 94.85 OVB = 95.05	INV = 94.85 OVB = 95.05
157	INV = 94.15 OVB = 94.35	INV = 94.85 OVB = 95.05	INV = 94.85 OVB = 95.05
159	INV = 94.15 OVB = 94.35	INV = 94.85 OVB = 95.05	INV = 94.85 OVB = 95.05
39	INV = 94.04 OVB = 94.24	INV = 94.86 OVB = 95.06	INV = 94.86 OVB = 95.06
40	INV = 94.14 OVB = 94.34	INV = 93.92 OVB = 94.12	INV = 94.59 OVB = 95.12
41	INV = 94.14 OVB = 94.34	INV = 93.66 OVB = 93.86	INV = 94.77 OVB = 95.14
42	INV = 94.27 OVB = 94.47	INV = 94.08 OVB = 94.28	INV = 95.03 OVB = 95.28
43	INV = 94.27 OVB = 94.47	INV = 93.20 OVB = 93.40	INV = 95.05 OVB = 95.25
44	INV = 94.40 OVB = 94.60	INV = 94.14 OVB = 94.34	INV = 94.79 OVB = 95.09
45	INV = 94.40 OVB = 94.60	INV = 94.29 OVB = 94.49	INV = 94.79 OVB = 95.09
46	INV = 94.31 OVB = 94.51	INV = 94.86 OVB = 95.06	INV = 94.96 OVB = 95.62
47	INV = 94.28 OVB = 94.48	INV = 94.31 OVB = 94.51	INV = 94.93 OVB = 95.53
48	INV = 94.28 OVB = 94.48	INV = 94.31 OVB = 94.51	INV = 94.93 OVB = 95.53

* WATERMAIN CROSSING AS PER W25 & W25.2 PROVIDE THERMAL INSULATION AS PER W22

SAN MANHOLE TABLE

MANHOLE ID	SIZE(mm)	STATION	T/G ELEV(m)	INVERT(m)
109	1200	1+188.95	97.23	SE=93.86 NW=93.86 NE=93.92 SW=93.92
111	1200	1+148.74	96.99	SE=93.73 NW=93.73 SW=93.79 NE=93.79
113	1200	1+109.33	97.06	SE=93.60 NW=93.60 NE=93.66
115	1200	1+065.84	96.98	SE=93.46 NW=93.46 SW=93.52 NE=93.52
117	1200	1+028.64	96.90	SE=93.05 NW=93.05 NE=93.11 SW=93.60
137	1200		97.54	SW=94.47
141	1200		97.44	SE=94.53 NE=94.47
143	1200		97.45	NE=94.58
145	1200		96.95	SW=94.21
147	1200		97.28	SW=94.21
149	1200		97.47	W=94.73
151	1200		97.40	E=94.33 N=94.27
153	1200		97.12	S=93.82 E=93.82 NW=93.79
155	1200		97.20	W=94.13
157	1200		97.47	N=94.81
159	1200		97.35	S=94.37 E=94.31
161	1200		97.19	W=93.73 NE=93.70 SE=93.73
163	1200		97.02	SW=93.63 SE=93.69 NE=93.63
165	1200		97.30	NW=94.17
167	1200		96.78	SW=94.07
169	1200		97.15	SW=93.64
171	1200		97.17	NE=94.03

SANITARY MANHOLES THAT REQUIRE WATERTIGHT LIDS AS PER CITY SPEC MS-22.15

MH ID
111
115
145
167

STORM MANHOLES THAT REQUIRE WATERTIGHT LIDS AS PER CITY SPEC MS-22.15

MH ID
212
224
230

REAR YARD CATCHBASIN TABLE

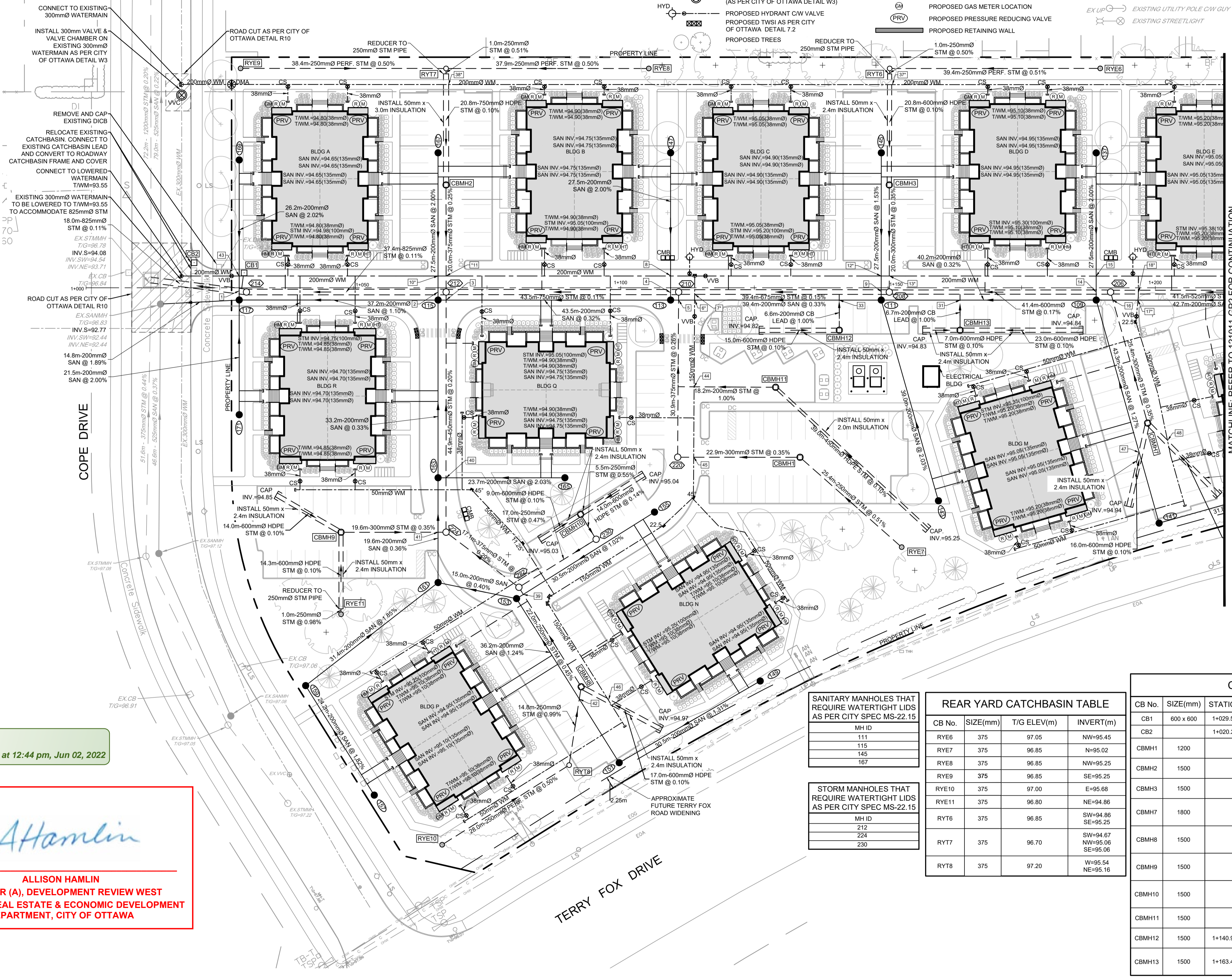
CB No.	SIZE(mm)	T/G ELEV(m)	INVERT(m)
RYE6	375	97.05	NW=95.45
RYE7	375	96.85	N=95.02
RYE8	375	96.85	NW=95.25
RYE9	375	96.85	SE=95.25
RYE10	375	97.00	E=95.68
RYE11	375	96.80	NE=94.86
RYT6	375	96.85	SW=94.86 SE=95.25
RYT7	375	96.70	SW=94.67 NW=95.06 SE=95.06
RYT8	375	97.20	W=95.54 NE=95.16

CATCHBASIN TABLE

CB No.	SIZE(mm)	STATION	T/G ELEV(m)	INVERT(m)	ICD DIA.(mm)
CB1	600 x 600	1+029.57	96.88	SW=95.27	83mm PLATE
CB2		1+020.21	96.76		
CBMH1	1200		96.85	S=94.89 NW=94.86	83mm PLATE
CBMH2	1500		96.70	SW=94.64 NE=94.64	105mm PLATE
CBMH3	1500		96.85	SW=94.83 NE=94.83	80mm PLATE
CBMH7	1800		96.95	NE=94.92 SW=94.92 S=94.92	114mm PLATE
CBMH8	1500		96.85	N=94.95 SW=95.01 S=94.95	TEMPEST LMF VORTEX 92
CBMH9	1500		96.80	SE=94.83 SW=94.83 N=94.83	83mm PLATE
CBMH10	1500		96.85	S=95.02 E=95.02 W=95.02	87mm PLATE
CBMH11	1500		96.80	N=95.21 S=95.21	80mm PLATE
CBMH12	1500	1+140.90	96.83	NE=94.81 NW=94.81	TEMPEST LMF VORTEX 73
CBMH13	1500	1+163.49	96.83	NE=94.82 NW=94.82 SE=94.82	TEMPEST LMF VORTEX 75

STM MANHOLE TABLE

MANHOLE ID	SIZE(mm)	STATION	T/G ELEV(m)	INVERT(m)
206	1200	1+191.63	97.26	SE=94.60 SW=94.83 NW=94.53
208	1500	1+150.24	97.03	SE=94.46 NE=94.76 NW=94.39
210	1500	1+110.84	97.09	SE=94.33 SW=94.63 NW=94.28
212	1500	1+067.34	96.94	SE=94.21 SW=94.52 NE=94.50 NW=94.14
214	1500	1+029.99	96.91	NW=94.10 SE=94.10
220	1200		97.16	NE=94.78 NE=94.71
222	1200		97.12	N=94.73 S=94.85 E=94.85
224	1200		96.97	S=94.68 NE=94.76
230	1200		97.03	N=94.99 W=94.93



APPROVED
By Allison Hamlin at 12:44 pm, Jun 02, 2022

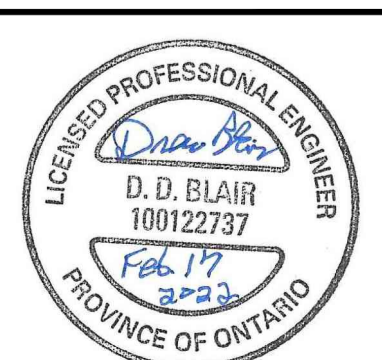
Allison Hamlin
ALLISON HAMLIN
MANAGER (A), DEVELOPMENT REVIEW WEST
PLANNING, REAL ESTATE & ECONOMIC DEVELOPMENT
DEPARTMENT, CITY OF OTTAWA

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.

SCALE
1:400

No.	REVISION	DATE	BY
3.	REVISED PER CITY COMMENTS	FEB 17/22	DDB
2.	REVISED PER CITY COMMENTS	NOV 5/21	DDB
1.	ISSUED FOR CITY OF OTTAWA REVIEW	JUN 2/21	DDB

DESIGN: DDB
CHECKED: MSP
DRAWN: MTM
CHECKED: DDB
APPROVED: MSP



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CITY OF OTTAWA
5331 FERNBANK ROAD
FERNBANK ZENS

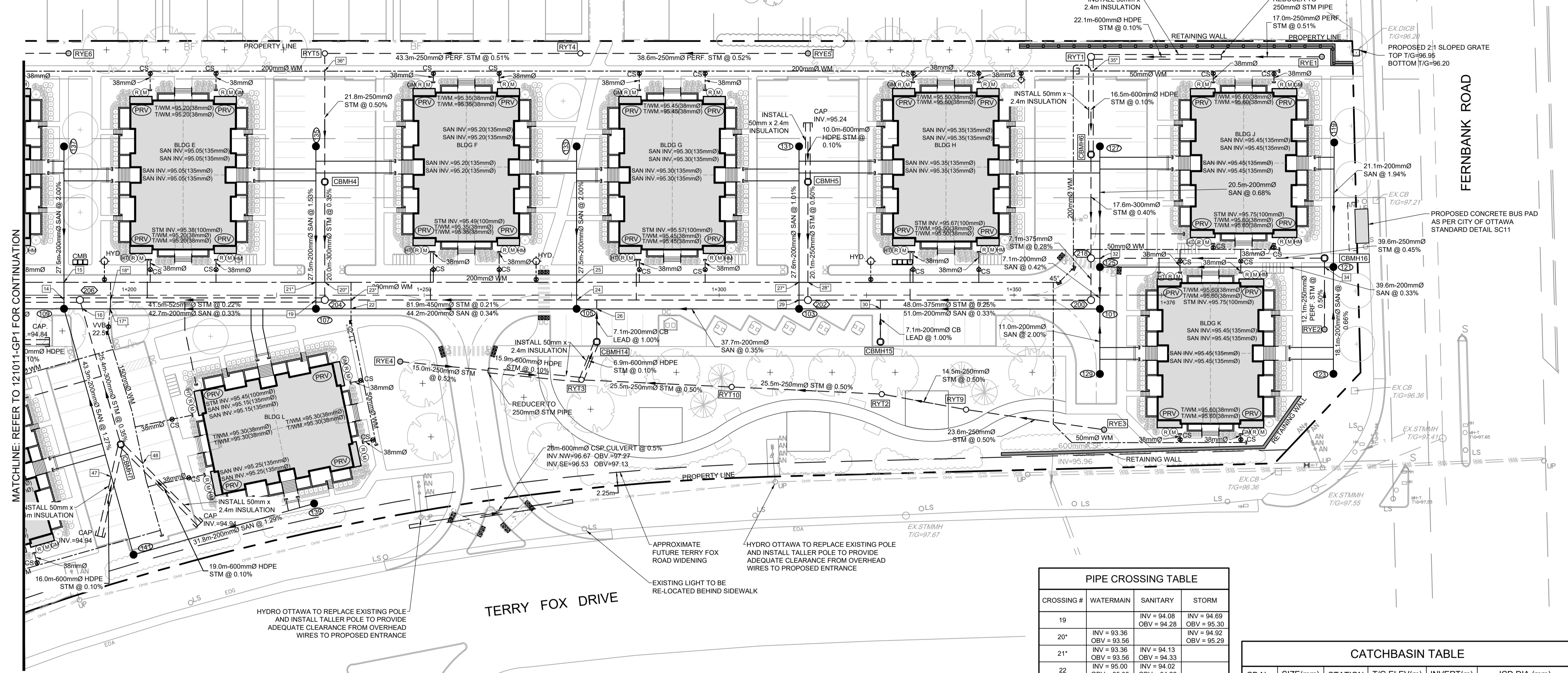
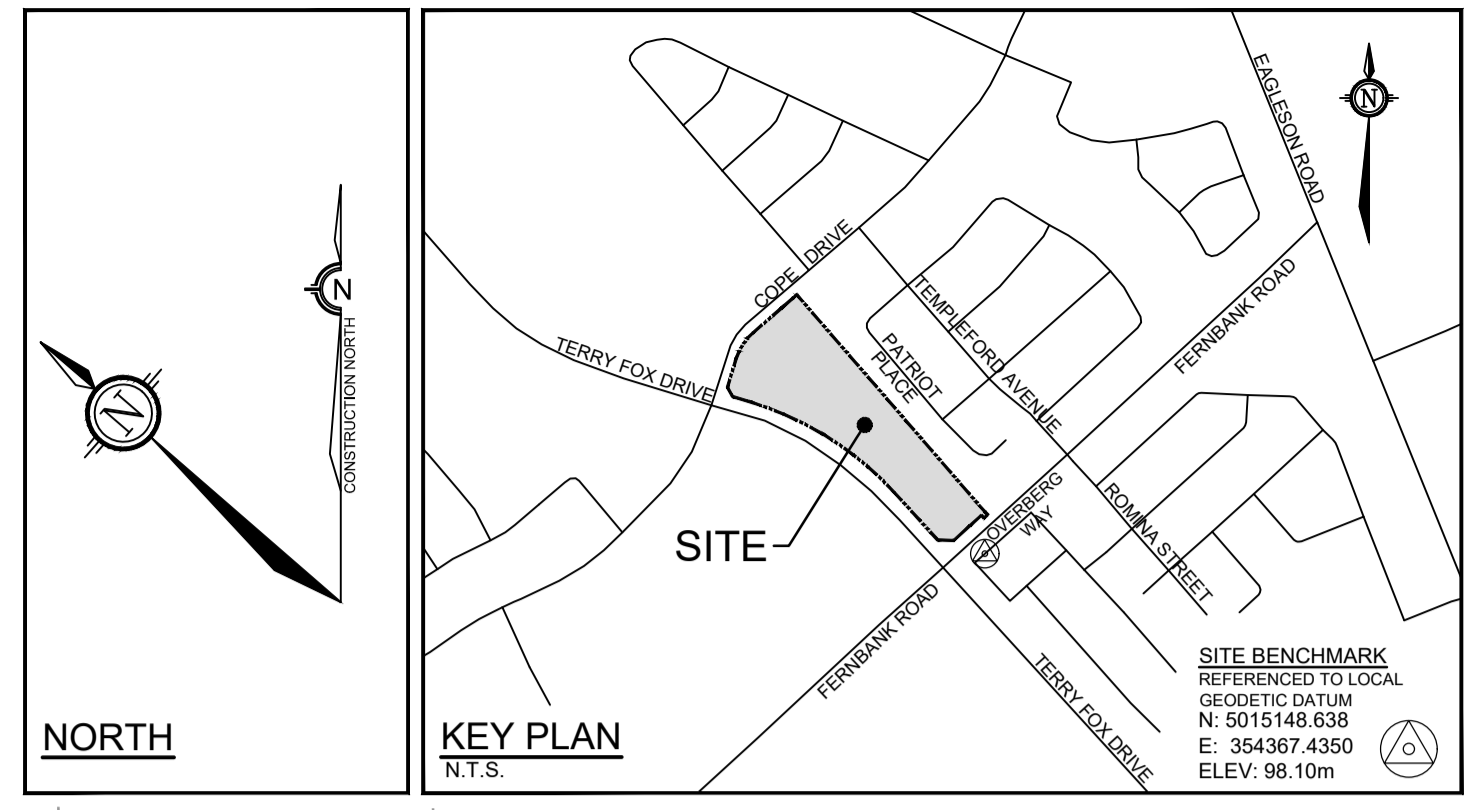
DRAWING NAME: GENERAL PLAN OF SERVICES

PROJECT No.: 121011-00
REV: REV # 3
DRAWING No.: 121011-GP1
#18539

D07-12-21-0080

LEGEND

- SITE BOUNDARY
- PROPOSED STORM MANHOLE & SEWER
- PROPOSED SANITARY MANHOLE & SEWER
- PROPOSED WATERMAIN
- WB ⊗ PROPOSED VALVE & VALVE BOX
- CS ⊗ PROPOSED CURB STOP LOCATION
- DMA ⊗ PROPOSED WATER CHAMBER (AS PER CITY OF OTTAWA DETAIL W3)
- WVC ⊗ PROPOSED VALVE & VALVE CHAMBER (AS PER CITY OF OTTAWA DETAIL W3)
- HYD ⊗ PROPOSED HYDRANT CM VALVE
- CB 1 □ PROPOSED CATCHBASIN
- CBMH 1 □ PROPOSED CATCHBASIN MANHOLE
- RYE 1 ⊗ PROPOSED REAR YARD ELBOW
- RYT 1 ⊗ PROPOSED REAR YARD TEE
- ⊗ PROPOSED TWSI AS PER CITY OF OTTAWA DETAIL 7.2
- ⊗ PROPOSED TREES
- ⊗ PROPOSED HYDRO METER LOCATION
- ⊗ PROPOSED HYDRO STEP DOWN TRANSFORMER LOCATION
- ⊗ PROPOSED WATER METER LOCATION
- ⊗ PROPOSED REMOTE WATER METER LOCATION
- ⊗ PROPOSED GAS METER LOCATION
- ⊗ PROPOSED PRESSURE REDUCING VALVE
- ⊗ PROPOSED RETAINING WALL
- EXISTING STORM MANHOLE AND SEWER
- EXISTING SANITARY MANHOLE AND SEWER
- EXISTING WATERMAIN
- EXISTING UNDERGROUND GAS
- WB ⊗ EXISTING VALVE AND VALVE BOX
- EX HYD ⊗ EXISTING FIRE HYDRANT
- EX CB ⊗ EXISTING CATCHBASIN
- T/G ⊗ EXISTING TOP OF GRATE
- HGL ⊗ EXISTING HYDRAULIC GRADE LINE
- EX U.P. ⊗ EXISTING UTILITY POLE C/W GUY WIRES
- ⊗ EXISTING STREETLIGHT



SAN MANHOLE TABLE				
MANHOLE ID	SIZE(mm)	STATION	T/G ELEV(m)	INVERT(m)
101	1200	1+364.55	97.63	NW=94.45 SW=94.85 NE=94.51
103	1200	1+313.56	97.56	SE=94.28 NW=94.28 NE=94.34
105	1200	1+275.85	97.41	SE=94.14 NW=94.15 NE=94.21
107	1200	1+231.65	97.41	SE=94.00 NW=94.00 NE=94.06
109	1200	1+188.95	97.23	SE=93.86 NW=93.86 SW=93.92
119	1200		97.90	SW=95.20
121	1200		97.50	NE=94.79 SW=94.79 NW=94.73
123	1200		97.40	NE=94.91
125	1200		97.56	SE=94.60 NE=94.54 SW=94.54
127	1200		97.42	SW=94.68
129	1200		97.75	NE=95.07
131	1200		97.39	SW=94.62
133	1200		97.59	SW=94.76
135	1200		97.23	SW=94.48
137	1200		97.54	SW=94.47
139	1200		97.73	NW=94.94
141	1200		97.44	SE=94.53 NE=94.47

STM MANHOLE TABLE				
MANHOLE ID	SIZE(mm)	STATION	T/G ELEV(m)	INVERT(m)
200	1200	1+363.05	97.60	NW=95.12 NE=95.18
202	1200	1+315.06	97.57	SE=95.00 NE=95.13 NW=94.93
204	1200	1+233.15	97.42	SE=94.76 NE=94.91 NW=94.69
206	1200	1+191.63	97.26	SE=94.60 SW=94.83 NW=94.53
218	1200	1+363.05	97.54	SE=95.32 NE=95.27 SW=95.20

PIPE CROSSING TABLE			
CROSSING #	WATERMAIN	SANITARY	STORM
19		INV = 94.08 OBV = 94.28	INV = 94.69 OBV = 95.30
20*	INV = 93.36 OBV = 93.56	INV = 94.13 OBV = 94.33	INV = 94.92 OBV = 95.29
21*	INV = 95.00 OBV = 95.05	INV = 94.02 OBV = 94.22	
22	INV = 94.22 OBV = 94.27	INV = 94.77 OBV = 95.30	
23*		INV = 94.24 OBV = 94.44	INV = 94.85 OBV = 95.38
24	INV = 94.95 OBV = 95.15	INV = 94.30 OBV = 94.50	INV = 95.12 OBV = 95.32
25		INV = 94.16 OBV = 94.36	INV = 94.92 OBV = 95.39
26	INV = 93.64 OBV = 93.84	INV = 94.59 OBV = 94.59	INV = 95.14 OBV = 95.39
27*	INV = 93.64 OBV = 93.84	INV = 94.39 OBV = 94.59	INV = 94.93 OBV = 95.38
28*	INV = 93.64 OBV = 93.84	INV = 94.39 OBV = 94.59	INV = 94.92 OBV = 95.38
29	INV = 94.36 OBV = 94.43	INV = 94.56 OBV = 94.56	INV = 95.54 OBV = 95.74
30	INV = 94.55 OBV = 94.75	INV = 94.73 OBV = 94.73	INV = 95.33 OBV = 95.53
32	INV = 94.73 OBV = 94.93	INV = 94.93 OBV = 94.93	INV = 95.57 OBV = 95.82
34	INV = 94.80 OBV = 94.85	INV = 94.85 OBV = 94.85	INV = 95.35 OBV = 95.35
35*	INV = 94.43 OBV = 94.63	INV = 94.31 OBV = 94.51	INV = 94.93 OBV = 95.53
36*		INV = 94.31 OBV = 94.51	INV = 94.93 OBV = 95.53
47	INV = 94.28 OBV = 94.43	INV = 94.43 OBV = 94.43	INV = 94.93 OBV = 95.53
48		INV = 94.31 OBV = 94.51	INV = 94.93 OBV = 95.53

CATCHBASIN TABLE				
CB No.	SIZE(mm)	STATION	T/G ELEV(m)	INVERT(m)
CBMH4	1200		97.15	SW=94.98 NE=95.03
CBMH5	1500		97.30	SW=95.23 NE=95.23
CBMH6	1500		97.35	SW=95.34 NE=95.34
CBMH7	1800		96.95	NE=94.92 SW=94.92 S=94.92
CBMH14	1500	1+279.26	97.25	NE=95.18 NW=95.21
CBMH15	1200	1+327.36	97.30	NE=95.60 SW=95.60
CBMH16	1200		97.45	NE=95.50 SW=95.56

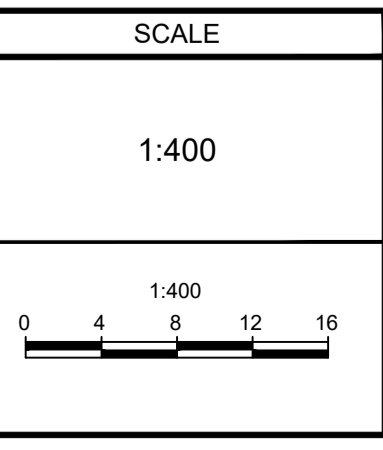
REAR YARD CATCHBASIN TABLE			
CB No.	SIZE(mm)	T/G ELEV(m)	INVERT(m)
RYE1	375	97.45	NW=95.48
RYE2	375	97.20	NE=95.62
RYE3	375	97.70	NW=95.78
RYE4	375	97.30	SE=95.37
RYE5	375	97.35	NW=95.62
RYE6	375	97.05	NW=95.45
RYT1	750	97.30	SW=95.36 SE=95.36
RYT2	375	97.25	SE=95.59 NW=95.59
RYT3	750	97.25	SE=95.33 NW=95.28 E=95.22
RYT4	375	97.15	NW=95.42 SE=95.42
RYT5	375	97.05	SW=95.14 SE=95.20
RYT9	375	97.55	SE=95.66 NW=95.66
RYT10	375	97.25	SE=95.46 NW=95.46

APPROVED
By Allison Hamlin at 12:45 pm, Jun 02, 2022

Allison Hamlin
ALLISON HAMLIN
MANAGER (A), DEVELOPMENT REVIEW WEST
PLANNING, REAL ESTATE & ECONOMIC DEVELOPMENT
DEPARTMENT, CITY OF OTTAWA

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3.	REVISED PER CITY COMMENTS	FEB 17/22	DDB
2.	REVISED PER CITY COMMENTS	NOV 5/21	DDB
1.	ISSUED FOR CITY OF OTTAWA REVIEW	JUN 2/21	DDB



DESIGN	DDB
CHECKED	MSP
DRAWN	MTM
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APPROVED	MSP



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CITY OF OTTAWA
5331 FERNBANK ROAD
FERNBANK ZENS

DRAWING NAME: GENERAL PLAN OF SERVICES

PROJECT No: 121011-00
REV: REV # 3
DRAWING No: 121011-GP2
#18539

D07-12-21-0080