

PROPOSED 100mmØ WATER SERVICE TABLE

STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
0+00	59.75	57.33	** ROLL CONNECTION TO 200mmØ WM EXTENSION
0+02.6	59.72	57.43	** CROSS ABOVE 450mmØ COMB (0.25m CLEARANCE)
0+04.5	59.73	57.33	CROSS ABOVE 50mmØ GAS (+1.3m CLEARANCE)
0+05.2	59.74	57.30	REMOVE SECTION OF ABANDONED COMB SEWER
0+10	59.85	57.30	---
0+12.8	59.98	57.30	100mmØ V&VB
0+14.4	60.00	57.30	** CROSS BELOW RET. WALL (+0.6m CLEARANCE)
0+14.8	59.17	57.30	** CAP 1.0m FROM FOUNDATION WALL

PROPOSED 150mmØ FIRE HYDRANT TABLE

STATION	SURFACE ELEVATION	T/W/M ELEVATION	COMMENTS
1+00	59.33	56.78	** CONNECTION TO 200mmØ WM EXTENSION
0+03.0	59.32	57.28	** CROSS ABOVE 450mmØ COMB (0.25m CLEARANCE) AS PER W25.2
0+04.7	59.33	56.93	CROSS BELOW 50mmØ GAS (+1.3m CLEARANCE)
0+05.2	59.33	56.93	REMOVE SECTION OF ABANDONED COMB SEWER
0+06.1	59.29	56.89	VALVE & VALVE BOX
0+09.5	59.47	56.93	FIRE HYDRANT

ROOF DRAIN TABLE: AREA R-1 (ROOF DRAINS 1.1, 1.2 + 2.1, 2.2 & 2.3)

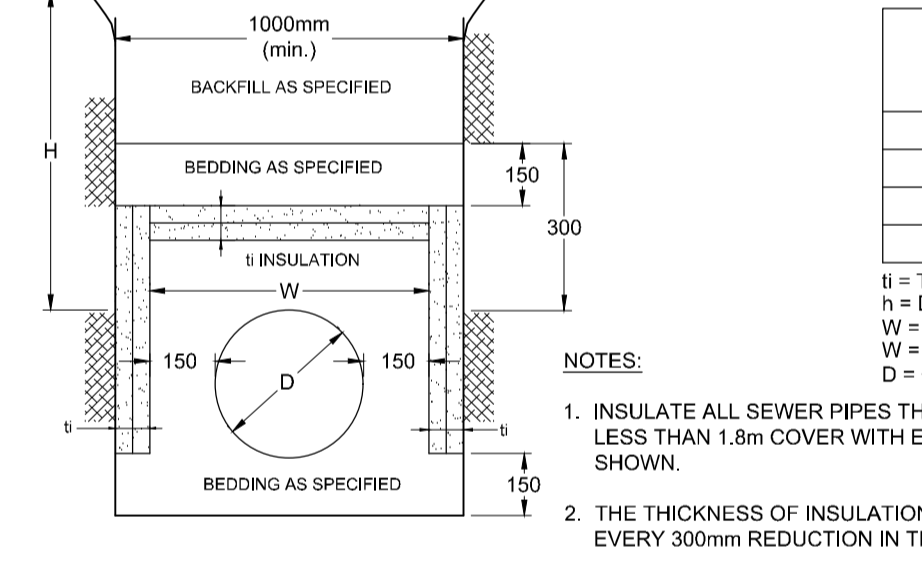
AREA ID	ROOF DRAIN NO. (WATTS MODEL)	WEIR SETTING	1.5 YR RELEASE RATE	APPROX. 5 YR PONDING DEPTH	1:100 YEAR PONDING DEPTH	APPROX. 100 YR PONDING DEPTH
R-1	RD 1.1 (RD-100-A-ADJ.)	CLOSED	0.32 L/s	11 cm	0.32 L/s	14 cm
R-1	RD 1.2 (RD-100-A-ADJ.)	CLOSED	0.32 L/s	10 cm	0.32 L/s	14 cm
R-1	RD 2.1 (RD-100-A-ADJ.)	1/4 OPEN	0.87 L/s	12 cm	0.85 L/s	14 cm
R-1	RD 2.2 (RD-100-A-ADJ.)	CLOSED	0.32 L/s	10 cm	0.32 L/s	13 cm
R-1	RD 2.3 (RD-100-A-ADJ.)	CLOSED	0.32 L/s	10 cm	0.32 L/s	13 cm
TOTALS			2.15 L/s		2.23 L/s	

INLET CONTROL DEVICE DATA TABLE - AREA A-2

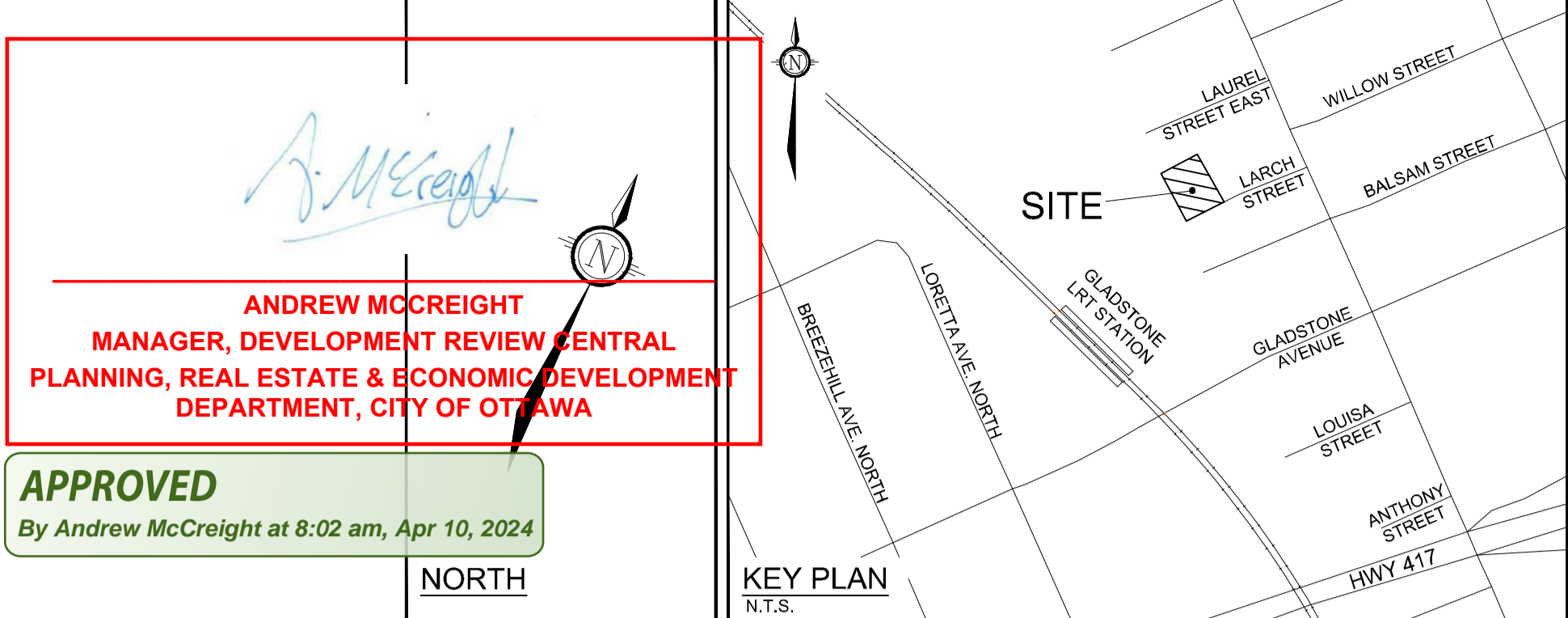
DESIGN EVENT	ICD TYPE (PLUG TYPE)	OUTLET STRUCTURE	DIAMETER OF OUTLET PIPE (mm)	PEAK DESIGN FLOW (L/s)	DESIGN HEAD (m)	WATER ELEVATION (m)	VOLUME (m³)	AVAILABLE STORAGE
1:2 YR	IPEX TEMPEST	1200mmØ STM MH 01	200mmØ PVC	1.0	0.19	57.28	2.0	
1:5 YR	VORTEX LMF			1.3	0.35	57.44	2.8	10.5 m³
1:100 YR				1.8	0.66	57.75	6.2	

PROPOSED SITE FLOWS & STORMWATER MANAGEMENT TABLE

DESIGN EVENT	PRE-DEVELOPMENT CONDITIONS		POST-DEVELOPMENT CONDITIONS					REDUCTION IN FLOW (L/s or %)**	
	SITE FLOWS (L/s)	ALLOWABLE RATE (L/s)	A-1 FLOW (L/s)	A-2 FLOW (L/s)	A-3 FLOW (L/s)	R-1 ROOF DRAINS (L/s)	R-1 DECK DRAINS (L/s)		TOTAL STM FLOWS (L/s)
1:2 YR	10.0		0.3	0.1	1.0	2.1	0.8*	4.1	5.9 or 59%
1:5 YR	13.6	7.3	0.3	0.1	1.3	2.1	0.8*	4.7	8.9 or 65%
1:100 YR	28.4		0.7	0.3	1.8	2.2	1.8*	6.6	19.8 or 75%



- BENCHMARK INFO:**
- ALL ELEVATIONS ARE REFERRED TO THE CGVD28 GEODETIC DATUM, DERIVED FROM THE CITY OF OTTAWA VERTICAL CONTROL MONUMENT NO. 2016-0357 HAVING AN ELEVATION OF 60.088 METRES. BEARINGS ARE METRIC GRID AND ARE REFERRED TO THE SOUTHERLY LIMIT OF LARCH STREET, HAVING A BEARING OF N 66° 23' 20" E AS SHOWN ON A SURVEYOR'S REAL PROPERTY REPORT BY ANNIS, OSULLIVAN, VOLLEBECK DATED NOVEMBER 2, 2017.
 - THE EXISTING GRADES SHOWN ON THE PLANS ARE TAKEN DIRECTLY FROM SURVEYORS REAL PROPERTY REPORT PLAN (Ref. # 20-10-126-00), PREPARED BY J.D. BARNES LIMITED SIGNED AND DATED OCTOBER 22, 2020.
 - INSULATED BACKGROUND TOPO INFORMATION BEYOND THE LIMITS OF THE SITE SURVEY ARE FROM CITY OF OTTAWA MAPPING AND UCC PLANS SHOWING CONTEXT ONLY.



LEGEND:

RD	PROPOSED CONTROLLED FLOW ROOF DRAIN	--- x ---	PROPOSED FENCE AND GATE
DD	PROPOSED WATER METER AND REMOTE METER	--- OHW ---	EXISTING OVERHEAD WIRES
DD	PROPOSED DECK DRAIN	--- CONCRETE CURB ---	EXISTING CONCRETE CURBS
DD	PROPOSED BUILDING ENTRANCE	--- SANMH ---	EXISTING SANITARY MANHOLE & SEWER
DD	PROPOSED WATER SERVICE	--- CBMH ---	EXISTING CATCHBASIN MANHOLE
DD	PROPOSED STORM SERVICE	--- STMH ---	EXISTING STORM MANHOLE & SEWER
DD	PROPOSED SANITARY SERVICE	--- GP ---	EXISTING CATCHBASIN C/W CATCHBASIN LEAD
VB	PROPOSED VALVE AND VALVE BOX	--- HYD ---	EXISTING HYDRANT & VALVE
T/FND	TOP OF FOUNDATION WALL ELEVATION	--- EX UP ---	EXISTING TREES / VEGETATION
GFE	GROUND FLOOR ELEVATION	---	EXISTING UTILITY POLE
USF	UNDERSIDE OF FOOTING ELEVATION	---	EXISTING FENCE
SBSE	SUB-BASEMENT SLAB ELEVATION	---	EXISTING WATERMAIN
USSBF	UNDERSIDE OF SUB-BASEMENT FOOTING ELEVATION	---	EXISTING HYDRANT
X	REMOVAL AND/OR ABANDONMENT	---	EXISTING HYDRANT C/W VALVE & LEAD
	THERMAL INSULATION FOR SHALLOW SEWERS	---	

- GENERAL NOTES:**
- COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
 - 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.
 - 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 CO-INSURED.
 - 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 MUNICIPAL AUTHORITIES.
 - 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.
 - REFER TO GEOTECHNICAL INVESTIGATION REPORT (NUMBER PG6071-1, REV. 1), DATED FEBRUARY 11, 2022. PREPARED BY PATTERSON 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.
 - REFER TO MECHANICAL PLAN FOR ROOF DRAIN INFORMATION.
 - REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACED AREAS AND DIMENSIONS.
 - REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2022-001) PREPARED BY NOVATECH.
 - SAW CUT AND KEYGRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE-IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).

- SEWER NOTES:**
- SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES 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'.
 - SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
STORM / CATCHBASIN MANHOLE (1200mmØ)	701.010	OPSD
STORM / CBMH MANHOLE FRAME AND COVER	401.010 - TYPE 'B'	OPSD
LANDSCAPE DRAIN (ELBOW, COVER & PIPE)	S29 / S31	CITY OF OTTAWA
SEWER TRENCH	S6	CITY OF OTTAWA
STORM SERVICE / SEWER	PVC DR 35 (HDPE FOR LD SYSTEM)	CITY OF OTTAWA
SANITARY SERVICE	PVC DR 35	
 - THE SANITARY SERVICE LATERAL SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14.1 OR S14.2. REFER TO MECHANICAL PLANS FOR DETAILS.
 - THE STORM SERVICE LATERAL SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER WITHIN THE BUILDING FOOTPRINT AS PER CITY OF OTTAWA STANDARD DETAILS S14. REFER TO MECHANICAL PLANS FOR DETAILS.
 - 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.
 - INSULATE ALL SEWER PIPES THAT HAVE LESS THAN 1.8m COVER WITH UP TO 125mm THICK HI-40 RIGID INSULATION.
 - CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL APPLICABLE SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS AND ANY ALIGNMENT CHANGES, ETC.
 - 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.

- WATERMAIN NOTES:**
- SUPPLY AND CONSTRUCT ALL WATERMAIN AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS - ALL CURRENT VERSIONS AND 'AS AMENDED'. THROUST BLOCK RESTRAINTS OF WATERMAIN AND FITTINGS SHALL BE IN ACCORDANCE WITH THE CITY OF OTTAWA SPECIFICATIONS F-4492.
 - SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
WATERMAIN TRENCHING	W17	CITY OF OTTAWA
HYDRANT INSTALLATION	W19	CITY OF OTTAWA
THERMAL INSULATION IN SHALLOW TRENCHES	W22	CITY OF OTTAWA
THERMAL INSULATION BY OPEN STRUCTURES	W23	CITY OF OTTAWA
WATERMAIN CROSSING OVER SEWER	W25.2	CITY OF OTTAWA
CONCRETE THROUST BLOCKS (UNDER 400mmØ)	W25.3	CITY OF OTTAWA
THROUST BLOCK TABLE (UNDER 400mmØ)	W25.4	CITY OF OTTAWA
WATERMAIN MATERIAL	PVC DR 18 (100mm AND LARGER)	
 - EXCAVATION, INSTALLATION, BACKFILL AND RESTORATION OF ALL WATERMANS BY THE CONTRACTOR. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CALORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY CITY OFFICIALS. EXCAVATION, INSTALLATION OF SERVICE, BACKFILL AND RESTORATION BY THE CONTRACTOR.
 - WATERMAIN SHALL BE MINIMUM 2.4m DEPTH BELOW GRADE UNLESS OTHERWISE INDICATED.
 - PROVIDE MINIMUM 0.5m CLEARANCE BETWEEN OUTSIDE OF PIPES AT ALL CROSSINGS, UNLESS OTHERWISE INDICATED.
 - WATER SERVICE IS TO BE CONSTRUCTED TO WITHIN 1.0m OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND COVERGROUND 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.

OWNER INFORMATION
15-19 LARCH ST. INC.
359 KENT STREET, SUITE 503,
OTTAWA, ONTARIO, K2P 0R6
ROBERTO CAMPAGNA
PHONE: (613) 851-7823
roberto@rocachomes.ca

No.	REVISION	DATE	BY	No.	REVISION	DATE	BY
8	ISSUED FOR SITE PLAN APPROVAL	JAN 10/24	MS				
7	ISSUED FOR TENDER	DEC 15/23	MS				
6	REVISED PER CITY COMMENTS	DEC 8/23	MS				
5	REVISED PER NEW SITE PLAN	OCT 27/23	MS				
4	EXTENDED 200mm DIA. WATERMAIN	APRIL 6/23	MS				
3	REVISED PER ADDITIONAL CITY COMMENTS	MAR 27/23	MS				
2	REVISED PER CITY COMMENTS	SEPT 2/22	MS				
1	ISSUED FOR SITE PLAN APPROVAL	FEB 17/22	MS				
11	REISSUED FOR SITE PLAN APPROVAL	FEB 28/24	MS				
10	REISSUED FOR SITE PLAN APPROVAL	FEB 20/24	MS				
9	REISSUED FOR SITE PLAN APPROVAL	JAN 22/24	MS				

SCALE
1:100

DESIGN SM
CHECKED SM
DRAWN DWM / SM
CHECKED SM
APPROVED MS

FOR REVIEW ONLY

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone: (613) 254-9643
Facsimile: (613) 254-5867
Website: www.novatech-eng.com

LOCATION
CITY OF OTTAWA
15 LARCH STREET

DRAWING NAME
GENERAL PLAN OF SERVICES

PROJECT No. 120251
REV REV # 11
DRAWING No. 120251-GP

PLAN #18698