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GENERAL							
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M1501	STANDARD DETAILS						
ELECTRICAL							
E1101	UPGRADES						

TOWN OF GIBSONS 2019 PROWSE LIFT STATION UPGRADES KWL Project No. 2132.028B CONTRACT No. XXX.XXXXXXX

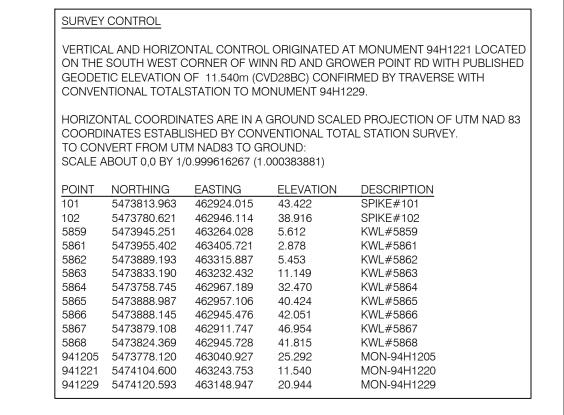
SANITARY FORCEMAIN

WWTP SITE (BY OTHERS)

(CONTRACT No. 2132.028A)

(CONTRACT No. 2132.028B)

REPLACEMENT



PROWSE ROAD LIFT

(CONTRACT No. 2132.028B)

STATION SITE

KERR WOOD LEIDAL consulting engineers

Rev Date Des Dun Chk Description Rev Date Des Dun Chk Description

A 2018-12-14 TMH CKT I MAH CKT I SSUED FOR 90% CLIENT REVIEW

Date Des Dun Chk Description

TOWN OF GIBSONS
2019 PROWSE LIFT STATION UPGRADES

LOCATION PLAN, KEY PLAN & DRAWING LIST

Project No. 2132.028B
Group GENERAL

Group GENERAL

Group GENERAL

KEY PLAN

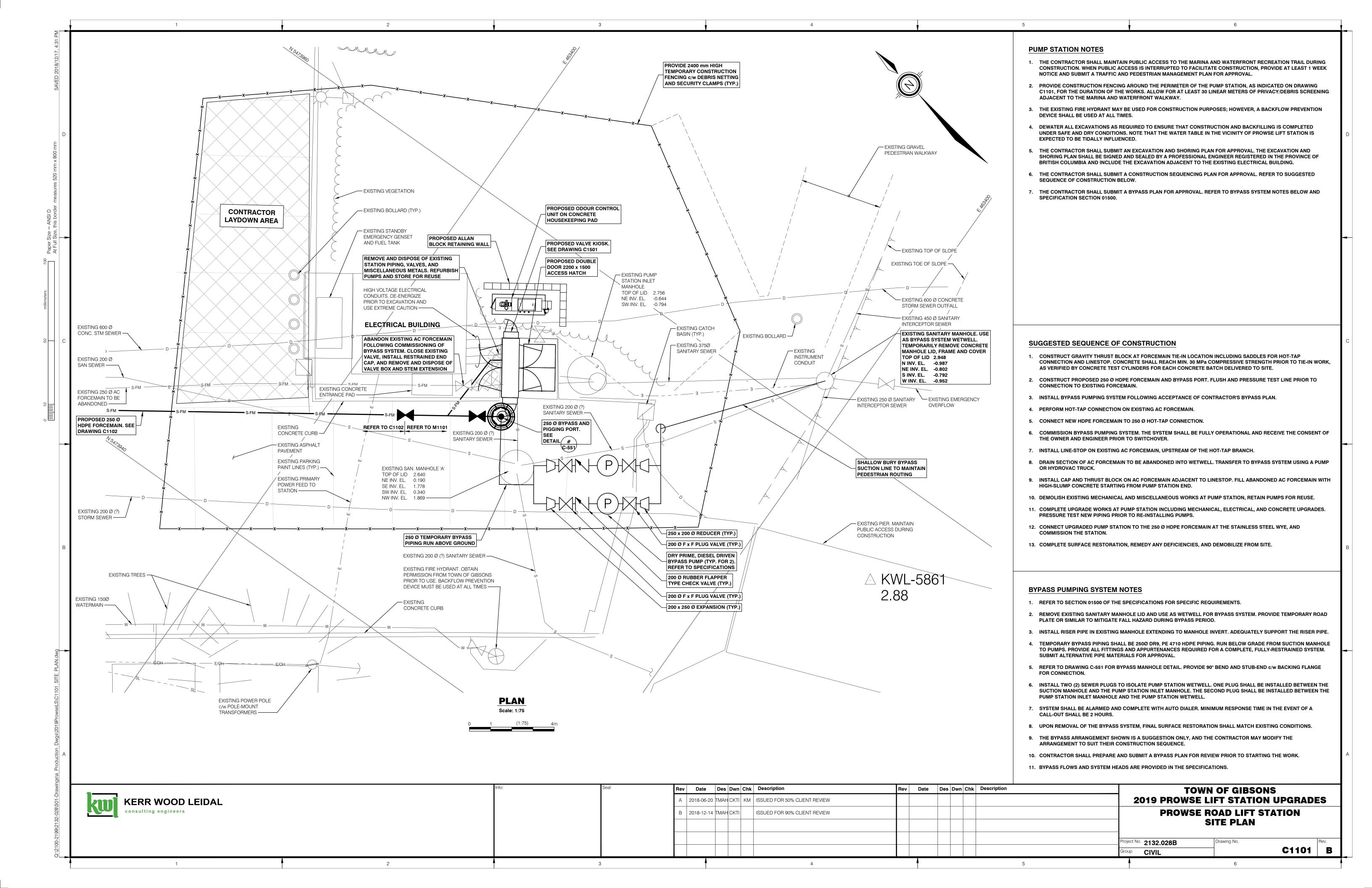
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				LAWN DRAIN		
HYDROLOGY				CATCH BASIN (STANDARD)		
FLOWPATH - MAJOR (CREEK OR RIVER)	•			CATCH BASIN MANHOLE		
FLOWPATH - MINOR (DITCH OR SWALE)	~~ ·		\supset	MANHOLE	•	
FLOWPATH - OVERLAND	.					
ROADS		s		SANITARY MAIN		 s
EDGE OF PAVED ROADS / DRIVEWAYS ——	<i></i>	S-FM		FORCEMAIN		→ S-FM ←
EDGE OF CONCRETE/PAVER ROADS/DRIVEWAYS		S		SERVICE CONNECTION		s
EDGE OF PAVED PATH	<i></i>	(0	INSPECTION CHAMBER	•	
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EDGE OF CONCRETE OR PAVERS PATH				IVII IVI IOLL		
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BUSH LINE / HEDGE LINE · · · · · · · · · · · · · · · · · · ·	·	5	8	BLOW-OFF VENT	Ω	
LAWN EDGE		3	<u> </u>	CORP. STOP / CURB STOP	[100]	
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	xx					
ROADSIDE BARRIER - CENTERED				UTILITIES		
RETAINING WALL		C -		CABLE MAIN		- c
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OLP			O)	ANCHOR POLE	•)	
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				JUNCTION BOX		
				TRANSFORMER		
				TELEPHONE BOOTH	-	
			→	GAS VALVE	-	
			◆	GAS MARKER	•	
				STREET LIGHT (POST TOP)	*	
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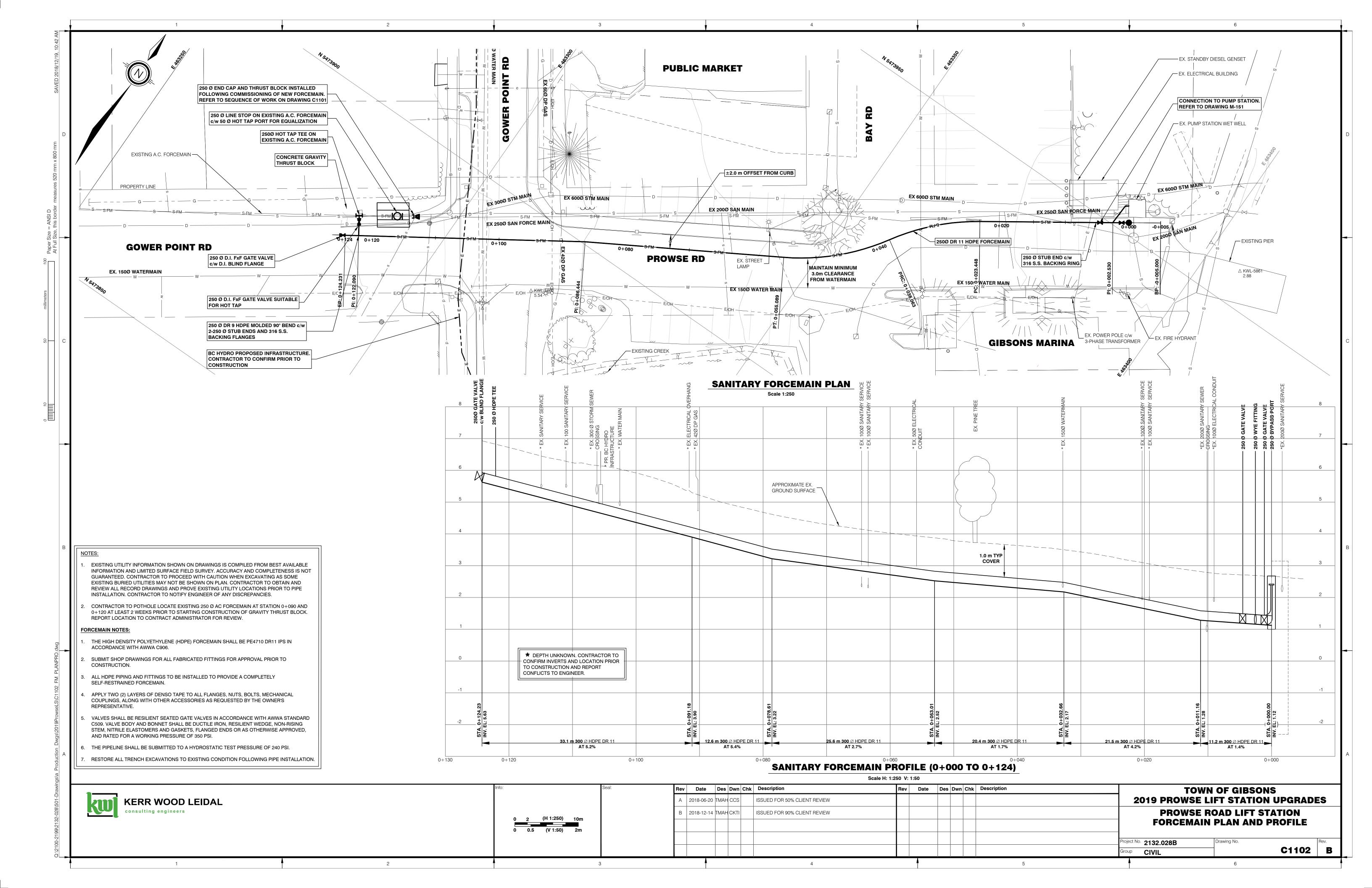
LEGEND

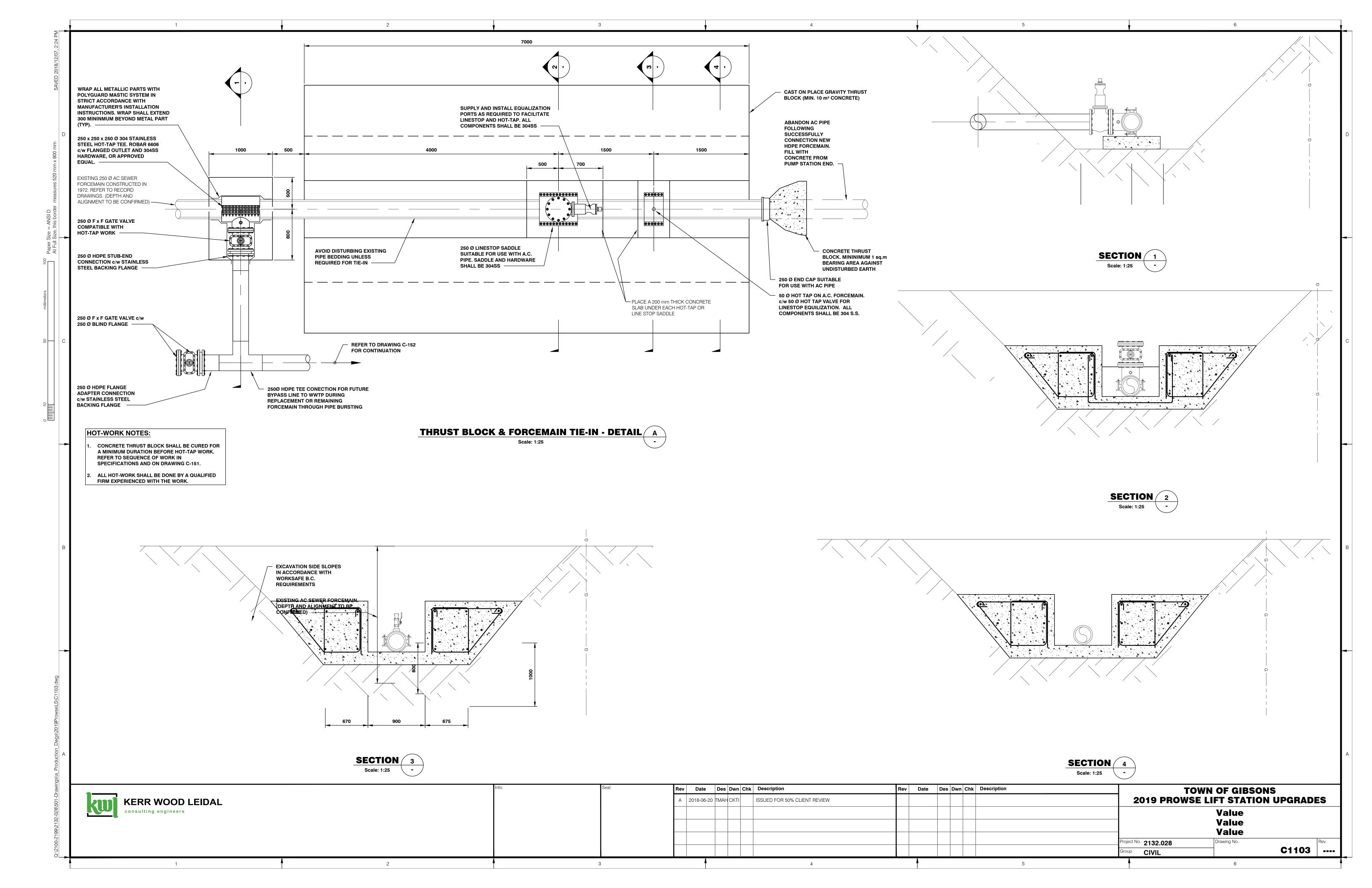
GENERAL NOTES

- 1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. IN CASE OF CONFLICT OR UNCERTAINTY, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO PROVIDE CLARIFICATION
- 2. COORDINATE ALL PERMITS AND NOTIFICATIONS FOR WORK AS REQUIRED WITH THE APPROPRIATE AUTHORITY.
- 3. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, AND UNLESS OTHERWISE NOTED, SHALL BE SUPPLIED BY THE CONTRACTOR. SUBMIT ALTERNATE MATERIALS FOR
- 4. ALL DIMENSIONS AND UTILITY LOCATIONS ARE ONLY INDICATIVE AND SHALL BE VERIFIED BY THE CONTRACTOR ON SITE.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR ALL SURVEY LAYOUT DURING CONSTRUCTION USING BENCHMARK INFORMATION PROVIDED ON THE CONTRACT DRAWINGS.
- 6. ANY UTILITY OR SERVICE DISTURBED DURING CONSTRUCTION SHALL BE IMMEDIATELY RECTIFIED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S COST.
- 7. EXISTING UTILITIES ARE BASED ON PARTIAL FIELD SURVEY, RECORD DRAWINGS, AND A GROUND-PENETRATING RADAR UTILITY LOCATE. ACCURACY AND COMPLETENESS IS NOT GUARANTEED. PROCEED WITH CAUTION WHEN EXCAVATING AS SOME EXISTING BURIED UTILITIES MAY NOT BE SHOWN ON THE PLAN. THE CONTRACTOR SHALL CONTACT BC ONE CALL TO CONFIRM ADDITIONAL SERVICING LOCATIONS PRIOR TO CONSTRUCTION.
- 8. PRIOR TO CONSTRUCTION, LOCATE AND CONFIRM ELEVATION OF EXISTING UNDERGROUND UTILITIES BY POT HOLING OR OTHER MEANS AT ALL TIE-IN AND MAINLINE UTILITY CROSSING LOCATIONS. NOTIFY THE ENGINEER AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION OF ANY DISCREPANCIES OR CONFLICTS, OR REQUIREMENTS TO CHANGE PIPELINE GRADES.
- 9. THE CONTRACTOR SHALL NOTIFY THE CONTRACT ADMINISTRATOR AT LEAST 72 HOURS IN ADVANCE OF ANY REQUIRED UTILITY RELOCATIONS.
- 10. ALL WORK WITHIN VICINITY OF THIRD PARTY UTILITIES SHALL CONFORM TO THE APPLICABLE UTILITY REQUIREMENTS.
- 11. CONTRACTOR SHALL KEEP PROPER AS-BUILT INFORMATION DURING CONSTRUCTION AND SUBMIT THE INFORMATION TO THE CONTRACT ADMINISTRATOR AS REQUESTED DURING CONSTRUCTION, AND PRIOR TO ACCEPTANCE OF THE WORK.
- 12. THE CONTRACTOR SHALL BE CONSIDERED THE 'PRIME CONTRACTOR' AND IS RESPONSIBLE FOR ALL ASPECTS OF SAFETY WITHIN THE VICINITY OF THE CONTRACT WORK. PROVIDE TEMPORARY FENCING AND SIGNAGE TO ISOLATE WORK AREAS.
- 13. DISPOSE OF ALL EXCAVATED MATERIAL, CONCRETE, ASPHALT, TRENCH MATERIAL, PIPING, AND OTHER MISCELLANEOUS DEBRIS IN AN APPROVED MANNER TO AN OFFSITE DUMP SITE.
- 14. DEMOLITION AND DISPOSAL OF ASBESTOS CONCRETE PIPE SHALL BE IN STRICT ACCORDANCE WITH WORKSAFE BC REQUIREMENTS AND ENVIRONMENTAL REGULATIONS OF THE AUTHORITY HAVING JURISDICTION.
- 15. INSTALL MATERIALS AND EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. DEVIATIONS FROM THE MANUFACTURER'S WRITTEN INSTRUCTIONS SHALL BE APPROVED BY THE ENGINEER IN WRITING.
- 16. ADJUST ALL MANHOLES, CATCH BASINS, VALVE BOXES, JUNCTION BOXES, ETC. TO FINAL GRADE, AS
- 17. ALL INSTALLED PIPING SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO SYSTEM TIE-IN. VALVES SHALL NOT BE UTILIZED TO ISOLATE FOR PRESSURE TESTING PURPOSES WITHOUT THE ENGINEER'S PRIOR WRITTEN APPROVAL. WHERE IT CAN BE SHOWN THAT A HYDROSTATIC TEST IS IMPRACTICAL, AN IN-SERVICE LEAK TEST SHALL BE USED. ALL HYDROSTATIC AND IN-SERVICE LEAK TESTS SHALL BE WITNESSED BY THE OWNER'S REPRESENTATIVE; PROVIDE 48 HOURS MINIMUM NOTICE.
- 18. FOLLOWING CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT ALL WORK AREAS ARE RESTORED TO ORIGINAL CONDITION.
- 19. ALL BURIED METALLIC PIPING AND APPURTENANCES (COUPLINGS, BACKING RINGS, NUTS, BOLTS, TIE-RODS, ETC.) SHALL BE COATED WITH DENSO PASTE AND TAPE OR POLYGUARD MASTIC. CONFIRM CHEMICAL COMPATIBILITY WITH HDPE MANUFACTURER PRIOR TO APPLICATION.
- 20. CONVEYANCE OF SEWAGE TO THE WASTEWATER TREATMENT PLANT MUST BE MAINTAINED AT ALL TIMES. COORDINATE WORK WITH TOWN OF GIBSONS OPERATIONS STAFF TO MINIMIZE INTERRUPTIONS.
- 21. THE CONTRACTOR SHALL COORDINATE WITH THE WWTP CONTRACTOR (CONTRACT No. 2132.028A) AS REQUIRED TO FACILITATE SHUT DOWNS AND BYPASS WORKS AT THE PLANT.
- 22. FOLLOWING CONSTRUCTION, THE CONTRACTOR SHALL RESTORE ALL WORK AREAS TO ORIGINAL CONDITION IN ACCORDANCE WITH TOWN OF GIBSONS CONSTRUCTION STANDARDS AND THE REQUIREMENTS OF THIS CONTRACT. WHERE THERE IS A CONFLICT, THE MORE STRINGENT REQUIREMENT SHALL APPLY UNLESS APPROVED OTHERWISE BY THE CONTRACT ADMINISTRATOR.

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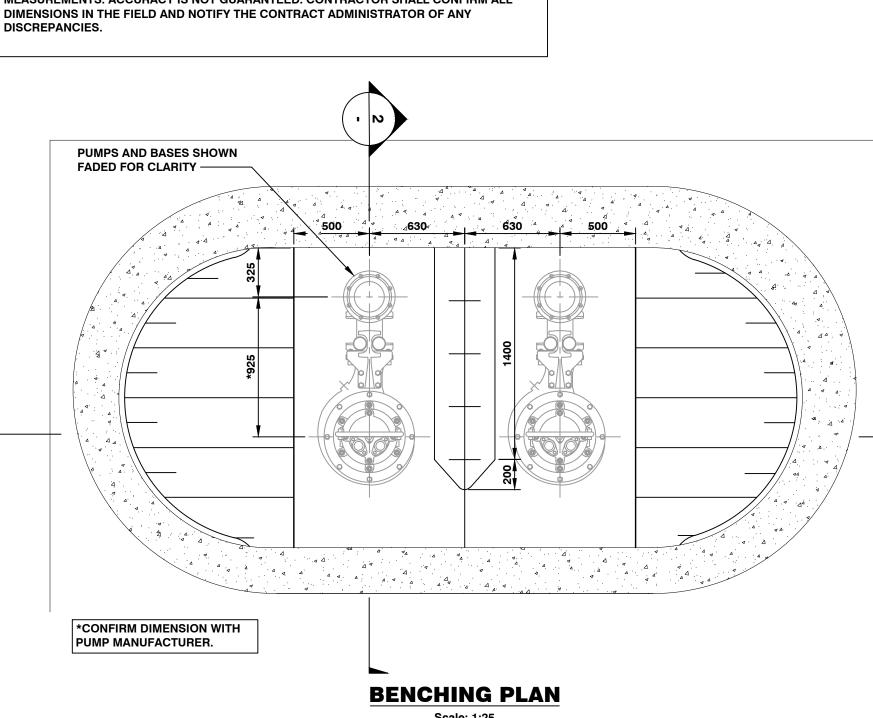


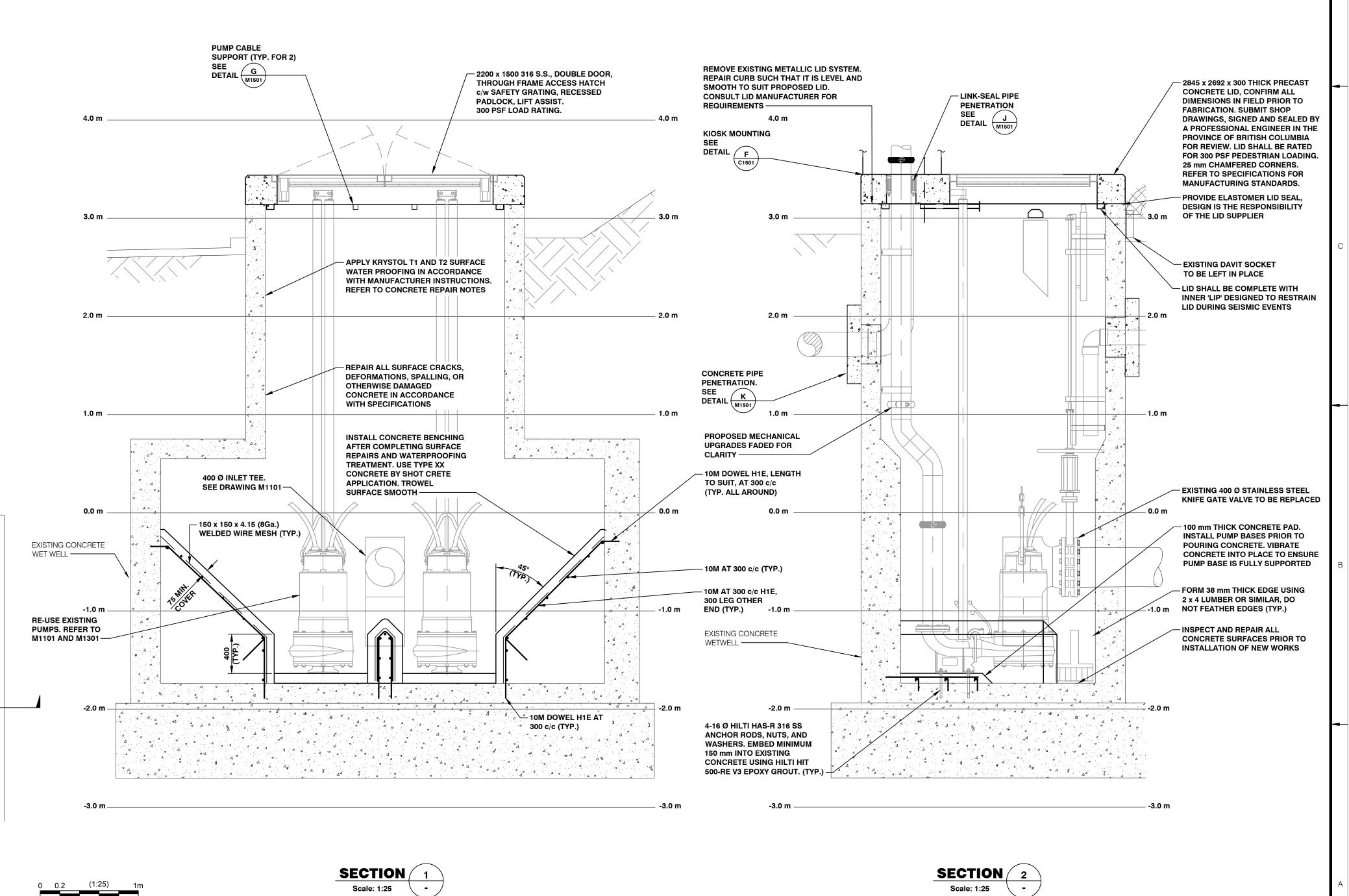
CONCRETE REPAIR AND BENCHING NOTES:

- WET WELL CONCRETE SHALL BE CLEAN AND FREE FROM OIL/GREASE, PAINT, AND ANY OTHER CONTAMINANTS PRIOR TO CONCRETE REPAIR WORK.
- REPAIR ALL SURFACE DEFECTS INCLUDING CRACKS, HONEYCOMBS, SPALLING OR DAMAGED/CORRODED CONCRETE. ALL CRACKS LARGER THAN 0.1 mm SHALL BE REPAIRED, WHETHER THEY ARE CURRENTLY LEAKING OR NOT.
- 3. WHERE CONCRETE IS CHIPPED OUT FOR REPAIRS, THE MINIMUM DEPTH OF REPAIR SHALL BE 50 mm. FILL REPAIRS WITH KRYSTOL REPAIR GROUT. STOP LEAKING WATER WITH KRYSTOL PLUG PRIOR TO REPAIR GROUT APPLICATION. ALL PRODUCTS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 4. CHIP OUT OR GRIND FLUSH ALL MISCELLANEOUS METAL EMBEDMENTS. REPAIR DEFECTIVE PIPING AND CONDUIT PENETRATIONS SUCH THAT THEY ARE WATERTIGHT.
- 5. COMPLETE ALL GROUTED PIPE PENETRATIONS FOR ALL PROPOSED PIPING PRIOR TO
- PRIOR TO COATING APPLICATION, CONCRETE SURFACE SHALL BE MADE CLEAN AND FREE OF PAINT, SEALERS, RELEASE AGENTS, DIRT, LAITANCE, OR ANY OTHER CONTAMINANTS. PREPARE SURFACE BY SANDBLASTING, HIGH-PRESSURE WATER BLASTING (MINIMUM 3000 PSI), SCARIFYING, SHOT BLASTING, OR OTHER METHOD OF MECHANICAL SURFACE PREPARATION TO REMOVE LOOSE CONCRETE AND SURFACE CONTAMINANTS. ACID ETCHING SHALL NOT BE USED.
- 7. WASH AND RINSE SURFACE WITH CONCRETE DEGREASER.
- MOISTEN CONCRETE SO THE SURFACE IS BROUGHT TO SATURATED-SURFACE-DRY (SSD)
- 9. APPLY 1.0 TO 1.5 mm THICK COATING OF KRYSTOL T1 (1ST COAT) TO THE ENTIRE INTERIOR OF THE WET WELL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 10. WET-CURE 1ST COAT UNTIL FOR 24 HOURS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DO NOT ALLOW WATER TO POOL ON SURFACE. PROTECT COATING FROM FROST, RAIN, AND TRAFFIC FOR AT LEAST 24 HOURS.
- 11. ROUGHEN 1ST COAT TO REMOVE LOOSE SURFACE PARTICLES BEFORE APPLYING 1.0 TO 1.5 mm THICK LAYER OF KRYSTOL T2 (2ND COAT) TO THE ENTIRE INTERIOR OF THE WET WELL IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 12. WET-CURE 2ND COAT FOR A MINIMUM OF 3 DAYS IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. DO NOT ALLOW WATER TO POOL ON SURFACE. PROTECT
- 13. AFTER 2-COAT WATERPROOFING COATING SYSTEM HAS CURED, INSTALL REBAR, CONCRETE, AND MISCELLANEOUS BENCHING.

COATING FROM FROST, RAIN, AND TRAFFIC FOR AT LEAST 24 HOURS.

- 14. USE LOW-SLUMP CONCRETE FOR BENCHING. APPLY AS SHOT-CRETE FOLLOWED BY TROWELLING TO A SMOOTH SURFACE. SURFACE ROUGHEN COLD JOINTS TO 6 mm MINIMUM AMPLITUDE AND APPLY BONDING AGENT BEFORE INSTALLING BENCHING CONCRETE.
- 15. REFER TO SPECIFICATIONS FOR ADDITIONAL CONCRETING REQUIREMENTS AND CURING METHODOLOGY.
- 16. BENCHING SHALL CURE FOR A MINIMUM OF 14 DAYS PRIOR TO EXPOSURE TO
- 17. ALTERNATE COATINGS AND REPAIR PRODUCTS WILL BE CONSIDERED. SUBMIT ALTERNATES FOR APPROVAL
- 18. ALL REBAR AND ANCHOR BOLT EMBEDMENTS INSIDE THE WET WELL SHALL USE HILTI HIT-500 RE EPOXY GROUT WITH A MINIMUM EMBEDMENT LENGTH OF 100 mm UNLESS EXPRESSLY NOTED OTHERWISE.
- 19. WET WELL DIMENSIONS AND DEPTH IS BASED ON RECORD DRAWINGS AND LIMITED FIELD MEASUREMENTS. ACCURACY IS NOT GUARANTEED. CONTRACTOR SHALL CONFIRM ALL DIMENSIONS IN THE FIELD AND NOTIFY THE CONTRACT ADMINISTRATOR OF ANY







Rev Date Des Dwn Chk Description **TOWN OF GIBSONS** Rev Date Des Dwn Chk Description **2019 PROWSE LIFT STATION UPGRADES** A | 2018-06-20 TMAH AU | KM | ISSUED FOR 50% CLIENT REVIEW PROWSE ROAD LIFT STATION 3 | 2018-12-14 | TMAH CKTI ISSUED FOR 90% CLIENT REVIEW **CONCRETE BENCHING AND REPAIRS** oject No. **2132.028B** C1301 CIVIL

