

LEGEND:

—	SANITARY DRAINAGE
—	STORMWATER DRAINAGE
— TW —	TRADEWASTE DRAINAGE
— AG —	AGG DRAINAGE
- - - - -	VENTS
—	FIRE SERVICE
—	COLD WATER SERVICE
—	HOT WATER SERVICE
—	WARM WATER SERVICE
—	HOT WATER SERVICE FLOW
—	HOT WATER SERVICE RETURN
— G —	GAS SERVICE
— RW —	RAINWATER SERVICE
— NP —	NON POTABLE COLD WATER SERVICE
—	SEWER RISING MAIN
—	STORMWATER RISING MAIN
— S —	CIVIL SEWER DRAINAGE
— SW —	CIVIL STORMWATER DRAINAGE
— W —	CIVIL COLD WATER SERVICE
— e —	EXISTING SEWER DRAINAGE
— e —	EXISTING STORMWATER DRAINAGE
— e —	EXISTING COLD WATER SERVICE
— e —	EXISTING HOT WATER SERVICE
— e —	EXISTING FIRE SERVICE
— e — G —	EXISTING GAS SERVICE

ABBREVIATIONS:

A/C	AIR CONDITIONING	NPR	NON POTABLE RISER
AG	AGRICULTURAL DRAINAGE	O/F	OVERFLOW
BO	BALCONY OUTLET	ORG	OVERFLOW RELIEF GULLY
B	BASIN	PBD	PLANTER BOX DRAIN
BTH	BATH	PRV	PRESSURE REDUCTION VALVE
CV	CHECK VALVE	RL	REDUCED LEVEL
CW	COLD WATER	RO	ROOF OUTLET
CWD	COLD WATER DROPPER	RPZD	REDUCED PRESSURE ZONE DEVICE
CWR	COLD WATER RISER	RV	RELIEF VENT
CWM	COLD WATER MAIN	RW	RAINWATER
DG	DISCONNECTOR GULLY	RWD	RAINWATER DROPPER
DP	DOWN PIPE	RWH	RAINWATER HEAD
DPS	DOWNPIPE & SPREADER	RWO	RAINWATER OUTLET
DT	DISCONNECTOR TRAP	RWR	RAINWATER RISER
DW	DISHWASHER	S	SEWER
EPD	ELEVATED PIPE DRAIN	SHR	SHOWER
FFL	FINISHED FLOOR LEVEL	SHR/BTH	SHOWER/BATH
FSR	FIRE SERVICE RISER	SK	SINK
FSD	FIRE SERVICE DROPPER	SL	SURFACE LEVEL
FTD	FIRE TEST DRAIN	SMH	SEWER MANHOLE
FHR	FIRE HOSE REEL	SRM	SEWER RISING MAIN
FU	FIXTURE UNIT	ST	STACK
FW	FLOOR WASTE	S/T	SAFETRAY
FWG	FLOOR WASTE GULLY	SV	STOP VALVE
GS	GAS SERVICE	SW	STORMWATER
GSD	GAS SERVICE DROPPER	SWIC	STORMWATER INSPECTION CHAMBER
GSR	GAS SERVICE RISER	SWP	STORMWATER PIT
GV	GATE VALVE	SWRM	STORMWATER RISING MAIN
HT	HOSE TAP	T	LAUNDRY TUB
HW	HOT WATER	TD	TUNDISH
HWD	HOT WATER DROPPER	TGO	TRENCH GRATE OUTLET
HWR	HOT WATER RISER	TMV	THERMOSTATIC MIXING VALVE
HWU	HOT WATER UNIT	TPRV	TEMPERATURE PRESSURE RELIEF VALVE
IL	INVERT LEVEL	TV	TEMPERING VALVE
IO	INSPECTION OPENING	JPVC	UNPLASTICISED POLY VINYL CHLORIDE
IOS	INSPECTION OPENING TO SURFACE	UR	URINAL
IR	IRRIGATION RETICULATION	VB	VANITY BASIN
IV	ISOLATION VALVE	VP	VENT PIPE
JU	JUMP UP	WC	WATER CLOSET
LPG	LIQUEFIED PETROLEUM GAS	WM	WASHING MACHINE
MH	MANHOLE	WWR	WARM WATER RISER
NP	NON POTABLE		
NPD	NON POTABLE DROPPER		

	STACK 1000
	VENT PIPE 50
	PRESSURE REDUCTION VALVE
	CHECK VALVE
	PUMP
	ISOLATION VALVE & METER
	PIPE RISER
	PIPE DROPS
	FLOOR WASTE GULLY
	STOP VALVE
	OVERFLOW RELIEF GULLY
	STORMWATER PIT
	PIPE BREAKS
	DOUBLE CHECK VALVE/ RPZD

HYDRAULIC SERVICES PROPOSED INTERNAL ALTERATIONS TO EXISTING BUILDING FOR WERRINGTON DOWNS NEIGHBOURHOOD CENTRE

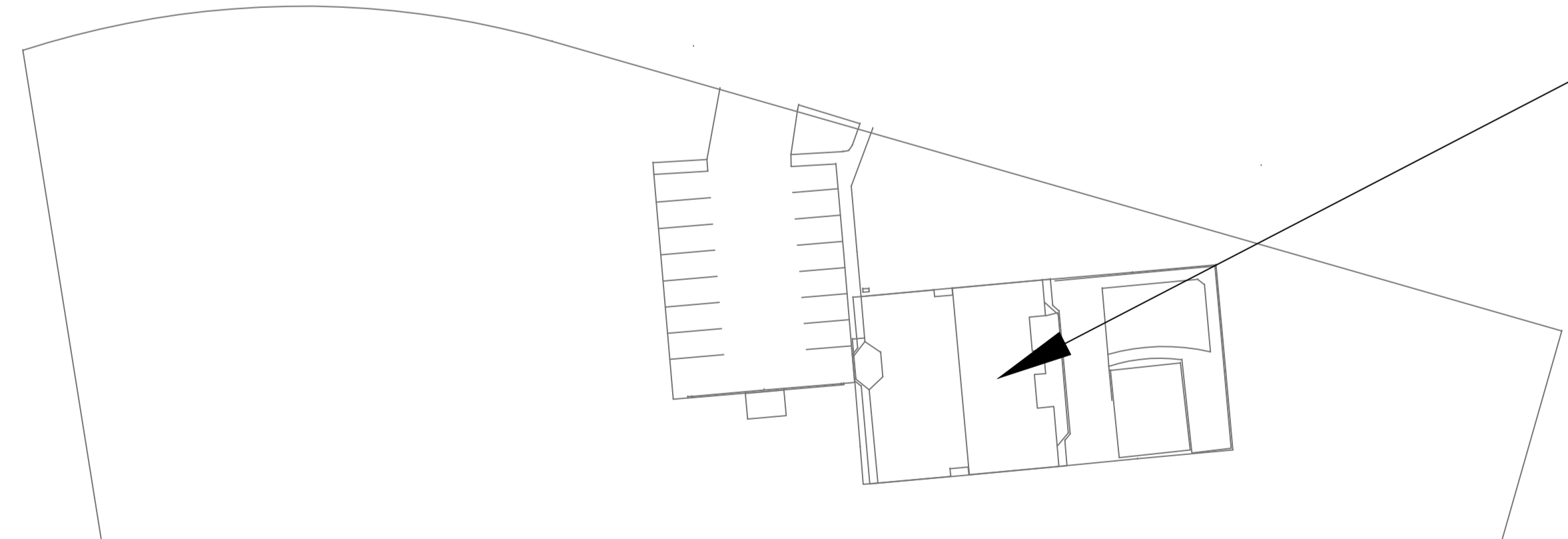
DRAWING REGISTER	
DRAWING NO.	DRAWING TITLE
H01	COVER
H02	HYDRAULIC SERVICES PLAN

GENERAL NOTES:

- ALL SANITARY DRAINAGE BELOW GROUND SHALL BE DWV CLASS uPVC PIPE AND FITTINGS MIN 1000 UNLESS SHOWN OTHERWISE TO AS1260 WITH SOLVENT WELDED JOINTS AND LAID AT MIN 1.65% GRADE.
- ALL SANITARY PLUMBING OR SUSPENDED DRAINAGE SHALL BE DWV CLASS uPVC PIPE AND FITTINGS TO AS1260 WITH SOLVENT WELDED JOINTS AND FIRE STOP COLLARS. (ALTERNATE TYPE 'D' SOLID DRAWN COPPER).
- PROVIDE COMPACT 5mm CRUSHED BLUE METAL BEDDING 100mm AROUND ALL INGROUND PIPEWORK.
- DRAINAGE GRATES/LIDS LOCATED IN TRAFFICABLE AREAS SHALL BE 'D' CLASS & 'A' CLASS IN LANDSCAPED AREAS
- MAKE GOOD ANY DAMAGE TO OTHER SERVICES AND TO FLOORS, WALLS, CEILINGS, ROADWAYS, FOOTINGS, EXISTING BUILDINGS, LANDSCAPING AND SURFACES GENERALLY AND ANY OTHER WORK THAT MAY BE DISTURBED OR INJURED BY CARTAGE OR OTHER OPERATIONS IN CARRYING OUT THE WORK.
- ALL SUSPENDED SANITARY DRAINAGE SHALL BE DWV CLASS uPVC PIPE AND FITTINGS TO AS1254 WITH SOLVENT WELDED JOINTS AND FIRE STOP COLLARS (ALTERNATIVE TYPE 'D' COPPER TUBE AND FITTINGS TO AS1432 WITH SILVER BRAZED JOINTS OR DUCTILE IRON FITTINGS TO AS1631 WITH PUSH IN RUBBER RING JOINTS).
- TRADEWASTE DRAINAGE ABOVE AND BELOW GROUND SHALL BE EQUAL TO "COESTILEN" HIGH DENSITY POLYETHYLENE.
- ALL STORMWATER DRAINAGE BELOW GROUND SHALL BE SW CLASS uPVC PIPE AND FITTINGS TO AS1254 WITH SOLVENT WELDED JOINTS LAID AT GRADES AND SIZES INDICATED AND ALL UNSIZED OR GRADED SECTIONS BEING MIN. 1000 AND LAID AT MIN. 1% GRADE.
- ALL DOWNPIPES (DP) SHALL BE DWV CLASS uPVC PIPE AND FITTINGS TO AS1260 WITH SOLVENT WELDED JOINTS TO SIZES INDICATED ON DRAWINGS.
- ALL DOWNPIPES SHALL BE MIN. 1000 OR 100mm X 80mm. U.N.O.
- FLOW RESTRICTING DEVICES WILL BE PROVIDED TO ALL OUTLETS, EQUAL TO JEMFLOW SYSTEMS. FLOW RATES AS NOMINATED BELOW IN ACCORDANCE WITH AS3500.

FIXTURE	HOT	COLD
VB	6	6
WC	-	6
SHR	9	9
WM	12	12
SK	9	9
BTH	18	18
T	9	9
- ALL FIRE SERVICE PIPEWORK ABOVE GROUND SHALL BE GALVANISED STEEL PIPING TO AS 2419.1. PIPEWORK INGROUND SHALL BE BLUE BRUTE OR EQUAL.
- ALL HOT WATER, COLD WATER, GAS AND WARM WATER SERVICE PIPEWORK ABOVE GROUND SHALL BE TYPE "B" SOLID DRAWN COPPER TUBE TO AS1432 WITH SLIPPED AND SILVER BRAZED JOINTS. PIPEWORK BELOW SLAB SHALL BE AS FOR ABOVE SLAB BUT BENT AND FORMED IN ONE PIECE WITHOUT JOINTS TO SUIT APPLICATION AND SPIRAL OVERWRAPPED WITH DENSO 600 TAPE.
- INSULATE ALL RETICULATED HOT WATER PIPEWORK WITH 20mm WALL THICKNESS THERMOTEC 4-ZERO FIRE RETARDED CLOSED CELL POLYETHYLENE FOAM HAVING A DENSITY OF NOT LESS THAN 50kg PER CUBIC METER. ALL INSULATION SHALL BE INSTALLED AROUND THE PIPEWORK SURFACE AS TIGHTLY AS POSSIBLE WITHOUT GAPS, WITH THE EDGES AND ENDS TIGHTLY BUTTED TOGETHER. ALL JOINTS SHALL BE TAPED USING A 48mm ADHESIVE BACKED, PRESSURE SENSITIVE ALUMINIUM TAPE, WHERE NECESSARY THE PERFORMED SECTIONS SHALL BE CUT AND MITRED TO ENSURE A TIGHT FIT AROUND BENDS, TEES AND VALVES.
- ALL HOT WATER SERVICE PIPEWORK SHALL BE TYPE "B" SOLID DRAWN TUBE POLYLAG/KEMLAG OR EQUAL TO AS1432 WITH SLIPPED AND SILVER BRAZED JOINTS.
- PROVIDE SIGNAGE OVER ALL "NON POTABLE" OUTLETS.
- ALL HOSE COCKS (HC) INSTALLED SHALL BE FITTED WITH A YORKSHIRE BACKSTOP VACUUM BREAK VALVE MIXING VALVES.
- WHERE PIPEWORK PENETRATES FIRE RATED WALLS, FLOORS OR CEILINGS THE CONTRACTOR SHALL ENSURE THE FIRE RATING OF THE STRUCTURE IS MAINTAINED AT THE PENETRATION OF THE REQUIRED FIRE RATED STANDARD.
- ALL HYDRAULIC SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH AS3500, QLD PLUMBING AND DRAINAGE ACT 2002 AND QLD STANDARD PLUMBING AND DRAINAGE REGULATIONS 2003.
- EXISTING SERVICES INDICATED IN THESE DOCUMENTS ARE INDICATIVE ONLY. ALLOW TO EXCAVATE AND EXPOSE EXISTING SERVICES TO VERIFY EXACT LOCATION AND LEVELS OF SERVICES PRIOR TO COMMENCEMENT OF ANY WORKS.
- CONTRACTOR TO ALLOW FOR CUTTING OF EXISTING CONCRETE, EXCAVATION, BACKFILLING AND MAKING GOOD EXISTING SLAB TO STRUCTURAL ENGINEERS REQUIREMENTS.
- ALL SPOON DRAIN OUTLETS, STORMWATER INSPECTION CHAMBERS, RISING MAINS, PUMP WELLS AND ALL PIPE INLETS AND OUTLETS ARE TO BE MADE WATER TIGHT INCLUDING AT THE PENETRATION OF THE BASEMENT FLOOR SLAB USING PUDDLE FLANGES, PROPRIETY WATER STOPS CAST-IN-SITU AND OR TANKING.
- ALL PIPES SHALL BE ADEQUATELY SUPPORTED AND SECURED IN AN APPROVED MANNER. ALL COPPER SHALL NOT COME IN CONTACT WITH ANY OTHER SERVICE PIPES OR PART OF THE BUILDING STRUCTURE UNLESS INSULATED WITH 4mm THICK uPVC LAGGING.

WORKS TO EXISTING BUILDING



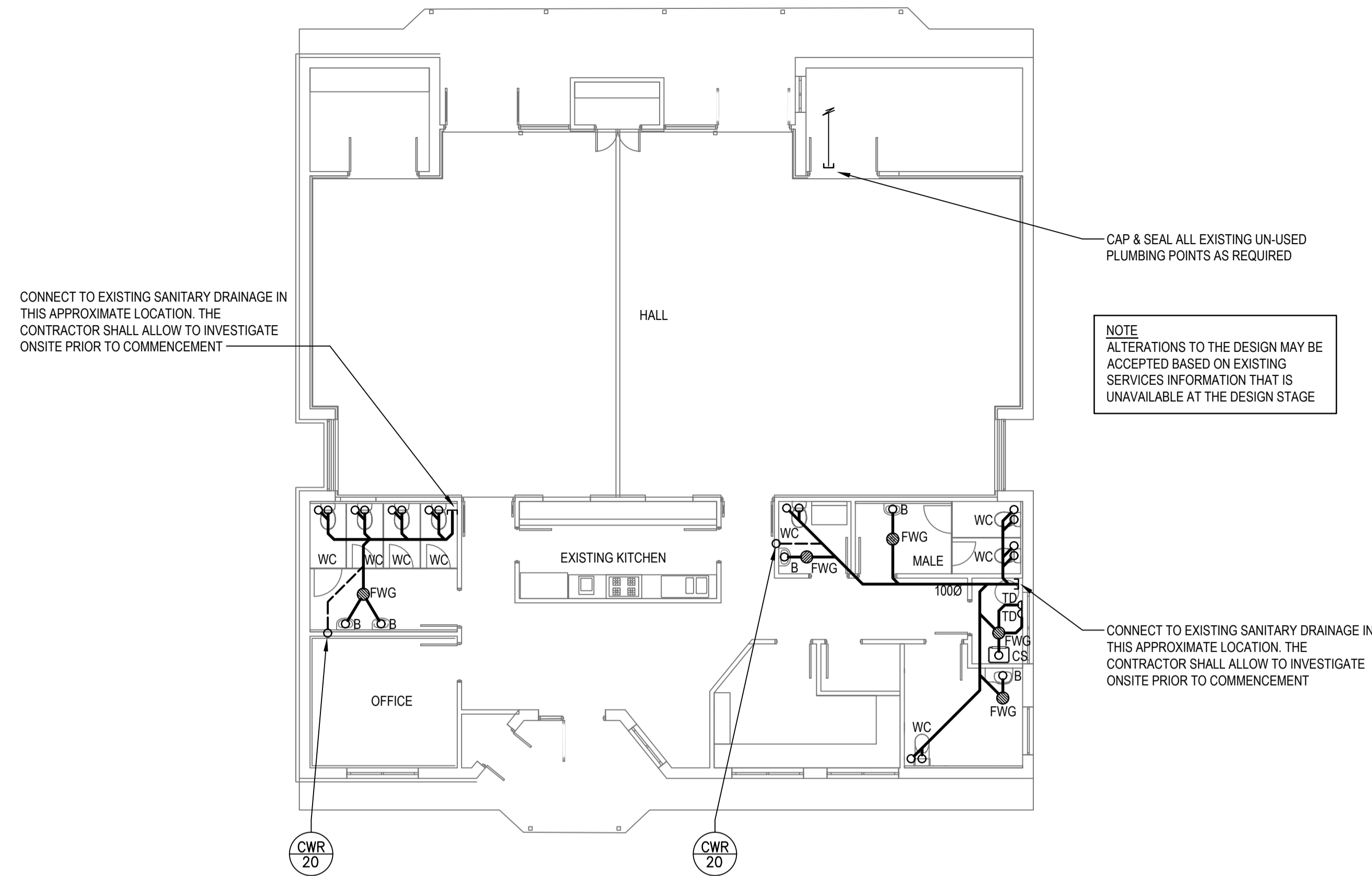
SITE PLAN 1 : 500 @ A1

"BA/TENDER" ISSUE

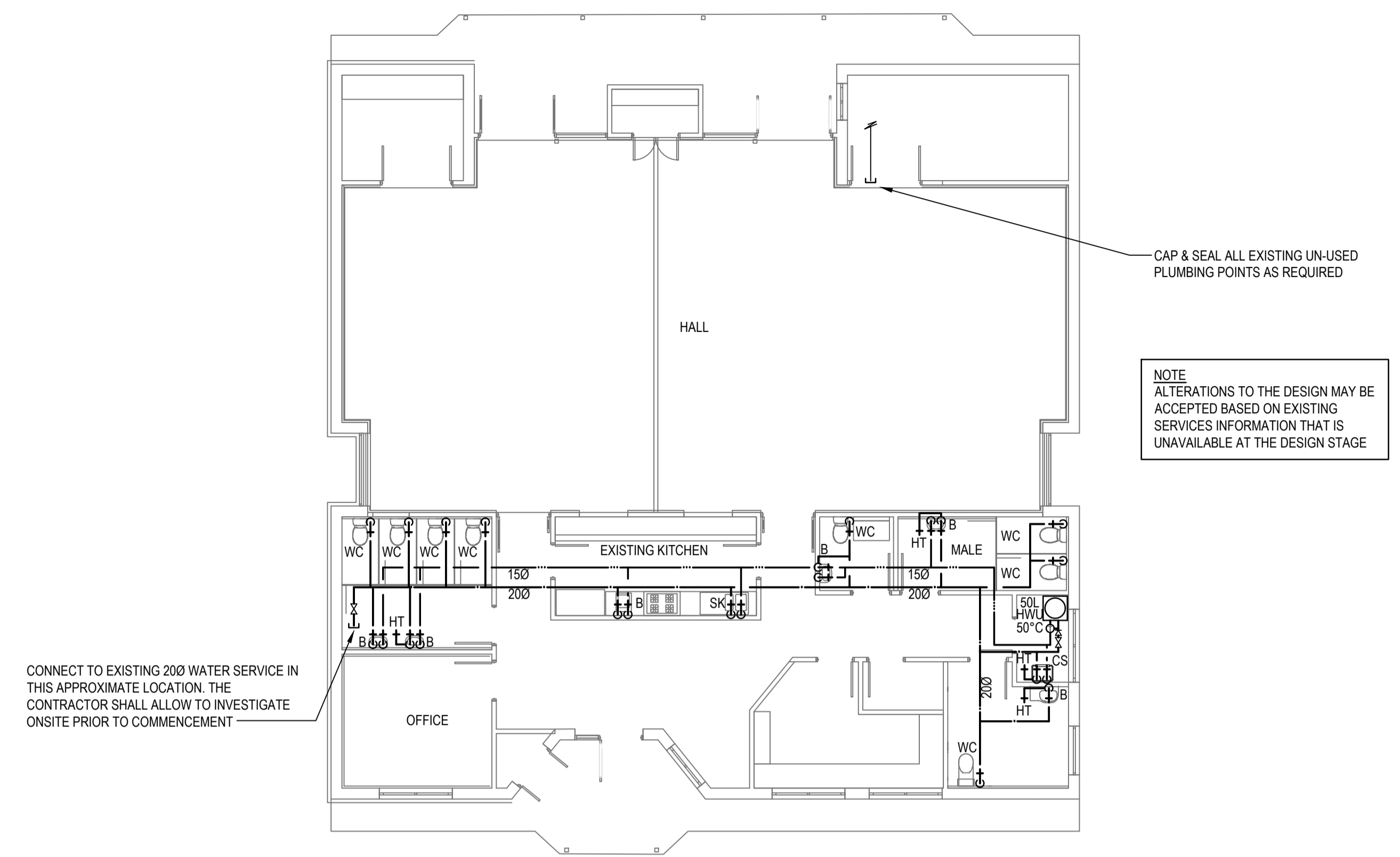


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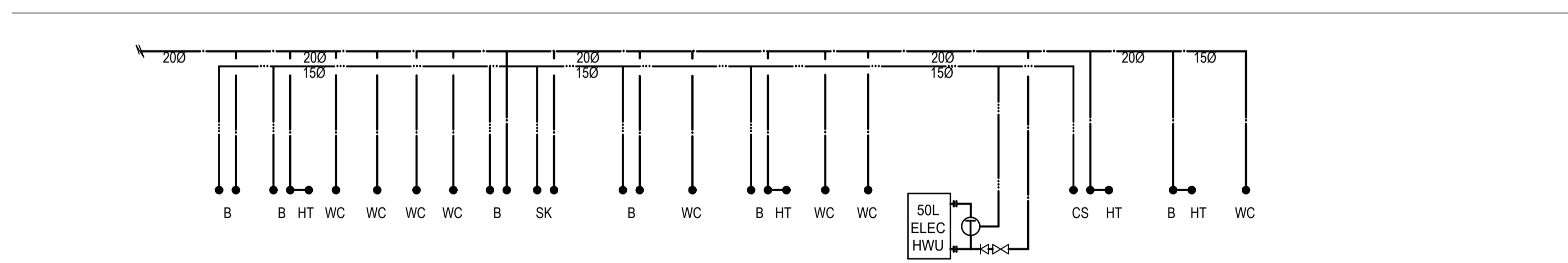
REVISION	ARCHITECT	CLIENT	DRAWN BY	DESIGNED	CHECKED	DATE	PROJECT	TITLE	JOB NO.
A 1 02.08.19 B 1 04.11.19	BA/TENDER ISSUE UPDATED ARCHITECTURALS	COMPLETE URBAN	LL	SR	SR	07.08.19	COMPLETE URBAN	PROPOSED ALTERATIONS TO WERRINGTON DOWNS CENTRE BROOKFIELD AVENUE, WERRINGTON DOWNS NSW 2747	18197A
			SCALE	AS SHOWN	SHEET SIZE	A1		LEGEND, NOTES & SITE PLAN	1 OF 2
									DRAWING NO. H01
									REV. B



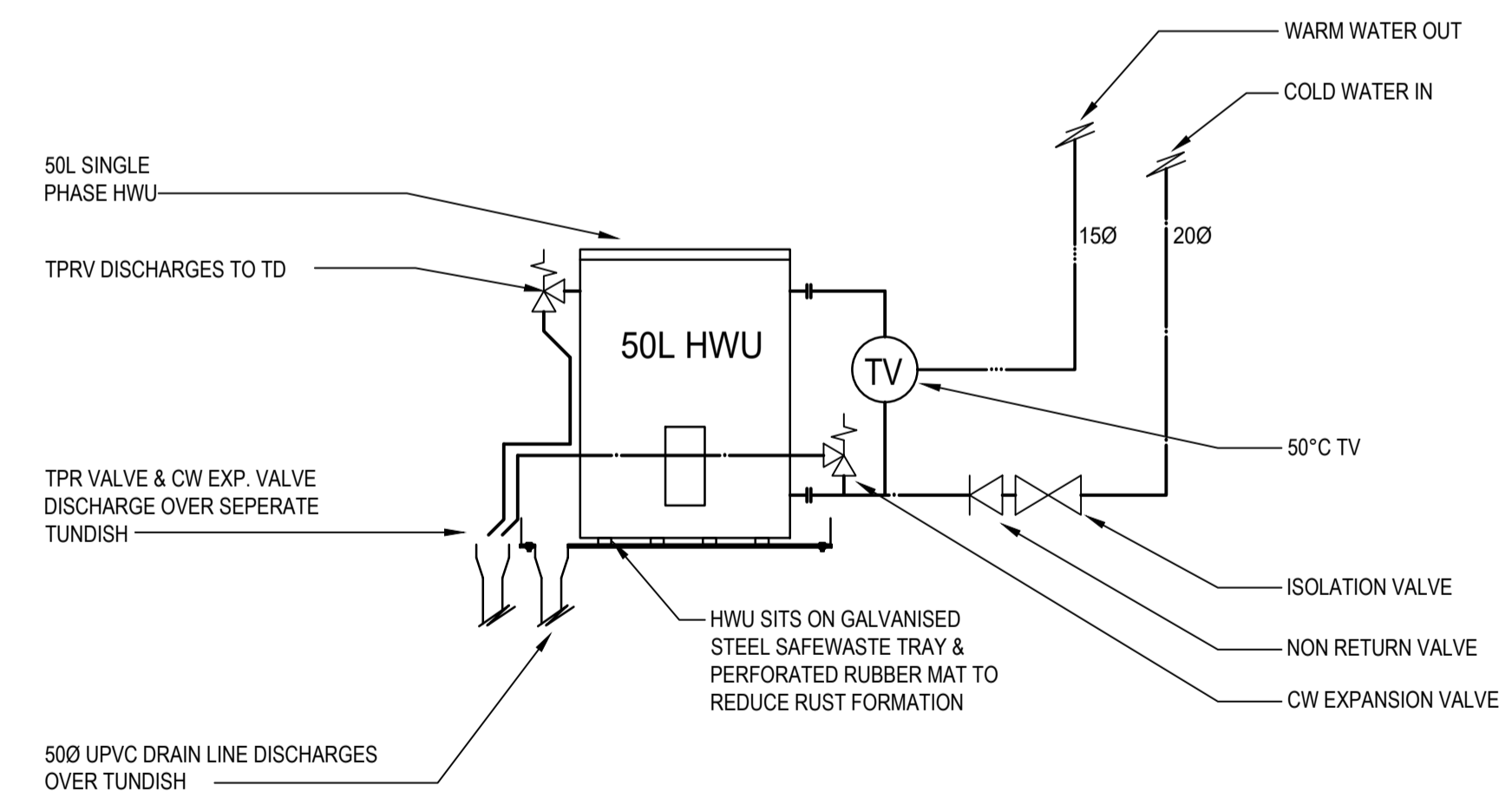
DRAINAGE SERVICES PLAN 1:100 @ A1



WATER SERVICES PLAN 1:100 @ A1



WATER SERVICES SCHEMATIC N.T.S.



HWU DETAIL N.T.S.



"BA/TENDER" ISSUE

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REVISION	DATE	DESCRIPTION	BY	CHKD
A	02.08.19	BA/TENDER ISSUE	SR	
B	04.11.19	UPDATED ARCHITECTURALS	SR	

ARCHITECT	COMPLETE URBAN
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CLIENT	COMPLETE URBAN
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DRAWN BY	LL	DESIGNED	SR
SCALE	AS SHOWN	CHECKED	SR
DATE	07.08.19	SHEET SIZE	A1

PROJECT	PROPOSED ALTERATIONS TO WERRINGTON DOWNS CENTRE BROOKFIELD AVENUE, WERRINGTON DOWNS NSW 2747
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TITLE	HYDRAULIC SERVICES PLAN
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JOB NO.	18197A
SHEET NO.	2 OF 2
DRAWING NO.	H02
REV.	B