	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
1.1	**1.1 SD Sewer Drainage (In-Ground)**			
1.1	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
1.1	This document certifies that the installation complies with the latest IFC specifications & drawings			
1.1	Check for damage			
1.1	Ensure grades are correct			
1.1	Check pipe joints are complete with no leaks			
1.1	Ensure I.O's installed correctly in locations as designed			
1.1	Ensure clear-outs to surface are installed (if specified)			
1.1	Cast-in pipework installed correctly			
1.1	Clips installed correctly (if specified)			
1.1	Backfill is installed correctly as specified			
1.1	Ensure spoil is removed if contracted			
1.1	Check all open ends sealed			
1.1	Check traps clear-outs are clear of debris			
1.1	Marking tape installed (if specified)			
1.1	All cast-in outlets installed			
1.1	Check all pump, inspection, reflux valve chambers etc are installed correctly			
1.1	Ensure correct connection & sealing methods to pits & chambers			
1.1	Ensure all pipework is clear of internal obstructions			
1.1	Ensure CCTV internal pipe bore recording (if specified)			
1.1				
1.2	**1.2 SD Sewer Stacks & Vents (Main Droppers)**			
1.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
1.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
1.2	Check for damage			
1.2	Cast-in pipework correct			
1.2	Check pipe joints are complete with no leaks			
1.2	Check for correct venting			
1.2	Expansion joints & braced clips installed correctly			
1.2	I.O's installed correctly			
1.2	Ensure base bends braced & supported			
1.2	Clips installed correctly			
1.2	Open ends sealed			
1.2				
1.3	**1.3 SD Sewer Wastes & Vents (High Level)**			
1.3	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
1.3	This document certifies that the installation complies with the latest IFC specifications & drawings			
1.3	Check for damage			
1.3	Cast-in pipework correct			
1.3	Check pipe joints are complete with no leaks			
1.3	Expansion joints & braced clips installed correctly			
1.3	Clips installed correctly			
1.3	Open ends sealed			
1.3	Traps clear of debris			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
1.3				
1.4	**1.4 SD Sewer Wastes & Vents (Low Level)**			
1.4	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
1.4	This document certifies that the installation complies with the latest IFC specifications & drawings			
1.4	Check for damage			
1.4	Cast-in pipework correct			
1.4	Check pipe joints are complete with no leaks			
1.4	Noggings, fixture brackets installed			
1.4	Waste pipes, cisterns & flush pipes installed			
1.4	Clips installed correctly			
1.4	Open ends sealed			
1.4	Traps clear of debris			
1.4				
1.5	**1.5 SD Pump-Line (In-Ground)**			
1.5	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
1.5	This document certifies that the installation complies with the latest IFC specifications & drawings			
1.5	Check for damage			
1.5	Ensure pipe spigot is etched cleaned correctly			
1.5	Ensure witness marks are visible			
1.5	Confirm weld time is correct for pipe/fitting size			
1.5	Confirm curing time is corrrect for pipe/fitting size			
1.5	Confirm pressure test is successful			
1.5	Check pipe joints are complete with no leaks			
1.5	Cast-in pipework installed correctly			
1.5	Clips installed correctly (if specified)			
1.5	Backfill is installed correctly as specified			
1.5	Ensure spoil is removed if contracted			
1.5	Check thrust blocks installed correctly (if required)			
1.5	Marking tape installed (if specified)			
1.5	Cast-in pipework correct			
1.5	Check thrust protection & bracing is installed correctly			
1.5	Check isolation valves are installed correctly			
1.5	Check reflux valves are installed correctly			
1.5	Check all valve flow directions are correct			
1.5	Ensure all pipework is clear of internal obstructions			
1.5	Check all open ends sealed			
1.5	Ensure CCTV internal pipe bore recording (if specified)			
1.5				
1.6	**1.6 SD Pump-Line (Above Ground)**			
1.6	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
1.6	This document certifies that the installation complies with the latest IFC specifications & drawings			
1.6	Check for damage			
1.6	Ensure pipe spigot is etched cleaned correctly			
1.6	Ensure witness marks are visible			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
1.6	Confirm weld time is correct for pipe/fitting size			
1.6	Confirm curing time is correct for pipe/fitting size			
1.6	Confirm pressure test is successful			
1.6	Cast-in pipework correct			
1.6	Check pipe joints are complete with no leaks			
1.6	Clips installed correctly			
1.6	Check thrust protection & bracing is installed correctly			
1.6	Check isolation valves are installed correctly			
1.6	Check reflux valves are installed correctly			
1.6	Check all valve flow directions are correct			
1.6	Open ends sealed			
1.6				
2.1	**2.1 SW Stormwater Drainage (In-Ground)**			
2.1	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
2.1	This document certifies that the installation complies with the latest IFC specifications & drawings			
2.1	Check for damage			
2.1	Ensure grades are correct			
2.1	Ensure A.G. drains are installed with filter sleeve			
2.1	Check pipe joints are complete with no leaks			
2.1	Ensure I.O's installed correctly in locations as designed			
2.1	Ensure clear-outs to surface are installed (if specified)			
2.1	Cast-in pipework installed correctly			
2.1	Clips installed correctly			
2.1	Ensure A.G. geofabric installation is compliant with the specification			
2.1	Backfill is installed correctly as specified			
2.1	Ensure spoil is removed if contracted			
2.1	Check all open ends sealed			
2.1	Check traps clear-outs are clear of debris			
2.1	Marking tape installed (if specified)			
2.1	All cast-in outlets installed			
2.1	Check all pump, inspection, reflux valve chambers etc are installed correctly			
2.1	Ensure correct connection & sealing methods to pits & chambers			
2.1	Ensure all pipework is clear of internal obstructions			
2.1	Ensure CCTV internal pipe bore recording (if specified)			
2.1				
2.2	**2.2 SW Downpipes/Overflows (Main Droppers)**			
2.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
2.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
2.2	Check for damage			
2.2	Cast-in pipework correct			
2.2	Check pipe joints are complete with no leaks			
2.2	Expansion joints & braced clips installed correctly			
2.2	I.O's installed correctly			
2.2	Ensure base bends braced & supported			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
2.2	Clips installed correctly			
2.2	Open ends sealed			
2.2				
2.3	**2.3 SW Downpipes/Overflows (High Level)**			
2.3	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
2.3	This document certifies that the installation complies with the latest IFC specifications & drawings			
2.3	Check for damage			
2.3	Cast-in pipework correct			
2.3	Check pipe joints are complete with no leaks			
2.3	Expansion joints & braced clips installed correctly			
2.3	Clips installed correctly			
2.3	Open ends sealed			
2.3	Cast-in pipework correct			
2.3				
2.4	**2.4 SW Downpipes/Overflows (Balcony/RWO)**			
2.4	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
2.4	This document certifies that the installation complies with the latest IFC specifications & drawings			
2.4	Check for damage			
2.4	Cast-in pipework correct			
2.4	Check pipe joints are complete with no leaks			
2.4	Expansion joints & braced clips installed correctly			
2.4	Clips installed correctly			
2.4	Open ends sealed			
2.4	Cast-in pipework correct			
2.4				
2.6	**2.6 SYP Syphon Downpipes/Overflows (Main Droppers)**			
2.6	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
2.6	This document certifies that the installation complies with the latest IFC specifications & drawings			
2.6	Check for damage			
2.6	Cast-in pipework correct			
2.6	Check pipe joints are complete with no leaks			
2.6	Expansion joints & braced clips installed correctly			
2.6	I.O's installed correctly			
2.6	Ensure base bends braced & supported			
2.6	Clips installed correctly			
2.6	Open ends sealed			
2.6				
2.7	**2.7 SYP Syphon Downpipes/Overflows (High Level)**			
2.7	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
2.7	This document certifies that the installation complies with the latest IFC specifications & drawings			
2.7	Check for damage			
2.7	Cast-in pipework correct			
2.7	Check pipe joints are complete with no leaks			
2.7	Expansion joints & braced clips installed correctly			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
2.7	Clips installed correctly			
2.7	Open ends sealed			
2.7	Cast-in pipework correct			
2.7				
2.8	**2.8 SYP Syphon Downpipes/Overflows (Balcony/RWO)**			
2.8	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
2.8	This document certifies that the installation complies with the latest IFC specifications & drawings			
2.8	Check for damage			
2.8	Cast-in pipework correct			
2.8	Check pipe joints are complete with no leaks			
2.8	Expansion joints & braced clips installed correctly			
2.8	Clips installed correctly			
2.8	Open ends sealed			
2.8	Cast-in pipework correct			
2.8				
3.2	**3.2 TW Trade Waste Stacks & Vents (Main Droppers)**			
3.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
3.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
3.2	Check for damage			
3.2	Cast-in pipework correct			
3.2	Check pipe joints are complete with no leaks			
3.2	Check for correct venting			
3.2	Expansion joints & braced clips installed correctly			
3.2	I.O's installed correctly			
3.2	Ensure base bends braced & supported			
3.2	Clips installed correctly			
3.2	Open ends sealed			
3.2				
3.3	**3.3 TW Trade Waste Wastes & Vents (High Level)**			
3.3	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
3.3	This document certifies that the installation complies with the latest IFC specifications & drawings			
3.3	Check for damage			
3.3	Cast-in pipework correct			
3.3	Check pipe joints are complete with no leaks			
3.3	Expansion joints & braced clips installed correctly			
3.3	Clips installed correctly			
3.3	Open ends sealed			
3.3	Traps clear of debris			
3.3				
4.2	**4.2 CW Cold Water Main Risers & Offsets**			
4.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
4.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
4.2	Check for damage			
4.2	Check pipe joints are complete with no leaks			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
4.2	Clips installed correctly			
4.2	Open ends sealed			
4.2	Check valves & flow direction installed correctly			
4.2	Ensure base bends braced & supported			
4.2	Anchors clamps installed			
4.2	Expansion device or loops installed with correct movement clips			
4.2				
4.3	**4.3 CW Cold Water Mains High Level & Corridors**			
4.3	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
4.3	This document certifies that the installation complies with the latest IFC specifications & drawings			
4.3	Check for damage			
4.3	Check pipe joints are complete with no leaks			
4.3	Clips installed correctly			
4.3	Open ends sealed			
4.3	Check valves & flow direction installed correctly			
4.3	Anchors clamps installed			
4.3	Expansion device or loops installed with correct movement clips			
4.3				
4.4	**4.4 CW Cold Water Rough-in (High Level)**			
4.4	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
4.4	This document certifies that the installation complies with the latest IFC specifications & drawings			
4.4	Check for damage			
4.4	Check pipe joints are complete with no leaks			
4.4	Clips installed correctly			
4.4	Open ends sealed			
4.4	Check valves & flow direction installed correctly			
4.4	Sharp edge protection			
4.4	Meters or spacers are installed			
4.4				
4.5	**4.5 CW Cold Water Rough-in (Low Level)**			
4.5	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
4.5	This document certifies that the installation complies with the latest IFC specifications & drawings			
4.5	Check for damage			
4.5	Check pipe joints are complete with no leaks			
4.5	Clips installed correctly			
4.5	Open ends sealed			
4.5	Check valves & flow direction installed correctly			
4.5	TCV/TMV installed correctly			
4.5	Pan/cistern brackets installed			
4.5	Mixer bodies & lugged elbows installed			
4.5	Sharp edge protection			
4.5				
4.6	**4.6 CW Reduced Pressure Zone Device(RPZD) Rough-in**			
4.6	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
4.6	This document certifies that the installation complies with the latest IFC specifications & drawings			
4.6	Check pipework for damage			
4.6	Check pipe joints are complete with no leaks			
4.6	Clips installed correctly			
4.6	Check valves & flow direction installed correctly			
4.6	Check wall box installed per current docs'			
4.6	Check correct discharge over tundish			
4.6				
5.1	**5.1 HW Hot Water Main Risers & Offsets**			
5.1	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
5.1	This document certifies that the installation complies with the latest IFC specifications & drawings			
5.1	Check for damage			
5.1	Check pipe joints are complete with no leaks			
5.1	Clips installed correctly			
5.1	Open ends sealed			
5.1	Check valves & flow direction installed correctly			
5.1	Ensure base bends braced & supported			
5.1	Anchors clamps installed			
5.1	Expansion device or loops installed with correct movement clips			
5.1				
5.2	**5.2 HW Hot Water Mains High Level & Corridors**			
5.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
5.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
5.2	Check for damage			
5.2	Check pipe joints are complete with no leaks			
5.2	Clips installed correctly			
5.2	Open ends sealed			
5.2	Check valves & flow direction installed correctly			
5.2	Anchors clamps installed			
5.2	Expansion device or loops installed with correct movement clips			
5.2	Balancing valves installed			
5.2				
5.3	**5.3 HW Hot Water Rough-in (High Level)**			
5.3	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
5.3	This document certifies that the installation complies with the latest IFC specifications & drawings			
5.3	Check pipework for damage			
5.3	Check pipe joints are complete with no leaks			
5.3	Clips installed correctly			
5.3	Open ends sealed			
5.3	Check valves & flow direction installed correctly			
5.3	Meters or spacers are installed			
5.3	Sharp edge protection			
5.3				
5.4	**5.4 HW Hot Water Rough-in (Low Level)**			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
5.4	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
5.4	This document certifies that the installation complies with the latest IFC specifications & drawings			
5.4	Check for damage			
5.4	Check pipe joints are complete with no leaks			
5.4	Clips installed correctly			
5.4	Check valves & flow direction installed correctly			
5.4	TCV/TMV installed correctly			
5.4	Mixer bodies & lugged elbows installed			
5.4	Sharp edge protection			
5.4	Open ends sealed			
5.4				
6.1	**6.1 RW Recycled Water Main Risers & Offsets**			
6.1	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
6.1	This document certifies that the installation complies with the latest IFC specifications & drawings			
6.1	Check for damage			
6.1	Check pipe joints are complete with no leaks			
6.1	Clips installed correctly			
6.1	Open ends sealed			
6.1	Check valves & flow direction installed correctly			
6.1	Ensure base bends braced & supported			
6.1	Anchors clamps installed			
6.1	Expansion device or loops installed with correct movement clips			
6.1				
6.2	**6.2 RW Recycled Water Mains High Level & Corridors**			
6.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
6.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
6.2	Check for damage			
6.2	Check pipe joints are complete with no leaks			
6.2	Clips installed correctly			
6.2	Open ends sealed			
6.2	Check valves & flow direction installed correctly			
6.2	Anchors clamps installed			
6.2	Expansion device or loops installed with correct movement clips			
6.2				
6.3	**6.3 RW Recycled Water Rough-in (High Level)**			
6.3	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
6.3	This document certifies that the installation complies with the latest IFC specifications & drawings			
6.3	Check for damage			
6.3	Check pipe joints are complete with no leaks			
6.3	Clips installed correctly			
6.3	Open ends sealed			
6.3	Check valves & flow direction installed correctly			
6.3	Sharp edge protection			
6.3	Meters or spacers are installed			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
6.3				
6.4	**6.4 RW Recycled Water Rough-in (Low Level)**			
6.4	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
6.4	This document certifies that the installation complies with the latest IFC specifications & drawings			
6.4	Check for damage			
6.4	Check pipe joints are complete with no leaks			
6.4	Clips installed correctly			
6.4	Open ends sealed			
6.4	Check valves & flow direction installed correctly			
6.4	Pan/cistern brackets installed			
6.4	Lugged elbows installed			
6.4	Sharp edge protection			
6.4	Open ends sealed			
6.4				
7.2	**7.2 NG Natural Gas Mains High Level & Corridors**			
7.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
7.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
7.2	Check for damage			
7.2	Check pipe joints are complete with no leaks			
7.2	Clips installed correctly			
7.2	Open ends sealed			
7.2	Check valves & flow direction installed correctly			
7.2	Anchors clamps installed			
7.2	Expansion device or loops installed with correct movement clips			
7.2				
7.5	**7.5 NG Preparation for Purging Consumer Fitting Line**			
7.5	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
7.5	This document certifies that the installation complies with the latest IFC specifications & drawings			
7.5	ESV has tested & certified the consumer fitting line as ready for a metered gas connection			
7.5	The consumer fitting line has passed the installation test and remains full of test Air/Nitrogen			
7.5	Property owner or representative has applied to ESV for this particular gas connection			
7.5	A date & time has been scheduled for the meter installation to take place			
7.5	Property owner or representative has notified the Hydraulic Services Contractor ≥24 hours in advance of the intended meter installation			
7.5	The meter room is easily accessible and clean for meter installation			
7.5	A schematic drawing of the consumer fitting line network has been provided in the meter room by the Hydraulic Contractor			
7.5	All signage & valve tags have been installed in the meter room by the Hydraulic Service Contractor			
7.5	A purge procedure plan has or is being amended for site conditions			
7.5				
7.6	**7.6 NG Purging of Consumer Fitting Line**			
7.6	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
7.6	This document certifies that the installation complies with the latest IFC specifications & drawings			
7.6	A "Tool Box" meeting to be held on the morning of the meter installation date to define personnel rolls & responsibilities			
7.6	Select the purge areas and ensure no ignition sources are within these areas			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
7.6	Prominently display warning signs surrounding the purge areas			
7.6	A purge stack or purge bucket must be available and operated by one designated team member			
7.6	Provide suitable fire-extinguishers within the purge venting areas			
7.6	Nitrogen and connection equipment is available for the purge			
7.6	Ensure personnel are familiar with operation of the fire-extinguishers			
7.6	All electronic equipment to be used in the purge area must be rated as "electromagnetically safe"			
7.6	The team leader is to remain in the gas meter room to control & oversee proceedings			
7.6	Reliable two-way radio devices are to be issued to all personnel as the means of primary communication			
7.6	Hydraulic Services contractor to purge all air from the consumer line using nitrogen until air is displaced with a nitrogen plug			
7.6	ESVs' meter contractor is instructed that all is in readiness for the commencement of his works			
7.6	ESVs' meter contractor fits the meter in position and immediately commences the purging & calibration of his meter			
7.6	At this stage only a minor amount of nitrogen gas will be displaced for venting in the purge areas			
7.6	Following the successful installation & calibration of the meter, the ESV contractors' engagement is complete			
7.6	The Hydraulic Services team now takes over and commences the consumer fitting line primary purge			
7.6	Calculate the volume of the main run of pipe before commencing the purge (Re: ESV GIS No: 14 - Table 1 and the example in Appendix 2). Observing the volume passing through the meter will indicate when gas is expected to flow through the purge stack or			
7.6	Note the gas meter test dial position for indication of the flow rate			
7.6	A purge stack or purge bucket has previously been connected to the further most point of the consumer fitting line			
7.6	Carefully open the primary gas control valve & commence the purging process			
7.6	Ensure the maximum purge pressure is not exceeded (Pressure is labelled on fitting line)			
7.6	Continue to purge through the purge stack or purge bucket until natural gas is commences being presented			
7.6	Take a sample from the purge stack or purge bucket sampling point using a suitable gas detector (minimum acceptable reading 95% gas).			
7.6	An indication that the purging of natural gas is nearing completion is seen when mass gas aeration evacuates from the purge bucket and proceeds to disperses.			
7.6	Continue purging & testing until an acceptable reading on the gas detector is obtained			
7.6	When the correct test result is obtained, purging of this section will be complete.			
7.6	Relieve the pressure in the purge hose by opening the purge stack main valve.			
7.6	Disconnect the purge hose and the hose inlet valve from the installation. Cap & seal the fitting line immediately to avoid gas escaping and air re-entering the line.			
7.6	Transfer the purge stack or purge bucket and hose to the end of the branch nearest the meter and repeat the procedure.			
7.6	Continue purging all branches, moving away from the meter, until the whole installation is filled with gas.			
7.6				
8.1	**8.1 FO Toilets & Cisterns Installation**			
8.1	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.1	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.1	Check for damage			
8.1	Check fixture is installed correctly			
8.1	Check seat & accessories are installed correctly			
8.1	Check DDA back rest is installed correctly			
8.1	Check for leaks			
8.1	Check function & controls			
8.1	Check trap is clear of debris			
8.1	Check protective covering is installed			
8.1				

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
8.2	**8.2 FO Urinals & Cisterns Installation**			
8.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.2	Check for damage			
8.2	Check fixture is installed correctly			
8.2	Check accessories are installed correctly			
8.2	Check for leaks			
8.2	Check function & controls			
8.2	Check trap is clear of debris			
8.2	Check floor waste is clear of debris			
8.2	Check protective covering is installed			
8.2				
8.3	**8.3 FO Wash Basins & Tapware Installation**			
8.3	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.3	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.3	Check for damage			
8.3	Check fixture & waste are installed correctly			
8.3	Check tapware is installed correctly			
8.3	Check function & controls			
8.3	Check trap is clear of debris			
8.3	Check trap nuts are tight			
8.3	Check flexible connections are not kinked or twisted			
8.3	Check for leaks			
8.3	Check protective covering is installed			
8.3				
8.4	**8.4 FO Showers & Tapware Installation**			
8.4	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.4	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.4	Check for damage			
8.4	Check tapware is installed correctly			
8.4	Check wall & ceiling outlets are installed correctly			
8.4	Check function & controls			
8.4	Check floor grate or channel fit & alignment			
8.4	Check trap is clear of debris			
8.4	Protective covering installed			
8.4				
8.5	**8.5 FO Baths & Tapware Installation**			
8.5	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.5	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.5	Check for damage			
8.5	Check fixture & waste is installed correctly			
8.5	Check tapware is installed correctly			
8.5	Check function & controls			
8.5	Check trap is clear of debris			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
8.5	Check for leaks			
8.5	Check protective covering is installed			
8.5				
8.6	**8.6 FO Kitchen Sinks & Tapware Installation**			
8.6	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.6	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.6	Check for damage			
8.6	Check fixture & waste are installed correctly			
8.6	Check tapware is installed correctly			
8.6	Check function & controls			
8.6	Check trap is clear of debris			
8.6	Check AAV is installed correctly			
8.6	Check trap nuts are tight			
8.6	Check flexible connections are not kinked or twisted			
8.6	Check for leaks			
8.6	Check protective covering is installed			
8.6				
8.7	**8.7 FO Dishwashers Installation**			
8.7	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.7	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.7	Check for damage			
8.7	Check fixture & waste are installed correctly			
8.7	Check function & controls			
8.7	Check trap is clear of debris			
8.7	Check trap nuts are tight			
8.7	Check mini stop is installed			
8.7	Check pressure reduction valve installed			
8.7	Check flexible connections are not kinked or twisted			
8.7	Check for leaks			
8.7	Protective covering is installed			
8.7				
8.10	**8.10 FO Wall Tundishes Installation**			
8.10	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.10	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.10	Check for damage			
8.10	Check fixture is installed correctly			
8.10	Alignment level & centred			
8.10	Check for leaks			
8.10	Protective covering is installed			
8.10				
8.12	**8.12 FO Hose Taps Installation**			
8.12	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.12	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.12	Check for damage			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
8.12	Check tapware is installed correctly			
8.12	Alignment level & centred			
8.12	Check for leaks			
8.12	Protective covering is installed			
8.12				
8.13	**8.13 FO Thermostatic Mixing Valve (TMV) Installation**			
8.13	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.13	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.13	Check for damage			
8.13	Check fixture is installed correctly			
8.13	Alignment level & centred			
8.13	Check wall box installed			
8.13	Check function & controls			
8.13	Check for leaks			
8.13	Protective covering is installed			
8.13				
8.14	**8.14 FO Tempering Valve (TV) Installation**			
8.14	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.14	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.14	Check for damage			
8.14	Check fixture is installed correctly			
8.14	Alignment level & centred			
8.14	Check wall box installed			
8.14	Check function & controls			
8.14	Check for leaks			
8.14	Protective covering is installed			
8.14				
8.16	**8.16 FO Cleaners Sinks & Tapware Installation**			
8.16	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.16	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.16	Check for damage			
8.16	Check fixture & waste are installed correctly			
8.16	Check tapware is installed correctly			
8.16	Check bucket grate is installed correctly			
8.16	Check function & controls			
8.16	Check trap is clear of debris			
8.16	Check trap nuts are tight			
8.16	Check for leaks			
8.16	Check protective covering is installed			
8.16				
8.18	**8.18 FO Drinking Fountains Installation**			
8.18	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.18	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.18	Check for damage			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
8.18	Alignment level & centred			
8.18	Pressure reduction valve installed			
8.18	Flexible connection not twisted or kinked			
8.18	Trap installed correctly			
8.18	Check function & controls			
8.18	Check for leaks			
8.18	Protective covering installed			
8.18				
8.19	**8.19 FO Chilled Boiling Water Unit Installation**			
8.19	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.19	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.19	Check for damage			
8.19	Alignment level & centred			
8.19	Pressure reduction valve installed			
8.19	Flexible connection not twisted or kinked			
8.19	Trap installed correctly			
8.19	Check function & controls			
8.19	Check for leaks			
8.19	Protective covering installed			
8.19				
8.20	**8.20 FO Cold Water RPZD Installation**			
8.20	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
8.20	This document certifies that the installation complies with the latest IFC specifications & drawings			
8.20	Check for damage			
8.20	Alignment level & centred			
8.20	Check valve function			
8.20	Check for leaks			
8.20	Water connections installed correctly			
8.20	Exhaust to tundish			
8.20	Protective covering installed			
8.20				
9.1	**9.1 WP Weather Proofing Roof Tops/Terraces**			
9.1	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
9.1	This document certifies that the installation complies with the latest IFC specifications & drawings			
9.1	Check for damage			
9.1	Alignment & finished heights			
9.1	Finished grates installed			
9.1	Vent penetrations tanked			
9.1	Vent over-flashings & cowls installed			
9.1	Outlets clear of debris			
9.1				
10.1	**10.1 MT Cold Water Meters Installation**			
10.1	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
10.1	This document certifies that the installation complies with the latest IFC specifications & drawings			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
10.1	Meter Number			
10.1	Meter Location			
10.1	Meter Size			
10.1	Installed type per current docs'			
10.1	Check for damage			
10.1	Ensure solid installation			
10.1	Confirm I.D. point against the meter register			
10.1	Pulse rate value correct			
10.1	Ready for BMS wiring			
10.1	Flow direction is correct			
10.1	Valve tag			
10.1				
10.2	**10.2 MT Hot Water Meters Installation**			
10.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
10.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
10.2	Meter Number			
10.2	Meter Location			
10.2	Meter Size			
10.2	Installed type per current docs'			
10.2	Check for damage			
10.2	Ensure solid installation			
10.2	Confirm I.D. point against the meter register			
10.2	Pulse rate value correct			
10.2	Ready for BMS wiring			
10.2	Flow direction is correct			
10.2	Valve tag			
10.2				
10.3	**10.3 MT Re-Cycled Water Meters Installation**			
10.3	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
10.3	This document certifies that the installation complies with the latest IFC specifications & drawings			
10.3	Meter Number			
10.3	Meter Location			
10.3	Meter Size			
10.3	Installed type per current docs'			
10.3	Check for damage			
10.3	Ensure solid installation			
10.3	Confirm I.D. point against the meter register			
10.3	Pulse rate value correct			
10.3	Ready for BMS wiring			
10.3	Flow direction is correct			
10.3	Valve tag			
10.3				
10.4	**10.4 MT Natural Gas Meters Installation**			
10.4	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
10.4	This document certifies that the installation complies with the latest IFC specifications & drawings			
10.4	Meter Number			
10.4	Meter Location			
10.4	Meter Size			
10.4	Installed type per current docs'			
10.4	Check for damage			
10.4	Ensure solid installation			
10.4	Confirm I.D. point against the meter register			
10.4	Pulse rate value correct			
10.4	Ready for BMS wiring			
10.4	Flow direction is correct			
10.4	Valve tag			
10.4				
11.1	**11.1 PE In-Ground Sewer Pump Station**			
11.1	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.1	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.1	Check for damage			
11.1	Alignment & levels correct			
11.1	Vents installed			
11.1	Backfilled & compacted as spec'd			
11.1	Spoil is removed			
11.1	Drain connections installed			
11.1	Pump line installed			
11.1	Electrical conduit installed			
11.1	Control panel installed			
11.1				
11.2	**11.2 PE In-Ground Stormwater Pump Station**			
11.2	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.2	Check for damage			
11.2	Alignment & levels correct			
11.2	Vents installed			
11.2	Backfilled & compacted as spec'd			
11.2	Spoil is removed			
11.2	Drain connections installed			
11.2	Pump line installed			
11.2	Electrical conduit installed			
11.2	Control panel installed			
11.2				
11.3	**11.3 PE In-Ground Stormwater Tank**			
11.3	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.3	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.3	Check for damage			
11.3	Alignment & levels correct			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
11.3	Vents installed			
11.3	Backfilled & compacted as spec'd			
11.3	Spoil is removed			
11.3	Drain connections installed			
11.3	Overflow installed			
11.3	Suction line installed			
11.3	Electrical conduit installed			
11.3	Control panel installed			
11.3				
11.7	**11.7 PE Above-Ground Grease Arresting Tank**			
11.7	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.7	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.7	Check for damage			
11.7	Alignment & levels correct			
11.7	Tank bolted down to plinth			
11.7	Vents installed			
11.7	Drain connections installed			
11.7	Outlet drain installed			
11.7	Disconnector trap installed			
11.7	Check baffle & water levels			
11.7	Pump line installed			
11.7				
11.14	**11.14 PE Above-Ground Rain Water Storage Tank**			
11.14	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.14	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.14	Check for damage			
11.14	Alignment & levels correct			
11.14	Tank bolted down to plinth			
11.14	Vents installed			
11.14	Drain connections installed			
11.14	Overflow installed			
11.14	Suction line installed			
11.14	Check baffle & water levels			
11.14				
11.15	**11.15 PE Above-Ground Cold Water Storage Tank**			
11.15	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.15	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.15	Check for damage			
11.15	Alignment & levels correct			
11.15	Tank bolted down to plinth			
11.15	Vents installed			
11.15	Water fill point installed			
11.15	Overflow installed			
11.15	Suction line installed			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
11.15	Check baffle & water levels			
11.15				
11.16	**11.16 PE Potable Cold Water Pump Package**			
11.16	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.16	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.16	Check for damage			
11.16	Alignment & levels correct			
11.16	Skid bolted down to plinth			
11.16	Check for water & oil leaks			
11.16	Water Inlet installed			
11.16	Water outlet installed			
11.16	Electrical conduit installed			
11.16	Control panel installed			
11.16				
11.17	**11.17 PE Recycled Rain Water Pump Package**			
11.17	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.17	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.17	Check for damage			
11.17	Alignment & levels correct			
11.17	Skid bolted down to plinth			
11.17	Check for water & oil leaks			
11.17	Water Inlet installed			
11.17	Water outlet installed			
11.17	Electrical conduit installed			
11.17	Control panel installed			
11.17				
11.18	**11.18 Hot Water Secondary Circulating Pump Package**			
11.18	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.18	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.18	Check for damage			
11.18	Alignment & levels correct			
11.18	Skid bolted down to plinth			
11.18	Check for water & oil leaks			
11.18	Water Inlet installed			
11.18	Water outlet installed			
11.18	Electrical conduit installed			
11.18	Control panel installed			
11.18				
11.20	**11.20 PE Hot Water Generating Packaged Plant**			
11.20	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.20	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.20	Check for damage			
11.20	Alignment & levels correct			
11.20	Check for water leaks			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
11.20	Check for gas leaks			
11.20	Skid bolted down to plinth			
11.20	Cold water inlet installed			
11.20	Hot water outlet installed			
11.20	Hot water return installed			
11.20	Thermal insulation installed			
11.20	Exposed hot water pipework sheathed			
11.20	Natural gas inlet installed			
11.20	Overflow discharges over dedicated tundish			
11.20	Electrical conduit installed			
11.20	Power flue is installed			
11.20	Control panel is installed			
11.20				
11.21	**11.21 PE Hot Water Elec/Gas Storage Unit**			
11.21	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.21	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.21	Check for damage			
11.21	Alignment & levels correct			
11.21	Check for water leaks			
11.21	Check for gas leaks			
11.21	Overflow tray installed			
11.21	Cold water inlet installed			
11.21	Hot water outlet installed			
11.21	Hot water return installed			
11.21	Thermal insulation installed			
11.21	Exposed hot water pipework is sheathed			
11.21	Natural gas inlet installed			
11.21	Overflow discharges over dedicated tundish			
11.21	Flue installed			
11.21				
11.23	**11.23 PE SW Downpipe/Syphonic Diversion Valve**			
11.23	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
11.23	This document certifies that the installation complies with the latest IFC specifications & drawings			
11.23	Check for damage			
11.23	Alignment & levels correct			
11.23	Check for leaks			
11.23	Inlet pipework installed			
11.23	Outlet pipework installed			
11.23	Diversion pipework installed			
11.23				
	FC Fire Collars Floor/Wall Penetrations			
	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
	This document certifies that the installation complies with the latest IFC specifications & drawings			
	Check for damage			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
	Check floor/wall fire collars installed correctly			
	Check metal sleeves installed correctly			
	Check cast-in RWO bodies installed correctly			
	Check open ends sealed			
14.2	This document certifies that the installation complies with the latest IFC specifications & drawings			
14.2	Size Check			
14.2	Location Check			
14.2	Fixing Check			
14.2	Caulking applied correctly			
14.2	Photo Check			
14.2				
17.1	**17.1 TST Testing Sewer Drainage (Air Test)**			
17.1	Test procedure per AS-3500.2 (2018)			
17.1	Internal bore clear of blockages, constrictions or debris			
17.1	Pipe-work is secure to eliminate movement during test			
17.1	Plug & seal open ends of pipe-work section to be tested			
17.1	Provide a temporary valved test point with union fitting			
17.1	Connect pressure testing device to temporary valve point			
17.1	Commence testing by slowly increasing pressure up to no less than 15 kPa			
17.1	Discontinue pressurization & allow system to stabilization over 3 minutes			
17.1	Testing is deemed successful if pressure drop is ≤ 5kPa over 10 minutes			
17.1	If test is successful, slowly release test pressure and return the system back to neutral working conditions			
17.1	Place test sticker on pipe 1500mm high, facing a corridor or accessible wall			
17.1	Plan of test route or location to be attached to this Check Point as PDF			
17.1				
17.2	**17.2 TST Testing Sewer Drainage (Water Test)**			
17.2	Test procedure per AS-3500.2 (2018)			
17.2	Internal bore clear of blockages, constrictions or debris			
17.2	Pipe-work is secure to eliminate movement during test			
17.2	Plug & seal open ends of pipe-work section to be tested			
17.2	Extend a test riser 1 metre above the highest overflow point			
17.2	Slowly fill the test riser with water until full and hold for at least 15 minutes			
17.2	Testing is deemed successful if the water level remains unchanged after 15 minutes			
17.2	If test is successful, slowly release test pressure and return the system back to neutral working conditions			
17.2	Place test sticker on pipe 1500mm high, facing a corridor or accessible wall			
17.2	Plan of test route or location to be attached to this Check Point as PDF			
17.2				
17.3	**17.3 TST Testing Roof Downpipes (Air Test)**			
17.3	Test procedure per AS-3500.3 (2018)			
17.3	Internal bore clear of blockages, constrictions or debris			
17.3	Pipe-work is secure to eliminate movement during test			
17.3	Plug & seal open ends of pipe-work section to be tested			
17.3	Provide a temporary valved test point with union fitting			
17.3	Connect pressure testing device to temporary valve point			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
17.3	Commence choke point testing by slowly increasing pressure up to 15 kPa			
17.3	Hold test at 30 kPa for 3 minutes			
17.3	Testing is deemed successful if pressure drop is ≤ 5kPa over 10 minutes			
17.3	If test is successful, slowly release test pressure and return the system back to neutral working conditions			
17.3	Place test sticker on pipe 1500mm high facing a corridor or accessible wall			
17.3	Plan of test route or location to be attached to this Check Point as PDF			
17.3				
17.4	**17.4 TST Testing Roof Downpipes (Water Test)**			
17.4	Test procedure per AS-3500.3 (2018)			
17.4	Internal bore clear of blockages, constrictions or debris			
17.4	Pipe-work is secure to eliminate movement during test			
17.4	Plug & seal open ends of pipe-work section to be tested			
17.4	Choke test to a head of 10 metres or if the downpipe if shorter, fill to its limit			
17.4	Slowly fill the test riser with water until full and hold for 30 minutes			
17.4	Testing is deemed successful if the water level remains unchanged after 30 minutes			
17.4	If test is successful, slowly release test pressure and return the system back to neutral working conditions			
17.4	Place test sticker on pipe 1500mm high facing a corridor or accessible wall			
17.4	Plan of test route or location to be attached to this Check Point as PDF			
17.4				
17.5	**17.5 TST Testing HP Water Pipe - Copper Tube (1500 kPa Test 1)**			
17.5	Test procedure per AS-3500.1 (2018) &/or AS-3500.4 (2018)			
17.5	Ensure all valves dedicated to isolating the test zone are securely shut off & tagged			
17.5	Nominate an air purging valve point			
17.5	Nominate a pressure testing valve point (if none at meter manifold)			
17.5	Ensure isolating valves within the test zone are open as required			
17.5	Ensure all terminal open ends i.e. lugged elbows, etc are securely capped off			
17.5	Ensure all in-wall mixer assemblies & pressure sensitive meters, etc are isolated/removed from the test zone			
17.5	Slowly open a feeder valve & fill the test zone with water until completely purged of any air			
17.5	Connect pressure testing device to the nominated test point			
17.5	Shut off the water feeder valve			
17.5	Commence testing by slowly increasing pressure up to 1500 kPa and hold for 30 minutes			
17.5	Testing is deemed successful if the water pressure remains unchanged after 30 minutes			
17.5	**WARNING:** Air testing should be avoided. If necessary, 30 kPa held over 10 minutes must not be exceeded			
17.5	If test is successful, slowly release test pressure and return the system back to neutral working conditions			
17.5	Test sticker in visible location			
17.5	Plan of test route or location to be attached to this Check Point as PDF			
17.5				
17.6	**17.6 TST Testing HP Water Pipe - Stainless Steel Pipe (2 x Working Pressure Test 2)**			
17.6	Test procedure per AS-3500.1 (2018) &/or AS-3500.4 (2018)			
17.6	Ensure all valves dedicated to isolating the test zone are securely shut off & tagged			
17.6	Nominate an air purging valve point			
17.6	Nominate a pressure testing valve point (if none at meter manifold)			
17.6	Ensure isolating valves within the test zone are open as required			
17.6	Ensure all terminal open ends i.e. lugged elbows, etc are securely capped off			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
17.6	Ensure all in-wall mixer assemblies & pressure sensitive meters, etc are isolated/removed from the test zone			
17.6	Slowly open a feeder valve & fill the test zone with water until completely purged of any air			
17.6	Connect pressure testing device to the nominated test point			
17.6	Shut off the water feeder valve			
17.6	Commence testing by slowly increasing pressure up to twice (2) x working pressure and hold for 30 minutes			
17.6	Testing is deemed successful if the water pressure remains unchanged after 30 minutes			
17.6	**WARNING:** Air testing should be avoided. If necessary, 30 kPa held over 10 minutes must not be exceeded			
17.6	If test is successful, slowly release test pressure and return the system back to neutral working conditions			
17.6	Test sticker in visible location			
17.6	Plan of test route or location to be attached to this Check Point as PDF			
17.6				
17.7	**17.7 TST Testing HP Water Pipe - Including Pressure Sensitive Valves (900 kPa Test 3)**			
17.7	Test procedure per AS-3500.1 (2018) &/or AS-3500.4 (2018)			
17.7	Ensure all valves dedicated to isolating the test zone are securely shut off & tagged			
17.7	Nominate an air purging valve point			
17.7	Nominate a pressure testing valve point (if none at meter manifold)			
17.7	Ensure isolating valves within the test zone are open as required			
17.7	Ensure all terminal open ends i.e. lugged elbows, etc are securely capped off			
17.7	Slowly open a feeder valve & fill the test zone with water until completely purged of any air			
17.7	Connect pressure testing device to the nominated test point			
17.7	Shut off the water feeder valve			
17.7	Commence testing by slowly increasing pressure up to 900 kPa and hold for 30 minutes			
17.7	Testing is deemed successful if the water pressure remains unchanged after 30 minutes			
17.7	**WARNING:** Air testing should be avoided. If necessary, 30 kPa held over 10 minutes must not be exceeded			
17.7	If test is successful, slowly release test pressure and return the system back to neutral conditions			
17.7	Test sticker in visible location			
17.7	Plan of test route or location to be attached to this Check Point as PDF			
17.7				
17.8	**17.8 TST Testing HP Water PEX Tube (900 kPa Test 4 Couta Pipe)**			
17.8	Test procedure per AS-3500.1 (2018) &/or AS-3500.4 (2018)			
17.8	Ensure all valves dedicated to isolating the test zone are securely shut off & tagged			
17.8	Nominate an air purging valve point			
17.8	Nominate a pressure testing valve point (if none at meter manifold)			
17.8	Ensure isolating valves within the test zone are open as required			
17.8	Ensure all terminal open ends i.e. lugged elbows, etc are securely capped off			
17.8	Slowly open a feeder valve & fill the test zone with water until completely purged of any air			
17.8	Connect pressure testing device to the nominated test point			
17.8	Shut off the water feeder valve			
17.8	Commence testing by slowly increasing pressure up to 900 kPa and hold for 2 minutes			
17.8	[For Couta System] Release pressure down to 500 kpa and hold for 20 seconds			
17.8	[For Couta System] Rapidly increase shock pressure back to 900 kPa and hold for test duration			
17.8	Testing is deemed successful if the water pressure remains unchanged after 30 minutes			
17.8	**WARNING:** Air testing should be avoided. If necessary, 30 kPa held over 10 minutes must not be exceeded			
17.8	If test is successful, slowly release test pressure and return the system back to neutral conditions			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
17.8	Test sticker in visible location			
17.8	Plan of test route or location to be attached to this Check Point as PDF			
17.8				
17.9	**17.9 TST Testing Natural Gas Service (Nitrogen) High Pressure**			
17.9	Test procedure per AS-5601.1 (2013)			
17.9	Ensure all valves dedicated to isolating the test zone are securely shut off & tagged			
17.9	Nominate an air purging valve point			
17.9	Nominate a pressure testing valve point			
17.9	Ensure isolating valves within the test zone are open as required			
17.9	Ensure all terminal open ends i.e. lugged elbows, etc are securely capped off			
17.9	Slowly open test feeder valve & fill the test zone with nitrogen/air until completely purged			
17.9	Connect pressure testing device to the nominated test point			
17.9	Shut off the gas feeder valve			
17.9	Commence testing by slowly increasing pressure up to 7kPa or 1.5 kPa above working pressure			
17.9	Testing is deemed successful if the pressure remains unchanged for 5 mins of every 30 litres volume of pipe			
17.9	If test is successful, slowly release test pressure and return the system back to neutral conditions			
17.9	Test sticker in visible location			
17.9	Plan of test route or location to be attached to this Check Point as PDF			
17.9				
17.10	**17.10 TST Testing Natural Gas Service (Nitrogen) Low Pressure**			
17.10	Test procedure per AS-5601.1 (2013)			
17.10	Ensure all valves dedicated to isolating the test zone are securely shut off & tagged			
17.10	Nominate an air purging valve point			
17.10	Nominate a pressure testing valve point			
17.10	Ensure isolating valves within the test zone are open as required			
17.10	Ensure all terminal open ends i.e. lugged elbows, etc are securely capped off			
17.10	Slowly open test feeder valve & fill the test zone with nitrogen/air until completely purged			
17.10	Connect pressure testing device to the nominated test point			
17.10	Shut off the gas feeder valve			
17.10	Commence testing by slowly increasing pressure up to 7kPa or 1.5 kPa above working pressure			
17.10	Testing is deemed successful if the pressure remains unchanged for 5 mins of every 30 litres volume of pipe			
17.10	If test is successful, slowly release test pressure and return the system back to neutral conditions			
17.10	Test sticker in visible location			
17.10	Plan of test route or location to be attached to this Check Point as PDF			
17.10				
17.11	**17.11 TST Testing Reduced Pressure Zone Device (RPZD)**			
17.11	Test procedure per AS-3500.1 (2018)			
17.11	Testing sub-contractor is certified or licenced to perform this procedure			
17.11	Check a drainage point is provided for dumping outlet zone water when necessary			
17.11	Check inlet and outlet pressure settings are differentiated to dump outlet zone water if inlet pressure drops			
17.11	Test result certification received			
17.11	Return system to working conditions post test			
17.11	Test sticker in visible location			
17.11	Plan of test location to be attached to this Check Point as PDF			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
17.11				
17.12	**17.12 TST Testing Thermostatic Mixing Valve (TMV)**			
17.12	Test procedure per AS-3500.4 (2018)			
17.12	Testing sub-contractor is certified or licenced to perform this procedure			
17.12	Run hot water only until delivery temperature stabilizes			
17.12	Check water temperature with a calibrator measuring device			
17.12	Stabilized water temperature must be delivered at ≤45°C			
17.12	Test result certification received			
17.12	Return system to working conditions post test			
17.12	Test sticker in visible location			
17.12	Plan of test location to be attached to this Check Point as PDF			
17.12				
17.13	**17.13 TST Testing Tempering Valve (TV)**			
17.13	Test procedure per AS-3500.4 (2018)			
17.13	Testing sub-contractor is certified or licenced to perform this procedure			
17.13	Run hot water only until delivery temperature stabilizes			
17.13	Check water temperature with a calibrator measuring device			
17.13	Stabilized water temperature must be delivered at ≤50°C			
17.13	Test result certification received			
17.13	Return system to working conditions post test			
17.13	Test sticker in visible location			
17.13	Plan of test location to be attached to this Check Point as PDF			
17.13				
18.1	**18.1 COM Commission Fixture Groups**			
18.1	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.1	Confirm plant & equipment comply with the contract performance documentation			
18.1	Fixtures/tapware/appliances installed conform with the contract & specification docs			
18.1	Fixtures/tapware/appliances installed are un-blemished & fit for hand over			
18.1	Fixtures/tapware/appliances are installed level, square & centre of position			
18.1	Ensure the wall/splash-back materials & clearances conform with AS-5601			
18.1	Ensure the range-hood height clearance conforms with AS-5601 & manufacturer limits			
18.1	Check gas appliance burner operation for functionality & complete combustion			
18.1	Check installation of correct pressure reduction valves on dish washers, fridges, etc.			
18.1	Check all valves, unions & regulators are correct.			
18.1	Check for installation debris, glue, cleaner & set-out marks.			
18.1	Check for pipe damage, leaks, etc			
18.1	Check flexible water/gas connections are not twisted or kinked			
18.1	Check dishwasher waste hose is not twisted or kinked			
18.1	Check waste trap & associated connectors are installed with nuts firmly tightened			
18.1	Check all fixture & floor waste traps are clear of debris & free flowing			
18.1	Check all balcony rain water outlets & overflows are clear of debris & free flowing			
18.1	Operate each fixture/tapware/appliance through its operation & functionality sequence			
18.1	Check hot water delivery time & temperature against contract specification requirements			
18.1	Check hot water thermostatic control valves (TMV) for correct function & delivery temps ≤ 45°C			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.1	Check hot water temperature control valves (TCV) for correct function & delivery temps ≤ 50°C			
18.1	Check correct operation & connections to all tundishes			
18.1	Check quality & application of caulking is fit for purpose			
18.1	Cap off any open ends i.e. CWM stops			
18.1	Check valve tag numbers match their allocated location.			
18.1	Check flow meter numbers match their allocated location.			
18.1	Test sticker in visible location			
18.1				
18.2	**18.2 COM In-Ground Sewer Multi-Centrifugal Pump Station**			
18.2	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.2	Confirm plant & equipment comply with the contract performance documentation			
18.2	Confirm BMS plant/equipment code number			
18.2	Provide supplier contact details			
18.2	Provide plant/equipment make & model			
18.2	Provide plant/equipment user manual & specification			
18.2	Confirm plant/equipment I.D. plate is installed			
18.2	Confirm statutory signage is installed correctly			
18.2	Confirm fall protection is installed if required			
18.2	Confirm the installation has been leak checked			
18.2	Confirm the chamber is clean of debris			
18.2	Confirm the control panel is installed correctly			
18.2	Confirm wiring from plant to control panel is installed			
18.2	Confirm mains power is connected to control panel			
18.2	Confirm BMS wiring is connected to control panel			
18.2	Confirm plant covers are clean & fitted correctly			
18.2	Confirm isolating & check valves are installed			
18.2	Confirm all valves for correct direction of flow			
18.2	Confirm inlet pipes are installed correctly & clear of debris			
18.2	Confirm the rising main is installed & connected to outfall			
18.2	Confirm chamber vent is installed correctly if required			
18.2	Confirm the pump guide rails & lifting chains are installed			
18.2	Confirm all cables are secured & don't impede pump removal			
18.2	Confirm water level sensor is securely installed & is suspended freely			
18.2	Confirm chamber covers are cleaned, greased & will seat/bolt down correctly			
18.2	Confirm all pumps are seated onto their pedestal base correctly			
18.2	Confirm all pumps are stable & vibration free in operation			
18.2	Confirm all pumps phase rotation is correct			
18.2	Confirm pump-1 start set point measured from chamber base in mm			
18.2	Confirm pump-1 stop set point measured from chamber base in mm			
18.2	Confirm pump-1 delivery rate in Ltr/Sec			
18.2	Confirm pump-2 start set point measured from chamber base in mm			
18.2	Confirm pump-2 stop set point measured from chamber base in mm			
18.2	Confirm pump-2 delivery rate in Ltr/Sec			
18.2	Confirm pump-1 & 2 delivery rate in Ltr/Sec			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.2	Confirm pump-3 start set point measured from chamber base in mm			
18.2	Confirm pump-3 stop set point measured from chamber base in mm			
18.2	Confirm pump-3 delivery rate in Ltr/Sec			
18.2	Confirm pump-1, 2 & 3 delivery rate in Ltr/Sec			
18.2	Confirm chamber high level sensor is operating correctly & will signal a fault if exceeded			
18.2	Confirm stand-by pumps will auto start to assist duty pump when high level set point is exceeded			
18.2	Confirm stand-by pumps will auto stop when high level set point is returned to normal			
18.2	Confirm controller can provide LCD graphical display of pump station status			
18.2	Confirm auto resequencing of duty pump operations for life cycle maintenance			
18.2	Confirm auto resequencing of duty pump operations if a pump fault is signalled			
18.2	Confirm pressure transducers are operating correctly			
18.2	Confirm pump motors insulation resistance has been measured in (Ω)			
18.2	Confirm pump motors overload set points have been measured (Amps) & will fault shut down if exceeded			
18.2	Confirm pump seal thermistors are operating correctly & will signal a fault if exceeded			
18.2	Confirm pump status indicators are operating correctly			
18.2	Confirm all pump selector switches are operating correctly			
18.2	Confirm dry pump protection operates & will fault shut down if exceeded			
18.2	Confirm system faults will activate dynamic control panel audio/visual alarms			
18.2	Confirm system faults will activate BMS warnings & alarms			
18.2	Confirm BMS contractor has signed of installation & provided documentation			
18.2	Confirm electrical contractor has signed of installation & provided documentation			
18.2	Confirm plant supplier has signed of installation & provided documentation			
18.2	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.2	Confirm the plant commissioning is accepted			
18.2				
18.3	**18.3 COM In-Ground Stormwater Multi-Centrifugal Pump Station**			
18.3	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.3	Confirm plant & equipment comply with the contract performance documentation			
18.3	Confirm BMS plant/equipment code number			
18.3	Provide supplier contact details			
18.3	Provide plant/equipment make & model			
18.3	Provide plant/equipment user manual & specification			
18.3	Confirm plant/equipment I.D. plate is installed			
18.3	Confirm statutory signage is installed correctly			
18.3	Confirm fall protection is installed if required			
18.3	Confirm the installation has been leak checked			
18.3	Confirm the chamber is clean of debris			
18.3	Confirm the control panel is installed correctly			
18.3	Confirm wiring from plant to control panel is installed			
18.3	Confirm mains power is connected to control panel			
18.3	Confirm BMS wiring is connected to control panel			
18.3	Confirm plant covers are clean & fitted correctly			
18.3	Confirm isolating & check valves are installed			
18.3	Confirm all valves for correct direction of flow			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE **Rise Group**			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.3	Confirm inlet pipes are installed correctly & clear of debris			
18.3	Confirm the rising main is installed & connected to outfall			
18.3	Confirm chamber vent is installed correctly if required			
18.3	Confirm the pump guide rails & lifting chains are installed			
18.3	Confirm all cables are secured & don't impede pump removal			
18.3	Confirm water level sensor is securely installed & is suspended freely			
18.3	Confirm chamber covers are cleaned, greased & will seat/bolt down correctly			
18.3	Confirm all pumps are seated onto their pedestal base correctly			
18.3	Confirm all pumps are stable & vibration free in operation			
18.3	Confirm all pumps phase rotation is correct			
18.3	Confirm pump-1 start set point measured from chamber base in mm			
18.3	Confirm pump-1 stop set point measured from chamber base in mm			
18.3	Confirm pump-1 delivery rate in Ltr/Sec			
18.3	Confirm pump-2 start set point measured from chamber base in mm			
18.3	Confirm pump-2 stop set point measured from chamber base in mm			
18.3	Confirm pump-2 delivery rate in Ltr/Sec			
18.3	Confirm pump-1 & 2 delivery rate in Ltr/Sec			
18.3	Confirm pump-3 start set point measured from chamber base in mm			
18.3	Confirm pump-3 stop set point measured from chamber base in mm			
18.3	Confirm pump-3 delivery rate in Ltr/Sec			
18.3	Confirm pump-1, 2 & 3 delivery rate in Ltr/Sec			
18.3	Confirm chamber high level sensor is operating correctly & will signal a fault if exceeded			
18.3	Confirm stand-by pumps will auto start to assist duty pump when high level set point is exceeded			
18.3	Confirm stand-by pumps will auto stop when high level set point is returned to normal			
18.3	Confirm controller can provide LCD graphical display of pump station status			
18.3	Confirm auto resequencing of duty pump operations for life cycle maintenance			
18.3	Confirm auto resequencing of duty pump operations if a pump fault is signalled			
18.3	Confirm pressure transducers are operating correctly			
18.3	Confirm pump motors insulation resistance has been measured in (Ω)			
18.3	Confirm pump motors overload set points have been measured (Amps) & will fault shut down if exceeded			
18.3	Confirm pump seal thermistors are operating correctly & will signal a fault if exceeded			
18.3	Confirm pump status indicators are operating correctly			
18.3	Confirm all pump selector switches are operating correctly			
18.3	Confirm dry pump protection operates & will fault shut down if exceeded			
18.3	Confirm system faults will activate dynamic control panel audio/visual alarms			
18.3	Confirm system faults will activate BMS warnings & alarms			
18.3	Confirm BMS contractor has signed of installation & provided documentation			
18.3	Confirm electrical contractor has signed of installation & provided documentation			
18.3	Confirm plant supplier has signed of installation & provided documentation			
18.3	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.3	Confirm the plant commissioning is accepted			
18.3				
18.8	**18.8 COM Above-Ground Grease Arresting Tank**			
18.8	Confirm commissioning is compliant with Plumbing Code of Australian Standards			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.8	Confirm plant & equipment comply with the contract performance documentation			
18.8	Provide supplier contact details			
18.8	Provide plant/equipment make & model			
18.8	Provide plant/equipment user manual & specification			
18.8	Confirm plant/equipment I.D. plate is installed			
18.8	Confirm statutory signage is installed correctly			
18.8	Confirm fall protection is installed if required			
18.8	Confirm the installation has been leak checked			
18.8	Confirm tank is flush-out with water until clean			
18.8	Confirm tank is full of water			
18.8	Confirm the tank is level & firmly secured to structure			
18.8	Confirm inlet, outlet & vent pipes are installed correctly & clear of debris			
18.8	Confirm vacuum empty pipe-work is installed correctly			
18.8	Confirm plant covers are clean & fitted correctly			
18.8	Confirm plant supplier has signed of installation & provided documentation			
18.8	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.8	Confirm the plant commissioning is accepted			
18.8				
18.15	**18.15 COM Above-Ground Rain Water Storage Tank**			
18.15	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.15	Confirm plant & equipment comply with the contract performance documentation			
18.15	Confirm BMS plant/equipment code number			
18.15	Provide supplier contact details			
18.15	Provide plant/equipment make & model			
18.15	Provide plant/equipment user manual & specification			
18.15	Confirm plant/equipment I.D. plate is installed			
18.15	Confirm statutory signage is installed correctly			
18.15	Confirm fall protection is installed if required			
18.15	Confirm the installation has been leak checked			
18.15	Confirm tank is flush-out with water until clean			
18.15	Confirm tank is full of water			
18.15	Confirm the tank is level & firmly secured to structure			
18.15	Confirm water level sensors are installed & activation points set			
18.15	Confirm the control panel is installed correctly			
18.15	Confirm wiring from level sensor to control panel is installed			
18.15	Confirm mains power is connected to control panel			
18.15	Confirm BMS wiring is connected to control panel			
18.15	Confirm tank fill potable water supply valve auto-opens at nominated set point			
18.15	Confirm tank fill potable water supply valve auto-closes at nominated set point			
18.15	Confirm operation of High water level alarm			
18.15	Confirm operation of Low water level alarm			
18.15	Confirm isolating & check valves are installed			
18.15	Confirm all valves for correct direction of flow			
18.15	Confirm flow meters are installed & commissioned			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group		RISE GROUP	
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.15	Confirm inlet, outlet, over-flow & vent pipes are installed correctly & clear of debris			
18.15	Confirm plant covers are clean & fitted correctly			
18.15	Confirm all system faults will activate BMS warnings & alarms			
18.15	Confirm BMS contractor has signed of installation & provided documentation			
18.15	Confirm electrical contractor has signed of installation & provided documentation			
18.15	Confirm plant supplier has signed of installation & provided documentation			
18.15	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.15	Confirm the plant commissioning is accepted			
18.15				
18.16	**18.16 COM Above-Ground Cold Water Storage Tank**			
18.16	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.16	Confirm plant & equipment comply with the contract performance documentation			
18.16	Confirm BMS plant/equipment code number			
18.16	Provide supplier contact details			
18.16	Provide plant/equipment make & model			
18.16	Provide plant/equipment user manual & specification			
18.16	Confirm plant/equipment I.D. plate is installed			
18.16	Confirm statutory signage is installed correctly			
18.16	Confirm fall protection is installed if required			
18.16	Confirm the installation has been leak checked			
18.16	Confirm tank is flush-out with water until clean			
18.16	Confirm sterilization has been completed & complies with AS3500			
18.16	Confirm tank is full of water			
18.16	Confirm the tank is level & firmly secured to structure			
18.16	Confirm water level sensors are installed & activation points set			
18.16	Confirm the control panel is installed correctly			
18.16	Confirm wiring from level sensor to control panel is installed			
18.16	Confirm mains power is connected to control panel			
18.16	Confirm BMS wiring is connected to control panel			
18.16	Confirm tank fill potable water supply valve auto-opens at nominated set point			
18.16	Confirm tank fill potable water supply valve auto-closes at nominated set point			
18.16	Confirm operation of High water level alarm			
18.16	Confirm operation of Low water level alarm			
18.16	Confirm isolating & check valves are installed			
18.16	Confirm all valves for correct direction of flow			
18.16	Confirm flow meters are installed & commissioned			
18.16	Confirm inlet, outlet, over-flow & vent pipes are installed correctly & clear of debris			
18.16	Confirm plant covers are clean & fitted correctly			
18.16	Confirm all system faults will activate BMS warnings & alarms			
18.16	Confirm BMS contractor has signed of installation & provided documentation			
18.16	Confirm electrical contractor has signed of installation & provided documentation			
18.16	Confirm plant supplier has signed of installation & provided documentation			
18.16	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.16	Confirm the plant commissioning is accepted			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.16				
18.17	**18.17 COM Potable Cold Water Dual Pump Package**			
18.17	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.17	Confirm plant & equipment comply with the contract performance documentation			
18.17	Confirm BMS plant/equipment code number			
18.17	Provide supplier contact details			
18.17	Provide plant/equipment make & model			
18.17	Provide plant/equipment user manual & specification			
18.17	Confirm plant/equipment I.D. plate is installed			
18.17	Confirm the plant/equipment is level & firmly secured to structure			
18.17	Confirm the installation has been leak checked			
18.17	Confirm the plant/equipment is clean of debris			
18.17	Confirm the control panel is installed correctly			
18.17	Confirm wiring from plant to control panel is installed			
18.17	Confirm mains power is connected to control panel			
18.17	Confirm BMS wiring is connected to control panel			
18.17	Confirm external cable conduits are fixed & secure			
18.17	Confirm isolating & check valves are installed correctly			
18.17	Confirm flow check meters are installed correctly			
18.17	Confirm dynamic water filters are installed correctly			
18.17	Confirm all valves & meters for correct direction of flow			
18.17	Confirm cold water inlet pipe-work installed correctly			
18.17	Confirm cold water outlet pipe-work installed correctly			
18.17	Confirm pump cooling water exhaust pipe discharges to a dedicated drain point			
18.17	Confirm system static cold water inlet pressure in kPa			
18.17	Confirm all pumps auto start mode when the system drops to low pressure set point in kPa			
18.17	Confirm all pumps auto idle mode when the system reaches operating pressure set point in kPa			
18.17	Confirm cold water inlet pressure at pump package idle in kPa			
18.17	Confirm cold water outlet pressure at pump package idle in kPa			
18.17	Confirm cold water inlet pressure at pump package operating load in kPa			
18.17	Confirm cold water outlet pressure at pump package operating load in kPa			
18.17	Confirm cold water outlet volume at pump package load in Ltr/Sec (if available)			
18.17	Confirm all pumps phase rotation is correct			
18.17	Confirm all pumps are stable & vibration free in operation			
18.17	Confirm pump-1 start pressure set point measured in kPa			
18.17	Confirm pump-1 stop pressure set point measured in kPa			
18.17	Confirm pump-1 delivery rate in Ltr/Sec			
18.17	Confirm pump-2 start pressure set point measured in kPa			
18.17	Confirm pump-2 stop pressure set point measured in kPa			
18.17	Confirm pump-2 delivery rate in Ltr/Sec			
18.17	Confirm pump-1 & 2 start pressure set point measured in kPa			
18.17	Confirm pump-1 & 2 stop pressure set point measured in kPa			
18.17	Confirm pump-1 & 2 delivery rate in Ltr/Sec			
18.17	Confirm auto resequencing of duty pump operations for life cycle maintenance			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.17	Confirm auto resequencing of duty pump operations if a pump fault is signalled			
18.17	Confirm all pumps will auto start to assist duty pump if optimal set point is not reached after (3) minutes			
18.17	Confirm all assist pumps return to stand-by after (2) minutes of optimal set point being reached			
18.17	Confirm auto emergency shut-down after (3) minutes continuous all pump operation where set point is not reached			
18.17	Confirm auto adjust pump frequencies to maintain a constant field pressure within 50kPa of the set point			
18.17	Confirm controller is capable of logging date/time of all fault codes			
18.17	Confirm controller is capable of logging each individual pump operating history & provide trend data as required			
18.17	Confirm controller is capable of activating alarms when pressure sensor differentiates more than 100kPa between pumps			
18.17	Confirm controller is capable of displaying outlet pressure & duty pump cycling			
18.17	Confirm system able to shut down all pumps when water supply is exhausted or tanks low/empty			
18.17	Confirm controller is capable of displaying tank water level in 10% increments (if required)			
18.17	Confirm controller is capable of accepting manual operations			
18.17	Confirm all pumps pressure sensor/transducers are operating correctly			
18.17	Confirm all pump motors insulation resistance has been measured in (Ω)			
18.17	Confirm all pump motor load currents have been measured in (A)			
18.17	Confirm all pump motors thermal overload points have been measured in (A) & will signal a fault if exceeded			
18.17	Confirm all pump seal thermistors are operating correctly & will signal a fault if exceeded			
18.17	Confirm all pump indicators are operating correctly			
18.17	Confirm all pump selector switches are operating correctly			
18.17	Confirm dry pump protection operates & will signal a fault if exceeded			
18.17	Confirm all system faults will activate dynamic control panel audio/visual alarms			
18.17	Confirm all system faults will activate BMS warnings & alarms			
18.17	Confirm BMS contractor has signed of installation & provided documentation			
18.17	Confirm electrical contractor has signed of installation & provided documentation			
18.17	Confirm plant supplier has signed of installation & provided documentation			
18.17	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.17	Confirm the plant commissioning is accepted			
18.17				
18.18	**18.18 COM Potable Cold Water Vertical Multi-Stage Pump Package**			
18.18	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.18	Confirm plant & equipment comply with the contract performance documentation			
18.18	Confirm BMS plant/equipment code number			
18.18	Provide supplier contact details			
18.18	Provide plant/equipment make & model			
18.18	Provide plant/equipment user manual & specification			
18.18	Confirm plant/equipment I.D. plate is installed			
18.18	Confirm the plant/equipment is level & firmly secured to structure			
18.18	Confirm the installation has been leak checked			
18.18	Confirm the plant/equipment is clean of debris			
18.18	Confirm the control panel is installed correctly			
18.18	Confirm wiring from plant to control panel is installed			
18.18	Confirm mains power is connected to control panel			
18.18	Confirm BMS wiring is connected to control panel			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.18	Confirm external cable conduits are fixed & secure			
18.18	Confirm isolating & check valves are installed correctly			
18.18	Confirm flow check meters are installed correctly			
18.18	Confirm dynamic water filters are installed correctly			
18.18	Confirm all valves & meters for correct direction of flow			
18.18	Confirm cold water inlet pipe-work installed correctly			
18.18	Confirm cold water outlet pipe-work installed correctly			
18.18	Confirm pump cooling water exhaust pipe discharges to a dedicated drain point			
18.18	Confirm system static cold water inlet pressure in kPa			
18.18	Confirm all pumps auto start mode when the system drops to low pressure set point in kPa			
18.18	Confirm all pumps auto idle mode when the system reaches operating pressure set point in kPa			
18.18	Confirm cold water inlet pressure at pump package idle in kPa			
18.18	Confirm cold water outlet pressure at pump package idle in kPa			
18.18	Confirm cold water inlet pressure at pump package operating load in kPa			
18.18	Confirm cold water outlet pressure at pump package operating load in kPa			
18.18	Confirm cold water outlet volume at pump package load in Ltr/Sec (if available)			
18.18	Confirm all pumps phase rotation is correct			
18.18	Confirm all pumps are stable & vibration free in operation			
18.18	Confirm pump-1 start pressure set point measured in kPa			
18.18	Confirm pump-1 stop pressure set point measured in kPa			
18.18	Confirm pump-1 delivery rate in Ltr/Sec			
18.18	Confirm pump-2 start pressure set point measured in kPa			
18.18	Confirm pump-2 stop pressure set point measured in kPa			
18.18	Confirm pump-2 delivery rate in Ltr/Sec			
18.18	Confirm pump-1 & 2 start pressure set point measured in kPa			
18.18	Confirm pump-1 & 2 stop pressure set point measured in kPa			
18.18	Confirm pump-1 & 2 delivery rate in Ltr/Sec			
18.18	Confirm pump-3 stop set point measured in kPa			
18.18	Confirm pump-3 start set point measured in kPa			
18.18	Confirm pump-3 delivery rate in Ltr/Sec			
18.18	Confirm pump-1, 2 & 3 start pressure set point measured in kPa			
18.18	Confirm pump-1, 2 & 3 stop pressure set point measured in kPa			
18.18	Confirm pump-1, 2 & 3 delivery rate in Ltr/Sec			
18.18	Confirm pump-4 stop set point measured in kPa			
18.18	Confirm pump-4 start set point measured in kPa			
18.18	Confirm pump-4 delivery rate in Ltr/Sec			
18.18	Confirm pump-1, 2, 3 & 4 start pressure set point measured in kPa			
18.18	Confirm pump-1, 2, 3 & 4 stop pressure set point measured in kPa			
18.18	Confirm pump-1, 2, 3 & 4 delivery rate in Ltr/Sec			
18.18	Confirm auto resequencing of duty pump operations for life cycle maintenance			
18.18	Confirm auto resequencing of duty pump operations if a pump fault is signalled			
18.18	Confirm all pumps will auto start to assist duty pump if optimal set point is not reached after (3) minutes			
18.18	Confirm all assist pumps return to stand-by after (2) minutes of optimal set point being reached			
18.18	Confirm auto emergency shut-down after (3) minutes continuous all pump operation where set point is not reached			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.18	Confirm auto adjust pump frequencies to maintain a constant field pressure within 50kPa of the set point			
18.18	Confirm controller is capable of logging date/time of all fault codes			
18.18	Confirm controller is capable of logging each individual pump operating history & provide trend data as required			
18.18	Confirm controller is capable of activating alarms when pressure sensor differentiates more than 100kPa between pumps			
18.18	Confirm controller is capable of displaying outlet pressure & duty pump cycling			
18.18	Confirm system able to shut down all pumps when water supply is exhausted or tanks low/empty			
18.18	Confirm controller is capable of displaying tank water level in 10% increments (if required)			
18.18	Confirm controller is capable of accepting manual operations			
18.18	Confirm all pumps pressure sensor/transducers are operating correctly			
18.18	Confirm all pump motors insulation resistance has been measured in (Ω)			
18.18	Confirm all pump motor load currents have been measured in (A)			
18.18	Confirm all pump motors thermal overload points have been measured in (A) & will signal a fault if exceeded			
18.18	Confirm all pump seal thermistors are operating correctly & will signal a fault if exceeded			
18.18	Confirm all pump indicators are operating correctly			
18.18	Confirm all pump selector switches are operating correctly			
18.18	Confirm dry pump protection operates & will signal a fault if exceeded			
18.18	Confirm all system faults will activate dynamic control panel audio/visual alarms			
18.18	Confirm all system faults will activate BMS warnings & alarms			
18.18	Confirm BMS contractor has signed of installation & provided documentation			
18.18	Confirm electrical contractor has signed of installation & provided documentation			
18.18	Confirm plant supplier has signed of installation & provided documentation			
18.18	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.18	Confirm the plant commissioning is accepted			
18.18				
18.19	**18.19 COM Re-cycled Rain Water Pump & UV Package**			
18.19	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.19	Confirm plant & equipment comply with the contract performance documentation			
18.19	Confirm BMS plant/equipment code number			
18.19	Provide supplier contact details			
18.19	Provide plant/equipment make & model			
18.19	Provide plant/equipment user manual & specification			
18.19	Confirm plant/equipment I.D. plate is installed			
18.19	Confirm the plant/equipment is level & firmly secured to structure			
18.19	Confirm the installation has been leak checked			
18.19	Confirm the plant/equipment is clean of debris			
18.19	Confirm the control panel is installed correctly			
18.19	Confirm wiring from plant to control panel is installed			
18.19	Confirm mains power is connected to control panel			
18.19	Confirm BMS wiring is connected to control panel			
18.19	Confirm external cable conduits are fixed & secure			
18.19	Confirm isolating & check valves are installed correctly			
18.19	Confirm flow check meters are installed correctly			
18.19	Confirm dynamic water filters are installed correctly			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group		RISE GROUP	
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.19	Confirm Ultra-Violet sterilization lamps are operating			
18.19	Confirm all valves & meters for correct direction of flow			
18.19	Confirm re-cycled water inlet pipe-work installed correctly			
18.19	Confirm re-cycled water outlet pipe-work installed correctly			
18.19	Confirm pump cooling water exhaust pipe discharges to a dedicated drain point			
18.19	Confirm system static re-cycled water inlet pressure in kPa			
18.19	Confirm all pumps auto start mode when the system drops to low pressure set point in kPa			
18.19	Confirm all pumps auto idle mode when the system reaches operating pressure set point in kPa			
18.19	Confirm re-cycled water inlet pressure at pump package idle in kPa			
18.19	Confirm re-cycled outlet pressure at pump package idle in kPa			
18.19	Confirm re-cycled inlet pressure at pump package operating load in kPa			
18.19	Confirm re-cycled outlet pressure at pump package operating load in kPa			
18.19	Confirm re-cycled outlet volume at pump package load in Ltr/Sec (if available)			
18.19	Confirm all pumps phase rotation is correct			
18.19	Confirm all pumps are stable & vibration free in operation			
18.19	Confirm pump-1 start pressure set point measured in kPa			
18.19	Confirm pump-1 stop pressure set point measured in kPa			
18.19	Confirm pump-1 delivery rate in Ltr/Sec			
18.19	Confirm pump-2 start pressure set point measured in kPa			
18.19	Confirm pump-2 stop pressure set point measured in kPa			
18.19	Confirm pump-2 delivery rate in Ltr/Sec			
18.19	Confirm pump-1 & 2 start pressure set point measured in kPa			
18.19	Confirm pump-1 & 2 stop pressure set point measured in kPa			
18.19	Confirm pump-1 & 2 delivery rate in Ltr/Sec			
18.19	Confirm auto resequencing of duty pump operations for life cycle maintenance			
18.19	Confirm auto resequencing of duty pump operations if a pump fault is signalled			
18.19	Confirm all pumps will auto start to assist duty pump if optimal set point is not reached after (3) minutes			
18.19	Confirm all assist pumps return to stand-by after (2) minutes of optimal set point being reached			
18.19	Confirm auto emergency shut-down after (3) minutes continuous all pump operation where set point is not reached			
18.19	Confirm any UV lamp failure will fault the system			
18.19	Confirm auto adjust pump frequencies to maintain a constant field pressure within 50kPa of the set point			
18.19	Confirm controller is capable of logging date/time of all fault codes			
18.19	Confirm controller is capable of logging each individual pump operating history & provide trend data as required			
18.19	Confirm controller is capable of activating alarms when pressure sensor differentiates more than 100kPa between pumps			
18.19	Confirm controller is capable of displaying outlet pressure & duty pump cycling			
18.19	Confirm system able to shut down all pumps when water supply is exhausted or tanks low/empty			
18.19	Confirm controller is capable of displaying tank water level in 10% increments (if required)			
18.19	Confirm controller is capable of accepting manual operations			
18.19	Confirm all pumps pressure sensor/transducers are operating correctly			
18.19	Confirm all pump motors insulation resistance has been measured in (Ω)			
18.19	Confirm all pump motor load currents have been measured in (A)			
18.19	Confirm all pump motors thermal overload points have been measured in (A) & will signal a fault if exceeded			
18.19	Confirm all pump seal thermistors are operating correctly & will signal a fault if exceeded			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.19	Confirm all pump indicators are operating correctly			
18.19	Confirm all pump selector switches are operating correctly			
18.19	Confirm dry pump protection operates & will signal a fault if exceeded			
18.19	Confirm all system faults will activate dynamic control panel audio/visual alarms			
18.19	Confirm all system faults will activate BMS warnings & alarms			
18.19	Confirm BMS contractor has signed of installation & provided documentation			
18.19	Confirm electrical contractor has signed of installation & provided documentation			
18.19	Confirm plant supplier has signed of installation & provided documentation			
18.19	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.19	Confirm the plant commissioning is accepted			
18.19				
18.20	**18.20 COM Potable Hot Water Dual Circulating Pump Package**			
18.20	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.20	Confirm plant & equipment comply with the contract performance documentation			
18.20	Confirm BMS plant/equipment code number			
18.20	Provide supplier contact details			
18.20	Provide plant/equipment make & model			
18.20	Provide plant/equipment user manual & specification			
18.20	Confirm plant/equipment I.D. plate is installed			
18.20	Confirm the plant/equipment is level & firmly secured to structure			
18.20	Confirm the installation has been leak checked			
18.20	Confirm the plant/equipment is clean of debris			
18.20	Confirm the control panel is installed correctly			
18.20	Confirm wiring from plant to control panel is installed			
18.20	Confirm mains power is connected to control panel			
18.20	Confirm BMS wiring is connected to control panel			
18.20	Confirm external cable conduits are fixed & secure			
18.20	Confirm isolating & check valves are installed correctly			
18.20	Confirm dynamic water filters are installed correctly			
18.20	Confirm all valves & meters for correct direction of flow			
18.20	Confirm hot water inlet pipe-work installed correctly			
18.20	Confirm hot water outlet pipe-work installed correctly			
18.20	Confirm pump cooling water exhaust pipe discharges to a dedicated drain point			
18.20	Confirm system static hot water inlet pressure in kPa			
18.20	Confirm all pumps auto start mode when the system drops to low pressure set point in kPa			
18.20	Confirm all pumps auto idle mode when the system reaches operating pressure set point in kPa			
18.20	Confirm hot water inlet pressure at pump package idle in kPa			
18.20	Confirm hot water outlet pressure at pump package idle in kPa			
18.20	Confirm hot water inlet pressure at pump package operating load in kPa			
18.20	Confirm hot water outlet pressure at pump package operating load in kPa			
18.20	Confirm hot water outlet volume at pump package load in Ltr/Sec (if available)			
18.20	Confirm all pumps phase rotation is correct			
18.20	Confirm all pumps are stable & vibration free in operation			
18.20	Confirm pump-1 start pressure set point measured in kPa			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.20	Confirm pump-1 stop pressure set point measured in kPa			
18.20	Confirm pump-1 delivery rate in Ltr/Sec			
18.20	Confirm pump-2 start pressure set point measured in kPa			
18.20	Confirm pump-2 stop pressure set point measured in kPa			
18.20	Confirm pump-2 delivery rate in Ltr/Sec			
18.20	Confirm pump-1 & 2 start pressure set point measured in kPa			
18.20	Confirm pump-1 & 2 stop pressure set point measured in kPa			
18.20	Confirm pump-1 & 2 delivery rate in Ltr/Sec			
18.20	Confirm auto resequencing of duty pump operations for life cycle maintenance			
18.20	Confirm auto resequencing of duty pump operations if a pump fault is signalled			
18.20	Confirm all pumps will auto start to assist duty pump if optimal set point is not reached after (3) minutes			
18.20	Confirm all assist pumps return to stand-by after (2) minutes of optimal set point being reached			
18.20	Confirm auto emergency shut-down after (3) minutes continuous all pump operation where set point is not reached			
18.20	Confirm auto adjust pump frequencies to maintain a constant field pressure within 50kPa of the set point			
18.20	Confirm controller is capable of logging date/time of all fault codes			
18.20	Confirm controller is capable of logging each individual pump operating history & provide trend data as required			
18.20	Confirm controller is capable of activating alarms when pressure sensor differentiates more than 100kPa between pumps			
18.20	Confirm controller is capable of displaying outlet pressure & duty pump cycling			
18.20	Confirm system able to shut down all pumps when water supply is exhausted			
18.20	Confirm controller is capable of accepting manual operations			
18.20	Confirm all pumps pressure sensor/transducers are operating correctly			
18.20	Confirm all pump motors insulation resistance has been measured in (Ω)			
18.20	Confirm all pump motor load currents have been measured in (A)			
18.20	Confirm all pump motors thermal overload points have been measured in (A) & will signal a fault if exceeded			
18.20	Confirm all pump seal thermistors are operating correctly & will signal a fault if exceeded			
18.20	Confirm all pump indicators are operating correctly			
18.20	Confirm all pump selector switches are operating correctly			
18.20	Confirm dry pump protection operates & will signal a fault if exceeded			
18.20	Confirm all system faults will activate dynamic control panel audio/visual alarms			
18.20	Confirm all system faults will activate BMS warnings & alarms			
18.20	Confirm BMS contractor has signed of installation & provided documentation			
18.20	Confirm electrical contractor has signed of installation & provided documentation			
18.20	Confirm plant supplier has signed of installation & provided documentation			
18.20	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.20	Confirm the plant commissioning is accepted			
18.20				
18.21	**18.21 COM Potable Hot Water Single Circulating Pump Unit**			
18.21	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.21	Confirm plant & equipment comply with the contract performance documentation			
18.21	Provide supplier contact details			
18.21	Provide plant/equipment make & model			
18.21	Provide plant/equipment user manual & specification			
18.21	Confirm the plant/equipment is level & firmly secured to structure			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.21	Confirm the installation has been leak checked			
18.21	Confirm the plant/equipment is clean of debris			
18.21	Confirm the timer control panel is installed correctly (if applicable)			
18.21	Confirm mains power is connected to the pump			
18.21	Confirm isolating & check valves are installed correctly			
18.21	Confirm all valves for correct direction of flow			
18.21	Confirm hot water inlet pipe-work installed correctly			
18.21	Confirm hot water outlet pipe-work installed correctly			
18.21	Confirm external cable conduits are fixed & secure			
18.21	Confirm pump hot water delivery rate in Ltr/Sec			
18.21	Confirm system able to shut-down by timed control (if applicable)			
18.21	Confirm electrical contractor has signed of installation & provided documentation			
18.21	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.21	Confirm the plant commissioning is accepted			
18.21				
18.22	**18.22 COM Potable Hot Water Generating Plant Package**			
18.22	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.22	Confirm plant & equipment comply with the contract performance documentation			
18.22	Confirm BMS plant/equipment code number			
18.22	Provide supplier contact details			
18.22	Provide plant/equipment make & model			
18.22	Provide plant/equipment user manual & specification			
18.22	Confirm plant/equipment I.D. plate is installed			
18.22	Confirm the plant/equipment is level & firmly secured to structure			
18.22	Confirm the installation has been leak checked			
18.22	Confirm the plant/equipment is clean of debris			
18.22	Confirm the control panel is installed correctly			
18.22	Confirm wiring from plant to control panel is installed			
18.22	Confirm mains power is connected to control panel			
18.22	Confirm BMS wiring is connected to control panel			
18.22	Confirm external cable conduits are fixed & secure			
18.22	Confirm isolating & check valves are installed correctly			
18.22	Confirm flow check meters are installed correctly			
18.22	Confirm dynamic water filters are installed correctly			
18.22	Confirm all valves & meters for correct direction of flow			
18.22	Confirm cold water inlet pipe-work installed correctly			
18.22	Confirm hot water flow pipe-work installed correctly			
18.22	Confirm hot water return pipe-work installed correctly			
18.22	Confirm natural gas inlet pipe-work installed correctly			
18.22	Confirm pressure/temperature exhaust pipe discharges to hot drainage			
18.22	Confirm external cable conduits are fixed & secure			
18.22	Confirm natural gas pressure at static			
18.22	Confirm cold water inlet pressure at static			
18.22	Confirm natural gas inlet pressure at idle			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.22	Confirm cold water inlet pressure at idle			
18.22	Confirm hot water flow pressure at idle			
18.22	Confirm hot water return pressure at idle			
18.22	Confirm natural gas inlet pressure at load			
18.22	Confirm cold water inlet pressure at load			
18.22	Confirm hot water flow pressure at load			
18.22	Confirm hot water return pressure at load			
18.22	Confirm ambient cold water inlet temperature			
18.22	Confirm hot water flow temperature at idle			
18.22	Confirm hot water return temperature at idle			
18.22	Confirm hot water flow temperature at load			
18.22	Confirm hot water return temperature at load			
18.22	Confirm controller incorporates adjustable temperature set points (note set point)			
18.22	Confirm controller incorporates adjustable time set points (note set point)			
18.22	Confirm controller is capable of auto adjust & maintain flow & return temperature differential set points within 5°C			
18.22	Confirm controller is capable of running pump operations when any temperature sensor faults or fails			
18.22	Confirm controller is capable of re-starting the system following a loss of power event			
18.22	Confirm controller is capable of auto rotating individual burner unit duties			
18.22	Confirm controller is capable of enabling manual over-riding of all system operations			
18.22	Confirm flue manifold is installed correctly & functioning			
18.22	Confirm flue terminates to atmosphere compliant with current AS5601.1			
18.22	Confirm plant room fresh air intake installed & functioning			
18.22	Confirm plant room ventilation is installed correctly & functioning			
18.22	Confirm all system faults will activate dynamic control panel audio/visual alarms			
18.22	Confirm all system faults will activate BMS warnings & alarms			
18.22	Confirm BMS contractor has signed of installation & provided documentation			
18.22	Confirm electrical contractor has signed of installation & provided documentation			
18.22	Confirm plant supplier has signed of installation & provided documentation			
18.22	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.22	Confirm the plant commissioning is accepted			
18.22				
18.23	**18.23 COM Potable Hot Water Elec/Gas Storage Unit**			
18.23	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.23	Confirm plant & equipment comply with the contract performance documentation			
18.23	Provide supplier contact details			
18.23	Provide plant/equipment make & model			
18.23	Provide plant/equipment user manual & specification			
18.23	Confirm the plant/equipment is level & firmly secured to structure			
18.23	Confirm the installation has been leak checked			
18.23	Confirm the chamber is clean of debris			
18.23	Confirm mains power is connected to hot water unit (if applicable)			
18.23	Confirm isolating & check valves are installed correctly			
18.23	Confirm flow check meters are installed correctly (if applicable)			
18.23	Confirm natural gas meter & regulator are installed correctly (if applicable)			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.23	Confirm all valves & meters for correct direction of flow			
18.23	Confirm cold water inlet pipe-work installed correctly			
18.23	Confirm natural gas inlet pipe-work installed correctly (if applicable)			
18.23	Confirm hot water flow pipe-work installed correctly			
18.23	Confirm hot water return pipe-work installed correctly (if applicable)			
18.23	Confirm external cable conduits are fixed & secure			
18.23	Confirm hot water flow temperature			
18.23	Confirm hot water return temperature (if applicable)			
18.23	Confirm pressure/temperature exhaust pipe discharges to hot drainage			
18.23	Flue manifold installed correctly & functioning (if applicable)			
18.23	Flue terminates to atmosphere compliant with current AS5601.1 (if applicable)			
18.23	Plant room fresh air intake installed & functioning (if applicable)			
18.23	Plant room ventilation is installed correctly & functioning (if applicable)			
18.23	Confirm electrical contractor has signed of installation & provided documentation			
18.23	Confirm plant supplier has signed of installation & provided documentation			
18.23	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.23	Confirm the plant commissioning is accepted			
18.23				
18.25	**18.25 COM Downpipe/Syphonic Diversion Valve**			
18.25	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.25	Confirm plant & equipment comply with the contract performance documentation			
18.25	Confirm BMS plant/equipment code number			
18.25	Provide supplier contact details			
18.25	Provide plant/equipment make & model			
18.25	Provide plant/equipment user manual & specification			
18.25	Confirm plant/equipment I.D. plate is installed			
18.25	Confirm the plant/equipment is level & firmly secured to structure			
18.25	Confirm the installation has been leak checked			
18.25	Confirm the plant/equipment is clean of debris			
18.25	Confirm the control panel is installed correctly			
18.25	Confirm wiring from plant to control panel is installed			
18.25	Confirm mains power is connected to control panel			
18.25	Confirm BMS wiring is connected to control panel			
18.25	Confirm inlet pipes are installed correctly & clear of debris			
18.25	Confirm outlet pipes are installed correctly & clear of debris			
18.25	Confirm diversion-pipes are installed correctly & clear of debris			
18.25	Confirm diversion valve auto-opens at nominated set point			
18.25	Confirm diversion valve auto-closes at nominated set point			
18.25	Confirm BMS data signal for diversion valve open position			
18.25	Confirm BMS data signal for diversion valve close position			
18.25	Confirm all system faults will activate dynamic control panel audio/visual alarms			
18.25	Confirm all system faults will activate BMS warnings & alarms			
18.25	Confirm BMS contractor has signed of installation & provided documentation			
18.25	Confirm electrical contractor has signed of installation & provided documentation			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.25	Confirm plant supplier has signed of installation & provided documentation			
18.25	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.25	Confirm the plant commissioning is accepted			
18.25				
18.26	**18.26 COM Reduced Pressure Zone Device (RPZD)**			
18.26	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.26	Confirm plant & equipment comply with the contract performance documentation			
18.26	Provide supplier contact details			
18.26	Provide plant/equipment make & model			
18.26	Provide plant/equipment user manual & specification			
18.26	Confirm plant/equipment I.D. plate is installed			
18.26	Confirm the plant/equipment is level & firmly secured to structure			
18.26	Confirm the installation has been leak checked			
18.26	Confirm the valve is clean of debris			
18.26	Confirm isolating & check valves are installed correctly			
18.26	Confirm all valves direction of flow is correct			
18.26	Confirm cold water inlet pipe-work installed correctly			
18.26	Confirm cold water outlet pipe-work installed correctly			
18.26	Confirm pressure exhaust pipe discharges to drainage			
18.26	Plumber to employ a certified back-flow testing specialist to commission the RPZD			
18.26	Plumber to submit a signed & dated successful RPZD test report			
18.26	Define the zones controlled by the valve are as specified			
18.26	Authority records are submitted			
18.26	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.26	Confirm the plant commissioning is accepted			
18.26				
18.27	**18.27 COM Thermostatic Mixing Valve (TMV)**			
18.27	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.27	Confirm plant & equipment comply with the contract performance documentation			
18.27	Provide supplier contact details			
18.27	Provide plant/equipment make & model			
18.27	Provide plant/equipment user manual & specification			
18.27	Confirm plant/equipment I.D. plate is installed			
18.27	Confirm the plant/equipment is level & firmly secured to structure			
18.27	Confirm the installation has been leak checked			
18.27	Confirm the valve is clean of debris			
18.27	Confirm isolating & check valves are installed correctly			
18.27	Confirm all valves direction of flow is correct			
18.27	Confirm cold water inlet pipe-work installed correctly			
18.27	Confirm hot water inlet pipe-work installed correctly			
18.27	Confirm tepid water outlet pipe-work installed correctly			
18.27	Confirm the tepid water temperature does not exceed 43°C			
18.27	Confirm the tepid water flow does not exceed 4L/Sec			
18.27	Plumber to employ a certified back-flow testing specialist to commission the TMVs			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.27	Plumber to submit a signed & dated successful TMV test report			
18.27	Define the zones controlled by the valve are as specified			
18.27	Authority records are submitted			
18.27	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.27	Confirm the plant commissioning is accepted			
18.27				
18.28	**18.28 COM Tempering Valve (TV)**			
18.28	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.28	Confirm plant & equipment comply with the contract performance documentation			
18.28	Provide supplier contact details			
18.28	Provide plant/equipment make & model			
18.28	Provide plant/equipment user manual & specification			
18.28	Confirm the plant/equipment is level & firmly secured to structure			
18.28	Confirm the installation has been leak checked			
18.28	Confirm the valve is clean of debris			
18.28	Confirm isolating & check valves are installed correctly			
18.28	Confirm all valves direction of flow is correct			
18.28	Confirm cold water inlet pipe-work installed correctly			
18.28	Confirm hot water inlet pipe-work installed correctly			
18.28	Confirm tepid water outlet pipe-work installed correctly			
18.28	Confirm the tepid water temperature does not exceed 50°C			
18.28	Confirm the tepid water flow does not exceed 4L/Sec			
18.28	Define the zones controlled by the valve are as specified			
18.28	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.28	Confirm the plant commissioning is accepted			
18.28				
18.31	**18.31 COM Cold Water Meters Installation**			
18.31	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.31	Confirm plant & equipment comply with the contract performance documentation			
18.31	Confirm BMS plant/equipment code number			
18.31	Provide supplier contact details			
18.31	Provide meter make & model			
18.31	Provide meter specification			
18.31	Confirm meter I.D. tag is installed			
18.31	Confirm the meter is level & firmly secured to structure			
18.31	Confirm the installation has been leak checked			
18.31	Confirm the meter is clean of debris			
18.31	Confirm BMS wiring is connected to the meter			
18.31	Confirm isolating & check valves are installed correctly			
18.31	Confirm all valves & meters for correct direction of flow			
18.31	Confirm the digital pulse rate using dynamic flow through a calibrated test meter			
18.31	Confirm BMS data reconciles with dynamic flow test			
18.31	Confirm BMS contractor has signed of installation & provided documentation			
18.31	Confirm independent commissioning witnesses have signed of installation & provided documentation			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.31	Confirm the plant commissioning is accepted			
18.31				
18.32	**18.32 COM Hot Water Meters Installation**			
18.32	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.32	Confirm plant & equipment comply with the contract performance documentation			
18.32	Confirm BMS plant/equipment code number			
18.32	Provide supplier contact details			
18.32	Provide meter make & model			
18.32	Provide meter specification			
18.32	Confirm meter I.D. tag is installed			
18.32	Confirm the meter is level & firmly secured to structure			
18.32	Confirm the installation has been leak checked			
18.32	Confirm the meter is clean of debris			
18.32	Confirm BMS wiring is connected to the meter			
18.32	Confirm isolating & check valves are installed correctly			
18.32	Confirm all valves & meters for correct direction of flow			
18.32	Confirm the digital pulse rate using dynamic flow through a calibrated test meter			
18.32	Confirm BMS data reconciles with dynamic flow test			
18.32	Confirm BMS contractor has signed of installation & provided documentation			
18.32	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.32	Confirm the plant commissioning is accepted			
18.32				
18.33	**18.33 COM Re-Cycled Water Meters Installation**			
18.33	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.33	Confirm plant & equipment comply with the contract performance documentation			
18.33	Confirm BMS plant/equipment code number			
18.33	Provide supplier contact details			
18.33	Provide meter make & model			
18.33	Provide meter specification			
18.33	Confirm meter I.D. tag is installed			
18.33	Confirm the meter is level & firmly secured to structure			
18.33	Confirm the installation has been leak checked			
18.33	Confirm the meter is clean of debris			
18.33	Confirm BMS wiring is connected to the meter			
18.33	Confirm isolating & check valves are installed correctly			
18.33	Confirm all valves & meters for correct direction of flow			
18.33	Confirm the digital pulse rate using dynamic flow through a calibrated test meter			
18.33	Confirm BMS data reconciles with dynamic flow test			
18.33	Confirm BMS contractor has signed of installation & provided documentation			
18.33	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.33	Confirm the plant commissioning is accepted			
18.33				
18.34	**18.34 COM Natural Gas Meters Installation**			
18.34	Confirm commissioning is compliant with Plumbing Code of Australian Standards			

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
18.34	Confirm plant & equipment comply with the contract performance documentation			
18.34	Confirm BMS plant/equipment code number			
18.34	Provide supplier contact details			
18.34	Provide meter make & model			
18.34	Provide meter specification			
18.34	Confirm meter I.D. tag is installed			
18.34	Confirm the meter is level & firmly secured to structure			
18.34	Confirm the installation has been leak checked			
18.34	Confirm the meter is clean of debris			
18.34	Confirm BMS wiring is connected to the meter			
18.34	Confirm isolating & check valves are installed correctly			
18.34	Confirm all valves & meters for correct direction of flow			
18.34	Confirm the digital pulse rate using dynamic flow through a calibrated test meter			
18.34	Confirm BMS data reconciles with dynamic flow test			
18.34	Confirm BMS contractor has signed of installation & provided documentation			
18.34	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.34	Confirm the plant commissioning is accepted			
18.34				
18.38	**18.38 COM Emergency Natural Gas Shut-Off Valve**			
18.38	Confirm commissioning is compliant with Plumbing Code of Australian Standards			
18.38	Confirm plant & equipment comply with the contract performance documentation			
18.38	Confirm BMS plant/equipment code number			
18.38	Provide supplier contact details			
18.38	Provide plant/equipment make & model			
18.38	Confirm the valve is correctly installed & fixed to structure			
18.38	Confirm the installation has been leak checked			
18.38	Confirm the valve is clean of debris			
18.38	Confirm direction of valve flow is correct			
18.38	Confirm natural gas inlet pipe-work installed correctly			
18.38	Confirm natural gas outlet pipe-work installed correctly			
18.38	Confirm the control panel is installed correctly			
18.38	Confirm wiring from plant to control panel is installed			
18.38	Confirm mains power is connected to control panel			
18.38	Confirm BMS wiring is connected to control panel			
18.38	Confirm actuation of valve to open position as digital code or pressure set point in kPa			
18.38	Confirm actuation of valve to close position as digital code or pressure set point in kPa			
18.38	Confirm all system faults will activate dynamic control panel audio/visual alarms			
18.38	Confirm all system faults will activate BMS warnings & alarms			
18.38	Confirm BMS contractor has signed of installation & provided documentation			
18.38	Confirm electrical contractor has signed of installation & provided documentation			
18.38	Confirm plant supplier has signed of installation & provided documentation			
18.38	Confirm independent commissioning witnesses have signed of installation & provided documentation			
18.38	Confirm the plant commissioning is accepted			
18.38				

	HYDRAULIC SERVICES INSTALLATION COMPLIANCE Rise Group			
	Project Name: **Wellington Health** **Area/Zone:**	**N/A**	**Job No:** **Pass**	**Level:** **Fail**
19.1	**19.1 CUT Cut Into Existing Pressure Pipe System (System Shut Down)**			
19.1	Major shut-downs should be carried out after hours if practical			
19.1	The Authority feed should be used for shut-down if practical			
19.1	Confirm the location of all inter-connected and/or cross-connected services			
19.1	Confirm the installer is trained and has the experience to carry out the task as assigned			
19.1	Consult with your Supervisor in planning and sequencing the shut down and new installation procedure			
19.1	Confirm the location and accessibility of all existing valves that need to be shut down			
19.1	Have a back-up plan of secondary valves in place should any of the primary valves fail to function			
19.1	Ensure a designated drain-down point is piped to a connected drain or tank			
19.1	Procedural approval must be granted from your Supervisor prior to commencement of works			
19.1	Ensure all tools & fittings are laid out in order to expedite the installation			
19.1	Have the isolation valves manned by personnel with reliable lines of communication			
19.1	After shutting down the nominated isolation valves, commence the drain down			
19.1	The system drain down can be assisted by allowing air to be drawn in through a designated purge point			
19.1	Check the system is empty by slowly turning on a designated test valve or easing off a mechanical joint			
19.1	Double check the system is empty by tapping the pipe with a metallic tool and listen for the hollow sound			
19.1	If there is any doubt the pipe could be pressurized, drill a small test hole			
19.1	Have an appropriate sized screw ready for a quick reseal in need be			
19.1	When satisfied the system is empty, commence the new installation procedure as planned			
19.1	After completing the new installation prepare to re-fill and pressurize the system			
19.1	Allow for a designated up-stream purge point to be manned and open during the refill procedure			
19.1	Request the isolation valve personnel to commence slowly the opening each shut-down valve one at a time			
19.1	Monitor the purge valve until the system is full, then close valve and allow the system to pressurize			
19.1	Monitor the new installation for leaks and movement during the packing and clean up operation			
19.1	If all is secure after approximately 15 minutes, prepare for the AS3500 water pressure test			
19.1				
20.1	**20.1 FO Planter Box Irrigation Supply**			
20.1	This document certifies that the installation complies with requirements of either AS3500 and AS5600.1			
20.1	This document certifies that the installation complies with the latest IFC specifications & drawings			
20.1	Check for damage			
20.1	Check pipe joints are complete with no leaks			
20.1	Clips installed correctly			
20.1	Open ends sealed			
20.1	Check isolation valvesare installed correctly			
20.1	Check back-flow prevention valves installed correctly			
20.1	Check valves & flow direction installed correctly			
20.1	Check structural penetrations are sealed with a compliant water & fire compound			
20.1	Check valves covers are installed correctly			
20.1				
	Task Completed: Pass, Fail, N/A, Comment, Photo, Attach			
	Checked By:	**Date:**		
	Witnessed By:	**Date:**		