IS-7.5 Pressure Testing checklist

Pressure Testing checklist

Date:.....Resource Consent/TCC Contract Number:.....

Development Name and Stage/TCC Contract Name:.....

The purpose of this pressure testing checklist is to ensure that tests undertaken on all new mains installed within Tauranga City Council are conducted safely and effectively. Depending on the length, alignment or pipe material, some items in this checklist may not be applicable.

Please complete and submit this form and have available at Certifying test.

þ	N/A	Planning and Testing
o	o	All construction has been completed and inspected by the consulting engineer.
o	o	It has been verified that the pipe material, diameters, flange ratings and fitting ratings are in accordance with the drawings and specifications.
o	o	The last fusion joint has been allowed to cool sufficiently to ambient temperature.
o	o	The pipeline has been cleaned of all construction debris and foreign matter.
o	o	All pipelines are supported by backfill or otherwise restrained by sandbags to prevent movement or contraction under test pressure.
o	o	Where concrete has been used for thrust support, the concrete has cured in excess of 7 days.
o	o	The test is scheduled to occur in forecasted dry weather, so that leaks may be detected. (Testing in wet weather or in water filled trenches will not be accepted.)
o	o	The volumetric rate of fill, fill method, and fill procedure has been finalised.
o	o	Mechanical joints have been left exposed for visual inspection and possible re-torqueing during or after testing.
o	o	It has been verified that all air valves are in the “open” position, for proper operation during filling.
o	o	Construction drawings are available for the hydro-test section, which conform to the DWA configuration.
o	o	The main has been swabbed to remove entrapped “pockets” of air.
o	o	The lot supply pipes have been secured to the water main with a double layer of tape to provide support to the plastic elbow on the tapping band.
o	o	All blank-flanged ends and valves restrained and supported.
o	o	All line valves are fully open and capable of passing or venting entrapped air.
o	o	All temporary tools such as hoses, connection fittings, flanges, end caps, isolation valves etc. are rated higher than the maximum hydrostatic pressure.
o	o	Testing will not be conducted against a closed valve. *NOTE: Testing should not be conducted against closed valves unless they are mechanically restrained and it is possible to check for leakage past the valve seat. Best practice is to blind-flange before the closed valve. Any intention to test against closed valves needs to be notified to Council for approval.*
o	o	Provisions have been made to remove all trapped air at high points.
o	o	The fill rate has been controlled to a slow velocity. Filling slowly avoids air entrainment when the filling water is cascading through downwards gradients along the pipeline.

þ	N/A	Equipment
o	o	All test equipment has been checked for any obvious faults and its functionality understood.
o	o	At least two calibrated pressure gauges or instruments are placed into the test system to be used as a cross-check for gauge accuracy.
o	o	The pressurising pump/water blaster has its own calibrated safety relief valve. *NOTE: If the pressurising pump does not have a safety relief valve then it must not be used.*
o	o	The pressure test rig has been placed in the proper location relative to the pipe being tested and checked for proper operation without leakage.
o	o	The pressurisation pump/water blaster is the correct size. A too small pump will extend the test duration, and a too large pump may inhibit adequate control of the test pressure.

þ	N/A	Safety
o	o	An emergency response plan in the event of a dramatic rupture during hydro-test has been developed and is available on request.
o	o	A safety meeting to review the safety measures and roles and responsibilities has been undertaken and is documented.
o	o	'No-go' areas have been identified to those onsite to ensure unnecessary personnel and equipment stay out of the area during pressurised testing. *NOTE: only those trained and qualified persons who are necessary to perform the test should remain in the area where the test is being undertaken. During testing or de-watering, there are possible un-recognised hazards that may not have been completely controlled, such as unexpectedly high pressures from internal malfunctions or equipment failures, rupture of the pipe or fusion joint, un-detected flaws. Such situations may develop forces larger than the designed capacities of the anchors. All non-essential persons should be excluded from the test area.*
o	o	All personnel authorised to participate in the test have been adequately instructed in the test plan, and have been issued the required personal protective equipment.
o	o	Personnel have been informed of the loading limits on any temporary fittings and supports.

þ	N/A	Contractor's Test Results
o	o	The Contractor's test has been carried out in accordance to IT-7.3 Pressure Test.
o	o	The Contractor's test passed.
Please detail below remedial actions undertaken as a result of a failed pre-test.		

Certification
I certify that the above is true and accurate. .....(Contractor's Representative)