1.0 Water Mains

Audit Schedule Reference#

1.1	Ensure water main alignment is maintained (within construction tolerances specified in SEQ Code)
1.2	Ensure the water main blue detectable tape is installed and compliant for every pipe length installed.
1.3	Ensure Brass "WM" markers indicating location of water main crossing road pavement is flush in centre of face of kerb and within construction tolerance specified in the SEQ Code for horizontal position of water main.
1.4	Ensure Brass "WM" markers indicating location of water main crossing driveway or footpath is flush in surface of driveway or footpath and within construction tolerance specified in the SEQ Code for horizontal position of water main.

For all Installed Valves

Audit Schedule Reference#

1.5	Check grub screws are tight and that valve spindles are fixed to valves
1.6	Check that spindles are at the right height (min 75mm & max 225mm) from valve box lid
1.7	Check valve spindle is centrally located in valve box.
1.8	Confirm the correct valve surround lids are installed (trafficable or non-trafficable).
1.9	check valve surround lid is the correct colour (White=Valve, Red=DMA Boundary Valve) and painted with SEQ code compliant paint (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45)
1.10	Ensure the valve surround level is compliant with the FSL (free draining and not a trip hazard).
1.11	Check that the valve box and surround are aligned with the water mains.
1.12	Ensure all brass Kerb Markers for valves (V) are flush with face of kerb
1.13	Ensure painted kerb marker for valve is installed with compliant white marker paint (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45), 250mm wide, top of kerb to bottom of kerb.
1.14	Ensure white "V" pavement marker is painted in SEQ code compliant paint (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45). 50mm offset from road pavement centre line.
1.15	Ensure a compliant marker post is installed if no kerb exists on valve side of road pavement (White post with Black "V")
1.16	Ensure that Pavement "V" Marker, kerb marker, brass marker and marker post are all in line with valve surround.
1.17	Ensure the water main tracer wire (within the blue detectable tape) is installed and accessible within the valve box.
1.18	Ensure the valve body has been wrapped in manufacturers approved polythene Blue sleeving
1.19	Ensure stainless steel strapping installed around valve body
1.20	Ensure correct size shroud installed and extended to the top of surround cover.
1.21	Ensure valve box is clear of mud and dirt

For all Installed Hydrants

Audit Schedule Reference#

1.22 Ensure all brass Kerb Marker for hydrant (HP) is installed flush with face of kerb and in the centre of the yellow painted square. (Note: Temporary hydrants shall not be identified with a kerb mark, pavement marker, post or brass marker).

1.23 Ensure the Blue RRPM has been installed correctly (50mm offset from centre line of road – hydrant side - and in line with the hydrant and brass kerb marker).

1.24 Ensure hydrant riser is DN 100.

1.25 Ensure hydrant spacing does not exceed 80m.

1.26 Ensure hydrant installed at end of line (or temporary hydrant at connection location) are Ducks foot hydrant.

1.27 Ensure hydrant lugs/claws installed at the right height (min 75mm & max 225mm) from hydrant box lid.

1.28 Ensure hydrant is centrally located in box.

1.29 Confirm the correct hydrant surround lids are installed (trafficable or non-trafficable).

1.30 Ensure hydrant lid is correct colour (Golden Yellow - AS2700 Y14). Paint is to be SEQ code compliant (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45).

1.31 Ensure the hydrant surround level is compliant with the FSL (free draining and not a trip hazard).

1.32 Ensure the hydrant box and surround is aligned with the Water main.

1.33 Ensure hydrant lugs/claws are aligned correctly relative to water main (parallel to water main) – excepting hydrant at end of line (perpendicular to water main).

1.34 Ensure hydrant offset distance has been engraved (8mm high lettering) into bottom of Hydrant Brass Marker. (Note: Temporary hydrants shall not be identified with a kerb mark, pavement marker, posts or brass markers).

1.35 Ensure painted kerb marker for hydrant is installed with compliant Golden yellow (AS2700 Y14) marker paint (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45), 250mm wide, top of kerb to bottom of kerb. (Note: Temporary hydrants shall not be identified with a kerb mark, pavement marker, posts or brass markers).

1.36 Ensure Golden yellow (AS2700 Y14) thermoplastic reflective directional arrow pavement marker is painted in SEQ code compliant paint (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45). 50mm offset from road pavement centre line. (Note: Temporary hydrants shall not be identified with a kerb mark, pavement marker, posts or brass markers).

1.37 Ensure a compliant marker post is installed if no kerb exists on hydrant side of road pavement (Yellow post with Black "H"). (Note: Temporary hydrants shall not be identified with a kerb mark, pavement marker, posts or brass markers).

1.38 Ensure the RRPM, directional arrow, kerb marker, brass marker are all inline with hydrant surround. (Note: Temporary hydrants shall not be identified with a kerb mark, pavement marker, posts or brass markers).

1.39 Ensure the water main tracer wire (within the blue detectable tape) is installed and accessible within the hydrant box.

1.40 Ensure the hydrant body has been wrapped in manufacturers approved polythene Blue sleeving.

1.41 Ensure hydrant installation location is within construction tolerance specified in the SEQ Code.

1.42 Ensure correct size shroud installed and extended to the top of surround cover.

1.43 Ensure valve box is clear of mud and dirt.

1.44 Ensure hydrant dust cap installed.

Water Services Conduits

Audit Schedule Reference#

1.45	Ensure Brass "W" markers indicating location of water service crossing road pavement is flush in centre of face of kerb and within construction tolerance specified in the SEQ Code for horizontal position of water service.
1.46	Ensure Brass "W" markers indicating location of water service crossing driveway or footpath is flush in surface of driveway or footpath and within construction tolerance specified in the SEQ Code for horizontal position of water service.

Flush Point

Audit Schedule Reference#

1.47	Ensure installed with compliant and approved box and surround.
1.48	Ensure installed with 150x150 cast in-situ concrete surround when not located in footpath.
1.49	Ensure installed with compliant and approved 1.5-inch Brass Gate Valve with brass hand wheel.
1.50	Ensure installed with compliant and approved 38mm Brass Storz x 1.5inch BSP.
1.51	Ensure dust cap installed correctly.
1.52	Ensure installed maximum 1.0m past property Boundary.
1.53	Ensure flush point lid is correct colour (Golden Yellow - AS2700 Y14). Paint is to be SEQ code compliant (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45).
1.54	Ensure all brass Kerb Marker for Flush Point (F) is installed flush with face of kerb and in the centre of the yellow painted square.
1.55	Ensure painted kerb marker for flush point is installed with compliant Golden yellow (AS2700 Y14) marker paint (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45), 250mm wide, top of kerb to bottom of kerb.
1.56	Ensure Golden yellow (As2700 Y14) thermoplastic reflective directional arrow pavement marker is painted in SEQ code compliant paint (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45). 50mm offset from road pavement centre line.
1.57	Ensure Golden yellow (As2700 Y14) "F" pavement marker is painted in SEQ code compliant paint (sprayed not brushed, 2 coats of paint and approved thermoplastic reflective paint, incorporating applied glass beads, manufactured and applied as per the requirements of Main Roads MRTS45). 50mm offset from road pavement centre line.
1..58	Ensure a compliant marker post is installed if no kerb exists on Flush Point side of road pavement (Yellow post with Black "F").
159	Ensure the Pavement Marker "F", directional arrow, kerb marker, brass marker is in line with Flush Point surround.
1.60	Ensure the water main tracer wire (within the blue detectable tape) is installed and accessible within the Flush Point box.

Water Meters

Audit Schedule Reference#

1.61	Ensure water service pipe material is PE100 PN16 Black Pipe with blue strip (or IPAM applicable for Unitywater).
1.62	Ensure connections to Service pipes are compliant Brass or Plastic Mechanical Fittings.
1.63	Ensure brass fittings have manufacturer and water mark embossed on surface of fitting (to demonstrate compliance).
1.64	Ensure water meter is compliant (SEQ Code IPAM applicable for Unitywater).
1.65	Ensure Unitywater approved meter number is stamped on meter.
1.66	Ensure water meters are dual check compliant.
1.67	Ensure water meter box is compliant (SEQ Code IPAM applicable for Unitywater).

1.68	Ensure water meter assembly configuration and location is compliant (as per SEQ Code, within construction tolerances specified in SEQ Code and not within private property).
1.69	Ensure ball valve type is compliant (lockable and SEQ code IPAM applicable for Unitywater).
1.70	Ensure ball valve is unobstructed within the meter box.
1.71	Ensure black meter box lid is non-slip pattern and "water meter" lettering cast into lid.
1.72	Ensure meter box level is compliant with the FSL (free draining and not a trip hazard) and surrounded by turf extending 600mm on all sides of meter box.
1.73	Ensure geotextile fabric is laid around and underneath meter box and taped each side and around the service pipe (prevent ingress of sand, dirt and mud).
1.74	Ensure water meter box is kept void of all sand, soil, mud and water.
1.75	Ensure water meter is kept clean and faces upright.
1.76	Ensure water meter and components sit high, level and centred within the meter box (minimum 20mm air gap between bottom of the water meter and bottom of water meter box).
1.77	Ensure water meters service pipes are not strapped to side of meter box.
1.78	Ensure water meter box or lid is not cut or modified.
1.79	Ensure water meter box or lid is not deformed or damaged (e.g. cracked, crushed, pushed in etc).
1.80	Ensure water meters installed in driveways have approved trafficable lid.
1.81	Ensure water meter box lid is attached to water meter box base via a chain/wire.
1.82	Ensure any installed factory preassembles water meter kit is SEQ code approved (IPAM list).
1.83	Ensure any installed factory preassembles water meter kit is not modified.
1.84	Ensure water main is charged to enable water meter to be turned on and off (for on-maintenance inspection testing purposes).
1.85	Ensure water meter serial number, related lot and water meter reading is captured on water meter template (at time of but prior to on-maintenance inspection).
1.86	Ensure Poly pipe tail extends 600mm (minimum) outside of meter box (into the related lot).

2.0 Sewer Mains

Audit Schedule Reference#	
2.1	Ensure sewer main alignment is maintained (within construction tolerances specified in SEQ Code).
2.2	Ensure the sewer main cream detectable tape is installed and compliant for every pipe length installed.

Sewer Maintenance Holes (Insitu & pre-cast)

Audit Schedule Reference#	
2.3	Ensure only SEQ code IPAM list approved components (Pre-cast base, Shaft risers, Converter slab, taper tops, Make-up rings, Cover and surrounds etc) are used.
2.4	Ensure blemishes with pre-cast MH lift joints are reinstalled correctly and not finished off with bagging or epoxy the joint blemish.
2.5	Ensure ladders or step irons are not installed.
2.6	Ensure MH has no visible leaks after installation.
2.7	Ensure internal backdrop within MH deeper than 1.5 has 2 x S.S. brackets.
2.8	Ensure entry point for internal backdrop pipework is not within 150mm of joints.
2.9	Ensure bottom of internal backdrop is directed to downstream outlet of MH.
2.10	Ensure correct installation of backdrop tee (to allow rodding of upstream sewer main).
2.11	Ensure MH cover frame and surround finished level is 100mm above FSL where MH is located in private property.
2.12	Ensure MH cover frame and surround finished level is flush with surrounding FSL where MH is located in road reserve (No trip hazards).
2.13	Ensure depth of channel in MH base is compliant with SEQ Code requirements.
2.14	Ensure slope of benching is compliant with SEQ Code requirements (e.g. Sloped at 1:8).

2.15	Ensure MH base transitions between pipe and channel are smooth.
2.16	Ensure MH Lining (where applicable) is compliant with SEQ Code requirements.
2.17	Ensure MH neck does not exceed maximum depth specified in SEQ Code (350mm from underside of converter slab to top of MH cover and frame - SEQ-SEW-1301).
2.18	Ensure MH is kept clean and clear of silt, mud, water and other debris.
2.19	Ensure MH entry (cover and frame) is installed in the correct configuration (directly over downstream outlet of MH).
2.20	Ensure pre-cast MH is not used for Nusewer installation (unless specified on approved drawing and accepted as Alternate Solution – specific detail for PE pipe connection to pre-cast MH required).
2.21	Ensure Pre-Cast MH is not used for installations over 6 metres deep.
2.22	Ensure correct installation procedure is evident for pre-cast MH external joints (150mm wide bitumastic seal tape (Denzo) over a coat of MH manufactures recommended primer).
2.23	Ensure the sewer main cream detectable tape is installed and compliant configuration at MH location (marker tape "SEWER" to be visible on side of Manhole above pipe bedding height).
2.24	Ensure correct class of lid is installed for the MH location (trafficable or non-trafficable).
2.25	Ensure MH material is compliant (Calcareous aggregate used in concrete – both in situ and pre-cast).
2.26	Ensure finished surface area surrounding MH is free draining.

Maintenance Shafts

Audit Schedule Reference#	
2.27	Ensure only SEQ code IPAM list approved components (i.e. Smartstream Poopit & SMARTpits, SMS EXEDO 600 MS, IPLEX EZIpit, REHAU, Aymroo, Cover and Surround) are used.
2.28	Ensure MS riser diameter is compliant with SEQ Code requirements (minimum 300mm diameter - 225mm diameter not acceptable).
2.29	Ensure MS riser is installed vertical (angled riser not acceptable).
2.30	Ensure MH is not used for installations over 3 metres deep (maximum MS depth 3.0m).
2.31	Ensure MS inlets to riser do not exceed maximum (maximum number - 2 inlets).
2.32	Ensure Ms cover frame and surround finished level is 100mm above FSL where MS is located in private property.
2.33	Ensure MS cover frame and surround finished level is flush with surrounding FSL where MS is located in road reserve (No trip hazards).
2.34	Ensure MS is kept clean and clear of silt, mud, water and other debris.
2.35	Ensure MS riser lock down quick release end caps are SWJ fixed to MS riser and are rubber ring sealed between the cap and its frame (Screw Down caps not allowed).
2.36	Ensure MS lock down quick release end cap opens with less than 15deg turn.
2.37	Ensure MS riser cap is in the locked position at completion of installation.
2.38	Ensure MS installations in trafficable areas have 100mm minimum to 250mm maximum distance between top of MS riser cap and underside of surface cover.
2.39	Ensure MS surface surround installation is compliant with SEQ code.
2.40	Ensure finished surface area surrounding MS is free draining.

Sewer House Connections

Audit Schedule Reference#	
2.41	Ensure sewerage property connection installation has marker compliant with SEQ Code requirements (2.0 metre long, single length, Orange PVC conduit 40mm diameter).
2.42	Ensure sewerage property connection installation location is compliant with SEQ Code requirements (minimum 300mm and maximum 1000mm into private property).
2.43	Ensure sewerage property connection installation depth is compliant with SEQ Code requirements (minimum 0.6m deep and maximum 1.5m deep).