**Report on AS/NZS 3500 Standards committee meetings and outcomes.**

**AS/NZS 3500.1 Water services.**

**AS/NZS 3500.2 Sanitary Plumbing and Drainage.**

**AS/NZS 3500.3 Stormwater drainage.**

**AS/NZS 3500.4 Heated water services.**

There is no doubt that the 4 main standards which comprise the 3500 grouping are crucial to plumbing and drainage design and practice in New Zealand. It is well understood that the NZ Building codes acceptable solutions are very limited in their scope and cannot be used for complex situations, or even for that matter many common situations. For example, G13 Foul Water AS1 only covers fully vented systems, and then only to 3 stories maximum. It is seldom used outside the smaller centres, and then only for residential dwellings.

For this reason (for example) since 2016 Auckland Council Building Consent application forms have used the 3500 series of standards as the default ***means of compliance*** for all G12 and G13 hot, cold and foul water systems, with AS1 requiring a specific request by the applicant.

For the most part these were processed as Alternative Solutions but following a number of improvements to the Acceptable Solutions to assist alignment, it has been announced that from this year on all 4 of the standards will become Acceptable Solutions with equal standing to the AS1 or AS2 from the NZ Building Codes.

This situation has been complicated in recent years by a lack of commitment, or perceived lack of commitment on both sides of the Tasman to maintaining the group as joint standards. I am aware of at least 2 occasions in the last 6 years where Standards Australia has questioned the NZ commitment to a joint standard (not contributing towards the cost) and threatened to return to Australian only standards. Last year Standards NZ wrote to interested parties advising that they were considering dropping out of the joint standards arrangement unless some party or organization agreed to sponsor the work with a cash injection. A number of organisations (including this one) and individuals including myself made very strong submissions on the matter, and we have heard no more since.

Since being appointed to the committee last year, I have attended a number of Teams meetings called to discuss the latest proposed changes to the standards. This includes several meetings on specific additions and alterations before they went to public comment, and further meetings after they were opened to public comment.

Following the public comment phase, an in-person meeting was called for all committee members over 4 days in the Standards head office in Sydney to consider all submissions and agree (if

possible) to the final draft proposals. Although it was possible to attend by Teams, due to the to consider specialist areas such as changes to the back flow valves. number of break-out sub committees and the full days involved this was not a viable option for most people. A few weeks before the Sydney meetings we received a request from Ross Wakefield (MBIE representative) to see if it was possible for anyone else from NZ to attend personally, as the final results would become acceptable solutions in NZ and it was important our interests be represented. After discussions it was agreed I would attend.

The meetings took place over 4 days from the 6th to the 9th of February. After they started a further day (Monday 12th) was set aside for unresolved matters. I was unable to attend that day but made further written submissions over the weekend.

In the end there were 4 reps from NZ representing MBIE, Water NZ, The PGD Board and me from the NZ chapter of the Association of Hydraulic Service Consultants. The NZ reps attended all the main meetings but for the first 3 days most of the meetings only had 2 or 3 Australians present (there were always a few on Teams) apart from the standards officials. It was noted on more than one occasion that we outnumbered the locals. On the final day there were 12 Australians present while we considered all the agreed changes plus any unconsidered changes.

In total there were 831 submissions to be considered, 319 in part 1, 231 in part 2, 139 in part 3 and 143 in part 4. Most of the time the committee sat as a whole but broke into smaller specialised groups to consider specialised areas such as changes to the backflow valves provisions. On the last day all the agreed changes were considered by the whole committee, with a couple of issues (drain venting on individual buildings on a site and new rules on flexible water connections) left for further discussion on the Monday.

The main reason for the number of submissions in part 1was the inclusion for the first time of a new section covering the water supply to water tanks being used for sanitary purposes; a subject not covered in G12 at all. The most contentious part is that the use of leaf filters (and a swag of other details) becomes a normative requirement, but the use of first flush diverters is in a separate part and is considered optional.

This is because of objections from some Australian States to what they considered a waste of water, they did not want first flush devices forced on them. Note some councils in NZ (Auckland for example) have a policy note requiring or at least recommending leaf strainers and First Flush devices, but these are not enforceable. If in future the applicant uses part 1 and part 3 as the means of compliance then at least most of the water protection requirements will be able to be enforced.

Note part 1 (water supply) includes water In and the tank as well as water out, the drains are in part 3. The 2 are linked and required significant alignment.

One of the strict rules observed by Standards is that changes can only be made to a standard if the suggested change is within scope of that advertised. In this case the scope for each of the 4 standards was fairly narrow, and more than half of the public submissions were ruled out because they were outside the scope. They were however noted and the submitter asked to make submissions for future changes (it is a 3 year cycle). Some were rejected as they made things less clear.

Many others were accepted with modifications and about 25% accepted as submitted. This shows it is possible to make changes if they are sensible and within scope, so I would strongly encourage all members to think about changes and improvements for any of the AS/NZS 3500 standards and submit them to me through Nick Fleckney.

I am unable to give much in the way of detail regarding the final agreed changes as all members are under embargo until final agreement (final draft was sent through 25th February) and also most are very boring- often a change in terminology or clarification without changing the actual clause.

In terms of process, this is very time consuming and at times frustrating but if we are prepared to play the game I have found the Australians very open to suggestion and more than willing to compromise or alter things to suit NZ. I think they were impressed by the effort we made to get there and always listened to our opinion; we were not patronised at all and at the end of the day I did not feel any antagonism and believe there is no wish (at least from their side) to de-joint the standards. I only hope we can say the same thing from the NZ side.

**Garry Cruickshank.**