Putney Bridge, London

Site Summary
Putney Square is a new development of 1 & 2 bed apartments & a 3 bed penthouse, a total of 210 apartments.

The Application
Sanitary hot and cold distribution plumbing, for bathrooms and kitchen.

The Solution
The WRAS certified Topsan Plumbing Manifold was used. The white distribution pipe work was combined 10mm and 15mm PolyButylene, WRAS approved to BS7291. The manifold was situated in a low cost recessed plastic cabinet, inside the metal frame stud wall, at an accessible height, generally in a small utility room. The plastic cabinet is top and tailed with two wooden cross pieces. The manifold pipe runs rise up into the ceiling void (the space below the concrete plank construction). Parts of the pipe runs are placed inside plastic conduit for protection and insulation. The pipes are bundled together, using nylon ties, and anchored with little bolt and eye fixings.

The Benefits
The primary benefit, and main reason for using a manifold like this is to the installer, speeding up and simplifying his installation task. Point to point plumbing makes installation very fast, no tees and elbows to accommodate. The pipe is uninterrupted from the manifold to the point of use. You will notice in the images a 7-way and 5-way are shown. This is typical, with the 7-way being cold water (for example toilets only need cold supply). The 10mm pipe, costing less than the 15mm pipe, and slightly faster to install, is used to supply terminal fittings like taps, where high flow is not required. The 5-way hot is supplying two basin taps, one bath, one shower and a kitchen tap. The simple single point of management, with marked up hot and cold isolator taps makes post installation management very simple. This allows independent isolation of each outlet. This is accessible by the occupant, in case of emergency, and also a maintenance engineer, should he be called in. It creates a very neat and tidy ‘Water Fuse Box’. The labelling is not shown here, it is adhesive labels in red and white, with icons depicting the terminal fitting.

The Players
This was a Barratts North London site, and the M&E contractor was H2O Plumbing and Heating.

The completed installation, post pressure testing and pre-plasterboarding.

An artists impression of the completed Putney Square site, courtesy of Barratts
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The view from behind the plastic cabinet, this example shows the plasterboard now in place. Note the rising pipework and its similarity to electrical wiring.

The front of the cabinet, with the cover panel screwed down, concealing the manifold set. This is in a completed apartment installation.

Note the two black terminal points. This illustrates a shower room as a terminal location. You can see some 10mm pipe in the bundles, ready for the basin taps.

This image illustrates the suspended tie cables keeping the pipes together and carrying their weight. Note the use of large diameter pipe to guide the bundle through a partition.

A further example of suspended pipe bundles under the concrete plank construction.
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Topsan manifold assembly: exploded image of fully assembled kit

Notes:
TopSan Manifold set: The rail codes are for a single rail. You need two rail per manifold set.
Connectors:
Calculate 1 per outlet, on both Heating flow and return rail, or Plumbing Hot and Cold rail. E.g. a 9-way hot rail and a 7-way cold rail is 16 connectors.

Application of Topsan sanitary manifold in typical bathroom and en suite rooms