Quality Alert

MORGAN SINDALL CONSTRUCTION

Flexible and Offset Pan Connectors

What happened: Recurring toilet blockages were reported within the Student Life and Sports Buildings. Independent drainage surveys identified offset flexible pan connectors and other installation defects within the foul-drainage system.

The impact: The defects caused repeated blockages, maintenance attendance and disruption. Reports also recorded foul waste backing up through sanitary appliances, creating hygiene, operational and reputational concerns.

Root cause:

- WC pans did not align correctly with the installed drainage connections.
- Flexible offset connectors were used to compensate for setting-out errors.
- Flexible sections could sag and restrict waste flow.
- Other issues included open joints, poor gradients and unsuitable tee connections

Remedial action:

- Toilet drainage arrangements were investigated using surveys and CCTV.
- The float or manifold arrangement behind toilets was reconfigured.
- 40-degree offset pan connectors were removed.
- Further drainage modifications and action planning were requested from the M&E contractor.

Required learning / prevention:

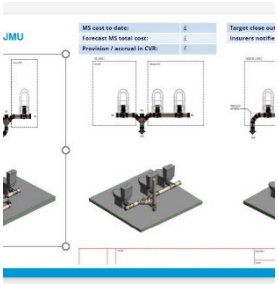
1. Coordinate sanitaryware and drainage setting-out before installation.
2. Avoid flexible offset connectors as a correction for misalignment.
3. Use correct swept fittings and maintain suitable gradients.
4. Inspect and test above-ground drainage before boxing-in.
5. Photograph concealed drainage connections and retain QA records.

Photographic Evidence









Installed arrangement and restricted drainage

Key message:

- Flexible connectors must not be used to conceal poor drainage setting-out or unsuitable pipe arrangement
- Morgan Sindall Building Service Managers must ensure the contractors have provided 100% proof of compliance in accordance with the design and specifications

☐	Brickwork / Blockwork	☐	Design	☐	DFMA (Offsite Manufacture)	☐	Doors & Windows	☒	Drainage	☐	Electrical	☐	FFE (Furnishings, Fixing & Equipment)
☐	Fire & Lightening	☐	Floor Coverings	☐	Frames & Superstructure	☐	Internal Walls, Partitions & Ceilings	☐	Joinery & General Carpentry	☐	Miscellaneous	☐	Painting
☐	Public Health (Water)	☐	Roads, Paths, Paving & Surfacing	☐	Roof	☐	Services & Systems	☐	Site Preparation Works	☐	Substructure	☐	Walling (Tiling & Finished)