**SECTION 706 CONNECTIONS BETWEEN DRAINAGE PIPING AND FITTINGS

706.1 Connections and changes in direction.**
All connections and changes in direction of the sanitary drainage system shall be made with *approved* drainage fittings. Connections between drainage piping and fixtures shall conform to Section 405.  **706.2 Obstructions.**
The fittings shall not have ledges, shoulders or reductions capable of retarding or obstructing flow in the piping. Threaded drainage pipe fittings shall be of the recessed drainage type. This section shall not be applicable to tubular waste fittings used to convey vertical flow upstream of the trap seal liquid level of a fixture trap.  **706.3 Installation of fittings.**
Fittings shall be installed to guide sewage and waste in the direction of flow. Change in direction shall be made by fittings installed in accordance with Table 706.3. Change in direction by combination fittings, side inlets or increasers shall be installed in accordance with Table 706.3 based on the pattern of flow created by the fitting. Double sanitary tee patterns shall not receive the discharge of back-to-back water closets and fixtures or appliances with pumping action discharge.  **Exception:** Back-to-back water closet connections to double sanitary tees shall be permitted where the horizontal *developed length* between the outlet of the water closet and the connection to the double sanitary tee pattern is 18 inches (457 mm) or greater.  **TABLE 706.3 FITTINGS FOR CHANGE IN DIRECTION**

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| **TYPE OF FITTING PATTERN**  | **CHANGE IN DIRECTION**  |
| **Horizontal to vertical**  | **Vertical to horizontal**  | **Horizontal to horizontal**  |
| Sixteenth bend | X | X | X |
| Eighth bend | X | X | X |
| Sixth bend | X | X | X |
| Quarter bend | X | Xa  | Xa  |
| Short sweep | X | Xa,b  | Xa  |
| Long sweep | X | X | X |
| Sanitary tee | Xc  | — | — |
| Wye | X | X | X |
| Combination wyeand eighth bend | X | X | X |

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| For SI: 1 inch = 25.4 mm |
| a. The fittings shall only be permitted for a 2-inch or smaller fixture drain. |
| b. Three inches or larger. |
| c. For a limitation on double sanitary tees, see Section 706.3. |

 **706.4 Heel- or side-inlet quarter bends.**
Heel-inlet quarter bends shall be an acceptable means of connection, except where the quarter bend serves a water closet. A low-heel inlet shall not be used as a wet-vented connection. Side-inlet quarter bends shall be an acceptable means of connection for drainage, wet venting and *stack* venting arrangements.