

Title: The Massachusetts Bay Transitway Tunnels Waterproofed with a balanced Primer and Polyurea system.

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Three binocular immersed tube tunnels were built in an old Navy dry-dock behind the Fleet pavilion in Boston, Massachusetts. The tunnel will form the critical underwater link on Boston's new Silver line subway link. The project was built using techniques developed on Boston's Central Artery tunnels project. The transitway tunnels were constructed of high density concrete. Mass cast, highly reinforced concrete usually has many "Bugholes" on the vertical surfaces. The bugholes present the coating contractor with the problem of surface voids. To fill the voids the coatings contractor used a cement-based system that was trowelled on the walls. A low viscosity, 100% solids penetrating primer was then applied. The unique property of this primer is that it is chemically balanced with the polyurea topcoat. Due to the balanced formulations, the primer chemically bonds to the polyurea.