A mix design for a polymer modified cement pavement overlay is disclosed along with a method of making and using the mix on a variety of pavement substrates. The mix includes a specific dry combination of: finely divided Elotex 2311 and 2322 or 2320 polymers; Type 2 or C144 aggregate or equivalent; Type I/II cement; Type F or Type C fly ash; intermediate length polymer microfibers; plasticizer; (optionally) calcium chloride or equivalent; (optionally) quickrete retarder or equivalent; and water. The mixture is combined and applied to the substrate in depths of about 1/8 to about 1 inch in lifts. The mixture is allowed to cure for 3-4 hours before being returned to traffic. The placed mixture exhibits preferred qualities of substrate adhesion, flexibility, tire friction, and wearability.