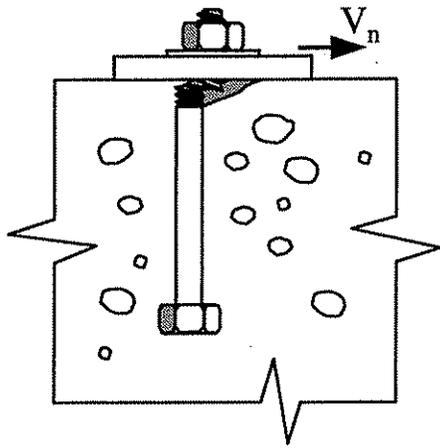
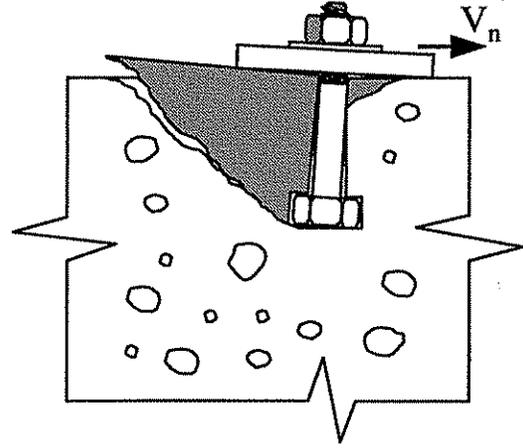


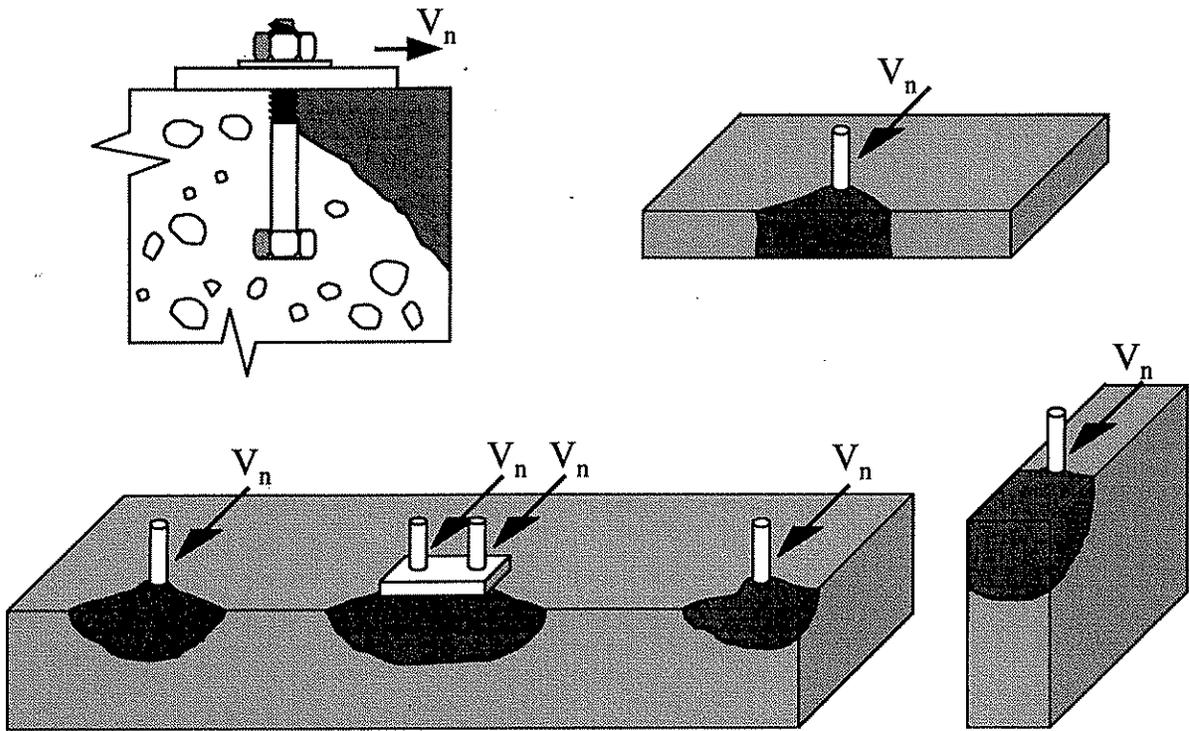
Figure B.4.1A Failure modes for fasteners under tensile loading



(a) Steel Failure Preceded by Concrete Spall



(b) Concrete Pryout for Fasteners Far From a Free Edge



(c) Concrete Breakout

Figure B.4.1B Failure modes for fasteners under shear loading

