

DESIGN CRITERIA OF BUCKLING-RESTRAINED BRACE TO PREVENT OUT-OF-PLANE BUCKLING

We propose design criteria of buckling-restrained brace (BRB) to prevent out-of-plane buckling. The proposed criteria are as follows; (1) buckling member is decided to keep elastic, (2) the distance of lateral stiffeners must be smaller than the require distance in case of inverted-V bracing, and (3) connections are decided to keep elastic in consideration with story drift angle in orthogonal frame. To confirm the third criterion, experimental verification of BRBs with connections is conducted. As a result, it is clarified that out-of-plane buckling occurs if the end of connection yields by axial force and bending moment.