

عنوان مقاله:

Retrofitting of existing steel frames using ductile bracing systems

محل انتشار:

کنفرانس بین المللی علوم و مهندسی (سال: 1394)

تعداد صفحات اصل مقاله: 21

نویسندگان:

Sarah Seyed Farizani - Sharif University of Technology, International Campus, Kish Island

.Mohammad Taghi Kazemi - Sharif University of Technology, Tehran, Iran

خلاصه مقاله:

Recent earthquakes indicate the importance of retrofitting existing structures to achieve an acceptable level of performance. Several different methods for retrofitting of existing structures were used by structural designers; Use of bracing systems is a cost-effective method for seismic retrofitting of existing steel frames. In particular, Buckling Restrained Braces (BRBs) and Special Concentrically Bracing systems (SCB) are workable choices to be used because of their large energy dissipation capacity especially under moderate to severe earthquakes. Buckling restrained braces yield in tension and compression, exhibits stable and predictable hysteretic behavior. By having focus on results for both ductile braces (SCBFs and BRBFs), It's observed that for both braces, earthquake energy dissipate by braces and all of plastic hinges are formed in braces and no hinges form is columns after retrofitting. Earthquake energy that dissipated by BRBFs are more than SCBFs. Also it is seen that for same column sections, design stress ratio in BRBFs is less than SCBFs and about braces, section areas in SCBF is more than BRBFs, where design ratios for braces in SCBFs is less than BRBFs.

کلمات کلیدی:

Retrofit, Steel Frame, Bracing System, Ductile, BRB, SCB

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/424635>

