ABSTRAK

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Di negara-negara berkembang gedung-gedung tinggi pancakar langit sangat dibutuhkan untuk kemajuan sarana dan prasarana negara. Hal inilah yang mendorong Indonesia sebagai negara berkembang saat ini untuk gencar membangun gedung pencakar langit. Negara Indonesia sebagian besar wilayahnya berada di wilayah gempa yang cukup tinggi. Bangunan tinggi tahan gempa umumnya menggunakan elemen-elemen struktur kaku berupa dinding geser untuk menahan gaya geser, gaya aksial, dan momen yang timbul akibat beban gempa. Kinerja dinding geser sangat berpengaruh pada gedung. Tahapan untuk mengetahui kinerja dinding geser dengan cara analisis pada 3 pemodelan gedung, selanjutnya hasil dari analisis dibandingkan untuk mengetahui kinerja shear wall pada masing masing pemodelan, selanjutnya dari salah satu pemodelan di ambil untuk dilanjutkan pada perhitungan tulangan dan Analisa puhover. Berdasarkan hasil dari analisis dan perhitungan di hasilkan kinerja shear wall arah X gedung 10 lantai 63,16 %, gedung 20 lantai 52,05 %, gedung 28 lantai 10,61 %. dan Arah Y gedung 10 lantai 50,74 %, gedung 20 lantai 36,63 %, gedung 28 lantai 12,48 %. dengan hasil kolom (800 x 1400) *mm* tulangan pokok 32D22, tulangan geser tumpuan D13-130 *mm*, tulangan Lapangan D13-150 *mm.* Struktur Balok dimensi (400 x 700) *mm*, tulangan Pokok atas 5D22, Tulangan Bawah 3D22, Tulangan Geser 2D10-150 *mm.* Analisa Pushover arah X pada step 10 terjadi pelelehan level IO dengan displacemet 0,5605 m, dan , Pushover arah Y pada step 7 terjadi pelelehan level IO dengan displacemet 0,5003 m,

Kata kunci : SNI-1726-2012, Shear Wall, *Pushover analysis*,

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ABSTRACT

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In developing countries sky high buildings are needed for the progress of state infrastructure and infrastructure. This is what drives Indonesia as a developing country today to intensively build skyscrapers. The country of Indonesia is largely in the area of high earthquake. Earthquake-resistant buildings generally use rigid structural elements such as shear walls to withstand shear forces, axial forces, and moments arising from earthquake loads. Sliding wall performance is very influential on the building. Stages to determine the performance of shear walls by way of analysis on 3 building modeling, then the results of the analysis compared to determine the performance of shear wall in each modeling, then from one of the modeling taken to proceed on the calculation of reinforcement and puhover Analysis. Based on the results of the analysis and calculation result of performance shear wall X direction of building 10 floors 63,16%, building 20 floor 52,05%, building 28 floor 10,61%. and Y Direction 10 floor building 50,74%, building 20 floor 36,63%, building 28 floor 12,48%. with the result of the columns (800 x 1400) of 32D22 base reinforcing bars, shear support rod D13-130 mm, Field reinforcement D13-150 mm. Dimensional beam structure (400 x 700) mm, Main reinforcement 5D22, Undercarriage 3D22, Shear Reach 2D10-150 mm. Pushover analysis of X direction at step 10 occurred melting of IO level with displacemet 0,5605 m, and, Pushover direction Y at step 7 occurred melting of IO level with displacemet 0,5003 m,

Keywords: SNI-1726-2012, Shear Wall, Pushover analysis,

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