

ABSTRAK

Dengan tumbuhnya perekonomian secara pesat di Provinsi Yogyakarta khususnya Kabupaten Sleman ini memberi dampak pembangunan infrastruktur secara pesat diantaranya gedung sekolah yang dianggap sebagai salah satu objek vital pendidikan. Dimana di Kabupaten Sleman terdapat aktivitas gempa yang tinggi dibutuhkan Perencanaan gedung dengan aspek gempa mengikuti kaidah yang tepat. Pada penelitian ini dimodelkan gedung sekolah memakai aplikasi SAP 2000 mengikuti aturan bangunan tahan gempa dengan asumsi tanah dalam kategori sedang di kabupaten sleman dengan memodelkan struktur atap sekolah menggunakan kuda kuda beton. Dimasukan variasi beban sesuai peraturan yang berlaku diantaranya beban mati, beban hidup, beban angin beban hujan, dan memakai respon spektrum gempa Kabupaten Sleman, selanjutnya didapatkan dimensi struktur beban pemikul utama yaitu kolom, plat, dan balok dalam keadaan aman dan efisien.

Kata kunci: kuda kuda beton, sekolah tahan gempa, respon spektrum sleman, SAP2000.

ABSTRACT

With masivly economic growth in Yogyakarta province specially Sleman district it gave effect that build of infrastructure are also rise up one of it is school, that also considered as a vital object of education. Where are District Sleman known as area that have highly activity of earthquake it comes with need of plan of building that have correct base of aerthquake rule.on this research is model of a structure of school building using aplication named SAP 2000 folowed by the rules of earthquakeproof building in terms and the soil is asume by medium cathegory in Sleman District with upper structure using concrete material,and then put the variousity of weight combination such as dead weiht ,live weight, rain weight, and for the earthquake weight use by response spektrum of sleman district.and finnaly we have a formula of main structure such as collumn, beam, and slab. In safe and efficient condition

Key words :concrete upper structure, School earthquakeproof, Sleman respon spektrum,SAP 2000.

