IGD Hospital Haji Surabaya will be planned re-structure with Structural Steel LRFD Method. The calculation is done will be aligned with the existing regulations on PPIUG 1983 and SNI 03-2847-2002. This calculation includes the re-calculation of structural components which was originally planned to use concrete and reconstruction using steel construction. Planning and building upon the calculation include: Planning and the calculation of roof structures using steel frame structure, secondary structure with the steel material on the stairs while the plates using a plate bondek, the main structure of the material in steel beams and columns. Planning and calculation of the building under cover; poer with reinforced concrete material, while the stake using precast concrete piles. Earthquake load on the structure calculated by the static method, while the analysis of the structure and roof space used SAP 2000 v.14. 

Keyword: steel construction