The portal frame in the figure is located in downtown Los Angeles (Zip Code 90012). Compute the confidence levels on having:

- Less than 5% probability of a performance poorer than Collapse Prevention (CP) in 50 years life cycle of the building, and
- Less than 50% probability of having a performance poorer than Immediate Occupancy (IO) in 50 years.

Use $LSP$.

Assume first mode equivalent damping ratio of 8%. Shear wave velocity at the site is measured 2000 $ft/sec$. Assume post-Northridge pre-qualified dog-bone moment connections in a shear building.