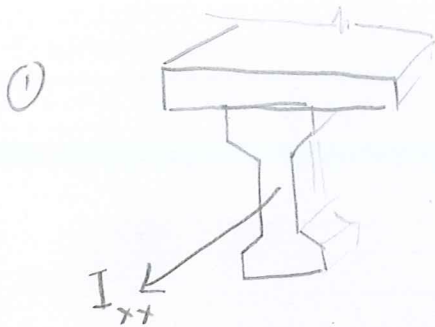
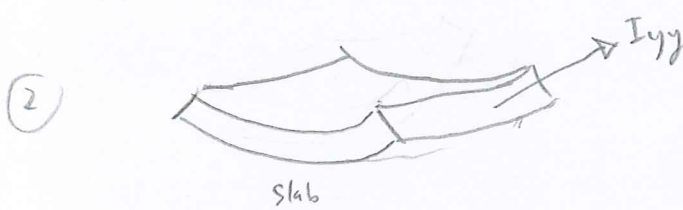


→ when the bridge bends transversely, the girder twists and slab bends.

The factors for bending in this direction are.

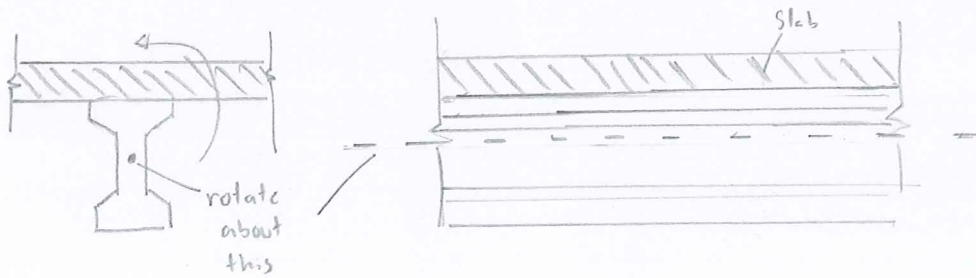


$I_{xy}$  (torsional stiffness) in longitudinal member.

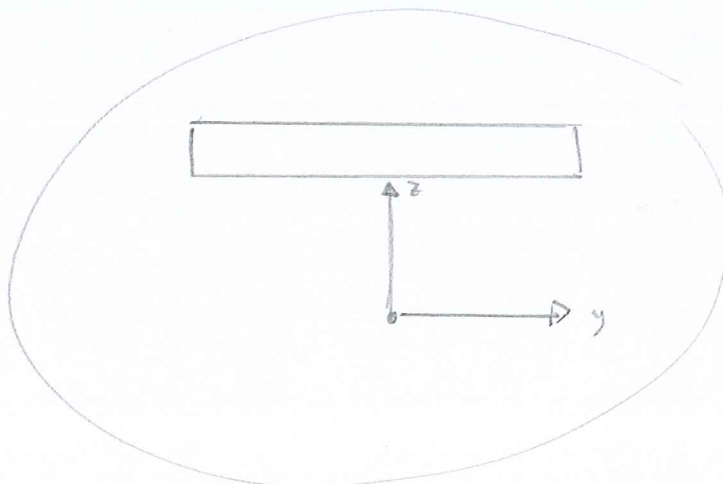


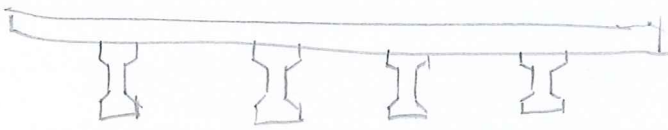
$I_{yy}$  in Transverse member.

but if the section is composite, slab and girder should rotate together about CG. of Long. member

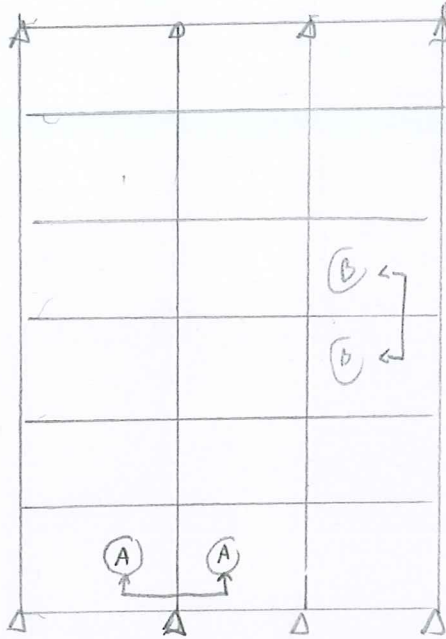


Therefore, the transverse should be

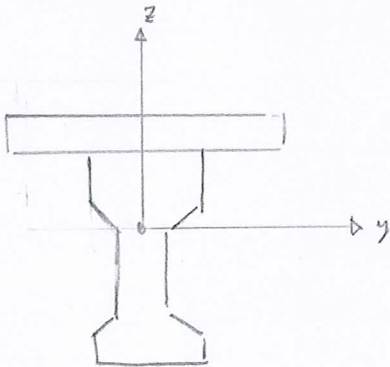




→ Cross-section of a bridge

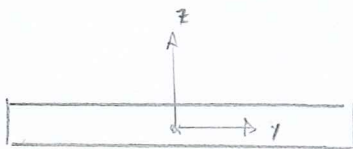


→ Grillage Model  
(Line Elements)



section A-A

→ Long. member



section B-B

→ Transverse member.