* 1. General Information
     1. Design Code : IS456:2000
     2. Unit System : N, mm
  2. Design Data
     1. Material
        + : 25.00MPa
        + : 415MPa
        + : 415MPa
     2. Design Load
        + DL (Stair) : 2.000kN/m²
        + DL (Landing) : 1.000kN/m²
        + Live Load : 1.000kN/m²



* + 1. Support
       - Left : Fix(1.000)
       - Right : Fix(1.000)
    2. Thickness
       - Stair : 200mm
       - Landing : 200mm
       - Cover : 20.00mm
    3. Length
       - Landing(Left) : 3.000m
       - Landing(Right) : 3.000m
       - Stair : 3.000m
    4. Size
       - Height : 2.000m
       - Width : 3.000m
  1. Calculate Design Load
     1. Stair
        + 4.000kN/m²
     2. Landing
        + 2.800kN/m²
  2. Moment Diagram



* 1. Shear Force Diagram



* 1. Check Stair
     1. Rebar
        + Top : P3@150
        + Bottom : P3@300
     2. Check Design Force Section-I
        + -26.21kN·m/mm
        + **[IS 456 2000 ANNEX G 1.1]**
        + 34.40kN·m/mm

0.928 → O.K

* + - * -15.61kN/mm
      * **[IS456:2000 40.4]**

0.147 → O.K

* + 1. Check Rebar Space (Crack, Section-I) **[IS456:2000 26.3.3]**
    2. Check Design Force Section-M
       - 13.43kN·m/mm
       - **[IS 456 2000 ANNEX G 1.1]**
       - 14.32kN·m/mm

0.938 → O.K

* + 1. Check Rebar Space (Crack, Section-M) **[IS456:2000 26.3.3]**
    2. Check Design Force Section-J
       - -26.21kN·m/mm
       - **[IS 456 2000 ANNEX G 1.1]**
       - 14.32kN·m/mm

0.928 → O.K

* + - * 15.61kN/mm
      * **[IS456:2000 40.4]**

0.147 → O.K

* + 1. Check Rebar Space (Crack, Section-J) **[IS456:2000 26.3.3]**
    2. Minimum Traverse reinforcement (Section- I M J) **[IS456:2000 26.3.3]**
       - As\_min = 0.00128\*B\*d = 350 mm2