Project: Kaohsiung Public Library

Architect: Ricky Liu & Associates Architects + Planners

Structural Engineer: Envision Engineering Consultants

Contractor: Chun Yuan Construction Co., Ltd.

Clients: Bureau of Cultural Affairs / Kaohsiung City Government

Key issue 1- Ground FL as open as possible (physically)

Key issue 2- Typical FL as open as possible (visually)

Response - to 2 Key issues

Suspension system

Design concept & Safety mechanism

Provide Extra Strength

Ensure Structural Behavior

Pure Tension

- Rod never breaks
  - Extra Strength for Rod
    - 1. All Rods remain stress ratio ≤ 0.5 (meaning F.S ≥ 2.0)
    - 2. Consider material imperfection (0.875 fy guaranteed)

- No bending of the Rod
  - Extra Strength for Beam (2nd defense line)

In case Rod breaks

- Extra Strength for Beam (2nd defense line)

No compression of the Rod

2cm Gap
(bearing action only)

Rubber Pad
(bearing action only)

SUSPENSION STRUCTURE/ KAO - HSIUNG PUBLIC LIBRARY

One single rod covers 110 m²