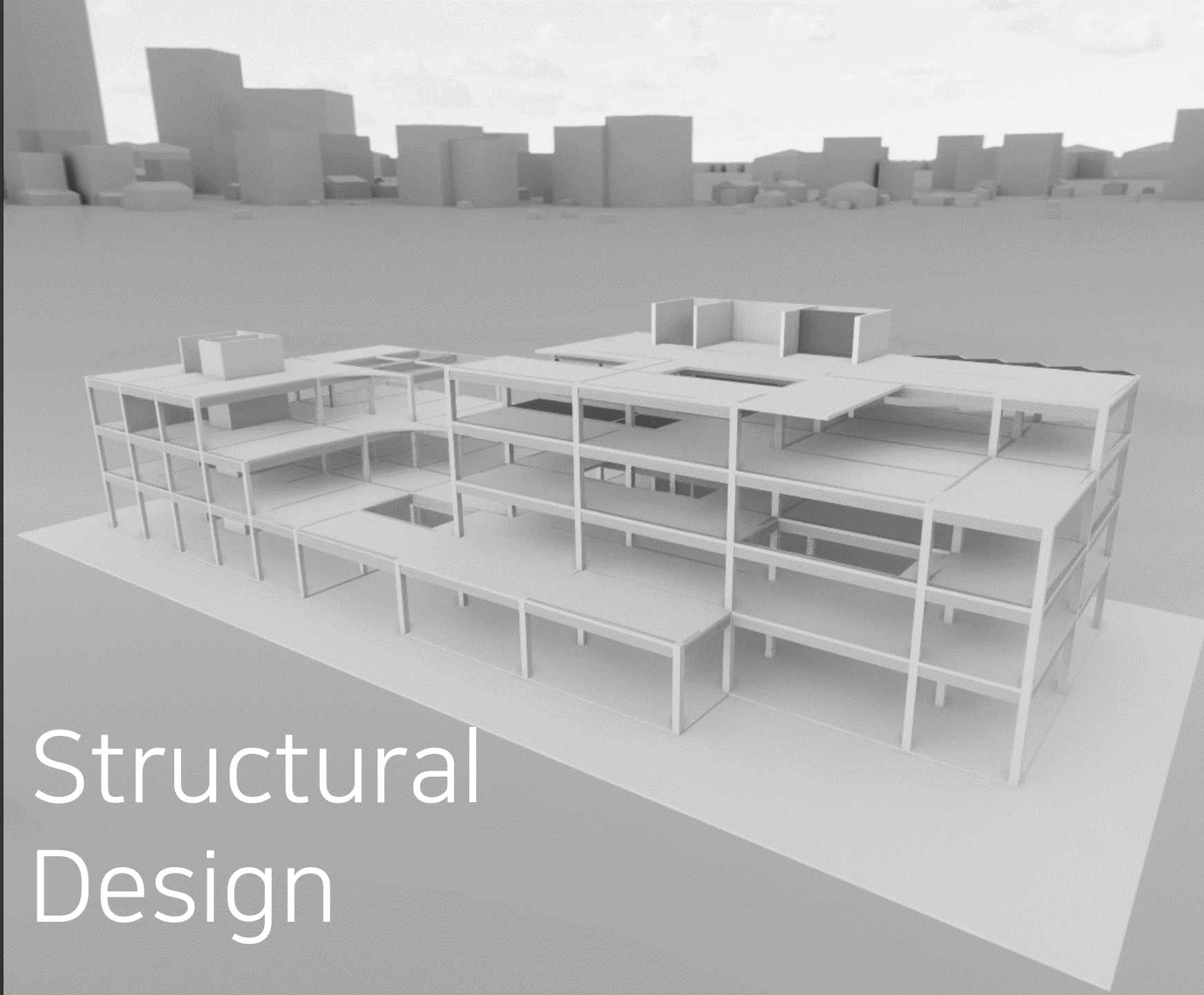


II

Structural Design Contents

- I. Process
- II. Goal
- III. Calculation
- IV. Result



Structural Design

II

Process

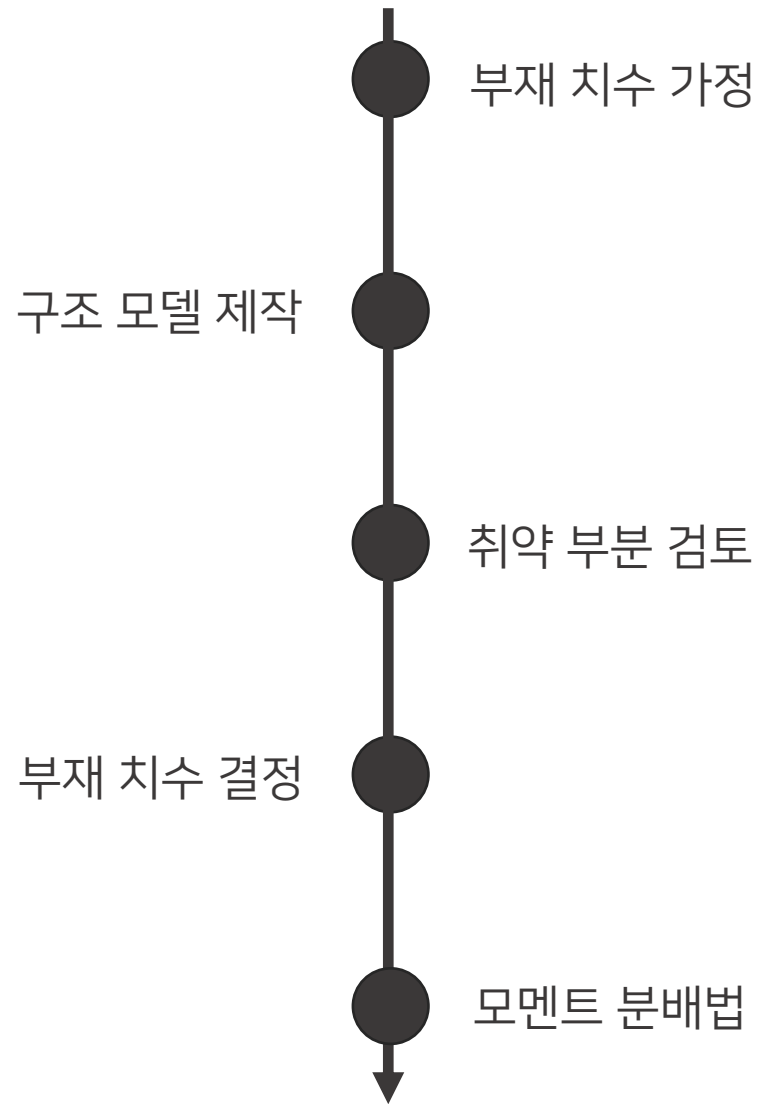
Structural Design

Process

Goal

Calculation

Result



Structural
Design

1) 구조 설계 목표

Space Plan에서 나타난 **이음 공간**에 대한 구조적
안정성 확보

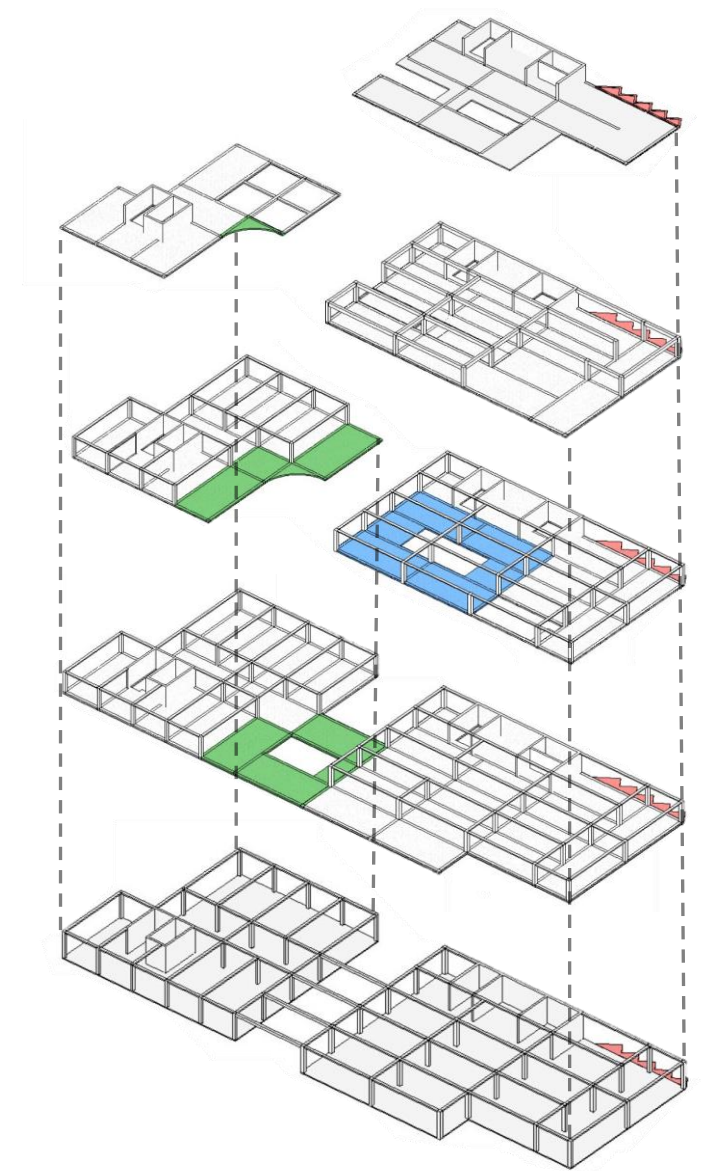
Process

Goal

Calculation

Result

- 개방적인 공간과 독립적인 공간을 잇다 **열람실**
- 도서관을 통해 2층과 3층 공간을 잇다 **Mix & Match Library**
- 교육연구동과 도서관동을 잇다 **이음 Bridge**



1) Girder _ G1

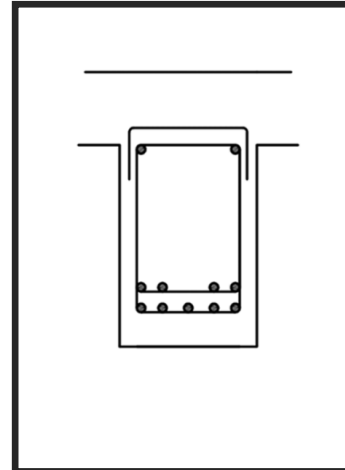
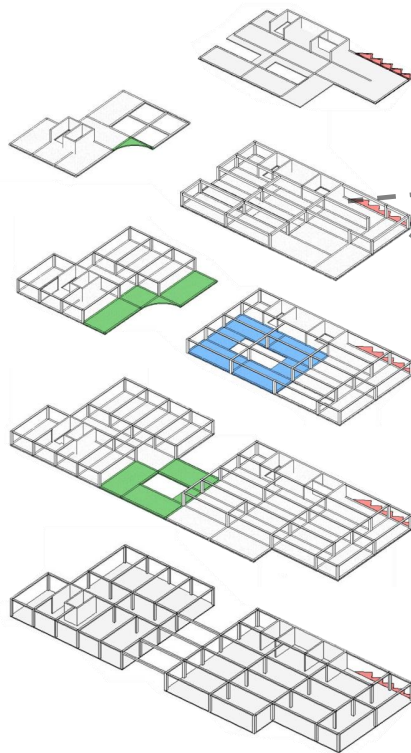
열람실

고려하중

옥상의 정원 활하중: 5.0 kN/m^2

보의 중심선에서 1.09m 거리에서

집중하중으로 작용



부호	G1
단면치수	400 x 800
상부철근 (중앙)	2-D25
하부철근 (중앙)	10-D25



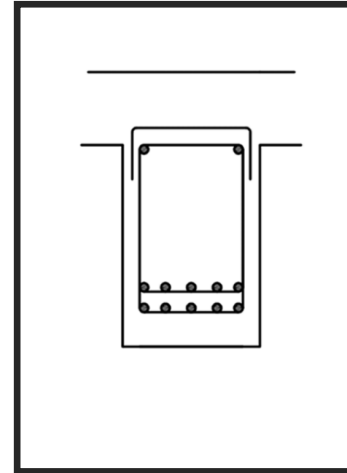
1) Girder _ G2

Mix & Match Library

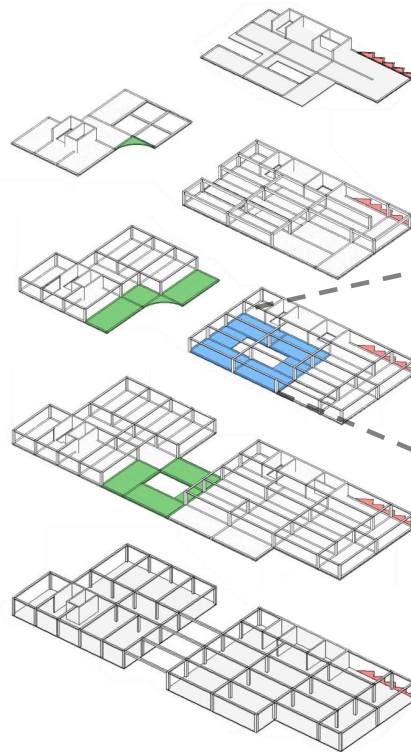
고려하중

열람실 활하중: 3.0 kN/m²

보존 서고 활하중: 7.5 kN/m²



부호	G2
단면치수	400 x 800
상부철근 (중앙)	2-D25
하부철근 (중앙)	10-D25



1) Girder _ G3

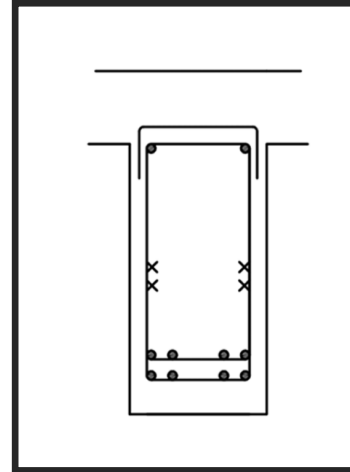
이음 Bridge

고려하중

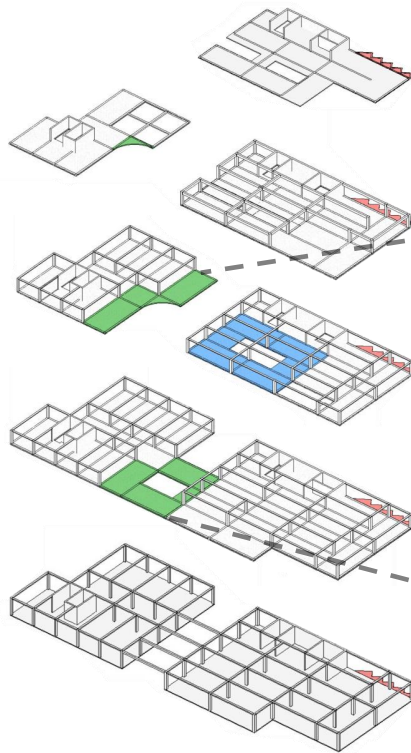
등분포 활하중: 3.0 kN/m^2

흙의 자중: 3.0 kN/m^2

옥상정원의 활하중: 5.0 kN/m^2

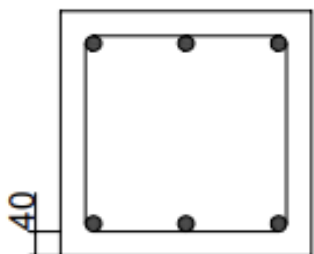


부호	G3
단면치수	400 x 1000
상부철근 (중앙)	2-D25
하부철근 (중앙)	8-D25



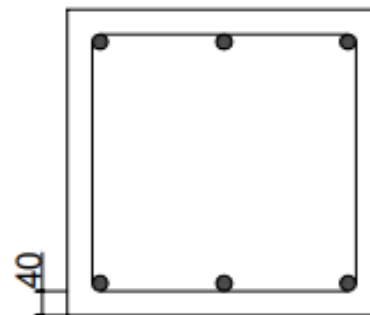
2) Column

교육연구동

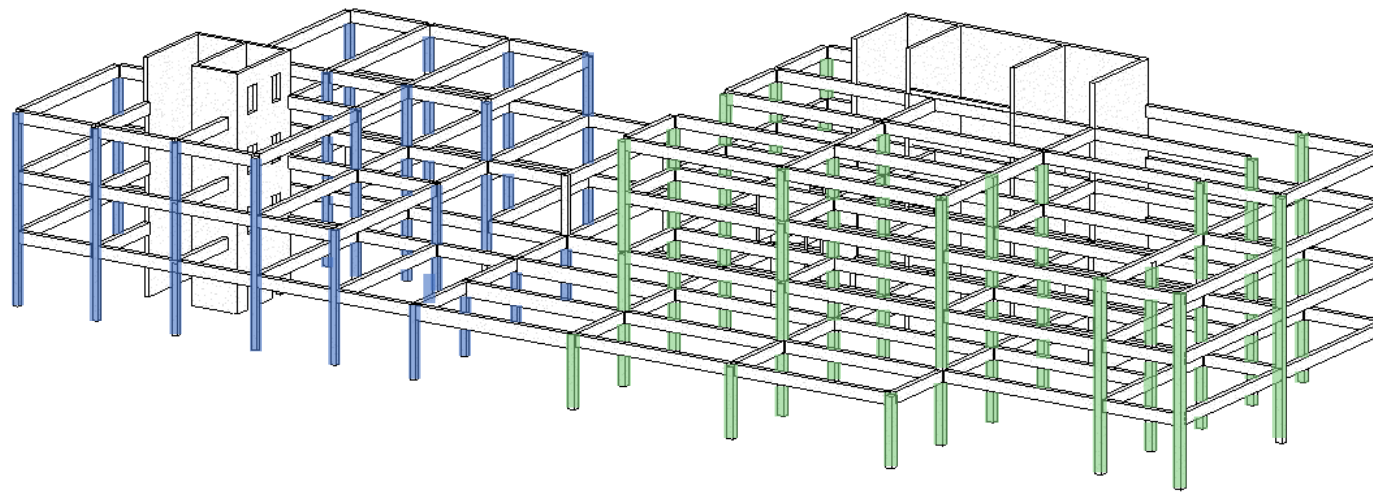


부호	C1
단면치수	400 x 400
주철근	6-D25
띠철근	D10 @400

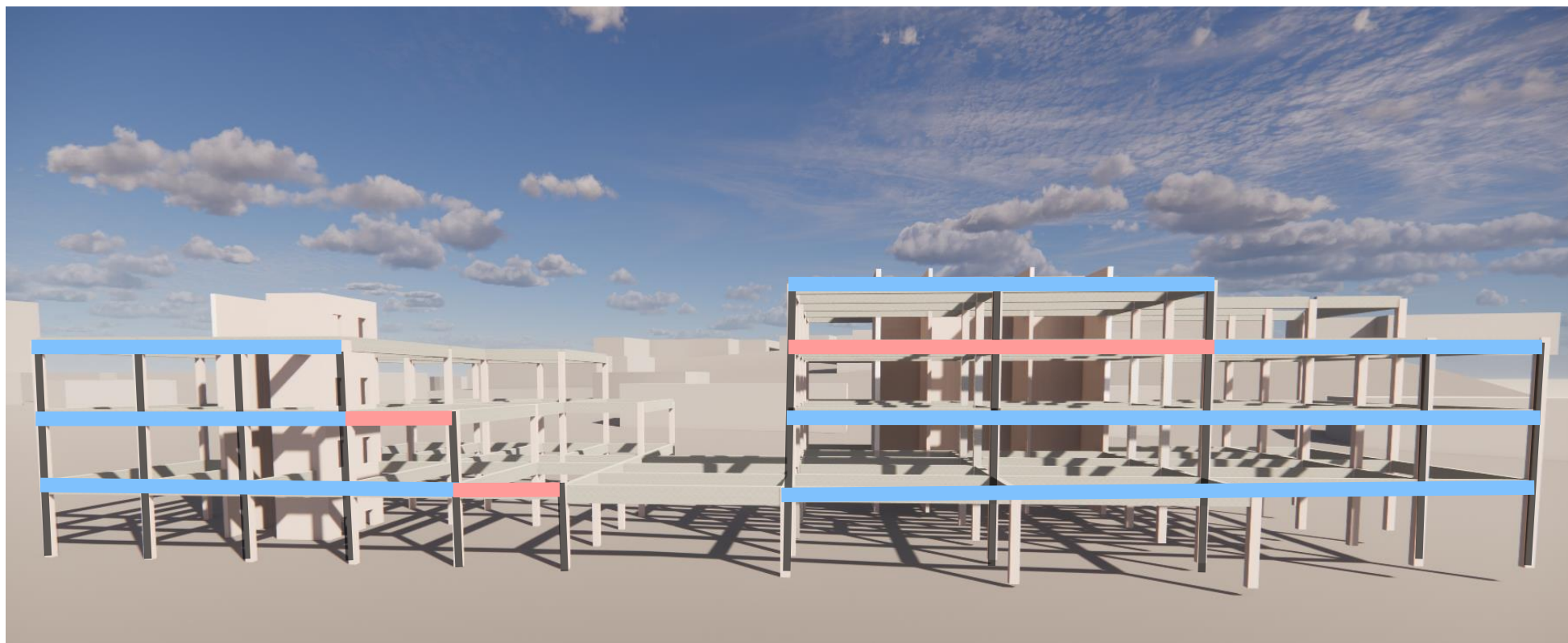
도서관동



부호	C2
단면치수	500 x 500
주철근	6-D25
띠철근	D10 @400



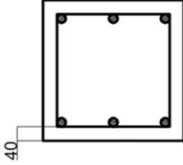
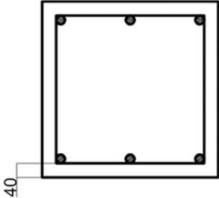
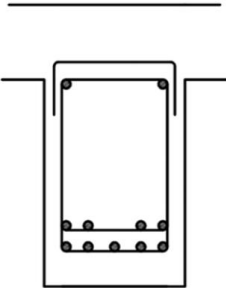
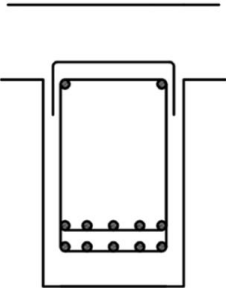
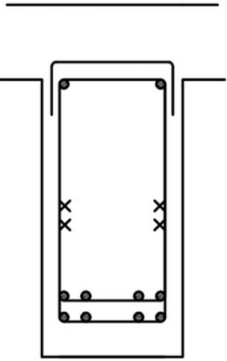
3) 모멘트 분배법



등분포하중: 63.36 kN/m^2

등분포하중: 75.01 kN/m^2

1) 부재일람표

부호	C1	C2	G1	G2	G3
단면					
단면치수	400 x 400	500 x 500	400 x 800	400 x 800	400 x 1000
상부철근(중앙)	6-D25	6-D25	2-D25	2-D25	2-D25
하부철근(중앙)	D10@400	D10@400	9-D25	10-D25	8-D25



Structural Design

The End