

BARRY JOHNS (ARCHITECTURE) LIMITED



introduction

**evda 682.04
comprehensive studio
university of calgary
faculty of environmental design
architecture program**

instructor: barry johns
chad oberg

objectives

1. to develop an ability to design a project based on a program of room types through the various stages of design development, building systems integration and technical documentation.
2. to demonstrate an ability to incorporate building systems and basic sustainable strategies into an integrated design. This includes detailing materials, components and assemblies.
3. to develop an ability to technically document the design.



course structure

1. guest lectures
2. charette
3. group pin-ups
4. individual consultation
5. presentation and review



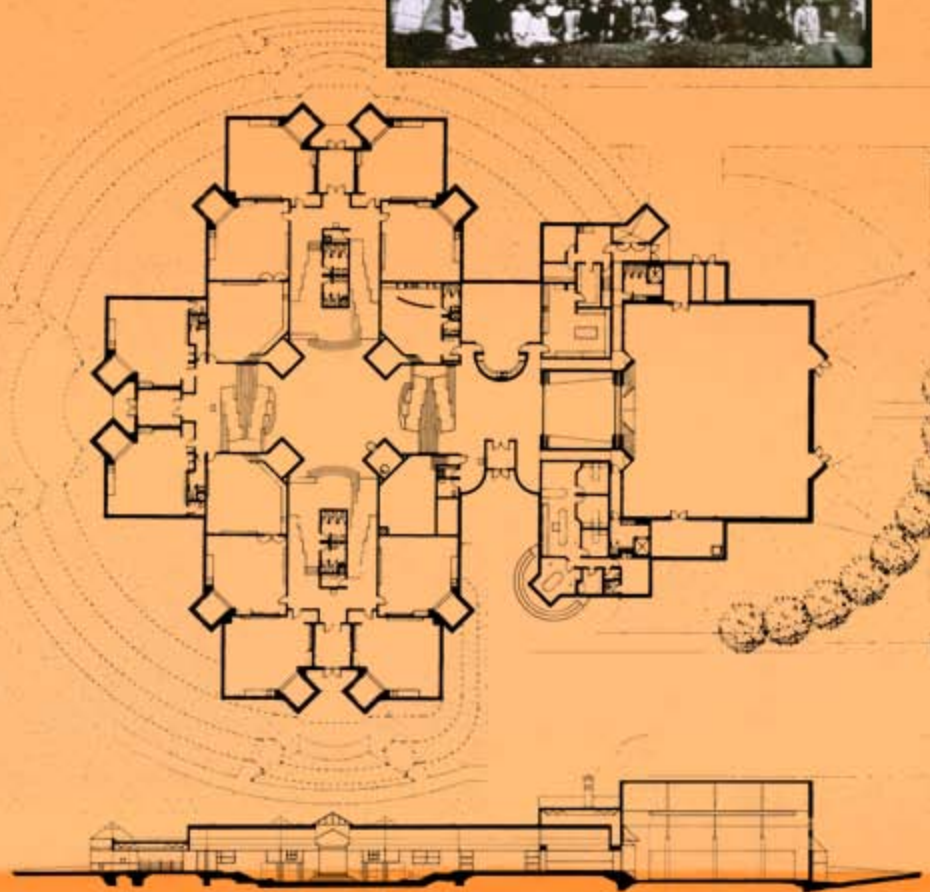
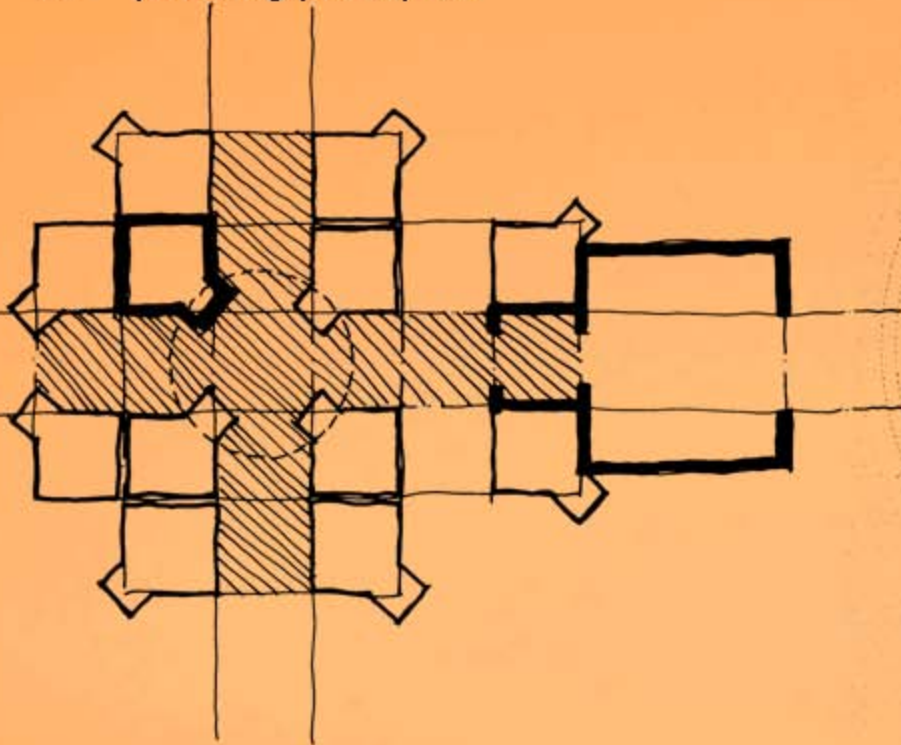
course structure

1. precedent analysis
2. site planning
3. building code analysis
4. schematic design
5. building systems integration
 - a. structural
 - b. mechanical
 - c. electrical
 - d. envelope
6. design development
7. construction documents
8. presentation materials



precedent analysis

1. educational methodologies
2. space requirements
3. planning principles



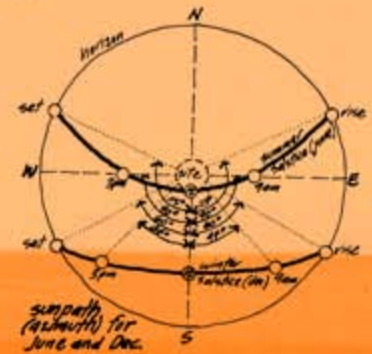
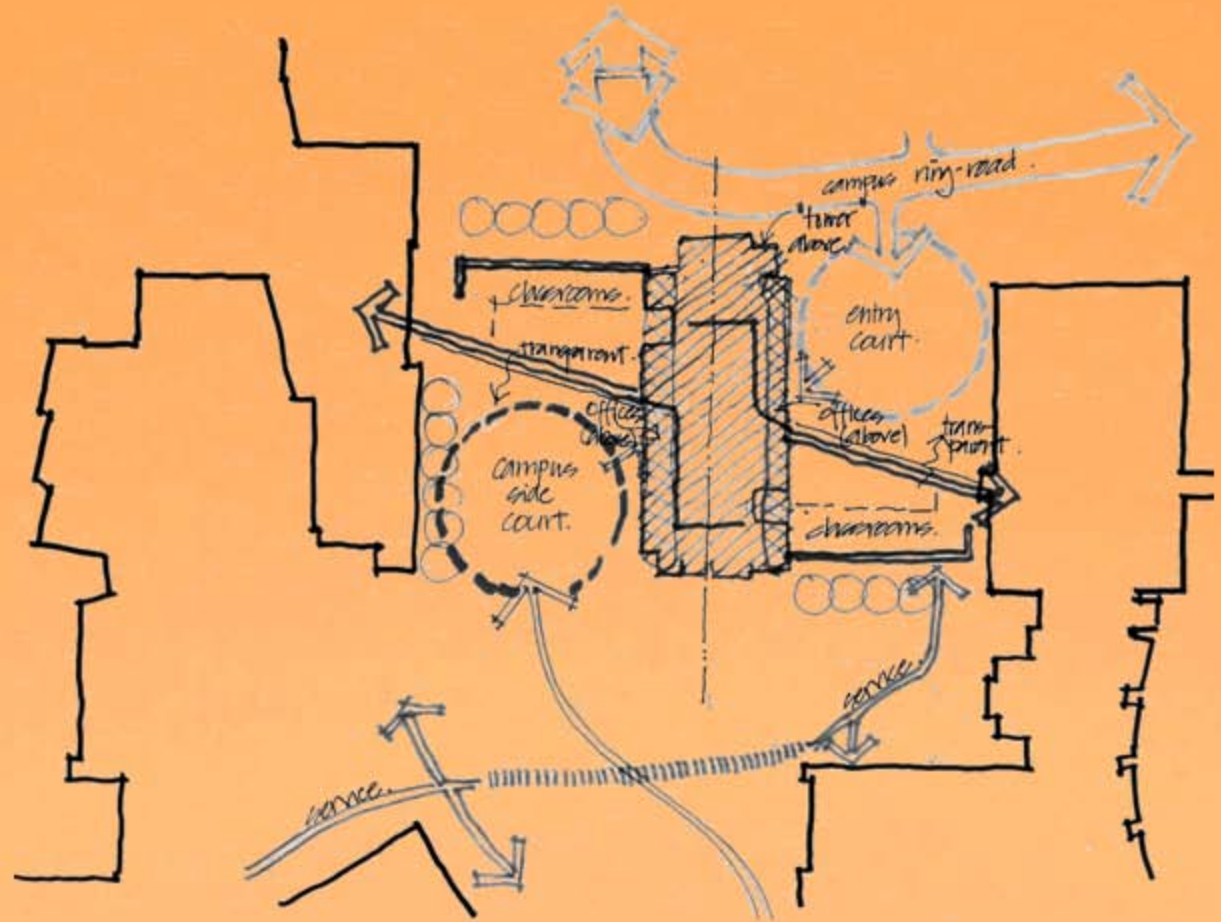
site planning

1. districts
2. pathways
3. edges
4. nodes
5. landmarks



site analysis

1. orientation
2. wind
3. sun
4. natural features
5. access
6. circulation patterns
7. views
8. context



building code analysis

1. occupancies
2. limiting distances
3. hallway widths
4. fire separations
5. details

Limiting Distance Requirements

Limiting Distances and Maximum Unprotected Areas as per Table 3.2.3.1.C

	North	South	East	West	
Limiting Distance	>9.0m	9.0m	>9.0m	9.0m 2.5m	
Exposed Building Area	168m ²	210 m ²	108m ²	96m ² 108m ²	
Ratio Maximum Unprotected Area	n/a	n/a	n/a	n/a	n/a
Maximum Unprotected Area	100%	100%	100%	100%	20%

* Due to shape of plan, only the most prominent faces of the building have been given, or those where the limiting distance affects design. The west facade has been subdivided and values given for the areas that face the historic buildings.

Component Fire Separations:

Horizontal Service Spaces: Fire separation with F.R.R 30 min. because vertical F.R.R is 45 min.
Refer to: 3.6.4.2(2)

Vertical Service Spaces: Fire separation with F.R.R 45 min.
Refer to: 3.6.3.1

Mechanical Rooms: Fire separation with F.R.R 1hr. Refer to: 3.6.2.1(2)

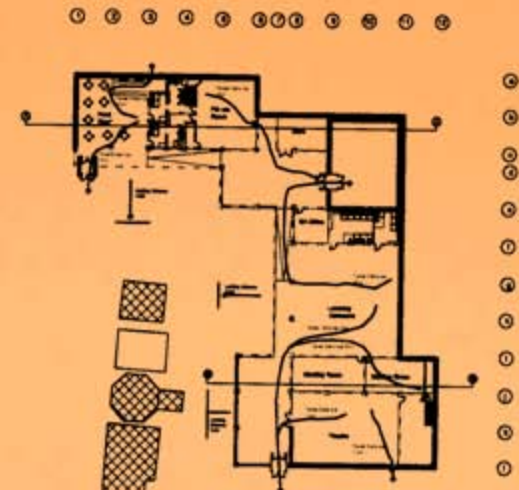
Linen Chute Rooms: n/a

Storage Rooms: n/a

Janitor's Rooms: Fire Separation with no rating in a sprinklered building
Refer to: 3.3.1.20

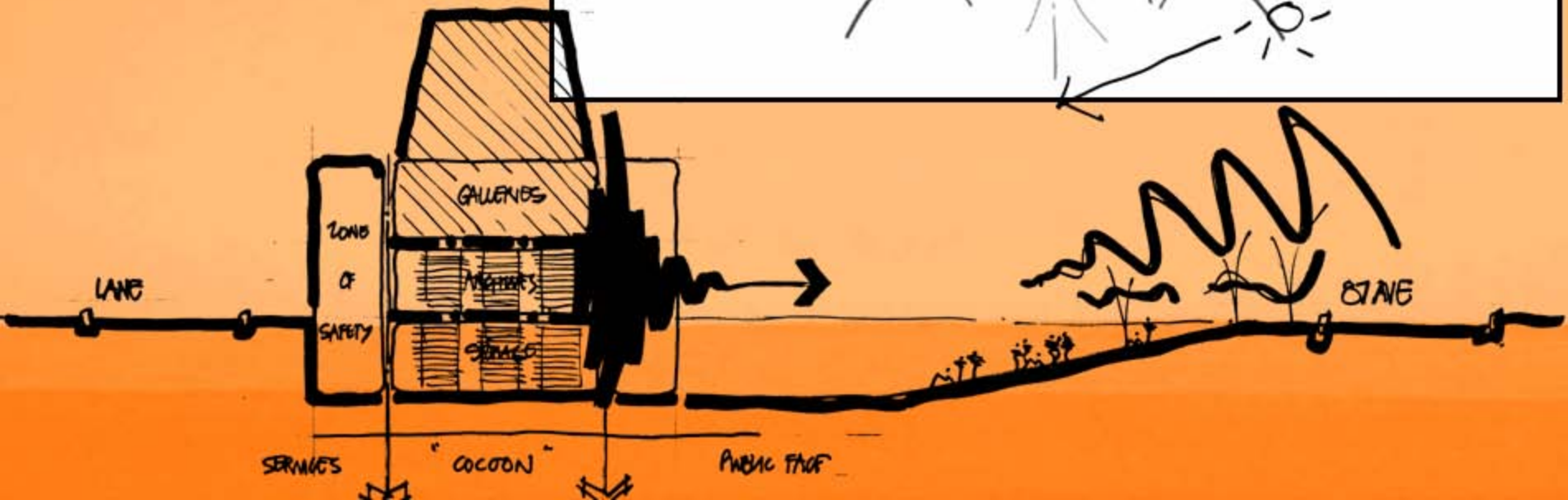
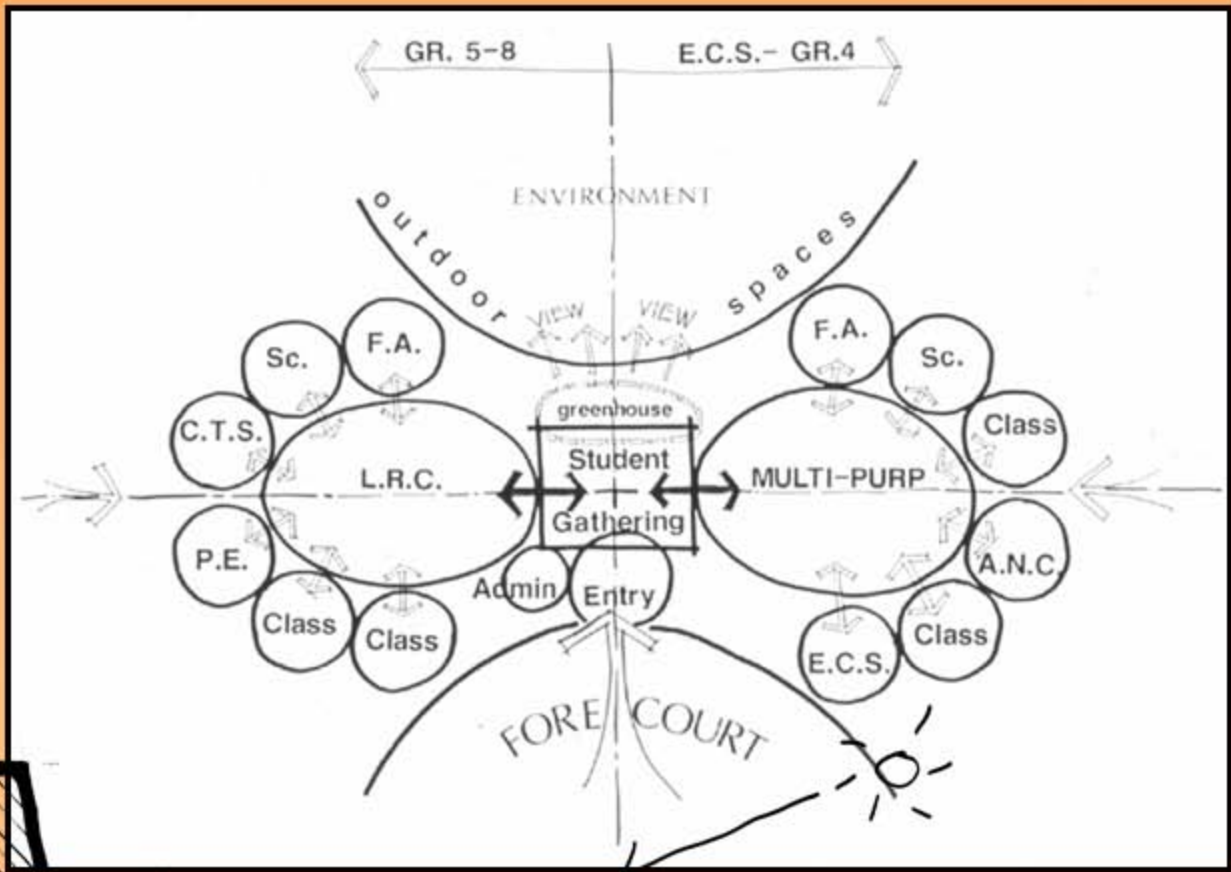
Exits: Fire separation with F.R.R. 45min.
Refer to: 3.4.4.1

BUILDING CODE



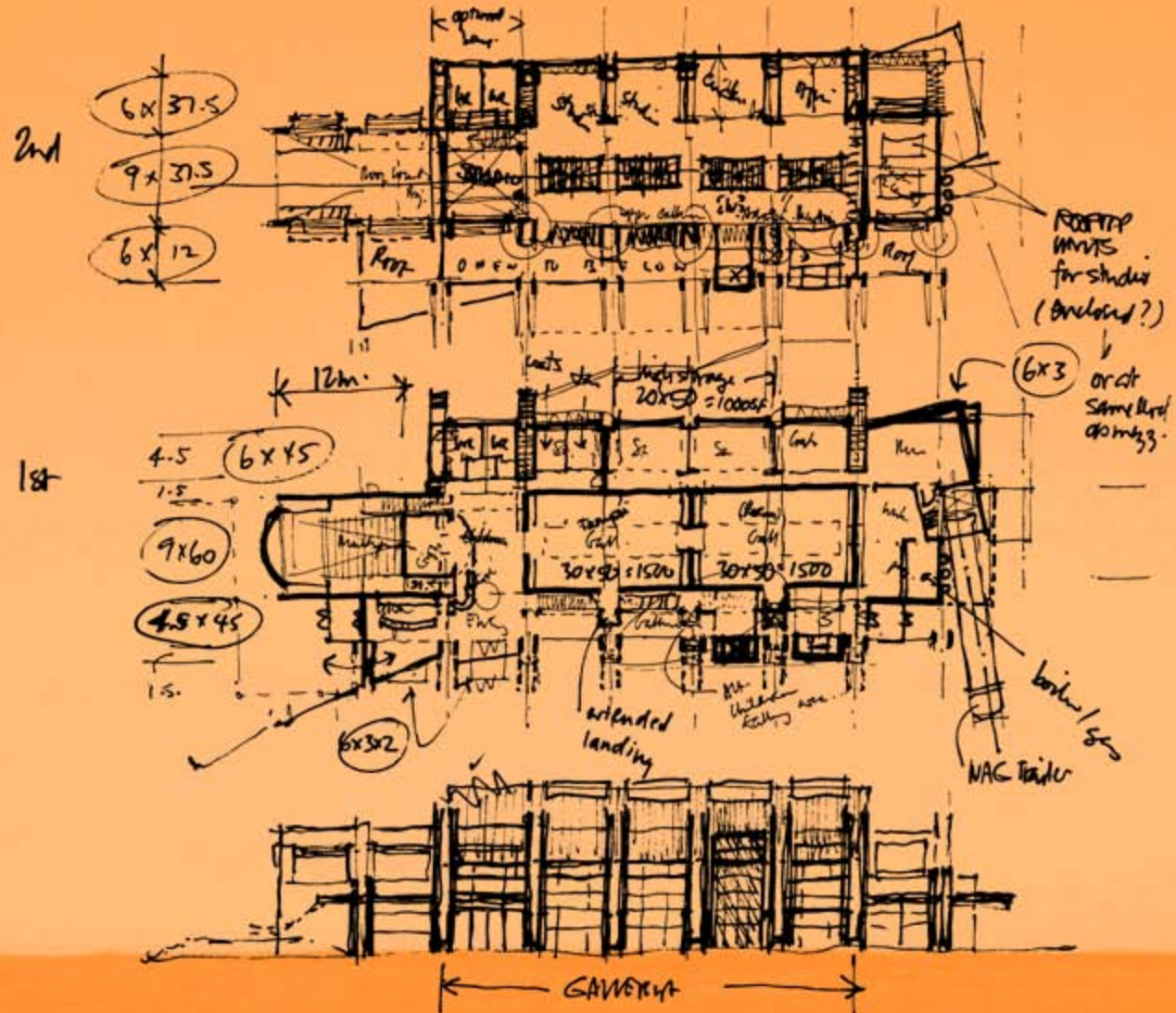
schematic design

1. size
2. location
3. circulation
4. orientation
5. functional relationships
6. sectional opportunities



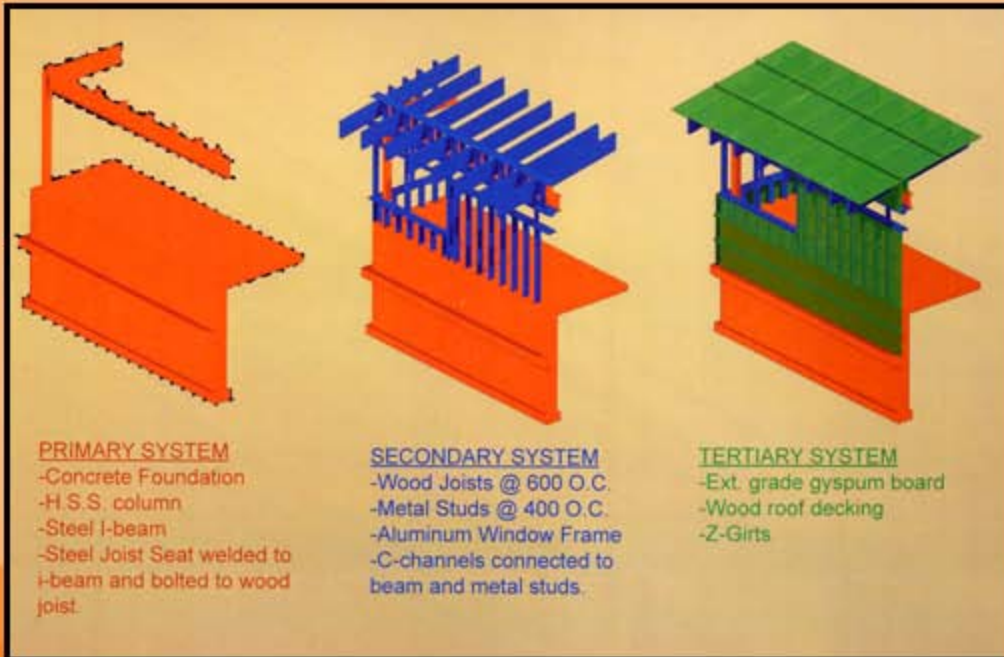
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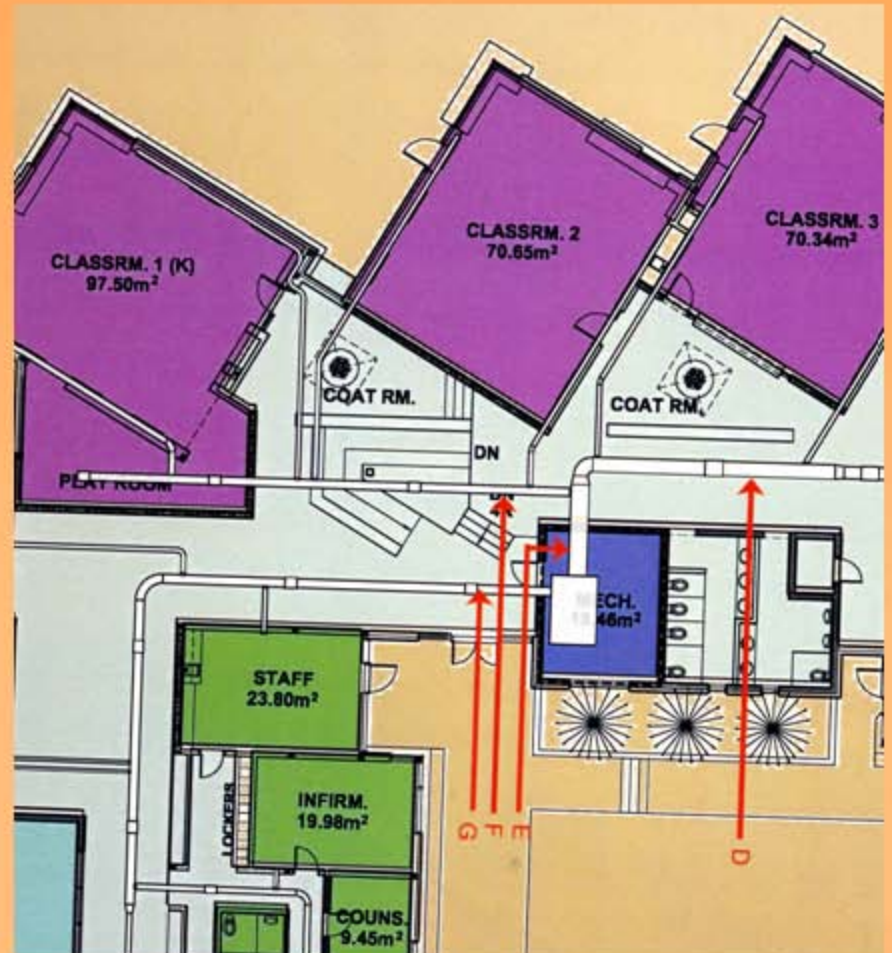
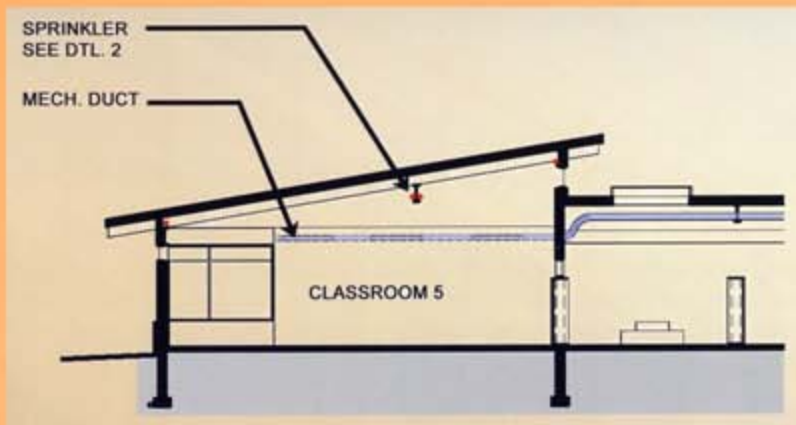
structure

1. systems
2. materials
3. sizing
4. connections



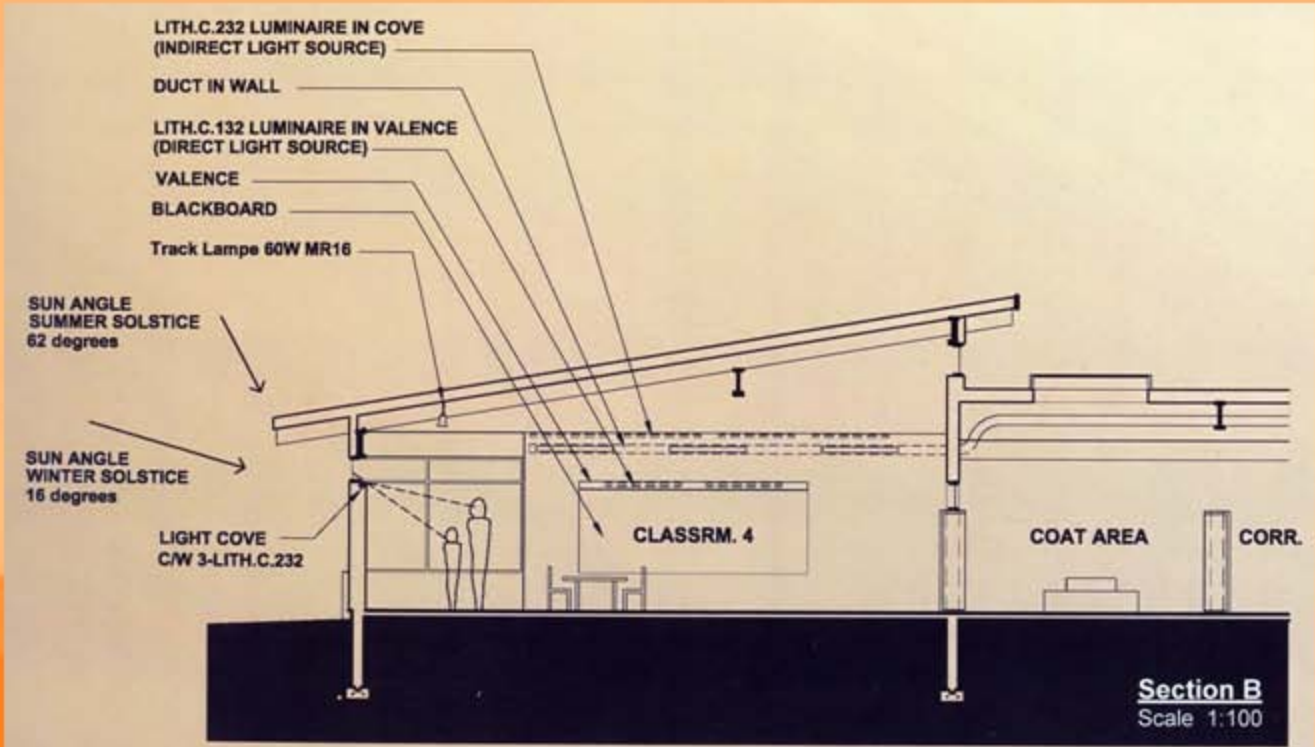
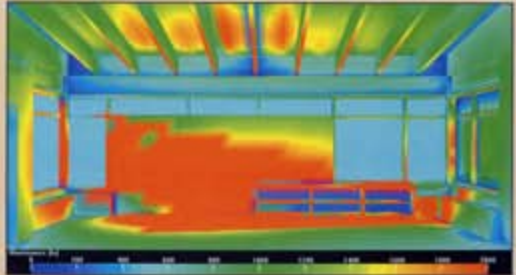
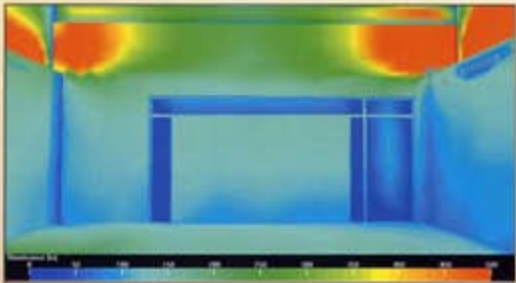
mechanical

1. hvac
 - a. equipment selection
 - b. sizing
 - c. location
 - d. coordination
2. sprinklering



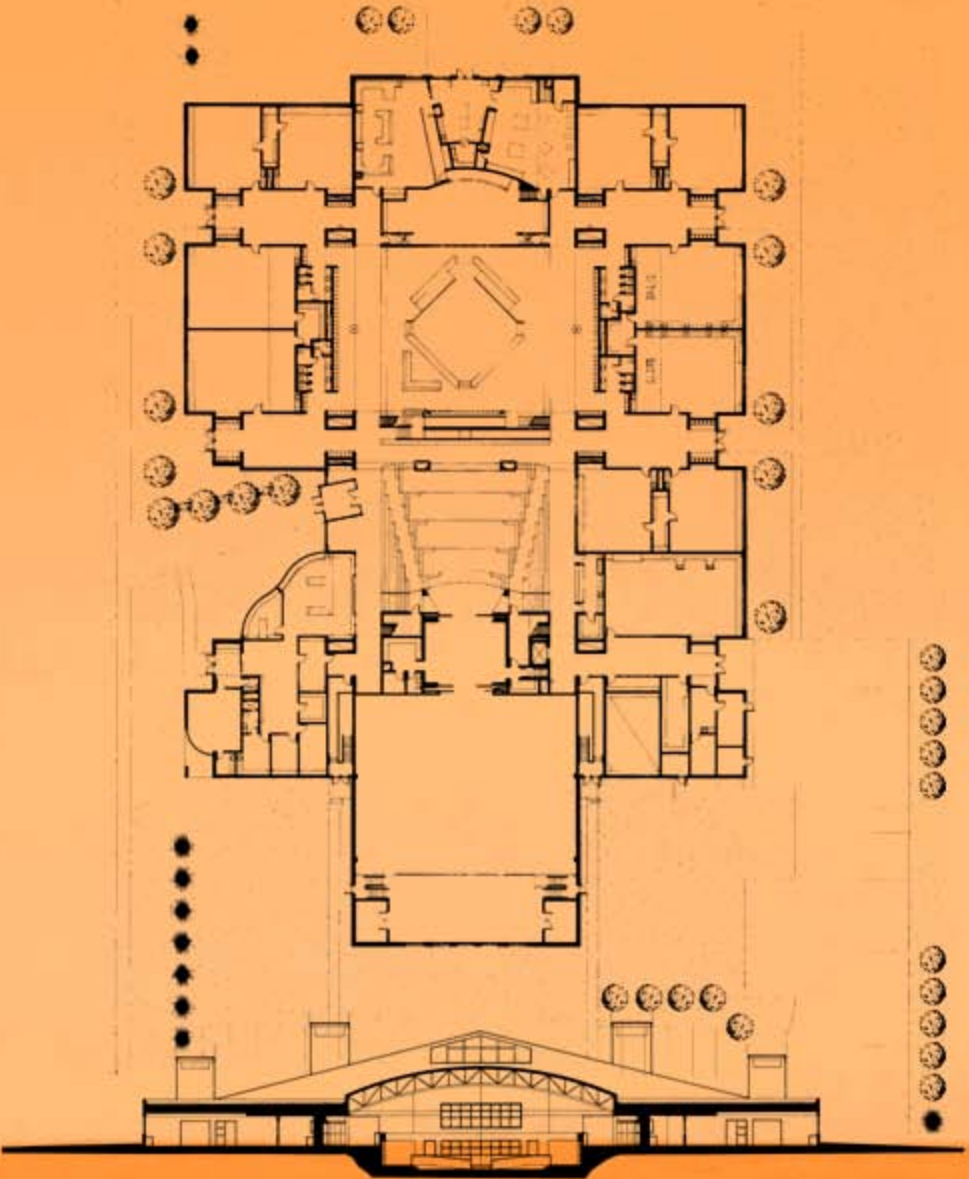
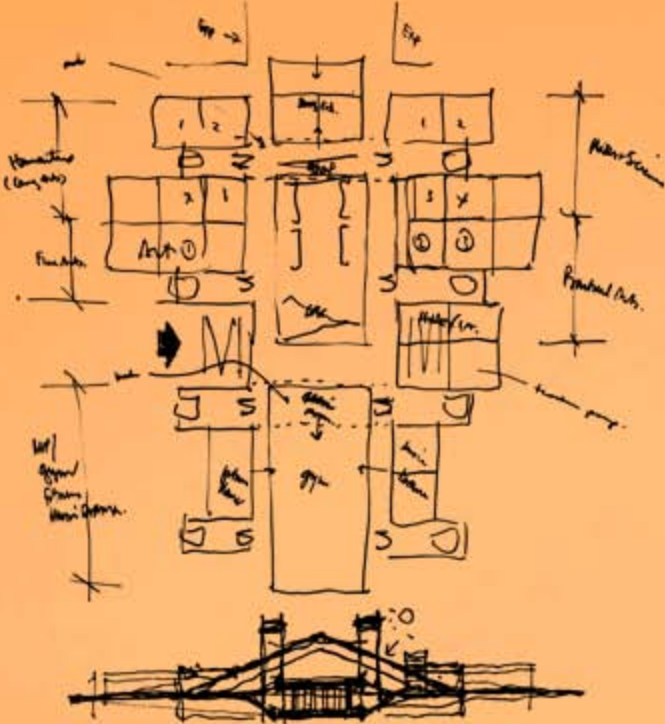
electrical

- 1. artificial light
- 2. daylighting



design development

- 1. refinement
- 2. finalisation



presentation materials

1. compilation of existing presentation materials
2. prepare 11x17 final report
3. physical model
4. additional drawings / renderings

