IPRO 315
DESIGN OF A LARGE SCALE STRUCTURE

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IPRO 315
DESIGN OF A LARGE SCALE STRUCTURE

- Project Background Information & Overview
- Team Organization
- Project Organization
- Progress
- Future Goals
Spring 2009
Preliminary Design. Analysis found structural deficiencies.

Fall 2009
The 22 story hotel will be re-designed and analyzed. The team will be producing various design and structural drawings representative of the project and operation of the building.
# IPRO 315

## Design of a Large Scale Structure

### Structural
- SAP2000 Model
- Load Cases
- Preliminary Steel Design
- Finalize Loads
- Finalize Model
- Design Steel
- Foundation
- Finalize Schedule

### Architectural
- Floor Program
- Floor Plans
- Finalize Design
- Green Roof Design
- Façade Design
- Aesthetic Design
- Finalize Schedule
- Scale Model

### Phases

<table>
<thead>
<tr>
<th>Phase</th>
<th>Structural Tasks</th>
<th>Architectural Tasks</th>
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<tbody>
<tr>
<td><strong>1</strong></td>
<td>SAP2000 Model, Load Cases, Preliminary Steel Design</td>
<td>Floor Program, Floor Plans, Finalize Design</td>
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<tr>
<td><strong>2</strong></td>
<td>Finalize Loads, Finalize Model, Design Steel, Foundation</td>
<td>Green Roof Design, Façade Design, Aesthetic Design, Finalize Schedule</td>
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<tr>
<td><strong>3</strong></td>
<td>Finalize Schedule, Finalize Plans</td>
<td>Scale Model</td>
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MOVED THE CORE IN ORDER TO ACHIEVE BUILDING FLOOR EFFICIENCY AND ALSO SOLVE THE STRUCTURAL DEFICIENCIES
• Dead and live loads have been calculated

• SAP Modeling in Progress

• Structural calculations using Matcad were done to design a composite beam system

• Preliminary Design of Structural members is in progress

• CAD Drawings of each floor is in progress
• Continued collaboration among team members to fix Structural deficiencies

• Design of Load bearing members

• Design of a foundation system

• Fix torsional problem if it may arise