



IPRO 315

DESIGN OF A LARGE SCALE STRUCTURE

Presented by:
Ben O'Neil
Chris Adams

Instructors:
Jorge Cobo
J. Shen
J. Budiman



IPRO 315

DESIGN OF A LARGE SCALE STRUCTURE

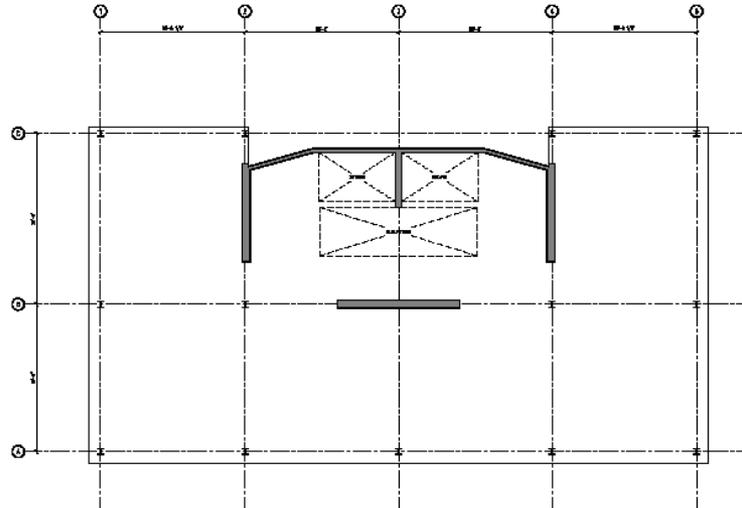
- PROJECT OVERVIEW
 - TEAM ORGANIZATION
 - PROJECT ORGANIZATION
 - PROGRESS
 - OBSTACLES
- 

IPRO 315

**DESIGN OF A
LARGE SCALE
STRUCTURE**

PROJECT OVERVIEW

THE PURPOSE OF
THIS PROJECT IS TO
**DESIGN A 22-STORY
HOTEL LOCATED IN
OAKBROOK, IL.**



I PRO 315

DESIGN OF A LARGE SCALE STRUCTURE

PROBLEM ORGANIZATION

STRUCTURAL

ARCHITECTURAL

MECHANICAL

PRELIMINARY (ARCH DESIGN) PHASE

- FOUNDATION SITE
ICB CODE
SAP2000 MODEL
LOAD CASES

- INITIAL DESIGN
- FLOOR PROGRAM
- FLOOR PLANS
- FINALIZE DESIGN

- MEP CODES
HVAC CALCS

ENGINEERING DESIGN PHASE

- FINALIZE LOADS
- FINALIZE MODEL
- DESIGN STEEL
- FOUNDATION

- GREEN ROOF DESIGN
- FAÇADE DESIGN
AESTHETIC DESIGN
FINALIZE SCHEDULE

- FINALIZE LOAD CALC
DESIGN HVAC
MEP ROUTING

END PHASE

- FINALIZE SCHEDULE
FINILIZE PLANS

- SCALE MODEL

- MEP SCHEDULE



I PRO 315

DESIGN OF A LARGE SCALE STRUCTURE

TEAM ORGANIZATION

ARCHITECTURE DESIGN GROUP

Team Lead: Ben O'Neil

Ben O'Neil
Adam Newman
Shin Young Park
Kaitlyn Conley
Fabian Aguilar

STRUCTURAL GROUP

*Team Lead: Corina Abrudun
Chris Adams*

Load Cases

Models

Foundations

CAD

Rusty Kutcher
Brian Crowley
Karolis Kozys

Luca Lollino
Joseph Jurasits

Karl Ekstrand
Adam Nizich

Andrew Witek
Kwong Cheung

MECHANICAL GROUP

Team Lead: Gustavo Zarazua

Garrett Ezell
Gustavo Zarazua
Rodrigo Aihara
Adnan Bhat
Algirdas Bielskus
Jesus Cervantes

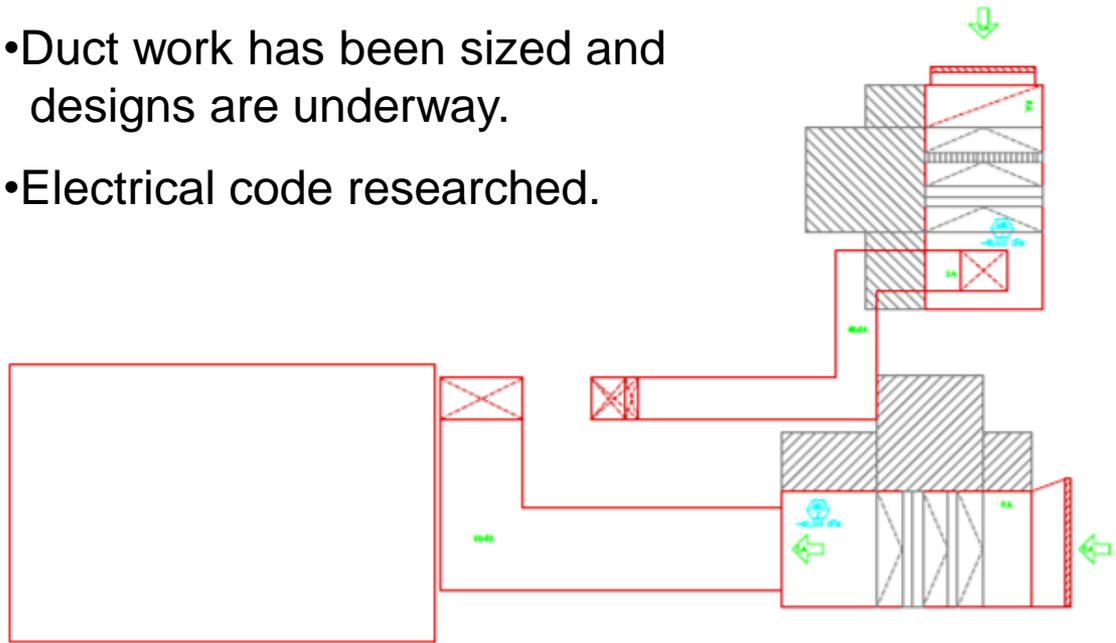
IPRO 315

DESIGN OF A LARGE SCALE STRUCTURE

PROGRESS

Mechanical Group

- HVAC loads have been calculated, tentative units have been sized.
- Duct work has been sized and designs are underway.
- Electrical code researched.



I PRO 315

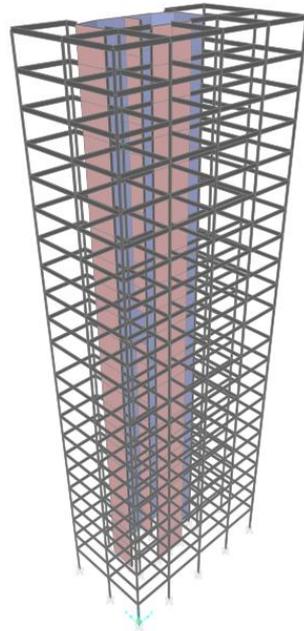
DESIGN OF A LARGE SCALE STRUCTURE

PROGRESS

Structural Group

SAP2000

3/5/09 22:05:13



SAP2000 v12.0.1 - File:ModelV3_V12 - 3-D View - Kip, in, F Units

- Load Cases are complete and have been given to the SAP/Modeling Group

- SAP Modeling has begun and will use the Load Cases to determine Governing Load

- Based on calculations, steel members will be designed for the framework of the building

- CAD Drawings of each floor completed

 - Details will be added later

I PRO 315

DESIGN OF A LARGE SCALE STRUCTURE

OBSTACLES

- Initial designs were revised multiple times
- Architect majors in Mumbai, India, initially
- Number of people within groups and sub-groups
- Communication between groups
- Equal work among group members



I PRO 315

**DESIGN OF A
LARGE SCALE
STRUCTURE**

QUESTIONS

