

## OVERVIEW

To address the growing demand for housing, retail, entertainment, and business services in downtown Boise, a new 9-story mixed-use development project was designed.

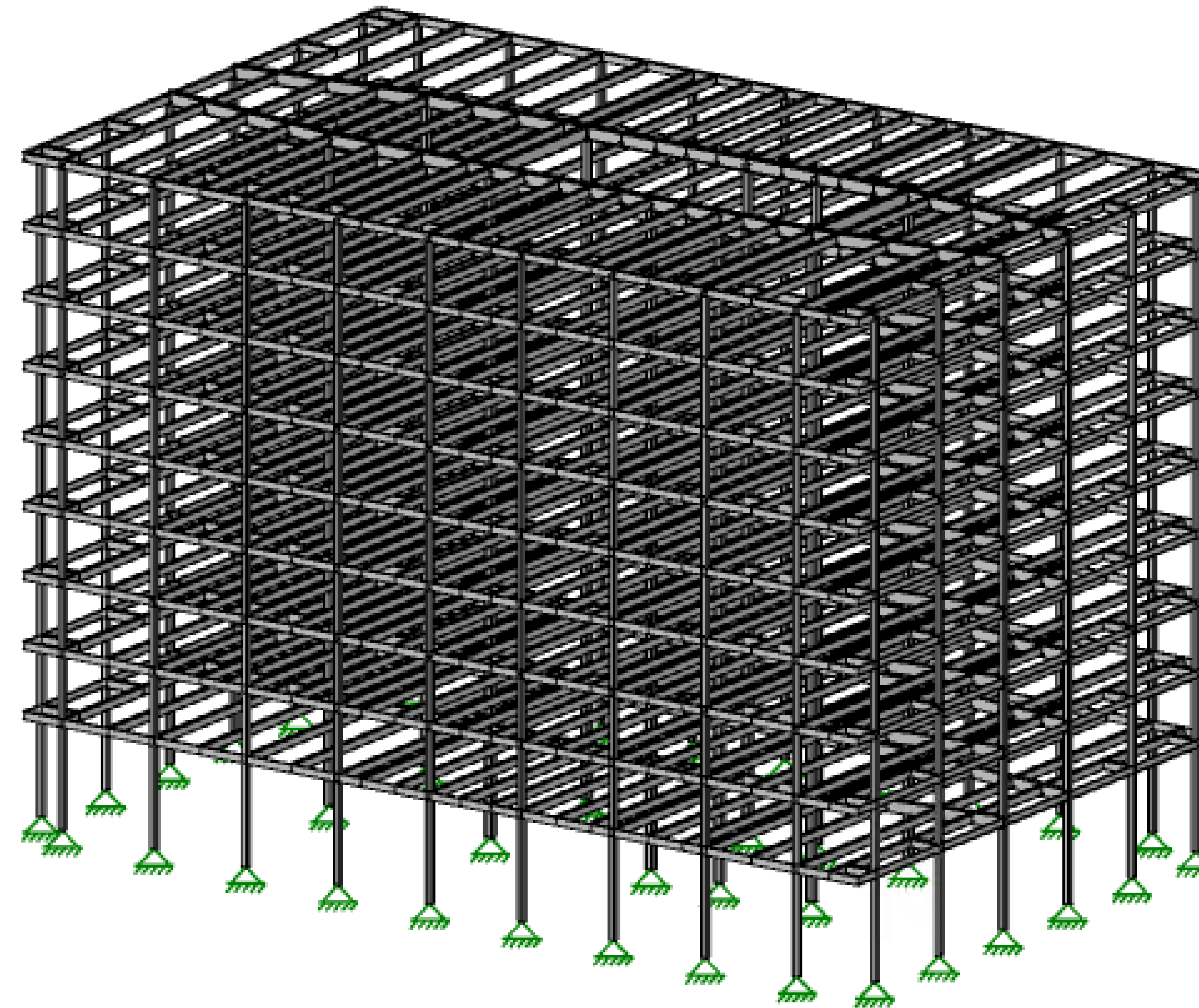
### Design Summary

|                       |                                 |
|-----------------------|---------------------------------|
| Fire Rating           | 2 hour                          |
| Beams                 | Steel Wide Flange               |
| Girders               | Steel Wide Flange               |
| Columns               | Steel Wide Flange               |
| Braces                | Steel HSS                       |
| Foundations           | Reinforced Concrete Pad         |
| Flooring              | 6.5" Concrete Over Steel W Deck |
| Seismic Risk Category | II                              |

|                               |   |                                |   |                            |
|-------------------------------|---|--------------------------------|---|----------------------------|
| PROJECT<br>MANAGER<br>\$8,736 | + | STAFF<br>ENGINEERS<br>\$17,520 | = | DESIGN<br>COST<br>\$26,258 |
|-------------------------------|---|--------------------------------|---|----------------------------|

**ESTIMATED DESIGN COST = \$47,040**

**Special Thanks to:**  
Dr. Richard Nielsen, Ph.D., PE  
Dr. Ahmed Ibrahim, Ph.D., PE



1100 W Idaho St, Boise, ID 83702

## DESIGN PROCESS

### 1 - Preliminary Phase

- Assign Roles and Billable Wages
- Review Project Documents
- Familiarization with Design Software

### 2 - Schematic Design Phase

- Develop Design Criteria
- Research Codes and Regulations
- Draft Preliminary Design

### 3 - Development Design Phase

- Design structural elements with Design Software and Hand Calculations
- Size Beams, Girders, Columns, Foundations, and Braced Frames

### 4 - Construction Design Phase

- Create Construction Drawing Package (*Deliverable*)
- Generate Financial Estimate for the Design (*Deliverable*)

### 5 - Design Presentation Phase

- Develop EXPO Presentation, Poster, and Report (*Deliverable*)