

Problem 1:

Given: Student Design Project

Find: Use AISC Design Guide 11

1. Fundamental natural frequency of the interior beam, girder , and combined panel modes of the second floor
2. Adequacy of the floor system for vibration due to walking excitation.

Problem 2:

Given: Student Design Project.

Find: Use AISC Specifications Chapter J

1. Design a welded brace and gusset plate connection for the first level braces. Provide detail sketch with maximum loads.

Problem 3:

Given: Student design project.

Find: Using AISC Part 10 Simple Shear Connection Specifications

1. Design Bolted/Welded girder-column connection for typical interior girder. Provide detail sketch with maximum loads.
2. Design Bolted/Welded beam-girder connection for typical interior beams. Provide detail sketch with maximum loads.