

FLATWORLD PROVIDED STRUCTURAL MODELING AND SEISMIC LOAD ANALYSIS MEETING ASCE CODES



The Client

The client is based in the United States and works across 40 locations in many US states and Canadian provinces. They are an industry leader in providing multiple specialized concrete services such as non-destructive testing (NDT), utility locating, and concrete scanning. The firm is also well-known for soft-story seismic retrofitting solutions. The client has more than 60 years of experience in using cutting-edge technology to develop safe buildings and avoid subsurface hazards. They have a reputation for meeting time, budget, accuracy, and safety requirements

for their customers.

Challenges Faced by the Client

The client was looking for seismic retrofit structural analysis support for a reinforced cement concrete (RCC) building. The structural modeling needed to adhere to the minimum design load requirements. The client provided the RCC building drawings.

The project involved these challenges -

- + Collecting additional building information to support accurate analysis
- + Results needed to comply with ASCE (7-10) codes and employ ETABS software

FWS' Solution

After carefully analyzing the service requirements of the client, the Flatworld Solutions structural engineering specialists developed the following solution -

- + The project included a team leader and experienced drafters
- + An effective communication strategy was developed to facilitate gathering additional building data and to clarify the overall project scope
- + When the implementation phase started, the engineering team completed the seismic analysis in compliance with all ASCE 7-10 codes. This process included analyzing seismic load, wind load, machinery load, water tank load, wall load, live load, and dead load
- + Final reports reflected structural analysis of story drift, joint displacement, axial loads, moments, forces, and reaction factors. The seismic load and wind load analysis were completed using ETABS software. All load combinations met ASCE 7-10 building code requirements.

The Results

Our team of engineers successfully delivered the structural modeling and seismic load analysis to the client. This project exhibits the value of accurate and cost-effective outsourcing support for seismic analysis and retrofitting projects. The Flatworld Solutions engineering team is uniquely qualified to ensure that seismic load analysis and structural modeling complies with all international construction practices and building codes.

Choose Flatworld Solutions for Accurate Structural Modeling & Seismic Load Analysis

Flatworld Solutions has been a leading provider of structural modeling and a plethora of other [structural engineering services](#) to global clients. Our team of experts is ready to help with specialized projects requiring structural, mechanical and civil engineering skills. We provide our clients with [retrofitting & rehabilitation](#), [industrial structures design](#), [high rise structures design](#), [finite element modeling & analysis services](#), etc. Having been in the engineering domain for over a decade has made us capable of handling any of the client's requests. If you are looking for a reliable, effective, and cost-effective structural modeling and seismic load analysis service provider, then you have come to the right place.

[Get in touch with us](#) today to discuss your project needs.