

# The Residences of Sherman Plaza Evanston, IL

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Structural Option  
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## Senior Thesis Proposal

### Breadth Study

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When changing the building material, there are more factors to consider than just the structural concerns. The new structural system will impact several other building systems, such as the lighting, electrical, and mechanical systems. The breadth study for the building redesign will focus on two discipline areas.

The first discipline considered will be a construction management breadth study to produce a cost estimate and construction schedule of the new system. R.S. Means will be used to determine the material and labor costs and construction activity durations. This information will be used to compare the new and existing system to determine the efficiency of the new steel system.

The second breadth study will analyze the building's acoustics. The acoustics are a concern when switching the building's material, because the new material will have a different Sound Transmission Class. The new system will need to provide the same if not better sound isolation as the existing system. The sound transmission will be analyzed between the residential dwellings, and also between the retail and residential portions of the building. The transition between retail and residential is a critical area, because the retail area will have a higher sound level and require a greater barrier to isolate sound from the residential dwellings.