

ARIC HEFFELFINGER
FORDHAM PLACE
BRONX, NY
STRUCTURAL OPTION
ADVISOR - DR. HANAGAN



Recommendations

After having the opportunity to design Fordham Place as both an all concrete structure and a composite steel structure, it was easy to come to the conclusion that the composite steel structure is a far better solution. The composite structure was more advantageous on all design considerations, including cost, duration, efficiency of system, etc. Fordham Place as a composite system uses the different materials as efficiently as they can be. Steel is the best material to resist tension, while concrete is the best to resist compression; and that is exactly how a composite steel system works. There is compression in the top concrete flange while the bottom steel takes the tension. Lateral forces are resisted by cross members in the braced frames that are under axial tension loading. Because the materials at Fordham place are used as efficiently as possible, this is the least that will be spent in material cost. When you combine that with how easy it is to construct and compost steel system, the final result is a very stable and inexpensive building.