

CORRESPONDENCE

SPACE NEEDLE

I enjoyed the article in the January 2002 edition of *Modern Steel Construction* regarding the Space Needle in Seattle. I did notice something that puzzled me about the use of coordinate systems. The article states that they used a cylindrical coordinate system but used rotation, radius and degrees above a horizontal plane. I think that a cylindrical coordinate system uses elevation above a horizontal plane while a spherical system would use degrees of angle. I am also curious about how the system was laid out and how a contractor would be able to use the information.

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Author's Response:

We truly did use cylindrical coordinates, though the article does errantly indicate spherical coordinates due to the reference of the degrees from horizontal. Our vertical component was specified as an elevation, consistent with cylindrical coordinates.

The question about the contractor's ability to utilize the coordinate system is also a good one. Believe it or not, there was no difficulty at all. After a bit of time getting used to different terminology, the layout was as seamless as other more standard layouts. Kudos to the contractor, SDL-McCarthy, for their ability to pick this up and integrate it into their process.

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SPACE NEEDLE TAKE 2

The article "Renovating the Space Needle" in the January 2002 issue of *Modern Steel Construction* fails to give the name of the firm that originally designed the Needle. That firm was John Graham and Co. Architects and Engineers of Seattle. The story of the design of the Space Needle was published in a magazine *Space Needle U.S.A.* after its construction. The magazine is probably available in the library or the archives of the Space Needle Corporation.

Martin Getz P.E.
via email

POWER PLANT PROJECT

I am writing regarding the "Power Office" article in the January 2002 issue of *Modern Steel Construction*.

The conversion of a former Milwaukee power plant to offices results in a handsome and functional space. But it seems strange that an engineer would omit discussion of the hurdles that must have been overcome in bringing unreinforced masonry bearing walls into conformance with current day building codes. Not uncommonly, projects of this nature aren't economically feasible because the changes in use classification or the costs of the renovation trigger building code requirements to upgrade the unreinforced masonry with some sort of ductile system. This article would have been much more useful and relevant if this issue had been presented.

Jeff Ashworth
Stone & Webster

