



# PLANT SYSTEMS ENGINEERING

## SEISMIC ENGINEERING: MECHANICAL AND ELECTRICAL EQUIPMENT

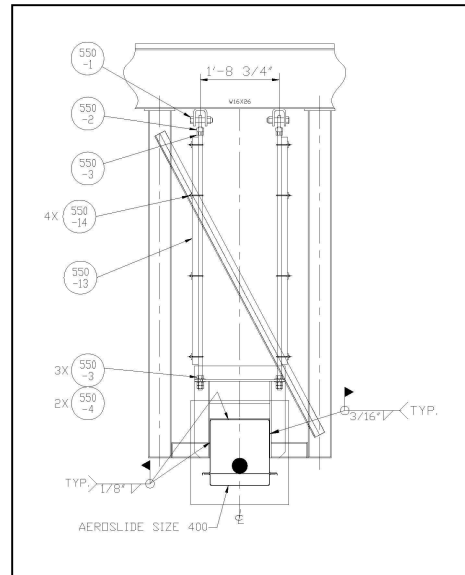
Recent natural disasters have made officials, owners and plant designers more cognizant of seismic code requirements to protect assets and insure that essentially facilities remain operational.

Even in areas perceived as low risk seismic areas, such as Pennsylvania, seismic engineering requirements are being written into project specifications.

These specifications place the burden of the seismic design and documentation submittals squarely on the contractors back.

**Plant Systems Engineering** has been providing seismic engineering services since 2002 for essential facilities including hospitals, power plants, chemical plants and military institutions. Our seismic engineering services have been provided for:

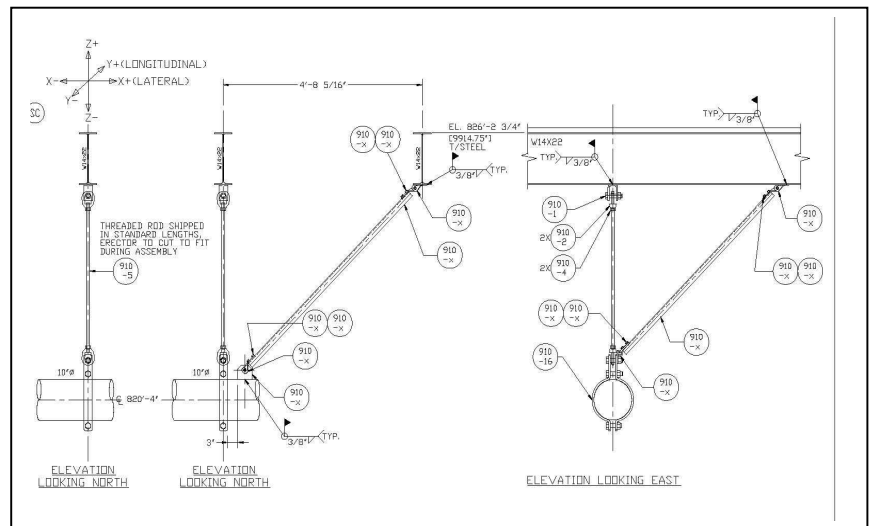
- Electrical Contractors
- Mechanical Contractors
- Design Build Firms
- Equipment OEMS



*Seismic bracing of thermally expansive air-slide for fly-ash transport*

### Typical Project Seismic Elements:

- Application of IBC Section 1613 – Earthquake Loads
- Application of ASCE 7-05 Sections for Seismic Design.
- Application of SMACNA Seismic Restraint Manual
- Breakdown of piping or conduit into runs for seismic analysis
- Detailed engineering design and shop drawings of support and bracing elements
- Considerations of wind loads on electrical or mechanical equipment
- Sealed calculations and Documentation packages



*Seismic Restraint Pipe Bracing*

For more information, contact Craig Warner, P.E. at 717-795-9122 Ext 101 or email at [cwarner@plantsys.com](mailto:cwarner@plantsys.com)

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