

# RUTHERFORD COUNTY JUDICIAL CENTER

© Gresham Smith and Partners



**Building Owner**

Rutherford County Public Building Authority

**Location**

Murfreesboro, Tennessee

**RCJC is a 6-story, 203,000 sq. ft. County Courthouse which was the first field-bolted SidePlate project in the state of Tennessee.**

## CHALLENGES

- Bracing didn't fit within architecture, conventional moment frames were too expensive.
- Field-welding is expensive and time-consuming, slowing the schedule.
- Aggressive construction schedule but limited site and crane access.

## SOLUTIONS

- SidePlate design saved over 350 tons of steel and used 50% fewer overall moment connections to keep steel within budget.
- SidePlate connections bolted in the field and saved approximately \$80,000 by eliminating Ultrasonic Testing.
- Bolted SidePlate connections erected faster than conventional to maintain schedule.

**Architect**

Gresham Smith and Partners

**Structural Engineer**

Gresham Smith and Partners

**General Contractor**

Bell and Associates Construction

**Fabricator**

Schuff Steel

**Erector**

River City Erectors

**Detailer**

H&R Steel Detailing, LLC



# FIELD-BOLTED SIDEPLATE<sup>®</sup> MOMENT CONNECTION

For well over 20 years, SidePlate technologies have optimized steel building designs, delivering cost savings and performance. SidePlate connections are designed, they're not a product, and they're built by any steel fabricator. SidePlate connections reduce drift, so our lateral frames use less structural steel (and often fewer joints) than other moment frames and our field-bolted connection eliminates all field-welding. Less steel tonnage, less field labor, and structural optimization at no charge to the design team. How can SidePlate benefit you?

### R=3 Beam Assembly



- fillet welds in shop
- short-slotted holes
- no beam section loss

### R=3 Column Assembly



- fillet welds in shop (some stitch)
- short-slotted holes
- no column section loss

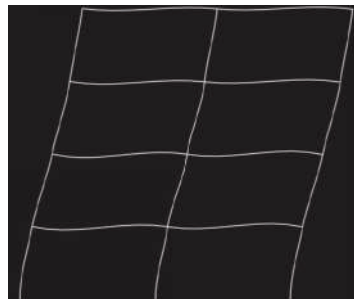
### R=3 Completed Connection



- beam is simply lowered into place
- easier to align holes from top
- no shear tab required

### Other moment connections

Drift = 2.35"



### SidePlate<sup>®</sup> moment connections

Drift = 1.65"

