

PROJECT PROFILE

Iowa State Capitol Main Dome Des Moines, IA

VERTICAL
access



Project overview

Vertical Access was retained by Simpson Gumpertz & Heger, Inc. to assist with an exterior and interior survey of the main dome of the Iowa State Capitol building. An evaluation and repair design study was commissioned by the State of Iowa Department of Administrative Services to document and assess the existing condition of the dome and lantern and to determine likely causes of water infiltration.

Building description

The Iowa State Capitol was designed by John C. Cochrane and Alfred H. Piquenard and constructed between 1871 and 1886. It is the only five-domed capitol in the United States, with four sheet copper domes at the corners of the building and the gilded main dome rising prominently at the center of the structure to a height of 278 feet above the ground floor. The main dome is constructed of brick with a steel structure. The exterior is gilded with gold leaf, which dates to the time of the last major restoration of the dome completed in 2000. A lantern with a balcony and exuberant finial surmounts the dome. The dome rests on a drum constructed of limestone and sandstone exterior masonry and brick back-up.

Scope of work

- Performed inspections and documented conditions of the exterior of the gilded sheet metal dome, masonry drum, and interior.
- Provided live-feed video of the lantern inspection to staff from the State of Iowa Department of Administrative Services to facilitate an understanding of its existing conditions.
- Used infrared thermographic images of the interior of the brick dome to identify areas of moisture concentration and embedded metal elements.

Building owner

The State of Iowa

In collaboration with

- OPN Architects, Inc.
- Simpson Gumpertz & Heger, Inc.

Photos by Vertical Access