

Cement Storage

Illinois Cement, Eagle Materials | LaSalle, Illinois, USA



Scope of Work:

- O FEED Study
- Value Engineering
- O Geotechnical Analysis
- O Material-Handling Systems Engineering
- Structural Engineering
- O Mechanical Engineering
- Electrical Engineering
- Procurement & Subcontract Management
- Dome Construction
- Tunnels Construction
- O Material-Handling Systems Installation
- O Explosion Relief Installation
- Additional Steel & Concrete Construction

Storage & Reclaim:

- ☐ 1 Dome: 56.7m (186ft) Wide x 30.2m (99ft) Tall
- 80,000 Metric Tons, Cement
- → 1 Tunnel, 99% Live Reclaim





The DomeSilo™ is an ideal combination of structural integrity and storage capacity on space constrained sites.

Overview:

As a result of its geometry, a dome can support sizable structures like a headhouse and conveyors at the apex.

Maximize limited land by storing more product in a single structure.

When selecting a storage solution for cement, Illinois Cement's decision was all about the bottom line.

"The dome was the most economical solution to meet our needs for storage at the time," said Illinois Cement chief chemist Kevin Jensen. "It's performed well; there have been zero issues with the dome itself."

According to Brent Hardy, Dome Technology's superintendent for this project, the dome was built at an existing Illinois Cement site. Also, the dome was built at the same site where the company manufactures the product, providing "more capacity during the high production times—they have more product on hand to sell at the high-demand times," he said.

In an industry where silos have dominated historically, more cement companies are realizing and embracing the benefits of a dome for bulk storage. "It's the dome versus steel silos or concrete silos. Steel silos don't lend themselves to that kind of storage, and concrete silos are more expensive to construct," Jensen said.

Hardy agrees. "We can build domes for less than silos for the tonnage they wanted," he said.

"For nearly four decades we've relied on a collaborative approach with companies—they're in the driver seat, and we help navigate. In every project Dome Technology incorporates innovative technology to maximize storage capacity and system performance with an economical solution," Bradley Bateman, CEO, Dome Technology



Read more about this project at: link.dometechnology.com/6525