

## CASE STUDY: Geo-Seal® Selected Over Other Gas Membranes to Mitigate Vapor Risk at Chicago Recreation Facility

### Taylor-Lauridsen Park Fieldhouse— Chicago, IL

A new fieldhouse utilizing the latest in green technology was constructed by the Public Building Commission in the City of Chicago. The development incorporated various sustainable design elements and materials to achieve the Commission's goal of LEED "Silver" Certification. Past use of an adjacent property resulted in chlorinated solvent contamination which presented a vapor intrusion risk on-site. Geo-Seal®, a triple-layer, composite vapor intrusion barrier was installed to protect the users of the fieldhouse from potential exposure to chlorinated solvent vapors. The Geo-Seal technology was chosen based on an evaluation of various gas membrane technologies, including a simple spray-applied asphalt latex membrane and HDPE sheeting, by PBC's consultants, Parson Corporation and Carnow Cornibear & Associates. The Geo-Seal system was designed and inspected by Terracon Consultants.

### Project Highlights:

- New green technology construction on historic site
- Approximately 16,000 ft<sup>2</sup> of Geo-Seal successfully installed
- Geo-Seal Vapor-Vent HD trenchless passive ventilation system utilized to alleviate buildup of vapors beneath the structure
- Geo-Seal selected over other vapor barrier options due to its superior chemical resistance, ease of constructability and cost-effectiveness



*Geo-Seal HDPE BASE layer*



*Geo-Seal spray-applied, CORE layer*



*Geo-Seal HDPE BOND*

### About the Geo-Seal® Vapor Intrusion Barrier

Geo-Seal is the ideal blend of chemically resistant high density polyethylene (HDPE) sheeting and spray applied membrane technologies, resulting in the most appropriate vapor intrusion barrier technology available to eliminate vapor intrusion into structures built on Brownfields or environmentally impaired sites. Geo-Seal is a composite system installed between the subgrade and building foundation to seal off exposure pathways and prevent toxic vapors from migrating into structures. By selecting Geo-Seal, developers can ensure a healthy indoor air environment while reducing the cost of site remediation and expediting site construction.