

Build & Protect Resources for A&E's

Need to know more? LPI can help you earn AIA/CEU credits while you learn how lightning protection systems provide added security for your clients. LPI is an Authorized Provider for the Lightning Safety Alliance's AIA Registered "Lightning Protection 101" program (LSA 101), a continuing education course, where participants earn 1 AIA Learning Unit Credit.

Find out how the inclusion of safety Standard-compliant lightning protection systems in your state-of-the-art designs can benefit the building environment.

For information about our Build & Protect A&E resources, or to learn more about the LSA 101 AIA/CEU course contact LPI.

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Lightning Protection Institute

The Lightning Protection Institute (LPI) is a national not-for-profit organization comprised of manufacturers, contractors, designers and engineers, and is a leading resource for lightning protection information and system requirements. LPI's testing and Certification Program was created in 1971 to qualify competence in lightning protection and responds to the needs of architectural and engineering firms to certify excellence in system design, installation and inspection.

Call on the LPI-certified experts.
This brochure is presented by LPI and this member firm:

BUILD & PROTECT

A Blueprint for Architects and Engineers

Designing with lightning in mind to help meet your standard of care.

Architects and engineers have a professional responsibility to meet an appropriate standard of care for their work. Clients look to you to assess design and construction needs for safety, function, weather, and resilience. When you consider all the factors involved in designing to meet the highest standards, doesn't it make sense to remember the lightning protection?

Nature's Underrated and Misunderstood Hazard

Lightning is responsible for approximately \$1 billion in homeowner's insurance claims in the U.S. annually. Costs for non-residential lightning incidents are much higher, which can include surge, structural, and fire losses. A single lightning strike can carry 300 million volts of electricity and 30,000 amps. Compared to a household electrical current of 120 volts and 15 amps, lightning's destructive power packs a powerful punch. Architects and engineers can help eliminate this costly weather threat by specifying safety Standard-compliant lightning protection systems (LPS) for structures.



Build & Protect to Reduce Risk

Building codes set *minimum* standards which may or may not include LPS. By including LPS in their owner check-lists, designers can deliver a higher level of quality assurance and value-engineering for building resilience.

A safety Standard-compliant lightning protection system* provides proven and effective grounding to dissipate lightning's harmful electrical discharge.

The complete LPS network includes:

- strike termination devices (air terminals or rods)
- conductors and/or conductive structural members
- interconnecting connectors and fittings required to complete the system
- bonding to reduce potential differences created by lightning current
- grounding electrodes (ground rods, plates or conductors) installed to direct lightning current into the earth
- surge protective devices (SPD's)

*NFPA 780 Standard for the Installation of Lightning Protection Systems, UL-96A Installation Requirements for Lightning Protection Systems, LPI-175 Lightning Protection Institute Standard of Practice

LPS has become increasingly important for the building process, as businesses and planners continue to emphasize sustainable approaches to design and construction. In an era where technology, delivery methods and construction science are evolving at such a lightning-fast pace, specifying LPS is part of a best practice risk management approach.

Reasons to Specify LPS

Affordability

Pricing for LPS typically runs less than 1% the value of a structure (less expensive than security systems, generators and specialty lighting).

Insurance Industry Trends

Providers are recognizing the benefits of LPS more than ever before, by offering policy credits and incentives.

Safety Requirements

Insurance and OSHA risk management measures for public venues like churches, critical facilities, hospitals and schools are including LPS.

Risk Methodology Calculation

LPS may be required in situations where a NFPA 780 risk assessment determines a structure's vulnerability to lightning is greater than its tolerable risk.

Improves Sustainability

LPS is frequently included on Green and LEED structures as a building resilience measure.

Fortifies Technology

Smart structures characterized by a high degree of automation are increasingly relying on LPS to prevent surge interruptions and downtime.

Value-Added Building System

LPS provides a safe and effective amenity to protect against a leading cause of property damage.