

RELATED TERMS

- Pre-Plan
- Target Folder
- Template
- Target Hazard Site



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PRIMARY

- Fire
- HazMat
- Law Enforcement
- Emergency Management

BEST PRACTICE

Pre-Incident Site Planning: Structural Information

PURPOSE

Collect structural information for target hazard sites for pre-plans/target folders.

SUMMARY

The structural details and materials of a site often impact incident response activities. To facilitate tactical and strategic decisions, pre-planners should collect information about a site's construction details and materials.

DESCRIPTION

Pre-planners should collect relevant site construction information and note how building materials and designs may impact incident responses. Fire pre-planning often describes construction elements that are relevant to firefighting. This practice should be extended to include other construction details that may affect response scenarios. Being familiar with a site's structure and construction elements can help fire personnel better manage firefighting strategies, assist law enforcement in rescue and other tactical operations, help engineers assess collapse possibilities, and provide valuable information for search and rescue units. Planners should collect the following information:

For tactical, "quick action" pre-plans:

- Structural design specifications along with notes on their potential effect on incident response (e.g. combustibility, support loads, etc.) for the following:
 - Exterior walls
 - Interior walls
 - Ceilings
 - Floors
 - Roofs
- Number of stories above and below ground
- Special notations on the organization of floors (e.g. "Main entry is on 3rd floor" or "Mezzanine level is 2nd floor")—planners can include a labeled side elevation diagram
- Locations of stairways, exit and entrance points

For sites with multiple exterior doors, it may be helpful to label them (with the site's permission) and reference these labels in the pre-plan (e.g. "Door #2 is main egress")

For comprehensive, strategic pre-plans:

- All of the above information for tactical, “quick action” plans
- Site/building height, width, length
- Site/building square footage (by floor and total square footage)
- Areas with unfinished construction
- Secured areas (e.g. rooms with classified materials or areas that require electronic access)
- Locations of interior obstacles (e.g. interior security gates)
- Areas with interior movable walls (e.g. cubicles)
- Interior door construction and design (e.g. handle type, hinge location, and opening direction)
- Window construction, design (e.g. glass type and opening method) and locations of accessible windows
- Locations and specifications for atriums and other large undivided spaces
- Unique site/building areas (e.g. confined spaces, crawl spaces, raised floors, tunnels)

Pre-planners should consult with on-site personnel, such as engineers and building managers, to ensure a complete understanding of the site’s construction and structural elements. Pre-planners should also consider working with their jurisdiction’s building department, who may be able to provide other relevant structural details.

The information collected should be organized into a map or diagram formatted to best depict the inter-relationship of the information. When supplementing a pre-plan with maps and diagrams, planners should include symbols, labels, legends, references, and annotations. The NFPA (<http://www.nfpa.org/catalog/product.asp?pid=162098>) recommends that jurisdictions utilize standardized symbols (<http://www.nfpa.org/catalog/product.asp?pid=17099>) to eliminate inconsistencies across pre-plans.

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