



## Building Survey Guidelines

### What are they?

These are guidelines for the field survey of buildings. They explain what survey methods should be used and what building features should be collected for each type of building survey.

### Why is it important?

If we don't collect enough survey data or the correct survey data for a building survey, we make an unnecessary return trip to the project site. If we collect too much survey data for the type of building survey, we waste unnecessary time in the field.

#### Roles and Responsibilities

The *Project Surveyor* is responsible to communicate to the Survey Field Crew Party Chief which type of building survey (if any) applies to the field surveys on their project.

The *Survey Field Crew Party Chief* is responsible for following these guidelines in the field when instructed to by the field coordinator or project surveyor.

The *Assistant Surveyor* is responsible for assisting the project surveyor with processing the raw data from the field survey.

### Peer Review

The *Field Survey Coordinator* or *Project Surveyor* is responsible to review raw data files and ensure these guidelines are being followed by the survey field crews.

#### Field Notes

This workflow should produce the following field note forms:

- Topo By Total Station

### Building Survey Types

There are four (4) main types of building surveys. Each type requires a different level of data collection, or the collection of key building features.



### **Type 1 Building Survey**

In a Type 1 Building Survey, the building itself is not the primary subject of the field survey. A Type 1 Building Survey is only used to show the approximate building envelope. The following features should be collected during a Type 1 Building Survey:

- 1) All major corners of the building roof line/rood drip line.

If the field crew can't consistently shoot the building corners in the same building feature location, they will note this in their field notes.

### **Type 2 A Building Survey**

In a Type 2A Building Survey, the building itself is not the primary subject of the field survey. A Type 2 Building Survey is used to show the approximate building envelope and the interface between the building and the surrounding traveled ways (sidewalks and driveways). The following features should be collected during a Type 2A Building Survey:

- 1) All major corners of the building roof line/rood drip line.
- 2) The location of all doors and entrances.
- 3) Finished floor elevations at all doors and entrances.

### **Type 2B Building Survey**

In a Type 2B Building Survey, the building itself is one of the primary subjects of the field survey. A Type 2B Building Survey is used to prepare a FEMA Elevation Certificate, LOMA, or LOMR. The following features should be collected during a Type 2B Building Survey:

- 1) All (major and minor) corners of the building roof line/rood drip line.
- 2) The location of all doors and entrances.
- 3) Finished floor elevations at all doors and entrances.
- 4) The location and dimensions of all foundation vents and crawlspaces.
- 5) Any openings to basements or crawlspaces.
- 6) The location, dimension and elevation of all planters, stairs, sidewalks, decks, patios, machinery, and utility features attached to or adjacent to the building.



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*Note: Horizontal locations may not be needed on all features collected for a Type 2B Building Survey. Check with the Project Surveyor or Field Coordinator to see if horizontal locations are needed.*

### **Type 3A Building Survey**

In a Type 3 Building Survey, the building itself is one of the primary subjects of the field survey. A Type 3 Building Survey is used to show the exact building envelope and the interface between the building and the surrounding traveled ways (sidewalks and driveways). The following features should be collected during a Type 3 Building Survey:

- 1) All (major and minor) corners of the building roof line/rood drip line.
- 2) All (major and minor) corners of inset walls and other building faces.
- 3) The location and dimensions of all doors and entrances.
- 4) Finished floor elevations at all doors and entrances.
- 5) The location and dimensions of all windows.
- 6) he location of all exterior fixtures, including lights, signs, awnings, and window shades.
- 7) The location, dimension and elevation of all planters, stairs, sidewalks, decks, patios, machinery, and utility features attached to or adjacent to the building.

### **Type 4 Building Survey**

In a Type 4 Building Survey, the building itself is one of the primary subjects of the field survey, and it includes one or more features on the inside of the building. A Type 4 Building Survey is used to show the exact building envelope, the interface between the building and all adjacent site features, and selected features from inside the building. The following features should be collected during a Type 4 Building Survey:

- 1) All (major and minor) corners of the building roof line/rood drip line.
- 2) All (major and minor) corners of inset walls and other building faces.
- 3) The location and dimensions of all doors and entrances.
- 4) Finished floor elevations at all doors and entrances.
- 5) The location and dimensions of all windows.



- 6) The location of all exterior fixtures, including lights, signs, awnings, and window shades.
- 7) The location, dimension and elevation of all planters, stairs, sidewalks, decks, patios, machinery, and utility features attached to or adjacent to the building.
- 8) Major walls, changes in floor elevation, interior doors and other building features as instructed by the Project Surveyor or Field Coordinator.

## Photos

Photos should be taken for EVERY type of building survey. For a Type 1 Building Survey and Type 2 Building Survey only a few photos are needed, but at least 1 photo for each building face should be included.

For a Type 3 Building Survey and Type 4 Building Survey MULTIPLE photos should be taken of each building face. When practical, EVERY building feature that is surveyed should be shown in at least 1 photo.

For a Type 3 Building Survey and Type 4 Building Survey it is helpful if building photos are taken BEFORE the field survey. These photos can then be printed and marked by the field crew with survey point numbers in the field.

## Surface Modeling

Buildings are typically excluded from the site model prepared during a topographic survey. Therefore, it is very important that the survey field crew take a series of shots along the perimeter of the building that can be used to define the boundary of the surface model. These next to shots WITH ELEVATIONS AT GROUND. They can't be shots with elevations calculated above the ground on the structure. It is best if this perimeter is created from ground shots immediately next to the structure. However, if this isn't practical, the field crew should select the next identifiable ground feature outside the building envelope (like face of sidewalk) or collect a set of ground (dirt) shots at a roughly consistent distance from the building envelope.