

# Boundary and Topographical Survey Guidelines

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## Owner Responsibilities

Owner will make available to surveyor:

- a. A current title report or local equivalent for the property.
- b. Access to property to be surveyed, adjoining properties, and off-site easements or person to contact in order to obtain such access.
- c. The following information prior to commencement of the survey:
  - Property/Project number
  - Property address
  - Project type
  - Project name
  - Stake name

## Surveyor Responsibilities

The surveyor will:

- a. Be licensed by the state or other licensing authority in which the property is located.
- b. Exercise reasonable precautions to prevent property damage.

## Surveyor Services

The surveyor agrees to provide all labor, materials, equipment, tools, transportation, communications, printing, copies, and work necessary to perform the following services:

- a. Provide a boundary and topographical survey for the property based on the current Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys or local equivalent and plot the required details and information on the plat.
- b. Place monuments (or a reference monument or witness to the corner) at all major corners of the boundary of the property, unless already marked or referenced by existing monuments or witnesses.
- c. Provide address(es) if disclosed in record documents, or observed while conducting the survey.
- d. Indicate flood zone classification (with proper annotation based on federal flood insurance rate maps or the state or local equivalent) depicted by scaled map location and graphic plotting only.
- e. Determine gross land area (and other areas if specified by the Owner).
- f. Provide vertical relief with the source of information (e.g. ground survey or aerial map), contour interval, datum, and originating benchmark identified.
- g. Provide exterior dimensions of all buildings at ground level.
- h. Provide square footage of exterior footprint of all buildings at ground level.
- i. Provide measured height of all buildings above grade at a location specified by the Owner. If no location is specified, the point of measurement shall be identified.
- j. Indicate substantial features observed in the process of conducting the survey (in addition to the improvements and features required under Section 5 of the Minimum Standard Detail Requirements or local equivalent) such as parking lots, billboards, signs, swimming pools, landscaped areas, etc.
- k. Indicate striping, number and type (e.g. handicapped, motorcycle, regular, etc.) of parking spaces in parking areas, lots and structures.
- l. Determine the relationship and location of certain division or party walls designated by the Owner with respect to adjoining properties (Owner to obtain necessary permissions).
- m. Determine whether certain walls designated by the Owner are plumb (Owner to obtain necessary permissions).
- n. Locate utilities existing on or serving the surveyed property as determined by observed evidence together with evidence from plans obtained from utility companies or provided by Owner, and markings by utility companies and other appropriate sources (with reference as to the source of information) as follows: railroad tracks, spurs and sidings; manholes, catch basins, valve vaults and other surface indications of subterranean uses; wires and cables (including their function, if readily identifiable) crossing the surveyed property and all poles on or within 10 feet (3 m) of the surveyed property; without expressing a legal opinion as to the ownership or nature of the potential encroachment, the dimensions of all encroaching utility pole cross members or overhangs; and utility company installations on the surveyed property.
- o. Indicate names of adjoining owners of platted lands according to current public records.
- p. Indicate distance to the nearest intersecting street(s) as specified by the Owner.
- q. Indicate observed evidence of current earth moving work, building construction or building additions.
- r. Indicate proposed changes in street right of way lines, if information is available from the controlling jurisdiction.
- s. Indicate observed evidence of recent street or sidewalk construction or repairs.
- t. Indicate observed evidence of site use as a solid waste dump, sump or sanitary landfill.

- u. Indicate location of wetland areas as delineated by appropriate authorities.
- v. Locate improvements within any offsite easements or servitudes benefitting the surveyed property that are disclosed in the record documents provided to the surveyor and that are observed in the process of conducting the survey (Owner to obtain necessary permissions).
- w. Place monuments (or a reference monument or witness to the corner) at all major corners of any offsite easements or servitudes benefitting the surveyed property and disclosed in record documents provided to the surveyor (Owner to obtain necessary permissions).
- x. Tie the survey to a minimum of two physical monuments for the property that have been occupied.
- y. If the monuments that are occupied are not the basis of bearing, show the bearing and distance between the monuments with a tie to the property or basis of bearing.
- z. Locate the measured monuments within an established, corrected network. Establish the network from a Virtual Reference System, NGS Data points, OPUS correction, other corrected system or local equivalent.
- aa. List on the plat the corrected survey coordinate system used for the survey (i.e. State plane coordinates, county coordinates, UTM or local equivalent). The submitted AutoCAD file's coordinate system should match the corrected survey coordinate.
- bb. Publish the coordinates for the occupied monuments using the selected corrected survey coordinate system on the plat for internal GIS purposes.
- cc. Plot the contours to:
  - 1) Provide for the property, including 10' (3 m) beyond all property lines, and to the far side of adjacent street(s).
  - 2) Show any rapid change in grade on adjacent properties.
  - 3) Show 1' – 0" (30 cm) intervals for slopes under 10%.
  - 4) Show 2' – 0" (60 cm) intervals for slopes over 10%.
  - 5) Provide spot elevations of existing structures, curbs, crown of road(s), etc.
- dd. Plot other substantial features observed in the process of conducting the survey such as above and below ground storage tanks, wells, ditches, canals, springs, seeps, swamps, other structures or foundations, etc.
- ee. Plot the following items that are on or adjacent to the property:
  - 1) Water lines: size and approximate depth
  - 2) Natural gas lines: size and approximate depth
  - 3) Sewer lines: size and invert elevation
  - 4) Storm drainage lines: size and invert elevation
  - 5) Fire hydrants: location
- ff. Plot the driveway(s) and street(s) adjacent to the property or on the opposite side of the street(s).
- gg. Plot the location of trees 4" (10 cm) diameter or larger on or adjacent to the property showing description and size, rock outcroppings, and boulders.
- hh. Provide the plat drawing drawn to a scale of 1" = 20' maximum.
- ii. Provide the title block of the plat drawing to include:
  - 1) Property/Project number
  - 2) Property address
  - 3) Project type
  - 4) Project name
  - 5) Stake name
- jj. Submit the plat drawing to the Owner as:
  - 1) Five (5) - 24" x 36" (60 cm x 90 cm) paper copies
  - 2) One pdf electronic copy
  - 3) One AutoCAD or AutoCad Architecture software (release 2013 or later version) electronic copy. The submitted AutoCAD coordinates should match the coordinate system listed in 4.aa.