

**THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
SURFACE LOCATION & TOPOGRAPHIC SURVEY STANDARDS**

Created on July 7, 2005

(Updated March 2017)

1. The plat or map of such survey shall bear the name, address, telephone number, and signature of the professional land surveyor who made the survey, his or her official seal and registration number, the date the survey was completed and the dates of all revisions.
2. The survey shall be drawn to a convenient scale, with that scale clearly indicated. A graphic scale, shown in feet, shall be included. A north arrow shall be shown. Symbols or abbreviations used shall be identified on the face of the plat or map by use of a legend or other means. If necessary for clarity, supplementary or exaggerated diagrams shall be presented accurately on the plat or map. The plat or map shall be a minimum size of 11 by 17 inches. The Surveyor will provide UNC-Chapel Hill with a sealed mylar copy and digital file of the location surveys in AutoCAD 2000 or later format and a DXF file. The surveys will also require an ESRI Shapefile (shp,shx,dbf,xml) file to include the current Metadata Minimum Standards developed by the UNC-Chapel Hill Engineering Information Services, GIS Team. Prior to awarding of contract, contact Katherine O'Brien at (919) 843-1872 or kobrien@fac.unc.edu for the current Metadata requirements.
3. All locations performed will be tied to the University of North Carolina Campus Control Network, North Carolina State Plane Coordinate System NAD83 (2011), horizontal and NAVD88, vertical. For a map of Campus Control Points contact UNC's Campus Surveyor at 919-962-3039 or see <https://maps.unc.edu/pdf/>. A minimum of two (2) survey control points of semi-permanent material such as rebar or iron pipe oriented to this system shall be established at the project location. The bearing and distance from at least one of the project control points to the UNC-CH Control Monuments used shall be labeled.
4. Measured and record distances from corners of parcels surveyed to the nearest right-of-way lines of streets, together with recovered lot corners and evidence of lot corners, shall be noted. The distances to the nearest intersecting street shall be indicated and verified. Names and widths of streets and highways abutting the property surveyed and widths of rights of way shall be given.
5. The identifying titles of all recorded plats, filed maps, right of ways maps, or similar documents that the survey represents, wholly or in part, shall be shown with their appropriate recording data, map numbers, and the lot, block, and section numbers or letters of the surveyed premises. For non-platted adjoining land, names and recording data identifying adjoining owners as they appear of record shall be shown. For platted adjoining land, the recording data of the subdivision plat shall be shown. The survey shall indicate platted setback or building restriction lines which have been recorded in subdivision plats or which appear in a Record Document

6. All evidence of monuments shall be shown and noted to indicate which were found and which were placed.
7. The location of all buildings upon the lot or parcel shall be shown and their locations defined by measurements perpendicular to the boundaries. If there are no buildings erected on the property being surveyed, the plat or map shall bear the statement, "No buildings." Proper street numbers shall be shown where available. Show the exterior dimensions of all buildings at ground level and square footage of the exterior footprint of all buildings at ground level.
8. Easements of record shall be shown, both those burdening and those benefiting the property surveyed, indicating recording information. If such an easement cannot be located, a note to this effect shall be included. Observable evidence of easements and/or servitudes of all kinds, such as those created by roads; rights-of-way; water courses; drains; telephone, telegraph, or electric lines; water, sewer, oil or gas pipelines on or across the surveyed property and on adjoining properties if they appear to affect the surveyed property, shall be located and noted. If the surveyor has knowledge of any such easements and/or servitudes, not observable at the time the present survey is made; such lack of observable evidence shall be noted. Surface indications, if any, of underground easements and/or servitudes shall also be shown
9. The character and location of all walls, buildings, fences, and other visible improvements within five feet of each side of the boundary lines shall be noted.
10. Driveways and alleys on or crossing the property must be shown. Where there is evidence of use by other than the occupants of the property, the surveyor must so indicate on the plat or map. Where driveways or alleys on adjoining properties encroach, in whole or in part, on the property being surveyed, the surveyor must so indicate on the plat or map with appropriate measurements.
11. As accurately as the evidence permits, the location of cemeteries and burial grounds disclosed in the process of researching title to the premises or observed in the process of performing the field work for the survey, shall be shown.
12. Ponds, lakes, springs, or rivers bordering on or running through the premises being surveyed shall be shown.
13. Vicinity map showing the property surveyed in reference to nearby highway(s) or major street intersection(s).

14. Flood zone designation with proper annotation based on Federal Flood Insurance Rate Maps or the state or local equivalent, by scaled map location and graphic plotting only.

15. Parking areas and, if striped, the striping and the type (e.g. handicapped, motorcycle, regular, etc.) and number of parking spaces. Indication of access to a public way such as curb cuts and driveways.

16. Location of utilities existing on or serving the surveyed property as determined by: Observed evidence, observed evidence together with plans and markings provided by client, utility companies, and other appropriate sources (with reference as to the source of information), railroad tracks and sidings, manholes, catch basins, valve vaults or other surface indications of subterranean uses, wires and cables (including their function) crossing the surveyed premises, all poles on or within ten feet of the surveyed premises, and the dimensions of overhangs affecting the surveyed premises.

17. Locate/note observable evidence of the site being use as a solid waste dump, sump or sanitary landfill.

18. Elevations for manholes rims, inlets, inverts, curb & gutter and pavement elevations will be to a hundredth of a foot (0.01'). Spot elevation will be at 25' intervals on curb/gutter and pavement.

19. Elevations for ground shots, water lines, steam lines, and duct banks will be to a tenth of a foot (0.10'). Spot elevation will be at 50' intervals for ground shots.

20. For contours, the error shall not exceed one-half contour interval.

Safety Issues

Safety is UNC's number one priority on the job site. On sites with current construction activity, Surveyors must sign in with the Construction Superintendent. The Surveyors are required to wear safety glasses, hard hats and orange vests at all times on a construction job site. The Construction Superintendent will direct all locations being performed in or near open trenches and structures.