

SURVEY REQUIREMENTS

Land (Boundary) Survey Requirements:

1. Boundary lines of all parcels comprising site giving length and bearing on each straight line: interior angles: radius, point of tangency, and length of curved lines, set iron pin (monument) at property corners where none exist: drive pin 18" into ground, mark with wood stake: state on drawings whether corners were found or set and describe each.
2. Legal description, including measurements.
3. Identify jurisdiction and width of adjoining street and highways, width and how paved, identify landmarks.
4. Plotted location of structures on the property and on adjacent property within survey limits. Dimension perimeters in feet and decimal to the nearest .05 foot (as measured at grade level. State character and number of stories.
5. Fences and walls: describe, identify party walls and locate with respect to property lines.
6. Recorded or otherwise known easements and rights-of-way: state owner of right.
7. Possibilities of prescriptive rights-of-way and nature of each.

Topographical Survey Requirements: All lines of levels shall be checked by separate check level lines or on previous turning points or benchmarks.

8. Minimum of one permanent benchmark on site for each four acres: description and elevation to nearest .01'.
9. Contours at 1 foot intervals: error shall not exceed one-half contour intervals.
10. Spot elevations at each intersection of a 25 foot square grid covering the property.
11. Spot elevations at street intersections and at 25 feet on center on curb, sidewalks, and edge of paving including far side of paving. If elevations vary from established grades, state established grades also.
12. Plotted location of structure, man-made and natural features; floor elevations and elevations at each entrance of buildings on property. Parking areas and, if striped, the striping and the type (e.g. handicapped, motorcycle, regular, etc.) and improvements above and below ground.
13. Location, size, depth and pressure of water and gas mains, central steam, and other utilities serving or on the property.
14. Location of fire hydrants available to property and size of main serving each.
15. Location of electric and telephone services and characteristics of service available.

16. Location, size, depth and direction of flow of sanitary sewers, combination sewers, storm drains and culverts serving or on property; location of catch basins and manholes and inverts of pipe at each.
17. Name of operating authority of each utility. The surveyor shall also contact each utility owner to request record documents.
18. Location of test borings and the elevation of the tops of holes.
19. Trees of 4" and over (caliper 3' above ground) locate within 1' tolerance and give species.
20. Floor elevations of buildings within survey limits.
21. Because of the timing of the survey the Surveyor shall be required to return to the site after the snow has melted to obtain missing topographic information and update the drawing. The Surveyor shall also be required to return to the site to locate soil borings with ground elevation and update the drawing (s). These costs shall be included in the base price.

Drawing requirements:

22. Sheet size 24" x 36"
23. Drawing Scale 1" = 40'
24. Include legend of symbols and abbreviations used on the drawing
25. Locate north at top of sheet
26. Show North arrow and graphic scale
27. Horizontal and Vertical Control datum shall be as provided by Central Michigan University
28. Spot elevations on hard surfaces to nearest 0.05' or 1/2"
29. Elevations to nearest 0.10' or 1"
30. Buildings shall be labeled with exterior dimensions (as measured at ground level. Include gross square foot area of first floor.
31. Substantial, visible improvements (addition to buildings) such as billboards, signs, swimming pools, etc.
32. Furnish one reproducible transparency and three prints of each drawing. The Surveyor shall sign and seal each drawing and shall state that to the best of the Surveyor's knowledge, information and belief, all information thereon is true and accurately shown.