

SURVEY TECHNICAL SPECIFICATIONS

1/30/2005

1. The survey shall include north arrow reference to true north, date of survey, and surveyor's certification, professional seal and signature. Standards for survey shall meet or exceed the minimum acceptable level of performance by all surveyors in Maryland as adopted by the Maryland Society of Surveyors, as well as recognized professional standards of practice for land surveying.
2. The survey shall be based on the Maryland State Plane coordinate grid system and datum with a two-foot topographic contour interval, unless otherwise indicated in the scope of work. Area to be surveyed shall be a minimum of 50 feet beyond the property line in all directions and shall be produced at a scale of 1"=30', unless otherwise indicated in the scope of work.
3. A minimum of three recoverable traverse points with all coordinate data and any bench marks (MD State) in the vicinity of the project to allow further tie-in for construction stakeout. A minimum of three grid ticks shall be shown on the plans.
4. All Park property lines and corners, within the vicinity of the project area shall be shown on the plans. This Boundary Survey shall show all controls and property ties on the plat of the property indicating property corners located and/or set in the field.
5. All the physical features within the project area.
6. All the above ground utilities within the projects (i.e. over head lines, poles, transmission stations, signals).
7. All the underground utilities located within the project (i.e. gas, electric, water, sewer, fiber optic, telephone, cable).
8. All the storm drainage in the vicinity of the projects, including structures types, pipe sizes, inverts, flow directions, materials, etc.
9. Top and invert elevations of all utility structures, spot elevations at all high points, grade breaks, and low points, and spot elevations at all features that could have a significant impact on park development.
10. All the landscaping beds, vegetated areas, woodland edges, and any trees with a diameter of 6" and larger labeled with D.B.H. and species, unless otherwise indicated in the scope of work.

11. Any Building Restriction Lines, lot lines, easements, public right-of-ways, waterways and any delineated wetlands and their buffers, etc.
12. Adjacent property information including the owner's names, Liber/Folio, parcel and/or lot and block) shall be shown on the plans.
13. A vicinity map showing the general location of the project shall be shown on the plans.
14. In the case of multiple curve data, a chart shall be shown that clearly describes the curves.

SURVEY DELIVERABLES

I- Facility Planning Stage- The following survey information needs to be provided:

- a. An electronic file in AutoCAD (Release 2002 or as specified) format with the accompanying base information (point number, northing, easting, elevation and description in a generally accepted format)
- b. One hard copy list that defines information found on each CAD layer
- c. One set of Mylars containing the survey data has to be delivered to the **Survey Unit**. The survey unit will review the survey data and notify the project managers for any corrections or missed information.

II- Detailed design stage- In addition to the survey deliverables for facility planning design stage, the following survey information should be included in the final project documents ready for construction:

- d. All the Limits of disturbances (LOD) clearly identified with proper information (offset and distance or coordinates) for the contractor to stake the LOD in the field.
- e. All the survey information, distance and offset from the traverse or base line of survey, or X, Y, and Z coordinates tied to traverse points for the proposed features in the construction plans. The plans shall include adequate information for the contractor to be able to construct all features within design tolerances with accompanying AutoCAD files without scaling of any distances from the construction plans.
- f. Provide copies of all records drawings received from various appropriate utility companies or confirmation that utility does not exist within project area.