

and Imagery for Establishing Historic Site-Use and Surficial Conditions (ASTM D5518-94e1). The guide can assist in the identification of sources of existing aerial photography as well as provide information regarding the specifications of such photography. The sources referenced by the standard guide are limited to public sources.

Public sources of photography are helpful, but many private sources exist as well. Private firms may be willing to work with the designer to enlarge and prepare special prints of existing photographs. Enlarging the photography may provide a valuable planning and analysis tool; however, photography firms may be reluctant to enlarge photography to the scales useful for site planners because of the inherent distortion and inaccuracy that can be anticipated in the resulting print. The most accurate part of a photograph is taken at the center of the lens. The curvature of the lens results in minor distortions toward the edges and corners of the picture. The distortions are minor at the original scale, but they increase as the photograph is enlarged beyond the intended scale. Such enlargements are of limited use, but they may be adequate for preliminary planning purposes and are particularly useful when making presentations to people who cannot read plans.

Enlarged aerial photographs sometimes reveal site features not clearly visible at ground level such as drainage patterns, sinkholes, and the remains of historic structures. The use of old aerial photography may reveal features that have been obscured by later site activities or development. The use of an aerial photograph is also helpful in presenting the site analysis data to clients and others who may not be comfortable reading plans. Examples of aerial photographs used to determine site conditions in the past are shown in Figs. 2.1 through 2.3.

USDA soil surveys

The soil surveys published by the U.S. Department of Agriculture (USDA) are a compendium of valuable information. The site survey contains information about topography, aspect, incidental physiographic information, and water-related issues as well as general information about climate and local history. Soils are classified by series, and these types are further refined into detailed soil map units. The soil descriptions include information on slope, depth to bedrock, soil texture, erodability, and rock and drainage characteristics. Experience has found soil maps to be generally accurate, but occasionally field observations indicate soil conditions at odds with the survey. In such cases local NRCS offices are usually helpful in resolving the discrepancy.

Although soil borings and test pits may be used eventually, the site analysis may use existing sources of information such as the local soil survey or previous soil analyses. In addition to describing the character of the soil, the soil survey includes information about different management techniques, engineering characteristics, and uses for the land. Among the most important parts of the soil survey for site designers are charts describing the engineering and development capabilities of the land (see, for example, Fig. 2.4). Each local soil survey includes a description of how the survey was made and notes on how to read the survey.