the site to develop these networks, and the extent of required cuts and fills all must be considered. Existing design requirements in ordinances may require revision to make the hillside project work. What works on a flat site may not work on a hillside without extensive earthwork and disturbances. Sight distance for egress to public roads should also be considered.

Other elements of the site analysis should include the identification of canyons, wetlands, rock outcroppings, existing structures, unique habitats, or natural features, as well as neighboring land uses and utility locations. The location of rights-of-way, easements, and other encroachments is also important. Based on the site analysis, it may be found that further research or study is required to determine the stability of slopes, hydrologic conditions, or the extent of wetlands. The site analysis is the foundation of the plan. It will provide the framework from which the planning and design are developed. Flat and low areas may present their own concerns. Boggy or wet areas may be wetlands and restrict development. Sites that are low or flat may be difficult to drain and present design challenges of their own.

The aspect of the site may also be an important factor. Orientation toward the sun may influence how well selected vegetation will perform and will impact the performance of buildings as well. A northern-oriented slope will be cooler than a southern-facing slope, and a southwestern exposure may be quite hot in the summer. The implications of aspect can be translated into energy consumption and other factors of the development. Building orientation may become a more important factor in the future if anticipated global climate changes and energy efficiency concerns become paramount.

The USGS, however, is a source of significantly more than topographic maps. The USGS is able to provide aerial photographs, digital orthophoto quadrangles, and other high-quality sources of site data. Through the Center for Integration of Natural Disaster Information (CINDI), the USGS is able to provide a great deal of information about regional and local site hazards such as earthquakes, landslide risks, groundwater conditions, and flood risk. The USGS also is a source of information about site geology. A series of geologic maps and information of geologic hazards (sinkholes, slides, earthquakes, faults, etc.) based on the topographic quadrangle maps is also available. These maps include known paleontological information as well. The USGS completed a survey of the biological status of the United States in 2000. This survey includes information on endangered as well as exotic invasive species.

USDA plant hardiness zones

The U.S. Department of Agriculture (USDA) updated the plant hardiness zone map, so familiar to growers and planners, in 1990 and reformatted the map in 1998. The new version incorporates new temperature information by using coldest weather data from the years 1970 to 1986. The new map introduces a new zone, Zone 11, which is essentially a frost-free zone. This discussion of the plant hardiness zone map is included in this section on zone analysis to encourage landscape architects and site planners to consider potential impacts of global climate change in their consideration of a site. The new interactive map is

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