

In the case of a location paralleling a railroad, secure all information required above for a location paralleling an existing road. Right of entry must be secured to survey on railroad property.

At all ponds or lakes that will affect or may be affected by the proposed construction, the following is to be secured:

1. Outline (perimeter) of lake
2. Elevation of normal and high water
3. Detailed description at normal spillway works including dimensions and elevations
4. Detailed description of emergency spillway works including dimensions and elevations
5. Description of adjustable gates or other control devices
6. Profile along top of the dam and a typical cross-section of the dam
7. Determine the use of the pond, (stock water, fish, recreation, etc.)
8. Note the existing conditions of the pond as to turbidity and silt

Sec. 7.03 **Topographic Features**

The survey should provide sufficient information for the location engineer and the designer to select the location of the structure and make the necessary hydraulic and impact studies for all significant physical and cultural features that would be adversely affected by the construction. Features such as residences, commercial or industrial facilities, crop lands, roadways, railroads, utilities, wells and other facilities can influence design and their locations and elevations should be established by the survey.

Backwater may extend a considerable distance upstream in streams with relatively flat slopes. Structures, features, and buildings that may be affected by backwater should be located and elevations collected on the finished floors of buildings.

The following survey data must be secured:

1. The location and elevation of pertinent points of all buildings and other valuable structures situated on the upstream side of a proposed or existing highway that would be flooded in the event high waters were to inundate the proposed or existing highway.
2. A description of all buildings, structures, land and activities in the area that would be flooded in the event the proposed or existing drainage structure caused the low point in the highway grade to become inundated.
3. Make note of any buildings or other property previously flooded or closely located to previously known flood stages.