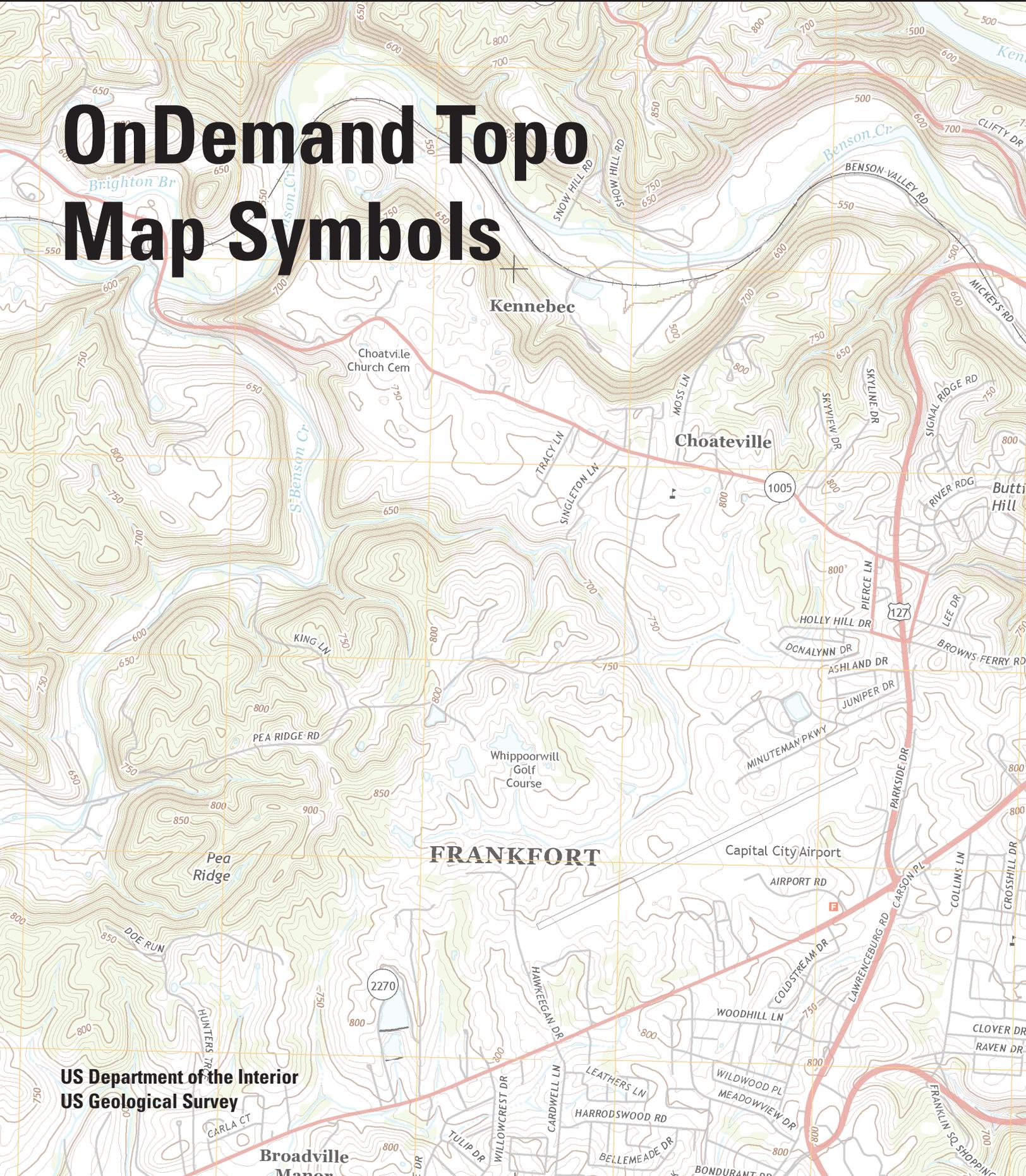


# OnDemand Topo Map Symbols



## What is an OnDemand Topo map?

An OnDemand Topo map is a digital topographic map that covers 7.5-minutes of longitude by 7.5-minutes of latitude and is produced at a scale of 1:24,000. OnDemand Topo maps are freely available using the topoBuilder web application <http://topobuilder.nationalmap.gov> in Portable Document Format (PDF) with geospatial extensions as well as TIFF file format. PDF maps can be viewed and printed with any conforming PDF software. Versions 9.x and later of Adobe® Reader® and Acrobat® software provide access to the geospatial functionality of the OnDemand Topo map. Adobe Reader is available for free at <http://get.adobe.com/reader>. (More information about OnDemand Topo maps and their use is available at <https://nationalmap.gov>)

The base data layer of an OnDemand Topo map is a recent orthographic aerial photograph. These orthoimages have been corrected to remove scale distortions that result from the varying terrain and deviations of the aircraft's position from the true vertical. The maps include contours that show the shape of the Earth's surface, hydrographic features such as lakes and rivers, roads, boundaries, and geographic names. Additional data from the geographic data themes of transportation, names, elevation, hydrography, boundaries, structures (such as fire stations) and land cover (such as woodland tint) are added to the maps resulting in a product that will become progressively more robust over time. Feature data is incorporated from national Geographic Information System (GIS) databases under the stewardship of USGS data programs. The OnDemand Topo map is intended for conventional map users, not for advanced GIS analysis. However, most of the data sources used are in the public domain and may be downloaded for free from The National Map (TNM) (<https://nationalmap.gov>).

## OnDemand Topo Map Symbols

The underlying orthoimage for each OnDemand Topo map shows those features on the Earth's surface that are visible to the eye. Because each map is made at a scale of 1:24,000 (one inch on the map represents 24,000 inches or 2,000 feet on the ground), selected features are also shown and emphasized by symbols, geographic names, and highway route numbers.

Map features may be represented as points, lines, or polygons. They incorporate different colors and patterns to distinguish between feature types and to show each feature's importance. For example, a perennial stream is symbolized by a solid blue line while an intermittent stream is shown by a blue dashed and dotted line. A large reservoir is depicted by a polygon while a small reservoir may be shown by a point symbol if it is too small to show as a polygon.

Point symbols of different shapes and sizes depict features such as structures, dams, gates, rocks, waterfalls, and wells. Linear map symbols (lines) show such features as roads, rivers, boundaries, and contours. Color is used to show the class of information: topographic contours in brown, streams and rivers and other hydrographic features in blue, and roads in black and red. Areal features are outlined to depict the areal extent and may also be emphasized by a color tint. Names and labels are shown in different type fonts, sizes, and colors.

The unique feature of a topographic map is the contour. These lines do not exist on the Earth's surface. They join points of equal elevation above a zero level surface (such as Mean Sea Level) and therefore show heights of the land and reveal the shape of the land surface. Heavier brown lines are index contours and are labeled with the elevation they represent. Closely spaced contours indicate a steep land slope; widely spaced contours show more level ground. The elevation difference between adjacent contours is the contour interval. A map of a relatively flat area may have a contour interval of 10 feet. In steep areas an interval of 100 feet or more may be used to avoid coalescence or convergence of the contour lines. The contour interval is always noted below the bar scale in the map marginalia.

The cartographic representation of roads has been updated from a characterization based on organizational maintenance (Interstates, US routes, State routes, etc.) to a functional classification defined as follows:

- Expressway<sup>1</sup>: A controlled access, divided arterial highway for through traffic.
- Secondary Highway<sup>1</sup>: Hard surface highways including secondary State routes, primary county routes, and other highways that connect principal cities and towns, and link these places with the primary highway system.
- Local Connector<sup>1</sup>: Hard surface roads not included in a higher class and improved, loose surface roads passable in all kinds of weather. These roads are adjuncts to the primary and secondary highway system and represent major arteries through populated places.
- Local Road<sup>1</sup>: Roads used primarily for local traffic.
- Four Wheel Drive Road<sup>1</sup>: Unimproved roads passable only with four wheel drive vehicles.

---

<sup>1</sup> Federal Highway Administration Planning Glossary - <https://www.fhwa.dot.gov/planning/glossary/index.cfm>

## STRUCTURES

### Emergency Service Features

Fire Station	
Hospital	
Police	

### Public Service Features

Cemetery	
City/Town Hall	
College/University	
Court House	
Post Office	
Prison	
School (K-12)	
State Capitol	
Trade/Technical School	
US Supreme Court	

### Recreational Features

Cabin	
Campground	
Park Headquarters	
Picnic Area	
Ranger Station	
Shelter	
Trailhead	
Visitor Center	

### Oil & Gas Pipeline Features

Oil/Gas Pipeline*	
-------------------	---

## TRANSPORTATION

### Airport Features

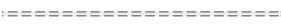
Airport Runway	
Heliprot	
Seaplane	

### Railroad Features

Railroad	
----------	---

### Road Features

Closed Road	
Expressway	

Ferry	
Four Wheel Drive	
Local Connector	
Local Road	
Ramp	
Secondary Highway	
Tunnel	

### Road Shields

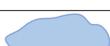
Interstate Route	
State Route	
US Route	
Forest Service Primary Route	
Forest Service Secondary Route	
Forest Service High Clearance Route	

### Trails

Snow	
Terra	
Water	

## HYDROGRAPHY

### Hydrographic Features

Area of Complex Channels	
Canal/Ditch	
Coastline	
Underground Conduit	
Dam	
Earthen Dam	
Nonearthen Dam	
Estuary	
Flume	
Foreshore	
Gaging Station	
Gate	
Ice Mass	
Inundation Area	

## HYDROGRAPHY – *continued*

Intermittent Lake	
Perennial Lake	
Levee	
Lock Chamber/Spillway	
Ocean	
Pipeline	
Underground Pipeline	
Playa	
Settling Pond	
Tailings Pond	
Rapids	
Reef	
Reservoir	
Nonearthen Reservoir	
Rock	
Nonearthen Shore	
Spring	
Intermittent Stream	
Perennial Stream	
Submerged Stream	
Tunnel	
Wash	
Waterfall	
Well	

### Wetland Features

Freshwater Emergent Wetland	
Freshwater Forested/Shrub Wetland	

## TERRAIN

### Shaded Relief

Shaded Relief	
---------------	--

## Contour Features

Index	
Intermediate	
Supplemental	
Depression Index	
Depression Intermediate	
Depression Supplemental	

## LAND COVER

Woodland	
----------	--

## IMAGES

Orthoimage	
------------	--

## BOUNDARIES

### Designated Areas

National Wild and Scenic Rivers	
---------------------------------	--

### Federal Administered Lands

American Indian, Alaska Native, and Native Hawaiian Area	
Bureau of Land Management* National Park Service U.S. Fish and Wildlife Service U.S. Forest Service	
Department of Defense National Cemetery	
National Monument	
Wilderness Area	

### Jurisdictional Boundaries

County or Equivalent	
State or Territory	
International	

\*Currently on Alaska maps only

## PLSS

Land Grants	
Section	
Section (protracted)	
Township/Range	
Township/Range (protracted)	