**Fiber Optic Cable Mapping Requirements**

To streamline the proposal process and ensure that the Forest Service receives all relevant information, the following geospatial and mapping data is required to be submitted along with the SF-299.

* The Forest Service (FS) requires clear, understandable maps, data and supporting documentation. When submitting a proposal for new fiber optic lines on National Forest System (NFS) lands, three documents are required:
  + Map of proposed improvements in PDF format
    - Map must clearly show the following:
      * FS land ownership
      * FS roads
      * Public Land Survey System (PLSS) description, if applicable
        + Show Township/Range/Section grid on maps
      * Proposed line name and ID number, if applicable
        + Should correspond with attached spreadsheet (see below).
    - [Map Example Request](https://www.fs.usda.gov/sites/default/files/Map_example_fiber.pdf) (pdf, 281 KB)
    - Vicinity Map, Aerial Map, and Topographical Map are recommended.
  + GIS data
    - The only acceptable formats for GIS data are:
      * An ESRI File Geodatabase
      * ESRI Shapefiles
      * A published feature layer in AGOL
      * *Submitted KMZ files (Google Earth) or other forms of mapping data will not be accepted.*
    - Attribute table of Fiber Optic GIS data should include:
      * Fiber Optic Line Name (if applicable)
      * Fiber Optic Line ID number (if applicable))
      * Location of line: Co-locating on existing overhead infrastructure or underground conduit, or new overhead infrastructure or buried
      * Length
      * Proposed width
      * Proposed depth
    - If new poles are proposed, include this GIS data, labelled accordingly.
    - If access is needed, include this area in the GIS data as a separate feature, labelled accordingly.
  + Spreadsheet
    - A spreadsheet should accompany and support your GIS data. The spreadsheet should show [Spreadsheet Fiber Optic Data Sheet](https://www.fs.usda.gov/sites/default/files/Spreadsheet_Fiber_Optic_Data_Sheet.xlsx) (15 KB):
      * National Forest Name
        + Each spreadsheet should be specific to an individual National Forest.
      * Ranger District Name
      * County Name
      * Proposed Fiber Optic Line Name (what does your company call it?)
      * Proposed Fiber Optic Line ID (Is there an ID number associated with the proposed line?)
      * Owner of improvement/Company Name
      * Is the proposed fiber optic line collocating on existing overhead infrastructure or in existing underground conduit, overhead on new infrastructure, or a new buried line?
        + If multiple, separate out into sub-sections
      * If co-locating on existing infrastructure, provide the name of the owner
      * Beginning terminus Lat/Long (decimal degrees)
      * Ending terminus Lat/Long (decimal degrees)
      * Estimated length of proposed fiber optic line (in miles)
      * Estimated length of proposed fiber optic line (in feet)
      * Proposed right-of-way width (in feet)
      * Depth of proposed fiber optic line if buried
      * Estimated area of impacts (in acres)
      * Legal land description of the entire route (PLSS or metes and bounds include meridian name).
* **How to Obtain Forest Service data**:
  + - FS Geodata Clearinghouse can be found [here](https://data.fs.usda.gov/geodata/edw/datasets.php?).
      * Recommended data sets to utilize are:
        + Surface Ownership Parcels
        + Public Land Survey System Townships
        + Public Land Survey System Sections
        + Public Land Survey System Quarter Sections
        + National Forest System Land Units (Identify Forest)
        + Ranger District Boundaries (Identify Ranger District)
        + National Forest System Roads (shows all roads)
        + Motor Vehicle Use Map: Roads (shows all roads open to the public)
      * For public road GIS data, please refer to the applicable public road entity (county or state).