

ATTACHMENT 1

DATA DICTIONARY FOR SUBMISSION OF GIS SHAPEFILES

The utilization of Geographic Information System (“GIS”) data will occur throughout the lifecycle of a project, beginning with an applicant’s initial grant submission and ending with delivery of as-built shapefiles depicting areas where construction has occurred. This exhibit outlines the type and format of GIS data required for submission to the South Carolina Office of Regulatory Staff (“ORS”). GIS-based data will be used to evaluate grant submissions, manage grants awards, and track Broadband investments over time. GIS data may also be integrated into Quality Assurance measures developed by ORS to aid in the verification of work completed.

GIS Template Shapefile Data has been created to match with the data schema outlined in the sections that follow. It is available for download here: “ARPA SLFRF 3.0 Eligibility Map and Data” folder on Citrix. Applicants are highly recommended to use the templates as their starting point for developing conceptual designs of proposed projects they plan to submit to the ORS. Incorrect, incomplete, or missing data may disqualify an applicant from funding.

All data submitted to the ORS must include Federal Geographic Data Committee (“FGDC”), compliant metadata describing the source, characteristics, and methods used for data creation, manipulation/editing, and associated attribution.

Broadband GIS Data Dictionary			
Layer Name	Layer Type	Definition	Values/Comments
Eligible 2020 Census Blocks for Proposed Project Area	Polygon	Eligible 2020 Census Block data depicting only those areas for which a proposed project may occur	This layer should be a subset of records reflecting the project area produced using the SCBBO Eligibility Map 2020 Census Block Data
Attribute Name	Data Type	Definition	Values/Comments
GEOID20	Text	2020 Eligible Census Block Field ID	GEOID Value from the US Census
CountyName	Text	County Name	South Carolina County Name
TotStruct	Integer	Total number of broadband serviceable locations (BSLs) from the July 2023 V2 FCC fabric.	SCBBO Derived
		Total number of Residential	

TotRStruct	Integer	and Mixed use (building_type_code = R or X) locations from the July 2023 V2 FCC fabric.	SCBBO Derived
TotBStruct	Integer	Total number of Business (building_type_code = B) locations from the July 2023 V2 FCC fabric.	SCBBO Derived
Eligible_Struct	Integer	Total number of eligible broadband serviceable locations (BSLs) from the July 2023 V2 FCC fabric.	SCBBO Derived
Eligible_RStruct	Integer	Total number of eligible Residential and Mixed use (building_type_code = R or X) from the July 2023 V2FCC fabric	SCBBO Derived
Eligible_BStruct	Integer	Total number of eligible Businesses (building_type_code = B) from the July 2023 V2 FCC fabric.	SCBBO Derived
K12	Text	Presence of K-12 Students sourced from State Department of Education. Value represents student counts by Census block.	0 Students = 0, 5 students or less are summarized with a value of YES, 6+ students show the raw student count per census block.
PA	Text	Priority Areas as defined by South Carolina American Rescue Plan Act (ARPA) legislation. Areas of Priority include 1) unserved areas with no current Internet Service Provider (“ISP”), 2) Difficult Development Areas as identified by U.S. Department of Housing and Urban Development (“HUD”), and 3) census blocks that have a high concentration of unserved public K12 student households as documented by the South Carolina Department of Education.	Yes, No

PA_DDA	Text	Difficult Development Areas as sourced by the Department of Housing and Urban Development (HUD). Values include Yes, No.	Yes, No
PA_K12	Text	Concentrations of 20+ K-12 students in Census block. Values include Yes, No.	Yes, No
PA_NoTech	Text	No wireline technology is present in the Census block. Values include Yes, No.	Yes, No
Mapping	Text	Field used to symbolize the eligibility map showing the following values at the 2020 Census block level.	Unserved, Partially Served, Priority Area
Layer Name	Layer Type	Definition	Comments
Proposed Line Work	Line	Proposed broadband lines an ISP will construct	Digitized fiber/cable lines should be separated by segments, by technology type, and deployment type, snapped to vertices of adjoining fiber lines. Upon award and completion of the project, ISP must submit as-built update depicting actual locations of fiber lines that align with quantities outlined in expense reports prior to final payment.
Attribute Name	Data Type	Definition	Values/Comments
FCCTech Alias = FCC Technology Code	Integer	The FCC Technology code proposed for construction	50, 40
Length	Integer	Length in feet of a given line segment	Length in feet calculated from read-only length field
DepMethod Alias = Deployment Method	Text	The method for which Broadband technology will be deployed at a given line segment	Aerial, Buried
Layer Name	Layer Type	Definition	Comments

Proposed Served Structures	Point	Projected Homes/Business/Other structures that will be passed upon completion of the project	Applicants must use all fields from the FCC BSL Fabric
All fields from July 2023 V2 FCC BSL Fabric			
Layer Name	Layer Type	Definition	Comments
Network Junction	Point	Point location where existing infrastructure will tie into the proposed project	An example of a Network Junction feature is a location where a fiber line will be spliced to extend services from an existing network
Attribute Name	Data Type	Definition	Values/Comments
Description	Text	Description of Connection Point Location	e.g., Optical Line Terminal (OLT) endpoint, splice point to extend services from existing network, etc.

Guidance on Required Backup to Support Broadband Deployment for Grant Awardees

Part of the administration and disbursement of funds to applicants includes verifying the scope requirements outlined in contractual agreements between ORS and an ISP have been met in accordance with provisions detailed in each agreement. Simply stated, ORS, their contractors, and/or agents must verify the ISP is honoring their contractual obligation to install Broadband Infrastructure in predetermined, mutually agreed upon Census Blocks. As part of these requirements, ISPs must submit geotagged photographs of the infrastructure they install, in addition to geotagged speed tests which are required to verify the network is capable of reaching speeds outlined in each grant award. Data is required as part of the quarterly reporting process throughout the duration of the project as progress toward construction completion is made.

Grant awardees must follow the steps below to complete and submit their backup as part of the Quarterly Report workflow:

1. Confirm location services is enabled on your smart device AND allowed using your device camera - **MANDATORY**
 - For directions to turn on location services on an Apple device visit: <https://support.apple.com/en-us/HT207092>
 - For directions to turn on location services on an Android device visit: <https://support.google.com/accounts/answer/3467281?hl=en>
2. At each construction site within the project area outlined in the ISP’s original work plan, take geotagged photographs of work being conducted and evidence that shows work has been completed. An equal distribution of geotagged photographs should be taken throughout the Project Area. Examples include pedestals, splicing, fiber, fiber cabinets (with doors open), aerial and underground fiber construction and installation (depending on type of construction), NID, etc. (avoid having people in the photographs).
3. Geotagged photographs of speed tests must be conducted that demonstrate the network can reach or exceed speed thresholds identified in these guidelines and an applicant’s overall work plan. If using a smart device to run the speed test, take a picture of the screen once the speed test is completed. This picture must be geotagged with location information where the speed test was run. An equal distribution of geotagged speed tests must be taken throughout the Project Area.
4. Take photos along the route between sites during active construction to show proof that fiber is in the ground or is aerial.
5. Submit the raw geotagged photos with quarterly reports. Do not physically attach or embed the photographs to the Quarterly Report, rather, upload the photographs separately as part of the submission process.

Post Construction Reporting:

1. In addition to quarterly reporting, a post construction list of addresses which now have access to service upon completion of the project must be provided to the SCBBO. Speed test results must also be recorded for those consumers that take service prior to project closeout. A post construction report template in CSV format will be provided to all grantees for their use.

Project Closeout:

1. As-built GIS data (Fiber Lines, and Network Junctions), must be by delivered by grantees at the completion of the project and should be within reasonable parameters. Methods used for ensuring accuracy may include, but not be limited to digitizing GIS data to match statewide aerial imagery published by the South Carolina Geographic Information Council, which is map accurate at a 1:2400 or 1”=200’.