



bendbroadbandTM

we're the local dog. we better be good.

GIS day to day at BendBroadband
Sosanna McHugh



Three GIS users in our Engineering Department

Jeff Liberty and Branden Chenoweth design
and document our fiber plant.

Sosanna McHugh maintains and updates
the pole and parcel databases.



Enhancing the lives of citizens by delivering quality services in a cost-effective manner.

PUBLIC SAFETY HEALTH & FAMILY PROPERTY & DEVELOPMENT

Geographic Information Services



We use GIS data from Crook, Deschutes and Jefferson Counties for our base map layer in GIS.



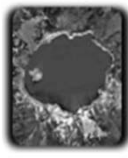
Oregon Ge

We occasionally use spatial data from the Oregon Geospatial Data Clearinghouse, USFS and BLM.

We also use satellite imagery from ESRI and Bing maps.



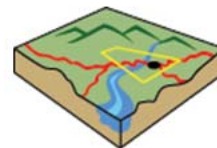
[Oregon Spatial Data Library](#)



[Digital Ortho Quads](#)



[DEM Files](#)



Official GIS Website of Crook County, Oregon

**GIS - CROOK COUNTY,
OREGON**



[Spatial Data Library Alphabet](#)



[GIS Services and Tools](#)



[GIS Links](#)

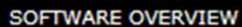
[HOME](#)

[COORDINATE
SYSTEM](#)

[GIS DATA](#)



We use a third party software OSPIInSight developed by AFO – Advance Fiber Optics, Inc. that works with ESRI’s ArcMap. We have been using OSPIInSight software since 2007.





Pole Tracking and Documentation

BendBroadband is attached to over 20,000 poles in Central Oregon.

Our first pole shapefile was created in 2005. Currently our poles are in a personal geodatabase, created in 2010. This year it will be modified and moved into a file geodatabase.

Initially poles were brought into the GIS from our CAD maps, now most are gathered with GPS units.



NJUNS pole permitting and pole work



BendBroadband has been a member of NJUNS since 2000 and we use the NJUNS on-line database for permitting pole attachments, reporting removal from poles and communicating with other infrastructure providers concerning pole work or modifications to pole attachments.

NJUNS is a not-for-profit consortium of utility companies created for the purpose of providing "efficient utility communication". NJUNS provides software as a service that allows its members to communicate and track field workflow regarding joint utility ventures: joint pole administration, joint trench coordination, oversize load move coordination and large project notification. NJUNS is utility funded, utility managed and utility driven!





Maps and spreadsheets required in the NJUNS process are generated from our pole geodatabase.

Home

Favorites

Close All

Close All Others

Queries

Reports

Ad Hoc Queries

Run

Pole Attachment

Pole Transfer Project

Pole Transfer

Notification History

Workflow Inbox

Home

Favorites

PA Ticket

PT+

New

Tickets of Interest

Joint Use

NJUNS/Foreign App. #
 Company
 Contact Person

CEC Joint Use Project Spreadsheet

NJUNS/Foreign App. #
 Company
 Contact Person

PA
 Bend Broadband
 Phone

Date
 Phone

Pole Number and Location Information				Proposed Attachment				New Cable Information				Existing Attachments					
#	Map String	CEC Pole No.	Trans. Pole VIN	Pole Address (Location)	Height (Ft. & In.)	Attachment Action	Attachment Point Method	Attachment Type	New Cable Name	Diam.	Insul.	Lowest Power Secondary	Power Neutral	Street Light Conductor	Cable TV	Telephone	Fiber
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	



Pole Inspection and Correction Work

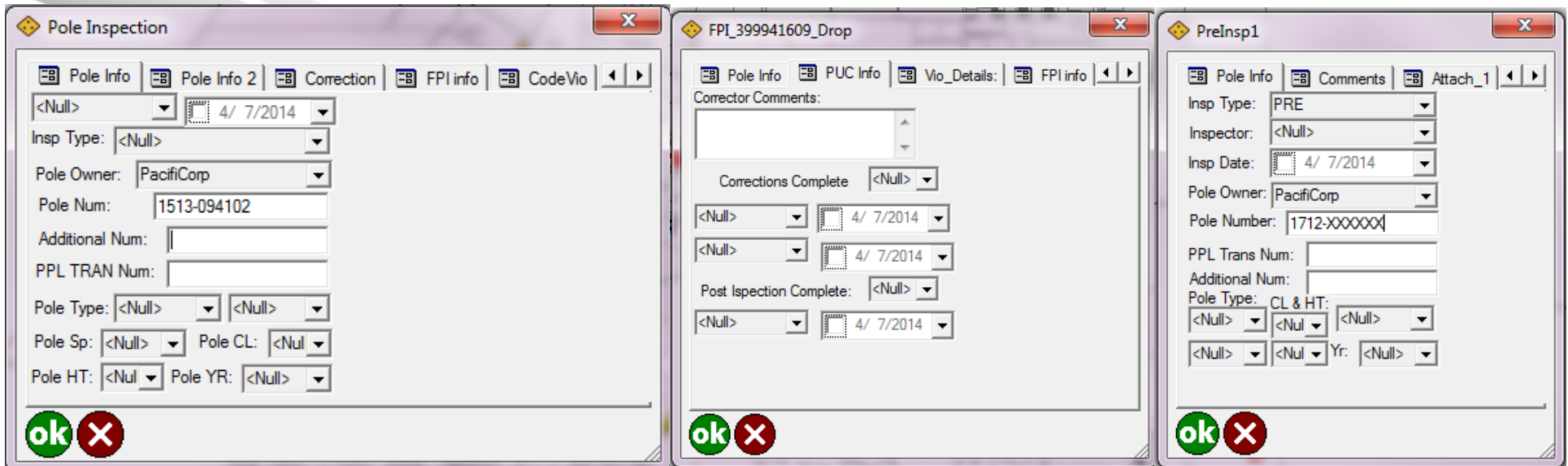
Our NESC (National Electric Safety Code) team's work is to maintain a safe plant. They are responsible for inspecting our pole attachments and doing required corrective work.

Our NESC team inspects thousands of poles a year in conjunction with the pole owners requirements to inspect 10% of their poles a year for a 10 year cycle. This is a PUC federal Public Utility Commission program.



Use of Domains and ArcStudio

When redesigning the pole geodatabase I incorporated the use of domains where possible to ensure uniformity in the data and ease of data entry in the field. I created three sets of data collection forms in ArcStudio. One for pole inspection, another for pole correction and a third for pre-attachment inspection.



The image displays three screenshots of ArcStudio data collection forms, each with a title bar and a close button (X).

- Pole Inspection:** Features tabs for Pole Info, Pole Info 2, Correction, FPI info, and CodeVio. The form includes fields for Insp Type (dropdown), Insp Date (calendar), Pole Owner (dropdown), Pole Num (text), Additional Num (text), PPL TRAN Num (text), Pole Type (two dropdowns), Pole Sp (dropdown), Pole CL (dropdown), Pole HT (dropdown), and Pole YR (dropdown). It has 'ok' and 'X' buttons at the bottom.
- FPI_399941609_Drop:** Features tabs for Pole Info, PUC Info, Vio_Details, and FPI info. It includes a text area for Corrector Comments, a dropdown for Corrections Complete, and three sets of dropdowns for date selection (4/ 7/2014). It has 'ok' and 'X' buttons at the bottom.
- PreInsp1:** Features tabs for Pole Info, Comments, and Attach_1. It includes fields for Insp Type (dropdown), Inspector (dropdown), Insp Date (calendar), Pole Owner (dropdown), Pole Number (text), PPL Trans Num (text), Additional Num (text), Pole Type (dropdown), CL & HT (three dropdowns), and Yr (dropdown). It has 'ok' and 'X' buttons at the bottom.

Parcel Database Creation and Maintenance



The impetus for the creation of a BendBroadband tax lot / parcel geodatabase was to have a seamless and uniform geodatabase that contained BendBroadband data as well as data from the counties.

BBBtaxlots is a file geodatabase created in 2010 and has been maintained and updated on an on-going basis with address updates from the cities and GIS updates from the counties.

Traditionally tax lot numbers have been the link between our customer database and the GIS. We are moving toward a unique identifier that will give us a one to one match between our customer database and our geodatabase.



Other day to day use of GIS at BendBroadband



All our CAD maps have been created from GIS tax lot data. I go between CAD and GIS often, exporting and importing data.

We create a variety of KMZ files for BendBroadband employees who don't have access to the GIS.

In an effort to go paperless we create editable pdf map.



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