

## ***Suggested Broadband Strategies for Person County***

July 29, 2013

### **Getting Started**

- **Open ditch policy** -- Sewer and water extensions, road repairs and upgrades, sidewalk improvements...all public works projects in Roxboro and the County should be evaluated for the potential to incrementally add telecom conduit and/or fiber cable.
- **Fiber overlay plan** -- The open ditch policy is most effective when the City and the County both have a fiber overlay plan that shows where fiber is needed. It then becomes simple, if there is a public works project, to look at the fiber overlay plan and the route of the new project and determine if conduit or fiber cable should be included.
- **Fiber to Economic Zones** -- To be competitive with other communities, the County and City should get some fiber to targeted economic development zones as quickly as possible. This would include business and industrial parks, greenfield industrial/commercial areas, downtown Roxboro, and any other areas targeted for development and growth.
- **Make it easy to use the MCNC fiber** -- The MCNC fiber passes through the community, but the infrastructure needed for local providers, businesses and local government to affordably tap into it is still lacking. A modest colocation facility (could be just a pre-fab shelter) should be provisioned on the MCNC fiber route (e.g. near the Northern Middle School). The shelter would provide physical access to the MCNC fiber, terminated patch panels, rack space for provider network equipment, and a generator for back up power. This would also be an ideal location for a wireless broadband tower to provide point to point links to rural areas of the county where residential wireless services might be offered (convenient access to MCNC Internet providers will help keep the cost of rural wireless services low).
- **Re-evaluate economic development zones** -- The MCNC fiber should spark a re-evaluation of economic development areas in the County, as access to Gigabit fiber is increasingly becoming a key relocation decision for businesses and entrepreneurs. Roxboro has great potential to attract more workers and businesses to the downtown area with local fiber to buildings that can or do provide Class A office space.
- **Get Class A office space in inventory** -- Many business relocation decisions are made in 90 days or less. It is essential to have some high quality Class A office space in inventory. This could and should include some downtown Roxboro buildings that have received high quality renovations or are candidates for such renovations. Existing buildings will have higher lease/purchase value if fiber is available at the premises.
- **Build fiber to all K12 schools** -- Building fiber to all K12 schools could be financed in part from savings from replacing leased lines with new county-owned fiber. A properly designed fiber network to all schools in the county could be shared with other county departments (e.g. monitoring water pumping stations, other facilities), public safety needs (e.g. fiber to public safety towers to improve radio communications), business uses, and fiber to the home.

### **Why do this?**

- The County, local K12 schools, and the City should be able to save money on Internet, telephone, and connection costs and/or get more bandwidth without increasing expenditures.
- Increase the local tax base by having the infrastructure needed to attract new businesses and jobs.
- Retain and attract residents who want the excellent life style and quality of life in Person County but need high performance fiber services for work from home and business from home activities.

## Success Factors

- **Identify community and economic development goals first**--It will be important for the City and the County to tie broadband expenditures to broader community and economic development goals. In our experience, communities that cannot describe what they want their community to be like in ten or fifteen years usually do not see their broadband investments deliver the expected impact.
- **Aggregate demand** by focusing on getting homes and businesses connected and growing the size of the market, thereby attracting service providers.
- **Local champions** are essential to building the local support for building the network
- **Build something**--too many communities get caught up in imagining some very large, very expensive project. Identify your budget and what you can afford this year, even if it is just a few blocks of downtown. Get started, get connected to the MCNC backbone, and expand year by year.
- **Focus on a modern, multi-service network with multiple providers** (open access network). Open Access works where the incumbents have said that they “can’t afford to build fiber” because open access shares a single network among several providers--it is a different business model that generates more revenue than the fifty year old incumbent business model. Open access works because it is not trying to use the same business model as the incumbents.
- **Avoid over-reliance on wireless broadband**--Wireless broadband will not bring businesses and jobs to Person County. Wireless broadband in rural parts of the County may be an important bridge technology until fiber arrives in those parts of the County, but to be economically attractive to relocating companies, Person County needs Gigabit fiber in at least the Roxboro area and in any business and industrial parks.

## Sources of Funding

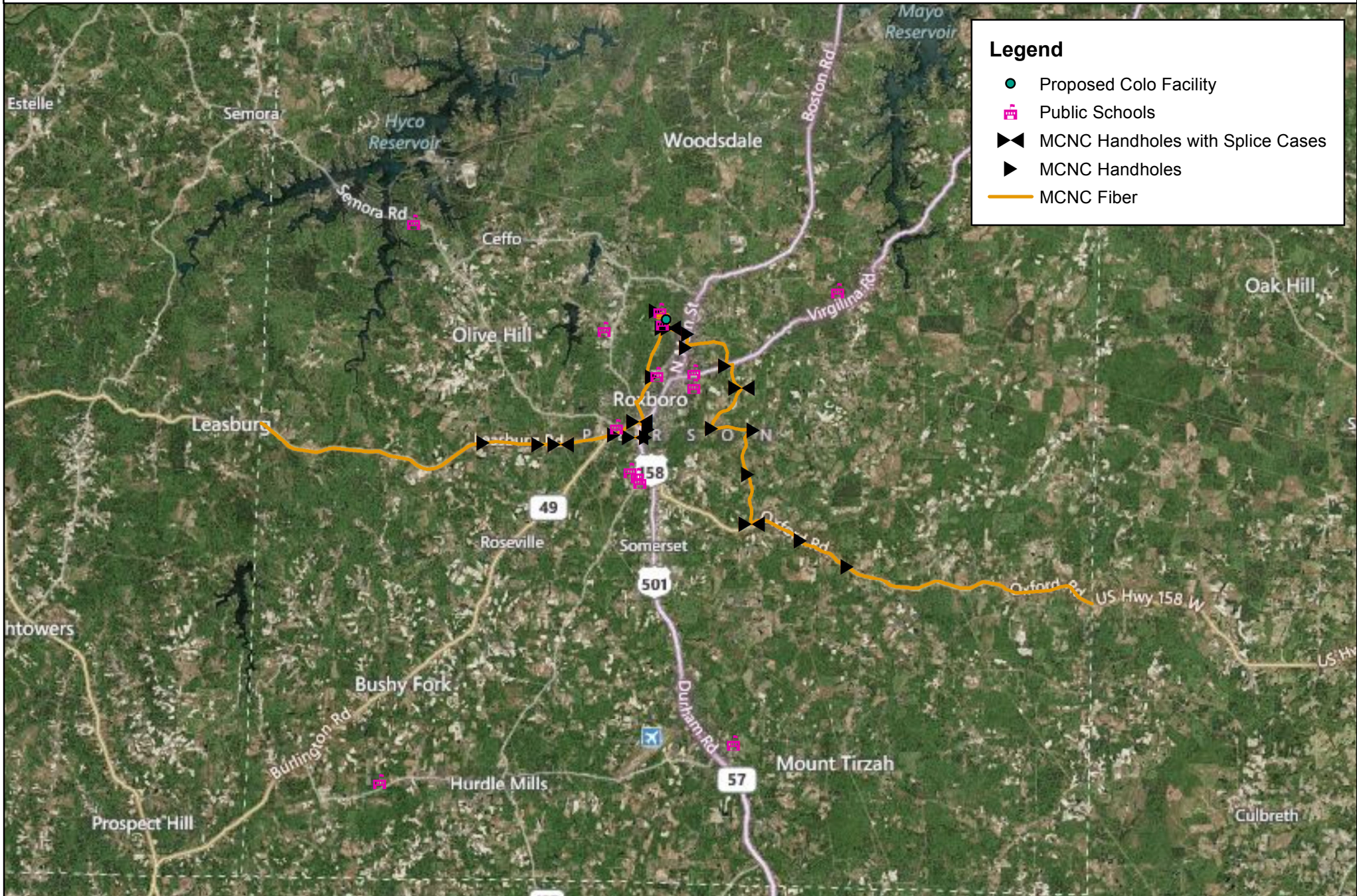
- Cash
- Sweat Equity -- done very successfully in some rural areas. Property owners install their own conduit from the home or business to the hand hole or splice closure on the rural road.
- Loans
- Grants
- One time payments to connect to the network
- Ongoing monthly payments to be connected to the network
- Special Assessment -- One town in Massachusetts voted a special assessment on all property owners and was able to immediately build fiber to the whole community

## Worst Practice

- Do nothing--leave the community and the region at the mercy of what the incumbents are willing to provide
- Build too slowly--financially most risky, as connected customers grows too slowly and revenue may not exceed fixed operational expenses of operating the network
- Disconnect between E.D. and fiber investments--many communities make a fiber infrastructure investment and then fail to adjust their economic development marketing to highlight “Gigabit” connectivity



# Person County: MCNC Fiber





# Person County: Roxboro MCNC Fiber

## Legend

- Medical Services
- Proposed Colo Facility
- Public Schools
- ⏏ MCNC Handholes with Splice Cases
- ▶ MCNC Handholes
- MCNC Fiber

