

THE CITY OF LYNCHBURG

STAUNTON VIRGINIA

CITY OF HARRISONBURG VIRGINIA

Lessons Learned: Experiences of a Fiber to the Home Project

SHENTEL
Always connected to you

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Our Story

116 year old company (NASDAQ: SHEN) focused on delivering broadband, CATV, phone, and wireless service (Sprint branded) to rural markets in Virginia, West Virginia, Maryland, and Pennsylvania.

- Advanced Networks
- Excellent Customer Support
- Local Community Investment & Partnership

nTelos Wireless acquisition in 2016

- 1 million wireless subs
- 6th largest wireless provider in the US

1,050 employees
\$630 million in annual revenues and profitable

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6,000 miles of fiber and counting

- 200K+ Homes Passed w/Broadband
- 6,000+ Fiber Route Miles
- Fiber to over 325 cell sites

Map Key:

- ShenTel Fiber Routes
- Cable Market Coverage
- Wireless Coverage
- Launched FTTH Market
- Planned FTTH Market

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Home Construction Support Legal

We're upgrading your neighborhood!

Are you ready to experience Internet at the speed of light?

glo fiber
internet of you

Subscribe for updates

Use the latest construction updates

Name *

Street *

City/State/Zip *

E-mail address *

File Code *

Fiber Internet

Streaming TV

Fiber Phone

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Project Plan

- Municipal Engagement
- Utility Engagement
- Engineering and Construction
- Local Hiring
- Sales & Marketing
- Community Engagement



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Current Status

- Approved markets
 - Harrisonburg, Staunton, Lynchburg, Winchester, Front Royal, and Salem
- Ongoing construction, permitting, and engineering
 - Aerial, buried, and microtrenching
- Additional markets planned
 - Continuing market development

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Keys to Success


- Partnership
 - Value alignment
 - Continuous communication
- Creativity
 - Developing new processes
 - Collaborative problem solving
- Dynamic Learning
 - "Fail fast"
 - Short feedback loops

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 **Lynchburg Needs Fiber**

- Lynchburg is a growing and diverse community
- Ultra high speed and bandwidth is needed for
 - Residents
 - Anchor Institutions
 - Key Businesses
- We know that if Lynchburg is to continue to thrive, expanding fiber opportunities is vital
- The City realized that it needed a private partner to make this happen.
- Unfortunately, no local government is set up to handle this scale of project


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Leadership

- Success in this project requires City Leadership to show that:
 - We have a belief in the project and the vision
 - Expansion of fiber in the City must be a high priority
 - We are willing to create processes that are outside our normal business to get this work done
 - Streamline review and permitting
 - Specifically engage with the public on what they can expect from construction occurring all over the City.
 - Everyone in our organization related to this project must be committed to making it work

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Current Review and Permitting Process

Technical Review Committee (TRC)

- Reviews all development projects within the City- work load concerns
- Committee meets twice per month
- Verbal and written comments provided
- Minimum one month approval process
- Separate process to issue MOT, excavation and other permits


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Alternative Review and Permitting Process

- Shentel submits full package including plans & all required permits for each job
- Review occurs outside of the TRC process- plans still meet all requirements
- City contracted with engineering consultant dedicated to fast track Shentel Fiber to the Home projects
- Shentel fully reimburses City for consultant services

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Alternative Review and Permitting Process continued

- Consultant reviews plans, permits, historic reviews & provides construction inspection
- Less than two week turnaround if package is complete
- Issue conditional approval of entire project
- Once construction dates are established final permits are issued
- Issue press release with construction details

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Staunton Construction

- Private neighborhoods
 - HOAs
 - Private roads

- Right of way construction
 - Citizen education
 - Back lot easements
 - Yard repair








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Harrisonburg Buildout

- Barriers to entry erode competition
 - Unintended consequences
 - Status quo entropy

- Overcoming the barriers
 - FCC & DOJ guidance
 - Incumbent protection
 - Municipal protection
 - Competitor protection
 - Collaborative creativity

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Harrisonburg Franchising

The Franchisee initially shall build out its Cable System to make Cable Service generally available to those business and residential units located within the red ovals shown on the map attached to this Franchise Agreement as Exhibit A.


The Franchisee shall use commercially reasonable efforts (considering build out costs, geographical and geological conditions, and business conditions) to complete such initial build out by _____.

Franchisee shall complete its Cable System within the remainder of the Franchise area within a commercially reasonable time (considering build out costs, geographical and geological conditions, and business conditions). In addition to the obligations and considerations set forth above, Franchisee shall offer Cable Service to all new or previously unserved business and residential units within 150 feet of the Franchisee's distribution cable.



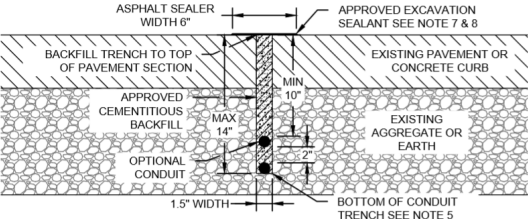
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Harrisonburg Microtrenching

- Microtrenching standard development



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Conclusion

- Develop partnerships
- Take ownership/designate leaders
- Think differently
- Align municipal and corporate values and pace
- Continuous communication

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