

Executive Summary

Cloquet Valley Internet Initiative Broadband Feasibility Study

Compass Consultants, Inc.

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Under contract with the Cloquet Valley Internet Initiative (CVII) Steering Committee, Compass Consultants Inc (CCI) conducted and delivered a feasibility analysis of constructing fiber optic-based broadband to the nine-township area known as the Cloquet Valley Internet Initiative. This study was supported using funding from St. Louis County and the Blandin Foundation. The area consists of seven organized rural townships (Alden, Ault, Fairbanks, Gnesen, Normanna, North Star, and Pequaywan) and two unorganized townships (53-15 and 54-13) all in St. Louis County, MN.

Community Analysis. The study demonstrated an excellent rural market for enhanced broadband service. The study noted that the CVII group had previously conducted a market analysis indicating a majority (>90%) of respondents were interested and likely to pay for high speed (10 Mbps) internet service. The 2010 census reported a resident population of 3200 in 1300 households in the seven organized townships. Moreover, the Minnesota State Demographic Center projects population substantial growth in 6 of the 7 organized townships. Employment, income and education levels are all higher than the regional average, suggesting a ready and profitable market for broadband internet.

System Designs. The CCI study provided designs to deploy two different systems for broadband to residents and seasonal owners throughout the CVII area. Maps, technology designs and capital requirements for construction were provided. The first design for Fiber to the Node with DSL (FTTN-DSL) to deliver a minimum of 10 MBPS download and 1 MBPS upload speeds or better. The second scenario was for Fiber to the Home (FTTH).

Business Models. Plans for funding and capital recovery were included for each construction scenario. The CVII townships will need both private and public funding for the level of capital required. At a moderate take rate, the capital requirements would be \$4.5M and \$11.8M respectively for the two designs. A combination of FCC CAF incentives, RUS grants and/or loans, and bonds (issued perhaps through an improvement district) could be used to meet the capital requirements. Partnerships with providers in subscription revenue and government levy assessments could be used to pay back the loans and bonds. The CVII Steering Committee is interested in using this study to attract viable broadband.

Final Analysis. The report provides an analysis of pros and cons of the two designs; these offer rationale for considering various options. Sensitivity analyses of interest rates, terms of loans and effects of take rates are also provided. The study addresses risks facing telecom providers (*Ernst & Young 2012 report "Top 10 risks in telecommunications 2012"*). Among these are:

- **The changing customer mindset.**

Fiber supports services that wireless and satellite providers can never provide.

- **Business model that adds confidence to a quick return on investment.**

With a public private partnership, the private provider only adds the investment needed to connect customers. The public entity secures capital investment not available in private capital markets to bring fiber deep in the network, and then repays the low interest long term debt with a share of revenues.

- **Insufficient Information to turn demand into value.**

Survey results and demographic data show that the Cloquet Valley group of townships are ready to provide positive revenues with a move to broadband services.

Summary. This Executive summary is offered as general information. More detailed information can be made available by contacting the CVII Steering Committee. The Committee intends to use these results in discussions with potential broadband providers and other stakeholders with interests in exploiting the excellent rural market and serving the broadband needs of the CVII Townships. The results can be used in planning for and justifying construction of broadband systems to meet or exceed the State of Minnesota broadband goal of 10 Mbps down and 6 Mbps up speeds. The Committee is interested in attracting partners from both the private and public sectors, recognizing that rural areas can present both challenges and opportunities.

Contact: Cloquet Valley Internet Initiative Steering Committee, 7700 Pequaywan Lake Road, Duluth MN 55803. Janet Keough, Chair. 218 343 5007.

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