

May 6, 2013

Proposal to Build Fiber Optic Line to Pittsfield Branch

I. Problem Statement

The Pittsfield Branch is not eligible for a fiber run from the I-Net (City institutional fiber network) and is the only AADL location without a dedicated fiber run to the Downtown server room and high-speed Internet connection. New Infrastructure is needed to address these capacity issues.

II. Background

The Pittsfield branch is located outside the ring highways surrounding Ann Arbor and was not able to be connected to the citywide I-Net project that hooked up the other AADL branches to fast Gigabit network connectivity. We connected Pittsfield to the rest of the system via much slower T1 and Cable TV Internet connections, resulting in Pittsfield offering less than 2% of the bandwidth available at other branches.

This has resulted in the computing environment at Pittsfield being less suitable for data-intensive computer work, as the speed of the connection to the servers and high-speed Internet connection at the downtown branch is extremely slow at peak times. Demand for connectivity at Pittsfield Branch exceeds the capacity of the existing infrastructure every day, and it is the only AADL branch without a high-speed connection.

III. Options

1. Contract with Merit, who provides our main connection to the Internet, to build and maintain a fiber connection tying Pittsfield into their network, and offering connectivity to Pittsfield at the same speeds we already enjoy with the I-Net.

One-time costs of \$112,150, ongoing yearly costs of \$2,625.

2. Contract with TDS, who provides our telephone system, to build and maintain a T3 data circuit tying Pittsfield into our network at the Downtown branch at speeds approximately 9 times better than current Pittsfield speeds, but about 5% the speed of the Merit proposal.

One-time costs of \$600, ongoing yearly costs of \$27,912.

3. Do nothing and continue to utilize the current connection.

IV. Recommendation

Option 1: Authorize Merit to install a fiber optic connection to the Pittsfield branch. We already have a good working relationship with Merit and our existing connections through their network have had good uptime and speed performance.

While we enjoy a similar relationship with TDS, their greater ongoing yearly costs would eclipse the library's investment in Merit's proposal in just 4 years and would not provide the same speeds that the other branches already have via the I-Net.