

Worksession  
February 23, 2015  
Municipal Center

- Call to Order                   The Champlin City Council met in Worksession and was called to order by Mayor ArMand Nelson at 6:00 p.m.
- Roll Call                        Present were Mayor ArMand Nelson, Councilmembers Eric Johnson, Ryan Karasek, Kara Terry and Bruce Miller.
- Absent: none.
- Staff Present: City Administrator Bret Heitkamp, Community Development Director John Cox, City Engineer Tim Hanson, City Clerk Roberta Colotti and City Attorney Scott Lepak.
- Approval of Agenda           Motion by Councilmember Johnson and seconded by Councilmember Miller to approve the agenda for (February 23, 2015) the February 23, 2015 Worksession as presented. Voting in favor were Mayor Nelson, Councilmembers Motion                        Karasek, Johnson, Terry and Miller. Voting against: none. Motion carried.
- SCADA System: Fiber        The City Engineer reported that at the January 12, 2015 Council Meeting, City Council reviewed and Optics Line                    approved the preparation of plans and specifications for the Supervisory Control and Data Acquisition (SCADA) system improvements, which was Phase 1 of the proposed system upgrades. The second phase is the development of a fiber optic communication line between Water Treatment Plant No. 1 and Water Treatment Plant No. 2.
- The water and waste water SCADA system feasibility report included a recommendation to utilize fiber optic communication between Water Treatment Plant No. 1 and Water Treatment Plant No. 2. The need for a higher level of communication between the two facilities is a result of the amount of data and monitoring that occurs within these facilities. The report also recommended that a fiber optic cable network be considered for all utility infrastructure that utilizes communication for monitoring and control. Fiber optic communication is faster and is not susceptible to interference.
- The City Engineer reported commercial fiber optic carriers were contacted to obtain leasing information for two strands of dark fiber. This is a fiber line in which the City would be the sole user of the fibers between Water Treatment Plant No. 1 and Water Treatment Plant No. 2
- Zayo Group, LLC is the provider that has existing cable extending along T.H. 169 and Dayton Road. The cost quote received from Zayo included a monthly rate for five (5) different lease terms and a single non-recurring charge. The 240-month term was analyzed for present worth cost by Engineering and by Finance. This cost was compared to the estimated construction cost to extend a City owned fiber cable between the two facilities. Both analyses determined that the least costly option over 20 years is to own, construct, and maintain the fiber line.
- Present Worth Values:
- Construct and Own           \$13,900 / yr.
  - Lease                           \$18,800 / yr.
- The primary objective for a fiber optic network is to extend between the two water treatment plants. Additional benefit can be achieved by connecting other City infrastructure to the fiber system. An initial fiber cable extension between Water Treatment Plant No. 1 and Water Treatment Plant No. 2 could include Well No. 8, Lift Station No. 5, and Lift Station No. 3.
- In addition to utility infrastructure, other City infrastructure could be connected to the communication cable. The Community Center and Galloway Park could have access to the cable and have offsite monitoring and control.

The City Engineer stated that the extension of fiber optic cable to other utility infrastructure would be done over time. Conduits would be installed when street reconstruction projects are completed. As the conduit system grew, connections could be made to utility infrastructure and other City infrastructure to provide remote control communication. The entire network would take years to fully develop. The proposed network concept would provide communication by fiber optic to all utility infrastructure as well as Andrews Park, Elm Creek Dam and Chandler Park Area.

The City Engineer presented conceptual layouts of a Local Area Network (LAN) that could be developed over time, which would provide fiber optic cable service to all of the City's SCADA sites.

The City Engineer highlighted that a City owned system would have to be maintained by the City. Any private or public excavation would require a line locate to be completed. Should a public improvement project require the relocation of the cable, the City would be responsible to complete the relocation. Much of the ultimate network would be installed during a public improvement project. Relocations should be limited because of how the system would be developed.

The City Engineer stated that a fiber optic cable contains many fibers. The unused fibers could potentially be utilized by private entities; however, a City cable system has limited reach in that it would be contained within the City borders. To provide a viable service, a City cable system would have to connect with a fiber optic cable provider. This could be pursued when and if a cable network is established.

The City Engineer recommended that the City fiber cable network be constructed between Water Treatment Plant No. 1 and Water Treatment Plant No. 2 and the preparation of plans and specifications for this work be ordered. Looking ahead the development of a City-wide fiber optic network (LAN) that connects City infrastructure is recommended.

#### **Council Discussion**

Councilmember Johnson questioned if we could generate revenue from the line if we connected businesses to it and if it would be of benefit to them.

The City Engineer reported that for example Pentair does have access to the Zayo system already.

Councilmember Miller asked what other businesses along Ensign Avenue might be interested in the line. He also asked where Zayo is currently located.

The City Engineer stated that Zayo runs along Hwy. 169 and Dayton Roadway.

Councilmember Miller suggested that the City could talk to businesses to see who was interested.

Councilmember Johnson stated that the potential for the line to run to Galloway Park to support security cameras made sense given the recent vandalism in the park. He stated that this would be a future CIP item.

Councilmember Terry questioned if the City was going to connect to Zayo in the future would it make sense then to connect to them now vs. investing in our own line.

The City Engineer stated that for the current project we do not need to connect to Zayo but that would be something to consider for the future for faster internet service.

Councilmember Terry questioned if there was an advantage to connecting globally vs. locally and if that advantage would justify the price difference between owning and leasing a line.

The City Engineer stated that it may if the City wanted to have a global connection. Right now we are just talking about connecting the City systems. However, if you wanted to connect in the future for faster internet service that would be a consideration.

Councilmembers Miller questioned the cost to connect to Zayo.

The City Engineer stated that there would be a lease cost for the connection. Part of their quote includes connection fees. There would be a \$2,000 non-reoccurring cost and a monthly lease amount which included recovery of the connection costs.

Councilmember Karasek stated that he sees it as cheaper to own and operate our system in the long run.

The City Engineer stated that the proposed infrastructure lines are dedicated for our use. We would pay a premium for this. He stated that we could use one of our own lines to theirs but it would be a shared line.

Councilmember Terry stated that if we connect to Zayo there would still be a lease cost but we do not know what that would be.

The City Engineer stated that the lease cost varies depending on the length of the lease and the type (i.e. shared fiber/dark fiber).

Councilmember Terry asked the Council to think about what the future needs are in Champlin.

The City Administrator stated that global connectivity and sizing for the future are issues staff can follow-up on.

Councilmember Miller suggested that staff talk with other cities regarding their use of these lines.

Councilmember Johnson stated that he is in favor of moving forward with the project as presented.

Mayor Nelson stated that he would like information on the potential future development of the system.

Adjournment

The Champlin City Council adjourned the Worksession at 6:30 p.m.

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ArMand Nelson, Mayor

Attest:

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Roberta Colotti, CMC, City Clerk