

DATE ISSUED: September 19, 2001

REPORT NO. 01-193

ATTENTION: Honorable Mayor and City Council  
Docket of September 24, 2001

SUBJECT: License Agreement with CityNet Telecommunications, Inc.

### SUMMARY

Issue - What action should the City Council take regarding the installation of Broadband fiber optic telecommunication networks within the City's sewer and stormwater collection systems?

Manager's Recommendation - Authorize the City Manager to enter into a License Agreement with CityNet Telecommunications, Inc. (CityNet), for the installation of fiber optic cable (FOC) within the City's sewer and stormwater collection systems for the Downtown, Mission Valley and Golden Triangle areas.

Fiscal Impact - CityNet will install and maintain the FOC network at its own expense. The City will incur administrative costs in implementing this License Agreement. Revenue generated and cost savings realized through this License Agreement will cover City costs. CityNet will pay the City an initial access fee of \$50,000 within sixty days after effective date of the License Agreement. The access fee will be credited against a License Fee of 5% of the gross revenue realized by CityNet from the operation of the network, each year the License Agreement is in effect. The License Fee is divided into a cash payment on a quarterly basis of 2.5% of gross revenues and an equivalent 2.5% value of in-kind services, such as cleaning, mapping, inspection, and free use/access to the fiber optic network by five City facilities.

### BACKGROUND

CityNet Telecommunications, Inc. (CityNet) is a company that provides telecom carriers and network service provider customers with broadband fiber optic infrastructure. While large trunk lines of fiber are carrying data across the country and around the globe, most residential and commercial buildings still carry data between carriers via copper wires. This fiber gap is called the "Last Mile" in telecommunications terms. The slower copper wires need to be replaced to achieve the high-speed broadband connection that a fiber optic cable (FOC) can deliver. For example, the average medical x-ray takes several hours to transmit over copper wire versus several seconds for fiber, thereby promising to revolutionize the practice of medicine by allowing doctors to remotely conduct patient exams in real time. CityNet has proposed to enter into a License Agreement with the City of San Diego to utilize primarily the sewer system, and on occasion parts of the stormwater system, to install an FOC network.

CityNet is currently initiating installations of FOC networks in municipal sewers in the following

cities: Omaha, Nebraska; Albuquerque, New Mexico; Fort Worth, Texas; St. Paul, Minnesota; Scottsdale, Arizona; and Vienna, Austria. CityNet currently has negotiations in progress to install their broadband fiber optic network within the sewers of over 30 other cities.

## DISCUSSION

The installation, using a computer-driven robot equipped with closed circuit television (CCTV) cameras, would eliminate the usual excavation of City streets, traffic problems, noise and dust pollution experienced in a normal open trench installation. The FOC is suspended at the top of the sewer pipe by stainless steel alloy rings that align with the inner circumference of the pipe, without the use of bolts, hooks, or screws that could damage the pipe. CityNet would inspect the sewer lines and perform necessary maintenance work prior to installing the FOC network. Cleaning of the sewers containing the FOC network would be performed by CityNet at its expense for the duration of the License Agreement, according to the City's schedule. Repair of the sewers remains the City's responsibility.

The FOC network would require some minor excavations in the public right-of-way for manholes and the FOC service lateral into the buildings and connecting areas where no sewer or other usable conduits exist. CityNet will obtain necessary permits and pay associated fees for this work.

CityNet has conducted a preliminary evaluation of which areas in the City it would be economically feasible to install and operate a FOC network. CityNet proposes to install FOC in three areas: Downtown, Mission Valley and The Golden Triangle (see attached maps). The proposed FOC network would occupy approximately twenty miles of sewer lines, or less than 1% of the total sewer collection system. Other areas could be added later, if CityNet determines there is adequate demand for its services. The actual route of the FOC network is subject to the City's approval. The City may require removal of the FOC network at the expiration of the License Agreement.

The term of the License Agreement is for an initial period of three years, with options for CityNet to extend the License Agreement for seven additional three-year renewal periods. If CityNet installs the FOC network as currently proposed, the total anticipated revenue to the City over the life of the Agreement (including all options) is \$1,500,000.00, plus an equivalent value of in-kind services. The majority of the revenue will be realized in the early years of the License Agreement, as subscribers are expected to pay CityNet up-front for long term service. Revenue will benefit the wastewater and stormwater funds, in proportion to CityNet's use of the respective systems.

There are no known installations of this type in the United States by which to assess the long term durability of the FOC network. The oldest known installation is in Hamburg, Germany, where for three years no significant adverse effects on the FOC have been noted. Testing by CityNet indicates that under the most adverse conditions expected in the sewers, the FOC network will last at least as long as the entire term of the License Agreement, including all the option years. CityNet has agreed to indemnify the City against any damage to the sewer system caused by the FOC network.

RECOMMENDATIONS

It is recommended that the City proceed with the CityNet License Agreement at this time to provide additional revenue and to make available broadband telecommunications services to over 100 major buildings in the City of San Diego.

ALTERNATIVE

1. Do not proceed with the License Agreement at this time. This is not recommended because the City would not realize the benefits outlined above.

Respectfully submitted,  Scott Tulloch Metropolitan Wastewater Department Director		Approved: George I. Loveland Senior Deputy City Manager
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Note: The attachments are not available in electronic format. A copy is available for review in the Office of the City Clerk.

- Attachments:
1. La Jolla Area Route Map
  2. Downtown Area Route Map
  3. Mission Valley Area Route Map

LOVELAND/TULLOCH/AKS/JMM/CM:oc