



City of Culver City

Staff Report

File #: 16-040, Version: 1

Item #: C-13.

CC - FOUR-FIFTHS VOTE REQUIREMENT: (1) Authorize an Increase in the Amount of \$1,544,941 to the Previously Approved \$10 Million Construction Loan to the Municipal Fiber Network Enterprise Fund, for a Total Loan Amount of \$11,544,941; (2) Approve a Related Budget Amendment Appropriating \$1,544,941 from the General Fund to the Municipal Fiber Network Enterprise Fund; (3) Approve a Construction Contract Change Order with HP Communications in the Amount of \$655,191 and Authorize the Public Works Director/City Engineer to Execute Such Change Order; and Increase the Public Works Director's/City Engineer's Overall Contract Change Order Authority by an Additional Amount of \$98,279 (15% of the Change Order); and (4) Approve an Amendment to the Construction Materials Procurement Agreement in an Amount Not-to-Exceed \$558,361 with Mox Networks for the Municipal Fiber Network, Project No. PT-003.

Meeting Date: July 11, 2016

Contact Person/Dept: Michele Williams/Information Technology Department
Mate Gaspar/Public Works Department

Phone Number: (310) 253-5950 or (310) 253-5602

Fiscal Impact: Yes No

General Fund: Yes No

Public Hearing: **Action Item:** **Attachments:**

Commission Action Required: Yes No **Date:**

Public Notification: (E-Mail) Meetings and Agendas - City Council (07/05/16); HP Communications (07/05/16), and MOX Networks, LLC (Jason Misicka, Director of Sales, on 07/05/16)

Department Approval: Charles D. Herbertson, Public Works Director/City Engineer (06/30/16)

RECOMMENDATION

Staff recommends the City Council:

1. Authorize the increase of \$1,544,941 to the previously approved \$10 million construction loan to the Municipal Fiber Network Enterprise Fund, for a total loan amount of \$11,544,941; and
2. Approve a related budget amendment appropriating \$1,544,941 in the Municipal Fiber Network Enterprise Fund (requires four-fifths vote); and

3. Approve a construction contract change order with HP Communications in the amount of \$655,191 and authorize the Public Works Director/City Engineer to execute such change order; and increase the Public Works Director's/City Engineer's overall contract change order authority by an additional amount of \$98,279 (15% of the change order); and,
4. Approve an amendment to the construction materials procurement agreement with Mox Networks in an amount not-to-exceed \$558,361 for the Municipal Fiber Network Project No. PT-003.

BACKGROUND/DISCUSSION

Since 2013, staff has been consulting with the Culver City business community about their needs for enhanced broadband connectivity. On November 9, 2015, the City Council took several actions related to the design, development, operation, and maintenance of the Municipal Fiber Network (Network). The Network would, among other things, provide the necessary infrastructure to facilitate the provision of high-speed Internet service to the City organization (for municipal purposes), to qualified businesses in the target service areas, and to the Culver City Unified School District.

On June 27, 2016, City Council awarded a construction contract to HP Communications (the lowest responsive and responsible bidder), for the construction of the Network. At the time of award, two Council members were not present at the meeting. The associated staff report explained that staff would return to City Council at the meeting of July 11, 2016 to request a budget amendment and construction contract change order to support construction enhancements recommended by the City Manager.

The specifications for the Network design as approved by City Council on November 9, 2015 included the following:

- Redundant Fiber Backbone (288 strand count) consisting of 21 route miles of fiber
 - 35% of the fiber network would utilize existing conduit infrastructure
 - 65% of the fiber network is new build where two 2" conduits would be installed
- Fiber laterals to the service locations
- Local (within the City) interconnection host sites (network nodes/hubs)
- Fiber connection to interconnection data carrier hotel/communications hub (One Wilshire and El Segundo/Equinix)

In conducting outreach to the business community regarding the Network, staff has come to realize that there is a very high demand for broadband and connectivity services that can ultimately be delivered by utilizing the City's fiber infrastructure. In anticipation of this demand, it is recommended that the City install additional fiber and conduit to increase capacity. Installing additional fiber and conduit as a part of this effort would reduce the need to increase capacity at a later date. While this decision results in a budget increase, economies of scale are achieved by installing additional capacity now compared to a date in the future.

The recommended Network design enhancements include increasing the fiber strand count from 288 to 576 and installing an additional 2" conduit in areas where new construction is planned. This would result in doubling the fiber capacity and there would be additional conduit capacity (increase of 30%)

to accommodate for future growth. If the City determined that there was a need for additional fiber in the future, the required construction is greatly minimized when the conduit infrastructure already exists.

The following compares the approved construction budget to the requested budget revisions followed by a description of the detailed construction enhancements and requested project modifications.

<u>Description</u>	<u>Approved Budget</u>	<u>Revised Budget</u>
Network Design/Engineering	\$1,050,500	\$1,050,500
Construction (Materials/Labor)	\$4,503,943	\$6,273,674
Construction Management	\$ 675,592	\$ 941,051
Construction Contingency	\$ 855,662	\$ 855,662
Lateral Construction	\$1,500,000	\$1,500,000
Networking Electronics	\$1,414,303	\$ 674,054
Construction for Network Node	\$-0-	\$ 200,000
Fiber Maintenance during Construction	\$-0-	\$ 50,000
TOTAL	\$10,000,000	\$11,544,941

Network Design/Engineering

Includes professional services for the network design, engineering, drafting of plans, and development of the construction bid documents. No budget changes are requested for this item.

Construction (Materials/Labor)

A budget increase of \$1,769,731 is being requested for the following project changes/enhancements:

Construction labor for fiber/conduit capacity increase \$605,191
Cost increase includes construction labor for increasing the fiber strand count from 288 to 576 and for installing an additional 2" conduit (total of 3) in areas where new construction is planned.

Construction materials for fiber/conduit capacity increase \$358,361
Cost increase includes the construction materials for increasing the fiber strand count from 288 to 576 and for installing an additional 2" conduit (total of 3) in areas where new construction is planned.

Materials: 84 Manholes \$323,862
It was originally planned that only pull-boxes/hand-holes would be required as most of the construction is to be performed in the sidewalk. It was later identified that there are areas where the construction must be conducted in the street thus requiring manholes due to utility capacity in some areas.

6" Conduit at Bridge Crossings \$142,967
One of the project design changes includes placing six-inch conduit at the bridge crossings on Duquesne Ave and Overland Ave. There is an increased construction cost for directional-boring in this area and it is recommended that additional conduit capacity be installed in these areas for future growth and to reduce future construction impacts.

Duquesne Ave - Network Reroute

\$ 54,000

The original network design assumed that existing conduit infrastructure could be used to house the fiber on Duquesne Av between Culver Blvd and Jefferson Blvd. It was determined that the existing infrastructure along this segment is at capacity. As a result, new construction is required in this area resulting in a cost increase.

Fiber Outside Plant Maintenance (1st Year)

\$285,350

Staff recommends having the construction vendor maintain the physical fiber for at least the first year after completing construction. This would include fiber locates and restoration in the event of fiber cuts.

Construction Management

City Council approved a consultant agreement with Mox Networks which includes professional services to manage the construction phase of this project and to provide construction inspection services. The cost for these services is fifteen percent (15%) of the total construction budget (labor and materials). If City Council approves the proposed construction changes and enhancements, this line item would be increased from \$675,592 to \$941,051. A total cost increase of \$265,459.

Construction Contingency

No budget changes are being requested for this item, as the currently approved construction contingency of \$645,659 plus the additional construction contingency requested with this Change Order of \$98,279 totals \$743,938 which is less than the approved budget amount of \$855,662. Staff recommends retaining the original contingency budget amount.

Lateral Construction

No budget changes are being requested for this item.

Networking Electronics

Staff is recommending a budget decrease for this item. The initial estimate for networking electronics included items that are no longer required as a result of refining the network requirements and specifically tailoring the network to the City's needs. Additionally, there have been cost reductions in the market specifically related to the devices that are required further resulting in a cost estimate decrease. Staff recommends decreasing the budget for this item by \$740,249

Construction for Network Node

The operation of the Network requires local interconnection sites (network nodes) within the City. The Network design includes three network node locations (NantWorks, Culver Studios, and Fire Station #3). It has been determined that a telecommunications shelter will need to be procured and installed at the Fire Station #3 location. Additionally, a generator will need to be acquired to serve as power backup in the event of electrical failures to reduce the risk of outages. Public Works staff are working with consultants at Mox Networks to identify the appropriate requirements and specifications. A budget increase of \$200,000 is being requested for this item.

Fiber Maintenance During Construction (12 months)

As previously discussed, the construction vendor will be maintaining the physical fiber for the first year post construction. Staff also recommends contracting with the construction vendor (HP Communications) to provide fiber plant maintenance during the construction period. The construction

vendor would be on call to restore any fiber cuts and requests for locates during the construction period which is estimated to run for 12 months. The requested budget revision for this item is \$50,000. This amount is already included in the requested \$655,191 change order.

The above project enhancements/changes would result in a budget increase of \$1,544,941 which represents a 15.5% increase to the original construction budget of \$10,000,000.

FISCAL ANALYSIS

It is recommended that the General Fund increase the construction loan that was approved by City Council on November 9, 2015 from \$10 million to \$11,544,941 for a total increase of \$1,544,941 with the same terms as outlined below. This increase would fund the proposed project enhancements as detailed in this report.

Loan terms would be as follows:

Principal: \$11,544,941

Interest: Simple annual interest equal to the average Local Agency Investment Fund (LAIF) rate of return from June through May

Terms: Twenty-year term. Principal and interest due and payable each June, with first payment due in June 2018. Should adequate revenues not be available to make a payment, City Council may approve full or partial payment deferral and make other modification to the terms as deemed appropriate.

It should be noted that the Network project was not initiated for the sole reason to deliver direct immediate financial returns. It is envisioned that the City will also benefit from indirect and sometimes intangible benefits related to enhanced economic development, improved strategic advantage, and the ability to even more effectively attract and retain creative office and technology companies. These indirect benefits may prove to provide the most significant long-term returns to the General Fund in the form of increased tax revenues.

Fiscal Year 2016/2017 Budget Amendment

Approval of the recommendations detailed in this agenda item would also result in a budget amendment for fiscal year 2016/2017 with the following appropriation:

ACCOUNT	AMOUNT
20580000.730100.PT003 Improvements	\$ 1,544,941

A Budget Amendment Requires a 4/5 Vote

Approval of this agenda item would also result in approval of the following change orders:

1. Construction contract change order with HP Communications in an amount not to exceed \$655,191 and associated change order authority in an amount of \$98,279 (15% of the change

order); and

2. Construction materials procurement agreement amendment with Mox Networks in an amount not to exceed \$558,361.

ATTACHMENTS

None.

MOTION

That the City Council:

1. Authorize an increase of \$1,544,941 to the previously approved \$10 million construction loan for a total loan amount of \$11,544,941 from the General Fund Reserve (Unassigned Fund Balance) to the Municipal Fiber Network Enterprise Fund under the terms contained in this staff report; and,
2. Approve a budget amendment to appropriate \$1,544,941 into the Municipal Fiber Network Enterprise Fund (motion requires four-fifths vote); and,
3. Approve a construction contract change order with HP Communications in the amount of \$655,191 and authorize the Public Works Director/City Engineer to execute such change order; and increase the Public Works Director's/City Engineer's overall contract change order authority by an additional amount of \$98,279 (15% of the change order); and,
4. Approve an amendment to the construction materials procurement agreement in an amount not-to-exceed \$558,361 with Mox Networks; and
5. Authorize the City Attorney to review/prepare the necessary documents; and,
6. Authorize the City Manager to execute such documents on behalf of the City.