

**Capital Improvement Plan
Fiscal Year 2013-2014 through 2017-2018
Project Description**

I. Requesting Department: IT

II. Project Title: Reduce Monthly Fiber Cost

III. Project Description:

Reduce the cost of connecting Nags Head Town Hall and Public Works from \$600/month to \$270/Month by replacing the existing leased fiber with leased fiber provided by MCNC. The construction cost for MCNC to connect Town Hall and Public Works to the MCNC fiber run alongside US Highway 158 will have to be paid by the Town. The figures for the initial cost have been provided by MCNC and have been described as "worst case scenario".

IV. Project Justification: (What need is being met, how does this project address the need?)

The contract for the existing dark fiber connection expired in September 2010 and the provider has stated they no longer offer leased dark fiber. The service has continued on a month to month basis. However, it could be terminated on short notice at any time. The replacement service offered by the existing provider is approximately 50% higher in cost than the current rate. Currently, we are operating at the mercy of the provider.

Return on investment calculations based on an assumed 2% cost of capital and 10 year service life indicate payback of the initial investment in 5.9 years and a 146% return on investment after year 10 (see attached). The existing fiber has been in service for over 12 years and has served the Town well. The proposed solution will include increased bandwidth and we fully expect the proposed solution to be adequate for 10 years and possibly longer.

V. What Board Goals Does This Project Meet?

- Fiscally Responsible
- Choose an item.

VI. Project Location: (Attach a map if applicable)

Connecting Public Works will require laying fiber alongside W. Eighth St and Lark Avenue. Connecting Town Hall will require laying fiber from the front of the building to the handhold beside of the highway.

VII. Department Priority: (Choose One) Does the requested project:

- | | | |
|--|---|-----------------------------|
| a. Correct an unsatisfactory level of service? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| b. Maintain a current level of service? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| c. Increase a level of service? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| d. Represent a "vision"? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |

VIII. Departmental Rank: (Prioritize your request in relation to other departmental project request)

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IX. Project Alternatives:

The IT Department has priced many different replacement solutions from many different providers. These solutions included wireless point to point connections, copper connections, and VPN connections offered by the phone company, cable company, and various other private contractors. All solutions considered were either higher in monthly cost or involved much higher initial costs. In the case of a town owned wireless link, reliability and serviceability are questionable especially during inclement weather.

**CAPITAL IMPROVEMENT PROGRAM
ITEM/PROJECT DESCRIPTION FORM**

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X. Project Dependency:

Approval and funding.

XI. Negative Impacts:

None, other than initial construction cost and inconveniences of the construction.

XII. Other Considerations:

The Information Technology Department is currently working to share the construction cost with the Town of Kill Devil Hills. They are likely to connect their Water Plant at the same time Nags Head connects. They have indicated they would like to participate in a joint project. Considering that Kill Devil Hills is interested in sharing construction cost and that MCNC has said the figures they have provided are "worst case scenario" initial cost may actually be lower than current estimates.

This project also presents the potential for Kill Devil Hills and Nags Head to share the cost of leasing a fiber connection to the Dare County offices at a very reasonable rate. This would present opportunities to improve the efficiency and information sharing of Town and County public safety applications. The project will also open the possibility of sharing servers and storage to reduce the cost of backing up data and provide greater geographic separation of backups. Other shared government "cloud" applications could be discussed and implemented at later dates as well.

Once connected, Nags Head and Kill Devil Hills could also share an Internet connection from MCNC. For Nags Head, this would provide roughly the same Internet bandwidth that we currently have and provide an additional savings of over \$3,000 per year.

The provider of the current fiber connection to Public Works could terminate the service at any time and require that we purchase their replacement service to maintain the connection from Town Hall to Public Works. This would increase the cost of maintaining the existing connection by approximately \$3,000 per year until another alternative can be sourced and implemented.

MCNC is an agency that is rooted in government and is very government friendly. It is likely that the town will find them to be a more favorable business partner.

XIII. Additional Funding Sources:

Are there grants or additional funds which might be used in conjunction with the CIP to fund this project:

Yes No If YES, describe: [Click here to enter text.](#)

XIV. ESTIMATED COSTS

a. Capital/ One Time Costs	Description of Capital/One Time Costs	Cost (Round to Nearest \$)
	Construction, Equipment and Installation	\$ 23,950
	TOTAL Capital (One Time Costs)	\$ 23,950
b. Continuing Annual Operating Costs	Description of Continuing Annual Operating Costs	
	Current/pre-project annual monthly cost (\$600 x 12)	\$ 7,200
	Post project completion annual cost (\$270 x 12)	3,240
	TOTAL Continuing Annual Operating Costs	\$ 3,240

XV. Fiscal Year Requested: 2013-2014

Priority Recommendation: (By CIP Committee)

