

Broadband Deployment Phase II
(Conceptual Design, Tactical Implementation Plan and Service Provider Outreach)
City of Hudson, Ohio

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Background

The City of Hudson, Ohio recently completed the development of a Broadband Needs Assessment and Business Plan that indicated the development of an open-access network would be the most optimal business model for deploying high-speed infrastructure throughout the City. Open-access will require participation by providers who will use the City's infrastructure to deploy broadband services to the businesses and anchors throughout the Hudson area. While open-access is the preferred method for deploying infrastructure, the City of Hudson should be prepared to provide retail business services including Internet, transport and voice services should providers be unwilling to participate in an open-access model.

The findings and recommendations of the Assessment and Business Plan were presented to the City of Hudson City Council on February 10, 2015 who in turn accepted the report and recommended City staff proceeds with the recommendations.

Magellan is prepared to assist the City in developing a conceptual design of the network, a tactical implementation plan, and in recruiting service providers to the network. The conceptual design of the network will provide the City of Hudson with a final plan that outlines the network build requirements and prepares the City for developing a competitive bid package for construction of the fiber network. The tactical implementation plan will outline the timeline for implementation including all procurement, implementation and testing tasks required to stand the Hudson network up. This tactical implementation plan will allow the City to plan for the construction, implementation and operation of the network including revised revenue projections. Finally, our consultants will begin meeting with potential service providers to gauge interest in participating on Hudson's open-access network. We will work to secure a letter of interest (LOI) from each provider that intends on partnering with Hudson on this endeavor.

Scope of Work

▪ **Task 1: Conceptual Design of the Hudson Network**

This conceptual design will provide a design for Hudson's feeder and distribution network needed to implement the broadband utility. It will allow Hudson to accurately estimate the costs of these components of the network, which constitute a significant amount of capital investment in the project. This task will include outside plant design for the feeder and distribution network that connects between the current backbone network down to individual service areas within Hudson. It will include all fiber-optic components from integration with the backbone network through to fiber distribution hubs and out to pedestals within each area. Components of the design include:

- Aerial and underground placement requirements;
- Conduit and fiber-optic running lines in established ROW and easement with distance and slack;
- Location of vaults, handholes, and pedestals, sizes and quantities;
- Placement of fiber distribution hubs, sizes and quantities;
- Splitter configuration and density within fiber distribution hubs;
- Fiber-optic splice points, splice cases and splicing;
- Fiber-optic termination locations, sizes and quantities; and,
- Equipment locations and requirements.

The design will be created in CAD/GIS formats for later edits and expansions to the design. Cost estimates will be provided for materials and labor required in the design. Once completed, the conceptual design can be utilized as the basis for releasing an RFP for construction of the network. It will allow Hudson to evenly compare construction bids among one another using unit cost pricing and ensure that the utility receives the most competitive pricing available.

Most importantly, it will allow Hudson the opportunity to review and determine final fiber routes including those that may use existing fiber.

▪ **Task 2: Tactical Implementation Plan**

The Tactical Implementation Plan will build on the existing work that has been completed, and will outline all requirements to deploy broadband infrastructure throughout Hudson. The Plan will outline the various capital and operational tasks required to bring this network online, focusing on procurement tasks, design & construction of the physical fiber network and deployment of the equipment

required to “light” the network. Most projects of this magnitude require 12 to 18 months of planning and implementation before services are ready to be provided. This Plan will map out the entire timeline, and will include the development of a capital draw schedule that will document expenditures during the implementation process. The Plan will be developed for the open-access business model, but will be easily migrated to Business Services Provider if required.

- **Task 3: Service Provider Outreach and Recruitment**

The deployment of an open-access network in Hudson will require the participation of private sector providers to deliver the end-user services to the market. Magellan will develop marketing material that will be provided to potential providers to help them understand the City’s intentions and the roles they would play in this initiative. Our consultants will begin meeting with incumbent and competitive providers that were identified during the Assessment and Business Plan phase of this project. In addition, we will begin marketing Hudson’s network to other national competitive carriers and providers that have interest in operating on open-access networks and that would consider deployment in the Hudson region.

Magellan will provide a number of documents to Hudson for their review. These documents include Letters of Interest (LOI), Service Level Agreements (SLA) and other documents that would be of interest to potential partners that may operate on Hudson’s network. The goal of the outreach and recruitment task is to identify those partners that will participate and to get receive multiple LOIs from providers prior to City Council approving funds to move into implementation.

Project Deliverables

The deliverables for this project include:

- Tactical Implementation Plan narrative, schedule and timelines;
- Conceptual design for feeder and distribution network in CAD, GIS or similar format;
- Revised capital estimates based on conceptual design;
- Development of Service Provider documentation including Letters of Intent, Service Level Agreements, and other supporting documents;
- Other materials related to the Hudson network implementation, which may include marketing collateral and branding information.

Project Timeline

Based on this specific project, we estimate the project to be completed within 90 days. We are able to begin this project immediately on approval from the City of Hudson.

Project Pricing

Pricing for the project includes all work completed by Magellan for the City of Hudson as stated under this Proposal. The hourly rate provided below is inclusive of travel. Each task has been estimated as **NOT-TO-EXCEED**. Hours may be reallocated to additional tasks through mutual agreement between the City of Hudson and Magellan Advisors.

Project Component	Hourly Rate	Hours	Total
Task 1: Conceptual Design of the Hudson Network	\$130	200	\$26,000
Task 2: Tactical Implementation Plan	\$130	100	\$13,000
Task 3: Service Provider Outreach and Recruitment	\$130	150	\$19,500
Total (NOT-TO-EXCEED)		450	\$58,500

Signature and Acceptance

Magellan Advisors, LLC	City of Hudson, OH
Print Name: _____	Print Name: _____
Title: _____	Title: _____
Signature: _____	Signature: _____
Date: _____	Date: _____