



**In Collaboration  
With the  
Town of Gouldsboro**

**CONNECTME FUND  
GRANT APPLICATION**

**TOWN OF GOULDSBORO BROADBAND PROJECT  
includes:**

**Gouldsboro, Prospect Harbor, Corea,  
West Gouldsboro, South Gouldsboro & Ashville**

**MARCH 22, 2010**



Axiom Technologies  
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**ConnectME Fund**  
**Fourth Round Grant Application**  
(Amendment to Town of Eastbrook Grant Award)  
March 2010

1. **Date:** **March 22, 2010**
2. **Project Title:** **Town of Gouldsboro Broadband Project**
3. **Submitting Entity:** **Axiom Technologies**
4. **Grant Amount Requested:** **\$128,688.18**
5. **Project Contact Information:**

**Susan Corbett, CEO**  
**3 Water St.**  
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6. **Party Who Prepared Application:**

**Susan Corbett, CEO & Nelson Geel, CTO**  
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## 7. Executive Summary of the Project:

Axiom Technologies, in collaboration with the Town of Gouldsboro, submits this Grant Application in response to the ConnectME Authority Grant Funding Program for deployment of broadband in rural Maine.

Gouldsboro, and its villages, Prospect Harbor, Corea, West Gouldsboro, South Gouldsboro and Ashville have 1329 homes, based on the 2009 State Planning Office Projections. Axiom Technologies and the Town of Gouldsboro have a goal of bringing high-speed broadband access to 70 to 90% of the unserved households. We expect a “take-rate” of 35% in Year One.

At a Gouldsboro Selectmen’s meeting on January 7, 2010, town officials and the public confirmed that Gouldsboro has no broadband availability in specific areas and requested Axiom to apply to the ConnectME Authority for funding. Following discussions with Time Warner Cable and Fairpoint Communications, we estimate that approximately 40% of the homes are served, although it is difficult to attain an accurate assessment of broadband coverage.

Lack of broadband in several areas of Gouldsboro and its villages was confirmed via the ConnectME Broadband Availability mapping, from discussions with officials from the Town of Gouldsboro, and from the 100+ Gouldsboro residents who have contacted Axiom requesting to be included in Axiom’s database for Internet service. Axiom confirms with the residents that they are not able to receive broadband service from another Internet Service Provider and documents this confirmation in our database.

This due diligence assessment demonstrated the essential need for broadband capability in the *unserved* areas in Gouldsboro, Maine.

The Board of Selectmen and residents of Gouldsboro strongly support the approval of Axiom’s grant application to the ConnectME Authority for funding.

Axiom has engineered and will build a wireless infrastructure in Gouldsboro, Maine. Axiom’s engineers and Town of Gouldsboro officials have identified the tower site. Use of public property to construct a tower has been approved and we are currently completing the building permit process. This town property is a “grant match” as the Town is waiving rental of the property.

The tower in Gouldsboro will receive its signal from Axiom’s transmitter site at Black Cap Mountain, Eddington, Maine. There will also be radio gear at the tower site and at least four mini-PoP’s built at other locations in the town to ensure maximum coverage. This tower site will also be incorporated into Axiom’s existing wireless infrastructure in Washington County, specifically the tower constructed from the Town of Steuben ConnectME 2008 grant, enabling redundant service to the

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Town of Gouldsboro. Without this tower build, wireless, high-speed Internet service would not be possible in the unserved areas of Gouldsboro.

Axiom has a Resellers Agreement with Fairpoint Communications. Fairpoint is planning on bringing DSL high-speed capability to many of its Remote Terminal locations throughout Maine in 2010. Gouldsboro has not been identified as a potential site as of this date. However, should Fairpoint bring DSL service to a Remote Terminal in Gouldsboro, Axiom will also offer DSL service, moving its wireless subscribers off of the wireless network. This serves two purposes; first it supports Axiom's business model of collaboration and blending technologies; and second, it allows the "recycled" subscriber radio to be deployed to an area that is unserved, stretching public and private investment.

Axiom has had discussions with Tom Federle, attorney for Time Warner Cable regarding overlap of service. An Overlap Avoidance Agreement (see attachment) has been signed by Axiom for Time Warner Cable. Time Warner Cable has also provided a street level map (see attachment) of their cable service in Gouldsboro and understands that wireless service knows no boundaries and that there will be crossover of Axiom's wireless network over Time Warner's existing coverage. However, per the Overlap Avoidance Agreement, Axiom will not deploy wireless service if the subscriber can get Time Warner's cable Internet service.

The Town of Gouldsboro has confirmed that it has not been contacted by any other Internet Service Provider to bring broadband to its town.

In April 2010, Stinson Seafood Plant in Gouldsboro will close its doors and 128 workers will lose their jobs. This plant has been operating in Prospect Harbor for more than 100 years and is the last sardine cannery in the United States. Axiom is collaborating with Eastern Maine Development Corporation and Machias and Ellsworth Career Centers to recruit two to four displaced Stinson employees. If awarded this grant, Axiom will train these individuals as Field Technicians to install subscriber radio units in Gouldsboro and the surrounding area.

In addition, Axiom has offered to set up a wireless "Hot Spot" in the parking lot of Gouldsboro Town Office upon completion of the tower build to provide connectivity to residents off hours, specifically as a service to the former Stinson employees.

- 8. A description of the geographic area proposed to be served by the project and sufficient information to establish that it is an unserved area, preferably at street-level granularity, and not likely to be served in the foreseeable future. (Most applicants conduct independent research to determine if a community has broadband or are sufficiently familiar with the community to know that there isn't any terrestrial broadband available).**

**Applicants must be aware of recent legislative changes that require the**

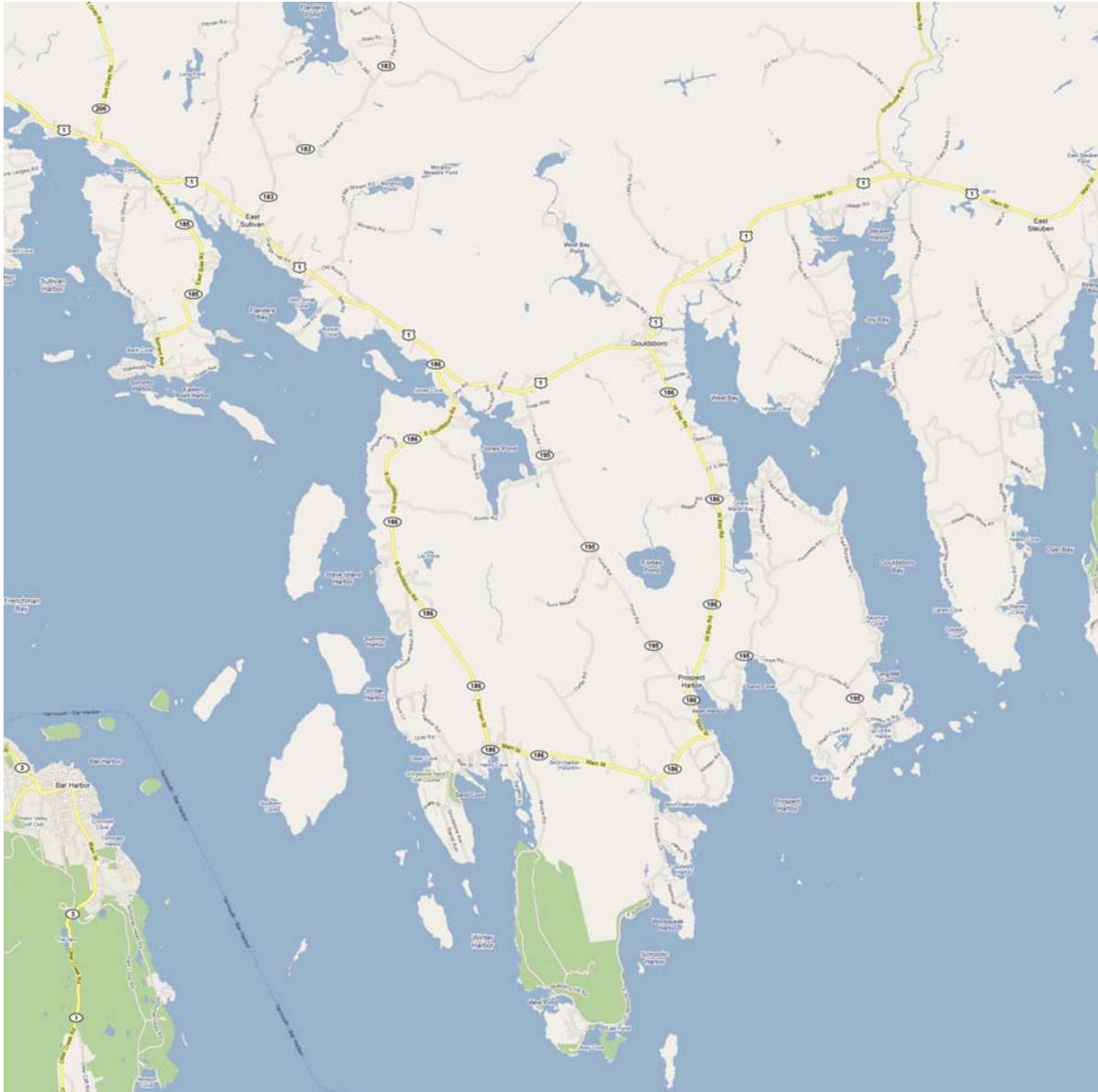
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**ConnectME Authority to give priority to grant proposals that, relative to other proposals, seek to extend access to broadband internet service to a higher percentage of an "unserved" area within a municipality or other appropriate geographic area. The legislation requires the Authority to also consider the percentage of households with access to broadband service when establishing criteria to define unserved and "underserved" areas;**

Gouldsboro is a town in Hancock County. It is northeast of Ellsworth and served by Maine Route 186, which is a peninsula. The peninsula is between Sullivan and Steuben. It covers 50.4 square miles, has 1329 homes and 1941 residents.

At a Gouldsboro Selectmen's meeting on January 7, 2010, town officials and the public confirmed that Gouldsboro has areas of no broadband availability and requested Axiom to apply to the ConnectME Authority for funding. Lack of broadband in the unserved areas of Gouldsboro, Maine was confirmed via the ConnectME Broadband Availability mapping and through a due diligence assessment. These reports demonstrated the essential need for broadband capability in the *unserved* areas of the Town of Gouldsboro and its villages.



**9. A description of the proposed project, including:**

**a. public-private partnerships that have been established;**

Axiom Technologies, in collaboration with the Town of Gouldsboro, desires to bring high-speed Internet service to the residents and businesses of Gouldsboro, Maine. A letter of support from Gouldsboro Selectmen is attached.

**b. evidence that the private partner in the project is eligible to receive funding from the Authority;**

Axiom Technologies, LLC was founded and incorporated in the fall of 2001. It reorganized as a Maine Limited Liability Corporation October 13, 2004, and Articles of Incorporation were filed with the Secretary of State. All Members unanimously adopted a revised Operating Agreement in October 2005. Axiom Technologies, LLC maintains its business office at 3 Water Street, Machias, ME 04654.

Axiom Technologies is a Maine for-profit corporation. It has been the recipient of three ConnectME grants since 2007 and has a proven track record in public-private partnerships. It is through the collaboration of municipalities, economic development groups, businesses and residents that Axiom's business model has proven successful. Of the 80+ Access Points that have been installed by Axiom to date, all but the mountain sites (four towers) are at no rent. This is a testimony to the support and commitment of the communities.

**c. the type of service to be provided, indicating the technology used and the upstream and downstream speeds of the service to be provided;**

Service is provided to the customer's premises (either business or residential) via wireless technology. The systems utilized are fixed point to multipoint radio networks whereby multiple subscriber radios at the customer's premises connect to master transmitter sites on towers, hilltops and buildings that possess geographical advantages including height and clear sight lines. In this manner, site selection for these "Access Points" is similar in process to that of a cellular phone carrier; however, our cost to deploy transmitters is much lower, allowing more transmitters to be installed within a geographical area, thereby improving coverage and accessibility.

Axiom utilizes several different radio frequencies, 900 MHz, 2.4 GHz and 5.8 GHz which have proven very effective in high-speed broadband deployment. We have added 3.6 GHz radio gear to transmitter sites which enables the availability of a 10Mbit symmetrical product that is cost effective.

Axiom has obtained the necessary FCC licensing to field and operate radio electronics in the 3.65 GHz band. The technologies utilized are capable of over-the-air data transmission rates up to 100mbit. Axiom's subscriber plans set customer bandwidth at between 1 and 10mbit downstream and 500k – 1.5mbit upstream for residential service. Up to 10mbit symmetrical service is available for businesses requiring increased upstream bandwidth for server hosting or similar applications. In addition to the advanced radio systems, Axiom will also be installing augmented power systems for

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protection against AC grid outages; the primary cause for service interruption in the Downeast region. These power systems utilize deep battery arrays and, where terrain permits, power generation via hybrid solar and wind generators.

A 190 foot tower will be built in Gouldsboro. There are no existing towers or buildings of high elevation in the area that could be utilized to deploy Access Points.

There will be a direct link from Axiom's transmitter site at Black Cap Mountain in Eddington, Maine, which receives its signal from Oxford Network's location in Bangor, Maine. This microwave system brings bulk bandwidth via Oxford's fiber network to Axiom's wireless infrastructure. Additionally, a Fairpoint DS3 Circuit located at Axiom's headquarters in Machias will provide a redundant link via its existing wireless network. Four additional Mini-PoP's will also be constructed in order to reach 70 to 90% of the unserved residents of Gouldsboro.

**d. an estimate of the time required to complete the proposed project;**

The Town of Gouldsboro Broadband project will take an estimated six to nine months, depending on weather.

**e. the number and percentage of households and businesses within the area to be served by the project (i.e. who can be served given technical limitations);**

The project is projected to reach 70 to 90% of the unserved homes and businesses in Gouldsboro.

**f. the estimated price per customer of the service to be provided by the proposed project; and**

Estimated cost per household is \$179.32.

**g. a map (preferably GIS compatible) or list of municipalities or parts of municipalities that may be covered by the proposed project with GEO Codes.**

Geo Code is: 09150. Map is attached.

**10. The total amount of funding requested from the Authority;**

The total grant request is: \$128,688.18.

**11. The applicant's financial commitment to the project in addition to the funding requested from the Authority;**

Axiom is committed to financing the remainder of the expenses of the project.

**12. The estimated number of customers/households who will directly benefit from the project who are currently unserved (provide lists or numbers of potential customers that have indicated a strong commitment to subscribe);**

It is estimated that 70 to 90% of the unserved homes and businesses in Gouldsboro will have access to wireless broadband availability.

**13. Evidence of community support for the proposed project, which may include letters or signatures of residents or businesses located within the area of the proposed project (also, provide letters of interest from landowners for placement of facilities and support commitments from municipalities or community groups);**

See attached letters and emails of support from town officials and residents of the Town of Gouldsboro. Since the Selectmen's meeting on 1/7/10, over 100 Gouldsboro residents and businesses have contacted Axiom to be included in Axiom's database. When adding potential subscribers to our data base, Axiom confirms with the residents that they are not able to receive broadband service from another Internet Service Provider.

**14. A description of the applicant's experience relevant to the proposed project; and**

Axiom Technologies is a telecommunications company located in Machias, Maine that has been creating, researching and developing a wireless technology for broadband deployment in rural Maine. Axiom has been working diligently for the past five years in researching and developing wireless networks, and has installed over 80 Access Points serving 80 previously unserved geographical areas, representing 40 towns in Washington County. Access Point installation work is ongoing as of this grant application.

Axiom is the recipient of three ConnectME grant awards in 2008/2009 (\$657,665.00 in total grant funding) and is continuing to deploy broadband using its existing business model to towns and territories in Washington County throughout 2010. At the completion of the ConnectME Washington County Broadband Project, Axiom will have a wireless infrastructure with approximately 100 Access Points, creating an umbrella over the entire County.

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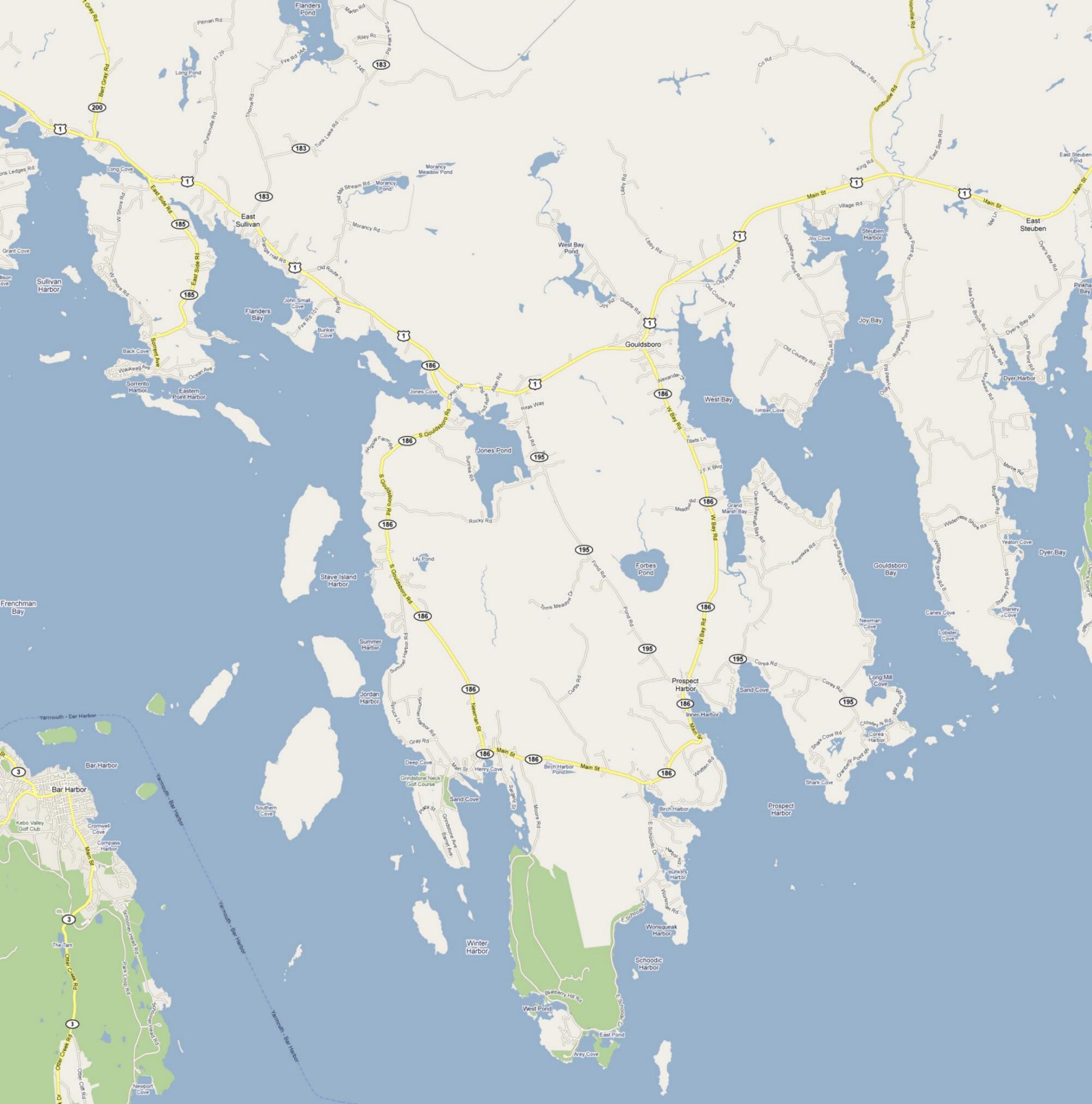
**15. A demonstration of financial viability provided by pro-forma financial statements for the project and company financial statements. Confidential information may be submitted and should be so marked.**

## Financial Analysis and Budget

The budget will be reviewed on reasonableness and accuracy. Provide the following financial information with as much detail as possible:

	ConnectME Grant Funding	Cash Match	In-Kind Match	Other Funding Sources	Total
Personnel	\$ .00	\$71,766.00			\$ 71,766.00
Contractual Services:					
Tower Build	\$50,892.93	\$ 2,043.17	\$4200.		\$ 57,136.10
Start up Expenses and Capital Expenditures:					
Access Points	\$15,000.00	\$ .00			\$ 15,000.00
Supplies and Materials:					
Radio Receivers for Subscribers	\$ 62,795.25	\$ .00			\$ 62,795.25
Job Supplies	\$ .00	\$28,706.40			\$ 28,706.40
Telecommunications	\$ .00	\$14,796.00			\$ 14,796.00
Training					
Travel	\$ .00	\$ 7,176.60			\$ 7,176.60
Other costs					
<b>Total</b>	<b>\$128,688.18</b>	<b>\$124,488.17</b>	<b>\$4200.</b>		<b>\$257,376.35</b>

\*See attached financial statements and reports.



## **ConnectME Authority Grant to Axiom Technologies**

### **Overlap Avoidance Agreement**

Whereas, on January 21, 2010, the ConnectME Authority awarded a grant to Axiom Technologies (“Axiom Technologies”) to provide high speed data service to unserved residents of the Town of Gouldsboro;

Whereas, Time Warner Cable (“TWC”) presently provides high speed data services in portions of the Town of Gouldsboro as shown on the street level map of its existing cable modem system attached hereto as Exhibit A;

Whereas, under the ConnectME statutes (*35-A M.R.S.A. §§ 9201-9215 and 36 M.R.S.A. § 2017*) and the ConnectME Authority’s rules (*Section 99-639, Chapter 101: ConnectME Authority, §§ 1-8*), an application is ineligible for grant money if it would create an overlap in existing broadband coverage for more than twenty percent (20%) of households in the proposed coverage area;

Whereas, the wireless coverage funded by this Grant could create an overlap in existing broadband coverage of greater than 20%, and

Whereas, the ConnectME Authority conditioned the approval of the Axiom Technologies grant application on compliance with an Overlap Avoidance Agreement to be signed by Axiom Technologies and TWC;

Now Therefore, Axiom Technologies and TWC hereby memorialize their Overlap Avoidance Agreement upon the terms and conditions set forth herein.

### **Terms and Conditions**

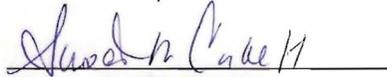
1. Axiom Technologies shall not provide broadband service to residents of the Town of Gouldsboro where such service is available by standard drop through TWC (standard drop service is service available without additional fee for line extension that can be provided within three weeks of a request for service).
2. Prior to offering service to any customers within the coverage area that is the subject of the grant, Axiom Technologies shall:
  - A) consult the street level maps of TWC’s existing cable modem system;

- B) obtain a verbal statement from that prospective customer as to whether the customer has broadband internet service available at that location from TWC without fees for line extensions, and
- C) utilize its technical staff to confirm unavailability of existing standard drop service when it performs a site survey to prepare installation of the Axiom Technologies system for such prospective customers.
- D) maintain complete records of its site surveys and the verbal statements received from prospective customers. Axiom Technologies shall provide copies of the site surveys and customer statements to the ConnectME Authority and staff upon reasonable written request of the ConnectME Authority and/or TWC in the event that either the ConnectME Authority or TWC forms a good faith belief that Axiom Technologies has violated this Overlap Avoidance Agreement.

3. TWC shall have the right to appear before the ConnectME Authority to allege a violation of the Overlap Avoidance Agreement, which is a condition of approval, upon filing with the ConnectME Authority, and copying to Axiom Technologies, a written claim of violation ("Claim of Violation"). Axiom Technologies shall be given an opportunity to respond to any such Claim of Violation by providing a written response to the ConnectME Authority, and copying TWC, within 14 days of receiving the Claim of Violation. In the event that the ConnectME Authority, after a review of the Claim of Violation, finds and concludes that Axiom Technologies has violated the terms of this Overlap Avoidance Agreement, the Authority shall be authorized to impose a monetary penalty it deems commensurate with the violation, and shall be authorized to declare Axiom Technologies ineligible for any further grant funding from the ConnectME Authority. Nothing herein shall be construed as limiting the Authority from imposing other remedies that it deems appropriate.

Dated:

1/21/10



Susan Corbett, CEO

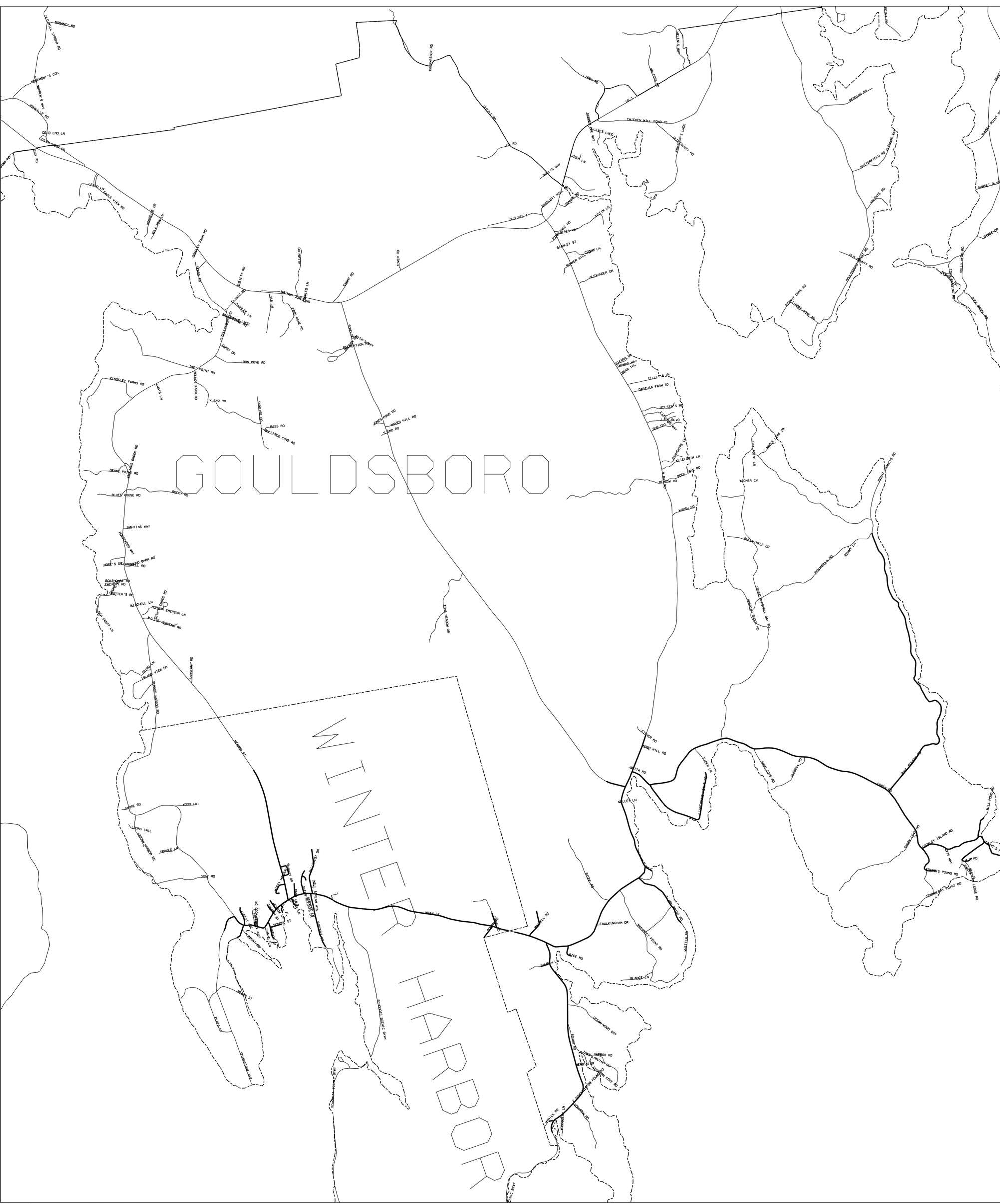
Axiom Technologies

By:

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Time Warner Cable

By:



## TOWN OF GOULDSBORO

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www.gouldsborotown.com

Town Manager, Treasurer, Town Clerk, Tax Collector  
Yvonne P. Wilkinson

Board of Selectmen

Dana Rice, Chair  
William Thayer  
Susan Bagley  
James McLean  
James Watson

March 15, 2010

Phil Lindley, Executive Director  
ConnectME Authority  
138 Statehouse Station  
Augusta, ME 04333

Dear Mr. Lindley,

Gouldsboro's Board of Selectmen initially met with Axiom Technologies' representative on January 7, 2010 to discuss deploying wireless broadband in the Town of Gouldsboro and its villages; Prospect Harbor, Corea, West Gouldsboro, Birch Harbor, South Gouldsboro and Ashville.

The Board of Selectmen and residents of Gouldsboro strongly support the approval of Axiom's grant application to the ConnectME Authority for funding. Use of public property to construct a tower has been approved and we are currently completing the building permit process.

The Town of Gouldsboro confirms that they have not had any inquiries from any other Internet Service Provider to deploy broadband.

In February, 2010, the residents of Gouldsboro received devastating news that the Stinson Seafood plant was closing its doors in April, 2010. There will be approximately 128 displaced workers. The award of this grant to Axiom will allow them to add additional personnel to their workforce. Axiom is working with Eastern Maine Development Corp and the Machias and Ellsworth Career Centers to offer a minimum of two to four installer positions to displaced Stinson Seafood workers. If Axiom is awarded additional ConnectME grants in Hancock County, additional positions will be available.

In addition, Axiom has offered to set up a wireless "Hot Spot" in the parking lot of Gouldsboro Town Office, to provide connectivity to residents off hours.

Sincerely,

  
Yvonne P. Wilkinson  
Town Manager

PC: file