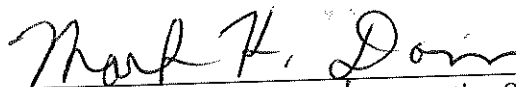


U.S. Department of Commerce
Broadband Technology Opportunities Program
Authentication and Certifications

1. I certify that I am the duly Authorized Organization Representative (AOR) of the applicant organization, and that I have been authorized to submit the attached application on its behalf.
2. I certify that I have examined this application, that all of the information and responses in this application, including certifications, and forms submitted, all of which are part of this grant application, are material representations of fact and true and correct to the best of my knowledge, that the entity(ies) that is requesting grant funding pursuant to this application and any subgrantees and subcontractors will comply with the terms, conditions, purposes, and federal requirements of the grant program; that no kickbacks were paid to anyone; and that a false, fictitious, or fraudulent statements or claims on this application are grounds for denial or termination of a grant award, and/or possible punishment by a fine or imprisonment as provided in 18 U.S.C. §1001 and civil violations of the False Claims Act.
3. I certify that the entity(ies) I represent has and will comply with all applicable federal, state, and local laws, rules, regulations, ordinances, codes, orders and programmatic rules and requirements relating to the project. I acknowledge that failure to do so may result in rejection or deobligation of the grant or loan award. I acknowledge that failure to comply with all federal and program rules could result in civil or criminal prosecution by the appropriate law enforcement authorities.
4. I certify that the entity(ies) I represent has and will comply with all applicable administrative and federal statutory, regulatory, and policy requirements set forth in the Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements ("DOC Pre-Award Notification"), published in the Federal Register on February 11, 2008 (73 FR 7696), as amended; DOC Financial Assistance Standard Terms and Conditions (Mar. 8, 2009); the Department of Commerce American Recovery and Reinvestment Act Award Terms (Apr. 9, 2009); and any Special Award Terms and Conditions that are included by the Grants Officer in the award.
5. I certify that any funds awarded to the entity(ies) I represent as a result of this application will not result in any unjust enrichment of such entity(ies) or duplicate any funds such entity(ies) receives under federal universal service support programs administered by the Universal Service Administrative Corporation (USAC).
6. I certify that the entity(ies) I represent has secured access to pay the 20% of total project cost or has petitioned the Assistant Secretary of NTIA for a waiver of the matching requirement.

MAR 25 2010

Date

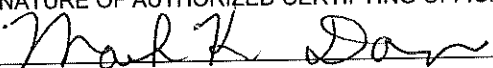


Authorized Organization Representative Signature

Print Name **Mark K. Dorn**
 Controller

Title

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (Identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

*SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL 	*TITLE Mark K. Dorn Controller	
*APPLICANT ORGANIZATION UW-Extension Office of Extramural Support 432 N Lake Street, Room 104 Madison, WI 53706		*DATE SUBMITTED MAR 25 2010



Comprehensive Community Infrastructure **Budget Narrative Template**

Applicant Name: University of Wisconsin - Extension

EasyGrants Number: 5710

Organization Type: Other

Proposed Period of Performance: October 1, 2010 – September 30, 2013

Total Project Costs: \$42,726,744

Total Federal Grant Request: \$29,884,919

Total Matching Funds (Cash): \$9,241,097

Total Matching Funds (In-Kind): \$3,600,728

Total Matching Funds (Cash + In-Kind): \$12,841,825

Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: 30.06%

1. Administrative and legal expenses - \$1,567,042

- **\$1,157,621** of this category is estimated for Project Management staff. This consists of a project manager in each of the Community Area Networks (CANs) (FTE varies amongst communities), a Technical Project Manager (1 FTE) who will supervise progress in all of the CANs and oversee the Inter-Community Middle Mile Backbone Network (ICMMBN) build-out, and a Project Manager (.5 FTE) who will monitor the technical progress, ensure adherence to timeline, oversee the fiscal, compliance, and reporting staff, ensure overall success of the project, and coordinate this project with the UWEX BCCB Sustainable Broadband Adoption project.
- **\$390,935** of this category is estimated for Fiscal Management of the project. 0.5 FTE is assigned to Fiscal Compliance for the grant, 0.5 FTE is assigned to Reporting Compliance for the grant, and the Chippewa Valley Area has included 1 FTE for Fiscal and Reporting Management for their CAN. This person will work closely with both 0.5 FTEs.
- **\$18,486** of this category is for pre-application expenses. This includes time spent by WiscNet's Executive Director working with UWEX to develop the strategy for this project and WiscNet's Budget and Policy Analyst to develop the project budget and the pro-formas for the project.



Match Detail – Please see Question 14.03 (Match Detail) and Additional Supplemental Materials #5 - Required Match Detail By Partner.

The following match is committed to the Administrative and Legal Expense category, and corresponds to the match attributed to lines identified as part of this category in the Detailed Project Budget:

Cash Match: \$236,278 in cash is committed to administrative expenses.

In-Kind Match: \$43,780 of in-kind match is committed to administrative pre-application expenses.

The following table is a detailed list of all costs in this category:

Staff	Hours Per Year	Years	Total Hours Spent on Project	Rate	Total Cost
BTOP Project Manager	1044	3	3132		
BTOP Technology Project Manager	2088	3	6264		
Superior Area Project Manager	1044	1	1044		
Wausau Area Project Manager	125.28	1	125.28		
Chippewa Valley Contract Project Manager	1250	2	2500		



Platteville Area Project Manager	208.8	1	208.8		
BTOP Fiscal Manager	1044	3	3132		
BTOP Reporting Compliance Manager	1044	3	3132		
WiscNet Executive Director – Pre-Application Expense	41	N/A	41		
Budget and Policy Analyst – Pre-application Expense	356.9	N/A	356.9		
WiscNet Project Manager – Pre-application Expense	342	N/A	342		
Chippewa Valley Area BTOP Financial Manager	2088	2	4176		
TOTAL:					\$1,567,042

2. Land, structure, rights-of-way, appraisals, etc. - \$3,493,600

- **\$1,543,200** of this category is estimated for new tower and ground facilities needed to support the WiMAX antenna system in the Chippewa Valley area.
- **\$1,509,000** of this category is estimated for Wisconsin Department of Transportation Right-of-Way costs.



- **\$20,000** of this category is estimated for easement costs in the Platteville area.
- **\$421,400** of this category is estimated for regeneration huts along the ICMMBN.

Match Detail – Please see Question 14.03 (Match Detail) and Additional Supplemental Materials #5 – Required Match Detail By Partner.

The following match is committed to the Land, structure, rights-of-way, and appraisals category, and corresponds to lines identified as part of this category in the Detailed Project Budget:

Cash Match: There is \$0 in cash commitment to this project.

In-Kind Match: \$1,509,000 of in-kind is committed to Right-of-Way costs.

The following table is a detailed list of all costs in this category:

Description	Unit Cost	Number of Units	Total Cost
Chippewa Valley Area – Tower and ground facilities		12	
Platteville Area – Easement Costs		1	
Wisconsin Department of Transportation Right-of-Way: U.S. Highway 53 Chippewa Falls to Superior		136	
Wisconsin Department of Transportation Right-of-Way: U.S. Highway 151 Madison to Platteville		69	
Wisconsin Department of Transportation Right-of-Way: Interstate Highway 39 Stevens Point to Wausau		30	
ICMMBN Regeneration Huts		4	
TOTAL:			\$3,493,600

**3. Relocation expenses and payment - \$0**

There are no relocation expenses in this budget.

4. Architectural and engineering fees - \$1,439,132

- **\$728,504** of this category is estimated for engineering labor of ICMMBN.
- **\$695,181** of this category is estimated for engineering labor for Community Area Networks.
- **\$15,447** of this category is for Pre-Application expenses.

Match Detail – Please see Question 14.03 (Match Detail) and Additional Supplemental Materials #5 – Required Match Detail By Partner.

The following match is committed to the Architectural and Engineering fees category, and corresponds to lines identified as part of this category in the Detailed Project Budget:

- Cash Match: \$100,553 of cash is committed to ICMMBN Engineering labor.
- In-Kind Match: \$15,447 of in-kind is committed to pre-application expenses.

The following table is a detailed list of all costs in this category:

Staff	Hours Per Year	Years	Total Hours Spent on Project	Rate	Total Cost
Chippewa Valley Area Contract WiMAX Engineer Labor	2500	1	2500		
Platteville Area Contract Engineering Labor	(Rate based on number of feet) 55,305	1	(Rate based on number of feet) 55,305		



Middle Mile Backbone Fiber Manager	1044	3	3132		
Community Area Network Fiber Manager	1044	3	3132		
Middle Mile Backbone Network Engineer	2088	3	6264		
Superior Area Technical Engineer	417.6	1	417.6		
Chippewa Valley Network Engineer	2088	2	4176		
Wausau Area Contract Network Engineer	2800	1	2088		
Middle Mile Backbone Engineer – Pre-application expense	155.5	N/A	155.5		
CCI Systems Consultation Labor – Pre-application expense	251	N/A	251		
TOTAL:					\$1,439,132



5. Other architectural and engineering fees - \$7,500

We include \$7,500 in this category for pre-application expense. We hired an environmental engineering firm to assist in the preparation of the environmental essay pieces of this application.

6. Project inspection fees - \$0

There are no project inspection fees in this budget.

7. Site work - \$0

There are no site work costs in this budget.

8. Demolition and removal - \$0

There are no demolition and removal costs for this project.

9. Construction - \$30,047,811

- **\$10,259,118** is estimated for the Chippewa Valley Demonstration CAN operated by the Chippewa Valley Internetworking Consortium (CINC).
 - Per fiber mile rates in the Chippewa Valley Area are based on their extensive fiber-building experience, as well as quotes from CCI Systems. These quotes take into account a mixture of urban and rural environments and a mixture of installation methods. The rates reflect the variance in cost between urban and rural fiber builds.
- **\$1,761,671** is estimated for Wausau Demonstration Community CAN operated by NorthCentral Technical College.
 - Per fiber mile rates in the Wausau area are based on a response from Michels Communications to a Request for Information. Their response assumes that 8.4% of the underground path is installed in 1.25" conduit via the plowing installation method. It also assumes that 91.6% of the underground path is installed in 1.25" conduit via the directional bore installation method. Their quote assumes that 2.7% of the path is river crossings, 2.6% of the path is an elevated bore along Interstate 39, and 11.4% of solid rock.
 - There is a separate path in Marshfield to connect a University of Wisconsin – Eau Claire Nursing Satellite Facility. The cost for this path is based on estimates from CCI Systems and assumes an urban fiber build.
- **\$735,127** is estimated for the Platteville Demonstration Community CAN operated by the University of Wisconsin – Platteville.



- Per fiber mile rates in the Platteville area are based on a detailed quote from Koch Telecommunications. The rates include costs for handholes, splice cases, conduit costs, and surface and lawn restoration.
- **\$409,600** is estimated for the Superior Demonstration Community CAN operated by the University of Wisconsin – Superior.
 - Per fiber mile rates in the Superior area are based on a quote from our private, for-profit partner, CCI Systems. The rates assume the entire build will be a directional bore installation, with conduit, in the downtown area.
- **\$14,606,932** is estimated for the ICMMBN operated by WiscNet and CCI Systems.
 - The rates for the ICMMBN were developed by CCI Systems. The rates are for each major leg of the ICMMBN and take into conditions on each path. Assumptions for each path are:
 - Summit Lake to Wausau: 15% of the path will be installed via directional bore with conduit. The rest of the path will be direct bury of armored cable via plowing. 96 strands of fiber optic cable will be installed on the entire path.
 - Wausau to Stevens Point: 9.5% of the path will be installed via directional bore with conduit. The rest of the path will be direct bury of armored cable via plowing. 96 strands of fiber optic cable will be installed on the entire path.
 - Stevens Point to Eau Claire: 10% of the path will be installed via directional bore with conduit. The rest of the path will be direct bury of armored cable via plowing. 96 strands of fiber optic cable will be installed on the entire path.
 - Chippewa Falls to Superior: 10% of the path will be installed via directional bore with conduit. The rest of the path will be direct bury of armored cable via plowing. 33.4% of the path will have 144 strands of fiber optic cable. The rest of the path will have 96 strands.
 - Madison to Platteville: 10% of the path will be installed via directional bore with conduit. The rest of the path will be direct bury of armored cable via plowing. 92.7% of the path will have 96 strands of fiber optic cable. 7.3% of the path will have 144 strands of fiber optic cable.
- **\$34,000** is estimated for building entrance costs. CCI Systems provided a per entrance estimate of \$2,000. We assume 17 entrances.
- **\$479,930** is estimated for the Last Mile Network operated by our private, for-profit partners CCI Systems.
 - CCI Systems is proposing to install RF Distribution systems in 2 of the 8 Last Mile Service areas. Those are fully allocated to Last Mile costs. They are also installing optical equipment to provide both Last Mile and Middle Mile Services in the 8 Last Mile Service Areas. We have allocated portions of the ICMMBN fiber paths based on a percentage calculation. CCI Systems will own half of the installed fiber strands to be



used for providing Middle Mile Services, and to provide Last Mile Services. It is estimated that 4 fiber optic strands will be dedicated to Last Mile Services on 3 of the ICMMBN paths. By using the formula $4/96$ (4 fiber optic strands divided by the 96 strands to be installed on the paths), 4.2% of the fiber cost on the paths between Summit Lake and Eau Claire is attributable to Last Mile Services.

- **\$1,761,433** is estimated for Indirect Costs associated with the installation labor for the ICMMBN.
 - UWEX is assessing an 16% indirect cost rate on labor associated with the installation of the ICMMBN fiber. This fiber will serve 3 UW Colleges. The average percent of total cost attributable to installation is 75.5%. The actual labor cost for each ICMMBN path was used to calculate indirects.

Match Detail – Please see Question 14.03 (Match Detail) and Additional Supplemental Materials #5 – Required Match Detail By Partner.

The following match is committed to the Construction Cost category, and corresponds to lines identified as part of this category in the Detailed Project Budget:

Cash Match: \$6,400,571 in cash is committed to construction costs.

- [REDACTED] is committed by partners in the Chippewa Valley area for the CINC network.
- [REDACTED] is committed by partners in the Wausau area for the Wausau CAN.
- [REDACTED] is committed by partners in the Platteville area for the Platteville CAN.
- [REDACTED] is committed by partners in the Superior area for the Superior CAN.
- [REDACTED] is committed by Statewide partners for the Inter-Community Middle Mile Backbone Network.

In-Kind Match: \$1,997,662 of in-kind is committed to construction costs.

- [REDACTED] of existing fiber network and conduit is committed by the CINC partners in the Chippewa Valley area.
- [REDACTED] of existing conduit is committed by the City of Wausau in the Wausau area.
- [REDACTED] of existing fiber network is committed by the Platteville School District for the Platteville CAN.
- [REDACTED] of existing fiber network is committed by CCI Systems in support of the ICMMBN.

10. Equipment - \$6,083,477



- [REDACTED] is estimated for equipment needed for the Community Area Networks.
- [REDACTED] is estimated for WiMAX equipment in the Chippewa Valley Area.
- [REDACTED] is estimated for optical hardware on the ICMMBN.
- [REDACTED] is estimated for router equipment on the ICMMBN.
- [REDACTED] is estimated for switch equipment on the ICMMBN.
- [REDACTED] is estimated for 1 unit of test/spare Optical Add/Drop equipment.

Match Detail – Please see Question 14.03 (Match Detail) and Additional Supplemental Materials #5 – Required Match Detail by Partner.

The following match is committed to the Equipment Cost category, and corresponds to lines identified as part of this category in the Detailed Project Budget:

Cash Match: \$2,458,377 in cash is committed to equipment costs.

- [REDACTED] of cash is committed to CAN equipment.
- [REDACTED] of cash is committed for WiMAX equipment.
- [REDACTED] of cash is committed to ICMMBN Optical Hardware.
- [REDACTED] of cash is committed to ICMMBN Router Hardware.
- [REDACTED] of cash is committed to ICMMBN Switch Hardware.
- [REDACTED] of cash is committed to ICMMBN Test Hardware.

In-Kind Match: There is no in-kind match for equipment costs.

The following table is a detailed list of all costs in this category. All hardware is purchased:

Category of Equipment (CAN, WiMAX, Optical, Router, Switch, Test)	Description	Unit Cost	Number of Units	Total Cost
Community	Cisco 3560G Switch or	[REDACTED]	15	[REDACTED]



Area Networks (CAN)	equivalent			
	Cisco 3750 Metro Routing Switch or equivalent		61	
	Cisco 3750 Routing Switch or equivalent		53	
	Cisco IE3000 Switch or equivalent		23	
	OptiSwitch OS304 or equivalent		22	
	Enterasys 12 10/100/1000baseT, 2 1000baseX SFP Switch or equivalent		10	
	Enterasys SSA Distribution/Core switch/router 48 1000baseX SFP, 4 10GbaseX SFP+, 625W power supply or equivalent		2	
	Enterasys Rack Mount Kit for D2 switch or equivalent		1	
	Enterasys Wall mount kit for D2 switch or equivalent		9	
	Cisco 888 Wireless Router or equivalent		39	
	Enterasys 1Gb 1000base-T RJ45 SFP or equivalent		14	



	Enterasys 1Gb 1000base-LX SMF LC SFP 10km or equivalent			
Total: CAN Equipment				\$1,085,672
WiMAX	BWG – ASN Gateway or equivalent		2	
	Cisco Access Registrar (AAA) or equivalent		2	
	Cisco Network Registrar (DHCP) or equivalent		2	
	Cisco WX-SW-EMSSVR- R7.0 or equivalent		2	
	Cisco AIR-CT5508-250- K9 Wifi Controller or equivalent		12	
	Cisco AIR-LAP1252AG- A-K9 Access Point or equivalent		101	
	Cisco WCS-ENT-2500 Wireless Control System or equivalent		2	
	WiMAX Basestation 8415 & Antennas or equivalent		14	
Total: WiMAX				\$2,418,846
ICMMBN Optical	Reconfigurable Optical Add-Drop Multiplexer		2	



Hardware	(ROADM) for Cisco 15454 equipment or equivalent			
	DWDM XFPs or equivalent		15	
	Milwaukee – Infinera DWDM Add/Drop Equipment or equivalent		1	
	Sheboygan – Infinera DWDM Optical Amplifier equipment, or equivalent		1	
	UW Green Bay - Infinera DWDM Add/Drop Equipment, or equivalent		1	
	Marion - Infinera DWDM Optical Amplifier equipment, or equivalent		1	
	Wausau - Infinera DWDM Add/Drop Equipment, or equivalent		1	
	Marshfield - Infinera DWDM Optical Amplifier Equipment, or equivalent		1	
	Eau Claire East Bound - Infinera DWDM Add/Drop Equipment or equivalent		1	
	Eau Claire North Bound - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent		1	
	Rice Lake - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent		1	
	Spooner - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent		1	



	Solon Springs - Cisco 15454 Optical DWDM Amplifier Equipment, or equivalent		1	
	Superior - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent		1	
	Platteville - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent		1	
	Dodgeville - Cisco 15454 Optical DWDM Amplifier Equipment, or equivalent		1	
	Madison - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent		1	
	Elcho - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent		1	
	Wittenburg Area - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent		1	
	Auberndale - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent		1	
	Greenwood - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent		1	
	Fall Creek - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent		1	
Total: ICMMBN Optical Hardware				\$1,981,430
ICMMBN Router Hardware	Cisco 7600 Series Router or equivalent		5	
ICMMBN	Juniper EX4200 or equivalent		7	



Switches	Force10 2 port 10GB line card or equivalent		2	
Total: ICMMBN Switches				
ICMMBN Test Hardware	Cisco 15454 Optical DWDM Add/Drop Hardware for Testing/Spare purposes		1	
GRAND TOTAL:				\$6,083,477

11. Miscellaneous - \$88,182

- **\$3,841** of this category is estimated for fiber jumper cables.
- **\$27,339** of this category is estimated for Pre-application expenses that do not fit in another category.
- **\$57,002** is estimated for Consultation/Contractor services.

Match Detail – Please see Question 14.03 (Match Detail) and Additional Supplemental Materials #5 – Required Match Detail By Partner.

The following match is committed to the Miscellaneous Cost category, and corresponds to lines identified as part of this category in the Detailed Project Budget:

Cash Match: There is no cash match for miscellaneous costs.

In-Kind Match: There is \$27,339 of pre-application expenses to be used as in-kind match.

The following table shows the detail for the labor categorized as a Miscellaneous Cost:

Description	Hours Per Year	Number of Years	Total Hours	Rate	Total Cost
Wausau Area Contract Edge Device Configuration Labor	2088	1	2088		



Grant Writer – Pre- application expense	368	N/A	368	
--	-----	-----	-----	--

13. Contingencies - \$0

- Contingencies are an unallowable expenditures under BTOP.

15. Project (program) income - \$0

- The value for this line-item on the SF-424C is \$0. Please do not provide an estimated Project (program income) on the SF-424C.

BTOP Comprehensive Community Infrastructure Project Plan and Build-out Timeline

Please complete the Project Plan and Build-out Timeline templates below. Note that these templates may be modified by applicants in order to provide the most effective presentation of the data for their specific project. Applicants should ensure, however, that they provide at least as much detail as the provided templates require.

For system stability reasons, it is recommended that you provide these documents in PDF format when submitting a copy of your application on an appropriate electronic medium, such as a DVD, CD-ROM, or flash drive. There is no need to provide this instruction page.

PROJECT PLAN

- Use the following table to list the major network build-out phases and milestones that can demonstrate that your entire project will be substantially complete by the end of Year 2 and fully complete by the end of Year 3. This is to be done at the aggregate level (combining all proposed funded service areas.)
- Indicated how the milestones listed below will demonstrate these completion objectives. The applicant should consider such project areas as: a) network design; b) securing all relevant licenses and agreements; c) site preparation; d) inside plant deployment; e) outside plan deployment; f) deployment of business & operational support systems; g) network testing; f) network operational. The applicant may provide any other milestones that it believes showcase progress.
- Project inception (Year 0) starts at the date when the applicant receives notice that the project has been approved for funding.
- In the table, provide any information (e.g., facts, analysis) to: a) demonstrate the reasonableness of these milestones; b) substantiate the ability to reach the milestones by the quarters indicated.

Time Period	Quarter	Milestones	Support for Reasonableness/Data Points
Year 0	-	<ul style="list-style-type: none"> • DOT Highway rights of way secured • Wireless spectrum use secured • Vendors on contract for fiber installation and hardware • Key staff hired or identified and available • Fiber build routes identified 	<ul style="list-style-type: none"> • Our partners hold most of the authority required to grant permissions for new builds • We started contracting in 2009 for required vendors • Most required staff already employed by UW or other CAI partners • CCI Systems, as partner, has already completed much of the route planning and pre-engineering
Year 1	Qtr. 1	<ul style="list-style-type: none"> • Tower installation begins • Begin Permit filing with Right-of-way agencies • Chippewa Valley antenna installation begins on existing structures • Hardware for Chippewa Valley wireless ordered (first 1/2) • Receive first 75 miles of approved permits • Begin Construction on Wausau CAN • Begin Construction Wausau to Stevens Point • End Physical Construction Wausau CAN • Activate UW Stevens Point • 7% (42 miles) construction complete 	<ul style="list-style-type: none"> • Wireless installation in Chippewa Valley can start immediately in sites with fiber already installed • CCI work crews are based near Wausau, so work there can start very quickly • CCI averages 25 miles of permits per month and will have permitting staff available to start this process once award is announced.

	Qtr. 2	<ul style="list-style-type: none"> • End Point to Point Testing Wausau CAN • Install hut - Wittenberg • Wausau demonstration community goes live • Receive 75 Miles of approved Permits • Begin Construction Wausau to Summit Lake • CCI Begin Selling Dark Fiber/Lit Services Wausau to Stevens Point • 7% (42 miles) construction complete 	<ul style="list-style-type: none"> • Note: Winter Construction at Halt for Y1 - Q2 • Ground thaws near end of Q2
	Qtr. 3	<ul style="list-style-type: none"> • Begin Construction Stevens Point CAN • Begin Last Mile System Upgrades Junction City and Greenwood • Receive 75 Miles of approved Permits • End Construction Wausau to Summit Lake • End Construction Stevens Point CAN • Begin Construction Stevens Point to Eau Claire • End Point to Point Testing Stevens Point CAN • Stevens Point demonstration community goes live • CCI Begin Selling Dark Fiber/Lit Service Summit Lake to Stevens Point • 23% (131 miles) construction complete 	<ul style="list-style-type: none"> • Permitting is well ahead of builds by now due to winter season • Predominantly open country plowing • City of Stevens Point is partner and offers existing conduit in most challenging part of town • 10 work crews projected • Very short laterals to UW – Stevens Point and City
	Qtr. 4	<ul style="list-style-type: none"> • CCI Begin Selling Last Mile Services in Junction City, Auburndale, Hewitt, Arpen, Vesper, Pittsville • Receive 75 Miles of approved Permits • Begin Construction on Chippewa Valley demonstration community • Marshfield demonstration community goes live • CCI Begin Selling Last Mile Services in Greenwood • 40% (232 miles) construction complete 	<ul style="list-style-type: none"> • Much of the CCI last mile services are turned up in this quarter • 15 work crews projected • CCI Systems has familiarity with Eau Claire and previous builds for this CAN
Year 2	Qtr. 1	<ul style="list-style-type: none"> • CCI Begin Selling last Mile Services Fall Creek and Augusta • Receive 75 Miles of Approved Permits • Lab test and configure long haul hardware for Eau Claire – Wausau – Green Bay - Milwaukee • End Construction Stevens Point to Eau Claire • End Point to Point testing Stevens Point to Eau Claire • CCI Begin Selling Dark Fiber/Lit Service Stevens Point to Eau Claire • 53% (312 miles) construction complete 	<ul style="list-style-type: none"> • We have existing contracts for hardware and the engineers are familiar with chosen hardware • Last of CCI services to residents, businesses, and third party providers are now live

	Qtr. 2	<ul style="list-style-type: none"> • Receive 75 Miles of Approved Permits • Long haul backbone CAI services go live Eau Claire – Wausau • 53% (312 miles) construction complete 	<ul style="list-style-type: none"> • Construction on hold for winter • Hardware can still be installed in winter
	Qtr. 3	<ul style="list-style-type: none"> • Begin Construction Chippewa Falls to Superior • Receive 65 Miles of Approved Permits • Begin Construction Superior CAN • End Physical Construction Chippewa Valley demonstration community • Lab test and configure hardware for Eau Claire to Superior CAI backbone • Install hut – Solon Springs • 84% (412 miles) construction complete 	<ul style="list-style-type: none"> • Remaining tower installations coincide with final fiber installs in Chippewa Valley • 10+ work crews projected • Permitting work complete for northern part of state
	Qtr. 4	<ul style="list-style-type: none"> • End Point to Point Testing Chippewa Valley demonstration community • End Construction of Chippewa Falls to Superior • Begin Construction Superior CAN • Long Haul backbone CAI services go live Eau Claire – Superior • CCI Begin Selling Dark Fiber/Lit Services Eau Claire to Superior • Hardware for Chippewa Valley wireless ordered (first 1/2) • End Physical Construction of Superior CAN • 87% (506 miles) construction complete 	<ul style="list-style-type: none"> • Very small build in Superior to connect key CAI's • Mostly rural build along state highway to Superior
Year 3	Qtr. 1	<ul style="list-style-type: none"> • Chippewa Valley demonstration community goes live with final services • Receive 30 miles of Approved Permits • End Point to Point Testing Superior CAN • Superior demonstration community goes live • Begin Construction Platteville CAN • End Physical Construction Platteville CAN • End Point to Point Testing Platteville CAN • 90% (514 miles) construction complete 	<ul style="list-style-type: none"> • Permitting begins in Platteville area • Platteville is relatively small with several spans of existing fiber and empty conduit.

	Qtr. 2	<ul style="list-style-type: none"> • Platteville demonstration community goes live • Receive final 69 Miles of Approved Permits • Lab test and configure hardware for Platteville to Madison CAI backbone • 90% (514 miles) construction complete 	<ul style="list-style-type: none"> • Construction on hold for winter • Hardware install continues in winter • Madison side of build dependant on MUFN project (funding in round 1 BTOP) which should be installed by now
	Qtr. 3	<ul style="list-style-type: none"> • Begin Construction Madison to Platteville • End Construction Madison to Platteville • Compete point to point testing Madison to Platteville • Hut installed in Dodgeville • CCI Begin Selling Dark Fiber Lit Services Madison to Plattville • 100% (584 miles) construction complete 	<ul style="list-style-type: none"> • Mostly divided highway construction in DOT ROW
	Qtr. 4	<ul style="list-style-type: none"> • Long Haul backbone CAI services go live Platteville to Superior • All operations live for CAI services • Final funding request submitted 	<ul style="list-style-type: none"> • Pointed cleanup of all outstanding invoices.
	<p>Risks to Timeline: <i>(Risk–Impact: Response)</i></p> <ul style="list-style-type: none"> • Rock or other unfavorable conditions makes fiber installation difficult – adds time and expense: Estimates were provided by companies familiar with the involved terrain. Right of way is usually wide allowing redirection if needed. • Shortage of supplies, labor, or equipment due to stimulus money hitting the market – adds time and/or expense: Area contractors claim some stockpiled fiber. There is little we can do about widespread shortages besides extending the timeframe. • Early or Late winter freeze – disrupts timeline by changing available construction window: Minor delays may shift some work from fall to the following spring. If major delay in Year One or Year Two of the project we may move work crews to the southern (Platteville) route to gain a few weeks of warmer weather. • MUFN (Madison CAN funded in BTOP Round 1 to be used as the local loop for the Platteville long haul,) falls behind schedule or fails entirely – long haul to Platteville cannot be finished: Delay causes timeline slip but little money. Loss of access (MUFN fails) creates new cost to procure local loop elsewhere. 		

BUILD-OUT TIMELINE

Complete the following schedule for *each* Last Mile or Middle Mile Service Area to note the degree of build-out, based on: a) infrastructure funds awarded; b) entities passed (households, businesses, and community anchor institutions.). In addition, please complete a schedule that aggregates the build-out timeline across all of the Proposed Funded Service Area.

UWEX Assumptions and Comments:

- Year 0 costs are expected to be provided as in-kind match.
- “Entities Passed” for demonstration community networks = Community Anchor Institutions actually connected.
- Estimates of subscriber *increases* after installation are not shown here; only institutions that are to be connected in the approved plan are shown.

[illegible][illegible][illegible][illegible]

Percentage of Total Households	0	0	0	0	0	0	0	0	0	0	0	0	0
Businesses	0	0	0	0	0	0	0	0	0	0	0	0	0
Percentage of Total Businesses	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Anchor Institutions	0	1	2	4	8	8	20	70	100	128	128	128	128
Percentage of Total Institutions	0	1%	2%	3%	6%	6%	16%	55%	78%	100%	100%	100%	100%

Service Area	Superior Middle Mile Service Area												
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)	0	0	0	0	0	0	0	\$ 39,073.60	\$ 78,147.20	\$ 390,736.00	\$ 390,736.00	\$ 390,736.00	\$ 390,736.00
Percentage of Total Funds	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	1.3%	1.3%	1.3%	1.3%
Entities Passed & %													
Households	0	0	0	0	0	0	0	0	0	0	0	0	0
Percentage of Total Households	0	0	0	0	0	0	0	0	0	0	0	0	0
Businesses	0	0	0	0	0	0	0	0	0	0	0	0	0
Percentage of Total Businesses	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Anchor Institutions	0	0	0	0	0	0	0	0	1	6	6	6	6
Percentage of Total Institutions	0	0%	0%	0%	0%	0%	0%	0%	17%	100%	100%	100%	100%

Service Area	Platteville Middle Mile Service Area												
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 57,955	\$ 231,818	\$ 521,591	\$ 579,546	\$ 579,546
Percentage of Total Funds	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.8%	1.7%	1.9%	1.9%
Entities Passed & %													
Households	0	0	0	0	0	0	0	0	0	0	0	0	0
Percentage of Total Households	0	0	0	0	0	0	0	0	0	0	0	0	0
Businesses	0	0	0	0	0	0	0	0	0	0	0	0	0
Percentage of Total Businesses	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Anchor Institutions	0	0	0	0	0	0	0	0	0	2	24	24	24
Percentage of Total Institutions	0	0%	0%	0%	0%	0%	0%	0%	0%	8%	100%	100%	100%

Service Area	Junction City Last Mile Service Area												
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)	0	\$ 9,800	\$ 39,200	\$ 88,201	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001
Percentage of Total Funds	0	0.0%	0.1%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Entities Passed & %													
Households	0	0	0	0	193	193	193	193	193	193	193	193	193
Percentage of Total Households	0	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Businesses	0	0	0	0	77	77	77	77	77	77	77	77	77
Percentage of Total Businesses	0	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Community Anchor Institutions	0	0	0	0	0	0	0	0	0	0	0	0	0
Percentage of Total Institutions	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Service Area	Auburndale / Arpin Last Mile Service Area												
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4

[illegible][illegible]

Percentage of Total Institutions	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
----------------------------------	---	----	----	----	----	----	----	----	----	----	----	----	----

Service Area	Greenwood Last Mile Service Area												
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)	0	\$ -	\$ 9,800	\$ 39,200	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001
Percentage of Total Funds	0	0.0%	0.0%	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Entities Passed & %													
Households	0	0	0	0	502	502	502	502	502	502	502	502	502
Percentage of Total Households	0	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Businesses	0	0	0	0	52	52	52	52	52	52	52	52	52
Percentage of Total Businesses	0	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Community Anchor Institutions	0	0	0	0	0	0	0	0	0	0	0	0	0
Percentage of Total Institutions	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Service Area	Fall Creek Last Mile Service Area												
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)	0	\$ -	\$ -	\$ 9,800	\$ 29,400	\$ 88,201	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001	\$ 98,001
Percentage of Total Funds	0	0.0%	0.0%	0.0%	0.1%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Entities Passed & %													
Households	0	0	0	0	0	495	495	495	495	495	495	495	495
Percentage of Total Households	0	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%
Businesses	0	0	0	0	0	73	73	73	73	73	73	73	73
Percentage of Total Businesses	0	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%
Community Anchor Institutions	0	0	0	0	0	0	0	0	0	0	0	0	0
Percentage of Total Institutions	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Service Area	Augusta Last Mile Service Area												
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)	0	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 98,001
Percentage of Total Funds	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Entities Passed & %													
Households	0	0	0	0	0	632	632	632	632	632	632	632	632
Percentage of Total Households	0	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%
Businesses	0	0	0	0	0	77	77	77	77	77	77	77	77
Percentage of Total Businesses	0	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%
Community Anchor Institutions	0	0	0	0	0	0	0	0	0	0	0	0	0
Percentage of Total Institutions	0	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

SubTotals	Aggregate of All Service Areas (not including Long Haul)													
	YEAR 0	YEAR 1				YEAR 2				YEAR 3				
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	

Infrastructure Funds													
Infrastructure Funds Advanced (estimate)	0	\$ 2,105,445	\$ 3,771,339	\$ 5,162,018	\$ 6,586,897	\$ 8,842,854	\$ 9,951,232	\$ 11,088,883	\$ 12,284,490	\$ 13,869,520	\$ 14,159,293	\$ 14,217,248	\$ 14,315,248
Percentage of Total Funds	0	7.0%	12.6%	17.3%	22.0%	29.6%	33.3%	37.1%	41.1%	46.4%	47.4%	47.6%	47.9%
Entities Passed & %													
Households	0	0	0	0	1971	3098	3098	3098	3098	3098	3098	3098	3098
Percentage of Total Households	0	0%	0%	0%	64%	100%	100%	100%	100%	100%	100%	100%	100%
Businesses	0	0	0	0	400	550	550	550	550	550	550	550	550
Percentage of Total Businesses	0	0%	0%	0%	73%	100%	100%	100%	100%	100%	100%	100%	100%
Community Anchor Institutions	0	1	20	24	30	30	42	92	123	158	180	180	180
Percentage of Total Institutions	0	1%	11%	13%	17%	17%	23%	51%	68%	88%	100%	100%	100%

	Long Haul Corridors - No service areas defined												
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)	0	\$ 1,040,096	\$ 1,485,852	\$ 2,971,704	\$ 5,200,482	\$ 8,915,112	\$ 9,658,038	\$ 12,629,742	\$ 13,372,668	\$ 14,115,593	\$ 14,412,764	\$ 14,709,934	\$ 14,858,519
Percentage of Total Funds	0	3.5%	5.0%	9.9%	17.4%	29.8%	32.3%	42.3%	44.7%	47.2%	48.2%	49.2%	49.7%
Entities Passed & %													
Households													
Percentage of Total Households													
Businesses													
Percentage of Total Businesses													
Community Anchor Institutions													
Percentage of Total Institutions													

	Other General Costs												
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)	0	\$ 71,115	\$ 106,673	\$ 142,230	\$ 213,345	\$ 320,018	\$ 355,576	\$ 462,248	\$ 533,363	\$ 604,478	\$ 625,813	\$ 675,593	\$ 711,151
Percentage of Total Funds	0	0.2%	0.4%	0.5%	0.7%	1.1%	1.2%	1.5%	1.8%	2.0%	2.1%	2.3%	2.4%
Entities Passed & %													
Households													
Percentage of Total Households													
Businesses													
Percentage of Total Businesses													
Community Anchor Institutions													
Percentage of Total Institutions													

Grand Total													
	YEAR 0	YEAR 1				YEAR 2				YEAR 3			
		Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Infrastructure Funds													
Infrastructure Funds Advanced (estimate)		\$ 3,216,657	\$ 5,363,863	\$ 8,275,952	\$ 12,000,724	\$ 18,077,983	\$ 19,964,845	\$ 24,180,873	\$ 26,190,520	\$ 28,589,592	\$ 29,197,870	\$ 29,602,775	\$ 29,884,919

Percentage of Total Funds													
Entities Passed & %													
Households		0	0	0	1971	3098	3098	3098	3098	3098	3098	3098	3098
Percentage of Total Households		0%	0%	0%	64%	100%	100%	100%	100%	100%	100%	100%	100%
Businesses		0	0	0	400	550	550	550	550	550	550	550	550
Percentage of Total Businesses		0%	0%	0%	73%	100%	100%	100%	100%	100%	100%	100%	100%
Community Anchor Institutions		1	20	24	30	30	42	92	123	158	180	180	180
Percentage of Total Institutions		1%	11%	13%	17%	17%	23%	51%	68%	88%	100%	100%	100%

Comprehensive Community Infrastructure Key Metrics Dashboard

Please refer to the CCI Grant Guidelines for instructions on completing this form.

Applicant Profile	
Applicant Name	University of Wisconsin – Extension
Title	Building Community Capacity through Broadband
Easygrants ID	5710
Headquarters	Madison, WI
Size (2009 Data) of Applicant Entity	<ul style="list-style-type: none"> Current Year Revenues: \$124,282,806 Employees: 1,164
Technology Type	
Key Partners	CESA10 University of Wisconsin – Platteville University of Wisconsin – Superior North Central Technical College WiscNet CCI Systems Wisconsin Department of Transportation

Project Economics			
Budget Information		Project Financials	
Project Budget	42,748,025	Project Revenues (Yr 8)	\$6,059,250
Federal Contribution (%)	69.96%	Net Income and Margin (Yr 8)	\$2,453,307 (40%)
Cash Match Amount (%)	21.62%	EBITDA and Margin (Yr 8)	\$3,356,716 (55%)
In Kind Match Amount (%)	8.42%	Rate of Return (w/o BTOP Funds)	0%
Middle Mile/Last Mile Budget Allocation		Rate of Return (w/ BTOP Funds)	-5.92%
Middle Mile Percentage (%)	98.8%	Cost Efficiency	
Last Mile Percentage (%)	1.2%	Cost per Mile (MM)	\$70,309
Rural Last Mile Percentage	100%	Cost per Household (LM)	167

Market Territory	
Geographic Area(s)	Superior Middle Mile Service Area, Chippewa Valley Middle Mile Service Area, Platteville Middle Mile Service Area, Wausau Middle Mile Service Area, August Last Mile Service Area, Arpin/Auburndale Last Mile Service Area, Hewitt Last Mile Service Area, Junction City Last Mile Service Area, Greenwood Last Mile Service Area, Fall Creek Last Mile Service Area, Pittsville Last Mile Service Area, Vesper Last Mile Service Area.
Middle Mile Network Composition	
Total Proposed Network Miles (MM only)	<ul style="list-style-type: none"> Total Miles: 608 Backbone Miles: 427.21 Lateral Miles: 203.27

Comprehensive Community Infrastructure Key Metrics Dashboard

New Construction Network Miles (MM only)	<ul style="list-style-type: none"> • Total Miles: 582.99 • Backbone Miles: 404.81 • Lateral Miles: 178.18
Existing Applicant Network Miles Utilized (MM only)	<ul style="list-style-type: none"> • Total Miles: 47.49 • Backbone Miles: 22.4 • Lateral Miles: 25.09
Leased Network Miles Utilized (MM only)	<ul style="list-style-type: none"> • Total Miles: 0 • Backbone Miles: 0 • Lateral Miles: 0
Underserved/Unserved	<ul style="list-style-type: none"> • Percentage of Backbone Miles in Underserved/Unserved Areas: 90% • Percentage of Lateral Miles in Underserved/Unserved Areas: 2%
Existing Customer Base	
Existing Residential/Individual Customers within PFSA	195
Existing Business Customers within PFSA	0
Existing Community Anchor Institution Customers within PFSA	<ul style="list-style-type: none"> • Total CAI's: 93 • Community Colleges: 1 • Public Safety Entities: 5
Existing Third Party Service Provider Customers within PFSA	6 existing competitors
Potential Customer Base	
Market Potential Households (within PFSA)	<ul style="list-style-type: none"> • Total HH's: 139,306 • Located in Underserved/Unserved Areas: 11,559
Market Potential Businesses (within PFSA)	<ul style="list-style-type: none"> • Total Businesses: 9,284 • Located in Underserved/Unserved Areas: 492
Market Potential Community Anchor Institutions (within PFSA)	<ul style="list-style-type: none"> • Total CAI's: 598 • Located in Underserved/Unserved Areas: 72 • Community Colleges: 8 • Public Safety Entities: 188
Market Potential Third Party Service Providers (within PFSA)	<ul style="list-style-type: none"> • Total Third Party Service Providers in PFSA: 139 • Expressing Commitment or Letter of Interest: 0
Funded Network Coverage	
Households Connected to Network (via BTOP Funds by end of Year 3)	<ul style="list-style-type: none"> • Total Households Connected: 403 • Located in Underserved/Unserved Areas: 38
Businesses Connected to Network (via BTOP Funds by end of Year 3)	<ul style="list-style-type: none"> • Total Businesses Connected: 284 • Located in Underserved/Unserved Areas: 27
Community Anchor Institutions Directly Connected (via BTOP Funds by end of Year 3)	<ul style="list-style-type: none"> • Total Directly Connected CAI's: 331 • Located in Underserved/Unserved Areas: 31 • Community Colleges: 6 • Public Safety Entities: 17

Comprehensive Community Infrastructure Key Metrics Dashboard

Projected Subscribers by Year Five	<p><u>Directly Served by Applicant</u></p> <ul style="list-style-type: none"> Community Anchor Institutions: 404 Households: 595 Businesses: 543 Third Party Service Providers: 73 <p><u>Served by Proposed Network Via Third Party Service Provider</u></p> <ul style="list-style-type: none"> Community Anchor Institutions: Unknown Households: Unknown Businesses: Unknown
------------------------------------	--

Other	
Proposed MM Network Capacity	<ul style="list-style-type: none"> Backbone: 405 Laterals: 204
Proposed LM Network Speed	<ul style="list-style-type: none"> Highest offered speed tier: 10 Gigabits Estimated Average speed for highest speed tier: 5 Gigabits
Total Points of Interconnection	<ul style="list-style-type: none"> Total Pol's: 23 Pol's in Underserved/Unserved Areas: 0 Environmentally-controlled, non-passive Pols: 0
Jobs Created	<ul style="list-style-type: none"> Direct Job-years: 148 Indirect Job-years: 147 Induced Job-years: 168
Required Time for Project Completion (Number of Required Quarters to Fully Build-out and Test Network and Make Ready for Commercial Service)	12 Quarters

CERTIFICATION REGARDING LOBBYING

Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, "New Restrictions on Lobbying." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant, or cooperative agreement.

LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

In any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure occurring on or before October 23, 1996, and of not less than \$11,000 and not more than \$110,000 for each such failure occurring after October 23, 1996.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.

NAME OF APPLICANT

Board of Regents of the University of WI System, UWE⁺

AWARD NUMBER AND/OR PROJECT NAME

5710/University of Wisconsin-BCCB

PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Mark Dorn, Controller

SIGNATURE

Mark Dorn

DATE

5/17/0

CERTIFICATIONS REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION-LOWER TIER COVERED TRANSACTIONS AND LOBBYING

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 26, "Governmentwide Debarment and Suspension (Nonprocurement)" and 15 CFR Part 28, "New Restrictions on Lobbying."

1. DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION-LOWER TIER COVERED TRANSACTIONS

As required by Executive Order 12549, Debarment and Suspension, and implemented at 15 CFR Part 26, Section 26.510, Participants responsibilities, for prospective participants in lower tier covered transactions (except subcontracts for goods or services under the \$25,000 small purchase threshold unless the subtier recipient will have a critical influence on or substantive control over the award), as defined at 15 CFR Part 26, Sections 26.105 and 26.110 -

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2 LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over \$100,000 or a loan or loan guarantee over \$150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification(s).

NAME OF APPLICANT

Board of Regents of the University of Wisconsin System, UW-Extension

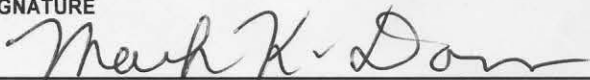
AWARD NUMBER AND/OR PROJECT NAME

5710/University of Wisconsin-BCCB

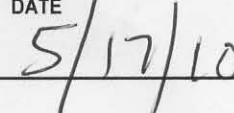
PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Mark Dorn, Controller

SIGNATURE



DATE

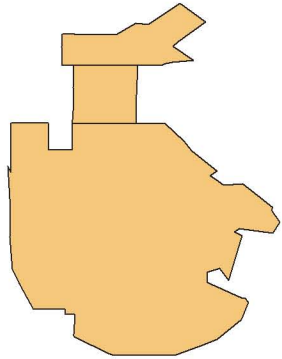


18.15 Network Map Table of Contents

Upload	Network Map Upload Title	Corresponding Proposed Funded Service Area	Demonstration Community
1	18.15 Network Map Overview		
2	18.15 Network Map Superior	A. Superior Middle Mile Service Area	Superior
3	18.15 Network Map Eau Claire Overview	B. Chippewa Valley Middle Mile Service Area	Chippewa Valley
4	18.15 Network Map Eau Claire Section 1	B. Chippewa Valley Middle Mile Service Area	Chippewa Valley
5	18.15 Network Map Eau Claire Section 2	B. Chippewa Valley Middle Mile Service Area	Chippewa Valley
6	18.15 Network Map Eau Claire Section 3	B. Chippewa Valley Middle Mile Service Area	Chippewa Valley
7	18.15 Network Map Platteville	C. Platteville Middle Mile Service Area	Platteville
8	18.15 Network Map Wausau Overview	D. Wausau Middle Mile Service Area	Wausau
9	18.15 Network Map Wausau Marshfield	D. Stevens Point Middle Mile Service Area	Wausau
10	18.15 Network Map Wausau Stevens Point	D. Marshfield Middle Mile Service Area	Wausau

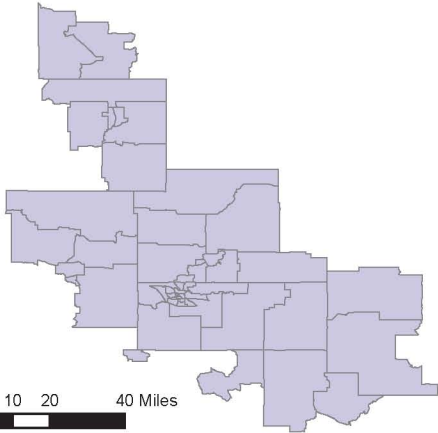
BCCB Proposed Funded Service Area

A. Superior Middle Mile Service Area



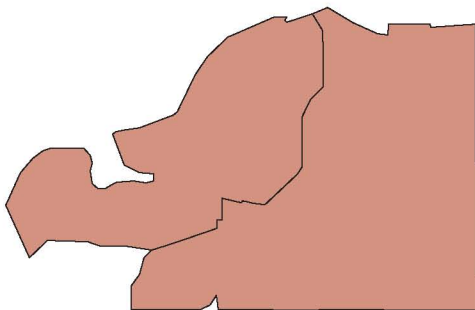
0 1 2 4 Miles

B. Chippewa Valley Middle Mile Service Area



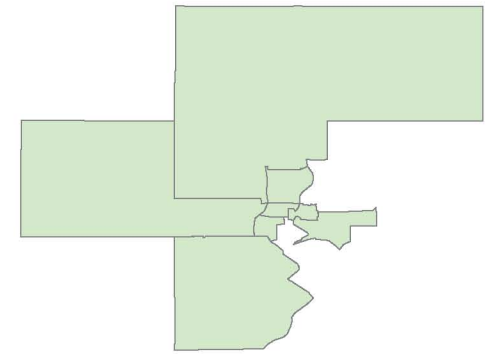
0 10 20 40 Miles

C. Platteville Middle Mile Service Area



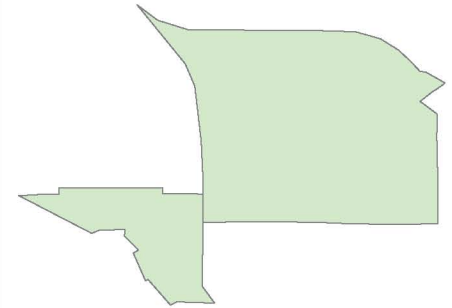
0 1 2 4 Miles

D. Wausau Middle Mile Service Area



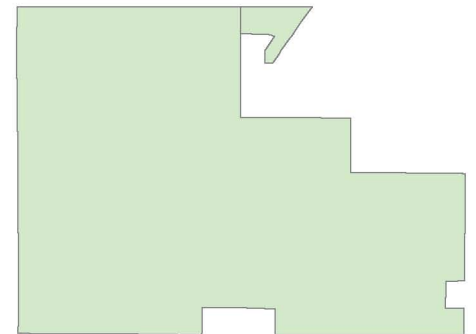
0 3 6 12 Miles

D. Stevens Point Middle Mile Service Area

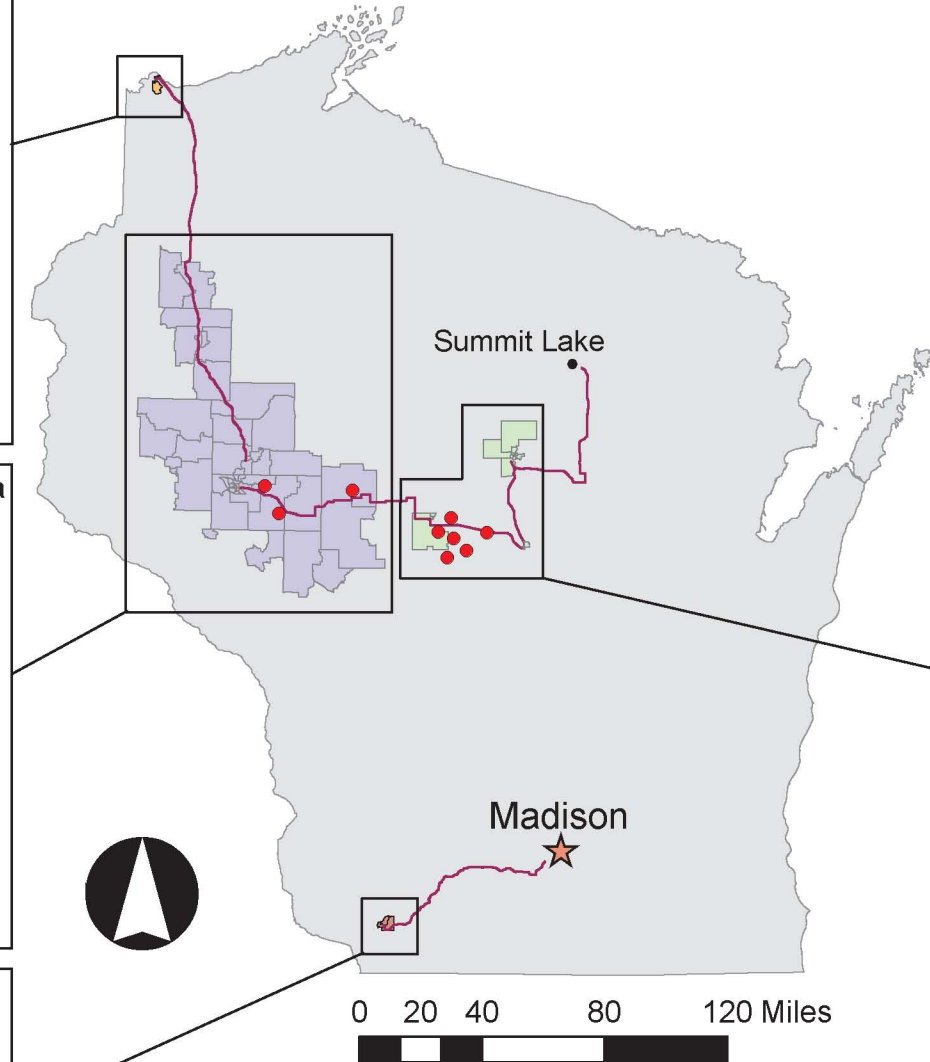


0 0.5 1 2 Miles

D. Marshfield Middle Mile Service Area



0 2 4 8 Miles



Last Mile Service Areas

- Augusta
- Arpin
- Hewitt
- Junction City
- Greenwood
- Fall Creek
- Auburndale
- Pittsville
- Vesper

Long Haul Fiber

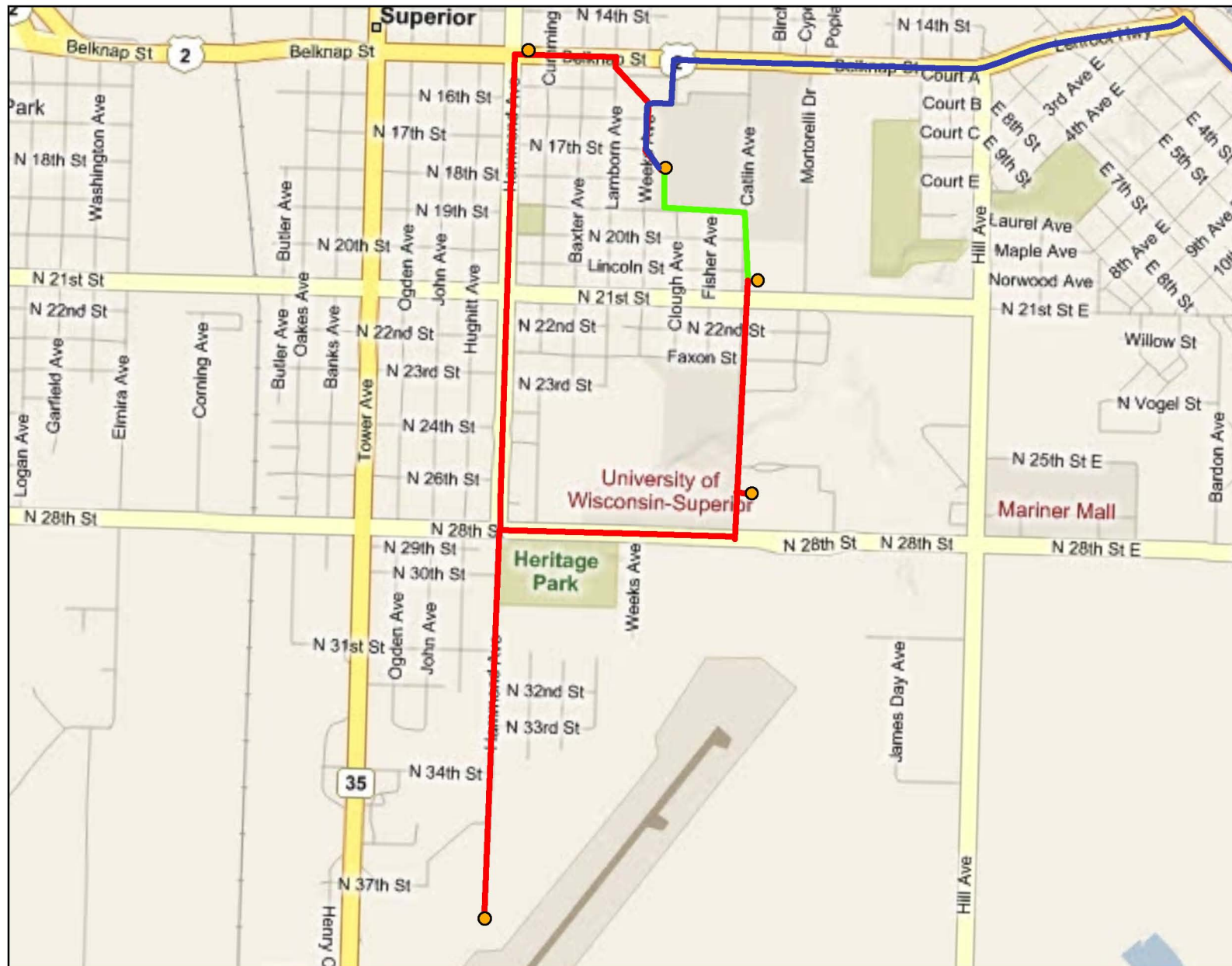
Demonstration Communities

- A. Superior
- B. Chippewa Valley
- C. Platteville
- D. Wausau

Map created by
David Andrew Bernhardt

Superior Demonstration Community

Superior MMSA - Overview



Legend

● Superior Facilities

CAN MM Fiber

Type

— Existing

— Proposed

Long Haul MM Fiber

Type

— Existing

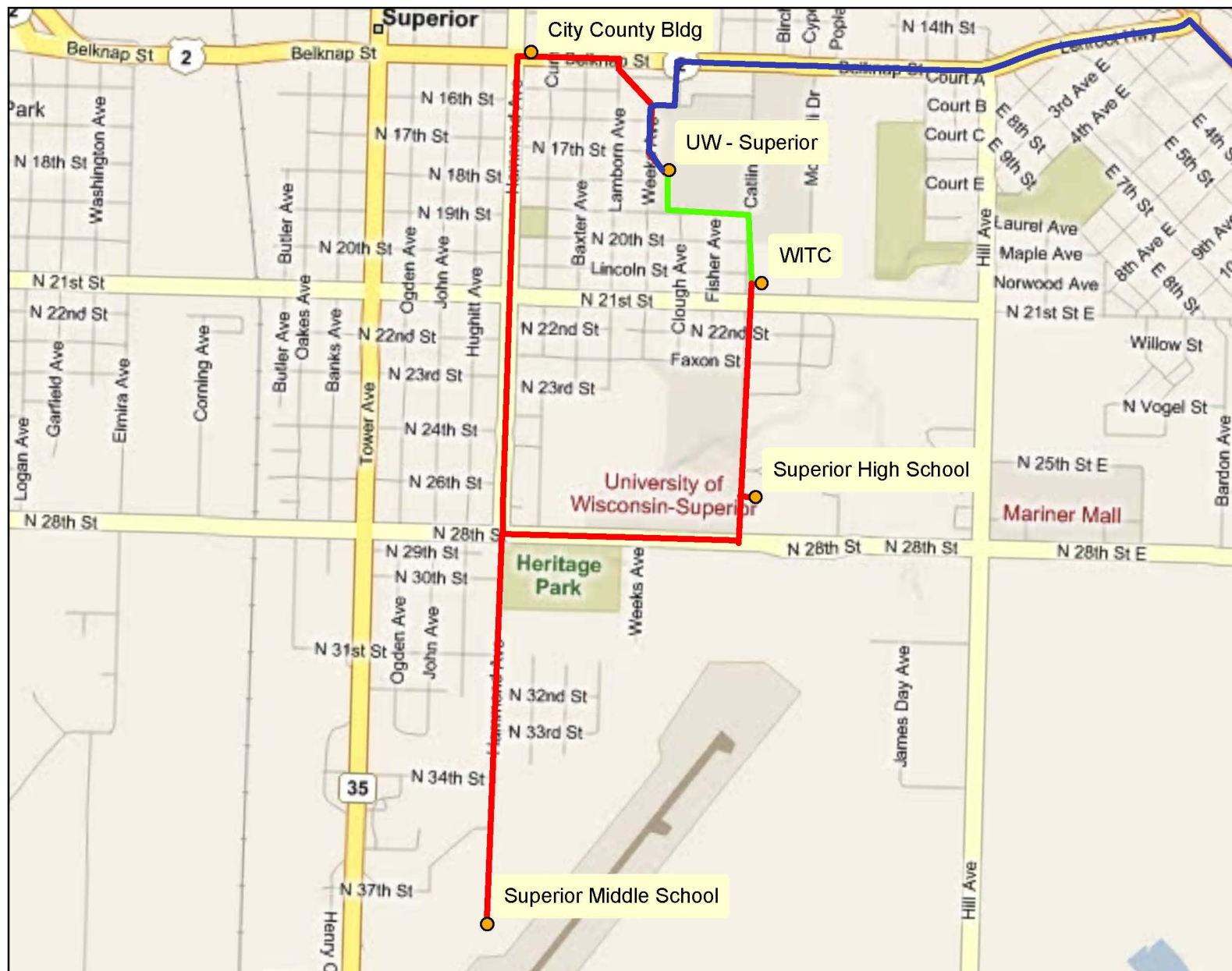
— Proposed

0 0.2 0.4 0.8 1.2 1.6 Miles



Superior Demonstration Community

Superior MMSA - Directly Served Facilities



Legend

● Superior Facilities

CAN MM Fiber

Type

— Existing

— Proposed

Long Haul MM Fiber

Type

— Existing

— Proposed

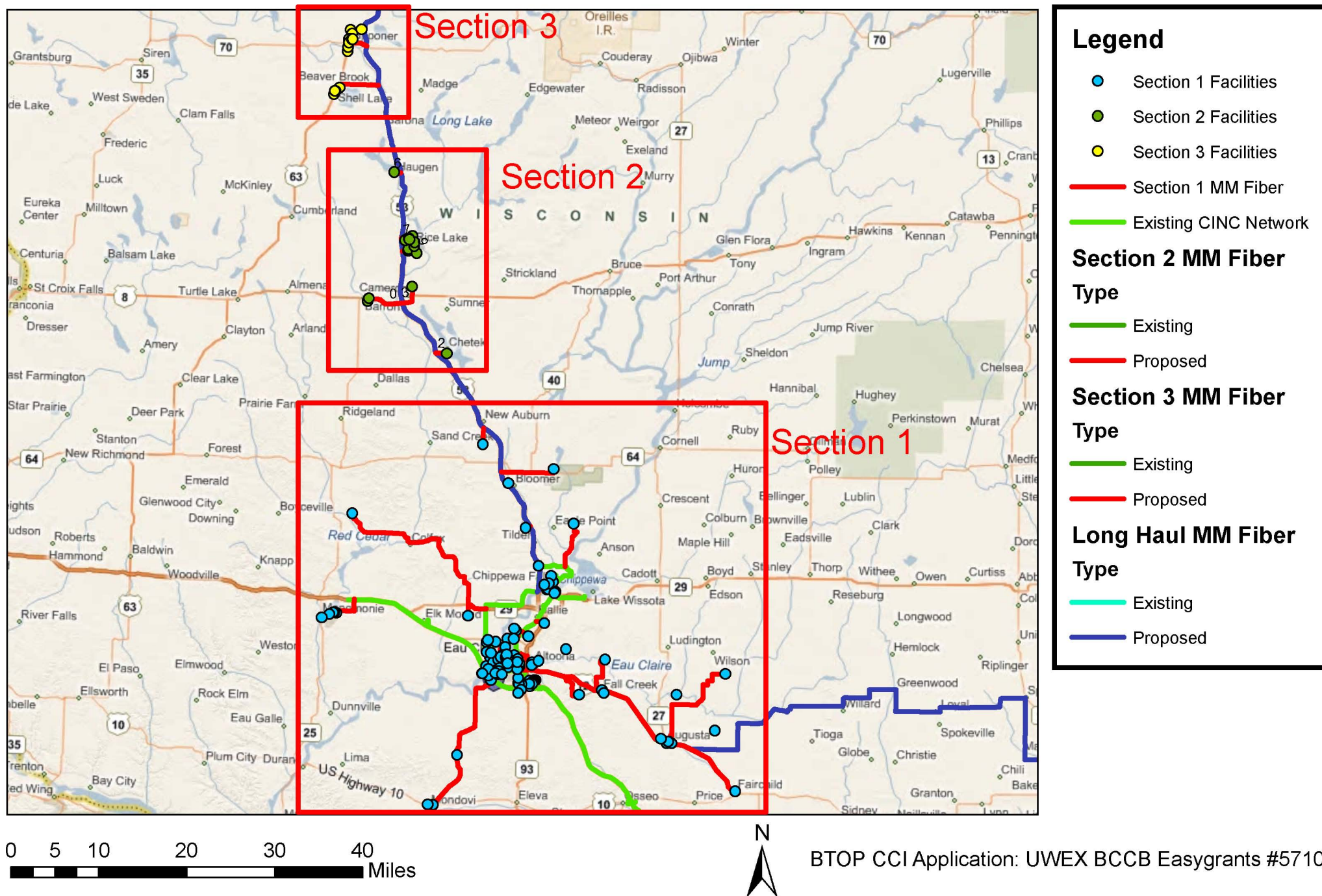
0 0.2 0.4 0.8 1.2 1.6 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

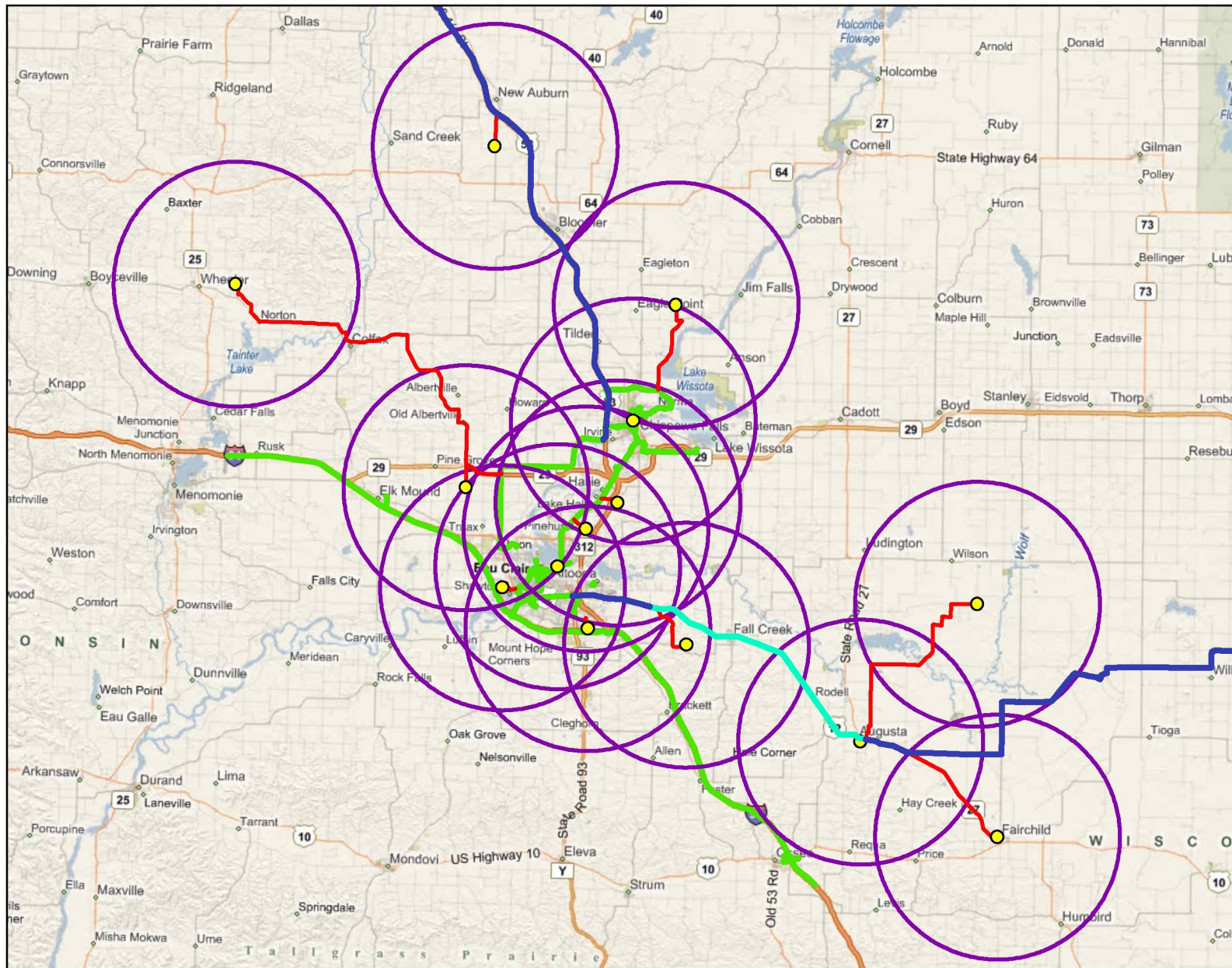
Eau Claire Metro - North West WI Demonstration Community

Chippewa Valley MMSA - Overview



Eau Claire Metro - North West WI Demonstration Community

Chippewa Valley MMSA -Section 1- WiMax



Legend

- WiMax Towers
- Fiber to Towers
- WiMax Coverage
- Existing CINC Network
- Long Haul MM Fiber Type**
 - Existing
 - Proposed

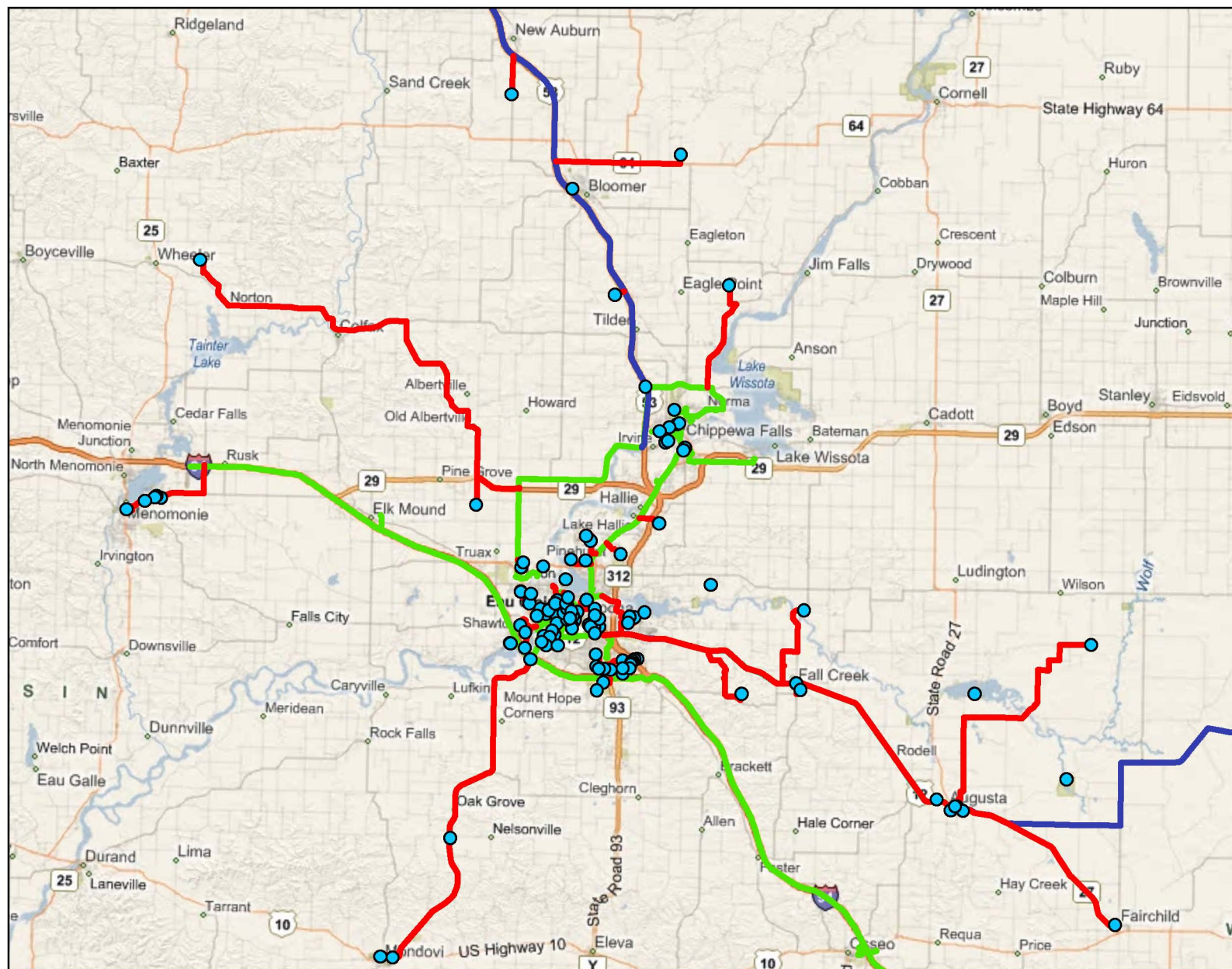
0 3 6 12 18 24 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

Eau Claire Metro - North West WI Demonstration Community

Chippewa Valley MMSA -Section 1- Overview



Legend

- Section 1 Facilities
 - Section 1 MM Fiber
 - Existing CINC Network
- Long Haul MM Fiber Type**
- Existing
 - Proposed

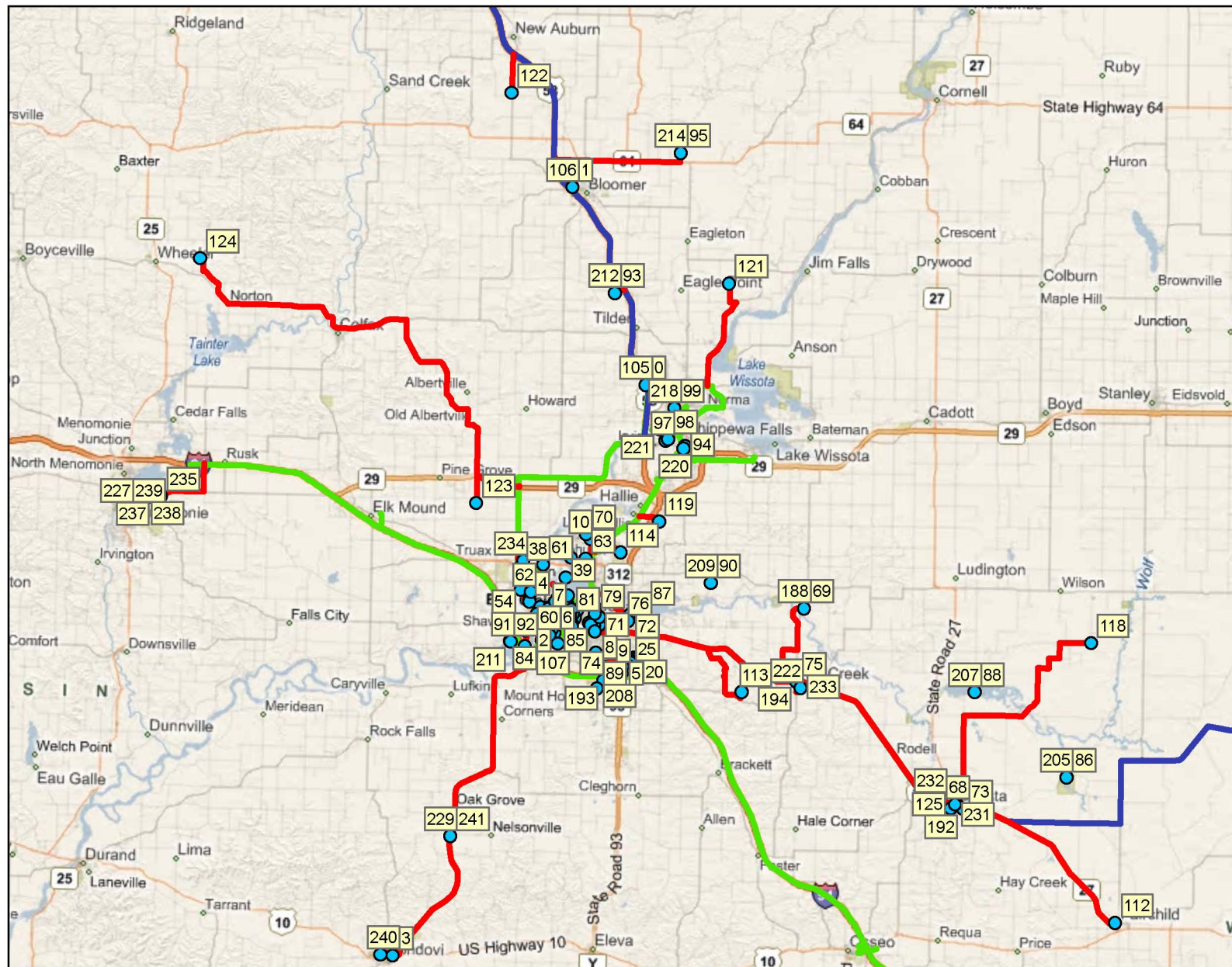
0 2.5 5 10 15 20 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

Eau Claire Metro - North West WI Demonstration Community

Chippewa Valley MMSA -Section 1- Directly Served Facilities



Legend

- Section 1 Facilities
- Section 1 MM Fiber
- Existing CINC Network
- Long Haul MM Fiber Type
 - Existing
 - Proposed

0 2.5 5 10 15 20 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

Eau Claire Metro - North West WI Demonstration Community
Chippewa Valley MMSA -Section 1- Directly Served Facilities

Id	NAME	Id	NAME
0	Splice Case CF35	120	Chippewa County Courthouse Tower
1	Bloomer - Luther Midelfort Chippewa Valley	121	Chippewa County Eagle Point Tower
2	Splice CINC #21	122	Chippewa County New Auburn Tower
3	Mondovi - Luther Midelfort Oakridge	123	Chippewa County - Elk Mound Tower
4	Luther - Midelfort Pharmacy	124	ECB Tower Wheeler
5	Hospital - Oak Leaf Medical Center	125	Augusta - New Tower
6	Sacred Heart Hospital	126	Carson Park
7	Carson Park	127	Fairfax Pool
8	Fairfax Pool	128	Fire Station #6
9	Fire Station #6	129	Fire Station #8
10	Fire Station #8	130	Owen Rust Apartments
11	Owen Rust Apartments	131	Park Towers
12	Park Towers	132	Water Treatment Plant
13	Water Treatment Plant	133	Waste Water Treatment Plant
14	Waste Water Treatment Plant	134	Westgate Evidence Storage
15	Westgate Evidence Storage	135	Forest Hill Cemetery
16	Forest Hill Cemetery	136	Lake View Cemetery
17	Lake View Cemetery	137	Stoplight - Brackett & Hastings Way
18	Stoplight - Brackett & Hastings Way	138	Stoplight - Farwell & Washington
19	Stoplight - Farwell & Washington	139	Stoplight - Golf & Gateway Drive
20	Stoplight - Golf & Gateway Drive	140	Stoplight - Golf & E. Side of 53
21	Stoplight - Golf & E. Side of 53	141	Stoplight - Golf & W. Side of 53 Interchange
22	Stoplight - Golf & W. Side of 53 Interchange	142	Stoplight - Golf & Oakwood Mall
23	Stoplight - Golf & Oakwood Mall	143	Stoplight - Golf & Commonwealth Ave Applebees
24	Stoplight - Golf & Commonwealth Ave Applebees	144	Stoplight - Golf & Commonwealth Ave.
25	Stoplight - Golf & Commonwealth Ave.	145	Stoplight - Golf & Oakwood Hills Pkway
26	Stoplight - Golf & Oakwood Hills Pkway	146	Stoplight - Highland & Hastings Way
27	Stoplight - Highland & Hastings Way	147	Stoplight - Keith & Brackett Ave.
28	Stoplight - Keith & Brackett Ave.	148	Stoplight - Lake Street & 5th Ave
29	Stoplight - Lake Street & 5th Ave	149	Stoplight - Main & Hwy 53
30	Stoplight - Main & Hwy 53	150	Stoplight - Margaret & Harding Ave

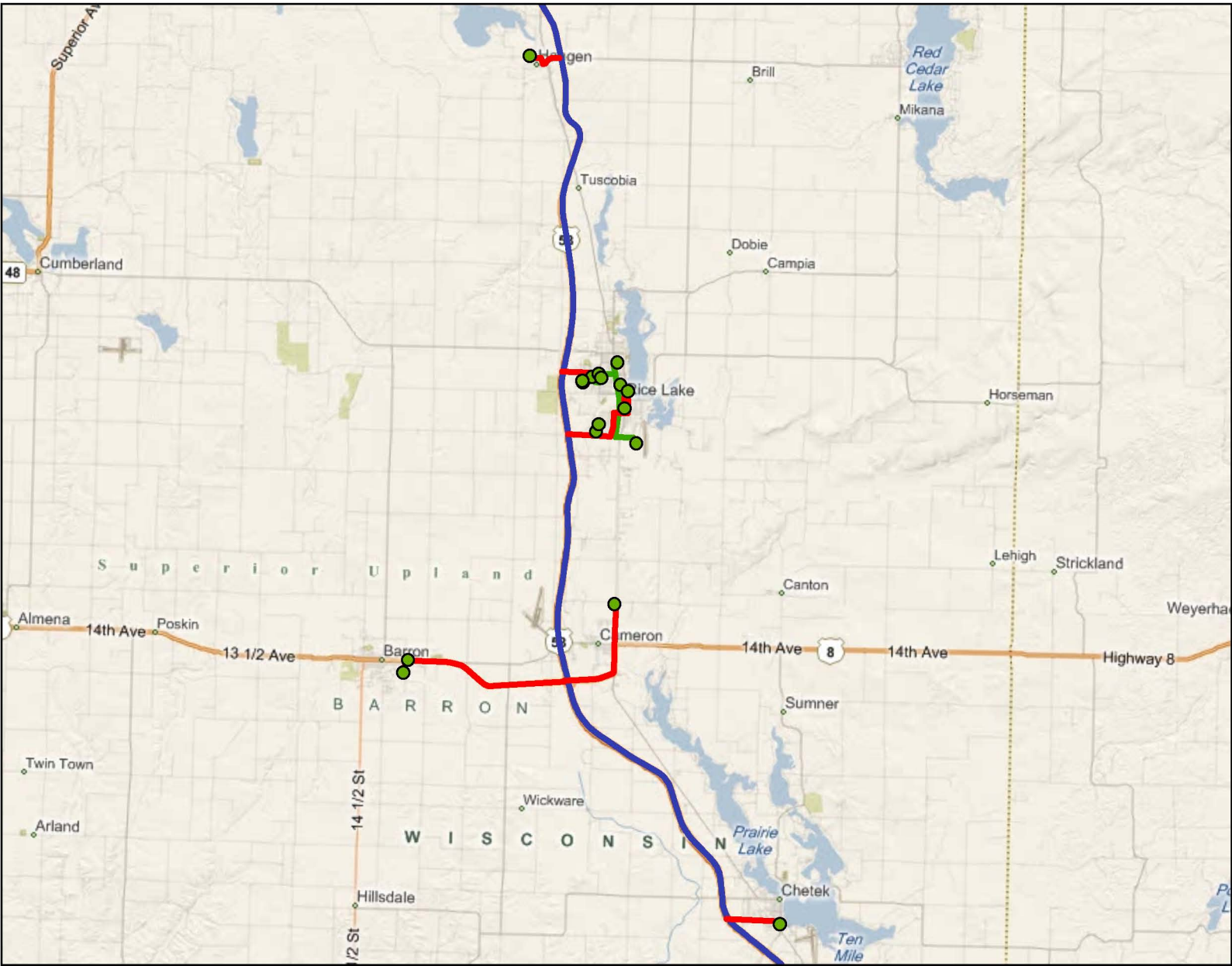
31	Stoplight - Margaret & Harding Ave	151	Stoplight - Rudolph & Brackett
32	Stoplight - Rudolph & Brackett	152	Stoplight - State & Summit
33	Stoplight - State & Summit	153	Stoplight - State & Garfield
34	Stoplight - State & Garfield	154	Stoplight - Water Street & 5th
35	Stoplight - Water Street & 5th	155	Stoplight - Golf & London Road
36	Stoplight - Golf & London Road	156	Stoplight - Golf & Fairfax
37	Stoplight - Golf & Fairfax	157	N. Clairemont & Alpine Rd
38	N. Clairemont & Alpine Rd	158	Mt. Simon Park
39	Mt. Simon Park	159	Owen Park
40	Owen Park	160	Phoenix Park
41	Phoenix Park	161	Rod & Gun Park
42	Rod & Gun Park	162	Beacon House Family Shelter
43	Beacon House Family Shelter	163	Bolton Refuge House
44	Bolton Refuge House	164	Boys & Girls Club
45	Boys & Girls Club	165	Childrens Theater
46	Childrens Theater	166	Chippewa Valley Free Clinic
47	Chippewa Valley Free Clinic	167	Chippewa Valley Museum
48	Chippewa Valley Museum	168	Chippewa Valley Theratre Guild
49	Chippewa Valley Theratre Guild	169	Community Health Partnerships
50	Community Health Partnerships	170	Eau Claire Chamber of commerce
51	Eau Claire Chamber of commerce	171	Hope Gospel Mission
52	Hope Gospel Mission	172	Hope Gospel Mission - Ruth House
53	Hope Gospel Mission - Ruth House	173	Hope Gospel Mission Store
54	Hope Gospel Mission Store	174	Paul Bunyan Logging Camp Museum
55	Paul Bunyan Logging Camp Museum	175	Senior Center
56	Senior Center	176	State Regional Arts Center
57	State Regional Arts Center	177	Wisconsin Pubic Radio
58	Wisconsin Pubic Radio	178	Mt. Washington Residence
59	Mt. Washington Residence	179	Western Dairyland
60	Western Dairyland	180	Eau Claire Area Convention & Visitors Bureau
61	Eau Claire Area Convention & Visitors Bureau	181	School - DeLong Middle
62	School - DeLong Middle	182	School - North High
63	School - North High	183	School - South Middle
64	School - South Middle	184	Memorial High School

65	Memorial High School	185	Altoona City Hall
66	Altoona City Hall	186	Altoon Public Safety Building
67	Altoon Public Safety Building	187	Augusta
68	Augusta	188	Beaver Creek Reserve
69	Beaver Creek Reserve	189	Chippewa Valley Regional Airport
70	Chippewa Valley Regional Airport	190	Eau Claire County Ag Center - Altoona
71	Eau Claire County Ag Center - Altoona	191	Eau Claire County Hwy Dept - Altoona
72	Eau Claire County Hwy Dept - Altoona	192	Eau Claire County Hwy Dept - Augusta
73	Eau Claire County Hwy Dept - Augusta	193	Expo Center
74	Expo Center	194	Fall Creek
75	Fall Creek	195	School - Altoona High School
76	School - Altoona High School	196	Caillier Clinic, LTD
77	Caillier Clinic, LTD	197	Clinicare Corporation
78	Clinicare Corporation	198	Children's Service Society of WI
79	Children's Service Society of WI	199	Family Resource Center for Eau Claire County
80	Family Resource Center for Eau Claire County	200	Grace Lutheran Foundation
81	Grace Lutheran Foundation	201	Lutheran Social Servies
82	Lutheran Social Servies	202	Lutheran Social Services
83	Lutheran Social Services	203	Marriage and Family Health Services
84	Marriage and Family Health Services	204	Northwest Counseling & Guidance Clinic
85	Northwest Counseling & Guidance Clinic	205	Coon Fork County Park
86	Coon Fork County Park	206	Lake Altoona County Park
87	Lake Altoona County Park	207	Lake Eau Claire County Park
88	Lake Eau Claire County Park	208	Lowes Creek County Park
89	Lowes Creek County Park	209	Tower Ridge
90	Tower Ridge	210	Country Jam Site
91	Country Jam Site	211	SWAT Team VAN
92	SWAT Team VAN	212	Chippewa County Public Firearms Range
93	Chippewa County Public Firearms Range	213	Chippewa Fall Fire Station 2
94	Chippewa Fall Fire Station 2	214	Hot Mix Plant
95	Hot Mix Plant	215	Maintenance Shop
96	Maintenance Shop	216	Waste Water Plant
97	Waste Water Plant	217	Water Dept.
98	Water Dept.	218	Irvin Park - Zoo

99	Irvin Park - Zoo	219	St. Charles Borromeo Primary School
100	St. Charles Borromeo Primary School	220	Holy Ghost Elementary School
101	Holy Ghost Elementary School	221	Chippewa Area Catholic Schools
102	Chippewa Area Catholic Schools	222	Fall Creek High School
103	UW Health Augusta	223	CVTC Menomonie Campus
104	Augusta School district	224	Luther Eye Care Center
105	Splice Case CF35	225	Red Cedar Medical
106	Bloomer - Luther Midelfort Chippewa Valley	226	Luther Homecare Menomonie
107	Splice CINC #21	227	UW Stout
108	Mondovi - Luther Midelfort Oakridge	228	Mondovi High School
109	Luther - Midelfort Pharmacy	229	Anthony School
110	Hospital - Oak Leaf Medical Center	230	CVTC Gateway Campus
111	Sacred Heart Hospital	231	UW Health Augusta
112	Fairchild Tower	232	Augusta School district
113	Fall Creek Tower - Gust Road	233	Fall Creek High School
114	Pinehurst Tower	234	CVTC Gateway Campus
115	Oakwood Tower	235	CVTC Menomonie Campus
116	Mt. Tom Tower	236	Luther Eye Care Center
117	Mt. Washington	237	Red Cedar Medical
118	Wilson Tower	238	Luther Homecare Menomonie
119	Chippewa County Water Tower - Hallie	239	UW Stout
		240	Mondovi High School
		241	Anthony School

Eau Claire Metro - North West WI Demonstration Community

Chippewa Valley MMSA -Section 2- Overview



Legend

● Section 2 Facilities

Section 2 MM Fiber Type

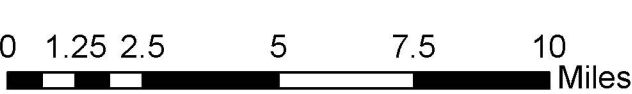
— Existing

— Proposed

Long Haul MM Fiber Type

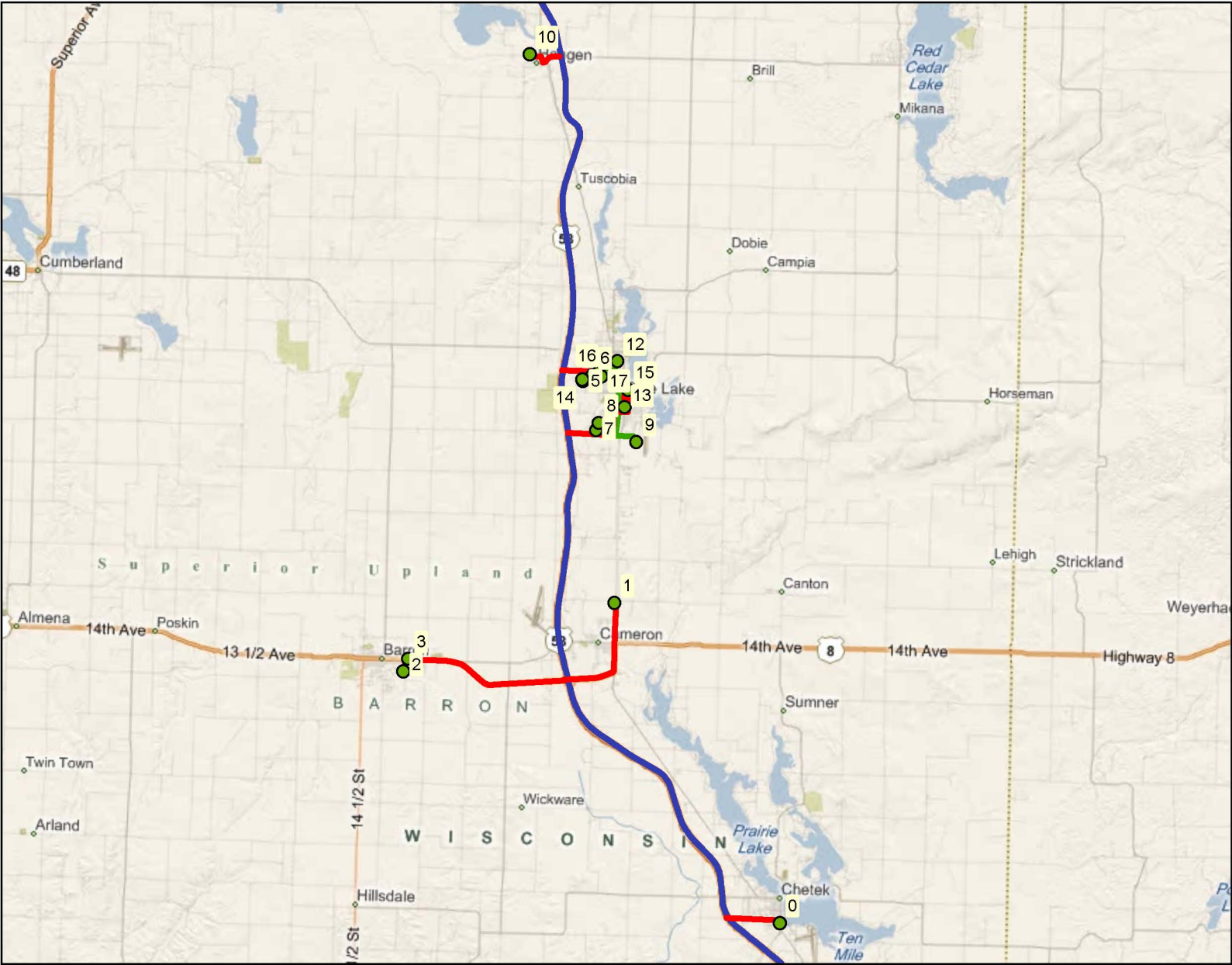
— Existing

— Proposed



Eau Claire Metro - North West WI Demonstration Community

Chippewa Valley MMSA -Section 2- Directly Served Facilities



Legend

● Section 2 Facilities

Section 2 MM Fiber Type

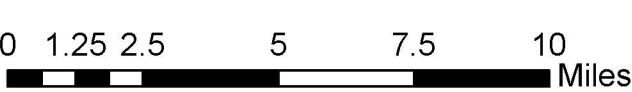
— Existing

— Proposed

Long Haul MM Fiber Type

— Existing

— Proposed

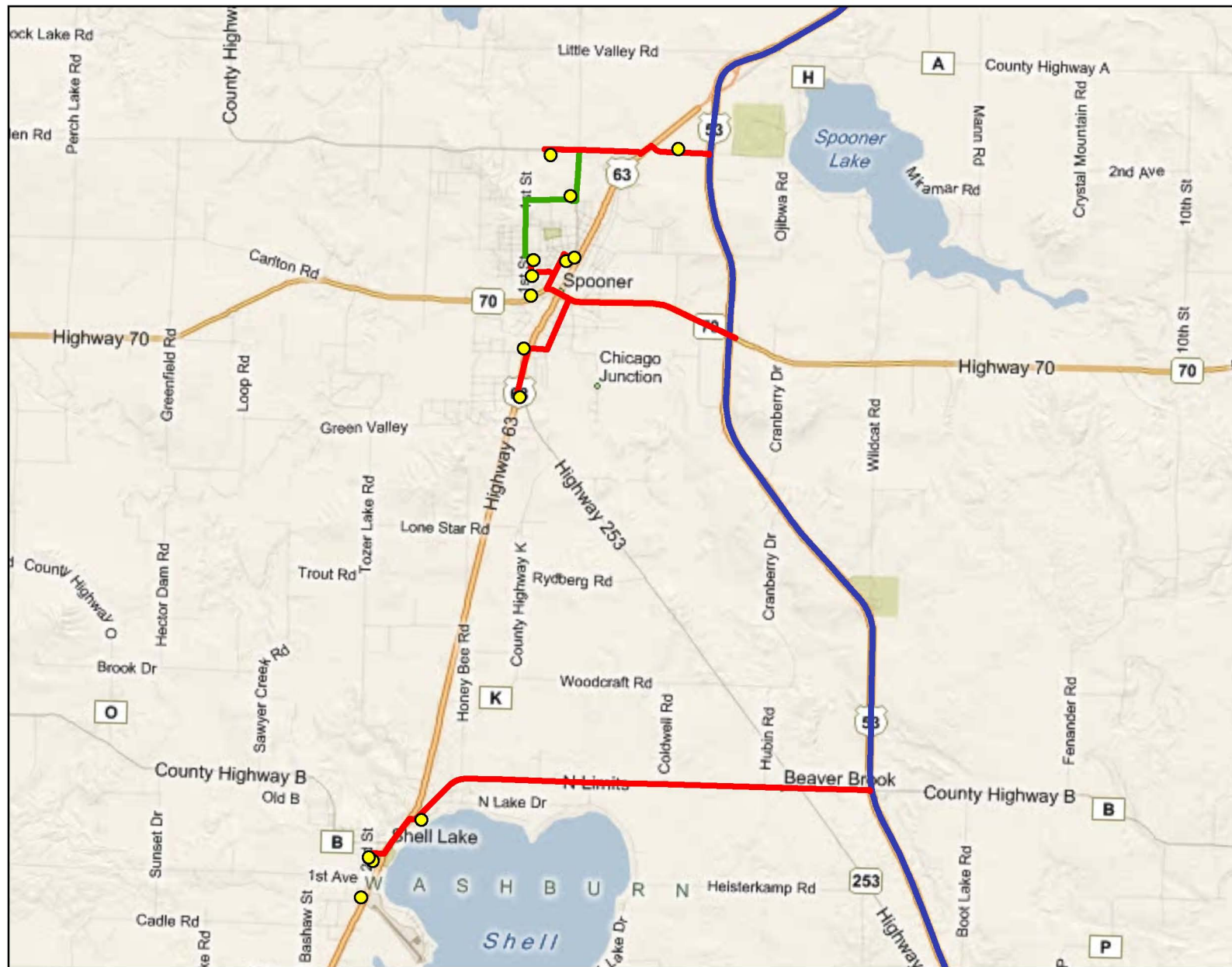


Eau Claire Metro - North West WI Demonstration Community
Chippewa Valley MMSA -Section 2- Directly Served Facilities

Id	NAME
0	Chetek - Luther Midelfort Northland
1	Cameron - Luther Midelfort Northland
2	Barron - Luther Midelfort Northland
3	Luther - Medical Office
4	Luther - Midelfort Pharmacy
5	Rice Lake Middle School
6	Rice Lake High School
7	WITC
8	UW Barron Co
9	Elementary School
10	Haugen Elementary
11	Red Cedar School
12	Lincoln Elementary
13	Franklin Elementary-CLOSED
14	Hilltop Elementary
15	Luther Clinic
16	RLASD Administration Building
17	Jefferson Elementary

Eau Claire Metro - North West WI Demonstration Community

Chippewa Valley MMSA -Section 3- Overview



Legend

● Section 3 Facilities

Section 3 MM Fiber

Type

— Existing

— Proposed

Long Haul MM Fiber

Type

— Existing

— Proposed

0 0.5 1 2 3 4 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

Eau Claire Metro - North West WI Demonstration Community
Chippewa Valley MMSA -Section 3- Directly Served Facilities

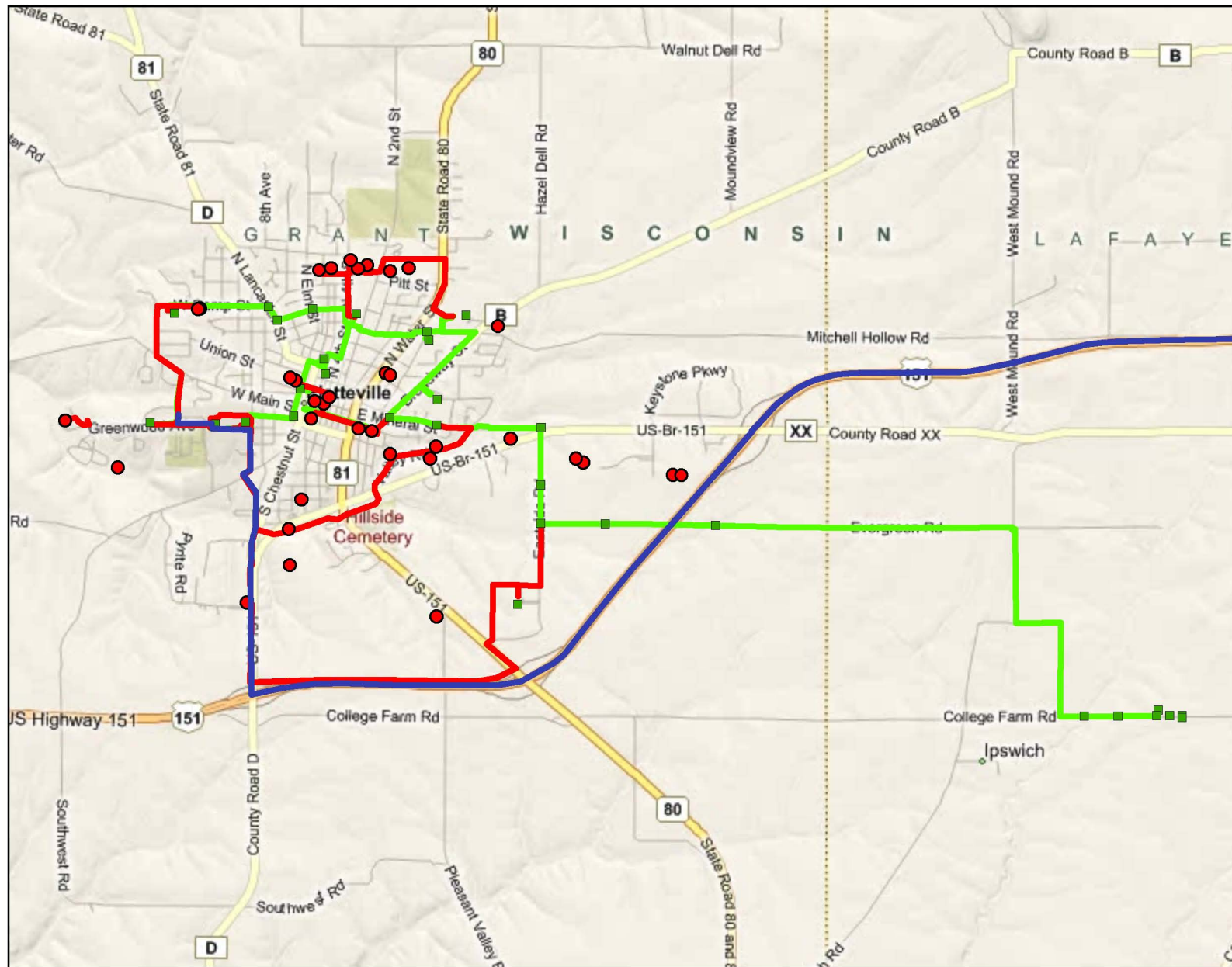
ID	NAME
0	WITC - Shell Lake
1	Shell Lake High School
2	Washburn Co Shell Lake
3	Washburn Co Ed Elliot Building
4	Spooner High School
5	Spooner Health System
6	Spooner Elementary
7	Spooner Middle School
8	WI State Patrol
9	Washburn Co Annex
10	Washburn Co Highway Dept
11	WI DNR
12	City of Spooner
13	Washburn Co Public Health

Eau Claire Metro - North West WI Demonstration Community
Chippewa Valley MMSA -Section 3- Directly Served Facilities

ID	NAME
0	WITC - Shell Lake
1	Shell Lake High School
2	Washburn Co Shell Lake
3	Washburn Co Ed Elliot Building
4	Spooner High School
5	Spooner Health System
6	Spooner Elementary
7	Spooner Middle School
8	WI State Patrol
9	Washburn Co Annex
10	Washburn Co Highway Dept
11	WI DNR
12	City of Spooner
13	Washburn Co Public Health

Platteville Demonstration Community

Platteville MMSA - Overview



Legend

● Proposed Facilities

■ Currently Served Facilities

CAN MM Fiber

Type

— Existing

— Proposed

Long Haul MM Fiber

Type

— Existing

— Proposed

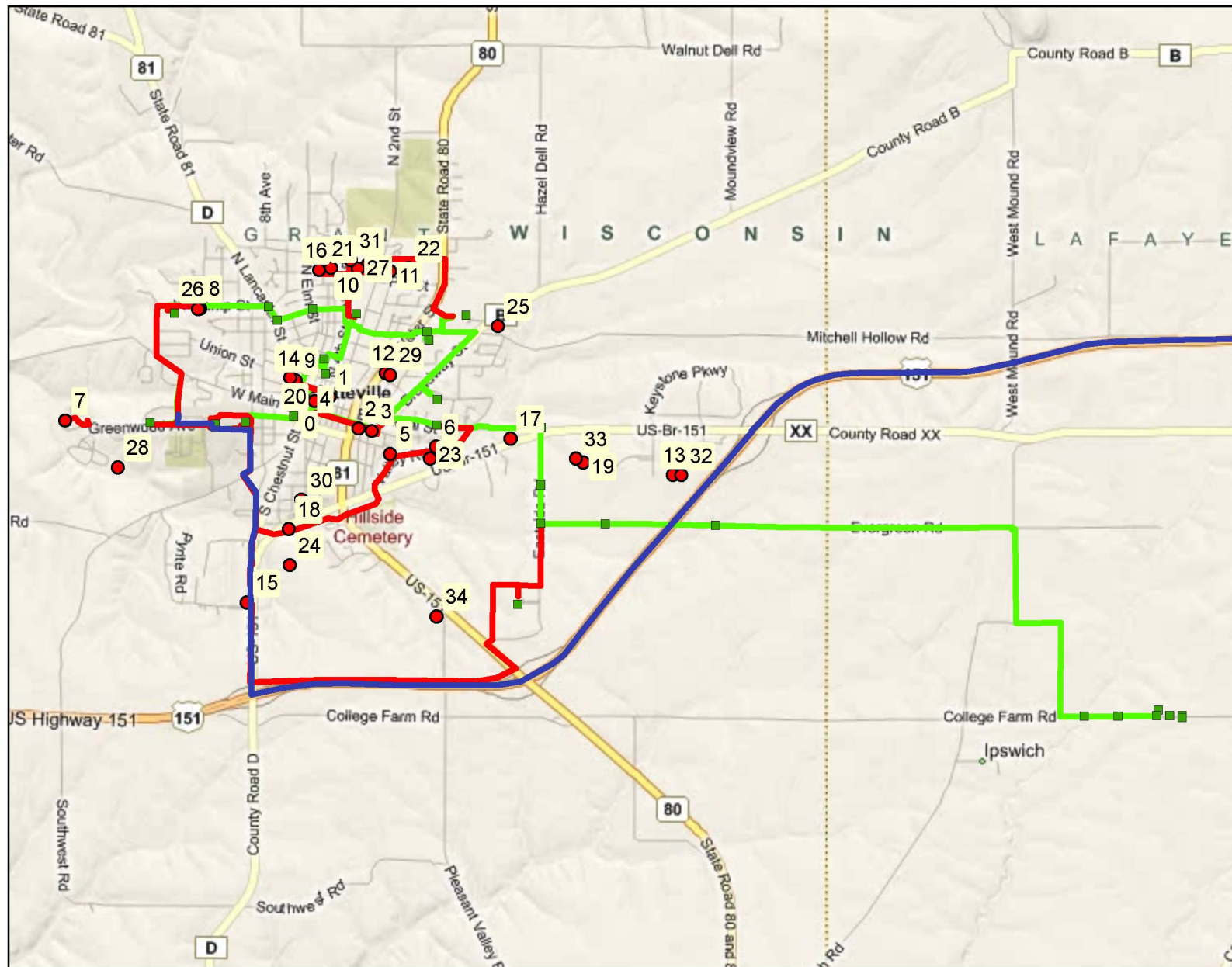
0 0.5 1 2 3 4 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

Platteville Demonstration Community

Platteville MMSA - Directly Served Facilities



Legend

- Proposed Facilities
- Currently Served Facilities

CAN MM Fiber

Type

- Existing
- Proposed

Long Haul MM Fiber

Type

- Existing
- Proposed

0 0.5 1 2 3 4 Miles



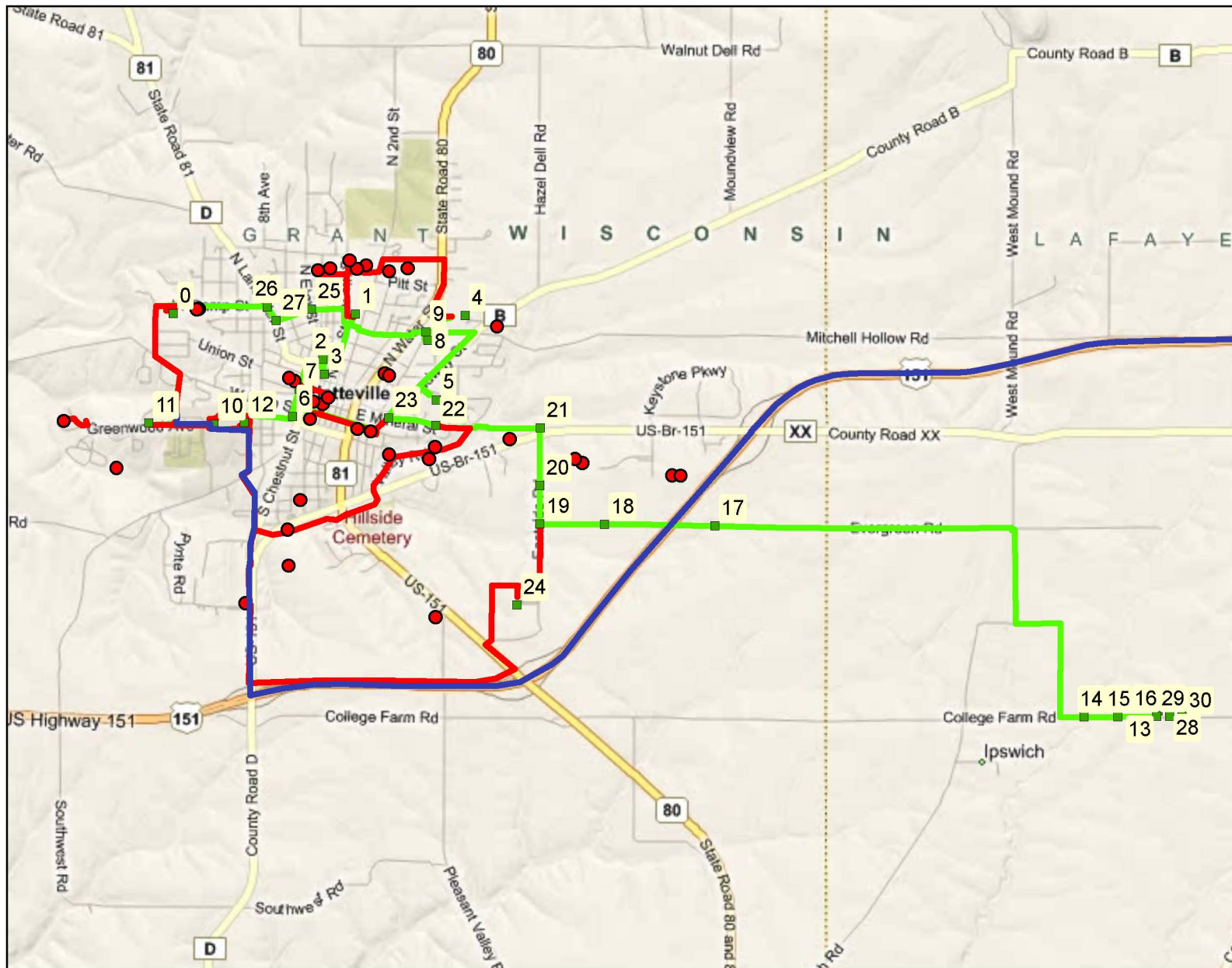
BTOP CCI Application: UWEX BCCB Easygrants #5710

Platteville Demonstration Community
Platteville MMSA - Directly Served Facilities

ID	NAME
0	City Hall
1	Police station under construction
2	Fire Station
3	Museum
4	Senior Center
5	Water Plant
6	Public Works Garage
7	Sewer Treatment
8	City Well
9	Ambulance
10	City Parks Office
11	City Parks
12	Armory and Well
13	City Water Tower
14	City Water Tower
15	Medical Associates Clinic
16	Elderspan Park Place Assisted Living
17	Maski & Maski/Tri-State Dialysis
18	Chamber of Commerce
19	Platteville Business Incubator
20	City Park
21	Smith Park
22	Legion Park
23	Valley View Park
24	Katie's Garden
25	Moundview Park
26	Westview Park
27	City Aquatics Center
28	Memorial Park
29	Highland Park
30	Harrison Park
31	Proposed New Library Site
32	MHTC Hut
33	CenturyTel Industrial Park Hut
34	KDL POP

Platteville Demonstration Community

Platteville MMSA - Existing Directly Served Facilities



Legend

- Proposed Facilities
- Currently Served Facilities

CAN MM Fiber

Type

- Existing
- Proposed

Long Haul MM Fiber

Type

- Existing
- Proposed

0 0.25 0.5 1 1.5 2 Miles

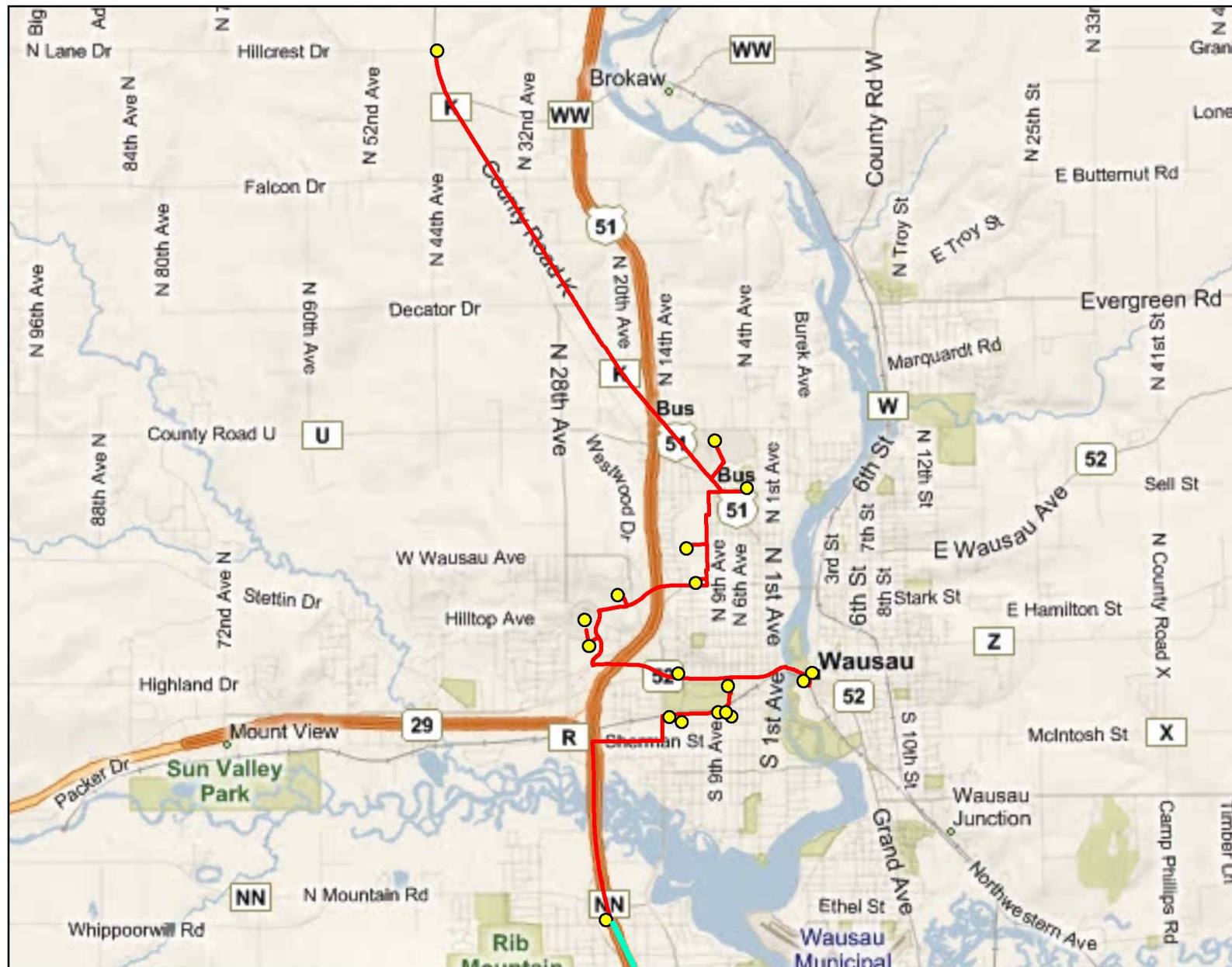


Platteville Demonstration Community
Platteville MMSA - Existing Directly Served Facilities

ID	NAME
0	West View Elementary
1	Middle School
2	OE Gray Elementary
3	St. Mary's School
4	High School
5	Neal Wilkins Elementary
6	Public Library
7	Elm/Market Handhole
8	Maintenance Building
9	Handhole
10	Gardner Hall
11	Morrow Hall
12	Karrmann Library
13	Farm AgTech Center
14	Beef Center Handhole
15	Living and Learning Center Handhole
16	AgTech Center Handhole
17	151 Handhole
18	Industrial Park/151 Handhole
19	Handhole
20	Handhole
21	Handhole
22	Handhole
23	Handhole
24	Southwest Health Center (Hospital)/Doctors Park Clinic
25	Handhole
26	Handhole
27	Handhole
28	Handhole
29	Handhole
30	Handhole

Wausau Metro - Central WI Demonstration Community

Wausau MMSA - Overview



Legend

● Wausau Facilities

— CAN MM Fiber

Long Haul MM Fiber Type

— Existing

— Proposed

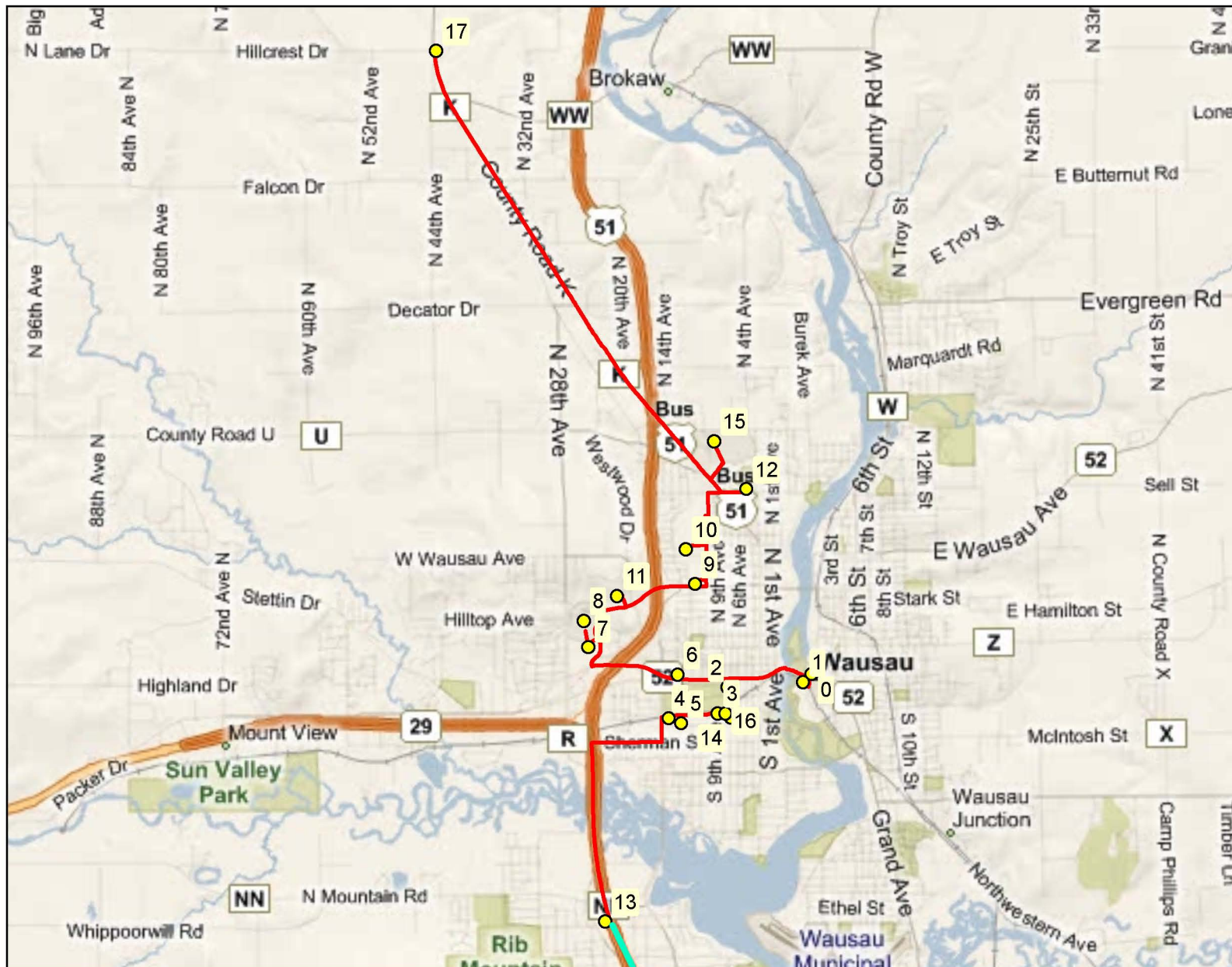
0 0.5 1 2 3 4 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

Wausau Metro - Central WI Demonstration Community

Wausau MMSA - Directly Served Facilities



Legend

● Wausau Facilities

— CAN MM Fiber

Long Haul MM Fiber Type

— Existing

— Proposed

0 0.5 1 2 3 4 Miles



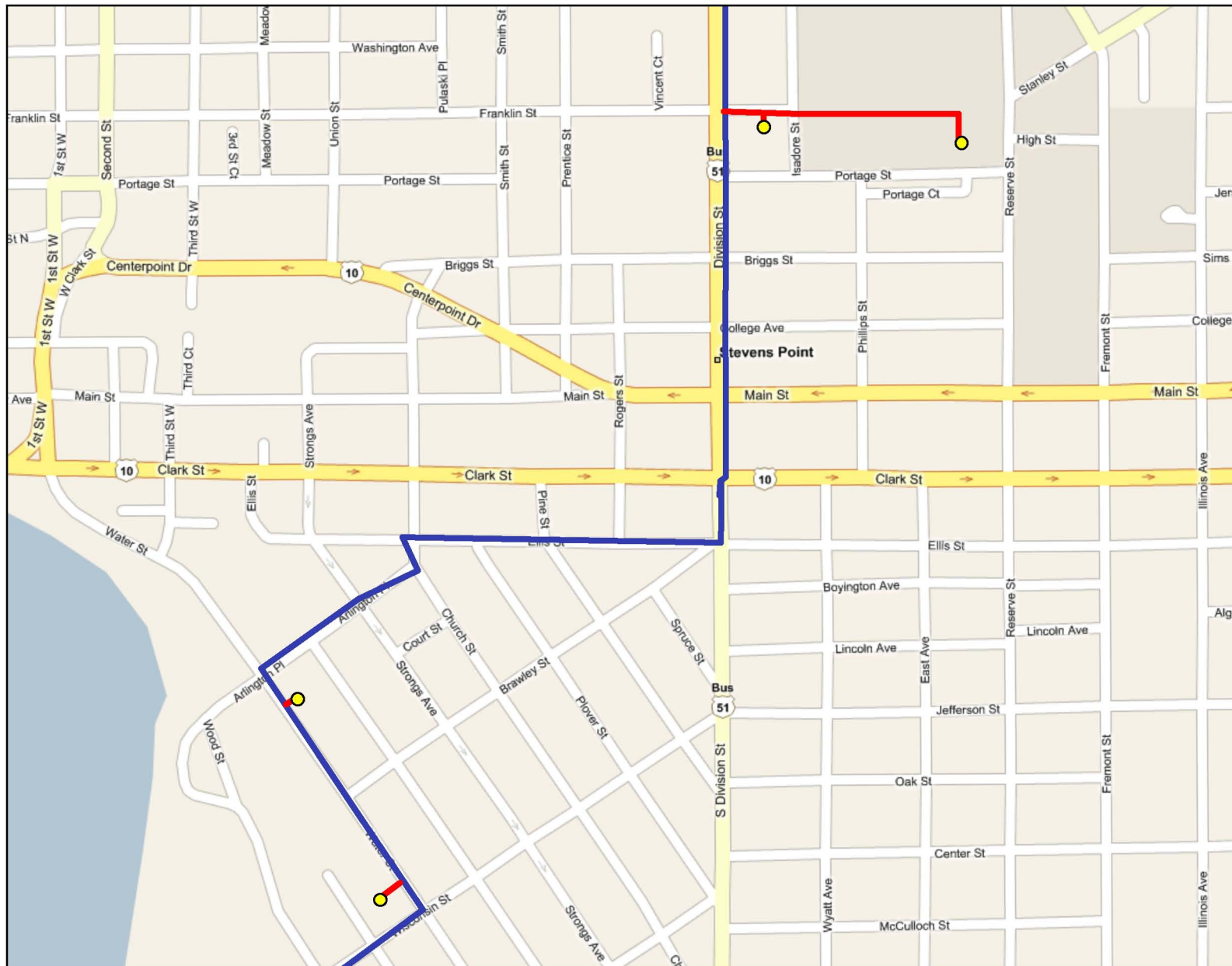
BTOP CCI Application: UWEX BCCB Easygrants #5710

Wausau Metro - Central WI Demonstration Community
Wausau MMSA - Directly Served Facilities

ID	FACILITY
0	MARATHON COUNTY LIBRARY
1	CONSERVATION-PLANNING-ZONING
2	UWMC
3	MARATHON COUNTY PARKS MAINT
4	COUNTY HIGHWAY DEPARTMENT
5	COUNTY MAINTENANCE
6	JOHN MUIR MIDDLE SCHOOL
7	MARSHFIELD CLINIC
8	ASPIRUS WAUSAU HOSPITAL
9	NEWMAN CATHOLIC HIGH SCHOOL
10	WAUSAU WEST HIGH SCHOOL
11	UW FAMILY PRACTICE TRAINING
12	THOMAS JEFFERSON ELEMENTARY
13	WISCONSIN STATE PATROL
14	LINCOLN ELEMENTARY SCHOOL
15	NORTHCENTRAL TECHNICAL COLLEGE
16	WAUSAU SCHL DISTRICT COMPUTER
17	CVTC FARM

Wausau Metro - Central WI Demonstration Community

Stevens Point MMSA - Overview



Legend

● Stevens Point Facilities

— CAN MM Fiber

Long Haul MM Fiber Type

— Existing

— Proposed

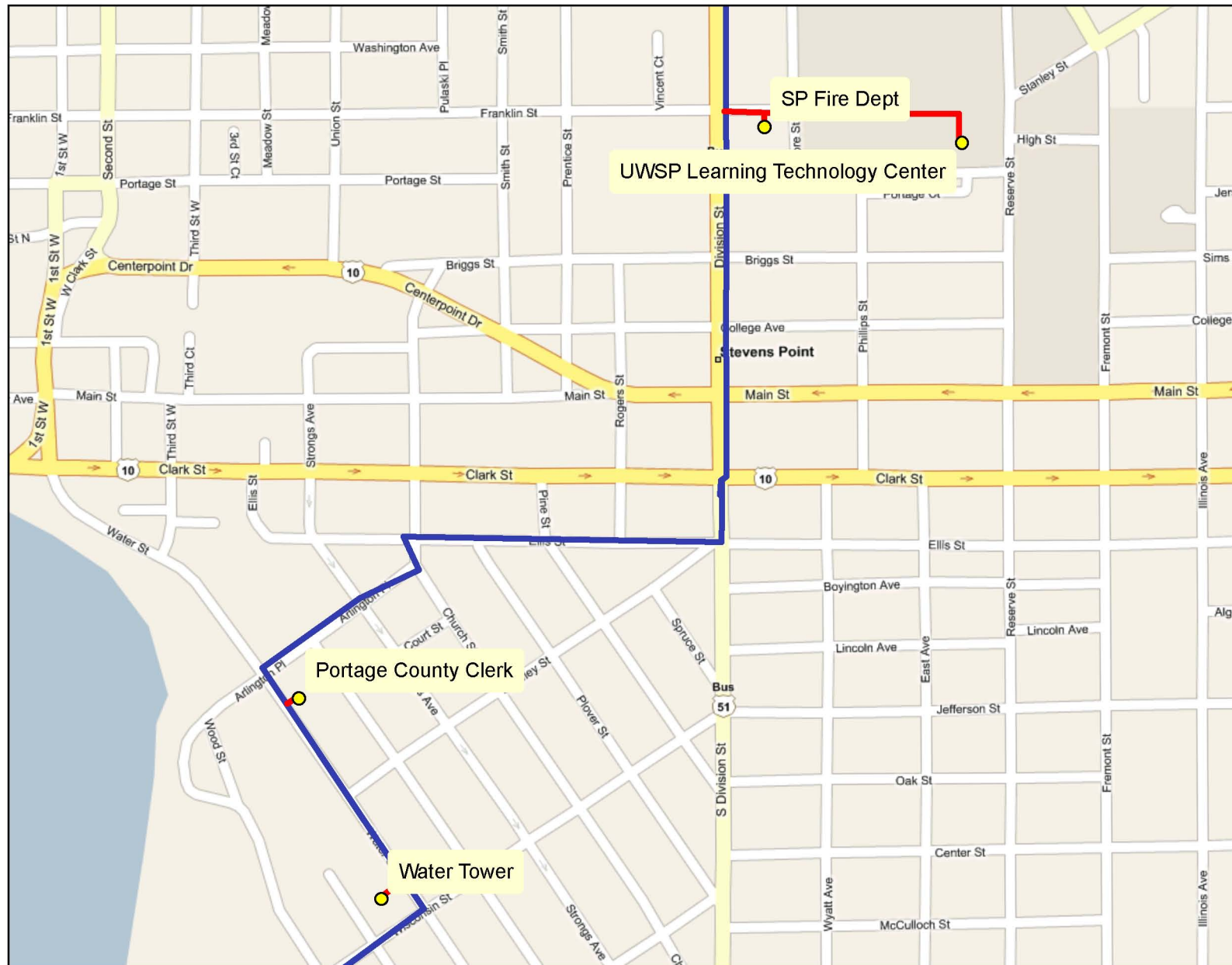
0 0.05 0.1 0.2 0.3 0.4 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

Wausau Metro - Central WI Demonstration Community

Stevens Point MMSA - Directly Served Facilities



Legend

● Stevens Point Facilities

— CAN MM Fiber

Long Haul MM Fiber Type

— Existing

— Proposed

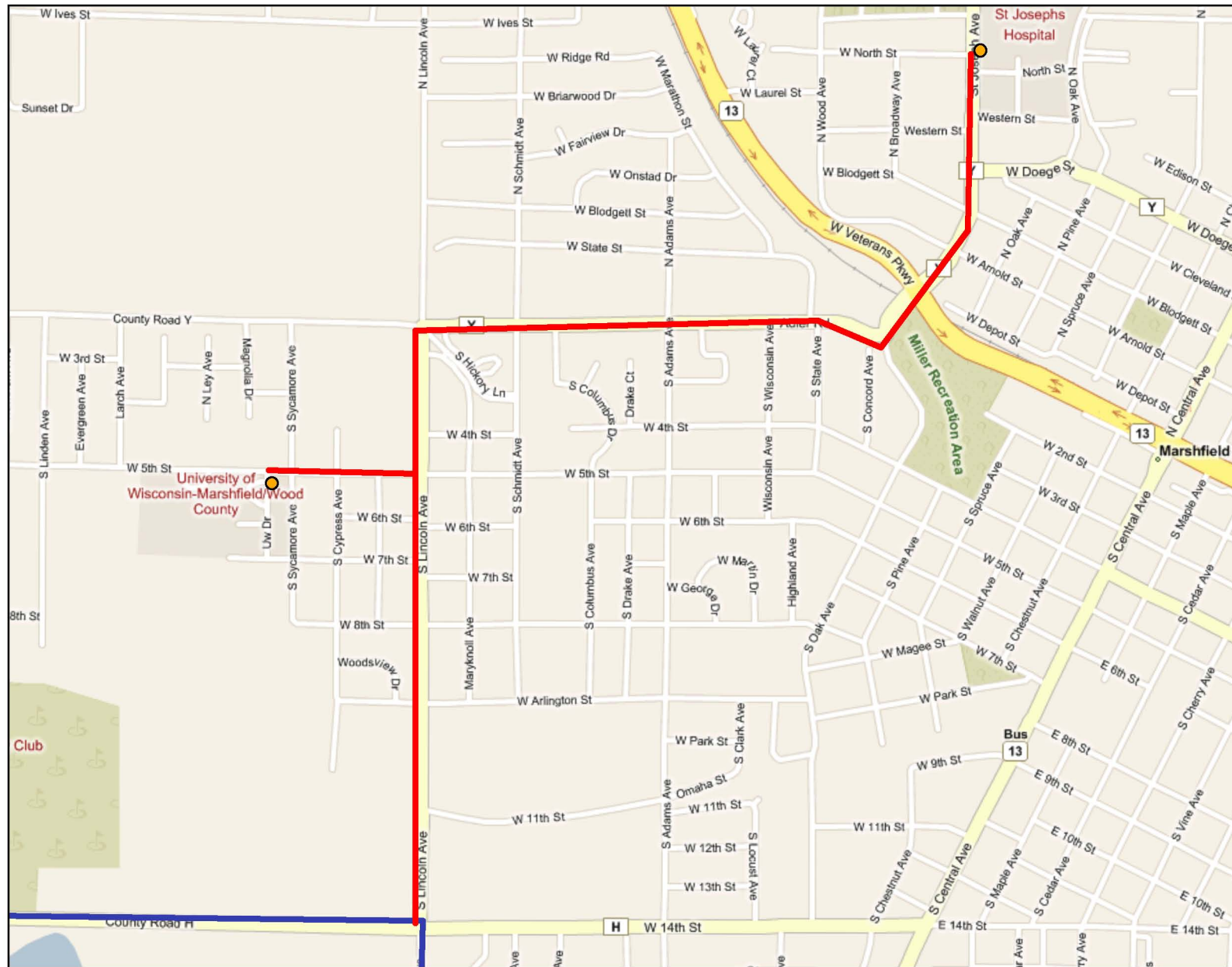
0 0.05 0.1 0.2 0.3 0.4 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

Wausau Metro - Central WI Demonstration Community

Marshfield MMSA - Overview



Legend

● Marshfield Facilities

— CAN MM Fiber

Long Haul MM Fiber Type

— Existing

— Proposed

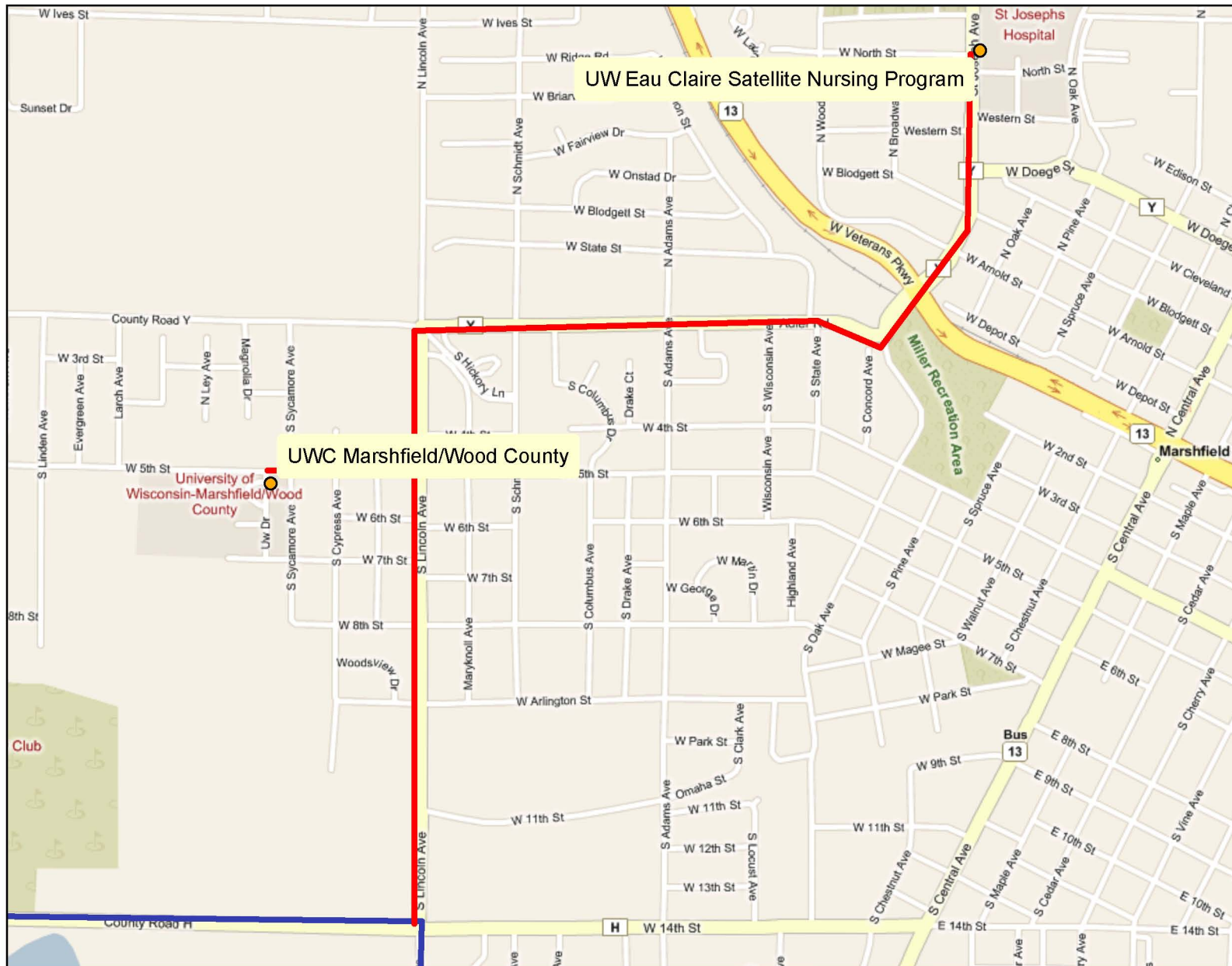
0 0.125 0.25 0.5 0.75 1 Miles



BTOP CCI Application: UWEX BCCB Easygrants #5710

Wausau Metro - Central WI Demonstration Community

Marshfield MMSA - Directly Served Facilities



Legend

- Marshfield Facilities
- CAN MM Fiber
- Long Haul MM Fiber Type**
 - Existing
 - Proposed

0 0.125 0.25 0.5 0.75 1 Miles



BTOP Comprehensive Community Infrastructure Pro Forma Financial Projections

Please complete the Income Statement, Balance Sheet, Cash Flows, and NPV-IRR Table worksheets. Key assumptions used to formulate these financial projections should be listed in the Key Assumptions worksheet. Please note that these are **project-specific** projections, in contrast to the historical financial information which is provided at the organizational level.

Please refer to the Comprehensive Community Infrastructure Grant Guidance for detailed instructions on the completing this upload.

Applicants are required to provide this upload as an Excel file, and not to convert it to a PDF prior to upload. Applicants may make adjustments to the format of the templates as necessary to provide the most effective presentation of the data for their specific project, but should not remove major headings (*e.g.* Revenues and Expenses on the Income Statement) or provide less detailed information than would be required to complete the provided templates.

Income Statement

	Forecast Period							
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Revenues								
Broadband Offerings								
Wholesale Data	\$ -	\$ 130,000	\$ 135,000	\$ 200,000	\$ 240,000	\$ 275,000	\$ 310,000	\$ 345,000
Retail Data	\$ -	\$ 2,022	\$ 56,892	\$ 139,547	\$ 227,870	\$ 321,366	\$ 371,918	\$ 383,076
Dark Fiber	\$ -	\$ 46,798	\$ 73,290	\$ 256,222	\$ 387,021	\$ 515,116	\$ 641,417	\$ 767,717
Collocation	\$ -	\$ 4,500	\$ 19,750	\$ 48,250	\$ 79,000	\$ 109,500	\$ 139,500	\$ 169,500
Other (list specific services)								
CAN 1GB Service	\$ 171,000	\$ 357,000	\$ 418,500	\$ 444,000	\$ 471,000	\$ 501,000	\$ 531,000	\$ 565,500
CAN 10GB Service					\$ 24,000	\$ 28,000	\$ 36,000	\$ 40,000
CAN Dark Fiber Service			\$ 37,500	\$ 187,500	\$ 37,500	\$ 112,500		
CAN Wireless Service	\$ 13,500	\$ 175,500	\$ 175,500	\$ 175,500	\$ 175,500	\$ 175,500	\$ 175,500	\$ 175,500
Ethernet	\$ -	\$ 154,080	\$ 324,800	\$ 469,690	\$ 618,620	\$ 746,550	\$ 900,380	\$ 1,041,960
WiscNet Network Access Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Network Driven Revenues								
Video Services	\$ -	\$ 3,636	\$ 90,519	\$ 233,172	\$ 395,539	\$ 519,810	\$ 557,357	\$ 596,372
Voice Services (local/toll/long distance)	\$ -	\$ 7,146	\$ 165,298	\$ 405,752	\$ 656,131	\$ 916,362	\$ 1,050,213	\$ 1,071,217
Other (list specific services)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Universal Service Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Installation Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grant Revenue	\$ 548,233	\$ 2,306,308	\$ 2,262,147	\$ 2,057,958	\$ 1,590,907	\$ 1,356,324	\$ 629,918	\$ 619,212
Cash Match Revenue	\$ 128,921	\$ 846,529	\$ 846,529	\$ 807,149	\$ 645,615	\$ 562,658	\$ 154,294	\$ 154,294
Other Revenues	\$ 23,884	\$ 161,258	\$ 161,258	\$ 145,581	\$ 129,903	\$ 129,903	\$ 129,903	\$ 129,903
Total Revenues	\$ 885,539	\$ 4,194,777	\$ 4,766,983	\$ 5,570,321	\$ 5,678,606	\$ 6,269,589	\$ 5,627,399	\$ 6,059,250
Expenses								
Backhaul	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Network Maintenance/Monitoring	\$ 1,000	\$ 166,805	\$ 250,145	\$ 251,201	\$ 259,073	\$ 266,993	\$ 269,921	\$ 269,921
Utilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Leasing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sales/Marketing	\$ -	\$ 144,547	\$ 108,457	\$ 177,316	\$ 177,316	\$ 177,316	\$ 177,316	\$ 177,316
Customer Care	\$ -	\$ 90,342	\$ 72,305	\$ 103,434	\$ 103,434	\$ 103,434	\$ 103,434	\$ 103,434
Billing	\$ -	\$ 1,822	\$ 20,835	\$ 38,745	\$ 56,685	\$ 68,655	\$ 68,655	\$ 68,655
Corporate G&A	\$ 35,000	\$ 35,000	\$ 79,535	\$ 73,882	\$ 73,882	\$ 73,882	\$ 73,882	\$ 73,882
Other Operating Expense	\$ 434,611	\$ 960,592	\$ 1,322,414	\$ 1,518,411	\$ 1,723,773	\$ 1,912,689	\$ 1,991,814	\$ 2,009,326
Total	\$ 470,611	\$ 1,399,108	\$ 1,853,692	\$ 2,162,990	\$ 2,394,164	\$ 2,602,970	\$ 2,685,023	\$ 2,702,535
EBITDA	\$ 414,928	\$ 2,795,668	\$ 2,913,291	\$ 3,407,331	\$ 3,284,442	\$ 3,666,620	\$ 2,942,377	\$ 3,356,716
Depreciation	\$ 701,039	\$ 3,314,095	\$ 3,269,934	\$ 3,010,688	\$ 2,366,425	\$ 2,048,885	\$ 914,114	\$ 903,408
Amortization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Earnings Before Interest and Taxes	\$ (286,111)	\$ (518,426)	\$ (356,643)	\$ 396,643	\$ 918,017	\$ 1,617,734	\$ 2,028,262	\$ 2,453,307
Interest Expense	\$ 13,750	\$ 38,500	\$ 74,250	\$ 74,250	\$ 41,250	\$ -	\$ -	\$ -
Income Before Taxes	\$ (299,861)	\$ (556,926)	\$ (430,893)	\$ 322,393	\$ 876,767	\$ 1,617,734	\$ 2,028,262	\$ 2,453,307
Property Tax	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Income Taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Income	\$ (299,861)	\$ (556,926)	\$ (430,893)	\$ 322,393	\$ 876,767	\$ 1,617,734	\$ 2,028,262	\$ 2,453,307

Balance Sheet

	Forecast Period							
Assets	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Current Assets								
Cash	\$ 179,393	\$ 203,429	\$ 166,656	\$ 164,347	\$ 147,259	\$ 1,345,885	\$ 3,410,359	\$ 5,842,950
Marketable Securities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Receivable	\$ 44,277	\$ 209,739	\$ 238,349	\$ 278,516	\$ 283,930	\$ 313,479	\$ 281,370	\$ 302,963
Notes Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Inventory	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Prepayments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current Assets	\$ 223,670	\$ 413,168	\$ 405,005	\$ 442,863	\$ 431,189	\$ 1,659,364	\$ 3,691,729	\$ 6,145,912
Non-Current Assets								
Long-Term Investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortizable Asset (Net of Amortization)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plant in Service	\$ 13,082,851	\$ 32,869,114	\$ 45,867,272	\$ 45,867,272	\$ 45,867,272	\$ 45,867,272	\$ 45,867,272	\$ 45,867,272
Less: Accumulated Depreciation	\$ (701,039)	\$ (4,015,133)	\$ (7,285,067)	\$ (10,295,755)	\$ (12,662,180)	\$ (14,711,065)	\$ (15,625,180)	\$ (16,528,588)
Net Plant	\$ 12,381,812	\$ 28,853,981	\$ 38,582,205	\$ 35,571,517	\$ 33,205,092	\$ 31,156,207	\$ 30,242,092	\$ 29,338,684
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Non-Current Assets	\$ 12,381,812	\$ 28,853,981	\$ 38,582,205	\$ 35,571,517	\$ 33,205,092	\$ 31,156,207	\$ 30,242,092	\$ 29,338,684
Total Assets	\$ 12,605,482	\$ 29,267,149	\$ 38,987,210	\$ 36,014,380	\$ 33,636,281	\$ 32,815,571	\$ 33,933,822	\$ 35,484,596
Liabilities and Owners' Equity								
Liabilities	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Current Liabilities								
Accounts Payable	\$ 23,531	\$ 69,955	\$ 92,685	\$ 108,149	\$ 119,708	\$ 130,148	\$ 134,251	\$ 135,127
Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current Liabilities	\$ 23,531	\$ 69,955	\$ 92,685	\$ 108,149	\$ 119,708	\$ 130,148	\$ 134,251	\$ 135,127
Long-Term Liabilities								
Long Term Notes Payable	\$ 500,000	\$ 1,200,000	\$ 1,600,000	\$ 1,300,000	\$ 400,000	\$ -	\$ -	\$ -
Other Long Term Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Long-Term Liabilities	\$ 500,000	\$ 1,200,000	\$ 1,600,000	\$ 1,300,000	\$ 400,000	\$ -	\$ -	\$ -
Total Liabilities	\$ 523,531	\$ 1,269,955	\$ 1,692,685	\$ 1,408,149	\$ 519,708	\$ 130,148	\$ 134,251	\$ 135,127
Owner's Equity								
Capital Stock	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Committed Equity - Capital Assets	\$ 12,381,812	\$ 28,853,981	\$ 38,582,205	\$ 35,571,517	\$ 33,205,092	\$ 31,156,207	\$ 30,242,092	\$ 29,338,684
Additional Paid-In Capital	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retained Earnings	\$ (299,861)	\$ (856,787)	\$ (1,287,680)	\$ (965,286)	\$ (88,519)	\$ 1,529,216	\$ 3,557,478	\$ 6,010,785
Total Equity	\$ 12,081,951	\$ 27,997,193	\$ 37,294,525	\$ 34,606,231	\$ 33,116,573	\$ 32,685,422	\$ 33,799,570	\$ 35,349,470
Total Liabilities and Owner's Equity	\$ 12,605,482	\$ 29,267,149	\$ 38,987,210	\$ 36,014,380	\$ 33,636,281	\$ 32,815,571	\$ 33,933,822	\$ 35,484,596
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

NPV/IRR Table

	Net Present Value	Internal Rate of Return
Without BTOP Funding	-\$32,536,468.00	0.00%
With BTOP Funding	\$7,761,656.00	-5.92%

Revenue Assumptions		
Factor	Specific Metric Used in Analysis	Rationale (Cite Basis)
Customers Passed		
Anchor Institutions-Demo. Communities	100% of anchor institutions in touched census s	Distances from CAI to fiber are short enough to project reasonable costs for fiber build to get to CAN
Anchor Institutions - Long Haul	0% for lit services, 30% for dark fiber	Our project is designed to serve the CAI's within the community, thus no service areas were defined in the long haul
Businesses	0% for public (CAI) offerings, 100% of businesses within served census blocks for private (CCI Systems)	Wisconsin law prohibits public sector entities from selling telecommunication services to businesses and residents. Towns served by CCI are small enough that everyone is within service range of the technology.
Households	0% for public (CAI) offerings, 100% of houses within census tracts in CCI Systems service areas	Wisconsin law prohibits public sector entities from selling telecommunication services to businesses and residents. Towns served by CCI are small enough that everyone is within service range of the technology
Last Mile Providers	0% for public (CAI) offerings; CCI Systems knew of only a few potential providers within reasonable range of the	Market knowledge by long time experts in the field; 10 mile range as reasonable expense to connect.
Other		
Take Rate (should likely vary across 8-Year Forecast)		
Anchor Institutions - CAN 1Gb service	10 % per year growth in connected CAIs - *except for Eau Claire, with 5%	Past experience has led us to expect about this rate in developing networks. Eau Claire has had such a network for 10 years and is reaching market saturation.
Anchor Institutions - CAN 10Gb service	Just a few over time - projected customers within 8 years limited to 4 year higher ed institutions and health care	Established usage growth rates project that most entities can be served by one or two Gb ethernet links for 8 years.
Anchor Institutions - CAN Wireless	No growth in # of CAI partners (26) is expected within wireless coverage area.	Costs are divided among partners for the grant funded coverage area. No additional potential CAIs are in that area that are not already partners. Future growth would extend beyond this area and no longer be part of the grant funded service.
Anchor Institutions - Backbone	This service will be largely used by WiscNet, with just a few CAI institutions interested in point to point WAN services	Larger higher ed and healthcare institutions have large data needs and the expertise to make use of such a connection.
Businesses	4 percent penetration and increases 1 percent a month until it peaks out at 50 percent	CCI Systems growth was projected based on knowledge of market
Households	4 percent penetration and increases 1 percent a month until it peaks out at 50 percent	CCI Systems growth was projected based on knowledge of market
Last Mile Providers	4 percent penetration and increases 1 percent a month until it peaks out at 50 percent	CCI Systems growth was projected based on knowledge of market
Direct Customer Connections		
Customer Segment A	All non-wireless CAI customers connect at 1Gb initially	Traffic monitors show current usage of the largest at around 400Mbps
Customer Segment B	Backbone links for WiscNet start at 10Gb	Standard backbone size to match existing network
Commercial and Residential CCI Sys	Both groups will start with service mix of: 30% @ 3Mb; 40% @ 6Mb, 30% and 10Mb	Based on CCI past experience in similar markets

Average Revenue per User (may vary across 8-year forecast)		
	Slightly rising - Stable overall revenue per user across 8 years, just a few making the step to 10Gb or buying additional backbone services.	Traffic projections show many users will be served well at 1Gb for most or all of the 8 years. A few may add a second 1Gb link, but
Anchor Institutions - CAN 1Gb - 10Gb		
Anchor Institutions - CAN Wireless	Stable costs across all years for fixed # of institutions served	No change in services or user base
Anchor Institutions - Backbone	Increasing every 2-3 years as WiscNet upgrades are needed	WiscNet 10+ years of constant and consistent growth
Businesses	Stable costs across all years	We predict that rates will stay the same but service level will increase over time for that same rate
Households	Stable costs across all years	We predict that rates will stay the same but service level will increase over time for that same rate
Last Mile Providers	Stable costs across all years	We predict that rates will stay the same but service level will increase over time for that same rate
Other		

Expense Assumptions		
Factor	Specific Metric Used in Analysis	Rationale (Cite Basis)
Network Expenses		
Backhaul	\$0	Backhaul is a service provided by WiscNet, ISP, or other service provider. Associated costs are the responsibility of the individual institution and not included here.
Maintenance	Cisco 3750's (Lifetime Warranty) - 0%	From recent quote
	Juniper - 7% of unit cost	Fantastic deal on recent order gave 5%, standard rate 10% - we expect something in between
	Cisco - 36% of unit cost	Rate calculated on latest Cisco purchase.
	Force 10 - 7%	Rate calculated on latest Force10 purchase
	XFPs - 0%	From recent quote
	Enterasys (Lifetime Warranty) - 0%	From recent quote
	Infinera - 7%	From recent purchases
Hut Maintenance	semi annual checkup = \$1000/yr	Semi annual checkup = \$1000/yr To check facility, clean air filters, etc - common practice
	\$4800 Power @ \$400/mo	For environmental and equipment ranging from 20Amp to 200Amp
Tower Maintenance	\$225 / year	Groundskeeping and bulb changing 15 hours @ \$15/hr

Utilities	\$0	Other than huts (shown above,) utilities to support equipment are the responsibility of the individual institution
Leasing	0\$ hardware or circuit leases	No circuits are part of this plan and all hardware will be purchased
Depreciation	Fiber - 40 year useful life	Industry standard
	Electronics - 5 year	Industry standard
	Towers - 20 years	Industry standard
	Conduit - 40 years	Industry standard
Other		
Optical Network Operations Service	\$160.38/mile for operations costs including:	Based on four years of WiscNet operations of BOREAS-Net, a multistate regional optical network. This model applies equally to long haul and CAN infrastructure.
	NOC	Notably NOT included: Fiber locates; break/fix fiber mgmt; and hardware maintenance/refresh
	Tech Support	
	Enighering	
	Financial / budgeting / billing	
	Project Management	
	Communications	
Fiber Locates	\$250/mi/yr in CAN; \$100/mi/yr on long haul	Est. 10 locates / mi / year. \$25 / locate in city; \$10 / locate in long haul due to use of DOT right of way
Break / Fix - Fiber System Mgmt	\$3000 for first 10 miles; \$75/mi for next 40 miles; \$50/mi for miles exceeding 50	Quoted offering from CCI Systems to two different Wisconsin communities
Hardware Refresh	\$0 for CPE; included for long haul equipment based on useful life	CPE is individual institution responsibility
CAN Labor Needs		
Sales & Marketing		
Advertising	No separate costs for CAI	Included in blended network operations rate derived from BOREAS-net operations service
Commissions	none for CAI	University employees - no commissions
Salaries	No separate costs for CAI	Included in blended network operations rate derived from BOREAS-net operations service

Other		
Customer Care & Billing		
Systems	No separate costs for CAI	Included in blended network operations rate derived from BOREAS-net operations service
Personnel	No separate costs for CAI	Included in blended network operations rate derived from BOREAS-net operations service
NOC	No separate costs for CAI	Included in blended network operations rate derived from BOREAS-net operations service
General & Administrative		
Professional Services	No separate costs for CAI	Included in blended network operations rate derived from BOREAS-net operations service
Insurance	none for CAI	University is Self insured - no premiums are charged
Non-Network Utilities	No separate costs for CAI	Included in blended network operations rate derived from BOREAS-net operations service
Travel	No separate costs for CAI	Included in blended network operations rate derived from BOREAS-net operations service
Supplies	No separate costs for CAI	Included in blended network operations rate derived from BOREAS-net operations service
Miscellaneous		
Interest Expenses		
Debt Instrument A	Interest rate of 5.5%	Assumed a revolving line of credit to fund operating costs during construction phase. Assumed rate of 5.5% based on current rate used by CCI Systems.
Debt Instrument B	\$0	No debt used
Taxes		
Federal Tax Rate		
Other Tax Rates		

Asset Type	Grant Funded (G) or In-Kind (I)	Year Purchased
Network & Access Equipment - Switching		
Cisco 3560G Switch or equivalent	G	2
Cisco 3750 Metro Routing Switch or equivalent	G	2
Cisco 3750 Metro Routing Switch or equivalent - Wausau	G	1
Cisco 3750 Switch or equivalent	G	2
Cisco 3750 Switch or equivalent - Superior	G	3
Juniper EX4200 or equivalent - Chippewa to Superior and Madison to Platteville	G	3
Marshfield - Juniper EX4200 or equivalent	G	2
Wausau - Juniper EX4200 or equivalent	G	1
Enterasys 12 10/100/1000baseT, 2 1000base X SFP Switch or equivalent	G	3
Enterasys SSA Distribution/Core switch/router 48 1000baseX SFP+, 625W power supply or equivalent	G	3
Enterasys Rack mount kit for D2 switch or equivalent	G	3
Enterasys Wall Mount Kit for D2 switch or equivalent	G	3
Force10 2 port 10GB line card or equivalent	G	3
Network & Access Equipment - Routing		
BWG - ASN Gateway or equivalent (Year 1)	G	1
BWG - ASN Gateway or equivalent (Year 2)	G	2
Cisco Access Registrar (AAA) or equivalent (Year 1)	G	1
Cisco Access Registrar (AAA) or equivalent (Year 2)	G	2
Cisco Network Registrar (DHCP) or equivalent (Year 1)	G	1
Cisco Network Registrar (DHCP) or equivalent (Year 2)	G	2
Cisco WX-SW-EMSSVR-R7.0 or equivalent (Year 1)	G	1
Cisco WX-SW-EMSSVR-R7.0 or equivalent (Year 2)	G	2
Cisco 7600 Series Router or equivalent	G	1
Cisco 7600 Series Router or equivalent - Fall Creek, Augusta Last Mile	G	2
Network & Access Equipment - Transport		
Reconfigurable Optical Add-Drop Multiplexer (ROADM) for Cisco 15454 equipment or equivalent	G	1
DWDM XFPs or equivalent - Chippewa Falls to Superior and Madison to Platteville	G	3
Marshfield - DWDM XFPs or equivalent	G	2
Wausau - DWDM XFPs or equivalent	G	1
Enterasys 1Gb 1000base-T RJ45 SPF or equivalent	G	3
Enterasys 1Gb 1000base-LX SMF LC SFP 10km or equivalent	G	3

Milwaukee - Infinera DWDM Add/Drop Equipment or equivalent	G	2
Sheboygan - Infinera DWDM Optical Amplifier equipment, or equivalent	G	2
UW Green Bay - Infinera DWDM Add/Drop Equipment, or equivalent	G	2
Marion - Infinera DWDM Optical Amplifier equipment, or equivalent	G	2
Wausau - Infinera DWDM Add/Drop Equipment, or equivalent	G	2
Marshfield - Infinera DWDM Optical Amplifier Equipment, or equivalent	G	2
Eau Claire East Bound - Infinera DWDM Add/Drop Equipment or equivalent	G	2
Eau Claire North Bound - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	G	3
Rice Lake - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	G	3
Spooner - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	G	3
Solon Springs - Cisco 15454 Optical DWDM Amplifier Equipment, or equivalent	G	3
Superior - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	G	3
Platteville - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	G	3
Dodgeville - Cisco 15454 Optical DWDM Amplifier Equipment, or equivalent	G	3
Madison - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	G	3
Elcho - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	G	1
Wittenburg Area - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent	G	1
Auberndale - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent	G	1
Greenwood - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent	G	1
Fall Creek - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent	G	2
Network & Access Equipment - Access		
Cisco AIR-CT5508-250-K9 Wifi Controller or equivalent	G	1
Cisco AIR-CT5508-250-K9 Wifi Controller or equivalent	G	2
Cisco WCS-ENT-2500 Wireless Control System or equivalent	G	1
Cisco WCS-ENT-2500 Wireless Control System or equivalent	G	2
WiMAX Basestation 8415 & Antennas or equivalent	G	1
WiMAX Basestation 8415 & Antennas or equivalent	G	2
Outside Plant - Cables		
Chippewa Valley Area - Up to 144 strands of fiber optic cable and conduit installed in urband setting, variety of installation methods.	G	2

Chippewa Valley Area - Up to 144 strands of fiber optic cable placed in existing conduit.	G	2
Chippewa Valley Area - Up to 144 strands of fiber optic cable and conduit installed in a rural setting, variety of installation methods.	G	2
Chippewa Valley Area - 96 strands of existing fiber optic cable, installed in 2003 in Eau Claire city center loop	I	2
Chippewa Valley Area - 96 strands of existing fiber optic cable, installed in 2004 - CINC ring to I-94	I	2
Chippewa Valley Area - 192 strands of fiber optic cable, installed in 2008 - Chippewa Falls to Eau Claire Highway 53	I	2
Platteville Area - 12 strands of fiber optic cable, conduit installed, directional bore installation method	G	3
Platteville Area - 12 strands of fiber optic cable, conduit installed, plowing installation method	G	3
Platteville Area - 12 strands of fiber optic cable, installed in existing conduit	G	3
Platteville Area - 36 strands of fiber optic cable, conduit installed directional bore method	G	3
Platteville Area - 36 strands of fiber optic cable, conduit installed, plowing installation method	G	3
Platteville Area - 36 strands of fiber optic cable, installed in existing conduit	G	3
Platteville Area - 48 strands of fiber optic cable, conduit installed, directional bore installation method	G	3
Platteville Area - 48 strands of fiber optic cable, conduit installed, plowing installation method	G	3
Platteville Area - 48 strands of fiber optic cable, installed in existing conduit	G	3
Platteville Area - 72 strands of fiber optic cable, conduit installed, directional bore installation method	G	3
Platteville Area - 72 strands of fiber optic cable, installed in existing conduit	G	3
Platteville Area - 4.29 miles of existing fiber owned by the School District of Platteville	I	3
Marshfield - Up to 144 strands of fiber optic cable, variety of installation methods	G	2
Summit Lake to Wausau - 96 strands of fiber optic cable, assumes 15% of path is directional bore	G	1
Chippewa Falls to Superior - 33.4% of path is 144 strands of fiber optic cable, 66.6% of path is 96 strands of fiber optic cable, assumes 10% of path is directional bore	G	3
Wausau to Stevens Point - 96 strands of fiber optic cable, assumes 9.5% of path is directional bore.	G	1

Stevens Point to Eau Claire - 96 strands of fiber optic cable, assumes 10% of path is directional bore.	G	2
Madison to Platteville - 7.3% of path is 144 strands of fiber optic cable, 92.7% of path is 96 strands of fiber optic cable, assumes 10% of path is directional bore	G	3
Superior Area - 72 strands of fiber optic cable, installed in urban setting, directional bore installation method	G	3
Superior Area - Fiber connection from street to building - 72 strands plus conduit, directional bore	G	3
Wausau Area - 96 strands of fiber optic cable installed with conduit, plowing and boring installation methods	G	1
Wausau Area - 48 strands of fiber optic cable installed, aerial installation method	G	1
Greenwood - RF Distribution System	G	1
Junction City - RF Distribution System	G	1
Existing fiber owned by CCI Systems - between Augusta and Altoona and between Hewitt and Auburndale	I	1
Indirect Costs - 18% of labor expenses, Summit Lake to Wausau	G	1
Indirect Costs - 18% of labor expenses, Chippewa Falls to Superior	G	3
Indirect Costs - 18% of labor expenses, Wausau to Stevens Point	G	1
Indirect Costs - 18% of labor expenses, Stevens Point to Eau Claire	G	2
Indirect Costs - 18% of labor expenses, Madison to Platteville	G	3
Outside Plant - Conduits		
Chippewa Valley Area - 2.2 miles of existing fiber conduit	I	2
Wausau - Existing fiber conduit: Sherman St (17th to 22nd)	I	1
Outside Plant - Towers		
Tower and ground facilities - Year 1	G	1
Tower and ground facilities - Year 2	G	2
Outside Plant - Other		
Platteville Area - Easement Costs	G	3
Wisconsin Department of Transportation Right-of-Way: U.S. Highway 53 Chippewa Falls to Superior	I	3
Wisconsin Department of Transportation Right-of-Way: U.S. Highway 151 Madison to Platteville	I	3
Wisconsin Department of Transportation Right-of-Way: Interstate Highway 39 Stevens Point to Wausau	I	1

Cisco 3750's (Lifetime Warranty)		0%
Juniper		7%
Cisco		36%
Force 10		7%
XFPs		0%
Enterasys (Lifetime Warranty)		0%
Infinera		7%
Tower & ground facilities	\$	225
Huts (Semi-annual checkup)	\$	5,800
CAN Demonstration Communities (Ongoing Mgmt/Tech Support Labor) (Annual Hours for Med/Major Crises and Administration tasks)		40
CAN Demonstration Communities (Ongoing Mgmt/Tech Support Labor) (Hours Per Connection for Software upgrades/maintenance)		5
ICMMBN Maintenance Cost (Operations + Break/Fix) Per Mile	\$	285.38
CAN Demonstration Community Cost (Operations + Locates) Per Mile	\$	410.38
CAN Demonstration Community Cost (Break/Fix) Flat Fee up to 10 miles	\$	3,000.00
CAN Demonstration Community Cost (Break/Fix) Per Mile Cost from 10 miles to 50 miles	\$	75.00
CAN Demonstration Community Cost (Break/Fix) Per Mile Cost from over 50 miles	\$	25.00

* Colocation costs in anchor facilities are not included in these costs. They are sunk costs and v

	Unit Cost	No. of Units	Total Cost
			\$4,374,062
Cisco 3560G Switch or equivalent	\$5,400.00	15	\$81,000
Cisco 3750 Metro Routing Switch or equivalent			\$327,600
Cisco 3750 Metro Routing Switch or equivalent - Wausau			\$148,200
Cisco 3750 Switch or equivalent			\$264,000
Cisco 3750 Switch or equivalent - Superior			\$27,500
Cisco IE3000 Switch or equivalent	\$1,575.00	23	\$36,225
OptiSwitch OS304 or equivalent	\$2,500.00	22	\$55,000

Juniper EX4200 or equivalent - Chippewa to Superior and Madison to Platteville	\$8,200.00	7	\$41,000
Marshfield - Juniper EX4200 or equivalent			\$8,200
Wausau - Juniper EX4200 or equivalent			\$8,200
Enterasys 12 10/100/1000baseT, 2 1000base X SFP Switch or equivalent	\$815.85	10	\$8,159
Enterasys SSA Distribution/Core switch/router 48 1000baseX SFP+, 625W power supply or equivalent	\$15,488.55	2	\$30,977
Enterasys Rack mount kit for D2 switch or equivalent	\$66.15	1	\$66
Enterasys Wall Mount Kit for D2 switch or equivalent	\$66.15	9	\$595
Force10 2 port 10GB line card or equivalent	\$20,000.00	2	\$40,000
BWG - ASN Gateway or equivalent (Year 1)			\$123,600
BWG - ASN Gateway or equivalent (Year 2)			\$123,600
Cisco Access Registrar (AAA) or equivalent (Year 1)			\$20,700
Cisco Access Registrar (AAA) or equivalent (Year 2)			\$20,700
Cisco Network Registrar (DHCP) or equivalent (Year 1)			\$7,200
Cisco Network Registrar (DHCP) or equivalent (Year 2)			\$7,200
Cisco WX-SW-EMSSVR-R7.0 or equivalent (Year 1)			\$37,500
Cisco WX-SW-EMSSVR-R7.0 or equivalent (Year 2)			\$37,500
Cisco 7600 Series Router or equivalent			\$362,536
Cisco 7600 Series Router or equivalent - Fall Creek, Augusta Last Mile			\$90,634
Reconfigurable Optical Add-Drop Multiplexer (ROADM) for Cisco 15454 equipment or equivalent	\$21,600.00	2	\$43,200
DWDM XFPs or equivalent	\$3,800.00	15	\$57,000
Enterasys 1Gb 1000base-T RJ45 SPF or equivalent	\$248.85	14	\$3,484
Enterasys 1Gb 1000base-LX SMF LC SFP 10km or equivalent	\$626.85	49	\$30,716
Milwaukee - Infinera DWDM Add/Drop Equipment or equivalent	\$161,371.00	1	\$161,371
Sheboygan - Infinera DWDM Optical Amplifier equipment, or equivalent	\$75,142.00	1	\$75,142

UW Green Bay - Infinera DWDM Add/Drop Equipment, or equivalent	\$233,473.00	1	\$233,473
Marion - Infinera DWDM Optical Amplifier equipment, or equivalent	\$49,012.00	1	\$49,012
Wausau - Infinera DWDM Add/Drop Equipment, or equivalent	\$237,837.50	1	\$237,838
Marshfield - Infinera DWDM Optical Amplifier Equipment, or equivalent	\$49,012.00	1	\$49,012
Eau Claire East Bound - Infinera DWDM Add/Drop Equipment or equivalent	\$135,132.50	1	\$135,133
Eau Claire North Bound - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	\$51,789.00	1	\$51,789
Rice Lake - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	\$61,119.00	1	\$61,119
Spooner - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	\$73,284.00	1	\$73,284
Solon Springs - Cisco 15454 Optical DWDM Amplifier Equipment, or equivalent	\$49,224.00	1	\$49,224
Superior - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	\$63,954.00	1	\$63,954
Platteville - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	\$97,050.00	1	\$97,050
Dodgeville - Cisco 15454 Optical DWDM Amplifier Equipment, or equivalent	\$49,224.00	1	\$49,224
Madison - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	\$87,645.00	1	\$87,645
Elcho - Cisco 15454 Optical DWDM Add/Drop Equipment, or equivalent	\$51,244.64	1	\$51,245
Wittenburg Area - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent	\$103,350.00	1	\$103,350
Auberndale - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent	\$103,350.00	1	\$103,350
Greenwood - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent	\$93,566.20	1	\$93,566
Fall Creek - Cisco 15454 Optical DWDM Add/Drop Equipment or equivalent	\$55,448.60	1	\$55,449

Cisco AIR-CT5508-250-K9 Wifi Controller or equivalent			\$144,000
Cisco AIR-CT5508-250-K9 Wifi Controller or equivalent			\$144,000
Cisco WCS-ENT-2500 Wireless Control System or equivalent			\$81,270
Cisco WCS-ENT-2500 Wireless Control System or equivalent			\$81,270
WiMAX Basestation 8415 & Antennas or equivalent			\$748,188
WiMAX Basestation 8415 & Antennas or equivalent			\$748,188
Chippewa Valley Area CAN Fiber		158.29	
Platteville Area CAN Fiber		7.94	
Summit Lake to Wausau - 96 strands of fiber optic cable, assumes 15% of path is directional bore	\$38,848.77	66.5	\$2,583,443
Chippewa Falls to Superior - 33.4% of path is 144 strands of fiber optic cable, 66.6% of path is 96 strands of fiber optic cable, assumes 10% of path is directional bore	\$33,709.23	138.5	\$4,668,728
Wausau to Stevens Point - 96 strands of fiber optic cable, assumes 9.5% of path is directional bore.	\$47,057.08	32.09	\$1,510,062
Stevens Point to Eau Claire - 96 strands of fiber optic cable, assumes 10% of path is directional bore.	\$33,608.54	98.72	\$3,317,835
Madison to Platteville - 7.3% of path is 144 strands of fiber optic cable, 92.7% of path is 96 strands of fiber optic cable, assumes 10% of path is directional bore	\$38,541.63	69	\$2,659,372
Superior Area CAN Fiber		7.8	
Wausau Area CAN Fiber		13.06	
Marshfield - Up to 144 strands of fiber optic cable, urban installation, variety of methods	\$117,000.00	1.7	\$198,900
Greenwood - RF Distribution System	\$11,127.78	10	\$111,278
Junction City - RF Distribution System	\$7,721.94	5	\$38,610
Tower and ground facilities	\$128,600.00	12	\$1,543,200
Regeneration Facility	\$105,350.00	4	\$421,400

404.81

202.405

25300.625

would be expended even without this project.

Maintenance Cost		I/S Category	Year Placed In Service	Year 1	Year 2	Year 3
\$	29,160	OOE	2	\$ -	\$ 29,160	\$ 29,160
\$	-	OOE	2	\$ -	\$ -	\$ -
\$	-	OOE	1		\$ -	\$ -
\$	-	OOE	2	\$ -	\$ -	\$ -
\$	-	OOE	3		\$ -	\$ -
\$	13,041	OOE	2	\$ -	\$ 13,041	\$ 13,041
\$	19,800	OOE	3	\$ -	\$ -	\$ 19,800

\$	2,870	OOE	3	\$	-	\$	-	\$	2,870
\$	574	OOE	2	\$	-	\$	574	\$	574
\$	574	OOE	1	\$	574	\$	574	\$	574
\$	-	OOE	3	\$	-	\$	-	\$	-
\$	-	OOE	3	\$	-	\$	-	\$	-
\$	-	OOE	3	\$	-	\$	-	\$	-
\$	-	OOE	3	\$	-	\$	-	\$	-
\$	2,800	OOE	3	\$	-	\$	-	\$	2,800
\$	44,496	OOE	1	\$	44,496	\$	44,496	\$	44,496
\$	44,496	OOE	2	\$	-	\$	44,496	\$	44,496
\$	7,452	OOE	1	\$	7,452	\$	7,452	\$	7,452
\$	7,452	OOE	2	\$	-	\$	7,452	\$	7,452
\$	2,592	OOE	1	\$	2,592	\$	2,592	\$	2,592
\$	2,592	OOE	2	\$	-	\$	2,592	\$	2,592
\$	13,500	OOE	1	\$	13,500	\$	13,500	\$	13,500
\$	13,500	OOE	2	\$	-	\$	13,500	\$	13,500
		OOE	1	\$	-	\$	-	\$	-
		OOE	2	\$	-	\$	-	\$	-
\$	15,552	OOE	1	\$	15,552	\$	15,552	\$	15,552
\$	-	OOE	3	\$	-	\$	-	\$	-
\$	-	OOE	3	\$	-	\$	-	\$	-
\$	-	OOE	3	\$	-	\$	-	\$	-
\$	11,296	OOE	2	\$	-	\$	11,296	\$	11,296
\$	5,260	OOE	2	\$	-	\$	5,260	\$	5,260

\$	16,343	OOE	2	\$	-	\$	16,343	\$	16,343
\$	3,431	OOE	2	\$	-	\$	3,431	\$	3,431
\$	16,649	OOE	2	\$	-	\$	16,649	\$	16,649
\$	3,431	OOE	2	\$	-	\$	3,431	\$	3,431
\$	9,459	OOE	3	\$	-	\$	-	\$	9,459
\$	18,644	OOE	3	\$	-	\$	-	\$	18,644
\$	22,003	OOE	3	\$	-	\$	-	\$	22,003
\$	26,382	OOE	3	\$	-	\$	-	\$	26,382
\$	17,721	OOE	3	\$	-	\$	-	\$	17,721
\$	23,023	OOE	3	\$	-	\$	-	\$	23,023
\$	34,938	OOE	3	\$	-	\$	-	\$	34,938
\$	17,721	OOE	3	\$	-	\$	-	\$	17,721
\$	31,552	OOE	3	\$	-	\$	-	\$	31,552

\$	-	OOE	1	\$	-	\$	-	\$	-
\$	-	OOE	1	\$	-	\$	-	\$	-
\$	-	OOE	1	\$	-	\$	-	\$	-
\$	-	OOE	1	\$	-	\$	-	\$	-
\$	-	OOE	2	\$	-	\$	-	\$	-

\$	51,840	OOE	1	\$	51,840	\$	51,840	\$	51,840
\$	51,840	OOE	2	\$	-	\$	51,840	\$	51,840
\$	29,257	OOE	1	\$	29,257	\$	29,257	\$	29,257
\$	29,257	OOE	2	\$	-	\$	29,257	\$	29,257
\$	269,348	OOE	1	\$	269,348	\$	269,348	\$	269,348
\$	269,348	OOE	2	\$	-	\$	269,348	\$	269,348
\$	73,666	NMM	2	\$	-	\$	73,666	\$	73,666
\$	6,258	NMM	3	\$	-	\$	-	\$	6,258
\$	18,978	NMM	1	\$	18,978	\$	18,978	\$	18,978
\$	39,525	NMM	3	\$	-	\$	-	\$	39,525
\$	9,158	NMM	1	\$	9,158	\$	9,158	\$	9,158
\$	28,173	NMM	2	\$	-	\$	28,173	\$	28,173
\$	19,691	NMM	3	\$	-	\$	-	\$	19,691
\$	6,201	NMM	3	\$	-	\$	-	\$	6,201
\$	8,589	NMM	1	\$	8,589	\$	8,589	\$	8,589
\$	3,698	NMM	2	\$	-	\$	3,698	\$	3,698
			1	\$	-	\$	-	\$	-
\$	2,700	OOE	1	\$	-	\$	-	\$	-
\$	23,200	NMM	2	\$	-	\$	2,700	\$	2,700
\$			1	\$	23,200	\$	23,200	\$	23,200

Other Operating Expenses	\$ 434,610.88	\$ 954,980.12	\$ 1,181,893.47
Network Maintenance/Monitoring	\$ 59,924.68	\$ 165,461.34	\$ 237,137.07

Year 4		Year 5		Year 6		Year 7		Year 8	
\$	29,160	\$	29,160	\$	29,160	\$	29,160	\$	29,160
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	13,041	\$	13,041	\$	13,041	\$	13,041	\$	13,041
\$	19,800	\$	19,800	\$	19,800	\$	19,800	\$	19,800

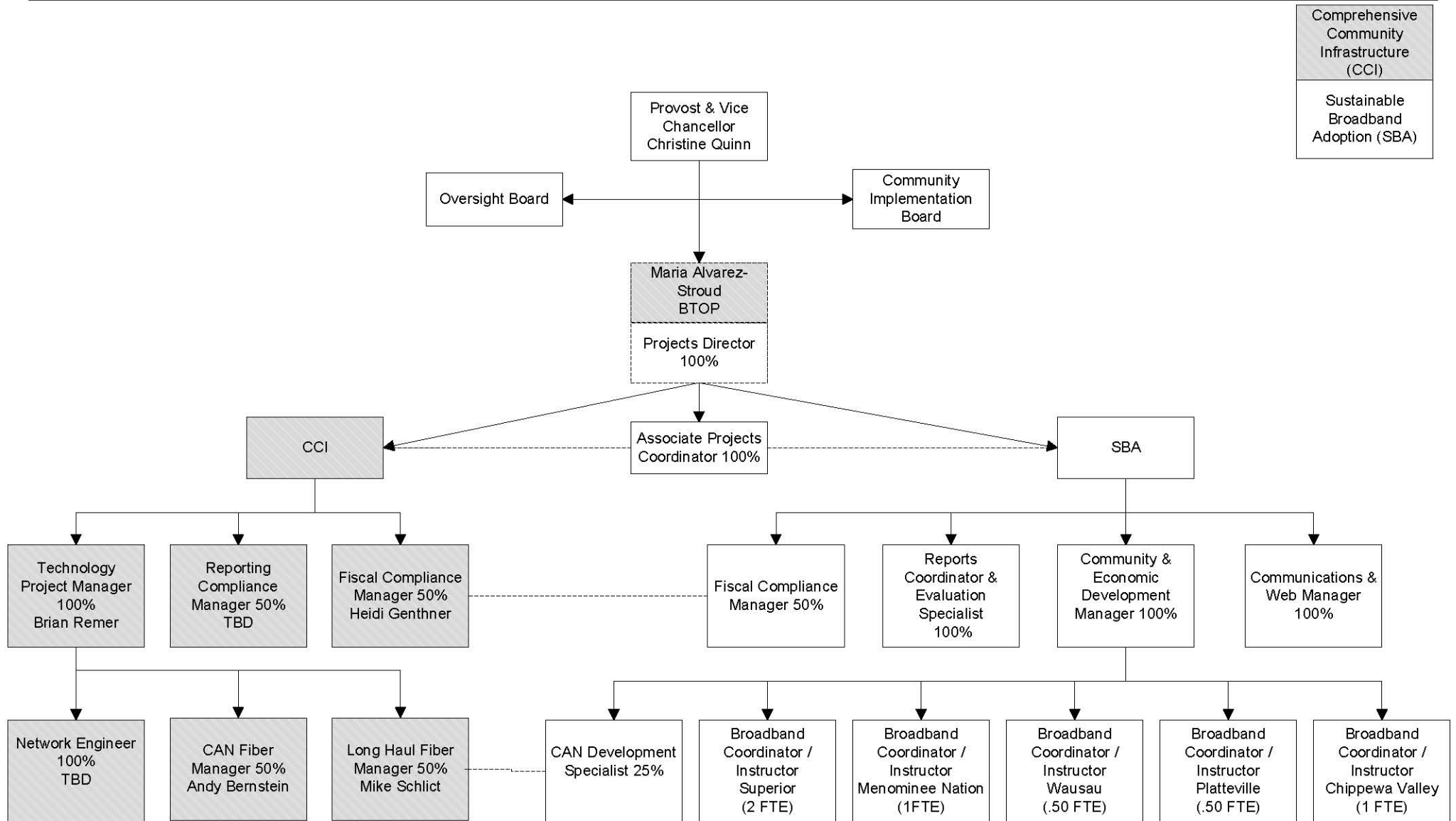
\$	2,870	\$	2,870	\$	2,870	\$	2,870	\$	2,870
\$	574	\$	574	\$	574	\$	574	\$	574
\$	574	\$	574	\$	574	\$	574	\$	574
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,800	\$	2,800	\$	2,800	\$	2,800	\$	2,800
\$	44,496	\$	44,496	\$	44,496	\$	44,496	\$	44,496
\$	44,496	\$	44,496	\$	44,496	\$	44,496	\$	44,496
\$	7,452	\$	7,452	\$	7,452	\$	7,452	\$	7,452
\$	7,452	\$	7,452	\$	7,452	\$	7,452	\$	7,452
\$	2,592	\$	2,592	\$	2,592	\$	2,592	\$	2,592
\$	2,592	\$	2,592	\$	2,592	\$	2,592	\$	2,592
\$	13,500	\$	13,500	\$	13,500	\$	13,500	\$	13,500
\$	13,500	\$	13,500	\$	13,500	\$	13,500	\$	13,500
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	15,552	\$	15,552	\$	15,552	\$	15,552	\$	15,552
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	11,296	\$	11,296	\$	11,296	\$	11,296	\$	11,296
\$	5,260	\$	5,260	\$	5,260	\$	5,260	\$	5,260

\$	16,343	\$	16,343	\$	16,343	\$	16,343	\$	16,343	\$	16,343
\$	3,431	\$	3,431	\$	3,431	\$	3,431	\$	3,431	\$	3,431
\$	16,649	\$	16,649	\$	16,649	\$	16,649	\$	16,649	\$	16,649
\$	3,431	\$	3,431	\$	3,431	\$	3,431	\$	3,431	\$	3,431
\$	9,459	\$	9,459	\$	9,459	\$	9,459	\$	9,459	\$	9,459
\$	18,644	\$	18,644	\$	18,644	\$	18,644	\$	18,644	\$	18,644
\$	22,003	\$	22,003	\$	22,003	\$	22,003	\$	22,003	\$	22,003
\$	26,382	\$	26,382	\$	26,382	\$	26,382	\$	26,382	\$	26,382
\$	17,721	\$	17,721	\$	17,721	\$	17,721	\$	17,721	\$	17,721
\$	23,023	\$	23,023	\$	23,023	\$	23,023	\$	23,023	\$	23,023
\$	34,938	\$	34,938	\$	34,938	\$	34,938	\$	34,938	\$	34,938
\$	17,721	\$	17,721	\$	17,721	\$	17,721	\$	17,721	\$	17,721
\$	31,552	\$	31,552	\$	31,552	\$	31,552	\$	31,552	\$	31,552

\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

\$	51,840	\$	51,840	\$	51,840	\$	51,840	\$	51,840
\$	51,840	\$	51,840	\$	51,840	\$	51,840	\$	51,840
\$	29,257	\$	29,257	\$	29,257	\$	29,257	\$	29,257
\$	29,257	\$	29,257	\$	29,257	\$	29,257	\$	29,257
\$	269,348	\$	269,348	\$	269,348	\$	269,348	\$	269,348
\$	269,348	\$	269,348	\$	269,348	\$	269,348	\$	269,348
\$	73,666	\$	73,666	\$	73,666	\$	73,666	\$	73,666
\$	6,258	\$	6,258	\$	6,258	\$	6,258	\$	6,258
\$	18,978	\$	18,978	\$	18,978	\$	18,978	\$	18,978
\$	39,525	\$	39,525	\$	39,525	\$	39,525	\$	39,525
\$	9,158	\$	9,158	\$	9,158	\$	9,158	\$	9,158
\$	28,173	\$	28,173	\$	28,173	\$	28,173	\$	28,173
\$	19,691	\$	19,691	\$	19,691	\$	19,691	\$	19,691
\$	6,201	\$	6,201	\$	6,201	\$	6,201	\$	6,201
\$	8,589	\$	8,589	\$	8,589	\$	8,589	\$	8,589
\$	3,698	\$	3,698	\$	3,698	\$	3,698	\$	3,698
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,700	\$	2,700	\$	2,700	\$	2,700	\$	2,700
\$	23,200	\$	23,200	\$	23,200	\$	23,200	\$	23,200
\$	1,181,893.47	\$	1,181,893.47	\$	1,181,893.47	\$	1,181,893.47	\$	1,181,893.47
\$	237,137.07	\$	237,137.07	\$	237,137.07	\$	237,137.07	\$	237,137.07

BCCB ORGANIZATIONAL CHART



Comprehensive
Community
Infrastructure
(CCI)

Sustainable
Broadband
Adoption (SBA)

Building Community Capacity through Broadband (BCCB) Supplemental Information

Resumes

Oversight Board

Christine Quinn	UW-Extension, Provost/Vice Chancellor
David Lois	WiscNet, Executive Director
Cory Heigl	CCI Systems
Andrew Richards	UW System, Chief of Staff for President
Ronald Kraemer	UW-Madison, Chief Information Office and Vice Provost for Information Technology
Gene Purcell	Educational Communications Board, Executive Director
Denise Webb	Wisconsin Department of Health Services, IT Coordinator
Edward Meachen	UW System, Associate Vice President, Office of Learning and Information Technology
Kim Kindschi	UW-Extension, Executive Director, Division of Entrepreneurship and Economic Development
Richard Klemme	UW-Extension, Dean and Director, Cooperative Extension
Malcolm Brett	UW-Extension, Director of Broadcasting and Media Innovations

Staff

Maria Alvarez-Stroud	UW-Extension, Special Assistant to Vice-Chancellor
Brian Remer	UW System Administration and WiscNet, Wide Area Network Strategist
Heidi Genthner	WiscNet, Budget and Policy Analyst
Andrew Bernstein	WiscNet, Network Technician

Community Area Network Staff - overseeing project

Daren Bauer	UW-Eau Claire, Network Engineer
John LeBrun	City of Eau Claire, Information Services Manager
Chet Strebe	Northcentral Technical College, Chief Information Officer, Information Systems
Dan Dargel	UW-Eau Claire, Manager of Campus-Wide Networks and Operating Systems
Mary Schoeler	Assistant Vice Chancellor and Chief Information Officer

Christine J. Quinn, Ph.D.
Provost/Vice Chancellor UW-Extension

432 North Lake St., Room 401

Madison, WI 53706

christine.quinn@uwex.edu or 608-262-6151

PROFILE

A strategic change-agent with experience leading in dynamic environments, as an entrepreneur, and as a member of an executive leadership team. A leader who understands all facets of higher education, including strategic planning, financial sustainability, academic excellence, student services and community engagement. Experienced in start-up operations, day-to-day management with both public/private sectors, and partnership development and management.

EXPERIENCE

HIGHER EDUCATION LEADERSHIP

- Twenty years of higher education experience with the past ten in progressively more responsible administrative responsibilities, which include Department Chair, Director, Dean, and Associate Vice President of Academic Affairs. Executive Cabinet member the past eight years. Currently, serve as Provost/Vice Chancellor.
- As Provost/Vice Chancellor, oversee UW-Extension which coordinates and funds statewide extension/outreach programs with the all UW institutions, 72 county Extension offices and three tribal nations, public broadcasting and a host of public and private partners. UWEX funds nearly 1,750 faculty, academic staff and classified staff. Annual budget is \$211 million and includes fees, gifts, contracts and support from federal, state and county governments.

COLLABORATIVE, INNOVATIVE CHANGE LEADERSHIP

- Secured \$5 million of state funds and launched a Center of Excellence in Health Sciences used to provide innovative solutions to health care workforce issues. The effort engaged 9 community colleges, 15 health care industry partners, 13 community partners, 3 health sciences centers and 2 four-year institutions.
- Managed a partnership with the University of Minnesota Center for Allied Health Programs and Winona State University.
- Lead a cross-institutional collaboration and co-location of three educational institutions at the University Center Rochester.
- Facilitated a research project which joined State and Federal agencies to develop the New Mexico State Comprehensive Outdoor Recreation Plan.
- Facilitated a community planning process that resulted in the Cloudcroft Area Sustainable Development Program for a rural community in New Mexico.

GRANTSMANSHIP

Served as Principal/Co-Principal Investigator securing over \$5.6 million to fund:

- The Center for Integrated Health Science Education and Practice - \$5 million. *Funding Source:* Minnesota State Legislature through Minnesota State Colleges and Universities
- The Center for Allied Health Programs Collaborative Health Sciences Innovation and Assessment Grant - \$53,300. *Funding Source:* University of Minnesota Learning Innovations Council and MnSCU Academic Innovations.
- Hospitality & Tourism Expansion into International Markets through the Virtual Classroom - \$343,905. *Funding Source:* Central Investment Fund, UW-System
- The New Mexico State Comprehensive Outdoor Recreation Plan - \$100,370. *Funding Source:* New Mexico Energy, Minerals and Parks; New Mexico Department of Tourism; United States Forest Service, and the Bureau of Land Management.

EXPERIENCE:

2000 -- Present- **Executive Director- WiscNet**

- ♦ General Manager and Chief Executive Officer of WiscNet a 501.c.3 not-for-corporation. WiscNet is Wisconsin's State Education, Research and Public Service Network.
- ♦ Develop new policies, maintain existing policies, and work with the governing Board of Directors on all things WiscNet.
- ♦ Responsible for all education technology network services provided to our 450 statewide members.
- ♦ Develop and manage WiscNet's \$10M annual budget.
- ♦ Responsible for business development, including promotion and marketing
- ♦ Manage, promote, and oversee all outsourced service contracts
- ♦ Develop and maintain key partnerships w/ State of Wisconsin, UW Madison, UW System, and Federal agencies supporting network research and development
- ♦ Develop long range strategic plan for the organization
- ♦ Guided a 30-member team of managers, technical, administrative specialists

AWARDS, PROJECTS, and Other:

2002 **Wisconsin Governor's Task Force for Statewide Networking**

- ♦ One of six task force members charged with development of the next generation state network called BadgerNet. Network completed 2003.

2003 **Northern Tier Network Consortium -- founding Chair - Technical Committee**

- ♦ The NTNC-TC is charged with all things technical in establishing a network from Chicago to Seattle -- across the northern tier states. Network completed in 2009.

2004 **US Dept. of Education - National Network Committee**

- ♦ Provided expertise on K-12 networking needs for inclusion into the national education technology strategic plan.

2006 **Wis. Governor's Strategic Planning Group for Next Generation Statewide Network.**

- ♦ One of seven State leaders in networking charged with developing the strategy the next generation network to succeed BadgerNet. The network subsequent network is BCN and was completed in 2008.

2007 **North Carolina K12 Network Initiative.**

- ♦ One of seven State network CEOs asked to review North Carolina's plan for a statewide K-12 network before presentation to their legislature. Network complete 2008

2007 **Director of the Board -- The Quilt**

- ♦ The Quilt which is a national Research and Education Networking Organization

2007 **Internet 2 -- Architecture and Operations Advisory Committee**

- ♦ Elected to and currently vice-chair for this national committee to advise Internet2 on design, budget, and functionality of the national research and education network spanning the United States and overseas.

2010 **StateNets -- National Org. of State and Regional Research and Education Networks**

- ♦ Elected to the executive committee as vice-chair and will proceed to chair. StateNets' organizes, strategizes, and communicates best practices for successful operations of R&E networks at the state and regional level for consistent local and national connectivity to anchor institutions.

R E S U M E

R. CORY HEIGL

Current Title: Regional Operations Manager
Home Address: Norway, MI
Years with CCI: 11
Years in Industry: 11

Responsibilities: Complete responsibility for managing multiple projects including, but not limited to:

- Insure customer satisfaction
- Control overall efficiency of regions projects including; productivity and crew coordination, quality and inspection, accurate and timely work documentation, expense control, inventory maintenance and control, monitor and maintain vehicle, fleet and other corporate assets, and handling of any damages.

Experience:

2007-Present: Regional Operations Manager Central States

- Oversight of all operations/construction for Midwestern states
- Resource support/movement
- Support mechanism for Project Managers
- Cost analysis and project planning

2003–2007: Project Manager WisDOT, MDOT

- Intelligent Transportation Systems Group
- Traffic Signal and Highway Lighting Construction
- Long Haul Fiber Construction, HUT placement
- Emergency Fiber and Communication Restoration
- Responsible for all aspects of safety and traffic control.
- MUTCD Trained and Certified

1999–2003 Support Manager MoDOT, MdTA

- Intelligent Transportation Systems Group
- Manage and Coordinate Field Support Staff and Crews
- Responsible for all aspects of safety and traffic control.

Education: Michigan Tech University, Houghton, MI

- B.S. Scientific and Technical Communications

MARIA ALVAREZ STROUD BIO

EDUCATION & ADDITIONAL LEARNING

Masters of Science in Public Policy & Administration - emphasis in Non-Profit Management. University of Wisconsin - Madison

Bachelor of Arts in Psychology - Minor in Communications.
University of Wisconsin - Stevens Point

CAREER SUMMARY

Special Assistant to Vice-Chancellor (Project Director for Building Community Capacity through Broadband) University of Wisconsin - Extension 2009 to present

Currently is spear heading UWEX's effort to address broadband as an economical development initiative to build community capacity. In this role I am researching resources and information from around the country, facilitating a partnership between Colleges, UWEX and WISCNET, creating a strategic framework for a possible federal grant and cultivating relationships in five pilot communities.

Executive Director

National Center for Media Engagement: NCME (formerly NCO), 2000 to present

Founder and CEO of organization (with annual budget ranging from 1.5 to 4 million) funded by the Corporation for Public Broadcasting, NCME works with radio and television stations across the country to develop successful community engagement models. Provides strategic direction, distributes grants to stations, engages NCME Board of Advisors and is liaison between PBS, CPB and other industry organizations. NCME has a staff of eight and is part of the University of Wisconsin-Extension.

Director of Outreach & Community Affairs

Wisconsin Public Television, 1994 to 2000

Part of the WPT Senior Management Team, initiated and managed major outreach projects by working with community organizations to extend the impact of WPT broadcast projects. Executive Director for all outreach projects and productions; supervised a staff of four and was senior manager of national productions outreach.

Management & Development Consultant

Privately and with the State Bureau on Aging, 1992 to 1994

Meridian Group, Inc. 1991-92

Managed and guided new development and expansion of community-based services to senior citizens, providing market analysis, community relations, staff development and training.

News & Public Affairs Producer

Wisconsin Public Television (WPT) 1989-91

Produced documentaries, live call-ins, short segments & interstitials aimed at engaging audiences in the areas of health and social issues. In addition, hosted health programs series and facilitated community conversations and partnerships.

Executive Director

Elder Care of Dane County, Inc., 1979 to 1989

CEO of a large multi-service agency that included oversight of six service sites, managing a staff of twenty-five & working hand-in-hand with an active Board of Directors.

Andrew Richards

Chief of Staff for President of University of Wisconsin System

Summary:

Andrew Richards is the chief of staff for the President of the University of Wisconsin System. In this capacity, he serves as liaison between the President's office and various constituencies, and oversees the coordination and facilitation of all obligations and projects of the President's executive office. He takes action on the President's behalf to implement ideas and initiatives, serves as trusted advisor to the President, and represents the President when delegated to do so.

The University of Wisconsin System, with an annual budget of over \$4.7 billion, serves over 178,000 students through its 26 campuses located across the State, and more than a million additional citizens through its statewide Extension organization.

In previous positions within the University System, he has served on Systemwide IT planning and budgeting committees and managed departmental IT resources and staff.

Additional prior experience includes work as an economic strategies planner and analyst, developing long term economic strategies for individual communities and the State of Wisconsin as a whole.

Education:

Executive MBA

UNIVERSITY OF WISCONSIN – MILWAUKEE Milwaukee, Wisconsin,
Sheldon B. Lubar School of Business

MA, Public Policy and Administration

UNIVERSITY OF WISCONSIN - MADISON Madison, Wisconsin,
La Follette Institute of Public Affairs

BA, Economics and Political Science

UNIVERSITY OF WISCONSIN - MADISON Madison, Wisconsin

Employment History:

2008 - Present	Chief of Staff to the President – President’s Office University of Wisconsin System Administration, Madison, Wisconsin
2004 – 2008	Associate Vice Chancellor and Director - Business and Financial Services University of Wisconsin – Milwaukee, Milwaukee, Wisconsin
2003 - 2004	Assistant Vice President - Office of Budget and Planning University of Wisconsin System Administration, Madison, Wisconsin
2002 – 2003	Acting Assistant Vice President - Office of Budget and Planning University of Wisconsin System Administration, Madison, Wisconsin
1998 - 2002	Budget & Policy Analyst - Office of Budget and Planning University of Wisconsin System Administration, Madison, Wisconsin
1996 - 1998	Budget & Policy Analyst - Office of Policy and Budget Wisconsin Department of Transportation, Madison, Wisconsin
1992 - 1996	Program and Planning Analyst - Economic Strategies Section Wisconsin Department of Transportation, Madison, Wisconsin

Contact Information:

Andrew Richards
Office of the President
University of Wisconsin System Administration
Van Hise Hall Rm. 1708
1220 Linden Dr.
Madison, WI 53706
Phone: (608) 265-5953
Fax: (608) 262-3985

Ronald D. Kraemer

1210 W. Dayton Street, Suite 2112, Madison, WI 53590 ron.kraemer@cio.wisc.edu

Professional Experience

Chief Information Officer and Vice Provost for Information Technology, University of Wisconsin-Madison, Madison, Wisconsin, 2007–Present

- Provide executive-level leadership for UW-Madison information technology activities.
- Work with executives, faculty, staff, and students across the campus to ensure that their current information technology needs are met and future needs are planned for.
- Participate in national leadership groups and advisory boards on challenges related to higher education information technology service.
- Manage large budgets, challenging schedules, diverse personnel, and complex projects.
- Work collaboratively to establish policies, procedures, and standards that effectively guide complex information technology operations;

Deputy Chief Information Officer and Associate Director, Department of Information Technology (DoIT), University of Wisconsin-Madison, Madison, Wisconsin, 2005–2007

- Directly manage DoIT's Network Services, Enterprise Internet Services, Security Services, User Services, Communications, Human Resources, Policy and Planning, Process Planning, and WiscNet.
- Work with campus constituency groups and provide leadership for campus committees, e.g. such as the Identity Management Leadership Group, Administrative Council, the Administrative System Executive Committee, the "OneCard" Committee, the Centralized Access Control System Policy Group, and the Crisis Operations Center.
- Serve on UW System committees and governance groups, including the Common Systems Review Group; the Identification, Authentication, and Authorization Governance Group (as chairperson); the CIO Council; and the Desire2Learn (D2L) Steering Committee.
- Serve on regional and national leadership groups, such as the WiscNet Board of Directors, the Northern Tier Network Consortium Executive Group, the BadgerNet Advisory Council, the BOREAS Network Board of Directors, and the D2L Steering Committee.
- Lead and advocate for professional development in network operations, customer service, applications development, portfolio management, project management, and leadership.

Chief Information Officer, University of Wisconsin-Extension, Madison, Wisconsin, 1996-2005

- Supervised staff members who managed UW-Extension's enterprise infrastructure (network, middleware, servers), file and print services, applications and database environments, enterprise Internet services, security, and user services (help desk, user support, and training).
- Revolutionized UW-Extension's information technology infrastructure for distance learning, web-based instruction, network services, and applications development.
- Designed and implemented the UW-Extension Information Technology Training Program,
- Organized decision-making bodies throughout the institution to more effectively plan, managed and fund UW-Extension's information technology initiatives.
- Served on the WiscNet Board of Directors, the Wisconsin Education and Research Optical Cyberinfrastructure Working Group (chairperson), the UW System Web Accessibility Advisory Board, and the BadgerNet Converged Network Advisory Board.
- Served on the UW Colleges/UW-Extension Administrative Integration Steering Committee and co-chaired the information technology subcommittee implemented the integration of UW-Extension and UW Colleges information technology organizations.

Program Manager, Oak Ridge National Laboratory, Oak Ridge, Tennessee, 1988 –1996

- Specialized in the implementation of advanced applications and technology.
- Managed information system development projects with budgets totaling more than \$40 million.

Gene Purcell

• Work: 608.264.9666

Executive Director, Educational Communications Board 4/08-present **Interim Executive Director 6/07-4/08**

Provides leadership and direction to a statewide radio and television licensee, a statewide broadcast interconnect, and public safety and weather radio facilities. Works in partnership with the University of Wisconsin Extension to operate Wisconsin Public Radio and Wisconsin Public Television. The ECB is a state agency committed to ensuring that public radio and television programs and services are made available throughout Wisconsin, and that these programs and services reflect and respond to educational and cultural needs of the state's residents. This is accomplished through ECB activities and in collaboration with educational and cultural initiatives whose purposes can best be served through telecommunication.

Deputy Director, Educational Communications Board 4/06-6/07

Assist Executive Director in all aspects of day-to-day management of agency, including strategic planning, financial planning and management, human resources, developing and maintaining relationships with various partners, developing and implementing agency policies.

Regional Manager, Wisconsin Public Radio 9/96 - 4/06

Directed all operations of Wisconsin Public Radio for southwestern Wisconsin. Supervised local full-time, part-time and volunteer staff. Managed local programming. Coordinated with ECB and contract engineers on technical operations. Maintained station's compliance with FCC regulations. Maintained relationships with UW-La Crosse officials and led community relations activities. Led local Advisory Board. Managed transition of WLSU into Wisconsin Public Radio affiliate. Created local task force to receive public input. Implemented major format change. Coordinated technical work necessary to complete affiliation. Developed local underwriting office. Eliminated station debt. Developed volunteer staff.

Reported to WPR Director of Radio for programming and administration of local bureau operations, which include radio, stations WLSU and WHLA.

- Member: Regional Managers Team
- Member: WPR Program Planning Team, which was responsible for proposing, developing, and implementing programming changes for Wisconsin Public Radio Stations.
- Member: Signal Protection and Expansion Team, which monitored technical issues including protection of WPR signals from interference; and recommends project to WPR for expansion.

Reported to the University of Wisconsin—La Crosse officials for: budget management; student instruction; satellite and programming operations; production of local public affairs programming; FCC compliance; purchasing equipment and supplies; direct supervision of staff and students and volunteers.

Interim Station Manager, WLSU 3/96 - 10/96

Served as Interim Station Director for WLSU following resignation of Station Director. Developed plan for; proposed and implemented automation system; trimmed paid staff hours; negotiated with Dean and campus business office staff to eliminate station deficit; participated in negotiations for affiliation agreement with Wisconsin Public Radio. Responsible for day-to-day operations of WLSU-FM.

Education

B.S. in Mass Communication, University of Wisconsin—La Crosse, 1983
Graduate, Extension Administrative Leadership Program (EALP VII) 2002-2004
University of Wisconsin-Extension Leadership Training

Employment

WI Department of Health Services, Madison, WI, 2000–Current

State Health IT Coordinator (Current)

Interim Director, Office of Health Informatics (Jul 09 – Oct 09)

Wisconsin eHealth Program Manager (Nov 07 – Current)

Health Care IT Policy Initiatives Advisor (May 06 – Nov 07)

Chief Information Officer (CIO) (Mar 03 – May 06)

Deputy Administrator, Division of Care and Treatment Facilities (Oct 01 – Mar 03)

Chief Information Officer (CIO) (Jun 00 – Oct 01)

Headquarters Air Force Space Command, Colorado Springs, CO 1997–2000

Deputy Chief, Satellite Communications Systems Division (Mar 99 – May 00)

Human Resources Branch Chief (Mar 98 – Mar 99)

IT Support Services Branch Chief (Flight Commander) (Aug 97 – Mar 98)

38th Engineering Installation Wing USAF Oklahoma City, OK 1995–97

Commander, Communications Engineering/Installation Support Squadron (CIO/COO)

United States Naval War College, Newport, RI 1994–1995

Graduate Student, Naval Command and Staff College

United States Strategic Command, Omaha, NE 1991–1994

Applications Programming Branch Chief

Squadron Officer School (USAF), Montgomery, AL 1987–1991

Educational Technology Division Chief (Jun 89 – Jul 91)

Executive-Level Management Instructor (Section Commander) (Nov 87 – Jun 89)

Headquarters Air Force Space Command, Colorado Springs, CO 1984–87

Executive Officer (Jun 87 – Oct 87)

IT Requirements Section Chief/Acquisition Manager (Aug 86 – May 87)

IT Systems Analyst (Jan 84 – Jul 86)

Air Force Data Services Center, Pentagon, Washington D.C. 1980–1983

IBM Systems Programmer (Jan 81 – Dec 83)

IT Training Branch Chief (Jan 80 – Jan 81)

Education

Master's Certificate in Project Management, University of Wisconsin, Madison, WI, 2003-04

Master of Arts National Security and Strategic Studies, with honors, Naval War College, Newport, RI 1994-95

Master of Arts Information Resources Management, with honors, Webster University, St Louis, MO, 1984–87

Bachelor of Science Computer Science, Louisiana State University, Baton Rouge, LA 1976–79

Certifications

Single and Multi-engine Commercial Instrument Pilot, Second-in-Command Citation II Jet Rating

Other

Previously held a Top Secret SCI security clearance; USAF Lt Col (Ret)

EDWARD MEACHEN

UWSA Office of Learning and Information Technology

1552 Van Hise Hall

1220 Linden Drive

Madison, WI 53706-1559

emeachen@uwsa.edu 608-263-2571

Professional Credentials

Ph.D. 1976 Emory University

M.S. 1983 Library and Information Science, University of Chicago

M.A. 1971 Midwestern State University

B.A. 1969 South Dakota State University

Current Position

Associate Vice President, Office of Learning & Information Technology, University of Wisconsin System Administration, 1997 to the present

Responsibilities include administration and oversight of the System-wide [fourteen institutions with twenty-six locations] enterprise IT systems, including the library automation system, the course management system, the Oracle/Peoplesoft Financial System, the legacy payroll and benefits system, and the Oracle/Peoplesoft Campus Solutions (Student Systems).

I chair the Common Systems Review Group, an organization of Chief Academic Officers, Chief Business Officers, and Chief Information Officers that approve funding for System-wide enterprise production and implementation projects. My responsibilities include managing the overall budget and providing leadership in the creation of Information Technology Strategic Plans.

I am a project sponsor on the current Human Resource System Implementation Project. This multi-year, multi-million dollar project will replace the legacy payroll and benefits system, and provide an HR, recruiting, time and labor application, workflow and self-service for over 40,000 employees in the UW System.

I am the primary sponsor, and chair of the governance group, for the Academic Advanced Distributed Learning Co-Laboratory, a partnership of the University of Wisconsin, the Wisconsin Technical College System, and the Department of Defense to develop tools and standards to improve distributed learning at reduced cost. The Advanced Distributed Learning initiative is administered through the DoD Office of Readiness and Training. The Academic ADL Co-Lab has brought into Wisconsin over \$12 million to improve distributed learning.

I have served as the PI [principal investigator] of a \$500,000 FIPSE [Fund for the Improvement of Postsecondary Education] grant between 2002 and 2006.

Kim L. Kindschi

432 North Lake Street, Madison, Wisconsin 53706

kim.kindschi@uwex.edu -- 608-263-8860

Experience	<u>University of Wisconsin – Extension, Madison, Wisconsin</u>	2008-Present
	Executive Director: Division of Entrepreneurship and Economic Development	
	As executive director of the University of Wisconsin Extension Division of Entrepreneurship and Economic Development, Kim is responsible for fostering effective, broad-based relationships throughout the state between the UW Extension/UW System and governmental entities, educational institutions, non-profit organizations and the business community. He is directly involved in planning, coordinating and implementing a wide variety of strategic initiatives that strengthen and enhance the economic climate in the state. In addition, Kim is actively involved in articulating and promoting programs that utilize the vast resources of the University of Wisconsin System to support statewide economic growth and development. In addition, he is also directly involved in advocacy efforts at the local, state and federal levels.	
	<u>Wisconsin Business Development, Monona, Wisconsin</u>	2005-2008
	Executive Vice President	
	As executive vice president, Kim was responsible for managing a wide variety of diverse relationships at regional, state and national levels between WBD, its Board of Directors, members, governmental entities, educational institutions, non-profit organizations and the business community. A key responsibility was to identify strategic areas of growth and develop tactics to increase business development activities. In addition, he was directly involved in WBD's advocacy efforts at the local, state and federal levels.	
	<u>Wisconsin Bankers Association, Madison, Wisconsin</u>	1983-2005
	Executive Vice President	1992-2005
	As executive vice president, Kim was responsible for the day-to-day administration of the WBA's budget, educational programs, member services, internal operations and professional staff. He developed and implemented the organization's strategic plan, as well as structuring and conducting strategic planning sessions for its subsidiaries and for external for-profit and non-profit entities. In addition, Kim was directly involved in the WBA's government relations efforts at the state and federal levels.	
	Director of Education	1983-1992
	As the Director of Education, Kim was responsible for the design, development, and implementation of a wide variety of now nationally recognized banking education programs. In addition to teaching for the US Treasury Department's Bank Training Institute in Prague, Czech Republic, he served on many state and national boards, councils and task forces related to the financial services industry.	
	<u>Madison Metropolitan School District</u>	1969-1983
	Teacher	
	<u>University of Wisconsin – Madison</u>	
	Masters Degree: Curriculum and Instruction	1974
Education	Bachelors Degree: Sociology	1968

Richard M. Klemme
University of Wisconsin-Extension
432 N. Lake St., Rm 605
Madison, WI 53706
richard.klemme@ces.uwex.edu 608-263-2775

CURRENT PROFESSIONAL POSITION

**Dean and Director, Cooperative Extension,
University of Wisconsin-Extension, May 2009-present**

ACADEMIC TRAINING

B.S., Economics and Mathematics, Illinois State University, 1976
M.S., Agricultural Economics, Purdue University, 1978
Ph.D., Agricultural Economics, Purdue University, 1980

RELEVANT EXPERIENCE IN PROGRAM AND GRANT MANAGEMENT

Dean and Director for Cooperative Extension, University of Wisconsin-Extension (2/2007-present): I am currently responsible for \$84 million/year and over 900 faculty, academic staff, and classified staff in all 72 counties of Wisconsin and on 7 UW System campuses. The work of Cooperative Extension is about engaging the people in the counties and using University of Wisconsin resources to transform their lives and their communities. My role is to assist our colleagues in building relationships with public and private funders, developing partnerships, carrying out educational programs, evaluating the program outcomes, and communicating those outcomes effectively with funders.

As Associate Dean for Agriculture and Natural Resources Extension, College of Agricultural and Life Sciences, University of Wisconsin-Madison (1/2000-1/2007): I was responsible for managing \$30 million/year and over 300 faculty and academic staff. I also worked with my colleagues in the procurement of financial resources from numerous public/private partnerships and then the management of the extramural resources. I found it crucial to develop campus-county staff partnerships that brought the best of applied research and local presence to bear on local and state issues.

As Director, Center for Integrated Agricultural Systems, University of Wisconsin-Madison (7/1989-12/1999): I was responsible for managing public and grant funding of approximately \$1 million/year. I worked with Center staff to build relationships with formerly underserved farmer audiences to build resources, research participation, and outcomes that are valuable.

Malcolm Brett

Experience

2007-Present - UW Extension-Madison-**Director of Broadcasting and Media Innovations**

2006- 2007 - **Interim Director of Broadcasting and Media Innovations**

Responsible for Wisconsin Public Television, Wisconsin Public Radio, and Media Innovations in broadcasting and education. Plan/administer through management staff the implementation of radio, television and new media services to inform and educate state residents. Represent University interests in broadcasting and new media technology. Establish/administer data casting initiative and guide technology applications research.

2000- 2006 - WISCONSIN PUBLIC TELEVISION- **Director of Television/Station Manager**

Responsible for conceiving, implementing and oversight of Wisconsin Public Television programs including; strategic and annual planning, budgeting, personnel, FCC and other legal compliance, community and government relations. Manage staff, programming, production, development, promotion, engineering and operations. Develop editorial, business and community relationships. Maintain strong licensee relationships.

1997- 2000 - WISCONSIN PUBLIC TELEVISION - **Associate Director of Television**

Direct day to day operations of 6 station Public Television network. Responsibility for strategic planning, budgeting, government relations, community relations. Directly supervise development, engineering and operations departments. Direct Digital Television transition.

1989- 1997 - WISCONSIN PUBLIC TELEVISION - **Director of Development, and FRIENDS OF WHA-TV, INC. - Executive Director**

Responsible for conceiving and leading all fundraising, volunteer and special events for a statewide public television network. Fundraising budget responsibility for over \$6.5M. Point person for government relations. Supervise business affairs and serve Board of non-profit corporation. Areas of emphasis: Membership, Corporate Underwriting, Major and Planned Giving, televised Auction, Volunteer efforts and special events. Supervise staff of 17. Represent WPT to community. Member, WPT Executive Committee.

Education

University of Wisconsin, Bachelor of Arts in Communications

Special Achievements

PBS Development Professional of the Year- 1998

PBS Development Program of the Year- 1994

NSFRE Madison-Fundraising Executive of the Year-1994

Professional and Community Organizations

PBS Schedule Channels Advisory Committee, 1996-Present

PBS- Communications Advisory Committee 1997-1999

PBS- Development Advisory Committee 1994-1996, Chair 1995,1996

Digital Rights Committee, 2006

American Public Television Board- 2004-present

PBS Foundation Committee 2004-present

Brian Remer

University of Wisconsin (UW) System Administration and WiscNet (Wisconsin's Research and Education Network), **Wide Area Network Strategist**, 2000 to Present -- This is a dual role director-level position responsible for the overall management and long-term direction of the network. Duties: managing a \$6M budget; leading team of network engineers and working with other groups that provide NOC and end-user support; working closely with UW CIOs, the WiscNet Board of Directors, and other key stakeholders to set long term strategies including overall technical direction, business model, and political relationships; and managing interconnections with commodity Internet providers and other R&E networks, with focus on peering opportunities found primarily in Chicago. These efforts require extensive knowledge of circuits, dark fiber, collocation facilities, network monitoring, and hardware - from underlying optronics to routers and servers and TCP/IP.

Major Accomplishments

- Leading effort to establish fiber-based network across the state – including dark fiber procurement, collocation facilities and optronics – to vastly increase capacity.
- Drove cost saving strategies for overall \$3M (30%) budget savings over the last five years while continuously increasing capacity and updating capabilities.
- Led conversion to new network after concluding 3 years of negotiations with the state Department of Administration and AT&T.
- Currently leading operations of BOREAS-Net, a 5 state dark fiber research and education network based on leased fiber and Infinera optronics.

Goliath Networks, Inc., Madison, WI

This IT consulting and hosting company specialized in networking and networked systems. Formed in 1993, it grew to over 150 employees in 4 cities. Goliath Networks was purchased by a national consulting firm in 2002.

As Senior Network Engineer and Technical Manager, 1998-2000

Essential Duties: integration and conversion efforts, involving Netware, Windows, and Unix; high level network troubleshooting, installation/upgrade of networked applications, network access solutions, and other duties requiring range of skills; and management of 8-engineer team, with HR review, training, pay rate, and job assignment responsibilities.

Major Accomplishments

- Led upgrade of key hospital systems (security, switchboard, transcription)
- Created the role of Computer Associates product manager
- Held certifications from Novell, Cisco, Computer Associates, and Microsoft.
- Completed additional training in SUN Solaris and project management.
- (As manager) Retained 100% of employees and customers.

As Co-Founder, 1993-1996. Sold portion of the company to partners in 1993.

Major Accomplishments:

- Formed partnership to address increasing demand for corporate office LANs and networked applications at this time when few buildings were wired for data or had significant numbers of computers.
- Managed all aspects of the business.

Experience

BOREAS-Net, Budget & Policy Analyst

May 2008 to Present

Work with the BOREAS Operational Management Committee to develop budgets, capital expense projections, budget to actual reconciliations, and fee models. Present completed budgets, reconciliations, and proposals to BOREAS Oversight Group for consideration and approval. Approximate annual budget: \$1M

WiscNet, Budget & Policy Analyst

September 2003 to Present

Work with the Associate Director to analyze financial statements. Provide cash balance reports to the Executive and Associate Directors. Reconcile actual expenses and revenues to budget. Develop annual budget, including service rates, and present to Associate Director, Executive Director, and Board of Directors for approval. Work with the Associate Director to analyze and improve business processes and procedures. Work with WiscNet staff and UW Madison Procurement Specialist on procurement issues. Approximate annual budget: \$7M.

Division of Information Technology, Network Services

2000 to December 2008

Work with the Director and Group Managers to develop the Network Services fee structure. Provide DoIT Business Process information and support. Work with the Director and Group Managers to develop annual budgets, budget narratives, and Central Funding requests. Reconcile actual expenses and revenues to budget. Provide any necessary financial support to Director and Group Managers. Approximate annual budget: \$17M

Education

University of Wisconsin – Madison

1994 – 1995, 1996 – 1997, 1998 - 2000

Took classes in Political Science, International Relations, and general Business classes. Was accepted into the Business School in 1999 for Information Systems Design and Analysis.

Skills

- Advanced and complex understanding of DoIT Business systems and how the modules in the system interact with each other.
- Understanding of State of Wisconsin Administrative rules and regulations, including those for Purchasing.
- Understanding of networking terminology and general concepts. Able to apply this knowledge to the financial advice and planning aspect of services.
- Understanding of Generally Accepted Accounting Principles (GAAP).
- Advanced skills in Hyperion Brio Query tool for report generation.
- Advanced skills in Microsoft Word, Excel, and Powerpoint.
- Basic Microsoft Access skills.

Andrew S Bernstein



Employment:

WiscNet	<i>Network Technician</i>	Madison, WI
Providing setup and technical assistance for 30+TB network storage pilot program, providing technical support for members, and providing grant support		Feb 09 – Present
Center for Dairy Research	<i>Student Network Admin</i>	Madison, WI
Providing technical assistance for 50 computers, maintaining servers, providing lab support, troubleshooting network, server, and local issues		Aug 04 – Jan 08
College of Engineering	<i>Student Assistant</i>	Madison WI
Supervising a group of 15-16 freshmen engineering students, providing fabrication and engineering assistance		Aug 05 – Dec 05 Aug 07 – Dec 07
Bobcat Company	<i>Design Engineering Co-op</i>	Bismarck, ND
Design work on current product Toolcat and compact tractors, and new product development on Toolcat and excavator products.		Jun 08 – Dec 08
Sub Zero, Inc	<i>Reliability Engineering Co-op</i>	Madison, WI
Design and fabrication of test fixtures, setup and monitoring of tests, discussing test status and conclusions with design engineers.		Jan 07 – Aug 07
Sun Prairie Ice Arena	<i>Zamboni Driver/Rink Attendant</i>	Madison, WI
Ice resurfacing, rink maintenance		July 07 – Jan 08

Education:

- Graduated from University of Wisconsin – Madison May 09
Mechanical Engineering with 2.96 overall GPA
- Attended Budapest University of Technology and Economics Spring 08

Student Design Project

ASABE ¼ Scale Tractor Team – Fall 06 – Spring 09, A-Team Design Lead
Previously X-Team Leader, 98 restoration Project leader, and Webmaster
Designed 08-09 A-Team Tractor, UTV Styled
Improved performance on the 2006 tractor for X-Team competition
Restored the 1998 1st place tractor for an alumni pull

Computer Knowledge:

- **Networking:** Previously a Cisco Certified Network Associate (CCNA), NetApp Storage Appliances
- **Design:** Pro Engineer Wildfire and Solid Works
- **General:** Microsoft Office
- **Servers:** Microsoft Server 2003, 2008 and Active Directory

Daren Bauer

Network Engineer
University of Wisconsin Eau Claire
105 Garfield Ave
Eau Claire, WI 54701
715-836-5286

Education:

Chippewa Valley Technical College 1986 – 88
Studies: Electronic Servicing

Work Experience:

Rochester Public Schools - Rochester, MN
Electronic Technician 1988-1994

Eau Claire Public Schools – Eau Claire, WI
Electronic/Personal Computer Technician 1994-1995

Corporate Technologies – Eau Claire, WI
Service Manager – Network Engineer 1995-2004

University of Wisconsin Eau Claire (UWEC) – Eau Claire, WI
Network Engineer – 2004 – Present

Chippewa Valley Internetworking Consortium (CINC) – Eau Claire, WI
Fiber Design Engineer – 2005-Present

I am presently employed by the University of Wisconsin Eau Claire (UWEC) as a network engineer. I've been working for educational agencies most of my working life, even employed at Corporate Technologies I worked with many school districts around the state helping them resolve issues and design their computer networks for the future of the districts. I've been interesting in network design for many years and started with CINC by organizing the network design and then engineering the future fiber plant as it's grown. My work with CINC has evolved to more of a lead role in helping CINC grow as a leader in the world of community area networks. I have gained my overall expertise from field experience and by studying over the years to be a Microsoft Certified Network Engineer along with taking several vendor and field related courses from not only Microsoft but Cisco, Hewlett Packard, Compaq, IBM and more. I started with an interest in the computing field in high school and have been working in the computer/network field for over 22 years.

John LeBrun – Information Services Manager, City of Eau Claire

Has served as the City of Eau Claire Information Services Manager for more than 11 years. With a population of over 65,000, Eau Claire is Wisconsin's largest City North of Madison and West of the Fox Valley. Responsibilities include network and computing operations at 18 City locations. Provides 24 x 7 services for Police, Fire, EMS, 911, Health, Parks, Recreation, Forestry, Cemeteries, Water Utility, Transit, Facilities, Elections, Attorney's Office, Assessing, Inspections, Fleet/Facility/Park Maintenance, Streets, Housing, Planning, Engineering, GIS, Finance, HR, and Risk Management.

These diverse municipal functions provide a cornucopia of challenges for network design, help desk, ASP systems, web development, system security, system redundancy, and even providing technical forensic services for law enforcement. Maintaining a redundant, quality Internet connection has become mission critical as the City has moved towards the ASP model for applications such as fleet management, work order, financial, forestry, GIS, and recreation scheduling.

What started out as a monthly breakfast meeting in 1998 eventually became the Chippewa Valley InterNetworking Consortium (CINC). CINC has been about determining common needs of diverse organizations. Participating member of CINC since its inception and was actively involved in the design and implementation of the CINC MPLS collaborative network.

The MPLS network provides a secure, redundant, high speed network between 9 different entities including nodes at UW-Health Eau Claire, Luther Hospital, Sacred Heart Hospital, and Wisconsin Independent Networks. It has allowed the City and other CINC members to share applications, information, Internet, and network resources without compromising security or reliability.

Previous employment includes serving as the POS/In-Store Systems Manager at Menards Corporate Headquarters. Responsible for all network and computing operations for 165 retail locations covering 9 Midwestern states processing over \$4.5 billion in yearly transactions. Found the challenges of municipal government and collaborative efforts with other businesses and agencies to be just as interesting.

Chet Strebe
Chief Information Officer, Information Systems Instructional Technology
NORTHCENTRAL TECHNICAL COLLEGE
1000 W. Campus Dr.
Wausau, WI, 54401
715.675-3331 x1101

Credentials	<p>University of Wisconsin Stout Master's of Science Aug. 09 Major: Information and Communication Technology (3.75 GPA)</p> <p>LAKELAND COLLEGE Sheboygan, Wisconsin Bachelor of Arts degree Dec. 96 Major: Computer Science (3.75 GPA) Minor: Business Administration</p> <p>METROPOLITAN COMMUNITY COLLEGE Omaha, Nebraska Associate's Degree in Applied Science Aug. 92 Major: Computer Programming (4.0 GPA)</p> <p>UNITED STATES AIR FORCE COMMUNITY COLLEGE OF THE AIR FORCE Sep. 92 Associate's Degree in Information Systems Technology Major: Data Processing Minor: Computer Programming</p> <p>Keesler Air Force Base Biloxi, Mississippi Graduate -- Computer/Communication Systems Operations School</p>
Background	<p>Chet started his technology career with the United States Air Force where he ultimately became responsible for an \$18.4 million real-time complex that consisted of a UNISYS 2200/633, two 1100/72 multiprogramming Sperry computer systems, and a Cray X-MP super computer. Other career adventures include time spent administering wide area networks and coordinating the implementation, integration, and use of a Geographic Information System (GIS) for the Wisconsin Department of Transportation. Currently Chet's serves as the CIO, Information Systems and Instructional Technology at Northcentral Technical College, Chet provides leadership and vision to the College for all phases of telecommunications and information systems technology consistent with the District's mission, strategic plan, and executive limitations and ends statements. Chet is responsible for the overall planning, direction, training, organization and implementation of initiatives relative to distance learning and interactive television technologies, communication networks (voice, data, digital, analog,) information systems, computer hardware and software.</p>
Interest Area	Using technology to improve the educational environment.

Dan A Dargel

Office: (608) 342-1734
dargel@uwplatt.edu

PROFESSIONAL OBJECTIVE

To provide a safe, secure, reliable, scalable, and cost effective campus network which evolves to meet the expanding needs of technology and media in an exceptional academic campus environment.

EDUCATION

University of Wisconsin-Platteville
Bachelor of Science in Computer Science with emphasis in computer electronics, Dec 1991.
Computer Science GPA: 4.00 on 4.00 scale; Overall GPA: 3.81. Suma cum Laude

EXPERIENCE

Manager of Campus-Wide Networks and Operating Systems UW-Platteville 1997-Present

Duties include: design, implementation, and management of campus computer networks and related systems; site survey, deployment, and management of campus wireless networking; implementation, management, and growth of WAN (Wide Area Network) connections such as Wiscnet/Internet and community area networks; design, implementation and management of campus fibrechannel SAN (Storage Area Network); monitoring and performance management of networks; management of VMS, UNIX, and Linux systems; implement and maintain structured wiring and fiber optic networks to support fire alarm and public safety systems, building automation systems, cable TV distribution, distance education systems, and telephone systems; security and safety of campus data, networks, and systems; programming and automation of classroom and distance education AV control systems.

Interim Manager of Campus-Wide Networks and Operating Systems UW-Platteville 1995-1997

Duties include: configuration and management of 13 node VMScluster using VAX and Alpha architectures; configuration and management of 14 UNIX systems running Digital UNIX and Ultrix; plan, design, and implement upgrade strategy for existing campus systems and networks to provide adequate resources for future needs and growth; manage and mentor student workers who assist in managing systems; design implementation, and management of campus network backbone and attached LANs using Switched Ethernet and FDDI; management of all network protocols used on campus; implementation and management of network services such as DNS, WWW, Gopher, CSO (phonebook), News, email, listservs, and FTP; implementation and management of backup systems; management of system and network security; management of user accounts; enforcement of acceptable use policies; implementation and support of compressed video transmission systems.

Senior Systems Analyst for Desktop Computing UW-Platteville 1992-1995

Duties include: installation, management, and support of 20 Novell Netware servers and 8 PathWorks servers for PC and Macintosh desktops; installation of application software on Novell Netware and PathWorks servers; design, implementation and support of computing lab and departmental networks using Ethernet with Novell Netware and PathWorks servers using

protocols such as IPX, DECnet, LAT, AppleTalk, and TCP/IP; implementation and development work on Computer Aided Facility Management System (CAFMS) project; acted as backup system manager and assisted in management of VAX/AXP VMScluster; implementation of distributed relational database systems using Oracle; participated in development of applications for Title III Grant; taught sessions and developed documentation on use of computer networks.

Office Systems Specialist UW-Platteville 1991-1992

Duties include: design of graphical user interfaces to query administrative databases; implementation of relational databases under Oracle, Omnis, and FoxBase; conversion and integration of data for UW System Computer Aided Facility Management pilot project; installation and maintenance of PC and Macintosh computer systems and networks; installation and support of EtherNet and AppleTalk (PhoneNet, LocalTalk, and EtherTalk) networks; implementation of unattended LAN backup system; integration of desktop and mainframe systems; assist in installation and management of Netware PC servers; installation and management of Oracle server on Netware using IPX and TCP/IP; installation and management of Macintosh AppleShare servers; installation and management of Macintosh based Gopher server; and assist in selection of campus wide ID card system.

Educational Support Representative ComputerLand 1990-1991

Duties included diagnostics and repair of hardware, software support, and consulting, working primarily with IBM-PC and Macintosh computers. Assist in selection of computing equipment for individual end-users and departments subject to specific computing goals and budgetary constraints.

Student Assistant System Manager UW-Platteville 1988-1989

Duties included system management of two MicroVAX II systems and a Local Area VAXCluster consisting of a MicroVAX II server and 10 VAXStation 2000 workstations running AutoCAD under VAX/VMS. Services provided include system performance tuning, networking, and security management.

Student Computer Consultant UW-Platteville 1988-1989

Duties included support of both student and faculty users on VAX, IBM 4361, IBM-PC, Macintosh, and Apple II computers. Maintained and contributed several items for the campus software and documentation libraries.

SYSTEM MANAGEMENT

System management and networking experience in Microsoft Windows servers, VAX/VMS Clusters, DEC Ultrix, HP True64 UNIX, Novell Netware, and DEC PathWorks. Design and implementation of user authentication and security schemes, performance monitoring and tuning systems, load balancing systems, file and account archival and retrieval procedures, backup procedures, and network services. Design and implementation of departmental Macintosh and PC Local Area Networks. Integration of Mac, PC, VAX/VMS, and the Internet networks.

PROGRAMMING and DESIGN

Operating System design under XINU and Minix. System programming under Ultrix and Xenix. Design of Low level hard drive recovery systems for Macintosh and MSDOS; and network protocols. Compiler and interpreter design and implementation.

NETWORKING

BITNET (RSCS using Jnet), Internet (TCP/IP), and UseNet (UUCP) networks and their associated protocols. Connectivity packages including Pathworks (DOS and Mac), AlisaShare, Netware (DOS and Mac), and AppleShare. Networking protocols including DECNet, TCP/IP, RSCS, IPX, and AppleTalk.

OPERATING SYSTEMS

VMS, Ultrix, UNIX, VM/CMS, MS Windows (NT/W2K/XP/Vista), MSDOS, Macintosh, and Netware.

PROGRAMMING LANGUAGES

Perl, DCL, C, Pascal, APL, BASIC, Lisp, Ada, and SQL.

AWARDS AND PUBLICATIONS

Awarded a grant by the Platteville Undergraduate Research Fellows to conduct research into the Paralation Model, a model for expressing parallel computation. Presented a paper entitled Introducing Parallelism Using the Paralation Model at the 1991 SIGCSE Technical Symposium at San Antonio, Texas. Co-authored a paper entitled A Hypertext Source Code Navigation Tool for the XINU Operating System, presented at the 1991 SIGCSE Technical Symposium at San Antonio, Texas.

COMMUNITY EFFORTS

Have provided volunteer assistance in developing, implementing, and supporting networks at the Platteville Public Library and Platteville School District.

MARY J. SCHOELER

University of Wisconsin – Superior
PO Box 2000, Belknap & Catlin, Superior, Wisconsin, 54880
Phone: 715.394.8266, E-mail: mschoele@uwsuper.edu

Professional Experience

Assistant Vice Chancellor & Chief Information Officer, UW-Superior, Superior, Wisconsin.

April 2007 to present. Provides overall leadership for the provision and development of campus information technology at UW-Superior. Serves as Chief Information Officer (CIO) and is responsible for the planning, development, application, budget, acquisition, integration, deployment, maintenance and support of information technology and services for use by faculty, staff and students. Staffing and budgeting. Coordination with technology user groups and governance committees. Also, oversees the Office of Institutional Research and Planning which is focused on institutional support and continuous improvement and planning.

Chief Technology Officer, State University of New York - Oswego, Oswego, New York.

November 2001 to March 2007. Leadership, planning, and direction of all areas of information technology (administrative computing, academic computing, student computing, network services, telecommunications, and technology user support). Staffing and budgeting. Coordination with technology user groups and governance committees.

Manager of User Support, Indiana University - Purdue University (IPFW), Fort Wayne, Indiana.

December 1994 to November 2001. Direct user support for both academic and administrative computing. Planning, design, and project management of student computing resources (computer labs, e-mail system, web-publishing space, documentation, and training), ITS website, faculty/staff software training, and documentation. Support and monitoring of a wide variety of client services.

Computer Repairs Manager and Sales Administrator, ComputerLand, Fort Wayne, Indiana.

September 1993 to December 1994. Oversee repair/installation services for computer equipment and receiving, inventory and shipping of parts/product orders. Buyer for major accounts of computer equipment and peripherals. Client contact for configuration and pricing. Vendor contact for specifications and ordering.

Information Systems Analyst, KLF Business Communications Systems, Fort Wayne Indiana.

October 1991 to September 1993. Technical and marketing support for telecommunications products. Develop configurations and specifications for PBX systems and integration of voice and data communications installations. System administration for statewide LAN and WAN along with user training/support of software and hardware.

Institutional Marketing Coordinator, Alexandria Technical College, Alexandria, Minnesota.

December 1988 to August 1991. Direct admissions marketing information system and promotion activities. Alumni Coordinator: June 1986 to December 1988. Implemented data-base support of alumni-giving campaign. Project support: grant applications, donor proposals and other materials.

Education

M.A. in Professional Communication Studies May 1999

Purdue University, Fort Wayne, Indiana.

B.S. in Business Management September 1994

Indiana Wesleyan University, Marion, Indiana.

A.S. in Integrated Information Systems Specialist May 1986

Alexandria Technical College, Alexandria, Minnesota.

BTOP Comprehensive Community Infrastructure Service Area Template

Please complete the complete the CCI Service Area worksheet. In each line you will provide name of a service area and one of the contiguous Census tracts or block groups that make up service area. Please provide full 11-digit Census tract numbers, includes the 2-digit State FIP the 3-digit county code, followed by a unique 6-digit tract number. For Census block groups provide the full tract number, plus the 1-digit block group number (12 digits total). If there is more than one Census tract or block group in a service area, there will be multiple lines in the table for that service area. It is critical that the service area names provided in this table match with the service area names provided in the Service Area Details page of the application. Please review the application document and Service Area Details page for consistency before submitting your application.

Important Note: Excel truncates leading zeros from numbers. Consequently, the tract/block column on the worksheet has been formatted as text. This formatting should not be altered as the validity of your data may be compromised.

The data provided via this template will be subject to automated processing. Applicants are therefore required to provide this upload as an Excel file, and not to convert it to a PDF prior to upload. Additionally, applicants should not modify the format of this file (e.g. by adding or removing worksheets). Do not leave blank lines in the table between service areas.

EXAMPLE

Service Area Name	Tract or Block Group #
Big BB Project South	01001020100
Big BB Project South	01001020100
Big BB Project South	010010202001
Big BB Project West	01001020400
Big BB Project North	01001020800
Big BB Project North	010010209002

the
p that
PS code,
s, please
is more
le for
the
ew this

group
d, or the

r to
removing

BTOP CCI Service Area Template

Title: **University of Wisconsin-Extension Building Community Capacity through Broadband**
Easy Grants ID: **5710**

Service Area Name	Tract or Block Group #
LM Arpin-Auburndale Area	55141010100
LM Augusta Area	55035000120
LM Fall Creek Area	55035000200
LM Greenwood Area	55019950400
LM Hewitt Area	55141010200
LM Junction City Area	55097960200
LM Pittsville Area	55141010800
LM Vesper Area	55141010900

BTOP Comprehensive Community Infrastructure Service Offerings and Competitor Data Template

Please complete the complete the following worksheets--either of the Last Mile or Middle Mile Service Offerings worksheets may be omitted if the applicant is not proposing to provide services of that type.

For both the Last Mile and Middle Mile Service Offerings worksheets, the service offerings should include all relevant tiers and markets (*e.g.* residential, business, wholesale). Applicants should be sure to include details on any services that would be offered at discounted rates to particular classes of customers (*e.g.* community anchor institutions or third party service providers).

In the Last Mile Service Offerings worksheet, applicants are required to provide estimated average end user speeds. Average speeds should be the average sustained actual, non-burst speeds that an end user would receive during a peak hour. For purposes of calculating these speeds, applicants should utilize their subscriber projections for year eight of the project, and develop subscriber utilization projections that are consistent with any additional services the applicant plans to offer. For wireless broadband services, this speed should be an average of the speeds available across an entire cell. Beyond these general guidelines, due to the multiplicity of technical solutions that may be proposed, the applicants may use discretion to determine the most reasonable manner in which to estimate actual speeds on their network. Applicants should explain the underlying assumptions used to calculate the average speeds in the space provided.

In the Competitor Data worksheet, applicants are required to provide data on both last mile and middle mile service providers, regardless of whether the applicant proposes to offer both last mile and middle mile services. In the column titled Service Areas Where Service Offered, applicants should list all of the Last Mile and Middle Mile Service Areas within their Proposed Funded Service area in which the listed services are available. Please ensure that the Service Area names are consistent with those provided within the application and the Service Areas upload. If the actual availability of the listed services is limited (*e.g.* the service is only available within part of the Last Mile or Middle Mile Service Area), note this in the Other Comments column.

In contrast to several other upload templates in this application, the data provided via this template will NOT be subject to automated processing. These template worksheets are provided to demonstrate the level of data required and to provide a suggested format. Applicants are free to modify the template layouts in order to provide the most effective presentation of the data for their specific project. Applicants should, however, ensure that they provide at least as much detail as these templates require. To the extent that you modify these templates please ensure that the print layouts are adjusted so that rows do not break across pages in a manner that will be difficult to understand. A PDF of this file will be automatically generated upon upload to Easygrants, and the print settings will be used to format the PDF file.

Proposed Last Mile Service Offerings

Name of Service Tier	Advertised Speeds		Estimated Average Speeds		Average Latency	Pricing Plan (\$ per month)	Other Comments/Description/Features or Limitations
	Downstream Mbps	Upstream Mbps	Downstream Mbps	Upstream Mbps	@ End User CPE milliseconds		
3Mbps Download / 512Kbps Upload	3Mbps	512Kbps	3Mbps	512Kbps	13ms	\$26.95	base price
5Mbps Download / 512Kbps Upload	5Mbps	512Kbps	5Mbps	512Kbps	15ms	\$34.95	base price
10Mbps Download / 512Kbps Upload	10Mbps	512Kbps	10Mbps	512Kbps	10ms	\$44.95	base price

Explanation of Average Speed Calculations:

CCI Systems provides Last Mile Service. They slightly over provision all customers to a higher downstream speed and higher upstream speed. Therefore the average estimated speeds meet or exceed our Advertised speeds . For example, our least expensive tier advertises a 3Mbps/512Kbps, and our provisioning system is set to 3.16Mbps/540Kbps.

Latency measurements taken during peak evening usage.

Proposed Middle Mile Service Offerings

Name of Service Offering	Customer Type	Distance Band or Point to Point	Minimum Peak Load Network Bandwidth Capacity (Mbps)	Monthly/Yearly Pricing (\$)	Other Comments/Description/Features or Limitations
Community Area Network (CAN) 1 Gb	Community Anchor Inst.	Point to Point	1Gb	\$1500 / yr	Max line rate throughput available, any constraint can be moved to additional available fibers.
CAN 10 Gb	Community Anchor Inst.	Point to Point	10Gb	\$4000 / yr	Max line rate throughput available, any constraint can be moved to additional available fibers.
CAN Wireless	Community Anchor Inst.	Point to Point	5Mb	\$6750 / partner	Per mobile or fixed end node. Throughput expected to be 10-20Mb.
CAN Fiber	Community Anchor Inst.	Per Fiber Mile	10Gb	\$1250 / mi	Per pair per mile - one time cost - potential throughput dependant on hardware, 1Gb to 400Gb. 10Gb assumed most likely in CAN for fiber users in year 8.
Backbone 1 Gb	Community Anchor Inst.	Point to Point	1Gb	\$5000 / yr	Between any add/drop nodes on the network - pricing is NOT distance based. Full line rate available with dedication fibers or WDM wavelengths.
Backbone 10 Gb	Community Anchor Inst.	Point to Point	10Gb	\$30000 / yr	Between any add/drop nodes on the network - pricing is NOT distance based. Full line rate available with dedication fibers or WDM wavelengths.
Backbone Fiber	Community Anchor Inst.	Per Fiber Mile	400Gb	\$1250 / mi	Per pair per mile - one time cost - potential throughput dependant on hardware, 1Gb to 400Gb. 400Gb DWDM assumed most likely in Backbone for fiber users in year 8.
Ethernet Bandwidth - 10	Any	Point to Point	10 Mbps	\$ 800.00	Monthly price based on 2 year agreement
Ethernet Bandwidth - 20	Any	Point to Point	20 Mbps	\$ 950.00	Monthly price based on 2 year agreement
Ethernet Bandwidth - 50	Any	Point to Point	50 Mbps	\$ 1,050.00	Monthly price based on 2 year agreement
Ethernet Bandwidth - 100	Any	Point to Point	100 Mbps	\$ 1,200.00	Monthly price based on 2 year agreement
Ethernet Bandwidth - 250	Any	Point to Point	250 Mbps	\$ 1,650.00	Monthly price based on 2 year agreement
Ethernet Bandwidth - 500	Any	Point to Point	500 Mbps	\$ 1,790.00	Monthly price based on 2 year agreement
Ethernet Bandwidth - 1000	Any	Point to Point	1000 Mbps	\$ 2,450.00	Monthly price based on 2 year agreement
Dark Fiber	Any	Per Fiber Mile	DARK FIBER	\$ 6.50	Monthly price based on 20 year IRU (per strand)

Competitor Data

Competitor Data - Last Mile Service Providers

Service Provider	Service Areas Where Service Available	Technology Platform	Service Tiers	Downstream Speed	Monthly Pricing	Other Comments/Description/Features or Limitations
Verizon	Auburndale / Hewitt/Arpin/Greenwood	Cisco/Occam DSL/VDSL	Starter	1Mbps	19.99	distance limitations apply
			Power	3Mbps	29.99	distance limitations apply
			Turbo	7.1Mbps	39.99	distance limitations apply
TDS	Vesper/Pittsville	Occam DSL/VDLS	1.5Mbps Broadband	1.5Mbps	24.95	distance limitations apply
			3Mbps Broadband	3Mbps	29.95	distance limitations apply
			10Mbps Broadband	10Mbps	39.95	distance limitations apply
CentryLink	Fall Creek/Augusta	Cisco/Occam DSL/VDSL	Lowest Price	768kbps	29.95	distance limitations apply
			Faster	1.5Mbps	39.95	distance limitations apply
			Fastest	up to 10.00Mbps	49.95	distance limitations apply

Competitor Data - Middle Mile Service Providers

Service Provider	Service Areas Where Service Available	Technology Platform	Service Tiers	Distance Band or Point-to-Point	Minimum Peak Load Network Bandwidth Capacity	Pricing (Montly)	Other Comments/Description/Features or Limitations
BadgerNet Converged Network	Chippewa Middle Mile Service Area	Fiber and Copper	1.5Mbs	Point to Point	1.5Mbs	\$600	Available to K12, Libraries, Public Safety, Community Colleges, Public Housing, Higher Ed, Gov't facilities
			10Mbs to 100Mbs	Point to Point	10Mbs to 100Mbs	\$1920 to \$6000	No Build or Hardware costs
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$49,500	
BadgerNet Converged Network	Marshfield Middle Mile Service Area	Fiber and Copper	1.5Mbs	Point to Point	1.5Mbs	\$600	Available to K12, Libraries, Public Safety, Community Colleges, Public Housing, Higher Ed, Gov't facilities
			10Mbs to 100Mbs	Point to Point	10Mbs to 100Mbs	\$1920 to \$6000	No Build or Hardware costs
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$49,500	
BadgerNet Converged Network	Platteville Middle Mile Service Area	Fiber and Copper	1.5Mbs	Point to Point	1.5Mbs	\$600	Available to K12, Libraries, Public Safety, Community Colleges, Public Housing, Higher Ed, Gov't facilities
			10Mbs to 100Mbs	Point to Point	10Mbs to 100Mbs	\$1920 to \$6000	No Build or Hardware costs
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$49,500	
BadgerNet Converged Network	Stevens Point Middle Mile Service Area	Fiber and Copper	1.5Mbs	Point to Point	1.5Mbs	\$600	Available to K12, Libraries, Public Safety, Community Colleges, Public Housing, Higher Ed, Gov't facilities
			10Mbs to 100Mbs	Point to Point	10Mbs to 100Mbs	\$1920 to \$6000	No Build or Hardware costs
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$49,500	
BadgerNet Converged Network	Superior Middle Mile Service Area	Fiber and Copper	1.5Mbs	Point to Point	1.5Mbs	\$600	Available to K12, Libraries, Public Safety, Community Colleges, Public Housing, Higher Ed, Gov't facilities
			10Mbs to 100Mbs	Point to Point	10Mbs to 100Mbs	\$1920 to \$6000	No Build or Hardware costs
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$49,500	
BadgerNet Converged Network	Wausau Middle Mile Service Area	Fiber and Copper	1.5Mbs	Point to Point	1.5Mbs	\$600	Available to K12, Libraries, Public Safety, Community Colleges, Public Housing, Higher Ed, Gov't facilities
			10Mbs to 100Mbs	Point to Point	10Mbs to 100Mbs	\$1920 to \$6000	No Build or Hardware costs
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$49,500	
Charter Business	Chippewa Middle Mile Service Area	Fiber	10Mbs	Point to Point	10Mbs	\$700	Possible Build and Equipment costs up to \$2500
			20Mbs to 100Mbs	Point to Point	20Mbs to 100Mbs	\$800 to \$1600	In extreme cases Build and Equipment costs may be higher

			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$4,000	Not Available in: Augusta, Fairchild, Fall Creek, Mondovi, Osseo, and Wilson WI
--	--	--	-------------	----------------	-------------	---------	---

Charter Business	Marshfield Middle Mile Service Area	Fiber	10Mbps	Point to Point	10Mbps	\$700	Possible Build and Equipment costs up to \$2500
			20Mbps to 100Mbps	Point to Point	20Mbps to 100Mbps	\$800 to \$1600	In extreme cases Build and Equipment costs may be higher
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$4,000	
Charter Business	Stevens Point Middle Mile Service Area	Fiber	10Mbps	Point to Point	10Mbps	\$700	Possible Build and Equipment costs up to \$2500
			20Mbps to 100Mbps	Point to Point	20Mbps to 100Mbps	\$800 to \$1600	In extreme cases Build and Equipment costs may be higher
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$4,000	
Charter Business	Superior Middle Mile Service Area	Fiber	10Mbps	Point to Point	10Mbps	\$700	Possible Build and Equipment costs up to \$2500
			20Mbps to 100Mbps	Point to Point	20Mbps to 100Mbps	\$800 to \$1600	In extreme cases Build and Equipment costs may be higher
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$4,000	
Charter Business	Wausau Middle Mile Service Area	Fiber	10Mbps	Point to Point	10Mbps	\$700	Possible Build and Equipment costs up to \$2500
			20Mbps to 100Mbps	Point to Point	20Mbps to 100Mbps	\$800 to \$1600	In extreme cases Build and Equipment costs may be higher
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$4,000	
Century Tel	Platteville Middle Mile Service Area	Fiber	10Mbps	Point to Point	10Mbps	\$900	Plus Build and Equipment costs
			20Mbps to 100Mbps	Point to Point	20Mbps to 100Mbps	\$1260 to \$1800	
			Up to 1 Gbs	Point to Point	Up to 1 Gbs	\$4,000	