



ErieNET Business Plan Preliminary Draft

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Prepared By



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1. INTRODUCTION

ECC Technologies (ECC) is a broadband consulting firm engaged by Erie County to develop an Open Access Network (OAN) Business Plan and initial route design. The County has named this OAN, ErieNET, and has adopted a legislative resolution for the formation of a local development corporation named ErieNET, to build, manage and support the county-wide OAN.

The ErieNET open access network is classified as a middle mile network, creating broadband fiber optic infrastructure interconnecting the county's cities, towns and villages with the metropolitan and downtown Buffalo public and private broadband providers and data centers. The business plan includes a sufficient level of route design to determine the overall coverage and mileage of the fiber optic middle mile backbone. The proposed route design is nearly 400 miles of fiber optic infrastructure comprised of headend and regional points of presence (PoPs), interconnections to public and private broadband providers, aerial and buried cable pathways, fiber optic cabling and components, and community anchor institutions (CAIs) endpoints.

ErieNET will provide direct connections to the CAIs, but it will not be a fiber to the premise (last mile) solution for commercial businesses and residences. Larger institutions and enterprise level businesses that are in proximity to the ErieNET backbone will be approached and offered broadband services. These CAIs include county facilities, 911 centers, libraries, municipal (city, town, and village) facilities, school district facilities, higher education institutions, healthcare, and other major employers.

ErieNET will provide as its main service offering, dark fiber for CAIs to light and use for their own network communications and applications. Dark fiber is not widely available to end users, but for broadband providers, enterprise and institutional users that have multiple sites within the county that need to be networked, dark fiber is a unique advantage offering those organizations to scale bandwidth requirements as their organizations grow and adopt new technologies and applications requiring increasing amounts of capacity and speed.

ErieNET will also market and provide services directly to telecommunication carriers, Internet Service Providers (ISPs) and other public and private broadband providers. The public private partnerships (PPPs) will be able to use ErieNET fiber optic infrastructure to extend and connect their infrastructure to their constituents and customers. Erie Net will provide dark fiber, and the PPP will light and support the network services requiring the fiber. Public partnerships may include NYSDOT, University at Buffalo, NFTA, Healthcare Networks, and Western NY Regional Information Center (WNYRIC Erie BOCES).



Private broadband providers, ISPs, and telecom carrier partners can extend, transport, and deliver their services across ErieNET fiber to their users that previously did not have access to fiber optic infrastructure. These “last mile” services include Internet, Voice, and Video (triple play) services to commercial and residential users. ErieNET has had preliminary and productive meetings with several interested broadband providers that can leverage and extend their services to Erie County communities using ErieNET infrastructure.

ErieNET’s competitive advantage is that it will offer both dark fiber and through PPP partnerships, lit fiber optic services at attractive rates and terms. As a not-for-profit 501(c)(3) corporation, ErieNET will price its services to be market competitive, but sustainable in order that outside funding or tax-based resources are not required for continued operations. The funding for the initial design, construction and launch of ErieNET services has been secured using American Rescue Plan Act (ARPA) funds allocated to the county. After the launch period, ErieNET revenues will be sufficient to sustain on-going administrative, operational, sales and marketing, and maintenance and support services.

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2. EXECUTIVE SUMMARY

A business plan has been developed for ErieNET. We have enough design work completed to secure potential revenues and partners. Detailed designs will be completed in collaboration with partners the County chooses. The ErieNET local development corporation was established and has significant investment for construction and launch of services with \$34 Million of allocated ARPA funds and \$2.8 million additional County funding for design and construction management services.

Studies have found that while the urban and suburban areas of the County are well served in terms of access and competition, many of the rural areas of the County, such as towns and villages to the south and east are lacking and expected to fall further behind. Several regional and interstate carriers have made infrastructure investments to the metropolitan area, most notably Verizon, Charter (Spectrum), Lumen, Crown Castle, and FirstLight, however their build programs have levelled off.

The challenge that the County faces are that the two major infrastructure providers in the region, Verizon, and Charter Spectrum, are not significantly expanding their infrastructure nor replacing aging copper and coaxial cable plant with fiber optics. Charter Spectrum is the only provider that can offer a true broadband service to small businesses and residents outside of the Buffalo metropolitan area.

Fiber optics to the premise (FTTP home or business) has stalled, with Verizon's FiOS service the only true FTTP offering and limited to only a few suburban areas. Across the U.S., virtually all major providers of residential broadband who were building fiber to the home have ceased these programs in favor of developing middle mile fiber and last mile wireless solutions. The primary reasons for this are that first, the cost to build fiber to the home is very costly, and second, wireless technologies that can provide capacity at or near the Gigabit range are rapidly emerging.

Many communities across the U.S. are choosing to lead the charge, rather than wait, in developing Gigabit to the premise programs. ErieNET will provide a robust middle mile infrastructure throughout the county, attracting both fiber and wireless providers for last mile services, by lowering the cost of entry into our markets, particularly more rural communities.

Erie County has competitive telecom and broadband infrastructure and services as compared to other upstate New York counties, and the metropolitan area of Buffalo has sufficient infrastructure and services needed to support its residents and businesses. However, outside of Buffalo and the neighboring suburbs, access to reliable service and choice in providers dwindles, as is the case with many Upstate counties.

The establishment of an Erie County Open Access Network is the most proactive of strategies. It lowers barriers of entry for service providers, creates competition and choice for both business and residential customers and will project the City of Buffalo, Erie County, and the region at large as a leading technological community. The overall quality of life is enhanced, our government and public safety operations are improved, and our schools and communities are better connected. The OAN is also a strategy that requires both political and financial capital.



It requires political leadership to communicate and create a consensus with all the community leaders to undertake a project of this magnitude. It certainly is not unprecedented. It is being done successfully in many cities and regions across the US, and in some of the most rural areas of New York, but typically with some level of significant federal or state financial support.

ECC's methodology for developing Open Access initiatives include open and frequent communications. The open access fiber network is designed to bring ubiquitous bandwidth access of advanced telecommunications services to areas throughout Erie County. This infrastructure will create opportunities for economic development and improved telecommunications competition, reliability, and diversity. As a key component to our approach and methodology ECC will hold as many meetings as needed to ensure accuracy and consistency between all persons and entities involved in this project.

Erie County has identified two primary broadband objectives for this project:

- increase the availability of high-speed broadband internet to serve more Erie County residents
- increase local broadband competition for both residential and commercial users.

To support these objectives, ECC has developed a Business Plan which identifies both Organizational (administrative, marketing, sales, engineering, and operational) and Financial (revenues, expenses, and capital) components for a countywide fiber network. It is understood that the County desires the proposed network to enable broadband service availability to all residents, businesses, schools, local government, healthcare service providers, etc.

ECC will identify and document the most effective processes to support the plan detailing critical components including Business Strategy, Marketing Programs, Operational Development, Legal issues, GAAP based Financial Projections, funding and other major components as required. Funding of the project is one of the key areas of focus in the plan. ErieNET has sufficient funding for this project through its ARPA and county funds.

ECC also can bring carrier partners to the table that may be willing to invest in the network. Also, ECC has connections with independent financing partners willing to invest in the development of networks such as this.

Information on potential customer locations gathered as part of the Marketing Outreach services will be critical information used by ECC to develop the business plan assumptions, financial projections, and network design.

As is our standard operating procedure, ECC will create a realistic budget to support the capital expenses, operating expenses, and revenues in the financial plan. The model will include budgets for constructing Building Entrance Facilities from the proposed backbone to key anchor institutions. This "real world" approach to financial projects allows the County to assess the plan with confidence.

The Business Plan will be developed with the County to ensure all County goals, as well as restrictions, are addressed. It is expected the Business Plan will be used as a catalyst and a source of information to move the project forward and support grant applications and other funding options.



2.1 BUSINESS MODEL SUMMARY

Route Design & CAIs

ErieNET has a proposed route design of nearly 400 miles to reach community anchor institutes (CAIs). Figure 1 is the proposed route and is subject to change during the next phase of final design and engineering, as well as when new subscribers commit to connecting to ErieNET.

Our CAIs include County facilities, major sewer plants, libraries, 911 PSAPs, and city, town and village facilities that provided letters of interest and support for ErieNET. Table 1 identifies the anchor sites.

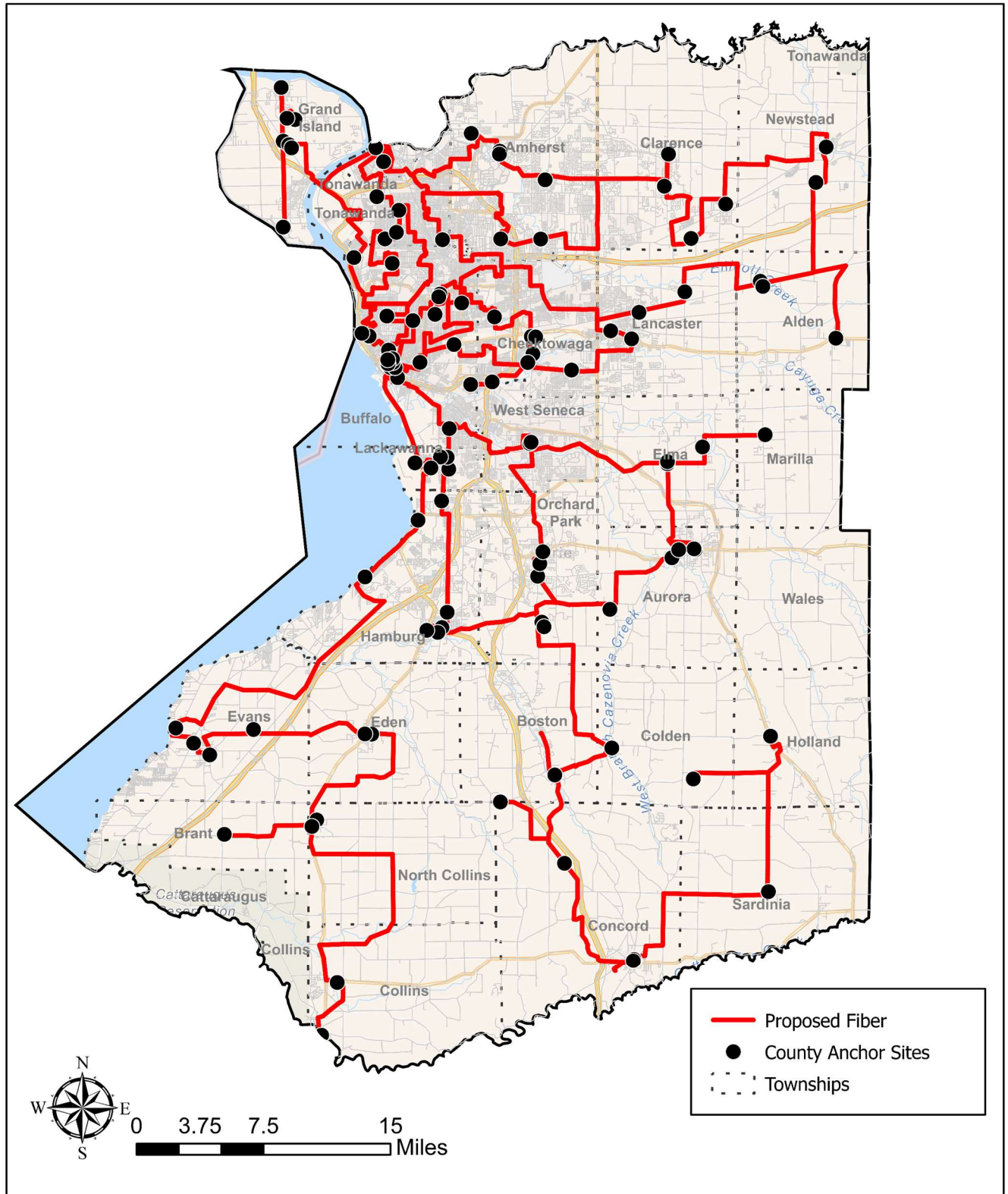
TABLE 1 - ANCHOR SITE COUNT

ANCHORS	SITE COUNT
County Towers	11
Economic Development Business Parks	3
EC Sewer Facilities	7
PSAP's	19
Carrier Hotels	3
Libraries	37
County Sites Leasing Circuits	32
Town/Village Halls (LOI)	40
University at Buffalo	0
City of Buffalo	0
Total Required Anchor Locations	152

The County has had several meetings with both the City of Buffalo and SUNY at Buffalo regarding their level of interest in participating within the ErieNET project. Both the City and the University have expressed a serious interest, and ErieNET is in negotiations to define participation levels and budgets.

The City has (44) sites that they currently network to and are interested in an ErieNET dark fiber solution. The University has a need for alternate routes between its North, South, and downtown medical campuses. Preliminary investment budgets have been presented for their consideration and negotiations continue to refine requirements and costs.

FIGURE 1 - ERIE NET AND ERIE COUNTY ANCHOR SITES





Construction Costs

The proposed 400-mile ErieNET fiber optic backbone has an estimated construction cost of \$29 million. Table 2, below, breaks down the costs.

TABLE 2 CONSTRUCTION COSTS

ERIENET OPEN ACCESS DARK FIBER NETWORK		
ECC TECHNOLOGIES, INC.		
BACKBONE CONSTRUCTION		
COUNTY FUNDS		
Design and Engineering (Fiber Optic Backbone)	\$	1,222,101
Building Engineering	\$	51,713
Building PM	\$	51,713
Make Ready Management	\$	347,005
Path and Permit Administration	\$	334,950
Construction Management	\$	745,569
Total Covered by County Funds	\$	2,753,051
ARPA FUNDS		
Construction Material & Labor	\$	17,272,961
BEF Connections for Government & LOI	\$	1,089,840
POP setup (Network and Access Equipment)	\$	750,412
Make Ready	\$	3,646,926
Path and Permitting fees	\$	3,157,054
Right of Way (Easements)	\$	351,857
Total Covered by ARPA Funds	\$	26,269,049
Total Network Design & Construction	\$	29,022,101
ARPA Funds to Float Operations Until Sustainable	\$	7,777,899
Total County Commitment ARPA and County Funds	\$	36,800,000

Design and Construction Management costs will be covered by the county budgets general funds with \$2.8 million allocated for 2022 and 2023. The remaining \$26.2 million estimated for Construction will be covered by ARP funds. Leaving approximately \$7.8 million of the total \$34 million in allocated ARP funds to be used for launch services.



Launch Services

Design and construction services have an expected three (3) year duration. During these initial (3) years a comprehensive sales and marketing plan will be in effect to contractually engage subscribers to the network. Sales and marketing will of course persist into future years to expand the subscriber base and generate revenue.

Operating and support costs will begin to accrue upon the formation and adoption of the LDC (see Table 3). Revenues will not begin until significant portions of the network are built and turned over to operations, and contracts are executed. We expect operating and support costs will exceed revenues for the first five (5) years with positive income starting in year 6 and remaining positive (sustainable) from that year going forward (see Table 4 Income Statement). Years (1-5) operate with negative income, but ErieNET remains cash positive due to the \$7.8 million in cash reserves from the remaining ARP funds (See Table 5 Cash Flow Statement).

TABLE 3 - ANNUAL OPERATING EXPENSE STEADY STATE

OPERATING EXPENSE ASSUMPTIONS			
	CATEGORY	ANNUAL EXPENSE	PCT of OPEX
5100 - Cost of Sales and Installation (COGS)		\$ 672,190	
6100 - Administrative Costs		\$ 370,855	17.3%
6200 - Support Services (Marketing and Sales)		\$ 499,338	23.3%
6300 - Insurance Expense		\$ 31,713	1.5%
6400 - Pole Attachment Fees		\$ 212,141	9.9%
6500 - Line Maintenance (Network Maintenance, Response, and Repair)		\$ 390,458	18.3%
6600 - Network Operations		\$ 412,414	19.3%
6700 - POP Maintenance and Support		\$ 222,326	10.4%
Annual Costs without COGS		\$ 2,139,243	100.0%
Annual Costs with COGS		\$ 2,811,433	



TABLE 4 - INCOME STATEMENT

ErieNET Statement of Income	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Revenues	\$ -	\$ 297,075	\$ 1,706,025	\$ 2,963,463	\$ 4,087,100	\$ 4,813,275	\$ 5,363,550
Operating Costs and Expenses	\$ 177,461	\$ 1,313,720	\$ 2,729,627	\$ 2,747,600	\$ 2,798,301	\$ 2,799,648	\$ 2,797,343
Depreciation	\$ -	\$ 78,023	\$ 537,763	\$ 1,051,367	\$ 1,331,400	\$ 1,373,215	\$ 1,408,062
Total Operating Expenses	\$ 177,461	\$ 1,391,743	\$ 3,267,390	\$ 3,798,967	\$ 4,129,701	\$ 4,172,863	\$ 4,205,405
Net Income	\$ (177,461)	\$ (1,094,668)	\$ (1,561,365)	\$ (835,504)	\$ (42,601)	\$ 640,412	\$ 1,158,145

TABLE 5 STATEMENT OF CASH FLOWS

ErieNET Statement of Cash Flows	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Net Cash From Financing Activities	\$35,400,000	\$ 1,400,000	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Cash	\$33,771,434	\$ (10,273,846)	\$ (13,968,224)	\$ (6,819,800)	\$ 92,402	\$ 968,232	\$ 1,695,045
Ending Cash	\$33,771,434	\$ 23,497,587	\$ 9,529,363	\$ 2,709,563	\$ 2,801,965	\$ 3,770,197	\$ 5,465,241

Conclusion

The ErieNET business plan is viable and with the funding provided by county and ARP funds will be a sustainable and successful on-going operation. The ErieNET LDC will need several service contracts to successfully build, market, operate and maintain the network. These services have been included and accounted for in the business plan financial model. The contracts include:

- Legal Services
- Accounting Services
- Auditing Services
- Design and Construction Management Services
- Construction Services
- Sales and Marketing Services
- Administration and Operations Services
- Fiber Optic Maintenance and Support Services



3. BUSINESS PLAN

Erie County has already begun some of the initial business planning and development for ErieNET.

- The County engaged ECC Technologies (ECC) for the 2017 Erie County Broadband Study which provided several strategies and recommendations for improving county broadband access, performance, and competitiveness, including the development of a county-wide Open Access Network (OAN).
- In 2021 The County commissioned ECC for the development of an Open Access Network (OAN) Business Plan with preliminary route design for county-wide middle mile fiber optic backbone interconnecting its cities, towns, and villages.
- The County has recently secured \$34 million of American Rescue Plan Act (ARPA) funds for the design, construction and launch of ErieNET.
- The County passed a legislative resolution for the formation of the ErieNET local development corporation, a not-for-profit 501(c)(3) corporation.

The following report sections state the business plan components and recommendations.

3.1 MISSION STATEMENT

ErieNET commits to serving the county, communities, and businesses of Erie County with unparalleled service and support to ensure the highest quality of service, integrity, and availability of fiber optic broadband infrastructure and services. An open access fiber optic network made available to all communities within Erie County.

The principal objectives of ErieNET are as follows:

- Enable economic development for our communities
- Enable enhanced services for technological and economic growth
- Enable retention and growth of both employers and residents
- Enable expansion of improved broadband services to the rural and underserved areas in the County
- Develop public private partnerships for improved broadband access, performance, and competitiveness for our communities

3.2 MARKET ANALYSIS – WHY AN OAN?

The 2017 Erie County Broadband Study evaluated current broadband infrastructure and services available for municipal, commercial, and residential users within Erie County. Metropolitan Buffalo was consistent with many “B” size metropolitan areas (1m-2m pop.) for broadband access and services, and its rural areas were faced with the deficiencies and challenges of underserved areas, not dissimilar to most of New York State and nation-wide rural areas.



Erie County's need for broadband bandwidth (speed and capacity) has been expanding and will continue to expand dynamically for the near future. The Internet of Things (IoT) is the uniform and ubiquitous presence and integration of technology into all facets of our lives. The appliances in our homes, equipment and systems in our business and industries, the content in all types of media and communication devices will require continuous access to the Internet. The IoT will increase our need for broadband infrastructure many times over today's capacity. Meeting the bandwidth requirements is going to require wider deployment of fiber optic cabling throughout our communities as well as integrating with current and emerging wireless technologies.

The City of Buffalo and its "first ring" of contiguous suburban towns are comparatively well served, especially city and suburban areas with Verizon Fios and Spectrum fiber/cable services. Metropolitan businesses and institutions also have choices of services providers besides Verizon and Spectrum, but much of their infrastructure targets the same service areas and corridors. Verizon made a business decision not to expand its residential and commercial Fios outside the city and five towns it currently serves (Tonawanda, Amherst, West Seneca, Hamburg, and Orchard Park). More rural areas outside of the city and these Fios towns are limited to Spectrum cable modem services, cellular, DSL and satellite. In the most remote areas satellite broadband is the only option due to no Spectrum service, weak cellular or the expense of cellular as a residential broadband solution.

The 2017 Study gave several recommendations to pursue to improve broadband access and services including:

- County broadband committee to foster inter-department communication of broadband requirements and opportunities and offer input and consultation to the County leadership regarding broadband policy.
- Community collaboration to communicate with its municipal and community partners to identify opportunities for broadband collaboration.
- Continue to evaluate federal and NYS Broadband Office projects and funding, including monitoring NYS agreement with Charter (Spectrum) to expand services to unserved households.
- Dig once policy requiring the installation of municipal conduit or duct whenever a private or public works project opens up the earth along public Right-of-Way. Over time this has the potential of creating pathway for broadband infrastructure whenever street, water, sewer, lighting, and/or telecom projects can provide pathway for conduit burial.
- Target Public Private Partnership (PPP) opportunities to include broadband infrastructure for economic development zones or targeted ECIDA sites. Opportunities can include broadband conduit or duct bank providing access to multiple carriers into the site and buildings.
- Create an Open Access Network (OAN) to spur competition and provide broadband infrastructure to all county municipalities. The OAN would be available to public and private organizations to use OAN resources to reach communities and improve their access to services.



- The County has developed each of these recommendations as strategies for the overall development of county-wide broadband infrastructure and services. The OAN is the most aggressive of these recommendations, but the timely availability of ARPA funds makes this proposition even more attractive and sustainable.

3.3 OAN – WHAT IS IT?

A proactive broadband strategy is for the County to view broadband infrastructure as a utility necessary to maintain quality of life and keep our communities competitive within the region, state, nation, and the world. This is sometimes referred to as a “Technology Led” economic development strategy. The County, through several potential funding streams (e.g., ARPA), would build-out, control, and maintain the broadband infrastructure for both public and private customers. This type of municipal network model for broadband development is often described as an Open Access Network (OAN).

The OAN concept is for government to not compete directly with private broadband providers, but rather provide a not-for-profit broadband infrastructure that is accessible by public and private organizations, including broadband providers. Open Access Networks typically provide “dark fiber” infrastructure where the entity leasing fiber optic capacity is responsible for lighting the fiber optics with a broadband service (e.g., Internet, private network, telephone, TV, etc.). In many cases the entity leasing the dark fiber is a broadband provider looking to provide services to their customers and/or new customers.

Community owned fiber infrastructure has gained in popularity across the country over the last decade. Service providers are attracted to OANs because it removes the barrier to market entry of making long-term capital infrastructure investments. Instead, the service provider can lease network infrastructure for substantially less than the cost to build their own infrastructure.

Typically, these types of systems are developed through public-private partnerships with the telecommunications industry, where the municipal entity has ownership, control, and governance; and the telecom/broadband industry provides services. There are opportunities when building and expanding the network to either buy, lease, or swap existing fiber capacity from private carriers and/or public providers.

OANs are revenue based and need to be self-sustaining. Through the development of public-private partnerships, including the carriers themselves, the subscribers pay to use the fiber, which creates revenue to recover capital and operating expenditures.

Finally, through the construction of these networks and their operation, jobs are created both directly and indirectly. A global competitive advantage is created within the County by the existence of a 21st century-based telecommunications broadband infrastructure serving the Erie County communities.



3.4 ERIE COUNTY OPEN ACCESS NETWORK - ERIENET

A fully built out Erie County model would require a fiber optic backbone consisting of approximately 400 miles of fiber optic cabling installed throughout the County, interconnecting key community anchor institutions (CAIs)—including municipal facilities, public safety 911 centers and towers, K-12 schools, libraries—and major employers and healthcare organizations. The final size of the network depends on funding, phasing, and diversity requirements.

It needs to be stressed that this is a preliminary route design that requires final design, engineering, and continued marketing and sales effort before any final routes are released for construction.

ErieNET Community Anchor Institutions (CAIs) that have expressed interest and/or letters of support include:

- **Public School Districts** – this will extend the ErieNET to each school district’s community. It would also likely include the Western New York Regional Information Center (WNYRIC), an Erie 1 BOCES organization that provides Internet and network services to school districts. WNYRIC is the main data center that Erie County schools connect to for Internet and IT services.
- **Public Libraries** – like schools, libraries will also extend the network out to our communities. The downtown Buffalo Central Library is the hub of the County-wide library network.
- **Government Facilities** – City, County, Town, and Village facilities that need to interconnect to municipal networks. Public Safety 911 centers, emergency operations, and radio towers also extend the network out to the County’s communities
- **Economic Development** – providing broadband infrastructure to incentivize development and offer a competitive advantage to attract and retain local businesses and competitive work force talent.
- Any major employer or institution that commits to be an OAN subscriber prior to construction. These organizations will typically have a geographic footprint in the County with a need to connect multiple sites.

Revenues are estimated using an assumed take rate of potential subscribers. There are more than 400 municipal facilities, school district buildings, and libraries in Erie County, which are classified as municipal subscribers. The assumption made is that 40% of these facilities will subscribe to the OAN.

There are nearly 2,000 potential private sector subscribers that are within a half mile or less of the OAN network backbone. The take rate assumption for private businesses is 4% per year for five years and then levelling off. Lastly, it also assumed that telecom and broadband providers will also want to lease fiber from the OAN, contributing to revenue projections.

This is a conservative financial model based on preliminary route design and broad-gauge estimates and projections. A marketing and sales program will need to be implemented, as well as final network design and engineering, to refine and develop ErieNET routes and subscribers.



3.5 ROUTE DESIGN

ErieNET seeks to build and operate fiber infrastructure within the County to serve as middle mile fiber optic network backbone for improved access and competitive services for the public, and to support the economic development of our communities. It is anticipated that most of the fiber optic cabling will be installed on existing telephone poles with underground installations as required. The proposed fiber routes will create a ring environment with lateral spurs to remote areas. The routing of the fiber was selected based on several factors:

- The ability to reach the largest number of communities
- Support of public safety, educational, healthcare, municipal and economic programs
- Build costs and maintenance costs
- The ability to serve the greatest need
- The ability to fill the gaps where effective infrastructure may be lacking
- Must be viable and attractive for multiple entities

The proposed fiber will allow for interconnection to existing fiber owned by others in the County. Interconnection will be done at strategically located Points of Presence (POPs) or Co-location points. Users will have several access points into the fiber optic backbone. POPs and co-locations will be strategically located in towns, villages, municipal buildings, and other desirable locations within each community passed. Access will also be provided at convenient locations along the entire fiber route to accommodate further rural access.

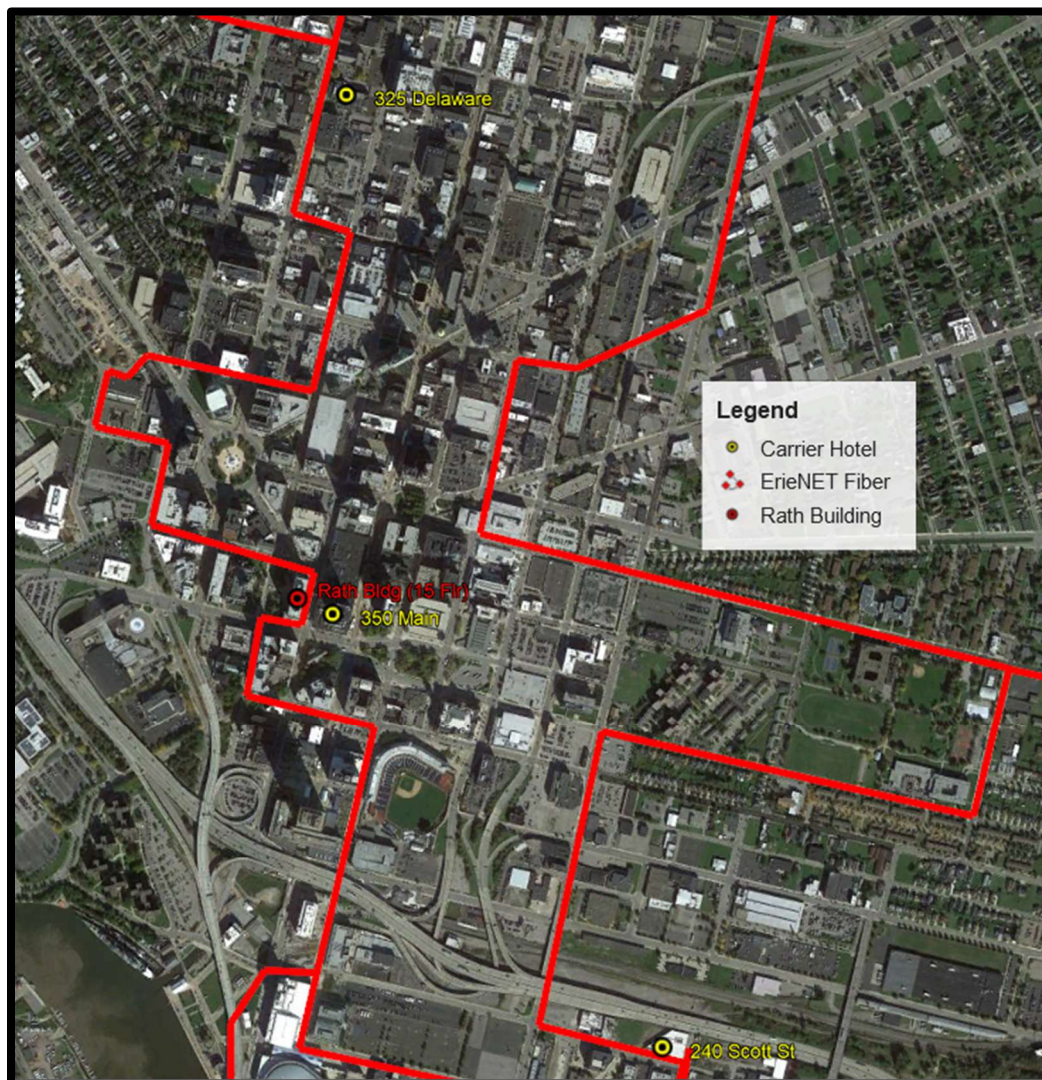
In some areas this fiber will be installed along pathways that may contain existing infrastructure, it is the intent of ErieNET to explore all opportunities for which will include, sharing fiber, swapping fiber, over lash agreements, performing on-going maintenance, etc. ErieNET believes that these opportunities for ErieNET will serve to significantly lower the build and maintenance costs of the fiber infrastructure while creating a more effective infrastructure within the County.

The fiber optic backbone overall estimated cost of approximately \$30 million and 394.5 miles in total length. Principal routing will connect all viable municipal entities as well as key anchor points such as business, educational and healthcare entities. It will be available to any viable entity within the County that wishes to use it. The ErieNET LDC will contract with the private sector for design and engineering, construction, marketing and sales, administration, operations, maintenance, and support services.

The backbone begins at the downtown Buffalo, Rath County Office Building at 95 Franklin Street and extends north, south, and east out to metropolitan Buffalo and surrounding towns and villages. The overall fiber optic backbone has interconnecting loops or rings, such that if there is a break in the fiber optics, then communications can be redirected in the opposite ring direction. ErieNET route design employs several rings, wherever practical, but for budget reasons, not every route segment is in a ring. These segments may be “ringed off” in the future if new funding becomes available, actual construction costs permit, and/or if new subscriber revenue provides for ring topology. If redundancy is essential for a non-ring segment, then ErieNET broadband partners or the carriers in general, may be positioned to offer a secondary service to ErieNET’s primary service (or vice versa).

The downtown “carrier hotels” at 350 Main Street, 325 Delaware, and 240 Scott Street are strategically connected to the downtown ring to connect ErieNET subscribers with intra/inter-state Internet, telecom, and broadband network service providers. Figure 1 below shows these locations with the fiber routing.

FIGURE 2 - CARRIER HOTEL MAP & ERIENET FIBER





3.5.1 Design Assumptions:

The design assumptions used in the development of the ErieNET network include the following key attributes:

- The fiber optic backbone will be available or open to any entity within the County that is willing to contract with the ErieNET LDC. Opportunities for ErieNET will be explored with all entities in the County.
- The development of the ErieNET backbone will provide a competitive advantage for county-wide technology-led economic development.
- ErieNET will seek long term contracts with the Community Anchor Institutions (CAIs), including municipalities, healthcare, education, and private carrier, ISP and/or broadband providers. ErieNET will provide dark fiber leases and long term "Irrefutable Right to Use" (IRUs) agreements.
- Lit network services will be provided by either the subscriber or a private provider utilizing ErieNET fiber.
- The fiber optic backbone is approximately 395 miles.
- The project shall be supported by ARPA funds for design, construction, and launch services, with operations and maintenance supported by subscriber revenues for long term sustainability.
- The method of ownership and governance will be through ErieNET LDC.

The objective of the route design is to provide enough definition to pathways, utility pole lines and pole line conditions to develop a reasonably accurate construction and operations budget for the business plan and financial models. The design team had outside plant designers drive the proposed routes to assess several factors that impact route design, including cost of construction, crossings (railroad, highway, water, and other), cost of maintenance, and effectiveness in reaching CAIs and potential customers. The proposed design also estimates Building Entrance Facilities (BEF) costs. The BEF is the connection between the network backbone and a user's facility.

A significant cost of the fiber infrastructure are utility company charges for making their poles and conduit ready for new installations. The industry term for this is "Make Ready." The detailed design and engineering phase will estimate the amount of make ready that is required, including pole replacements, and relocating other communication lines. There will be areas where no pole line exists along the path or is prohibitively expensive to make ready. Field designers will analyze and recommend the most cost-effective way to route the fiber, either through an alternate pole line, lease conduit, or new pathway construction. Approximately 7% of the route is estimated as light make ready, 23% medium, and 70% heavy make ready.



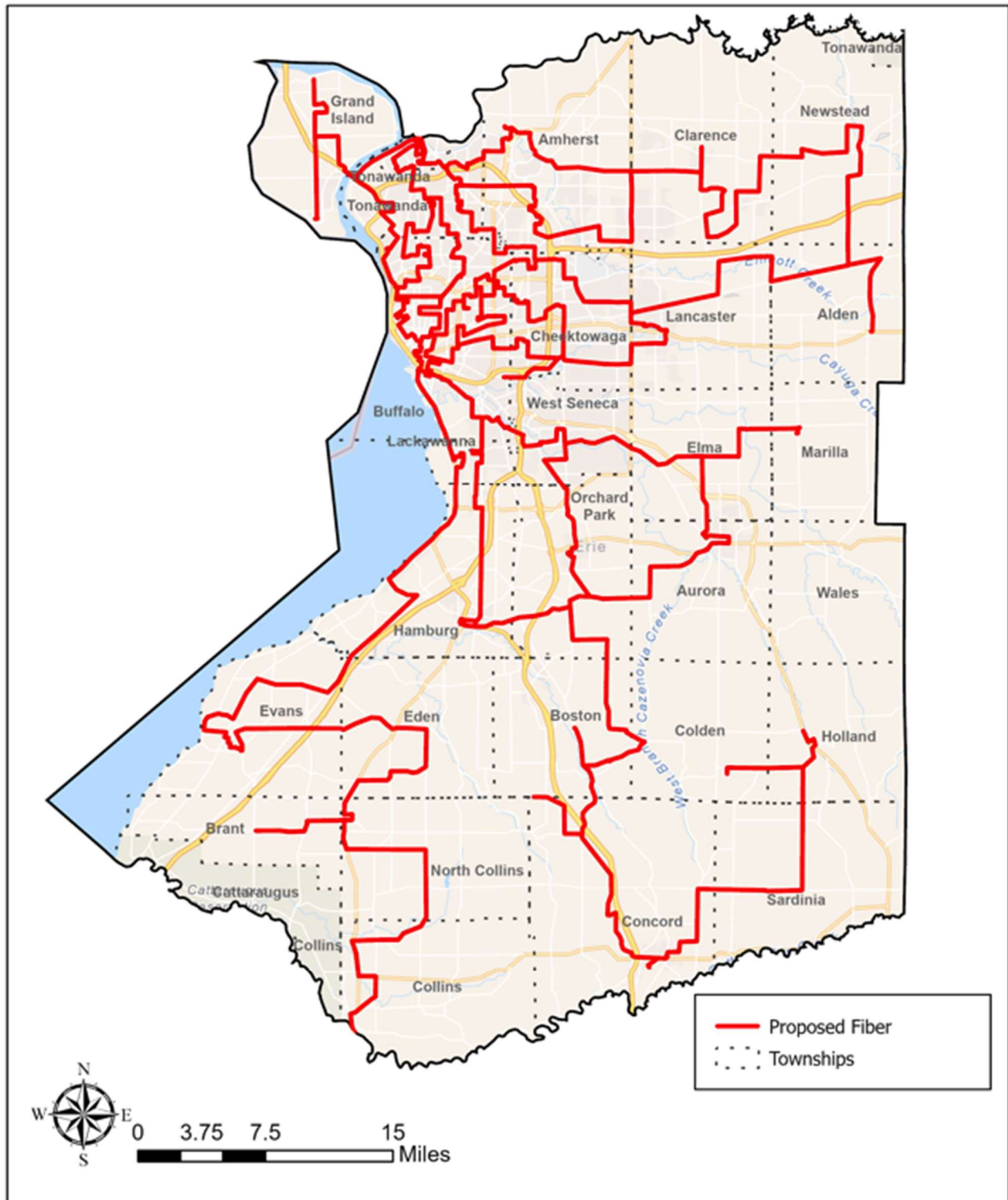
Another objective of route design is to maximize county coverage where the backbone travels by anchor institutions who have expressed a level of support for the project, as well as, traveling by major enterprises and business corridors that potentially may subscribe to ErieNET for services in the future. The County has stated its goal of reaching its facilities, including Public Safety Answering Points (PSAPs – 911 centers) and libraries. This County objective results in reaching nearly all cities, towns, and villages within Erie County.

Figure 2, on the following page, illustrates the proposed fiber optic network routes. The routes are subject to change in the next project phase for detailed design and engineering, and as the sales and marketing program identifies new subscribers. Currently, the backbone fiber consists of 363 route miles with an additional 32 miles of fiber connecting 152 anchor locations to the backbone. In total, the project will require 395 fiber route miles to be constructed. Approximately 76% of the fiber routes are aerial (pole line) construction and 24% are anticipated to be underground construction.

A key route design criteria is the impact of the NYS DOT Perm 75 regulations subjecting broadband providers to pay right of way (ROW) charges to NYS for accessing state ROW, and on-going annual NYS ROW charges. The county is in discussions with NYS to have these charges waived. This model does not include these fees currently. However, these fees should they remain in effect could have a negative impact on construction capital by \$1.04 million and have a negative effect on the annual operating budget by \$343K annually. The outcome of those discussions may impact final route design if NYS ROW needs to be minimized. Current route design has 30% of the route on NYS ROW.

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FIGURE 3 - PROPOSED ERIENET FIBER ROUTE





3.6 CONSTRUCTION PROCESS

Following the adoption of the Business Plan, the County shall release an RFP for Design, Engineering and Construction Management. The Design and Construction Manager shall develop contract bid documents for utility contractors to provide the materials and install the network. The construction bid will be released by the ErieNET LDC and managed on behalf of the LDC by the Construction Manager. The ErieNET LDC shall hold the construction contracts and fund the construction with ARPA funds.

The major construction phases are highlighted below. They include:

- Design
- Pathways and Permitting
- Make Ready
- Construction
- Points of Presence ("POP") Development.

3.6.1 Design

After the preliminary routes are defined, the Design Consultant will prepare the detailed documentation and specifications required for the construction of the network. These specifications include the fiber optic network placement, fiber counts, points of presence and maintenance access points. Required permits, easements, pole attachment and conduit agreements, will be determined. From the detailed specifications, the designer will prepare a bid package to select one or more construction contractors. The bid typically calls for unit pricing for materials and labor. Once the construction contractor(s) is selected, the project cost estimates will be updated. The combined costs for this effort are estimated at approximately \$3,100 per mile.

3.6.2 Pathways, and Permitting

The permits requests are submitted to state and municipal governments for right of way access. Conduit and pole attachment agreements are submitted likewise submitted to the pole and conduit owners. Easements may be required if the network routes outside of the public rights of way. The Designer will create the necessary drawings and a coordinator will manage the process of tracking and obtaining the permits, agreements, and easements. These combined costs are estimated at approximately \$9,700 per mile.

3.6.3 Make Ready

Make ready fees are paid to existing utilities for the relocation and/or replacement of existing infrastructure on utility poles, as required, to make space available for the fiber optic cable and support structures. The cost is based on an average of \$10,100 per mile.



3.6.4 Construction

Includes the cost of materials, labor, and management of construction contractors during fiber optic construction phases as well as contingencies. These combined costs are estimated at \$45,700 per mile.

3.6.5 Points of Presence (POP) Cost

Associated with the establishment and build-out of co-location access at the Carrier Hotels, up to six designated locations within the fiber network in or around towns and villages will need to be determined. Various factors need to be addressed to determine the best location for these POPs. This includes required space for equipment, alternate power facilities, security, and 24/7 access. These combined costs are estimated at \$75K per location.

3.6.6 Building Entrance Facilities (BEF) Costs

Building Entrance facilities are the connection between the fiber backbone and the customer's premise. The BEF includes the construction of fiber from the backbone to the customer's facility up to 1,000 ft, fiber termination panel within 50 feet of the building entrance, splicing, termination, and testing. It is estimated 152 BEF's will be required at \$7,170 per BEF.

3.7 MARKET ANALYSIS

The design and construction projections assume that ErieNET will have sufficient revenues to support ongoing operations and maintenance of the Open Access Network. This is accommodated with launch funds covered by ARPA funds and expected revenues from the subscriber base. Long term operation and maintenance is anticipated to average \$2.8M annually.

ErieNET can plan to generate a significant portion of its ongoing revenue by leasing space on the fiber optic backbone to two different customer types. Each of these customer types is described below:

Carrier: These customers will include nationally and regionally known telecom, cellular and Internet service providers. Carrier revenues will be generated beginning approximately 6 months upon completion of the fiber. In addition to lease revenue, carriers will be charged a maintenance fee to cover operations and maintenance.

It is anticipated that as many as 4 -5 carriers and service providers will begin leasing space on the backbone shortly upon completion of the various segments. Desirable segments such as those surrounding developed areas as well as those linking cell towers will be leased as they are built. This will serve to provide a limited but available revenue stream during various phases of construction. It is anticipated beyond the initial year 6 projection period, carrier-based revenues are expected to grow at up to 5% annually.

Enterprise: These customers will typically consist of hospitals, school districts, higher education institutions, and private businesses. Enterprise revenues will be generated on a limited basis during completion of construction phases.



The projections assume that customers will begin leasing fiber on the backbone beginning at 21 months from the start of the project. Customers will be added at various stages through to completion of the fiber build out 48 months later. Several of the Enterprise level customers have been specifically identified and has provided either written letters of intent or verbal commitments to lease space on the fiber optic backbone. The projection assumes that enterprise revenues are assumed to grow at 4% following the projections.

ErieNET can expect Enterprise clients to enter contracts of between three- and five-years length. Carrier clients tend to IRU fiber with contract lengths of ten, twenty and twenty-five years.

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4. MARKETING

ErieNET believes additional fiber optic backbone capacity and faster response times will be required to accommodate the needs of all entities within Erie County. Ongoing developments in multimedia, as well as other high-bandwidth applications, supporting healthcare, public safety, education, business, municipal, and residential services within the County will increase on the dependency on the fiber optic backbone infrastructure installed throughout the County.

ErieNET seeks to be a wholesale provider of fiber optic capacity within Erie County. ErieNET's intent is to lease dark fiber optic capacity to enterprise, carrier, and other entities who desire to manage and control their own telecommunications networks. ErieNET business model will focus on service providers to use the fiber optic backbone for the development and delivery of services within the County.

ErieNET will consider leasing point to point and ring configurations as determined by the needs of the customers. Pricing strategies will be defined based on fiber miles leased and per location charges (PLC's).

Establishing meetings with service providers (ILEC and CLEC) ErieNET can become a substantial market player for its dark fiber solution. Other service providers such as, Inter-Exchange Carriers (IXC), Wireless Providers, and Internet Service Providers can seek a competitive advantage and service differentiation in Erie County by providing access to high-capacity affordable infrastructure.

4.1 MARKET OPPORTUNITY

ErieNET believes there is a significant demand for dark fiber infrastructure. Most of the fiber infrastructure in the County currently supports Verizon and Spectrum. The existing fiber is fragmented between different incumbent service providers and their territories. Existing fiber cabling is not available to end users or Competitive Local Exchange Carriers (CLECs) without the provisioning of tariff-based (lit) services. Competitive providers cite the fragmentation of this infrastructure and lack of telecommunications consistency across the County as a major reason for not investing in Erie County.

The market opportunity is broken down into Carrier and Enterprise groups. Carriers include Incumbent Local Exchange Carriers (ILEC's), Competitive Local Exchange Carriers (CLEC's), Cable TV providers and Cellular carriers. Typically, Carriers will purchase Indefeasible Rights of Use of fibers in strand configurations of 2, 4, 6 and sometimes 12 strands to expand or diversify their existing network. Potential Carrier customers include ILECS such as Verizon, Armstrong, CLECs such as Crown Castle, Greenlight Networks and Windstream, Cellular providers AT&T, Sprint, and Verizon and Cable TV provider



Enterprise customers are entities that lease the fiber for their own use to establish a secure private network. These businesses will have multiple locations, and the capability and desire to light the fiber themselves. The benefits to these customers are control of their network, security, minimizing network costs, diversity, and disaster recovery. For purposes of this study, the Enterprise clients are further broken down into two groups, Anchors and Businesses.

4.1.1 Anchors

The proposed fiber solution was presented to the County and ErieNET. The fiber backbone was determined to pass key anchor points suggested throughout this project. These key Anchor points include PSAP's, Communication towers and services, Critical Business Developments, County Services (Sewer, Public Works, Police, Etc.), County Libraries and Schools and Carrier Hotels. Table 1 below lists the Key Anchor types and the number of sites to be connected.

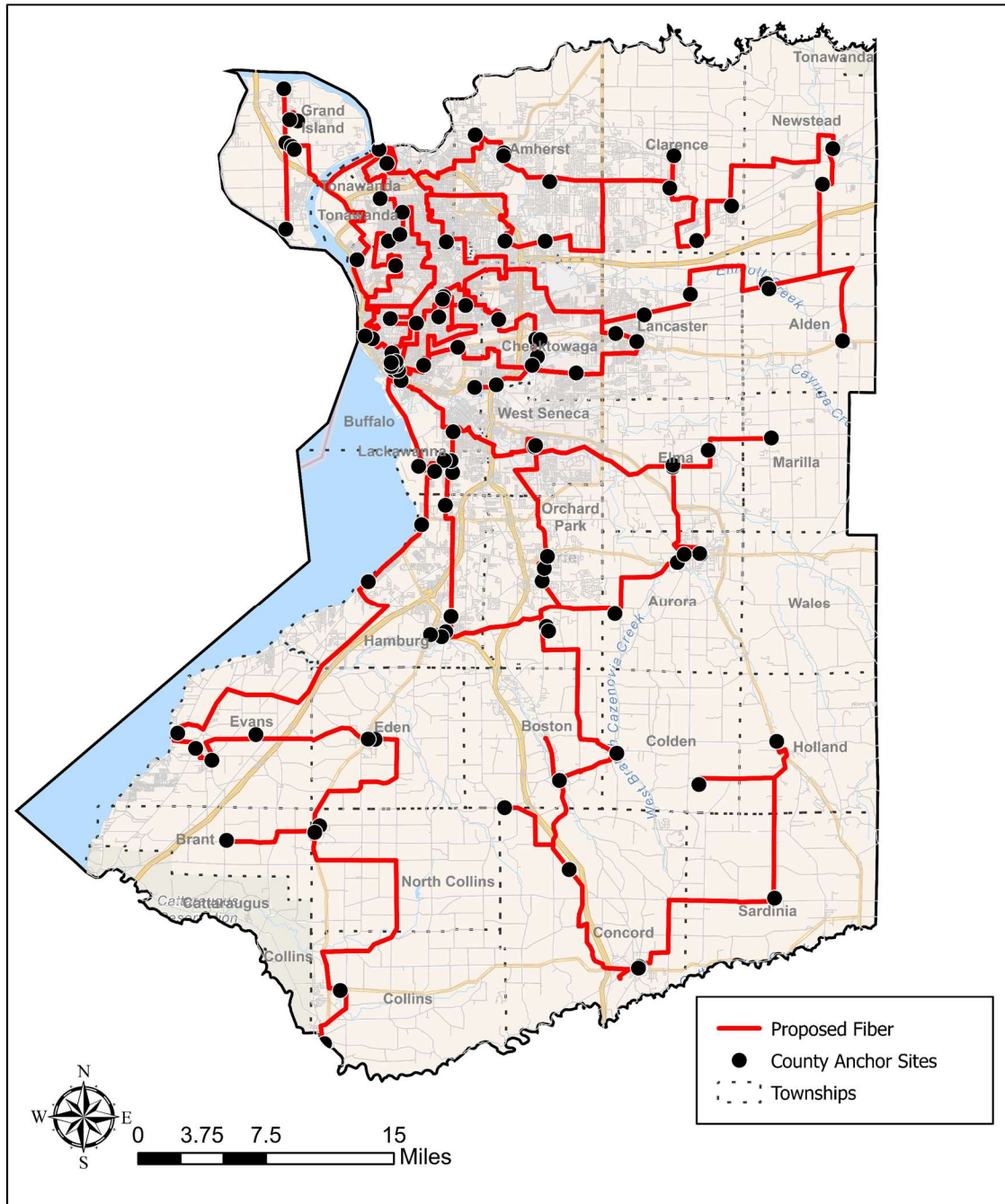
TABLE 6 - KEY ANCHORS AND NUMBER OF SITES

ANCHORS	SITE COUNT
County Towers	11
Economic Development Business Parks	3
EC Sewer Facilities	7
PSAP's	19
Carrier Hotels	3
Libraries	37
County Sites Leasing Circuits	32
Town/Village Halls (LOI)	40
Total Required Anchor Locations	152

Figure 3 below, shows the proposed ErieNET network along with key Erie County anchor sites including County towers, economic development business parks, sewer facilities, PSAP's, public safety towers, carrier hotels and libraries.

The planning, design and construction of the fiber optic infrastructure and backbone network will be paid using allocated funds, but each anchor subscriber will need to pay a monthly subscription fee in order to support operations and maintenance of the network.

FIGURE 4 - ERIE COUNTY ANCHORS





4.1.2 Enterprise

To understand the potential Enterprise market for ErieNET fiber, the enterprise should have a telecom spend of at least \$20K/year and be close to the fiber backbone. The greater the telecom spend the more likely the business will have staff to light and manage the fiber as well as realize greater savings from the use ErieNET fiber. Also, the closer the business locations are to the ErieNET backbone, the less costly will be any lateral and Building Entrance Facility (BEF) construction to connect the location to the backbone fiber. An analysis of businesses with various telecommunications spend of at least \$20,000/year and distance from the proposed ErieNET backbone can be found below in Table 2.

TABLE 7 - POTENTIAL ERIENET MARKET

POTENTIAL MARKET (DARK FIBER)		DISTANCE FROM BACKBONE		
Business with Annual Telecom Spend	Total	1/2 Mile to 1 Mile	1/4 Mile to 1/2 Mile	0 to 1/4 Mile
Over \$250K/Year	181	31	43	107
\$100K to \$250K/Year	237	53	61	123
\$50K to \$100K/Year	431	81	111	239
\$20K to \$50K/Year	1566	301	357	908
Total	2415	466	572	1377

The addition of target customers drives revenue and strategies that will support and grow the network over time. Many target customers, such as medical and hospital services, colleges, educational institutions, business development and supporting services enhance the marketability of this network.

The needs of communications carriers for advanced, high-bandwidth voice, data, and video transmission capacity will increase over the next several years due to various factors, including the following:

4.2 PUBLIC SAFETY

Public Safety (PS) departments require high availability and reliable telecommunications. Current communication systems have been built around microwave and leased broadband lines. Fiber optic cable to key locations in the County would significantly enhance the current PS communications systems. The connection to any existing Erie County fiber will allow the interconnection of all 911 Public Safety Answering Points (PSAPs) throughout the county and have the security of being a fiber connection. Most PSAPs are on a fiber optic ring for redundancy, however some rural PSAPs will use the fiber for its primary connection and utilize existing microwave and lease lines for backup. It is anticipated that redundant PSAP connections, network equipment and other network components are eligible under NYS Public Safety Interoperable Grants and will be included in forthcoming grant applications.



4.3 EDUCATION

Educational entities, both K-12 and collegiate across New York State are rapidly deploying high-capacity networks to meet the demand of technology-based education. The desired bandwidth/capacity being installed between most districts in the state are gigabit speeds. Applications such as Distance Learning, Internet Access, Access on Demand, and remotely collaborative programs, are driving the increase in educational bandwidth requirements nationally.

4.3.1 K – 12

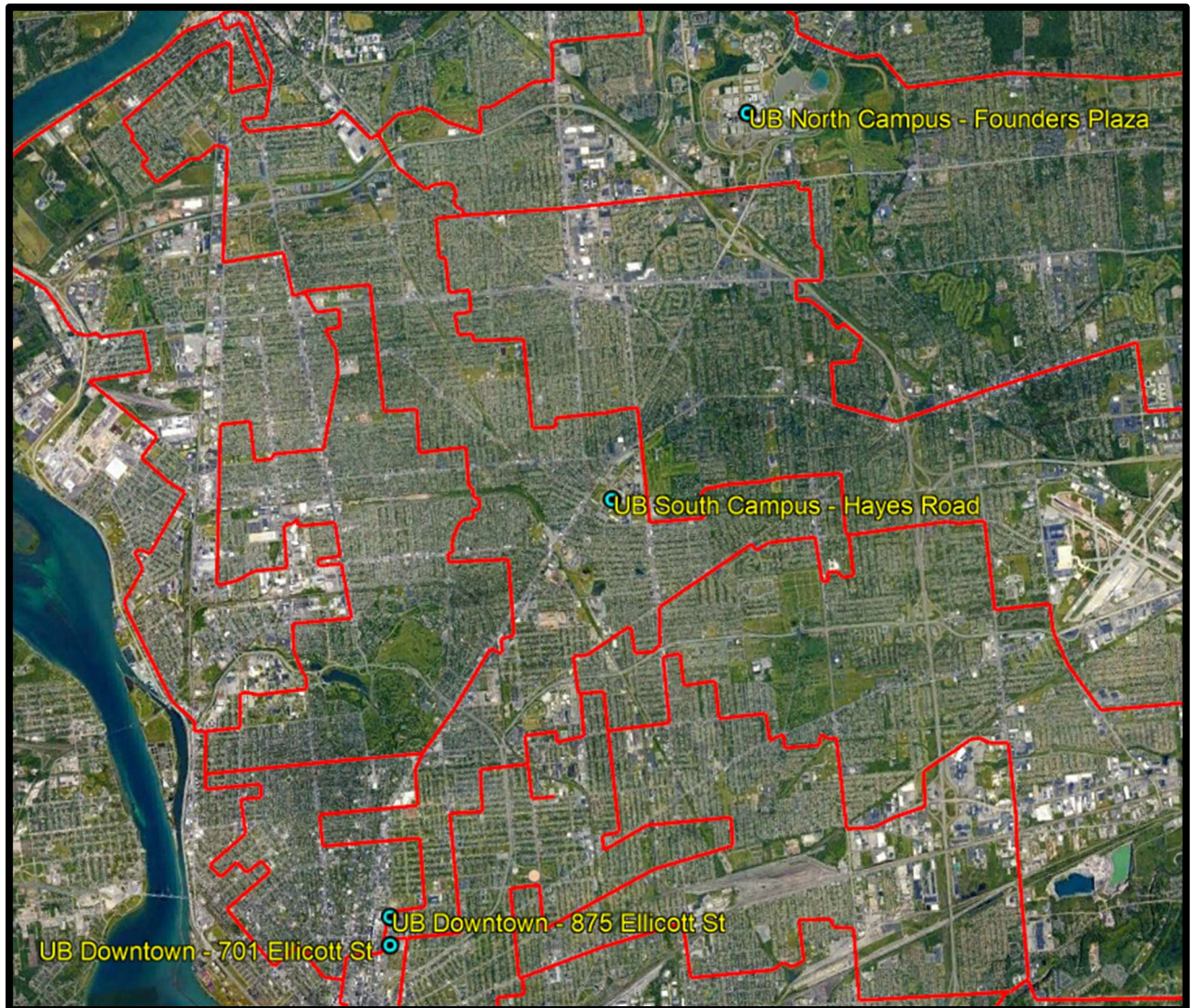
The Erie County development of a fiber-based network will allow for wide area network high bandwidth speeds to each school districts in its region. The fiber network will provide interconnectivity to the community it services and connectivity to county wide functionality.

The opportunities of unlimited bandwidth to the school districts would allow the exploration and development of collaborative programs with shared resources, tools, and applications such as centralized servers, media servers, and administrative applications. In addition, programs such as distance learning, web-based instruction, administrative services including financial programs, student records, and Internet access could be shared. Each of these programs plays a vital role in the daily operation of the educational system in the region.

4.3.2 Higher Education

Erie County Colleges and Universities require Internet access and voice service to their faculty and students. Each location can have a Local Area Network (LAN) to group their computers and network devices together and then be part of a Wide Area Network (WAN) over a larger geographical area to provide higher broadband access, overall cost reduction of service and lack of competition. Furthermore, they have students and faculty members that live in rural areas of the County that do not have access to high-speed broadband. The colleges can share many of the same opportunities for open access fiber benefits as the K-12 environment throughout the county. Figure 4 on the following page references University at Buffalo campus locations in relation to the proposed ErieNET fiber.

FIGURE 5 - UNIVERSITY AT BUFFALO CAMPUS LOCATIONS



4.4 BUSINESS AND ECONOMIC DEVELOPMENT

The business community within Erie County can be categorized into two types of infrastructure users:

- 1.) Dark Fiber Users - Companies with multiple locations and a desire to use the Fiber Network
- 2.) Service Provider Lit Services Users - Companies that would use services provided by a service provider



Business organizations in Erie County were concerned with the cost of service, installation charges of infrastructure, and the availability of fiber and higher bandwidth services. Businesses with multiple locations expressed interest in reasonably priced fiber optic infrastructure to interconnect remote facilities for internal business purposes. Some of the applications discussed were integrating voice, data, video, energy management, security, and centralized processing. The current method of connection is via leased line services which provide limited bandwidth from the incumbent service provider. These leased lines were described as awfully expensive. Businesses in the County that had only one location viewed the potential of additional fiber infrastructure to increase their access to telecommunications competition, more advanced services, a reduction in costs, diversity, and redundancy.

The business organizations with multiple locations, especially the banking industry, will have interest in the fiber optic backbone to interconnect their facilities for several applications. Some of these applications include integrated voice, data, video, energy management, security, and centralized processing. The current method for doing this is via leased line services from the incumbent service provider which often costs hundreds or thousands of dollars per month.

Businesses with multiple locations will consider using the fiber optic backbone for several reasons:

- 1.) Stable telecommunications cost
- 2.) Diversity and redundancy via ring topology
- 3.) Control over bandwidth
- 4.) Access to telecommunications competition

Businesses that will not be direct users of the fiber optic backbone will see some benefit from the fiber optic backbone as well. It is anticipated the service providers will use the fiber to improve their choice and types of service offered. Discussions with these service providers indicate the Open Access Fiber Optic Backbone will allow for the expansion of higher capacity services to areas not currently available. Additionally, the ring and spur architecture will provide redundancy and diversity to the existing networks operating in Erie County.

Business entities that rely on service providers will benefit from the fiber optic backbone in several ways:

- 1.) Access to telecommunications competition
- 2.) More advanced services
- 3.) Reduction in costs
- 4.) Diversity and redundancy via ring topology



Overall, businesses having access to a municipally owned fiber infrastructure will provide stable telecommunications costs, diversity and redundancy via a ring and spur topology, control over bandwidth, and access to increased telecommunications competition.

4.5 AGRICULTURAL

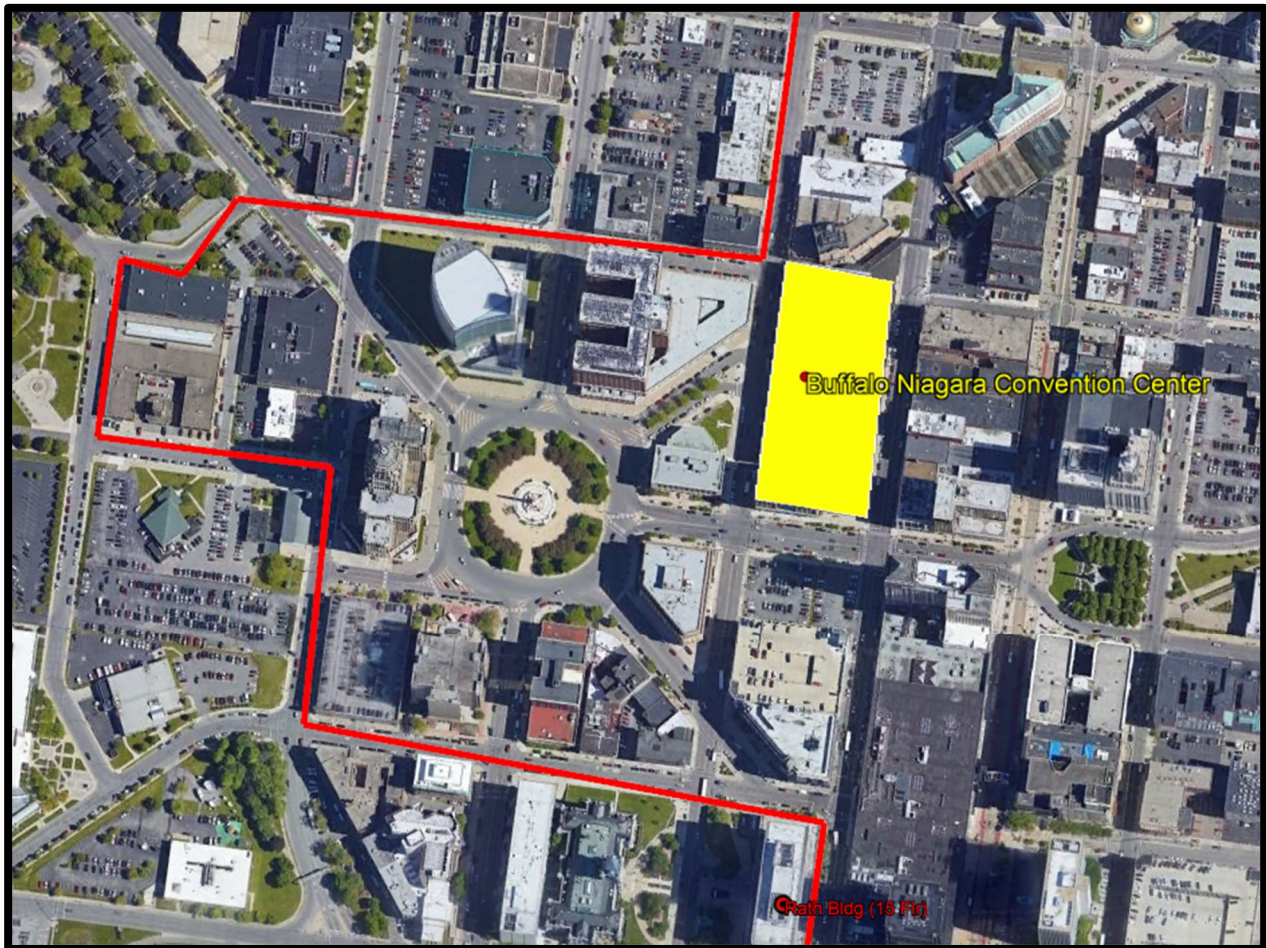
Broadband and other advancement in technology for agriculture has been increasing. These applications enable users to obtain greater input efficiencies and crop yields while mitigating potential climate impacts and carbon footprints. Agricultural Technology (Ag Tech) can be deployed for crops and animal farming.

4.6 ECONOMIC DEVELOPMENT

The Open Access Fiber Optic Backbone will begin to create a competitive advantage for several communities in Erie County. The fiber optic backbone will be installed at or in multiple economic development sites within the County. These sites include the Buffalo Niagara Convention Center, Renaissance Commerce Park and the Agribusiness Park in Evans and can be seen in Figures 5, 6 and 7.

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FIGURE 6 - BUFFALO NIAGARA CONVENTION CENTER



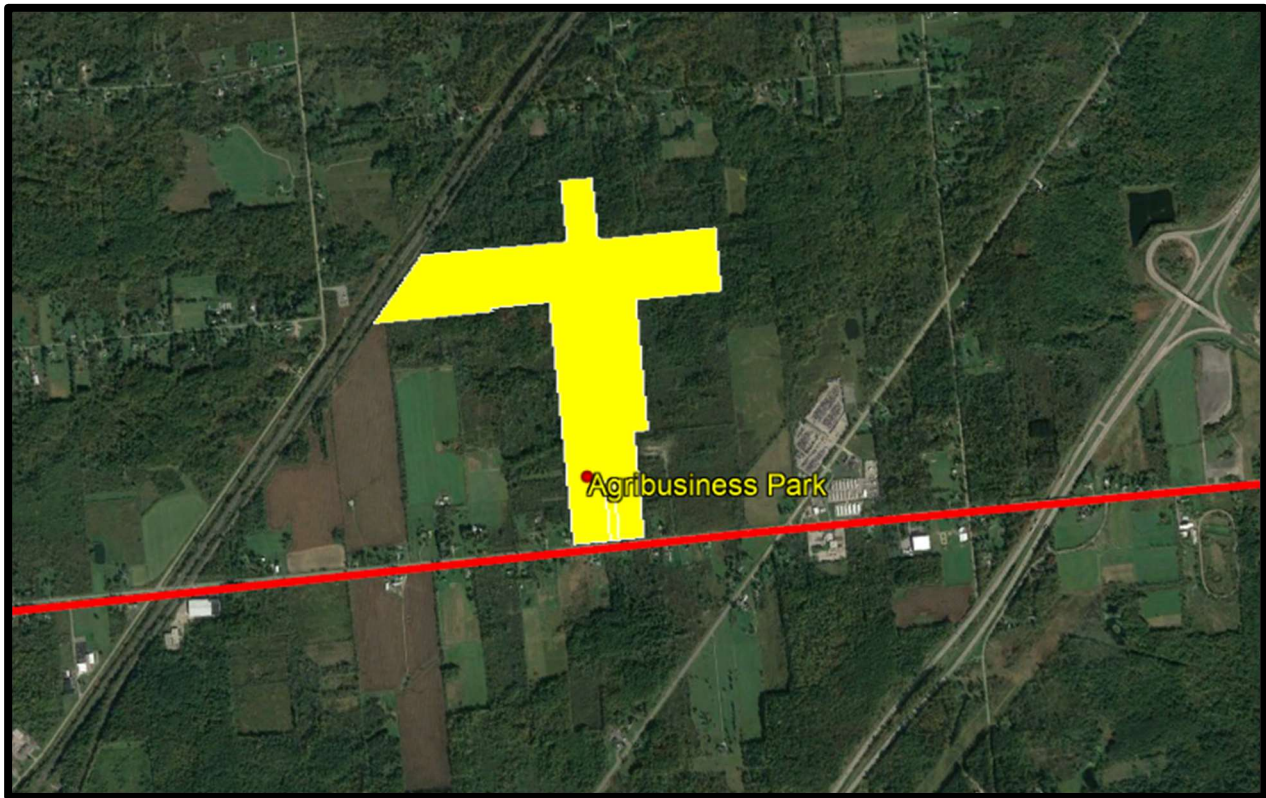
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FIGURE 7 - RENAISSANCE OFFICE PARK



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FIGURE 8 - EVANS AGRIBUSINESS PARK



“Technology–Led Development” will help ensure that more technology-based services and industries will develop and operate within Erie County. With new employers like the new call center and museum locating in the County, access to this type of technology will be vital. For these to be successful and remain in Erie County, high speed telecommunications must be available.

4.7 MUNICIPAL

Municipal entities within ErieNET are experiencing the same technology and bandwidth requirement issues as other communities across the state. There is an increasing need within the state, county, town, and village governmental departments to share information for public health, public safety, records management, property files and more. This is creating the need for wide area networking environments that can support high-capacity information flows.

As these applications continue to develop, collaboration between these entities is creating opportunities for efficiencies. Shared Geographical Information System files and centralized record keeping, among other applications, will transform the way municipal entities operate and do business.

ECC will collaborate with communities independently or collaboratively as the needs require, to define and document their Smart City goals. Applications to support traffic control, public safety, public utilities, information sharing, and others will be explored as to their ability to meet community goals.



ErieNET can benefit from open access fiber in the following ways:

- 1.) Consolidation of equipment and services yielding lower hardware costs, maintenance costs and labor related expenses.
- 2.) Ability to better manage data files, which also reduces costs associated with file sharing and backups.
- 3.) The provision of more cost-effective options for disaster recovery and continuity of government planning.
- 4.) The capability to explore new technologies which are not otherwise possible with the current network bandwidth configuration.

Figure 8 on the next page shows Municipal sites from which Erie County received letters of interest. Figure 9 represents City of Buffalo sites that could take advantage of the ErieNET Fiber.

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FIGURE 9 - MUNICIPAL SITES PROVIDING LETTERS OF INTEREST

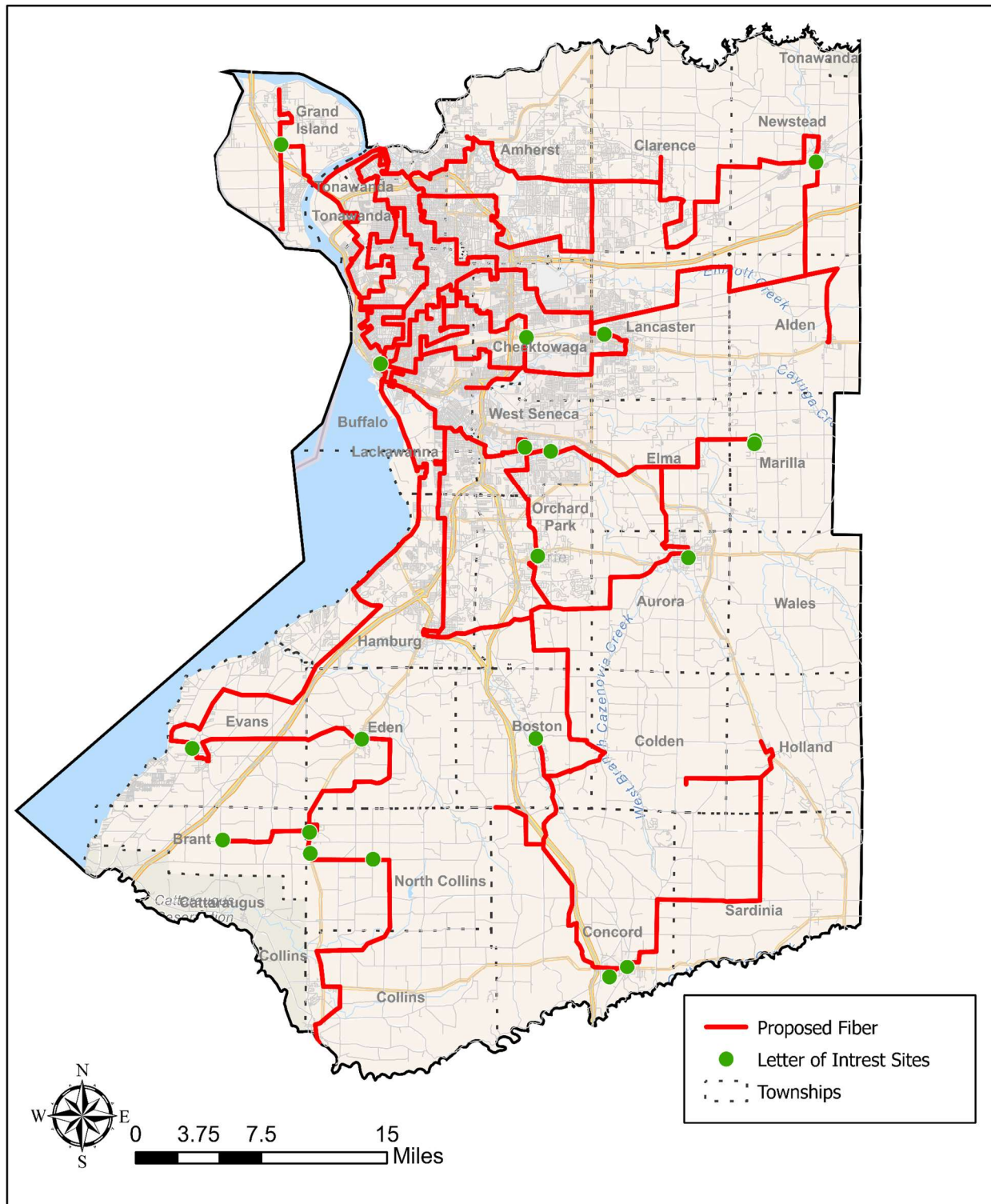
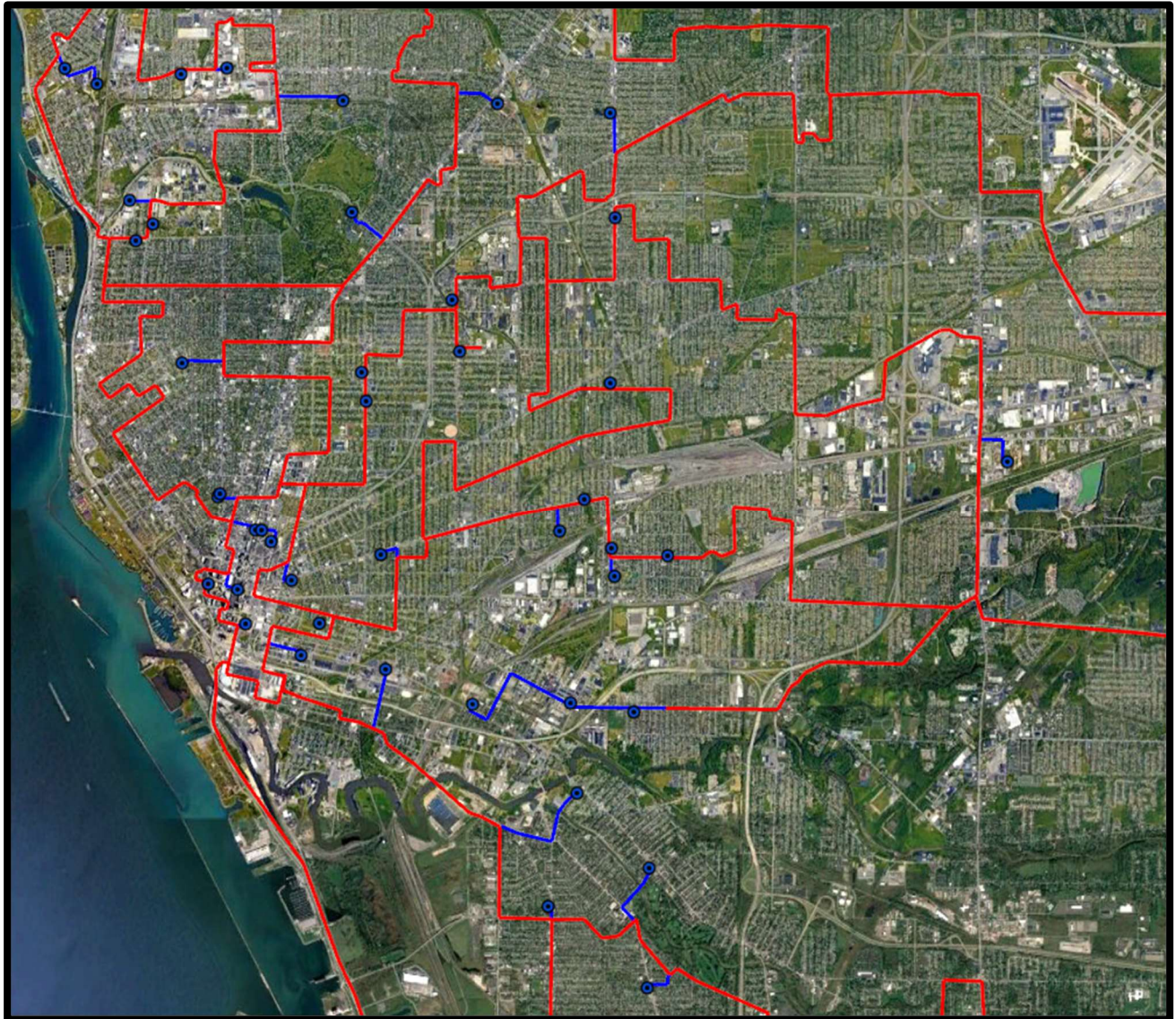


FIGURE 10 - CITY OF BUFFALO SITES NEAR ERIENET BACKBONE



In summary, Figure 10, on the next page shows 152 anchor sites including all Erie County anchor sites (black dots) including, county facilities, PSAPs, public safety towers, libraries, and IDA sites. The municipalities providing the County with letters of interest are identified by green dots. Blue dots represent City of Buffalo sites and University at Buffalo sites. ErieNET has ongoing discussions with both the University and the City on their short- and long-term network requirements and level of investment.

FIGURE 11 - ALL COUNTY ANCHOR, CITY OF BUFFALO, UB AND LOI SITES

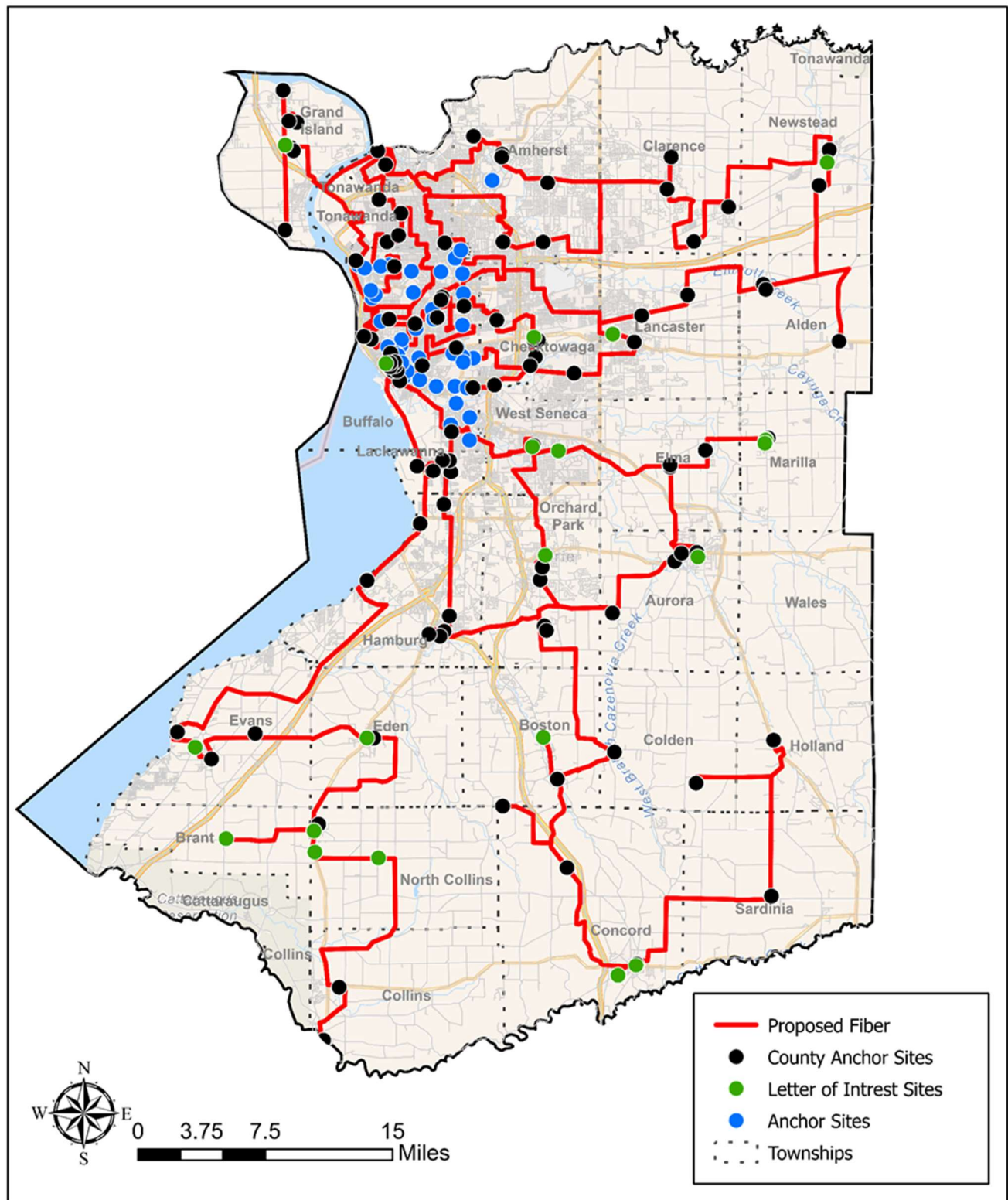


FIGURE 12 ERIENET WITH POTENTIAL PHASE 2 BUILD

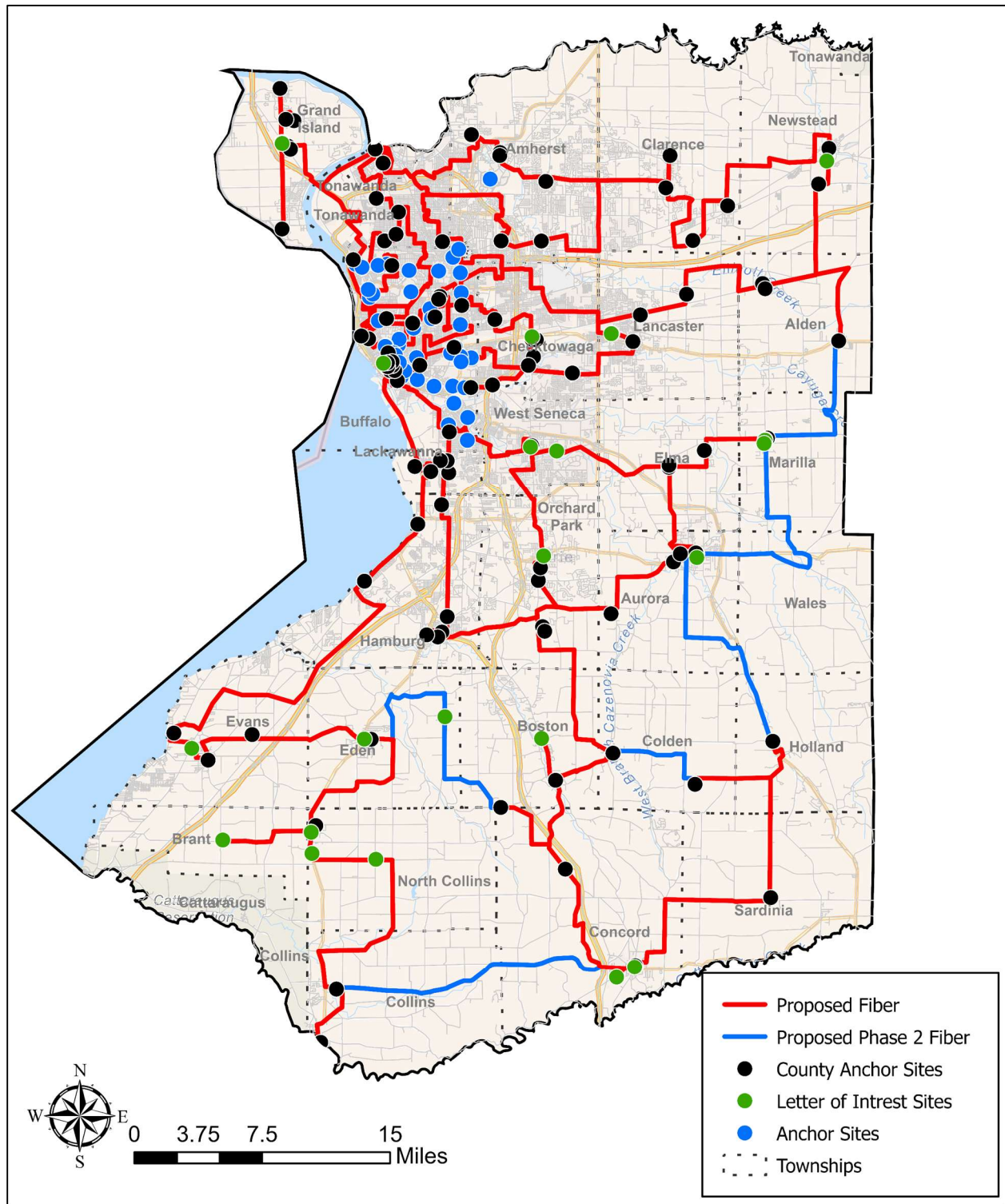




Figure 12, on the previous page, shows what potential future expansion of the network could be like to create additional rings for diversity and disaster recovery. The proposed Phase 2 construction would prove to be beneficial to public safety as the public safety towers, PSAPs and other emergency responder locations could be fed by a diverse pathway. If one span of fiber is damaged or cut, traffic could automatically reroute around the undamaged path ensuring communications remain fully functioning during a fiber break. The example Phase 2 routes, identified via blue lines in Figure 12, represent 54.1 miles of new fiber. The Phase 2 fiber has an anticipated one-time capital cost of \$4.3 million to build with an incremental operating expense anticipated at \$300K/year.

4.8 SERVICE PROVIDERS

Competitive Local Exchange Carriers (CLECs) will look at the fiber as an alternative to the incumbent's infrastructure to deliver services. Typically, incumbent infrastructure is expensive to lease and creates a barrier for regional CLEC to enter a rural market.

Cellular service providers, such as Verizon Wireless and T-Mobile, can also benefit from access to high bandwidth infrastructure through access points within the fiber network for availability to their tower locations. This is high bandwidth is required for their ability to provide generation 4G and 5G wireless technology in a service area.

4.8.1 Residential

Residential capacity requirements continue to be among the most rapidly growing across the telecommunications industry. Broadband access to residential customers is becoming a primary focus in the industry. In some of the more rural areas of the County, it is expected that the fiber optic backbone will allow service providers to expand into these areas in a cost-effective manner. An example of this is already underway with Greenlight expanding services into Erie County. ErieNET is also in initial discussions with Google for "last mile" opportunities.

4.8.2 Service Offering

It is the intent of ErieNET to provide turnkey dark fiber capacity in both Point to Point and Ring configurations. Included in this capacity is ready access to the fiber optic backbone via convenient co-locations (COLO's) and Point of Presence (POPs). ErieNET will seek to establish COLO's and POPs in villages, towns, and various strategic locations along the entire pathway of the fiber optic backbone. These COLO's and POPs will be made available to service providers who require access to the fiber meet points within a community.

Ring configurations - The fiber will be routed through some areas in a ring configuration. This configuration allows for two paths to and from any location along the fiber route. In a ring configuration, if the cable is cut in one direction the information re-routes in the opposite direction eventually arriving at its desired destination. The ring topology will be made possible by connections throughout the county.



Point to point configurations - The fiber along the backbone is configured with one start and one end point. If the fiber should be cut, the end points are down. Typically speaking this option is not desirable for users who demand high availability fault tolerant systems but is attractive to entities who want high bandwidth with low-cost solutions. Most business entities in the County will choose this configuration.

Additional service offerings that require lateral builds and last mile connections will be considered on a case-by-case basis.

4.9 CUSTOMER VALUE PROPOSITION

ErieNET fiber solutions will offer customers many benefits with Flexible Configuration Options - Point-to-Point, Route Diverse Ring/Single Drop, Route Diverse Ring/Dual Drops, Star Configuration, and Hybrid Custom Configurations.

High bandwidth at a fixed cost - Costs remain constant for the period of the lease. Customers control capacity via end user owned electronics installed on the ends of the fiber. This will be attractive to many of ErieNET customers. Every year bandwidth requirements are increasing and with that the costs paid to service providers. Since our fees are not capacity related, the customer creates their own bandwidth models transparent to ErieNET.

Security - Dark fiber system installed is for the customer's exclusive use, no other customer traffic will utilize the leased fiber strands. The fiber is not subject to security tapping such as those inherent in wireless and wire line technologies.

Survivability - ErieNET will use the highest grade of fiber optic cabling, making the customers network virtually error free. In addition, ring configuration will allow ErieNET fiber customers to establish diverse routing and redundancy providing a desirable fault tolerant networking environment for customers.

Control - Virtually unlimited bandwidth, ErieNET provides the customer with complete control over network expansion.

Bandwidth Speed - ErieNET will use the latest, state-of-the-art fiber optic facilities available; the backbone will support any technology developed for fiber infrastructure for the near future.

Broadband Compatibility - SONET, CWDN, DWDM, Gigabit, Ethernet, and Video technologies which are widely implemented throughout the network and can operate over ErieNET Fiber optic backbone. This provides investment protection to those technologies implemented and being used throughout the County.



Price Competition - ErieNET will offer a competitive price in comparison to local fiber providers operating in the County. Our pricing strategy will be attractive to service providers who desire to expand services throughout the County. We will provide cost effective capacity to remote areas where service providers have been unable to financially justify building in the past.

Through the various marketing activities listed above, ErieNET will communicate and sell the County's vision of the fiber system to potential users of the fiber optic backbone. In addition, identify the goals and needs of the users as related to the fiber optic backbone. Finally, to obtain support, and commitment from proposed users, both dark fiber and carrier based.

4.10 PRICING STRATEGY

ErieNET will consider using several pricing models as described below, including Indefeasible Rights of Use (IRU) and Leases. The fiber will be priced aggressively to encourage use of the fiber to expand service delivery to rural areas of the County.

4.10.1 Indefeasible Right of Use (IRU) Pricing

IRU's typically include a onetime price based upon the number of strands in the IRU and route miles. In addition, there is typically an annual maintenance fee based upon the number of strands leased. Lastly, there is typically an installation fee based upon individual case basis pricing. IRU's are typically longer term 20-30 years. IRU rates are typically priced differently for fiber in urban areas versus fiber in rural areas. It is estimated that 90% of IRU fiber sales is for 2, 4 and 6 strands. Sales of greater than 6 strands are rare. BEF stands for Building Entrance Facilities required for ErieNET fiber to access the building's network. Also, Individual Case Basis (ICB) pricing can be used to effectively IRU fiber in particular when the construction cost variables are present.

4.10.2 Lease Pricing

Lease agreements are typically 1-, 3-, 5- and 10-year arrangements. They have a monthly fee based upon the connection of two endpoints with 2 fibers sometimes referred to as a Span. There is typically an installation fee based upon ICB pricing.



5. OPERATIONAL DEVELOPMENT

The financial projections included with this plan are based on hypothetical assumptions that ErieNET will proceed with the development of a fiber optics based Open Access Network. ErieNET will provide the sources of revenue to finance the design, engineering, and construction of a municipal-based open access fiber optic backbone in Erie County.

Administration and operational support will be responsibility of the ErieNET and be provided to the private sector under support contracts.

Customer Service and Support will be provided via private sector support contracts. It is anticipated that this will be a 7 x 24-hour support program. The use of established 7 x 24 Call Center will be the focal point for support and service inquiries.

All moves, adds, and changes will be coordinated through the ErieNET marketing team. The Management Contractor will coordinate all service functions not related to break fix requests. It is anticipated that contracts with one or more qualified private companies will perform the physical moves, adds, and changes

Break fix will be coordinated through the ErieNET Operations manager and be tracked by the Call Center. The Operations Manager will coordinate all service functions related to break fix requests. It is anticipated that contracts with one or more qualified private companies will perform the physical testing and repair of facilities.

5.1 STAFFING REQUIREMENTS

ErieNET will need to establish and operate a limited personnel structure. The proposed method of developing, supporting, and managing the LDC and the fiber optic backbone through contract resources. It is expected that all professional services, maintenance, administration, and governance will be done using qualified companies currently under contract or as contracted by the ErieNET. It is anticipated that the County will select two members sit on the ErieNET Board and to participate as the managing agent to oversee the contract resources.

The ErieNET will need to provide operations, customer, and marketing support, troubleshooting, maintenance, and support services to operate and maintain a carrier class enterprise on a day-to-day basis.

This includes but is not limited to:

5.1.1 Operations Management

- 1.) Create and oversee operational processes. Processes shall be designed, documented, and updated regularly.



- 2.) Assist with budget development, forecasting and reporting on the ErieNET network and business.
- 3.) Develop and execute plans and procedures to achieve annual budget and sales targets
- 4.) Assure positive customer experiences
- 5.) Interface with the chosen ErieNET engineering and construction contractors to ensure installations are completed on time and within budget.
- 6.) Assure adherence by ErieNET to Service Level Agreements
- 7.) Execute key strategic initiatives as defined by the ErieNET and Board of Directors
- 8.) Prepare weekly, monthly, quarterly, and annual reports as required by the ErieNET and Board of directors.
- 9.) Coordinate with CFO to prepare invoicing, matching non-recurring costs with non-recurring revenue to adhere to ErieNET revenue and expense recognition policies.
- 10.)Interface with NYS Public Service Commission to prepare tariff filings, provide required documentation and maintain Certificate of Public Convenience and Necessity (CPCN) status, if applicable.
- 11.)Ensure that ErieNET maintains current records with Dig Safe New York and maintains an update filing with accurate plant information.
- 12.)Ensure that ErieNET maintains current records with Permits and New York (PERM75), as well as maintains an update filing and payment information.
- 13.)Define and recommend specific tools required for successful operations, enhance service levels and reliability, advance positive customer service experiences, and improve efficiencies in time and cost reduction.
- 14.)Work cooperatively with the ErieNET Engineering, Construction, Financial, Legal, and Marketing contractors as well as the ErieNET and Board of Directors.

5.1.2 Sales and Operations Administration

- 1.) Proactively attract new customer business by creating and implement sales plans to achieve budgeted revenue targets
- 2.) Respond to leads from potential enterprise and carrier-based clients
- 3.) Provide potential carrier clients with rate card, network diagrams, master agreement, service level agreement as required.



- 4.) Provide potential enterprise clients with rate card, network diagrams, master agreement, service level agreement, and contact list of official service providers offering services over the ErieNET Network.
- 5.) Coordinate with ErieNET Engineering to obtain cost estimates with which to develop proposals for potential clients.
- 6.) Develop and propose ErieNET based solutions to potential clients.
- 7.) Follow up with potential customers on outstanding proposals.
- 8.) Collect customer feedback and information to help improve the ability to obtain and retain customers.
- 9.) Negotiate master agreements, service agreements and lease agreements. Coordinate with ErieNET Legal Counsel as required.
- 10.) Administer client contracts, store, organize and retain contracts. Approach customers to obtain renewals in a timely fashion prior to contract expiration.
- 11.) Provide backed up storage and VPN access for key ErieNET entities for all critical documentation including copies of contracts, invoices, reports, tariff filings, customer records and as built drawings.
- 12.) Coordinate monthly billing with the ErieNET CFO. On a monthly basis, all relevant recurring and non-recurring billing information per customer shall be compiled and provided to the CFO for monthly invoicing of the ErieNET customer base.
- 13.) Establish a contact number for ErieNET customers to call to inquire about their invoices and service. Service hours for responding to customer billing inquiries shall be between 8:00AM and 5:00PM (EST) Monday through Friday except for nationally recognized holidays.

5.1.3 Customer Support Services (24/7)

- 1.) Provide customer technical support on a 24 x 7 basis to ErieNET customers to address service degradation and outage issues.
- 2.) Provide systems to respond to customer outages, service degradation and customer inquiries.
- 3.) Engage and coordinate ErieNET Engineering and fix agent as necessary to respond to alarm conditions and customer service calls.
- 4.) Track service calls and response time to outages.
- 5.) Provide customer support specific metrics to the CEO and Board of Directors on a monthly, quarterly, and annual basis.



5.1.4 Network Operations and Maintenance.

- 1.) Monitor the ErieNET network and respond to network alarms on a 24 x 7 basis. Coordinate with the appropriate ErieNET fix agent on a 24 x 7 basis to restore service to customer satisfaction in adherence with the ErieNET service level agreement.
- 2.) Respond to customer generated service degradation issues and outages on a 24 x 7 basis and oversee resolution to customer and ErieNET satisfaction through coordination with ErieNET fix agents.
- 3.) Coordinate with ErieNET Engineering to establish and implement regular maintenance procedures to maximize network availability and minimize service degradation.
- 4.) Provide technical support to clients in troubleshooting dark fiber service affecting issues.
- 5.) Confirm resolution of all problems
- 6.) Record and track all relevant service outage data, response times, and trouble resolution.
- 7.) As part of initiative-taking maintenance, track and record all service degradation issues and coordinate ErieNET fix agents to remedy these issues.
- 8.) Provide and implement recommended process improvements to minimize service degradation and outages.
- 9.) Coordinate with all ErieNET vendors to insure maximum network availability and performance.
- 10.) Provide detailed network performance and maintenance record reports to the ErieNET and Board of directors on a monthly, quarterly, and annual basis.

5.1.5 Performance Standards:

- 1.) Average Response Time to service outages shall be 2 hours or less per year.
- 2.) Average Repair Time to service outages shall be 4 hours or less per year.
- 3.) Outages will be documented with cause breakdown and process improvement recommendation and implementation to maximize service uptime.
- 4.) Invoice data shall be prepared and submitted to the CFO by the first day of each calendar month.
- 5.) Average response to customer inquiries for service shall be equal to or less than 2 business days.
- 6.) Average time from response to inquiry for service to estimate shall be five business days or less.
- 7.) Operational reports including service outage and response data, network maintenance, and sales performance data shall be provided to the CEO monthly, quarterly, and annually as determined by the CEO and Board of Directors.
- 8.) Required Public Service Commission and FCC reports and filings shall be completed on time.



ErieNET will need to develop a partnership with support organizations for construction, management, and operational functions of the fiber backbone. This and other essential information were provided in ECC's Final Report and continuing communication on the project. These arrangements will operate and manage the overall network for Erie County.

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5.2 CAPITAL COSTS

The capital construction costs for this project includes the following key categories: Outside Plant network Design and Engineering, Make Ready, Make Ready Management, Path and Permitting costs, Path and Permit Administration, Rights of Way, Construction Material and Labor, Construction Management, Point of Presence (POP) Design, POP Material and Labor, POP Construction Management and finally Building Entrance Facilities design, materials, and construction. The breakdown of the projected \$29 million capital spend is outlined in Table 10 below.

TABLE 8 - CAPITAL BREAKDOWN BY CATEGORY

ERIENET OPEN ACCESS DARK FIBER NETWORK			
ECC TECHNOLOGIES, INC.			
BACKBONE CONSTRUCTION		PERCENT OF TOTAL	
Fiber Miles		394.5	
Design and Engineering (Fiber Optic Backbone)	\$	1,222,101	4.2%
Make Ready	\$	3,646,926	12.6%
Make Ready Management	\$	347,005	1.2%
Path and Permitting fees	\$	3,157,054	10.9%
Path and Permit Administration	\$	334,950	1.2%
Right of Way (Easements)	\$	351,857	1.2%
Construction Material & Labor	\$	17,272,961	59.5%
Construction Management	\$	745,569	2.6%
POP setup (Network and Access Equipment)	\$	750,412	2.6%
Building Engineering	\$	51,713	0.2%
Building PM	\$	51,713	0.2%
BEF Connections for Government & LOI	\$	1,089,840	3.8%
Total	\$	29,022,101	100%

The overall construction is expected to take upwards of 4 years from project initiation. Capital spend timing is outlined in Table 11 below.

TABLE 9 - CAPITAL SPEND TIMING

	Year 1	Year 2	Year 3	Year 4
	5%	35%	40%	20%
Network Capital Spend	\$ 1,451,105	\$ 10,157,735	\$ 11,608,840	\$ 5,804,420
Accumulated Capital Network	\$ 1,451,105	\$ 11,608,840	\$ 23,217,680	\$ 29,022,100



5.3 OPERATIONAL COSTS

The annual operational costs of the municipal based Open Access Fiber Backbone are expected to be approximately 7.4% of the build cost of the backbone. This cost includes Administration, Network Operations, Maintenance, Pole Attachment fees, and Marketing and Support costs. Adding an average annual expense of \$672k for cost of goods sold, the total annual Operating Expense is estimated at 9.7% of the original build cost of the network. A 3% annual cost of living expense has been incorporated into the model.

TABLE 10 - ANNUAL OPERATING EXPENSE BREAKDOWN

OPERATING EXPENSE ASSUMPTIONS			
	CATEGORY	ANNUAL EXPENSE	PCT of OPEX
5100 - Cost of Sales and Installation (COGS)		\$ 672,190	
6100 - Administrative Costs		\$ 370,855	17.3%
6200 - Support Services (Marketing and Sales)		\$ 499,338	23.3%
6300 - Insurance Expense		\$ 31,713	1.5%
6400 - Pole Attachment Fees		\$ 212,141	9.9%
6500 - Line Maintenance (Network Maintenance, Response, and Repair)		\$ 390,458	18.3%
6600 - Network Operations		\$ 412,414	19.3%
6700 - POP Maintenance and Support		\$ 222,326	10.4%
Annual Costs without COGS		\$ 2,139,243	100.0%
Annual Costs with COGS		\$ 2,811,433	



5.4 FUNDING MODELS

A grant / loan-based funding model will be required to support this program if current allocated funds are not adequate to support the overall build, POPs, and required expansions relating to providing services from sales. It is anticipated that revenue-based funds can fully support the development of this initiative. The selection of this model is based on several factors, the primary one being that the long-term sustainability of the fiber backbone is met by the revenues received for services. With the understanding that the County must fund this project with Bonds, Grant, and other sources at its disposal, ErieNET will seek to secure commitments for users of the proposed fiber optic backbone to support the long-term operations of the fiber.

Erie County has earmarked \$34,000,000 in ARPA funds to cover capital construction costs and operational overhead until the network generates enough revenue to be sustainable.

Erie County has designated General Funds of \$2.8 million to cover the ErieNET design and construction management costs.

TABLE 11 - SOURCE OF FUNDS

SOURCE OF FUNDS:	2022	2023	2024	2025	2026
County Commitment through ARPA Funds	\$ 34,000,000	\$ -	\$ -	\$ -	\$ -
County General Fund (Design Costs)	\$ 1,400,000	\$ 1,400,000	\$ -	\$ -	\$ -
Total	\$ 35,400,000	\$ 1,400,000	\$ -	\$ -	\$ -

ErieNET will be required to make up any deficits in the operations of the fiber backbone until such point that the revenues exceed the cost of operations. Operating expenses are expected to be covered over the first (5) years by the \$7.8 million in funds remaining from the construction build. The initial investment will be supported by long term Inter Municipal Agreements, Indefeasible Right of Use Agreements, and Agreement of Use Contracts. These contracts are expected to provide sufficient revenue and justification for the funding and placement of the funds required to support this project.



6. GOVERNANCE AND RESPONSIBILITIES

The main objective of the ErieNET is to oversee and direct the operations and marketing effort of the fiber optic backbone to new and existing businesses and public entities throughout Erie County. A keen focus on developing economic efficiencies for all users. It is therefore important that the community at large understand the resources that the fiber optic backbone makes available to the County residents. It needs to make sure “the word gets out” and educate the people and entities through seminars, media interviews, and one-on-one meetings along with be responsible for various day to day activities associated with the successful life of the fiber optic backbone.

6.1 ASSUMPTIONS

- 1.) A Legal Development Corporation (LDC) is the preferred entity to manage the fiber optic backbone.
- 2.) The project will operate under the LDC 501 (3), not for profit entity and will not become a regulatory issue with NYS or FCC.
- 3.) ErieNET may be required to file for or receive a CPCN or become regulated unless it is required for a specific customer base, such as may be needed to support E-rate programs for educational entities.
- 4.) ErieNET will need to provide operations, customer, and marketing support, troubleshooting, maintenance, and support services to operate and maintain the fiber
- 5.) ErieNET will negotiate, and secure Pole Attachment Agreements, Conduit Agreements, and other Right of Ways as required.
- 6.) ErieNET will enter into legally binding agreements with customers to lease or IRU network fiber optic strands.
- 7.) ErieNET will need to establish invoicing and accounting methods and procedures.

6.2 ORGANIZATION DEVELOPMENT (LDC)

Given the stated mission of the “Technology- Led Development” proposal, the most useful form for the enterprise would be a Local Development Corporation. The operations of the LDC will be controlled by a Board of Directors, the size, compensation, and composition of which will be set forth in the By-laws. The other provisions of the By-laws will govern the timing of meetings, the election and replacement of directors, the duties of officers elected by the board and any special committees such as community and advisory groups.



There are additional aspects of the LDC worth noting. Because LDCs are formed for the public interest, it is subject to Freedom of Information and the Open Meetings Law. It is not subject to Franchise Tax, nor are its mortgages generally subject to the tax on mortgages.

LDCs may qualify as 501(c)(3) organizations based on a demonstration that they “lessen the burden of government” or promote social welfare, by rendering services to commercial business and to make investments in the community, thereby lessening unemployment. Otherwise, they would still enjoy an exemption under 501(c) (6) as a business league or trade association.

The taxation of the activities of the LDC or the responsibility to collect tax from the users of the fiber optic backbone will depend on the actual services and providers of those services. If the model remains a “dark fiber” network which is then “lit” by the telecommunication providers or companies providing their own signal, the LDC will not be providing telecommunication services subject to taxes or state-imposed fees.

However, a New York State Department of Transportation (DOT) permitting requirement that became effective in November 2020, PERM 75, authorizes the DOT to enact a “use and occupancy fee” on fiberoptic cable that run along state-owned rights-of-way (ROW). These fees have been included in this model.

This general statement regarding taxes and state-imposed fees must be reexamined as the project goes forward and the service providers and customers define their need and use of the fiber optic backbone.

The main objective of the LDC will be to oversee and direct the marketing effort of the fiber optic backbone to new and existing businesses and public entities throughout the County with a keen focus on developing economic efficiencies for all users. It is therefore important that the community at large understand the resources that the fiber optic backbone makes available to the County businesses and residents. It will be the LDC’s task to make sure “the word gets out” and educate the people and entities of Erie County through seminars, media interviews, and one on one meetings.

To date the Erie County Legislature has approved the creation of ErieNET as a local development corporation.

In addition, the County has secured the following domain names for the LDC.

- 1.) ErieNET.gov
- 2.) ErieNET.org
- 3.) ErieNET.com



6.2.1 Additional Responsibilities

In addition to the marketing effort, the LDC will also be responsible for various day to day activities associated with the successful life of the fiber optic backbone. As before many of these activities will be subcontracted. These responsibilities include:

- 1.) Funding the fiber optic backbone
- 2.) Provide single point of contact for all issues
- 3.) Oversee daily operations and maintenance including 24 X 7 network availability
- 4.) Execute directives from the Board of Supervisors
- 5.) Sign up new members
- 6.) Develop and execute end-user and carrier contract documents
- 7.) Initiate and establish fiber swap opportunities with carriers and private owners
- 8.) Coordinate connection schedules, fiber configuration, and establish location priorities
- 9.) Negotiate right of ways
- 10.) Provide business interface relationships with third party contractors for construction, implementation, new customer connections, and maintenance.
- 11.) Provide a means with which to invoice, collect and record financial transactions.
- 12.) Document standard operating procedures for all critical processes.

The most effective strategy for managing this LDC will be through the creation of a local Board of Directors, which is defined by the County Legislature. The County Legislature, which will oversee the LDC board of directors, represents each town in the County whereby ensuring that all communities within the County are represented. It is expected that no more than four (4) or five (5) board members will be assigned to sit on the LDC board of directors. It is expected that Directors will be made up of representatives from the County, City, Education, Healthcare, and key businesses. The term and conditions are to be defined by the Legislature.

6.3 REGULATORY RISKS AND REQUIREMENTS

Regulation of the telecommunications industry is constantly changing. Existing and future federal, state, and local governmental regulations will greatly influence the viability of municipal based programs such as this. Consequently, undesirable regulatory changes enacted by legislation, such as New York States PERM 75 could adversely affect business, financial conditions, and desired expansion of this network to support private and economic partnerships.



ErieNET's dark fiber services are subject to common carrier regulation by the New York State Public Service Commission (Perm 75), the Federal Communications Commission ("FCC"), or under the common carrier provisions of the Communications Act of 1934, as amended (the "Communications Act"). NYS has announced that state right of way charges will be waived for state and municipal broadband infrastructure; and so the ErieNET financial model does not include these charges.

The FCC has recognized a class of private, non-common fiber networks whose practice is to make individualized decisions on what terms and with whom to deal. These networks are not currently extensively regulated. Additionally, private carriers may include those that provide "Private line telecommunications" for a fee as defined in the 1996 Act, which may or may not include certain service offerings. In the event the County becomes subject to the Utilities Commission and FCC's jurisdiction, it will be required to comply with several regulatory requirements, including but not limited to, rate regulation, reporting requirements, special payments including universal service assessments, and access charges. Compliance with these regulatory requirements may impose substantial administrative burdens on the County.

Having the K-12 school districts and libraries as subscribers will also require that ErieNET become an E-rate/Universal Service Fund Service Provider in order for schools and libraries to receive discount funds from the E-rate Universal Service Fund (USF).

6.4 STATE AND NATIONAL CULTURE

The impact of Covid-19 on the nation brought to light the critical importance of good high speed broadband connections. With people required to stay home, conducting virtual meetings, remote medical visits, online classroom education for students even ordering groceries online became a necessary to live to minimize the spread of the disease. The FCC definition of broadband delivering speeds of a minimum of 25Mbps downstream and 3 Mbps upstream. However, the FCC is planning to raise this minimum to 100/20Mbps.

In November 2021, a 1 trillion infrastructure bill was passed in the United States. The legislation provides a \$65 billion investment in improving the nation's broadband infrastructure. It also aims to help lower the price households pay for internet service by requiring federal funding recipients to offer a low-cost affordable plan, by creating price transparency and by boosting competition in areas where existing providers aren't providing adequate service. It will also create a permanent federal program to help more low-income households access the internet, according to the White House fact sheet.

The Infrastructure Bill broadband funds are being overseen by the Commerce Department and its telecom division the National Telecommunications and Information Administration (NTIA) which is responsible for making grants to states.



The New York State ConnectALL initiative will be the largest-ever investment in New York's digital infrastructure. The goal is for all New Yorkers have affordable, reliable broadband statewide. Capitalizing on over \$1 billion in new public and private investments, ConnectALL will provide affordable broadband access to New Yorkers in rural and urban areas statewide and continue New York State's leadership on connectivity. The program is implementing the first-of-its-kind interactive broadband map to support consumer decision-making and identify areas for investment. Through the program, New York State will create new grant programs and partnerships to expand broadband access, affordability, and equity. Also, New York State plans to remove State fees, outdated regulations on ConnectALL grants to support growth of broadband in rural and underserved areas.

6.5 RIGHT-OF-WAY AND PATHWAY STRUCTURES

Right of Way (ROW) and pathway structures give the County ability to achieve its strategic objectives that will depend in large part upon the successful, timely, and cost-effective installation of the dark fiber.

Construction of fiber could be impacted by factors such as:

- 1.) Obtaining adequate ROWs on acceptable terms in target areas.
- 2.) Obtaining required favorable funding for the fiber

In order to construct the fiber optic backbone, the County will be required to obtain rights-of-way and other permits from third parties to install fiber optic cables, including private landowners, transportation authorities, and others. The County is unable to predict with certainty the cost of obtaining the necessary ROWS. Typical pole and conduit use agreements with existing utilities are generally regulated via tariffs filed with the by the NYS Public Service Commission and are estimated in the financial assumptions and models. ROWS which involve private land use, easements, and inter-municipal agreements will be identified and addressed as the project progresses.

6.6 CONTRACTS

Erie County will be establishing user contracts with industry acceptable contract forms and formats such as Indefeasible Rights to Use (IRUs), Inter-municipal Agreements, and Fiber Use Agreements. Municipal entities such as schools, towns, villages, and public safety organizations will use the Inter-municipal agreements. Carriers and service providers will seek to use 20+ year Indefeasible Right to Use instruments, and enterprise customers such as corporations will use the 1-to-5-year Fiber Use agreements.



6.7 EXIT STRATEGIES

Erie County will have several options for an Exit Strategies. Each option will have impacts and legal challenges on taxation and/or privatization to name a few. Traditional methods such as corporate and/or private mergers and acquisitions may be available options but will need to be researched at the time of consideration.

- 1.) Likely strategies will include but are not limited to:
- 2.) Sale of the fiber network to a subsidiary.
- 3.) Sale of the fiber network to an incumbent or broadband service provider.
- 4.) Sale or donation of the fiber to a community-based initiative.
- 5.) Integration with larger regional or statewide initiative such as NYS DPS, other Open Access Networks, or may be undertaken by an electric co-op or other like entity.

Each of these strategies could include the sale of excess capacity only whereby Erie County maintains the ownership of the cable but sells all excess capacity to a third party who sells, leases, and otherwise performs the commercialization of the asset outside the umbrella of the Erie County structure. This would be most effectively performed via an IRU.



7. FINANCIAL PROJECTIONS

These financial projections are based on hypothetical assumptions that ErieNET will proceed with the development of a fiber optics based Open Access Network. The preferred governance of the Network will be through a pre-establish Local Development Corporation which has 501-c-3 status.

ErieNET will utilize existing funding in support of this build, marketing and maintenance going forward. Any additional funding can be obtained in grants, bonds, or other sources of revenue to finance the design, engineering, and construction of a municipal-based open access fiber optic backbone in Erie County. This network itself can be self-supporting and provide services into the future.

The fiber optic backbone will cost approximately \$ million and be 394 miles in total length. Principal routing will connect all viable municipal entities as well as key business, educational and healthcare entities. It will be available or open to any viable entity within the County that wishes to use it. ErieNET will contract with the private sector for operating and administrative services.

As mentioned throughout this document, Pathways, Permits, Engineering, Points of Presence, Make-Ready, and overall Construction of this network is its primary actions for financial security of this project. Revenues from this build will come with Carrier and Enterprise customers. Each customer will be specifically identified and has provided either written letters of intent or verbal commitments to lease space on the fiber optic backbone. The projection assumes that Carrier and Enterprise revenues are assumed to grow at 4% following the projections.

Based upon projections, in years one through five the model shows a greater expenditure than revenue generated as to be expected with any new business venture. However, revenues begin to exceed costs in year 6 whereby the project becomes self-sustaining.

In the following pages, the model's projected Income Statement, Statement of Cash Flows and Balance sheet can be viewed.



TABLE 12 - ERIENET STATEMENT OF INCOME

ErieNET Statement of Income	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenues										
Carrier Lease	\$ -	\$ 19,500	\$ 223,500	\$ 484,500	\$ 736,500	\$ 966,000	\$ 1,129,500	\$ 1,228,500	\$ 1,320,000	\$ 1,384,500
Carrier Maintenance	\$ -	\$ 975	\$ 11,175	\$ 24,225	\$ 36,825	\$ 48,300	\$ 56,475	\$ 61,425	\$ 66,000	\$ 69,225
County Government Lease	\$ -	\$ 16,000	\$ 276,000	\$ 625,000	\$ 892,000	\$ 912,000	\$ 912,000	\$ 912,000	\$ 912,000	\$ 912,000
County Government Maintenance	\$ -	\$ 800	\$ 13,800	\$ 31,250	\$ 44,600	\$ 45,600	\$ 45,600	\$ 45,600	\$ 45,600	\$ 45,600
Enterprise Lease	\$ -	\$ 40,000	\$ 564,000	\$ 1,190,250	\$ 1,753,500	\$ 2,257,500	\$ 2,689,500	\$ 2,941,500	\$ 3,013,500	\$ 3,049,500
Enterprise Maintenance	\$ -	\$ 2,000	\$ 28,200	\$ 59,513	\$ 87,675	\$ 112,875	\$ 134,475	\$ 147,075	\$ 150,675	\$ 152,475
Colocation Revenue	\$ -	\$ 2,800	\$ 14,350	\$ 18,725	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000
Installation Revenue	\$ -	\$ 215,000	\$ 575,000	\$ 530,000	\$ 515,000	\$ 450,000	\$ 375,000	\$ 135,000	\$ 70,000	\$ 65,000
Cost Avoidance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Reserve/Contribution	\$ -									
Total Revenues	\$ -	\$ 297,075	\$ 1,706,025	\$ 2,963,463	\$ 4,087,100	\$ 4,813,275	\$ 5,363,550	\$ 5,492,100	\$ 5,598,775	\$ 5,699,300
Expenses:										
New Business COGS (Commissions)	\$ -	\$ 220,752	\$ 590,383	\$ 544,179	\$ 528,778	\$ 462,039	\$ 385,033	\$ 138,612	\$ 71,873	\$ 66,739
Administrative costs	\$ 92,714	\$ 185,428	\$ 370,855	\$ 381,981	\$ 393,440	\$ 405,244	\$ 419,427	\$ 434,107	\$ 449,301	\$ 465,026
Support Services	\$ -	\$ 257,159	\$ 499,338	\$ 514,318	\$ 529,747	\$ 545,640	\$ 562,009	\$ 578,869	\$ 596,235	\$ 614,122
Network Operation	\$ -	\$ 206,207	\$ 412,414	\$ 424,786	\$ 437,530	\$ 450,656	\$ 464,175	\$ 478,100	\$ 492,443	\$ 507,217
Line Maintenance	\$ -	\$ 195,229	\$ 390,458	\$ 402,171	\$ 414,236	\$ 426,663	\$ 439,463	\$ 452,647	\$ 466,227	\$ 480,214
Pole Attachment Fees	\$ 53,035	\$ 106,070	\$ 212,141	\$ 218,505	\$ 225,060	\$ 231,812	\$ 239,925	\$ 248,322	\$ 257,014	\$ 266,009
NYS ROW Fees	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
POP Maintenance and Support	\$ -	\$ 111,163	\$ 222,326	\$ 228,996	\$ 235,866	\$ 242,942	\$ 251,445	\$ 260,245	\$ 269,354	\$ 278,781
Insurance	\$ 31,713	\$ 31,713	\$ 31,713	\$ 32,664	\$ 33,644	\$ 34,653	\$ 35,866	\$ 37,121	\$ 38,421	\$ 39,765
Total Costs and Expenses	\$ 177,461	\$ 1,313,720	\$ 2,729,627	\$ 2,747,600	\$ 2,798,301	\$ 2,799,648	\$ 2,797,343	\$ 2,628,025	\$ 2,640,867	\$ 2,717,874
EBITDA	\$ (177,461)	\$ (1,016,645)	\$ (1,023,602)	\$ 215,863	\$ 1,288,799	\$ 2,013,627	\$ 2,566,207	\$ 2,864,075	\$ 2,957,908	\$ 2,981,426
Depreciation	\$ -	\$ 78,023	\$ 537,763	\$ 1,051,367	\$ 1,331,400	\$ 1,373,215	\$ 1,408,062	\$ 1,420,607	\$ 1,427,111	\$ 1,433,151
Total Operating Expense	\$ 177,461	\$ 1,391,743	\$ 3,267,390	\$ 3,798,967	\$ 4,129,701	\$ 4,172,863	\$ 4,205,405	\$ 4,048,631	\$ 4,067,978	\$ 4,151,025
Earnings Before Interest and Taxes (Operating Income)	\$ (177,461)	\$ (1,094,668)	\$ (1,561,365)	\$ (835,504)	\$ (42,601)	\$ 640,412	\$ 1,158,145	\$ 1,443,469	\$ 1,530,797	\$ 1,548,275
Interest Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Income Before Taxes	\$ (177,461)	\$ (1,094,668)	\$ (1,561,365)	\$ (835,504)	\$ (42,601)	\$ 640,412	\$ 1,158,145	\$ 1,443,469	\$ 1,530,797	\$ 1,548,275
Property Tax	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Income Taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Income	\$ (177,461)	\$ (1,094,668)	\$ (1,561,365)	\$ (835,504)	\$ (42,601)	\$ 640,412	\$ 1,158,145	\$ 1,443,469	\$ 1,530,797	\$ 1,548,275



TABLE 13 – ERIENET STATEMENT OF CASH FLOWS

ErieNET Statement of Cash Flows	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Beginning Cash	\$ -	\$ 33,771,434	\$ 23,497,587	\$ 9,529,363	\$ 2,709,563	\$ 2,801,965	\$ 3,770,197	\$ 5,465,241	\$ 8,015,698	\$ 10,810,989
CASH FLOWS FROM OPERATING ACTIVITIES:										
Net Income	\$ (177,461)	\$ (1,094,668)	\$ (1,561,365)	\$ (835,504)	\$ (42,601)	\$ 640,412	\$ 1,158,145	\$ 1,443,469	\$ 1,530,797	\$ 1,548,275
Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities										
Add: Depreciation	\$ -	\$ 78,023	\$ 537,763	\$ 1,051,367	\$ 1,331,400	\$ 1,373,215	\$ 1,408,062	\$ 1,420,607	\$ 1,427,111	\$ 1,433,151
Add: Amortization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Changes in Current Assets and Liabilities:										
Marketable Securities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Inventory	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Prepayments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Cash Provided (Used) by Operations	\$ (177,461)	\$ (1,016,645)	\$ (1,023,602)	\$ 215,863	\$ 1,288,799	\$ 2,013,627	\$ 2,566,207	\$ 2,864,075	\$ 2,957,908	\$ 2,981,426
CASH FLOWS FROM INVESTING ACTIVITIES:										
Capital Expenditures Backbone	\$ 1,451,105	\$ 10,157,735	\$ 11,608,840	\$ 5,804,420	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Expenditures Connects	\$ -	\$ 499,467	\$ 1,335,783	\$ 1,231,243	\$ 1,196,397	\$ 1,045,395	\$ 871,163	\$ 313,619	\$ 162,617	\$ 151,002
Amortizable Asset (Net of Amortization)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Long-Term Investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Cash Used by Investing Activities	\$ 1,451,105	\$ 10,657,202	\$ 12,944,623	\$ 7,035,663	\$ 1,196,397	\$ 1,045,395	\$ 871,163	\$ 313,619	\$ 162,617	\$ 151,002
CASH FLOWS FROM FINANCING ACTIVITIES:										
Notes Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Principal Payments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
New Borrowing	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Paid-in Capital	\$ 35,400,000	\$ 1,400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additions to Patronage Capital Credits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Payment of Dividends	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Cash From by Financing Activities	\$ 35,400,000	\$ 1,400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Cash	\$ 33,771,434	\$ (10,273,846)	\$ (13,968,224)	\$ (6,819,800)	\$ 92,402	\$ 968,232	\$ 1,695,045	\$ 2,550,457	\$ 2,795,291	\$ 2,830,425
Ending Cash	\$ 33,771,434	\$ 23,497,587	\$ 9,529,363	\$ 2,709,563	\$ 2,801,965	\$ 3,770,197	\$ 5,465,241	\$ 8,015,698	\$ 10,810,989	\$ 13,641,414



TABLE 14 - ERIENET BALANCE SHEET - ASSETS

ErieNET Balance Sheet - Assets	Year	Year	Year	Year	Year	Year	Year	Year	Year	Year
	1	2	3	4	5	6	7	8	9	10
Assets										
<i>Current Assets</i>										
Cash	\$ 33,771,434	\$ 23,497,587	\$ 9,529,363	\$ 2,709,563	\$ 2,801,965	\$ 3,770,197	\$ 5,465,241	\$ 8,015,698	\$ 10,810,989	\$ 13,641,414
Marketable Securities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Accounts Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Receivable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Inventory	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Prepayments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current Assets	\$ 33,771,434	\$ 23,497,587	\$ 9,529,363	\$ 2,709,563	\$ 2,801,965	\$ 3,770,197	\$ 5,465,241	\$ 8,015,698	\$ 10,810,989	\$ 13,641,414
<i>Non-Current Assets</i>										
Long-Term Investments	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Amortizable Asset (Net of Amortization)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plant in Service (Construction)	\$ 1,451,105	\$ 11,608,840	\$ 23,217,680	\$ 29,022,100	\$ 29,022,100	\$ 29,022,100	\$ 29,022,100	\$ 29,022,100	\$ 29,022,100	\$ 29,022,100
Less: Accumulated Depreciation	\$ -	\$ 58,044	\$ 522,397	\$ 1,451,104	\$ 2,611,988	\$ 3,772,872	\$ 4,933,756	\$ 6,094,640	\$ 7,255,524	\$ 8,416,408
Plant in Service (Laterals)	\$ -	\$ 499,467	\$ 1,835,249	\$ 3,066,492	\$ 4,262,889	\$ 5,308,284	\$ 6,179,446	\$ 6,493,065	\$ 6,655,682	\$ 6,806,683
Less: Accumulated Depreciation	\$ -	\$ 19,979	\$ 93,389	\$ 216,048	\$ 386,564	\$ 598,895	\$ 846,073	\$ 1,105,796	\$ 1,372,023	\$ 1,644,290
Net Plant	\$ 1,451,105	\$ 12,030,284	\$ 24,437,143	\$ 30,421,440	\$ 30,286,437	\$ 29,958,616	\$ 29,421,717	\$ 28,314,729	\$ 27,050,235	\$ 25,768,085
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Non-Current Assets	\$ 1,451,105	\$ 12,030,284	\$ 24,437,143	\$ 30,421,440	\$ 30,286,437	\$ 29,958,616	\$ 29,421,717	\$ 28,314,729	\$ 27,050,235	\$ 25,768,085
Total Assets	\$ 35,222,539	\$ 35,527,871	\$ 33,966,506	\$ 33,131,002	\$ 33,088,402	\$ 33,728,813	\$ 34,886,958	\$ 36,330,427	\$ 37,861,224	\$ 39,409,499



TABLE 15 - ERIENET BALANCE SHEET - LIABILITIES

ErieNET										
Balance Sheet - Liabilities and Owners' Equity										
	1	2	3	4	5	6	7	8	9	10
Liabilities										
<i>Current Liabilities</i>										
Accounts Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Current Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Current Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Long-Term Liabilities</i>										
Long Term Notes Payable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Long Term Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Long-Term Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Liabilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Owner's Equity										
Capital Stock	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Additional Paid-In Capital	\$ 35,400,000	\$ 36,800,000	\$ 36,800,000	\$ 36,800,000	\$ 36,800,000	\$ 36,800,000	\$ 36,800,000	\$ 36,800,000	\$ 36,800,000	\$ 36,800,000
Retained Earnings	\$ (177,461)	\$ (1,272,129)	\$ (2,833,494)	\$ (3,668,998)	\$ (3,711,598)	\$ (3,071,187)	\$ (1,913,042)	\$ (469,573)	\$ 1,061,224	\$ 2,609,499
Total Equity	\$ 35,222,539	\$ 35,527,871	\$ 33,966,506	\$ 33,131,002	\$ 33,088,402	\$ 33,728,813	\$ 34,886,958	\$ 36,330,427	\$ 37,861,224	\$ 39,409,499
Total Liabilities and Owner's Equity	\$ 35,222,539	\$ 35,527,871	\$ 33,966,506	\$ 33,131,002	\$ 33,088,402	\$ 33,728,813	\$ 34,886,958	\$ 36,330,427	\$ 37,861,224	\$ 39,409,499



8. APPENDICES – OPERATING AGREEMENTS



8.1 CERTIFICATE OF INCORPORATION

CERTIFICATE OF INCORPORATION

OF

XYZ County OAM Corp.

Under Section 402 of the Not-for-Profit Corporation Law

The undersigned hereby certify:

- 1.) The name of the corporation is XYZ County OAM Corp.
- 2.) The corporation shall be a Local Development Corporation, as defined in subparagraph (a) (5) of Section 102 of the Not-for-Profit Corporation Law.
- 3.) The purpose for which the corporation is formed are: To relieve and reduce unemployment, to promote and to provide for additional and maximum employment, to better and to maintain job opportunities, to instruct or train individuals to improve or to develop their capabilities for jobs, to carry on scientific research for the purpose of aiding a community or geographical area by attracting industry to the community of, or by encouraging the development of, or retention of an industry in the community or area and to lessen the burdens of government and to act in the public interest.

In furtherance of the aforesaid purposes, the corporation shall have all the powers conferred by paragraph (c) of Section 1411 of the Not-for-Profit Corporation Law.

The corporation may do any other act or thing incidental to or connected with the foregoing purposes or in advancement thereof, but not for the pecuniary profit or financial gain of its members, directors, or officers, except as permitted under Articles 5 and 14 of the Not-for-Profit Corporation Law and Article 8 of the Public Authorities Law.

- 4.) This local development corporation is a Type C corporation under Section 201 of the Not-for-Profit Corporation Law.
- 5.) All income and earnings of such corporation shall be used exclusively for its corporate purposes or accrue and be paid to the New York Job Development Authority.
- 6.) No part of the income or earnings of such corporation shall inure to the benefit or profit of, not shall any distribution of its property or assets be made to any member or private person, corporate, or individual, or any other private interest, except for the repayment of loans.
- 7.) If the corporation accepts a mortgage loan from the New York Job Development Authority, the corporation shall be dissolved in accordance with the provision of Section 1411(f) upon the repayment or discharge of loan in full.
- 8.) The territory in which the operations of the corporation are principally to be conducted is the XYZ County, State of New York.
- 9.) The office of the corporation is to be located in XYZ County, State of New York.



10.) The number of directors of the corporation shall be _____.

11.) The names and residences of the directors until the first annual meeting are:

Names	Addresses
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

12.) The post office address to which the Secretary of State shall mail a copy of any notice required by law is _____

13.) Nothing contained in this certificate shall authorize or empower the corporation to perform or engage in any act or practice prohibited by the General Business Law § 340 or any other anti-monopoly statute of the State of New York.

IN WITNESS WHEREOF, this certificate has been signed by the subscriber this _____ day of May, 2022.

Lawyer's Name

STATE OF NEW YORK)

COUNTY OF XYZ) ss:

On this _____ day of May, 2022, before me personally came Lawyer's name, to me known and known to me to be the person described in and who executed the foregoing Certificate of Incorporation and he duly acknowledged to me that he severally and independently executed the same.

Notary Public



8.2 DARK FIBER IRU MASTER SERVICE AGREEMENT

DARK FIBER IRU AGREEMENT

BETWEEN

ERIENET, INC.

AND

[CUSTOMER]

DATED _____



DARK FIBER IRU AGREEMENT

THIS DARK FIBER IRU AGREEMENT (this "Agreement"), dated as of this _____ day of _____, 2013, is entered into by ErieNET, Inc. ("ERIENET"), a New York not-for-profit corporation with offices at, and _____ ("CUSTOMER"), a _____ with offices located at _____.

RECITALS

WHEREAS, ERIENET owns and operates dark fiber optic telecommunications system in Erie County, New York State using rights-of-way, facilities, aerial attachments, underground conduit, poles and towers of various utilities, railroads and governmental entities.

WHEREAS, CUSTOMER desires to obtain an exclusive, indefeasible right to use specific strands of dark fiber in the ERIENET System between specified points for a definite term.

WHEREAS, ERIENET desires to grant CUSTOMER an exclusive, indefeasible right to use specific strands of dark fiber in the ERIENET System between specified points upon the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the matters recited, the mutual promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

DEFINITIONS.

In addition to terms defined elsewhere in this Agreement, the following terms have the meanings indicated:

"Acceptance Date" means the date that CUSTOMER accepts, or is deemed to have accepted, Customer Fiber in accordance with Section 10.1, Testing and Acceptance.

"Agreement" means this Dark Fiber IRU Agreement between ERIENET and CUSTOMER, including the annexes, schedules and exhibits and other attachments hereto, as may be amended from time to time.

"Ancillary Services" or "Services" means all power, cross-connect, splicing, laterals, modifications, and special services on Customer Fiber required or requested by CUSTOMER pursuant to a Statement of Work. Ancillary Services do not include Maintenance.



“Associated Property” means any tangible and intangible property needed for the use of Customer Fiber as dark fiber, including, but not limited to, ERIENET’s rights in all Underlying Rights, but expressly excluding any rights in any electronic or optronic equipment.

“Customer Fiber” means the _____ strands of Dark Fiber exclusively designated to CUSTOMER between the End Points shown on Exhibit A, which is attached hereto and made a part of this Agreement.

“Dark Fiber” means individual strands of single-mode optical fiber, which are without electronics or optronics and which are not “lit” or activated at the time of delivery to CUSTOMER under this Agreement.

“End Point” means the location of the CUSTOMER POPs, meet points, splice points or transmission sites where CUSTOMER’s network or facilities will connect to Customer Fiber in the ERIENET System as described in Exhibit A to this Agreement.

“Favorable Test Results” means the results of the tests of Customer Fiber conducted in accordance with Section 10.1, demonstrating that Customer Fiber complies with the technical performance specifications set forth in Exhibit T1.

“Fees” means each and every fee due to ERIENET by CUSTOMER under this Agreement, specifically including the IRU Fee, Splicing Fee and Maintenance Fee.

“Force Majeure” means acts of God; weather; wars; revolution; civil commotion; acts of public enemy or terrorism; embargo; epidemic; acts of government in its sovereign capacity; labor difficulties, including strikes, slowdowns, picketing or boycotts; or any other circumstances beyond the reasonable control, and no involving any fault or negligence, of the party affected by such event or condition.

“IRU” or “Indefeasible Right of Use” means the (i) exclusive, indefeasible right of use in Customer Fiber granted to CUSTOMER by ERIENET pursuant to this Agreement, and (ii) an associated non-exclusive indefeasible right of use for the purposes described herein in the Associated Property.

“IRU Fee” means the one-time fee of \$_____ (U.S.) payable to ERIENET by CUSTOMER for the IRU of Customer Fiber.

“Maintenance” means all routine and ordinary repair and replacement necessary to maintain the physical integrity and performance within contract specifications of Customer Fiber, the ERIENET System and Associated Property. Maintenance does not include any Ancillary Services.

“Maintenance Fee” means the monthly fee of \$_____ (U.S) payable to ERIENET by CUSTOMER annually for Maintenance.

“Non-Routine Maintenance” means all non-routine and extraordinary repair, replacement and relocation of the Dark Fiber in which Customer Fiber is located.



“POP” means a terminal facility (point of presence) used for origination/termination of traffic and shall not include sites used exclusively for regeneration or amplification.

“ROW Agreements” means the rights-of-way, pole attachment, conduit and franchise agreements with third parties permitting and governing ERIENET’s access to and use of rights of way and facilities along the paths of the ERIENET System containing Customer Fiber, which are not incorporated in this Agreement.

“Service Outage” means, as to any strand in Customer Fiber, the loss of connectivity or any failure, interruption, impairment or degradation of the operation that commercially impairs CUSTOMER’s use of that strand of Customer Fiber between two adjacent POPs (but excluding any failure, interruption, impairment or degradation caused by a Force Majeure).

“Splicing” means the connecting of fiber through mechanical process as to create a complete optical path between two or more fibers and locations.

“Splicing Fee” means the one-time fee of \$_____ (U.S.) payable to ERIENET by CUSTOMER for the costs of Splicing and terminating Customer Fiber.

“Statement of Work” means CUSTOMER’s written request for Ancillary Services on Customer Fiber.

“ERIENET System” means the dark fiber optic telecommunications system owned, operated and maintained by ERIENET, including Associated Property and all conduit, ducts, poles, buildings and equipment through which Customer Fiber passes.

“Taxes” means all taxes, fees, levies, imposts, duties, charges and withholdings for any nature (including, without limitation, ad valorem, real property and gross receipts taxes, and franchise, license and permit fees, but excluding any taxes on a Party’s overall income or revenues), together with all penalties, fines and interest thereon.

“Term” means the period of twenty (20) years commencing on the Acceptance Date and continuing until the twentieth (20th) anniversary of the Acceptance Date.

“Underlying Rights” shall mean all deeds, leases, easements, rights of way, licenses, franchises, permits and other rights, titles or interests, including ROW Agreements, as are necessary for the construction, installation, operating, maintenance or repair of Customer Fiber.

“Underlying Rights Requirements” means the terms, conditions, requirements, restrictions, and/or limitations upon CUSTOMER’s right to use Customer Fiber and Associated Property imposed under the Underlying Rights, and the associated safety, operational and other rules and regulations imposed in connection therewith.

GRANT OF INDEFEASIBLE RIGHT OF USE.



ERIENET hereby grants to CUSTOMER the Indefeasible Right of Use of Customer Fiber and Associated Property for the Term of this Agreement, subject to and effective upon payment of Fees.

Under this Agreement, CUSTOMER may use Customer Fiber for any lawful purpose consistent with the terms and conditions set forth in this Agreement, including providing telecommunications and information capacity and/or services to third parties.

CONSIDERATION AND PAYMENT OF FEES .

As consideration for the IRU, CUSTOMER agrees to pay all Fees under this Agreement within thirty (30) days of receipt of an invoice. ERIENET hereby directs CUSTOMER to pay all Fees to ERIENET at the address shown on this Agreement or such other address as directed by ERIENET.

CUSTOMER shall pay ERIENET a pro rata share for the costs and expenses of Non-Routine Maintenance of Customer Fiber. In cases where Non-Routine Maintenance arises out of CUSTOMER's acts or omissions or the acts or omissions of any of its affiliates, directors, officers, agents, employees, contractors, lessees, licensees, invitees, vendors, and customers, CUSTOMER shall pay all of the costs and expenses of all said Non-Routine Maintenance.

PERMITS; UNDERLYING RIGHTS

ERIENET shall obtain on or before the Acceptance Date, any and all Underlying Rights that are necessary in order to grant the IRU to CUSTOMER, and otherwise perform its obligations hereunder, including the right to permit CUSTOMER to grant sub-easements or sub-licenses, as the case may be, to third parties, all in accordance with the terms and conditions hereof, and the Underlying Rights Requirements. Notwithstanding anything in this Agreement to the contrary, it is expressly understood that CUSTOMER shall be solely responsible for compliance with all legal and regulatory requirements associated with its business or operation or use of Customer Fiber and Associated Property, including maintaining all required franchises, permits, authorizations, licenses, approvals or other consents (other than the Underlying Rights), and ERIENET shall have no responsibility or liability to CUSTOMER whatsoever in connection therewith.



ERIENET shall use its commercially reasonable efforts either to require that the stated term of any Underlying Rights applicable to Customer Fiber shall be for a period that does not expire, in accordance with its ordinary terms, prior to the last day of the Term of the IRU granted hereunder or, if the stated term of any such Underlying Rights expires, in accordance with its ordinary terms, on a date earlier than the last day of the Term, ERIENET shall, at its cost, exercise any renewal rights thereunder, or otherwise use its commercially reasonable efforts to acquire such extensions, additions and/or replacements as may be necessary in order to cause the stated term thereof to be continued until a date that is not earlier than the last day of the Term of the IRU granted hereunder; provided, however, that ERIENET shall not be required to expend, as consideration for any such renewals or extensions, more than the fair market rate payable at such time for similar rights and terms, unless CUSTOMER agrees, at its option, to pay directly any amounts required to be paid in excess of such fair market rate to renew or extend such Underlying Rights. If after use of commercially reasonable efforts, ERIENET does not obtain such extensions, additions and/or replacements, nothing in this Agreement shall prevent CUSTOMER from seeking to obtain or obtaining any renewal or extension of any such Underlying Rights from the grantor of such Underlying Rights, at CUSTOMER's sole cost and expense.

Notwithstanding anything to the contrary contained in this Section 4, upon the expiration or termination of any Underlying Right that is necessary in order to grant, continue or maintain the IRU in accordance with the terms and conditions hereof, and so long as ERIENET shall have fully observed and performed its obligations in accordance with this Section 4 with respect thereto, the Term of the IRU granted with respect to Customer Fiber shall automatically expire upon such expiration or termination of the Underlying Rights and ERIENET shall have no further liability to CUSTOMER under this Agreement.

SUBSTITUTIONS; RELOCATIONS

After the Acceptance Date, if ERIENET reasonably determines, or is required by a party with legal authority to so require (including, without limitation, the grantor of the Underlying Right or a party exercising condemnation authority), or if CUSTOMER agrees to relocate any portion of Customer Fiber including any of the facilities used or required in providing the IRU hereunder, ERIENET shall proceed with such relocation, and shall have the right, in good faith, reasonably to determine the extent of, the timing of, and methods to be used for such relocation; provided that: (i) CUSTOMER shall be kept fully informed of all material determinations made in connection with such relocation, (ii) fibers affected by the relocation shall be constructed and tested in accordance with ERIENET's standards, procedures and specifications, (iii) such relocation shall not result in an adverse change to the operations, performance or connection points with the network of CUSTOMER, or the End Points of Customer Fiber and (iv) such relocation shall not unreasonably interrupt service on the ERIENET System.



ERIENET shall deliver to CUSTOMER updated as-built drawings with respect to the relocation of the Customer Fiber within ninety (90) days following the completion of such relocation and such updated as-built drawings shall be attached hereto as Exhibit A-1.

ACCESS.

6.1. CUSTOMER will have access to Customer Fiber to commence end to end testing upon payment of the IRU Fee.

ERIENET will provide access stubs to which CUSTOMER can connect its facilities and equipment to Customer Fiber, at CUSTOMER's sole cost and expense, within thirty (30) days of execution of this Agreement. Upon completion of Customer Fiber and the access stubs as required by this Agreement, CUSTOMER may commence testing as set forth in Section 10.1.

CUSTOMER may (i) determine and utilize any type of electronics or technologies in association with Customer Fiber and subject to all Underlying Rights Requirements; and (ii) upgrade, arrange, maintain, repair, replace or otherwise deal with CUSTOMER's electronics at its sole discretion, subject to mutually agreeable safety procedures; provided, however, that none of CUSTOMER's electronics or technologies shall create any risk of damage to, or otherwise interfere with the quiet use and enjoyment of all or any portion of the ERIENET System by ERIENET or any other interested third party.

CUSTOMER shall abide by any limitations or restrictions on access imposed by ERIENET by the grantor of the Underlying Rights and any applicable security procedures and rules of conduct.

REPRESENTATIONS AND WARRANTIES OF ERIENET.

ERIENET represents and warrants to CUSTOMER that:

it has full right and authority, including any requisite corporate and governmental approvals, to enter into and to perform its obligations under this Agreement;

its execution and delivery of, and performance of its obligations under, this Agreement is not in violation of its charter, by-laws or any laws or regulation by which it is bound or to which it is subject;

no litigation or governmental proceeding is pending or threatened which might adversely affect this Agreement, the transactions contemplated by this Agreement, or the rights of CUSTOMER hereunder;

on the date of this Agreement ERIENET is the owner the ERIENET System, including the Dark Fiber strands comprising the Customer Fiber, and ERIENET has the sole and exclusive right to grant the Indefeasible Right of Use of Customer Fiber;



Customer Fiber was constructed and installed in compliance with sound industry standards using the skill and expertise appropriate for the project and in accordance with National Electric Safety Code's Fiber Optics Construction Standards;

Customer Fiber consists of only ITU-T G.652.D compliant fibers and will comply with the Fiber Testing and Acceptance Standards set forth in Exhibit T1;

The construction and installation of Customer Fiber complied, and ERIENET's operation of the ERIENET System containing Customer Fiber will comply, with all applicable federal, state and local laws, ordinances, regulations, orders, permits, franchises, or requirements of any governmental body having jurisdiction, including the New York Public Service Commission, and ERIENET has secured, and will maintain in effect for the Term, all Underlying Rights Requirements and any other necessary licenses, permits, pole attachment agreements, easements, approvals, and authorizations required for the maintenance, ownership and operation of the ERIENET System.

ERIENET has full power and authority to grant the IRU to CUSTOMER pursuant to this Agreement without notice to or consent of any third party; and

ERIENET has full power and authority to grant the IRU to CUSTOMER pursuant to this Agreement without notice to or consent of any party to any ROW Agreement and will, at all times during the Term, comply with all ROW Agreements.

REPRESENTATIONS AND WARRANTIES OF CUSTOMER.

CUSTOMER represents and warrants that:

it has full right and authority, including any requisite corporate and governmental approvals, to enter into and to perform its obligations under this Agreement;

the execution of this Agreement is not in violation of its charter, by-laws or any laws or regulation by which it is bound or to which it subject; and

no litigation or governmental proceeding is pending or threatened which might adversely affect this Agreement, the transactions contemplated by this Agreement, or the rights of ERIENET hereunder.



TERM AND TERMINATION.

The term of this Agreement shall be the Term as set forth in Section 1.24 of this Agreement. Except as otherwise set forth in this Agreement, neither ERIENET nor CUSTOMER may terminate the Term, or the IRU, early.

This Agreement automatically shall terminate upon expiration of the Term of the IRU. Upon expiration, the IRU in Customer Fiber and the Associated Property shall immediately terminate and all rights of CUSTOMER to use Customer Fiber and the Associated Property shall cease.

9.3 Promptly upon termination of this Agreement, CUSTOMER shall remove all of its electronics, optronics, equipment, separate regeneration facilities and other property from Customer Fiber and from any related facilities upon the ERIENET System at CUSTOMER's sole cost and expense under ERIENET's supervision.

TESTING AND ACCEPTANCE.

ERIENET shall test Customer Fiber in accordance with the Fiber Testing and Acceptance Standards set forth in Exhibit T1, with sufficient prior notice to CUSTOMER so that it may have a representative present during testing. CUSTOMER will advise ERIENET of the identity of the representative(s) and the nature of his or her relationship with CUSTOMER at least 24 hours prior to testing. Upon completion of testing, ERIENET shall promptly deliver to CUSTOMER a written copy of the test results showing end-to-end loss, measured from repeater hut to repeater hut, and Optical Time Domain Reflectometer traces. If ERIENET delivers Favorable Test Results, then the date of delivery will be the Acceptance Date. If ERIENET does not deliver Favorable Test Results, ERIENET shall take whatever steps are necessary to repair the fibers or shall provide substitute fibers, and the testing procedure shall be repeated until ERIENET delivers Favorable Test Results, or until ERIENET notifies CUSTOMER that it is unable to provide the subject fibers in compliance with the specifications, in which event CUSTOMER shall have a thirty (30) day period in which to elect to cancel this Agreement.

Within ninety (90) days after Acceptance Date, ERIENET shall deliver to CUSTOMER one copy of as-built drawings of Customer Fiber that meet the specifications in Exhibit T1, such drawings shall be attached hereto as Exhibit A-1.



INTERCONNECTION; ANCILLARY SERVICES.

During the Term, CUSTOMER may access Customer Fiber for interconnection purposes at the End Points shown on Exhibit A and along the fiber route between the End Points. All such access must be performed by ERIENET as Ancillary Services and described in a Statement of Work.

Ancillary Services include interconnecting Customer Fiber with the rest of CUSTOMER's transmission network or with other carriers or customers, including construction, installation or other requirements to connect or deliver Customer Fiber from the poles specified to the defined co-location points and End Points. ERIENET shall cooperate with CUSTOMER's efforts to establish such interconnection, and where permitted, will provide to CUSTOMER an assignment or delegation of the necessary rights to install cables to reach the point of interconnection within the End Points.

ERIENET and CUSTOMER will enter into a companion agreement providing for all Ancillary Services on Customer Fiber to be performed by ERIENET. CUSTOMER may request Ancillary Services by delivering to ERIENET a Statement of Work detailing the maintenance checks and services CUSTOMER desires to be performed, including the time schedule for such maintenance checks and services. Upon receipt of such a Statement of Work, ERIENET will provide an estimate of the cost and timing of such Ancillary Services. Following acceptance of such estimate by CUSTOMER, the parties will enter into a companion agreement and ERIENET will schedule and perform the agreed upon Ancillary Services pursuant to such companion agreement.

OPERATIONS

Subject to the provisions of this Agreement, CUSTOMER shall have full and complete control and responsibility for determining any network and service configurations or designs, routing configurations, regrooming, rearrangement or consolidation of channels or circuits and all related functions with regard to its use of Customer Fiber. CUSTOMER may use Customer Fiber, the Associated Property and the IRU for any lawful purposes.

CUSTOMER acknowledges and agrees that ERIENET is not supplying nor is ERIENET obligated to supply CUSTOMER with any optonics or electronics or optical or electrical equipment or other facilities, all of which are the sole responsibility of CUSTOMER unless specified herein.



CUSTOMER covenants that it shall not use Customer Fiber and Associated Property in any manner that does not comply with (i) any and all applicable government codes, ordinances, laws, rules, regulations and/or restrictions, and (ii) the Underlying Rights Requirements, as such may be amended from time to time. CUSTOMER shall not use any product or service that fails to comply with any applicable safety rules or that would cause the Customer Fiber to violate any state or federal environmental laws, and that CUSTOMER shall keep the Customer Fiber and Associated Property, other than this IRU and CUSTOMER's interest in Customer Fiber and Associated Property, free from any liens, rights or claims of any third party attributable to CUSTOMER.

ERIENET acknowledges and agrees that it has no right to use Customer Fiber during the Term of this Agreement.

CUSTOMER shall not use Customer Fiber in a way that physically interferes in any way with or adversely affects the use of the fibers or cable of any other interested third party in the ERIENET System. ERIENET shall not use any other fibers in the ERIENET System in a way which physically interferes with or adversely affects the use of Customer Fiber, and ERIENET shall, if required, obtain a similar agreement from any person that acquires the right to use fibers in the ERIENET System after the date hereof.

BILLING AND INVOICE REMITTANCE.

ERIENET shall send CUSTOMER all invoices related to this Agreement to the address below. CUSTOMER may change the billing address by written notification to ERIENET of the new address.

<u>CUSTOMER'S BILLING</u>	
<u>CONTACT INFORMATION</u>	
Name:	
Address:	
Phone Number:	
Fax Number:	
Email Address:	



ERIENET will timely invoice CUSTOMER for all Fees due under this Agreement and any other applicable charges, Taxes, fees, and payment demands of any type.

14. MAINTENANCE AND REPLACEMENT OBLIGATIONS OF ERIENET.

In consideration of the Maintenance Fee, ERIENET shall perform, or cause to be performed under its direction, Maintenance during the Term in compliance with the Repair and Maintenance Standards set forth in Exhibit T2. ERIENET shall provide CUSTOMER with copies of all material changes and modifications to its Repair and Maintenance Standards during the Term.

ERIENET shall ensure that an adequate number of appropriately qualified and trained personnel are employed and available at all times to maintain Customer Fiber and the ERIENET System in accordance with this Agreement. ERIENET personnel shall be available 24 hours a day, seven days per week to respond to emergency outages and problems. Upon execution of this Agreement, ERIENET shall provide a contact and escalation list for handling network outages and trouble tickets.

In the event that ERIENET's emergency maintenance activities cause a disruption to Customer Fiber, ERIENET may give CUSTOMER prompt notice within two (2) hours of the event. ERIENET shall not remove any CUSTOMER equipment from service during Maintenance unless it is critical to the repair, and in such an event, ERIENET must notify CUSTOMER in advance of such removal and the length of the anticipated out-of-service period and obtain CUSTOMER's consent thereto, which consent shall not be unreasonably withheld or delayed.

In the event that ERIENET determines, in its reasonable business judgment, that the cable in which Customer Fiber is located should be relocated, then ERIENET shall so notify CUSTOMER and shall cooperate with CUSTOMER in the scheduling and performance of such relocation so as to cause the minimum practicable impact on CUSTOMER's use of Customer Fiber. ERIENET shall bear the entire cost of such relocation.



CUSTOMER shall pay ERIENET its pro rata share for Non-Routine Maintenance of the ERIENET System in which Customer Fiber is located. Notwithstanding the foregoing, (i) if the Non-Routine Maintenance results from damage caused by a negligent act or omission or willful misconduct of CUSTOMER (including any employee or subcontractor of CUSTOMER acting under CUSTOMER's control and direction) , CUSTOMER shall pay all of the costs and expenses for such Non-Routine Maintenance; and (ii) if the Non-Routine Maintenance results from damage caused by a negligent act or omission or willful misconduct of ERIENET (including any employee or subcontractor of ERIENET acting under ERIENET's control and direction), ERIENET shall pay all of its costs for such Non-Routine Maintenance.

15. **WARRANTY**

ERIENET warrants that from the Acceptance Date to the end of the Term that Customer Fiber shall be (i) free from defects in workmanship, and (ii) fit to use as provided in the Fiber Testing and Acceptance Standards set forth in Exhibit T1.

Except as otherwise specifically set forth in this Agreement, ERIENET makes no warranty to CUSTOMER or any other person, whether express or implied, oral, statutory, or contractual, as to the installation, description, quality, merchantability, completeness, useful life, future economic viability, or fitness for any particular purpose of any the Customer Fiber, the ERIENET System or any Service provided under this Agreement or described in this Agreement, or as to any other matter, all of which warranties are hereby expressly excluded and disclaimed.

CUSTOMER acknowledges and agrees that no facility owner or lender has made any representation or warranty of any kind, express or implied, to CUSTOMER concerning ERIENET, Customer Fiber or the ERIENET System.

16. **INDEMNIFICATION AND INSURANCE.**



To the fullest extent permitted by law, ERIENET and CUSTOMER agree to defend, indemnify and hold each other, and their agents, shareholders, officers, directors and employees and the parties to the ROW Agreements and Underlying Rights harmless, from and against any and all liabilities, cost, suit, charge, expenses, claims, losses, damages, cause of action, bodily injury or death of any person whomsoever (including employees of the parties), or damage to any property, real and personal, including environmental damages, and economic damages to property of the other party (whether owned, leased or licensed), including all costs and expenses, including legal expenses, incurred or sustained in enforcing this indemnification, caused by the negligent action or failure to act by either party, except to the extent such loss, injury or damage shall have resulted from the negligence or willful misconduct of the indemnified party, or its agents, shareholders, officers, directors or employees.

ERIENET and CUSTOMER shall each have the right to defend the other party by counsel of the indemnitor's selection reasonably satisfactory to the other party, with respect to any claims within the indemnification provisions hereof. ERIENET and CUSTOMER shall give each other prompt notice of any asserted claims or actions indemnified against, shall cooperate with each other in the defense of any such claims or actions and shall not settle any such claims or actions without the prior consent of the indemnifying party.

Notwithstanding anything to the contrary in this Agreement, none of the parties shall be liable to the other for special, punitive, exemplary, consequential, or indirect losses or damages (including, without limitation, any claims from any client, customer or patron of either party for loss of services) arising under this Agreement or from the breach of any of the provisions hereof.

The obligations of the respective parties under this Section 16 shall survive the expiration or termination of this Agreement.

17. LIMITATION OF LIABILITY.

No Party shall be liable to any other Party or its agents, shareholders, officers, directors and employees for special, punitive, exemplary, consequential, or indirect losses or damages (including, without limitation, loss of revenues, loss of profits, business interruption, loss of business opportunities, or loss of goodwill), whether or not arising from sole, joint or concurrent negligence, strict liability, violation of law, breach of contract, breach of warranty, or any other basis or theory, whether or not foreseeable and even if such Party or related person has been advised of the possibility of such damages. ERIENET's maximum liability under this Agreement is limited to the IRU Fee.



Except as expressly provided otherwise in this Agreement, nothing contained in this Agreement may operate as a limitation on the right of either ERIENET or CUSTOMER to bring an action or claim for damages against any third party. Each Party shall cooperate with the other and do whatever else may be reasonably necessary to enable the other Party (at such other Party's sole expense) to pursue any such action or claim against such third party.

18. CONFIDENTIALITY.

ERIENET and CUSTOMER shall each maintain the confidentiality of all information or data provided to it by the other Party hereto as proprietary and confidential to that Party, its affiliate or a third party ("Confidential Information"). ERIENET and CUSTOMER shall use the same efforts (but in no case less than reasonable efforts) to protect the Confidential Information it receives hereunder as it accords to its own Confidential Information. The above requirements shall not apply to Confidential Information that is already in the possession of the receiving party through no breach of an obligation of confidentiality to the disclosing party or any third party, is already publicly available through no breach of this Section 18 or is independently developed by the receiving party.

Notwithstanding anything to the contrary herein, either Party shall be entitled to disclose the terms and conditions of this Agreement and the related documents to lenders and their representatives, successors and assigns in connection with any financing activities and the granting of any security interest in this Agreement and the exercise of any remedies or enforcement of any loan documents by any lender to ERIENET or CUSTOMER.

The Parties acknowledge that any information not documented as Confidential Information may be reviewable through the Freedom of Information Act.

The Parties acknowledge that any disclosure or misappropriation of Confidential Information in violation of this Agreement could cause irreparable harm, the amount of which may be extremely difficult to determine, thus potentially making any remedy at law or in damages inadequate. Each Party, therefore, agrees that the other party shall have the right to apply to any court of competent jurisdiction for any order restraining any breach or threatened breach of this Section 18 and for any other relief as such other Party deems appropriate. This right shall be in addition to any other remedy available in law or equity.



The obligations imposed by this Section 18 shall survive expiration or termination of this Agreement.

19. **DEFAULT**

With respect to any obligations of the Parties hereunder, unless a shorter time period for cure is expressly provided elsewhere in this Agreement, in the event a Party shall fail to perform an obligation and such failure shall continue for a period of thirty (30) days after written notice of such failure, such Party shall be in material default hereunder; provided, however, that where such failure cannot reasonably be cured within such 30-day period, such Party shall proceed promptly to cure the same within the aforesaid period and continues to prosecute such cure with due diligence, the time for curing such failure shall be extended for such period of time as may reasonably be necessary to complete such cure; and, provided further, that if such Party certifies in good faith in writing that a failure has been cured such failure shall be deemed to be cured unless such other Party otherwise receives written notice within fifteen (15) days.

A Party shall be in material default hereunder (i) immediately upon the making of a general assignment for the benefit of its creditors, the filing of a voluntary petition in bankruptcy or the filing of any petition or answer seeking, consenting to, or acquiescing in reorganization, arrangement, adjustment, composition, liquidation, dissolution, or similar relief; or (ii) one hundred twenty (120) days after the filing of an involuntary petition in bankruptcy or other insolvency protection against such Party which is not dismissed within such one hundred twenty (120) days.

Upon any material default by a Party, after written notice thereof, such Party, may (i) take such action as it determines, in its sole discretion, to be necessary to correct the default and recover its reasonable costs incurred in correcting such default; (ii) terminate any and all of its obligations hereunder with respect to any portion of Customer Fiber as to which the Acceptance Date has not yet occurred or as to which the grant of the IRU has not yet become effective, (iii) suspend access to and right to use Customer Fiber and Associated Property until such time as all amounts then due and owing have been paid; (iv) terminate any IRU, re-possess Customer Fiber and related Associated Property as to which such material breach has occurred and dispose of them at such Party's sole discretion; (v) pursue any legal remedies it may have under applicable law or principles of equity relating to such default, including specific performance.



Except as set forth to the contrary herein, any right or remedy of each of the Parties provided in this Section 19 shall be cumulative and without prejudice to the exercise of any other right or remedy.

20. WRITTEN NOTICE.

Except as otherwise specified in this Agreement, all notices, demands, requests, instructions, approvals, proposals and claims shall be in writing and shall be sent as follows: (a) by registered or certified United States mail, return receipt requested and postage prepaid to the applicable address below, or to such other addresses as the parties may substitute by written notice given in the manner prescribed in this Section 20; (b) by hand delivery, including courier service delivery, to such addresses; or (c) by facsimile machine transmission to the numbers provided below.

To ERIENET:

ErieNET

{insert address}

To CUSTOMER:

Fax Number: _____

Notices shall be deemed effective upon delivery if delivered by mail or in person or upon receipt of confirmation of transmission if delivered by facsimile. The parties shall be entitled to change the addresses for such notices upon five days advance written notice to the other party

21. TAXES, FEES, AND OTHER GOVERNMENTAL IMPOSITIONS.

If and to the extent applicable, CUSTOMER shall timely report, make filings for and pay any and all Taxes assessed against CUSTOMER due to or on the basis of (a) its ownership of the IRU; (b) its use of Customer Fiber, the Associated Property and the ERIENET System; and (c) its ownership or use of facilities connected to Customer Fiber.



If and to the extent ERIENET is assessed for any Taxes related to CUSTOMER's ownership of the IRU or use of Customer Fiber, CUSTOMER shall reimburse ERIENET for any payment of such Taxes, or CUSTOMER's pro rata share, within thirty (30) days from the date of ERIENET's invoice.

Each Party shall cooperate with the other in any contest of any Taxes and in making tax-related reports and filings to avoid prejudicing the interests of the other Party, to the extent reasonably possible without adverse impact to its own interests. If either Party incurs any penalty, interest or additional Taxes as a result of the other Party's failure to comply with its obligations under this Section 21, then the non-complying Party shall pay or reimburse the other Party for such penalty, interest or additional Tax.

22. BINDING AGREEMENT AND ASSIGNMENT.

The provisions of this Agreement shall be binding upon and shall inure to the benefit of the Parties hereto and their lawful respective successors and assigns. CUSTOMER shall not assign, transfer or encumber all or any portion of Customer Fiber, Associated Property or this Agreement without ERIENET's prior written consent, which consent shall not be withheld or delayed unreasonably, except that upon thirty (30) days' written notice to ERIENET, CUSTOMER may assign part or all of this Agreement to an entity controlling, controlled by, or under common control with CUSTOMER.

23. SERVICE LEVEL AGREEMENT

ERIENET will respond and commence work within two (2) hours after notification or discovery of a Service Outage and will restore effective use of the affected strands of Customer Fiber within four (4) hours after such notification or discovery.

In the event that ERIENET dispatches personnel for a Service Outage or problems caused by CUSTOMER equipment or personnel, the dispatch will be treated as Ancillary Services.

If ERIENET does not timely restore effective use of the affected strands of Customer Fiber, CUSTOMER may be entitled to a credit from ERIENET in an amount equal to five percent (5%) of the monthly Maintenance Fee per day. ERIENET shall make any such reimbursement within thirty (30) days after receiving from CUSTOMER a written request for credit within sixty (60) days of the Service Outage.

Notwithstanding Section 23.3:



CUSTOMER will not be entitled to reimbursement if the Service Outage is caused by (i) an act or omission of CUSTOMER, its employees, agents or contractors; (ii) CUSTOMER's equipment; (iii) a Force Majeure; or (iv) planned outages for Maintenance that are scheduled in advance with CUSTOMER.

ERIENET's maximum reimbursement liability for Service Outages will not exceed (i) one months' Maintenance Fee or (ii) the IRU Fee in the aggregate for the Term.

24. FORCE MAJEURE.

Neither Party shall be in default under this Agreement if, and to the extent that, any failure or delay in such Party's performance of one or more of its obligations hereunder is caused by Force Majeure. In addition, to the extent that ERIENET's failure to perform is caused by any material failures, shortages or unavailability or other delay in delivery of fiber or cable which is not the result of ERIENET's failure to timely place orders therefor or ERIENET's choice of a vendor who has not previously performed timely and satisfactorily, such failure shall be deemed a Force Majeure. Notwithstanding anything in the preceding sentences of this Section 24 any change in pricing in the telecommunications market or lack of financing shall not be considered events of Force Majeure. The Party claiming relief under this Section 24 shall notify the other in writing of the existence of the event relied on and the cessation or termination of said event and shall use all commercially reasonable efforts to mitigate and avoid continuation of Force Majeure so as to recommence timely performance as soon as practicable. If an event of Force Majeure occurs, the time for performance or delay will be extended for the duration of the condition and a reasonable period of time thereafter according to the nature of the event.



25. DISPUTE RESOLUTION

If the Parties are unable to resolve any disagreement or dispute arising under or related to this Agreement, including without limitation, the failure to agree upon any item requiring a mutual agreement of the Parties hereunder, they shall resolve the disagreement or dispute as follows:

Either Party may refer the matter to the officers (the "Officers") of the Parties by giving the other Party written notice. Within fifteen (15) days after delivery of a notice, each Party shall designate or a corporate officer with authority to resolve such matters, to meet at a mutually acceptable time and place to exchange relevant information and to attempt to resolve the dispute.

If the matter has not been resolved by the Officers within thirty (30) days of the initial notice tendering the dispute to the Officers of the Parties, either Party may initiate the Alternate Dispute Resolution process with the New York Public Service Commission, and unless otherwise agreed by the Parties, they shall continue to perform under this Agreement during the resolution process. If this process fails, the Parties may seek any administrative or judicial remedies to which they are entitled.

The Parties agree that this submission and agreement to arbitrate shall be governed by and specifically enforceable in accordance with the laws of the State of New York. The Parties agree to abide by all decisions and determinations rendered in such proceedings. Such decisions and determinations shall be final and binding on all Parties. All decisions and determinations may be filed with the clerk of one or more courts, state, federal or foreign having jurisdiction over the Party against whom it is rendered or its property, as a basis of judgment.

26. CHOICE OF LAW AND INTERPRETATION.

This Agreement shall be governed by New York Law as an agreement made in and to be performed in New York State. No claim, demand, action, proceeding arbitration, litigation, hearing, motion or lawsuit arising from, related to, or connected with this Agreement shall be commenced or prosecuted in any jurisdiction other than state or federal courts located in the State of New York, and any judgment, determination, order, finding or conclusion reached in any other jurisdiction shall be null and void between the parties hereto.

If any legal proceeding is brought to enforce or interpret this Agreement or any provision thereof, the prevailing party in any such proceeding shall be entitled to recover from the other party its reasonable attorneys' and paralegal fees and court costs.



27. MISCELLANEOUS PROVISIONS.

Except as expressly permitted in this Agreement or as upon the prior approval of the other party, which approval shall not be unreasonably withheld, neither CUSTOMER nor ERIENET shall make public reference to the existence or terms of this Agreement. This prohibition includes use of the other's name, trademarks or logos or any other reference to the other party directly or indirectly in any advertising, sales presentation, news release, release to any professional or trade publication or for any other purpose.

Each party shall be responsible for its own costs, including legal fees, incurred in negotiating or finalizing this Agreement.

Neither this Agreement nor any term or provision hereof can be amended, waived, modified, supplemented, discharged, or terminated, except by an instrument in writing signed by both parties.

The section headings in this Agreement are for convenience of reference only and shall neither be deemed to be a part of this Agreement nor modify, define, expand, or limit any of the terms or provisions hereof. All references to numbered or lettered Sections are to Sections of this Agreement.

While this Agreement creates the IRU in favor of CUSTOMER, and ERIENET may not grant any rights that conflict with the IRU, or use or (except as expressly contemplated by this Agreement) exert dominion over, as between the parties ERIENET retains the legal title to Customer Fiber and the rights to use, control, and operate the ERIENET System, and shall be solely responsible for administering and maintaining the Underlying Rights so that they remain valid and in full force and effect throughout the Term.

Any failure, other than failure to pay money or issue credits when due, of either Party to perform its obligations under this Agreement shall not be a breach of this Agreement if such failure results from a Force Majeure. Each Party shall, with the cooperation of the other, exercise reasonable efforts to mitigate the extent of a delay or failure resulting from a Force Majeure and the adverse consequences thereof.

The rights and remedies provided by this Agreement are cumulative and the use of any one right or remedy by any Party shall not preclude or waive its right to pursue any or all other remedies. Said rights and remedies are given in addition to any other rights such party may have by law, statute, ordinance or otherwise, except as such remedies are expressly limited in this Agreement.



Any provision of this Agreement which is invalid, illegal or unenforceable in any manner in any jurisdiction shall be, as to such jurisdiction, ineffective to the extent of such invalidity, illegality or un-enforceability without in any ways affecting the validity, legality or enforceability of the remaining provisions hereof, and any such invalidity, illegality or unenforceability in any jurisdiction shall not invalidate or in any way affect the validity, legality or enforceability of such provision in any other jurisdiction.

CUSTOMER and ERIENET shall at all times observe and comply with the provisions of this Agreement, and such provisions are subject to all laws, ordinances, contracts and regulations which in any manner affect the rights and obligations of the parties herein.

This Agreement constitutes the entire agreement between the parties with respect to the subject matter and supersedes any prior writings or understandings between the parties. This Agreement may not be modified or amended, nor may any obligation of either party be changed or discharged except in writing signed by the duly authorized officer or agent of both parties.

CUSTOMER and ERIENET each agree to do such other and further acts and things, and to execute and deliver such additional instruments and documents, not creating any obligations, or imposing any expenses, additional to those otherwise created or imposed by this Agreement, as either party may reasonably request from time to time whether at or after the execution of this Agreement, in furtherance of the express provisions of this Agreement.

This Agreement may be executed in more than one counterpart, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same instrument.

[signatures on next page]



IN WITNESS WHEREOF, the parties have caused this Dark Fiber IRU Agreement to be executed by their duly authorized representatives to be effective as of the first date above-written.

ErieNET, Inc.

By: _____
Name: _____
Title: _____
Date: _____
Business Address: _____

CUSTOMER:

By: _____
Name: _____
Title: _____
Date: _____
Business Address: _____



EXHIBIT A

Customer Fiber

Customer Fiber includes _____ strands of G.652.D “full-spectrum” single mode dark fiber optic cable between the End Points as identified in the table below:

Span	From Address	To Address	Fibers	Route Miles, Approximate



EXHIBIT A-1

Customer Fiber – As-Built



EXHIBT T1

Fiber Testing and Acceptance Standards

ERIENET will provide only ITU-T G.652.D compliant fibers for lease to CUSTOMER. ERIENET will perform fiber testing, as described below, on each Customer Fiber and will provide documentation of these test results by email to: _____

Acceptance of Customer Fiber by CUSTOMER will be CUSTOMER's acknowledgement that all Customer Fiber complies with all performance criteria contained herein.

OTDR Testing will be conducted at both 1310 nm and 1550 nm wavelengths when the Customer Fiber consists of Standard Single Mode end-to end (FDP port-to-port) testing shall be accomplished and documented:

Single mode backbone links shall be tested at 1310 nm and 1550 nm in accordance with TIA TSB-140 Tier 2.

TIA TSB-140 Tier 2 testing includes Tier 1 (light source & power meter) and OTDR trace. Tier 2 OTDR tests shall utilize launch and receive fiber (such as Fluke NFK3-Launch) to capture loss of first and last connector.

OSP Optical fiber links shall be tested in at least one direction at both operating wavelengths (1310 nm and 1550 nm) to account for attenuation deltas associated with wavelength.

The turnover documentation package delivered to CUSTOMER will contain the actual traces that detail the testing parameters (including pulse width, averaging and range). The average bi-directional splice loss for all splices within each span will be of 0.02dB or less while each connector pair, such as at FDP, will have an average bi-directional loss of 0.1 dB or less.



EXHIBIT T2

MAINTENANCE AND REPAIR

All capitalized terms not otherwise defined in this Exhibit shall have the meanings set forth in the Agreement to which this Exhibit is attached.

Commencing on the Acceptance Date, ERIENET shall perform the following:

- (i) **Monitoring and Repair:** ERIENET will monitor Customer Fiber pursuant to Paragraph (v), "Network Monitoring and Trouble Reporting."
- (ii) **Routine Maintenance:** ERIENET shall perform routine maintenance and repair of Customer Fiber and on ERIENET's System. Routine Maintenance shall consist of only the following activities:
 - a. Patrol of the ERIENET System on a regularly scheduled basis.
 - b. Maintenance of a "Call-Before-You-Dig" program and all required and related cable locates; and
 - c. Maintenance of signposts along the Underlying Rights along the System with the number of the "Call-Before-You-Dig" organization and the toll-free number for ERIENET's "Call-Before-You-Dig" program.
- (iii) **Non-Routine Maintenance:** ERIENET shall perform non-routine maintenance and repair of Customer Fiber that is not included as Routine Maintenance. Non-Routine Maintenance shall consist of:
 - a. "Emergency Non-Routine Maintenance" in response to an alarm identification by CUSTOMER, ERIENET or any third-party of any failure, interruption or impairment in the operation of any of Customer Fiber or any event imminently likely to cause the failure, interruption or impairment in the operation of any portion of Customer Fiber; and
 - b. "Non-Emergency Non-Routine Maintenance" in response to any potential Service Affecting Condition to prevent any failure, interruption, or impairment in the operation of Customer Fiber. For purposes of Non-Routine Maintenance, "Service Affecting Condition" means a condition on Customer Fiber that materially adversely affects CUSTOMER's ability to utilize Customer Fiber or the Associated Property.



- (iv) **Planned Outage/Network Maintenance:** From time to time, there may be requirements of ERIENET to maintain or make modifications to the ERIENET System. ERIENET agrees to provide CUSTOMER fourteen (14) calendar days notification prior to any relocation and/or maintenance work that may cause degradation or loss of connectivity to Customer Fiber. ERIENET has the right to direct such relocation and/or maintenance activities, including the right to determine the extent of, timing of, and methods to be used for such maintenance or relocation, provided that the work is constructed and tested in accordance with the specifications, does not result in materially adverse change to the operations, performance, or connection points with the network of CUSTOMER and does not unreasonably interrupt service on Customer Fiber.
- (v) **Network Monitoring and Trouble Reporting:**
 - a. ERIENET will monitor Customer Fiber provided to CUSTOMER 24 hours a day, seven days a week, 365 days a year. ERIENET maintains a 24 hours a day, seven days a week point-of-contact for CUSTOMER to report system troubles. The telephone number for ERIENET's 24x7x365 Network Management Center is 1-XXX-XXX-XXXX
 - b. CUSTOMER will maintain a 24 hours a day, seven days a week point-of-contact for ERIENET to report system troubles. The telephone number for CUSTOMER 24x7x365 Operations Center is _____.
- (vi) **Performance Reviews:** If requested by CUSTOMER, ERIENET and CUSTOMER will meet no less frequently than semi-annually to review the ERIENET network performance. ERIENET will provide year-to-date Mean Time To Repair ("MTTR") reports for all affected Customer Fiber provided to CUSTOMER.



8.3 IRU STATEMENT OF WORK

ErieNET

Master Agreement – Terms & Conditions

STATEMENT OF WORK

This Statement of Work (“SOW”) for the leasing of dark fiber optic strands and related ancillary services incorporates the terms and provisions as set forth in the Dark Fiber IRU Agreement dated as of _____ entered into by ERIENET and Customer (“Agreement”). Capitalized terms used but not defined herein shall have the meaning set forth in the Agreement. Customer hereby orders the following dark fibers and ERIENET hereby agrees to deliver the following dark fibers, pursuant to and in accordance with the Agreement. On execution of this SOW by both parties, the dark fibers identified below shall become Services under the Agreement.

Span Name:	
-------------------	--

Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Target Delivery Date	Initial Term (Months)

	Route Miles	Fiber Count	Fiber Miles	End Point / Demarcation Point*	End Point / Demarcation Point*
Totals:					

* Except where the demarcation point is designated above, the demarcation point at each End Point for lateral segments and riser segments shall generally be one of the following types, as determined by ERIENET: (1) a meet at the ERIENET backbone (for a Customer-built lateral segment); (2) a fiber meet in the building's zero or meet-me manhole; (3) a building minimum point of entry (where a Splice or patch panel is required); (4) a common demarcation point (e.g., a building common room or meet-me room); (5) the Customer distribution POP; or (6) an extended demarcation point in the ERIENET POP. Other than as a result in changes to ERIENET's Underlying Rights, such demarcation points once established shall not change during the Term.



If Customer terminates this SOW prior to the completion of installation of Service, Customer shall pay a Cancellation Fee equal to the greater of: (i) all Nonrecurring Charges reasonably expended by ERIENET to establish Service to Customer including commissions and legal expenses; or (ii) any amounts paid by Customer for Service in advance of the Service Delivery Date. If Customer terminates this Agreement prior to the expiration of the then applicable Term for any reason other than ERIENET's default, or if ERIENET terminates Service for Customer's default, Customer shall pay an Early Termination Fee equal to 50% of the monthly recurring charges multiplied by the number of months remaining in the Term plus all out of pocket expenses incurred by ERIENET including legal fees and commissions. In addition, if Customer terminates this Agreement prior to the expiration of the Initial Term, Customer shall pay the aforementioned Early Termination Fee and shall reimburse ERIENET for any credits or deferred billing ERIENET may have granted to Customer hereunder.

IN WITNESS WHEREOF, the parties have executed this SOW as of the date last written below.

ERIENET, INC.

CUSTOMER: _____

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____



8.4 LEASE MASTER SERVICE AGREEMENT

8.4.1 Master Service Agreement - Definitions

"Agreement" means the Master Agreement – Terms & Conditions between Customer and ERIENET, including the annexes, schedules and exhibits and other attachments thereto, as may be amended from time to time.

"Agreement Documents" means the Agreement, one or more properly executed SOWs, ERIENET's Tariff, and, if applicable, ERIENET publications (with all exhibits, schedules, addenda and attachments thereto).

"Cancellation Fee" means the fee Customer shall pay to ERIENET if Customer terminates a SOW prior to the completion of installation of Service.

"Customer Fiber" means the strands of Dark Fiber exclusively designated to Customer between the End Points shown on a SOW.

"Dark Fiber" means individual strands of single-mode optical fiber, which are without electronics or optronics and which are not "lit" or activated at the time of delivery to Customer under the Agreement.

"Early Termination Fee" means the fee Customer shall pay to ERIENET if Customer terminates the Agreement prior to the expiration of the Term.

"End Point" means the location of the Customer POPs, meet points, splice points or transmission sites where ERIENET's network or facilities will connect to Customer Fiber in the ERIENET System as described in a SOW.

"Force Majeure" means acts of God; weather; wars; revolution; civil commotion; acts of public enemy or terrorism; embargo; epidemic; acts of government in its sovereign capacity; labor difficulties, including strikes, slowdowns, picketing or boycotts; or any other circumstances beyond the reasonable control, and no involving any fault or negligence, of the party affected by such event or condition.

"Maintenance" means all routine and ordinary repair and replacement necessary to maintain the physical integrity and performance within contract specifications of Services.

"Non-Routine Maintenance" means all non-routine and extraordinary repair, replacement and relocation of the Dark Fiber in which Customer Fiber is located.

"POP" means a terminal facility (point of presence) used for origination/termination of traffic and shall not include sites used exclusively for regeneration or amplification.

"Service" means Customer Fiber and ancillary services, such as power, cross-connect, splicing, laterals, modifications and special services, described on a SOW and provided by ERIENET pursuant to the Agreement.



“Service Outage” means the loss of connectivity or any failure, interruption, impairment or degradation of the operation that commercially impairs Customer’s use of a Service or such strand of Customer Fiber between two adjacent POPs (but excluding any failure, interruption, impairment or degradation caused by a Force Majeure).

“Statement of Work” or “SOW” means that written document(s) executed by Customer and ERIENET describing the Services requested by Customer and provided by ERIENET pursuant to the Agreement.

“ERIENET System” means the dark fiber optic telecommunications system owned, operated and maintained by ERIENET, including Associated Property and all conduit, ducts, poles, buildings and equipment through which ERIENET Fiber passes.

“Tariff” means ERIENET’s New York PSC No. 1 – Tariff, applicable to Dark Fiber, and such other tariff as ERIENET may elect or be required to file with the appropriate regulatory agency with respect to Services, as may be amended from time to time.

“Taxes” means all taxes, fees, levies, imposts, duties, charges and withholdings for any nature (including, without limitation, ad valorem, real property and gross receipts taxes, and franchise, license and permit fees, but excluding any taxes on a Party’s overall income or revenues), together with all penalties, fines and interest thereon.

“Term” means the Initial Term set forth in a SOW and any applicable Renewal Term.

“Underlying Rights” shall mean all deeds, leases, easements, rights of way, licenses, franchises, permits and other rights, titles or interests, including right-of-way agreements, as are necessary for the construction, installation, operation, maintenance or repair of Customer Fiber.

“Underlying Rights Requirements” means the terms, conditions, requirements, restrictions, and/or limitations upon ERIENET’s right to use Customer Fiber and associated property imposed under the Underlying Rights, and the associated safety, operational and other rules and regulations imposed in connection therewith.



8.4.2 Master Service Agreement - Terms and Conditions

1. Agreement and Scope. This Master Services Agreement, including the Terms & Conditions, Statement of Work ("SOW"), ERIENET's Tariff, Definitions, Repair & Maintenance Standards and the Service Level Agreement, with all exhibits, schedules, addenda and attachments thereto, collectively referred to as the "Agreement", or the "Agreement Documents". This Agreement is entered into by the ErieNET, Inc. ("ERIENET") and _____ ("Customer"). Words and phrases spelled with initial capital letters shall have the defined meanings set forth in the applicable Agreement Document. Except as expressly provided herein, any conflict among terms in the Agreement Documents shall be resolved in accordance with the following order of preference: (1) the SOW; (2) this Agreement; (3) ERIENET's Tariff; and (4) if applicable, ERIENET publications. The fact that a term may appear in one Agreement Document but not in another Agreement Document shall not be interpreted as, or deemed grounds for, a conflict for purposes of this Section 1.

2. Service. ERIENET hereby leases to Customer, and Customer hereby leases from ERIENET, the specific Services described in the SOW. Customer acknowledges and agrees that ERIENET is not supplying nor is ERIENET obligated to supply any optronics or electronics, optical or electrical equipment or other facilities, all of which are the sole responsibility of Customer unless specified in a SOW.

3. Consideration. The consideration for the Services provided herein shall consist of Nonrecurring Charges and Monthly Recurring Charges as provided in the SOW, plus applicable Taxes and third party, special construction, and right-of-way/easement acquisition costs, including but not limited to site preparation, building access, and customer premise equipment, which costs shall be Customer's sole responsibility.

4. Term and Termination. The initial term of Service shall be expressly stated in the SOW, ("Initial Term"). At the expiration of the Initial Term, Service automatically shall continue for additional one year periods ("Renewal Term") upon the same terms and conditions of this Agreement. Either party may terminate Service upon written notice to the other of its intent to terminate the Service or this Agreement at least 180 days prior to the expiration of the then applicable Term.

5. Cancellation & Early Termination Fee. If Customer terminates: (A) this or any other SOW prior to the completion of installation of Service, then Customer shall pay a Cancellation Fee equal to the greater of: (i) all Nonrecurring Charges reasonably expended by ERIENET to establish Service to Customer including commissions and legal expenses; or (ii) any amounts paid by Customer for Service in advance of the Service Delivery Date; or (B) this Agreement prior to the expiration of the then applicable Term for any reason other than ERIENET's Default, or if ERIENET terminates Service for Customer's Default, then Customer shall pay an Early Termination Fee equal to 50% of the monthly recurring charges multiplied by the number of months remaining in the Term plus all out of pocket expenses incurred by ERIENET including commissions and legal expenses; or (C) this Agreement prior to the expiration of the Initial Term, then Customer shall pay the aforementioned Early Termination Fee and shall reimburse ERIENET for any credits or deferred billing ERIENET may have granted to Customer hereunder.



6. Monthly Charges and Payment Terms. Unless otherwise set forth in an SOW, Customer will be invoiced monthly for: (A) fixed recurring charges in advance; and (B) installation and nonrecurring charges in arrears. Invoices for Services are due and payable on the Due Date specified on the invoice. Payments not received by the Due Date are considered past due and ERIENET may: (i) apply a late charge of 1.5% (or the maximum legal rate, if less) of the amount of the unpaid balance each month; and/or (ii) require a Deposit, advance payment or other form of additional adequate assurance of payment; and/or (iii) take any action in connection with any other right or remedy ERIENET may have under this Agreement or otherwise in law or in equity. All payments received shall be applied first to the payment of late fees and then to the oldest outstanding invoice. Checks returned by the bank unpaid shall be subject to a return check charge pursuant to ERIENET's Tariff. If Customer in good faith disputes any portion of any ERIENET invoice, the parties shall work cooperatively to resolve any dispute expeditiously and in accordance with ERIENET's Tariff.

7. Deposits and Adequate Assurances. ERIENET reserves the right to examine the credit record of Customer. Customer agrees to complete a credit application and submit credit information as required by ERIENET. If Customer's financial condition is unknown or unacceptable to ERIENET at any time during the Term of this Agreement, Customer may be required to provide a Deposit or additional assurance of payment in an amount not to exceed two (2) months' estimated or actual Monthly Recurring Charges. ERIENET reserves the right to require an advance payment from Customer instead of or in addition to a Deposit.

8. Non-Recurring Charges. Amounts listed for Non- Recurring Charges are reasonable estimates based on initial review. Amounts due from Customer may vary based on actual construction route conditions. Changes to the amounts will be conveyed to the Customer in writing. No additional design or construction shall proceed until written authorization from the Customer has been received by ERIENET. If additional costs are not acceptable, Customer may cancel the SOW, in writing, and will be responsible for any and all costs associated to the design and construction work completed to date from the notice of cancellation.

9. Network Access. Customer Fiber provided by ERIENET under this Agreement will be terminated at End Points provided in the SOW. Customer shall pay ERIENET a cost as determined in the SOW for any lateral build constructed by ERIENET from the ERIENET System or the nearest POP to the end-user location. ERIENET shall perform all connections in accordance with ERIENET's applicable specifications and operating procedures. Customer is responsible, at its sole cost and expense, for obtaining all governmental, building access, riser rights and other approvals and consents necessary for the use of Customer Fiber and Services.

10. Underlying Rights. ERIENET has obtained all Underlying Rights for operation of the ERIENET System. This Agreement is subject to the terms, conditions, limitations, restrictions and reservations of the Underlying Rights Requirements



11. Use of Services. Customer represents, warrants and covenants that it will use the Services in compliance with and subject to this Agreement, the Underlying Rights and all applicable ordinances, laws, rules and regulations. Customer shall not, nor shall it knowingly permit others to, use any Service for any unlawful purpose or in any unlawful manner. Customer shall not use the Services in a way that interferes in any way with or adversely affects the use of the fibers or services of any other person using the ERIENET System. The parties acknowledge that the ERIENET System includes, or will include, other participants and customers, including ERIENET and other owners and users of telecommunications systems. Customer is responsible for the manner in which it and its end-users use the Service. Customer is the sole owner of, and is solely responsible for, the content of all transmissions using the Service. Customer shall hold harmless and indemnify ERIENET from any and all liabilities related to such content attributable to Customer, including, without limitation, any liabilities arising from libel, slander, invasion of privacy or infringement of any third party's proprietary rights.

12. Maintenance. ERIENET shall perform, or cause to be performed under its direction, applicable maintenance during the Term in compliance with the Repair and Maintenance Standards. Customer shall not, nor shall it permit others to, tinker, rearrange, disconnect, remove, attempt to repair or otherwise interfere with the ERIENET System or any of the facilities or equipment installed by ERIENET. In the event ERIENET determines that it is necessary to interrupt Services or that there is a potential for Services to be interrupted for the performance of Maintenance, ERIENET shall use good faith efforts to notify Customer one week prior to the performance of such Maintenance. In no event shall interruption for Maintenance constitute a failure of performance by ERIENET.

13. Service Level Agreement. ERIENET shall provide Services to Customer in accordance with its Service Level Agreement.

14. Exculpation. ERIENET is providing access to a dark fiber optic network only and shall bear no responsibility for Customer equipment used in connection with Services on the ERIENET System; Customer shall be responsible and assume all liability for its connection and compatibility of Customer's equipment with ERIENET's System.

15. Force Majeure. ERIENET shall not be liable for any delay or failure of performance under this Agreement directly or indirectly caused by Force Majeure.

16. Dispute Resolution. The parties will attempt in good faith to resolve any controversy or claim arising out of or relating to this Agreement promptly through discussions between themselves at the operational level. In the event a resolution cannot be reached at the operational level, the disputing party shall give the other party written notice of the dispute and such controversy or claim shall be negotiated between appointed counsel or senior executives ("Officers") of the parties who have authority to settle the controversy. If the parties fail to resolve such controversy or claim within thirty (30) days of the disputing party's notice, either party may initiate the Alternate Dispute Resolution process with the New York Public Service Commission, if applicable, or pursuant to the rules of the American Arbitration Association. Unless otherwise agreed by the parties, they shall continue to perform under this Agreement during the resolution process. If this process fails, the parties may seek any administrative or judicial remedies to which they are entitled.



17. Governing Law. This Agreement governs Services to be provided within the State of New York and shall be construed and enforced in accordance with, and the validity and performance hereof, shall be governed by the laws of the State of New York. No claim, demand, action, proceeding, arbitration, litigation, hearing, motion or lawsuit arising from, related to, or connected with this Agreement shall be commenced or prosecuted in any jurisdiction other than state or federal courts located in the County of Erie, State of New York and/or the New York Public Service Commission.

18. Bankruptcy. In the event of bankruptcy or insolvency of either party or if either party shall make any assignment for the benefit of creditors or take advantage of any act or law for relief of debtors, the other party to this Agreement shall have the right to terminate this Agreement without further obligation or liability on its part.

19. Default. A "Default" shall occur if: (A) Customer fails to make payment as required under this Agreement; or (B) either party fails to perform, or observe any other material term or obligation contained in this Agreement, including, without limitation, any violation of Section 5 hereof, and any such failure remains uncorrected for thirty (30) calendar days after written notice from the non-defaulting party informing the defaulting party of such failure. In the event of a Customer Default for any reason, ERIENET may: (i) suspend Services to Customer; and/or (ii) cease accepting or processing orders for Services; and/or (iii) terminate this Agreement. If this Agreement is terminated due to a Customer Default, Customer shall pay the Early Termination Fee as defined in Section 5 of this Agreement, and, if applicable, reimbursement of credits or deferment. Customer agrees to pay ERIENET's reasonable expenses (including attorney and collection agency fees) incurred in enforcing ERIENET's rights in the event of a Customer Default. In the event of a ERIENET Default, Customer may terminate this Agreement without penalty. Customer will, however, remain liable for all charges incurred for Services provided prior to Customer's termination of this Agreement. If Customer uses the Services for any unlawful purpose or in any unlawful manner or in a manner that threatens the integrity of ERIENET's fiber optic network or the networks or any third parties, ERIENET shall have the right to immediately suspend and/or terminate any or all Services hereunder without notice to Customer.

20. Notices. All notices and other communications shall be in writing and shall be sent as follows: (a) by registered or certified United States mail, return receipt requested and postage prepaid to the addresses herein; (b) by hand delivery, including courier service delivery, to such addresses; or (c) by facsimile transmission. Notices shall be deemed effective upon delivery if delivered by mail or in person or upon receipt of confirmation of transmission if delivered by facsimile. The parties shall be entitled to change the addresses for such notices upon five (5) days advance written notice to the other party.



21. **Waiver of Breach.** The failure of either party to give notice of Default or to enforce or insist upon compliance with any of the terms or conditions of this Agreement, the waiver of any term or condition of this Agreement, or the granting of an extension of time for performance, shall not constitute a permanent waiver of any term or condition of this Agreement, and this Agreement and each of its provisions shall remain at all times in full force and effect until modified by the parties in writing. The rights and remedies provided by this Agreement are cumulative and the use of any one right or remedy by any party shall not preclude or waive its rights to pursue any or all other remedies. Said rights and remedies are given in addition to any other rights such party may have by law, statute, ordinance or otherwise, except as such remedies are expressly stated in this Agreement.

22. **Business Relationship.** This Agreement shall not create any agency, employment, joint venture, partnership, representation, or fiduciary relationship between the parties. Neither party shall have the authority to, nor shall any party attempt to, create any obligation on behalf of the other party. This Agreement applies only to Services provided to Customer and does not constitute a joint undertaking with Customer for the furnishing of any Service to Customer's end users. ERIENET shall be responsible only for the installation, operating and maintenance of its facilities used in providing Service to Customer.

23. **Indemnity.** Subject to the limitations of this Agreement and ERIENET's Tariff, each party shall indemnify, defend, release, and hold harmless the other party, their affiliates, directors, officers, employees, and agents from and against any action, claim, cost, damage, demand, loss, penalty, or expense including but not limited to attorneys' fees, expert witness fees, and costs (collectively "Claims") imposed upon either party by reason of damages to property or personal injuries, including death, as a result of an intentional or negligent act or omission on the part of the indemnifying party in connection with the performance of this Agreement or other activities relating to the Service, the property, or the facilities which are the subject of this Agreement. In the event a Claim relates to the negligence of both parties, the relative burden for the Claim shall be attributed equitably between the parties in accordance with the principles of comparative negligence. The term "property" as used in this section shall include real, personal, tangible, and intangible property, including but not limited to, data, proprietary information, intellectual property, trademarks, copyrights, patents, and knowledge. In the event any action shall be brought against the indemnified party, such party shall immediately notify the indemnifying party in writing, and the indemnifying party, upon the request of the indemnified party, shall assume the cost of the defense thereof on behalf of the indemnified party and shall pay all expenses and satisfy all judgments which may be incurred by or rendered against the indemnified party in connection therewith, provided that the indemnified party shall not be liable for any settlement of any such action effected without its written consent. Notwithstanding anything to the contrary, none of the parties shall be liable to the other for special, punitive, exemplary, consequential or indirect losses of damages arising under this Agreement. This indemnification section shall survive expiration or termination of this Agreement, regardless of the reason for expiration or termination.

24. **Assignment.** Neither party may assign, transfer or encumber this Agreement without the express written consent of the other party, which consent shall not be unreasonably withheld or delayed.



25. Legal Construction. In the event one or more of the provisions contained in this Agreement shall, for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

26. Limitation of Liability. ERIENET's liability for the Services provided under this Agreement shall in no event exceed the total amount paid for the applicable Service pursuant to this Agreement. Notwithstanding the foregoing, ERIENET shall be liable to Customer only to the extent provided in the SLA and ERIENET's Tariff.

27. Subject to Laws. This Agreement is subject to, and the parties agree to comply with, all applicable federal, state and local laws, and regulations, rulings, and orders of governmental agencies, including, but not limited to, the Communications Act of 1934, the Telecommunications Act of 1996, the Rules and Regulations of the Federal Communications Commission ("FCC"), state public utility or service commissions ("PSC"), and Tariffs. Customer further agrees to execute any Letter of Agencies ("LOAs"), credit applications or other documents necessary to facilitate ERIENET's provision of Services to Customer under this Agreement.

28. Counterparts. This Agreement may be executed in any number of counterparts, including electronic counterparts, each of which shall be deemed an original, and when taken together shall constitute one and the same document.

29. Confidential Information. Each party shall maintain the confidentiality of all information or data provided to it by the other party as proprietary and confidential to that party ("Confidential Information"). Each party shall use the same efforts (but in no case less than reasonable efforts) to protect the Confidential Information it receives under this Agreement as it accords to its own Confidential Information. The above requirements shall not apply to Confidential Information that already is in the possession of the receiving party through no breach of any obligation of confidentiality to the disclosing party or any third party, is already publicly available, or is independently developed by the receiving party. The parties acknowledge that any information not documented as Confidential Information may be reviewable through the Freedom of Information Act. Because money damages may be insufficient in the event of a breach or threatened breach of the foregoing provisions, the affected party shall be entitled to a judicial injunction or restraining order in addition to such other rights or remedies as may be available under this Agreement, at law or in equity, including but not limited to money damages.

30. Survival. The covenants and agreements of the parties contained in this Agreement with respect to payment of amounts due, confidentiality, liability, and indemnification shall survive any expiration or termination of this Agreement. The rights and obligations under this Agreement shall survive any merger or sale of either party and shall be binding upon the successors and permitted assigns of each party. Services provided by ERIENET as set forth in each SOW is severable and, upon termination of Service with respect to any SOW, Services provided under other SOWs shall continue unaffected pursuant to this Agreement.



31. Entire Agreement. This Agreement, as defined in Section 1 hereof, constitutes the entire Agreement of the parties with respect to the transactions contemplated herein, and it supersedes all prior oral or written documents, commitments or understandings. This Agreement, and any SOW, may only be modified or supplemented by an instrument in writing executed by each party.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date last written below.

ErieNET, Inc.

By: _____
Name: _____
Title: _____
Date: _____
Business Address: _____

CUSTOMER:

By: _____
Name: _____
Title: _____
Date: _____
Business Address: _____



8.4.3 Master Service Agreement - Service Level Agreement

ERIENET will respond and commence work within two (2) hours after notification or discovery of a Service Outage and will restore effective use of Service or the affected strands of Customer Fiber within four (4) hours after such notification or discovery.

In the event that ERIENET dispatches personnel for a Service Outage or problems caused by Customer equipment or personnel, the dispatch will be treated as ancillary services or non-routine maintenance and Customer shall incur a charge.

If ERIENET does not timely restore effective use of the affected Service or specific affected strands of Customer Fiber, Customer may be entitled to a credit from ERIENET in an amount equal to five percent (5%) of the Monthly Recurring Charge of the affected Service per day. ERIENET shall make any such reimbursement within thirty (30) days after receiving from Customer a written request for credit within sixty (60) days of the Service Outage. Notwithstanding the foregoing:

- a) Customer will not be entitled to reimbursement if the Service Outage is caused by (i) an act or omission of Customer, its employees, agents or contractors; (ii) Customer's equipment; (iii) a Force Majeure; or (iv) planned outages for Maintenance that are scheduled in advance with Customer.
- b) ERIENET's maximum reimbursement liability for Service Outages in any month will not exceed one month's Monthly Recurring Charge for the affected Service.



8.4.4 Master Service Agreement - Maintenance and Repair Standards

During the Term of the Agreement, ERIENET shall perform the following:

- (i) **Monitoring and Repair:** ERIENET will monitor Customer Fiber pursuant to Paragraph (v), "Network Monitoring and Trouble Reporting."
- (ii) **Routine Maintenance:** ERIENET shall perform routine maintenance and repair of Customer Fiber and on ERIENET's System. Routine Maintenance shall consist of only the following activities:
 - a. Patrol of the ERIENET System on a regularly scheduled basis;
 - b. Maintenance of a "Call-Before-You-Dig" program and all required and related cable locates; and
 - c. Maintenance of sign posts along the Underlying Rights along the System with the number of the "Call-Before-You-Dig" organization and the toll-free number for ERIENET's "Call-Before-You-Dig" program.
- (iii) **Non-Routine Maintenance:** ERIENET shall perform non-routine maintenance and repair of Customer Fiber that is not included as Routine Maintenance. Non-Routine Maintenance shall consist of:
 - a. "Emergency Non-Routine Maintenance" in response to an alarm identification by ERIENET, Customer or any third-party of any failure, interruption or impairment in the operation of any of Customer Fiber or any event imminently likely to cause the failure, interruption or impairment in the operation of any portion of Customer Fiber; and
 - b. "Non-Emergency Non-Routine Maintenance" in response to any potential Service Affecting Condition to prevent any failure, interruption or impairment in the operation of Customer Fiber. For purposes of Non-Routine Maintenance, "Service Affecting Condition" means a condition on Customer Fiber that materially adversely affects CUSTOMER's ability to utilize Customer Fiber or the Associated Property.
- (iv) **Planned Outage/Network Maintenance:** From time to time, there may be requirements of ERIENET to maintain or make modifications to the ERIENET System. ERIENET agrees to provide CUSTOMER fourteen (14) calendar days notification prior to any relocation and/or maintenance work that may cause degradation or loss of connectivity to Customer Fiber. ERIENET has the right to direct such relocation and/or maintenance activities, including the right to determine the extent of, timing of, and methods to be used for such maintenance or relocation, provided that the work is constructed and tested in accordance with the specifications, does not result in materially adverse change to the operations, performance, or connection points with the network of ERIENET and does not unreasonably interrupt service on Customer Fiber.



(v) Network Monitoring and Trouble Reporting:

a. ERIENET monitors the ERIENET System 24 hours a day, seven days a week, 365 days a year. ERIENET maintains a 24 hours a day, seven days a week point-of-contact for Customer to report system troubles. The telephone number for ERIENET's 24x7x365 Operations Center is 1-855-935-5050

(vi) Performance Reviews: If requested by Customer, ERIENET and Customer will meet no less frequently than semi-annually to review the ERIENET network performance. ERIENET will provide year-to-date Mean Time To Repair ("MTTR") reports for all affected Customer Fiber provided to ERIENET.



8.4.5 Master Services Agreement - Statement of Work

This Statement of Work ("SOW") for the leasing of dark fiber optic strands and related ancillary services incorporates the terms and provisions as set forth in the Master Agreement – Terms & Conditions dated as of _____ entered into by ERIENET and Customer

("Agreement"). Capitalized terms used but not defined herein shall have the meaning set forth in the Agreement. Customer hereby orders the following dark fibers and ERIENET hereby agrees to deliver the following dark fibers, pursuant to and in accordance with the Agreement. On execution of this SOW by both parties, the dark fibers identified below shall become Services under the Agreement.

Non-Recurring Charge (NRC)	Monthly Recurring Charge (MRC)	Target Delivery Date	Initial Term (Months)

Span Name	A-Location	Z-Location

IN WITNESS WHEREOF, the parties have executed this SOW as of the date last written below.

ErieNET, Inc.

By: _____
Name: _____
Title: _____
Date: _____
Business Address: _____

CUSTOMER:

By: _____
Name: _____
Title: _____
Date: _____
Business Address: _____



* Except where the demarcation point is designated above, the demarcation point at each End Point for lateral segments and riser segments shall generally be one of the following types, as determined by ERIENET: (1) a meet at the ERIENET backbone (for a Customer-built lateral segment); (2) a fiber meet in the building's zero or meet-me manhole; (3) a building minimum point of entry (where a Splice or patch panel is required); (4) a common demarcation point (e.g., a building common room or meet-me room); (5) the Customer distribution POP; or (6) an extended demarcation point in the ERIENET POP. Other than as a result in changes to ERIENET's Underlying Rights, such demarcation points once established shall not change during the Term.

8.5 NOTICE OF COMPLETION

ErieNET

Notice of Completion

April 17, 2023,

via Email

RE:

Dear:

Thank you for choosing ERIENET dark fiber. We are pleased to provide you with this Notice of Completion that the service described in the contract "Dark Fiber Lease Agreement No. 2022-09-10-01; STATEMENT OF WORK – December 2022" has been installed and completed. Along with this letter, we are providing you with the OTDR test results of the fiber optic spans you ordered.

Per the Statement of Work, the monthly recurring fee will be \$525.00/month and a one-time non-recurring fee will be \$56,655. Billing will begin effective May 1, 2023.

If you should have an operational issue; please contact our Network Operations Center at 1-XXX-XXX-XXXX. For billing or other administrative issues, please contact me directly at YYY-YYY-YYYY.

Thank you for your business. We look forward to working with you on future opportunities.

Best regards,



8.6 GENERAL UTILITY EASEMENT

General Utility Easement

[Address]

Grantor:

Grantee: ErieNET

GENERAL UTILITY EASEMENT

THIS INDENTURE made this ____ day of [MONTH], 2022, between [GRANTOR'S NAME] collectively owning property at [PROPERTY ADDRESS], known as tax map number [INSERT TAX MAP NUMBER] ("Grantor"), and the ErieNET, its officers, employees, agents, servants or contractors, successors, heirs and assigns ("Grantee").

WITNESSETH: That the Grantors, for and in consideration of the sum of XXX Dollars (\$XXX.XX) lawful money of the United States of America, and other good and valuable consideration, to it in hand paid by the Grantee, the receipt of which is hereby acknowledged, DOES HEREBY GRANT, TRANSFER AND CONVEY to the Grantee, and its successors and assigns a continuing general utility easement ("Easement") upon, over, under, through and across the Grantor's real property, and any improvements thereon, delineated in Exhibit A and described in Exhibit B ("Premises"), attached hereto for the purpose of placing, maintaining, using, operating, repairing, and reconstructing fiber optic cable lines, and other utility services and facilities generally located, or to be located, upon, over, under, through and across the Premises including, without limitation, a lateral from Grantee's backbone in the public right-of-way, across the Premises by aerial and/or underground means, penetrating Grantor's building wall and terminating Grantor's fiber at the fiber distribution panel located in Grantor's demarcation room. In addition, Grantee will make the required excavations therefore upon, over, under, through or across the Premises, and inspecting the area from time to time, together with the right of the Grantee, its officers, employees, agents, servants or contractors, of ingress and egress to enter upon and along the Premises for the full and complete use, occupation and enjoyment of this Easement hereby granted, and all rights and privileges incident thereto, including, but not limited to, any of the purposes hereinbefore specified. This Easement shall at all times be deemed to be and shall be a continuing covenant running with the land and shall inure to and be binding upon the successors, heirs and assigns of the Grantors for the benefit of the Grantee, its successors, heirs and assigns.

PROVIDED, however, that:

1. The Grantee shall repair any damage caused to the Premises arising from the Grantee's activities undertaken pursuant to this Easement.



2. The Grantee further agrees to give the Grantors one day verbal notice, to the extent practicable, prior to commencing any necessary excavating hereunder, and to complete any necessary excavating with all reasonable speed unless prevented by war, strike, acts of God, or other conditions beyond the reasonable control of the Grantee.
3. Grantee shall have the right to assign, license, permit, or otherwise agree to the sole or joint use and occupancy of the Easement by any other person, association, or corporation for construction, and operation of fiber optic cable lines, and upon such assignment, license, or permit, or agreement, all of the provisions hereunder shall be binding on such person, association, or corporation.
4. The Grantee further agrees:
 - (a) to make adequate provision to insure access to the Premises to the Grantor, its successors and assigns during any maintenance, use, operation, repair, and/or reconstruction of the fiber optic cable line and/or during any required excavations;
 - (b) not to park personal vehicles on the Premises;
 - (c) to park construction vehicles and equipment only in close proximity to the Premises;
 - (d) to remove any spills of gravel or dirt on the Premises;
 - (e) to dispose of any clean fill at locations designated by the Grantors;
 - (f) to safeguard any excavations during construction with visible signs and barricades;
 - (g) to cross lands of the Grantor to gain access to the Easement area only.
5. The Grantors covenant with the Grantee that they are lawfully seized and possessed of the real property above described and that they have a good and lawful right to convey it, and any part thereof, including the rights conveyed by this instrument, and that they will forever warrant and defend the title thereto against the claims of any persons. The Grantors covenant and agree that the Grantee shall quietly enjoy this permanent right-of-way and Easement.
6. Grantor covenants with Grantee that the Grantee and Grantee's officers, employees, agents, servants and contractors will have unescorted access twenty-four (24) hours a day, seven (7) days a week, fifty-two (52) weeks a year to enter or work on the Grantor's premises.
7. The Grantor agrees to indemnify and hold harmless Grantee from any and all demands, claims, and damages for property damages or personal injury that are caused by: (a) any activity, work or thing done or permitted by the Grantee in or about the Easement area; (b) any grossly negligent acts of the Grantee, or its employees, agents or contractors in connection with this Easement.



8. The Grantors hereby release the Grantee, its officers, directors, shareholders, employees, and agents, from all claims for damage, from whatsoever cause, incidental to the exercise of any of the rights herein granted at any time hereafter.

9. Each individual signing on behalf of a party to this Agreement states that he or she is the duly authorized representative of the signing party and that his or her signature on this Agreement has been duly authorized by, and creates the binding and enforceable obligation of, the party on whose behalf the representative is signing.

10. After the execution and consummation hereof, the Grantor and Grantee shall do and perform, or cause to be done and performed, all such further acts and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other party may reasonably request to carry out the intent and accomplish the purposes of this Easement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be duly executed as of the day and year first above written.

Grantee

(ErieNET, Inc.)

By: _____

Date: _____

STATE OF NEW YORK COUNTY OF ERIE SS:

On this ____ day of [MONTH], 2022, before me, the undersigned, personally appeared Steve Manning, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person on behalf of whom the individual acted, executed the instrument.

Notary Public



Grantors

(Property Owners)

By: _____

Date: _____

By: _____

Date: _____

STATE OF NEW YORK COUNTY OF ERIE SS:

On this ____ day of [MONTH], 2022, before me, the undersigned, personally appeared Steve Manning, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person on behalf of whom the individual acted, executed the instrument.

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Notary Public

EXHIBIT A

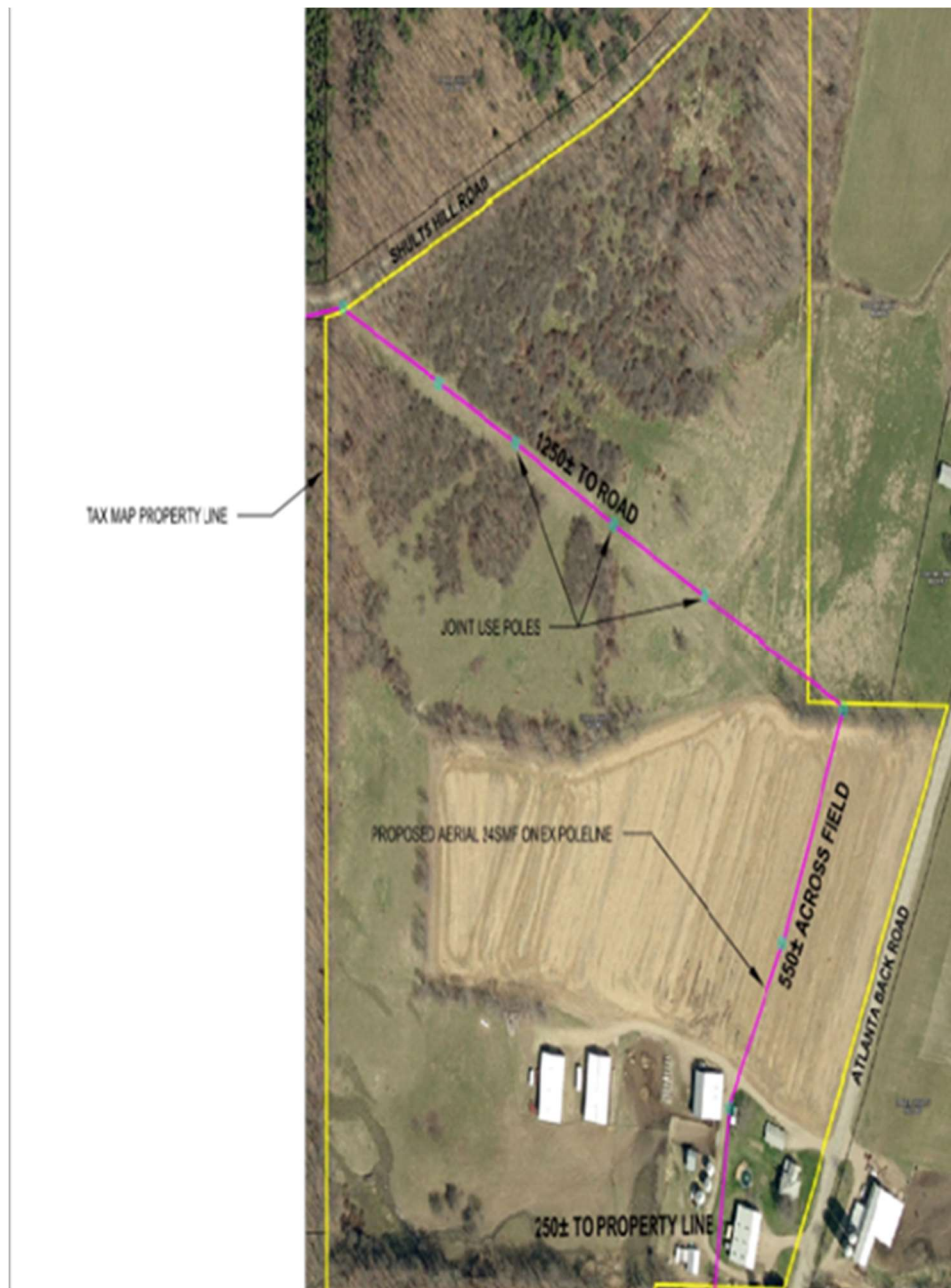




EXHIBIT B

Legal Description of Easement

All of the land is situated in the [TOWN], [COUNTY], State of New York and is described more in detail below:

The fiber will enter the property as depicted on map...

The first pole is situated...

The fiber will be placed...

The fiber will cross...