



**CITY OF PACIFIC GROVE**  
300 Forest Avenue, Pacific Grove, California 93950

**AGENDA REPORT**

**TO:** Honorable Mayor and Members of City Council  
**FROM:** Thomas Frutchey, City Manager  
**MEETING DATE:** May 20, 2015  
**SUBJECT:** The Pacific Grove Optical Fiber Network  
**CEQA:** Does not Constitute a "Project" per California Environmental Quality Act (CEQA) Guidelines

**RECOMMENDATION**

Conceptually approve the principles of agreement and direct the City Manager to negotiate with SiFi Networks the full set of agreements necessary for the installation of optical fiber cable to the curb of every parcel in the City.

**DISCUSSION**

In April, 2014, the City and SiFi Networks executed a development agreement (Attachment 1). Among other terms, SiFi Networks committed in the development agreement to undertake the steps necessary to:

- ❖ Build a fiber-to-the-curb network throughout Pacific Grove except in areas where the cost of construction will exceed 150% of the standard cost.
- ❖ Build a network point-of-presence in distributed locations throughout Pacific Grove.
- ❖ Provide fiber connections between various City buildings.
- ❖ Engage existing and additional service providers to provide content and services to businesses and residents.

The City committed to:

- ❖ License to use rights-of-way for the network for a term of 25 years; option to renew for 25 years.
- ❖ Provide plan check and other technical support as needed free of charge to SiFi Networks.
- ❖ Provide locations to install distributed network point-of-presence equipment on City properties.
- ❖ Provide assistance to secure approvals for right-of-way not controlled by the City.

Much progress has been achieved since the signing of the agreement. SiFi has, among other steps:

- Finalized the design methodology for Pacific Grove; the network will be truly future proofed and capable of supporting well over 1 Gigabit speeds to residents and businesses with unparalleled reliability and a multitude of business class and high speed services available.
- Completed a detailed design and physical survey on the first phases of the build.
- Held a construction workshop with the City's Public Works and engineering team, including the construction contractors, SiFi Networks' engineers, and plant and remediation specialists

- Contracted with an independent market-recognized firm for a feasibility study that provided an:
  - Existing demand assessment
  - Competitor analysis
  - Business case pro forma
  - Comparable supporting data
- Successfully completed a landmark deal with Alcatel Lucent for equipment, support, and managed services
  - [http://www.bloomberg.com/research/markets/news/article.asp?docKey=600-201505111200PR\\_NEWS\\_USPRX\\_NY04145-1](http://www.bloomberg.com/research/markets/news/article.asp?docKey=600-201505111200PR_NEWS_USPRX_NY04145-1)
- Negotiated a long-term sustainable backhaul solution for the SiFi Networks FiberCity model nationwide
- Determined that the network should be open access.
- Forged relationships with multiple services providers who are eager to enter new markets including California. The service providers have strong track records and confidence in the demand within Pacific Grove.

The City has stayed fully involved or monitored each of these efforts. The City has also contracted with Buske Group, a technology advisor, to ensure that progress as we move forward continues to appropriately further the community's interests. Given the complex technologies involved, without the proper advice, the City could make a mistake. As we are going to do this only once, it is crucial that we get it right the first time.

In spite of all of these efforts, the project team has not been able to maintain the original schedule, which called for the initial build to occur in December, 2014. This has primarily been a result of the results of the feasibility study, which demonstrated that despite strong demand in the community SiFi could not achieve the level of return necessary to satisfy its investment in a SiFi-owned network model. However, SiFi can achieve lower cost of financing, resulting in viable wholesale rates to Service Providers that would satisfy its investors if ownership of the resulting network were transferred to the City at the end of an initial lease period.

This change can prove to be a long-term benefit to the City as well. As we have learned with CalAm, for example, if utility companies own system assets, the ratepayers have to pay for them over and over again. The approach that is better for the community is for public ownership and private operation. The revised proposal enables the City to own the network after the end of the initial 30-year amortization period, as has been pioneered by Santa Monica, but have the network be operated, maintained, and upgraded when needed by SiFi and its affiliates.

The City has been analyzing alternative approaches to achieve this goal without incurring significant risk. The current approach, which must still be refined, utilizes a series of agreements that minimize SiFi's cost of finance without transferring unacceptable risk to the City.

SiFi will ensure that Internet Service Providers have entered into HOTs with the City sufficient to garner enough revenue to cover the City costs over the life of the investment prior to commencing construction. In essence creating a long term sustainable infrastructure, to be owned by the City at the end of the Agreement.

Installation of the cable necessary to serve a reasonably-sized neighborhood can be completed in less than a day. Thus, SiFi can bring the system on line, neighborhood by neighborhood, in very short order. The first subscribers will be able to receive service within 3 months of construction commencing. (Build-out for the entire City is scheduled to be 7-8 months, construction has been phased so as to limit disruption, with multiple teams working in different parts of the City simultaneously).

The major elements of the agreement set are as follows:

<b>Agreement/Annex Name</b>	<b>Purpose</b>	<b>Parties</b>
Development Agreement	Establishes overall relationship (already executed)	City/SiFi Networks Pacific Grove LLC
License Agreement	Transfer of rights to technology	City/SiFi Networks Pacific Grove LLC
Minimum Payments Access Agreement (MPAA)	Lease of the network to serve the first residential subscribers	City/FibreCity Pacific Grove Ltd
Excess Payments Access Agreement (EPAA)	Lease of the network to serve remaining subscribers incl. businesses	City/SiFi Networks Pacific Grove LLC
Pacific Grove O&M Master Service Agreement (MSA)	Transfer of Responsibilities to operate and maintain the network	City/SiFi Networks Pacific Grove LLC
Master Service Provider (MSP) Agreement	To be negotiated and entered into between the City and ISPs (SiFi will assist the City)	City/ISP
MSP Annex I	Service level agreement	City/ISP
MSP Annex II	Acceptable usage policy	City/ISP

These agreements have been drafted and are able to be fully negotiated. Those negotiations will finalize the exact structure and details.

SiFi Networks has invested considerable sums developing the relationship with the City to this point. SiFi's investors are seeking a demonstrated commitment from the City for this overall approach before additional sums are invested.

The attached principles of agreement outline the commercial principles of the agreements subject to final legal agreements between SiFi and the City.

For financial projections to service the network are positive and a 10 year pro forma can be found in attachment 4. Please note that these figures are yet to be quantified and qualified by the City.

Providing conceptual approval to the principles of agreement enables SiFi and the City to carry out a number of tasks. Next steps for SiFi include:

- ❖ Finalizing commercial arrangements for the backhaul specific to Pacific Grove
- ❖ Agree HOTs with Service Providers
- ❖ Authorizing their engineering and construction crews to finalize their engineering and design for the City-wide build
- ❖ Preparing manufacturers to ensure they have factory slots booked for our project
- ❖ Refinement of existing agreements for the purposes of making Pacific Grove a FiberCity

Next steps for the City include:

- ❖ Continuing to assist with the engineering information for the network designs (including mission-critical buildings and comprehensive parcel data base information)
- ❖ Seeking a Moody's credit rating for the City
- ❖ Meeting with ISPs that wish to enter the market
- ❖ Assisted by SiFi, negotiating legal agreements with the ISPs that wish to serve our community.
- ❖ Refinement of existing agreements for the purposes of making Pacific Grove a FiberCity

The schedule calls for having all the above in place and agreements ready to be signed within eight weeks of the approved principles of agreement. Construction of the entire system would then be accomplished within one year. The lease payments from the City to SiFi would not begin until construction is complete.

The recommended action does not constitute a "Project" as that term is defined under the California Environmental Quality Act (CEQA) Guideline Section 15378, as it is an organizational or administrative activity that will not result in direct or indirect physical changes in the environment.

### **OPTIONS**

1. Do nothing. This would result in the end of the relationship between the City and SiFi
2. Provide alternative direction to staff.

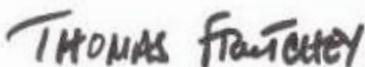
### **FISCAL IMPACT**

Staff time; purchase of a performance bond, subject to a 14 day cooling period.

### **ATTACHMENTS**

1. Background
2. Development Agreement, 2014
3. Principles of Agreement
4. Pro Forma Summary 10-Year P&L
5. Alcatel-Lucent Agreement Announcement

**RESPECTFULLY SUBMITTED,**



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Thomas Frutchey  
City Manager

## **Background to SiFi Networks Proposal to Build a Fiber-to-the-Curb Network**

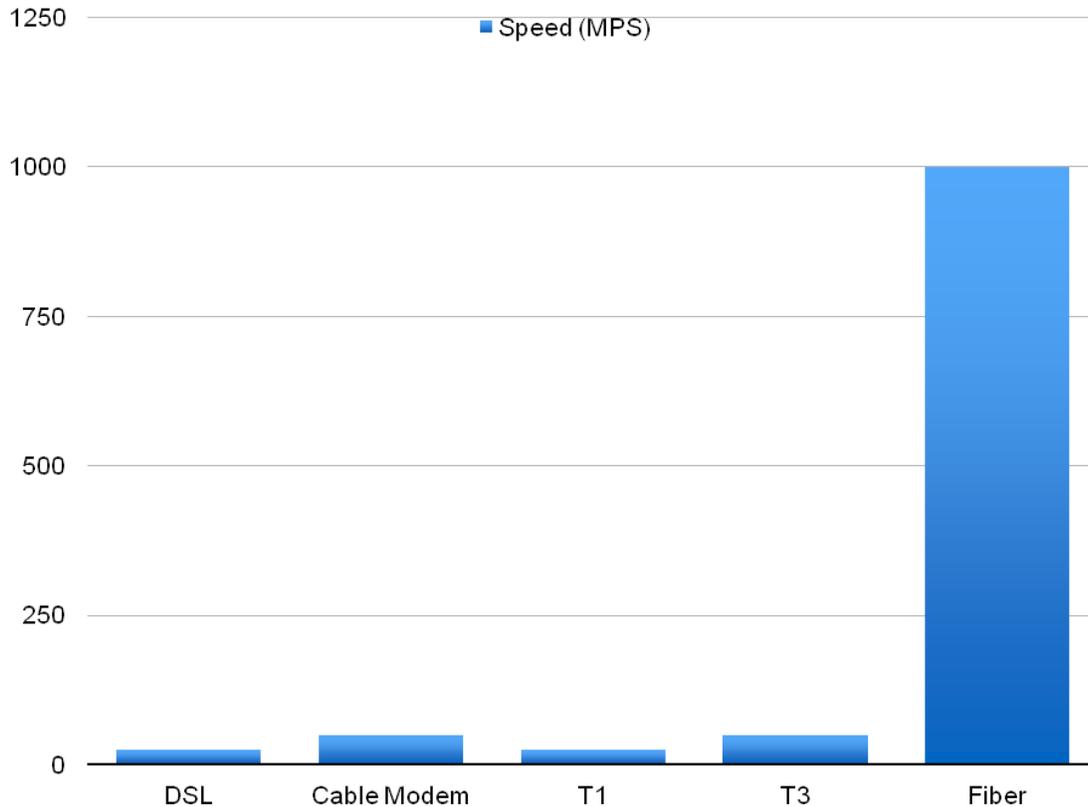
Currently, Pacific Grove and the entire California Central Coast have limited access to broadband telecommunications. Existing providers have been reluctant to build new infrastructure or upgrade existing infrastructure. This lack of broadband infrastructure options negatively impacts our ability to attract businesses to Pacific Grove that are heavy information users. In early 2014, SiFi Networks of America approached the City. SiFi Networks, which is backed by the Pickstock Group in London, a large international construction company, is seeking opportunities in the United States to build world-class telecommunications network infrastructure. As such, SiFi seeks to construct a few such networks in California during its first phase, one of which would be in Pacific Grove. SiFi believes that there is a largely untapped and unmet market for high-speed internet infrastructure. The proposed project requires SiFi Networks to build a fiber optic network adjacent to virtually each address in Pacific Grove. Network construction will use a unique slot trenching, horizontal boring, and available space in the sanitary sewer systems to reduce costs of construction and to minimize community impact.

This new network will provide access to world-class internet and telephone speeds. This level of service is currently available only in areas in the United States where either a city (such as Santa Monica) or Google has paid to build a fiber optic network.

Upon completion, businesses and residents will be able to access as much as 1 gigabyte per second (gps). This level of service compares to the existing maximum data speed of 50 megabytes per second. [A gigabyte equals either 1,000 or 1,024 megabytes.] The SiFi system in Pacific Grove will increase speeds by 20 times that of existing infrastructure.

WiFi and satellite communications technology cannot approach these speeds, regardless of their refinement. (LTE is currently at 5 megabytes per second (mps); G5 is no faster than 25 mps.) Thus, although WiFi and satellite technologies will continue to advance, they do not have the ability to remove the overall advantage in speed—and therefore bandwidth—of optical fiber.

The following chart demonstrates the significant capacity increase of this technology as compared to other standard options available to date.



This level of service is sought after by technology, design, video, language localization, and similar companies. Having this network will greatly improve Pacific Grove’s competitiveness and ability to attract information-dependent businesses. It will also be a boon to home businesses and a clear resource to residents.

Another benefit of this type of network is to visitors. Hotel, motel, and bed and breakfast operators would gain access to better video, telephone, and the internet through this system. Given the high number of visitors to the Monterey Bay Area from Silicon Valley, and the fact that Pacific Grove would be the first (if not the only) area city to offer this technology, this network could help attract visitors and improve their quality of stay. It may also encourage local hoteliers to upgrade their on-site capabilities.

To facilitate the creation of this network, the City agreed to provide SiFi a 25-year license to use the City rights-of-way with a mutually agreeable option to extend that license for an additional 25 years. This length of term was necessary to allow SiFi Networks to secure funding to construct the network. The City also agreed to provide plan check and permitting services at no cost. In addition to building the network, SiFi Networks will construct a distributed point-of-presence (POP), i.e., the switching and distribution equipment to allow this network to reach optimum performance. (Heavy information-using companies prefer being near a network POP as the distance to a POP is an important determinate of overall speed and throughput.)

SiFi Networks has agreed to build a fiber-to-the-curb network throughout the City, to build a distributed POP, and to provide the City with bandwidth to serve the various City computer networks

in different buildings. The cost of to build the network and POP is estimated to be \$30-40 million. This results in the City getting \$30-40 million in infrastructure in exchange for rights-of-way, free permitting, and a few thousand dollars of staff time. In addition, should SiFi Networks choose not to renew the license agreement after 25 years, ownership of the network reverts to the City. If SiFi Networks were to go out of business, the license agreement would be available for purchase and the City could decide if the network should be purchased or sold to another telecommunications company.

This opportunity is time-sensitive. SiFi Networks is building this network as a speculative venture. Much like the Google Fiber opportunity offered to a few cities, Pacific Grove has a unique and time-limited opportunity to receive a substantial upgrade in infrastructure for little cost to the City. Other cities may choose to not build such a network. Even if they do, Pacific Grove will have a substantial time advantage. In addition, without SiFi, the City will be significantly delayed in providing this opportunity to our citizens, and would likely bear a tremendous additional cost to the City.

Existing telecommunications companies, security companies, and others will be able to lease bandwidth on the new fiber network. This is a common practice among telecommunications providers, as most lease bandwidth from common carriers such as AT&T and L-3 Communications.

**PRINCIPLES OF AGREEMENT**  
**Between**  
**SiFi Networks**  
**and the**  
**City of Pacific Grove, California**  
**For the FTTHS PROJECT**

These Principles of Agreement among City of Pacific Grove, California (“**City**”), SiFi Networks Pacific Grove LLC (“**SiFi**”) and FiberCity Pacific Grove LTD (“**FiberCity**”), collectively, the “**Parties,**” and memorializes the Parties’ understanding of the material terms relating to SiFi’s proposed development of a fiber-to-the-premise-system (“**FTTTPS**”) advanced communications network throughout the City. Once completed, the City will lease and operate the FTTTPS, or appoint an organization to operate all, at its discretion, as more fully set forth in the terms below.

It is the Parties’ intent to negotiate and enter into more definitive agreements incorporating these Principles of Agreement, as more particularly delineated below:

<u>Agreement</u>	<u>Parties</u>	<u>Description</u>
Development Agreement (DA)	City (as the “ <b>Grantor</b> ”) SiFi (as the “ <b>Grantee</b> ”)	<ul style="list-style-type: none"> <li>• Grantee has agreed to a Development Agreement with Grantor (April 14, 2014), with a term of 25 years.</li> <li>• Grantor agrees to amend the Development Agreement to reflect a term of 30 years.</li> </ul>
Minimum Payments Lease (MPL)	City (as the “ <b>Tenant</b> ”) FiberCity (as the “ <b>Landlord</b> ”) SiFi (as the “ <b>Manager</b> ”)	<ul style="list-style-type: none"> <li>• Landlord grants Tenant rights to access the FTTTPS up to the first 38% of residential and commercial parcels within the City. (100% of which shall have access to service under the DA)</li> <li>• Tenant shall lease access for a term of 30 years.</li> <li>• Tenant shall assume ownership of Landlord’s rights to the FTTTPS when 30 consecutive years of payments (as set out below) have been made.</li> <li>• Tenant will maintain and operate the FTTTPS, only subcontracting these responsibilities out to Manager approved organizations.</li> <li>• 7 months’ rent free through construction</li> <li>• Payments to be qualified and quantified</li> <li>• 38% take up of the 100% premises passed</li> <li>• In the event of less than 38% take up, Landlord will escrow funds at agreed average drop cost up to the 38% Take Rate</li> <li>• Landlord will have step in rights with any contracts the City enters into with service providers or operators of the FTTTPS in the event of non-appropriation.</li> <li>• To comply with California law, Tenant will have the right to terminate for non-appropriation of funds by Tenant’s governing body.</li> <li>• Tenant’s staff will use best efforts to include full funding of lease obligations in recommended annual budgets.</li> <li>• All agreements with entities either operating, maintaining or</li> </ul>

		<p>providing a service using the FTTPS will be subject to SiFi approval, so that in the event the Tenant fails to appropriate the FTTPS can still be operated seamlessly by SiFi (step in right).</p> <ul style="list-style-type: none"> <li>• Assignable by SiFi for purposes of financing the FTTPS, or transferring to an affiliate. Any other assignable event shall be subject to city approval, not to be unreasonably conditioned, delayed or withheld.</li> </ul>
Excess Payments Lease (EPL)	<p>City (as the <b>“Tenant”</b>) SiFi (as the <b>“Manager”</b>)</p>	<ul style="list-style-type: none"> <li>• Grants Tenant rights to access FTTPS above 35% take up of residential units within City, as well as access to serve all businesses over the FTTPS</li> <li>• Term: 5 year, renewal.</li> <li>• In the event of 30 years of consecutive payments and absent a breach under the terms of this agreement, all rights of the Manager shall transfer to the Tenant.</li> <li>• Tenant will be legally responsible for the maintenance and operations of the FTTPS, with responsibilities transferred via a separate contract to Manager or Manager approved organizations.</li> <li>• Over 38% take up, additional payments to Landlord to be qualified and quantified</li> <li>• Coterminous with MPL</li> <li>• Standardization of legal terms with MPL</li> </ul>
Operations Agreement	<p>City (as the <b>“Tenant”</b>) SiFi (as the <b>“Manager”</b>)</p>	<ul style="list-style-type: none"> <li>• Manager shall be responsible for all maintenance and operations of the FTTPS on behalf of the Tenant for which Tenant agrees to pay the Manager a fees under the below schedule:</li> <li>• During Construction: Operational set up Cost + 20%</li> <li>• Payments to be qualified and quantified</li> </ul> <p>Service Level Agreements to be conterminous with requirements of the ISP Agreements.</p>
Internet Service Provider (ISP) Agreements	<p>City Various ISPs</p>	<p>Guarantee to City the minimum take up levels</p> <p>Other terms TBD, subject to approval by SiFi</p> <p>Service Level Agreements to be conterminous with the Operations Agreement.</p>
Terms generally applicable to all agreements	<ul style="list-style-type: none"> <li>• Indemnity or insurance provisions are to be negotiated between parties.</li> <li>• Jurisdiction/governing law shall be in California</li> <li>• Covenants, representations and warranties, as negotiated with legal counsel</li> <li>• Such other terms as are set forth in the draft agreements provided by SiFi, <b>all subject to revision after legal review</b></li> </ul>	

These Principles of Agreement are not a commitment to build or operate the FTTPS until more definitive agreements, as described herein, are fully executed. The terms and conditions set forth herein are subject to negotiation between the Parties and modification or restructuring based upon each party’s due diligence and legal reviews, but shall form the commercial basis upon which to enter into definitive agreements.

City agrees to seek a credit rating from Moodys or comparable institutionally recognized rating agency, SiFi's obligations under this agreement are contingent upon a minimum of a single A rating being achieved.

City and SiFi hereby agree to mutual abortive costs. In the event that either Party decides to arbitrarily discontinue negotiations after the execution of this Agreement, the discontinuing Party agrees to reimburse the other Party's costs associated with these negotiations. The reimbursement of abortive costs must be evidenced expenses and shall not exceed a value of \$100,000. In the event that the above agreements have not been signed by the Parties' authorized representatives within 90 days of the effective date of these Principles of Agreement, unless mutually agreed by both Parties, the negotiations shall be deemed to have been discontinued.

Both Parties will benefit from a Cooling Off period of 14 days. In the event that either party wishes to break from the principle terms herein. If one Party notifies the other Party in writing within 14 days of the effective date, then neither Party will hold any obligations to the other, each Party will then be responsible for their own costs incurred.

These Principles are subject to amendments by the partners, based on further analysis and events, upon mutual agreement.

IN WITNESS WHEREOF, and acknowledging acceptance and agreement of the foregoing, the Parties affix their signatures hereto on this 20th day of May, 2015.

**SIFI NETWORKS PACIFIC GROVE LLC**

By: \_\_\_\_\_

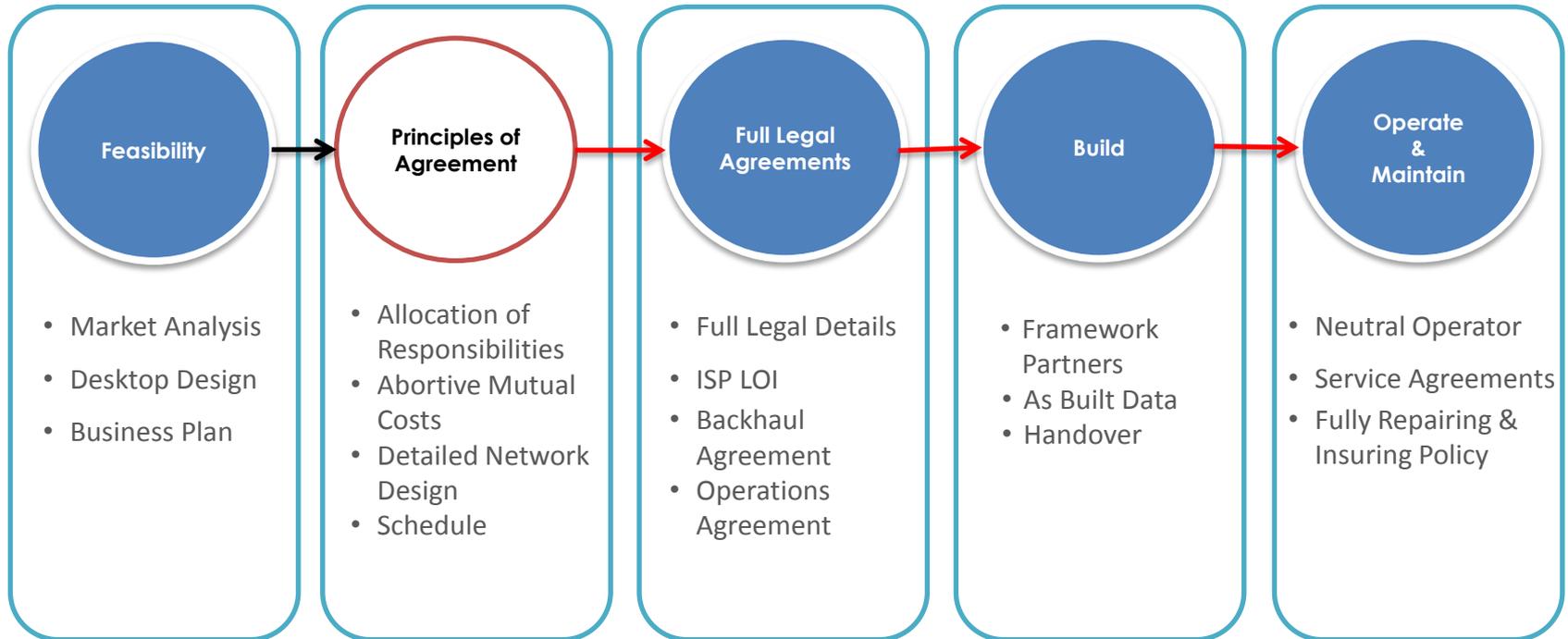
**FIBERCITY PACIFIC GROVE LTD**

By: \_\_\_\_\_

**CITY OF PACIFIC GROVE, CALIFORNIA**

By: \_\_\_\_\_

# FiberCity Milestones



Year	1	2	3	4	5	6	7	8	9	10
Total Annual Cost	(\$578,248)	(\$703,000)	(\$1,236,208)	(\$1,298,778)	(\$1,327,980)	(\$1,385,975)	(\$1,444,811)	(\$1,504,431)	(\$1,564,855)	(\$1,626,101)
Total Annual Revenue	\$693,184	\$923,198	\$1,242,779	\$1,252,103	\$1,347,284	\$1,441,633	\$1,539,000	\$1,639,473	\$1,743,144	\$1,850,109
P&L	\$114,936.00	\$220,198.40	\$6,571	(\$46,675.07)	\$19,303.64	\$55,658.16	\$94,188.28	\$135,041.30	\$178,289.70	\$224,007.96

# Alcatel-Lucent Becomes Preferred Vendor for SiFi Networks' FiberCities

- Alcatel-Lucent's technology and managed services enhance SiFi Networks' offer of funding, building and operating world-class fiber networks to US communities

ATLANTA, May 11, 2015 /PRNewswire/ -- **Gigabit Cities Live 2015** -- Alcatel-Lucent (Euronext Paris and NYSE: [ALU](#)) has been approved by fiber optics network provider SiFi Networks as its preferred vendor for providing equipment and ongoing network operations services to its FiberCities program in the United States.

SiFi Networks is an international fiber network developer that funds, builds, and operates world-class fiber optic networks - supporting gigabit-per-second and beyond broadband connectivity to consumers and businesses throughout the US.

With many American communities still lacking ultra-broadband access, Alcatel-Lucent and SiFi Networks will work together to build, deploy, and manage Fiber-to-the-Premise (FTTP) networks over which internet service providers can deliver an array of next generation services.

SiFi Networks has already struck deals in California and Kentucky to build FTTP networks, with discussions taking place with several other cities across the United States. The increased bandwidth and efficiency of a SiFi Networks' FiberCity can stimulate growth within a community by attracting new businesses and residents, and enhancing government, safety, education, and health care services.

## Key facts

- Alcatel-Lucent is SiFi Networks' preferred vendor for equipment and operations to their FTTP networks delivering ultra-broadband access to US communities.
- Network equipment and deployment architecture can already support speeds of one, ten and even higher gigabit-per-second services, making it attractive for long term infrastructure investment programs.
- SiFi Networks will lease capacity on the fiber network to Communication and Internet Service Providers in order to deliver advanced communication services to residents at home, work or on the move.
- Alcatel-Lucent is providing an end-to-end, open service FTTP network supported by its [7360 Intelligent Services Access Manager](#), [7750 Service Router](#) and [7638 Optical Network Terminal](#). It will also operate each city's network on behalf of SiFi Networks as a managed service.
- The Alcatel-Lucent FTTP network will offer superior resiliency and availability to support growing residential and commercial communication demands for ultra-broadband services.

## Quotes

**Ben Bawtree-Jobson, CEO of SiFi Networks said:**

"SiFi Networks' FiberCity model requires the best technology available with long term stability and quality of service. Alcatel-Lucent's impressive technological platform, combined with their high class managed services put them ahead of their competition. This deal for SiFi Networks furthers our unique turnkey FiberCity solution to expand across the USA. "

**Charles Marsh, President of North America Sales, Alcatel-Lucent said:** "SiFi Networks brings an innovative and flexible financing and construction program to the market. Together with Alcatel-Lucent's vendor managed, best in class FTTP infrastructure, the result is a dependable and scalable solution for communities wanting to bring fiber based services to their constituents. It delivers the high speed, high capacity broadband necessary for meeting the consumer and business broadband demands for today and decades to come. SiFi Networks and Alcatel-Lucent will put these communities among the elite in the United States with gigabit and beyond capable connectivity."

[https://www.google.com/calendar/render??action=VIEW&eid=Y3M3ZmxhcmlYjJmdjUwb2xoMzBrMGZrMXMgdGZydXRjaGV5QGNpdHlvZnBhY2lmaWNncm92ZS5vcmc&rst=1&ctz=America/Los\\_Angeles&hl=en&sf=true&output=xml&response\\_updated=1#main\\_7](https://www.google.com/calendar/render??action=VIEW&eid=Y3M3ZmxhcmlYjJmdjUwb2xoMzBrMGZrMXMgdGZydXRjaGV5QGNpdHlvZnBhY2lmaWNncm92ZS5vcmc&rst=1&ctz=America/Los_Angeles&hl=en&sf=true&output=xml&response_updated=1#main_7)