CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Distributed on:
MAY 2 2014
City Manager's Office

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: David Vossbrink

SUBJECT: **STATUS OF GOOGLE FIBER IN SAN JOSE**

DATE: May 1, 2014

Approved [signature] Date 5/1/14

INFORMATION

SUMMARY

Google Fiber is Google's "fiber-to-the-premises" project to install and provide residential broadband high-speed internet service to U.S. cities. Google introduced the project in spring 2010 with the selection of Kansas City, Kansas (and subsequently to Kansas City, Missouri, and nearby suburbs) following a nationwide competition. Google expanded its project last year by including Austin, Texas; and Provo, Utah.

In February this year, Google announced its intention to further expand its project and invited 34 cities in nine metropolitan areas as candidates for potential expansion. Silicon Valley cities included San José along with Palo Alto, Mountain View, Sunnyvale, and Santa Clara. Google requested that cities submit extensive information regarding local ordinances, regulatory conditions, policies, rights-of-way, permitting requirements, and compatible infrastructure such as existing conduit, water, gas, and electricity lines. The deadline for supplying this information is May 1, as detailed on the attached Google Fiber Checklist.

The City of San José has submitted all the requested information with the exception of a Council-approved form license agreement for the potential siting of Google infrastructure on non-right of way, City-owned property. This agreement is being negotiated by Google and the City, and if the parties can come to a mutually agreed to form of agreement it will, come to the City Council on May 13. Other Silicon Valley cities are also currently negotiating this agreement.

DISCUSSION

Broadband refers to high-speed data transmission in which a single cable can carry a large amount of data at once. The most common types of Internet broadband connections are cable modems (which use the same connection as cable TV) and DSL modems (which use existing

phone lines). Google Fiber plans to provide one-gigabit-per-second (1 Gbit/s) service, which is approximately 100 times faster than what is commonly available from other broadband providers. As the company is doing in Kansas City, Austin, and Provo, Google proposes offering several different service plans. These include a free broadband internet option; a 1 Gbit/s internet option for $70 per month; and a version with television for $120 per month.

City Policy and Goals

The City has long been supportive of private-sector projects and public-private partnerships that would enhance community connectivity. Such projects have included the recent and successful launch of the "Wickedly Fast Downtown Wi-Fi" system and the City's support of AT&T's "Project Lightspeed" in 2006. Current City policies support streamlined and efficient permitting processes for telecommunications infrastructure, along with appropriate protections for community impacts such as esthetics, neighborhood disruption, and public safety. [1]

Among the priority outcomes for the City are the benefits for economic development. Although Google Fiber is focused on expanding residential service at this time and not commercial service, the availability of 1 Gbit/s service could be transformative for strengthening the City's positive reputation, community connectivity, home-based businesses, and the attraction for a Silicon Valley workforce. At the same time, the City is committed to achieving fair access to digital services throughout the community, a goal that Google Fiber also shares and refers to as "digital inclusion." Google has worked closely with Kansas City and Austin to develop mechanisms and funding to support access to digital services that align with local priorities and partners.

Google Fiber Expansion Selection Criteria and Schedule

Following the submission of technical data by the invited cities, Google will now evaluate the business, planning, and technical issues associated with its expansion of its fiber networks. It plans to select which cities it intends to develop fiber networks by the end of 2014. Google will map out its fiber network in detail and also assess local factors that could affect construction, such topography (e.g., hills and flood zones), housing density, and the condition and availability of local infrastructure, both public and private. Google has clearly stated that its selection process is not a "competition" among cities, and it will determine which, how many, and any sequencing of cities based on technical issues, network construction costs, and its own business and economic goals.

"Fiber Hut" Form License Agreement

Google Fiber has requested information about potential sites within cities to locate "fiber huts," which are network equipment nodes that could serve approximately 20,000 households each. For

[1] See City Council Policy 6-20 "Land Use Policy for Wireless Communication Facilities"; City Council Policy 7-10 "Placement of Communication Facilities on City-Owned Property"; and City Council Policy 0-40 "Framework for Establishing Demonstration Partnerships".

San José, Google would need approximately 15 fiber hut sites, although the exact number and locations would depend on its final network design. Google is seeking sites, preferably on non-right of way, City-owned property, that would be at least 1400 square feet, accessible to the street, and distributed throughout the community. The fiber huts themselves would be pre-fabricated structures approximately 28 feet long, 12 feet wide, and 9 feet high. The City has provided Google with an inventory of such City-owned properties that might meet minimum requirements and that are not otherwise restricted for other City purposes.

As part of the submission process, Google has requested that participating cities include an approved form of a master agreement that would be the basis of individual "fiber hut licenses" for the specific sites, once identified. The proposed term of the master license agreement will be for 20 years, thereafter renewing automatically at two-year intervals unless either the City or Google terminated. Use rates would be agreed in advance, but subject to periodic escalations. This master agreement is currently being negotiated between the City and Google, and if the parties can come to a mutually agreed to form of agreement it will come to the City Council on May 13.

Once specific sites are determined as part of Google's network design, the individual fiber hut licenses would be finalized, including any site-specific special conditions. However, prior to City's execution of any individual fiber hut licenses under the master hut license agreement, staff would return to City Council for approval of the specific sites that would be subject to those licenses. All fiber hut sites, whether located on private property or publicly owned land, would be subject to City permitting approval processes and other applicable regulation.

Google's Fiber-Ready Checklist

The following checklist outlines the detailed information that has been requested by Google and has been submitted by the City with the exception of the approved form agreement of the fiber hut license.

Item #1 — Provide information about existing infrastructure
- ✓ *Gather and submit all required data asset requests as outlined in the Data Request List.*
- ✓ *Identify which infrastructure and/or data is not owned, operated or controlled by the city.*

Item #2 — Help ensure access to existing infrastructure
- ✓ *Provide a description of any existing state laws, local ordinances, and/or commercial agreements that satisfy the attachment and use rights described.*
- ✓ *Work with us, as needed, to ensure that Google and other service providers have access to these rights.*

Item #3 — Make construction speedy and predictable
- ✓ *Review the Google Fiber Permitting, Construction, and Maintenance Plan and identify where your city's current practices differ.*

- ✓ *If your city's current practices do differ, please explain why and outline ideas to accommodate a large network build with accelerated timelines.*
- ✓ *Upload your existing permit application for our review.*
- ✓ *Identify any local, city or state-wide requirements that may impact a network build by reviewing and responding to the list of Construction Constraints List.*
- ✓ *Upload the final Hut License, as agreed upon between Google Fiber and the city.*

Next steps

Over the coming months Google will evaluate the Fiber Checklist submissions from all 34 cities and determine which ones it will pursue for expanding the fiber network. Although Google has not announced a timeline for decisions or its criteria for selection, it has indicated that it would likely announce its next steps toward the end of 2014. Staff will continue to coordinate with Google Fiber about any pending issues and next steps during this period. If Google selects San José for fiber network expansion, staff will return to the City Council with updated information regarding schedule, resource requirements, and specific lease agreements as appropriate.

Fiscal Impact

Google will expand its fiber network at its cost, which would include paying the costs of City permitting, inspection, and property associated with the project. The Mayor's March Message approved by the City Council included staff direction to the City Manager to explore what resources, including staffing, might be necessary to support the Google Fiber project. In addition, and as a part of this analysis, the City Manager is directed to prepare a plan to streamline permitting while still maintaining full cost recovery for the project.

The City Manager has included a recommendation in the FY 2014-2015 Proposed Budget to allocate $100,000 to support potential City activities related to the Google Fiber project. The purpose of this allocation is to provide resources that might be needed for the preparation of agreements, initial permitting and inspection services, and other related activities in advance of an overall agreement with Google that would include terms for cost-recovery.

As Google develops more detailed plans for a potential fiber network in San José, the City will learn more about its expectations for potential scale and scheduling that could affect staffing levels needed to ensure the timely processing of permits and inspection of construction. At this time Google has not selected its expansion cities, and therefore it is too early to determine what specific resources will be needed to handle or expedite the fiber project here. For context, Google is still designing, extending, and constructing fiber infrastructure in Kansas City, four years after its selection in 2010.

Coordination

The City's efforts to gather, prepare, and submit information for the Google Fiber Checklist has involved a team from the Departments of Public Works, Planning, Building & Code Enforcement, Information Technology, the Office of Economic Development and Budget Office in the City Manager's Office, and City Attorney's Office.

/s/
David Vossbrink
Director of Communications

For questions, please contact David Vossbrink, Director of Communications at 408-535-8170.

Attachment - Google Fiber Checklist
(https://static.googleusercontent.com/media/fiber.google.com/en/us/about/files/googlefibercitychecklist2-24-14.pdf)

Google Fiber City Checklist

Updated February, 2014

Google fiber

Let's get up to speed.

Over the last few years, gigabit Internet has moved from idea to reality, with dozens of communities working hard to build networks with speeds up to 100 times faster than what most of us live with today. People are hungrier than ever for faster Internet, and as a result, cities across America are making speed a priority. Over the next few months, we'll be working with your city, and 33 others, to explore the possibility of building one of these high speed networks in your community.

This checklist document is written specifically for the cities we're currently working with. But the items on this checklist are a collection of best practices recommended by the Fiber to the Home Council, the Gig U report and the U.S. Conference of Mayors and can help any fiber provider or city that's thinking of building a new network.

These are such big jobs that advance planning goes a long way toward helping us stick to schedules and minimize disruption for residents. While your city works on completing these items, we're going to work on a detailed study of local factors that could affect construction, like topography (e.g., hills, flood zones), housing density and the condition of local infrastructure.

Additionally, we will spend time talking with you during this process about how city leaders can get residents ready for Google Fiber, particularly those who don't currently use the Internet or have it at home. We want to help make sure that everyone in the community can take advantage of this opportunity.

Google Fiber is also exploring the possibility of deploying Wi-Fi in future Google Fiber cities. Requirements related to Wi-Fi are not included in this checklist, but we will be discussing our Wi-Fi plans and related requirements with your city as we move forward with your city during this planning process.

We are excited about the possibility of bringing Google Fiber to your city and look forward to working with you over the next few months.

Key Dates

Feb. 24th - Feb. 28th	Cities meet with Google to review the checklist in detail.
Feb. 24th - May 1st	Cities review and respond to tasks and requirements on the checklist. Google and cities will hold regular calls to discuss progress and questions. Google begins detailed studies in cities.
May 1st, Midnight PT	Deadline for cities to respond to items on the checklist.
May - End of 2014	Google evaluates completion of the items on the city checklist and completes the detailed study. This process will take some time, but we hope to have updates on which cities will get Fiber by the end of the year.

Fiber Ready Checklist

Building a new network is complex, and we will work with your city to make it quicker, more efficient, and less disruptive to your community.

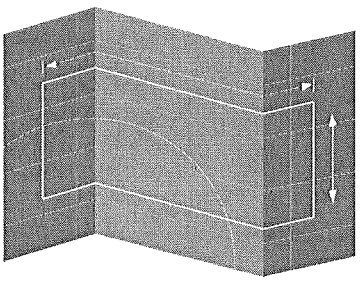
There are three core items on our fiber ready checklist.

- Provide information about existing infrastructure: We're asking your city to provide accurate information about local infrastructure like utility poles, conduit and existing water, gas and electricity lines so we'd know where to efficiently place every foot of fiber.
- Help ensure access to existing infrastructure: We're asking your city to help ensure that we, and other providers, can access and lease existing infrastructure. It would be wasteful and disruptive to put up duplicate utility poles or to dig up streets unnecessarily, when we could use existing poles or conduit.
- Help make construction speedy and predictable: We're asking your city to make sure you have efficient and predictable permit and construction processes appropriate for a project as large as a Google Fiber network build.

These three items are based on guidelines from the Fiber to the Home Council and the U.S. Conference of Mayors and clear a path for anyone willing to build a fiber network. We are not asking for any special treatment, tax incentives, or subsidies.

Item #1 — Provide information about existing infrastructure

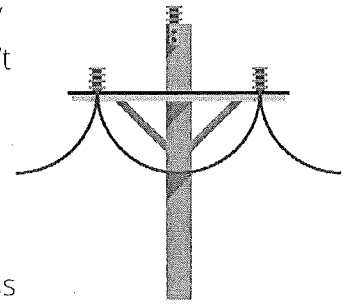
As we work through our detailed studies and network design, detailed infrastructure data helps us understand where we can safely and efficiently place the fiber.



We ask that your city:

- gather and submit all required data asset requests as outlined in the Data Request List (Appendix 1A);
- identify which infrastructure and/or data is not owned, operated or controlled by the city.

Item #2 — Help ensure access to existing infrastructure.



Fiber providers need to string fiber along utility poles or bury it underground in protective tubing called "conduit." It doesn't make sense for each provider to install duplicate poles, or to dig up streets multiple times where conduit already exists. So, we're asking for your help to ensure that providers have access to existing infrastructure. This makes the process faster, more efficient, more cost effective and significantly less disruptive.

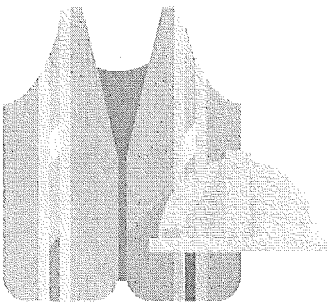
We would like to see clear, predictable rules and reasonable terms for all providers to attach fiber to any utility poles that are within the public right of way. Providers of broadband Internet services, including IPTV, should have access to existing utility poles, city-owned ducts and conduit, on nondiscriminatory terms, in exchange for reasonable payment. Ideally, these terms would be at least equivalent to the rights made available to traditional cable operators and telephone companies per the FCC's current rules.

These rights may already be covered by state law, local ordinances or other agreements with infrastructure owners. If we cannot secure such rights, we may rely on the city to provide these rights locally.

To complete this item, we ask that your city:

- provide a description of any existing state laws, local ordinances, and/or commercial agreements that satisfy the attachment and use rights described above;
- work with us, as needed, to ensure that Google and other service providers have access to these rights.

Item #3 — Help make construction speedy and predictable



The items we outline in this section will help ensure that the construction process is predictable, fast, and as minimally disruptive for your city as possible.

We'd like to discuss how your city's existing permitting and construction process aligns with the scope and pace of the construction of a Google Fiber network. With agreed upon processes and timelines, we can keep construction schedules predictable and moving along quickly while minimizing the burden on the city.

For permitting and construction, we ask that your city:

- review the Google Fiber Permitting, Construction, and Maintenance Plan (Appendix 3A) and identify if your city's current practices differ;
- if your city's current practices do differ, please explain why and outline ideas to accommodate a large network build with accelerated timelines;
- upload your existing permit application for our review;
- identify any local, city or state-wide requirements that may impact the pace of a network build (Construction Constraints List - Appendix 3B).

Another important part of network design is determining where to place Google Fiber network huts. City-owned sites generally make sense as hut locations because they are zoned appropriately and dispersed throughout the city.

We would like to complete a Hut License agreement between Google Fiber and your city. Please review the Google Fiber model Hut License (Appendix 3C) and let us know if it will work for your city. Alternatively, please provide us with a form of agreement that contains similar rights so we can discuss in more detail.

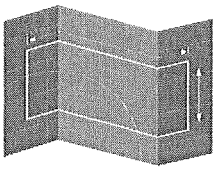
We will sign the Hut License Agreement and work together to identify locations for huts during the network design process.

By the checklist deadline, we ask that your city:

- upload the final Hut License, as agreed upon between Google Fiber and the city.

Fiber Ready Checklist

Item #1 — Provide information about existing infrastructure



- ❒ Gather and submit all required data asset requests as outlined in the Data Request List (Appendix 1A).
- ❒ Identify which infrastructure and/or data is not owned, operated or controlled by the city.

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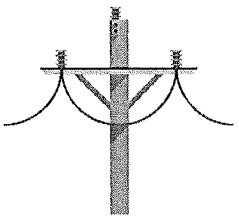
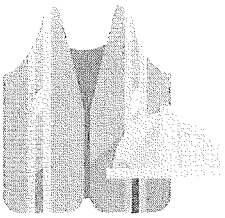


- ❒ Provide a description of any existing state laws, local ordinances, and/or commercial agreements that satisfy the attachment and use rights described.
- ❒ Work with us, as needed, to ensure that Google and other service providers have access to these rights.

Item #3 — Make construction speedy and predictable



- ❒ Review the Google Fiber Permitting, Construction, and Maintenance Plan (Appendix 3A) and identify where your city's current practices differ.
- ❒ If your city's current practices do differ, please explain why and outline ideas to accommodate a large network build with accelerated timelines.
- ❒ Upload your existing permit application for our review.
- ❒ Identify any local, city or state-wide requirements that may impact a network build by reviewing and responding to the list of Construction Constraints List (Appendix 3B).
- ❒ Upload the final Hut License, as agreed upon between Google Fiber and the city.

Additional Resources

Google Resources

Google Fiber - Network Overview
http://googlefiberblog.blogspot.com/2013/10/behind-scenes-with-google-fiber-how-we.html
This Google Fiber blogpost gives a behind-the-scenes look at how we actually build Google Fiber including a basic network overview.

Google Fiber Website - City Expansion FAQs
http://google.com/fiber/newcities
Our website includes a set of FAQs about this checklist and process.

Third Party Resources

CTC Technology & Energy's Gigabit Communities
http://www.ctcnet.us/wp-content/uploads/2014/01/GigabitCommunities.pdf
This white paper reviews and suggests strategies for bringing broadband to a community, including discussion of the checklist items outlined.

The Fiber to the Home Council community broadband toolkit
http://www.ftthcouncil.org/communitytoolkit
The Fiber to the Home Council has aggregated a range of resources in their community broadband toolkit.

The Fiber to the Home Council white paper on facilitating access to infrastructure
http://www.ftthcouncil.org/p/cm/ld/fid=47&tid=79&sid=1249
The FTTH Council has outlined their perspective in this short white paper: "State/Local Gov't Role in Facilitating Access to Poles, Ducts, and Conduits in Public Rights of Way."

US Conference of Mayors
http://usmayors.org/resolutions/81st_Conference/resolutions-adopted.pdf
Last year, the US Conference of Mayors passed a set of resolutions supporting increasing broadband access.

Gig.U Strategies for a Gigabit
http://www.gig-u.org/cms/assets/uploads/2012/12/GigU-Fall-2013-Update.pdf
Gig.U is working with a number of communities on gigabit networks and summarizes a number of key strategies.

Sunlight Foundation Open Data Guidelines
http://sunlightfoundation.com/opendataguidelines/
The Sunlight Foundation lists some suggestions that may be of use as you think through data updating and potential open data initiatives.

KC Digital Drive Playbook
http://www.kcdigitaldrive.com
In anticipation of Google Fiber coming to Kansas City, MO and Kansas City, KS, the cities created a 'playbook' for making the most of this opportunity.

Government Resources

Federal Communications Commission (FCC) documentation
http://www.ecfr.gov/ (CFR Title 47, Chapter 1, Subchapter C, Part 76, Subpart J)
The FCC has set up rules regarding equipment attachment. While the federal laws were not drafted with today's broadband providers in mind, they are a good model of how to determine reasonable terms and clear schedules for pole attachment process.

Federal Communications Commission's National Broadband Plan
http://www.broadband.gov/plan/
In its National Broadband Plan, the FCC estimated that the expense of obtaining infrastructure permits and leasing pole attachments and rights-of-way can total 20% of the entire cost of a fiber-optic network.

FCC's Broadband Acceleration Initiative
https://www.fcc.gov/encyclopedia/broadband-acceleration
The FCC has an ongoing Broadband Acceleration Initiative that is considering a range of reforms at the national level.