

# Memorandum

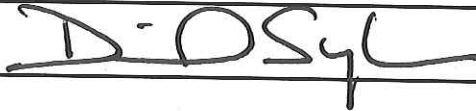
**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** Barry Ng

**SUBJECT:** GOOGLE FIBER CONSTRUCTION  
IMPACT MITIGATION PLAN

**DATE:** May 11, 2016

Approved



Date

5/12/16

## RECOMMENDATION

- (a) Accept staff report on the status of the Google Fiber Project (Project).
- (b) Approve Google Fiber, Inc.'s (Google Fiber) Construction Impact Mitigation Plan (CIMP) to allow their community-wide installation of a residential high-speed fiber network service with a comprehensive community outreach plan and construction strategy, and measures to alleviate potential construction impacts.

## OUTCOME

These actions provide the City Council with an update on the status of the San José's application as the next Google Fiber City. Additionally, by approving Google Fiber's CIMP, the City Council will enable staff to efficiently manage the construction and installation of the Google Fiber network in San José.

## EXECUTIVE SUMMARY

Google Fiber is Google's "fiber-to-the-premises" project that provides residential broadband high-speed internet service to multiple U.S. cities. In February 2014, Google announced its intention to extend its fiber project to 34 cities across the U.S. including San José. A significant amount of work has been completed since 2014 to advance the Project including: 1) City Council approval of a form of a master Network Hut License Agreement; 2) City Council approval of a City Master Encroachment Permit for the Project; 3) fulfillment of California Environmental Quality Act requirements through the City Council approved Mitigated Negative Declaration for the Project; 4) City Council delegation to the City Manager for two of the necessary Network Hut Licenses; and 5) City approval for eight Network Hut sites in San José. The next significant milestone is the completion of a CIMP that will guide the Project's permitting and construction activities over the course of the next three years. The proposed CIMP has been drafted by Google Fiber with significant City input to identify and resolve potential construction issues that

might affect residents and neighborhoods. The CIMP outlines a comprehensive community outreach and build strategy with Google Fiber's commitment to provide residents, businesses, and critical stakeholders with accurate Project information quickly and efficiently over the course of the Project. With approval of the CIMP, the Project will move into the construction phase.

## **BACKGROUND**

Google Fiber is Google's "fiber-to-the-premises" project that provides residential broadband high-speed internet service to multiple 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 in 2013 by including Austin, Texas, and Provo, Utah. Last year Google Fiber added four more metro areas to the program, including Nashville, Tennessee; Atlanta, Georgia; Raleigh-Durham, North Carolina and Charlotte, South Carolina.

In February 2014, Google announced its intention to extend its fiber project to other cities in the U.S. and invited 34 cities in nine metropolitan areas to be considered as candidates for potential expansion. Silicon Valley cities invited for consideration 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, right-of-way information, permitting requirements, and compatible infrastructure by May 2014. In May 2014, San José submitted the requested information and staff prepared an information memo to Council on the status of the submittal.

(<https://www.piersystem.com/external/content/document/1914/2157637/1/05-02-14CMO.PDF>)

On June 17, 2014, the City Council adopted a resolution approving the form of a master Network Hut License Agreement with Google Fiber for the potential siting of fiber infrastructure called "Fiber Huts" on non-right-of-way, City-owned property. The Network Hut License Agreement provided a form of a master agreement that would be the basis of individual licenses for specific Fiber Hut sites. (<http://sanjoseca.gov/DocumentCenter/View/32382>)

On December 1, 2015, the City Council approved a Master Encroachment Permit between the City of San José and Google Fiber that included the general terms and conditions governing the installation and construction of the fiber infrastructure in the City's public right-of-way. In concert with the approval of the Master Encroachment Permit, the City Council also adopted a resolution adopting the Mitigated Negative Declaration for the Project and related Mitigation Monitoring and Reporting Program, in accordance with the California Environmental Quality Act. The City Council also adopted a resolution authorizing the City Manager or his designee to negotiate and execute individual Network Hut License Agreements and all necessary ingress, egress, and power connection easements for the two Network Hut sites located at the intersections of Bird Avenue and Virginia Street, and Santa Teresa Boulevard and State Route 85



South off-ramp.

([http://sanjose.granicus.com/MetaViewer.php?view\\_id=&event\\_id=1475&meta\\_id=544455](http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=1475&meta_id=544455))

Since December, City staff and Google Fiber have been meeting regularly to advance the Project towards the construction phase. These meetings have focused on several topics, including but not limited to, Google Fiber's network design, proposed build schedule, construction design standards, construction methodology, construction impact mitigation, permitting timeline, and inspection procedures. Discussing these topics has been a priority for both the City and Google Fiber in order to establish a solid foundation and understanding as the City and Google collectively move towards permitting and construction. Of importance to Google Fiber is that they have a clear understanding of the City's permitting and construction requirements and that workflow will remain productive and consistent over the course of the Project's proposed three-year City-wide build.

As highlighted above, a significant amount of work has been completed to move the Project beyond the concept phase. These steps have included: 1) City Council approval of a City Master Encroachment Permit for the Project; 2) fulfillment of California Environmental Quality Act requirements through the City Council approved Mitigated Negative Declaration for the Project; and 3) City Council delegation to the City Manager for two of the necessary Network Hut Licenses. Additionally, since the fall of 2015 the Department of Planning, Building, and Code Enforcement has been actively working on the necessary Planning permits for the proposed nine Network Hut sites in San José. Google Fiber has received Planning permits for eight Network Hut sites necessary for the Project, and the remaining site is expected to be finalized in the near future.

The next significant milestone is the completion of a CIMP that will guide the Project's permitting and construction activities over the course of the next three years. The proposed CIMP before Council is the result of several months of committed work by staff and Google Fiber to identify and resolve potential construction issues so that the Project can minimize and mitigate the foreseeable construction impacts that might affect residents and neighborhoods.

## **ANALYSIS**

Due to the size and scope of the proposed three-year citywide build, staff told Council in December 2015 that a CIMP would be prepared for Council approval, prior to issuance of City encroachment sub-permits. Presented below is a summary of the main elements of the attached CIMP that includes the following:

- 1) Why a CIMP is required for this Project;
- 2) How Google Fiber's Network is conceptually designed;
- 3) What the anticipated construction methodologies are;

- 4) How Google Fiber's build strategy (such as construction sequencing and construction crew deployments) incorporates concepts to minimize impacts to the surrounding neighborhoods and businesses;
- 5) How Google Fiber will mitigate potential impacts such as traffic lane closures/detours, noise, business access, etc.; and
- 6) How Google Fiber will provide multilingual outreach to the local community regarding the overall Project and specifically how and when construction will commence in San José neighborhoods.

Google Fiber also has committed to focusing construction impact mitigation efforts, including targeted outreach, when necessary, on significant sensitive land uses that may be affected by construction such as schools, emergency services, business areas, etc.

#### *Construction Impact Mitigation Requirements*

Under Title 13, Section 13.36 of the San José Municipal Code, the Google Fiber Project is considered a "major construction project" which requires that a CIMP be approved by the City Council prior to the issuance of site specific encroachment sub-permits. The CIMP is necessary because the Project construction will total ten million dollars or more and will impact the majority of streets in San José. Although the nature of the Google Fiber construction itself is standard and routine because it involves installation of conduit using traditional trenching methods, the scale of the build is significant as most, if not all, City neighborhoods will be affected. Additionally, the project contemplates an aggressive three year delivery schedule, which necessitates the need for a plan to address potential construction impacts. The CIMP provides the City Council and public with the opportunity to comment on community outreach/notification plans and proposed measures to alleviate potential construction impacts to residents and businesses.

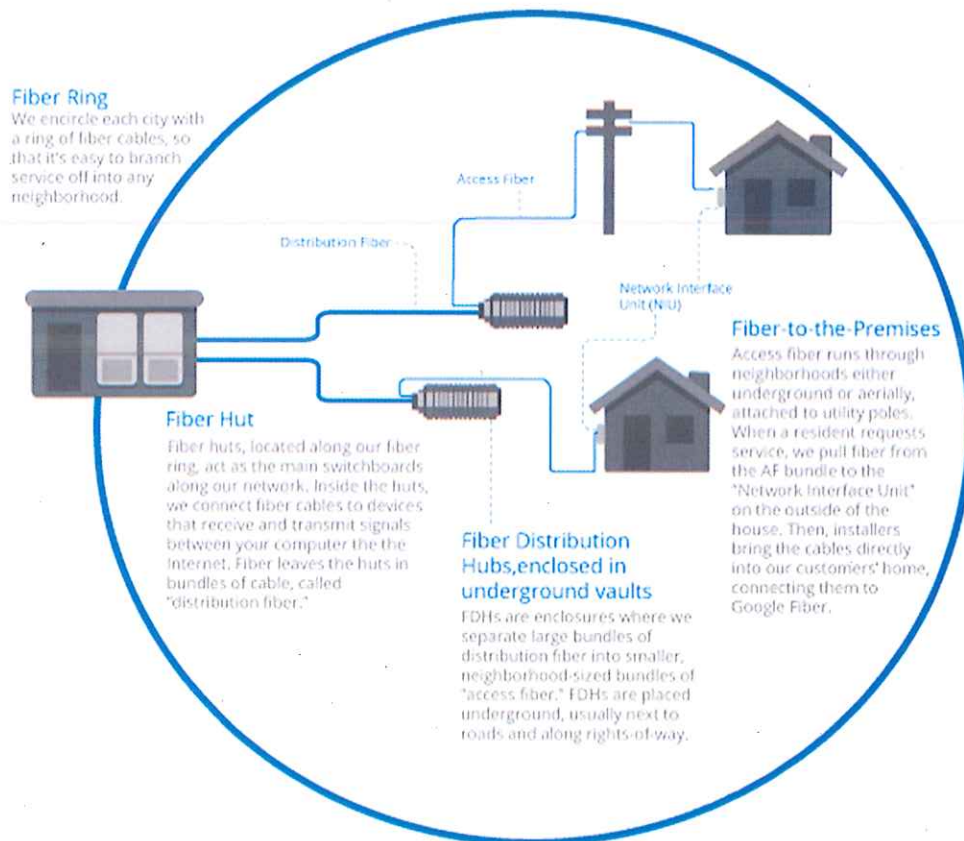
In general, the CIMP will guide the construction strategy, provide a comprehensive outreach and communications plan, and set measures to help alleviate foreseeable construction impacts. Since the installation of the fiber network is a citywide construction program, Google Fiber has not yet fully determined a detailed construction schedule. For this reason, the recommended CIMP provides a detailed framework to guide permitting, outreach, and construction with a focus on several significant aspects. These include standards for proper outreach and notification; crew deployment and crew spacing; accommodation for sensitive land uses such as schools, emergency services, and certain business districts.

While a detailed, street-by-street CIMP is not feasible for a three-year construction program in approximately 2,400 miles of City streets, the City will require further documentation to address construction impacts and community outreach by Google Fiber and its contractors prior to the approval of site-specific encroachment sub-permits. City staff, Google Fiber, and Google Fiber contractors will apply the general framework of the CIMP but also take into consideration community-specific characteristics prior to the start of each phase of construction.



It is also important to note that the CIMP requirements are in addition to the requirements of the Mitigation Monitoring and Reporting Program as part of the Mitigated Negative Declaration approved by the City Council on December 1, 2015.

### *Network Design*



Google Fiber is planning to provide a community-wide fiber optic service through an intricate network design. Figure 1 is a network diagram schematic that shows the overall elements of the proposed fiber network.

*Figure 1: Fiber Network Diagram*

The Fiber Ring shown above is the “backbone” or base infrastructure for the network. A National Backbone service point, with connectivity to the rest of the world, will interconnect with the City’s Regional Backbone fiber infrastructure. The Regional Backbone will connect to all Local Fiber Aggregation Points or Fiber Hut sites that will house communication infrastructure. Based on the current network design, nine Fiber Hut sites are envisioned to meet the needs of the Project in San José.



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As previously noted, Google Fiber has already received Planning permits for eight City-owned properties. Hut Licenses for two of these sites were approved by Council in December, and the remaining City-owned sites also will come to Council for approval of the individual Hut Licenses. For the ninth Fiber Hut site, Google Fiber is investigating a private property for either purchase or easement rights. Figure 2 shows the National Backbone Connection Point (orange diamond) in the northern part of San José, Fiber Hut locations throughout the City (green pentagons), and Regional Backbone infrastructure (blue bold line which connects Fiber Huts).

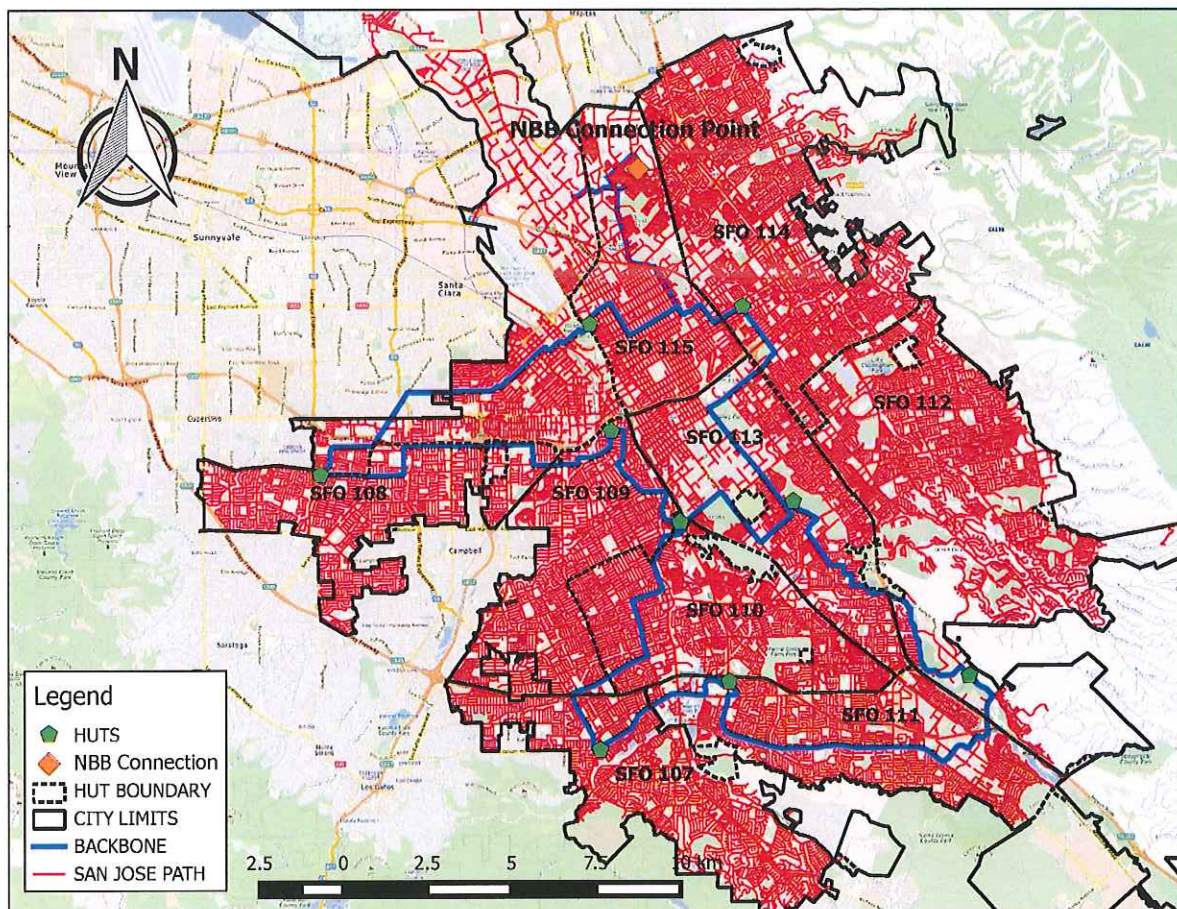
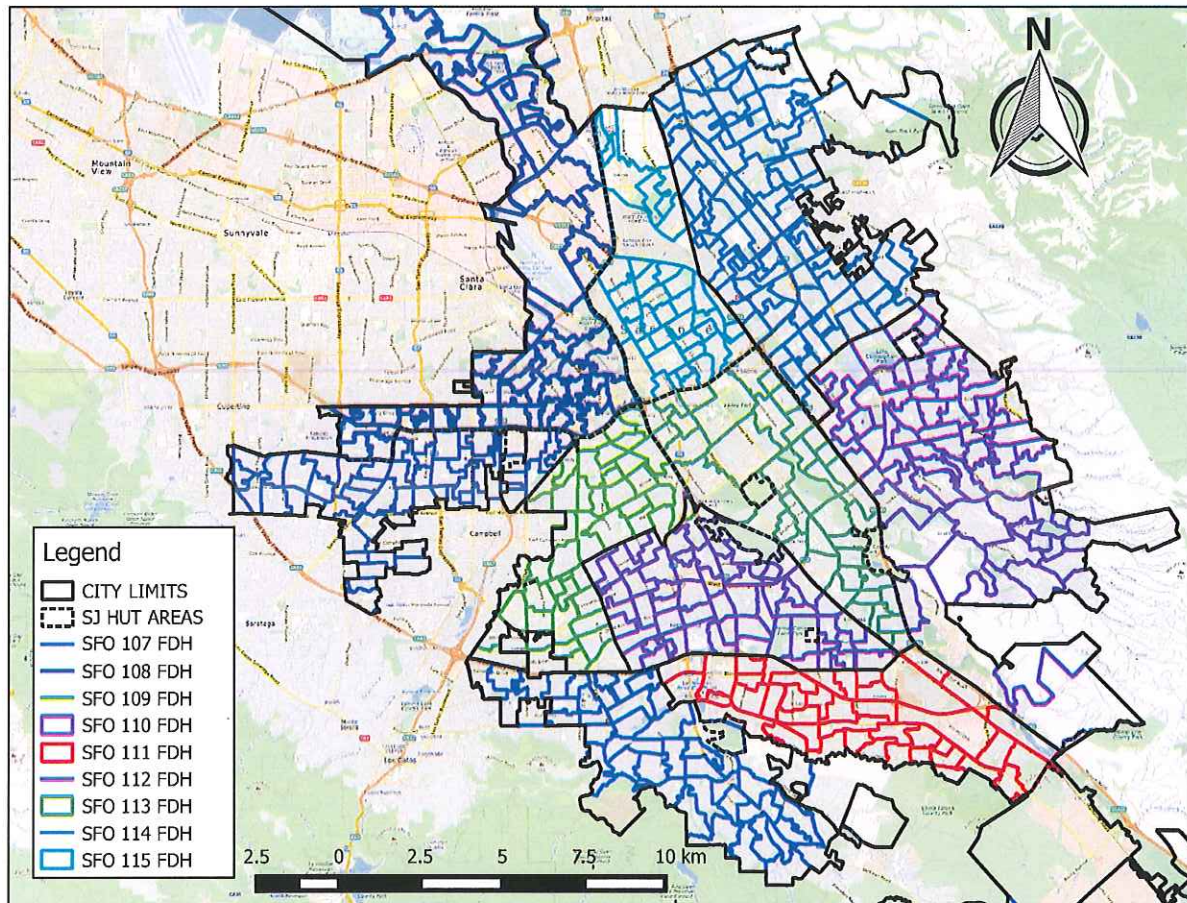


Figure 2: Fiber Network Site Map

Each Fiber Hut will serve approximately 40,000 households. For the Project, the City has been divided into nine separate Hut Boundaries taking into consideration various factors such as housing density characteristics, highways and railroads. In order to reach every neighborhood, several trunks of Distribution Fiber (DF) cables will be installed along neighborhood streets from the nine Fiber Huts. Further, each DF trunk serves another sub-area, also known as a Fiber Distribution Hub (FDH) Boundary. On average, each Hut Boundary is divided into approximately 56 Fiber Distribution Hub Boundaries. The size of each Fiber Distribution Hub Boundary is determined based on similar considerations as the Hut Boundaries. Overall the



Project design includes approximately 523 Fiber Distribution Hubs in the City. Figure 3 depicts the nine Hut Boundary regions and the Fiber Distribution Hubs.



*Figure 3: Hut Boundaries and Fiber Distribution Hub Boundaries*

As the Distribution Fiber traverses through each Fiber Distribution Hub Boundary, the Distribution Fiber is further spliced and repackaged into smaller cables called Access Fiber (AF). The AF will branch out to several streets and reach even more households. Most, if not all, of the splice points will be located within underground utility vaults at various points in the City.

### *Construction Methodology*

Currently, the Project is designed to utilize existing overhead utility poles for attachment of Fiber cable or the installation of underground conduit and fiber cable where no overhead utilities exist. For underground construction, City staff and Google Fiber have been working to define suitable trenching and restoration methods to install the intricate fiber-optic network in the public right-of-way. Typical methods can include 1) the use of a narrow utility trench along a street's typical parking lane (as utilized by previous network builds for AT&T and Comcast), and 2) the use of



directional bore equipment to push conduit under a street from one direction bore-entry pit to another direction bore-exit pit. Both methodologies have been utilized successfully in the past, and have been the primary methods by which this Project is likely to be constructed. It is important to note that staff is also working with Google Fiber to employ the use of a new installation methodology for the first time in San José called microtrenching. Microtrenching is a method by which very narrow trenches (1-inch wide) are sawed into a street and very narrow stacked conduit is inserted at a shallower depth than other installations and quickly backfilled. This method may provide a less disruptive alternative to standard narrow trench installation as mentioned above and staff is engaged with Google Fiber on a pilot program to test this methodology in San Jose.

### *Build Strategy*

The initial phases of the build will include construction of the Fiber Huts, installation of the Regional Backbone infrastructure, and connection to the National Backbone. Once Google Fiber receives permits from the City, all nine Fiber Huts are planned to be constructed within five months of the start of construction, and the Regional Backbone installation is estimated to be completed within six months.

Google Fiber will hire multiple construction crews to build the Regional Backbone within the six month target. In order to avoid multiple lane closures and construction crews working in a single area, each construction crew will be deployed in a different quadrant of the City. Figure 4 shows the potential construction crew deployment strategy for the Regional Backbone.

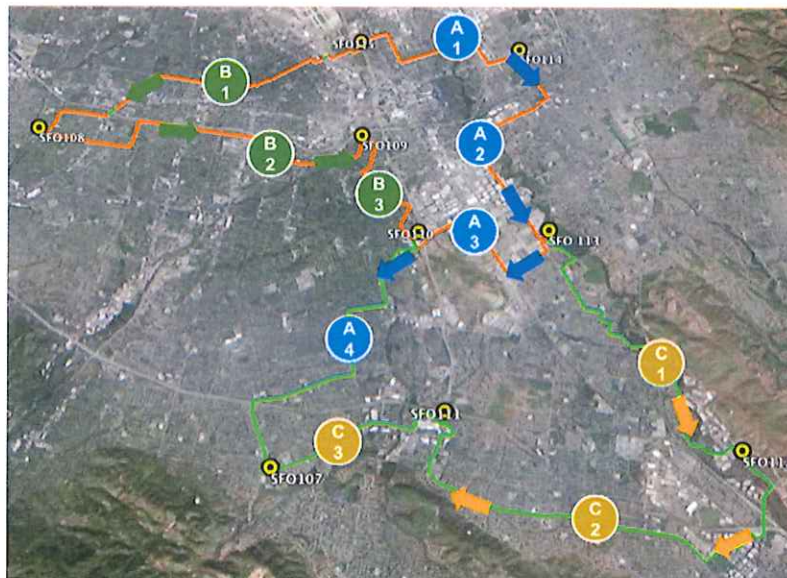


Figure 4. Sample Regional Backbone Construction Crew Deployment



In the figure above, three construction crews will work linearly along a portion of the Regional Backbone from segment to segment. Using this approach, not only will construction crews avoid being within the same area, but also it will ensure that work will be completed in a sequential manner.

Concurrent with the latter half of the build of the Regional Backbone, construction of the Fiber Distribution Hubs Boundaries will also begin. Fiber Distribution Hubs closest to Fiber Huts will begin first and then progress outward. It is anticipated that at any given time between 15 to 20 Fiber Distribution Hubs Boundaries will be in construction, with completion of five Fiber Distribution Hubs Boundaries per week.

Within each Fiber Distribution Hub Boundary, up to five construction crews may be working simultaneously. During this phase, construction crews will be deployed in a way that maintains a minimum half-mile separation between construction crews to prevent unnecessary construction overlap or the concentration of too many crews in one area. Figure 5 shows the construction crew separation strategy in a sample Fiber Distribution Hub Boundary.



*Figure 5. Sample Fiber Distribution Hub Construction Crew Deployment*

As mentioned above, in addition to the underground build, part of the build will also be aerial. Where existing private utility poles are available, Google Fiber will utilize aerial installation by installing an additional fiber cable on the overhead utility system. Currently, Google Fiber anticipates that approximately 60 percent of the build will be underground construction and 40 percent will be aerial installations. Any aerial installation on private utility poles in utility easements will require coordination with the appropriate utility companies and private property owners.

### *Construction Impacts and Mitigation Measures*

In the CIMP, typical construction impacts are identified and mitigation is proposed. For example the CIMP focuses on the following typical impacts such as temporary elimination of street parking, traffic lane closures, pedestrian and bicycle detours, temporary impacts to public transportation facilities, increased noise and vibration levels, and possible dust. Google Fiber intends to mitigate many of these impacts by following standard City construction procedures, adhering to the Municipal Code and encroachment sub-permit conditions, and providing adequate public outreach. City Staff will work with Google Fiber to identify potential impacts prior to the approval of site specific encroachment sub-permits. In addition, through planned weekly coordination meetings, City Staff and Google will work to ensure that Google Fiber construction is closely coordinated with other projects within the immediate vicinity. Ultimately, the City will ensure that projects do not overlap and cause additional and unplanned disruption. More detailed information for potential impacts and detailed mitigation measures can be found in the CIMP attached to this Council Memorandum.

### *Community Outreach Strategy*

Google Fiber and Ericsson, its designer and contractor, are committed to a comprehensive Communications Plan with the goal to provide residents, businesses, and critical stakeholders with accurate Project information quickly and efficiently over the course of the build. Various communication channels will be provided to reach individuals and for individuals to easily seek information on the Project. These channels include a dedicated Google Fiber San José website, phone construction hotline, email and chat support, door hangers, Google Fiber's construction site leads and inspectors, and social media outlets. Specific public outreach media links and phone numbers are provided in the CIMP attached to this Council Memorandum. In addition, as referenced in the attached CIMP, Google Fiber will provide multilingual outreach communications (i.e. Google Fiber's live support channels will be staffed to accept requests in multiple languages).

In addition, Google Fiber and Ericsson will provide communication to sensitive land uses near their construction sites. In the CIMP, these are noted as "Areas of Special Consideration" and include uses such as schools, hospitals, local businesses, emergency services, neighborhood associations, public transportation areas, and event centers. Google Fiber is committed to working with each Council Office and City staff to compile a list of these areas and conduct general Project outreach to representatives in efforts to receive high-level feedback and collaboration opportunities prior to construction. Ericsson will integrate any feedback received into site specific sub-permit encroachment permit construction and traffic control plans to be reviewed by City staff. City Staff and Ericsson will modify plans and provide mitigations based on potential impacts prior to permit approval. After permit approval, Google Fiber and Ericsson are committed to provide public outreach within two and four weeks in advance of construction. Figure 6 below shows the type of communication that will be used for various stakeholders within the City.



	Media / Press	Social Media	Email updates	Informational materials for redistribution	Traffic signs	Door-hangers	Phone, chat & email support	In-person help or customer service @ storefront locations	Offer an in-person meeting to discuss general construction info	Offer an in-person meeting to discuss site-specific construction info
San José Resident (general)	x	x	x		x		x	x		
Resident/Business along construction corridor	x	x	x		x	x	x	x		
City Council member	x	x	x	x			x	x	x	
City/district-wide boards or associations	x	x	x	x			x	x	x	
HOAs & Neighborhood Groups	x	x	x	x			x	x	x	x
Areas of Special Consideration	x	x	x	x	x		x	x		x

Figure 6. Stakeholder Communications Matrix

Furthermore, signage alerting the community of traffic and pedestrian impacts will be posted two days before the start of construction. Google Fiber and Ericsson will then begin construction on the announced date and will be available continually to address questions or concerns.

To show its commitment to community outreach, Google Fiber has also committed to and is in the process of hiring a full-time local Community Impact Manager to be the Project liaison over the course of the build. The Community Impact Manager's duties include communicating directly with community leaders and residents about the fiber infrastructure design and ensuring the community needs are addressed during construction.

In summary, the proposed CIMP has been drafted over the course of past several months by Google Fiber with significant City input. Staff proposes that the City Council grant approval so that the Project can begin construction. This CIMP incorporates several elements to mitigate construction through a deliberate and sensitive approach to construction phasing and crew deployment and is highly focused on sensitive land uses (i.e. Areas of Special Consideration) while recognizing that proper community outreach is vital to the success of this Project.

## **EVALUATION AND FOLLOW-UP**

Following the approval of the Construction Impact Mitigation Plan, staff anticipates returning to City Council for the approval of a funding agreement with Google Fiber. Staff has identified the

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need for a dedicated team of permitting and inspection employees to facilitate the proposed three year build. Staff is seeking to obtain funding from Google Fiber for additional staff through a funding agreement, which will be coordinated with the Budget Office and appropriated through the budget process in accordance with standard City procedures. In addition, the remaining Hut Licenses will be brought to Council for approval when ready.

### **PUBLIC OUTREACH**

This memorandum will be posted on the City's Council Agenda website for the May 24, 2016, Council meeting.

### **COORDINATION**

Preparation of this memorandum has been coordinated with the Department of Public Works, Department of Planning, Building and Code Enforcement, Department of Transportation, City Attorney's Office, City Manager's Office, and City Manager's Budget Office.

### **COST SUMMARY/IMPLICATIONS**

Google Fiber will expand its fiber network at its cost, which would include paying the costs of City permitting, inspection, and use of property associated with the Project.

Google Fiber will be required to assume the ongoing maintenance responsibility for the fiber-optic infrastructure at its cost.

### **CEQA**

The environmental impacts of this project were addressed by an Initial Study and Mitigated Negative Declaration entitled, "Mitigated Negative Declaration Google Fiber Project," and findings were adopted by City Council Resolution No. 77591 on December 1, 2015.

/s/

BARRY NG  
Director of Public Works

For questions please contact Michael Liw, Public Works Deputy Director, at (408) 535-6835.

Attachments



Figure 4-1: Google Fiber construction and installation communications with San Jose residents

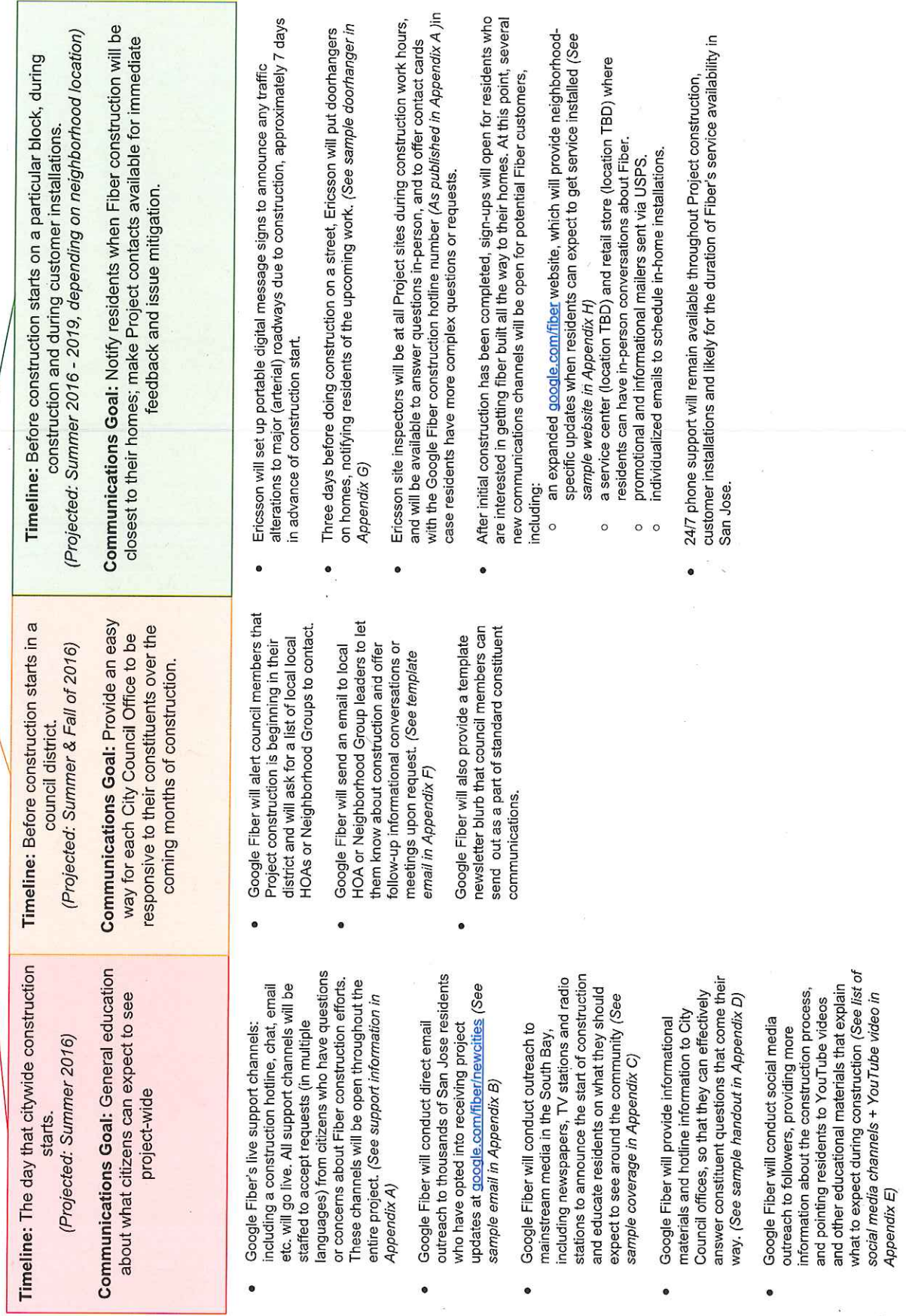
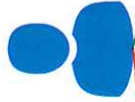


Figure 4-2: Google Fiber construction and installation communications with San Jose Areas of Special Consideration (ASCs)



Timeline: The day that citywide construction starts. (Projected: Summer 2016)	Timeline: Before construction starts in a council district. (Projected: Summer & Fall of 2016)	Timeline: Before neighborhood construction starts. (Projected: Summer 2016 - Fall 2018, depending on neighborhood location)	Timeline: Before construction starts on a particular block, during construction and during customer installations. (Projected: Summer 2016 - 2019, depending on neighborhood location)
<p><b>ASC Communications Goal:</b> Conduct general educational efforts around what ASCs can expect to see project-wide.</p> <ul style="list-style-type: none"> <li>Google Fiber will offer an informational meeting with local business associations (e.g., the Downtown Association) or other ASC-representative groups to discuss the high-level strategy of construction impact mitigation efforts near San Jose ASCs.</li> <li>Google Fiber's live support channels: including a construction hotline, chat, email etc. will go live. All support channels will be staffed to accept requests (in multiple languages) from citizens who have questions or concerns about Fiber construction efforts. These channels will be open throughout the entire project. (See support information in Appendix A)</li> <li>Google Fiber will conduct direct email outreach to thousands of San Jose residents who have opted into receiving project updates at <a href="http://google.com/fiber/newcities">google.com/fiber/newcities</a> (See sample email in Appendix B)</li> <li>Google Fiber will conduct outreach to mainstream media in the South Bay, including newspapers, TV stations and radio stations to announce the start of construction and educate residents on what they should expect to see around the community (See sample coverage in Appendix C)</li> <li>Google Fiber will provide informational materials and hotline information to City Council offices, so that they can effectively answer constituent questions that come their way. (See sample handout in Appendix D)</li> <li>Google Fiber will conduct social media outreach to followers, providing more information about the construction process, and pointing residents to YouTube videos and other educational materials that explain what to expect during construction (See list of social media channels + YouTube video in Appendix E)</li> </ul>	<p><b>ASC Communications Goal:</b> Provide an easy way for City Council Office to identify ASCs that Project coordinators should reach out to; begin conducting that outreach.</p> <ul style="list-style-type: none"> <li>Google Fiber will alert council members that Project construction is beginning in their district and will ask for a list of district-specific Areas of Special Consideration to be cognizant of in planning and coordinate with during construction. <ul style="list-style-type: none"> <li>Council Offices will also identify any local HOAs or Neighborhood Groups that Project Coordinators should begin outreach to.</li> </ul> </li> <li>Google Fiber will send an email to local HOA or Neighborhood Group leaders to let them know about construction and offer follow-up informational conversations or meetings upon request. (See template email in Appendix F)</li> <li>Google Fiber will also provide a template newsletter blurb that council members can send out as a part of standard constituent communications.</li> </ul>	<p><b>Communications Goal:</b> Plan and communicate regarding ASC site-specific construction impact mitigations.</p> <ul style="list-style-type: none"> <li>Google Fiber and Ericsson will identify Areas of Special Consideration in each permit submittal. Each permit will provide a site-specific traffic plan and will outline which method(s) of notification/outreach will be utilized with relevant local organizations. Outreach options are listed in Appendix I.</li> <li>After a permit is approved for a specific Area of Special Consideration, Google Fiber and/or Ericsson will conduct the outreach that was identified in the approved permit package. This outreach to relevant organizations in Areas of Special Consideration will occur approximately 2-4 weeks before local construction begins.</li> <li>Ericsson will set up portable digital message signs to announce any traffic alterations to major (arterial) roadways due to construction, approximately 7 days in advance of construction start.</li> </ul>	<p><b>Communications Goal:</b> Notify ASCs when Fiber construction will be closest to their homes; make Project contacts available for immediate feedback and issue mitigation.</p> <ul style="list-style-type: none"> <li>Ericsson will post signage relating to reduced parking space availabilities 24 hours in advance of construction.</li> <li>Ericsson will reach out to public transit agencies (VTA, LRT) approximately 48 hours prior to construction</li> <li>Ericsson site inspectors will be at all Project sites during construction work hours, and will be available to answer questions in-person, and to offer contact cards with the Google Fiber construction hotline number in case residents have more complex questions or requests.</li> </ul>



# **Google Fiber Construction Impact Mitigation Plan (CIMP)**

May 2016

**Prepared for:**

City of San José  
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# Section 1: Executive Summary

## 1.1: Document Purpose

This Construction Impact Mitigation Plan (CIMP) has been developed pursuant to the requirements of the San José Municipal Code (SJMC), Chapter 13.36, Part 2 (sections 13.36.200 *et seq.*). As stated in the SJMC, a CIMP is designed to minimize impacts on residents and businesses from construction activities occurring within the public right-of-way (*i.e.*, public streets).

This proposed Project is unique in that it is a long-term (target 36-month) construction effort that will affect many areas of the City. A detailed construction schedule has not been fully determined. This CIMP is designed as a framework that outlines how Google Fiber Inc. (Google Fiber), its contractors including Ericsson ("Contractors") and the City of San José (City) will operate over the course of the build. Specifically, this CIMP will guide the construction methodologies for this proposed fiber optic build, provide an outreach and communications plan for construction, and describe how potential construction disruption to the community will be minimized.

This CIMP is just one of several phases of documentation and discussions that Google Fiber and its contractors have had, and will continue to have, with City representatives about minimizing impacts on residents and businesses due to construction activities. As the project progresses, Google Fiber, its contractors and the City will apply the general framework of this CIMP to each City area or neighborhood. Google Fiber and its contractors will also take community-specific characteristics into consideration and will plan to address unique challenges or opportunities in a given community.

It is important to note that all of the information in this CIMP is believed to be accurate (or estimated to a degree of accuracy) as of the time this document is published; however, some details of the Google Fiber deployment have not been fully determined. As mentioned previously, this document provides a framework for the building of the project. As the Project progresses through the design and construction phases, this framework document will be referenced by Google Fiber and City officials as a guide for mitigating impacts due to construction.

It is also important to note that the environmental impacts of this project are addressed wholly by the Google Fiber Mitigated Negative Declaration (MND) adopted by City Council Resolution No. 77591 on December 1, 2015, and subsequent addenda. The requirements in the SJMC for a CIMP are in addition to any requirements or mitigations of potentially significant environmental impacts pursuant to the California Environmental Quality Act (CEQA) per SJMC § 13.36.200(B).

## 1.2: Project Overview

Google Fiber is proposing to construct a fiber-to-the-premises (FTTP) infrastructure that would allow Google Fiber to provide Internet and video service to residents and small businesses throughout the City, as depicted in Figure 1-1 (Project). Google Fiber will be the owner and operator of this network. Ericsson will perform the engineering, design, procurement, permitting, and construction involved in deploying this network on behalf of Google Fiber.



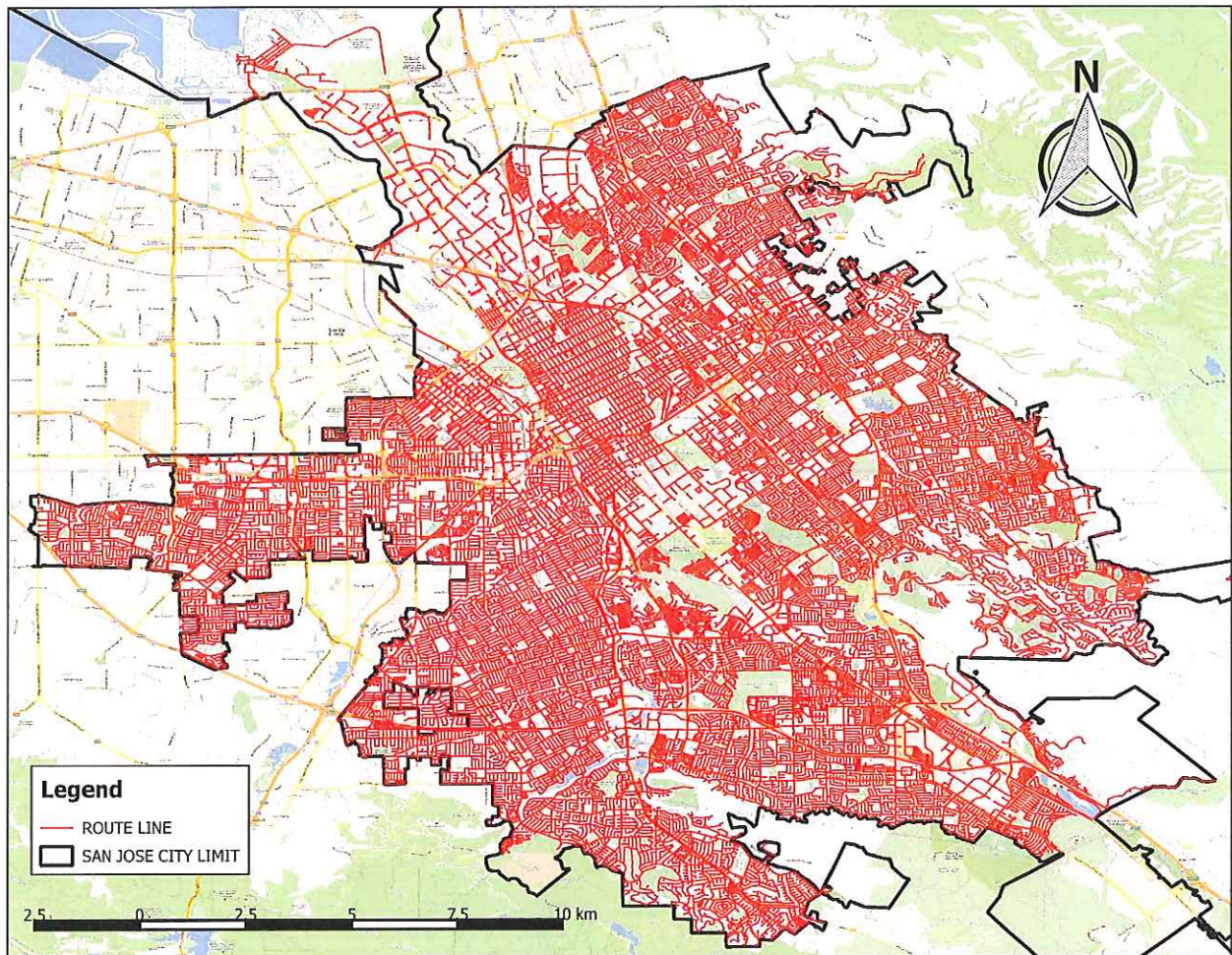


Figure 1-1: Overall Project Area in San José reflecting potential route lines for the FTTP deployment

### **Progress To Date**

On October 13, 2015, the City circulated a draft Initial Study/Mitigated Negative Declaration (IS/MND) for public review and comment. On December 1, 2015, the City Council of the City of San José (City Council) approved the Project and adopted the IS/MND under CEQA. The IS/MND finds that, with mitigation measures incorporated, the Project's impacts will be less-than-significant. The IS/MND identifies the specific mitigation measures under CEQA to reduce potential impacts to a less-than-significant level; as noted above, in addition to the mitigation measures under CEQA, this CIMP identifies other measures that are not required under CEQA but that SJMC has requested in order to minimize impacts on residences and businesses from Project construction.

The Project includes the installation of aggregators that connect to main line fiber optic infrastructure. From these aggregators (either in prefabricated Fiber Huts or existing equipment rooms), the fiber cables would travel along existing utility corridors (typically within City public streets and either above or below ground), into large vaults or utility cabinets, into smaller vaults/cabinets, and then directly to customers. Subsequent



to the City Council's approval of the Project, the City Planning Commission approved Conditional Use Permits for the aggregation sites shown in the table below, all of which will be located on City-owned property. It is anticipated that two additional aggregator sites will be required for the Project; the additional two aggregator sites will be evaluated by the Planning Commission and approved by City Council, if necessary. Each Fiber Hut site is listed below in Table 1-1:

<b>Fiber Hut Site Address</b>	<b>Hut Site Name (as depicted in Figure 2-1)</b>	<b>Date Approved by Planning Commission or Planning Commission Directors</b>	<b>Planning Commission File Number</b>	<b>Council District</b>
Bird Ave. & Virginia St.	SFO 109	December 2, 2015	CP15-068	3
Glenbury Way and Thornwood Drive	SFO 111	December 2, 2015	CP 15-069	10
Hellyer Ave. & Bernal Rd.	SFO 112	February 24, 2016	CP15-076	2
Lone Bluff Way & Oldham Rd.	SFO 113	February 24, 2016	CP15-079	7
Blossom Hill Rd. & Camden Rd.	SFO 107	March 23, 2016	CP15-075	10
Williams Rd. near Moorpark Ave.	SFO 108	March 23, 2016	CP15-082	1
Guadalupe Pkwy near Mission St.	SFO 115	March 23, 2016	CP15-077	3
Still being finalized	SFO 110	TBD	TBD	TBD
Mexican Heritage Plaza Parking Lot	SFO 114	April 20, 2016	PDA97-083-01	5

*Table 1-1: Planning Commission approval & location information for Project aggregation ("hut") sites*

### **General Project Description**

The Project will be constructed throughout the City of San José, adjacent to and along a variety of existing land uses including within public right-of-way (*i.e.*, City public streets), on public lands and private property (*i.e.*, Fiber hut placement), within utility easements, and into contiguous urbanized areas of unincorporated Santa Clara County.

Google Fiber's FTTP infrastructure consists of four primary components, listed below, and depicted in Figure 1-2:

1. Installation of a fiber ring
2. Fiber aggregation connection points (Fiber Huts)
3. Vault locations (Fiber Distribution Hubs)
4. Connections to customers

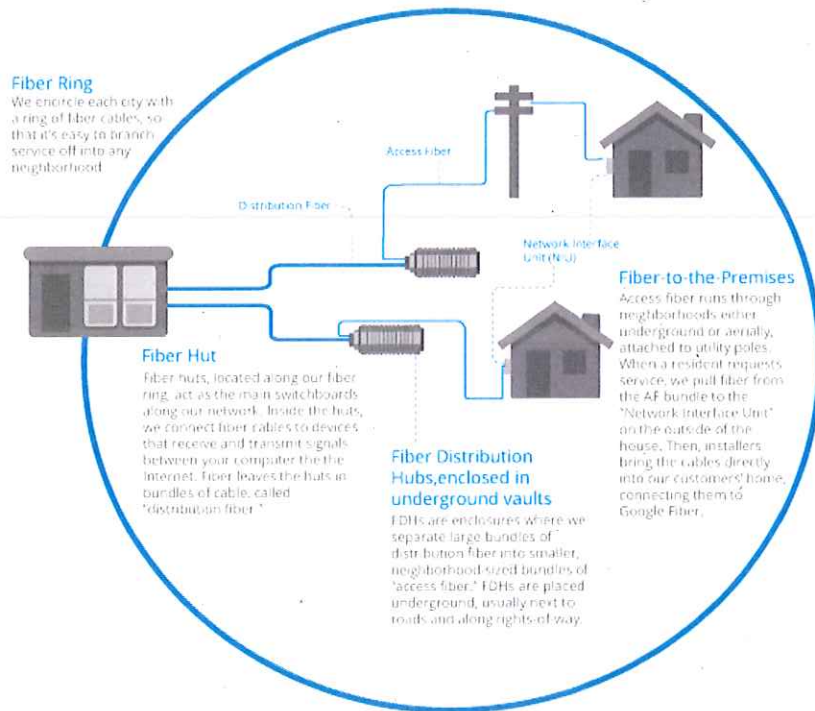


Figure 1-2: The four basic components of the Project's proposed infrastructure

One of the goals during Project construction is to minimize disruption and congestion in the City, while also building quickly so as to minimize the amount of time construction crews, or small units of construction workers, will occupy City right-of-way. In order to accomplish this, the deployment of crews and the sequencing of Project construction will consider and plan for:

- minimizing impact to major City transportation corridors (i.e., major arterial streets or public transportation paths),
- coordinating with non-Project related construction within the City,
- addressing site-specific concerns (i.e., schools, emergency services)
- minimizing road closures and underground construction where possible.

This CIMP will define the issues, how they are considered in the planning of the network build, and appropriate measures to minimize disruption.



## Section 2: Anticipated Build Area

### 2.1: Build Area Summary

The Project will be located within the City and limited urbanized areas of unincorporated Santa Clara County that are contiguous to the City.<sup>1</sup> Most of the Project will be located within the public right-of-way and/or utility easements, along with limited Project facilities (i.e. Fiber Huts) on public land or private property. The anticipated layout of proposed facilities for San José includes the main fiber backbone (blue lines), distribution fiber lines (red lines) and proposed fiber hut sites (green nodes), as shown in Figure 2-1.

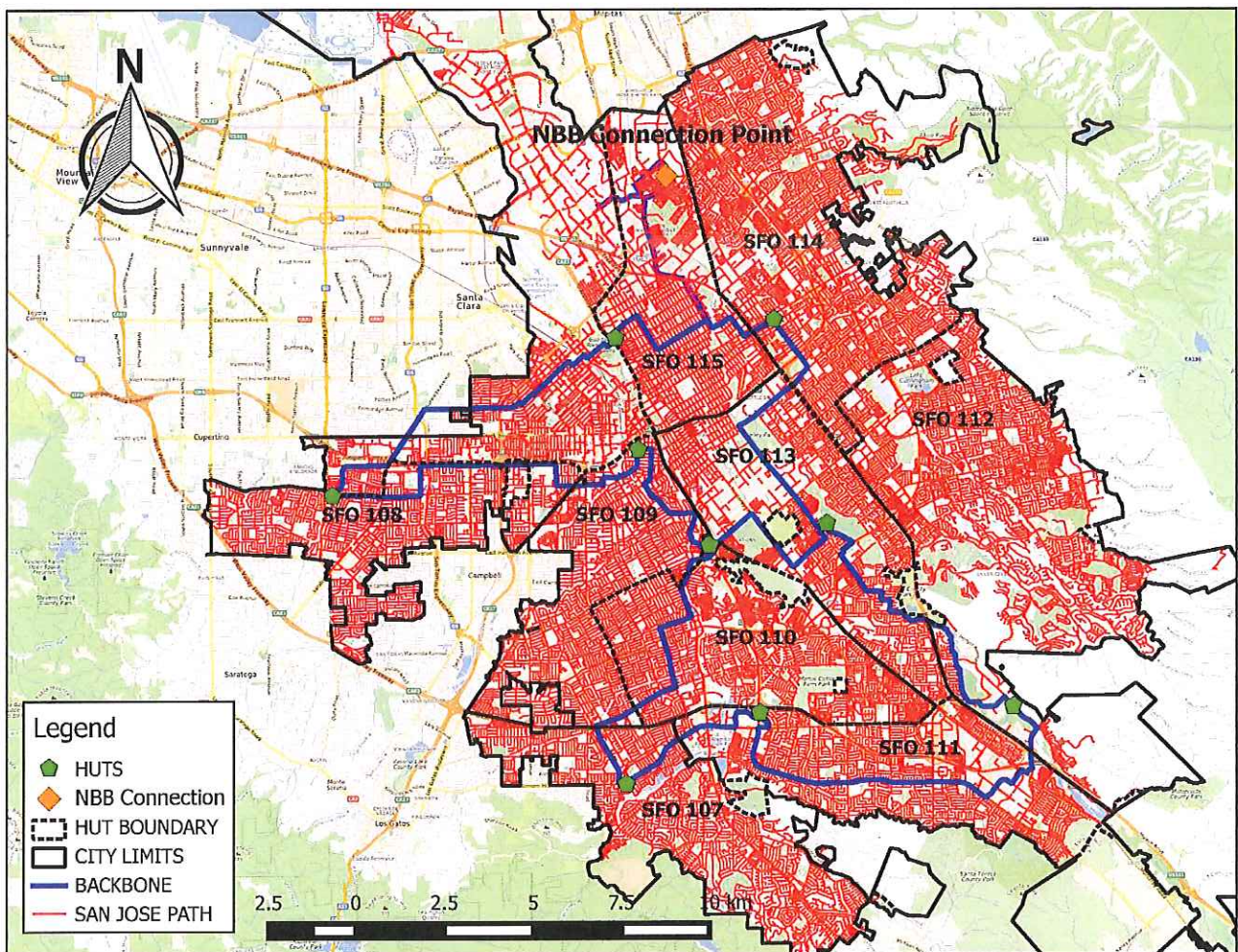


Figure 2-1. Project site map including "Fiber Hut locations", "Hut Boundaries" and "Regional Backbone" reflected in proposed build areas

<sup>1</sup> Any adjacent work areas not within the limits and jurisdiction of the City of San José will be permitted and inspected by the corresponding public agency (e.g., County of Santa Clara, etc).



It is important to note that there are a number of factors that may preclude Google Fiber from constructing 100% of this proposed build area. For example, it may be infeasible to construct to areas with challenging geotechnical characteristics (e.g., build on bedrock too hard to drill through), areas with low housing density, areas where Google Fiber is unable to secure necessary permissions or permits (including finalizing and obtaining approvals on the 9th Hut location), or areas lacking either utility pole availability for aerial fiber line installation or a feasible depth/running line for underground fiber line installation. The potential Project area is depicted in the map below (Figure 2-2) which overlays City Council districts over the proposed build area.

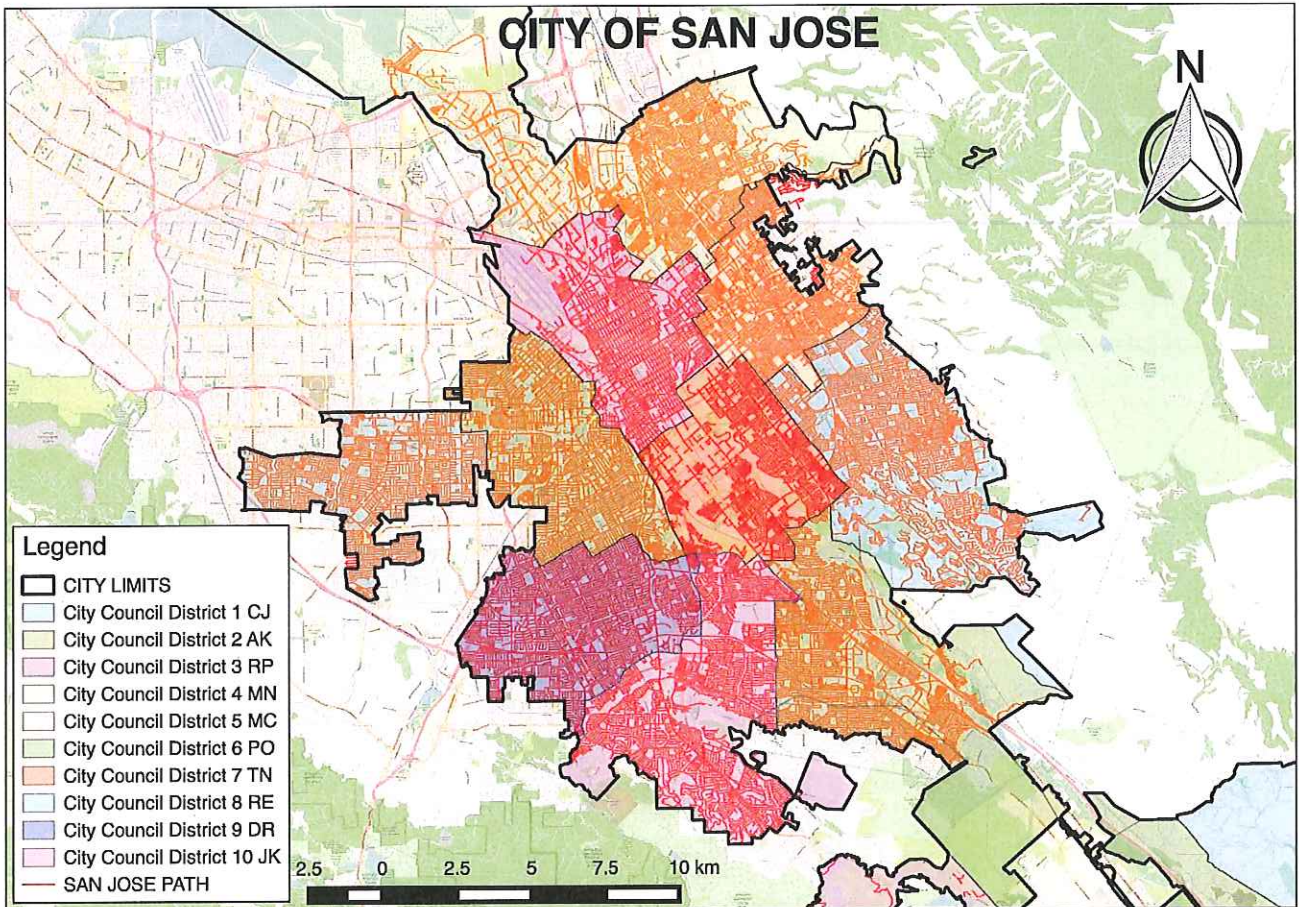


Figure 2-2. Project map with San José Council District areas

## 2.2: Build Architecture and Elements

### Fiber Ring: National Backbone Connection to Regional Backbone (RBB) to Fiber Huts

The network architecture of the Project is designed in a funnel-down fashion. The National Backbone (with connectivity to the rest of the world) will interconnect with the Project's Regional Backbone (RBB). The RBB will run between, and connect, nine Fiber Huts. These huts house electronics that receive and transmit signals between customers' devices and the National Backbone. In Figure 2-1, the National Backbone

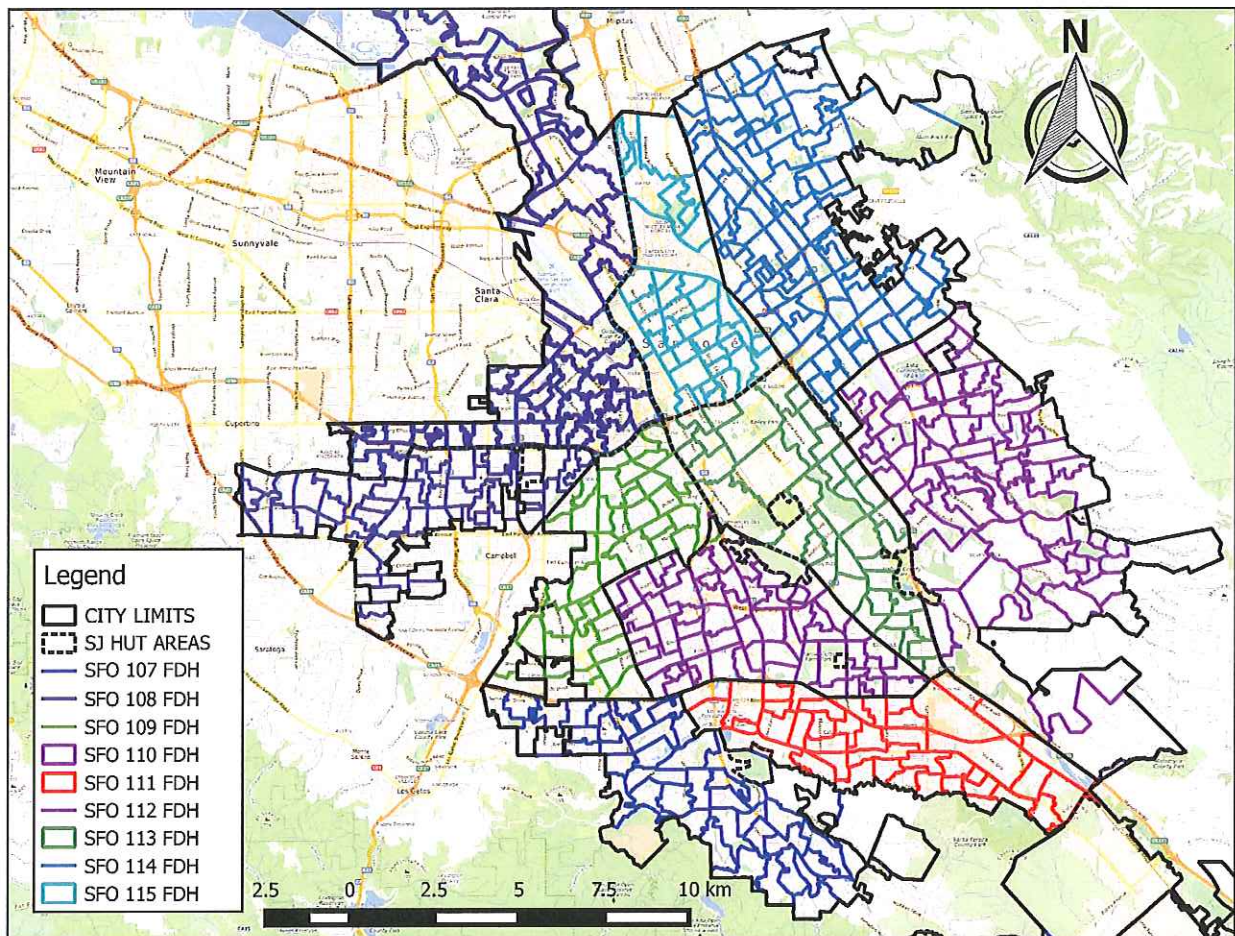


interconnection point is depicted as an orange diamond, the RBB is depicted as a blue line and the Fiber Huts are depicted as green nodes.

### **Fiber Huts to Distribution Fiber to Access Fiber to Customers**

Each Fiber Hut is currently designed with the capacity to serve approximately 40,000 households. As such, a Hut Boundary or the specific area being serviced by a single Fiber Hut, is identified around each Hut. In Figure 2-1, Hut Boundaries are represented by various colors covering different areas of the City. At this stage, the City has been divided into 9 separate Hut Boundaries where each can be considered separate build areas of the network. The Hut Boundaries may vary in size based on various factors including housing density characteristics, total number of households, and natural boundaries that may limit design such as crossings of creeks, highways, or railroad lines.

In order to serve customers within a Hut Boundary, several trunks of fiber cable, known as Distribution Fiber (DF), leave each hut. Each DF trunk will travel to a different area of the Hut Boundary, and will terminate at a Fiber Distribution Hub (FDH). The FDH service area is referred to as an FDH Boundary and subdivides the Hut Boundary into multiple areas as seen in Figure 2-3. There will be approximately 523 FHD Boundaries in the City; on average, each Hut Boundary is broken down into 56 FDH Boundaries.



*Figure 2-3: Fiber Distribution Hub delineation of Hut Boundaries*

Similar to the Hut Boundaries, the FDH Boundaries vary in size and quantity due to different housing densities and consideration of natural boundaries such as streams. Currently, a total number of 523 FDH Boundaries are planned throughout the City. Design modifications throughout the Project may cause slight variances in the amount of FDHs per Hut Boundary.

Once the DF cables have reached the FDH, the DF is spliced & repackaged into smaller bundles of cable, known as Access Fiber (AF) which branch down neighborhood streets. AF is then spliced further into smaller bundles through additional splice points. The vast majority of these splice points (FDHs, Customer Vaults) will be located in standard underground utility vaults located in the public right-of-way.



## Section 3: Overall Build Schedule and Phasing

### **3.1: Overall Build Strategy**

Google Fiber and Ericsson intend to complete construction of the entire FTTP network (including all of the network elements described in Section 2 of this CIMP) in approximately 36 months. The 36-month target schedule is intended to minimize the duration of construction and limit disruption to public streets, residents and businesses of San José.

The intent of this Section is twofold:

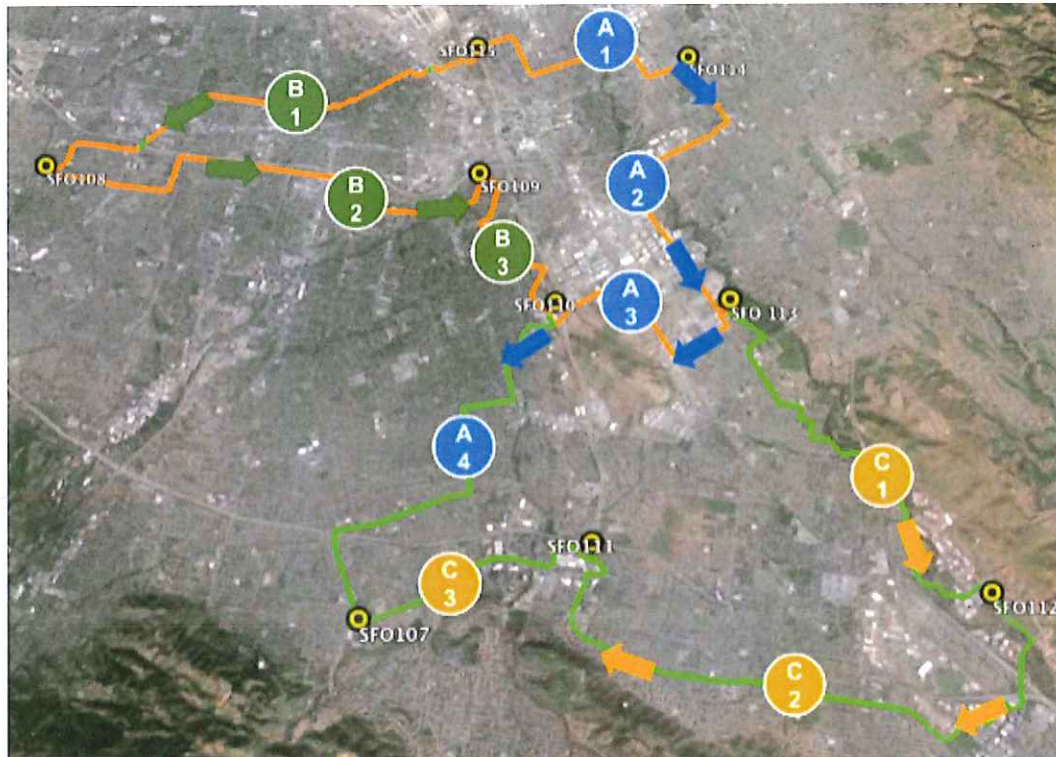
- (1) Describe the Project's construction plans to help residents understand how construction crews and work will be staggered across different timelines and locations so as to avoid concentrating construction activity in any one neighborhood, and
- (2) Describe how the Project will be permitted.

### **3.2: Fiber Hut and Regional Backbone (RBB) Build Strategy**

The initial phase of Project construction will include installation of the Fiber Huts, construction of the RBB, and the connection to the National Backbone. It is estimated that RBB construction will be complete within six months, and all 9 Fiber Huts will be installed within five months from start of construction subject to finalizing and obtaining approval for the 9th Fiber Hut. Construction on some of the additional network components within each Hut Boundary, such as DF, AF, and FDHs, will proceed concurrently with RBB and Hut construction and continue after RBB and Hut construction is complete (see Section 3.3).

RBB segments are designed to connect Fiber Huts, and are not designed to connect to individual residences or businesses. As such, the RBB will travel along major arterial streets in the City more than any other network component. As lane closures may be necessary as a part of the RBB build, in order to minimize arterial congestion, each RBB construction crew will be deployed to different quadrants of the City, as depicted in Figure 3-1. This distribution is designed to ensure that adjacent streets, as well as roads upstream or downstream from the work, remain undisturbed to minimize traffic delays and allow for free-flowing detours as needed.

While each RBB crew will be spread throughout the City, each individual RBB crew will work linearly along the RBB route, from segment to segment. This flow, depicted in Figure 3-1, will result in continuous and progressive work along each segment of the RBB. The intent behind this strategy is to avoid disjointed or duplicate work that can cause additional disruption when construction crews leave an area and return later to continue a segment.



*Figure 3-1: Example of potential crew spread for RBB build; A, B and C represent sets of crews while numbering represent the sequence for that set of crews. For example, Crew A starts on segment A-1; upon completion of that segment Crew A would move to segment A-2.*

For more detailed information about how construction will be handled along major arterial streets, please see Section 6.1 of this CIMP.

### **3.3: Fiber Hut Boundary (Fiber Distribution Hub, Distribution Fiber, Access Fiber) Build Strategy**

In order to complete Project construction within the proposed 36-month schedule, construction within Fiber Hut Boundaries will proceed concurrently with RBB construction. As outlined in Section 2 and depicted in Figure 2-3, each Hut Boundary is subdivided into an average of 56 smaller FDH Boundaries. Construction within each Hut Boundary will concentrate on several FDH Boundaries at a time. For each FDH area, it is anticipated that construction will occur, on average, over a 4-week period. The order of FDH Boundary Construction will be determined based on a variety of factors, but will primarily focus on reducing crew congestion and minimizing construction presence.

The first FDH Boundaries that will be constructed will be closest to each Fiber Hut, and work will progress outwards further into an FDH Boundary in a concentric pattern. The intent behind this flow is to avoid disjointed or duplicate work, which can cause unnecessary disruption when construction crews leave an area and return later to continue a segment.



Below, Figure 3-2 provides a representative depiction of how this FDH epicenter strategy would work across the City and depicts how a sample of 40 FDH Boundaries would be built over the initial eight weeks of Project construction:

- In the first week of construction, work would begin in the 5 FDH boundaries surrounding the SFO 109 Hut Site (area highlighted in red).
- In the second week of construction, work would continue in the initial 5 FDH boundaries (red area) and different crews would begin work in an additional 5 FDH boundaries surrounding the SFO 114 Hut Site (area highlighted in green).
- In the third week of construction, work would continue in the 10 FDH boundaries surrounding SFO 109 and 114 (red and green areas) and different crews would begin work in an additional 5 FDH boundaries surrounding the SFO 111 Hut Site (area highlighted in gold).
- By the fourth week of construction:
  - The crews working on the initial 5 FDH boundaries (red area surrounding SFO 109) would be completing that work and, by week's end, would be moving outwards to a new set of 5 FDH boundaries within the same hut boundary. This migration is depicted in Figure 3-2 (area highlighted in light blue)
  - Concurrently, crews working near SFO 114 (green area) and SFO 111 (gold area) would continue construction within their initial 10 total FDH Boundaries, 5 surrounding each Fiber Hut.
- By the fifth week of construction:
  - The crews working on the second grouping of 5 FDH boundaries surrounding SFO 114 (green area) would be completing that work and moving into 5 nearby FDH boundaries.
  - The crews working on the FDHs around SFO 111 (gold area) and 109 (light blue area) would continue to work within their areas.

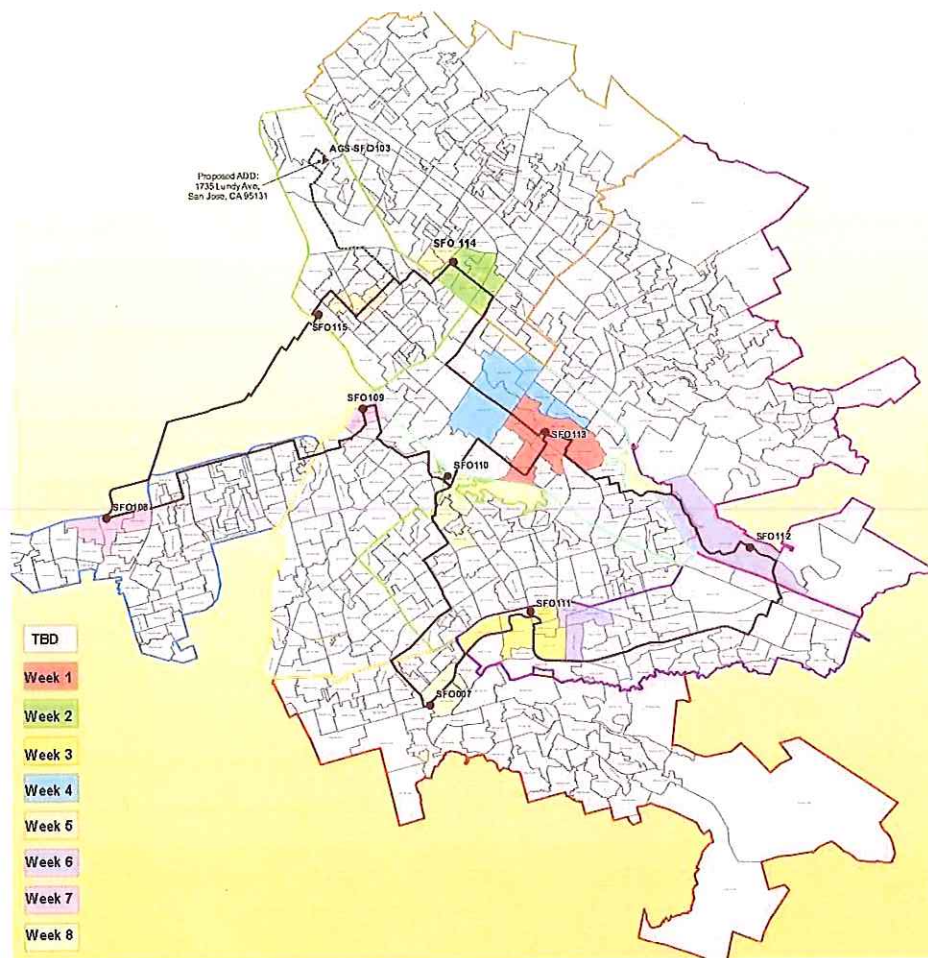


Figure 3-2: Example of potential (not actual) FDH Boundary sequencing and crew spread; highlighted colors reflect a time lapse of the sequence in which the FDH is constructed as seen in the legend.

As shown in the example above, within the first 8 weeks of construction, crews would have completed work in 25 FDH boundaries and have ongoing work in 15 FDH boundaries. In summary, Google Fiber expects that construction will ramp-up over the initial weeks of the Project, and will reach a steady state of concurrent work in 15-20 FDH boundaries at any one time, pending final inspections and project/permit closeout of each completed area. Once at steady state, construction in approximately 5 FDH boundaries should be finalized each week as work in 5 new FDH boundaries begins.

Given that the Project currently contains 523 FDH Boundaries, it would take approximately 107 weeks, or just over two years (including initial Project ramp-up) to complete FDH Boundary construction alone.

Project construction will encounter some “Areas of Special Consideration” throughout the City. Areas of Special Consideration are specific, heavily-trafficked points of interest (*i.e.*, arterial streets, schools, business corridors, etc.) that Google Fiber will work with the City and Council members to identify. Google Fiber and Ericsson will take these points into consideration when planning local construction sequencing,



communications and traffic control. Section 6 covers treatment of Areas of Special Consideration in more detail.

### **3.4: Crew spacing & numbers**

Sections 3.1, 3.2 and 3.3 have outlined the approach and sequencing for building the Project's RBB and infrastructure within FDH Boundaries. This Section describes how those crews will be deployed along the RBB route and within FDH Boundaries in order to facilitate efficient construction that avoids crew congestion in any area of the City.

#### **Crew spacing in FDH Boundaries**

As outlined in Section 3.3, anywhere from 15 to 20 FDH Boundaries may be under construction simultaneously during peak Project deployment. Within each of these FDH Boundaries, an average of four to five crews will be working at the same time. Crews, site leads and quality control personnel, will be deployed in a way that generally maintains a 2,500-foot, or approximately one-half mile, separation between crews to limit congestion due to construction operations. The 2,500-foot separation may vary based on the size, shape and other specific characteristics of a given FDH.

In order to maintain separation, each crew will be assigned a work area staged roughly equidistant from the others. Crews will build through their own work areas at a similar pace and on a similar trajectory, thus maintaining a minimum distance between crews. To demonstrate this methodology, Figure 3-3 depicts a sample FDH broken into four crews, working in four quadrants, over a four week period.

In this example, crews are all initially staged in the Northwest corners of their quadrants as is shown in red. As work progresses, all of the crews move Southeast, "following" the adjacent crew, and complete their work in the Southeast areas of their quadrants. Deploying this work progression methodology assists in maintaining a minimum distance between crews and avoids multiple concurrent disruptions to a neighborhood.

In addition, crew spacing may also be further refined, when necessary, based on neighborhood characteristics. For example, when planning crew spacing, care will be taken not to hinder safe and efficient access into and out of neighborhoods.



Figure 3-3: Crew distribution and progression methodology within the construction of a single FDH.

### **Crew spacing along the RBB**

During the initial 8 months of Project construction, work on the RBB and FDHs will be taking place concurrently, and in some places, the construction paths for both may overlap. Even though there will be different crews assigned to building the RBB and the FDH Boundaries, the schedules of these crews will be coordinated to maintain a 2,500 foot separation. A sample of this scenario is depicted below, in Figure 3-4.

In this sample scenario, RBB construction crews begin work near the Fiber Hut during Week 1. The RBB crews will work along construction paths that travels away from the Fiber Hut. Therefore, after Weeks 1, 2 and 3, RBB construction will have progressed beyond all of the FDH Boundaries that are immediately adjacent to the Fiber Hut. Then at the start of Week 4, FDH crews begin their work while RBB crews continue along their outward Backbone construction path; by this point, all crews will be approximately 2,500 feet away from each other.





Figure 3-4 - Crew spread between adjacent construction elements, depicting progression of Backbone construction prior to breaking ground on the adjacent FDH.

### Project Crew Numbers

As described above, an average of four to five crews will be deployed in each FDH Boundary. In order to understand why this number of crews is ideal and necessary, it is important to understand the interplay between FDH Boundary size, crew production rates, and the overall Project deployment target of 36-months.

Anticipating crew count numbers is a complex, multi-variable process. In order to shed more light on these calculations, below is a simplified look at some of the factors considered in calculating one crew's anticipated production rate:

- **Production rate of aerial vs. underground construction:** It is ordinarily much faster to string fiber along aerial infrastructure than it is to bury it underground. On average, a crew can complete approximately 450 feet of underground fiber construction in a day, whereas approximately 900 feet of aerial fiber can be constructed in a day.
- **Aerial vs. underground breakdown:** Google Fiber anticipates that utility poles will be available in approximately 40% of the Project area. The remaining 60% of the Project area will need to be constructed underground. Note: These percentages include aerial and underground construction mostly within City rights of way but also include construction within utility easements.
- **Production rate vs. preparation rate:** Crews cannot begin construction as soon as they are deployed to a site; they must first spend time prepping that area. Site preparation includes tasks such as setting up traffic control, potholing to locate existing utilities along the proposed underground path, and performing make-ready work on utility poles. The Project anticipates approximately a 2:1 ratio between construction time and preparation time; in other words, 66.6% of a crew's time will be spent on actual production and 33.3% of a crew's time will be spent on preparation work.

Additionally, there are external factors that are often hard to accurately predict and consider when estimating crew production rates, including:

- Inclement weather
- Crew fluctuation (max crew numbers will vary depending on the phase of the project and labor availability)
- Delays waiting for third parties to perform aerial transfers (e.g. moving their attachment on a utility pole in order to make room for the new Google Fiber attachment)

To account for these difficult-to-predict external factors, it is standard practice to include a buffer period when considering each crew's anticipated productivity.

Taking all of these factors into account, it would take **one single crew** approximately 229 years to construct the Project. In order to reduce this timeline down to the target duration of construction (approximately 36 months), the Project will require that approximately 80 crews be deployed at peak construction.

### **Project Crew Ramp**

As outlined in Sections 3.1, 3.2 and 3.3, some types of work across the City are sequential and will need to ramp-up over time, starting first on Huts and the Regional Backbone, and then expanding to FDH Boundaries 4 to 6 weeks later.

As is depicted in Figure 3-5, mobilization of crews will occur over 13 weeks until a "steady state" is achieved with approximately 75-80 crews working simultaneously. This crew count will be maintained throughout the majority of the project, until work nears completion and ramps down.

Over the same 13-week ramp-up period, the number of FDH boundaries in active construction will increase to approximately 15-17 at "steady state" production. Although the amount of crews working on the project ramps up quickly, the distribution of those crews maintains an average of only 4-5 crews working in any given FDH area. This average is depicted in Figure 3-6.



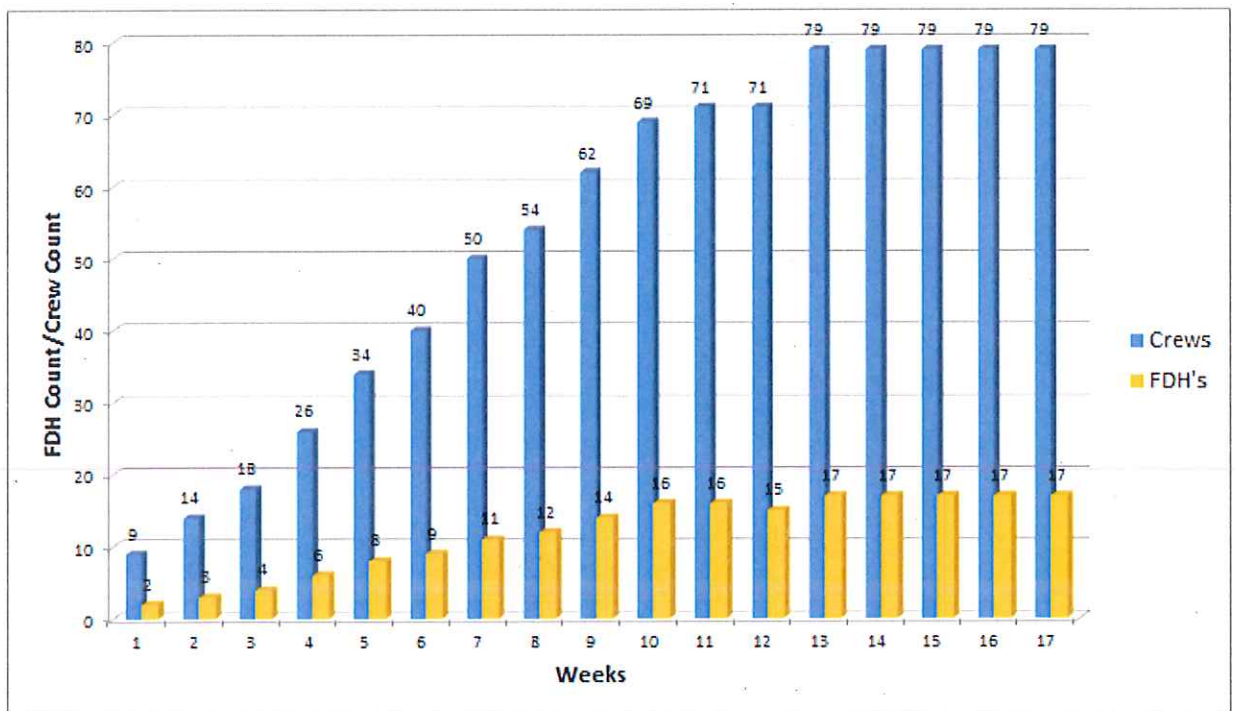


Figure 3-5: Total crews and associated FDHs from ramp-up to “steady state” construction after week 13.

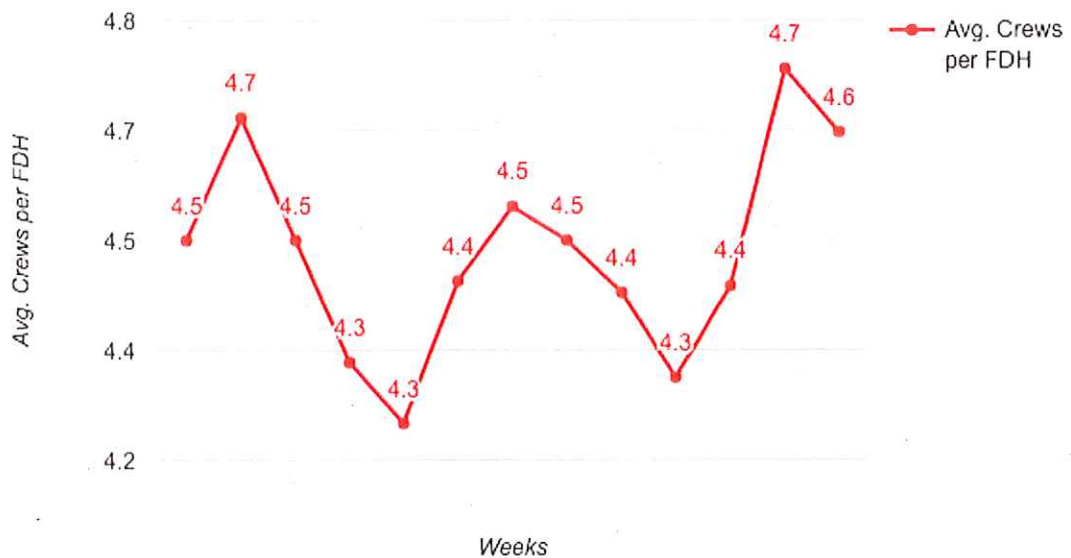


Figure 3-6: Average number of crews working in an FDH area (Between 4.3 and 4.7 crews per FDH).

### 3.5: Build Schedule

Following the construction flow strategy outlined above, the anticipated network build schedule for San José is as follows:

Targeted dates	Type of construction	Location
May 2016 to June 2016	Construction of first two hut sites	Hut site: SFO109, SFO111
June 2016 to August 2016	Additional hut site construction	Hut sites: SFO 107, SFO 108, SFO 110, SFO 112, SFO 113, SFO 114, SFO 115
May 2016 to June 2016	Regional backbone construction	Segment 1: SFO108 - SFO109
May 2016 to June 2016	Regional backbone construction	Segment 2: SFO111 - SFO112
May 2016 to June 2016	Regional backbone construction	Segment 3: SFO112 - SFO113
June 2016 to July 2016	Regional backbone construction	Segment 4: SFO107 - SFO111
June 2016 to July 2016	Regional backbone construction	Segment 5: SFO108 - SFO115
June 2016 to July 2016	Regional backbone construction	Segment 6: SFO113 - SFO114
June 2016 to July 2016	Regional backbone construction	Segment 7: SFO110 - SFO107
July 2016 to August 2016	Regional backbone construction	Segment 8: SFO109 - SFO110
July 2016 to August 2016	Regional backbone construction	Segment 9: SFO114 - SFO115
July 2016 to August 2016	Regional backbone construction	Segment 10: SFO110 - SFO113
June 2016 to April 2017	First Hut Boundary Construction (TBD which of the 9 hut boundaries this will be)	All FDH Boundaries, DF Cable and AF Cable
June 2016 to April 2017	Second Hut Boundary Construction (TBD which of the 9 hut boundaries this will be)	All FDH Boundaries, DF Cable and AF Cable
June 2016 to April 2017	Third Hut Boundary Construction (TBD which of the 9 hut boundaries this will be)	All FDH Boundaries, DF Cable and AF Cable
August 2016 to July 2017	Fourth Hut Boundary Construction (TBD which of the 9 hut boundaries this will be)	All FDH Boundaries, DF Cable and AF Cable
October 2016 to September 2017	Fifth Hut Boundary Construction (TBD which of the 9 hut boundaries this will be)	All FDH Boundaries, DF Cable and AF Cable
Targeting January 2017 to December 2017	Sixth Hut Boundary Construction (TBD which of the 9 hut boundaries this will be)	All FDH Boundaries, DF Cable and AF Cable



Targeting March 2017 to February 2018	Seventh Hut Boundary Construction (TBD which of the 9 hut boundaries this will be)	All FDH Boundaries, DF Cable and AF Cable
Targeting June 2017 to May 2018	Eighth Hut Boundary Construction (TBD which of the 9 hut boundaries this will be)	All FDH Boundaries, DF Cable and AF Cable
Targeting August 2017 to September 2018	Ninth Hut Boundary Construction (TBD which of the 9 hut boundaries this will be)	All FDH Boundaries, DF Cable and AF Cable

*Table 3-3: Estimated overall project schedule.*

Factors such as daily work hours, weather, holidays, construction moratoriums, and special events will influence the overall Project schedule. The above proposed schedule does not take any of these into account at this time.

### **3.6: Permitting**

Due to the size and complexity of the Project, it would be infeasible to permit all of the required construction work under a single encroachment permit. To allow for more granular review and control from the City's Public Works Department, and to allow for neighborhood specific considerations to be taken into account, Project permitting will be separated to match the different build phases described below. In total, the Project will be broken into approximately 600 individual permits, including separate permits for each Fiber Hut, RBB segment, FDH boundary, and potentially for DF segments as well.

## Section 4: Communications Plan

Given the scope and magnitude of the Google Fiber buildout, there is a high likelihood that San José residents and businesses will come in contact with construction activities related to the Project. As such, Google Fiber and lead contractor Ericsson intend to implement the following communications plan, with three key goals:

1. Ensure there are a variety of channels through which residents can receive information about project construction
2. Ensure people in Areas of Special Consideration or specific, high-traffic points of interest (*i.e.*, arterial streets, schools, business corridors, etc.) throughout the City know what to expect when Fiber construction enters their area, since it may be disruptive to their day-to-day operations.
3. Ensure that anyone in the community has the ability to raise questions or concerns about the Project directly to the Google Fiber team.

Each of these goals is addressed directly in the following subsections, with additional information provided in Appendices A through J.

### ***4.1: Communications to Individual Residents & City Council Members***

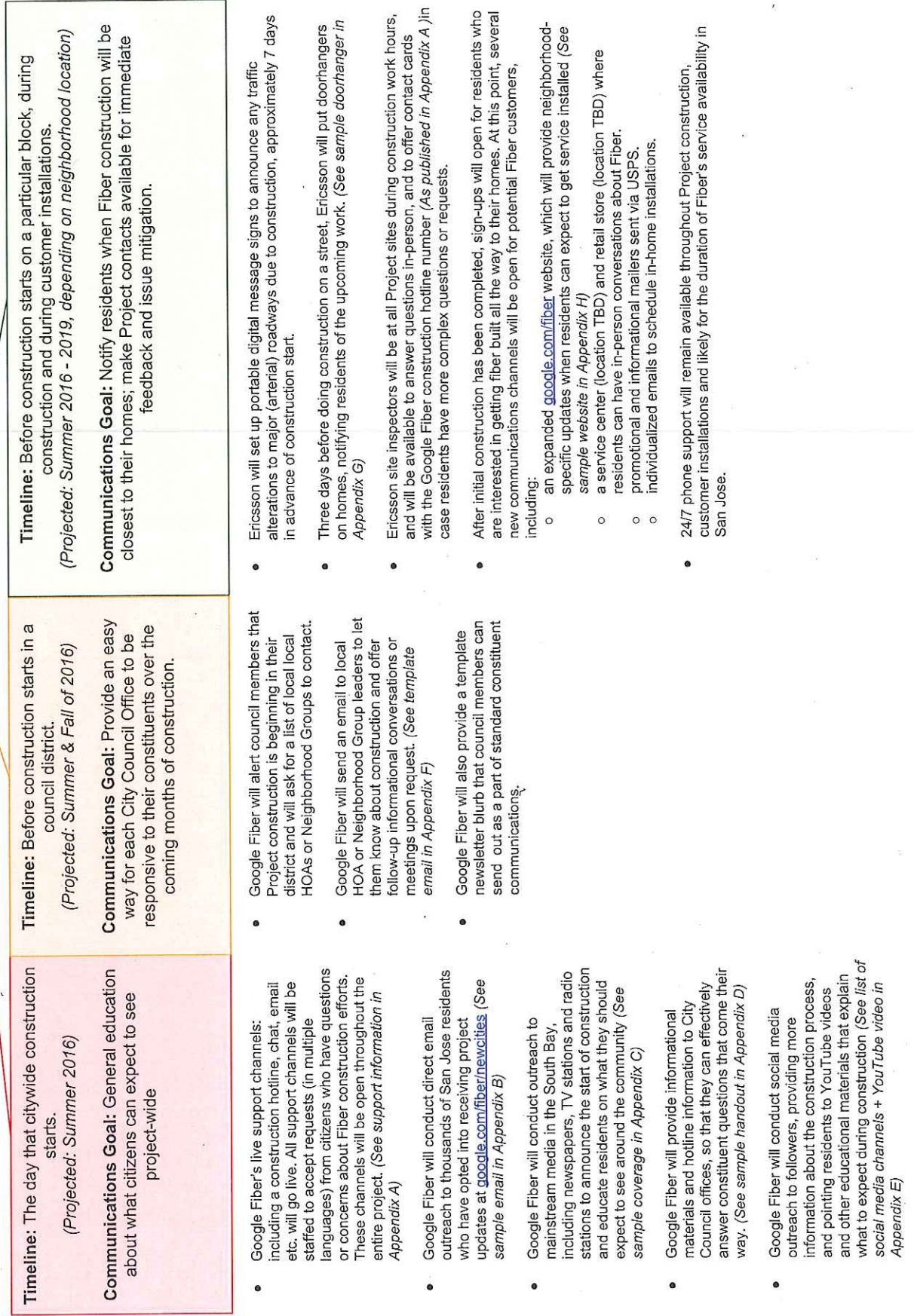
Any individual in the community will have multiple touch-points with Google Fiber and lead contractor, Ericsson. The communications goal of each of these touch-points will expand and change based the phase of construction, as depicted in Figure 4-1.

Since different people receive information in different ways, the Project communications plan leverages a diversity of digital, analog and in-person notifications in order to reach a wide variety of people. Samples of many of these outreach tactics are included in Appendices A -J.

In addition to these Google Fiber and Contractor-managed outreach efforts, Google Fiber has partnered with city governments in other locations to provide information about construction on a city-managed website. An example is the following city website from the City of Cary, NC describing gigabit fiber projects in their area: <https://www.townofcary.org/Departments/fdts/gigabitfiber.htm>. This is often a good method of reaching residents, since they are already accustomed to visiting City-managed websites to get community information. Google Fiber would be happy to collaborate on a similar project with the City of San José.



Figure 4-1: Google Fiber construction and installation communications with San Jose residents



#### **4.2: Communications to Areas of Special Consideration**

Project construction may impact certain high-trafficked points of interest, or Areas of Special Consideration (*i.e., schools, hospitals, local businesses, emergency services, public transportation*).

In order to avoid undue disruption of services for these organizations or patrons, Google Fiber and Ericsson will adhere to the following process to identify and communicate with Areas of Special Consideration:

**Step 1: Identify Areas of Special Consideration:** Google Fiber and Ericsson, working with input from Elected Officials and City Staff, will compile a list of all Areas of Special Consideration across the City.

**Step 2: Conduct initial outreach:** Google Fiber and/or Ericsson will conduct general outreach to representative boards of these Areas of Special Consideration (*e.g., Chamber of Commerce, local business associations, etc.*) in order to share general information about project construction, and receive high-level feedback on opportunities for collaboration, at scale.

**Step 3: Create site-specific plans:** Google Fiber and/or Ericsson will integrate feedback received in steps 1 & 2 into site-specific:

- **Traffic control plans** - outlining specific traffic control measures and flows taken around the footprint of a particular area of special consideration.
- **Work hour modification suggestions** - outlining whether deviating from city-approved work hours would make sense on a case-by-case basis (*e.g., constructing near a public transportation hub during the evening, to avoid patron disruption*).
- **Outreach plan suggestions** - identifying which of the pre-approved outreach tactics (listed in Appendix I) Google Fiber or Ericsson will employ at a particular site.

These site-specific recommendations will be submitted through the standard San José permit approvals process, and will be assessed and approved by Public Works Project plan reviewers.

**Step 4: Review and revise site-specific plans via approved outreach methodology:** Google Fiber and/or Ericsson will conduct permit outreach to relevant representatives from each Area of Special Consideration. Together, they will review site-specific plans and discuss construction timing, impacts and mitigation. This outreach will occur between 2 and 4 weeks in advance of construction (depending on permit approval timelines). If significant changes are made to site-specific plans based on outreach feedback, Google Fiber and/or Ericsson will report such changes back to City permitting contacts for review and approval, if necessary.

**Step 5: Signage indicating potential impacts on vehicular or pedestrian traffic:** Ericsson will post signage regarding vehicular traffic, pedestrian, or bicycle impacts at least 48 hours in advance of the start of construction.

**Step 6: Google Fiber will begin construction at the previously-communicated date and time.** Ericsson site inspectors will be available during construction for real-time feedback from Area of Special Consideration representatives.

These steps are further outlined in Figure 4-2. More details about construction impact mitigation methods for Special Areas of Consideration are outlined in Section 6 of this document.



Figure 4-2: Google Fiber construction and installation communications with San Jose Areas of Special Consideration (ASCs)



<p><b>Timeline:</b> The day that citywide construction starts. (Projected: Summer 2016)</p> <p><b>ASC Communications Goal:</b> Conduct general educational efforts around what ASCs can expect to see project-wide.</p>	<p><b>Timeline:</b> Before construction starts in a council district. (Projected: Summer &amp; Fall of 2016)</p> <p><b>ASC Communications Goal:</b> Provide an easy way for City Council Office to identify ASCs that Project coordinators should reach out to; begin conducting that outreach.</p>	<p><b>Timeline:</b> Before neighborhood construction starts. (Projected: Summer 2016 - Fall 2018, depending on neighborhood location)</p> <p><b>Communications Goal:</b> Plan and communicate regarding ASC site-specific construction impact mitigations.</p>	<p><b>Timeline:</b> Before construction starts on a particular block, during construction and during customer installations. (Projected: Summer 2016 - 2019, depending on neighborhood location)</p> <p><b>Communications Goal:</b> Notify ASCs when Fiber construction will be closest to their homes; make Project contacts available for immediate feedback and issue mitigation.</p>
<ul style="list-style-type: none"> <li>Google Fiber will offer an informational meeting with local business associations (e.g., the Downtown Association) or other ASC-representative groups to discuss the high-level strategy of construction impact mitigation efforts near San Jose ASCs.</li> <li>Google Fiber's live support channels, including a construction hotline, chat, email etc. will go live. All support channels will be staffed to accept requests (in multiple languages) from citizens who have questions or concerns about Fiber construction efforts. These channels will be open throughout the entire project. (See support information in Appendix A)</li> <li>Google Fiber will conduct direct email outreach to thousands of San Jose residents who have opted into receiving project updates at <a href="http://google.com/fiber/newcities">google.com/fiber/newcities</a> (See sample email in Appendix B)</li> <li>Google Fiber will conduct outreach to mainstream media in the South Bay, including newspapers, TV stations and radio stations to announce the start of construction and educate residents on what they should expect to see around the community (See sample coverage in Appendix C)</li> <li>Google Fiber will provide informational materials and hotline information to City Council offices, so that they can effectively answer constituent questions that come their way. (See sample handout in Appendix D)</li> <li>Google Fiber will conduct social media outreach to followers, providing more information about the construction process, and pointing residents to YouTube videos and other educational materials that explain what to expect during construction (See list of social media channels + YouTube video in Appendix E)</li> </ul>	<ul style="list-style-type: none"> <li>Google Fiber will alert council members that Project construction is beginning in their district and will ask for a list of district-specific Areas of Special Consideration to be cognizant of in planning and coordinate with during construction. <ul style="list-style-type: none"> <li>Council Offices will also identify any local HOAs or Neighborhood Groups that Project Coordinators should begin outreach to.</li> </ul> </li> <li>Google Fiber will send an email to local HOA or Neighborhood Group leaders to let them know about construction and offer follow-up informational conversations or meetings upon request. (See template email in Appendix F)</li> <li>Google Fiber will also provide a template newsletter blurb that council members can send out as a part of standard constituent communications.</li> </ul>	<ul style="list-style-type: none"> <li>Google Fiber and Ericsson will identify Areas of Special Consideration in each permit submittal. Each permit will provide a site-specific traffic plan and will outline which method(s) of notification/outreach will be utilized with relevant local organizations. Outreach options are listed in Appendix I.</li> <li>After a permit is approved for a specific Area of Special Consideration, Google Fiber and/or Ericsson will conduct the outreach that was identified in the approved permit package. This outreach to relevant organizations in Areas of Special Consideration will occur approximately 2-4 weeks before local construction begins.</li> <li>Ericsson will set up portable digital message signs to announce any traffic alterations to major (arterial) roadways due to construction, approximately 7 days in advance of construction start.</li> </ul>	<ul style="list-style-type: none"> <li>Ericsson will post signage relating to reduced parking space availabilities 24 hours in advance of construction.</li> <li>Ericsson will reach out to public transit agencies (VTA, LRT) approximately 48 hours prior to construction</li> <li>Ericsson site inspectors will be at all Project sites during construction work hours, and will be available to answer questions in-person, and to offer contact cards with the Google Fiber construction hotline number in case residents have more complex questions or requests.</li> </ul>

### 4.3: Community Input & Feedback

As outlined above, a key Project communications goal is to ensure that anyone in the community has the ability to raise questions or concerns about the Project directly to the Google Fiber team. Throughout the course of the Project, there will be several channels open for such feedback and input, many of which have been outlined in the previous two sections, and are summarized below:

Channel	Primary Audience	Availability	For more information
Phone: construction hotline	Anyone in the community	24 hours a day, 7 days a week (once construction begins)	See details in Appendix A
Email support	Anyone in the community	24 hours a day, 7 days a week (once construction begins)	See details in Appendix A
Chat support	Anyone in the community	24 hours a day, 7 days a week (once construction begins)	See details in Appendix A
On-site Ericsson construction leads and Google Fiber quality control staff	Community members near Fiber construction sites	Ericsson construction leads or Google Fiber quality control staff will be available for questions at every Fiber construction site	
Retail storefront	Interested Fiber customers	Standard business hours	The space will open once customers are signing up for Google Fiber.
Phone: customer support	Google Fiber customers	24 hours a day, 7 days a week	See details in Appendix A
Customer service storefront	Google Fiber customers	Standard business hours	The space (location TBD) will open once customers are signing up for Google Fiber.

*Table 4-1: Channels that members of the San José community can use to contact Google Fiber.*

In addition, if necessary, City Public Works staff is available to all interested parties if questions or concerns arise that require the City to be directly involved.

Finally, Google Fiber will also hire a full-time local “Community Impact Manager” to be a Project community liaison. It will be their responsibility to:



- Communicate directly with community leaders and residents about Project design and sign up process (e.g., public speaking at homeowner associations, hosted events, and other local gatherings, as well as educational outreach to opinion leaders, community organizations, and local media).
- Identify and build partnerships in digitally disconnected communities, drive and support digital inclusion partnerships that build digital literacy and promote adoption of our affordable Internet service.
- Manage construction-related community issues that arise and ensure that community needs are communicated to cross-functional Google Fiber business teams.
- Leverage our future flagship event space (location TBD) as an asset to our local community partners.

This individual has not yet been hired, but the job announcement has been posted on the Google Fiber website and it is open for interested applicants: <https://goo.gl/BD0PK7>

## Section 5: Project-Wide Construction Impacts & Mitigation Measures

The following is an analysis of the potential impact of the construction activities on residents and businesses within a 1000-foot radius of the construction activity.

The following measures will be utilized to reduce the impacts of all construction activities. Some Areas of Special Consideration may require unique additional measures, which are discussed in Section 6.

### ***5.1: Impacts & Mitigation of Temporary Elimination of Parking Spaces***

**Impacts:** As a result of construction during the Project, some street parking may temporarily be unavailable as a result of equipment occupying one or more street parking spaces during work hours (typically 8:15 am to 4:15 pm, Monday through Friday). No street parking, either metered or unmetered, will be permanently eliminated as a result of the Project. To ensure uniformity and enforceability of “No Parking” signage, the signs will be acquired from the City. Most importantly, as described in the outreach portion of this document and the following Appendices, Google Fiber will proactively communicate with the affected residents/businesses about these short term impacts.

**Mitigation:** As effects to parking will be temporary, short-term mitigation measures are proposed. “No Parking” signs that verify the dates and times of Project construction will be posted between 24 to 72 hours in advance of the start of Project construction. This signage will be considered as a measure to mitigate for impacts to parking areas, particularly in the downtown areas of the City.

An element of construction that can impact existing parking spaces is construction crew members’ personal vehicles. To minimize adverse effects to existing parking at Project construction sites, construction crew members will not arrive to the work area in personal vehicles. Instead, crew parking will be centralized at specific Ericsson staging areas located outside public street areas with permission acquired by Ericsson for this purpose. From the staging areas, only the required work vehicles and equipment will be deployed to the work areas, minimizing the congestion of unnecessary vehicles. This practice will minimize the impact to parking in residential and commercial/business areas.

### ***5.2: Impacts & Mitigations of Reduced Number of Traffic Lanes***

**Impacts:** Traffic Lane impacts will be temporary and performed in phases. The encroachment in public right-of-way will be performed under a Traffic Control Plan approved by the City as a part of the encroachment permitting process. Standard Traffic Control Plans developed by Ericsson that comply with the California Manual on Uniform Traffic Control Devices (CAMUTCD) will be utilized where applicable. Traffic Control Plans will comply with all applicable federal, state and local regulations for work in roadways. Per SJMC 11.14.060, lane closures will not typically be allowed on arterial streets during peak commute hours.

**Mitigations:** Notification(s) to City Communications (Police, Fire, Emergency Services) will occur 48 hours in advance of any significant detours and closures. Additionally corresponding signage will be posted 48 hours in advance of detours and closures. Portable changeable message signs (PCMS)



will be used on major arterial streets and set up approximately 7-days before commencement of work.

Mitigation for temporary traffic lane reductions will include maintaining a safe, neat, clean, and presentable project site during the work day and no equipment will be allowed to be parked within any traffic lanes or medians after work hours.

On streets with one traffic lane in each direction, one lane for two-way operation will be maintained at all times, and flaggers will be required as outlined in the approved Traffic Control Plans.

On streets with two or more traffic lanes in each direction, the Contractor will reduce traffic by one lane only in each direction. On one-way streets, traffic will be reduced by one lane only.

Electric arrow board signage placed in advance of a lane closure will be provided as required by approved Traffic Control Plans. All traffic lane diversions and separations will be delineated with barricades, 28-inch traffic cones or larger, or delineators with white reflective bands. Where necessary, the posting of "KEEP RIGHT" or "KEEP LEFT" signs or barricades at the beginning of each diversion or separation will occur and will be placed in advance of necessary operation.

In compliance with City Code (Section 11.12.050), the Contractor will work with the City to identify sites that may need certified Flaggers or City Police Officers, and will include those details in site-specific Traffic Control Plans where necessary.

### ***5.3: Impacts and Mitigation of Temporary Pedestrian or Bicyclist Traffic Diversions***

**Impact:** Project construction will affect some sidewalk and bicycle lanes, and the re-routing of pedestrian or bicycle traffic will occur on a temporary basis. Day-time Project construction will occur in urban and residential downtown areas and cause temporary, short-term impacts to pedestrians or bicyclists. Impacts to sidewalks are anticipated to occur over the course of a typical workday (typically 8:15 am to 4:15 pm).

**Mitigation:** When sidewalk closures occur, pedestrian traffic will be diverted to an alternative route which will be indicated by appropriate signage placed 48 hours in advance of the detour and in compliance with Section 4.2 of this plan. Alternative pedestrian routes will comply with the Americans with Disabilities Act (ADA). The devices used in proximity to or to channelize pedestrians shall be crashworthy and meet current CAMUTCD standards. When bicycle lane closures occur, temporary "Share the Road" signage will be utilized at time of construction to inform motorists that bicycles should be accommodated. When necessary, bicycle route detours will be implemented. Upon completion of the Project, affected areas will be restored to the pre-construction condition of these areas.

Where necessary, phasing operations will be implemented by providing temporary "bridges" establishing passageways in the parkway or street area as applicable. Where a bridge becomes necessary, each bridge or passageway shall be bordered with safe railings, with non-slip walking surfaces, and shall remain in place until the workday at that site has been completed and the original pedestrian route has been restored and re-opened to the safe transit of pedestrian traffic.

Informational signs will be posted on barricades that direct pedestrians around the work site or to crosswalks not closed where necessary. In the event bicycle lanes are impacted, "Share the Road" signs will be implemented at the time of construction and incorporated in the Traffic Control plans. Railings or barricades located in roadway areas will have reflectors on the side facing oncoming traffic. All pedestrian structures shall be implemented per ADA regulations, with safety features placed as appropriate and hand-rails and ramps installed in compliance.

Large, visible signage directing pedestrians or bicyclist toward detoured sidewalks or bike lanes will be placed at strategic locations to keep the public informed and re-directed to safe routes.

#### **5.4: Impacts and Mitigation of Noise and Vibration**

**Impact:** The City's Envision 2040 General Plan establishes objectives for acceptable levels of noise for development projects in San José. Many of the objectives are characterized as day-night average noise level (DNL). The DNL is a 24-hour average sound level, where a 10 dBA is added to night hours between 10:00 p.m. and 7:00 a.m. This additional 10 dBA accounts for the tendency of people to perceive noise to be louder at night. Per Policy EC-1.1, acceptable interior noise levels for residences, hotels, motels, residential care facilities, and hospitals are 45 decibels (dBA) DNL. Policy EC-1.1, Table EC-1 also establishes thresholds for exterior noise levels. For residences, hotels, motels, residential care facilities, hospitals, schools, libraries, and churches, the threshold for exterior noise is 60 dBA DNL at the property line. For neighborhood parks and playgrounds, the threshold for exterior noise is 65 dBA DNL at the property line. Finally, for office and commercial buildings, the threshold is 70 dBA DNL.

Construction of the Project would result in less than significant noise impacts under CEQA, as discussed in the IS/MND adopted by the City Council, and is consistent with the local General Plan and noise ordinance due to the short duration of construction activities at any one location.

Vibration levels from construction equipment also will be less than significant under CEQA, as discussed in the IS/MND; therefore, no vibration impacts are anticipated.

**Mitigation:** While construction of the Project would result in less than significant noise impacts, the following standard project conditions will be implemented to minimize any noise-related disturbance:

- All equipment will be properly maintained and equipped with noise control, such as mufflers, according to manufacturer specifications.
- Construction equipment will be located as far from sensitive receptors (e.g., residences, schools, places of worship, and hospitals) as possible, will be arranged to minimize travel adjacent to noise-sensitive receptors, and will be turned off during prolonged periods of non-use.
- Staging areas will be located a minimum of 200 feet from noise sensitive receptors, such as residents.
- Reasonable and customary noise reduction measures, including the use of sound barriers or sound curtains, will be implemented and the name and telephone number of a person for the public to contact to resolve noise-related problems will be posted.
- Property owners will be notified of construction in general through public outreach, including door hangers prior to the initiation of construction.
- Construction activity will be curtailed in close proximity to dining establishments between the hours of 11:59 am to 1:00 pm.



These mitigation measures will ensure that any noise resulting from the Project will be adequately reduced, avoided or minimized. (See the Google Fiber IS/MND for more information.)

### ***5.5: Strategic Use of Work Hours and Weekend Work to Mitigate Construction Impacts***

Ericsson will comply with the allowable working hours of the encroachment permits as required for the various street types in San José. Ericsson will also comply with the Google Fiber IS/MND, which states that construction will only be done during prescribed work hours within 500 feet of a residence.

However, in strategic areas that are not within 500 feet of a residence, Ericsson may seek City approval to use alternate hours, weekends or shortened work hour windows. Standard work hours, which typically are 8:15 AM to 4:15 PM on minor streets and 8:30 AM to 3:30 PM on major streets, may be adjusted to address specific community impacts with approval from the City. For example, hours may be adjusted for work done in business districts or around schools to minimize traffic congestion during peak hours of operation of the affected business or school. Google Fiber and its contractors will propose alternate hours as applicable for similar situations in the permit application(s) and coordinate with the City to obtain required approval(s) for such off-hour work.

As mentioned, a scenario in which Ericsson may seek City approval to use off-hour work may be within a business district. In this scenario, night or weekend work could minimize the impacts to both traffic and businesses along the construction route. PCMS would be used to provide people with advance notification of the scheduled off-hour work. Additional signage or outreach to impacted businesses regarding off-hours work may be implemented.

When night work is being performed, particular consideration will be made toward the impacts of lighting and sound. Adequate lighting is required for crews to perform their work in a safe manner, but truck lights and light plants will be checked first for illumination intensity and dimmed if exceeding adequate work zone light levels per Cal OSHA. Secondly, lighting will be set up and directed toward the work and away from oncoming traffic to avoid any glare to drivers. As with lighting, a minimum level of noise generating equipment is required to perform the work and to do so in a safe manner. To mitigate this impact, back up alarms on equipment will be checked to meet Cal OSHA safety requirements but are not excessively exceeded. Vehicles and equipment not being utilized for the work will remain turned off to assist in mitigating unnecessary noise.

In some instances, a combination of off-hour work along with truncated work hours may be necessary. Situations where this may be required are mixed use areas (combination of residential and commercial businesses) where the work area is not within 500 feet of a residence. In such locations, late night construction activities, lighting, noise and vibration might negatively impact residents, but typical work hour operations would equally impact businesses, patrons and the traveling public. In these situations, establishing truncated evening work hours may be considered where the impact to businesses, patrons and traffic are minimized and residents are not disturbed during traditional sleeping hours. Night hours will be identified by City Inspection and Permitting staff and will be communicated to the adjacent residents via PCMS notification or the applicable outreach procedures defined in Section 4 of this plan. Lastly, when necessary, and in consultation with the City, weekend work may be utilized to minimize disruptions during a given work week. Any work on the weekend, will likely require

additional outreach to affected parties.

Throughout the life of the project, this weekend work could occur for both mitigation and production reasons. These situations will be performed on a case by case basis taking site specific and city area characteristics into account. Google Fiber and its Contractors will coordinate and receive approval from the City of San José prior to performing weekend work.

## **5.6: Adherence to Streets with Enhanced Construction Design Standards**

### **Paving Moratorium:**

The City of San José enforces a utility trenching moratorium for City streets that have received pavement treatment within two years of the work completed. In general, trenching is not allowed in these streets for two years and it is understood that the City will have planned projects for street resurfacing and sealing throughout the life of this Project. Understanding the location and timing of these planned projects will allow for proactive planning to coordinate the timing of activities and ensure that Project construction activities take place prior to City resurfacing and/or sealing activities.

It is inevitable that construction for this Project will conflict with existing street moratoriums where resurfacing and/or sealing activities have already taken place. In these situations, Google Fiber and the City will determine the best approach for construction. Possible solutions may be adjusting the running line position such that the conduit is placed outside the street moratorium area (*i.e.*, under the sidewalk), adjusting the fiber route to streets not currently under moratorium, utilizing aerial infrastructure where available and practical, and/or deploying construction techniques that will not adversely impact the new infrastructure. It may also be possible to delay activities in certain areas until moratoriums are lifted.

Any number or a combination of the techniques above may be deployed to address streets under moratorium. Another option may be to coordinate this Project activity with proposed resurfacing activities or other planned utility projects.

In situations where Aerial to Underground relocation projects are taking place under the Rule 20A Undergrounding Utility Program, Google Fiber will strive to coordinate Project installation in conjunction with the undergrounding of all existing utilities prior to any street resurfacing.

## **5.7: Dust Control Mitigations**

The project will comply with all the requirements of the Asbestos Dust Mitigation Plan (prepared separately as a plan from the Project's CEQA Mitigated Negative Declaration), including:

- Water all active construction areas or dust-generating activities to prevent airborne dust.
- Minimize tracking of mud, dirt and other potentially dust-generating material from vehicles and equipment.
- Wet-sweep or vacuum (with a high efficiency particulate air (HEPA) filter equipped vacuum) streets, sidewalks, and intersections where work is in progress.



- Cover or otherwise stabilize (e.g., soil stabilizer products like a bonded fiber matrix material) any inactive (no disturbance for more than 10 days) cleared areas, or stockpiles of potentially dusty material greater than 10 cubic yards (cy).

For more details on dust control mitigations and implementation, please refer to the Project's Asbestos Dust Mitigation Plan and Stormwater Pollution Prevention Plan (both on file with the City's Planning Department).

### **5.8: Coordination with Other Construction Projects**

To mitigate for the likelihood that this Project may overlap with other construction occurring within the City, close coordination between Google Fiber, Ericsson and the City will occur to minimize this overlap. In situations where the overlap cannot be avoided, specific project level construction meetings will be required to properly plan the various construction activities for the overlapping projects. Additional construction outreach will likely occur.

### **5.9: Use of Microtrenching and Other Less Disruptive Deployment Methodologies**

In order to reduce the amount of overall Project-related construction impact, Google Fiber will coordinate with the City and other third parties to explore and possibly use methods of deploying fiber that will require less digging and restoration than standard fiber construction practices, including:

- **Microtrenching.** Microtrenching is a process for deploying fiber that cuts thin, shallow channels into pavements, sidewalks, or existing joints, in lieu of wider, deeper trenches. Since microtrenching deploys fiber faster than normal underground trenching, local communities should encounter fewer daily disruptions. Microtrenching allows for vehicle and pedestrian traffic immediately after crew demobilization and does not leave large open excavation sites. Google Fiber and the City's Public Works department are currently discussing whether microtrenching is a feasible construction method to deploy in San José while also considering the future impact of accommodating the fiber at a more shallow depth than is typical with traditional methods of installation.
- **Utilizing existing infrastructure.** This CIMP contemplates a Project that will mostly build a fiber-optic network from scratch. However, when there is existing infrastructure already in place (e.g., "dark fiber," or spare conduit already installed underground), Google Fiber will explore the possibility of leasing this infrastructure and incorporating it into the network design.
- **Partnering with third parties on joint trench or co-build opportunities.** If third parties (e.g., telecommunications companies, utilities, the City or other commercial entities) are doing construction in an area where Google Fiber plans to deploy, Google Fiber will make an effort to coordinate with those third parties around joint construction efforts. These "joint trenching" efforts could reduce the need for multiple construction projects in the same location.

All of these less disruptive deployment methodologies are already being used, with success, in some other Google Fiber cities and will be utilized in San José when possible.

### **5.10: Management of Utility Locates and Strikes**

In compliance with California Government Code Sections 4216-4216.9, at least two days in advance of excavation, Ericsson will delineate with white paint the area of excavation, contact Underground Service Alert (*a.k.a.*, USA North 811) and notify them of planned excavation, and then wait for utility companies to mark the location of their facilities prior to conducting any excavation.

Upon arrival at the excavation site and prior to beginning excavation, Ericsson crews will:

- Verify that the dig site matches the area that was reported to USA North 811
- Verify that all utilities have been marked (and review color codes if in doubt)
- Check for any visible signs of underground facilities such as pedestals, risers, meters and new trench lines
- Determine the exact location of any utilities within the approximate location of the subsurface installation by excavating with hand tools before using any power-operated or power-driven equipment, unless the utility has agreed to the usage of such equipment.

After these precautionary measures have been taken, Ericsson crews will begin excavation. If, during the course of excavation, a utility is hit, the crew's priority will be to do the following:

- Contact the affected utility owner to notify of the hit
- Facilitate repair as quickly as possible
- Safely secure the immediate site
- If necessary, contact 911 emergency services
- Notify the City project inspector
- Notify local residents and businesses.

Ericsson will coordinate with City staff to identify procedures to repair the damaged utility quickly and efficiently as conditioned in the Encroachment Sub-Permits.



## **Section 6: Areas of Special Consideration**

It is recognized that there will be Areas of Special Consideration and construction will be planned accordingly, so as to minimize impacts in such areas. Site-Specific Mitigation Plans will be developed to outline what specific steps will be taken to mitigate impact on the community.

### ***6.1 Impacts & Mitigations for Construction along Major Arterials***

Impacting traffic on Major Arterial streets will be considered carefully in the planning of the work. The use of work sequencing to alleviate impacts was described in Section 3.1 and Strategic use of Work Hours was described in Section 5.5.

In addition to the means and methods to reduce Major Arterial disruptions described previously, additional considerations will also be made. To ensure traffic flow throughout the area, construction will not be performed on any adjacent arterial roads within a one-mile radius of active work. Any deviation from that would be under special circumstance and with the City's prior approval.

On all major arterial roads, PCMS will be used to notify the public. All PCMS signage will be outlined in the traffic control drawings and placed 7 days prior to the start of construction.

### ***6.2 Impacts & Mitigations for Construction in Residential Neighborhoods***

It is recognized that entering residential neighborhoods also needs to have special consideration to limit potential impacts. In addition to the mitigations for impacts to pedestrians, noise and traffic described in Section 5, a combination of additional mitigation measures may be taken.

In accordance with Section 4 and Appendix I, proactive public outreach will be implemented. The information gathered from interactions with the community will be used to develop Site-Specific Mitigation Plans where required and to further outline what specific steps will be taken to mitigate impacts on the community. Community meetings may occur in advance of construction and would notify the community of the upcoming construction activity, the planned approach for their area, and the expected duration of construction within their area. In addition, at the meeting the community would be asked about specific concerns.

Combining various mitigation measures of Section 5 may minimize impact to residential neighborhoods. As in other Areas of Special Consideration, in residential areas off-hour work may be used to minimize or avoid the impact on traffic and the community. In these instances, the Project team will coordinate with the City and community leaders, as appropriate, to plan work-hours considering impacts from noise, lighting, vibration, the temporary elimination of parking spaces, reduction of traffic lanes, and temporary pedestrian/bicycle diversions.

### ***6.3 Impacts & Mitigations for Construction in HOAs (Homeowner Associations)***

As an Area of Special Consideration, and similar in nature to the considerations of residential neighborhoods discussed in Section 6.2, HOAs may require Site-Specific Construction Plans.

Again, a combination of the mitigations discussed in Section 5 along with the outreach detailed in Section 4 will be implemented. These include mitigations to pedestrians, bicycles, noise, parking and traffic.

As discussed in Section 4, attending HOA meetings may occur in advance of construction to inform the community of the upcoming construction activity, the planned approach for their area, the expected duration of construction within their area, and to ask them about their specific concerns.

#### ***6.4 Impacts & Mitigations for Construction around Local Businesses***

The Project will require trenching, excavation, and overhead work in City rights-of-way. As such, the Project has the potential to impact business accessibility, including emergency response and evacuation. In the event that construction temporarily impacts patron access and patron parking, re-location of these routes and points of access will be posted and communicated to business owners or on-site management in accordance with Section 4 and Appendix I of this plan. The detour routes and points of access shall be established prior to the initiation of any Project construction in the area.

Signage will be installed upon start of construction to direct pedestrians toward detoured sidewalks. These signs will be placed at strategic locations in high visibility areas to keep the public informed and re-directed to safe routes. The signage will be sized such that it is easily seen by passersby.

Additionally, construction activity will be curtailed in close proximity to dining areas between the hours of 11:59 a.m. to 1:00 p.m.

Impacts to deliveries, trash removal, and ingress/egress of pedestrians and vehicles that are operational to local businesses may occur as a result of the Project. Specific identification and advance planning for impacts will be accomplished through close coordination with area businesses in accordance with Section 4 and Appendix I. Signage will be installed upon start of construction that directs vehicles and pedestrians entering or exiting the business. In addition, Ericsson will coordinate with the City disposal service regarding the temporary relocation of garbage pickup areas when necessary.

Finally, lines-of-sight to business signage may be impacted as a result of construction equipment in the vicinity of businesses. Where this happens, temporary, directional signage will be erected in the vicinity of the affected business. For example, in an instance where a business's signage is partially or mostly obstructed from a line-of-sight by construction operations, two temporary signs, one on each side of the business, would be erected directing downtown patrons towards its location.

#### ***6.5 Impacts & Mitigations for Construction around Hospitals***

Proactive public outreach will be conducted to hospitals and clinics as described in Section 4 and Appendix I. This outreach will provide Google Fiber and Ericsson with an understanding of the operational process and site specific needs associated with the hospital. Google Fiber and Ericsson will adjust timing and sequence of the construction build to minimize impact to these facilities and to ensure they can deliver services with no negative impact to the public.



Careful consideration will be taken for access issues, recognizing that this is at the core of hospitals' health and public safety mission. No more than a single access point will be impacted at any given time to allow all vehicular traffic continued access to the facility. Where access points are impacted, precautions will be taken to create passage for emergency vehicles if needed. These precautions include, but are not limited to, steel plates to cover trenches when necessary and the installation of temporary traffic control near ingress/egress points. Where any sidewalks are impacted that would affect pedestrian traffic, the precautions described in Section 5.3 will be implemented to ensure there is continued pedestrian access for the public.

### ***6.6 Impacts & Mitigations for Construction around Emergency Services***

In addition to the special consideration for Hospitals detailed in Section 6.5, it is recognized that all other emergency services also need special considerations to minimize any impacts to their operations. Approximately 35 fire stations exist in the City. Our proposed approach when working around these locations will be first, to consult with Fire Department staff and subsequently with chiefs at individual stations to better understand the operation procedures that need to be considered in the site specific plan.

Outreach will also be conducted to all other emergency service stations in the vicinity of the work to coordinate and address the needs of these facilities. Understanding their operational procedures will again allow the applicant to adjust the location, timing and sequence of the construction in an effort to minimize impact, and ensure they can deliver services with no negative impact to the public.

Just as with Hospitals, careful consideration to access issues will be made. Again, recognition is made that these access points are critical to the functional operation of emergency services. No more than a single access point to the facility will be impacted at any given time to allow all vehicular traffic continued access to the facility. Where access points are impacted, precautions will be taken to create passage for emergency vehicles if needed. These precautions include, but are not limited to, available steel plates to cover trenches if necessary and no use of permanent or semi-permanent traffic control devices such as barricades near or impacting the ingress/egress point. Where any sidewalks are impacted that would affect pedestrian traffic, the precautions described in Section 5.3 will be implemented to ensure there is continued pedestrian access for the public.

### ***6.7 Impacts & Mitigations for Construction around Schools***

Impacts to access for schools may occur during peak hours of operation due to Project construction activities in the immediate areas surrounding a school. These construction activities may affect parking, pedestrian access, and reduction in traffic lanes.

Proactive outreach will be conducted, as described in Section 4 and Appendix I, as the first step to minimize impacts on schools. In preparing to work around the vicinity of a school, Google Fiber and Ericsson will first consult with School District leaders and other key personnel at individual schools to learn the site-specific characteristics of that school. This will allow Google Fiber and Ericsson to consider the operational processes, pedestrian routes for students and the drop-off/pick-up hours of students in any site-specific planning.

The most impactful time for construction to occur in the vicinity of a school is anticipated to be when student drop-off/pick-up occurs. These impacts will be mitigated through modified or truncated work hours, or sequencing of construction activities that limit disruption.

In addition to mitigating traffic and pedestrian impacts, noise and vibration mitigation strategies will be implemented to avoid disturbances during the school day. Temporary signage will be deployed in advance of work, in accordance with Figure 4-2, starting to inform the community of proposed activities and work hours.

### ***6.8 Impacts & Mitigations for Construction around Public Transit/LightRail/BART/Caltrain***

Access to bus stops will be temporarily affected as a result of Project construction in urban and residential areas.

Google Fiber has not yet determined whether BART, Caltrain, and/or Light Rail station accessibility will be impacted; however, it is possible that these impacts may occur and appropriate mitigation measures have been planned. Through coordination described in Section 4 and Appendix I, impacts to Public Transit will be determined on a site-by-site basis.

In addition to the proactive outreach described in Section 4 and Appendix I, if construction will interfere with bus stop operations, early coordination with the Santa Clara Valley Transportation Authority (SCVTA) will be required to determine how to provide a temporary bus-stop at another location. Once this is determined, temporary signage will be posted, in accordance with the requirements of the affected agency, at the location of both the original bus stop and the temporary bus stop, verifying the short-term relocation for both drivers as well as passengers.

In the event that there are impacts to traffic lanes, the re-routing of traffic per the Traffic Control Plan will be implemented, including the re-routing of public transportation vehicles such as buses.

Posted informational signage will temporarily redirect pedestrians to Light Rail, BART, or Caltrain stations when access is impacted.

### ***6.9 Impacts & Mitigations for Construction in the Business Districts/Areas***

It is recognized that the greater density of existing development in the Business Districts/Areas requires a strategic use of work hours to mitigate construction impacts. Use of strategic work hours is described in greater detail in Section 5.5. Google Fiber will work with the City and organizations such as the Downtown Association or the Willow Glen Business Association as detailed in the Section 4 and Appendix I to plan work hours while thoughtfully considering noise, lighting, vibration and other impacts.

For example, the Project may shift working hours to avoid congestion that occurs at various times of the day and week. It will consider building flexibility into the construction scheduling process itself, in order to perform the work at different times to avoid creating lighting, noise,



and vibration impacts, or to avoid creating temporary impacts to patron access, patron parking and business emergency exits.

As mentioned in Section 5.3, Business Districts areas may often contain dining areas which require special consideration. Construction activity will be curtailed in proximity to dining areas between the hours of 11:59 am to 1:00 pm.

#### **6.10 Site-Specific Mitigation Plans**

Site-Specific Mitigation Plans may need to be developed in special situations not specifically outlined in other sections of this document. Event centers, sports and entertainment venues such as the SAP Center, Avaya Stadium or Municipal Stadium, planned special events and organized community activities may fall into this category. Project scheduling and sequencing will be modified to minimize community impacts. Where impacts cannot be completely avoided, a Site-Specific Mitigation Plan will be used to plan accordingly.

Specific traffic plans can be developed to minimize vehicular congestion and delays, including the use of PCMS signage alerting the public of proposed construction activities. In addition, specific pedestrian plans can be developed to maximize movement of pedestrians in an efficient and safe manner. Where necessary, coordination with local police and security personnel will occur to ensure optimal traffic and pedestrian movement. A safe work area for workers, pedestrians and vehicles may require increased police support and/or safety personnel.

Site-Specific Mitigation Plans supporting special situations will be submitted during the permitting process to assist in the analysis and evaluation of construction activities in these areas. Coordination with the City, emergency services and safety personnel will occur in developing Site-Specific Mitigation Plans to ensure successful planning and implementation in these sensitive areas.

# **Google Fiber Construction Impact Mitigation Plan (CIMP): APPENDICES**


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## APPENDIX A: GOOGLE FIBER SUPPORT CHANNELS

Google Fiber will offer multiple support channels in several languages (including English, Spanish and Vietnamese) in order to address incoming resident questions or concerns:


# We're here for you




**Call us**  
Open 24/7



**Email us**



**Chat with us**



**Find answers online**

<p>Residential Customers 866-777-7550</p> <p>Business Customers 855-418-8326</p> <p>Construction Inquiries 877-454-6959</p>	<p>Fill out this form: <a href="https://goo.gl/pcTlhv">https://goo.gl/pcTlhv</a></p>	<p>A lengthy support FAQ is available on, and emails and chats may be initiated at: <a href="https://fiber.google.com/support/">https://fiber.google.com/support/</a></p>
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## APPENDIX B: SAMPLE EDUCATIONAL RESIDENT EMAIL

As Project construction begins, Google Fiber will conduct direct email outreach to thousands of San José residents who have opted into receiving project updates at [google.com/fiber/newcities](http://google.com/fiber/newcities). The email will focus on general construction education. Sample email from Salt Lake City below:

Google fiber

Hey Salt Lake City,

Have you seen us around town lately? We're the ones with hard hats on our heads and dirt stains on our clothes.

Over the last few months, our team has been drawing up blueprints for our new fiber network in Salt Lake City. But that was just the start.

Now we're out and about building the Google Fiber network. Here's a look at what we're up to.



This bright orange roll of conduit covers our fiber to protect it from the elements as we lay it underground. We'll be installing enough fiber in Salt Lake City to run from here to Canada.



Safety is always a huge concern for us. By using a vacuum and potholing equipment to locate existing utilities, we can work around important infrastructure as we lay our fiber.



We use a lot of different types of equipment to lay fiber. Here we're preparing the horizontal directional drill to place conduit underground.

Our teams are doing some heavy lifting — literally — to bring Google Fiber to communities throughout Salt Lake City. These are crews working on the streets with boom trucks, tunnel boring machines, and rolls of cables as we form the foundation of our network.

There's a lot to do, but we're working hard to make sure we get it right.

If you haven't already, you can follow us on [Google+](#), [Facebook](#), or [Twitter](#) to hear more about what's next.

See you around town,  
The Salt Lake City Google Fiber team

Hey Salt Lake City,

Have you seen us around town lately? We're the ones with hard hats and dirt stains on our clothes. Over the last few months, our team has been drawing up blueprints for our new fiber network in Salt Lake City. But that was just the start.

Now we're out and about building the Google Fiber network. Here's a look at what we're up to:

- This bright orange roll of conduit covers our fiber to protect it from the elements as we lay it underground. We'll be installing enough fiber in Salt Lake City to run from here to Canada.
- Safety is always a huge concern for us. By using a vacuum and potholing equipment to locate existing utilities, we can work around important infrastructure as we lay our fiber.
- Our teams are doing some heavy lifting — literally — to bring Google Fiber to communities throughout Salt Lake City. These are crews working on the streets with boom trucks, tunnel boring machines, and rolls of cables as we form the foundation for our network.

There's a lot to do, but we're working hard to make sure we get it right.

If you haven't already, you can follow us on [Google+](#) ([www.google.com/+GoogleFiber](http://www.google.com/+GoogleFiber)), [Facebook](#) ([www.facebook.com/GoogleFiber](http://www.facebook.com/GoogleFiber)) or [Twitter](#) ([www.twitter.com/GoogleFiber](http://www.twitter.com/GoogleFiber)) to hear more about what's next.

See you around town,  
The Salt Lake City Google Fiber team



## APPENDIX C: SAMPLE CONSTRUCTION MEDIA COVERAGE

On the day construction begins, Google Fiber will perform a media blitz, generating coverage across multiple forms of media designed to educate the public about the construction, and share information about where they can go to sign up for updates or get additional questions answered. These are some sample clips generated from this effort in other Google Fiber cities:

Medium	Outlet	Market	Headline	URL
Print	Charlotte Observer	Charlotte, NC	Google starts construction on Charlotte 'Fiber' network	<a href="http://goo.gl/ztetli">http://goo.gl/ztetli</a>
Print	The Tennessean	Nashville, TN	Google Fiber construction to begin in Nashville	<a href="http://goo.gl/Yt1OVp">http://goo.gl/Yt1OVp</a>
TV	WCNC (NBC)	Charlotte, NC	Google Fiber begins digging in Charlotte	<a href="http://goo.gl/WGaHlu">http://goo.gl/WGaHlu</a>
TV	FOX 13	Salt Lake City, UT	Google Fiber begins construction in Salt Lake City	<a href="http://goo.gl/GP9KTU">http://goo.gl/GP9KTU</a>
TV	WRCB 3 (NBC)	Nashville, TN	Google Fiber construction begins in Nashville	<a href="http://goo.gl/Nk4BqS">http://goo.gl/Nk4BqS</a>
Radio	WUNC (NPR)	Raleigh-Durham, NC	Google Fiber Construction Begins Across The Triangle	<a href="http://goo.gl/nHWSyB">http://goo.gl/nHWSyB</a>
Radio	WABE (NPR)	Atlanta, GA	Google Fiber Construction Begins In Midtown Atlanta	<a href="http://goo.gl/3hq6iV">http://goo.gl/3hq6iV</a>
Community Blog	Decaturish	Atlanta, GA	Google Fiber Construction Begins	<a href="http://goo.gl/GOq0iP">http://goo.gl/GOq0iP</a>

## APPENDIX D: INFORMATIONAL MATERIAL FOR CITY COUNCIL MEMBERS

Google Fiber will provide informational materials and hotline information to City Council offices, so that they can effectively answer constituent questions that come their way. Here's a sample from Salt Lake City:

Front:

### Building a Fiber network

Google Fiber's ultra high-speed Internet and TV service is coming to Salt Lake City. Gigabit Internet will make it easier for you to do the things you love online. A gig can also help local small businesses grow and innovate; in fact the next generation of online apps could be created right here in Salt Lake City!

But before any of this can happen, we have to build a fiber network in your area. Over the past few months, our team of engineers has been hard at work designing this network for Salt Lake City, creating a detailed map of where we can put our thousands of miles of fiber. Now that our initial design is complete, we're ready to start construction.

#### Why build a new network?



Many homes in the U.S. connect to the Internet via a coaxial cable. Coax, which is made of copper, is fine for carrying small amounts of data at a time like one TV channel or phone conversation. But since coax was invented close to a hundred years ago, it just wasn't built for the kinds of things we use the web for today.

Fiber-optic cables, on the other hand, are much better suited to 21st century communications demands. We bring these fiber cables directly into our customers' homes to give them ultra high-speed gigabit Internet connections.

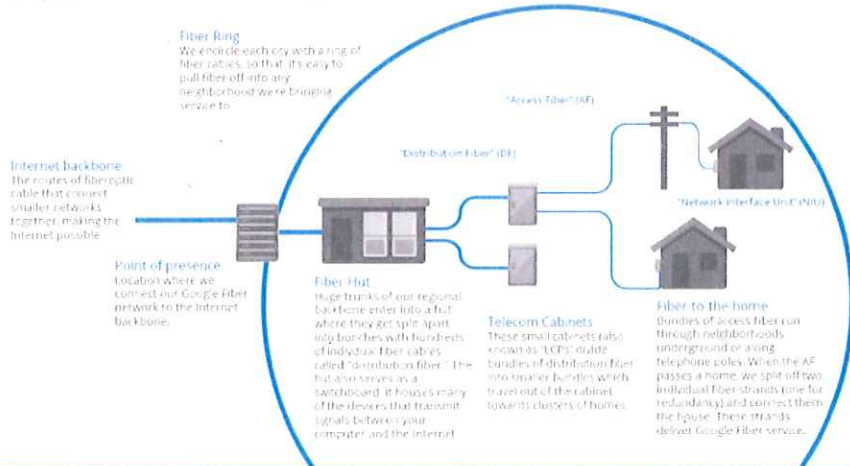
Installing fiber is a long-term investment in Salt Lake City — we're constructing thousands of miles of infrastructure that will enable the city to be a leader in innovation and tech advances for years to come. Early research also shows that high-speed Internet services can drive billions of dollars in economic growth. According to Fiber to the Home Council, gigabit cities report a 1.1 percent higher per-capita GDP.

#### What we build

In Salt Lake City, we'll be installing enough fiber to stretch from here to Canada. We'll work with our contractors to install this fiber either underground by digging trenches and burying conduit or aerially by hanging it along utility poles. This fiber will connect different components of our network across the city:

Coax is older than space exploration, jet engines and the hailpoint pen — yet it's still the technology many Americans use to get Internet service to their homes today. We use glass fiber cables in our network, instead. Fibers are about the width of a human hair, and they use lasers to transmit information at close to the speed of light.



**To build Google Fiber in Salt Lake City, we'll be...**

Constructing  
**~600**  
miles of fiber  
(enough to stretch from here to Canada)

Installing  
**5**  
fiber huts

Attaching  
fiber on more than  
**20,000**  
utility poles

...and all of this will take  
**hundreds**  
of construction workers.







## APPENDIX D: INFORMATIONAL MATERIAL FOR CITY COUNCIL MEMBERS [CONTINUED]

Back:

### Building a Fiber network

What does construction look like?



1. This bright orange roll of conduit covers our fiber to protect it from the elements as we lay it underground.

2. We use a lot of different types of equipment to lay fiber. Here we're preparing the horizontal directional drill to bury conduit.

3. We'll give you a heads-up before we do construction on your street. Look out for these doorhangers, which will give you information about when and where we'll be working near you. We'll also provide a hotline you can call in case you have questions or concerns about the work we'll be doing.

4. We have three priorities on the jobsite: safety, efficiency and respect. We'll work with utility companies and the local 811 team to locate existing infrastructure. Once we know where we can dig, we'll work quickly so that we don't block roads or sidewalks for too long. When we're finished, we'll clean up our equipment and dirt and leave your neighborhood as we found it.

### Frequently Asked Questions

**It looks like you're starting construction in my area. Does that mean we'll be the first to get Fiber?**  
Not necessarily. We'll be doing construction all across the metro area in the coming months, but we don't yet have a schedule for when and where we'll be able to offer service first.

**When will you start signups for Google Fiber?**  
It's still too early to say. We have a lot of construction work to do first! We'll make an announcement as soon as we have an update about timing. The best way to stay in-the-loop is to sign up for more information on our website, [google.com/fiber](http://google.com/fiber).

**Are you hiring?**  
We have a handful of Google jobs, which you can find on our website: [google.com/jobs](http://google.com/jobs). We also rely on many contractors to bring Google Fiber to a city, and some of those companies may be hiring. You can find some of those partners listed on our website, at [fiber.google.com/careers/](http://fiber.google.com/careers/)

**What happens if there are construction issues in my area?**  
We're going to work hard to keep disruption to a minimum. Our crews will work quickly, and when they're done, they'll return the construction area to the condition they found it in, whether that means patching any holes we had to dig, repaving streets or even planting new grass seeds when needed. If any issues come up, we'll also have a hotline available so you can get in touch with us 24/7.

**How long will you be constructing in my neighborhood/city?**  
The amount of time it takes to bring fiber to a particular area varies greatly based on the size of the area, whether we're doing aerial or underground work, the local soil type, and even the weather conditions. We don't have a specific timeframe to share just yet, but we'll try to build as quickly and efficiently as we can, and will keep residents updated along the way.


## APPENDIX E: SAMPLE SOCIAL MEDIA INFORMATIONAL MATERIAL

Google Fiber will conduct social media outreach to followers regarding the start of construction (with general educational materials) and regarding relevant subsequent citywide updates.



### Social media channels:

Channel	URL
Google+	<a href="http://www.google.com/+GoogleFiber">www.google.com/+GoogleFiber</a>
Facebook	<a href="http://www.facebook.com/GoogleFiber">www.facebook.com/GoogleFiber</a>
Twitter	<a href="http://www.twitter.com/GoogleFiber">www.twitter.com/GoogleFiber</a>
YouTube	<a href="http://www.youtube.com/GoogleFiber">www.youtube.com/GoogleFiber</a>

Sample educational social post on YouTube (video available to view at <https://goo.gl/TmdoYa>)



Google Fiber - What to expect during construction

**Google Fiber**   29,896

15,572

194 5

Published on Oct 1, 2015

Learn how our construction teams bring Google Fiber to neighborhoods, homes and apartment buildings. Find out how we notify residents, set up safety precautions, connect fiber lines to homes and clean up when we're done. If you have questions about Google Fiber construction, visit <http://goo.gl/x9pZ4b> or give us a call at (877) 454-6959.

SHOW MORE



## APPENDIX F: SAMPLE EMAIL FROM GOOGLE FIBER TO LOCAL HOA OR NEIGHBORHOOD LEADERS

As described in Figure 4-1, this note will be sent from Google Fiber to known HOA/neighborhood leaders before construction starts in a specific council district.

Hi *[HOA CONTACT NAME]*,

As you may have heard, Google Fiber, an ultra high-speed Internet and TV service, is coming to San José. My name is *[INSERT NAME]*, and I work on the Fiber team as the local Community Impact Manager. My job is to help keep San José residents informed about our rollout and service.

That's why I'm writing to you today; we'd like to let you know that we will soon begin construction on our fiber-optic network within your area. This means that you may start to see our crews doing work on utility poles, or in local streets as they begin to install fiber locally. Since we know you play an important role in keeping your neighbors informed, we wanted to share this news with you.

I also wanted to let you know that this isn't the only form of contact we plan to have with you, or with residents throughout your area:

- The best way of staying in-the-know about Fiber is to join to our email list. That's why we'd encourage you to subscribe to receive updates on our website, [google.com/fiber/sanjose](http://google.com/fiber/sanjose)
- In cases where our construction work is adjacent to someone's property, we will leave them a door-hanger as a heads-up a few days in advance.
- These door-hangers will include a phone number where they can reach our customer support team with additional questions, 24/7.
- As we get closer to offering service, I'll be happy to come talk to your HOA meeting to answer questions about what Fiber is and how to get service.
- Finally, I know that you play an important role in keeping your neighbors informed. That's why I'd love to sit down and have coffee with you at some point over the next few weeks, to talk about Fiber and answer any questions you have.

Please let me know if you're available for coffee. And if not, feel free to reach out to me any time you have questions about Google Fiber.

Thanks for your time,

*Name*

*phone number*

*email address*

## APPENDIX G: SAMPLE DOORHANGER INFORMING RESIDENTS AND BUSINESSES OF FIBER CONSTRUCTION ON THEIR STREET

Doorhangers will be left on homes and businesses where project construction activity will cross the path of the property. The doorhangers will be placed approximately three days before construction in order to give residents advanced notice of the planned work and will re-publish the aforementioned hotline number in case residents have questions.

### Building a Fiber network for The Triangle

Over the next few weeks, construction crews will be working in your area to build a new fiber optic network for the Triangle area. The crews will be on your street, working on the utility poles or underground. They may be digging to lay the fiber optic cable. If you have utility poles or underground equipment on your property, they may need to access them as well.

Our goal is to minimize any inconvenience to you. Rest assured, after the fiber and necessary equipment are in place, crews will work to restore any affected areas of your yard.

If you have any question or concerns about construction or restoration in your area, please call our Construction Phone Line any time at (877) 454-6959.

If you have general questions about Google Fiber, please visit [google.com/fiber/triangle](http://google.com/fiber/triangle)

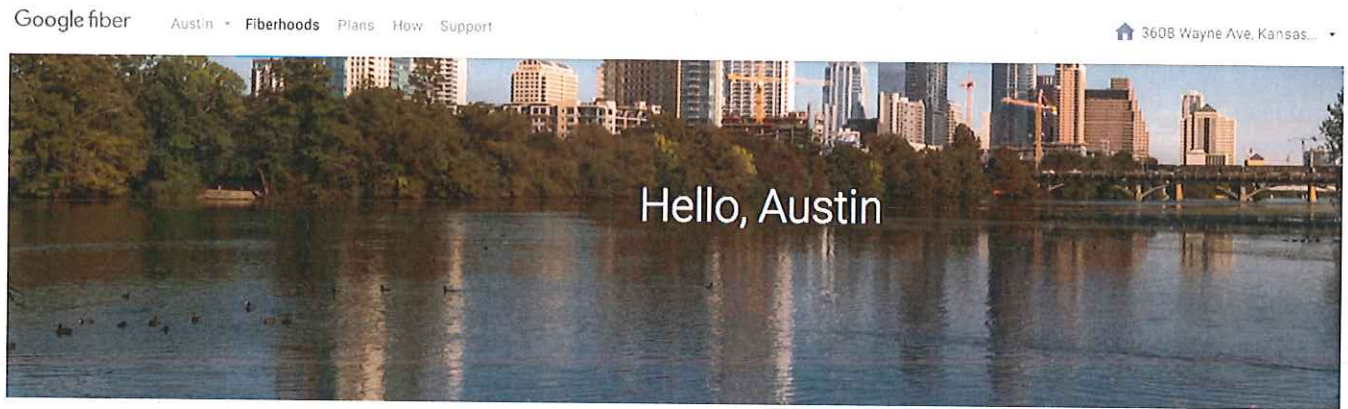
Google fiber

© 2015 Google Fiber Inc. Service not available in all areas. 1702/02361/0116



## APPENDIX H: WEBSITE WITH LOCALIZED UPDATES AS INSTALLATIONS PROGRESS

The Google Fiber website will be updated with neighborhood-level availability and timing updates as installations progress throughout San José. The sample below is from an Austin neighborhood where sign-ups have already occurred, and local installations are proceeding.



### Lady Bird Lake 16 fiberhood is connected

The sign-up period has ended

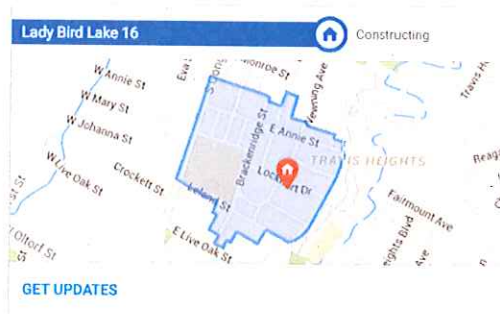
Enter your email address to get information about Fiber in this area

Your email address

wandres@google.com

GET UPDATES

505 Lockhart Dr, Austin, TX 78704 [Check another address](#)



# APPENDIX I: STAKEHOLDER COMMUNICATIONS MATRIX

	Media / Press	Social Media	Email updates	Informational materials for redistribution	Traffic signs	Door-hangers	Phone, chat & email support	In-person help or customer service @ storefront locations	Offer an in-person meeting to discuss general construction info	Offer an in-person mtg to discuss site-specific construction info
San José resident (general)	x	x	x		x		x	x		
Resident/ Business along construction corridor	x	x	x		x	x	x	x		
City Council member	x	x	x	x			x	x	x	
City/district-wide boards or associations	x	x	x	x			x	x	x	
HOAs & Neighborhood Groups	x	x	x	x			x	x	x	x
Area of Special Consideration (ASC): Schools*	x	x	x	x	x		x	x		x
ASC: Hospitals*	x	x	x	x	x		x	x		x
ASC: Business*	x	x	x	x	x		x	x		x
ASC: Emergency Services*	x	x	x	x	x		x	x		x
ASC: Public Transport*	x	x	x	x	x		x	x		x

\*As outlined in Section 4.2, Areas of Special Consideration will be addressed on a site-specific basis via the San José Public Works Project permitting process. This matrix will be the reference point for each site-specific communications plan identified through the permitting process. All outreach will comply with required City notification timelines.