CEQA Lead Agency: City of San José



Project Applicant: Google Fiber Inc.

Draft Initial Study/Mitigated Negative Declaration Google Fiber Project

October 2015

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Department of Planning, Building and Code Enforcement HARRY FREITAS, DIRECTOR

MITGATED NEGATIVE DECLARATION

The Director of Planning, Building and Code Enforcement has reviewed the proposed project described below to determine whether it could have a significant effect on the environment as a result of project completion. "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

NAME OF PROJECT: Google Fiber

PROJECT FILE NUMBERS: PP15-049, CP15-068, and CP15-069

PROJECT DESCRIPTION: Proposal to construct a fiber-to-the-premises (FTTP) infrastructure to provide communication services (including internet and video service) throughout the City of San José. The proposed Project includes the following components: The installation of approximately 2,300 miles of fiber optic cables (consisting of about 1,340 miles of below ground installation and 960 miles of aerial installation using existing utility poles); the installation of approximately ten Local Aggregation Sites either inside pre-fabricated communications shelters (fiber huts) or enclosed within existing commercial buildings; underground utility vaults and utility cabinets; and connections directly to customers. With the exception of the Local Aggregation Sites and connections to customers, the fiber cables, vaults, and cabinets will be located within existing public right-of-ways or easements.

The project also includes two Conditional Use Permits for two Local Aggregation Sites that have been identified at this time:

- 1) **CP15-068:** A Conditional Use Permit to allow the installation of a pre-fabricated communications shelter (fiber hut) and emergency generator on an undeveloped 0.97 gross acre site bordered by Santa Teresa Boulevard to the west, Thornwood Drive to the south, and Glenburry Way to the east (APN 464-28-010).
- 2) **CP15-069:** A Conditional Use Permit to allow the installation of a pre-fabricated communications shelter (fiber hut) and emergency generator on an undeveloped 0.43 gross acre site at the southeast corner of Bird Avenue and Virginia Street (APN 264-41-074).

PROJECT LOCATION & ASSESSORS PARCEL NOS.: Citywide. Conditional Use Permits located at APNs 464-28-010 and 264-41-074.

COUNCIL DISTRICT: Citywide.

APPLICANT CONTACT INFORMATION: Google Fiber OU, 1600 Amphitheatre Parkway, Mountain View, CA 94043 (Attn: Jenna Wandres).

FINDINGS:

The Director of Planning, Building & Code Enforcement finds the project described above will not have a significant effect on the environment in that the attached initial study identifies one or more potentially significant effects on the environment for which the applicant, before public release of this draft Mitigated Negative Declaration, has made or agrees to make project revisions that clearly mitigate the effects to a less than significant level.

I. AESTHETICS.

Impact AES-1: The Project could impact the viewshed of a state scenic highway if prefabricated Fiber Huts are located in the viewshed of a state scenic highway.

<u>Mitigation Measure AES-1</u> – Screening for prefabricated Fiber Hut affecting state scenic highway viewshed.

If a prefabricated Fiber Hut is sited within the viewshed of the segment of Interstate Highway (I)-280 classified as an "eligible" state scenic highway, the Project proponent will consult with the City to determine the extent to which the hut would be visible from the state scenic highway and to develop landscaping, fencing or other equivalent screening to eliminate or substantially reduce any resulting visual impact. The screening will be incorporated into the design for the hut site as part of the City's CUP process for that site.

- **II. AGRICULTURE AND FOREST RESOURCES.** The project will not have a significant impact on agriculture or forest resources, therefore no mitigation is required.
- **III. AIR QUALITY.** The project will not have a significant impact on air quality, therefore no mitigation is required.

IV. BIOLOGICAL RESOURCES.

Impact BIO-1: Construction of the Project could impact migratory birds, raptors, and special-status bat species not covered by the Santa Clara Valley Habitat Plan.

Mitigation Measure BIO-1.1:- Nesting bird surveys.

If clearing and/or construction activities will occur in undisturbed portions of the site during the migratory bird nesting season (February 1–August 15), preconstruction surveys to identify active migratory bird and/or raptor nests will be conducted by a qualified biologist within 14 days of construction initiation. Surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area and a 250-foot buffer (if feasible). If no active nests are found, no further mitigation is required. Surveys will be repeated if construction activities are delayed or postponed for more than 30 days.

If an active nest (excluding western burrowing owl) is located during preconstruction surveys, construction activities will be restricted as necessary to avoid disturbance of the nest until it is deemed inactive by a qualified biologist. Restrictions will include establishment of exclusion zones (no ingress of personnel or equipment) at a minimum of 100 feet around an active raptor nest, and 50 feet around an active migratory bird nest. Activities permitted within exclusion zones and the size may be adjusted through consultation with the CDFW and/or the City.

Mitigation Measure BIO-1.2: – Avoid active bat roosts.

Prior to the removal of any trees, a bat survey will be performed by a qualified biologist between March 1 and July 31. If bat roosts are identified, the bats will be safely flushed from the sites where roosting habitat is planned to be removed prior to roosting season (typically May to August) and prior to the onset of construction activities. If maternity roosts are identified during the maternity roosting season (typically May to September) they must remain undisturbed until a qualified biologist has determined the young bats are no longer roosting. If roosting is found to occur onsite, replacement roost habitat (e.g., bat boxes) will be provided to offset roosting sites removed. If no bat roosts are detected, then no further action is required if the trees are removed prior to the next breeding season. If removal is delayed, an additional survey will be conducted 30 days prior to removal to ensure that a new colony has not established itself.

A bat survey will be performed by a qualified biologist prior to onset of construction if tree removal is needed. Active roosts will be avoided, where possible. If impacts to roosts cannot be avoided or activities may cause roost abandonment, the bats will be excluded from the roosting site before the roost is removed/impacted. Exclusionary materials, including, but not limited to, expandable foam and steel wool, will be applied selectively and as needed until bats have relocated. Bats will be excluded from the directly affected work areas prior to April 15 of the construction year, and exclusionary devices will be removed between August 31 and April 15. Exclusion would occur at dusk to allow bats to exit during the darker hours.

V. CULTURAL RESOURCES.

Impact CUL-1: Construction of the Project could disturb known historic or archeological resources.

Mitigation Measure CUL-1: - Avoid known historic/archeological resources.

Prior to permitting and construction, Google Fiber will consult with the City of San José Department of Planning, Building, and Code Enforcement to review the proposed Project plans. The review will ensure consistency with the City of San José General Plan and that construction activities will avoid known significant historic/archeological resources. Further, aboveground cabinets and prefabricated Fiber Huts, to the extent necessary for the Project, will be sited to avoid impacting any identified significant cultural resource.

Impact CUL-2: Construction of the Project could disturb unknown historic or archaeological resources.

<u>Mitigation Measure CUL-2:</u> - Response actions to unanticipated find(s) of cultural resources.

Prior to the initiation of any site preparation and/or start of construction, Google Fiber will ensure that all construction workers receive training overseen by a qualified professional who is experienced in teaching non-specialists, to ensure that forepersons and field supervisors can recognize archaeological or paleontological resources in the event that any are discovered during construction. If unanticipated cultural resources are found or suspected, the following actions will be taken:

- All construction activity within a minimum of 50 feet of the find/feature/site will cease immediately.
- All remains or materials are to be left in place unless in jeopardy because of Project activities.

- The area will be secured to prevent any damage or loss of removable objects. If feasible, a fence or other barrier will be erected to demarcate and protect the find.
- The Consulting Archeologist or Paleontologist will be notified and once on scene will record the find location and delineate the extent of the find relative to planned Project activities. The Consulting Archeologist or Paleontologist will assess, record, and photograph the find.
- Within 48 hours of the find, the Consulting Archeologist or Paleontologist will notify the appropriate agency officials. If cultural resources or remains have the potential to be culturally significant to a living Native American Tribe, agency officials will notify the California Native American Heritage Commission.
- The Consulting Archeologist or Paleontologist will make a recommendation on the National Register of Historic Places (NRHP) eligibility of the resources, and the effect of Project activity on historic properties, if present.
- If the historic properties cannot be avoided, the Archeologist or Paleontologist will identify actions to minimize impacts, which could include one or more of the following: shifting the Project footprint away from the resource; limiting activities in the vicinity of the resource; or monitoring construction activities near the resource to inform whether additional actions are warranted. If none can be identified, a Data Recovery Plan will be developed, in consultation with the appropriate agency officials and consulting parties, in accordance with Section 21083.2 of the PRC and Title 14, Section 15126.4 of the CCR.

A consulting archeologist will visit the discovery site as soon as practicable for identification and evaluation pursuant to Section 21083.2 of the PRC and Title 14, Section 15126.4 of the CCR. If the archeologist determines the artifact is not significant, construction may resume. If the archeologist determines the artifact is significant, the archeologist will determine if the artifact can be avoided and, if so, will detail avoidance procedures. If the artifact cannot be avoided, the archeologist will develop within 48 hours an Action Plan that will include provisions to minimize impacts and, if required, a Data Recovery Plan for recovery of artifacts in accordance with Section 21083.2 of the PRC and Title 14, Section 15126.4 of the CCR. State laws pertaining to the discovery of human remains will be followed. Work in areas where any burial site is found will be restricted or stopped until proper protocols are met. Upon discovering any burial site as evidenced by human skeletal remains, the County Coroner will be notified within 24 hours. No further excavation or disturbance within 50 feet of the site or any nearby area reasonably suspected to overlie adjacent remains may be made except as authorized by the County Coroner, California Native American Heritage Commission, and/or the County Coordinator of Indian Affairs.

- VI. **GEOLOGY AND SOILS.** The project will not have a significant impact due to geology and soils, therefore no mitigation is required.
- VII. GREENHOUSE GAS EMISSIONS. The project will not have a significant impact due to greenhouse gas emissions, therefore no mitigation is required.
- VIII. HAZARDS AND HAZARDOUS MATERIALS. The project will not have a significant impact due to hazards or hazardous materials, therefore no mitigation is required.

IX. HYDROLOGY AND WATER QUALITY.

Impact WQ-1: The Project could lead to accidental release of bentonite mud into receiving waters during construction.

<u>Mitigation Measure WQ-1</u>: - Prevent inadvertent loss of bentonite mud into receiving waters and aquatic habitats during HDD at a stream crossing.

- a) If a stream crossing requires the use of HDD to avoid in-water disturbance, the following measures will be incorporated into HDD procedures to avoid or reduce impacts to receiving waters from bentonite release. In addition, Google Fiber will obtain the necessary agency approvals for HDD activity, which may include additional controls/conditions.
- Foreman oversight. An HDD foreman will be present at all times during drilling operations.
- **Geotechnical data.** Geotechnical borings in the HDD affected areas will be performed as part of the construction scope prior to the start of drilling operations. Geotechnical bore data provide information defining proper pipe depth as dictated by the soil strata characterization.
- **Drill bit tracking and monitoring with an electronic guidance system.** All HDD operations on this Project will be guided by a tracking system consistent with best industry practices. The alignment will be surveyed on foot by a team of two to three personnel. Temporary surveyor stakes will be placed strategically along the alignment to anchor the tracker wires. The alignment will be accessed throughout the drilling operation to monitor for mud loss.
- **Monitoring the drilling lubricant pressure at all times.** The drill rig operator will monitor the equipment for loss of drilling lubricant pressure and volume. Members of the drill crew will also monitor the alignment of the drill and visually inspect for indications of mud loss that may occur.
- **Sizing** (slowly moving forward and back to better keep track of any potential fracture locations). The drill rig operator will also monitor the bore hole to keep it free from obstructions that would inhibit the return of drilling lubricant to the rig.
- **Limited operation times.** Unless drilling operations are within 1 hour of completion, drilling at sensitive habitats will be limited to the operation times of dawn to 30 minutes prior to dusk.
- b) Given the implementation of these measures, loss of mud lubrication is not anticipated to occur. In the unlikely event that loss of mud lubrication were to occur, hay bales, sand bags, silt fencing, straw wattle, or earthen berms (or a combination thereof) will be used to surround and contain drilling mud at the pad sites and in locations where such mud loss occurs. If mud loss occurs relatively close to the drilling rig, the mud will be contained and pumped back to the drilling location with portable pumps for reuse. In areas farther away from the drilling rig or where pumping back to the drilling rig is not feasible, a mobile vacuum pump or vacuum truck will be used to collect the drilling lubricant from the containment area. The drilling lubricant will then be recycled and sent to the return pit or storage tank. The vacuum truck will be confined to non-sensitive habitats, the developed right of way, or roads.
- X. LAND USE AND PLANNING. The project will not have a significant land use impact, therefore no mitigation is required.
- **XI. MINERAL RESOURCES.** The project will not have a significant impact on mineral resources, therefore no mitigation is required.

XII. NOISE.

Impact NOI-1: Operation of LAS prefabricated Fiber Hut sites could result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

<u>Mitigation Measure NOISE-1:</u> - Site-specific noise attenuation and abatement for LAS Sites.

At LASs where noise generating equipment (air conditioners and generators) are located less than 120 feet from the property line of a noise sensitive receptor (residences, schools, hospitals, convalescent homes, libraries, churches, and meeting halls), Google Fiber will be required to submit a site-specific noise attenuation design confirming site noise attenuation is sufficient to reduce noise levels to 55 dBA DNL at the property line of the nearest noise sensitive receptor.

Site-specific noise attenuation design submitted to the City for review and approval will include the following:

- 1. Site plans with distances to property lines and noise-sensitive receptors.
- 2. Noise attenuation design for the site, will include one or a combination of the following to achieve noise reduction:
 - Site orientation: Orient equipment to adjust/increase distance to receptors.
 - Acoustic barrier types, materials: Attenuate noise through selection of materials (e.g., concrete, masonry, fiberglass) and height of barrier.
 - Barrier design: Adjust shape of barrier and proximity to equipment to increase effectiveness of abatement.
- 3. Confirmation that resulting attenuation will reduce noise levels to 55 dBA DNL at the property line of the nearest noise sensitive receptor shall be provided by a qualified acoustician.
- **XIII. POPULATION AND HOUSING.** The project will not have a significant population and housing impact, therefore no mitigation is required.
- **XIV. PUBLIC SERVICES.** The project will not have a significant impact on public services, therefore no mitigation is required.
- **XV. RECREATION.** The project will not have a significant impact on recreation, therefore no mitigation is required.
- **XVI. TRANSPORTATION / TRAFFIC.** The project will not have a significant impact on transportation or traffic, therefore no mitigation is required.
- **XVII. UTILITIES AND SERVICE SYSTEMS.** The project will not have a significant impact on utilities and service systems, therefore no mitigation is required.
- XVIII. MANDATORY FINDINGS OF SIGNIFICANCE. With the implementation of Mitigation Measures identified above, the project will not substantially reduce the habitat of a fish or wildlife species, be cumulatively considerable, or have a substantial adverse effect on human beings.

PUBLIC REVIEW PERIOD

Before 5:00 p.m. on November 12, 2015, any person may:

1. Review the Draft Mitigated Negative Declaration (MND) as an informational document only; or

2. Submit written comments regarding the information, analysis, and mitigation measures in the Draft MND. Before the MND is adopted, Planning staff will prepare written responses to any comments, and revise the Draft MND, if necessary, to reflect any concerns raised during the public review period. All written comments will be included as part of the Final MND.

Harry Freitas, Director Planning, Building and Code Enforcement

Meeraxi R.P. Deputy 10/9/15

Circulation period, from October 13, 2015 to November 12, 2015 at 5 p.m.

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ACRONYMS AND DEFINITIONS

$\mu g/m^3$	micrograms per cubic meter
А	Agricultural
AB32	Assembly Bill 32
ABAG	Association of Bay Area Governments
AES	Aesthetics
AIA	airport influence area
APN	Assessor's Parcel Number
AQP	Air Quality Plan
BAAQMD	Bay Area Air Quality Management District
BIO	Biological Resources
BMP	Best Management Practice
BRA	Basin Research Associates, Inc.
ca.	circa
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimation Model
Cal-OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFFP	California Department of Forestry and Fire
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEMA	California Emergency Management Agency
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act

CGP	Construction General Permit
CH ₄	methane
City	City of San José
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
СО	carbon monoxide
CO ₂	carbon dioxide
СР	commercial pedestrian district
CRHR	California Register of Historic Resources
CSJAD	City of San José Airport Department
CUL	Cultural Resources
CUP	Conditional Use Permit
CWA	Clean Water Act
dB	decibel
dBA	decibel on the A-weighted scale
DNL	day-night average noise level
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EE-1	Mining and Geology Board
EIR	Environmental Impact Report
ESA	Endangered Species Act
Farmland	Prime Farmland, Unique Farmland, Farmland of Statewide Importance
FE	federally designated Endangered
FEMA	Federal Emergency Management Agency
FGC	Fish and Game Commission
FMMP	Conservation Farmland Mapping and Monitoring Program
FR	Federal Register
ft	feet

FT	federally designated Threatened
FTTP	fiber-to-the-premises
GHG	greenhouse gas
Google Fiber	Google Fiber Inc.
HAZWOPER	Hazardous Waste Operations and Emergency Response
HDD	horizontal directional drilling
HFC	hydrofluorocarbon
HRI	Historic Resources Inventory
Ι	Interstate Highway
in/sec	inch per second
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
ISCST3	Industrial Source Complex Short Term Version 3
LAS	Local Aggregation Site
lb	pound
Leq	maximum noise level
Ldn	day-night average noise level
LOS	Level of Service
MEIR	maximum exposed individual residential
mgd	million gallons per day
MM	mitigation measure
MMRP	Mitigation Monitoring and Reporting Plan
MND	Mitigated Negative Declaration
mph	miles per hour
MTCO _{2e}	metric tons carbon dioxide-equivalent
N_2O	nitrous oxide
N/A	not applicable
NAAQS	National Ambient Air Quality Standard
ND	Negative Declaration
NEPA	National Environmental Policy Act
NO ₂	nitrogen dioxide

NOA	naturally occurring asbestos
NOI	Noise
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
OS	open space
OSHA	Occupational Safety and Health Administration
PFC	perfluorocarbon
PM	particulate matter
PM_{10}	particulate matter from 2.5 to 10 micrometers in size
PM _{2.5}	particulate matter up to 2.5 micrometers in size
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
RHV	Reid-Hillview of Santa Clara County Airport
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SCVHA	Santa Clara Valley Habitat Agency
SCVHP	Santa Clara Valley Habitat Plan
SF ₆	hexafluoride
SJC	Norman Y. Mineta San José International Airport
SJFD	San José Fire Department
SJPD	City of San José Police Department
SMARA	Surface Mining and Reclamation Act
SMTP	Soil Management and Transportation Plan
SO_2	sulfur dioxide
SR	State Route
ST	state designated Threatened
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board

TAC	Toxic Air Contaminant
UGB	Urban Growth Boundary
UPRR	Union Pacific Railroad
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	Vehicle miles traveled
VTA	Valley Transportation Authority
WGCEP	Working Group on California Earthquake Probabilities
WPCP	San José/Santa Clara Water Pollution Control Plant
WQ	Hydrology and Water Quality

PROJECT INFORMATION

1.	Project Title	Google Fiber Project
2.	Lead Agency Name and Address	City of San José
3.	Contact Person and Phone Number	David Keyon (408) 535-7898
4.	Project Location	The City of San José, California, and limited, unincorporated urbanized areas of Santa Clara County contiguous with the City
5.	Project Sponsor's Name and Address	Google Fiber Inc.
6.	General Plan Use Designation	Citywide
7.	Zoning District	Citywide

8. Description of Project

Google Fiber Inc. is proposing to construct fiber-to-the-premises infrastructure that would allow Google Fiber to provide communication services, including internet and video service in the City of San José. The proposed 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 in existing commercial buildings), the fiber cables would travel along existing utility corridors (either above or below ground) into underground vaults or utility cabinets and to and from the vaults/cabinets directly to customers. A full description of the Project follows this section.

9. Surrounding Land Uses and Setting

The Project would be constructed primarily in public rights of way, with limited Project facilities on either public land or commercial property and would be constructed adjacent to a variety of existing land uses. Some infrastructure, such as Local Aggregation Sites, may be installed on City-owned properties or in existing commercial buildings.

10. Other Public Agencies whose Approval is Required

- City of San José Conditional Use Permit (CUP) or Planned Development Permit (for sites with a Planned Development Zoning) for LAS facilities on public and private properties.
- City of San José Master Encroachment Permit from the Department of Public Works for work in the public right of way.
- City of San José Building, Electrical, and Grading Permits.
- City of San José Tree Removal Permits from the Department of Transportation.
- City of San José Revocable Encroachment Permit for crane use (if the crane encroaches in the public right of way) from the Department of Public Works.
- Bay Area Air Quality Management District (BAAQMD) Authority to construct and Permit to Operate for small generators.
- Santa Clara County Grading and/or Encroachment Permits (for work in unincorporated urbanized areas of Santa Clara County that are contiguous to the City).
- California Department of Transportation (Caltrans) right of way permit, if needed.

Additional approvals may be required for horizontal directional drilling (HDD), to be reviewed if a stream crossing is needed:

- U.S. Army Corps of Engineers Department of the Army Nationwide 12 Permit.
- California Department of Fish and Wildlife (CDFW) Stream and Lakebed Alteration Agreement.
- Regional Water Quality Control Board (RWQCB) Water Quality Certification.

11. Habitat Plan Designation

Urban Golf Courses/Urban Parks
Barren
Agriculture Developed
Grain, Row Crop, Hay Pasture, Disked and Short Term Fallowed
Urban Development greater than or equal to 2 acres
Private Development Covered
Urban, A, B, C
Yes (Partial)

1.0 INTRODUCTION

Google Fiber Inc. (Google Fiber) is proposing to construct fiber-to-thepremises (FTTP) infrastructure that would allow Google Fiber to provide internet and video service to the City of San José. The proposed Project includes the installation of aggregators that connect to main line fiberoptic infrastructure. From these aggregators (either in prefabricated Fiber Huts or existing equipment rooms), the fiber cables would travel along existing utility corridors (either above or below ground) into underground Vaults or utility cabinets and to and from the vaults/cabinets directly to customers.

The Project would be constructed primarily in public rights of way, with limited Project facilities on either public land or commercial property and would be constructed adjacent to a variety of existing land uses. A detailed description of the Project is provided in Section 2, Project Description.

The City of San José has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate Project impacts in accordance with the requirements of the California Environmental Quality Act (CEQA). This introduction includes a description of the CEQA requirements and environmental review process, a list of the resource topics evaluated in this IS/MND, and a description of the organization of this IS/MND.

1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS AND ENVIRONMENTAL REVIEW PROCESS

CEQA applies to all discretionary activities proposed to be implemented or approved by a California public agency, unless an exemption applies. The City of San José is the Lead Agency that would approve the Project and issue the applicable permits. CEQA requires an agency to review the effects of a project's actions on numerous environmental resources, and the State CEQA Guidelines are the primary rules and source of interpretation of CEQA (Public Resources Code [PRC] Section 21083 [CEQA 2014]).

An IS is used to determine whether the action may have a significant environmental effect. It is a preliminary analysis prepared by the Lead Agency. The IS may use a checklist format, but fact-based explanations should be used to support the checklist. If the IS concludes that the Project may have a significant effect on the environment, an Environmental Impact Report (EIR) should be prepared; otherwise, the Lead Agency may prepare a Negative Declaration (ND) or MND (State CEQA Guidelines Section 15063 [CEQA 2014]).

CEQA requires ISs to include the project environmental setting, potential environmental impacts, and mitigation measures for any significant effects. When describing potential environmental effects in an IS, the Lead Agency may use a checklist, matrix, or other form. The checklist includes four possible levels of environmental effects: potentially significant, less than significant with mitigation incorporated, less than significant, and no impact (State CEQA Guidelines Section 15063[d][3],[f], [CEQA 2014]).

During preparation of the IS, the Lead Agency must make a determination whether a project may have a significant effect on the environment. If the Lead Agency concludes the Project would not have a significant effect, it prepares an ND or MND, which is a written statement explaining why the project would not have a significant environmental effect. For MNDs, the document must describe the mitigation measures included in the project to avoid potentially significant effects (State CEQA Guidelines Sections 15063, 15371; PRC Section 21092.6[a], [CEQA 2014]).

CEQA requires the Lead Agency to provide the public and relevant agencies an opportunity to comment by filing and distributing a Notice of Intent to adopt an ND or MND on a project. Following the 30-day public review period, the Lead Agency considers the ND or MND, together with any comments received, before approving the project. Although there is no requirement to prepare formal responses to comments, the Lead Agency should have adequate information on the record explaining why the comment does not affect the conclusions that there would be no significant effects, and the Lead Agency must notify any commenting agencies of the date of the public hearing on the project for which the ND or MND is prepared (State CEQA Guidelines Sections 15073, 15072; PRC Sections 21092[b][1], 21092.3, [CEQA 2014]).

When approving an MND, the Lead Agency must also adopt a monitoring and reporting program for the mitigation measures included in the MND, and it should file a Notice of Determination for approval of a project based on an ND or MND with the State Clearinghouse within 5 working days after project approval (State CEQA Guidelines Sections 15074[d], 15075; PRC Sections 21081.6, 21092.3, [CEQA 2014]).

1.2 **RESOURCE TOPICS**

Consistent with Appendix G of the State CEQA Guidelines, this IS/MND evaluates the potential impacts of the Project on the following resource areas:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems
- Mandatory Findings of Significance

This IS/MND also evaluates potential cumulative impacts associated with the proposed Project.

The following environmental resource topic is briefly discussed in Section 3, Environmental Checklist:

• Population and Housing

This resource was not considered in detail in this IS/MND, because it is not likely that it would be affected by the proposed Project.

1.3 IMPACT TERMINOLOGY

For each resource topic, analysts use significance criteria to identify when impacts warrant mitigation measures to help reduce their magnitude and severity. These criteria are based primarily on the State CEQA Guidelines, which generally describe the degree of negative change in any of the physical conditions within the area affected by the proposed Project. Lead Agencies also have the authority to develop significance criteria for the projects they review as long as the standards are "supported by substantial evidence." CEQA recognizes three degrees of impact before mitigation is considered:

- **No Impact:** The project or alternative would not effect a change in the environment.
- Less than Significant Impact: The project or alternative would cause a change in the environment, but that change would not be substantially adverse.
- **Significant, or Potentially Significant Impact**: The project or alternative would cause an adverse or potentially adverse change in the environment.

For each resource, the discussion identifies the level of significance prior to mitigation; for each impact that is identified as significant, the discussion identifies mitigation measures to reduce the impact to a less than significant level. As described below, the resource areas for which mitigation is required for this Project to reduce impacts to a less than significant level are: Aesthetics, Biological Resources, Cultural Resources, Hydrology and Water Quality and Noise.

1.4 DOCUMENT ORGANIZATION

This IS/MND is organized as described in the sections and appendices listed below.

- Section 1.0, Introduction, includes a description of CEQA requirements and environmental review process, resources topics analyzed, and organization of the IS/MND.
- Section 2.0, Project Description, includes a comprehensive description of the proposed Project.
- Section 3.0, Environmental Checklist, includes the completed checklist followed by an evaluation of the resource topics to support the conclusions in the checklist.

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- Section 4.0, Report Preparation, includes a list of staff who contributed to preparation of the IS/MND.
- Section 5.0, References, includes a list of the printed references and personal communications cited in the IS/MND.

1.5 MITIGATION MONITORING AND REPORTING PLAN

CEQA requires that a Lead Agency adopt a Mitigation Monitoring and Reporting Plan (MMRP) for the revisions the agency has required for a project and the measures it has proposed to avoid or mitigate significant environmental effects (CEQA Guidelines Section 15097 [CEQA 2014]). The purpose of the MMRP is to ensure the project revisions and mitigation measures identified are implemented and to identify who is responsible for their implementation.

Table 1-1 summarizes impacts for which mitigations will be applied, and that will be included in the MMRP. The MMRP will be adopted by the City after public review and adoption of the IS/MND.

Table 1-1Summary of Impacts and Mitigation Measures

Environmental Impacts	Mitigation Measures	
A. AESTHETICS		
Impact AES-1:	MM AES-1 – Screening for prefabricated Fiber Hut affecting state scenic highway viewshed.	
The Project could impact the viewshed of a state scenic highway if prefabricated Fiber Huts are located in the viewshed of a state scenic highway.	If a prefabricated Fiber Hut is sited within the viewshed of the segment of Interstate Highway (I)-280 classified as an "eligible" state scenic highway, the Project proponent will consult with the City to determine the extent to which the hut would be visible from the state scenic highway and to develop landscaping, fencing or other equivalent screening to eliminate or substantially reduce any resulting visual impact. The screening will be incorporated into the design for the hut site as part of the City's CUP process for that site.	
B. AGRICULTURAL AND FORESTRY RESOURCES		
There are no significant Agricultural and Forestry Resources impacts.		
C. AIR QUALITY		
There are no significant Air Quality impacts.		
D. BIOLOGICAL RESOURCES		
Impact BIO-1:	MM BIO-1.1 – Nesting bird surveys.	
Construction of the Project could impact migratory birds, raptors, and special-status bat species not covered by the Santa Clara Valley Habitat Plan.	If clearing and/or construction activities will occur in undisturbed portions of the site during the migratory bird nesting season (February 1–August 15), preconstruction surveys to identify active migratory bird and/or raptor nests will be conducted by a qualified biologist within 14 days of construction initiation. Surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area and a 250-foot buffer (if feasible). If no active nests are found, no further mitigation is required. Surveys will be repeated if construction activities are delayed or postponed for more than 30 days.	

Environmental	Impacts
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Mitigation Measures

If an active nest (excluding western burrowing owl) is located during preconstruction surveys, construction activities will be restricted as necessary to avoid disturbance of the nest until it is deemed inactive by a qualified biologist. Restrictions will include establishment of exclusion zones (no ingress of personnel or equipment) at a minimum of 100 feet around an active raptor nest, and 50 feet around an active migratory bird nest. Activities permitted within exclusion zones and the size may be adjusted through consultation with the CDFW and/or the City.

MM BIO-1.2 - Avoid active bat roosts.

Prior to the removal of any trees, a bat survey will be performed by a qualified biologist between March 1 and July 31. If bat roosts are identified, the bats will be safely flushed from the sites where roosting habitat is planned to be removed prior to roosting season (typically May to August) and prior to the onset of construction activities. If maternity roosts are identified during the maternity roosting season (typically May to September) they must remain undisturbed until a qualified biologist has determined the young bats are no longer roosting. If roosting is found to occur onsite, replacement roost habitat (e.g., bat boxes) will be provided to offset roosting sites removed. If no bat roosts are detected, then no further action is required if the trees are removed prior to the next breeding season. If removal is delayed, an additional survey will be conducted 30 days prior to removal to ensure that a new colony has not established itself.

A bat survey will be performed by a qualified biologist prior to onset of construction if tree removal is needed. Active roosts will be avoided, where possible. If impacts to roosts cannot be avoided or activities may cause roost abandonment, the bats will be excluded from the roosting site before the roost is removed/impacted. Exclusionary materials, including, but not limited to, expandable foam and steel wool, will be applied selectively and as needed until bats have relocated. Bats will be excluded from the directly affected work areas prior to April 15 of the construction year, and exclusionary devices will be removed between August 31 and April 15. Exclusion would occur at dusk to allow bats to exit during the darker hours.

E. CULTURAL RESOURCES

Impact CUL-1:	MM CUL-1 – Avoid known historic/archeological resources.
Construction of the Project could disturb known historic or	
archeological resources.	Prior to permitting and construction, Google Fiber will consult with the City of San José Department of
	Planning, Building, and Code Enforcement to review the proposed Project plans. The review will ensure

Environmental Impacts	Mitigation Measures
	consistency with the City of San José General Plan and that construction activities will avoid known significant historic/archeological resources. Further, aboveground cabinets and prefabricated Fiber Huts, to the extent necessary for the Project, will be sited to avoid impacting any identified significant cultural resource.
Impact CUL-2:	MM CUL-2 - Response actions to unanticipated find(s) of cultural resources.
Construction of the Project could disturb unknown historic or archaeological resources.	Prior to the initiation of any site preparation and/or start of construction, Google Fiber will ensure that all construction workers receive training overseen by a qualified professional who is experienced in teaching non-specialists, to ensure that forepersons and field supervisors can recognize archaeological or paleontological resources in the event that any are discovered during construction.
	 If unanticipated cultural resources are found or suspected, the following actions will be taken: All construction activity within a minimum of 50 feet of the find/feature/site will cease immediately. All remains or materials are to be left in place unless in jeopardy because of Project activities. The area will be secured to prevent any damage or loss of removable objects. If feasible, a fence or other barrier will be erected to demarcate and protect the find. The Consulting Archeologist or Paleontologist will be notified and once on scene will record the find location and delineate the extent of the find relative to planned Project activities. The Consulting Archeologist or Paleontologist will notify the appropriate agency officials. If cultural resources or remains have the potential to be culturally significant to a living Native American Tribe, agency officials will notify the California Native American Heritage Commission. The Consulting Archeologist or Paleontologist will make a recommendation on the National Register of Historic Places (NRHP) eligibility of the resources, and the effect of Project activity on historic properties, if present.

Environmental Impacts	Mitigation Measures
	• If the historic properties cannot be avoided, the Archeologist or Paleontologist will identify actions to minimize impacts, which could include one or more of the following: shifting the Project footprint away from the resource; limiting activities in the vicinity of the resource; or monitoring construction activities near the resource to inform whether additional actions are warranted. If none can be identified, a Data Recovery Plan will be developed, in consultation with the appropriate agency officials and consulting parties, in accordance with Section 21083.2 of the PRC and Title 14, Section 15126.4 of the CCR.
	A consulting archeologist will visit the discovery site as soon as practicable for identification and evaluation pursuant to Section 21083.2 of the PRC and Title 14, Section 15126.4 of the CCR. If the archeologist determines the artifact is not significant, construction may resume. If the archeologist determines the artifact is significant, the archeologist will determine if the artifact can be avoided and, if so, will detail avoidance procedures. If the artifact cannot be avoided, the archeologist will develop within 48 hours an Action Plan that will include provisions to minimize impacts and, if required, a Data Recovery Plan for recovery of artifacts in accordance with Section 21083.2 of the PRC and Title 14, Section 15126.4 of the CCR. State laws pertaining to the discovery of human remains will be followed. Work in areas where any burial site is found will be restricted or stopped until proper protocols are met. Upon discovering any burial site as evidenced by human skeletal remains, the County Coroner will be notified within 24 hours. No further excavation or disturbance within 50 feet of the site or any nearby area reasonably suspected to overlie adjacent remains may be made except as authorized by the County Coroner, California Native American Heritage Commission, and/or the County Coordinator of Indian Affairs.
F. GEOLOGY AND SOILS	
There are no significant Geology and Soils impacts.	
G. GREENHOUSE GAS EMISSIONS	
There are no significant Greenhouse Gas Emissions impacts.	

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H. HAZARDS AND HAZARDOUS MATERIALS

There are no significant Hazards and Hazardous Materials impacts.

I. HYDROLOGY AND WATER QUALITY

receiving waters during construction.

Impact WQ-1:

MM WQ-1 - Prevent inadvertent loss of bentonite mud into receiving waters and aquatic habitats The Project could lead to accidental release of bentonite mud into during HDD at a stream crossing.

- a) If a stream crossing requires the use of HDD to avoid in-water disturbance, the following measures will be incorporated into HDD procedures to avoid or reduce impacts to receiving waters from bentonite release. In addition, Google Fiber will obtain the necessary agency approvals for HDD activity, which may include additional controls/conditions.
 - Foreman oversight. An HDD foreman will be present at all times during drilling operations.
 - Geotechnical data. Geotechnical borings in the HDD affected areas will be performed as part of the construction scope prior to the start of drilling operations. Geotechnical bore data provide information defining proper pipe depth as dictated by the soil strata characterization.
 - Drill bit tracking and monitoring with an electronic guidance system. All HDD operations on ٠ this Project will be guided by a tracking system consistent with best industry practices. The alignment will be surveyed on foot by a team of two to three personnel. Temporary surveyor stakes will be placed strategically along the alignment to anchor the tracker wires. The alignment will be accessed throughout the drilling operation to monitor for mud loss.
 - Monitoring the drilling lubricant pressure at all times. The drill rig operator will monitor the equipment for loss of drilling lubricant pressure and volume. Members of the drill crew will also monitor the alignment of the drill and visually inspect for indications of mud loss that may occur.

Environmental Impacts	Mitigation Measures
	• Sizing (slowly moving forward and back to better keep track of any potential fracture locations). The drill rig operator will also monitor the bore hole to keep it free from obstructions that would inhibit the return of drilling lubricant to the rig.
	• Limited operation times. Unless drilling operations are within 1 hour of completion, drilling at sensitive habitats will be limited to the operation times of dawn to 30 minutes prior to dusk.
	b) Given the implementation of these measures, loss of mud lubrication is not anticipated to occur. In the unlikely event that loss of mud lubrication were to occur, hay bales, sand bags, silt fencing, straw wattle, or earthen berms (or a combination thereof) will be used to surround and contain drilling mud at the pad sites and in locations where such mud loss occurs. If mud loss occurs relatively close to the drilling rig, the mud will be contained and pumped back to the drilling location with portable pumps for reuse. In areas farther away from the drilling rig or where pumping back to the drilling rig is not feasible, a mobile vacuum pump or vacuum truck will be used to collect the drilling lubricant from the containment area. The drilling lubricant will then be recycled and sent to the return pit or storage tank. The vacuum truck will be confined to non-sensitive habitats, the developed right of way, or roads.
J. LAND USE	
There are no significant Land Use impacts.	
K. MINERAL RESOURCES	
There are no significant Mineral Resources impacts.	
L. NOISE	
Impact NOI-1:	MM NOI-1 – Site-specific noise attenuation and abatement for LASs.
Operation of LAS prefabricated Fiber Hut sites could result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	At LASs where noise generating equipment (air conditioners and generators) are located less than 120 feet from the property line of a noise sensitive receptor (residences, schools, hospitals, convalescent homes, libraries, churches, and meeting halls), Google Fiber will be required to submit a site-specific noise attenuation design confirming site noise attenuation is sufficient to reduce noise levels to 55 dBA DNL at the property line of the nearest noise sensitive receptor.

Environmental Impacts		Mitigation Measures
	Site-specific noise attenuation the following:	design submitted to the City for review and approval will include
	1. Site plans with distances to	property lines and noise-sensitive receptors.
	2. Noise attenuation design for the site, will include one or a combination of the following to achieve noise reduction:	
	Abatement Measure	Objective
	Site orientation	Orient equipment to adjust/increase distance to receptors
	Acoustic barrier types, materials	Attenuate noise through selection of materials (e.g., concrete, masonry, fiberglass) and height of barrier
	Barrier design	Adjust shape of barrier and proximity to equipment to increase effectiveness of abatement
	3. Confirmation that resulting the nearest noise sensitive rec	g attenuation will reduce noise levels to 55 dBA DNL at the property line of eptor shall be provided by a qualified acoustician.
M. PUBLIC SERVICES AND RECREATION		
There are no significant Public Service and Recreation impacts.		
N. TRANSPORTATION		
There are no significant Transportation impacts.		
O. UTILITIES AND SERVICE SYSTEMS		
There are no significant Utilities and Service Systems impacts.		
P. MANDATORY FINDINGS OF SIGNIFICANCE		
There are no significant Mandatory Findings of Significance impacts.		

2.0 PROJECT DESCRIPTION

2.1 PROJECT OVERVIEW

Google Fiber is proposing to construct FTTP infrastructure that would allow Google Fiber to provide internet and video service in the City of San José. The proposed 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 be installed within existing utility corridors (either above or below ground) into underground vaults or utility cabinets and to and from the vaults/cabinets directly to customers.

2.2 PROJECT LOCATION

San José is located in the eastern half of the Santa Clara Valley at the southern tip of San Francisco Bay. The proposed Project would be located and provide service within San José and limited urbanized areas of unincorporated Santa Clara County that are contiguous to the City. The proposed Project would be located within the developed Urban Service Area of the City. Most of the Project would be located within the public right of way, with limited Project facilities on either public land or commercial property. The conceptual layout of proposed facilities for San José is shown on Figures 2-1a through 2-1g.
















2.3 PROPOSED PROJECT

Google Fiber's FTTP infrastructure consists of four primary elements. In essence, the architecture of the FTTP build involves (1) installation of a Fiber Ring, (2) which is connected to Local Aggregation Sites (LASs), (3) which then connects to vaults (underground or in above-ground cabinets), and (4) finally connects to customers. The conceptual layout of facilities currently proposed for the City of San José is shown in Figure 2-1.

Fiber-optic cable installation within the existing right of way is fully compatible with existing uses. The core of the cable is made of one or more glass or plastic fibers that transmit signals using light instead of electricity. As such, fiber-optic cable is immune to all forms of electrical interference and there is no electromagnetic radiation from fiber-optic cable.

2.3.1 The Fiber Ring

The backbone of the build, the Fiber Ring, is the base infrastructure for the FTTP network. In practice, the Fiber Ring would not be a smooth concentric circle, but instead would follow the existing right of way to circle the City in a manner best suited to provide access throughout the City. From the Fiber Ring, a trunk and branch pattern would extend out into the City, ultimately providing service to customers. If available and suited to Google Fiber's needs, the Fiber Ring infrastructure could be achieved by acquiring or leasing existing "dark" fiber (i.e., fiber-optic cable that is not currently being used); however, that is not currently planned.

2.3.2 Local Aggregation Sites (LAS)

Each LAS serves roughly 40,000 households. Google Fiber estimates approximately 10 LASs would need to be located throughout the City, with one LAS being located within each of the Aggregator Areas designated in Figure 2-1. There are two types of LAS proposed by Google Fiber: Prefabricated Fiber Huts and Commercial Installation within existing commercial or industrial buildings as described below.

2.3.2.1 LAS Type 1: Prefabricated Fiber Huts

The first, and preferred, approach is to place prefabricated Fiber Huts on City-owned property in accordance with Google Fiber's Hut License Agreement with the City of San José. The prefabricated Fiber Huts are 12 feet wide by 28 feet long by 10 feet high, and are prefabricated buildings on a concrete foundation that would contain the Fiber Aggregation equipment that provides internet and video services to customers. Google Fiber requires that they be located on sites that are at least 1,400 square feet. Prefabricated Fiber Hut units would be delivered to the site completely assembled on a diesel truck with lowboy trailer and then lowered onto the site by crane.

Each prefabricated Fiber Hut would have air-conditioning units mounted on the side of the building, a fiber-optic cable underground access vault, and potentially a backup generator. Sites are typically fenced with chain link or similar fencing (fencing height varies, but typically about 8 feet in height), and include minimal lighting. Google Fiber would require access to the Huts 24 hours a day, 7 days a week. An example of a prefabricated Fiber Hut is shown in Figure 2-2.

Identified LASs

The City of San José has identified two initial properties for Google Fiber LASs where prefabricated Fiber Huts are proposed to be installed. The identified sites are listed in Table 2-1. Two CUPs have been submitted to the City for the construction of a LAS Fiber Hut with associated equipment and an emergency generator on both of these sites and are included in this Initial Study for project-level clearance. Conceptual site plans for the prefabricated Fiber Huts are provided in Appendix A.

Table 2-1	Identified LASs for Prefabricated Hut Installation	
14010 2-1	identified LASS for 1 rejubilitated that installation	

Hut Site	APN	CUP File No. and Description
1 Bird Ave./Virginia St.	264-41-074	CP15-069 Undeveloped 0.43 gross acre lot surrounded on all sides by developed urban uses: Bird Avenue to the west, Virginia Street to the north, residential development to the east and railroad tracks on the south.
2 Santa Teresa Blvd./SR 85	464-28-010	CP15-068 Undeveloped 0.97 gross acre lot surrounded by developed land uses: Santa Teresa Boulevard on the west, Glenburry Way and residential development on the east, and Thornwood Drive on the south. An undeveloped lot containing trees is adjacent to the northern boundary of the parcel, which borders the SR 85 South off-ramp on the north.

Source: Google Fiber 2015

The other LAS sites have not been identified at this time, and are evaluated at a program-level in this Initial Study. Project level review for these sites will occur at the time of CUP or, for properties with a Planned Development Zoning, at the Planned Development Permit phase.



Figure 2-2 Prefabricated Fiber Hut (Example)

Source: Google Fiber 2015

Google Fiber would obtain the applicable City approvals, including a CUP or Planned Development Permit, as applicable, prior to installing any prefabricated Fiber Huts. Google Fiber is not proposing to place Huts on any land zoned A-Agricultural or OS-Open Space. Depending on the location of each Fiber Hut, either public or private, mechanical equipment may be subject to Flood Zone review and requirements by the Department of Public Works.

2.3.2.2 LAS Type 2: Commercial Installation

If prefabricated Fiber Huts are not determined to be feasible or practicable, the applicant may place the LASs within existing commercial or industrial buildings instead. These LAS locations would contain Fiber Aggregation equipment, including computers, equipment and ladder racks, network equipment, cable trays, and fiber patch panels, inside the existing building with the exception of adding a backup generator outside of the building. Power and heating, ventilating, and air conditioning in most cases would be provided by the existing infrastructure in each building. However, in some instances, upgrades to these services may be necessary as part of the installation. CUPs or Planned Development Permits, plus electrical and building permits, would be obtained from the City, as applicable, prior to installation.

2.3.3 Type A Vaults

Connections between huts and neighborhoods receiving service ("fiberhoods") would be accomplished by installing Type A Vaults throughout the City. Type A Vaults would be up to 36 inches by 78 inches and have no aboveground profile. The majority of Type A Vaults would be sized to 36 inches by 48 inches and approximately 34 to 38 inches deep, as shown in Figure 2-3 (see Appendix A for detailed drawings). Type A Vaults would provide system access as well as space for fiber splice locations and fiber cable storage. Type A Vaults are proposed in lieu of typical aboveground utility cabinets. However, certain situations may require the deployment of aboveground cabinets as part of the system to enhance system performance (see Section 2.3.5).

Figure 2-3 Type A Vault (after installation)



Source: Google Fiber 2015

For San José, the anticipated build-out would require up to 7,000 Type A Vaults and, if necessary, a limited number of aboveground cabinets (approximately 100) would be installed. Criteria that would be used to site Type A Vaults and other network infrastructure include the following:

- Network optimization
- Conflict with other utilities
- Safety
- Impact on residences
- Aesthetics
- Street characteristics

When placing Type A Vaults, attention to the visual impact on adjacent property owners would be considered. Typical locations would be in the right of way where other similar utility equipment is placed. Google Fiber would locate Type A Vaults adjacent to existing landscaping and fencing to the maximum extent feasible.

Future system upgrades would be accomplished by adding or replacing internal equipment at Type A Vaults to meet future capacity requirements. Type A Vaults have been designed to accommodate the future addition of card shelves and other technical components without having to make future modifications to the vaults or cabinets themselves.

2.3.4 Type B Vaults

Additional access to the conduits would be provided by installing Type B Vaults at intervals of not more than 130 feet along the proposed route. As opposed to Type A Vaults, Type B Vaults would only provide a small access point to the cable and would not provide space for any additional equipment. Type B Vaults would be 12 inches by 30 inches at most, as shown in Figure 2-4 (See Appendix A for detailed drawings). All Type B Vaults would be in public rights of way and, if constructed in roadways, would have a traffic-bearing cover. Vaults would extend up to 48 inches below the existing ground surface. For San José, the anticipated build-out would require up to 70,000 Type B Vaults, in addition to the 7,000 Type A Vaults discussed above.

Figure 2-4 Type B Vault (after installation)



Source: Google Fiber 2015

2.3.5 *Utility Cabinets*

Although it is anticipated that traditional utility cabinets would not be necessary, certain situations may require the deployment of aboveground cabinets as part of the system to enhance system performance. If necessary, cabinets would also be placed in public rights of way, as shown in Figure 2-5. If needed, cabinets would be sited based on visual shading and preferential placement away from where they could be seen by customers. If utilized, some of the aboveground cabinets could be up to 33 inches by 17 inches and less than 3 feet high. Most cabinets would generally only be 17 by 17 inches and less than 3 feet high (see Appendix A for detailed drawings). Cabinet measurements represent maximum size and would commonly be smaller. If certain situations require the deployment of aboveground cabinets, the City may require smaller cabinets with a maximum height of 2 feet. If necessary, the anticipated build-out in the City of San José would require up to 100 cabinets. Criteria that would be used to site cabinets would follow the protocol for Type A Vaults. Placement of cabinets will be in accordance with the City of San José Municipal Code Section 15.40.400 - Minimum Criteria.

Figure 2-5 Utility Cabinet (during installation)



Source: Google Fiber 2015

2.3.6 Fiber Cable/Conduit

The project will include approximately 2,300 miles of fiber cable throughout the City. The Fiber Ring, LASs, vaults, and cabinets are all interconnected by the basic trunk and branch architecture of the system. To the maximum extent practicable, cable required for the proposed Project would be installed aerially on existing utility poles. With new aerial construction, the fiber cables will be lashed to new strand wire connected to existing aboveground poles.

Where aerial installation is not available or practicable, an underground conduit required to carry cable for the proposed Project would be installed within existing rights of way using rock-sawing, horizontal directional drilling (HDD), and trenching/micro-trenching. Up to six conduits with innerducts would be installed approximately 24 inches below the ground surface. The conduits would be 2-inch-diameter and 4-inch, standard-dimension-ratio polyethylene or polyvinyl chloride pipe, depending on the design. To comply with specific design requirements, borings under rail and highway corridors could require installation of steel pipe.

2.4 CONSTRUCTION

Prior to commencing construction activities, field teams would mark the necessary underground areas with spray paint along the conduit alignments for route location identification purposes to assist in preclearance surveys. Surveys of both underground and aboveground build corridors would identify potential build risks or potential tree-trimming needs. Pre-clearance surveys for nesting raptors and other migratory birds where substantial tree trimming is anticipated would include a certified arborist and a biologist qualified to identify active nests, where applicable.

In terms of construction schedule, it is anticipated that the Fiber Ring and LASs would be installed within approximately 36 months of Project approval. Construction of the FTTP service would be staggered throughout the City as build-out would be conducted in the most efficient way possible. Based on build-out in previous communities, Google Fiber anticipates complete build-out within the City would be achieved within approximately 36 months of Project approval.

An individual portion of the network might have multiple separate construction crews working at any given time, with aerial installation, rock-sawing, trenching/micro-trenching, directional drilling, and cabinet installation occurring at the same time in different locations. These techniques are described in more detail later in this section.

All construction activity conducted along roads and highways would employ standard traffic control measures in accordance with the California Department of Transportation (Caltrans) *Manual of Traffic Controls for Construction and Maintenance Work Zones* (Caltrans 2012).

2.4.1 Local Aggregation Site Installation

As previously discussed, the Project would require approximately 10 LASs for the City-wide network. When prefabricated Fiber Hut units are installed, they would be delivered to the site completely assembled on a diesel truck with lowboy trailer and would be lowered onto the site by crane. Construction activities at hut sites would consist of site preparation, pouring of a level concrete slab, and installation of enclosure fencing, power feeds, and conduits for fiber cables in underground areas.

If LAS infrastructure is installed in a commercial or industrial building, equipment would be delivered to the site by trailer truck and installed within the building. Regardless of configuration, five construction crews of six workers could complete each LAS in approximately 8 weeks.

2.4.2 Fiber-Optic Line Installation

As introduced above, the majority of the approximately 2,300 miles (12,144,000 linear feet) of conduit required for the proposed Project would be installed using five construction methods—aerial installation, rock-sawing, HDD, and trenching/micro-trenching. Google Fiber anticipates 60 percent utilization of rock-sawing/HDD/trenching methods and 40 percent utilization of aerial installation, subject to change based on final design and construction constraints. The ratio could reach 80 and 20 percent underground and aerial installation, respectively, depending upon pole conditions.

2.4.2.1 *Aerial Installation*

The basic method of installation for aerial facilities would be to install suspension clamps at each pole. Cables would then be supported by (lashed to) high-strength galvanized suspension strands held in place by the suspension clamps. The strand is high-tensile steel and would be placed under tension to control sag.

Standard aerial construction techniques and typical two-axle, rubber-tire vehicles would be used to attach cables and associated equipment to most utility poles. Basic equipment required for aerial installation includes bucket trucks and cable reel trucks or cable trailers. At least one crew and one bucket truck would travel the pole line alignment. The cable reel truck would carry spooled fiber that would be unwound for installation on the existing poles.

2.4.2.2 Rock-Sawing

A rubber-tired rock-saw excavator would be used to dig up to 2-feet-deep and 6-inch-wide trench, typically 3 to 6 feet from the edge of the roadway. The conduit would be placed in the trench. Once trenching has been completed, debris would be removed and the asphalt or concrete surface would be restored to a condition of equal quality as the pre-construction condition, or better.

2.4.2.3 Trenching

When an open trench is utilized for construction in concrete or asphalt, a T-Cut method would be utilized for restoration, except where this method is not practicable. The typical construction process would consist of using trenching/excavating equipment to cut a minimum 14-inch-wide opening, preferably immediately off the concrete curb and gutter line in the asphalt

area. The trench would be excavated to a depth of approximately 24 inches. The 24-inch depth below existing grade would be maintained during installation, except where existing obstructions, underground congestion, or other reasons necessitate a shallower depth. Conduits would be placed at the bottom of the trench. The trench would then be backfilled and compacted, and the surface restored to a condition of equal quality as the pre-construction condition, or better.

2.4.2.4 Micro-Trenching

Micro-trenching is used to cut a shallower trench, less than 2 inches wide and to a maximum depth of about 24 inches. Micro-trenching is performed using a saw that looks like a large circular saw, which can make a trench in either concrete or asphalt. Crews are able to trench more efficiently, laying the fiber-optic cable inside the trench immediately behind the micro-trenching. As with regular trenching, the micro-trench would then be backfilled and compacted, and the surface restored to a condition of equal quality as the pre-construction condition, or better. The method is less intrusive and reduces impact to the community.

2.4.2.5 Horizontal Directional Drilling (HDD)

The HDD method of construction, if required, would be used to place cable bundles under road crossings, utilities, dry washes, or other obstacles in the ground. This technique could also be used for stream crossings if stream crossing cannot otherwise be avoided (see discussion below). This method of construction consists of subsurface boring using a guided drill head. To start the bore, a typical surface-operated drilling device would be angled into the ground near the entry pit, creating a 3- to 4-inch pilot hole. Typically, a 6-inch back ream would then be attached and pulled back through the pilot hole, connecting the receiving pit to the entry pit. The back ream would increase the pilot hole to the required diameter, approximately 6 inches, to a maximum depth of approximately 60 inches.

HDD uses a bentonite/water mixture that is pumped down the drill stem to run the drill head, lubricate the drill pipe, maintain the bore hole, and remove bore cuttings. Bentonite is a non-toxic fine clay that, when mixed with water, provides the necessary lubrication and operating fluid for the drilling process. The bentonite/water mix would be prepared onsite and circulated in tanks and/or tanker trucks.

2.4.2.6 Stream Crossings

Based on current design the proposed Project would avoid jurisdictional streams and waters during Project construction. If crossings are unavoidable, the Project would attach to or install conduit in existing structures (i.e. bridges or utility crossings) and work would be conducted from existing structures, disturbed areas, or right of way outside the bed and bank of jurisdictional waters and wetlands. For all other crossings where avoidance or use of existing infrastructure is not practicable, HDD will be utilized to avoid construction work within waters and streambed. The entry and exit points of each bore (as well as staging areas and mud pits) would be located greater than 20 feet from the edge of a jurisdictional feature and would not result in permanent disturbance of riparian habitat. If stream crossings are unavoidable and HDD is required, the applicant would consult with the appropriate regulatory authorities to obtain the necessary permits and approvals for completing the HDD. Depending on the details involved and the site-specific plans, the permitting agencies could include the U.S. Army Corps of Engineers, Santa Clara Valley Habitat Agency (SCVHA), CDFW, and the RWQCB.

2.4.2.7 Potholing

Limited potholing would be required in conjunction with underground construction for all types of excavation including HDD operations. Potholing is the practice of excavating a test hole to expose underground utilities to ascertain the horizontal and vertical location of the facility prior to construction activities. While potholing can be accomplished through various types of excavation methods, vacuum excavation is a preferred method for non-destructive exposure of buried facilities. This method utilizes pressurized water or air to break up soil that is removed through a truck-mounted suction hose and deposited into a debris tank on the truck. Once the dirt is removed, the exact location of the utility is exposed. After the underground utility has been located, the pothole will be restored in accordance with the City's standards and specifications. This technique can also be utilized in situations where other sensitive underground features, such as tree roots, need to be avoided.

2.4.3Installation of Vaults and Cabinets

All vaults (Type A and Type B), would either be installed underground to a depth of up to approximately 48 inches with the top of the vault at grade or, in a few cases, be installed in above ground cabinets (see Section 2.3.5). For Type A Vaults, the ground would be excavated using a backhoe or excavator, and Type B Vaults would be excavated by manual labor.

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All vaults would be installed in direct line with or directly adjacent to the installed buried conduit. Above ground cabinets, if necessary, would be installed retaining curbs and storm water infrastructure that might be temporarily taken out of service during construction.

2.4.4 Labor Force, Construction Vehicles, and Equipment

A labor pool of approximately 80 crews of various types at Project peak would be needed to complete the construction activities noted above, as summarized in Table 2-2, below.

Construction Phase	Labor (Each Crew)	Peak Crews
LASs	Foreman (1)	5
	Equipment Operator (1)	
	Laborers (4)	
Rock-Sawing	Foreman (1)	10
	Equipment Operator (4)	
	Laborers (6)	
Trenching/Micro-Trenching	Foreman (1)	10
	Equipment Operator (2)	
	Laborers (4)	
Aerial Installation	Foreman (1)	30
	Equipment Operator (2)	
	Laborers (4)	
HDD	Foreman (1)	30
	Equipment Operator (2)	
	Laborers (4)	
Vault Installation	Foreman (1)	20
	Equipment Operator (1)	
	Laborers (2)	
Construction of Cabinets	Foreman (1)	5
	Equipment Operator (1)	
	Laborers (4)	

Table 2-2Projected Construction Labor Force

Notes:

LAS = Local Aggregation Site

Source: Google Fiber 2014

Estimates of construction activities are based on the following quantities and assumed average production rates:

- LAS Installation: Approximately 10 LASs to install/place, with one crew averaging a LAS installation in up to 60 working days.
- Vault Installation: Approximately 77,000 vaults to place, with one crew averaging eight vaults per day over a 500-working-day construction period.
- Cable placement:
 - Aerial: Approximately 960 miles (5,068,800 linear feet) to place, with one crew averaging 2,000 feet per day over a 500-working-day construction period.
 - Rock-Sawing/Trenching: Approximately 331 miles (1,747,680 linear feet) to place, with one crew averaging 500 feet per day over a 550-working-day construction period.

- HDD: Approximately 1,000 miles (5,280,000 linear feet), with one crew averaging 450 feet per day over a 600-working-day construction period.
- Cabinet Installation (if necessary): Up to 100 cabinets to place, with one crew averaging up to one cabinet per day for 150 working days.

The following identifies the currently anticipated equipment for each construction activity type:

- LAS Commercial Instillation:
 - Three pickup/utility trucks
 - One semi-truck
- Prefabricated Fiber Hut Construction:
 - o Three pickup/utility trucks
 - Two flatbed trucks (one for hut, one for crane)
 - o One crane
 - Concrete mixing truck
- Rock-Sawing:
 - Three pickup/utility trucks
 - One excavator/rock saw/crusher
 - o One cable/ conduit trailer
 - Two dump trucks
- Trenching:
 - Three pickup/utility trucks
 - One trencher
 - One excavator
 - o Two dump trucks
 - One backhoe
- HDD:
 - Two pickup/utility trucks
 - One boring rig
 - o One backhoe

- Aerial Installation:
 - One pickup/utility truck
 - One bucket truck
 - One cable/strand reel trailer
- Vault Installation (and cabinets, if necessary):
 - o Two pickup/utility trucks

The majority of construction equipment and materials would be stored at contractor and/or supplier facilities until needed. Staging areas, if necessary, would be established within public rights of way or other disturbed areas along the proposed construction route, and would not exceed an area greater than 200 feet by 200 feet. If it is not possible to locate staging areas in the rights of way due to narrow roads or other constraints, the contractor would locate staging areas, equipment lay-down areas, and storage areas in paved or graveled yards or other disturbed areas as close to the construction areas as possible.

2.5 OPERATIONS

Following construction of the proposed Project, operations and maintenance activities would be minimal. Operations would be limited to the intermittent maintenance of the new fiber-optic line and associated equipment installed throughout the network. Small backup generators rated at 85 kilowatts or equivalent, located at each LAS, would be operated for 1 hour monthly for testing purposes, even though actually testing is expected to last no more than 30 minutes in one day (and testing is expected to occur only once per month) to maintain operational functionality.

Since the proposed Project would be located within an existing utility right of way, there are as-needed maintenance activities, similar to those already occurring at pole locations and within underground utility right of way to maintain these existing utilities. Maintenance activities associated with the proposed Project would consist of periodic inspection by patrol in a pickup truck of the Project route facilities to determine if repairs and/or vegetation trimming would be required. If repairs are necessary, these activities would generally be similar to construction-related activities; however, the duration, intensity, and/or frequency of said activities would be substantially less.

2.6 REQUIRED PERMITS AND APPROVALS ANTICIPATED

The following permits and approvals are anticipated as part of the proposed Project:

- City of San José CUP or Planned Development Permit (for sites with a Planned Development Zoning) for LAS facilities on public and private properties.
- City of San José Master Encroachment Permit from the Department of Public Works for work in the public right of way.
- City of San José Building, Electrical, and Grading Permits.
- City of San José Tree Removal Permits from the Department of Transportation.
- City of San José Revocable Encroachment Permit for crane use (if the crane encroaches in the public right of way) from the Department of Public Works.
- Bay Area Air Quality Management District (BAAQMD) Authority to Construct and Permit to Operate for small generators.
- Santa Clara County Grading and/or Encroachment Permits (for work in unincorporated urbanized areas of Santa Clara County that are contiguous to the City).
- Caltrans Right of way permits, if needed.

Additional approvals may be required for HDD, to be reviewed if a stream crossing is needed:

- U.S. Army Corps of Engineers Department of the Army Nationwide 12 Permit
- California Department of Fish and Wildlife (CDFW) Stream and Lakebed Alteration Agreement
- Regional Water Quality Control Board (RWQCB) Water Quality Certification

3.0 EVALUATION OF ENVIRONMENTAL IMPACTS

This section describes the existing environmental conditions on and near the Project area, as well as environmental impacts associated with the proposed Project. The environmental checklist, as recommended in the CEQA Guidelines, identifies environmental impacts that could occur if the proposed Project is implemented.

The right-hand column of the checklist lists the source(s) for the answer to each question. The sources cited are identified at the end of this section. Measures that are required by the Lead Agency or other regulatory agency that will reduce or avoid impacts are categorized as "Standard Project Conditions." These include two types of measures:

- 1. measures that are legally required by a statute, regulation, ordinance, or other generally applicable agency rule, policy or order; and
- 2. standardized measures that are typically implemented for utility construction projects as best management practices. Standard Project Conditions are incorporated into the proposed project as integral components of the project.

Mitigation measures are measures that are adopted and imposed by the City for those impacts that have been identified as potentially significant based on the results of the environmental analysis. As defined under CEQA, mitigation measures are measures that will minimize, avoid or eliminate such a potentially significant impact. (State CEQA Guidelines Section 15370 [CEQA 2014]).

Population and Housing was not considered in detail in this IS/MND. The proposed construction and implementation of the Google Fiber service would occur mostly on City-owned property, c and may include a small number of LASs within existing commercial buildings. The Project would not result in any displacement or reduction of housing stock and would have no effect, positively or negatively, on population growth in the City or region. As such, the proposed Project would have no impact on population or housing in San José and this resource area will not be discussed further in this IS/MND.

AESTHETICS

Wot	ald the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?			\boxtimes	
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?			\boxtimes	
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				

The term "aesthetics" typically refers to the perceived visual character of an area, such as a scenic view, open space, or architectural facade. The aesthetic value of a given area depends on a combination of viewer response and the visual character and scenic quality of the area. This combination may be affected by the components of a project (e.g., buildings constructed at a height that obstructs views, hillsides cut and graded, open space changed to an urban setting), as well as changing elements, such as light, weather, and the length and frequency of viewer exposure to the setting.

Elements of the Project that are relevant to Aesthetics impacts include:

- Installation of fiber-optic cable throughout the City;
- Construction of approximately 7,000 Type A Vaults and up to 70,000 Type B Vaults; and
- Construction of approximately 10 LASs and 100 cabinets. Two potential prefabricated Fiber Hut LASs have been identified, and are listed in Table 3.1-1.

Each element is described in Section 2.4. Installation and construction methodology is discussed in Section 2.4.3 and Section 2.4.4.

3.1

Table 3.1-1 Identified LASs for Prefabricated Hut Installation

Hut Site	APN	Description
1 Bird Ave./Virginia St.	264-41-074	Undeveloped 0.43 gross acre lot surrounded on all sides by developed urban uses: Bird Avenue to the west, Virginia Street to the north, residential development to the east and railroad tracks on the south.
2 Santa Teresa Blvd./SR 85	464-28-010	Undeveloped 0.97 gross acre lot surrounded by developed land uses: Santa Teresa Boulevard on the west, Glenburry Way and residential development on the east, and Thornwood Drive on the south. An undeveloped lot containing trees is adjacent to the northern boundary of the parcel, which borders the SR 85 South off-ramp on the north.

The following LASs have been selected at this time and have CUPs on file with the City.

Source: Google Fiber 2015

3.1.1 Setting

The proposed Project includes installation of fiber-optic cable, Type A Vaults, cabinets (if necessary), and Type B Vaults within existing rights of way along existing streets, sidewalks, and transportation corridors. Where installed above ground, fiber-optic cable would be co-located on existing utility poles.

Up to 10 locations have been identified as potential siting for the proposed LASs. As indicated above, the preferred approach is to locate the LASs as prefabricated Fiber Huts. The initially proposed hut locations are on City-owned land and on urbanized property such as vacant infill parcels.

Approximately 7,000 locations have been identified for the siting of Type A Vaults; if aboveground cabinets are needed, there would be up to approximately 100. These facilities would be located throughout the City within public rights of way. The visual setting of these locations varies, but would include streets, sidewalks, commercial curbside, and residential curbside.

3.1.2 Regulatory Setting

City of San José 2040 General Plan. The City of San José 2040 General Plan contains policies related to location of utilities and the visual context and character of utilities within the City (City of San José 2011b). Native trees are considered to be valuable for preserving the visual quality of an area. Policies of the City's General Plan relevant to the proposed Project are presented in Table 3.1-2.

Table 3.1-2Relevant General Plan Policies

Relevant Policies	Description
Policy CD- 1.28	Locate utilities to be as visually unobtrusive as possible, by placing them underground or in buildings. When aboveground or outside placement is necessary, screen utilities with art or landscaping.

Source: City of San José Envision 2040 General Plan (City of San José 2011b)

3.1.3 Impact Evaluation

a. Would the project have a substantial adverse effect on a scenic vista?

Level of Impact Less Than Significant

The proposed activities would primarily consist of underground utility infrastructure that would have no impact on the visual character of San José because the underground infrastructure would have no above ground profile.

Aboveground features would consist of pole attachments, utility cabinets, and up to approximately 10 LASs, the majority of which would be prefabricated Fiber Huts and others installed within existing commercial buildings. There would be no impact on scenic vistas resulting from the installation of these small facilities (if they are required) in developed, urbanized areas. Fiber-optic cable would only be attached to poles in areas where there are existing poles with utility lines and, while some amount of pole replacement would be necessary, no new poles would be installed as part of the Project. If required, utility cabinets would be less than 3 feet high and would be sited in locations where existing utility cabinets already exist and are part of the existing viewshed. As a result, cabinets that are part of the Project would not impact viewsheds and would be consistent with the pre-existing visual setting.

The LASs include potential prefabricated Fiber Hut locations identified by the City on City-owned land and on urbanized property such as vacant infill parcels and parking lots, where they would be compatible with the existing visual context. The two initial Fiber Hut sites identified in Table 3.1-1 are in urbanized areas and would not have a substantial adverse impact on a scenic vista. LASs that are installed in existing buildings would have no impact on aesthetics because all equipment (with the potential exception of backup generators and air conditioning units) will be located indoors. There would be a **less than significant** impact on scenic vistas. No mitigation is necessary.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Level of Impact Less Than Significant with Mitigation

The removal of trees would be avoided to the extent possible as the Project be constructed primarily within existing public right of way. If tree removal does become necessary because of a site's characteristics, applicable City requirements addressing trees will be followed (see Section 3.4.1). As described in more detail in Section 3.4.2, **Standard Project Conditions,** which include best management practices for working near and around trees, would further reduce the potential impact.

A segment of Interstate Highway (I)-280 within the City of San José is classified as an "Eligible" state scenic highway. The proposed activities would primarily consist of underground utility infrastructure installed below roadways, potentially including scenic highways, but would have no material impact on the visual character of scenic roadways. Aboveground features, as discussed in Item a., would consist of pole attachments, utility cabinets, and up to approximately 10 LASs, the majority of which would be prefabricated Fiber Huts. The pole attachments and cabinets would be similar in nature and context to existing utility infrastructure already in the built environment and would not impact the visual context or character of the environment.

Prefabricated Fiber Huts would be sited to avoid placement in the viewshed of a designated scenic highway to the extent possible. The two identified prefabricated Fiber Hut sites noted in Table 3.1-1 are not within the viewshed of a scenic highway and therefore would not damage scenic resources within a state scenic highway. If for any reason it becomes necessary to site a hut within the viewshed of a state scenic highway, MM AES-1 will be applied to reduce the impact to a less than significant level.

Impact AES-1: The Project could impact the viewshed of a state scenic highway if Prefabricated Fiber Huts are located in the viewshed of a state scenic highway.

MM AES-1 –Screening for prefabricated Fiber Hut affecting state scenic highway viewshed.

If a prefabricated Fiber Hut is sited within the viewshed of the segment of I-280 classified as an "eligible" state scenic highway, the Project proponent will consult with the City to determine the extent to which the hut would be visible from the state scenic highway and to develop landscaping, fencing or other equivalent screening to eliminate or substantially reduce any resulting visual impact. The screening will be incorporated into the design for the hut site as part of the City's CUP process for that site.

As a result, the potential for impacts on scenic resources within the viewshed of a state scenic highway would be <u>less than significant with</u> <u>mitigation</u>.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Level of Impact Less Than Significant

Construction would be temporary and would occur within the existing right of way and on City property, and the impact would therefore be less than significant.

After installation, there would be no visual impacts from underground Project facilities.

Above ground Project facilities include pole attachments, approximately 10 LASs, and, if necessary, up to approximately 100 cabinets Citywide. With respect to pole attachments, as explained above, fiber-optic cable would only be attached to poles in areas where there are existing poles with utility lines and, while some amount of pole replacement would be necessary, no new poles would be installed as part of the Project. As a result, this component of the proposed Project would not substantially change the existing visual character or quality of the Project surroundings. Construction would be temporary and permanent impacts would be negligible.

Prefabricated Fiber Huts would be located in developed areas and would be sited in consultation with the City to minimize visual impacts to the surrounding community. Further, the huts are similar in appearance to other utility buildings that exist within San José (water, electrical, and other small service buildings) and thus would not substantially alter the visual character of the Project surroundings. If existing commercial or industrial buildings are used to house LASs, there would be no visual impacts because the visual character of the site would be unchanged. The visual character of the two identified LAS locations (see Table 3.1-1) would not be substantially degraded by the addition of prefabricated Fiber Huts and the associated infrastructure. Sites 1 and 2 are located in developed urban areas, and the visual character would not be substantially changed by the addition of the structures, which are similar in character to other utility buildings located within the City. The two sites are bordered by roadways and residential areas, as well as existing trees and vegetation. As discussed in Item b., above, tree trimming and removal will be avoided to the extent possible, and will follow applicable City ordinances as applicable. The resulting visual character of the site and surrounding areas would not be substantially degraded.

With regard to the cabinets, the preferred approach is to avoid these facilities in favor of vaults. In the event cabinets are needed, there would be up to approximately 100 such cabinets located throughout the City. The cabinets would be small (less than 3 feet high); would be consistent in appearance and context with other, existing aboveground utility infrastructure; and would be located in consultation with the City to minimize aesthetic impacts.

In summary, there could be some minor, localized changes to the visual character, primarily as a result of the potential for aboveground Fiber Huts and cabinets to be placed in residential areas. Similar utility structures exist throughout the City and the Project would be consistent with the existing visual character of the City's developed areas. The proposed Project would not substantially degrade the existing visual character or quality of the sites and their surroundings, and the impact would be **less than significant**.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Level of Impact No Impact

The proposed activities would not introduce new sources of light or glare except for lighting on the prefabricated Fiber Huts. Construction and installation activities are planned to occur only during workday hours. Normal construction lighting would be required during working hours during the winter months when daylight hours are shorter, but would be temporary and not a significant long-term change. If required, minimal lighting might be installed on the exterior of the prefabricated Fiber Huts; however, these would be located in developed areas where lighting already exists and will be required to comply with the City's Outdoor Lighting on Private Developments Policy (City Council Policy 4-3). No vault or cabinet lighting would be installed. There would be **<u>no impact</u>** associated with new sources of light or glare.

AGRICULTURE AND FORESTRY RESOURCES

W	ould the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				\boxtimes
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				
d.	Result in the loss of forest land or conversion of forest land to non- forest use?				\boxtimes
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non- agricultural use or conversion of forest land to non-forest use?				

3.2.1 Setting

The Coyote Planning Area contains the largest quantity of farmland that still remains in San José. While development covers most of the land in the Santa Clara Valley, some agricultural plots are still distributed scarcely within the Urban Growth Boundary (UGB). The farmland designated by the State Department of Conservation and all farmland within the UGB are intended for urban uses. However, neither the Coyote Urban Reserve nor the Almaden Urban Reserve is proposed for development through the year 2040. Prime Farmland within the City of San José UGB that is specifically protected in 2040 General Plan is listed below in Table 3.2-1.

Table 3.2-1Prime Farmland within the City of San José UGB Protected in 2040General Plan

Site and Location	Planning Area	Area (acres)
Lands of Lester - Branham and Snell	Edenvale	97.6
Fortini and San Vicente	Almaden	22.3
Mid Coyote Valley	Coyote	882.0

Source: City of San José 2011b

3.2.2 Regulatory Setting

Conservation Farmland Mapping and Monitoring Program (FMMP).

This program is intended to monitor how agricultural lands are converted and preserved over time, and monitor the quality and quantity of these lands. The FMMP can be found in Section 612 of the PRC (California 1982) and is not regulatory in nature. Under the program there are five categories of farmland: Grazing, Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. The categories of farmland are intended to create a consistent and unbiased analysis of agricultural land use and land changes in California, as required under Section 65570(b) of the Government FMMP. These categories are normally used to analyze the impacts on agriculture and farmland under CEQA (PRC Section 21060.1[California 1993]).

Williamson Act. The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is the state's primary program aimed at conserving private land for agricultural and open space use. It is a voluntary, locally administered program that offers reduced property taxes on lands whose owners place enforceable restrictions on land use through contracts between the individual landowners and local governments.

3.2.3 Impacts Evaluation

a.-b. Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown in maps prepared pursuant to Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Level of Impact No Impact

The proposed Project would install a new fiber-optic conduit adjacent to several agricultural areas and through portions of the Mid Coyote Valley. However, all new fiber-optic conduit in these areas is underground and in public rights of way along existing roadways. Therefore, no agricultural lands of any type would be converted to non-agricultural uses and no impacts on lands under Williamson Act would occur as a result of the proposed Project. There would be <u>no impact</u>.

c.-d. Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? Would the Project result in the loss of forest land to non-forest use?

Level of Impact No Impact

The proposed Project would not impact forest resources since the Urban Service Area of the City does not contain any forest land as defined in PRC Section 12220(g), timberland as defined by PRC Section 4526, or property zoned for Timberland Production as defined by Government Code Section 51104(g). There would be <u>no impact</u>.

e. Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to nonforest use?

Level of Impact No Impact

The proposed Project would provide fiber-optic utility service to existing developed areas of San José and provides no mechanism that would directly or indirectly promote or result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. There would be <u>no impact</u>.

AIR QUALITY

3.3

Wo	ould the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable Air Quality Plan?			\boxtimes	
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			\boxtimes	
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is classified as non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				
d.	Expose sensitive receptors to substantial pollutant concentrations?			\boxtimes	
e.	Create objectionable odors affecting a substantial number of people?			\boxtimes	

3.3.1 Setting

3.3.1.1 Environmental Setting

The Project area is in the Santa Clara Valley where air quality is managed and monitored by the BAAQMD. Carbon monoxide (CO), particulate matter (PM), and ozone precursor's reactive organic gases (ROG) and oxides of nitrogen (NO_x) are the primary pollutants of concern with regard to air quality. Santa Clara County is designated as nonattainment for federal and state ozone and PM_{2.5} (fine particulate matter up to 2.5 micrometers in size) standards and for state PM₁₀ (inhalable particulate matter from 2.5 to 10 micrometers in size) standards (California Air Resources Board [CARB] 2014a).

The Project site is within the San Francisco Bay Area Air Basin, which typically has moderate ventilation, frequent inversions that restrict vertical dilution, and terrain that restricts horizontal dilution. These factors give the Bay Area a relatively high atmospheric potential for pollution. Three pollutants are known at times to exceed the state and federal standards in the Project area: ozone, PM₁₀, and PM_{2.5}. Of these, ozone is considered a regional pollutant, because its concentrations are not determined by proximity to individual sources; rather, it is formed by

a photochemical reaction between ROG and NO_x downwind of the sources of these precursors (BAAQMD 2012). The BAAQMD monitors air quality at several locations within the San Francisco Bay Area Air Basin. As shown in Table 3.3-1, ozone, PM_{10} , and $PM_{2.5}$ violations of state and/or federal standards were recorded at a San José monitoring station during the 2011-2013 period. Violations of the CO standard have not occurred since 1992.

D-11-((Cien de al	I	Days Exceeding	Standard
Pollutant	Standard	2011	2012	2013
San José				
	State 1-hour	1	1	0
Ozone	Federal 8-hour	0	0	1
	State 8-hour	0	0	1
60	Federal/State 1-hour	0	0	0
0	Federal/State 8-hour	0	0	0
NO	Federal 1-hour	0	0	0
NO ₂	State 1-hour	0	0	0
60	Federal 1-hour	0	0	0
SO_2	State 24-hour	0	0	0
DM	Federal 24-hour	0	0	0
LIM10	State 24-hour	0	1	5
PM _{2.5}	Federal 24-hour	3	2	6

Table 3.3-1 Number of Ambient Air Quality Standards Violations

Notes:

CO = Carbon Monoxide, NO₂ = Nitrogen Dioxide, SO₂ = Sulfur Dioxide,

 PM_{10} = particulate matter from 2.5 to 10 micrometers in size,

 $PM_{2.5}$ = particulate matter up to 2.5 in size

Source: Annual Bay Area Air Quality Summaries (BAAQMD 2014)

3.3.1.2 Regulatory Setting

United States Environmental Protection Agency (USEPA). The USEPA is responsible for enforcing the Clean Air Act (CAA). It is also responsible for establishing the National Ambient Air Quality Standards (NAAQS) required under the CAA. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters and establishes various emission standards, including those for vehicles sold in states other than California.

California Air Resources Board (CARB). CARB is part of the California Environmental Protection Agency and is responsible for meeting the state requirements of the CAA, administering the California Clean Air Act
(CCAA), and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA requires all air districts in the state to achieve and maintain the CAAQS. CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB has established passenger vehicle fuel specifications and oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level. CARB also conducts or supports research into the effects of air pollution on the public and develops innovative approaches to reducing air pollutant emissions. Both state and federal air quality standards are summarized in Table 3.3-2.

		Т	hresholds
Pollutant	Standard	State (CA)	Federal
2	1-hour	0.09 ppm	-
Ozone	8-hour	0.070 ppm	0.075 ppm
	1-hour	20 ppm	35 ppm
60	8-hour	9 ppm	9 ppm
	1-hour	0.18 ppm	0.10 ppm
NO ₂	8-hour	-	-
	1-hour	0.25 ppm	0.075 ppm
SO_2	8-hour	-	-
PM ₁₀	24-hour	50 µg/m ³	150 μg/m ³
PM _{2.5}	24-hour	-	$35 \mu g/m^3$

Table 3.3-2 Federal and State Ambient Air Quality Standards

CO = Carbon Monoxide, NO₂ = Nitrogen Dioxide, SO₂ = Sulfur Dioxide,

 PM_{10} = particulate matter from 2.5 to 10 micrometers in size,

 $PM_{2.5}$ = particulate matter up to 2.5 in size

ppm = parts per million

 $\mu g/m^3 = micrograms per cubic meter$

Sources: CAAQS (CARB 2009), NAAQS (USEPA 2011)

Toxic Air Contaminants (TACs). California also regulates TACs separately from those pollutants included in the CAAQS, primarily through the Tanner Air Toxics Act (Assembly Bill 1807) and the Air Toxics Hot Spots Information and Assessment Act (Assembly Bill 2588). TACs are a broad class of compounds known to cause morbidity or mortality, usually because they cause cancer. TACs are found in ambient air, especially in urban areas, and can be caused by industry, agriculture, fuel combustion, and commercial operations. Diesel fuel combustion is of concern, as the particulate matter in the exhaust has been found to be carcinogenic.

Bay Area Air Quality Management District (BAAQMD). The BAAQMD is primarily responsible for assuring that the national and state ambient air quality standards are attained and maintained in the Bay Area. The BAAQMD has jurisdiction over permitting of stationary sources, such as industrial process units, wastewater treatment plants, dry cleaners, and gasoline stations. It has established regulations for certain types of pollutant-emitting sources to minimize and control emissions. In addition, to protect public health, the BAAQMD has adopted plans to achieve CAAQS, which involve emission reduction strategies for permitted sources as well as non-permitted mobile sources.

In 2010, BAAQMD adopted the Bay Area 2010 Clean Air Plan (CAP), which is the most recent multi-pollutant Air Quality Plan (AQP) addressing ozone, CO, PM₁₀, PM_{2.5}, and TACs (BAAQMD 2010a). The BAAQMD adopted the 2010 CAP for the region to improve air quality and protect public health through an integrated, multi-pollutant strategy of planning and emissions reductions that address these pollutants.

City of San José 2040 General Plan. The Envision San José 2040 General Plan provides planning guidance for projects within San José (City of San José 2011b). The General Plan contains air quality policies that pertain to the proposed Project. In general, the applicable General Plan policies call for development to comply with all federal and state air quality regulations, and follow the 2010 BAAQMD CEQA Air Quality Guidelines.

3.3.2 Impacts Evaluation

Methodologies in the BAAQMD CEQA Guidelines (BAAQMD 2010b, 2012) have been used to evaluate air quality impacts from the proposed Project. In May 2012, the BAAQMD updated its CEQA Air Quality Guidelines from the 2010 version, which included emission levels and TAC risk levels for projects that would be considered significant if the impacts exceed those levels. These emission and TAC risk threshold levels are summarized below:

- Construction-related exhaust emissions of ROG, NO_x or $PM_{2.5}$ greater than 54 pounds per day (lb/day) or total PM_{10} greater than 82 lb/day;
- Operational-related emissions of ROG, NO_x or $PM_{2.5}$ greater than 54 lb/day (or 10 tons per year) or PM_{10} greater than 82 lb/day (or 15 tons per year);
- Cancer risks would be significant if the incremental risk equals or exceeds 10 in one million for the Maximally Exposed Individual;

- Exposure to non-carcinogenic substances would be significant if the Hazard Index exceeds 1.0; and
- $PM_{2.5}$ emissions that would exceed $0.3 \ \mu g/m^3$ annual concentration.

On March 5, 2012, the Alameda County Superior Court issued a judgment finding that the BAAQMD had failed to comply with CEQA when it adopted the thresholds of significance in the BAAQMD CEQA Air Quality Guidelines (BAAQMD 2012). The court did not determine whether the thresholds of significance were valid on their merits, but found that the adoption of the thresholds was a project under CEQA. The court issued a writ of mandate ordering the BAAQMD to set aside the thresholds and cease dissemination of them until the BAAQMD complied with CEQA. In May 2012, the BAAQMD filed an appeal of the court's decision. The Court of Appeal of the State of California, First Appellate District, recently reversed the trial court's decision. The Court of Appeal's decision was appealed to the California Supreme Court, which granted limited review, and the matter is currently pending.

Some lead agencies continue to use the above emissions thresholds as significance criteria in CEQA documents. For this Project, the City of San José has chosen to use the thresholds from the 2010 CEQA Guidelines, as listed above (BAAQMD 2010b). Thus, Project criteria pollutant emissions could be considered significant if these thresholds are exceeded.

a. Would the Project conflict with or obstruct implementation of the applicable Air Quality Plan?

Level of Impact Less than Significant

The BAAQMD's most current plan is the 2010 CAP. To evaluate whether or not the proposed Project would conflict with or obstruct implementation of the CAP, the following three questions are considered (BAAQMD 2010a, 2012).

1) Does the Project support the primary goals of the Air Quality Plan (AQP)?

The BAAQMD CEQA Guidelines state the primary goals of the 2010 CAP are to:

• Attain air quality standards;

- Reduce population exposure and protect public health in the Bay Area; and
- Reduce greenhouse gas (GHG) emissions and protect the climate.

Any project that would not support these goals would not be considered consistent with the 2010 CAP. In the 2010 BAAQMD CEQA Guidelines, the recommended measure for determining Project support of these goals is the same as the CEQA thresholds of significance listed above (BAAQMD 2010b). If a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, that project may be considered consistent with the 2010 CAP. As shown in Item b. below, the proposed Project would not exceed these CEQA thresholds and thus complies with the primary goals of the 2010 CAP.

2) Does the Project include applicable control measures from the AQP?

The BAAQMD CEQA Guidelines state that projects that incorporate all feasible AQP control measures may be considered consistent with the 2010 CAP. The proposed Project would include all feasible AQP control measures, as listed below, to reduce construction emissions and thus is consistent with the 2010 CAP.

Google Fiber will require all construction contractors to implement the following BAAQMD emission reduction measures to reduce exhaust emissions:

- Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxic Control Measure Title 13, Section 2485 of California Code of Regulations [CCR 2014]). Clear signage will be provided for construction workers at all access points.
- All construction equipment will be maintained and properly tuned in accordance with manufacturer specifications. All equipment will be checked and determined to be running in proper condition prior to operation.
- 3) Does the Project disrupt or hinder implementation of any CAP control measures?

The BAAQMD CEQA Guidelines state if approval of a project would not cause the disruption, delay, or otherwise hinder the implementation of

any AQP control measure, it may be considered consistent with the 2010 CAP. No activities associated with the proposed Project would cause the disruption, delay, or otherwise hinder the implementation of any AQP control measure and thus would be consistent with the 2010 CAP.

Therefore, the proposed Project is consistent with the 2010 CAP and would not conflict with or obstruct implementation of the applicable AQP and has a <u>less than significant</u> impact.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Level of Impact Less than Significant

Construction and operational emissions were estimated for the proposed Project, as summarized below, to determine whether it would have the potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation. To determine the significance of the emissions, they were compared to the 2010 BAAQMD CEQA Guidelines proposed thresholds of significance.

The proposed Project would involve construction activities that would emit air pollutants from diesel equipment exhaust and fugitive dust. Construction emissions would be generated by diesel-fueled construction equipment, construction worker trips, construction-related trips by vendors, and material-hauling trucks. The principal pollutants of concern would be PM_{2.5}, PM₁₀, and ozone precursor emissions (ROG and NO_x).

Trenching, rock-sawing, HDD, vault installation, and aerial cable placement would all involve diesel-fueled construction equipment, utility trucks/vans, and dust-generating activities. Installation of prefabricated Fiber Huts would require site preparation, grading, and laying of a concrete pad, or could be placed on existing asphalt or concrete if already present on a site. Prefabricated Fiber Hut construction would involve placement of the huts onto the concrete or asphalt pad using a crane and flatbed truck.

Construction emissions significance thresholds are presented in terms of daily emissions, so the emissions calculations were based on all these activities occurring on the same day (in different locations), using half of peak crews to obtain a conservative estimate. As described in Section 2, one crew would be required per activity, (e.g. hut installation, cable placement). Thus, basing the emissions on half of the peak crews for all activities (58 crews) represents a conservative, over-estimate of the number of crews operating on any given day. Table 3.3-3 below provides the estimated proposed Project emissions during construction. Project emissions were calculated using the California Emissions Estimation Model (CalEEMod), a BAAQMD-approved land use emission model (CalEEMod 2013). This model calculates emissions based on the land use category (e.g., light industrial) and size. Construction activity, equipment, hours of use, and duration of construction assumptions were based on the Project Description. A detailed methodology discussion and calculation tables are contained in Appendix B.

As shown in Table 3.3-3, total daily construction emissions would not exceed significance thresholds or result in a violation of air quality standards; therefore, impacts would be <u>less than significant</u>.

The **Standard Project Conditions** would be implemented in conformance with City of San José General Plan policies. The specific relevant policy item is:

MS-10.1 Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.

The air quality impact assessment was conducted according to BAAQMD CEQA Guidelines recommendations. In addition, the following standard BAAQMD dust control measures would be implemented during all phases of construction on the Project site to reduce dustfall emissions:

- Water all active construction areas twice daily or more often if necessary. Increased watering frequency will be required whenever wind speeds exceed 15 miles per hour (mph).
- All vehicle speeds on unpaved roads will be limited to 15 mph.
- Pave, apply water three times daily, or apply non-toxic soil stabilizers on all unpaved access roads and parking and staging areas at construction sites.
- Cover stockpiles of debris, soil, sand, and any other materials that can be windblown. Trucks transporting these materials will be covered.
- Remove all visible mud or dirt track-out onto adjacent public roads using wet power-vacuum street sweepers at least once per day. The use of dry power-sweeping is prohibited.

- Subsequent to clearing, grading, or excavating; water, landscape, treat with soil stabilizers, or cover exposed portions of the site as soon as possible. Hydro seed or apply (non-toxic) soil stabilizers to inactive construction areas and previously graded areas inactive for 10 days or more.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as soon as possible after completion of construction.
- Minimize idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes. Clear signage will be provided for construction workers at all access points.
- Maintain and properly tune all construction equipment in accordance with manufacturer specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the City of San José regarding dust complaints. This person will respond and take corrective action within 48 hours. The BAAQMD's phone number will also be visible to ensure compliance with applicable regulations.

Integration of these into Project design would further reduce this already **less than significant** impact.

Table 3.3-3Daily and Annual Construction and Operational CriteriaPollutant Emissions

Criteria Pollutant Emissions						
Pollutant	ROG	NO _x	CO	SO_2	PM ₁₀	PM _{2.5}
Construction						
Annual Emission (tons)	0.78	5.14	13.04	0.02	1.84	0.46
Daily Emissions (lb)	8.24	53.18	134.58	0.22	18.12	4.57
CEQA BAAQMD Threshold (lb/day)	54.00	54.00	-	-	82.00	54.00
Above Threshold?	No	No	N/A	N/A	No	No
Operation						
Annual Emissions (tons)	0.01	0.04	0.04	0.00	0.00	0.00
Daily Emissions (lb)	0.37	1.53	1.44	0.00	0.10	0.10
CEQA BAAQMD Threshold (tons/year)	10.00	10.00	-	-	15.00	10.00
CEQA BAAQMD Threshold (lb/day)	54.00	54.00	-	-	82.00	54.00
Above Threshold?	No	No	N/A	N/A	No	No

Notes:

CO = Carbon Monoxide, $NO_x = oxides of nitrogen$, $SO_2 = Sulfur Dioxide$, ROG = reactive organic gases $PM_{10} = particulate matter from 2.5 to 10 micrometers in size$,

 $PM_{2.5}$ = particulate matter up to 2.5 in size

BAAQMD = Bay Area Air Quality Management District

CEQA = California Environmental Quality Act lb = pounds

N/A = Not applicable

Source: BAAOMD. 2010b

3.3.2.1 Operations

The proposed Project would generate minimal operational air emissions. Each LAS includes an emergency backup generator, which would run approximately 13 hours annually to ensure correct functionality. BAAQMD would issue a Permit to Construct and Permit to Operate for small generators that would regulate the operation and maintenance of the equipment. Maintenance and repair activities associated with the proposed Project would be minimal in terms of duration, intensity and frequency, and would consist only of periodic inspection of Project facilities by a single utility truck. Emissions from the generators were calculated using CalEEMod, based on the horsepower rating of the generators, as shown in Table 3.3-3. Total annual and daily operational emissions would not exceed significance thresholds or result in a violation of air quality standards; therefore, impacts would be <u>less than significant</u>. c. Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Level of Impact Less than Significant

The proposed Project is located in San Francisco Bay Area Air Basin, which is currently designated a non-attainment area for PM₁₀, PM_{2.5}, and ozone. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed above under impact discussion (b), construction or operation of the proposed Project would not result in emissions that exceed the BAAQMD significance thresholds. As a result, the proposed Project would not contribute a cumulatively considerable net increase in any criteria pollutant for which the Project region is classified as nonattainment. Therefore, impacts would be <u>less</u> than significant.

d. Would the Project expose sensitive receptors to substantial pollutant concentrations?

Level of Impact Less than Significant

Sensitive receptors are defined as locations where sensitive receptor population groups (e.g., children, the elderly, the acutely ill, and the chronically ill) are likely to be present. Sensitive receptors correspond to land uses that include residences, schools, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. Sensitive receptors, particularly residences and schools, are located near many of the proposed aerial and underground cable installations. Use of diesel-fueled construction equipment and trucks could contribute to health risks at these nearby receptors from diesel particulate matter exhaust. Diesel particulate matter exhaust, which is predominantly PM_{2.5}, has been found by the CARB to be carcinogenic. A health risk assessment of construction activities involving diesel-fueled equipment was conducted to estimate the cancer, chronic, and PM_{2.5} health risk probability at nearby sensitive receptors. Because Project emissions from construction are

greater than emissions from operations (see Table 3.3-3, above), the health risk assessment used emissions from construction activities.

The thresholds listed at the beginning of Section 3.3.2 present levels of TACs that could lead to a significant health risk, plus levels of $PM_{2.5}$ concentrations that would be considered significant. Construction activities were modeled to evaluate the significance of both TAC and $PM_{2.5}$ impacts.

The health risk assessment analyzed impacts at locations adjacent to trenching, rock-sawing, and HDD sites. These activities would be occurring in networks throughout the City, so a representative location was chosen, based on proximity of sensitive receptors, to capture a likely worst-case scenario. The diesel particulate matter emissions were calculated based on the duration of these activities in a given area. Figure 3.3-1 shows the modeling source setup. This location was chosen because there are three schools nearby, and based on the San José windrose developed from the meteorological dataset used in the modeling (Figure 3.3-2), the receptors are downwind of the diesel equipment sources. Trenching/rock-sawing would proceed at approximately 500 feet per day, and HDD would proceed at approximately 450 feet per day. Based on these distances, emissions for this modeled area represent approximately 7 days of activity throughout the year, at this particular, representative location.

The potential increase in health risk was modeled using the USEPA Industrial Source Complex Short Term Version 3 (ISCST3) dispersion model, with the following inputs:

- A Cartesian grid receptor network with a 25-meter grid resolution;
- Surface meteorological data and upper air meteorological data from San José International Airport; and
- Rural dispersion.



Legend

Area Sources for Modeling

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



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Figure 3.3-1 CONSTRUCTION HEALTH RISK ASSESSMENT MODELING SETUP



PREPARED BY: G.S.

JOB NO. 0272480 FILE: RockSawing



3.3.2.2 Health Risk Assessment Results

The results of the health risk assessment are summarized in Table 3.3-4 below. The modeled health risk from rock-sawing/trenching was found to be higher than that from HDD, so only rock-sawing/trenching results are presented. The modeled health risk at the maximum exposed individual residential (MEIR) receptor is 0.106 excess cancers in one million, which is well below the significance threshold of 10 in one million. The MEIR is located adjacent to the street on which the rock-sawing or trenching would take place, at a residence on the northern side of the street. Note that this is a representative MEIR for health risks from this type of construction activity. At various locations throughout the City, where construction would be occurring, the maximum health risk is expected to be adjacent to the activity. Results of the health risk assessment are shown graphically in Figure 3.3-3. The health risks and PM_{2.5} concentration are below applicable BAAQMD significance thresholds. Therefore, the impact on sensitive receptors is **less than significant**.

As noted above, most Project emissions are associated with construction, and a conservative (protective) approach was used to evaluate impacts on sensitive receptors. For the two identified prefabricated Fiber Hut LASs, the impacts on sensitive receptors from construction emissions would be lower than the estimates shown in Table 3.3-4, which are **less than significant**.



Legend



Location of Maximum Modeled Health Impacts

Area Sources for Modeling



Table 3.3-4Reasonable Worst Case Scenario Modeled Health Risk from Google FiberProject Construction Emissions

Type of Estimated Health Impact	Cancer Risk ¹ (per million)	Chronic Hazard Index	PM _{2.5} Annual Concentration µg/m³
MEIR	0.106	0.00004	0.0009
Ruskin Elementary School	0.041	0.00003	0.0006
Sunshine School	0.039	0.00002	0.0003
Piedmont Hills High School	0.005	Negligible	0.00004
Significance Threshold	10	1.0	0.3

Notes:

 $PM_{2.5}$ = particulate matter up to 2.5 in size

 $\mu g/m^3$ = micrograms per cubic meter

1. Maximum Exposed Individual Residential (MEIR) cancer risk includes cancer risk adjustment factor of 1.7 for different age sensitivities. The exposure duration for the modeling was conservatively assumed to be 70 years for cancer risk.

Source: BAAQMD 2010b

e. Would the project create objectionable odors affecting a substantial number of people?

Level of Impact Less than Significant

Construction activities could generate airborne odors associated with the operation of construction vehicles (i.e., diesel exhaust). The emissions would be isolated to the immediate vicinity of the construction site and limited to a finite period of time that would be relatively short in duration as construction activities move along the alignment. Maintenance of the proposed Project would involve limited activities that would be temporary in duration and location; therefore, it would not create significant objectionable odors. Operations at the prefabricated Fiber Hut sites would include periodic testing of backup generators, which would also create temporary diesel exhaust, but would not cause significant objectionable odors. As such, impacts related to creation of odors during construction, operation, and maintenance of the proposed Project would be <u>less than significant</u>.

Wo	ould the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?				
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?				
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			\boxtimes	
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				

3.4

3.4.1 Setting

Biological information on the Project area was obtained from the following sources:

- California Natural Diversity Database (CNDDB) (CDFW 2014);
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (USFWS 2014);
- Santa Clara Valley Habitat Agency (SCVHA) GeoBrowser (SCVHA 2014);

- Envision San José 2040 General Plan (City of San José 2011b);
- Final Santa Clara Valley Habitat Plan (SCVHP) (ICF International 2012); and
- Draft Program Environmental Impact Report for the Envision San José 2040 General Plan (City of San José 2011a).

3.4.1.1 Regulatory Setting

Under CEQA, the proposed Project would be required to avoid and mitigate significant impacts on Biological Resources. Depending on the exact location of Project activities and potential impacts, the Project would also need to be consistent with the following:

- Clean Water Act (CWA)
- Endangered Species Act (ESA)
- Migratory Bird Treaty Act
- California Endangered Species Act (CESA)
- CDFW Code (Sections 1600-1616, 2800, 3503, 3511, 4700, 5050, 5515
- California Native Plant Protection Act
- SCVHP
- County of Santa Clara Heritage Tree Ordinance (Santa Clara County Administrative Code Section C16-3)
- Envision San José 2040 General Plan
- City of San José Tree Ordinance (San José Municipal Code Sections 13.31.10 to 13.32.100)

Santa Clara Valley Habitat Plan

The SCVHP provides a framework for promoting the protection and recovery of natural resources, including endangered species, while streamlining the permitting process for planned development, infrastructure, and maintenance activities. The SCVHP allows the County of Santa Clara (County), the Santa Clara Valley Water District, the Santa Clara Valley Transportation Authority (VTA) and the cities of Gilroy, Morgan Hill, and San José (collectively, the Local Partners or Permittees) to receive permits for activities and projects under the jurisdiction of each that may affect threatened and endangered species covered by the SCVHP. The SCVHP is designed to protect, enhance, and restore natural resources in specific areas of Santa Clara County and contribute to the recovery of endangered species. Rather than separately permitting and mitigating individual projects, the SCVHP evaluates natural-resource impacts and mitigation requirements comprehensively in a way that is more efficient and effective for at-risk species and their essential habitats.

Development fees established to mitigate impacts of development activities covered in the SCVHP are based on the SCVHP's assumptions of the amount of covered activities that will occur during the 50-year permit term, the cost of implementing the SCVHP, and amount of conservation actions that are required to mitigate the impacts of covered activities (Willdan 2012). New development will pay a share of the costs of implementing the SCVHP.

The proposed Project would be located within areas covered by the SCVHP and is, therefore, subject to the conditions and fees contained in the plan. Although the majority of the Project area falls within public right of way in areas designated as Urban Areas (no land cover fee), some sites may be subject to Land Cover Fee Zones A (Ranchland and Natural Lands), B (Mostly Agricultural and Valley Floor Rural Residential Lands), or C (Small Vacant Sites). Some Project activities may also occur in Burrowing Owl Fee Zones, which are areas modeled as occupied burrowing owl nesting habitat. See Figure 3.4-1 for location of Fee Zones.

City of San José Tree Protection Ordinance

The City of San José maintains the urban landscape partly by promoting the health, safety, and welfare of the City by controlling the removal of ordinance trees on private property (San José Municipal Code Section 13.32). Ordinance trees are defined as trees over 56 inches in circumference, or approximately 18 inches in diameter, at a height of 24 inches above natural grade. Ordinance trees are generally mature trees that help beautify the City, slow erosion of topsoil, minimize flood hazards, minimize the risk of landslides, increase property values, and improve local air quality. A tree removal permit is required from the City of San José for the removal of ordinance trees.

In addition, any tree found by the City Council to have special significance based on factors including, but not limited to, its history, girth, height, species, or unique quality, can be designated as a "Heritage tree" (San José Municipal Code Section 13.28.330 and 13.32.090). It is unlawful to vandalize, mutilate, remove, or destroy such heritage trees.

Table 3.4-1 below shows tree replacement ratios required by the City.

Table 3.4-1 Tree Replacement Ratios

Circumference of Tree to be	Type of T	Tree to be	Minimum Size of	
Removed	Native	Non- Native	Orchard	Each Replacement Tree
56 inches or more	5:1	4:1	3:1	24-inch box
38 - 56 inches	3:1	2:1	none	24-inch box
Less than 38 inches	1:1	1:1	none	15-gal container

x:x = tree replacement to tree loss ratio

Note: Trees greater than or equal to 56-inch circumference will not be removed unless a Tree Removal Permit, or equivalent, has been approved for the removal of such trees.

Source: City of San José Protection Ordinance; San José Municipal Code Section 13.28; and General Plan Policies MS-21.4, MS-21.5, and MS-21.6.

Envision San José 2040 General Plan

Various policies in the City's General Plan have been adopted for the purpose of avoiding or mitigating biological impacts resulting from planned development within the City. All future development allowed by the proposed Project shall be in conformance with adopted City plans and policies, including those listed below.

MS-21.4: Encourage the maintenance of mature trees, especially natives, on public and private property as an integral part of the community forest. Prior to allowing the removal of any mature tree, pursue all reasonable measures to preserve it.

MS-21.5: As part of the development review process, preserve protected trees (as defined by the Municipal Code), and other significant trees. Avoid any adverse effects on the health and longevity of protected or other significant trees through appropriate design measures and construction practices. Special priority should be given to the preservation of native oaks and native sycamores. When tree preservation is not feasible, include appropriate tree replacement, both in number and spread of canopy.

MS-21.6: As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies, or guidelines.

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3.4.1.2 Habitats

Multiple natural communities and habitats are found throughout San José city limits, including grasslands, chaparral and coastal scrub, oak woodland, riparian forest and scrub, estuarine and freshwater/riparian wetlands, streams and ponds, and ruderal and agricultural lands (Figure 3.4-2). The City has established an Urban-Natural Interface designed to minimize effects of urbanization on adjacent natural lands. However, Project activities are proposed to occur in developed urban areas (mostly within existing public right of way), and many of the habitat types listed here will likely be avoided. Types of habitats that may be encountered in the urban setting of San José and may be impacted, directly or indirectly, by Project activities are more likely to include:

- Freshwater creeks, ponds, and associated wetlands;
- Grasslands; and
- Oak woodlands.

Although larger wetland areas including estuarine wetlands, agricultural lands, chaparral, and coastal scrub are present within the City limits, these habitats occur outside of urban areas and Project activities are not likely to occur in or near these habitats. As described in Section 2.4.2.6, most of the Project will avoid jurisdictional streams and waters during construction. If crossings are unavoidable, the project would attach to or install a conduit on existing structures (i.e. bridges or utility crossings) and work would be conducted from existing structures, disturbed areas, or right of way outside the bed and bank of jurisdictional waters and wetlands. For all other crossings where avoidance or use of existing infrastructure is not practicable, HDD will be utilized to avoid construction work within waters and streambed. Site-specific plans for the HDD will be prepared for review and approval of applicable permitting agencies; permit conditions are anticipated to include protective measures similar to the mitigation measures described for HDD operations (see Section 3.9), but will be determined by the permitting agencies upon review of site-specific plans. The entry and exit points of each bore (as well as staging areas and mud pits) would be located greater than 20 feet from the edge of a jurisdictional feature and would not result in permanent disturbance of riparian habitat. Depending on the details involved and the site-specific plans, the permitting agencies could include the U.S. Army Corps of Engineers, CDFW, and the RWQCB.

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Wetland areas are shown in Figure 3.4-3. The types and coverage of each habitat type within the footprint of Project activities will be determined by a pre-construction habitat mapping survey undertaken after the selection of each development site.

Critical Habitat for three federally listed species—Bay checkerspot butterfly, California red-legged frog, and California tiger salamander—occurs within San José, and the Coyote Creek system is Critical Habitat for steelhead (*Oncorhyncus mykiss*); however, Project facilities would be constructed in urban areas and would avoid Critical Habitat (Figure 3.4-4).

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3.4.1.3 Special-Status Species

Candidate, sensitive, or special-status species are commonly characterized as species that are at potential risk or actual risk to their persistence in a given area, or across their native habitat. These species have been identified and assigned a status ranking by governmental agencies such as the CDFW, the USFWS, and private organizations such as the California Native Plant Society (CNPS). The degree to which a species is at risk of extinction is the determining factor in the assignment of a status ranking. Some common threats to a species' or population's persistence include habitat loss, degradation, and fragmentation, as well as human conflict and intrusion. For the purposes of this biological review, special-status species are defined by the following codes:

- Listed, proposed, or candidates for listing under the federal Endangered Species Act (ESA) (50 Code of Federal Regulations 17.11 – listed; 61 Federal Register [FR] 7591, February 28, 1996 candidates);
- Listed or proposed for listing under the California Endangered Species Act (CESA) (Fish and Game Commission [FGC] 1992 Section 2050 et seq.; 14 CCR Section 670.1 et seq.);
- Designated as Species of Special Concern by the CDFW;
- Designated as Fully Protected by the CDFW (FGC Sections 3511, 4700, 5050, 5515); and
- Species that meet the definition of rare or endangered under CEQA (14 CCR Section 15380) including CNPS List Rank 1b and 2.

The habitat types listed above support or have the potential to support special-status species. The City's 2040 General Plan lists 17 special-status plants, 32 special-status wildlife species, and more than 350 species of birds, including migratory species protected under the federal Migratory Bird Treaty Act. Additionally, the results of the CNDDB (CDFW 2014) query identified several special-status species with the potential to be impacted by Project-related activities. CNDDB occurrences within 1 mile of the City of San José are depicted on Figure 3.4-5.

Once each development area is selected, the site would be assessed by a qualified biologist to identify habitat types and assess the potential for the site to support special-status species. This will also guide the determination of need for protocol surveys to be conducted for certain special-status species. Pre-construction surveys for special-status species will be subsequently conducted for each development area as needed, as outlined in the discussion below.

Based on the CNDDB query, special-status species observed or with the potential to occur in the urban areas of the City include, but are not limited to, the following shown in Table 3.4-2.

Table 3.4-2Special-Status Species Observed or Having the Potential to Occur in the
Urban Areas of San José

Common Name	Species	Covered by SCVHP
SPECIAL STATUS PLANT SPI	ECIES	
Alkali milk vetch	Astragalus tener var. tener	
Arcuate bush-mallow	Malacothamnus arcuatus	
Congdon's tarplant	Centromadia parryi ssp. congdonii	
Contra Costa goldfields	Lasthenia conjugens – FE	
Fragrant fritillary	Fritillaria liliacea	Х
Hall's bush-mallow	Malacothamnus hallii	
Hoover's button celery	Eryngium aristulatum var. hooveri	
Metcalf Canyon jewelflower	Streptanthus albidus ssp. albidus – FE	Х
Most beautiful jewelflower	Streptanthus albidus ssp. peramoenus	Х
Mount Hamilton fountain thistle	Cirsium fontinale var. campylon	Х
Robust spineflower	Chorizanthe robusta var. robusta - FE	
Santa Clara Valley dudleya	Dudleya setchellii – FE	Х
SPECIAL STATUS WILDLIFE	SPECIES	
Alameda whipsnake	Masticophis lateralis euryxanthus – FT; ST	
Bay checkerspot butterfly	Euphydryas editha bayensis - FT	Х
Burrowing owl	Athene cunicularia	Х
California red-legged frog	Rana draytonii - FT	Х
California tiger salamander	Ambystoma californiense – FT; ST	Х
Cooper's hawk	Accipiter cooperii	
Hoary bat	Lasirus cinereus	
Hom's micro-blind harvestman	Microcina homi	
Opler's longhorn moth	Adela oplerella	
Pallid bat	Antrozous pallidus	
Peregrine falcon	Falco peregrinus anatum	
Saltmarsh common yellowthroat	Geothlypis trichas sinuosa	
Swainson's hawk	Buteo swainsoni - ST	
Townsend's big-eared bat	Corynorhinus townsendii	
Western pond turtle	Emys marmorata	Х

Notes: FE = federally designated Endangered, FT = federally designated Threatened, ST = state designated Threatened, SCVHP = Santa Clara Valley Habitat Plan

Sources: CDFW 2014, City of San José 2001a, ICF International 2012





a. Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Level of Impact Less than Significant with Mitigation

Special-status species have the potential to occur within City limits, as listed in Table 3.4-2; however, Project construction is proposed within developed urban areas and within existing public roadway and utility rights of way. As such, the Project is not anticipated to directly impact special-status species, with the exception of potential habitat for burrowing owls and nesting and roosting habitat for various species of birds and bats if trees are located in the development footprint.

The SCVHP includes provisions for managing development activities to be protective of sensitive species and habitats, and these will be implemented, as applicable, for the Project. Burrowing owls are covered under the SCVHP Condition 15, and subject to protective measures and development fees established by the SCVHP; therefore, implementation of the terms of the Plan will ensure impacts to burrowing owl are reduced to a less than significant level. Migratory birds and special-status bats are not covered by the SCVHP and, therefore, require further analysis and mitigation to reduce impacts to a less than significant level.

In accordance with the SCVHP, proposed construction falling within an area modeled as occupied nesting habitat requires payment as prescribed for the Burrowing Owl Fee Zone, and the completion of habitat surveys. Surveys are not required for sites that are mapped as potential burrowing owl nesting or only overwintering habitat. Burrowing owl habitat surveys are required in both breeding and non-breeding seasons and shall be conducted in accordance with the current protocol outlined under the SCVHP. If suitable habitat is identified during the habitat survey, and the Project does not fully avoid impacts, preconstruction surveys, avoidance and minimization measures, and construction monitoring shall be implemented in accordance with the SCVHP. Suitable habitat is considered fully avoided if the Project footprint is greater than 250 feet away from a suitable burrow.

As required by the provisions of the SCVHP, if it is determined the Project cannot avoid impacts on species covered by the SCVHP, the Project

proponent will submit a Habitat Application Package, which establishes a process for meeting the SCVHP mitigation obligations, and identifies predetermined mitigation obligations to protect covered species and reduce impacts to less than significant.

The implementation of SCVHP conditions will minimize disturbance to upland habitats, and payment of all applicable development fees pursuant to SCVHP requirements will offset potential impacts from habitat loss throughout the Project development area. The payment of fees under the SCVHP contributes to funding a share of the cost of implementing the SCVHP and enables the conservation and preservation of habitat via the SCVHP Reserve System. The Reserve System protects land for the benefit of covered species, natural communities, biological diversity, and ecosystem function; it would be sized to mitigate impacts on all development activities within the covered region to ensure preservation of natural communities, and to contribute to the recovery of species. This consolidated approach would greatly exceed the biological value of compensatory habitat expected to be provided under individual actions, including the proposed Project.

The following **Standard Project Conditions** will be implemented:

- Construction will be limited to the smallest area possible to complete the proposed activities;
- A qualified biologist shall conduct a preliminary evaluation of the specific project sites to determine whether sensitive habitats and/or the potential for special-status species exists on or adjacent to the Project footprint;
- If sensitive habitat is found near the Project footprint, this area will be fenced off to prevent construction equipment and activities from disturbing the area;
- Surface stabilization and reclamation will be accomplished by removing all construction debris from the Project area and returning the soil to its original contours; and
- Vegetation restoration will only use native seeding.

Impact BIO-1: Construction of the Project could impact migratory birds, raptors, and special-status bat species not covered by the Santa Clara Valley Habitat Plan.

Construction of the project will primarily occur within existing disturbed public right of ways and previously disturbed sites, but construction could impact nesting migratory birds, raptors, and special-status bat species, which are not covered by the SCVHP. Construction in public rights of way may involve tree trimming, but is unlikely to require tree removal. (See Item e. below for evaluation of impacts on trees and applicable **Standard Project Conditions**.)

The identified LAS Fiber Hut sites at Bird Ave./Virginia St. and Santa Teresa Blvd./SR 85 are located within developed urban areas; however, trees are present on both sites that could support migratory bird and raptor nesting as well as provide roosting habitat for special-status bats.

Tree removal and trimming have the potential to directly impact nesting migratory birds, raptor, and special-status bat species. Construction activities and associated noise could lead to nest and/or roost abandonment. Impacts to nesting raptors or other migratory birds during construction will be avoided through implementation of mitigation measure (MM) BIO-1.1, while impacts to special-status bats will be avoided through implementation of MM BIO-1.2. Avoidance/ minimization included in these measures, in combination with the noted **Standard Project Conditions**, will reduce impacts to nesting raptors or other nesting migratory birds and special-status bats to <u>less than</u> <u>significant with mitigation</u>.

MM BIO-1.1 - Nesting bird surveys.

If clearing and/or construction activities will occur in undisturbed portions of the site during the migratory bird nesting season (February 1– August 15), preconstruction surveys to identify active migratory bird and/or raptor nests will be conducted by a qualified biologist within 14 days of construction initiation. Surveys must be performed by a qualified biologist for the purposes of determining the presence/absence of active nest sites within the proposed impact area and a 250-foot buffer (if feasible). If no active nests are found, no further mitigation is required. Surveys will be repeated if construction activities are delayed or postponed for more than 30 days.

If an active nest (excluding western burrowing owl) is located during preconstruction surveys, construction activities will be restricted as necessary to avoid disturbance of the nest until it is deemed inactive by a qualified biologist. Restrictions will include establishment of exclusion zones (no ingress of personnel or equipment) at a minimum of 100 feet around an active raptor nest, and 50 feet around an active migratory bird nest. Activities permitted within exclusion zones and the size may be adjusted through consultation with the CDFW and/or the City.

The nesting bird surveys will determine presence/absence of active nest sites and establish appropriate site-specific avoidance measures, as described above. The impact on nesting birds during construction is **therefore less than significant with mitigation**.

MM BIO-1.2 - Avoid active bat roosts.

Prior to the removal of any trees, a bat survey will be performed by a qualified biologist between March 1 and July 31. If bat roosts are identified, the bats will be safely flushed from the sites where roosting habitat is planned to be removed prior to roosting season (typically May to August) and prior to the onset of construction activities. If maternity roosts are identified during the maternity roosting season (typically May to September) they must remain undisturbed until a qualified biologist has determined the young bats are no longer roosting. If roosting is found to occur onsite, replacement roost habitat (e.g., bat boxes) will be provided to offset roosting sites removed. If no bat roosts are detected, then no further action is required if the trees are removed prior to the next breeding season. If removal is delayed, an additional survey will be conducted 30 days prior to removal to ensure that a new colony has not established itself.

A bat survey will be performed by a qualified biologist prior to onset of construction if tree removal is needed. Active roosts will be avoided, where possible. If impacts to roosts cannot be avoided or activities may cause roost abandonment, the bats will be excluded from the roosting site before the roost is removed/impacted. Exclusionary materials, including, but not limited to, expandable foam and steel wool, will be applied selectively and as needed until bats have relocated. Bats will be excluded from the directly affected work areas prior to April 15 of the construction year, and exclusionary devices will be removed between August 31 and April 15. Exclusion would occur at dusk to allow bats to exit during the darker hours.

The measures described above will avoid disturbance to bat roosts and (if applicable) provide replacement roost habitat. The impact on bats during construction is **therefore less than significant with mitigation**.

b. Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

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Some riparian habitat is present in the Project area. However, the Project would be constructed within an urban setting and avoid greenfield development and natural areas. Stream crossings will use existing structures or would use HDD to avoid riparian and stream habitat to the greatest extent feasible, as described in Section 3.4.1.2, above.

The use of the HDD construction method is much less intrusive than the traditional open-cut trenching method, in particular through sensitive waterways, and would be used by Google Fiber to avoid direct impacts to streams and other waters if stream crossings cannot be avoided. However, the use of HDD includes the potential for loss of bentonite mud lubrication, which is a concern when it occurs in or near streams and wetlands. The bentonite is non-toxic, but could potentially smother aquatic plants, benthic invertebrates, fish, and fish eggs if an excessive amount of the lubricant is discharged into aquatic habitats.

If new stream crossings that do not utilize existing utility structures or bridges cannot be avoided, site-specific plans for the HDD will be prepared for review and approval of applicable permitting agencies; permit conditions are anticipated to include protective measures similar to the mitigation measures described for HDD operations (see Section 3.9), but will be determined by the permitting agencies upon review of sitespecific plans. The entry and exit points of each bore (as well as staging areas and mud pits) would be located greater than 20 feet from the edge of a jurisdictional feature and would not result in permanent disturbance of riparian habitat. Depending on the details involved and the site-specific plans, the permitting agencies could include the U.S. Army Corps of Engineers, CDFW, and the RWQCB.

Additionally, implementation of the **Standard Project Conditions** listed above in item a., will also avoid or reduce the potential to impact natural communities.

LAS prefabricated Fiber Hut sites 1 and 2 are not in riparian areas or other sensitive communities. Other LAS Fiber Hut sites will be required to follow the Standard Project Conditions listed above in Item a. if they are located in riparian or other sensitive habitat.

Construction in urban settings and implementation of **Standard Project Conditions** would result in impacts to riparian habitat or other sensitive natural communities that are <u>less than significant</u>. c. Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Level of Impact Less than Significant

The Project will be constructed within the SCVHP's Urban Service Area and will avoid greenfield development, and development over or adjacent to wetlands and waterways. If stream crossings cannot be avoided, the Project will use existing structures or HDD to avoid riparian and stream habitat, as described in Section 3.4.1.2, above.

As described in Item b., above, the use of the HDD construction method is much less intrusive than the traditional open-cut trenching method, but includes the potential for loss of bentonite mud lubrication, which is a concern when it occurs in or near streams and wetlands. The bentonite is non-toxic, but could potentially smother aquatic plants, benthic invertebrates, fish, and fish eggs if an excessive amount of the lubricant is discharged into aquatic habitats.

If new stream crossings that do not utilize existing utility structures or bridges cannot be avoided, site-specific plans for the HDD will be prepared for review and approval of applicable permitting agencies; permit conditions are anticipated to include protective measures similar to the mitigation measures described for HDD operations (see Section 3.9), but will be determined by the permitting agencies upon review of sitespecific plans. Depending on the details involved and the site-specific plans, the permitting agencies could include the U.S. Army Corps of Engineers, SCVHA, CDFW, and the RWQCB. Because the Project would avoid wetlands and waterways to the extent feasible, and use HDD for stream crossings that cannot be avoided, and impacts to wetlands and waterways are expected to be <u>less than significant</u>.

d. Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Level of Impact No Impact

The Project is not expected to substantially interfere with the movement of native resident or migratory fish or other wildlife species as it will be primarily constructed within existing, disturbed public right of way and will not be constructed within any known wildlife corridors or impede the use of native wildlife nursery sites. There would be **no impact** and no mitigation is required.

e. Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Level of Impact Less than Significant

The proposed Project is designed to avoid trees and is largely within existing developed right of way. However, the proposed Project could result in limited tree trimming or the loss of trees in limited circumstances throughout San José. The Project be primarily constructed within existing, disturbed public right of way and therefore tree trimming is anticipated to be limited, and will be conducted in accordance with the City's Tree Ordinance.

If tree removal is needed, it would be limited to the minimum extent necessary and all applicable City requirements and procedures will be followed, including the City's Tree Ordinance. Prefabricated Fiber Hut sites 1 and 2 have mature trees on the properties that may be affected. It is anticipated tree removal would be limited to one or two trees per site, depending on the final site configuration. Replacement of trees removed as a result of the Project will be required, in accordance with all applicable laws, policies, or guidelines, including:

- City of San José Tree Protection Ordinance;
- San José Municipal Code Section 13.28; and
- General Plan Policies MS-21.4, MS-21.5, and MS-21.6.

In addition, the following avoidance measures listed below would be incorporated into the **Standard Project Conditions**:

• Damage to any tree during construction will be reported by the responsible contractor or the owner to the director within 48 hours, and the contractor and/or owner will treat the tree for damage in the manner specified by a certified City arborist.
- No construction equipment, vehicles, or materials will be stored, parked, or standing within portions of the tree dripline on bare ground.
- Drains will be installed according to City specifications so as to avoid harm to trees due to excess watering.
- Wires, signs, and other items will not be attached to trees.
- Cutting and filling around the bases of trees will be done only after consultation with a certified City arborist and then only to the extent authorized by the certified arborist.
- No liquid or solid excess, waste construction materials or wastewater will be dumped on the ground or into any grate between the dripline and the base of a tree or uphill from any tree where certain substances might reach the roots.
- Barricades will be constructed around the trunks of trees as indicated by the director so as to prevent injury to trees making them susceptible to disease-causing organisms.
- Appropriate measures will be taken to prevent exposed soil from drying out and causing damage to tree roots.

Measures noted above will be implemented to avoid loss of trees during construction. In addition, replacement of trees, if applicable, will be in accordance with laws, policies and guidelines. Table 3.4-1 presents tree replacement ratios required by the City for private development projects. The species of replacement trees to be planted will be determined in consultation with the City Arborist and the Department of Planning, Building and Code Enforcement. Trees onsite will be replaced at the required ratios or Google Fiber will pay an in-lieu fee to Our City Forest to compensate for the loss of trees onsite.

Compliance with local laws, policies or guidelines, and avoidance measures would reduce impacts to the urban forest to a <u>less than</u> <u>significant</u> level.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Level of Impact No Impact

The Project area is covered by the SCVHP and would be constructed to be consistent with the plan, as adopted by the City of San José. Project design features and construction methods will follow provisions within the SCVHP as listed above and throughout other sections of this IS/MND. Fee payment will occur for construction within designated fee zones as per the SCVHP. The Project would thus not conflict with the adopted Habitat Plan and there would be **no impact**.

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Would the Project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				
d.	Disturb any human remains, including those interred outside of formal cemeteries?		\boxtimes		

3.5.1 Setting

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3.5.1.1 Regulatory Context

Cultural and paleontological resources are protected by the Federal Antiquities Act, National Environmental Policy Act (NEPA), CEQA, PRC, and the City of San José. Important paleontological sites and resources may also be preserved and protected through the National Natural Landmarks Program and the Native American Graves Protection and Repatriation Act, which includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking.

For the purposes of the discussions below, it is important to understand how cultural resources and other related terms are defined according to CEQA. Cultural resources include archaeological and historical objects, sites and districts, historic buildings and structures, cultural landscapes, and sites and resources of concern to local Native American and other ethnic groups, also called "traditional cultural properties."

Consideration of the importance and significance of a cultural resource is measured by cultural resource provisions considered under CEQA Sections 15064.5 and 15126.4. Under CEQA, a "historical resource" is a cultural resource that meets the criteria for listing on the California Register of Historic Resources (CRHR), whether it is actually listed or not. These criteria are set forth in Section 15064.5, and are defined as historical resources that:

- Are associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Are associated with lives of persons important to our past.
- Embody the distinctive characteristic of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values.
- Have yielded, or may be likely to yield, information important to prehistory or history.

CEQA also considers impacts to "unique" archaeological resources, as described under PRC 21083.2. A unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one of the following criteria:

- Contains information needed to answer important scientific questions and there is a demonstrable public interest in that information.
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In contrast, a "non-unique" archaeological resource, as defined by PRC 21083.2, is an archaeological artifact, object, or site that does not meet the above criteria. Impacts to non-unique archaeological and resources and other cultural resources that do not qualify for listing on the CRHR receive no further consideration under CEQA.

3.5.1.2 Cultural Resources Context

San José is generally located within the Santa Clara Valley. In Northern California, cultural resources extend back in time for at least 9,000 to 11,500 years with Native American occupation and use of the Santa Clara Valley extending over 5,000 to 8,000 years and possibly longer. During the prehistoric period, the Santa Clara Valley would have provided a favorable environment with a variety of ecological niches available for resource exploitation. Native American occupation sites appear to have been selected for accessibility, protection from seasonal flooding, and the availability of resources for both food and industrial use. Archaeological information for the general Bay Area suggests a slow, steady increase in the prehistoric population over time with an increasing focus on permanent settlements, with large populations in later periods. This change from hunter-collectors to an increased sedentary lifestyle is due both to more efficient resource procurement as well as to a focus on staple food exploitation, the increased ability to store food at village locations, and the development of increasing, complex social and political systems including long-distance trade networks. Prehistoric site types recorded in the valley include habitation sites ranging from villages to temporary campsites, stone tool and other manufacturing areas, quarries for tool stone procurement, cemeteries usually associated with large villages, isolated burial sites, rock art locations, bedrock mortars or other milling feature sites, and trails (Elsasser 1986).

Archaeological research in the region has been interpreted using several chronological schemes based on the sequence of prehistoric cultural traditions divided into generalized periods based on material culture (e.g., projectile-point types, ceramic types) and subsistence adaptations (e.g., hunting and gathering, horticulture, and agriculture). A three-part cultural chronological sequence, the Central California Taxonomic System was developed by archeologists to explain local and regional cultural change in prehistoric Central California from approximately 4,500 years ago to the time of European contact (Lillard et al. 1939, Beardsley 1948, Beardsley 1954). The generalized periods or horizons presented are Early, Transitional, and Late. Although further archaeological research has suggested revisions to the three-part cultural chronology (Allen 1999, Bennyhoff and Hughes 1987, Milliken and Bennyhoff 1993), it is still in common use (Fredrickson 1994). Moratto (1984) suggests the Early Horizon dating to circa (ca.) 4,500 to 3,500/3,000 years ago, the Middle Horizon dating to ca. 3,500/3,000 to 1,500 years ago, and the Late Horizon dating to ca. 1,500 to 250 years ago.

The Early Horizon is the most poorly known of the periods. Subsistence during this period focused on hunting and fishing and the presence of milling stones for vegetal food processing, use of the atlatl (i.e., throwing board and spear). Early Horizon archaeological sites also show a relative absence of fire-altered rock, greasy (soil texture) middens, organic soils, charcoal, and ash in middens (i.e., culturally affected soils). Early Horizon cultures practiced elaborate burial rituals and placed a wealth of goods in graves. Well-developed trade networks with other areas of the Pacific Coast and Sierra Nevada were also developed by this time. It is believed that the initial occupation of Central California was by the Hokanspeaking peoples (Basin Research Associates, Inc. [BRA] 2009). Middle Horizon archaeological sites are more common and are relatively better known than Early Horizon archaeological sites. These sites usually have deep, stratified deposits that contain large quantities of ash and charcoal, fire-altered rock, and fish, bird, and mammal faunal remains. The presence of significant numbers of mortars and pestles is suggestive of a growing reliance upon gathered plant foods as opposed to hunted animal foods. The aboriginal populations seem to be unchanged from the Early Horizon populations. Burials were usually flexed (burial positioning) and only a small proportion of the graves contained artifacts, which were usually utilitarian. An increase in violence is suggested by the number of Middle Horizon burials found with projectile points embedded in the bones or with other marks of violence (BRA 2009).

The Late Horizon shows the continued use of many traits from the Middle Horizon and the introduction of several new traits. Late Horizon sites are the most numerous and are composed of rich, greasy midden with bone and fire-altered rocks. Use of the bow and arrow, flexed burials, deliberately damaged (or killed) grave offerings, and occasional cremation of the dead are among the known traits of the Late Horizon. Dietary emphasis on acorns and seeds is also evident. Trade with surrounding and other areas was well established for various raw materials. Compared to earlier horizons, Late Horizon peoples were short in stature with finer bone structure, potential evidence of the replacement of original Hokanspeaking settlers by Penutian-speaking groups by ca. 1,500 years ago (BRA 2009).

At the time of European contact, the Santa Clara Valley was occupied by a group of Native Americans referred to by ethnographers as the Costanoans. These individuals now generally prefer the term Ohlone to identify themselves. The territory of the Ohlone people extended along the Central California coast from the northern tip of the San Francisco Peninsula to Big Sur in the south and as far east as the Diablo Range. The Ohlone practiced a hunting and collecting economy focusing on the collection of seasonal plant and animal resources including tidal and marine resources from San Francisco Bay. They traded with neighboring groups including the Yokuts to the east and exported shells, salt and cinnabar among other items (Margolin 1978, Levy 1978). Linguistic analysis suggests that the Ohlone moved into the Bay Area from the San Joaquin-Sacramento River region around 1,500 years ago and replaced the original Hokan speaking population of the Bay Area. This suggested replacement appears to coincide with the appearance of Late Horizon artifact assemblages (Levy 1976).

Spanish colonization of what is now California began in the late 1700s, based around a system of missions intended to convert the native peoples

to Catholicism, gain control of the native population, and create economically self-sufficient colonial communities. When Mexico won its independence from Spain in 1824, one of the first acts of the new government was to secularize the missions and redistribute the mission land holdings in the form of land grants to individuals who promised to work the land, primarily by raising cattle. During this period, a number of ranchos were granted to Native Americans, such as Rancho Ulistac on the west bank of the Guadalupe River in the City of Santa Clara and the Rancho Posolmi also located along the Guadalupe River at the northeastern boundary of the City of Mountain View. Rancho Ulistac was granted to "emancipated" Mission Indians Marcello, Pio, and Cristobal on 15 May 1845, though they may have occupied the grant as early as ca. 1838. Rancho Posolmi was granted to Lopez Indigo (or Yndigo) in 1881 (Hendry and Bowman 1940).

The aboriginal lifeway disappeared by 1810 due to its disruption by introduced diseases, a declining birth rate, and the impact of the mission system. Mission Santa Clara and Mission San José were established in the South Bay in the late 1770s. Missionization not only decimated local populations, but also relocated native people from throughout northcentral California into the San José area. The Costanoan/Ohlone were transformed from hunters and gatherers into agricultural laborers (and in some cases, craft artisans) who lived at the missions and worked with former neighboring Native American groups such as the Esselen, Yokuts, and Miwok (Levy 1978).

In 1848, the United States won the Mexican-American War and as a result gained approximately 50 percent of Mexico's territory. California became a United States territory in 1848 through the Treaty of Guadalupe Hidalgo that ended the Mexican War of 1846-1847. California was not formally admitted as a state until 1850. The population of the Santa Clara Valley expanded as a result of the Gold Rush (1848), which brought a massive influx of immigrants to California from all parts of the world. California's 1848 population of less than 14,000 (exclusive of Native Americans) increased to 224,000 in just 4 years. Population increases followed the construction of the railroad to San Francisco (1864) and the completion of the transcontinental railroad in 1869 (Findlay and Garaventa 1983). Throughout the late 19th century in the Santa Clara Valley, rancho, pueblo, and mission lands were subdivided as the result of population growth, the Anglo-American takeover, and the confirmation of property titles. Prior to the legal resolution of titles, the transfer of real estate was extremely risky. The large cattle ranches that were previously common were converted to farms of varied crops, and this agricultural land-use pattern continued throughout the period (Jacobson 1984).

After 1860, growth in San José started quickly, nearly tripling in population between 1860 and 1870, but growing more gradually over the remaining decades of the late 19th century. The City's prosperity during the last 40 years of the 19th century resulted in part from two regional transformations that spurred the expansion of San José. The most significant long-term change was the continued development of agriculture in the Santa Clara Valley. During this period, the Santa Clara Valley's orchards became prominent as the need for an expanding market led to innovations in fruit preservation and shipping, including drying fruit, canning fruit, and shipping fresh fruit in refrigerated cars (Broek 1932, Findlay 1985). During this same period, the arrival of the railroad from San Francisco during the 1860s triggered rapid expansion, and gave San José an advantage over competing towns in the region for population growth and key economic and market factors, such as transshipment of produce and goods from nearby farms and food processing facilities (Broek 1932).

During the 20th century, San José experienced phases of redevelopment, decline, and then redevelopment again. The first stage of renewal began after the 1906 earthquake as residents seized the opportunity to improve their city at the same time that they rebuilt it. The prosperity of the City was derived for the most part from the agriculture of the surrounding valley, although the fruit industry has its drawbacks with seasonal fluctuations that meant unemployment and transiency for the City's populations. Growth of the City would also come from several annexations of new surrounding areas over the century (Broek 1932). The growth affecting San José was interrupted or slowed by the Great Depression and World War II. Near the end of the war, canneries still employed half of the local workforce. Nonetheless, the surge in defense spending during and after the war had created new opportunities in nonagrarian sectors of the economy. Less immediately apparent, but perhaps more important in the long run, were the beginnings of post-industrial, high-technology industries in California during and after the war. Federal defense spending essentially planted the seeds of what would grow into the "Silicon Valley" by the 1970s (Bradshaw 1980).

After World War II, high technology was the growth industry that stimulated another era of rapid expansion in the San José area. Electronics and aerospace firms appeared in the South Bay Area, attracting a huge new population to the Santa Clara Valley. San José grew from 68,500 people in 1940 to 95,000 in 1950, 200,000 in 1960, and 450,000 in 1970. Very little of the increase was natural. During this period a large portion of newcomers migrated to San José from all over the United States, but especially from San Francisco and Southern California (Bradshaw 1980). In recent decades, this former "chief city" and agrarian land-use pattern has been gradually displaced by residential housing, commercial centers, and the development of research and development, and manufacturing facilities associated with the electronics industry within both the City and surrounding communities leading to the designation of the general region as the "Silicon Valley." The boom of the 1980s and 1990s has dramatically altered the regional landscape from the orchards to industrial parks, commercial districts, and housing subdivisions in the cities of San José and Santa Clara as well as the surrounding cities. The continuing urbanization of the Santa Clara Valley and the expansion of San José and outlying towns during the 20th century and continuing into the 21st century is manifest in the tract and parcel subdivisions and infill building, as well as the flood control projects along nearby creeks and rivers.

3.5.1.3 Existing Conditions

San José's historic buildings, structures, objects, archeological sites and features, landscapes, and neighborhoods are physical reminders of the ways in which early inhabitants and later citizens of San José used and developed the land. Historic preservation has a vital role in maintaining the City's unique character and identity by identifying and preserving prehistoric and historic resources that provide a direct physical link with events and people from the City's past (BRA 2010).

The City of San José has undertaken a general plan update, Envision San José 2040 General Plan, which serves as the blueprint for, and to assist planners and decision-makers with, directing growth and redevelopment within the City. The General Plan describes the cultural resources present or potentially present in San José and its UGB. Significant cultural resources within the City include properties listed on or eligible for listing on the federal NRHP, the statewide CRHR, the Santa Clara County Heritage Resources Inventory, and the local City of San José Historic Resources Inventory (HRI) maintained by the Department of Planning, Building and Code Enforcement (BRA 2010).

The City of San José's Department of Planning, Building and Code Enforcement maintains an extensive record of historic preservation materials within the City, including classifications and criteria for listings, descriptions of San José Conservation areas and maps, HRI listings, historic structures classifications, as well as a number of historic contexts. Data from these contexts have been incorporated into the City of San José's HRI. City of San José historical overviews, contexts, and other specialty studies pertinent to the overall city, downtown, neighborhoods, and other areas of interest are on file at the City offices (BRA 2010). According to the City of San José General Plan, there are over 1,100 recorded cultural resources on file with the Northwest Information Center of the California Historical Resources Information System for San José, its UGB and Sphere of Influence, and nearly 3,500 cultural resources in the City's internal HRI. These cultural resources include prehistoric and historic archaeological resources, multi-component archaeological resources, buildings and structures, linear alignments, and other cultural resources that have been reported to the repository (BRA 2010).

The Project would occur predominantly within public right of way and previously disturbed areas where cultural resources are not likely to be found. Google Fiber has consulted with the City of San José Department of Planning, Building, and Code Enforcement to review the proposed Project plans. Through this consultation, Google Fiber was able to site the Project to avoid known cultural resources.

The following sections describe the potential concerns associated with cultural resources that could be encountered within San José.

3.5.1.4 Archaeological Resources

Prehistoric and protohistoric sites associated with Native Americans over the past 5,000 years in San José include habitation sites ranging from large villages to seasonal and temporary campsites, and non-habitation sites including stone tool and other manufacturing areas, quarries for tool stone procurement, cemeteries usually associated with large villages, isolated burial locations, rock art sites, bedrock mortars or other milling feature sites, and Native American trails (BRA 2010).

The majority of prehistoric archaeological sites have been found along or very near to fresh water sources such as creeks and springs, in valleys near both permanent and seasonal water sources including the fresh water marshes once present throughout the valley, at the base of the hills, and along and adjacent to the major north/south Native American trails. There have also been stone tool sources found in the foothills surrounding the valley (BRA 2010).

Numerous historic period sites have been identified in the City. Historic period archaeological resources include the remains of historic buildings; wells, privies, trash deposits, and transportation-related features; and residential, commercial and industrial sites. Historic archaeological resources are usually associated with former areas of historic occupation and urban development areas such as the downtown core. Resources are found in both urban and rural settings depending on function. It is probable that many of these potential cultural resources including

foundations, wells, privies, and trash deposits have been impacted and removed as a result of previous excavations for infrastructure improvements and other development activities over the past 100 years (BRA 2010).

In addition, the presence of significant subsurface prehistoric and historic archaeological resources within the City has been demonstrated by development, transportation, and flood control projects over the past 80 years. Excavations of these projects have exposed many significant buried archaeological resources including major Native American villages along the main waterways. There is often no indication of buried prehistoric cultural materials on the surface. A reliable model for predicting prehistoric cultural resource locations based on current site data, types, and topographic and environmental variables has not yet been developed, although it has been observed that major archaeological resources appear to occur at irregular intervals adjacent to the current course of the Guadalupe River (BRA 2010).

Through consultation, the City of San José Department of Planning, Building, and Code Enforcement identified one Project component (LAS Fiber Hut Site 1) that was in an "archaeologically sensitive" area. As defined by the City of San José, this would not be a location where a known archaeological resource is located but rather a larger area which has a greater potential to contain unknown archaeological resources.

3.5.1.5 Standing Architectural Structures

Standing architectural structures consist of historic architecture including buildings, structures, historic districts, bridges, rock wall alignments, and other built environment components. The variety of architectural styles present in San José reflects the prevailing tastes of residents and architects over the past 250 years. Commercial, religious, and public buildings include examples of Italianate, Spanish-Revival, Spanish Colonial Revival, "California Churrigueresque" (Mission and Spanish eclectic details), Mediterranean, Colonial Revival, Neoclassic, Beaux-Arts with Neoclassicand-Egyptian style ornamentation, Classic Revival, Romanesque Revival, Richardsonian Romanesque, Romanesque/Renaissance Revival, Renaissance Revival, Italian Renaissance (train station), Carpenter Gothic, Prairie with some Neoclassic elements, Art Deco, Art Deco with Egyptian decorative motifs, traditional Japanese, Moderne, Neo-Brutalist, and Postmodern (BRA 2010).

3.5.1.6 Traditional Cultural Properties and Cultural Landscapes

As defined by the National Park Service (NPS), a Traditional Cultural Property is a cultural resource that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that are rooted in that community's history, and are important in maintaining the continuing cultural identity of the community (NPS 1998).

Per the General Plan, no Traditional Cultural Properties have been identified within San José with the exception of several ethnic enclaves (e.g., Japantown, Chinatown). However, a potential for the identification of other traditional cultural properties may be present particularly in the older areas with ethnic neighborhoods or in rural, undeveloped areas (BRA 2009).

Cultural landscapes are geographic areas that have been shaped by human activity. They can result from a conscious design or plan, or they can evolve as a byproduct or result of people's activities. Since the late 1980s, cultural landscapes have been accepted as cultural resources, along with buildings, structures, and archaeological resources. The NPS defines four general types of cultural landscapes that are not mutually exclusive: historic sites (e.g., presidential homes, battlefields), historic designed landscapes (e.g., urban plazas, formal estate gardens), historic vernacular landscapes (e.g., farmsteads, ranches), and ethnographic landscapes (e.g., Native American, African-American landscapes, etc.) (NPS 1999).

Per the General Plan, no Cultural Landscapes have been identified within San José. Areas potentially available for historic cultural landscapes dating between 1850 and 1900/1920 and possibly later are rural or partially developed areas including Alviso, the Coyote Valley, and Almaden. Landscapes in these areas may best reflect the region's historical land uses, such as settlement patterns, town development strategies, homesteading, mining practices, water conveyance and storage systems, transportation, and farming. The City also includes numerous historic parks, schools, cemeteries, and designated properties that postdate 1900/1920 and predate 1960 and exist mostly within the urban portions of the Project area. These have the potential of being historic landscapes. Further review of the City and its areas of influence by both an architectural historian and landscape architect would provide additional areas that could have historic landscapes present (BRA 2009).

3.5.1.7 Paleontological Resources

Paleontological resources are fossils, the remains or traces of prehistoric life preserved in the geological record. Paleontological resources can range from mammoth and dinosaur bones to scientifically important fossils, such as paleobotanical remains, trace fossils, and microfossils. Paleontological resources include the casts or impressions of ancient animals and plants, their trace remains (i.e., burrows and trackways), microfossils (i.e., fossil pollen and small crustaceans such as brine shrimp), and unmineralized remains (i.e., bones of Ice Age mammals or tree trunks).

Vertebrate and invertebrate fossils are found in geologic strata conducive to their preservation, typically sedimentary formations. The early history of the region is recorded and accessible in the rocks of adjacent hills, although the record has been deformed and scrambled by tectonic events and processes that were occurring even as the rock record was accumulating. More recent Holocene sediments over much of the Santa Clara Valley cover older sediments and sedimentary rock of the Pleistocene age, the time period that spanned from 1.8 million to about 10,000 years ago, which have a greater potential to contain fossils (Wentworth et al. 1999, Sloan 2006).

Paleontologic sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, past history of the rock unit in producing significant fossils, and fossil localities that are recorded from that unit. Paleontologic sensitivity is derived from the fossil data collected from the entire geologic unit, not just from a specific survey. Potentially sensitive areas for the presence of paleontological resources within the City are based on the underlying geologic formation. Areas with the highest sensitivity are those where geologic formations known to contain fossils are found close to the ground surface (Society of Vertebrate Paleontology 1995).

Geologic units of Holocene age are generally not considered sensitive for paleontological resources; however, remains of a Rancholabrean Columbian mammoth (*Mammuthus columbi*) were found along the Guadalupe River in San José in 2005 (UC-Berkeley 2014), in strata identified as Holocene by published geologic maps (Wentworth et al. 1999). The mammoth remains may have been reworked from older deposits, or some strata identified as Holocene in the Santa Clara Valley are actually of Pleistocene age; in either case, Holocene materials in the Santa Clara Valley may have some level of sensitivity for paleontological resources (i.e., fossils may be encountered in areas mapped as Holocene geologic units).

3.5.2 Impacts Evaluation

3.5.2.1 Methods and Significance Criteria

For the purposes of this analysis, an impact on cultural resources was considered to be significant and to require mitigation if it would result in any of the following:

- Substantial adverse change in the significance of a historical resource that is:
 - Listed, or eligible for listing, in the NRHP;
 - Listed, or eligible for listing, in the CRHR; or
 - Included in a local register of historical resources, or otherwise identified as an important resource by the City of San José or the California State Office of Historic Preservation.
- Substantial adverse change in the significance of a unique archaeological resource.
- Disturbance of human remains, including those interred outside of formal cemeteries.

For the purposes of this analysis, an impact on paleontological resources was considered to be significant and require mitigation if it would result in any of the following:

- Damage to or destruction of vertebrate paleontological resources.
- Damage to or destruction of any paleontological resource that:
 - Provides important information about evolutionary trends, including the development of biological communities;
 - Demonstrates unusual circumstances in the history of life;
 - Represents a rare taxon or a rare or unique occurrence;
 - Is in short supply and in danger of being destroyed or depleted;
 - Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
 - Provides information used to correlate strata for which it may be difficult to obtain other types of age dates.

a. Would the Project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Level of Impact Less than Significant with Mitigation

The proposed Project, including installation of LAS Fiber Hut sites, would mostly occur either within disturbed right of way (roadway) or on previously developed land, where impacts to cultural resources are not expected to occur. Further, avoidance measures listed under MM CUL-1 and MM CUL-2, discusses the cultural resources conditions that would be included in the proposed Project to reduce or avoid any impacts to subsurface cultural resources, consistent with Envision San José 2040 General Plan policies ER-10.2 and ER-10.3, which state:

ER-10.2 Recognizing that Native American human remains may be encountered at unexpected locations, impose a requirement on all development permits and tentative subdivision maps that upon their discovery during construction, development activity will cease until professional archaeological examination confirms whether the burial is human. If the remains are determined to be Native American, applicable state laws shall be enforced.

ER-10.3 Ensure that City, State, and Federal historic preservation laws, regulations, and codes are enforced, including laws related to archaeological and paleontological resources, to ensure the adequate protection of historic and pre-historic resources.

Impact CUL-1: Construction of the Project could disturb known historic or archeological resources.

MM CUL-1 - Avoid known historic/archeological resources.

Prior to permitting and construction, Google Fiber will consult with the City of San José Department of Planning, Building, and Code Enforcement to review the proposed Project plans. The review will ensure consistency with the City of San José General Plan and that construction activities will avoid known significant historic/archeological resources. Further, aboveground cabinets and prefabricated Fiber Huts, to the extent necessary for the Project, will be sited to avoid impacting any identified significant cultural resource. Through consultation with the City of San José Department of Planning, Building, and Code Enforcement, LAS Fiber Hut Site 1 was identified to be in an "archaeologically sensitive" area. As defined by the City of San José, this would not be a location where a known historic/archaeological resource is located but rather a larger area which has a greater potential to contain unknown historic/archaeological resource. Although unlikely, if any unanticipated find(s) of cultural resources are identified in the LAS Fiber Hut Site 1 area during construction, avoidance measures listed under MM CUL-2 would be followed to reduce or avoid any impacts to subsurface cultural resources.

Impact CUL-2: Construction of the project could disturb unknown historic or archaeological resources.

MM CUL-2 – Response actions to unanticipated find(s) of cultural resources.

Prior to the initiation of any site preparation and/or start of construction, Google Fiber will ensure that all construction workers receive training overseen by a qualified professional who is experienced in teaching nonspecialists, to ensure that forepersons and field supervisors can recognize archaeological or paleontological resources in the event that any are discovered during construction.

If unanticipated cultural resources are found or suspected, following actions will be taken:

- All construction activity within a minimum of 50 feet of the find/feature/site will cease immediately.
- All remains or materials are to be left in place unless in jeopardy because of Project activities.
- The area will be secured to prevent any damage or loss of removable objects. If feasible, a fence or other barrier will be erected to demarcate and protect the find.
- The Consulting Archeologist or Paleontologist will be notified and once on scene will record the find location and delineate the extent of the find relative to planned Project activities. The Consulting Archeologist or Paleontologist will assess, record, and photograph the find.
- Within 48 hours of the find, the Consulting Archeologist or Paleontologist will notify the appropriate agency officials. If cultural resources or remains have the potential to be culturally

significant to a living Native American Tribe, agency officials will notify the California Native American Heritage Commission.

- The Consulting Archeologist or Paleontologist will make a recommendation on the NRHP eligibility of the resources, and the effect of Project activity on historic properties, if present.
- If the historic properties cannot be avoided, the Archeologist or Paleontologist will identify actions to minimize impacts, which could include one or more of the following: shifting the Project footprint away from the resource; limiting activities in the vicinity of the resource; or monitoring construction activities near the resource to inform whether additional actions are warranted. If none can be identified, a Data Recovery Plan will be developed, in consultation with the appropriate agency officials and consulting parties, in accordance with Section 21083.2 of the PRC and Title 14, Section 15126.4 of the CCR.

A consulting archeologist will visit the discovery site as soon as practicable for identification and evaluation pursuant to Section 21083.2 of the PRC and Title 14, Section 15126.4 of the CCR. If the archeologist determines the artifact is not significant, construction may resume. If the archeologist determines the artifact is significant, the archeologist will determine if the artifact can be avoided and, if so, will detail avoidance procedures. If the artifact cannot be avoided, the archeologist will develop within 48 hours an Action Plan that will include provisions to minimize impacts and, if required, a Data Recovery Plan for recovery of artifacts in accordance with Section 21083.2 of the PRC and Title 14, Section 15126.4 of the CCR.

State laws pertaining to the discovery of human remains will be followed. Work in areas where any burial site is found will be restricted or stopped until proper protocols are met. Upon discovering any burial site as evidenced by human skeletal remains, the County Coroner will be notified within 24 hours. No further excavation or disturbance within 50 feet of the site or any nearby area reasonably suspected to overlie adjacent remains may be made except as authorized by the County Coroner, California Native American Heritage Commission, and/or the County Coordinator of Indian Affairs.

Implementation of the above mitigation measures will minimize impacts to <u>less than significant</u>. These Project conditions address potential impacts from ground-disturbing activities to both known cultural resources and any unknown cultural resources that could be encountered during construction. With regard to standing architectural structures, which could be determined eligible for the CRHR, impacts from construction will be temporary and minor and no demolition or substantial alterations are proposed for any buildings or standing architectural structures. Further, as noted in MM CUL-1 and MM CUL-2, aboveground cabinets and prefabricated huts, to the extent required for the proposed Project, would be sited (and if necessary relocated) to avoid impacting standing buildings or structures that are identified as a significant historic resource. With respect to overhead lines, these would be used only in areas where there are existing poles and no new poles would be added. As a result, this component of the Project would be consistent with existing conditions and would not cause a substantial change resulting in a significant impact to historic resources. Implementation of the mitigation measures discussed above will minimize any impacts to <u>less than significant with mitigation</u>.

Since the proposed Project would be located within an existing utility right of way, there are as-needed maintenance activities, similar to those already occurring at pole locations and within the utility right of way to maintain these existing utilities. If maintenance activities are necessary, these activities would generally be similar to previous constructionrelated activities and within previous construction-related areas; however, the duration, intensity, and/or frequency of said activities would be substantially less. Therefore, operations-related activities will have minimal to no indirect impact on historical resources.

b, d. Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Level of Impact Less than Significant with Mitigation

Documented resources would be avoided through implementation of MM CUL-1 and MM CUL-2, which discusses cultural resources best practices that would reduce or avoid impacts to subsurface cultural resources, consistent with Envision San José 2040 General Plan policies ER-10.2 and ER-10.3. It is possible that previously undocumented unique archaeological resources, including human remains, could be present and, if present, could be impacted during ground-disturbing activities. Implementation of protocols related to accidental discovery of resources in MM CUL-1 and MM CUL-2, will minimize any impacts to **less than significant**. Protocols include stop work authority and the proper notification and consultation process for accidental discovery or archaeological resources or human remains.

Since the proposed Project would be located within existing utility right of way, there are as-needed maintenance activities, similar to those already occurring at pole locations and within the utility right of way to maintain these existing utilities. If maintenance activities are necessary, these activities would generally be similar to previous construction-related activities and within previous construction-related areas; however, the duration, intensity, and/or frequency of said activities would be substantially less. Therefore, operations-related activities will have minimal to no direct or indirect impacts on unique archaeological resources, including human remains.

c. Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Level of Impact Less than Significant with Mitigation

Project construction is proposed within developed urban areas and within existing public roadway and utility rights of way. The likelihood of encountering unknown paleontological resources is unlikely due to the depth of which ground disturbance is planned. In addition, MM CUL-1 and MM CUL-2 discuss paleontological resources best practices that would be included in the proposed Project to reduce or avoid impacts on paleontological resources, consistent with Envision San José 2040 General Plan policies ER-10.1 and ER-10.3. Implementation of the proposed mitigation measure and **Standard Project Conditions** will minimize impacts to **less than significant**.

Since the proposed Project would be located within an existing utility right of way, there are as-needed maintenance activities, similar to those proposed, already occurring at pole locations and within the utility right of way to maintain these existing utilities. If maintenance activities are necessary, these activities would generally be similar to previous construction-related activities and within previous construction-related areas; however, the duration, intensity, and/or frequency of said activities would be substantially less. Therefore, operations-related activities will have minimal to no direct or indirect impact on paleontological resources. **GEOLOGY AND SOILS**

W	ould the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	-	^	-	<u> </u>
	1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				
	2. Strong seismic ground shaking?			\boxtimes	
	3. Seismic-related ground failure, including liquefaction?			\boxtimes	
	4. Landslides?			\boxtimes	
b.	Result in substantial soil erosion or the loss of topsoil?			\boxtimes	
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			\boxtimes	
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				\boxtimes

3.6.1 Setting

San José is generally located within the Santa Clara Valley, which is bounded by the Diablo Range to the east, the Santa Cruz Mountains to the southwest, and San Francisco Bay to the north. Surface elevations in the Project area range from sea level at the active shoreline of San Francisco Bay to approximately 400 feet above mean sea level in the foothills in the eastern portion of the Project area. The average elevation is approximately 170 feet above mean sea level and the average grade ranges from flat to approximately 2 percent with some steeper grades on the surrounding hillsides (Cornerstone 2010).

Natural geologic features within San José include the Silver Creek Hills in the southeastern portion of the City and the Santa Teresa Hills in the south-central portion of the City. Five creeks, one river, and numerous intermittent streams are present within the Project area; these surface water bodies eventually flow northward into the tidal marshes at the shoreline of San Francisco Bay. The developed urban area of San José is surrounded by protected, undeveloped areas in the Diablo Range, Santa Cruz Mountains, and along the shoreline of San Francisco Bay.

Soils in Santa Clara Valley include clay and Bay Mud in low-lying areas and along the active shoreline of San Francisco Bay. Coarser-grained materials ranging from sands to gravels are typically found in the upper portions of the Santa Clara Valley. Artificial fill has been placed throughout San José to fill in low-lying areas, to prepare grades for roadways and buildings, and was also used for disposal in landfills. Older fill deposits were often placed without standards for the quality of the fill or the placement methods used (Cornerstone 2010).

As part of the San Francisco Bay Area, San José is located in one of the most seismically active regions in the United States. The San Andreas Fault system is the dominant tectonic boundary and source of seismic energy in the area. The San Andreas Fault is a right-lateral, strike-slip fault that accommodates movement of two tectonic places along a banded fault zone. The San Andreas Fault zone spans from the Coast Ranges to the Diablo Range. Locally, the San Andreas Fault system is composed of the main San Andreas Fault scarp, located approximately 3 miles west of the Project area in the Santa Cruz Mountains, and the Hayward and Calaveras faults, both located approximately 2 miles east of the Project area in the Diablo Range. Other potentially active faults, located in both the hills and valley areas of San José, are the Berryessa, Crosley, Clayton, Quimby, Shannon, Evergreen, and Silver Creek faults (Cornerstone 2010).

The Santa Clara Valley is a structural trough that formed due to tectonic activity along the San Andreas Fault system. This tectonic activity created the Diablo Range and the Santa Cruz Mountains and resulted in the deposition of broad, gently sloping alluvial fan deposits that spread out to the north towards San Francisco Bay. Beneath the alluvial deposits are heavily deformed sedimentary and metamorphic rocks of the Franciscan Complex (California Department of Conservation [CDOC] 2002). The San Andreas Fault system has been active throughout recent geologic time (Weber and Allwardt 2001, CDOC 2002). In addition, Bay Mud deposits are present in northern San José near the active shoreline of the San Francisco Bay.

The soil types and depositional environments described above can present hazardous conditions to humans and structures. These geologic hazards are listed and described in more detail below:

- Erosion
- Expansive soil
- Compressible, weak, and other unstable soil (Santa Clara 2002d)
- Subsidence
- Slope stability and landslides
- Seismicity and earthquake surface fault rupture
- Liquefaction and lateral spreading

3.6.1.1 Erosion

Erosion typically occurs when natural or artificial processes expose soils to water and/or wind. San José is a developed urban area with undeveloped lands along the periphery in the foothills of the Santa Cruz Mountains and the Diablo Range, so erosion would occur mostly in these foothill areas where soil is exposed and slopes are greater. Erosion also tends to occur in stream and creek areas, especially during heavy rain events (Cornerstone 2010).

3.6.1.2 Expansive Soil

Expansive soils have a high shrink-swell potential that is dependent on the amount of moisture and water in the soil. Expansive soils contain a significant percentage of certain clay materials, and expand and contract throughout the seasons. The expansion and contraction can impact the structural integrity of buildings and other structures. Many portions of San José contain moderately to highly expansive soils; however, these soils are more common on the valley floor. When present on hillsides, expansive soils can result in soil creep (Cornerstone 2010).

3.6.1.3 Compressive, Weak, or Other Unstable Soil

Compressive, weak soils can collapse or spread laterally under the weight of structures and overburden. The degree of compression or spreading typically varies even in small areas. Water content can amplify the compressibility or weakness of soil; therefore, the most susceptible soils in the Project area are located near the shoreline of San Francisco Bay where Bay Mud is present. Other isolated pockets of potentially weak soils are located more towards the center of the Santa Clara Valley. Seismic shaking can also amplify the weakness of these soils and can lead to liquefaction (Cornerstone 2010).

3.6.1.4 Subsidence

Groundwater has been used historically to supply irrigation water for agricultural land use. Excess extraction of groundwater is reported to have led to soil subsidence. As the valley has become developed, large portions of the valley floor have been paved or covered with impervious structures that have reduced the natural replenishment capacity of the groundwater aquifers. However, subsidence has stopped or greatly slowed recently because of improved groundwater management. Regional subsidence is not expected to be a problem in San José if current conditions and practices continue. Localized subsidence and excess dewatering may cause localized subsidence that could impact structures (Cornerstone 2010).

3.6.1.5 Slope Stability and Landslides

Slope stability is dictated by a variety of factors, as listed below:

- Sloping: steeper slopes are typically less stable;
- Moisture content: more moisture can lead to less stability; and
- Layering: weak, weathered, and unconsolidated sediments with overburden can be unstable.

Landslides are more common in the foothills along the edge of San José during the winter months. Seismicity can also lead to failure of unstable soils (Cornerstone 2010). Static landslides occur without seismic ground shaking.

3.6.1.6 Seismicity and Earthquake Surface Rupture

Assessments by others as part of the Alquist-Priolo Fault Zoning Act (CDOC 2002, Santa Clara 2002a) and the Seismic Hazards Mapping Act (California 1990) have identified geologic hazard zones throughout San José. Several estimates of earthquake probabilities in the San Francisco Bay area have indicated the probability of a moment magnitude 6.7 or greater earthquake by 2031 is 62 percent. These estimates have indicated that the probabilities of a magnitude 6.7 or greater earthquake on faults near the Project area range from 3 to 14 percent (Working Group on California Earthquake Probabilities [WGCEP] 2003). During these local earthquakes, surface fault rupture in the Project area would likely be limited to the earthquake fault rupture zones identified by Santa Clara County (Santa Clara 2002a). However, seismic ground shaking would occur throughout the Project area and could impact other geologic hazard areas (Cornerstone 2010). State forecasts indicate the probability of a

magnitude 6.7 or greater earthquake before 2038 in California is 99.7 percent (Field et al. 2008).

3.6.1.7 Liquefaction and Lateral Spreading

Unconsolidated, saturated soils can lose cohesion during strong seismic shaking. Loss of soil cohesion can potentially result in significant ground deformation. Liquefaction is influenced by a variety of factors, including: soil type, moisture content, soil cohesion, and soil compaction (Cornerstone 2010). Since stream channels typically contain soils that are saturated and very loose, liquefaction is common in these areas.

Lateral spreading is the horizontal movement of relatively flat soils and it is common in areas where drastic changes in slope are present, such as along rivers or streams, large bodies of water, or near excavations. Weak soils and liquefaction typically lead to this kind of ground failure. Lateral spreading is common along rivers, streams, and marshlands (Cornerstone 2010).

3.6.1.8 Summary of Geologic Hazards

Figure 3.6-1 and Table 3.6-1 indicate the approximate locations where geologic hazards are present in the Project area.

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General Area	Unique Geotechnical Hazards
Hillside areas (East Berryessa foothills, Silver Creek, Almaden Valley)	Static and seismic landslides, debris flows, fault rupture, erosion, soil creep, grading, cut/fill slope stability.
North San José/ Alviso	Liquefaction, Bay Mud (settlement, mud waves), expansive soils, artificial fill/construction debris, soil contamination, seismic ground shaking amplification, high groundwater, wetlands, regional subsidence.
Former Quarry sites (Communications Hill, Hillsdale Quarry, Valley Christian, Cerro Plata, Dandini Circle, Graystone, Riverview Drive, Rosemar Avenue) (City of San José 2014b)	Deep, unengineered quarry fills, high oversteepened cut and fill quarried slopes, rock fall hazards, buried mine shafts, collapse/ settlement, soil contamination.
Development along Creeks (Coyote and Thompson Creeks, Guadalupe River)	Slope protection (rip rap, gabions, etc.), flooding, creek bank migration, landslides, creek bank instability due to rapid drawdown, liquefaction/lateral spreading.
In-Fill Development (Winfield/Coleman Avenue, Blossom Hill Road, Almaden Winery, Willow Glen)	Old artificial fills, deleterious materials, hazardous requirements, specialized foundation systems, weak or expansive soils, saturated, organic soils or old Bay Mud.
Downtown area, multi-story buildings with basements	Stability of excavation slopes/shoring systems, stability of adjacent streets and improvements, liquefaction, lateral spreading.
Landfill Sites: (Remillard Court, Hellyer, Alviso)	Differential settlement, soil contamination, static and seismic slope stability, specialized foundations and building/improvement techniques, amplified seismic ground shaking.

Table 3.6-1Summary of Geologic Hazards in the Project Area

Source: Cornerstone 2010

3.6.2 Impacts Evaluation

The proposed Project would include subsurface, at-grade, and aerial installation of fiber-optic infrastructure and associated structures. The Project has the potential to affect potential geologic hazards present in the Project area due to the activities described below.

3.6.2.1 Subsurface Activities

The following Project-related subsurface activities would have the potential to impact the geologic hazards in the Project area:

- Trenching approximately 14 inches wide and up to approximately 48 inches deep;
- Micro-trenching approximately 2 inches wide and up to approximately 24 inches deep;

- HDD bore holes approximately 6 inches in diameter up to approximately 60 inches deep for HDDs used to avoid subsurface obstructions; and
- Excavating areas up to approximately 32 inches wide by 78 inches long by 48 inches deep.

3.6.2.2 *At-Grade Activities*

The proposed Project could potentially involve at-grade installation of prefabricated Fiber Huts for LASs, preferably on City of San José-owned land (such as the identified LAS Fiber Hut Sites at Bird Ave./Virginia St. and Santa Teresa Blvd./SR 85). Some minor resurfacing would be required to install at-grade concrete foundations for these prefabricated Fiber Huts; however, minimal soil disturbance is anticipated. The prefabricated Fiber Huts would be installed in open areas to provide adequate access. Utility cabinets would also be installed at-grade.

3.6.2.3 *Aerial Activities*

The Project would require installation of fiber-optic cables using existing aerial utility lines. High tension steel suspension cables would be installed onto utility poles and the fiber cables would be "lashed" to the suspension wires. Minor subsurface disturbance up to approximately 48 inches deep would be required to install "downguys" that provide tension for the aerial installations, if required.

Based on the anticipated Project layout (Figure 2-1a-e), proposed hut sites are not within known geologic hazard areas. However, installation of subsurface and aerial fiber cables, vaults, and utility cabinets would likely occur in geologic hazard areas. The impacts of installation of these structures are discussed below.

- a. Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- 1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

Level of Impact Less than Significant

No structures for human habitation are proposed as part of this Project; therefore, the restrictions of the Alquist-Priolo Earthquake Fault Zoning Act do not apply. As a standard permit condition, Project-related construction occurring within Alquist-Priolo hazard zones as identified by the Santa Clara County (Santa Clara 2002a) would comply with the standard engineering practices in the California Building and Construction Code, as adopted by the City of San José. These **Standard Project Conditions** would ensure that Project-related structures and fiber infrastructure would be designed and constructed properly to mitigate impacts to people or other structures from earthquake surface fault ruptures. Earthquake surface fault ruptures could potentially damage the fiber-optic infrastructure proposed for this Project and result in outages of the fiber-optic service. However, damage to the infrastructure would not likely create hazards to people or the environment, such as fires, beyond the seismic hazards already present in the Project area. None of the hut sites (see Table 2-1) are located within the Alquist-Priolo hazard zone.

Because this Project does not include construction of structures for human habitation, and standard engineering and seismic safety design techniques would be incorporated, the Project would result in a **less than significant** impact related to earthquake surface fault rupture.

- a. Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- 2) Strong seismic ground shaking?

Level of Impact Less than Significant

The Project area may experience seismic shaking events with a moment magnitude as high as 7.9 (CDOC 2002), as discussed in Section 3.6.1. Although this estimated seismic shaking value is relatively uniform across the Project area, soils may respond differently to seismic energy. Sites underlain by unconsolidated or weakly consolidated materials may experience greater ground acceleration than sites underlain by consolidated material, such as in the foothills of the Santa Cruz Mountains or the Diablo Range.

As a **Standard Project Condition**, to avoid or minimize potential damage from seismic shaking, the Project would be built using standard engineering and seismic safety design techniques. Building design and construction for the Project would be completed in conformance with the recommendations of a design-level geotechnical investigation, which will be included in a report to the City. The structural designs for the proposed development would account for repeatable horizontal ground accelerations. The report will be reviewed and approved by the City of San José's Building Division as part of the building permit review and issuance process. The Project will meet the requirements of applicable Building Codes, including the 2013 California Building Code Chapter 16, Section 1613, as adopted or updated by the City. The Project would be designed to withstand identified soil hazards and reduce the risk to people or property to the extent feasible and in compliance with the Building Code. No structures for human habitation are proposed as part of this Project.

Because this Project does not include construction of structures for human habitation, and standard engineering and seismic safety design techniques would be incorporated, the Project would result in a <u>less than significant</u> impact related to strong seismic ground shaking.

- a. Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- 3) Seismic-related ground failure, including liquefaction?

Level of Impact Less than Significant

The majority of the Project area is within the broad alluvial plain of the Santa Clara Valley and thick alluvial deposits underlie most portions of the proposed Project. Some portions of the Project, including the two identified LAS Fiber Hut locations at Bird Ave./Virginia St. and Santa Teresa Blvd./SR 85, are located in liquefaction hazard zones (Figure 3.6-1) where loose, saturated sand and silt layers can soften, potentially resulting in significant ground deformation and/or flow failures during strong seismic shaking (Santa Clara 2002b).

As summarized in the discussion for Item a.(2) above, because this Project does not include construction of structures for human habitation, and standard engineering and seismic safety design techniques would be incorporated, the Project would result in a <u>less than significant</u> impact related to ground failure, including liquefaction.

- a. Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
- 4) Landslides?

Level of Impact Less than Significant

Seismic and static landslides typically occur where ground slopes are steep and soils are unconsolidated and saturated with groundwater. The majority of the proposed Project is located in flat-lying, developed areas that are outside of identified landslide hazard zones (Santa Clara 2002c). Some portions of the Project located in the foothills of the Santa Cruz Mountains to the southwest and the Diablo Range to the east are within the identified landslide hazard areas, as shown on Figure 3.6-1. No habitable structures are proposed as part of this Project and no hut sites are proposed in landslide hazard zones. However, other types of infrastructure associated with this Project would likely be installed in landslide hazard zones.

As summarized in the discussion for Item a.(2) above, because this Project does not include construction of structures for human habitation, and the above standard engineering and seismic safety design techniques would be incorporated, the Project would result in a <u>less than significant</u> impact related to landslides.

b. Would the Project result in substantial soil erosion or the loss of topsoil?

Level of Impact Less than Significant

Most of the Project would occur in existing roadways or paved areas and earth disturbance due to construction would be temporary. All earth disturbance areas would be completed to match the existing grade and the asphalt, concrete, or landscaped surfaces would be restored to a condition of equal or better quality than the original condition. As a **Standard Project Condition**, the Project would be constructed in accordance with the standard engineering practices in the California Building Code, as adopted by the City of San José. In addition, the Project would secure approval of a grading permit and receive a Public Works Clearance by the City of San José prior to construction.

Implementation of the following **Standard Project Conditions** would ensure that the proposed Project would be designed properly to prevent erosion or the loss of top soil:

- The Project would conform to the recommendations in any required engineering reports for the Project; and
- An Erosion Control Plan would be prepared and implemented in conformance with the requirements of the City of San José, Department of Public Works.

The Project, with the implementation of standard engineering practices as outlined above, would result in a <u>less than significant</u> impact related to erosion and the loss of top soil.

c. Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Level of Impact Less than Significant

Most of the Project area is located outside geologic hazard zones related to soil stability. Portions of the Project that would occur in the identified geologic hazard areas are shown on Figure 3.6-1. Although subsidence due to excessive groundwater extraction occurred historically throughout the Santa Clara Valley, subsidence is no longer an issue as discussed in Section 3.6.1. No structures for human habitation are proposed as part of this Project.

As summarized in the discussion for Item a.(2) above, because the Project would incorporate the above standard engineering and seismic safety design techniques, the Project would result in a <u>less than significant</u> impact related to destabilization of geologic units or soils.

d. Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Level of Impact Less than Significant

Most of the proposed Project is located within the broad alluvial plain of the Santa Clara Valley. The predominant alluvial deposits are typically underlain by Franciscan Complex basement rocks. These alluvial and basement rock strata are typically less susceptible to soil expansion. Some Bay Mud deposits, which can have expansive behaviors, are found near the active shoreline of San Francisco Bay; however, very little of the proposed Project is located in these Bay Mud areas. The two identified hut locations are not located in Bay Mud areas. No structures for human habitation are proposed as part of this Project.

As summarized in the discussion for Item a.(2) above, because this Project does not include construction of structures for human habitation, and the above standard engineering and seismic safety design techniques would

be incorporated, the Project would result in a <u>less than significant impact</u> related to expansive soils.

e. Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Level of Impact No Impact

No sewer systems, septic tanks, or alternative wastewater disposal systems are proposed as part of this Project. Therefore, the Project would result in <u>no impact</u> related to support of septic and alternative wastewater disposal systems.

Wo	ould the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				

3.7.1 Setting

3.7

3.7.1.1 Environmental Setting

GHG has always been present in the Earth's atmosphere, helping to maintain a temperate climate, but in the last century, production has accelerated due to human activity. The most common GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) gases, which come from the burning of fossil fuels for energy and transportation, waste management, agriculture, buildings, and industry. These gases are normalized based on the impact they have on global warming into the standard unit, GHG.

The buildup of GHGs in the atmosphere from human activity has amplified the greenhouse effect. As a result, more solar radiation is trapped in the atmosphere, rather than reflected out, and causes warming. This warming to the atmosphere and oceans is disrupting global weather patterns, and these trends are expected to intensify as more GHG emissions are released (Intergovernmental Panel on Climate Change [IPCC] 2007).

3.7.1.2 *Regulatory Setting*

<u>State</u>

Executive Order S-3-05. Governor Arnold Schwarzenegger signed Executive Order S-3-05 in 2005 based on California's awareness of climate change impacts, and the ability to reduce emissions, generate cost savings, and spur the development of new technologies. Executive Order S-3-05 identified a series of near-term, mid-term, and long-term emissions reduction targets, which established that the state would reduce GHG emissions to:

- 2000 levels by 2010;
- 1990 levels by 2020; and
- 80 percent below 1990 levels by 2050.

The 2050 target is designed to reduce the state's contribution to worldwide emissions below the 450 ppm GHG needed to avoid a 2degree-Celsius increase in average global temperature. This target was set using the best available science from the international conference, "Avoiding Dangerous Climate Change: A Scientific Symposium on the Stabilization of Greenhouse Gases."

Assembly Bill 32. Assembly Bill 32 (AB32), the California Global Warming Solutions Act, was approved by Governor Arnold Schwarzenegger in 2006. AB32 outlined the approach that the state would take to achieve the short-, medium-, and long-term targets outlined in Executive Order S-3-05. As part of this approach, AB32 directed CARB to adopt regulations requiring the monitoring and reporting of statewide emissions and to identify regulations that result in the maximum technologically feasible and cost-effective actions.

To meet the guidelines set forth in AB32, in 2008, CARB adopted the Climate Change Scoping Plan: A Framework for Change (referred to below as the Scoping Plan) (CARB 2008). The Scoping Plan identified a number of the strategies the state will use to meet the 2020 target, including voluntary actions, direct regulations, alternative compliance mechanisms, incentives, and market-based mechanisms such as a capand-trade system.

Actions outlined in the Scoping Plan to address GHG emissions reductions from transportation and energy include:

- Expanding and strengthening energy efficiency programs.
- Ensuring electricity generation from renewable resources is at least 33 percent of the statewide electricity mix by 2020.
- Establishing targets for passenger vehicle-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets.

- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards and the Low Carbon Fuel Standard.
- Developing a cap-and-trade program (CARB 2008).

The majority of the actions in the Scoping Plan address the GHG emissions from the transportation and power sectors. GHG emissions reductions from transportation (62.3 million metric tons) and electricity (49.7 million metric tons) account for 66 percent of the overall reductions in GHG expected by 2020 (CARB 2008).

In 2014, with the initial actions in the Scoping Plan already well underway, CARB approved the First Update to the Scoping Plan (CARB 2014b). The Update defines CARB's near-term climate change priorities and identifies the strategies the state will use to reach the 2050 GHG reduction target.

In the Update, there are nine key focus areas for GHG reductions across energy, transportation, agriculture, water, waste management, and natural and working lands. The actions for transportation identify strategies to advance the development of cleaner vehicles and infrastructure to move goods and people as efficiently as possible. The actions for energy incorporate new technologies such as energy storage, demand response, and a smarter grid. These strategies will be used to ensure the GHG emissions reduction trajectory declines rapidly after 2020. Between 2020 and 2050, GHG emissions must be reduced 5.2 percent per year to meet the 2050 reduction target.

The proposed Project would be subject to the targets outlined in Executive Order S-3-05 and the Scoping Plan strategies. Because the strategies that the Scoping Plan outlines to reduce GHG emissions have been implemented, these measures will apply to construction and operation emissions during the proposed Project. The strategies outlined in the Update will become effective for the ongoing operation of the proposed Project.

Local

BAAQMD Guidelines. In June 2010, the BAAQMD Guidelines were adopted. These established thresholds of significance for GHG emissions were used for reviewing projects under CEQA. For operations, a proposed project has significant impacts if it exceeds 1,100 metric tons GHG per year; there is no significance threshold for emissions from construction. In March 2012, the Alameda County Superior Court called into question whether the BAAQMD CEQA Air Quality Guidelines (BAAQMD 2012) thresholds of significance constitute a project under CEQA. The ruling by the Alameda Superior Court determined that the thresholds of significance did constitute a project and therefore must go through the CEQA process. This was reversed in the latest ruling from the Court of Appeal, which determined that the thresholds set by BAAQMD were not a project under CEQA. That decision was appealed and a decision from the California Supreme Court has been pending since December 2013.

San José continues to use the above emissions thresholds as significance criteria in CEQA documents. Thus, the proposed Project's GHG emissions could be considered significant if these thresholds are exceeded.

Envision San José 2040 General Plan. The Envision San José 2040 General Plan provides a framework of the strategies San José will use to advance an innovation-based economy, implement leading environmental policies, and promote best practices in land use by 2040. Specifically, the plan encourages the development of high-density, mixed-use, urban districts that support employment and housing, and promote transit use and walkability while simultaneously reducing environmental impacts.

• The development of the Google Fiber Project supports the goals outlined in several sections of the General Plan.

3.7.1.3 Summary

The state and local targets do not identify thresholds for construction GHG emissions; however, BAAQMD sets a threshold for GHG emissions from operations. Therefore, the GHG emissions from operation of the proposed Project must be under the BAAQMD threshold and in alignment with the overall state targets for GHG reductions. Furthermore, the proposed Project would benefit from the strategies the state has put in place, which will reduce emissions associated with electricity and transportation in the construction and operation of the Project.

3.7.2 Impacts Evaluation

a. Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Level of Impact Less than Significant
The City of San José adopted the GHG thresholds specified by BAAQMD, the targets used by the lead agency for evaluating significance under CEQA.

The GHG emissions estimates were calculated using the approach outlined in the Air Quality Impacts Evaluation in Section 3.3.2. The assumptions provided in the Project Description for construction activity, equipment, hours of use, and duration of construction were run through CalEEMod, a BAAQMD-approved land use emission model to generate the emissions estimates. Table 3.7-1 provides the estimated proposed Project emissions during construction and operation.

Table 3.7-1Construction and Operational GHG Emissions

	MTCO _{2e}
Construction	
Annual Peak Proposed Project Emissions	1831
Proposed CEQA BAAQMD Construction Emissions Threshold	n/a ¹
Operation	
Annual Proposed Project Emissions	4
Proposed CEQA BAAQMD Operational Emissions Threshold	1,100
Notes:	
¹ The 2010 BAAQMD CEQA Guidelines do not provide a threshold of significant CO	D2e impacts from
construction.	
$M1CO_2e =$ Metric tons carbon dioxide-equivalent	
BAAQMD = Bay Area Air Quality Management District	
CEQA = California Environmental Quality Act	
Source: BAAOMD 2010	

3.7.2.1 Construction

Construction GHG emissions would be generated by equipment, trips by workers, trips by vendors, and material hauling trucks. The BAAQMD has not set thresholds for construction-related GHG emissions due to the temporary nature of those emissions and the lack of long-term contribution to cumulative emissions of GHGs.

The BAAQMD CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Instead, BAAQMD recommends that GHG emissions from construction be quantified and disclosed, and that a determination regarding the significance of these GHG emissions be made with respect to whether a project is consistent with the AB32 GHG emission reduction goals. Because AB32 is focused on long-term strategies in key economic sectors with substantial annual GHG contributions, nothing proposed as part of the Project is inconsistent with the overall GHG emission reduction goals. Although high-speed internet is not one of the key strategies identified in AB32, it is notable that the first update to the AB32 Climate Change Scoping Plan (CARB 2014b) identifies advances in internet technology as a contributing factor to success in achieving GHG emission reduction goals. Specifically, advances in internet technology can facilitate providing services to customers in realtime via video conference in lieu of vehicle miles traveled (VMT) to a service provider or can allow for remote control and monitoring of equipment that facilitates reductions in power use.

As construction emissions would be temporary in nature and the Project is consistent with the overall reduction goals of AB32, the potential impact is considered <u>less than significant</u>.

3.7.2.2 Operation

GHG emissions would be generated by annual monitoring and maintenance throughout the route and from the emissions generated from direct and indirect power use from the network. The sources of direct and indirect emissions include natural gas backup generators and electrical power provided by Pacific Gas and Electric Company. Total operation emissions would not exceed the significance threshold and would be considered <u>less than significant</u>.

b. Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Level of Impact No Impact

Google Fiber infrastructure supports transportation demand management by providing "computer facilities that link to the worksite." Having access to this equipment enables telecommuting and new work arrangements as outlined in the Santa Clara County Congestion Management Agency's Congestion Management Plan (Santa Clara 2013). Therefore, the proposed Project has the potential to reduce commuting trips and VMT and, by extension, GHG emissions where fiber-optic cable is installed. Further discussion of this is provided in Section 3.15, Transportation. By providing transportation demand management, the proposed Project aligns with the BAAQMD targets to reduce VMT and GHG emissions and is consistent with the GHG reduction targets outlined in Executive Order S-3-05. There is <u>no impact</u> associated with the proposed Project.

Wo	ould the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			\boxtimes	
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			\boxtimes	
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?				
f.	For a project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?				\boxtimes
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			\boxtimes	
h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			\boxtimes	

3.8.1 Setting

3.8

From its incorporation in 1850 to approximately 1950, San José was a relatively small community of farms and orchards. The City developed rapidly during the 1960s and 1970s and is currently the third largest city in California. San José is the largest and fastest growing city within Silicon Valley (City of San José 2011b). Most portions of the City are developed; however, wildland or mixed residential/wildland areas are present to the east and south of the downtown area.

Two public airports, Norman Y. Mineta San José International Airport (SJC) and Reid-Hillview of Santa Clara County Airport (RHV), are located within San José, in the Project area. SJC provides scheduled commercial passenger flights and is located in northern San José. RHV is a general aviation airport serving small aircraft. No private airports are located within the Project area.

The diverse history and current land use in San José has resulted in a variety of hazardous waste sites. The State Water Resources Control Board (SWRCB) database of hazardous sites ("GeoTracker"; accessed at: http://geotracker.waterboards.ca.gov) indicates there are approximately 384 environmental sites in the approximate boundary of the San José area that have not received regulatory case closure (SWRCB 2014). These include the following:

- Leaking underground storage tank sites: 157
- Land disposal sites: 10
- Military sites: 1
- Industrial and commercial sites of environmental concern: 216

Such sites can contain hazardous materials in soil, soil vapor, groundwater, and other media. Types of hazardous materials associated with these sites include pesticides, herbicides, petroleum hydrocarbons, metals, asbestos and chemical compounds used for industrial and manufacturing purposes. Known hazardous material sites are located throughout San José and the proposed Project area; however, they are more frequently located near the downtown area.

Based on a review of the SWRRCB database, hazardous waste sites are present within approximately ¼ mile of the two proposed hut sites, as summarized below.

A query of GeoTracker-listed sites in the vicinity of Hut Site #1 identified the following four hazardous waste sites, three of which are closed:

- 615 Bird Ave waste oil leak reported in 1994, site closed in 2000
- 320 Harron Street -solvent leak reported 1987, site closed in 1997
- 696 Auzerais Avenue gasoline leak reported in 1985, site closed in 2005
- 638 Auzerais Avenue gasoline release in 1989, investigation conducted, and cleanup initiated in 2011. Between August 2011 and

March 2015, cleanup efforts had successfully removed approximately 1,260 gallons of free product. Concentrations of gasoline and related additives have been reduced significantly as a result of these cleanup actions, but remediation is ongoing due to continued exceedances of cleanup goals. Based on the reports provided in the GeoTracker files, the extent of impacted groundwater from this site appears localized, and is not likely to extend to the proposed hut site.

A query of GeoTracker-listed sites in the vicinity of Hut Site #2 identified the following three hazardous waste sites, all of which are closed:

- 875 Blossom Hill Road gasoline leak reported in 1985, site closed in 1999
- 890 Blossom Hill Road waste oil leak reported in 1990, site closed in 1996
- 880 Blossom Hill Road gasoline leak reported in 1992, site closed in 1993

Given the nature of the above-listed sites and their extent of impacts, the closed status for all but one (i.e., by the regulatory agency overseeing them), and their distances from the proposed prefabricated Fiber Hut sites, these hazardous materials sites are not expected to have impacted conditions at the proposed hut sites.

In addition to man-made hazardous materials, naturally occurring asbestos (NOA) can also present a hazard to human health if disturbed. NOA has been found in several areas in San José (Cornerstone 2010, United States Geological Survey [USGS] 2011). NOA occurs in either chrysotile or amphibole forms, mostly in ultramafic rocks such as serpentine. NOA may also be found in fill layers if the fill was sourced from ultramafic rocks. NOA has been observed in hillside areas such as the East Berryessa foothills, near Silver Creek, and in Almaden Valley (Cornerstone 2010). Figure 3.8-1 indicates the locations of potential NOA exposure. Man-made products, such as transite pipe, may also contain asbestos. F:\GIS\GFiber\ArcMaps\Hazards.mxd WEWC G.S. 12/8/201



In July 2001, CARB approved an Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining activities in areas where NOA will likely be found. This regulation requires dust mitigation measures and practices to prevent the spread of NOA (Cornerstone 2010). If NOA is encountered during earth disturbance, mitigation measures may include:

- Capping the exposed NOA with soil or imported material; •
- Implementing construction best management practices (BMPs) to prevent spreading the NOA; and
- Suppressing dust and monitoring the air.

Multiple federal, state, and local regulatory programs and agencies implement regulations designed to protect human health and the environment from impacts due to hazardous materials. The applicable regulatory agencies and responsibilities are summarized in Table 3.8-1 below.

Agency	Responsibility
USEPA	Develops hazardous material disposal standards and standards for cleanup of contamination.
DOT	Regulates and oversees hazardous material transportation.
OSHA	Develops protocols protecting workers by regulating the handling of hazardous materials.
DTSC	Enforces various hazardous materials laws and regulations.
Cal-OSHA	Regulates handling of hazardous materials for the protection of workers.
RWQCB	Regulates hazardous material discharge to surface and ground waters.
Santa Clara County Department of Environmental Health	Oversees hazardous waste generators and risk management programs, including the California Accidental Release Program.
SJFD	Implements ordinances and oversees businesses that generate or store hazardous materials.
Notes:	
Cal-USHA = California (JSHA RWUCB = Regional Water Quality Control Board

Table 3.8-1Regulation of Hazardous Materials

DTSC = Department of Toxic Substances Control SJFD = San José Fire Department DOT = Department of Transportation USEPA = United States Environmental Protection OSHA = Occupational Safety and Health Agency

Source: City of San José Negative Declaration North Capitol Avenue General Plan Amendment, 18 August 2014 (City of San José 2014a).

Administration

An evaluation of potential impacts from the Project on people and the environment, as related to hazards and hazardous materials, is provided below.

3.8.2 Impacts Evaluation

a. Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Level of Impact Less than Significant

The Project would involve the use of hazardous materials including fuels and lubricants that would be brought on the site periodically in accordance with standard construction practices. There would be no longterm fuel storage during construction or operation of the Project. Transportation of fuel and lubricants would conform to state and federal requirements for hazardous materials transportation. **Standard Project Conditions** will be followed when using or handling hazardous materials, including any soils impacted with chemical constituents from historical operations at or near areas where excavation is conducted. Adherence to the **Standard Project Conditions** listed below will reduce the potential for adverse impacts associated with fuels and lubricants.

Standard Project Conditions

A Soil Management and Transportation Plan (SMTP) will be created for the Project to assist construction workers in identifying potentially hazardous materials and guide the handling, storage, and transportation of materials excavated during fiber-optic infrastructure installation. The SMTP will detail the necessary actions to comply with applicable hazardous materials regulations, some of which include Health and Safety Code Section 25100 et seq. and Section 25163 et seq., 22 CCR 66263.10 et seq., 13 CCR 1160 et seq., California Vehicle Code Sections 12804 et seq. and 31300 et seq. This plan will establish criteria for reuse of excavated materials or offsite transport for disposal at appropriate State-approved facilities. The SMTP will be reviewed and approved by the City prior to the issuance of construction permits. Examples of the types of measures that the plan could include are:

- Requirements for field screening to identify potentially contaminated soil;
- Procedures for stockpiling and stockpile management to isolate apparently contaminated materials and minimize migration of those materials from stockpile areas;

- Procedures for stockpile sampling and analysis to characterize the soil for appropriate transport and disposal;
- Identification of appropriate disposal facilities; and
- Requirements for sedimentation controls during soil handling and transportation to minimize the spread of potentially contaminated sediments, including impacts to surface water runoff.

Special precautions will be undertaken in the event any material is encountered that may contain asbestos. An Asbestos Dust Mitigation Plan will be developed for the Project that will provide guidance and help maintain compliance with all applicable federal, state, and local regulations, including the Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining activities. The Asbestos Dust Mitigation Plan will be reviewed and approved by the City prior to the issuance of construction permits. Examples of the types of measures that the plan could include are:

- Dust mitigation measures to avoid tracking of dust containing asbestos from the site onto public roads;
- Dust mitigation measures for earth moving activities that may include wetting and other forms of material stabilization;
- Requirements for appropriate offsite transport vehicles to include asbestos-containing soils and/or debris; and
- Procedures for air monitoring during specific types of activities that could encounter and disturb asbestos.

The following protocol will be observed when using or handling hazardous materials:

- All labeling, storage, handling, and use of hazardous materials will be in accordance with Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) requirements.
- Employees working with hazardous materials will be properly trained in the use and handling of hazardous materials.
- Each material will have a corresponding material safety data sheet maintained by the contractor with each work crew.
- All hazardous waste materials removed during construction will be handled and disposed of by a licensed waste disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility.

• Releases or threatened releases of hazardous materials are not anticipated to occur. In the unlikely event such a release were to occur, the applicable reporting and response requirements will be followed.

Additionally, the following Project activities associated with infrastructure installation would require ground disturbance throughout San José, and could result in exposure to impacted subsurface materials, if present:

- Trenching up to approximately 14 inches wide and up to approximately 48 inches deep using an excavator, backhoe, or rock-saw for installation of fiber-optic cable;
- Excavating up to approximately 32 inches wide by 78 inches long and 48 inches deep using an excavator or backhoe to install underground access vaults;
- Micro-trenching approximately 2 inches wide and up to 24 inches deep using a specialized device to install fiber-optic cable;
- HDD approximately 6 inches in diameter up to approximately 60 inches deep using a specialized drill rig to install fiber-optic cable;
- In the unlikely event that cable plowing techniques are used, plowing approximately 16 inches wide and up to 48 inches deep using a bulldozer to install fiber-optic cable;
- Grading and removing pavement, as needed, using an excavator or backhoe to install concrete foundations at hut sites; and
- Installing "downguys" using standard construction vehicles for tensioning aerial infrastructure.

Additional **Standard Project Conditions** require that all OSHA mandatory health and safety standards for construction sites will be followed, including mandatory incident reporting, weekly tailgate meetings, and monthly safety meetings with the contractor. Safety standard would also ensure that all trenches over 6 inches wide will be backfilled and/or covered at the end of each workday.

Project-related ground disturbance has the potential to encounter hazardous materials at any location where historical land uses have resulted in releases of hazardous materials. As noted above, the SWRCB database contains 384 open sites within the approximate boundary of the Project area that are currently being overseen by federal, state, or local regulatory agencies due to releases of hazardous materials. In addition, as noted in Section 3.8.1, NOA has been or is likely to be found in several areas in the Project area, as shown on Figure 3.8-1 (Cornerstone 2010, USGS 2011). Man-made products, such as transite pipe, may also contain asbestos. Implementation of the **Standard Project Conditions** listed above would reduce the potential impact of artificial asbestos materials to <u>less</u> <u>than significant</u> levels.

Due to the shallow nature of the proposed excavations for this Project (most excavations will have a maximum depth of 48 inches to 60 inches depending on the installation technique), groundwater would likely not be encountered. However, if Project-related excavations are conducted during rainy periods, surface water could enter excavations and come into contact with impacted soils, thereby enhancing migration of contaminants. As noted in Section 3.9.2, a Storm Water Pollution Prevention Plan (SWPPP) will be prepared and BMPs implemented to reduce impacts of construction activities on water quality. Preparation and implementation of this SWPPP would adequately reduce the potential for surface water runoff into excavations as well as transportation of excavated materials by surface water runoff. The SWPPP will be reviewed and approved by the City of San José prior to construction start. Preparation and implementation of the SWPPP would reduce potential storm water impacts related to hazardous materials to less than significant.

The Project would require the use of hazardous materials and could encounter hazardous materials during subsurface disturbance work. However, implementation of **Standard Project Conditions** would reduce the potential impacts to <u>less than significant</u>.

b. Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Level of Impact Less than Significant

The potential hazardous conditions or situations would be negligible and likely limited to accidental spills. Generally, hazardous conditions or situations would be minimized through standard construction practices, such as proper maintenance and operation of the machinery and vehicles, proper storage of fuels, marking of underground utilities, and enforcement of safe work practices and other safety provisions as specified in Cal-OSHA construction standards. Potential conditions that could occur during Project implementation include fire, fuel spills, hydraulic fluid leaks, and accidents and other incidents associated with construction-related activities. As noted in the discussion under Item a., ground disturbance activities for the installation of fiber-optic infrastructure have the potential to encounter hazardous materials. Encountered hazardous materials would be handled in compliance with federal, state, and local regulations. In addition, implementation of **Standard Project Conditions** noted above would further reduce the potential for accidental release of hazardous materials into the environment.

Proper utility clearance using standard procedures, and avoidance of areas identified as having subsurface utilities should minimize the potential for hazards associated with subsurface utilities. If construction equipment were to breach subsurface utilities, this could result in hazardous conditions, including fire, explosion and/or releases of hazardous materials. To avoid this possibility, state law (California Government Code 4216 and Cal-OSHA Title 8, Section 1541) requires that entities conducting excavation activities contact Underground Service Alert for subsurface utility clearance prior to initiating activities that disturb the subsurface.

Emergency generators may be included at LASs, and would use natural gas from the utility system. The delivery and use of natural gas would be similar to that in the surrounding commercial and residential areas and would not pose an additional hazard to the public.

Implementation of the **Standard Project Conditions** listed in Sections 3.8.2 and 3.9.2 during Project-related activities would reduce the potential for the Project to accidentally release hazardous materials to the environment to a **less than significant** impact.

c. Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Level of Impact Less than Significant

Numerous schools are present within and near the Project area, and Project-related activities will include the handling of hazardous materials such as fuels and lubricants within 0.25 mile of these schools. In addition, as noted in the discussion under Item a., impacted soils and other materials could be encountered during excavation activities, including those occurring near schools.

Implementation of the **Standard Project Conditions** discussed in Items a. and b. during Project-related activities would adequately reduce the potential for releases of hazardous materials that could affect school conditions. Therefore, the Project would have a **less than significant** impact on schools within 0.25 mile of the Project.

d. Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Level of Impact Less than Significant

Portions of the Project would be located on or near sites that have been identified as hazardous materials sites as compiled by the SWRCB, DTSC, and the San José Fire Department (SJFD) pursuant to Government Code Section 65962.5 (SWRCB 2014, DTSC 2014, SJFD 2014). Implementation of the **Standard Project Conditions** discussed in Items a. and b. during Project-related activities will protect site workers, the public, and the environment from hazardous materials associated with these sites. As a result, the Project would result in a **less than significant** impact.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?

Level of Impact Less than Significant

Project activities, including at-height work such as aerial installations of fiber-optic infrastructure and hut sites, would be located within the boundaries of an airport land use plan and within 2 miles of public airports (Windus 2011; City of San José Airport Department [CSJAD] 2011; Santa Clara 2006). The construction equipment used to access aerial infrastructure would likely operate between 20 and 40 feet above ground surface. If required within 2 miles of a public airport or public use airport, Crane equipment used to place the prefabricated Fiber Huts would likely operate between 15 and 50 feet above ground surface. The prefabricated Fiber Huts are 10 feet tall.

As a standard construction permit condition, any proposed development within defined airport influence areas (AIAs) must be evaluated by local agencies to determine that the proposal meets safety and land use standards. California Public Utilities Code Section 21674.7 (b) requires adherence to this requirement. Portions of the Project that would occur within the AIAs of SJC or RHV will undergo review and receive approval by the San José Planning Department prior to initiating any work in the AIAs. The Project will conform to any restrictions or requirements imposed by the San José Planning Department and any other local agencies.

Since the Project would adhere to standard permit conditions regarding development near airports, the Project would result in a <u>less than</u> <u>significant</u> impact related to public airports.

f. For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?

Level of Impact No Impact

There are no private airstrips in the Project area. The Project will have <u>**no**</u> <u>**impact**</u> related to private airports.

g. Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Level of Impact Less than Significant

The Project will require trenching, excavation, and overhead work in City streets. As such, the Project has the potential to disrupt road travel and impact emergency response and evacuation. Road disruption work will be temporary and performed in phases. As a permit condition and as noted in Section 3.14.2, the encroachment in public rights of way will be performed under a Traffic Control Plan approved by the City of San José. The Traffic Control Plan will comply with all applicable federal, state, and local regulations for work in roadways and will allow access for emergency vehicles or will provide temporary alternate routes. As such, the Project would not encumber large areas and prohibit emergency vehicle flow. With the incorporation of an approved Traffic Control Plan that is followed throughout the Project, the Project would result in a <u>less</u> than significant impact on emergency response and evacuation.

h. Would the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Level of Impact Less than Significant

Most of the Project work would occur within the developed portions of the city. Within the Project area, including areas near wildlands, work would primarily occur in existing roadways or immediately adjacent to existing roadways that are regularly trafficked by the public and near emergency response services, such as fire protection. The Project would also utilize existing aerial structures in these same land use areas. The Project would not require construction crews to traverse wildlands. The fiber-optic infrastructure does not require welding for installation or highvoltage electricity to operate. As such, the Project would not require the use of ignition sources, except for the operation of the construction vehicles.

As discussed in Item a. above, **Standard Project Conditions** will be followed when using or handling hazardous materials, including fuel and lubricants, to prevent releases of those combustible materials from vehicles and the work areas during Project implementation. In addition, as discussed in Item b., fire and explosion could occur if construction equipment were to breach subsurface utilities. However, proper utility clearance using standard procedures, and avoidance of areas identified as having subsurface utilities would minimize the potential for fire hazards associated with subsurface utilities.

With implementation during Project-related activities of the **Standard Project Conditions** discussed in Items a. and b., the Project would result in a **less than significant** impact related to wildland fires.

HYDROLOGY AND WATER QUALITY

		Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No
W	ould the Project:	Impact	Incorporated	Impact	Impact
a.	Violate any water quality standards or waste discharge requirements?		\boxtimes		
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site?				
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site?				
e.	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				
f.	Otherwise substantially degrade water quality?			\boxtimes	
g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h.	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			\boxtimes	
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				
i.	Inundation by seiche, tsunami, or mudflow?				\boxtimes

3.9

3.9.1 Setting

The Project is located in San José, California, which is part of the Santa Clara Valley. The Santa Clara Valley is a developed alluvial plain that slopes gently from foothills in the southwest and east to an active shoreline of the San Francisco Bay in the north. The elevation of the foothills in San José is approximately 400 feet above mean sea level. The average elevation of San José in the lower-lying portions of the Santa Clara Valley is approximately 170 feet above mean sea level and the valley has a typical slope ranging from flat to 2 percent. The northern portions of the Project are at sea level.

San José experiences a subtropical Mediterranean climate that has a semiarid feel with an average annual rainfall of 15.82 inches. Measurable rainfall occurs in downtown San José an average of 62 days a year, typically between November and May (Miller 2007). Depth to groundwater in spring 2014 in the Project area ranged from 0.63 to 136.37 feet below ground surface. During the same period, artesian conditions were observed in several monitoring wells in the Project area; the groundwater-bearing zones for these wells are located at depth and in part pressure from the overburden has created hydraulic pressure in these locations. The average depth to groundwater during this period in the Project area was approximately 50 feet below ground surface (California Department of Water Resources [DWR] 2014).

During a normal year of precipitation, San José relies on local water sources predominantly sourced from groundwater aquifers for approximately 50 percent of its water supply. The rest of the water supply is imported from state resources, with up to approximately 90 percent of the water supply being imported during drought years. Local water resources include watershed lands, underground aquifers, groundwater recharge areas, recycled water, reservoirs, canals, streams, rivers, and creeks. Figure 3.9-1 shows the groundwater basins that underlie the Project area. Historically, excess groundwater extraction resulted in regional ground subsidence. Groundwater management programs have been established and have stopped or significantly slowed ground subsidence (City of San José 2011b).

San José has an active shoreline with the San Francisco Bay and there are historical records of flooding, mostly in the northern portions of the City near San Francisco Bay. Figure 3.9-2 shows the 100-year and 500-year floodplains established for San José. Significant portions of the Project would be located within these floodplains. Seiches are seismically induced waves in enclosed bays or bodies of water. The Bay Area is not very susceptible to seiche inundation (U.S. Army Corps of Engineers 2000). Tsunamis are waves that propagate through large bodies of water due to seismic movement of the seafloor or displacement of water from a landslide. No portions of the Project are located in seiche and tsunami inundation areas. Mudflows typically occur during massive precipitation events where unstable soils are situated on steep slopes. Although portions of the Project are located in landslide hazard areas as discussed in Section 3.6, mudslides are rare in the Project area.



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Federal, state, and local regulations have been established to protect water resources from construction projects like the proposed Project. Some of these applicable regulations are:

- The most recent California Building Codes and municipal codes, as amended and adopted by the City;
- The regional Construction General Permit (CGP) administered by RWQCB;
- The City of San José's Grading Ordinance; and
- The City of San José's Post-Construction Urban Runoff and Hydromodification Management Policies (Policy 6-29) from the City's Municipal National Pollutant Discharge Elimination System (NPDES) Permit.

An assessment of potential water resource impacts and Project controls is provided below.

3.9.2 Impacts Evaluation

a. Would the Project violate any water quality standards or waste discharge requirements?

Level of Impact Less than Significant with Mitigation

Adherence to **Standard Project Conditions** and mitigation measures listed below in MM WQ-1 would ensure the Project conforms to water quality standards and waste discharge requirements.

Standard Project Conditions

- Prior to commencement of any clearing, grading or excavation, the Project shall comply with the SWRCB's NPDES General Construction Activities Permit, to the satisfaction of Director of Public Works.
- A SWPPP will be prepared, outlining BMPs for construction activities. Google Fiber will provide the SWPPP to the City for review as part of the construction permit submittal. Both parties will ensure that revisions are agreed upon and the final SWPPP is approved by both Google Fiber and the City prior to the issuance of construction permits and the start of construction activities.
- The Project shall comply with the City of San José Grading Ordinance, including erosion and dust control during site preparation and the City of San José Zoning Ordinance

requirements for keeping adjacent streets free of dirt and mud during construction.

- Excavated or disturbed soil will be kept within a controlled area surrounded by a perimeter barrier that may entail silt fence, hay bales, straw wattles, or a similarly effective erosion control technique that prevents the transport of sediment from a given stockpile.
- All stockpiled material will be covered or contained in such a way that eliminates offsite runoff from occurring.
- Upon completion of construction activities, excavated soil will be replaced and the area restored to pre-construction conditions.

Impact WQ-1: The Project could lead to accidental release of bentonite mud into receiving waters during construction.

MM WQ-1 – Prevent inadvertent loss of bentonite mud into receiving waters and aquatic habitats during HDD at a stream crossing.

- a) If a stream crossing cannot be avoided, and requires the use of HDD to avoid in-water disturbance, the following measures will be incorporated into HDD procedures to avoid or reduce impacts to receiving waters from bentonite release. In addition, Google Fiber will obtain the necessary agency approvals for HDD activity, which may include additional controls/conditions.
 - **Foreman oversight**. An HDD foreman will be present at all times during drilling operations.
 - **Geotechnical data.** Geotechnical borings in the HDD affected areas will be performed as part of the construction scope prior to the start of drilling operations. Geotechnical bore data provide information defining proper pipe depth as dictated by the soil strata characterization.
 - Drill bit tracking and monitoring with an electronic guidance system. All HDD operations on this Project will be guided by a tracking system consistent with best industry practices. The alignment will be surveyed on foot by a team of two to three personnel. Temporary surveyor stakes will be placed strategically along the alignment to anchor the tracker wires. The alignment will be accessed throughout the drilling operation to monitor for mud loss.
 - **Monitoring the drilling lubricant pressure at all times.** The drill rig operator will monitor the equipment for loss of drilling

lubricant pressure and volume. Members of the drill crew will also monitor the alignment of the drill and visually inspect for indications of mud loss that may occur.

- **Sizing** (slowly moving forward and back to better keep track of any potential fracture locations). The drill rig operator will also monitor the bore hole to keep it free from obstructions that would inhibit the return of drilling lubricant to the rig.
- **Limited operation times.** Unless drilling operations are within 1 hour of completion, drilling at sensitive habitats will be limited to the operation times of dawn to 30 minutes prior to dusk.
- b) Given the implementation of these measures, loss of mud lubrication is not anticipated to occur. In the unlikely event that loss of mud lubrication were to occur, hay bales, sand bags, silt fencing, straw wattle, or earthen berms (or a combination thereof) will be used to surround and contain drilling mud at the pad sites and in locations where such mud loss occurs. If mud loss occurs relatively close to the drilling rig, the mud will be contained and pumped back to the drilling location with portable pumps for reuse. In areas farther away from the drilling rig or where pumping back to the drilling rig is not feasible, a mobile vacuum pump or vacuum truck will be used to collect the drilling lubricant from the containment area. The drilling lubricant will then be recycled and sent to the return pit or storage tank. The vacuum truck will be confined to non-sensitive habitats, the developed right of way, or roads.

The Project would involve temporary disturbance of more than 1 acre of currently impervious and pervious portions of San José to install fiberoptic infrastructure. These proposed activities would include:

- Trenching to install fiber-optic cable;
- HDD to install fiber-optic cable under roads, railroads, streams, creeks, rivers, or existing utilities;
- Excavation to install concrete and metal vaults;
- Placement of concrete to install fiber-optic cabinets at grade, if cabinets are required; and
- Installation of concrete foundations for permanent placement of prefabricated Fiber Huts, if huts are required.

The construction methods for these activities are discussed in more detail in Sections 2.4 and 2.5. These proposed activities would require a variety of construction activities occur over the proposed Project duration of approximately 36 months. The Project does not include the construction or alteration of structures for human habitation.

The LASs would be preferentially installed on city-owned property throughout San José. The Project may include installation of up to 10 prefabricated Fiber Huts distributed throughout San José, most of which would be located on currently pervious, unpaved sites. Impervious concrete foundations would have to be constructed at each hut site requiring approximately 550 square feet of impervious surface. Installation of utility equipment would also create impervious surfaces, since the equipment would be installed on concrete pads. Each cabinet would be up to 33 inches long by 17 inches wide, or smaller and less than 3 feet high. The prefabricated Fiber Hut sites and utility cabinets, if necessary, would be distributed throughout the Project area.

The two LAS hut sites that have been identified so far for prefabricated Fiber Hut installation at Bird Ave./Virginia St. and Santa Teresa Blvd./SR 85 are presently unpaved and would require the installation of new impervious surface. The Bird Ave./Virginia St. LAS hut site would require the installation of approximately 600-700 square feet of impervious surface, while the Santa Teresa Blvd./SR 85 LAS hut site would require the installation of approximately 600-700 square feet of impervious surface.

No Project activities are proposed to occur within the beds of streams, creeks, rivers, or other riparian areas. Directional drilling under streams will be subject to the measures specified in MM WQ-1 above, to avoid accidental releases of bentonite drilling lubricant mud and in the unlikelihood of such a release provides additional measures that would minimize impacts on water quality.

Appropriate Project controls and general permit conditions would be implemented as part of these activities and would minimize the impact of the Project on water quality and water resources. The ground disturbance work for fiber-optic-cable installation would be temporary, the associated areas would be re-graded to match the existing grade, and the construction area surfaces would be restored to similar or better condition. Based on the Project design and the inclusion of general permit conditions, the Project would result in a <u>less than significant</u> impact on water quality across the Project area.

3.9.2.1 Construction-Related Water Quality Impacts

Consistent with the City of San José Envision 2040 General Plan (San José 2011b), **Standard Project Conditions** that would be implemented to

prevent storm water pollution and minimize potential sedimentation during construction include, but are not limited to, the following:

- Utilize onsite sediment control BMPs to retain sediment on the Project site;
- Utilize stabilized construction entrances and/or wash racks;
- Implement damp street sweeping as appropriate;
- Provide temporary cover of disturbed surfaces to help control erosion during construction; and
- Provide permanent cover to stabilize the disturbed surfaces after construction has been completed that matches or exceeds the quality of the pre-construction cover material.

As required by the CGP, a SWPPP would be developed and submitted to the SWRCB that would prescribe the types of BMPs the Project would implement to prevent erosion, offsite siltation, and the spread of storm water pollutants during the construction phase of the Project. Additionally, the Project would comply with the City of San José Grading Ordinance. As a general permit condition, an Erosion Control Plan that details all the above-mentioned BMPs will be submitted to the City of San José Public Works Department. Since the Project will include appropriate BMPs that would be approved by the City of San José and the Project will comply with other standard permit conditions, the Project would result in <u>less than significant</u> impact on construction-related water quality.

3.9.2.2 Post-Construction Water Quality Impacts

While the Project would be constructed in existing utility right of way and would have a low potential to introduce new impervious surfaces, the Project could include installation of impervious concrete foundations on sites that are currently pervious during the installation of prefabricated Fiber Huts and/or installation of utility cabinets, if required. If applicable, the Project would comply with the City of San José Post-Construction Urban Runoff Policy 6-29 and the RWQCB Municipal Regional NPDES permit to direct runoff into natural areas and avoid increasing direct inputs of runoff into other permeable areas. Compliance would include the following general elements:

• Minimization of runoff through site design measures that limit disturbance of natural drainage systems, conserve existing vegetation to the extent feasible, minimize impervious surfaces, and direct runoff onto vegetated areas; and

• Prevention of polluted runoff with source controls such as landscaping that minimizes irrigation, runoff, and pesticide and fertilizer application.

The facilities that would be installed during this Project would not require ongoing post-construction dewatering of the subsurface related to storm water. As a result, the Project would not involve discharge of pumped storm water into the storm water system.

The Envision San José 2040 General Plan Draft Program Environmental Impact Report (San José 2011a) concluded that existing federal, state, and local regulations and adopted policies would reduce or avoid impacts to surface water and groundwater quality during construction and postconstruction periods. With the additional incorporation of the standard permit conditions discussed above, the Project would adequately minimize impacts to water quality and the Project would have a <u>less than</u> <u>significant</u> impact.

b. Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Level of Impact Less than Significant

The Project would require water for limited activities associated with the Project, including:

- Potential construction of concrete foundations for the prefabricated Fiber Huts and utility cabinets;
- Control of dust generation during ground disturbance; and
- HDD subsurface installation techniques that require a bentonite/water drilling fluid.

All water for the proposed Project would be sourced from the municipal water supply. Because of drought conditions in California, reclaimed water will be used to the extent feasible. Hydrant water may not currently be used for construction in the City, and Google Fiber will coordinate with the City during the permitting stage to identify available sources of recycled water for construction. The volume of water needed for HDD activities and dust suppression could vary widely depending on numerous conditions and cannot be reliably estimated. No groundwater extraction is planned for dewatering excavation areas during the Project. The anticipated maximum depth of excavation for the Project is 48 inches below ground surface and 60 inches for HDD except for limited cases, such as stream crossings. Based on the typical depth to groundwater in the Project area, groundwater would not typically be encountered during excavation and trenching and so groundwater extraction is not planned. During HDD activities, stable bore holes are created and groundwater extraction would not be necessary. The municipal water requirements for these activities are discussed in Section 3.9.1, Setting, and would likely not be significant.

The Project would involve temporary disturbance of impervious and pervious portions of San José to install fiber-optic infrastructure. These proposed activities would require a variety of construction activities to occur over approximately 36 months of total construction duration. Not all types of work would occur continuously or simultaneously throughout this period. The installation of fiber-optic cable, a substantial portion of the construction work of this Project, would take place mostly in currently paved roadways or in sidewalks and developed areas adjacent to roadways. The various work areas would be restored to match the preconstruction surface type. These activities would not result in a significant change in pervious or impervious surface in the Project area.

Installation of the prefabricated Fiber Huts is discussed above under Item a. The addition of small, isolated impervious surfaces throughout San José would be relatively insignificant and would not impede infiltration of groundwater for groundwater aquifer recharge. General permit conditions would be included to properly control storm water runoff and infiltration for portions of the Project where new impervious surfaces are constructed. Based on the Project design and the inclusion of general permit conditions, the Project would result in a <u>less than</u> <u>significant</u> impact on groundwater recharge across the Project area.

c. Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site?

Level of Impact Less than Significant

As described under Items a. and b., the proposed Project would involve installation of fiber-optic cables, vaults, and LASs. Most fiber-optic cable and vault installation would occur in existing impervious areas. Excavations for this purpose would temporarily alter drainage patterns; however, restoration of the ground surface after fiber installation would reestablish the existing drainage patterns and would not increase the potential for erosion. In some locations, fiber-optic cables may need to be installed beneath streams, creeks, or rivers. Conduits for the cables would be installed under these drainage features using HDD techniques. Installation using this method would minimize impacts and alterations of existing drainage features.

Standard Project Conditions would be incorporated into the construction phase of the Project that would comply with state and local requirements and effectively control siltation on- and offsite. Installation of prefabricated Fiber Huts would require the construction of concrete foundations with a footprint of approximately 550 square feet. Many of the proposed hut sites, including proposed sites 1 and 2 (see Table 2-1), are currently unpaved so these installations have the potential to impact current drainage patterns; surface water that currently flows across the prefabricated Fiber Hut pad footprints would be diverted around the pads after their construction.

Based on the above considerations, the relatively small footprint of each foundation, and the incorporation of standard permit conditions would result in a **less than significant** impact on existing drainage patterns, erosion, or siltation.

d. Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?

Level of Impact Less than Significant

The Project would not alter the course of a stream or river.

Subsurface disturbance activities associated with the Project would temporarily alter drainage patterns during fiber installation. However, because the work areas would be restored to pre-Project grade, the drainage pattern would not be altered. Standard permit conditions, including compliance with the City of San José's Grading Ordinance, would minimize the impact of the Project on the existing drainage patterns in the Project area.

Installation of concrete foundations at proposed prefabricated Fiber Hut sites and for potential utility cabinets would require the addition of impervious surfaces. This limited increase in impervious surface would not substantially increase the rate or amount of runoff at a given hut site and the surfaces would be installed in isolated areas distributed throughout San José. The Project would comply with **Standard Project Conditions** to direct storm water runoff from these areas and prevent flooding of on- and offsite areas. With the incorporation of standard permit conditions, the Project would result in a <u>less than significant</u> impact on surface water runoff and flooding.

e. Would the Project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Level of Impact Less than Significant

As discussed under Items a. and d., given the limited increase in impervious surfaces that would result, the proposed Project would not appreciably increase the rate or volume of storm water runoff and **Standard Project Conditions** would be employed to reduce the potential for sediment to be entrained in that runoff.

The proposed Project is not expected to generate wastewater. In the unlikely event wastewater is generated during the Project, it would be containerized, labeled, profiled, and disposed of offsite at appropriate facilities in compliance with federal, state, and local regulations.

Therefore, the proposed Project would result in a <u>less than significant</u> impact on surface runoff quantity and quality.

f. Would the Project otherwise substantially degrade water quality?

Level of Impact Less than Significant

As discussed under Items a. through e., standard permit conditions would be incorporated into the proposed Project to effectively protect water quality in the Project area. As a result, the Project would result in a <u>less</u> <u>than significant</u> impact on water quality.

g. Would the Project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Level of Impact No Impact

The Project does not include construction or alteration of structures for human habitation and, as a result, the proposed Project would have <u>no</u> <u>impact</u> on flood hazards for habitable structures.

h. Would the Project place within a 100-year flood hazard area structures which will impede or redirect flood flows?

Level of Impact Less than Significant

Portions of the proposed Project would be constructed within the 100-year flood hazard area. These portions would include subsurface fiber-optic cable, subsurface and at-grade fiber-optic infrastructure, aerial fiber-optic cable, and may include at-grade prefabricated Fiber Huts. Due to the small footprint of these structures, none would significantly impede or redirect flood flows, and the Project would have a <u>less than</u> <u>significant</u> impact.

i. Would the Project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Level of Impact No Impact

The proposed Project does not include the construction or alteration of structures for human habitation. Certain subsurface and aerial fiber-optic infrastructure would be installed in the levee/dam failure flood zone identified by Santa Clara County (Santa Clara 2002e). If flooding occurred, the fiber-optic infrastructure might be damaged and service outages would likely ensue. However, these outages would not expose people or structures to significant risks. The proposed Project structures are relatively small and the Project would have <u>no impact</u> on the potential for loss, injury, or death involving flooding as a result of failure of a levee or dam.

j. Would the Project be subject to inundation by seiche, tsunami, or mudflow?

Level of Impact No Impact

As discussed in Section 3.9.1, Setting, the Project is not located in an area that is likely to be subject to tsunamis or seiches (California Emergency Management Agency [CEMA] 2009a, CEMA 2009b, Association of Bay Area Governments [ABAG] 2013). Although portions of the Project would be located in landslide hazard areas, as discussed in Section 3.8, the cohesive nature of typical soils and the relatively flat grade of most of the Project area are not conducive to mudslides. Therefore, the Project would have <u>no impact</u> on the potential for inundation by seiche, tsunami, or mudflow.

3.10 LAND USE

Wo	ould the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Physically divide an established community?				\boxtimes
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?			\boxtimes	

3.10.1 Setting

San José is a mature urban community. The built environment presently includes approximately 68 percent of the land within the City limits, and approximately 88 percent of the land within the City's Urban Service Area where Google Fiber infrastructure would be constructed. The two identified hut locations are located in residential zones as shown in Table 3.10-1.

Table 3.10-1 Identified LAS Prefabricated Hut Sites Hut APN/Location Land Use

Hut Site	APN/Location	Land Use and Zoning	Description
1	264-41-074 Bird Ave./Virginia St.	R-2,CP	Undeveloped 0.43 gross acre lot surrounded on all sides by developed urban uses: Bird Avenue to the west, Virginia Street to the north, residential development to the east and railroad tracks on the south.
2	464-28-010 Santa Teresa Blvd./SR 85	R-1-8	Undeveloped 0.97 gross acre lot surrounded by developed land uses: Santa Teresa Boulevard on the west, Glenburry Way and residential development on the east, and Thornwood Drive on the south. An undeveloped lot containing trees is adjacent to the northern boundary of the parcel, which borders the SR 85 South off-ramp on the north.
Notes: R-2 re	: sidence district (2DU/lo	ot)	
CP con	mmercial pedestrian dis	strict	

R-2 residence district (2DU/lot) CP commercial pedestrian district R-1-8 residence district (8DU/acre) Source: City of San José 2002.

Existing local regulations and adopted policies that would reduce or avoid land-use-compatibility impacts from introduction of Google Fiber service into previously developed areas of the City and pre-existing utility rights of way include:

- Envision San José 2040 General Plan (City of San José 2011b); and
- City of San José Municipal Code, Title 20 Zoning Ordinance.

3.10.2 Impacts Evaluation

a. Would the Project physically divide an established community?

Level of Impact No Impact

The proposed Project consists of the installation of fiber-optic cable within existing and disturbed rights of way and developed commercial and public property. The Project would limit construction to existing disturbed rights of way and developed land. The two identified prefabricated Fiber Hut locations are located in developed areas. These locations would be used to site prefabricated Fiber Huts and would not change the existing use of the Project site. Therefore, the construction of new features (i.e., LASs, belowground fiber-optic cable, aerial cable installations) would not disrupt or divide an established community. There would be <u>no impact</u>.

b. Would the Project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect?

Level of Impact Less than Significant

The Land Use Policy and zoning regulations particularly applicable to utility development in the City of San José and the consistency of the Google Fiber Program with those regulations are outlined below in Table 3.10-2.

Table 3.10-2Project Compatibility with Applicable City of San José
Planning Documents

Plan/Ordinance	Policies	Consistency Discussion
Envision San José 2040 General Plan		
Goal CD-1 – Attractive City: Create a well-designed, unique, and vibrant public realm with appropriate uses and facilities to maximize pedestrian activity; support community interaction; and attract residents, business, and visitors to San José.	POLICY CD-1.19: Encourage the location of new and relocation of existing utility structures into underground vaults or within structures to minimize their visibility and reduce their potential to detract from pedestrian activity. When aboveground or outside placement is necessary, screen utilities with art or landscaping.	Consistent. Google Fiber would attach aerial lines only where there are existing structures and placing all other new conduit underground. The Project may replace existing poles, but will not result in new above-ground utility poles. LAS sites will be screened as needed.
	POLICY CD-1.27: When approving new construction, require the undergrounding of distribution utility lines serving the development. Encourage programs for undergrounding existing overhead distribution lines. Overhead lines providing electrical power to light rail transit vehicles and high-tension electrical transmission lines are exempt from this policy.	Consistent. Google Fiber is not proposing new development that would necessitate undergrounding of infrastructure.
San José Zoning Ordinance- Title 20		
Title 20.80, Part 19, Specific Use Regulations, Utility Structures, Minimum Development Criteria	 Title 20.80.1810 Minimum development criteria - All utility structures. All utility structures shall conform to all of the applicable minimum criteria: 1. Utility structures shall be located in a private, public utility, or public service easement. 2. Sight lines shall remain unobstructed at intersections or driveways consistent with the Caltrans Traffic Safety Manual on file with the director of public works. 	Consistent. Google Fiber has engineered the network to be fully compliant with all general zoning criteria for utility structures.

Plan/Ordinance	Policies	Consistency Discussion
	3. Utility structures shall be enclosed or screened, to the extent possible, to match existing fencing, screening, or landscaping.4. Utility structures shall be constructed and treated with	
	appropriate materials that discourage or repel graffiti.	
	5. Utility structures shall be sited to avoid impacts on ordinance-sized trees.	
	6. No utility structure shall exceed 110 cubic feet or a maximum height of 5.5 feet above grade, exclusive of meter panels or pedestals.	
Title 20.80 Part 10 Specific	Title 20 80 1840 Conditions Utility structures	Consistant Coogle Fiber will
Use Regulations, Utility Structures, Minimum Development Criteria, Conditions	The director shall include the following conditions in all permits for utility structures: 1. The provider shall agree to be responsible for any damage caused by its activities to any existing public or private structure or facilities.	comply with all relevant conditions, as applied by the building department in the issuance of permits for the facility.
	 2. The provider shall indemnify and hold harmless the City and any officers and employees thereof against and from all claims, loss, liability, damages, judgments, decrees, costs and expenditures which the City or such officer or employee may suffer, or which may be recovered from or obtainable against the City or such officer or employee, proximately caused by and growing out of or resulting from the exercise of the permit. 3. The provider shall maintain all utility structures in a safe and clean manner. 4. The provider shall promptly remove all graffiti on any structure. In the event the provider fails to remove all graffiti from the structure within 2 business days following receipt of notification from the City, the City shall have the right to remove any graffiti and the provider shall reimburse the City for all costs incurred for the removal within 30 days of receipt of a bill for the work done. 5. Testing of emergency power equipment shall be limited to weekdays between the hours of 9:00 a.m. to 5:00 p.m., unless alternate hours are requested at the time the application is filed and agreed to, in writing, by all abutting property owners. 6. Any other condition deemed appropriate by the director. (Ord. 26248.) 	
Title 20.80, Part 21, Specific Use Regulations, Stand By/Backup Electric Power Generation, Criteria and Standards	20.80.2030 - Criteria and standards. A. Any standby or backup electrical power generation facility shall meet all of the following criteria and standards listed below. Any electrical power generation uses that may be permitted with a site development permit, special use permit, or CUP shall meet the standards and criteria below, provided that the director, planning commission, or city council, as the case may be, may relax such standards or impose stricter standards as a reasonable exercise of their discretion, upon a finding that such modifications are reasonably necessary in order	Consistent. Google Fiber will comply with all relevant conditions, as applied by the building department in the issuance of permits for the facility.

Plan/Ordinance	Policies	Consistency Discussion	
	to implement the general intent of this part and the purposes of this title.		
	B. The standards and criteria for stand-by and back-up electrical power generation uses are as follows:	Consistent. Google Fiber will comply with all relevant	
	1. Maximum noise levels, based upon a noise analysis by an acoustical engineer, will not exceed the applicable noise standards set forth in this title.	conditions, as applied by the building department in the issuance of permits for the	
	2. If the applicable maximum air quality or noise standards are exceeded in the open space, agricultural, or any commercial or industrial zoning district, a CUP issued in accordance with Part 6 of Chapter 20.100 of this title shall be required.	facility. or	
	3. A BAAQMD permit has been issued for the use or facility.		
	4. Operation of a temporary standby or backup power generation facility, by definition, shall not exceed a maximum time period of 4 consecutive months in any 12 month period.	2-	
	5. Testing of generators is limited to 7:00 a.m. to 7:00 p.m., Monday through Friday. (Ords. 26388, 26456, 27757.)		

Notes:

BAAQMD = Bay Area Air Quality Management District Source: ERM 2015

> Google Fiber has designed the system to comply with all applicable policies and guidelines adopted by the City of San José for utility infrastructure development. The utility network would consist of smallscale changes distributed across the entirety of the City of San José's built environment and would have negligible impact on land use in any one location.

The two identified prefabricated Fiber Hut sites at Bird Ave./Virginia St. and Santa Teresa Blvd./SR 85 are in the CP Commercial Pedestrian/R-2 Two Family Residence zone districts and the R-1-8 Single Family Residence zone district, respectively. The proposed facilities are permitted on these sites with the approval of a CUP. The Bird Ave./Virginia St. site has a split zone, with the northern portion of the site zoned CP and the southern portion of the site zoned R-2, as shown in Table 3.10-2.The proposed Project activities are not anticipated to be located in the R-2 zoned area as the Fiber Hut and associated infrastructure is proposed in the northern portion of the site that is zoned CP.

The fiber cables, vaults, and cabinets would be placed in existing utility right of way and would be subject to applicable zoning codes. Therefore, impacts would be <u>less than significant</u> and no mitigation would be required.

c. Would the Project conflict with any applicable habitat conservation plan or natural community conservation plan?

Level of Impact Less than Significant

The Project area is covered by the SCVHP and will be constructed to be consistent with the SCVHP, as adopted by the City of San José. Project design features and construction methods will follow provisions within the SCVHP as listed above and throughout other sections of this IS/MND. Fee payment will occur for construction within designated fee zones as per the SCVHP. The Project will thus not conflict with the adopted Habitat Plan and potential impacts would be <u>less than significant</u>.
Wo	ould the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				\boxtimes
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				

3.11.1 Setting

Under the Surface Mining and Reclamation Act of 1975 (SMARA), the State Mining and Geology Board has designated one area of San José as containing a regionally significant source of construction aggregate materials. This area is located within Communications Hill and is surrounded by Union Pacific Railroad (UPRR) property, Curtner Avenue, State Road 87, and Hillsdale Avenue.

This designated area also contains the Azevedo Quarry, which is a part of unincorporated Santa Clara County and located on the eastern side of Communications Hill by San José. The County of Santa Clara approved a reclamation plan for the quarry to harvest and reclaim the site. In February 2010, a use permit was issued for the Azevedo Quarry area for concrete, asphalt, and soil recycling. A minor amount of reclamation work is still needed for the land within the Azevedo Quarry, because the majority of the land within the site has been fully reclaimed. The Communications Hill Planned Community, a Specific Plan for a dense urbanized residential neighborhood, was approved in 1992 (City of San José 2011b). The area within this plan was also designated by the Mining and Geology Board (EE-1) as containing mineral resources under SMARA in San José as well as unincorporated Santa Clara County. Previous analyses in the Final EIR for the Communications Hill Specific Plan showed that any changes carried out from the General Plan would cause significant inevitable impacts to the mineral resources designated by the State of California.

A percentage of the mineral resource area in San José has been developed by roads and housing. The Urban development in and around Communications Hill has restricted access to mineral resources in the Specific Plan Area; however, a portion of the undeveloped area in this location is intended to remain as Non-Urban Hillside. The areas discussed above are the only existing areas within San José that are designated as mineral deposits under SMARA.

3.11.2 Impacts Evaluation

a.-b. Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Level of Impact No Impact

Google Fiber would install underground conduit in the pre-existing roads that serve the Communications Hill Planned Community. All new conduit would be installed in public rights of way. While construction would occur within a designated regionally significant source area, no new impacts on mineral resources would occur with the construction of the Project that would be additional to the impacts that occurred with the construction of the Communications Hill Planned Community. There would be **no impact**.

3.12 NOISE

Wo	ould the Project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b.	Exposure of persons to, or generation of, excessive ground-borne vibration or ground- borne noise levels?			\boxtimes	
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		\boxtimes		
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			\boxtimes	
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				\boxtimes

3.12.1 Setting

3.12.1.1 Environmental Setting

The proposed Project is located throughout San José and would be installed within a mix of residential and business areas. Generally, the main existing source of noise in San José is vehicle traffic.

The two identified LAS Fiber Hut locations at Bird Ave./Virginia St. and Santa Teresa Blvd./SR 85 are located in urbanized areas of the City of San José. Both sites are bordered by frequently used roadways and are adjacent to residential areas. The existing noise environment at both the sites result primarily from vehicular traffic on surrounding streets and major roadways as shown in Table 3.12-1. Although specific locations are not known at this time for the other LASs, most are also anticipated to be located in similar noise environments adjacent to residential and commercial development.

Hut Site	APN	Description
1 Bird Ave./Virginia St.	264-41-074	Undeveloped 0.43 gross acre lot surrounded on all sides by developed urban uses: Bird Avenue to the west, Virginia Street to the north, residential development to the east and railroad tracks on the south.
2 Santa Teresa Blvd./SR 85	464-28-010	Undeveloped 0.97 gross acre lot surrounded by developed land uses: Santa Teresa Boulevard on the west, Glenburry Way and residential development on the east, and Thornwood Drive on the south. An undeveloped lot containing trees is adjacent to the northern boundary of the parcel, which borders the SR 85 South off-ramp on the north.

Source: Google Fiber 2015

3.12.1.2 Regulatory Setting

City of San José 2040 General Plan. The Envision 2040 General Plan establishes objectives for acceptable levels of noise for development projects in San José (City of San José 2011b). Many of the objectives are characterized as day-night average noise level (DNL). The DNL is a 24hour average sound level, where a penalty of 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 (dB) daynight average noise level (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. These and other guidelines for acceptable noise levels are summarized in Table 3.12-2.

Table 3.12-2 Land Use Compatibility Guidelines, dBA

		EXTERIO	R NOISE	EXPOS	UREIDN	L IN DE	CIBELS (DBA)
	LAND USE CATEGORY	55	60	65	70	75	80
1.	Residential, Hotels and Motels, Hospitals and Residential Care ¹						
2.	Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
1 ,	Schools, Libraries, Museums, Meeting Halls, Churches						
	Office Buildings, Business Commercial, and Professional Offices						
5.	Sports Arena, Outdoor Spectator Sports						
	Public and Quasi-Public Auditoriums, Concert Halls, Amphitheaters						
N	oise mitigation to reduce interior noise levels pursu	uant to Policy EC	2-1.1 is requ	uired.			
10	rmally Acceptable:						
	Specified land use is satisfactory, based upon the	assumption th	at any build	ings involve	ed are of no	rmal conve	ntional construction
	without any special noise insulation requirement	s.					
0	nditionally Acceptable:						
	Specified land use may be permitted only after de	etailed analysis	of the noise	reduction	requiremen	nts and nee	ded noise insulation
	features included in the design.						
	acceptable:						
In							
Jn	New construction or development should genera	lly not be under	taken beca	use mitigat	ion is usual	ly not feasi	ale to comply with

Source: City of San José, 2011b

Per Policy EC-1.2, the City considers new development to have significant noise impacts on residential areas if noise levels increase by 5 decibels on the A-weighted scale (dBA) DNL when below 60 dBA DNL or increase by 3 dBA DNL when equal to or above 60 dBA DNL. Also, the City considers construction noise impacts to be significant if such activities are within 500 feet of residential uses or 200 feet of commercial or offices and the activity would last for more than 12 months.

In addition, the General Plan (Policy EC-2.3) requires new development to minimize vibration impacts to adjacent uses during construction. For sensitive historic structures, the General Plan specifies a vibration limit of 0.08 inch per second (in/sec) peak particle velocity (PPV) to minimize the potential for cosmetic damage to a building. For normal conventional construction, the General Plan specifies a vibration limit of 0.20 in/sec PPV to minimize the potential for cosmetic damage at buildings.

City of San José Municipal Code. The San José Municipal Code limits noise levels at any property line of residential, commercial, or industrial properties. For example, the Municipal Code limits noise levels to 55 dBA

at the property line of a residential zoned property except upon issuance and compliance with a CUP. Construction activity is not allowed within 500 feet of a residential unit before 7:00 a.m. or after7:00 p.m. Monday through Friday or any time on weekends, unless specifically allowed by a development permit or other planning approval.

3.12.2 Impacts Evaluation

a. Would the Project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Level of Impact Less than Significant with Mitigation

Construction Noise

Construction of the proposed Project is expected to last approximately 36 months, but construction activities at any one location would in most cases be no more than 5 business days. As a result, construction activities from the proposed Project would temporarily increase noise levels at different locations throughout the city. Actual noise levels would vary throughout the day, depending on the type of construction equipment involved, activities being implemented, and distance between the source of the noise and receptors. For example, at 50 feet from peak use of rock-sawing or trenching, DNLs may reach 85 to 88 dBA.

The General Plan specifically addresses short-term construction projects by considering such activities to be significant if they last more than 12 months. Construction activities for the proposed Project would not exceed 12 months at any one location. The Municipal Code (see Table 3.12-2) also specifies that construction activity is generally not allowed within 500 feet of a residential unit before 7:00 a.m. or after 7:00 p.m. on weekdays and any time on the weekends. In cases where activity will occur within 500 feet of a residential unit, the construction activities for the proposed Project would be limited to these times.

Table 3.12-3 Project Construction Hours and Equipment Standards

Jurisdiction	Construction Hours Limitations	Construction Equipment Standards	Reference
San José	7:00 a.m. to 7:00 p.m. weekdays; no construction on weekends or holidays within 500 feet of residential units unless expressly allowed in development permit.	Use available noise suppression devices and properly maintain and muffle loud construction equipment.	City of San José Municipal Code, Ordinance No. 26594, effective May 10, 2002 (City of San José 2002).

Standard Project Conditions

Construction of the proposed Project would result in less than significant noise impacts consistent with the local General Plan and noise ordinance due to the short duration of construction activities at any one location. However, the following conditions will be implemented to further 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 shall 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 shall be notified of construction in general through public outreach, including door hangers prior to the initiation of construction, as a condition of the Encroachment Permit prior to start of work.

Construction would be conducted within the applicable City requirements, and construction noise would be temporary. Construction noise is expected to be **less than significant**.

Operation Noise

Once construction of the network is complete, noise would be periodically generated by occasional maintenance activities using pickup trucks and landscaping equipment, consistent with noise levels from existing activities throughout the City.

Operational Noise from LAS Sites

At each LAS, whether in a prefabricated Fiber Hut or within an existing commercial building, noise would be generated by three external air conditioners and possibly a small backup emergency generator. A fourth air conditioner would only be activated upon failure of one of the three main air conditioners. The emergency generators would be fueled by natural gas and are expected to be rated at 85-kilowatt or similar size. The emergency generators will incorporate standard noise attenuation features (e.g., a muffler) and would only be used in emergency situations and tested intermittently (e.g., once a month for no more than an hour at a time).

Based on Policy EC-1.2 of the San José General Plan, noise impacts from a project are considered significant under the following conditions:

- If day-night average noise levels (DNL or Ldn) are less than 60 dBA, noise levels are significant if the increase from the Project is 5 dBA or more.; and
- If day-night average noise levels (DNL or Ldn) are 60 dBA or more, noise levels are significant if the increase from the Project is 3 dBA or more.

For the LASs, noise from the operation of the three air conditioner units and one emergency generator was estimated and compared to the above thresholds. The analysis conservatively assumes the three air conditioners are run continuously throughout the day. It is also assumed that the generator would be operated for 1 hour for testing purposes, even though actual testing is expected to last no more than 30 minutes in 1 day (and testing is expected to occur only once per month). The estimates also conservatively assume the equipment is all situated in the same place, rather than distributed around the hut site.

When using the above significance thresholds, the level of impact is also dependent on existing background noise levels. A June 15, 2009, report prepared for the San José 2040 General Plan update (Illingworth & Rodkin, Inc., 2009) estimated 2008 noise levels near major roadways, including the areas where the two initial Fiber Huts would be located.

This report shows that existing day-night average noise levels near the location of the two Fiber Hut locations at Bird Ave./Virginia St. and Santa Teresa Blvd./SR 85 are at least 60 dBA. Therefore, the analysis conservatively assumes a day-night average existing background noise level of 60 dBA.

The results of the analysis are summarized in Tables 3.12-4 through 3.12-7. In particular, Table 3.12-4 and 3.12-5 show maximum noise levels and day-night average noise levels, respectively, attributed to the air conditioners and generator without considering existing background noise levels. Thus, Table 3.12-4 and 3.12-5 present the predicted noise level from the Project, hypothetically assuming there are no other existing noise sources. Table 3.12-6 presents estimated day-night average noise levels from the air conditioners and generators added to existing background noise levels of 60 dBA. More details regarding the noise analysis can be found in Appendix C.

The following summarizes estimated noise impacts with and without attenuation/abatement measures (described further below) for a typical prefabricated Fiber Hut as described in Section 2.3.2.1 using the operating assumptions described above:

- *Without Attenuation --* the continuous operation of the three air conditioners combined with one hour of generator testing may increase day-night average noise levels by approximately 3 dBA (DNL) above existing levels if the equipment is located less than 120 feet from noise sensitive receptors (see Table 3.12-6). Without abatement, the equipment would need to be placed 120 feet or more from receptors (property lines) to comply with General Plan policies. In order to comply with Municipal Code limits, equipment would need to be approximately 175 feet from receptors (property line) as shown in Table 3.12-4.
- With Attenuation -- if noise barriers or equivalent design features are installed around the equipment, a 10 dBA reduction in noise levels from the equipment could be achieved. With the barriers or equivalent design features, the predicted distance at which impacts are significant is between 35 and 40 feet from the noise source (see Table 3.12-7). Therefore, with appropriately designed barriers or equivalent design features, noise impacts would be less than significant during operations if the equipment is located at least 40 feet from noise sensitive receptors. In order to comply with Municipal Code limits, equipment would need to be approximately 50 feet from receptors (property line) as shown in Table 3.12-4.

Certain design features can reduce noise levels below those predicted above. For example, appropriately designed barriers surrounding the air conditioners and generator and blocking the line of site between the equipment and noise sensitive receptors can reduce noise levels by 10 dBA. Examples of appropriate materials for a barrier include concrete or masonry. In addition, one important design feature to consider is the height of the barrier. The appropriate height will depend on various site specific factors such as height of noise source and receptor and distances between the source, barrier, and receptor. References to tools to estimate appropriate heights, if barriers are used, are identified in Appendix C.

Both of the identified LAS Fiber Hut locations are adjacent to residential land uses. At the Bird Ave./Virginia Street LAS, residences are located immediately to the east of the site and across both Virginia Street and Bird Avenue. At the Santa Teresa Blvd./SR 85 LAS site, residences are located to the east of the site across Glenburry Way. Conceptual site plans showing approximate orientation of the air conditioners and generator on each of the two sites are provided in Appendix A.

Impact NOI-1: Operation of LAS Fiber Hut sites could result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

The two identified LAS Fiber Hut sites could exceed General Plan and/or Municipal Code noise level thresholds during operations. As discussed above, assuming typical noise barriers or similar attenuation, the distance between equipment and receptors would need to be at least 40 feet for the noise impact to be less than significant.

LAS Fiber Hut 1 (Bird Ave./Virginia Street). Based on the conceptual site plan, the equipment could be less than 40 feet from the property line of adjacent residences. Therefore, site-specific design will need to incorporate specific noise abatement features to reduce noise levels at the property line to meet General Plan policies.

LAS Fiber Hut 2 (Santa Teresa Blvd./SR 85). Based on the conceptual site plan, the equipment could be less than 40 feet from the property line of adjacent residences. Therefore, site-specific design will need to incorporate specific noise abatement features to reduce noise levels at the property line to meet General Plan policies.

MM NOI-1 - Site-specific noise attenuation and abatement for LASs.

At LASs where noise generating equipment (air conditioners and generators) are located less than 120 feet from the property line of a noise sensitive receptor (residences, schools, hospitals, convalescent homes, libraries, churches, and meeting halls), Google Fiber will be required to submit a site-specific noise attenuation design confirming site noise attenuation is sufficient to reduce noise levels to 55 dBA DNL at the property line of the nearest noise sensitive receptor.

Site-specific noise attenuation design submitted to the City for review and approval will include the following:

- 1. Site plans with distances to property lines and noisesensitive receptors.
- 2. Noise attenuation design for the site, will include one or a combination of the following to achieve noise reduction:

Abatement Measure	Objective
Site orientation	Orient equipment to adjust/increase distance to receptors
Acoustic barrier types, materials	Attenuate noise through selection of materials (e.g., concrete, masonry, fiberglass) and height of barrier
Barrier design	Adjust shape of barrier and proximity to equipment to increase effectiveness of abatement

3. Confirmation that resulting attenuation will reduce noise levels to 55 dBA DNL at the property line of the nearest noise sensitive receptor shall be provided by a qualified acoustician.

This mitigation will apply to the two identified prefabricated Fiber Hut sites, which have equipment that will be located less than 120 feet from the property line of residences. Therefore, site-specific noise attenuation will be submitted to the City for review and approval and incorporated into permit conditions.

The site-specific noise attenuation and permit conditions will reduce noise at receptors to less than significant levels. Attenuation measures will be reviewed and approved by the City, and incorporated into permit conditions.

Table 3.12-4 Predicted Maximum Noise Level (Leq) from Equipment Only at LASs

Source		Leq, Noise level (dBA) at Specified Distance,									
				N	o Background I	Noise					
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft				
Without Attenuation ⁽¹⁾	Generator	69	63	60	57	55	54	52			
	Air Conditioners (3)	64	61	57	55	53	51	50			
	Combined Equipment	70	65	62	59	57	56	54			
With Attenuation	Combined Equipment	60	55	52	49	47	46	44			

Note: Assumes equipment is located the same distance from receptors, generator running 1 hour during a single day and 3 air conditioners running continuously.

(1) "Without attenuation" estimates account for only natural attenuation.

(2) "With attenuation" estimates account for a barrier or equivalent design that would reduce noise levels by 10 dBA.

Table 3.12-5Predicted Day-Night Average Noise Level (DNL) from Equipment Only for LASs

Source		Ldn,, Noise level (dBA) at Specified Distance,								
				Ν	o Background I	Noise				
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft			
Without Attenuation	Generator	55	49	46	43	41	40	39		
	Air Conditioners (3)	70	67	64	61	59	58	56		
	Combined Equipment	70	67	64	61	59	58	56		
With Attenuation	Combined Equipment	60	57	54	51	49	48	46		

Note: Assumes equipment is located the same distance from receptors, generator running 1 hour during a single day and 3 air conditioners running continuously.

(1) "Without attenuation" estimates account for only natural attenuation.

(2) "With attenuation" estimates account for a barrier or equivalent design that would reduce noise levels by 10 dBA.

	Noise l	evel (dBA) Distance	Residential Threshold (dBA, DNL)				
	25 ft 50 ft 75 ft 100 ft 125 ft						
Noise Level	71	68	65	64	63	NA	
Noise Increase	11	8	5.3	3.7	2.7	If <60 dBA, then <5	
From Baseline	From Baseline						

 Table 3.12-6
 Predicted Combined Day-Night Average Noise Level (DNL) for LASs

Note: Assumes both equipment at same location and generator running 1 hour during a day and 3 air conditioners running continuously. Assumes background of 60 dBA DNL.

Table 3.12-7Predicted Combined Day-Night Average Noise Level (DNL) With
Attenuation for LASs

	Noise le	evel (dBA) Distanc	Residential Threshold (dBA, DNL)			
	25 ft 50 ft 75 ft 100 ft 125 ft					
Noise Level	63	62	61	61	60	NA
Noise Increase	3.2	1.9	0.9	0.5	0.4	If <60 dBA, then <5
form Baseline						If >=60 dBA, then <3

Note: Assumes both equipment at same location and generator running 1 hour during a day and 3 air conditioners running continuously. Assumes background of 60 dBA DNL.

b. Would the Project result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?

Level of Impact Less than Significant

During construction, bulldozers may be used for the prefabricated Fiber Hut construction and dump trucks may be used at various stages of the Project. Construction equipment can expose persons and buildings to higher than existing vibration levels. However, vibration levels generated by this type of equipment would be **less than significant**. For example, the General Plan specifies a vibration limit of 0.08 in/sec PPV for sensitive historic structures and 0.2 in/sec PPV for normal conventional construction. A large bulldozer may generate vibration levels of 0.03 in/sec at 50 feet, below the more restrictive limit of 0.08 in/sec. c. Would the Project result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Level of Impact Less than Significant with Mitigation

Once the proposed Project has been constructed, noise would be generated by air conditioners at the LAS sites and by occasional maintenance activities using pickup trucks and vegetation trimming equipment throughout the network. These noise levels would be consistent with existing levels throughout the City.

As discussed in Item a., the air conditioners and backup generator located at each LAS Fiber Hut site could result in noise levels at receptors that exceed General Plan policies and Municipal Code limits. Implementation of MM NOI-1 would require site-specific noise studies to confirm noise abatement reduces operational noise to less than significant levels. Therefore, the impacts would be <u>less than significant with mitigation</u>.

d. Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Level of Impact Less than Significant

As discussed under Item a. above, construction of the proposed Project would generate short-term noise levels above existing levels. However, construction activities at any one location would be short-term, varying from less than a day to no more than 5 business days and limited to the hours of 7:00 a.m. to 7:00 p.m., consistent with the General Plan and Municipal Code. Construction would also be required to comply with the Standard Project Conditions listed above. Therefore, temporary noise impacts will be **less than significant**. As discussed under Item a., features have been incorporated into the proposed Project to limit noise impacts.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

Level of Impact Less than Significant

The Project would involve construction within 2 miles of both the Mineta San Jose International Airport and the Reid-Hillview Airport. The airport has an active noise reduction program, and follows the 65 dBA community noise equivalent level (CNEL) as recommended by the state for areas with sensitive receptors. In addition, the Project would require construction within 2 miles of the RHV airport. This airport also follows the 65 dBA CNEL guidance.

During construction, workers may be temporarily exposed to increased noise levels associated with airport activity. However, in addition to being short-term, those levels would be consistent with existing exposure to other nearby noise sensitive receptors. Once construction is completed, no new long-term noise sensitive receptors would be located in the Project area. Therefore, impacts to workers associated with the proposed Project would be temporary and would have a **less than significant impact**.

f. For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?

Level of Impact No Impact

No private airstrips were identified in the Project vicinity therefore, there would be **no impact** associated with private air strips.

W	ould the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire Protection? Police Protection? Schools? Parks? Other Public Facilities? 				
b.	Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				
c.	Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				

3.13.1 Setting

3.13

The proposed construction and implementation of the Google Fiber service would have potential impacts dispersed across the entire city. As such, the setting presented herein encompasses overall conditions across the City and is not specific to a given site.

3.13.1.1 *Fire Protection*

Fire protection services in San José are provided by the San Jose Fire Department (SJFD). The SJFD responds to all fires, hazardous materials

spills, and medical emergencies (including injury accidents) in the City. The SJFD senior command structure consists of a Fire Chief, an Assistant Fire Chief, three Deputy Chiefs, and three Deputy Directors. The SJFD itself consists of six Bureaus: Field Operations, Fire Prevention, Administrative Services, Support Services, Emergency, and Medical.

Emergency response for San José is provided by 30 engine companies, nine truck companies, one urban search and rescue company, one hazardous incident team company, and numerous specialty teams and vehicles.

The SJFD protects 206 square miles (178 square miles incorporated) and approximately 1.2 million residents (city and county areas). As of August 2010, the SJFD included approximately 660 authorized sworn personnel, 40 non-sworn uniformed Fire Communication Dispatchers, and 64 civilian personnel. There are currently 33 active fire stations in the City. For fire protection, the existing General Plan identifies a goal of having a 4-minute average response time to all calls. It is the SJFD's goal not to exceed 4 minutes for the "first response" and 6 minutes for the "second response" time.

3.13.1.2 Police Protection

Police protection services in San José are provided by the City of San José Police Department (SJPD). The SJPD is administered by a command staff including the Chief, Assistant Chief, and four Deputy Chiefs presiding over an Operations Command. The Operations Command is divided into four Bureaus: Administration, Field Operations, Investigations, and Technical Services. The Bureaus comprise 11 divisions with over 67 specialized units and assignments. The SJPD employs over 1,300 sworn officers.

Officers patrolling the City are dispatched from police headquarters, located at 201 West Mission Street. The City has four patrol divisions, which consist of a total of 16 patrol districts. The patrol districts consist of 83 patrol beats, and the patrol beats consist of 357 patrol beat building blocks.

3.13.1.3 Parks

The City of San José Department of Parks, Recreation and Neighborhood Services manages recreational resources in the City. Types of recreational resources found in San José include parklands, open spaces, golf courses, pedestrian and bike trails, nature trails, camping and trailer park areas, marinas, and recreational boating areas (City of San José 2011a). The proposed locations of LASs, vaults, cabinets, cabling, and other infrastructure span the City and therefore about some of these recreational resources.

Table 3.13-1 summarizes the City's existing parkland acreage and level of service (i.e., number of acres per 1,000 population), and the City's service-level goals contained in the General Plan. As outlined in the table, based on the existing General Plan goals, the City has sufficient neighborhood/ community and combined city and other citywide/regional parkland. However, the City is deficient in school recreation and City-owned citywide/regional parkland.

	Existing Conditions		2020 (General Plan		
Description	Area	Service Level	Service Level Goal	Area Required to Meet Goal	Current Surplus/ Deficit (acres)	
	(acres)	(acres/ 1,000 population)		(acres)		
Neighborhood/Community Serving Parkland (City-owned)	1,586.9	1.6	1.5	1,459.5	+127.4	
Recreational School Grounds	1,334.2	1.4	2.0	1,946.0	-611.8	
City-owned Parkland and Recreational School Grounds Combined	2,921.1	3.0	3.5	1,946.0	-484.4	
Citywide/Regional Parkland (City- owned)	1,848.5	1.9	7.5	7,297.5	-5,449.0	
City and other Citywide/ Regional Parkland Combined	17 <i>,</i> 348.5	17.8	7.5	7,297.5	+10,051.0	

Table 3.13-1 City Parkland Existing Conditions and 2020 General Plan Goals

Source: City of San José Greenprint 2009 Update for Parks, Recreation Facilities and Trails. December 2009 (City of San José 2009b).

- a. Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for public services?
 - Fire Protection
 - Police Protection
 - Schools
 - Other Public Facilities

Level of Impact Less than Significant

By design, the Project would create no new demand for fire, police, schools, or other governmental services or facilities and would not require construction, alteration, or expansion of any such facilities to provide acceptable service levels. Construction of the proposed Project would be temporary, of relatively short duration, and self-sufficient (not requiring additional public services). Impacts resulting from potential emergency service needs during construction would be minimal in duration and considered <u>less than significant</u>.

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for public services?
 - Parks

Level of Impact No Impact

The City of San José and Google Fiber have agreed that City parks and open space would not be used for LAS sites. Accordingly, there would be **<u>no impact</u>** on parks or open space.

b. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Level of Impact No Impact

The proposed activities would not result in additional use or physical deterioration of parks and would have <u>no impact</u> on the use of recreational resources.

c. Does the Project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Level of Impact No Impact

The proposed Project would not require expansion or increased use of recreational resources. There is no situation where the value of a recreational resource or the quality of enjoyment of that resource would be affected. The Project would not pose increased demands on the City Department of Parks, Recreation and Neighborhood Services and there would be **no impact**.

Less Than Potentially Significant with Less Than Significant Mitigation Significant No Would the Project: Impact Incorporated Impact Impact Conflict with an applicable plan, ordinance or a. policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant \Box \boxtimes \square components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or \square \boxtimes \square other standards established by the county congestion management agency for designated roads or highways? Result in a change in air traffic patterns, including c. \square \square either an increase in traffic levels or a change in \square location that results in substantial safety risks? Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous \boxtimes intersections) or incompatible uses (e.g., farm equipment)? Result in inadequate emergency access? \square \boxtimes \square e. Conflict with adopted policies, plans, or programs f. regarding public transit, bicycle, or pedestrian \boxtimes facilities, or otherwise decrease the performance or safety of such facilities?

3.14 TRANSPORTATION

3.14.1 Setting

3.14.1.1 Environmental Setting

The proposed Project would be added to the above or below ground infrastructure along portions of the 2,400 miles of roadways in the City.

Regional Roadways

Regional roadways in San José include freeways, expressways, minor and major arterial streets, interchanges, separations, and freeway connectors. These high-speed roadways enable traffic to move throughout the City and region.

The City of San José and Caltrans oversee these regional roadways. Caltrans has jurisdiction over I-280, I-680, I-880, US 101, State Route (SR) 17, SR 82 (El Camino Real), SR 85, SR 87, SR 237, and the on- and off-ramp intersections with local streets.

Local Roadways

Local roadways in San José include major collectors, local streets, transit malls, and pedestrian malls. These local roadways enable lower-speed traffic to move through neighborhoods and connect to regional roadways.

Alternative Transportation

Transit Services. Transit services in San José include local bus service, light rail, commuter rail, and local and regional rail operated by the Valley Transportation Authority (VTA), Caltrain, and other local services.

To enhance transit ridership, the 15 bus routes with the highest daily ridership and two bus rapid transit services are transit priority corridors meaning that transit speed along these routes must be maintained at all times. If the average speed on a corridor drops below 15 miles per hour or decreases by 25 percent or more during the morning peak hour due to construction, that work would have a significant impact.

Bicycle Network. Based on the framework identified in the Bike Plan 2020 (City of San José 2009a), San José continues to expand the bicycle network. Currently, there are 34 miles designated as Class I multi-use trails, approximately 150 miles designated as Class II bicycle lanes, and close to 20 miles designated as Class III bicycle routes.

Pedestrian Network. Pedestrian facilities include sidewalks, paths, pedestrian bridges, crosswalks, and pedestrian signals with crosswalks at signalized intersections to accommodate and prioritize pedestrian circulation.

Airports. San José has two airports including an international airport and a general aviation facility.

Freight Railroads. Three main UPRR rail lines pass through San José.

3.14.1.2 Regulatory Setting

Santa Clara County's Congestion Management Program

The Santa Clara County Congestion Management Agency focuses on reducing congestion and responding to future transportation needs in the Congestion Management Plan. To ensure roadway performance, the plan ranks roadways A thru F based on the Level of Service (LOS). This LOS ranking system is also used to anticipate the impacts from the construction and operation of new projects. As part of the plan, the County has set threshold for LOS at LOS E; this means that all roadways should be operating at capacity.

City of San José Council Policy 5-3

San José uses the Council Policy 5-3, which specifies that all new construction projects must adhere to the Congestion Management Program Technical Standards and Procedures: Traffic LOS Analysis Guidelines. By following these technical standards, projects will ensure conformance with the General Plan. The technical standards for the City of San José maintain that new projects must ensure an LOS of D or better, except for where there are physical constraints on expanding roadways, or for roads that have been prioritized for alternative transportation as described in the Council Policy 5-3, Transportation Impact Policy.

3.14.2 Impacts Evaluation

a.-b. Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Level of Impact Less than Significant

The construction impacts from the proposed Project would be temporary and highly localized. Furthermore, once the proposed Project is complete, it would support the travel demand measures that support telecommuting identified in the 2013 Congestion Management Program for Santa Clara County.

Construction

During construction, the proposed Project could generate up to 1,510 trips per day which would be spread across the entire city. These trips would be distributed throughout San José and on any given day, trips could be on parts of the 2,400 miles of roadway in the City. However, the number of crews operating would be up to 80 crews throughout the City as a worst case and the more likely scenario is approximately half of that number operating on an average build day. During construction, any given neighborhood would likely see only one construction crew working at any given time, with aerial installation, rock-sawing, trenching/microtrenching, HDD, and vault installation. Multiple crews could be occurring at the same time in a given neighborhood and could use a portion of the network simultaneously, but would likely be staggered in constructing in the same neighborhood on the same day.

During construction, vehicles and equipment could include utility trucks, flatbed trucks, bucket trucks, cranes, concrete mixing trucks, excavators, boring rigs, trenchers, cable trailers, dump trucks, and backhoes depending on the nature of the work. Trips would also be generated through the transportation of staff, equipment, and materials to the work locations but this would amount to approximately 15 trips per day at a single site. These increases in construction traffic would not impact LOS.

To minimize disturbances to traffic, throughout construction, the staging areas would be provided by the contractors at an offsite facility. Where it is necessary to locate a staging area closer to a site, a suitable location off the roadway would be used to minimize traffic impacts and where ever possible, construction staging areas would be located away from the roadway or be limited in size. The following **Standard Project Conditions** will be implemented:

Standard Project Conditions

- Roadways damaged during construction will be returned to their preconstruction condition as soon as is practicable after construction has been completed.
- Appropriate routes for truck travel will be determined prior to the start of construction through coordination with Caltrans or the local traffic regulatory agency, as applicable. Trucks will be encouraged to use the Primary Truck Routes designated by the City

in Chapter 6 of the Envision San José 2040 General Plan (http://www.sanjoseca.gov/DocumentCenter/View/7465).

- Prior to construction, contractor will coordinate with the local traffic regulatory agency regarding planned improvements near the facility to limit interference with the implementation of roadway improvements or trenching in nearly completed facilities.
- Circulation and detour plans will be developed to minimize impacts to local street circulation, including the use of signage and flagging to guide vehicles through and/or around the construction zone.
- Traffic control devices will be installed as specified in the Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones (Caltrans 2012).
- Work hours and crew work locations will be staggered for transit priority corridors to minimize service interruptions during commute hours.
- Directional drilling will be used for streets with a moratorium on repaying to prevent degradation of the roadways.
- Property owners will be notified concerning blocked driveways prior to work commencing, and contractors will limit hours of disruption of driveways.
- A traffic plan will be prepared that incorporates all of the above measures and any additional measures required by the City. Google Fiber will provide the traffic plan to the City for review as part of the construction permit submittal. Both parties will ensure that revisions are agreed upon and the final traffic plan is approved by both Google Fiber and the City prior to the issuance of construction permits and the start of construction activities.

All of the construction activity would employ standard traffic control measures in accordance with the Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones. Additionally, to minimize the impacts from construction, circulation and detour plans would be developed for the proposed Project. The plans would be done in consultation with Caltrans and the City Department of Public Works. The plan will address appropriate vehicle size and speed, travel routes, detour or lane closure plans, flag-person requirements, location of turnouts to be constructed, coordination with law enforcement and fire control agencies, coordination with Caltrans personnel (for work affecting state road rights of way), emergency access to ensure public safety, and need for traffic and speed limit signs. Additionally, measures will be identified to avoid blocking or limiting access to residences, businesses, and recreation areas located along the construction route. Impacts would be <u>less than significant</u>.

Operations and Maintenance

Throughout the operation of the proposed Project, the increased access to high-speed internet supports the objective of transportation demand management identified in the Santa Clara County Congestion Management Program (VTA 2013). As part of the plan, the strategies used to manage transportation demand are the use of telecommuting and new working arrangements. These strategies are possible through the "computer facilities that link to the worksite" including high-speed internet. When telecommuting and new work arrangements are available, they reduce VMT and increases accessibility.

Maintenance for the proposed Project would involve periodic inspection by staff in a pickup truck. The maintenance work would not increase roadway volumes and the impacts would be <u>less than significant</u>.

c. Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Level of Impact No Impact

Given the proximity of the two airports in San José to residential and commercial areas, the proposed Project would have aerial and underground connections located on properties adjacent to the airports. The Mineta San Jose International Airport is located 2 miles north of downtown and served 8.8 million passengers in 2013. A general aviation facility, the RHV, is located 4 miles southeast of downtown and has approximately 240,000 annual takeoffs and landings.

Though the aerial and underground infrastructure would be located near the airports, the relative height of the proposed Project is the same as existing infrastructure. Vaults and underground infrastructure are located close to at or below ground while the huts would be located above ground. The proposed two hut sites are located more than 0.5 mile away from the airport ensuring that there is no disruption to aircraft operation when the huts are placed onsite using a crane. The aerial infrastructure would be connected to existing utility poles and thus even at the tallest point; the proposed Project would not result in any changes or disruptions to operations of either airport. These facilities would require minimal vehicle trips and would not affect air travel; therefore, **no impact** would occur.

d. Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Level of Impact No Impact

The proposed Project would use existing roadways and utility rights of way; there would be no changes to the alignment of roadways. Where construction occurs, the surfaces of the roadways would be returned to the prior condition ensuring there are no new design features. For the streets with a moratorium on repaving, the proposed Project would use HDD to prevent degradation of the roadways.

Since the design of the roadways would not change, the proposed Project would have **<u>no impact</u>** on traffic hazards.

e. Would the Project result in inadequate emergency access?

Level of Impact Less than Significant

The construction phase of the proposed Project, as stated above, might lead to temporary and localized traffic during work. The impacts associated with this localized traffic would be identified and managed through circulation and detour plans. As part of these plans, priority would be given to emergency vehicles and in the event that the worksite has a lane closure, flaggers will be employed. Therefore, the potential impact is <u>less than significant</u>.

f. Would the Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Level of Impact Less than Significant

San José prioritizes alternative transportation through the Bike Plan 2020, priority transportation corridors, and a number of initiatives outlined in the Envision San José 2040 Plan. Any impacts to alternative transportation from the proposed Project would be temporary and localized impacts associated with construction. To minimize the impacts from construction, circulation and detour plans would be used to consider alternative

transportation. Where ever possible, impacts to alternative transportation would be avoided by shifting construction on priority transportation corridors to avoid the commute hours or developing signage for pedestrian detours. Therefore, the impact would be <u>less than significant</u>.

3.15 UTILITIES AND SERVICE SYSTEMS

Wo	ould the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			\boxtimes	
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				
c.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				
d.	Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?				
e.	Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?				
f.	Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?			\boxtimes	
g.	Comply with federal, state and local statutes and regulations related to solid waste?			\boxtimes	

3.15.1 Setting

3.15.1.1 Water Service

Water service is provided to San José by three water retailers. The San José Water Company is the largest water retailer in San José. The City of San José Municipal Water System provides water to North San José, Evergreen, and parts of Edenvale and Coyote Valley. The Great Oaks Water Company serves areas of southern San José including Blossom Valley, Santa Teresa, and parts of Edenvale, Coyote Valley, and Almaden Valley. The Santa Clara Valley Water District manages water resources and wholesales treated water to the 13 water retailers in Santa Clara County.

Sanitary Sewer

The City's sanitary sewer system includes approximately 2,200 miles of sewer pipelines ranging from 6 to 90 inches in diameter. The topography of San José permits most of the sewer system to serve the City by gravity. Sixteen sewer pump stations are included in the system, the largest of which is the Lamplighter Pump Station located at North First Street between Headquarters Drive and Holger Way. Sewage from the West Valley Sanitation District (which serves the cities of Campbell, Saratoga, Los Gatos, Monte Sereno, and unincorporated areas in the West Valley), County Sanitation District 3, and portions of the Cupertino Sanitary District and the City of Santa Clara also flows through the City's wastewater collection system.

Wastewater Treatment

The San José/Santa Clara Water Pollution Control Plant (WPCP) is a regional wastewater treatment facility serving eight tributary sewage collection agencies and is administered and operated by the City of San José's Department of Environmental Services. The WPCP provides primary, secondary, and tertiary treatment of wastewater and has the capacity to treat 167 million gallons of wastewater per day (mgd) average dry weather influent flow. Average dry weather influent flow is defined in the current NPDES permit as the maximum of the average daily flow over any 5-weekday period between the months of June and October. The design peak hour wet weather flow, according to the NPDES permit, is 271 mgd.

The WPCP is currently operating under a 120 mgd dry weather effluent flow constraint. This requirement is based upon SWRCB and RWQCB concerns over the effects of additional freshwater discharges from the WPCP on the saltwater marsh habitat, and pollutant loading to the Bay from the WPCP. Approximately 10 percent of the plant's effluent is recycled for nonpotable uses and the remainder flows into San Francisco Bay.

3.15.1.3 Storm Drainage

The San José storm drainage system comprises a vast network of storm drain inlets, manholes, pipes, outfalls, channels, and pump stations designed to protect infrastructure and the traveling public from flood waters during storm events. The various components of the storm drainage system function collectively to collect, convey, and discharge storm water runoff to receiving water bodies. In general, storm water runoff is intercepted by pavement surfaces and channeled along curbs and gutters to receiving storm drain inlets. Inlets are usually placed at low points in the gutter grade, at intersections, and alongside streets to limit the spread of water onto roadways and to reduce the rate of runoff. The underground collection system consists of approximately 1,250 miles of reinforced concrete pipes varying in size from 12 to 144 inches in diameter that function by gravity to carry untreated storm water to local creeks and rivers. Collected storm water runoff is discharged to the creeks and rivers via storm outfall structures. The creeks and rivers, in turn, flow to the San Francisco Bay. In low-lying areas of the City, storm water pump stations are employed to facilitate drainage when gravity drainage is not possible or feasible.

3.15.1.4 Solid Waste Service

San José currently generates approximately 1.7 million tons of solid waste annually. In 2008, approximately 60 percent of the waste generated was diverted through a variety of programs including residential curbside recycling and yard trimmings collection programs, civic recycling, and the construction demolition and diversion program. The remaining 40 percent of the waste generated is sent to the landfill. Of the amount landfilled, approximately 260,000 tons comes from residential sources, 254,000 tons comes from commercial, industrial and institutional sources, and 195,000 tons comes from construction and demolition sources.

Residential solid waste accounts for 25 percent of the City's waste generation with non-residential uses (including construction and demolition waste) comprising the other 75 percent. The City of San José's Construction & Demolition Diversion Deposit Program is an incentive program to encourage the recovery of debris from construction and demolition projects. The City collects a deposit that is fully refundable with proper documentation that the construction and demolition debris has been diverted from burial in the landfill.

According to Santa Clara County's 5-year countywide integrated waste management plan review report from 2007 (which is based on 2005 data), the County has adequate disposal capacity (i.e., greater than 15 years).

a. Would the Project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Level of Impact Less than Significant

The proposed Project, installation of fiber-optic cable, would not generate any wastewater during operation. Construction or installation of cable would require temporary use of water for directional drilling and trenching. These activities would use other materials (see Section 3.8, Hazards and Hazardous Materials) that could contribute to minor wastewater treatment needs. However, the Project would not significantly increase wastewater treatment requirements of the RWQCB during construction and would have no long-term impact on wastewater treatment requirements.

b. Would the Project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Level of Impact No Impact

Construction or installation of cable could require temporary use of water and result in wastewater for installation of cable or for drilling or trenching. Other water used during construction (such as portable toilet waste) would not require treatment, and all wastewater generated during construction would be disposed of through existing wastewater facilities.

The proposed Project, installation of fiber-optic cable, would not require long-term use of water or result in wastewater during operation. No water or wastewater facilities would be used after the completion of construction. Therefore, no new or expanded water treatment facilities would be required and there would be <u>no impact</u>.

c. Would the Project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Level of Impact No Impact

The Project would include installation of impervious concrete foundations mostly on sites that are currently pervious. The impervious surfaces would be installed in isolated areas across the City. The Project would comply with the City of San José Post-Construction Urban Runoff Policy 6-29 and the RWQCB Municipal Regional NPDES permit. Compliance would include the following general elements:

- Minimization of runoff through site design measures that limit disturbance of natural drainage systems, conserve existing vegetation to the extent feasible, minimize impervious surfaces, and direct runoff onto vegetated areas; and
- Prevention of polluted runoff with source controls such as landscaping that minimizes irrigation, runoff, and pesticide and fertilizer application.

Accordingly, the facilities that would be installed during this Project would not require ongoing post-construction dewatering of the subsurface related to storm water.

As discussed in Section 3.9, Hydrology and Water Quality, with the incorporation of the standard permit conditions discussed above, and based on conclusions presented in the San José General Plan Draft Program Environmental Impact Report (City of San José 2011a), the standard permit conditions applicable to the Project would adequately minimize impacts to storm water quantity.

Existing storm water drainage facilities would be used, and no expansion of existing facilities would be necessary. No additional runoff in excess of existing conditions would result from the use and maintenance of the proposed Project. The proposed Project would not require or result in the construction of storm water drainage facilities and the Project would have **no impact**.

d. Would the Project have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?

Level of Impact Less than Significant

The Project would require water for limited activities associated with the Project, including:

• Control of dust generation during ground disturbance;

- HDD subsurface installation techniques that require a bentonite/water drilling fluid; and
- Construction of concrete foundations for the prefabricated Fiber Huts and utility cabinets, if necessary.

All water for the Project would be sourced from the municipal water supply. Because of drought conditions in California, reclaimed water will be used to the extent feasible. Hydrant water may not currently be used for construction in the City, and Google Fiber will coordinate with the City during the permitting stage to identify available sources of recycled water for construction. The volume of water needed for HDD activities and dust suppression could vary widely depending on numerous conditions and cannot be reliably estimated. Impacts on water supply are anticipated to be short term in duration and not substantial enough to increase long-term demand on the water supply system. Recycled water will be arranged with the City to support water needs during construction of the proposed Project. Impacts would be <u>less than significant</u>.

e. Would the Project result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Level of Impact No Impact

The proposed Project would not generate wastewater and would not affect the provision of wastewater treatment services. Thus, **<u>no impact</u>** on wastewater treatment capacity is anticipated.

f.-g. Would the Project be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs? Would the Project comply with federal, state and local statues and regulations related to solid waste?

Level of Impact Less than Significant

Operation of the proposed Project would not result in solid waste. Construction-related solid waste is addressed below. As discussed in the Setting section, Santa Clara County has greater than 15 years of capacity within existing approved landfills. No impact on solid-waste disposal capacity during operation is anticipated. During construction activities, solid wastes associated with the proposed Project would include spools and other packaging material associated with the conduit and cable. Spools and other packaging for conduit and cable would be taken away for reuse, recycling, or disposal at a landfill. The construction contractor would be responsible for ensuring that construction-related waste is disposed of properly and will coordinate with local landfills to ensure adequate capacity is available. Furthermore, the proposed Project would comply with all federal, state, and local statutes and regulations related to solid waste and would implement **Standard Project Conditions**, to assure that construction materials will be recycled and disposed of to minimize solid waste disposal.

Implementation of the above listed measures would reduce this impact to a **less than significant** level.

3.16 MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a.	Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b.	Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c.	Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			\boxtimes	

3.16.1 Project Impacts

The proposed Project would be constructed in developed or heavily impacted areas of the built environment within the Urban Service Area of San José and would be located within existing public right of way, with limited Project facilities on either public land or commercial property. Minimal tree removal would occur during construction. The construction period would be temporary, and the proposed avoidance and Mitigation Measures BIO-1.1 and BIO-1.2 would reduce the direct impacts on sensitive species and habitats to a less than significant level. No construction is planned below the ordinary high water mark; therefore, aquatic species and their associated habitats would not be affected. The Project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. With the proposed mitigation measures, impacts would be less than significant.
3.16.2 *Cumulative Impacts*

The proposed Project would implement required **Standard Project Conditions**, comply with all City policies and regulations, and implement mitigations discussed in the IS/MND. Therefore, the Project would result in a <u>less than significant</u> impact on Aesthetics, Air Quality, Greenhouse Gas Emissions, Biological Resources, Cultural Resources, Geology and Soils, Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, and Utilities and Services Systems, and would not result in cumulatively considerable environmental impacts. The context of the determination for each resource topic area is expanded upon as follows.

3.16.2.1 Aesthetics

Construction would occur mostly within existing, disturbed rights of way. Project facilities would be installed in urban and suburban areas where existing utility structures are already an integrated element of the visual character of the City's neighborhoods. The vast majority of the proposed Project would be located below ground. Prefabricated Fiber Huts and cabinets would be permanent new above ground structures once installed. With the implementation of the identified mitigation measure, cumulatively considerable impact on Aesthetics due to above ground features would be less than significant. All of the Project features have a similar visual character to existing utility structures present within the existing urban landscape and would not represent a significant alteration of the visual character of the City. Although the Project has the potential to create small changes in the private aesthetic of some individual properties, impacts associated with the Project are negligible and would not result in a cumulatively considerable impact on Aesthetics.

3.16.2.2 Agricultural Resources

Agricultural activities allowed within the right of way before the installation of fiber-optic cable would be allowed to continue after its installation. However, it is unlikely that agricultural activities currently occur within these public and utility rights of way and no conflicts with existing agricultural practices in the City have been identified. The proposed Project would be consistent with surrounding land uses, which are primarily high-density, mixed-use residential, commercial, and industrial, and would not contribute to the loss of agricultural land.

3.16.2.3 Air Quality

With implementation of the identified environmental commitments, the proposed Project would comply with all air quality standards. Therefore,

construction and operation of the proposed fiber-optic cable service would not conflict with or obstruct implementation of any applicable AQP, nor violate any air quality standard or contribute substantially to an air quality violation. It would not result in a cumulatively considerable net increase of criteria pollutants in a nonattainment area and would not expose sensitive receptors to substantial pollutant concentrations.

3.16.2.4 Biological Resources

Cumulative impacts of the proposed Project on Biological Resources are considered less than significant for the following reasons:

- Most of the habitat types located along roads and pre-existing utility rights of way in the Project region are abundant.
- The Project routes would be linear and narrow, and construction would disturb a small amount of habitat relative to the amount of these habitats available locally and regionally (especially projects that involve the use of existing manholes and handholes).
- Activities related to the proposed Project would be temporary and vegetation is expected to recover quickly, particularly within disturbed rights of way such as roadsides, railroads, and maintained utility corridors.
- Proposed Project rights of way are already disturbed from original construction and ongoing maintenance activities of other utilities, roads, or railroads.
- Much of the Project routes would be located primarily within already disturbed or developed rights of way.

Impacts on sensitive Biological Resources (e.g., special-status species, wetlands, and riparian habitats) would be avoided by implementing the **Standard Project Conditions** and mitigation measures for the Project. Therefore, no cumulative impacts on sensitive Biological Resources are anticipated.

3.16.2.5 *Cultural Resources*

Cultural Resources are generally not considered subject to cumulative impacts, but are either individually impacted in a way that changes the significance of the site or are not impacted in a way that changes the significance of the site. Mitigation measures consistent with state law and best practice with regard to known resource and accidental discovery of cultural resources and human remains have been included to ensure potential impacts are less than significant and do not contribute to cumulative impacts.

3.16.2.6 Geology, Seismicity, and Soils

Development in California has the cumulative impact of bringing additional people into potential contact with geologic hazards. In some instances, such as where mass grading occurs, a project may directly contribute to increased landslide hazard or accelerated soil erosion. The proposed Project consists of the installation of fiber-optic conduit and cable through plowing and trenching, and subsurface boring, and within existing ducts and idle pipelines whenever possible. As described above, the proposed Project would not expose persons to substantial risk of loss, injury, or death relative to geologic hazards; result in accelerated soil erosion; potentially result in landslides or other mass movement; create substantial risks due to expansive soils; or produce wastewater requiring septic tanks, sewers, or other disposal facilities. The contribution of the proposed Project to the cumulative impact would be less than significant.

3.16.2.7 Greenhouse Gas Emissions

The proposed Project would not generate long term GHG emissions, either directly or indirectly, that would cumulatively contribute to the environment. Construction and operation of the proposed fiber-optic cable service would not conflict with or obstruct implementation of any applicable plan adopted for the purpose of reducing the emissions of GHGs.

3.16.2.8 Hazards and Hazardous Materials

The effects of the proposed Project are less than cumulatively considerable due to regulations and best practices requiring proper storage, use, and disposal of hazardous materials and wastes, as well as proper reporting and response in the case of a hazardous materials spill or hazardous waste discovery. The Applicant's implementation of **Standard Project Conditions** described in Section 3.8.2, render the Project's contribution less than cumulatively considerable.

3.16.2.9 *Hydrology and Water Quality*

Potential surface runoff during construction is possible. However, the cumulative effect of a temporary, small increase in sediment loading would be minimal. Pollution prevention measures that would be contained in the Project SWPPPs would reduce any impacts to a less than significant level. If construction is necessary within a 100-year floodplain,

the proposed Project would be required to obtain applicable local permits. This would result in no contribution to a cumulative impact because the local permit system, in accordance with flood insurance rates set by FEMA, is designed to discourage development that would cumulatively result in flood hazard. Consequently, an increase in flood hazard is not expected. If stream crossings cannot be avoided and HDD is required to avoid in-water construction, mitigation and applicable permit conditions will be implemented, so the impacts on water quality would be less than significant.

3.16.2.10 Land Use and Planning

The proposed Project would not result in the physical division of a community. Project facilities would be consistent with existing land uses in a high-density, mixed-use urban and suburban setting. The proposed Project would not constitute a considerable contribution to any cumulative effect.

3.16.2.11 Mineral Resources

The proposed Project would not have a cumulative impact on mineral resources. The installation of conduit and fiber-optic cable in existing rights of way would not affect the prior ability to access mineral resources within the rights of way.

3.16.2.12 Noise

There are no cumulative noise impacts associated with the proposed Project. Construction noise impacts are anticipated to be temporary and highly localized. Noise associated with operations of LASs, air conditioners and emergency generators, will be mitigated so impacts to noise sensitive receptors will be less than significant.

3.16.2.13 *Population and Housing*

The proposed Project would not create or displace housing or induce substantial population growth. It would have no impact on population or housing and would not contribute to cumulative effects.

3.16.2.14 Public Services

The proposed Project would create no new demand for public services and would not result in increased use of existing recreational facilities or in the need for additional recreational services. Therefore, it would not contribute to cumulative impacts.

3.16.2.15 Traffic and Transportation

Implementation of the proposed Project would have only temporary construction-related impacts on Traffic and Transportation-related issues. Consequently, there are no cumulative traffic or transportation impacts associated with the proposed Project, as traffic impacts are anticipated to be temporary and highly localized.

3.16.3 Short-Term Environmental Goals versus Long-Term Environmental Goals

The Project would significantly upgrade local fiber-optic infrastructure using existing public right of way without causing long-term impacts on the environment. The proposed Project is consistent with the City's long-term goals for public infrastructure and there would be <u>no impact</u> in the long term on the environment.

3.16.4 Direct or Indirect Adverse Effects on Human Beings

As discussed in Section 3.3, Air Quality, a Human Health Risk Assessment was conducted to evaluate the potential risks to humans from construction and operation of the Project. The risks and $PM_{2.5}$ concentration resulting from the Project were found to be below the applicable BAAQMD significance thresholds. Therefore, the impact on sensitive human receptors is **less than significant**. No other potential risks to human beings were identified in the analysis.

1.

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