

***ENVIRONMENTAL DECLARATION**

(CALIFORNIA FISH AND GAME CODE SECTION 711.4)

LEAD AGENCY NAME AND ADDRESS

Alameda-Contra Costa Transit District

1600 Franklin St., Oakland, CA 94612

FOR COUNTY CLERK USE ONLY

FILE NO: _____

CLASSIFICATION OF ENVIRONMENTAL DOCUMENT: (PLEASE MARK ONLY ONE CLASSIFICATION)

1. NOTICE OF EXEMPTION / STATEMENT OF EXEMPTION

☒ A - STATUTORILY OR CATEGORICALLY EXEMPT

\$ 50.00 - COUNTY CLERK HANDLING FEE

2. NOTICE OF DETERMINATION (NOD)

☐ A - NEGATIVE DECLARATION (OR MITIGATED NEG. DEC.)

\$ 2,354.75 - STATE FILING FEE

\$ 50.00 - COUNTY CLERK HANDLING FEE

☐ B - ENVIRONMENTAL IMPACT REPORT (EIR)

\$ 3,271.00 - STATE FILING FEE

\$ 50.00 - COUNTY CLERK HANDLING FEE

3. OTHER: _____

*****A COPY OF THIS FORM MUST BE COMPLETED AND SUBMITTED WITH EACH COPY OF AN ENVIRONMENTAL DECLARATION BEING FILED WITH THE ALAMEDA COUNTY CLERK.*****

BY MAIL FILINGS:

PLEASE INCLUDE FIVE (5) COPIES OF ALL NECESSARY DOCUMENTS AND TWO (2) SELF-ADDRESSED ENVELOPES.

IN PERSON FILINGS:

PLEASE INCLUDE FIVE (5) COPIES OF ALL NECESSARY DOCUMENTS AND ONE (1) SELF-ADDRESSED ENVELOPES.

ALL APPLICABLE FEES MUST BE PAID AT THE TIME OF FILING.

FEES ARE EFFECTIVE JANUARY 1, 2019

MAKE CHECKS PAYABLE TO: ALAMEDA COUNTY CLERK

ATTACHMENT A – CEQA CHECKLIST

Project Description

The Alameda-Contra Costa Transit District (AC Transit) plans to implement the Telegraph Avenue Rapid Corridors Project (Project) to:

- Improve transit operations along 4 miles of Telegraph Avenue from 20th Street in Oakland to downtown Berkeley;
- Improve 3 miles of Grand/West Grand Avenue from Maritime Street to Lake Park Avenue in Oakland;
- Deliver a portion of the Southside Pilot Transit Project in the City of Berkeley;
- Provide bus stop improvements and relocations north of 52nd Street. No bus stop improvements south of 52nd Street are proposed as part of this Project, as they will be implemented by the City of Oakland Department of Transportation.
- Improve transit reliability for Line 6 along Telegraph Avenue; and Lines 12 and NL along Grand/West Grand Avenue to implement Rapid Bus service as a short-term strategy recommendation in the AC Transit’s *Major Corridor Study* (2016).

Figures 3 through 6 show diagrammatic maps of the planned improvements. Tables in Attachment 1 describe the bus stop locations where improvements will be made along with a description of the planned enhancements. Upgrading the Project corridor infrastructure would produce cascading benefits that include ridership growth, reducing auto trips, and improving air quality. These benefits and goals are consistent with AC Transit’s strategy to maximize operational benefit and efficiency, and achieve Metropolitan Transportation Commission’s Transit Sustainability Project performance metrics. Key project Elements include the following:

Improvements to Bus Stops: Providing longer bus stops will allow buses to pull parallel to the curb and improve bus door access. Buses can take advantage transit signal priority with bus stop relocation to the far side of intersections so buses would stop after crossing the intersection rather than stopping before. This will be complimented with sidewalk improvements at some locations in order to improve access to bus stops.

Improvements to Traffic Signals: Transit Signal Priority (TSP) technology will be installed at all the traffic signals. Improved traffic signals will “hold the green to allow approaching buses to travel through intersections,” which would improve transit reliability and reduce bus delays. Traffic signals will also be retimed and synchronized to provide more crossing time for bicyclists and clearance time for pedestrians and smoother travel for buses. Deployment of TSP technology would also improve safety for transit users, motorists, pedestrians, and bicyclists. The Project’s improvement to traffic signal operations would also result in reduced fuel consumption and vehicle emissions.

Improvements to Traffic Signal Communication: The scope of the communication improvements include the installation of signal interconnect cable (SIC) communication system along Telegraph Avenue between 20th Street and 40th Street in Oakland and fixing broken communication along the Grand/West Grand Avenue corridor.

Table 1 and Table 2 provides lists of existing signalized Project intersections in Oakland and Berkeley, respectively. The list contains the name of the intersection owner and maintainer/operator.

Construction access and staging will occur only in paved or previously disturbed areas within or immediately adjacent to the Project corridor.

The Project is centrally located within the cities of Oakland and Berkeley, California. See Figure 1 for the Project Location and Figure 2 for the Project vicinity.

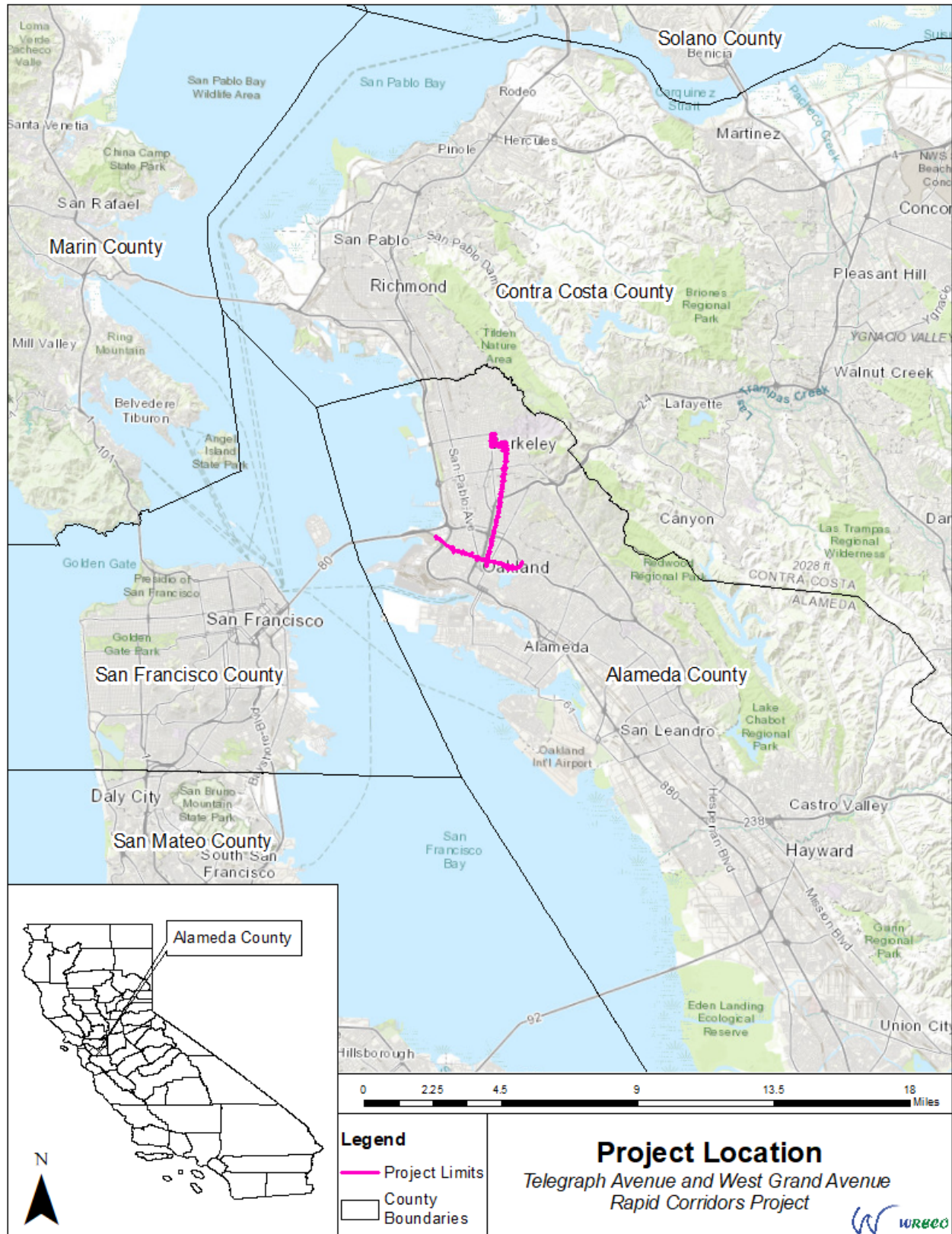


Figure 1. Project Location

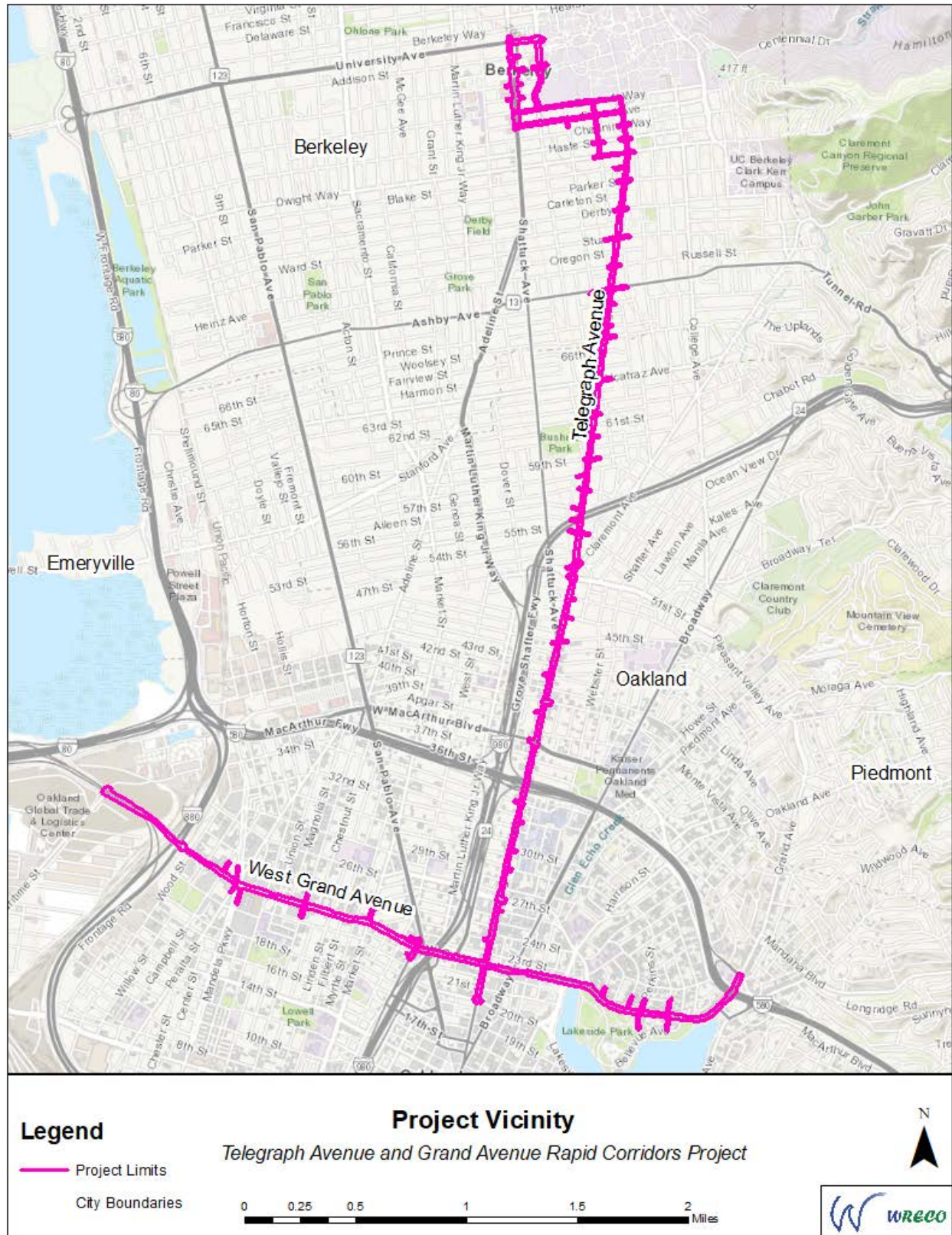


Figure 2. Project Vicinity

Table 1. List of Existing Signalized Project Intersections in Oakland

ID	Intersection	Owner	Maintainer/Operator
1	Telegraph Avenue/20th Street	City of Oakland	City of Oakland
2	Telegraph Avenue/West Grand Avenue	City of Oakland	City of Oakland
3	Telegraph Avenue/24th Street	City of Oakland	City of Oakland
4	Telegraph Avenue/26th Street	City of Oakland	City of Oakland
5	Telegraph Avenue/27th Street	City of Oakland	City of Oakland
6	Telegraph Avenue/29th Street	City of Oakland	City of Oakland
7	Telegraph Avenue/30th Street	City of Oakland	City of Oakland
8	Telegraph Avenue/Hawthorne Avenue	City of Oakland	City of Oakland
9	Telegraph Avenue/34th Street	City of Oakland	City of Oakland
10	Telegraph Avenue/West Macarthur Boulevard	City of Oakland	City of Oakland
11	Telegraph Avenue/39th Street	City of Oakland	City of Oakland
12	Telegraph Avenue/40th Street	City of Oakland	City of Oakland
13	Telegraph Avenue/42nd Street	City of Oakland	City of Oakland
14	Telegraph Avenue/45th Street	City of Oakland	City of Oakland
15	Telegraph Avenue/48th Street	City of Oakland	City of Oakland
16	Telegraph Avenue/50th Street	City of Oakland	City of Oakland
17	Telegraph Avenue/51st Street	City of Oakland	City of Oakland
18	Telegraph Avenue/52nd Street	City of Oakland	City of Oakland
19	Telegraph Avenue/55th Street	City of Oakland	City of Oakland
20	Telegraph Avenue/56th Street	Caltrans	City of Oakland
21	Telegraph Avenue/Aileen Street	Caltrans	City of Oakland
22	Telegraph Avenue/59th Street	City of Oakland	City of Oakland
23	Telegraph Avenue/Alcatraz Avenue	City of Oakland	City of Oakland
24	Telegraph Avenue/66th Street	City of Oakland	City of Oakland

Table 2. List of Existing Signalized Project Intersections in Berkeley

ID	Intersection	Owner	Maintainer/Operator
1	Telegraph Avenue/Woolsey Street	City of Berkeley	City of Berkeley
2	Telegraph Avenue/Webster Avenue	City of Berkeley	City of Berkeley
3	Telegraph Avenue/Ashby Avenue	Caltrans	City of Berkeley
4	Telegraph Avenue/Russel Street	City of Berkeley	City of Berkeley
5	Telegraph Avenue/Stuart Street	City of Berkeley	City of Berkeley
6	Telegraph Avenue/Derby Street	City of Berkeley	City of Berkeley
7	Telegraph Avenue/Blake Street	City of Berkeley	City of Berkeley
8	Telegraph Avenue/Dwight Street	City of Berkeley	City of Berkeley
9	Telegraph Avenue/Haste Street	City of Berkeley	City of Berkeley
10	Telegraph Avenue/Channing Way	City of Berkeley	City of Berkeley
11	Telegraph Avenue/Durant Avenue	City of Berkeley	City of Berkeley
12	Telegraph Avenue/Bancroft Way	City of Berkeley	City of Berkeley
13	Bancroft Way/Sather Lane	City of Berkeley	City of Berkeley
14	Bancroft Way/Dana Street	City of Berkeley	City of Berkeley
15	Bancroft Way/Fulton Street	City of Berkeley	City of Berkeley
16	Oxford Street/Center Street	City of Berkeley	City of Berkeley
17	Oxford Street/University Avenue	City of Berkeley	City of Berkeley
18	Shattuck Avenue/University Avenue	City of Berkeley	City of Berkeley
19	Shattuck Avenue/Addison Street	City of Berkeley	City of Berkeley
20	Shattuck Avenue/Center Street	City of Berkeley	City of Berkeley
21	Shattuck Avenue/Allston Way	City of Berkeley	City of Berkeley
22	Shattuck Avenue/Kittredge Street	City of Berkeley	City of Berkeley
23	Bancroft Way/Shattuck Avenue	City of Berkeley	City of Berkeley
24	Durant Avenue/Shattuck Avenue	City of Berkeley	City of Berkeley
25	Durant Avenue/Fulton Street	City of Berkeley	City of Berkeley
26	Durant Avenue/Ellsworth Street	City of Berkeley	City of Berkeley
27	Durant Avenue/Dana Street	City of Berkeley	City of Berkeley
28	Dana Avenue/Haste Street	City of Berkeley	City of Berkeley
29	Dana Avenue/Dwight Street	City of Berkeley	City of Berkeley

PROPOSED IMPROVEMENTS TELEGRAPH AVENUE RAPID CORRIDORS PROJECT

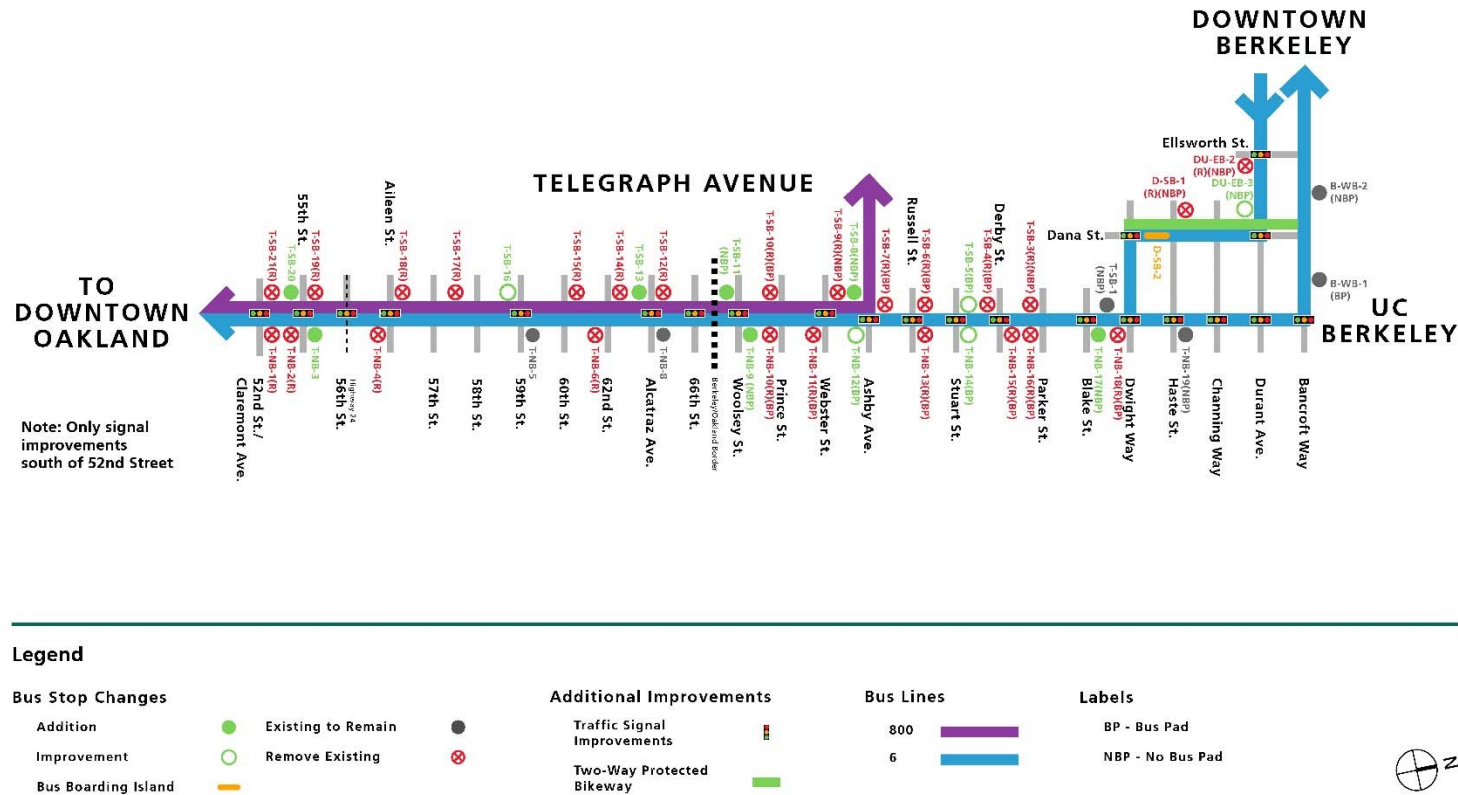


Figure 4. Telegraph Avenue Proposed Improvements



DKS

figure 1

Corridor Communication Improvements Map

Telegraph Avenue (20th Street to 40th Street)
& West Grand/Grand Avenue
(Maritime Street to Lake Park Avenue)

Legend

- Telegraph Study Corridor
- West Grand/Grand Study Corridor
- Upgrade Existing Copper SIC with Fiber SIC
- Cellular Communication
- Install Communication Line
- Recommendations for Improvement in Communication
- Changeable Message Sign (CMS)
- ⬮ Signalized Intersection
- ★ High Intensity Activated Crosswalk (HAWK) Intersection

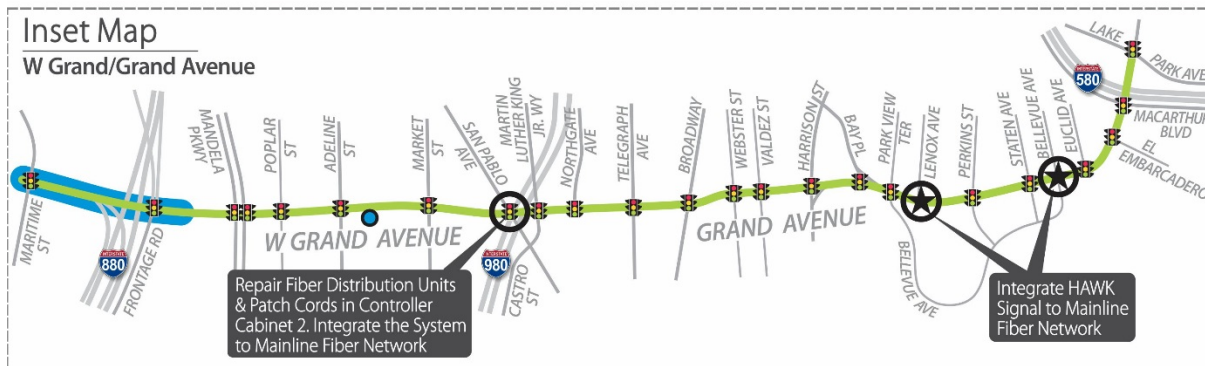
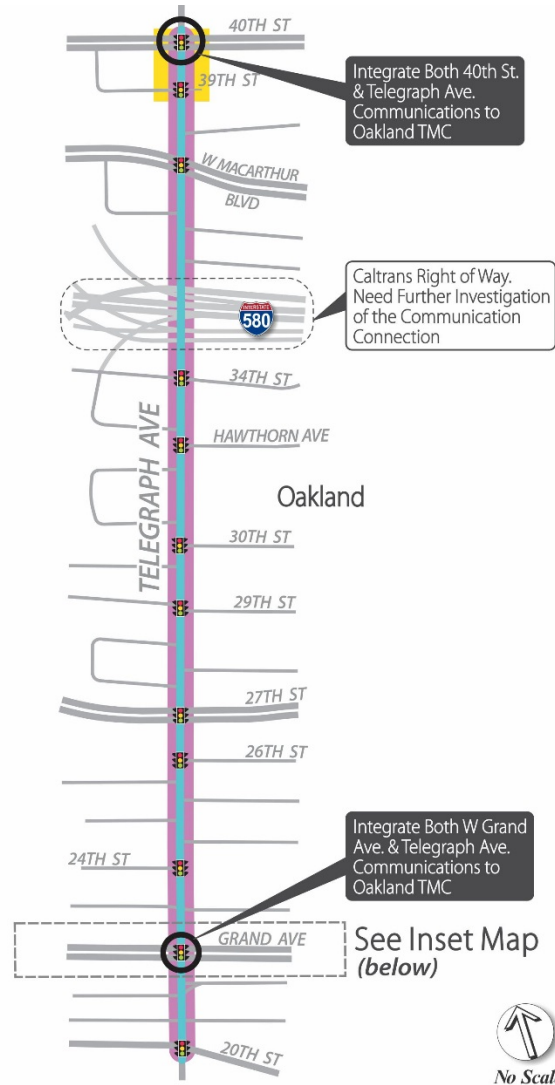


Figure 5. Telegraph Avenue Communications Improvements Diagram

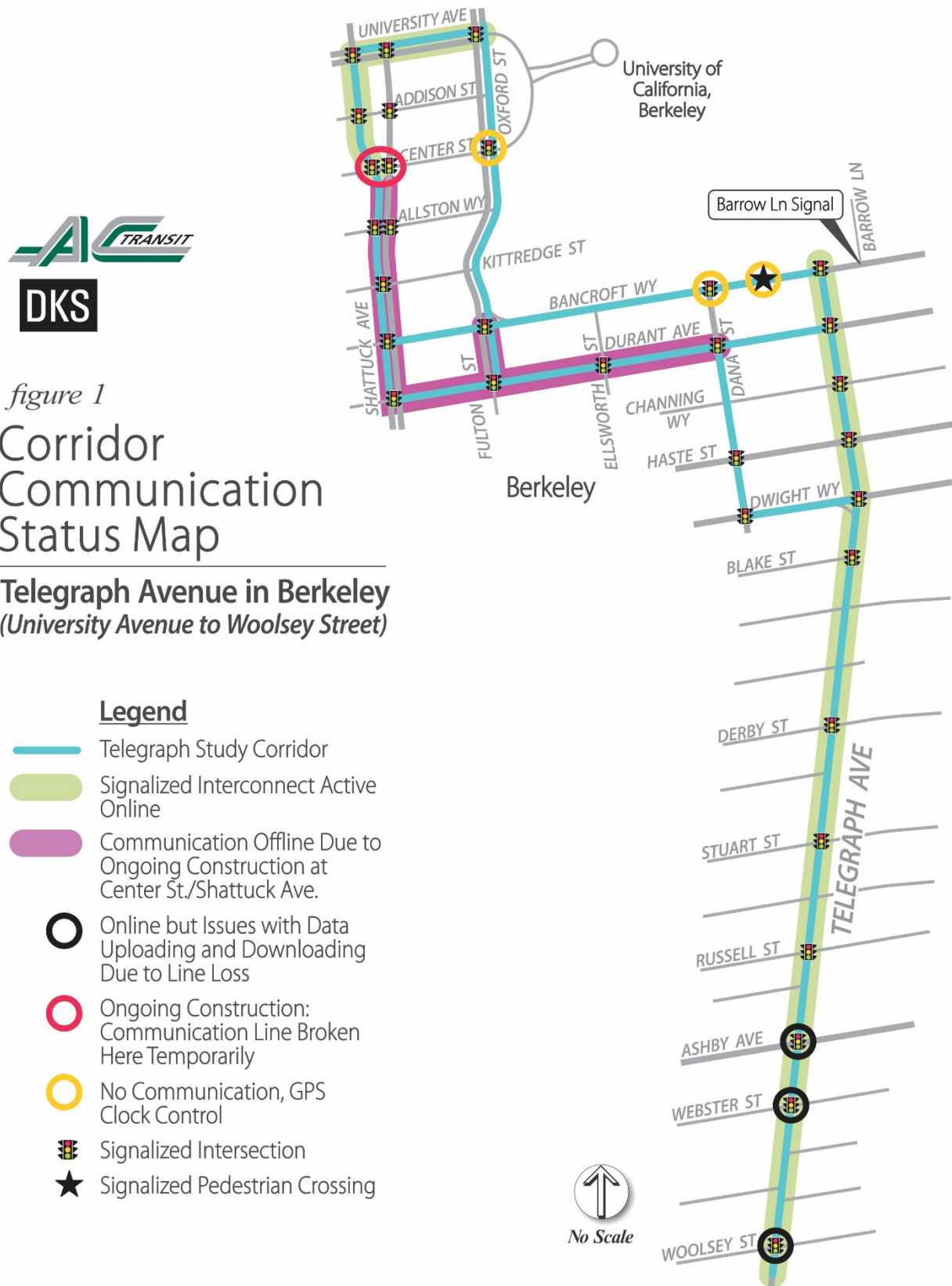


Figure 6. Telegraph Avenue Berkeley Communication Status Map

CEQA Checklist

I. Aesthetics

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project would not result in any notable changes to the roadway corridor. Above-ground changes would be limited to the relocation of bus stops at specified intersections. The relocations would not change the visual character or quality of the Project corridor. There are no scenic vistas and/or visual resources in proximity to the Project corridor, and the Project is not along a state scenic highway.¹ The Project would not introduce a new source of light or glare and therefore, the Project would not have any impact to aesthetics.

¹ <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways/lap-liv-i-scenic-highways-faq2>

II. Agriculture and Forestry Resources

<i>Would the project:</i>		Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

There are no farmlands, forest lands, or timberlands located within or immediately surrounding the Project corridor and the Project would not indirectly contribute to conversion of farmland. Therefore, the Project would not result in conflicts, rezoning, loss, or conversion of any farmland, forest land, or timberland.

III. Air Quality

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project would install signal timing technology and relocate bus stops, which would not result in operational increases in air pollutants. The proposed transit signal changes would improve the service of Lines 6 along Telegraph Avenue, and Lines 12 and NL along Grand/West Grand Avenue, providing a greater incentive for drivers to use AC Transit instead of personal automobiles. Increased transit ridership would reduce vehicle miles traveled, ultimately reducing emissions and thereby, improving air quality. Additionally, through improved signal timing, buses on the Lines 6, 12, and NL routes would complete their routes faster, allowing for a reduction in the number of buses traveling the route from eight to seven buses on weekdays and from five to four buses on weekends. Therefore, Project operations would not increase emissions and would be consistent with the plans and policies of the Bay Area Air Quality Management District. Additionally, the Project would not expose sensitive receptors to increased pollutant concentrations or objectionable odors.

Construction of the proposed Project would not conflict with implementation of any applicable air quality plan. Construction activities would be limited to minor surface work at the intersections (cutting, grinding, and overlay); these activities would be insignificant and would not generate substantial amounts of temporary emissions.

IV. Biological Resources

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The *Telegraph Avenue Rapid Corridors Project – Natural Environment Study – Minimum Impacts* (see Attachment 2) evaluated biological resources that had potential occur in the Project area. Due to the developed, urbanized condition of the Project corridor and surrounding area, special-status plant species are not anticipated to be present. Field reconnaissance level surveys were performed during January 2020, no special-status plant or wildlife species were found. In addition, no potential wetlands were found; however, Grand Avenue in the Project corridor crosses over the Glen Echo Creek channel that outlets into Lake Merritt. The Project footprint is confined to developed roadway intersections and would not include construction outside of the existing right-of-way and therefore, no impacts to aquatic

resources are anticipated. The minor physical nature of the Project improvements would not have the potential to interfere with the movement of wildlife. Nesting birds protected by the Federal Migratory Bird Treaty Act and California Fish and Game Code §§ 3503 and 3800 could nest in trees that would be removed. Peregrine falcons, a State fully protected species, are also known to nest in buildings at the U.C. Berkeley Campus Art Museum which is adjacent to the Project corridor. Bats protected by Fish and Game Code § 2000, 2002, 2014, and 4150; and under California Code of Regulations § 251.1 could also roost in trees in the Project area.

Several street trees would be trimmed or removed. The municipalities of Oakland and Berkeley have tree ordinances that require AC Transit to obtain tree removal permits prior to commencement of the Project.

The Project footprint does not include any riparian habitat or federally protected wetlands. The Project site is not located within a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The following avoidance and minimization measures would be incorporated into the Project specifications in order to protect biological resources:

- Prior to vegetation removal, pre-construction surveys will be conducted for roosting bats. If bats are actively observed roosting, consultation with CDFW will occur to determine the appropriate avoidance measures to implement.
- If Project work occurs during the bird nesting season (February 1 – August 31), pre-construction nesting bird surveys will be conducted prior to the removal of trees or vegetation. If an active bird nest is identified, a protective buffer will be established around the nest. The standard buffer will be 50 feet for passerines (perching songbirds), 100 feet for egrets and herons, 200 feet for raptors, and 500 feet for peregrine falcon. The buffer zones will be delineated with high-visibility environmentally sensitive area (ESA) fencing or demarcated with pin flags or ribbon, as applicable based on-site conditions. If it becomes necessary for work to occur in closer proximity to a nest, the Project biologist may develop a nest monitoring plan in coordination with Caltrans and CDFW that will include continual monitoring of the nest as construction moves closer. If at any time the biologist determines that activities may cause nest abandonment, construction activity in that area must cease.

V. Cultural Resources

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No construction activities would generate vibration which could damage historic properties, should they exist along the Project corridor; and all improvements would be within the existing right-of-way. Once construction is complete, visual changes would be limited to the relocation of bus stops at specified intersections. The built environment would look very similar to existing conditions; Project improvements would not have the potential to result in a substantial adverse change to the setting of any historic resources.

The Project would require minor excavation of asphalt and previously disturbed soils within the established roadway, up to a depth of 3-4 feet. Therefore, the presence of buried archaeological or paleontological resources within the excavation areas is highly unlikely. However, the *Archaeological Screening Review – Alameda Contra Costa Transit District Rapid Corridor Design Project*² (see Attachment 3), identified two areas with potential archaeological resources within the Project vicinity:

1. Telegraph Avenue between 57th Street and 52nd Street should be considered moderately to highly sensitive for both prehistoric and historic cultural resources; and
2. Oxford Avenue between Center Street and Allston Way (near Strawberry Creek).

The following avoidance and minimization measures were recommended in the memo and will be incorporated into the Project specifications:

² Basin Research Associates. 2020. *Archaeological Screening Review – Alameda Contra Costa Transit District Rapid Corridor Design Project – Telegraph Avenue and Grand Avenue, Cities of Oakland and Berkeley, Alameda County*.

- a) AC Transit shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried prehistoric or historic cultural resources including, prehistoric Native American burials at:

- 1) alignment along Telegraph Avenue between 57th and 52nd Street
- 2) CA-ALA-607 – west side of Oxford Avenue between Center Street and Allston Way near Strawberry Creek.

Maps of these sensitive areas are included in Figures 3 and 4 of Attachment 3.

- b) AC Transit shall retain a Professional Archaeologist on an “on-call” basis during ground disturbing construction for other areas of the Project site to review, identify, and evaluate cultural resources that may be inadvertently exposed during construction. The archaeologist shall review and evaluate any discoveries to determine if they are historical resources(s) and/or unique archaeological resources under CEQA.
- c) If the Professional Archaeologist determines any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource under CEQA, he/she shall notify AC Transit and other appropriate parties of the evaluation and recommend mitigation measures to mitigate to a less-than significant impact in accordance with California Public Resources Code Section 15064.5. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data recovery among other options. The completion of a formal *Archaeological Monitoring Plan* (AMP) and/or *Archaeological Treatment Plan* (ATP) that may include data recovery may be recommended by the Professional Archaeologist if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the AMP and ATP and treatment of significant cultural resources will be determined by AC Transit in consultation with regulatory agencies.
- d) The treatment of human remains and any associated or unassociated funerary objects discovered during any soil-disturbing activity within the Project site shall comply with applicable State laws. This shall include immediate notification of the appropriate county Coroner/Medical Examiner and AC Transit.
- e) A *Monitoring Closure Report* shall be filed with AC Transit at the conclusion of ground disturbing construction if archaeological and Native American monitoring of excavation was undertaken.

Adherence to these avoidance and minimization measures would result in no impacts to cultural resources.

VI. Geology and Soils

<i>Would the project:</i>		Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i)	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii)	Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii)	Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv)	Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Be located on 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as it may be revised), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Geologic risks include fault zones, strong seismic shaking, liquefaction, or landslides. The Hayward Fault lies to the east, in a roughly north-south configuration, along the East Bay Hills. The southern portion of the Project in Oakland is located approximately 2.2 miles west of the Hayward fault and gradually gets closer to the fault as Telegraph Avenue proceeds north. The Project northern terminus in Berkeley is 0.47 miles west of the Hayward fault. The Project site could experience strong ground shaking during an earthquake.

The Project would update signal timing technology and move bus stops across intersections, and would not introduce new structures in unstable geologic conditions.

Physical improvements proposed under the Project are minor, and would be constructed in conformance with all applicable engineering standards for seismic safety and geologic conditions.

No septic tanks or alternative wastewater systems are proposed.

Therefore, the Project would not have any impacts relating to geology or soils.

VII.Greenhouse Gas Emissions

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project is expected to improve transit operations as travel time and schedule reliability improves, by way of reducing traffic congestion and improving intersection operations. The Project's improvement to traffic signal operations would also result in reduced fuel consumption and vehicle emissions. Therefore, the Project would not result in any impacts related to greenhouse gas emissions.

These benefits and goals are consistent with AC Transit's strategy to maximize operational benefit and efficiency and achieve MTC's Transit Sustainability Project performance metrics.

VIII. Hazards and Hazardous Materials

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No hazardous materials would be transported or used as part of Project construction or operation. There would be no potential for accident spills or hazardous emissions, as hazardous materials would not be used or associated with the Project.

According to the California Department of Toxic Substances Control EnviroStor database and the State Water Resources Control Board GeoTracker database, there are several hazardous materials release sites (Government Code Section 65962.5) adjacent to the Project Corridor. They consist mostly of small sites such as gas stations with underground storage tanks and dry-cleaning operations that been cleaned up or are in the process of rectifying hazardous materials leaks (see Attachment 4). These sites are outside of the Project footprint and are unlikely to expose construction workers to soil contaminants due to the shallow depth of excavation required to implement the Project.

Project construction and operation would not interfere with implementation of municipal emergency response plans and evacuation plans. The Project would not expose people to wildland fires.

If suspected hazardous materials are encountered during implementation of the Project, AC Transit would have soil testing conducted to ensure proper measures are taken to handle hazardous materials.

Therefore, the Project would not have any impacts relating to hazards or hazardous materials.

IX. Hydrology and Water Quality

<i>Would the project:</i>		Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a)	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 of siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

j) Inundation of seiche, tsunami, or mudflow?

☐☐☐☒

Project construction and operation would not substantially impact the receiving water bodies and the storm drain systems. The Project does not anticipate excavation activities for improvements other than those associated with relocation of bus stops and other similar surface work. The Project does not require any water or wastewater discharge. No groundwater would be used as part of Project construction or operation, and the Project would not increase impervious surfaces along the corridor. The Project would not include any changes to site topography or drainage and therefore, would not alter the existing drainage pattern of the corridor or increase the amount of surface runoff. Project construction would be consistent with all applicable stormwater permitting regulations and standards such that no impacts to water quality would occur. The Project would not place new uses within the corridor, and no structures would be built as part of the Project. There is no potential for exposure to flooding or flood hazard areas, inundation by seiche, tsunami, or mudflow.

Best Management Practices (BMP) would be installed where necessary to protect water quality.

The Project would not have any impacts related to hydrology or water quality.

X.Land Use and Planning

<i>Would the project:</i>		Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a)	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project would not change any land uses along the 13-mile corridor. Project improvements would include new signal timing technology, placement of sensors under the existing pavement, and relocation of bus stops. The minor physical nature of these improvements would not have the potential to physically divide an established community. The Project would not introduce new uses or change the existing land use. The proposed signal timing and traffic flow improvements do not conflict with the applicable land use plans for the cities of Oakland and Berkeley. The Project would not displace any residents or businesses. The Project is not located within a habitat conservation plan or natural community plan.

Therefore, the Project would not result in any impacts related to land use or planning.

XI.Mineral Resources

<i>Would the project:</i>		Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

According to the general plans for the cities of Oakland and Berkeley, and unincorporated Alameda County, the Project corridor does not contain mineral resources of value to the region or residents of the state. Therefore, no loss of mineral resources or locally-important mineral resource recovery sites would occur as a result of the Project.

XII.Noise and Vibration

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Project construction would be compliant with local municipal noise ordinances and therefore, would not generate excessive noise levels. Project construction would take place during work hours as specified by each municipality. Project construction would not require intense noise- or vibration-generating activities such as pile driving or demolition.

The heavily trafficked Project corridor has an existing noise environmental typical of local transportation corridors. Project operations would not result in any change to the existing noise environment or generate ground-borne vibration and therefore, would not result in any permanent increase in ambient noise levels or vibration levels.

Therefore, the Project would not have any impacts related to noise or vibration.

XIII. Population and Housing

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project would not directly or indirectly induce population growth. Construction of new residences or businesses is not planned as part of the Project, and the Project would not expand transportation infrastructure. No displacement of housing or businesses would occur as a result of the Project.

Therefore, the Project would not have any impacts related to population and housing.

XIV. Public Services

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project corridor is located in a developed urban area that is currently served by existing public utilities and public services. The Project is not proposing new construction, such as a residential development or large employment center, which would generate population growth and therefore, is not anticipated to increase demand for public services.

Therefore, the Project would not have any impact to public services.

XV. Parks and Recreation

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project does not propose new development, such as a residence or a large employment center, which would increase the population and thereby increase demand for parks and recreational facilities. The Project does not include recreational facilities or the expansion of recreational facilities.

Therefore, the Project would not have any impact to parks or recreation resources.

XVI. Transportation / Traffic

<i>Would the project:</i>	Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project is consistent with the *2016 Alameda Countywide Transportation Plan* and the *2014 Contra Costa Countywide Transportation Plan*. Because the Project would improve signal timing and would not increase vehicular trips, all Project intersections would continue to operate at the existing level of service.

Roadway design and dimensions would not change as a result of this Project. Traffic operations would be slightly modified by the Project through new signal timing and relocation of bus stops, which would be designed to adhere to standard safety practices. Therefore, the Project would not result in hazards to roadway users or others along the corridor.

The Project would not affect air traffic patterns. The Project would not alter the physical environment in such a way that existing bicycle or pedestrian facilities are impacted, or prevent future implementation of planned facilities.

Therefore, the Project would not have any impacts related to traffic or transportation.

XVII. Tribal Cultural Resources

<i>Would the project:</i>		Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a)	Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i.	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii.	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project would update signal timing technology and move and improve selected bus stops. The minor physical nature of these improvements would not have the potential to result in a substantial adverse change to tribal cultural resources, should they exist within or adjacent to the corridor.

XVIII. Utilities and Service Systems

<i>Would the project:</i>		Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	No Impact
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Project would not generate wastewater, does not require municipal water for operation, nor would any solid waste be generated as part of Project operations. The Project would not increase impervious surfaces and therefore, the Project does not have the potential to increase stormwater runoff or necessitate increased stormwater facilities. The Project would comply with any water, stormwater, or wastewater treatment requirements imposed by municipalities; the State; and other permitting authorities, including the disposal of all construction-related solid waste (e.g., excavated asphalt) at appropriate facilities.

Therefore, the Project would not have any impacts related to utilities or service systems.

XIX. Mandatory Findings of Significance

<i>Would the project:</i>		Significant or Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less than Significant	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b)	Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

There are no findings of significance associated with this Project. The Project does not have the potential to degrade the environment or any habitat. The Project would not result in environmental impacts and therefore, no impacts would be "cumulatively considerable."

Attachment 1 – Bus Stop Improvements

Table 8: Telegraph Avenue Rapid Corridor Bus Stop Changes

Sheet No.	Bus Stop ID ¹	Intersection	Action	Type of On-Street Parking	Stop Spacing		Distance from Crosswalk to Flag	Red Curb Length	Parking Change	Improvements to Accommodate Stop and Improvements for Reuse
					Spacing Standard ²	Spacing (ft)				
T01	T-NB-1(R)	52 nd St Far Side	Removal	Unmetered			N.A.	23 feet	Add 3 spaces	<ul style="list-style-type: none"> Remove or reuse City installed bench Remove or reuse City/BID trash/recycling container
	T-NB-2(R)	55 th St Near Side	Removal	n/a (No Parking Impacts)			N.A.	No change	No change	<ul style="list-style-type: none"> Remove or reuse City installed bench Remove or reuse City/BID trash/recycling container
	T-NB-3	55 th St Far Side	Existing Stop to Remain	Unmetered	Rapid Bus Only (Line 6): 1,300' – 1,900'	Upstream: N/A Downstream: 1760'	70 feet	85 feet	Remove 4 spaces	<ul style="list-style-type: none"> Install bus stop flag Remove no parking sign
	T-SB-21(R)	52 nd St Near Side	Removal	Unmetered			N.A.	30 feet	Add 1 space	<ul style="list-style-type: none"> Remove or reuse City/BID trash/recycling container
	T-SB-20	55 th St Far Side	New Bus Stop	Unmetered	Rapid Bus Only (Line 6): 1,300' – 1,900'	Upstream: 1745' Downstream: N/A	74 feet	85 feet	Remove 3 spaces	<ul style="list-style-type: none"> Bus stop will be in front of business with outdoor seating (The Well Herbal Drinks and Eats – 5493 Telegraph) Fill surface planting areas with sidewalk, no trees in planters Access to 60 foot bus's rear-most rear is blocked by signal cabinet Verify slope of sidewalk area with 5 to 6 feet of back of curb, may need to reconstruct sidewalk to provide 2% cross slope
	T-SB-19(R)	55 th St Near Side	Removal	Unmetered			N.A.	30 feet	Add 2 spaces	<ul style="list-style-type: none"> Remove or reuse shelter and bench Remove or reuse shelter contract trash/recycling container
T02	T-NB-4(R)	Aileen St Near Side	Removal	Unmetered			N.A.	30 feet	Add 2 spaces	<ul style="list-style-type: none"> Remove damaged shelter contract bench
	T-SB-16	59 th St Far Side	Bus Stop Improved	Unmetered	Rapid Bus Only (Line 6): 1,300' – 1,900'	Upstream: 1900' Downstream: 1745'	88.5 feet	108.5 feet	Remove 1 space	<ul style="list-style-type: none"> May need to move location of existing shelter and trash receptacle to accommodate shift in stop location
	T-SB-17(R)	58 th /57 th Mid-Block	Removal	Unmetered			N.A.	20 feet	Add 1 space	<ul style="list-style-type: none"> Remove or reuse Shelter Contract bench Remove or reuse City/BID trash/recycling container
	T-SB-18(R)	Aileen St Near Side	Removal	Unmetered			N.A.	30 feet	Add 1 space	<ul style="list-style-type: none"> Remove or reuse Shelter Contract bench Remove or reuse City/BID trash/recycling container
T03	T-NB-5	59 th St Far Side	Existing Stop to Remain	Unmetered	Rapid Bus Only (Line 6): 1,300' – 1,900'	Upstream: 1760' Downstream: 1750'	Existing	Existing	None	None
	T-NB-6(R)	62 nd St Near Side	Removal	Unmetered			N.A.	9 feet	Add 2 spaces	<ul style="list-style-type: none"> Remove or reuse Shelter Contract bench Remove or reuse City/BID trash/recycling container
	T-SB-14(R)	62 nd St Near Side	Removal	Unmetered			N.A.	0 feet	Add 2 spaces	<ul style="list-style-type: none"> Remove or reuse City/BID trash/recycling container
	T-SB-15(R)	60 th St Near Side	Removal	Unmetered			N.A.	0 feet	Add 3 spaces	<ul style="list-style-type: none"> Remove or reuse Shelter Contract bench Remove or reuse City/BID trash/recycling container
T04	T-NB-7	Alcatraz St Near Side	New Bus Stop or Keep Existing Stop (T-NB-8)	Metered	Rapid Bus Only (Line 6): 1,300' – 1,900'	If T-NB-8 is removed: Upstream: 1750' Downstream: 1190'	15 feet	95.5 feet	Remove 4 spaces	AC Transit staff are reviewing if this stop should remain at T-NB-8 or if it should be moved to this location <ul style="list-style-type: none"> Bus stop would be in front of retail parking lot Relocate US Postal Service mailbox Remove 4 parking meters Possibly replace heaving sidewalk adjacent to tree well

¹ Bus Stop ID coding “T” Telegraph Avenue, “NB” = northbound, “SB” = southbound, stops are numbered sequentially in direction of travel along the street, and “(R)” designates a removed stop.

² Based on Table A from AC Transit Board policy No. 501 and bus stop lengths from Table D of the same document with adjustments based on field conditions.

Sheet No.	Bus Stop ID ¹	Intersection	Action	Type of On-Street Parking	Stop Spacing		Distance from Crosswalk to Flag	Red Curb Length	Parking Change	Improvements to Accommodate Stop and Improvements for Reuse
					Spacing Standard ²	Spacing (ft)				
										<ul style="list-style-type: none">• Verify slope of sidewalk area with 5 to 6 feet of back of curb, may need to reconstruct sidewalk to provide 2% cross slope
	T-NB-8(R)	Alcatraz St Far Side	Removal or Keep	Metered	Rapid Bus Only (Line 6): 1,300' – 1,900'	If stop is <u>not</u> moved: Upstream: 1900' Downstream: 1040'	N.A.	20 feet	Add 2 spaces	Existing stop in front of retail store fronts AC Transit staff are reviewing if this stop should remain or if it should be moved to T-NB-7 If stop is removed: <ul style="list-style-type: none">• Remove or reuse shelter and bench; shelter has next bus display but it is not working• Remove or reuse shelter contract trash/recycling container
	T-SB-12(R)	Alcatraz St Near Side	Removal	n/a (No Parking Impacts)			N.A.	37 feet	None	<ul style="list-style-type: none">• Existing stop in front of gas station• Remove or reuse shelter and bench; shelter includes next bus display• Remove or reuse shelter contract trash/recycling container
	T-SB-13	Alcatraz Far Side	New Bus Stop	Metered	Rapid Bus Only (Line 6): 1,300' – 1,900'	Upstream: 1015' Downstream: 1900'	66.5 feet	93 feet	Remove 4 spaces	<ul style="list-style-type: none">• Stop would be in front of several storefronts with apartments above building at corner of Telegraph and Alcatraz• Fill surface planting areas with sidewalk• Rear door of 40-foot bus opens onto a basement access panel with slick steel finish with off-sets and sloping concrete around edges, potential slipping and tripping hazard.• Relocated bike passing clearance sign• Move raised planter (by Temescal BID)• Relocate two bike racks• Remove 4 parking meters• Trim branches of trees that are not removed to provide bus access to curb

Table 9: Grand Avenue/West Grand Avenue Rapid Corridor Bus Stop Changes

Sheet No.	Bus Stop ID ¹	Intersection	Action	Type of On-Street Parking	Stop Spacing		Distance from Crosswalk to Flag	Red Curb Length	Parking Change	Improvements to Accommodate Stop and Improvements for Reuse
					Spacing Standard ²	Spacing (ft)				
WG03	WG-WB-8(R)	Campbell / Mandela Mid-Block	Removal	n/a (No Parking Impacts)			N.A.	0 feet	Add 3 spaces	N.A.
WG04	WB-EB-1(R)	Mandela Near Side	Removal	n/a (No Parking Impacts)			N.A.	No change	No change	N.A.
	WG-EB-2	Mandela Far Side	New Bus Stop	Unmetered	Local (Line NL with no underlying local): 800' – 1,300'	Upstream: N/A Downstream: 1545'	90.5 feet	105.5 feet	Remove 3 spaces	<ul style="list-style-type: none"> Remove and reconstruct existing unused driveway No trees removed Verify slope and vertical off-sets in significant areas of existing sidewalk, may need to reconstruct sidewalk to provide 2% cross slope
	WG-WB-6	Mandela Far Side	New Bus Stop	Unmetered	Local (Line NL with no underlying local): 800'-1,300'	Upstream: 1720' Downstream: N/A	68 feet	89.75 feet	Remove 4 spaces	<ul style="list-style-type: none"> No trees removed About 375 square feet of concrete paving to fill existing landscaped planter
WG05	WG-WB-5	Adeline St Far Side	New Bus Stop	Unmetered	Local (Line NL with no underlying local): 800'-1,300'	Upstream: 1570' Downstream: 1720'	70 feet	100 feet	Remove 5 spaces	<ul style="list-style-type: none"> Construct sidewalk similar to concept in Draft TSP Implementation Plan Report, prepared by Kimley Horn
	WG-WB-4(R)	Adeline St Near Side	Removal	Unmetered			N.A.	30 feet	Add 1 space	<ul style="list-style-type: none"> Remove or reuse ad bench Remove or reuse city trash/recycling container
	WG-EB-3	Adeline St Far Side	Improve Existing Bus Stop	Unmetered	Local (Line NL with no underlying local): 800'-1,300'	Upstream: 1545' Downstream: 1590'	75 feet	99 feet	Remove 1 space	<ul style="list-style-type: none"> No trees removed Move existing ad bench Move city trash/recycling container
WG06	WG-EB-4	Market St Far Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line NL with no underlying local): 800'-1,300'	Upstream: 1590' Downstream: 1265'	Existing	No change	No change	N.A.
	WG-WB-2(R)	Market St Near Side	Removal	Unmetered			N.A.	10 feet and 20 feet	Add 1 space	<ul style="list-style-type: none"> Remove or reuse city trash/recycling container
	WG-WB-3	Market St Far Side	New Bus Stop	Unmetered	Local (Line NL with no underlying local): 800'-1,300'	Upstream: 1285' Downstream: 1570'	89 feet	109 feet	Remove 2 spaces	<ul style="list-style-type: none"> Adjacent uses are a two story warehouse office building at corner (902 W. Grand) unknown business and a former auto service shop (914 W. Grand) is part of a mixed use proposed development. A driveway towards the rear of the bus stop should be reconstructed to provide a 4 foot wide path of travel meeting ADA cross slope requirements Fill approximately 1 foot of tree well with concrete sidewalk to provide level space for rear clear zone at mid-door Move/reconstruct approximately 1.5 feet of fence to achieve 8 foot clear depth for accessible landing zone
WG07	WG-WB-1	Brush St Far Side	New Bus Stop	Unmetered	Local (Line NL with no underlying local): 800'-1,300'	Upstream: 1360' Downstream: 1285'	95 feet	51 feet	Remove 2 spaces	<ul style="list-style-type: none"> Adjacent use is surface parking with small 1-story buildings – Auto Glass Guys and SF Atlas Glass (both at 776 W. Grand) Reconstruct portions of sidewalk to address heaving, excessive sloping, and off-set at the curb Reconstruct portion of existing fence that is in public right of way to provide eight (8) foot clear ADA loading areas Reconstruct existing driveways to provide four (4) foot minimum width ADA path of travel with maximum of two percent (2%) cross slope

¹ Bus Stop ID coding “WG” = West Grand Avenue “G” Grand Avenue, “NB” = northbound, “SB” = southbound, stops are numbered sequentially in direction of travel along the street, and “(R)” designates a removed stop.

² Based on Table A from AC Transit Board policy No. 501 and bus stop lengths from Table D of the same document with adjustments based on field conditions.



Sheet No.	Bus Stop ID ¹	Intersection	Action	Type of On-Street Parking	Stop Spacing		Distance from Crosswalk to Flag	Red Curb Length	Parking Change	Improvements to Accommodate Stop and Improvements for Reuse
					Spacing Standard ²	Spacing (ft)				
	WG-EB-5	Brush St Far Side	New Bus Stop	Unmetered	Local (Line NL with no underlying local): 800'-1,300'	Upstream: 1265' Downstream: 1260'	80 feet	81.75 feet and 10 feet	Remove 4 spaces	<ul style="list-style-type: none">• Adjacent use is StorQuest Self Storage in 7-story building (2227 San Pablo Avenue)• No trees removed• AC Transit Operations staff to verify that buses can make right turn from this stop onto southbound San Pablo Avenue

Stops above are on West Grand Avenue and stops below are on Grand Avenue

G01	G-EB-1	Webster St Far Side	Existing Stop to Remain	n/a (No Parking Impacts)	Local (Line 12): 800'- 1,300'	Upstream: 700' Downstream: 710'	Existing	No change	No change	N.A.
	G-EB-2	Harrison St Near Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800'- 1,300'	Upstream: 710' Downstream: 1060'	Existing	No change	No change	N.A.
	G-WB-11	Valdez St Far Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800'- 1,300'	Upstream: 740' Downstream: 760'	Existing	No change	No change	N.A.
G02	G-EB-3	Bellevue Ave Near Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800'- 1,300'	Upstream: 1060' Downstream: 1195'	Existing	No change	No change	N.A.
	G-WB-8(R)	Park View Terrace Near Side	Removal	Metered			N.A.	30 feet	Add 2 spaces	<ul style="list-style-type: none">• Remove or reuse ad bench
	G-WB-9	Park View Terrace Far Side	New Bus Stop	Unmetered	Local (Line 12): 800'- 1,300'	Upstream: 685' Downstream: 775'	96.5 feet	116.5 feet	Remove 4 spaces	<ul style="list-style-type: none">• Adjacent building is a four-story apartment building with a corner commercial use (X-Core Studio, 244 Grand Avenue)• Fill a small area of an existing tree well (if 40-foot bus will access the stop for rear door access)
	G-WB-10	Harrison St Near Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800'- 1,300'	Upstream: 775' Downstream: 740'	Existing	No change	No change	N.A.

Sheet No.	Bus Stop ID ¹	Intersection	Action	Type of On-Street Parking	Stop Spacing		Distance from Crosswalk to Flag	Red Curb Length	Parking Change	Improvements to Accommodate Stop and Improvements for Reuse
					Spacing Standard ²	Spacing (ft)				
G03	G-EB-4(R)	Perkins St Near Side	Removal/Possibly to Remain if G-EB-5 is not feasible	n/a (No Parking Impacts)			If stop is removed: N.A. If stop remains: Existing	If stop is removed: No change If stop remains: Increase 50 feet to 127 feet total	If stop is removed: No change If stop remains: Remove 2 spaces	If stop is removed: <ul style="list-style-type: none"> Remove or reuse shelter Remove or reuse shelter contract bench Remove or reuse shelter contract trash/recycling container If stop remains: <ul style="list-style-type: none"> Move bike share station 50 feet to the west to provide for 60-foot bus pull-in
	G-EB-5	Perkins St Far Side	New Bus Stop (tree trunks leaning over roadway and extent of parking loss may make stop infeasible)		Local (Line 12): 800' – 1,300' Transbay (Line NL): 1,300' – 2,600'	Upstream: 1195' Downstream: 1220' Upstream: 3700' ³ Downstream: 2600'	122 feet	134 feet (driveway provides clear length of 27.5 feet for pull out)	Remove 6 spaces	<ul style="list-style-type: none"> Adjacent buildings have storefronts for most of the length of bus stop with one or two floors of apartments or offices above – two vacant storefronts nearest the corner, Kinja Sushi Bar (357 Grand), and Enssaro Ethiopian restaurant (357A Grand), 3-story apartment building (359 Grand) Two (2) tree trunks lean into roadway and likely impede bus pulling in to stop Move one (1) bike rack If this stop proves to be infeasible, stop G-EB-5 would remain and would be improved
	G-WB-6(R)	Perkins St Near Side	Removal (If stop G-EB-5 is infeasible, this stop would remain)	Metered			N.A.	No change (If improved, add 53 feet of red curb)	Add 1 space (If improved, remove 2 spaces)	<ul style="list-style-type: none"> Remove or reuse shelter Remove or reuse shelter contract bench Remove or reuse shelter contract trash/recycling container If stop G-EB-5 is infeasible, this stop would remain and the adjacent bike share station would shift 53 feet west to create a 130 foot bus stop and one on street parking space could be provided to the west of the bike station)
	G-WB-7	Lee St Far Side	New Bus Stop	Metered ADA Accessible (Unmetered)	Local (Line 12): 800' – 1,300'	Upstream: 955' Downstream: 685'	114.5 feet	130 feet	Remove 5 spaces	<ul style="list-style-type: none"> Adjacent buildings are medical office uses in remodeled two-story and three-story residential buildings (298 and 290 Grand), and Grand Advent Church (278 Grand) Remove, and likely replace, existing on-street disabled parking space Shorten both sides of street tree well Front-most rear door of a 60-foot bus would open into existing driveway
G04	G-EB-6(R)	Staten Ave Near Side	Removal	Metered			N.A.	20 feet	Add 3 spaces	<ul style="list-style-type: none"> Remove or reuse shelter Remove or reuse shelter contract bench Remove or reuse shelter contract trash/recycling container
	G-EB-7	Euclid Ave Far Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800' – 1,300'	Upstream: 1220' Downstream: 690'	Existing	No change	No change	N.A.
	G-WB-3	Euclid Ave Near Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800' – 1,300'	Upstream: 980' Downstream: 885'	Existing	No change	No change	N.A.
	G-WB-4(R)	Staten Ave Near Side	Removal	Metered			N.A.	20 feet	Add 2 spaces	<ul style="list-style-type: none"> Remove or reuse city trash/recycling container
	G-WB-5	Staten Ave Far Side	New Bus Stop	Metered	Local (Line 12): 800' – 1,300'	Upstream: 885' Downstream: 955'	140 feet	140 feet (driveway and existing red curb provide	Remove 5 spaces	<ul style="list-style-type: none"> Adjacent uses are a Round Table Pizza in a one-story commercial building (398 Grand) and a three-story apartment building (390 Grand) Fill landscaped planter with concrete sidewalk for 36 foot length

³ Although this is outside the recommended range, the existing spacing to an upstream NL stop is 3570'



Sheet No.	Bus Stop ID ¹	Intersection	Action	Type of On-Street Parking	Stop Spacing		Distance from Crosswalk to Flag	Red Curb Length	Parking Change	Improvements to Accommodate Stop and Improvements for Reuse
					Spacing Standard ²	Spacing (ft)				
								15.5 foot pull out)		
G05	G-EB-8	Embarcadero Far Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800' – 1,300'	Upstream: 690' Downstream: 750'	Existing	No change	No change	N.A.
	G-WB-2	Macarthur Blvd Near Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800' – 1,300'	Upstream: 540' Downstream: 980'	Existing	No change	No change	N.A.
G06	G-EB-9	Lake Park Ave Near Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800' – 1,300'	Upstream: 750' Downstream: 1100'	Existing	No change	No change	N.A.
	G-WB-1	Santa Clara Ave Near Side	Existing Stop To Remain	n/a (No Parking Impacts)	Local (Line 12): 800' – 1,300'	Upstream: 800' Downstream: 540'	Existing	No change	No change	N.A.

Attachment 2 – AC Transit NES-MI

Telegraph Avenue Rapid Corridors Project

Natural Environment Study - Minimal Impacts



Alameda Contra Costa Transit District

The Cities of Oakland and Berkeley
Alameda County, California

January 2020

Prepared for:



Prepared by:



Summary

The Alameda-Contra Costa Transit District (AC Transit) plans to implement the Telegraph Avenue Rapid Corridors Project (Project) to improve transit operation along four miles of Telegraph Avenue from 20th Street in Oakland to downtown Berkeley; three miles of Grand/West Grand Avenue from Maritime Street to Lake Park Avenue in Oakland; provide bus stop improvements and relocations north of 52nd Street; and to improve transit reliability for Line 6 along Telegraph Avenue and Lines 12 and NL along Grand/West Grand Avenue. The improvements would result in increased ridership, reduce auto trips and improve air quality.

The key elements of the Project include:

- Bus stops would be added, removed or improved. At various locations, sidewalk improvements would be included and bus stops would be elongated to prevent the blockage of traffic.
- Transit Signal Priority (TSP) technology would be installed at all traffic signals in the Project area which would improve transit reliability, reduce bus delays, and provide more crossing time for pedestrians.
- Traffic Signal Communications improvements would be made by the installation of Signal Interconnect Cable (SIC) communication system between 20th and 40th Streets in Oakland. Broken communication lines would also be located and repaired along the Grand/West Grand Avenue Corridor.

Work will occur within existing roadways and previously disturbed areas. The TSP and SIC installation work would primarily occur in existing boxes and conduits. Staging will also occur within existing paved areas and side streets.

This *Natural Environment Study – Minimal Impacts* (NES-MI) provides technical information about potential impacts of the Project on biological resources in compliance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

As part of the environmental analysis, a Biological Study Area (BSA) was established along the Telegraph Avenue and Grand Avenue Project corridors in the cities of Oakland and Berkeley, to determine the potential Project impacts to biological resources. The BSA encompass the Project limits and a 50-foot buffer zone in order to determine potential indirect impacts, such as noise and air quality issues that may be generated by Project related activities. A reconnaissance field survey was conducted within the BSA on January 3, 2019 to identify biological resources within the Project. This document includes avoidance and minimization measures (AMM) and best management practices (BMP) to protect biological resources that could occur in the BSA.

The BSA consists entirely of urban habitat and associated commercial and residential structures, paved roadways, and ornamental landscaped vegetation. Lake Merritt is approximately 200 feet south of the BSA in Oakland, and its largest tributary, Glen Echo Creek, flows beneath Grand Avenue within the BSA. Both Lake Merritt and Glen Echo Creek are jurisdictional “Waters of the U.S.” and “Waters of the State.” However, no construction activities will take place in, or immediately adjacent to the lake. If work in the vicinity of Glen Echo Lake has the potential to impact water quality, BMPs would be established along the edges of the roadway to prevent construction related debris or runoff from entering Glen Echo Creek.

A total of 46 special-status plant species (including federally listed, State-listed, and/or California Native Plant Society List 1B or 2) have historical occurrence records within a 5-mile radius of the BSA. Due to lack of habitat in the highly disturbed, urban BSA, none of these species have the potential to be present.

A total of 38 special-status wildlife species (including federally-listed and State-listed) and regulated habitats have potential to occur within a 5-mile radius of the BSA. Based on the evaluation conducted for this NES-MI, the following special-status species have the potential to occur: peregrine falcon (*Falco peregrinus*), roosting bats, and migratory nesting birds.

Several AMMs are recommended in order to ensure full compliance with regulations protecting biological resources. These AMMs include, but are not limited to:

- If Project related work occurs during the bird nesting season (February 1 – August 31), pre-construction nesting bird surveys will be conducted. If an active bird nest is identified, a protective buffer will be established around the nest. The standard buffer will be 50 feet for passerines (songbirds), 100 feet for egret/heron rookeries, 200 feet for raptors (birds of prey), and 500 feet for peregrine falcon. If it becomes necessary for work to occur in closer proximity to a nest, the Project biologist may develop a nest monitoring plan in coordination with the California Department of Transportation (Caltrans) and California Department of Fish and Wildlife (CDFW), which will include continual monitoring of the nest as construction moves closer. If at any time the biologist determines that activities may cause nest abandonment, construction activity in that area must cease.
- Conducting Worker Environmental Awareness Training regarding potential sensitive species that could occur in or near the BSA, such as peregrine falcon, roosting bats, and migratory birds; and
- Prior to vegetation removal and construction, pre-construction surveys for bats will be conducted.

- In accordance with the City of Oakland and City of Berkeley tree ordinances, permits must be obtained prior to tree and vegetation removal.

Table of Contents

Chapter 1	Introduction.....	1
1.1	Project Description	1
1.2	Project Location	1
1.3	Key Project Elements.....	1
Chapter 2	Study Methods.....	7
2.1	Regulatory Requirements	7
2.2	Studies Required	7
2.2.1	Database and Literature Searches	7
2.2.2	Personnel and Survey Dates.....	8
2.3	Agency Coordination	8
2.4	Limitations That May Influence Results.....	8
Chapter 3	Environmental Setting.....	9
3.1	Physical Conditions	9
3.1.1	Precipitation and Data Analysis.....	9
3.1.2	Hydrology	9
3.1.3	Topography and Soils	11
3.1.4	Biological Conditions	15
3.1.4.1	Vegetation Communities	15
3.1.4.2	Habitat Connectivity	15
3.2	Regional Species and Habitats of Concern	16
3.2.1	Sensitive Natural Communities	16
3.2.2	Special-Status Plant Species	17
3.2.3	Special-Status Wildlife Species	17
Chapter 4	Results: Biological Resources, Discussion of Impacts, and Mitigation	35
4.1	Natural Communities of Special Concern	35
4.1.1	Survey Results	35
4.2	Potential Wetlands and Other Waters of the U.S. and Waters of the State.....	35
4.2.1	Wetlands and Other Waters of the U.S. and Waters of the State.....	35
4.2.2	Survey Results	36
4.2.3	Project Impacts.....	36
4.2.4	Avoidance and Minimization Measures/Compensatory Mitigation	36
4.3	Special-Status Plant Species	37
4.4	Special-Status Wildlife	37
4.4.1	Peregrine Falcon	37
4.4.1.1	Survey Results	37
4.4.1.2	Project Impacts.....	37
4.4.1.3	Avoidance and Minimization Measures/Compensatory Mitigation	37
4.4.2	Roosting Bats.....	38
4.4.2.1	Survey Results	38
4.4.2.2	Project Impacts.....	39
4.4.2.3	Avoidance and Minimization Efforts/Compensatory Mitigation.....	39
4.5	Migratory Birds.....	39
4.5.1	Survey Results	39
4.5.2	Project Impacts.....	39
4.5.3	Avoidance and Minimization Efforts/Compensatory Mitigation.....	39

4.6	Trees	40
4.6.1	City of Oakland Tree Ordinance	40
4.6.2	City of Berkeley Tree Ordinance	40
4.6.2.1	Project Impacts.....	41
4.6.2.2	avoidance and minimization measures	41
4.7	Combined Avoidance and Minimization Measures.....	41
Chapter 5	Conclusions and Regulatory Determination.....	44
5.1	Federal Endangered Species Act	44
5.2	Other	44
5.2.1	Migratory Bird Treaty Act and Fish and Game Code §§ 3503 and 3800	44
5.2.2	Protection of Bats (F.G.C. § 20000,2002,2014 and 4150), and under California Code of Regulations § 251.1.	44
Chapter 6	References.....	45

List of Tables

Table 1. List of Existing Signalized Project Intersections in Oakland	5
Table 2. List of Existing Signalized Project Intersections in Berkeley	6
Table 3. Natural Communities of Special Concern in the BSA	16
Table 4. Special-Status Plant Species with Potential to Occur in the Biological Study Area (BSA)	18
Table 5. Special-Status Wildlife Species with Potential to Occur in BSA or Vicinity	27
Table 6. Avoidance and Minimization Measures	42

List of Appendices

Appendix A	BSA Figures
Appendix B	Observed Species Lists
Appendix C	CNDDDB, USFWS, and CNPS Species
Appendix D	Representative Photos

List of Abbreviated Terms

AC Transit	Alameda-Contra Costa Transit District
AMMs	Avoidance and Minimization Measures
BMPs	best management practices
BSA	Biological Study Area
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CWA	Clean Water Act
dbh	diameter-at-breast-height
ESA	Environmentally Sensitive Area
FGS	Fish and Game Code
FP	Fully Protected
FESA	Federal Endangered Species Act
MBTA	Migratory Bird Treaty Act
MSL	Mean Sea Level
NEPA	National Environmental Policy Act
NES-MI	Natural Environment Study-Minimal Impact
NOAA	National Oceanic and Atmospheric Administration
NWI	National Wetlands Inventory
Project	Telegraph Avenue Rapid Corridor Project
RWQCB	Regional Water Quality Control Board
SIC	Signal Interconnect Cable
SSC	Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
TSP	Transit Signal Priority
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

Chapter 1 Introduction

1.1 Project Description

The Alameda-Contra Costa Transit District (AC Transit) plans to implement the Telegraph Avenue Rapid Corridors Project (Project) to:

- Improve transit operations along four miles of Telegraph Avenue from 20th Street in Oakland to downtown Berkeley;
- Improve three miles of Grand/West Grand Avenue from Maritime Street to Lake Park Avenue in Oakland;
- Deliver a portion of the Southside Pilot Transit Project in the City of Berkeley;
- Provide bus stop improvements and relocations north of 52nd Street. No bus stop improvements south of 52nd Street are proposed as part of this Project, as they will be implemented by the City of Oakland Department of Transportation.
- Improve transit reliability for Line 6 along Telegraph Avenue; and Lines 12 and NL along Grand/West Grand Avenue to implement Rapid Bus service as a short-term strategy recommendation in the AC Transit's *Major Corridor Study* (2016).

Upgrading the Project corridor infrastructure would produce cascading benefits that include ridership growth, reducing auto trips, and improving air quality. These benefits and goals are consistent with AC Transit's strategy to maximize operational benefit and efficiency, and achieve Metropolitan Transportation Commission's Transit Sustainability Project performance metrics.

1.2 Project Location

The Project is centrally located within the Cities of Oakland and Berkeley. See Figure 1 for the Project Location and Figure 2 for the Project vicinity.

1.3 Key Project Elements

Improvements to Bus Stops: Providing longer bus stops will allow buses to pull parallel to the curb and improve bus door access. Buses can take advantage transit signal priority with bus stop relocation to the far side of intersections so that buses would stop after crossing the intersection rather than stopping before. This will be complimented with sidewalk improvements at some locations in order to improve access to bus stops.

Improvements to Traffic Signals: Transit Signal Priority (TSP) technology will be installed at all the traffic signals. Improved traffic signals will "hold the green to allow approaching buses to

travel through intersections,” which would improve transit reliability and reduce bus delays. Traffic signals will also be retimed and synchronized to provide more crossing time for bicyclists and clearance time for pedestrians and smoother travel for buses. Deployment of TSP technology would also improve safety for transit users, motorists, pedestrians, and bicyclists. The Project’s improvement to traffic signal operations would also result in reduced fuel consumption and vehicle emissions.

Improvements to Traffic Signal Communication: The scope of the communication improvements include the installation of signal interconnect cable (SIC) communication system along Telegraph Avenue between 20th Street and 40th Street in Oakland and fixing broken communication along the Grand/West Grand Avenue corridor.

Table 1 and Table 2 provides lists of existing signalized Project intersections in Oakland and Berkeley, respectively. The lists contain the name of the intersection owner and maintainer/operator.

Construction access and staging will occur only in paved or previously disturbed areas within or immediately adjacent to the Project corridor.

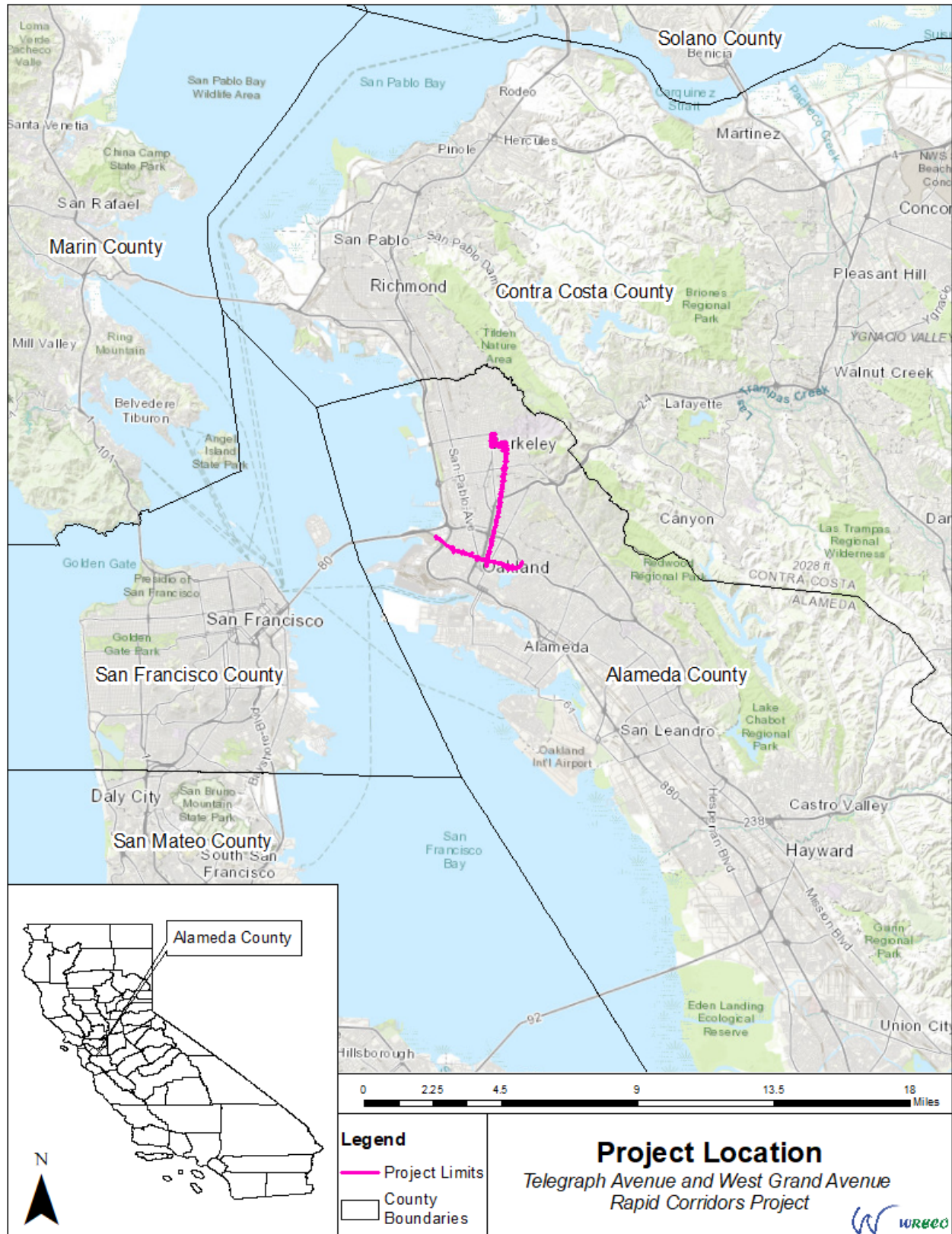


Figure 1. Project Location

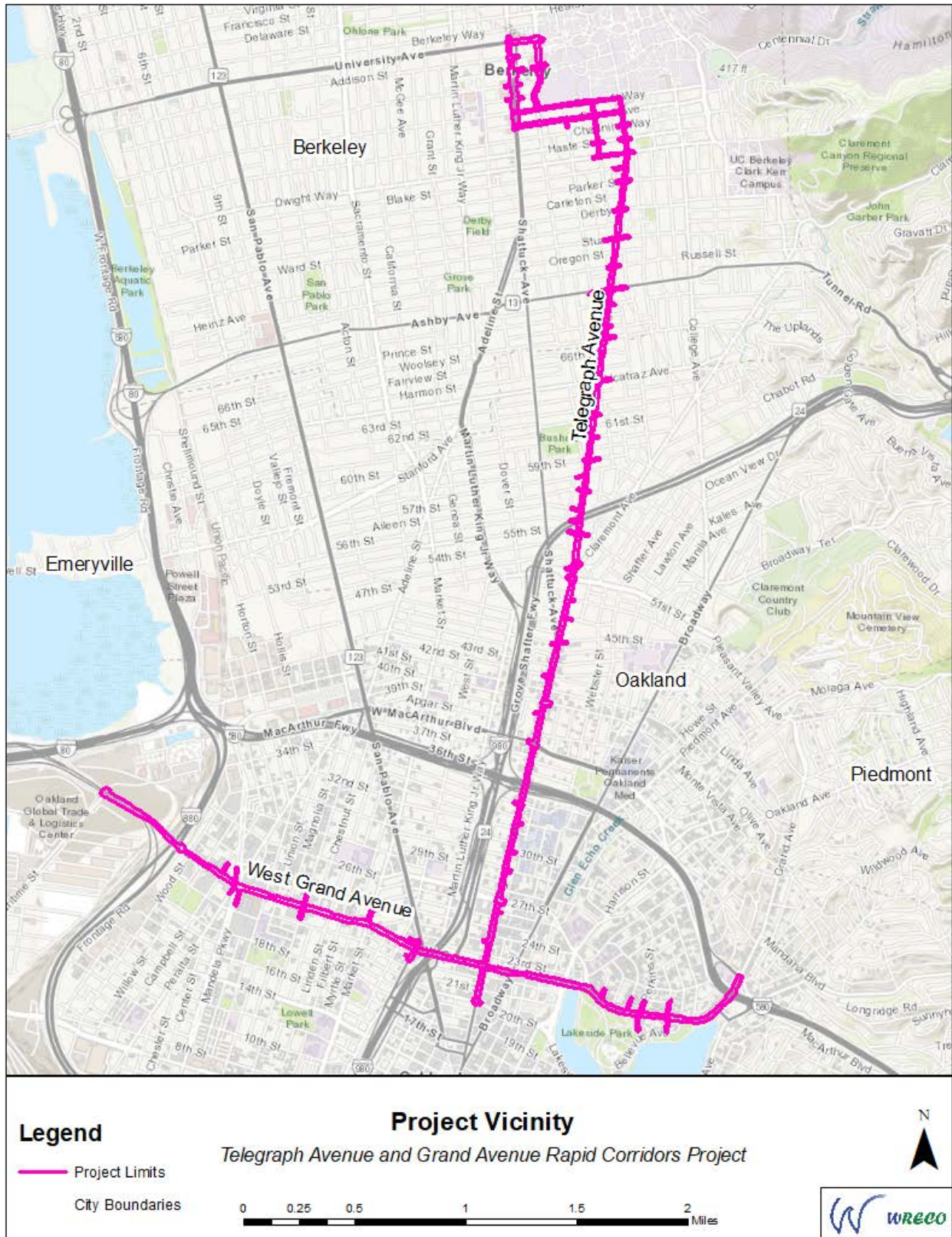


Figure 2. Project Vicinity

Table 1. List of Existing Signalized Project Intersections in Oakland

ID	Intersection	Owner	Maintainer/Operator
1	Telegraph Avenue/20th Street	City of Oakland	City of Oakland
2	Telegraph Avenue/West Grand Avenue	City of Oakland	City of Oakland
3	Telegraph Avenue/24th Street	City of Oakland	City of Oakland
4	Telegraph Avenue/26th Street	City of Oakland	City of Oakland
5	Telegraph Avenue/27th Street	City of Oakland	City of Oakland
6	Telegraph Avenue/29th Street	City of Oakland	City of Oakland
7	Telegraph Avenue/30th Street	City of Oakland	City of Oakland
8	Telegraph Avenue/Hawthorne Avenue	City of Oakland	City of Oakland
9	Telegraph Avenue/34th Street	City of Oakland	City of Oakland
10	Telegraph Avenue/West Macarthur Boulevard	City of Oakland	City of Oakland
11	Telegraph Avenue/39th Street	City of Oakland	City of Oakland
12	Telegraph Avenue/40th Street	City of Oakland	City of Oakland
13	Telegraph Avenue/42nd Street	City of Oakland	City of Oakland
14	Telegraph Avenue/45th Street	City of Oakland	City of Oakland
15	Telegraph Avenue/48th Street	City of Oakland	City of Oakland
16	Telegraph Avenue/50th Street	City of Oakland	City of Oakland
17	Telegraph Avenue/51st Street	City of Oakland	City of Oakland
18	Telegraph Avenue/52nd Street	City of Oakland	City of Oakland
19	Telegraph Avenue/55th Street	City of Oakland	City of Oakland
20	Telegraph Avenue/56th Street	Caltrans	City of Oakland
21	Telegraph Avenue/Aileen Street	Caltrans	City of Oakland
22	Telegraph Avenue/59th Street	City of Oakland	City of Oakland
23	Telegraph Avenue/Alcatraz Avenue	City of Oakland	City of Oakland
24	Telegraph Avenue/66th Street	City of Oakland	City of Oakland

Table 2. List of Existing Signalized Project Intersections in Berkeley

ID	Intersection	Owner	Maintainer/Operator
1	Telegraph Avenue/Woolsey Street	City of Berkeley	City of Berkeley
2	Telegraph Avenue/Webster Avenue	City of Berkeley	City of Berkeley
3	Telegraph Avenue/Ashby Avenue	Caltrans	City of Berkeley
4	Telegraph Avenue/Russel Street	City of Berkeley	City of Berkeley
5	Telegraph Avenue/Stuart Street	City of Berkeley	City of Berkeley
6	Telegraph Avenue/Derby Street	City of Berkeley	City of Berkeley
7	Telegraph Avenue/Blake Street	City of Berkeley	City of Berkeley
8	Telegraph Avenue/Dwight Street	City of Berkeley	City of Berkeley
9	Telegraph Avenue/Haste Street	City of Berkeley	City of Berkeley
10	Telegraph Avenue/Channing Way	City of Berkeley	City of Berkeley
11	Telegraph Avenue/Durant Avenue	City of Berkeley	City of Berkeley
12	Telegraph Avenue/Bancroft Way	City of Berkeley	City of Berkeley
13	Bancroft Way/Sather Lane	City of Berkeley	City of Berkeley
14	Bancroft Way/Dana Street	City of Berkeley	City of Berkeley
15	Bancroft Way/Fulton Street	City of Berkeley	City of Berkeley
16	Oxford Street/Center Street	City of Berkeley	City of Berkeley
17	Oxford Street/University Avenue	City of Berkeley	City of Berkeley
18	Shattuck Avenue/University Avenue	City of Berkeley	City of Berkeley
19	Shattuck Avenue/Addison Street	City of Berkeley	City of Berkeley
20	Shattuck Avenue/Center Street	City of Berkeley	City of Berkeley
21	Shattuck Avenue/Allston Way	City of Berkeley	City of Berkeley
22	Shattuck Avenue/Kittredge Street	City of Berkeley	City of Berkeley
23	Bancroft Way/Shattuck Avenue	City of Berkeley	City of Berkeley
24	Durant Avenue/Shattuck Avenue	City of Berkeley	City of Berkeley
25	Durant Avenue/Fulton Street	City of Berkeley	City of Berkeley
26	Durant Avenue/Ellsworth Street	City of Berkeley	City of Berkeley
27	Durant Avenue/Dana Street	City of Berkeley	City of Berkeley
28	Dana Avenue/Haste Street	City of Berkeley	City of Berkeley
29	Dana Avenue/Dwight Street	City of Berkeley	City of Berkeley

Chapter 2 Study Methods

2.1 Regulatory Requirements

The following Federal regulatory requirements and laws apply to the proposed Project:

- National Environmental Policy Act (NEPA) (42 United States Code § 4321)
- Federal Endangered Species Act (FESA) (16 United States Code § 1531)
- Migratory Bird Treaty Act (MBTA) (16 United States Code §§ 703-712)

The following State regulatory requirements and laws apply to the proposed Project:

- California Environmental Quality Act (CEQA) (Public Resources Code, Division 13 § 21000 et seq.)
- California Endangered Species Act of 1984 (CESA) Fish and Game Code § 2050 et seq.
- Protection of Migratory Birds (Fish and Game Code §§ 3503 and 3800)
- Protection of Bats (Fish and Game Code § 20000, 2002, 2014 and 4150), and under California Code of Regulations § 251.1.

2.2 Studies Required

A Biological study area (BSA) was established that encompassed the Project limits and surrounding areas potentially inhabited by regional special-status species that could be affected directly or indirectly by the Project. The BSA Figures are included in Appendix A. A BSA is defined as the area (land and water) that may be directly, indirectly, temporarily, or permanently impacted by construction and construction activities.

Biological surveys and studies were performed to satisfy the requirements of CEQA, to document all special-status species that potentially occur in the BSA, and to identify all potential Project impacts on protected resources or critical habitats. Special-status species include those listed as endangered, threatened, or rare under FESA or CESA; plants listed as rare by California Native Plant Society (CNPS); migratory birds protected under the MBTA; and State Species of Special Concern (SSC).

2.2.1 Database and Literature Searches

Information about habitat types and special-status species that can occur in the BSA was obtained from the following sources:

- U. S. Fish and Wildlife Service (USFWS) online database for federally threatened and endangered species (USFWS 2019).
- California Department of Fish and Game (CDFW), California Natural Diversity Database (CNDDB 2019).
- CNPS Online Inventory of Rare and Endangered Plants (CNPS 2019).

These databases were queried for all occurrence records within a 5-mile radius for the following six USGS quadrangles: Oakland West, Oakland East, Richmond, Briones Valley, San Leandro, and Hunters Point.

The USFWS database was utilized to query all federally endangered, threatened, candidate, and proposed animal and plant species as well as designated critical habitat (defined as habitats determined to be essential for the survival of that species) with known occurrences in the BSA. No work will occur in aquatic features present or in the vicinity of the BSA and therefore, a National Oceanic and Atmospheric Administration (NOAA) Fisheries database list was not obtained.

Results from the USFWS and CNDDB databases were refined using available scientific literature, aerial imagery, site visits, and CNPS databases to determine which special-status species have the potential to occur in the BSA and affected by the proposed Project. If suitable habitat was not present for a sensitive species within the BSA, the species was not given consideration beyond its inclusion on the special-status species tables.

2.2.2 Personnel and Survey Dates

A reconnaissance level biological resources survey was conducted to determine the presence or absence of special-status plants and wildlife, along with potential habitat for special-status species. The BSA was surveyed using the pedestrian method, by walking accessible portions of the BSA, and photo-documenting existing site conditions as well as potential habitat for special-status species. General notes were also collected, including observed plants and wildlife.

The credentials for survey personnel is:

- Gregory Wattley, B.S., Biology; M.S. Environmental Biology; 13 years of experience

2.3 Agency Coordination

There has been no coordination with agencies with jurisdiction over biological resources. It is unlikely that any permits will be required.

2.4 Limitations That May Influence Results

The BSA is primarily within public areas and easily accessible.

Chapter 3 Environmental Setting

This section describes the existing physical and biological conditions in the BSA and surrounding region.

3.1 Physical Conditions

The entire portion of the Berkeley segment and the majority of the Oakland Grand and Telegraph Avenue segments of the Project is located in the Oakland West United States Geological Survey (USGS) 7.5 Minute quadrangle with a small segment of the eastern portion of the Oakland segment extending into the Oakland East USGS quadrangle. The entire BSA is surrounded by commercial development mixed with residential communities.

3.1.1 Precipitation and Data Analysis

The BSA experiences a Mediterranean climate, characterized by hot, dry summers and mild, moist winters (George, 2018). A climate summary report obtained from the closest NOAA weather station (Western Regional Climate Center 2019) with similar elevation and topography indicates the following.

The nearest station was the Oakland Metro International Airport (046335). Precipitation data for the Berkeley/Oakland region were reviewed for the years between 1948 and 2016. The maximum average temperature is 73.4 °F in September; the lowest average temperature is 55.3 °F in January. Precipitation generally occurs between mid-October and mid-April. The wettest month of the year is January with an average rainfall of 3.71 inches, and the driest month is July with an average of 0.04 inches.

3.1.2 Hydrology

The BSA is located approximately 200 feet south of Lake Merritt at the nearest point. The Lake Merritt is connected to the Oakland Estuary via the Lake Merritt Channel and is subject to tidal influence. The National Wetland Inventory (USFWS 2019) map shows the waterbodies in the BSA (Figure 3).

Glen Echo Creek, a channelized tributary to Lake Merritt, flows beneath Grand Avenue within the BSA and is situated on the northwestern portion of Lake Merritt. The Glen Echo Creek watershed drains the upper Rockridge and Piedmont Avenue Areas in Oakland. The creek flows mostly underground until it approaches Lake Merritt, where it daylights adjacent to the Veterans' Memorial Building located at 200 Grand Avenue.

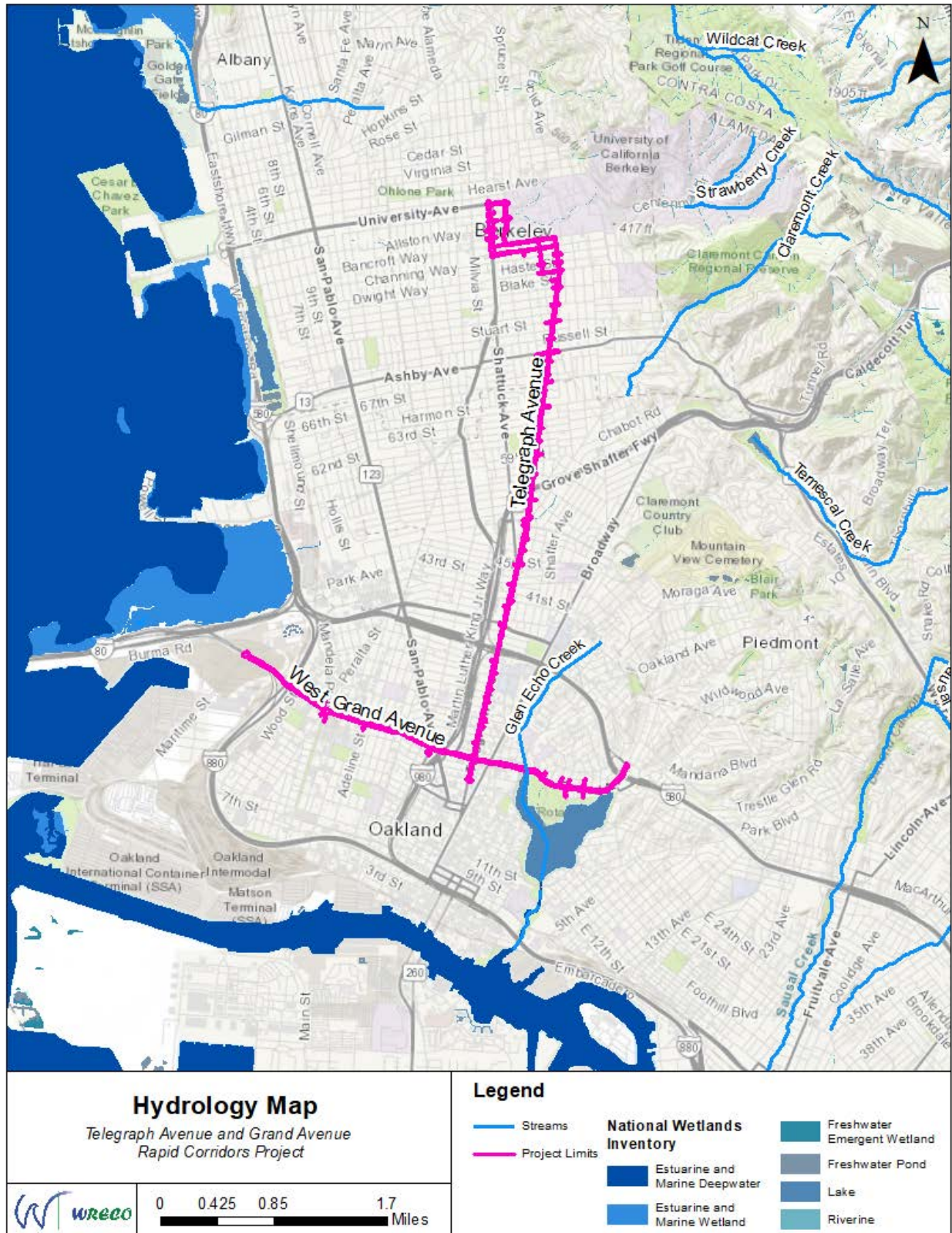


Figure 3. National Wetlands Inventory Map

3.1.3 Topography and Soils

Figure 4 shows a topographic map of the Project location. Elevations along Grand Avenue fluctuate between 13 feet Mean Sea Level (MSL) near the west end to 25 feet MSL near the east end. The elevation rises gradually from 25 feet MSL on the south end of Telegraph Avenue in Oakland to 255 feet MSL at the south end of Telegraph Avenue in Berkeley.

According to the *Soil Survey of Alameda County, California, Western Part* (USDA 2019), the following soil types are associated with the BSA:

146 – Urban land – This soil type consists of urban lands covered by buildings, roadways, parking lots, and other structures. The soil material in this area is made up of heterogeneous fill derived from various sources. A lot of areas in the BSA have been classified under this mapped soil designation, which consists of reclaimed land adjacent to the San Francisco Bay. According to the USDA (2017), this soil type has not been assigned a Hydrologic Soil Group.

147 - Urban land-Baywood complex – This soil type is found on urban land and beach ridges. The soil material in this area is made up of loamy sand. The slope ranges from 2 to 9 percent. Drainage is somewhat excessive and it is not prone to flooding. It ranges in elevations between 20 to 500 feet. There is no designated hydric soil rating.

148 – Urban land-Clear Lake complex – This soil series consists of Urban land and Clear Lake clay on basin rims. The slope ranges from 0 to 5 percent. Average annual precipitation is 17 inches. The soil material has been altered or mixed during urban development. The Clear Lake soil complex is very deep and poorly drained. Permeability is slow. The available water holding capacity is 7.0 to 9.5 inches. Drainage has been improved by flood control structures, and the groundwater table is below a depth of 48 to 60 inches. Runoff is slow, and there is no hazard of erosion. The water intake rate and permeability are slow.

149 – Urban land-Danville complex – This soils complex is located on low terrace and alluvial fans at an elevation of about 20 to 300 feet. The soil complex is approximately 60 percent Urban land and 30 percent Danville silty clay loam. Slopes are mainly nearly level. The average annual precipitation is 17 inches. The soil material has been altered or mixed during construction. The Danville soil series is very deep and well drained. It formed in alluvium derived mainly from sedimentary rock. Permeability is slow. The available water holding capacity is 8.5 to 10.5 inches. Runoff is slow, and the hazard of erosion is slight.

150 – Urban land-Tierra complex, 2 to 5 percent slopes – This complex consists of Urban land and Tierra loam located on old dissected terraces at an elevation of 100 to 250 feet. The average annual precipitation is 17 inches. The Tierra soil is very deep and moderately well drained. It

was formed in weakly consolidated old alluvium. Permeability is very slow. The average water holding capacity is 6 to 8 inches. Runoff is slow, and the hazard of erosion is slight.

151 – Urban land-Tierra complex, 5 to 15 percent slopes – This soil series consists of Urban land and Tierra loam found on old dissected terraces at elevations of 100 to 200 feet. The average annual precipitation is 17 inches. The soil complex is approximately 50 percent Urban land and 38 percent Tierra loam. The Tierra soils unit is very deep and moderately well drained. It was formed from weak consolidated old alluvium. Permeability is very slow. The available water holding capacity is 6 to 8 inches. Runoff is medium and the hazard of erosion is moderate.

A soils map of the BSA is depicted in Figure 5.

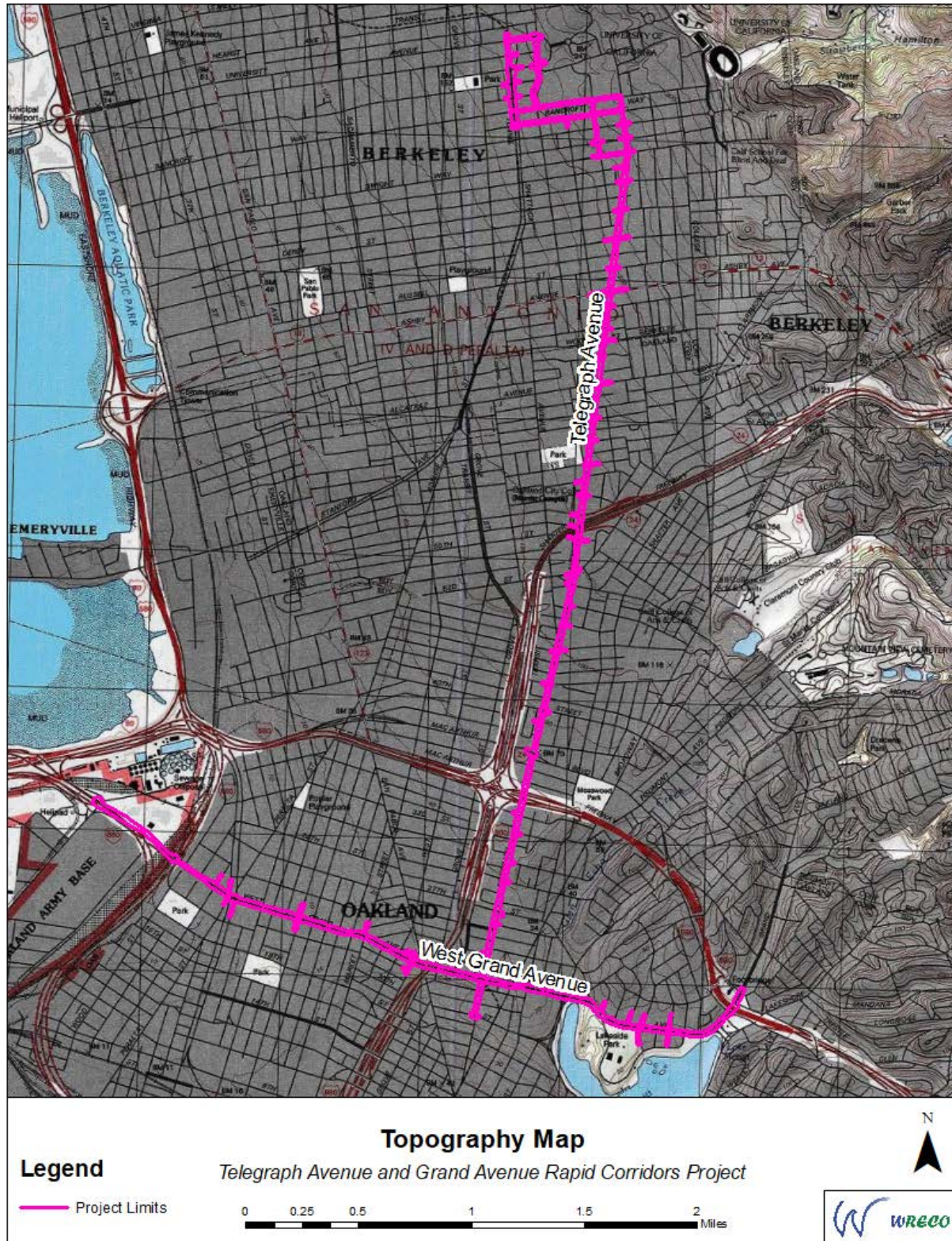


Figure 4. Topographic Map of the BSA

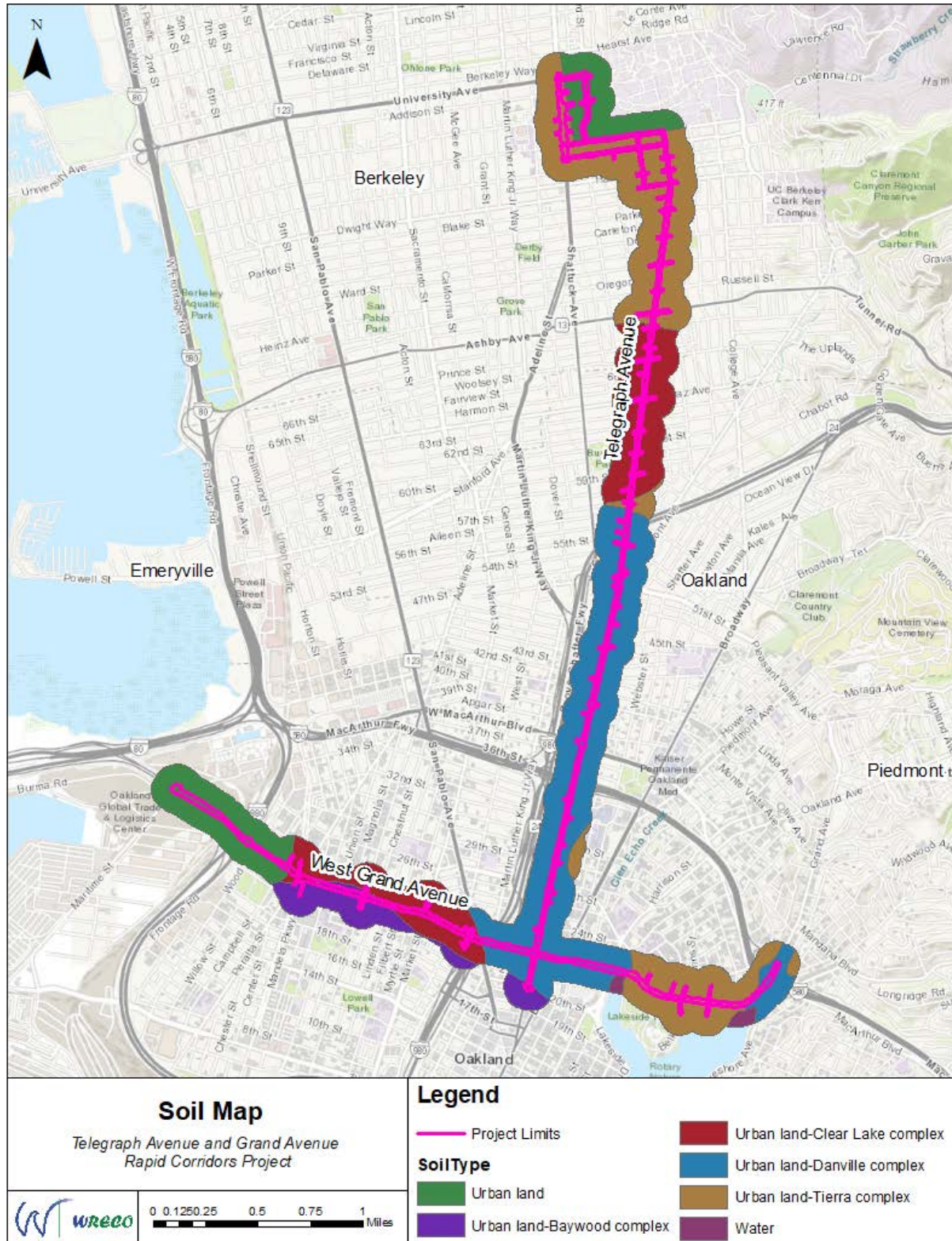


Figure 5. Soils Map

3.1.4 Biological Conditions

The BSA consists mainly of urban and developed areas; sensitive biological resources are not expected to be present.

3.1.4.1 VEGETATION COMMUNITIES

Two vegetation communities, urban and ruderal were present in the BSA. Representative plant and wildlife species observed in the BSA are included in Appendix B. Due to the high degree of disturbance associated with these vegetation communities, the presence of special-status plant species can effectively be ruled out.

Urban

Vegetation associated with urban habitats is found throughout areas where there are residential and commercial developments. It consists mainly of manicured lawns, ornamental trees, and shrubs. A variety of landscape trees species were observed along streets, in adjacent parks, and residential yards. Few native tree species were observed but those present included coast redwood (*Sequoia sempervirens*) and occasional coast live oaks (*Quercus agrifolia*). Wildlife observed in the urban vegetation communities included rock pigeon (*Columba livia*), common raven (*Corvus corax*), Brewer's blackbird (*Euphagus cyanocephalus*), and dark-eyed junco (*Junco hyemalis*). Birds present near Lake Merritt included Canada goose (*Branta canadensis*), American coot (*Fulica americana*), and gulls (*Larus* spp.).

Ruderal

Ruderal plant communities consist of varied, often temporary, collections of mostly non-native plants along roadsides or other disturbed areas. Shallow soils may be underlain by gravel and compacted or hard-pan surfaces, preventing many plants from establishing. Aggressive, invasive plants, such as brome grasses and thistles typically thrive in ruderal habitats (Holland and Keil 1995). Ruderal areas along the Project corridor and were comprised of street islands, sidewalk planter strips, and vacant lots. Representative plant species observed included wild oats (*Avena fatua*), sweet fennel (*Foeniculum vulgare*), hairy cat's-ear (*Hypochaeris radiacata*), common mallow (*Malva neglecta*), English plantain (*Plantago lanceolata*), and common dandelion (*Taraxacum officinale*). Wildlife species observed in ruderal vegetation communities were consistent with those found in the urban communities, with the exception of those found at Lake Merritt.

3.1.4.2 HABITAT CONNECTIVITY

The BSA does not provide habitat connectivity for wildlife due to the presence of dense urbanization. Wildlife that dwell in urban environments, such as raccoons, skunks, and opossums typically establish small territories that they seldom venture from.

Deer, foxes, and coyotes may be present in the hilly terrain east of Oakland and Berkeley, but the vast networks of freeways and streets would present hazardous or fatal results if these species enter urban areas such as those contained within the BSA. Lake Merritt Channel may provide habitat connectivity for some species of fish that pass through the area into Lake Merritt, however the Project will not have any impacts to Lake Merritt.

3.2 Regional Species and Habitats of Concern

Database lists from online sources included in the discussion below are included in Appendix C.

3.2.1 Sensitive Natural Communities

Sensitive natural communities are recurring associations of plants and animals found in particular locations with specific physical conditions. Natural Communities of Special Concern are plants, animals, and natural resources that may have high species diversity, high productivity, limited distribution, decreasing range, or unusual characteristics. Natural Communities of Special Concern as designated by CDFW, may include wetlands and “Waters of the U.S.,” “Waters of the State”, protected trees, riparian habitats, and federally designated essential fish habitats.

A CNDDDB online database search resulted in a total of six sensitive natural community that occur within the six USGS quadrangles within a 5-mile radius of the BSA. The natural communities listed and their proximity to the BSA is included in Table 3.

Table 3. Natural Communities of Special Concern in the BSA

Sensitive Natural Community	Present in BSAs	Proximity to BSA
Northern Coast Salt Marsh	No	Occurrence 51, Arrowhead Marsh, is located approximately 4.6 miles south of the BSA. Occurrence 19, a marsh situated along the shoreline, west of I-80 extending from Emeryville then west along the north side of I-80 to the end of the shoreline beneath the westbound span of the Bay Bridge, is located 0.3 miles west of the BSA.
Northern Maritime Chaparral	No	Occurrence 12, Huckleberry Ridge on East Bay Regional Park Land, is located 3.9 miles east of the BSA.
Serpentine Bunchgrass	No	Occurrence 12, Redwood Regional Park, is located approximately 4.5 miles east of the BSA.
Valley Needlegrass Grassland	No	Occurrence 18, Brooks Island is located in the San Francisco Bay and does not have connectivity to the BSA.

3.2.2 Special-Status Plant Species

A list of sensitive plant species and habitats potentially occurring within the Project vicinity was developed based on information compiled from CNDDDB, CNPS, species distribution, and habitat data. Biologists determined it is highly unlikely special-status plants would occur in the BSA based upon the types of habitat that each listed species occupies, historical records, and observations made during the site survey. In general, historical and ongoing disturbance within the BSA has degraded the integrity of the historical vegetation communities, limiting the potential for many special-status plants to occur in the BSA.

Combined, the CNDDDB, CNPS, and USFWS databases list a total of 45 special-status plants (including federally listed, State-listed, and/or CNPS List 1B or 2) that have occurrence records within a 5-mile radius of the BSA. Table 4 lists the special-status plants generated from these databases and provides explanations for the potential presence or absence of these plants. The table provides the names and listed status of each species, descriptions of their preferred habitats, and their likelihood of occurrence in the BSA.

The results from all database queries and a map of CNDDDB plant occurrences are presented in Appendix C.

3.2.3 Special-Status Wildlife Species

A total of 38 special-status wildlife species and protected habitats have the potential to occur within the BSA, as indicated by the CNDDDB and USFWS online databases. Table 5 lists the special-status wildlife generated from the database searches and provides descriptions for the potential presence or absence of the wildlife, listed status, required habitats, and their likelihood of occurrence in the BSA. Based on evaluation, it was determined that special-status wildlife species that could occur in the BSA include peregrine falcon, bats, and migratory bird species.

The results from all database queries and a map of CNDDDB plant occurrences are presented in Appendix C.

Table 4. Special-Status Plant Species with Potential to Occur in the Biological Study Area (BSA)

Scientific Name Common Name	Status			Blooming Period	Habitat Requirements (Source: CNPS)	Rationale to Occur
	Fed	State	CNPS			
<i>Amsinckia lunaris</i> Bent-flowered fiddleneck	--	--	1B.2	Mar-Jun	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. Elev. 10-1640 ft.	None. No scrub, woodlands habitats present. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Arctostaphylos pallida</i> Pallid manzanita	FT	SE	1B.1	Dec-Mar	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub in siliceous shale, sandy, or gravelly soils. Elev. 605-1525 ft.	None. No forest, chaparral, or woodland habitats present in the BSA.
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	--	--	1B.2	Mar-Jun	Valley and foothill grassland in adobe clay soil; playas and vernal pools with alkaline soil. Elev. 0-200 ft.	None. No vernal pools present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Balsamorhiza macrolepis</i> Big-scale balsmroot	--	--	1B.2	Mar-Jun	Chaparral, cismontane woodland, valley and foothill grassland sometimes in serpentinite soil. Elev. 295-5100 ft.	None. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	--	--	1B.2	Apr-Jun	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. Occurs on wood and brush slopes. Elev. 100-2755 ft.	None. No chaparral or woodland habitat is present in the BSA.
<i>Calystegia purpurata</i> ssp. <i>saxicola</i> Coastal Bluff Morning glory	--	--	1B.2	Mar-Sep	Coastal bluff scrub, coastal dunes, coastal scrub, north coast coniferous forest. Elev. 30-345 ft.	None. No scrub, dune or forest habitat is present in the BSA.

Scientific Name Common Name	Status			Blooming Period	Habitat Requirements (Source: CNPS)	Rationale to Occur
	Fed	State	CNPS			
<i>Carex comosa</i> Bristly sedge	--	--	2B.1	May-Sep	Coastal prairie, margins of marshes and swamps, valley and foothill grassland. Elev. 0-2050 ft.	None. No prairie or marsh habitat is present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	--	--	1B.1	May-Nov	Valley foothill grassland in alkaline soil. Elev. 0-755 ft.	None. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes salty bird's-beak	--	--	1B.2	Jun-Oct	Coastal salt marshes and swamps. Elev. 0-35 ft.	None. No marshes or swamps are present in the BSA.
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i> San Francisco Bay spineflower	--	--	1B.2	Apr-Aug	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub in sandy soil. Elev. 10-705 ft.	None. No scrub, dune or prairie habitat is present in the BSA.
<i>Chorizanthe robusta</i> var. <i>robusta</i> Robust spineflower	FE	--	1B.1	Apr-Sep	Maritime chaparral, openings in cismontane woodland, coastal dunes, coastal scrub in sandy or gravelly soil. Elev. 10-985 ft.	None. No chaparral, woodland, dune, or scrub habitat is present in the BSA.
<i>Cicuta maculata</i> var. <i>bolanderi</i> Bolander's water-hemlock	--	--	2B.1	Jul-Sep	Coastal fresh or brackish water marshes and swamps. Elev. 0-660 ft.	None. No marshes or swamps are present in the BSA.
<i>Cirsium andrewsii</i> Franciscan thistle	--	--	1B.2	Mar-Jul	Broadleafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub, in mesic, sometimes serpentinite conditions. Elev. 0-495 ft.	None. No forest, scrub, or prairie habitat is present in the BSA.

Scientific Name Common Name	Status			Blooming Period	Habitat Requirements (Source: CNPS)	Rationale to Occur
	Fed	State	CNPS			
<i>Clarkia franciscana</i> Presidio clarkia	FE	SE	1B.1	May-Jul	Coastal scrub, valley and foothill grassland in serpentinite soil. Elev. 80-1100 ft.	None. No scrub habitat is present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Dirca occidentalis</i> Western leatherwood	--	--	1B.2	Jan-Apr	Broadleaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland in mesic areas. Elev. 80-1395 ft.	None. No forest, chaparral, or woodland habitat is present in the BSA.
<i>Eriogonum luteolum</i> var. <i>caninum</i> Tiburon buckwheat	--	--	1B.2	May-Sep	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland in sandy to gravelly serpentinite soil. Elev. 0-3000 ft.	None. No chaparral, woodland, or prairie habitat is present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Eryngium jepsonii</i> Jepson's coyote thistle	--	--	1B.2	Apr-Aug	Valley and foothill grassland, vernal pools in clay soil. Elev. 10-985 ft.	None. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Extriplex joaquinana</i> San Joaquin spearscale	--	--	1B.2	Apr-Oct	Chenopod scrub, meadows and seeps, playas, and valley and foothill grassland in alkaline soil. Elev. 0-2740 ft.	None. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Fissidens pauperculus</i> Minute pocket moss	--	--	1B.2	n/a (moss)	North coast coniferous forest in damp coastal soil. Elev. 30-3360 ft.	None. There is no forest habitat present in the BSA.

Scientific Name Common Name	Status			Blooming Period	Habitat Requirements (Source: CNPS)	Rationale to Occur
	Fed	State	CNPS			
<i>Fritillaria liliacea</i> Fragrant fritillary	--	--	1B.2	Feb-Apr	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland often in serpentinite soil. Elev. 10-1345 ft.	None. There are no woodland, prairie, or scrub habitats present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Gilia capitata</i> ssp. <i>chamissonis</i> Blue coast gilia	--	--	1B.1	Apr-Jul	Coastal dunes, coastal scrub. Elev. 5-660 ft.	None. There is no dune or scrub habitat present in the BSA.
<i>Gilia millefoliata</i> Dark-eyed gilia	--	--	1B.2	Apr-Jul	Coastal dunes. Elev. 5-100 ft.	None. There are no dunes present in the BSA.
<i>Helianthella castanea</i> Diablo helianthella	--	--	1B.2	Mar-Jun	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. Usually in rocky axonal soil, often in partial shade. Elev. 195-4265 ft.	None. There are no forest, chaparral, woodland or scrub habitats present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Hemizonia congesta</i> ssp. <i>congesta</i> Congested-headed hayfield tarplant	--	--	1B.2	Apr-Nov	Valley and foothill grassland, sometimes roadsides. Elev. 65-1840 ft.	None. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Heteranthera dubia</i> Water star-grass	--	--	2B.2	Jul-Oct	Marshes and swamps. Alkaline, still or slow-moving water. Requires a pH of 7 or higher, usually in slightly eutrophic waters. Elev. 100-4905 ft.	None. There are no marshes or swamps present in the BSA.

Scientific Name Common Name	Status			Blooming Period	Habitat Requirements (Source: CNPS)	Rationale to Occur
	Fed	State	CNPS			
<i>Hoita strobilina</i> Loma Prieta hoita	--	--	1B.1	May-Oct	Chaparral, cismontane woodland, riparian woodland, usually mesic areas and serpentinite soil. Elev. 95-2825 ft.	None. There are no chaparral or woodland habitats present in the BSA.
<i>Holocarpha macradenia</i> Santa Cruz tarplant	FT	SE	1B.1	Jun-Oct	Coastal prairie, coastal scrub, valley and foothill grassland. Elev. 30-725 ft.	None. There are no prairie or scrub habitats present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	--	--	1B.1	Apr-Sep	Openings in closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub in sandy or gravelly soil. Elev. 30-660 ft.	None. There are no forest, chaparral, dune or scrub habitats present in the BSA.
<i>Isocoma arguta</i> Carquinez goldenbush	--	--	1B.1	Aug-Dec	Valley and foothill grassland in alkaline soil. Elev. 0-70 ft.	None. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Lasthenia conjugens</i> Contra Costa goldfields	FE	--	1B.1	Mar-Jun	Coastal salt marshes and swamps, playas, vernal pools. Elev. 0-4005 ft.	None. There are no marshes, swamps or vernal pools present in the BSA.
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i> Delta tule pea	--	--	1B.2	May Sep	Freshwater and brackish marshes and swamps. Elev. 0-20 ft.	None. There are no marshes or swamps present in the BSA.
<i>Layia carnosa</i> Beach layia	FE	SE	1B.1	Mar-Jul	Coastal dunes, coastal scrub in sandy soil. Elev. 0-200 ft.	None. There is no dune or scrub habitat present in the BSA.

Scientific Name Common Name	Status			Blooming Period	Habitat Requirements (Source: CNPS)	Rationale to Occur
	Fed	State	CNPS			
<i>Leptosiphon rosaceus</i> Rose leptosiphon	--	--	1B.1	Apr-Jul	Coastal bluff scrub. Elev. 0-330 ft.	None. There is no scrub habitat present in the BSA.
<i>Meconella oregana</i> Oregon meconella	--	--	1B.1	Mar-Apr	Coastal prairie, coastal scrub. Elev. 820-2035 ft.	None. There is no prairie or scrub habitat present in the BSA.
<i>Monolopia gracilens</i> Woodland woollythreads	--	--	1B.2	Feb-Jul	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland in serpentine soil. Elev. 325-3940 ft.	None. There is no forest, chaparral or woodland habitat present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i> Choris' popcornflower	--	--	1B.2	Mar-Jun	Chaparral, coastal prairie, coastal scrub. Elev. 10-524 ft.	None. There is no chaparral, prairie, or scrub habitat present in the BSA.
<i>Plagiobothrys diffusus</i> San Francisco popcornflower	--	SE	1B.1	Mar-Jun	Coastal prairie, valley and foothill grassland. Elev. 195-1185 ft.	None. There is no prairie habitat present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Polygonum marinense</i> Marin knotweed	--	--	3.1	Apr-Oct	Coastal salt or brackish marshes and swamps. Elev. 0-35 ft.	None. There are no marshes or swamps in the BSA.
<i>Sanicula maritima</i> Adobe sanicle	--	SR	1B.1	Feb-May	Chaparral, coastal prairie, meadows and seeps, valley and foothill grassland in clay or serpentinite soil. Elev. 95-790 ft.	None. There is no chaparral, or prairie habitat present in the BSA nor are there meadows and seeps. Grasslands adjacent

Scientific Name Common Name	Status			Blooming Period	Habitat Requirements (Source: CNPS)	Rationale to Occur
	Fed	State	CNPS			
						to the BSA are landscaped or highly disturbed.
<i>Silene verecunda</i> ssp. <i>verecunda</i> San Francisco campion	--	--	1B.2	Feb-Aug	Coastal scrub, valley and foothill grassland, coastal bluff scrub, chaparral, coastal prairie in sandy soil. Elev. 100-2120 ft.	None. There is no scrub, chaparral, or prairie habitat present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Spergularia macrotheca</i> var. <i>longistyla</i> Long-styled sand-spurrey	--	--	1B.2	Feb-May	Alkaline meadows and seeps, marshes and swamps. Elev. 0-840 ft.	None. There are no meadows, seeps, marshes or swamps present in the BSA.
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> Most beautiful jewelflower	--	--	1B.2	Mar-Oct	Chaparral, cismontane woodland, valley and foothill grassland in serpentinite soil. Elev. 310-3280 ft.	None. There are no chaparral or woodland habitats present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
<i>Stuckenia filiformis</i> ssp. <i>alpina</i> Slender-leaved pondweed	--	--	2B.2	May-Jul	Assorted shallow freshwater marshes and swamps. Elev. 980-7055 ft.	None. There are no marshes or swamps present in the BSA.
<i>Suaeda californica</i> California seablite	FE	--	1B.1	Jul-Oct	Coastal salt marshes and swamps. Elev. 0-50 ft.	None. There are no marshes or swamps present in the BSA.
<i>Trifolium hydrophilum</i> Saline clover	--	--	1B.2	Apr-Jun	Marshes and swamps, valley and foothill grassland in mesic areas with alkaline soil, vernal pools. Elev. 0-985 ft.	None. There are no marshes or swamps present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.

Scientific Name Common Name	Status			Blooming Period	Habitat Requirements (Source: CNPS)	Rationale to Occur
	Fed	State	CNPS			
Triphysaria floribunda San Francisco owl's-clover	--	--	1B.2	Apr-Jun	Coastal prairie, coastal scrub, valley and foothill grassland, usually in serpentinite soil. Elev. 30-525 ft.	None. There is no prairie or scrub habitat present in the BSA. Grasslands adjacent to the BSA are landscaped or highly disturbed.
Viburnum ellipticum Oval-leaved viburnum	--	--	2B.3	May-Jun	Chaparral, cismontane woodland, and lower montane coniferous forest. Elev. 705-4595 ft.	None. There is no chaparral, woodland, or forest habitat present in the BSA.

Notes:

General Habitat Descriptions are based upon definitions utilized by the CNPS online Inventory of Rare and Endangered Plants (2017). Habitats present within the study area are emphasized with bold print.

BSA = Biological Study Area

CNPS = California Native Plant Society

Status Legend

-- = No status, or not applicable

FE = Listed as endangered under the Federal Endangered Species Act (FESA)

FT = Listed as threatened under FESA

SE = Listed as endangered under the California Endangered Species Act (CESA)

SR = Listed as rare under CESA

ST = Listed as threatened under CESA

CE = Listed as candidate endangered CESA

CNPS Ranking

1A = Presumed extinct in California and either rare or extinct elsewhere.

1B = Rare, threatened, or endangered in California and elsewhere.

2A = Presumed extinct in California but common elsewhere.

2B = Rare, threatened, or endangered in California but more common elsewhere.

Threat Ranks

0.1 = Seriously threatened in California (more than 80% of occurrences threatened/high degree and immediacy of threat).

0.2 = Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat).

Potential to Occur Definitions

None = No possibility for occurrence.

Low = Suitable habitat present; not likely to occur due to environmental constraints, but cannot be ruled as absent.

Moderate = Potential to occur based on habitat suitability and documented records in the study area region.

High = Species has been document within the study area.

Table 5. Special-Status Wildlife Species with Potential to Occur in BSA or Vicinity

Scientific Name Common Name	Status Federal/State		Habitat Description	Potential to Occur in Project Area
Invertebrates				
<i>Bombus occidentalis</i> Western bumble bee	--	CE	Once common and widespread from central California to southern British Columbia. Currently largely restricted to high elevation sites in the Sierra Nevada. This species is highly susceptible to pesticide use associated with landscaping and agricultural practices.	None. This species is not likely to be found in an urban area where there is no native vegetation and heavy pesticide use.
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	FT	--	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant, with <i>Orthocarpus densiflorus</i> and <i>O. purpureus</i> secondary.	None. The BSA is outside of the typical range for this butterfly. In addition, there are no native grasslands present.
Fish				
<i>Spirinchus thaleichthys</i> Longfin smelt	Candidate	ST, SSC	Euryhaline, nektonic, and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	None. No aquatic habitat present in BSA.
<i>Archoplites interruptus</i> Sacramento perch	--	SSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley. Aquatic vegetation essential for young.	None. No aquatic habitat present in BSA.
<i>Eucyclogobius newberryi</i> Tidewater goby	FE	--	Found in shallow lagoons and lower stream reaches in brackish-water habitats along the coast from Agua Hedionda Lagoon (San Diego County) to the mouth of the Smith River; rarely moves into marine or freshwater habitat. Needs fairly still but not stagnant water and high oxygen levels.	None. No aquatic habitat present in BSA.

Scientific Name Common Name	Status Federal/State		Habitat Description	Potential to Occur in Project Area
Amphibians				
Ambystoma californiense California tiger salamander	FT	ST	Central Valley DPS federally listed as threatened. Santa Barbara County and Sonoma County DPS federally listed as endangered. Needs underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	None. No aquatic habitat present in BSA.
Rana draytonii California red-legged frog	FT	SSC	Found in lowlands and foothills in or near-permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Needs access to rodent burrows, cracks, and crevices in the ground for refugia.	None. No aquatic habitat present in BSA.
Rana boylei Foothill yellow-legged frog	--	SSC	Inhabits partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of water to attain metamorphosis.	None. No aquatic habitat present in BSA.
Reptiles				
Emys marmorata Western pond turtle	--	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6000 feet elevation. Needs basking sites and sandy banks or grassy open fields for egg-laying.	None. No aquatic habitat present in BSA.
Masticophis lateralis euryxanthus Alameda whipsnake	FT	ST	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna, and woodland habitats. Mostly in south-facing slopes and ravines, with rock outcrops, deep	None. There are no suitable chaparral, scrub, grassland or woodland habitats present in the BSA. This species would not occur in a highly urbanized area.

Scientific Name Common Name	Status Federal/State		Habitat Description	Potential to Occur in Project Area
			crevices, or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	
Birds				
<i>Coturnicops noveboracensis</i> Yellow rail	--	SSC	Summer resident in eastern Sierra Nevada in Mono County. Occurs in freshwater marshlands.	None. There are no aquatic habitats present in the BSA.
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	FE	SE, FP	Found in salt and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	None. There are no aquatic habitats present in the BSA.
<i>Laterallus jamaicensis coturniculus</i> California black rail	--	ST, FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays.	None. There are no aquatic habitats present in the BSA.
<i>Charadrius alexandrinus nivosus</i> Western snowy plover	FT	SSC	Found at sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	None. There are no beaches, ponds or levees present in the BSA.
<i>Sternula antillarum browni</i> California least tern	FE	SE, FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	None. There are no undisturbed large flat substrates or paved areas where this species could nest in the BSA.
<i>Rynchops niger</i> Black skimmer	--	SSC	Nests on gravel bars, low islets, and sandy beaches in unvegetated sites. Nesting colonies usually have fewer than 200 pairs.	None. There are no beaches present in the BSA.

Scientific Name Common Name	Status Federal/State		Habitat Description	Potential to Occur in Project Area
<i>Elanus leucurus</i> White-tailed kite	--	FP	Found in rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Forages in open grasslands, meadows, or marshes close to isolated, dense-topped trees for nesting and perching.	None. A pair of kites are known to nest periodically in the vicinity of the Berkeley Marina at a location approximately 2.6 miles west of the BSA. This species would be unlikely to nest in highly urbanized areas.
<i>Haliaeetus leucocephalus</i> Bald eagle	--	SE, FP	Ocean shore, lake margins, & rivers for both nesting & wintering. Most nests within 1 mi of water.	None. There are no aquatic habitats present in the BSA.
<i>Circus hudsonius</i> Northern harrier	--	SSC	Found in coastal salt and freshwater marsh. Nests and forages in grasslands, from salt grass in desert sink to mountain marshes. Nests on ground in shrubby vegetation, usually at marsh edge; nests built of a large mound of sticks in wet areas.	None. There are no marshes in the BSA or surrounding regional that are suitable for nesting for this species.
<i>Aquila chrysaetos</i> Golden eagle	--	FP	Found in rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	None. There are no aquatic habitats present in the BSA.
<i>Athene cunicularia</i> Burrowing owl	--	SSC	Occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	None. There are no dry open grasslands in the BSA or the surrounding vicinity.
<i>Falco peregrinus anatum</i> American peregrine falcon	--	FP	Found near wetlands, lakes, rivers or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nests consist of a scrape or a depression or ledge in an open site.	Low. The nearest CNDDDB occurrence (54) is for a nest with three young observed in 2014 on a bridge located approximately 3 miles south of the BSA. Falcons routinely nest in structures associated with the U.C. Berkeley Campus, typically the bell tower or the

Scientific Name Common Name	Status Federal/State		Habitat Description	Potential to Occur in Project Area
				Art Museum the structure is immediately adjacent to the BSA. Tall buildings in the Oakland and Berkeley portions of the BSA provide suitable nesting habitat for this species.
<i>Geothlypis trichas sinuosa</i> San Francisco (saltmarsh) common yellowthroat	--	SSC	Resides in fresh and saltwater marshes and creeks of the San Francisco Bay region. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	None. There are no marshes or creek present in the BSA.
<i>Melospiza melodia maxillaris</i> Suisun song sparrow	--	SSC	Resides in brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules, and other sedges, and <i>Salicornia</i> ; also known to frequent tangles bordering sloughs.	None. There are no marshes or creek present in the BSA.
<i>Melospiza melodia pusillula</i> Alameda song sparrow*	--	SSC	Inhabits salt marshes bordering south arm of San Francisco Bay. Found in <i>Salicornia</i> marshes; nests low in <i>Grindelia</i> bushes (high enough to escape high tides) and in <i>Salicornia</i> .	None. There are no marshes or creek present in the BSA.
<i>Melospiza melodia samuelis</i> San Pablo song sparrow	--	SSC	Resides in salt marshes along the north side of San Francisco and San Pablo bays. Inhabits tidal sloughs in <i>Salicornia</i> marshes; nests in <i>Grindelia</i> bordering slough channels.	None. There are no marshes or creek present in the BSA.
<i>Xanthocephalus xanthocephalus</i> Yellow-headed blackbird	--	SSC	Nests along borders of freshwater emergent wetlands, lakes, and ponds where large insects are abundant.	None. The BSA is outside of the nesting range for this species.
Mammals				

Scientific Name Common Name	Status Federal/State		Habitat Description	Potential to Occur in Project Area
<i>Sorex vagrans halicoetes</i> Salt-marsh wandering shrew	--	SSC	Occurs in salt marshes of the south arm of San Francisco Bay. Found in medium-high marsh 6 to 8 feet above sea level where abundant driftwood is scattered among <i>Salicornia</i> .	None. There are no marshes present in the BSA.
<i>Scapanus latimanus parvus</i> Alameda Island mole	--	SSC	Only known from Alameda Island. Found in a variety of habitats, especially annual and perennial grasslands. Prefers moist, friable soils.	None. The BSA is outside of the range of this species.
<i>Lasionycteris noctivagans</i> Silver-haired bat	--	F.G.C. § 2124, § 126	Primarily occupies coastal and montane forests. Forages over streams, ponds, and open brushy areas. Roosts in hollow trees beneath exfoliating bark, abandoned woodpecker cavities.	Low. These bats could roost in vegetation within the BSA.
<i>Lasiurus cinereus</i> Hoary bat	--	F.G.C. § 124, § 2126	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Requires water.	Low. These bats could roost in trees within the BSA.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	--	SSC	Roosts in man-made structures such as old buildings and bridge crevices.	Low. Although suitable roosting habitat in the form of old buildings and bridge crevices are present in the BSA, this species is highly sensitive to disturbance and is unlikely to occur in a highly urban area.
<i>Antrozous pallidus</i> Pallid bat	--	SSC	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Also known to roost in crevices bridges and buildings.	Low. There are several CNDDB records within 5 miles of the BSA for this species included in the Museum of Vertebrate Zoology. All of the collections were from the 1940s. This species is very sensitive to habitat disturbance therefore its likelihood to occur in an urban area is very unlikely.

Scientific Name Common Name	Status Federal/State		Habitat Description	Potential to Occur in Project Area
<i>Nyctinomops macrotis</i> Big free-tailed bat	--	SSC	Found in low-lying arid areas in Southern California. Needs high cliffs or rocky outcrops for roosting. Feeds principally on large moths.	None. The BSA is not within the range of this species.
<i>Taxidea taxus</i> American badger	--	SSC	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	None. There are no dry open shrub, forest or grassland habitats in BSA or vicinity. This species is very unlikely to occur in an urban area.
<i>Reithrodontomys raviventris</i> Salt-marsh harvest mouse	FE	SE, FP	Occurs only in the saline emergent wetlands of San Francisco Bay and its tributaries. Primary habitat is pickleweed.	None. There are no saline emergent wetlands in the BSA or vicinity.
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	--	SSC	Occurs in forest habitats of moderate canopy and moderate-to-dense understory. May prefer chaparral and redwood habitats. Constructs nests of shredded grass, leaves, and other material.	None. There is no suitable sheltered nesting habitat present in the BSA.
<i>Microtus californicus sanpabloensis</i> San Pablo vole	--	SSC	Found in salt marshes of San Pablo Creek, on the south shore of San Pablo Bay. Constructs burrow in soft soil. Feeds on grasses, sedges and herbs. Forms a network of runways leading from the burrow.	None. There are no salt marshes present in the BSA.

Notes:

- In this report, evaluation of potential presence is based upon the types of habitat that each listed species occupies and on observations made during site surveys.
- General Habitat Description taken from the California Natural Diversity Database (CDFW 2019) unless otherwise noted.
- Bats are protected under nongame mammal provisions in the California Fish and Game Code.

Status Legend

FE = Listed as endangered under the Federal Endangered Species Act (FESA)

FT = Listed as threatened under FESA

Candidate = Candidate under consideration for threatened or endangered status under FESA

SE = Listed as endangered under the California Endangered Species Act (CESA)

ST = Listed as threatened under CESA

CE = Listed as candidate for endangered listing under CESA

SSC = Species of special concern under CEQA California Public Resources Code §§21000-21177

FP = Fully Protected under Fish and Game Codes 3511, 4700, 5050 and 5515

Rationale Definitions

None = No possibility for occurrence.

Not likely = Habitat may be present, but this wildlife species has not been documented in the BSA other than historical museum specimen records; however, potential for its presence cannot be ruled out entirely.

Low = Suitable habitat present; not likely to occur due to environmental constraints, but cannot be ruled as absent.

Moderate = Potential to occur based on habitat suitability and documented records in the BSA region.

High = Species has been documented within the BSA.

FGC§2124. Handling Mammals; Exceptions and Restrictions

(a) Except as otherwise authorized by this code or regulations adopted pursuant thereto, including, but not limited to, those provisions that authorize raising deer to produce venison for market it is unlawful for any person to possess, transport, import, export, propagate, purchase, sell, or transfer any live mammal listed under Section 2118 for the purposes of maiming, injuring, or killing the mammal for gain, amusement, or sport. Except as otherwise authorized by this code or regulations adopted pursuant thereto, the buyer of a live mammal listed in Section 2118 shall not resell the live mammal to another buyer who has the intent to maim, injure, or kill that mammal for purposes of gain, amusement, or sport.

§2126. Unauthorized Taking of Mammals

(a) Except as otherwise authorized by this code or regulations made pursuant thereto, it is unlawful for any person to take any mammal as identified by Section 2118.

Chapter 4 Results: Biological Resources, Discussion of Impacts, and Mitigation

Project biologists conducted a site survey on January 3, 2020, and performed various databases searches, and resource evaluations to determine the presence of special-status species, and their likelihood of occurrence within the BSA. Biological evaluations were also performed to determine whether critical habitats were present or had the potential to occur in the BSA. This chapter discusses these issues. Representative photos of the site visit are included in Appendix D.

In general, the proposed Project will have minimal impacts on the natural environment in the BSA because the Project will occur within a highly urbanized area with a previously disturbed footprint.

4.1 Natural Communities of Special Concern

As described in Section 3.2.1, Natural Communities of Special Concern are recurring associations of plants and animals found in particular locations with specific physical conditions. These communities may have high species diversity, high productivity, limited distribution, decreasing range, or unusual characteristics. The following section identifies potential impacts on natural communities of special concern within the BSA.

4.1.1 Survey Results

As shown in Table 3, four natural communities of special concern occur within 5 miles of the BSA (Northern coast salt marsh, Northern maritime chaparral, serpentine bunchgrass, and valley needlegrass grassland), but none of these communities occur within the BSA. There will be no impacts to these communities, so no impacts discussion or Avoidance and Minimization Measures (AMM) are included.

4.2 Potential Wetlands and Other Waters of the U.S. and Waters of the State

This section provides discussion of potential wetlands and “Other Waters of the U.S.” that would be subject to U.S. Army Corps of Engineers (USACE) jurisdiction under Section 404 of the Clean Water Act (CWA).

4.2.1 Wetlands and Other Waters of the U.S. and Waters of the State

According to the USACE (Federal Register 1986) wetlands are transitional areas (i.e., inundated for a long enough period of time to support vegetation adapted for life in saturated conditions) between aquatic resources and upland areas. These include swamps, marshes, bogs, and fens.

Under 33 Code of Federal Regulations (CFR) Part 328.3(a) and 40 (CFR) part 230.3(s), Waters of the U.S. are defined as:

“All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.”

The USACE has primary federal responsibility for administering regulations that concern waters and wetlands. The USACE acts under two statutory authorities. Wetlands and other water resources (e.g., rivers, streams, and natural basins) are a subset of Waters of the U.S. and receive protection under Section 404 of the federal CWA. Additionally, the Rivers and Harbors Act (Sections 9 and 10) govern specified activities in Waters of the U.S. including wetlands.

The California Water Code defines Waters of the State as “any surface water or groundwater, including saline waters, within the boundaries of the State” (Water Code Section 13050[e]). Waters of the State include all Waters of the U.S. as well as isolated wetlands, disjunct streams, and stream areas above the Ordinary High Water Mark either to the top of bank or farthest extent of riparian vegetation. The Regional Water Quality Control Board (RWQCB) and CDFW may exercise jurisdiction over impacts to Waters of the State and the RWQCB may also regulate discharges into the Waters of the State.

4.2.2 Survey Results

No wetlands were identified within the BSA. Lake Merritt which is 200 feet south of the BSA and the Glen Echo Creek channel that passes beneath Grand Avenue are potentially jurisdictional Other Waters of the U.S. and Waters of the State. However, construction will occur within the paved roadway and no construction activities will take place in these aquatic resources.

4.2.3 Project Impacts

No jurisdictional Waters of the U.S. including wetlands or Other Waters of the U.S. and Waters of the State will be impacted by the proposed Project.

4.2.4 Avoidance and Minimization Measures/Compensatory Mitigation

Best Management Practices (BMP) will be placed along the roadway to prevent construction-related debris and fluids from entering the waters of Lake Merritt Channel and the Glen Echo Creek channel. No compensatory mitigation is planned because there will be no impacts to Other Waters of the U.S. and/or Waters of the State.

4.3 Special-Status Plant Species

Forty-six special-status plant species that resulted from the combined USFWS, CNPS, and CDFW database lists for the BSA quadrangles were evaluated for potential occurrence. A reconnaissance level botanical survey was conducted at the site on January 3, 2020. No special-status plant species were observed in the BSA. This is likely due to the extensive impervious surface area and high degree of disturbance associated with the long history of development and urbanization in the cities of Oakland and Berkeley.

4.4 Special-Status Wildlife

Thirty-eight special-status wildlife species that resulted from the combined USFWS, and CNDDDB database lists for the BSA quadrangles were evaluated for potential presence. A reconnaissance survey was conducted during the site visit on January 3, 2020. There was no special-status wildlife species observed in the BSA. Due to the high degree of disturbance associated with the long history of development and urbanization in the BSA, very few wildlife species would be expected to occur.

4.4.1 Peregrine Falcon

The American Peregrine falcon (*Falco peregrinus anatum*) is a State fully protected (FP) species and is also protected under the Migratory Bird Treaty Act (MBTA). This species is found throughout North America in different terrestrial biomes. Habitats with cliffs are utilized by breeding peregrine falcons and they usually nest near water. They can also use towers, bridges, and buildings as nesting habitat (Wheeler 2003, White et al. 2002). Foraging occurs in open spaced habitats, with non-breeding peregrine falcons occupying these habitats as well.

4.4.1.1 SURVEY RESULTS

Falcons routinely nest in structures associated with the U.C. Berkeley Campus, typically the bell tower or the Art Museum building which is immediately adjacent to the BSA. Tall buildings in the Oakland and Berkeley portions of the BSA provide suitable nesting habitat for this species. The next nearest CNDDDB occurrence (54), is for a nest with three young observed in 2014 on a bridge located approximately 3 miles south of the BSA.

4.4.1.2 PROJECT IMPACTS

With the implementation of AMMs described below, the proposed Project will have no impact on peregrine falcon or its habitat.

4.4.1.3 AVOIDANCE AND MINIMIZATION MEASURES/COMPENSATORY MITIGATION

In addition to the AMMs listed in Table 6, the following AMMs will be implemented to prevent Project impacts to peregrine falcon:

Pre-construction nesting bird surveys during peregrine falcon breeding season (February 1 through August 31) will be conducted by a qualified biologist no more than 48 hours prior to the commencement of construction. If an active nest is found within 500 feet of the Project limits, the biologist will consult with CDFW to determine if additional AMMs are applicable.

Conduct Worker Environmental Awareness Training regarding potential sensitive species that could occur in or near the BSA, including peregrine falcon.

No impacts are anticipated and no compensatory mitigation is proposed.

4.4.2 Roosting Bats

In the State of California, some species of bats are considered SSC, including pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), western red bat (*Lasiurus blossevillei*), and western mastiff bat (*Eumops perotis*). In addition to regulatory agencies offering protection to these sensitive species, protection from harassment and destruction is also offered to their occupied habitats. Under California law, bat protection is offered under the Fish and Game Code (F.G.C.) Sections 2000, 2002, 2014 and 4150, and California Code of Regulations Section 251.1.

Roosting bats typically occupy a variety of habitats often associated with nearby water sources that attract insects and provide a supply of drinking water. Many bats in California can be found roosting in man-made structures including bridges, buildings, and mines. Special-status bats that may use man-made structures for roosting in the BSA include:

- Pallid bat
- Townsend's big-eared bat

Additionally, some species of bats almost exclusively roost in hollowed trees, peeling bark, and tree foliage. These species require trees for some or all of the following activities, depending on the species: thermal regulation, predator avoidance, maternity roosting, and for resting between foraging flights. Bat species that depend on trees for roosting and could occur in the BSA include, but are not limited to:

- Hoary bat (*Lasiurus cinereus*)
- Silver-haired bat (*Lasionycteris noctivagans*)

4.4.2.1 SURVEY RESULTS

In the BSA, bats could roost in crevices and cracks beneath overpasses and on on/off ramps along the I-980 and I-580 corridors in the BSA. They could also roost in trees and other

vegetation in the BSA. No roosting bats species were observed during the general biological survey. However, no acoustic or focused surveys of vegetation were conducted in the BSA.

4.4.2.2 PROJECT IMPACTS

There is a low potential for roosting bats to be present in structures and vegetation within the BSA. Roosting bats could be affected during the removal of suitable habitat.

4.4.2.3 AVOIDANCE AND MINIMIZATION EFFORTS/COMPENSATORY MITIGATION

- Prior to vegetation removal, pre-construction surveys will be conducted for roosting bats. If bats are actively observed roosting, consultation with CDFW will occur to determine the appropriate avoidance measures to implement.
- Conduct Worker Environmental Awareness Training regarding potential sensitive species that could occur in or near the BSA, including roosting and special-status bats.

No impacts are anticipated and therefore, no compensatory mitigation is proposed.

4.5 Migratory Birds

Under the MBTA and California F.G.C. Sections 3503 and 3800, migratory birds, their nests, and eggs are protected from disturbance or destruction. All birds are protected under the MBTA and California F.G.C. except for non-native species such as the European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), and rock pigeon (*Columbia livia*), as well as game species that are subject to limited protection.

4.5.1 Survey Results

Birds protected by the MBTA and California F.G.C. Sections 3503 and 3800 were observed within the BSA. No focused nesting surveys have been conducted for the purposes of this report.

4.5.2 Project Impacts

All Project-related activities could result in the abandonment or destruction of migratory bird nests.

4.5.3 Avoidance and Minimization Efforts/Compensatory Mitigation

The following AMMs will be implemented to reduce potential impacts to nesting birds:

- If Project work occurs during the bird nesting season (February 1 – August 31), pre-construction nesting bird surveys will be conducted prior to the removal of trees or vegetation. If an active bird nest is identified, a protective buffer will be established around the nest. The standard buffer will be 50 feet for passerines (perching songbirds), 100 feet for egrets and herons, 200 feet for raptors, and 500 feet for peregrine falcon. The

buffer zones will be delineated with high-visibility environmentally sensitive area (ESA) fencing or demarcated with pin flags or ribbon, as applicable based on-site conditions. If it becomes necessary for work to occur in closer proximity to a nest, the Project biologist may develop a nest monitoring plan in coordination with Caltrans and CDFW that will include continual monitoring of the nest as construction moves closer. If at any time the biologist determines that activities may cause nest abandonment, construction activity in that area must cease.

- Trees and native shrubs will be preserved in place to the extent practicable to avoid possible nest disruption.
- Conduct Worker Environmental Awareness Training regarding the MBTA and the importance of protecting migratory and nesting birds including repercussions of disrupting active nests.

No impacts are anticipated to occur to migratory nesting birds and therefore, no compensatory mitigation actions are proposed.

4.6 Trees

Applicable tree ordinances and their requirements are discussed below.

4.6.1 City of Oakland Tree Ordinance

For tree removal associated with development projects within the City of Oakland, the *Tree Preservation Ordinance* Section 7-6.05 Chapter 7 of the Oakland Municipal Code (1993) requires a tree removal permit for any development¹ projects that require removal or possible damage to a protected tree² or trees. Prior to the submittal of the tree removal permit application, pre-application design conference or a design review checklist must be filed with the City Planning Department.

4.6.2 City of Berkeley Tree Ordinance

The City of Berkeley Tree Ordinance 12.44.020 (City of Berkeley 2020) states that it is unlawful for any person to cut trim, remove, mutilate, injure or in any way impair the growth of any tree, shrub, or plant being or growing in or on any street, parking strip, public square, park or playground in the City. To undertake any such activity, a permit application must be submitted to the City of Berkeley Director of Recreation and Parks.

¹ Defined as any activity regulated by the City of Oakland which requires design review or zoning, building, grading or demolition permit.

² Protected tree are defined as coast live oak (*Quercus agrifolia*) measuring 4 inches diameter-at-breast-height (dbh), and any other tree measuring 9-inches dbh except for Eucalyptus (*Eucalyptus ssp.*).

4.6.2.1 PROJECT IMPACTS

The Project documents state that several trees will be either trimmed or removed.

4.6.2.2 AVOIDANCE AND MINIMIZATION MEASURES

Prior to removal or trimming of trees and vegetation, consultation should occur with the cities of Oakland and Berkeley, and tree removal permits must be obtained prior to construction.

4.7 Combined Avoidance and Minimization Measures

Table 6 lists all of the proposed AMMs intended to ensure that the Project is in compliance with regulations governing biological resources.

Table 6. Avoidance and Minimization Measures

Avoidance and Minimization Measures	Description
Protect Environmentally Sensitive Areas	<ul style="list-style-type: none"> • Preserve and protect trees in place to the extent practicable. • Dispose of all spoils, excavated materials, and plant materials at a licensed and approved facility.
Conduct Environmental Awareness Training	<ul style="list-style-type: none"> • Conduct Worker Environmental Awareness Training regarding potential sensitive species that could occur in or near the BSA, including peregrine falcon, roosting bats, and migratory birds.
Implement Erosion Control Measures and Storm Water Pollution Prevention Plans	<p>Storm Water Pollution Prevention Plans (SWPPP) and erosion control BMPs would be developed to minimize any wind erosion or storm water runoff. The SWPPP will provide guidance for design staff to include provisions for sediment removal, contracts to include measures to protect sensitive areas, and to prevent and minimize stormwater and non-stormwater discharges. Protective measures would include, but are not limited to these restrictions:</p> <ul style="list-style-type: none"> • No discharge of pollutants from vehicle and equipment cleaning must be allowed into storm drains or watercourses. • Vehicle and equipment fueling, and maintenance operations must be at least 50 feet away from watercourses; except at established commercial gas stations or established vehicle maintenance facility.

Table 6. Avoidance and Minimization Measures

Avoidance and Minimization Measures	Description
Implement Project Site Best Management Practices and Water Quality Protection	<ul style="list-style-type: none"> • Access routes and the number and size of staging and work areas would be limited to existing paved surfaces as practicable. • All food and food-related trash items must be placed in trash containers and removed from the site at the end of each day. • No pets, such as dogs, cats, owned by Project personnel will be allowed anywhere in the BSA during construction to prevent harassment, mortality of native plants, wildlife, or destruction of habitats. • All equipment must be maintained in staging areas to avoid leaks (e.g. automotive fluids, gasoline, oils, or solvents). Hazardous materials such as fuels, oils, solvents, etc. will be stored in sealable containers at designated locations (at least 100 feet from aquatic habitats). A Spill Response Plan (including emergency contacts) would be prepared and kept at the site to address all spill response and emergency issues. • No firearms will be allowed except for those allowed to be carried by authorized security personnel, local, State, or Federal law enforcement officials. • To the extent practicable, sediment discharge and construction runoff will be contained to the Project vicinity in areas away from watercourses, storm drains and sensitive biological areas.
Migratory Birds	<ul style="list-style-type: none"> • If trees or vegetation removal occur during the nesting season (February 1 – August 31), a pre-construction survey would be required to verify the presence or absence of migratory nesting birds no more than 48 hours prior to the commencement of removal. If an active bird nest is identified, a protective buffer will be established around the nest. The standard buffer will be 50 feet for passerines (perching songbirds), 100 feet for egrets/herons, 200 feet for raptors (birds of prey). The buffer zones will be delineated with high-visibility environmental fencing or demarcated with pin flags or ribbon, as applicable based on-site conditions. If it becomes necessary for work to occur in closer proximity to a nest, the Project biologist may develop a nest monitoring plan in coordination with Caltrans and CDFW that will include continual monitoring of the nest as construction moves closer. If at any time the biologist determines that activities may cause nest abandonment, construction activity in that area must cease.
Peregrine Falcon	<ul style="list-style-type: none"> • Pre-construction nesting bird surveys must be conducted for peregrine falcon during nesting season (February 1 through August 31) no more than 48 hours prior to the commencement of construction. If an active nest is found within 500 feet of the BSA, the biologist will consult with CDFW to determine if a nest buffer or other measures are applicable.
Roosting Bats	<ul style="list-style-type: none"> • The Environmental Awareness Training will include bats with the potential to roost in the BSA. • Preconstruction surveys for roosting bats must be conducted for all trees and vegetation prior to removal. If roosting bats are present, a buffer zone will be erected for avoidance and consultation with CDFW will occur to determine the appropriate avoidance measures.
Tree Removal	<ul style="list-style-type: none"> • Prior to removal or trimming of trees and vegetation, consultation should occur with Cities of Oakland and Berkeley. Tree removal permits must be obtained prior to construction.

Chapter 5 Conclusions and Regulatory Determination

5.1 Federal Endangered Species Act

This NES-MI found that the Project would have no effect on federally listed plant or wildlife species. This finding has been made for all federally listed species identified in the USFWS species lists requested for the proposed Project. The Project will have no effect on listed species, their habitats, or protected communities, provided the required AMMs are followed. No adverse modification to any species critical habitat will occur as a result of Project activities. Federal agencies with oversight on the Project will make a formal effects determination. This document serves to provide the methodology, results, and informal determination.

5.2 Other

5.2.1 Migratory Bird Treaty Act and Fish and Game Code §§ 3503 and 3800

Numerous bird species protected under the MBTA and State F.G.C. are likely to nest in structures and vegetation in the BSA. To protect nesting birds, prior to vegetation or tree removal, pre-construction nesting bird surveys will be conducted by a qualified biologist during the typical nesting season, February 1 through August 31. If an active nest is found, the biologist will establish protective buffers around the nests, which will remain in place until it is determined the nest is no longer active. The standard buffer will be 50 feet for passerines (perching songbirds), 200 feet for raptors (birds of prey), and 500 feet for peregrine falcons. If a federal threatened or endangered species is found within the BSA, consultation will occur with USFWS. If a State-listed special-status species is found that was not addressed in this NES-MI, consultation will occur with CDFW.

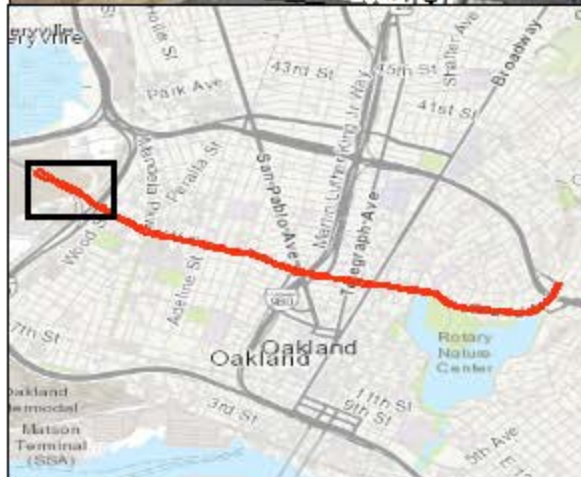
5.2.2 Protection of Bats (F.G.C. § 20000,2002,2014 and 4150), and under California Code of Regulations § 251.1.

Bats could roost under overpasses, in abandoned buildings, and in vegetation within the BSA. Prior to tree or vegetation removal, surveys will be conducted by a qualified biologist to determine if roosting bats are present. If roosting bats are discovered, a protective buffer zone will be established by the biologist, and consultation will occur with CDFW to determine the appropriate actions.

Chapter 6 References

- AC Transit. 2016. Major Corridors Study.
- Berkeley, City of. 2020. Tree Pruning and Removal.
https://www.cityofberkeley.info/pruning_removal/ (Last accessed: January 17, 2020).
- California Department of Fish and Wildlife. 2019. California Natural Diversity Database. RareFind 5. Version 3.1. <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. (Last accessed: January 2, 2020).
- California Native Plant Society. Rare Plant Program. 2019. Inventory of Rare and Endangered Plants. Online edition, Ver. 8-02. Sacramento, CA. <http://www.rareplants.cnps.org>. (Last accessed: January 2, 2020).
- George, M.R. 2018. Mediterranean Climate. UC Rangelands Research & Education Archive. http://rangelandarchive.ucdavis.edu/Annual_Rangeland_Handbook/Mediterranean_Climate/. (Last accessed: January 2, 2020).
- Holland, V.L. and D. J. Keil. 1995. *California Vegetation*. Kendall/Hunt Publishing Company.
- Oakland, City of. 1993. Oakland Municipal Code. Tree Removal Ordinance.
<http://www2.oaklandnet.com/oakca1/groups/ceda/documents/policy/oak023189.pdf> (Last accessed January 15, 2020).
- U.S. Department of Agriculture. 2017. Soil Survey of Alameda County, Western Part. Natural Resources Conservation Service.
<https://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=CA>. (Last accessed: January 2, 2020).
- U.S. Department of Agriculture, Natural Resources Conservation Service. 2018. National Water and Climate Center https://www.wcc.nrcs.usda.gov/climate/navigate_wets.html. (Last accessed: January 2, 2020).
- U.S. Army Corps of Engineers. 1986. Federal Register. Definition of Waters of the U.S. 33 Code of Federal Regulations 328.3(1).
- U.S. Fish and Wildlife Service. 2019. Information for Planning and Conservation. Environmental Conservation Online System. <https://ecos.fws.gov/ipac/>. (Last accessed: January 2, 2020).
- U.S. Fish and Wildlife Service. 2017b. National Wetlands Inventory (NWI). U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. <http://www.fws.gov/wetlands/> (Last accessed: January 2, 2020).
- U.S. Geological Survey. 2001. Topographic maps of the Oakland and Alameda quadrangles.
- Western Regional Climate Center. 2015. <http://www.wrcc.dri.edu/>.
- Wheeler, B.K., C.M. White and J.M. Economidy. 2003. Raptors of Western North America: The Wheeler Guide.
- White, Clayton M., Nancy J. Clum, Tom J. Cade and W. Grainger Hunt. 2002. Peregrine Falcon (*Falco peregrinus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/660>. Accessed on March 4, 2015.
- WRECO. 2019. *Aquatic Resources Delineation Report*. Oakland Alameda Access Project.

Appendix A BSA Figures



Legend

Streets

Area of Potential Effects



Biological Study Area Map 1

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

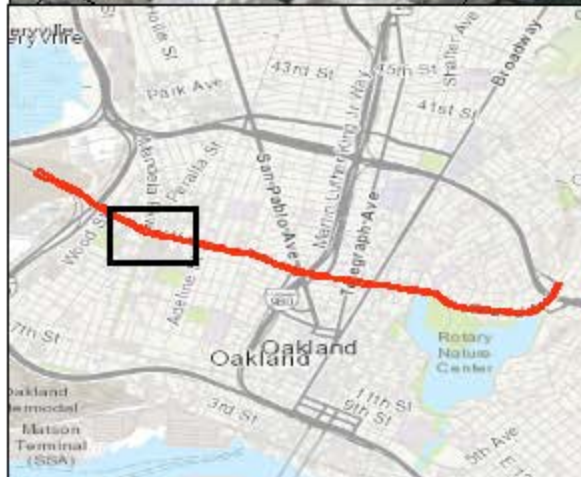
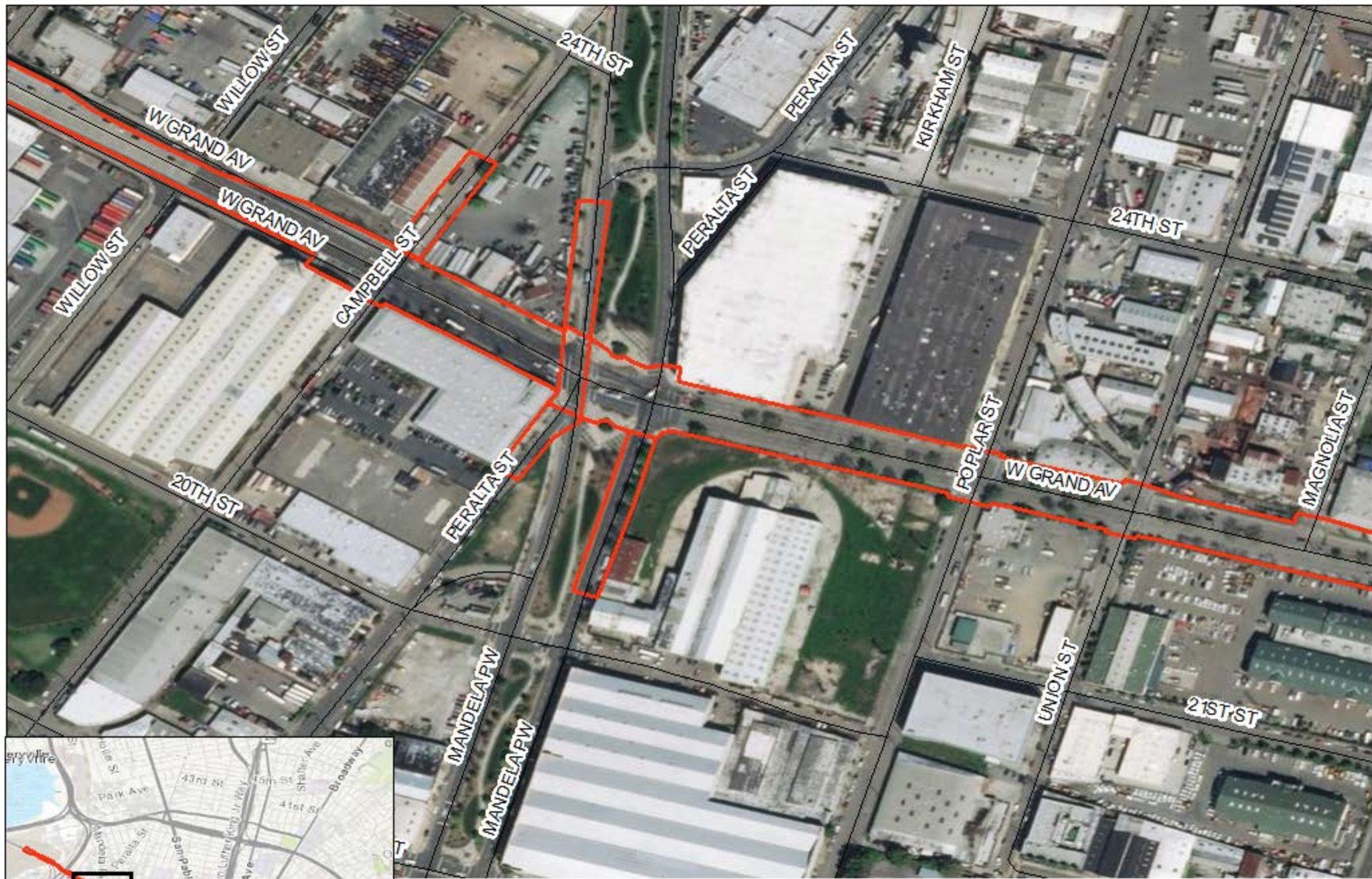


Prepared for



Prepared by





Legend

Streets

Area of Potential Effects



Biological Study Area Map 2

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

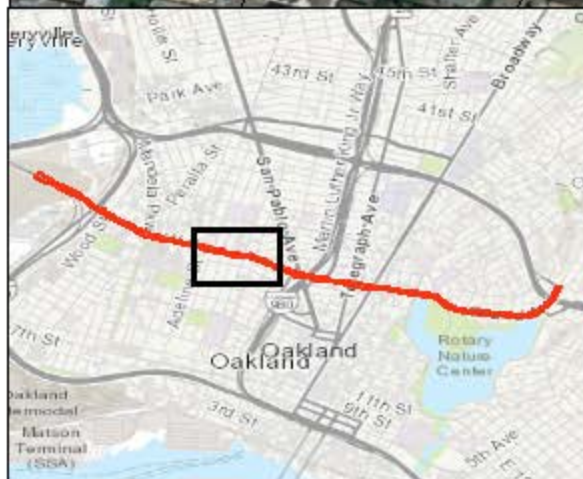
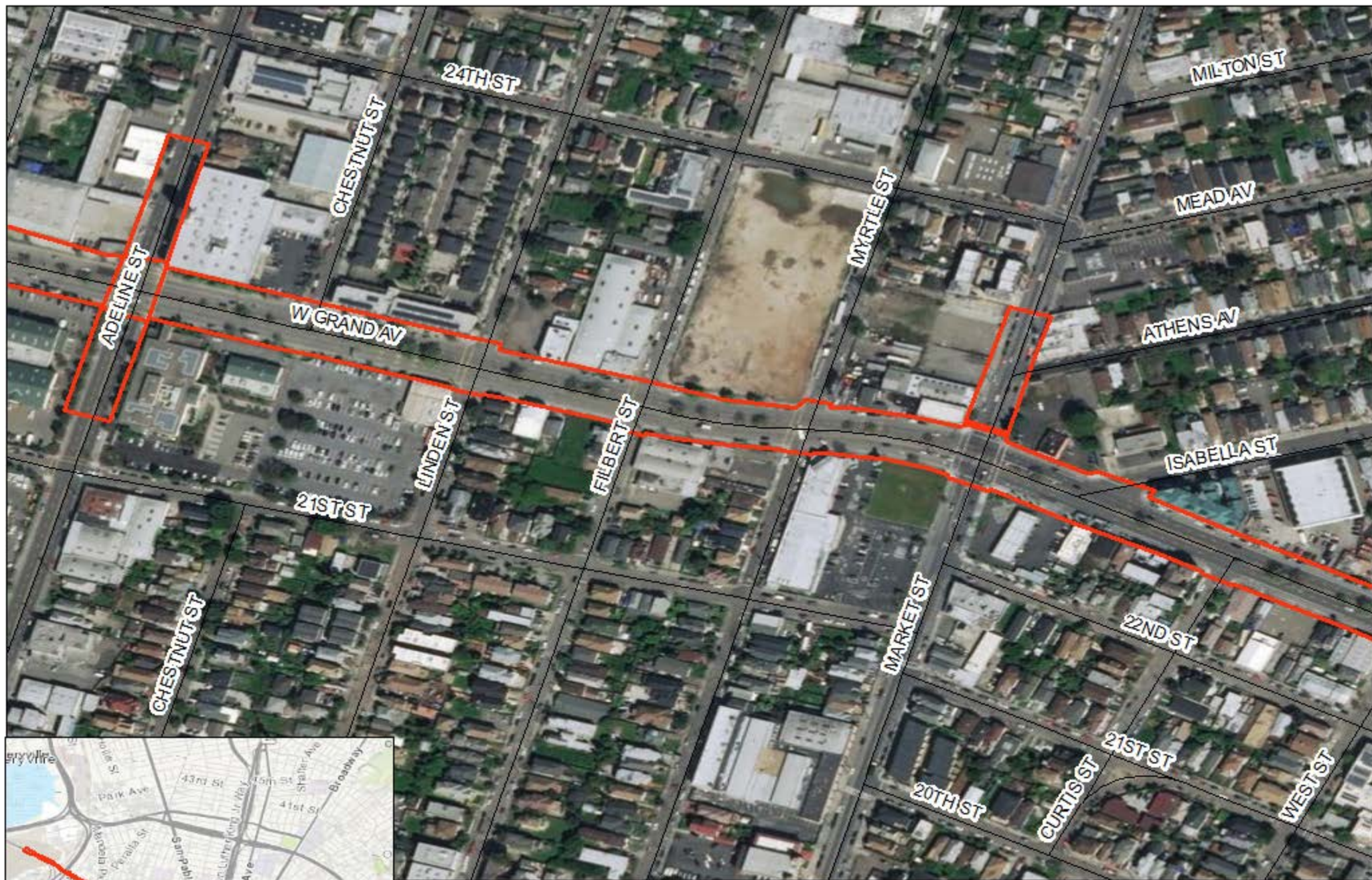


Prepared for



Prepared by





Legend

Streets

Area of Potential Effects



Biological Study Area Map 3

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

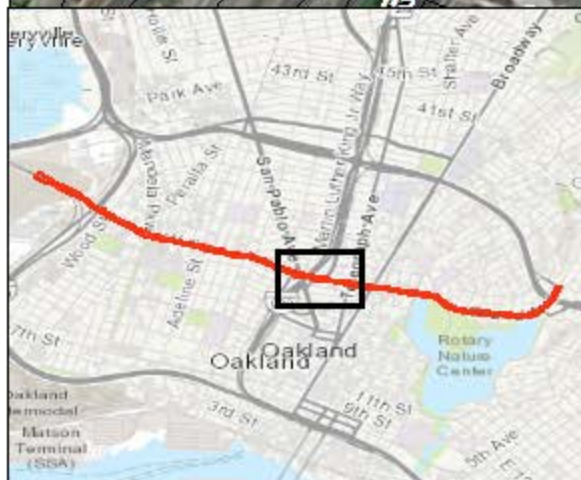
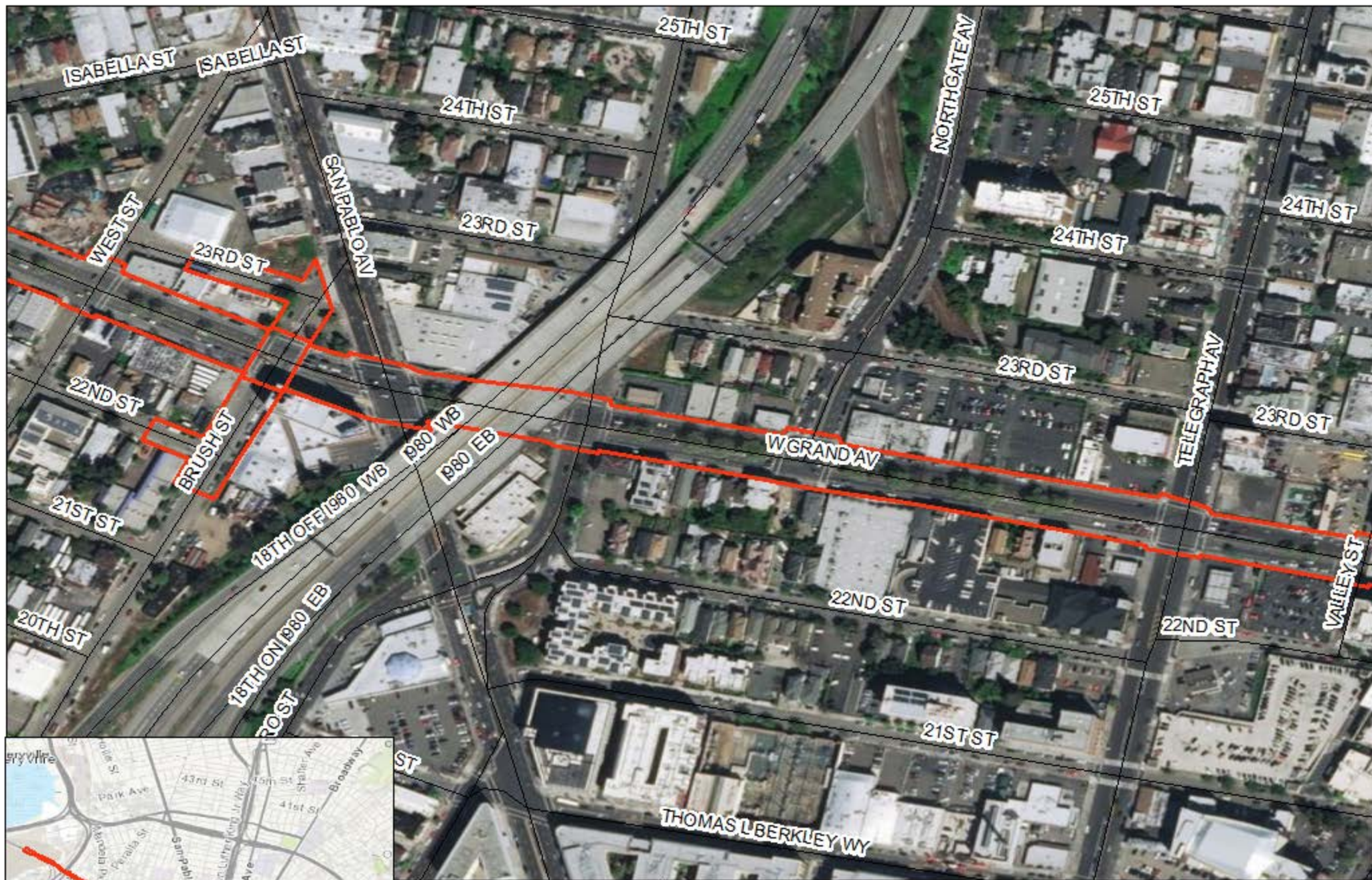


Prepared for



Prepared by





Legend

Streets

Area of Potential Effects



Biological Study Area Map 4

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

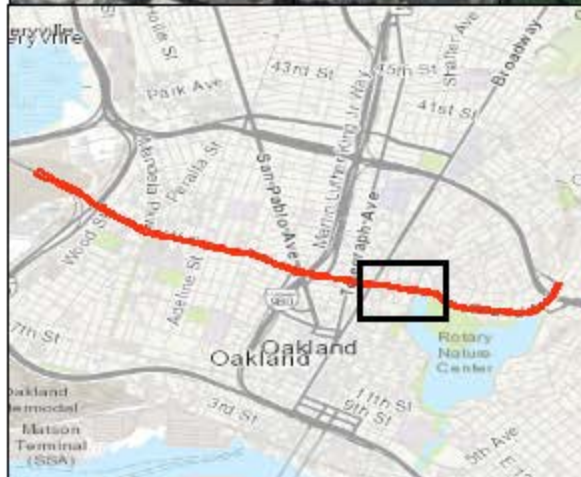
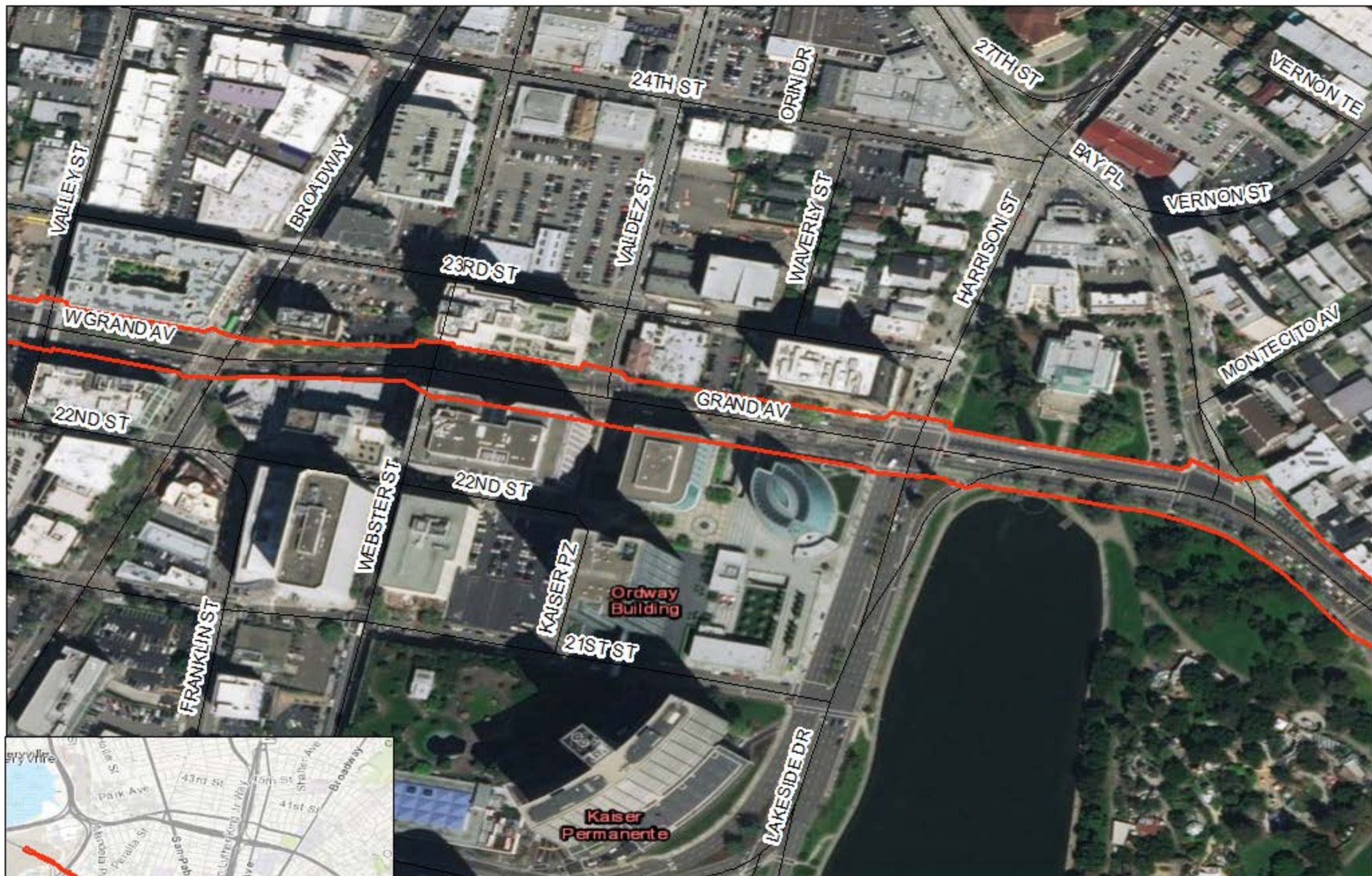


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 5

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles



Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 6

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

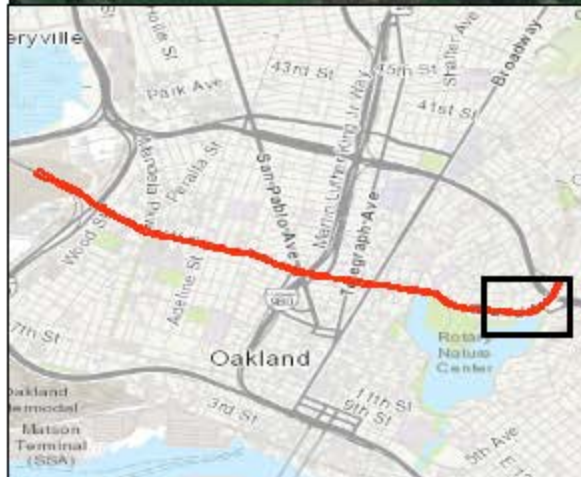


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 7

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

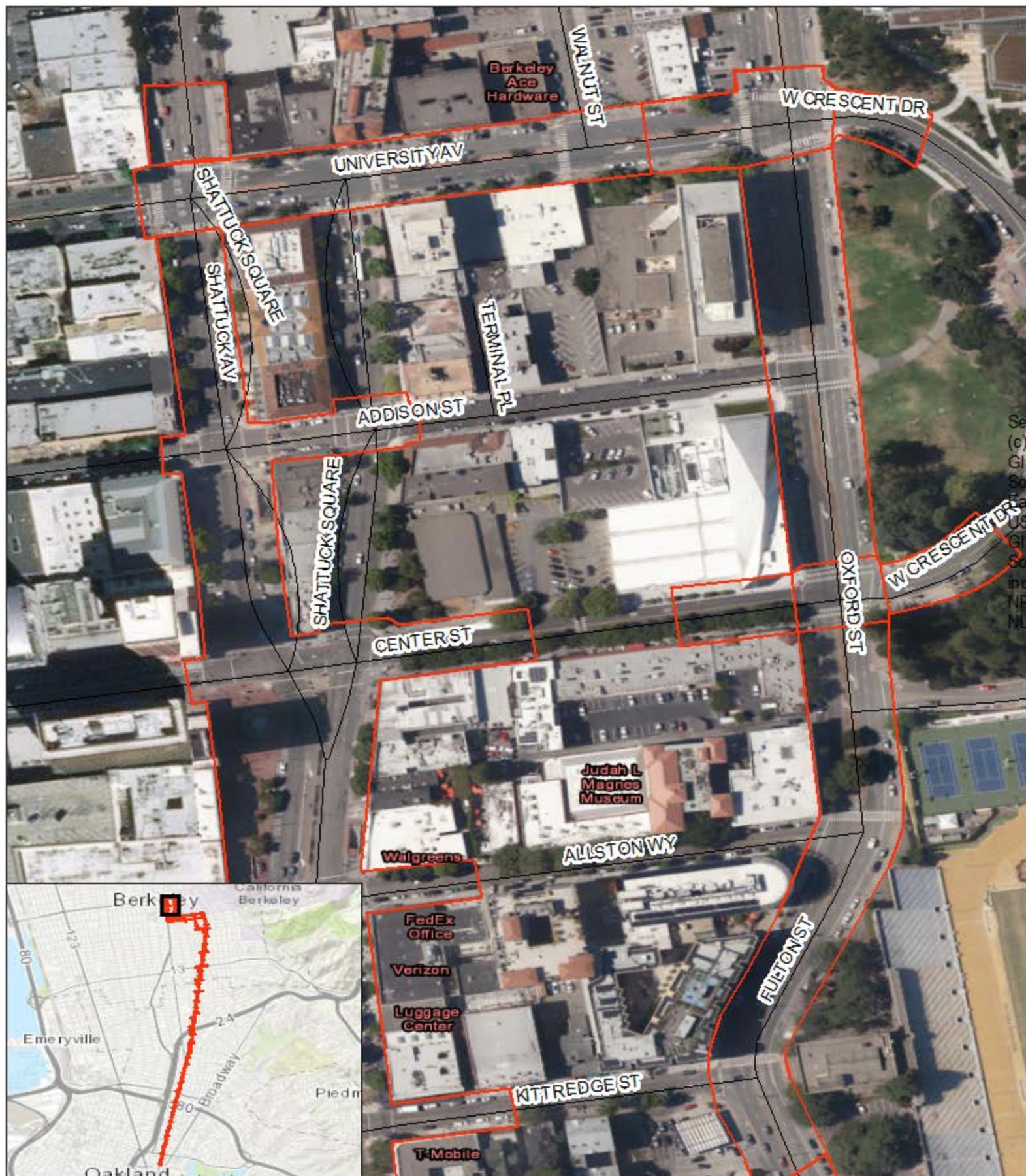


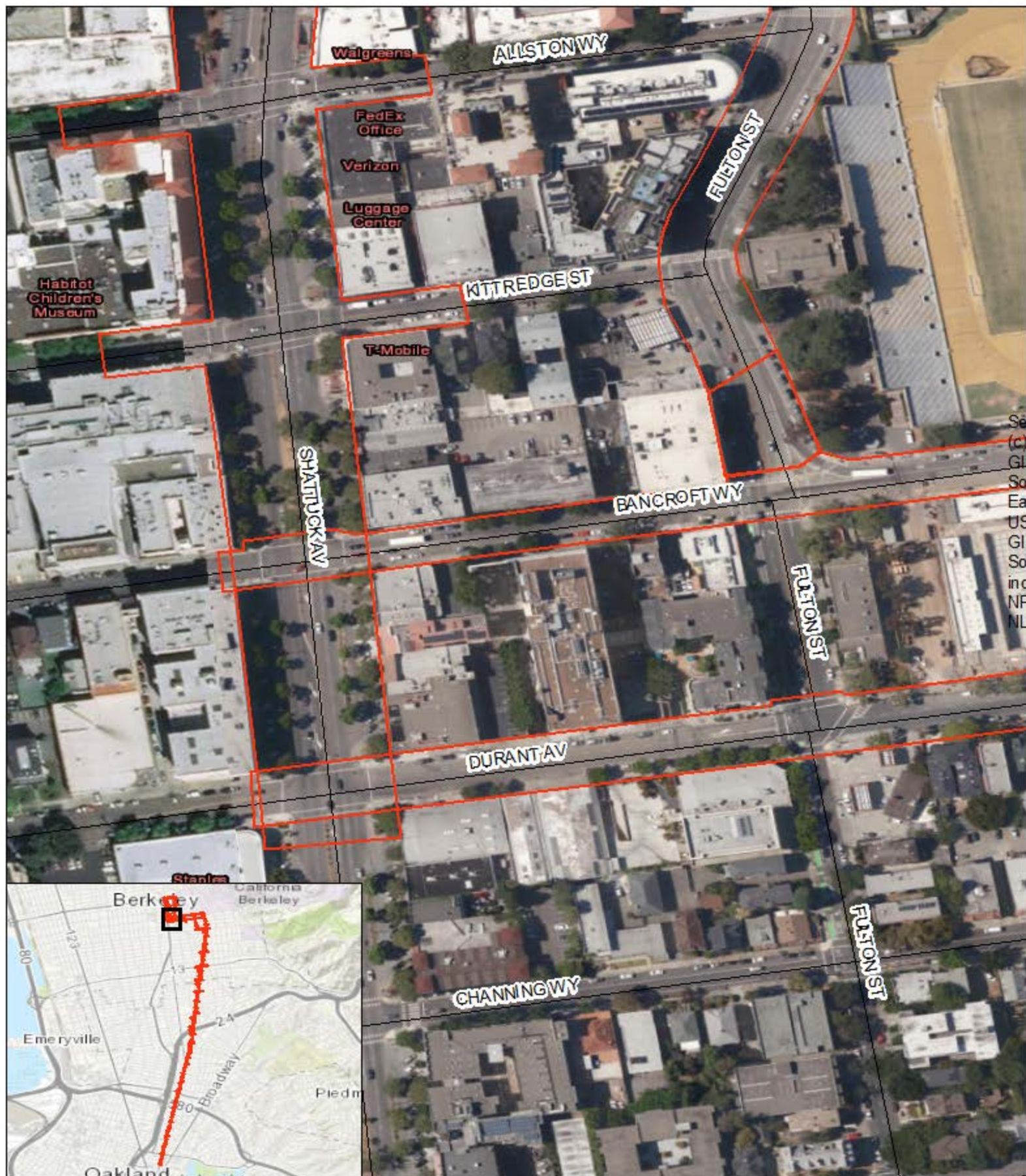
Prepared for



Prepared by







Service
 (c) Op
 GIS u
 Sourc
 Earth
 USDA
 GIS U
 Sourc
 incre
 NPS,
 NL, C

Legend

Area of Potential Effects

Streets

Biological Study Area Map 2

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0

0.05

0.1 Miles

N

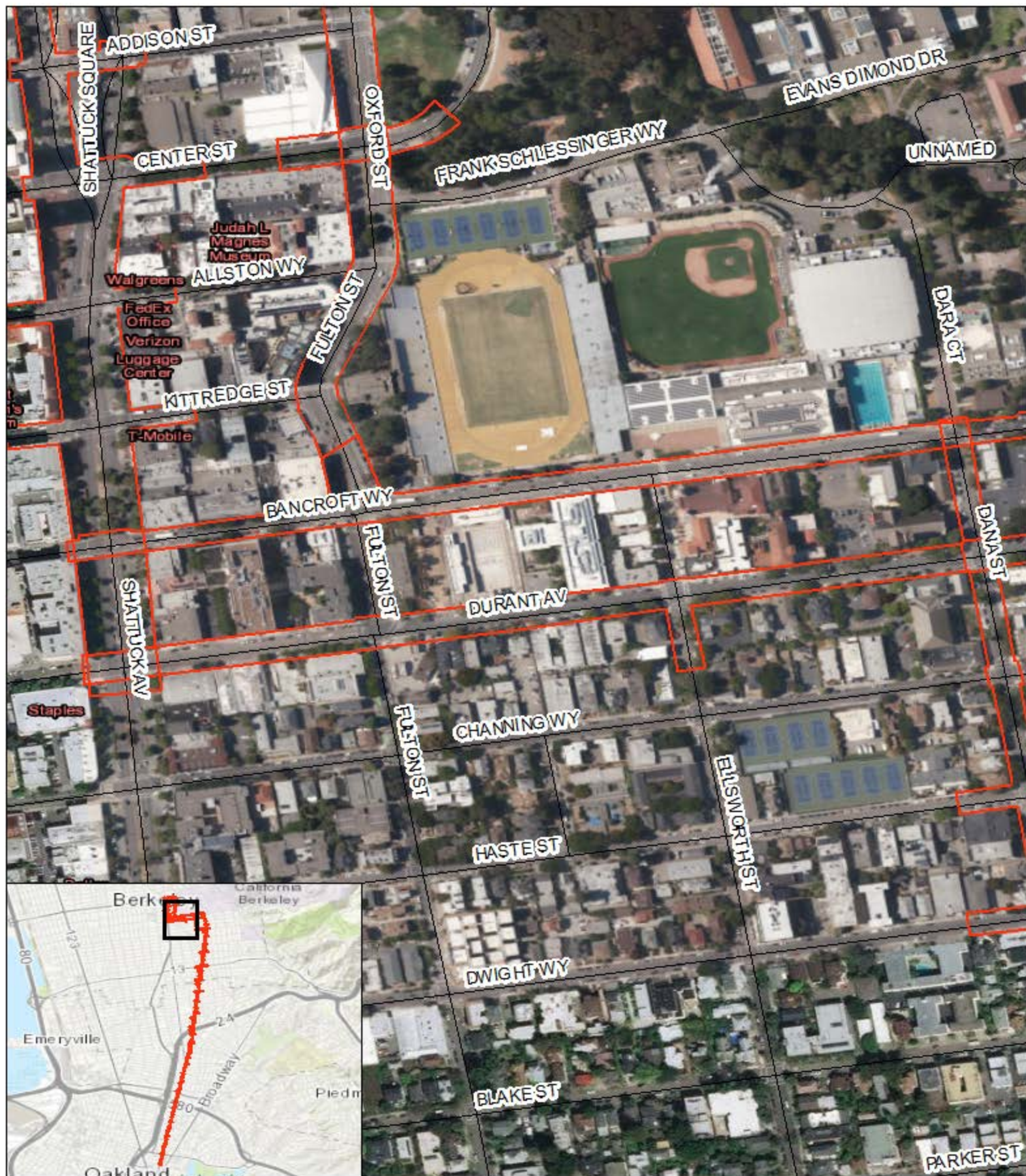


Prepared for



Prepared by





Biological Study Area Map 3

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.075 0.15 Miles



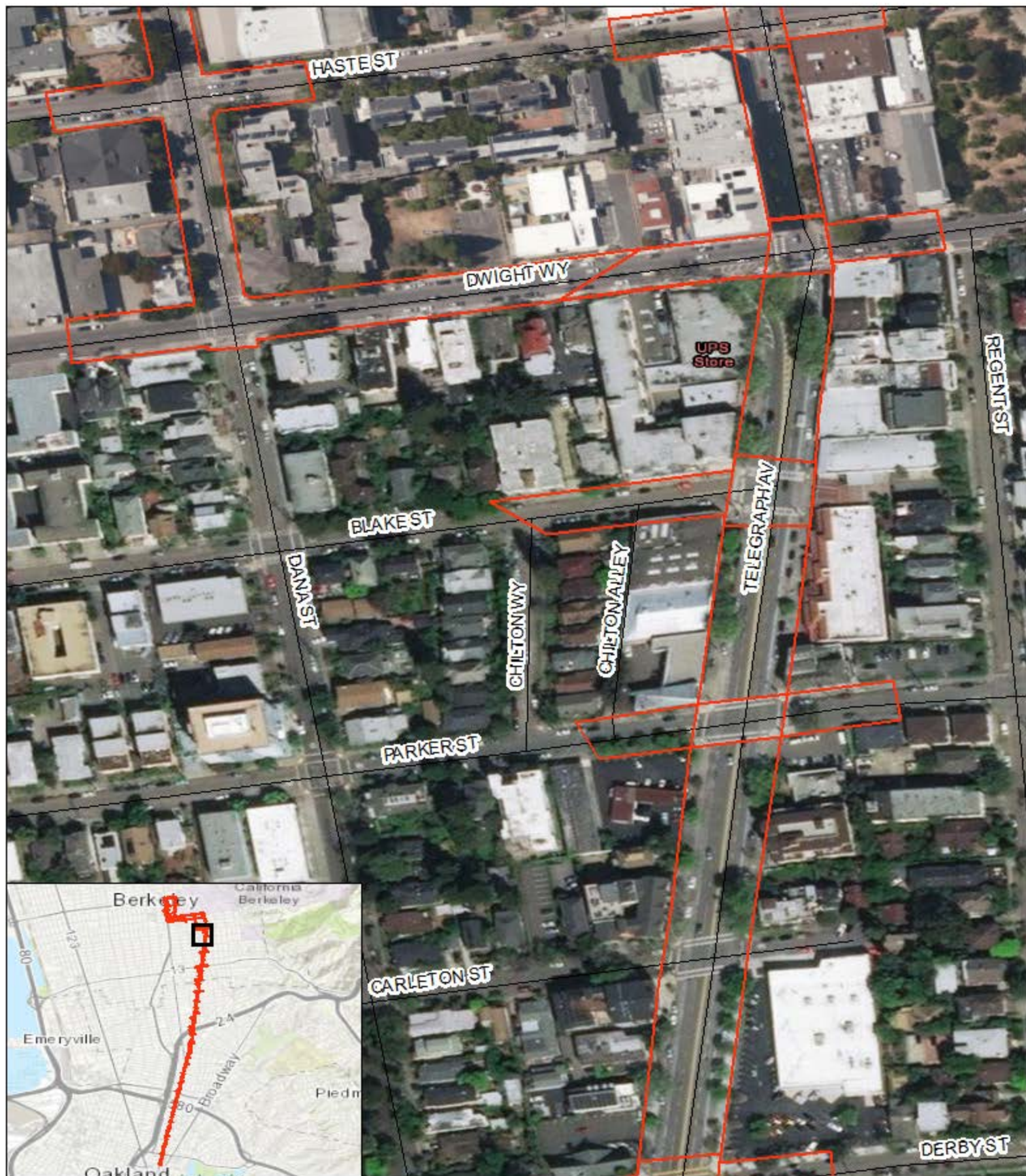
Prepared for

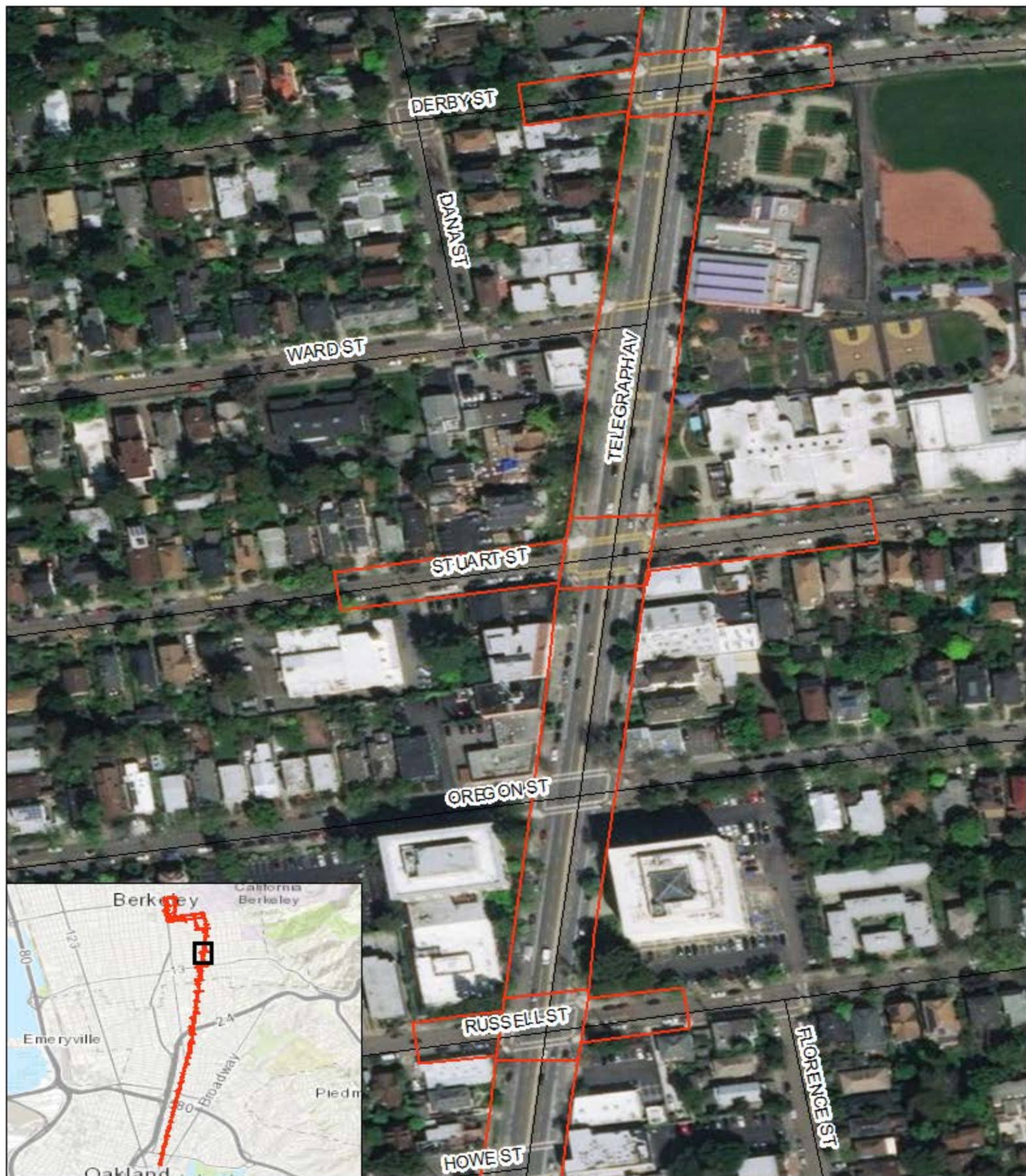


Prepared by









Legend

Area of Potential Effects



Streets



Biological Study Area Map 6

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

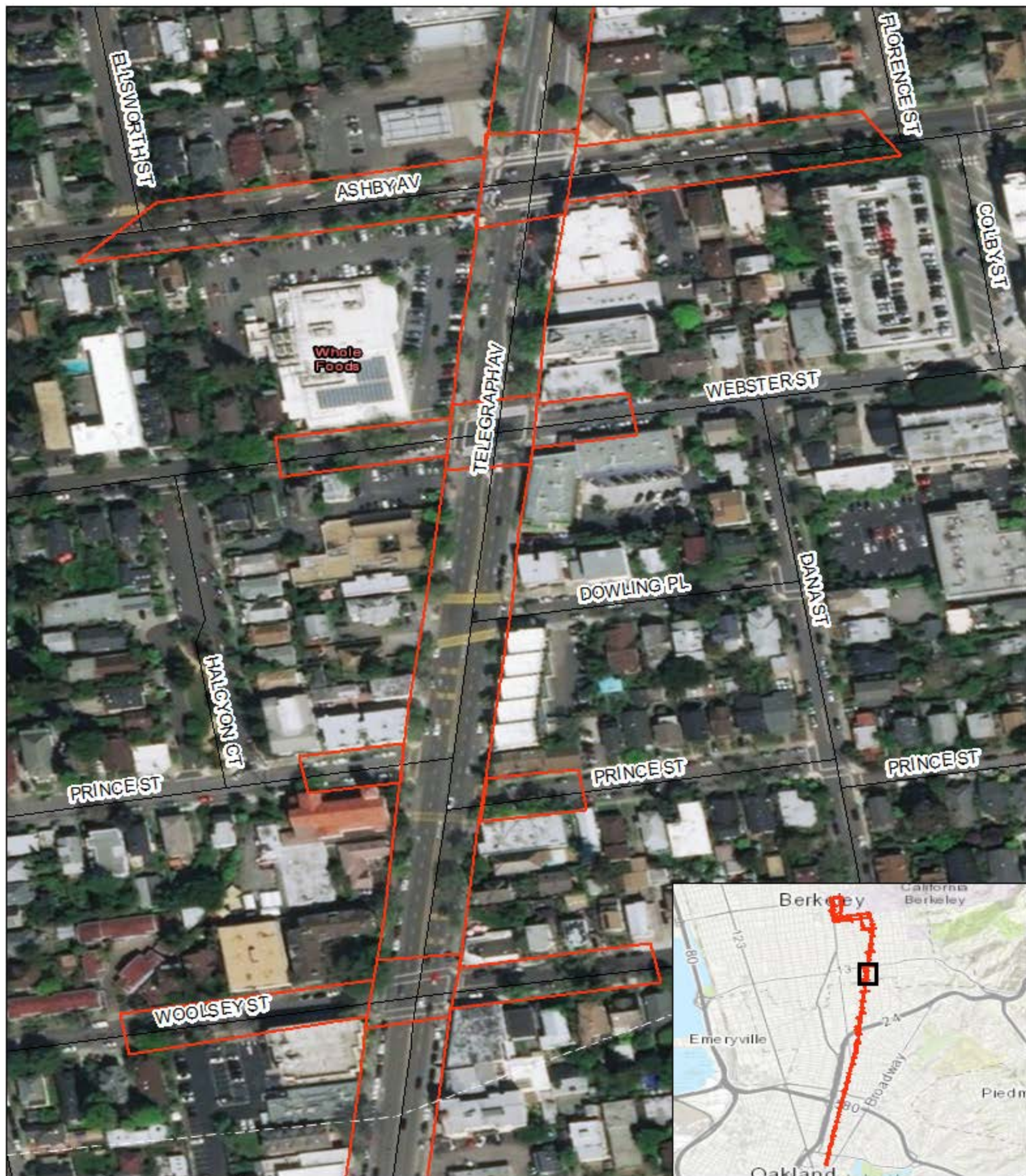


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 7

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0

0.05

0.1 Miles

N

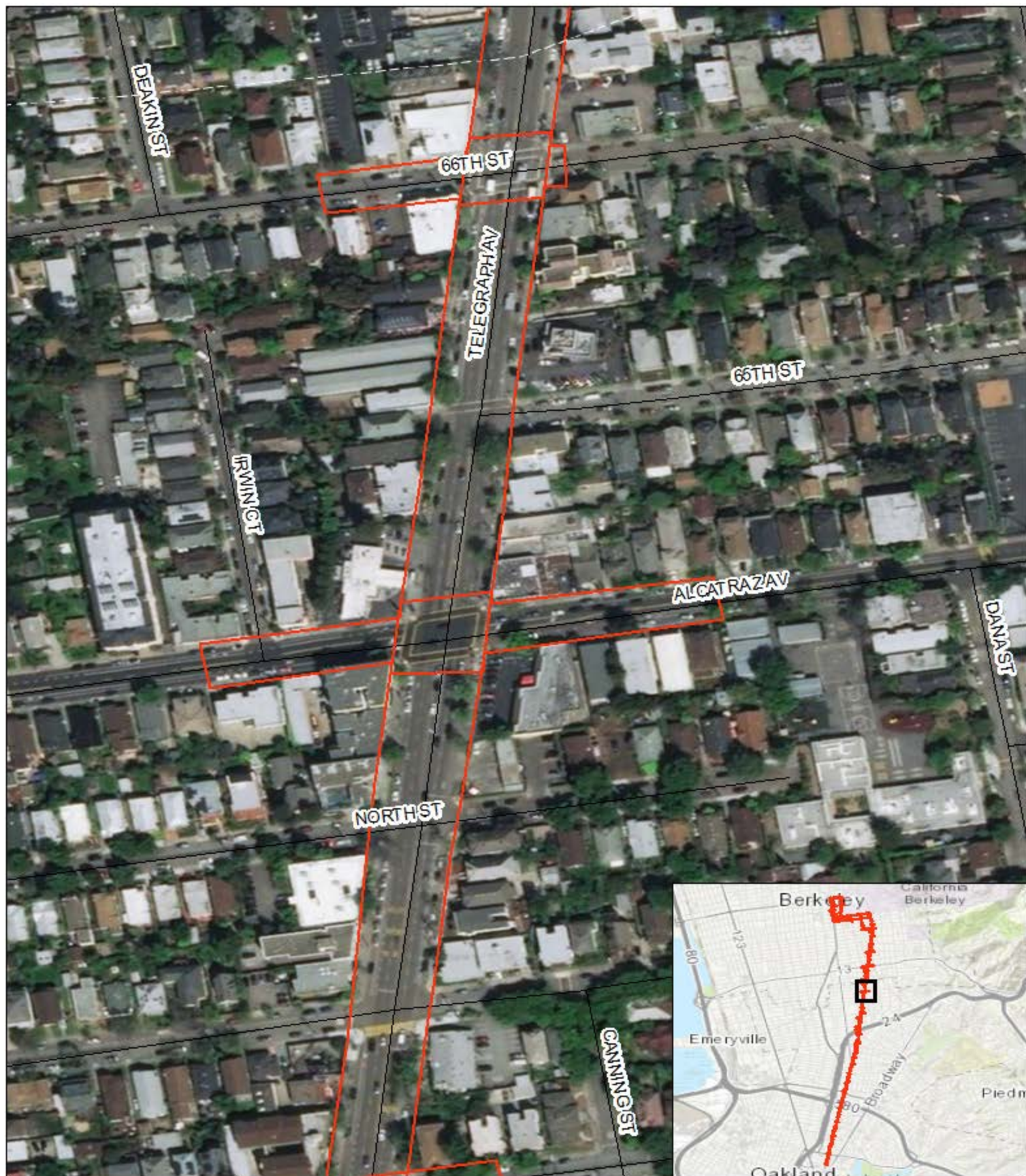


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 8

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

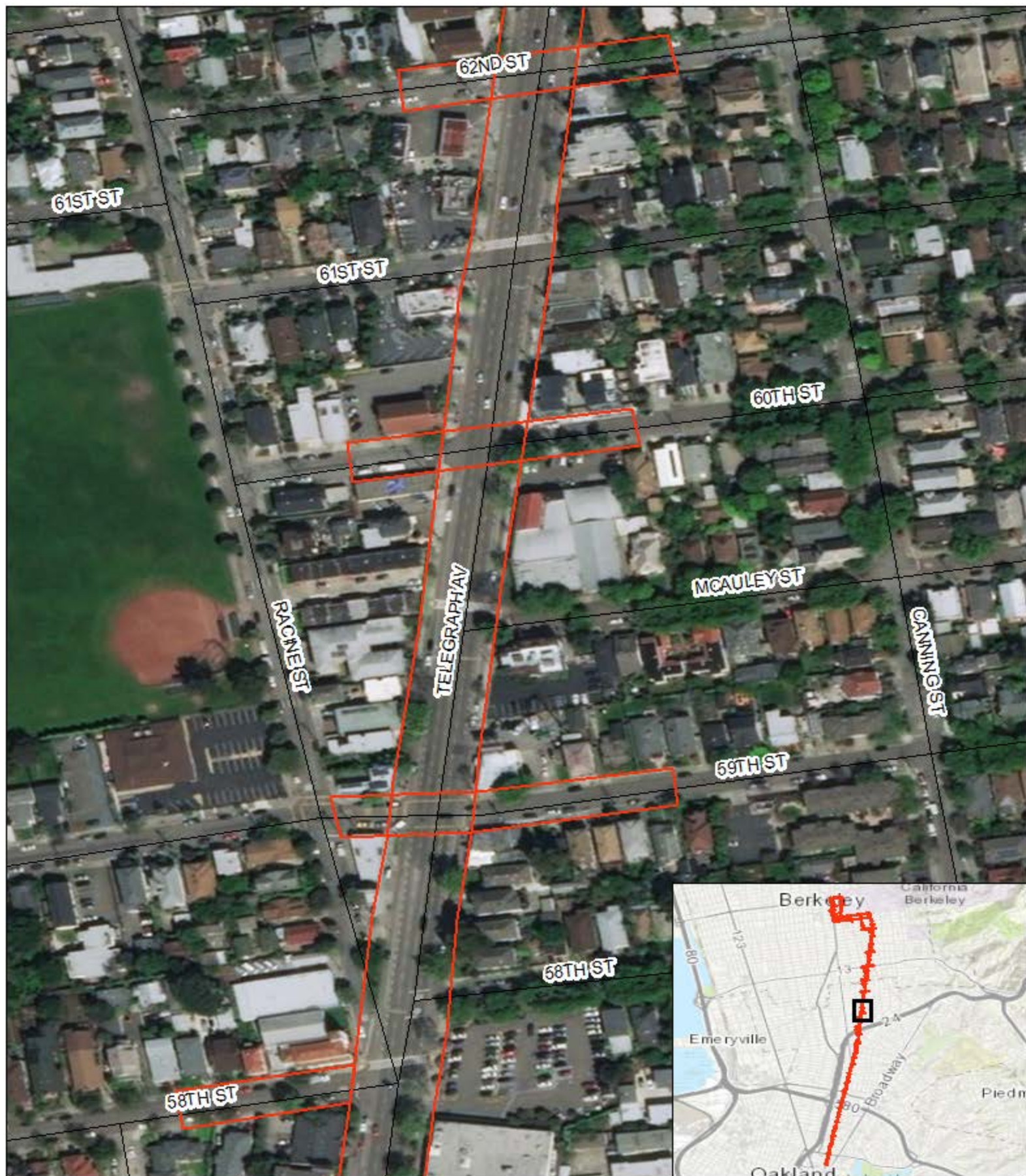


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 9

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

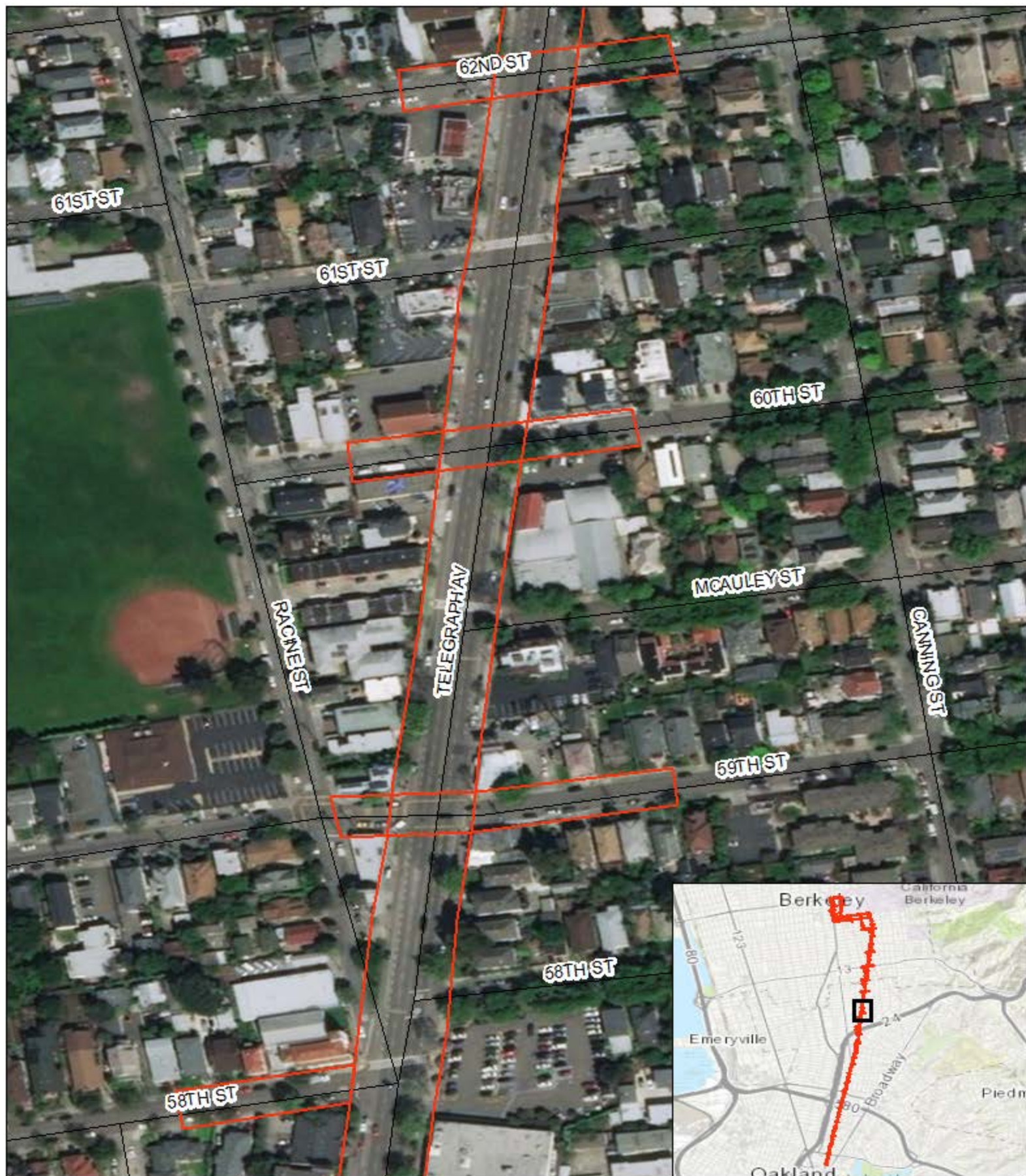


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 9

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

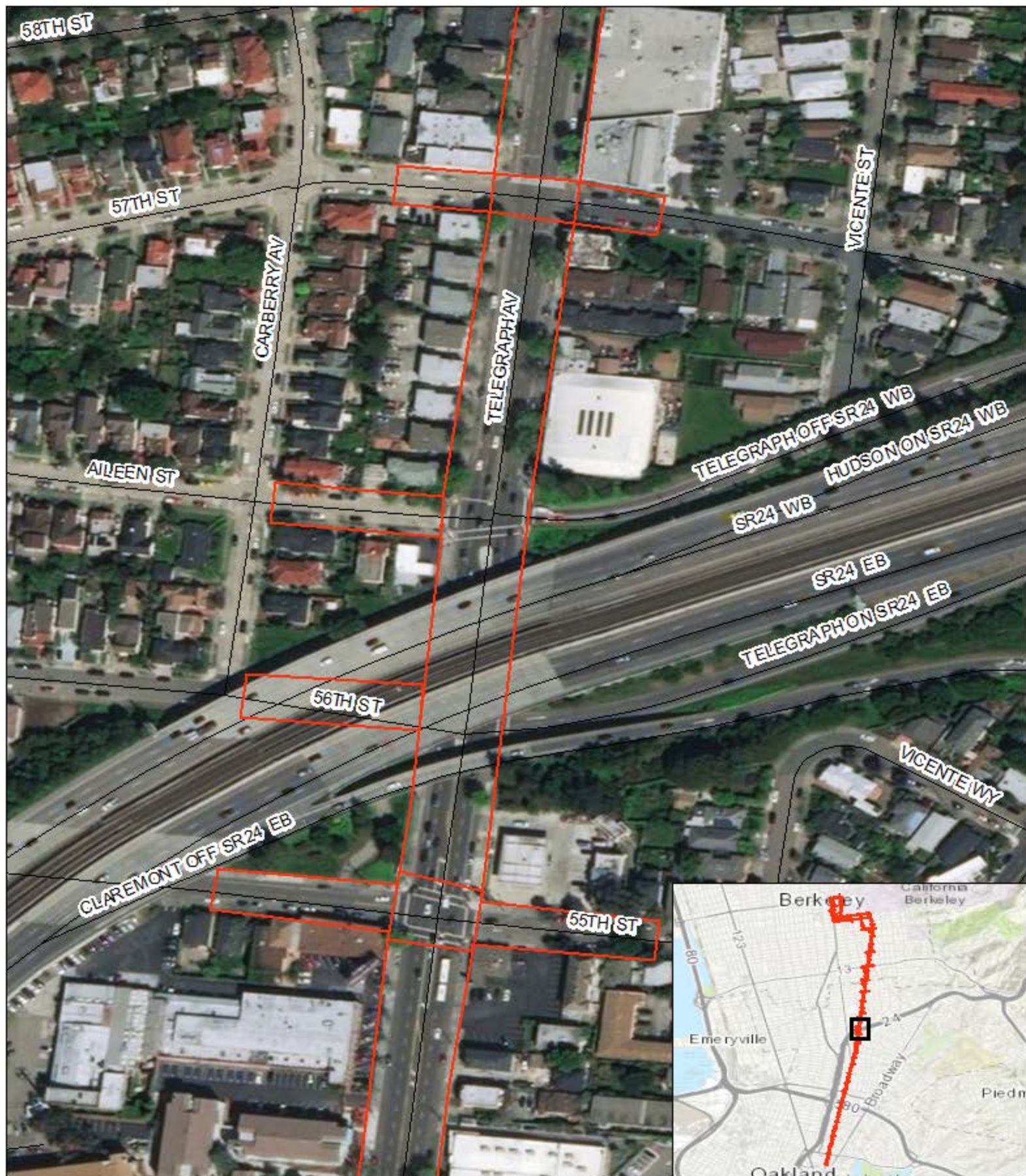


Prepared for



Prepared by





Legend

Area of Potential Effects

Streets

Biological Study Area Map 11

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

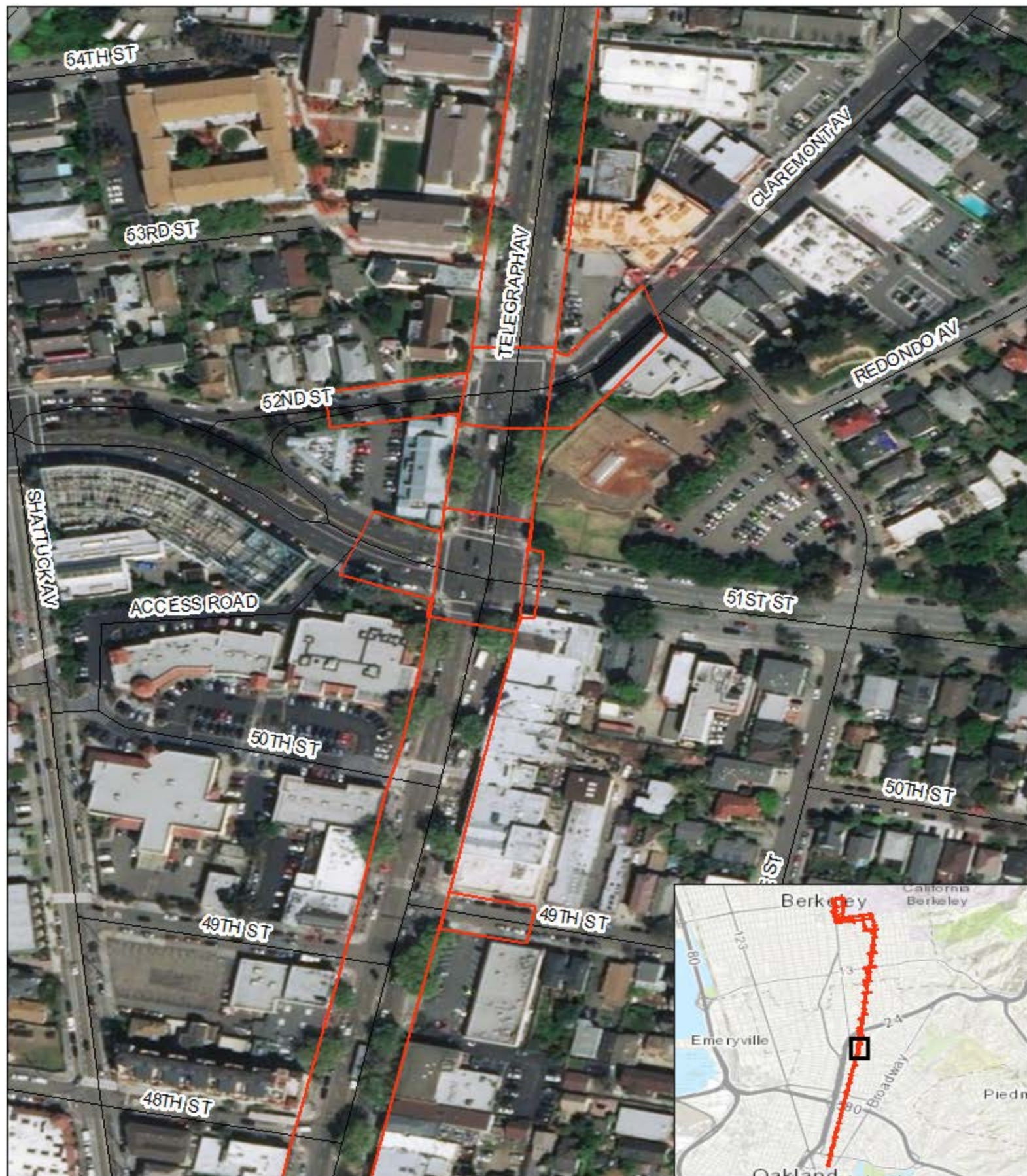


Prepared for



Prepared by





Legend

Area of Potential Effects

Streets

Biological Study Area Map 12

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

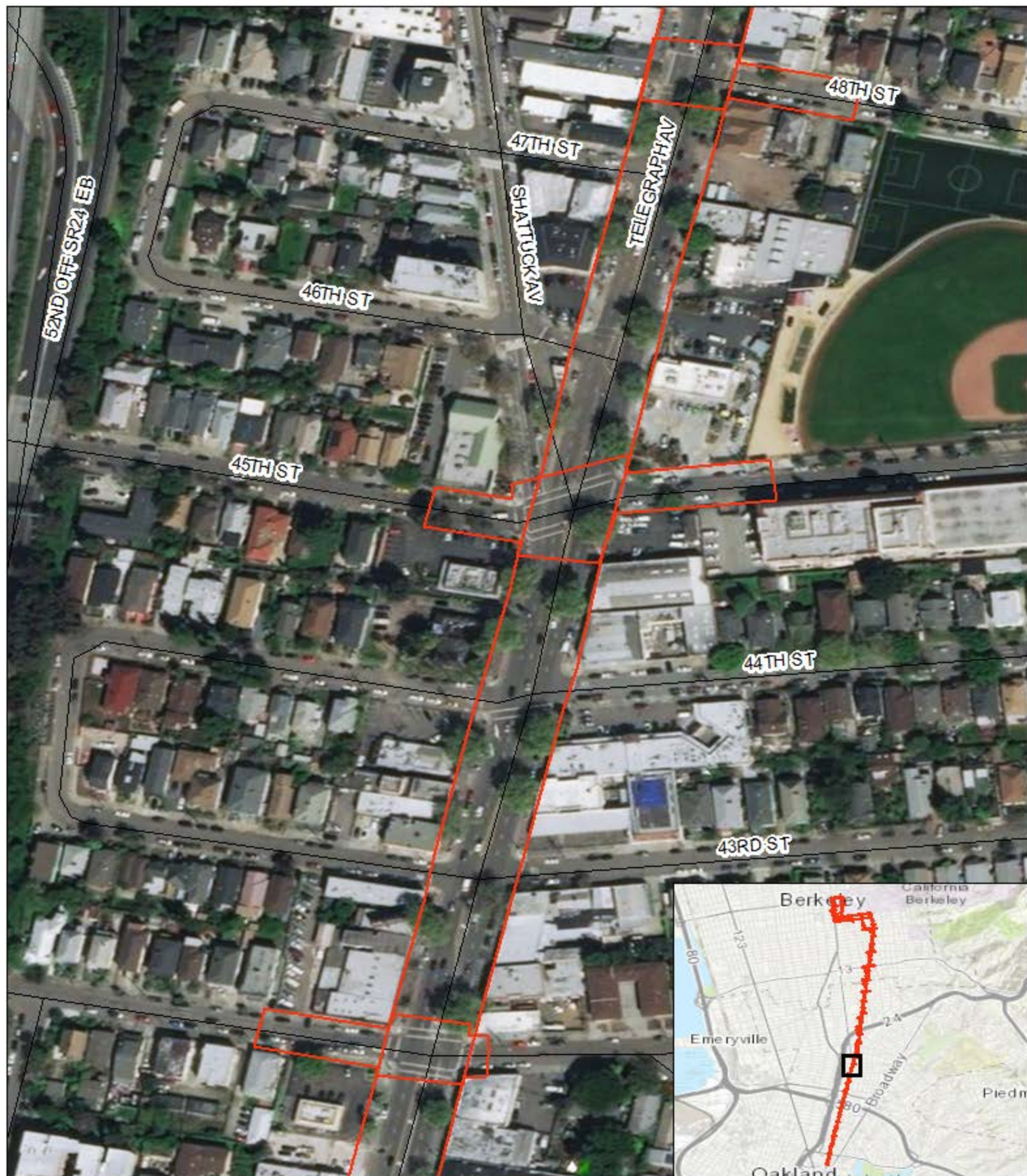


Prepared for



Prepared by





Legend

Area of Potential Effects

Streets

Biological Study Area Map 13

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

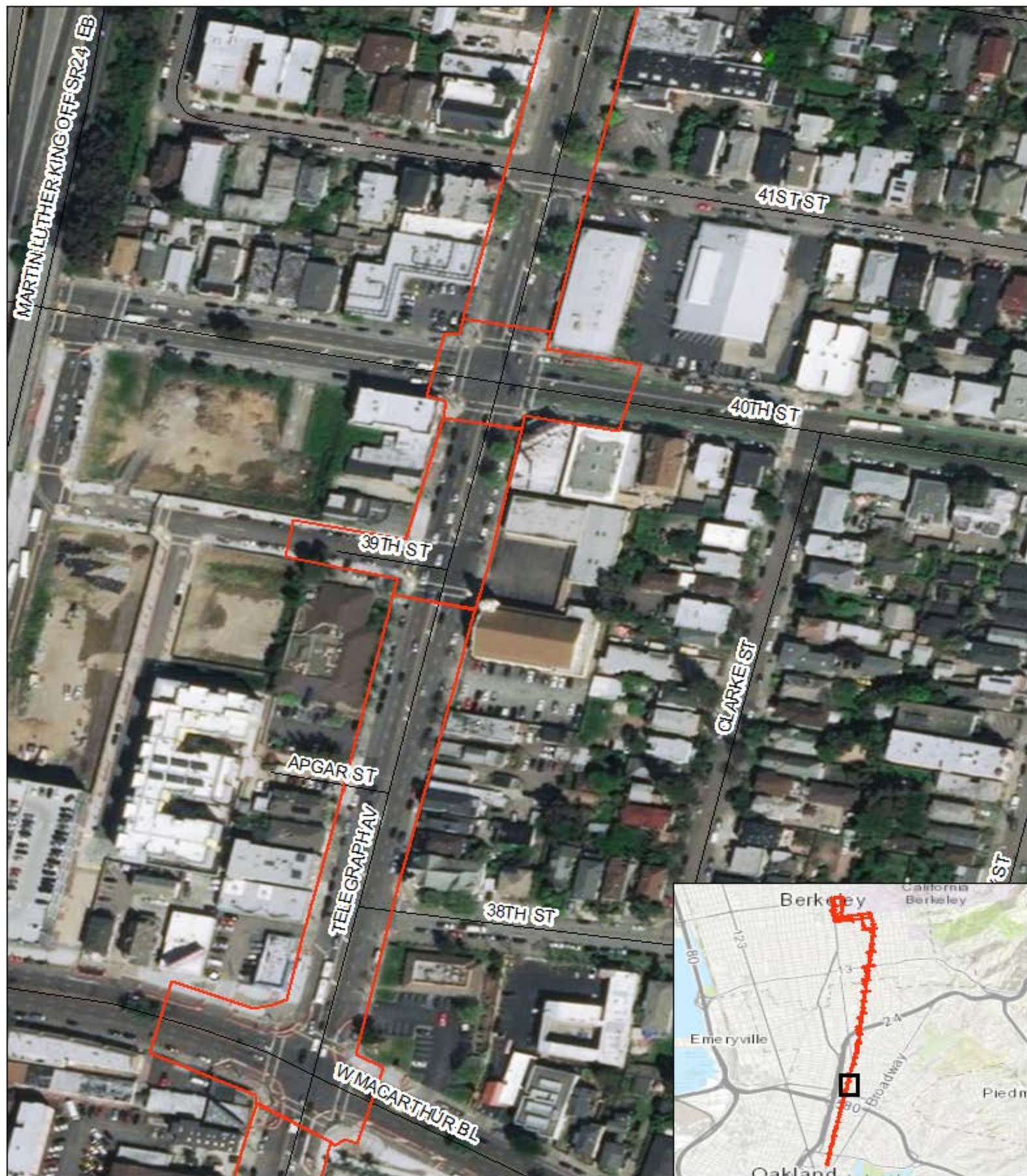


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 14

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

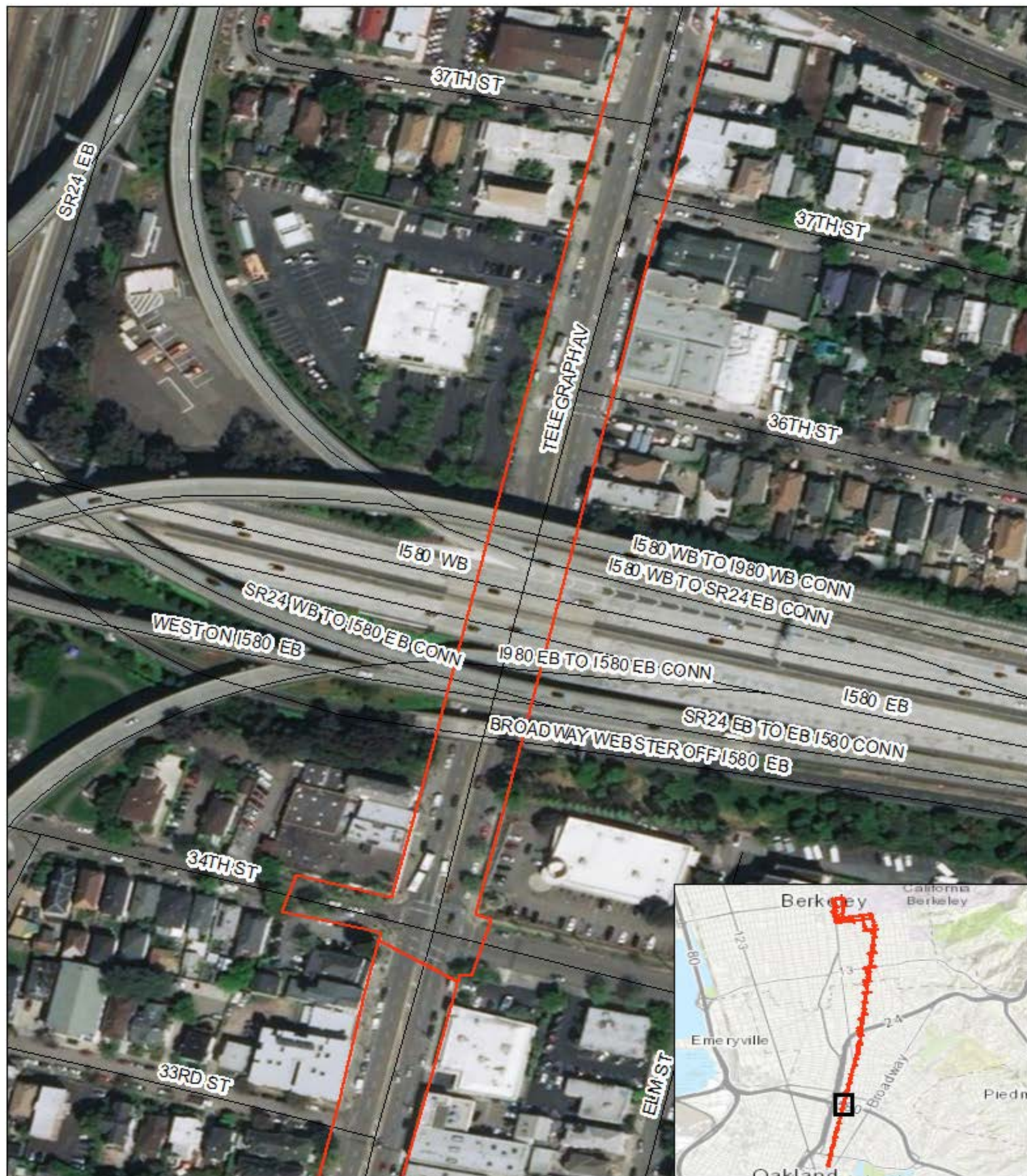


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 15

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

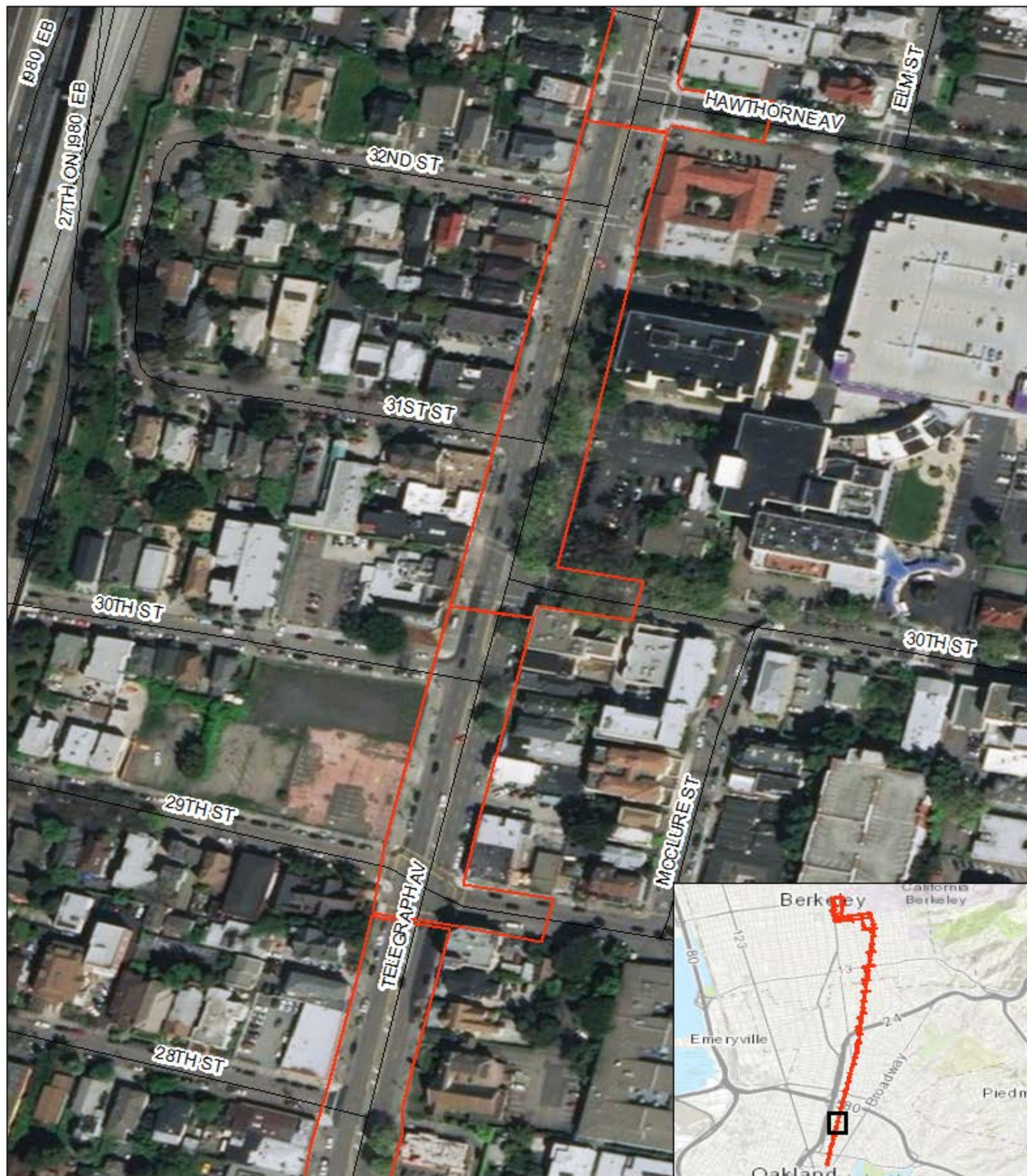


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 16

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

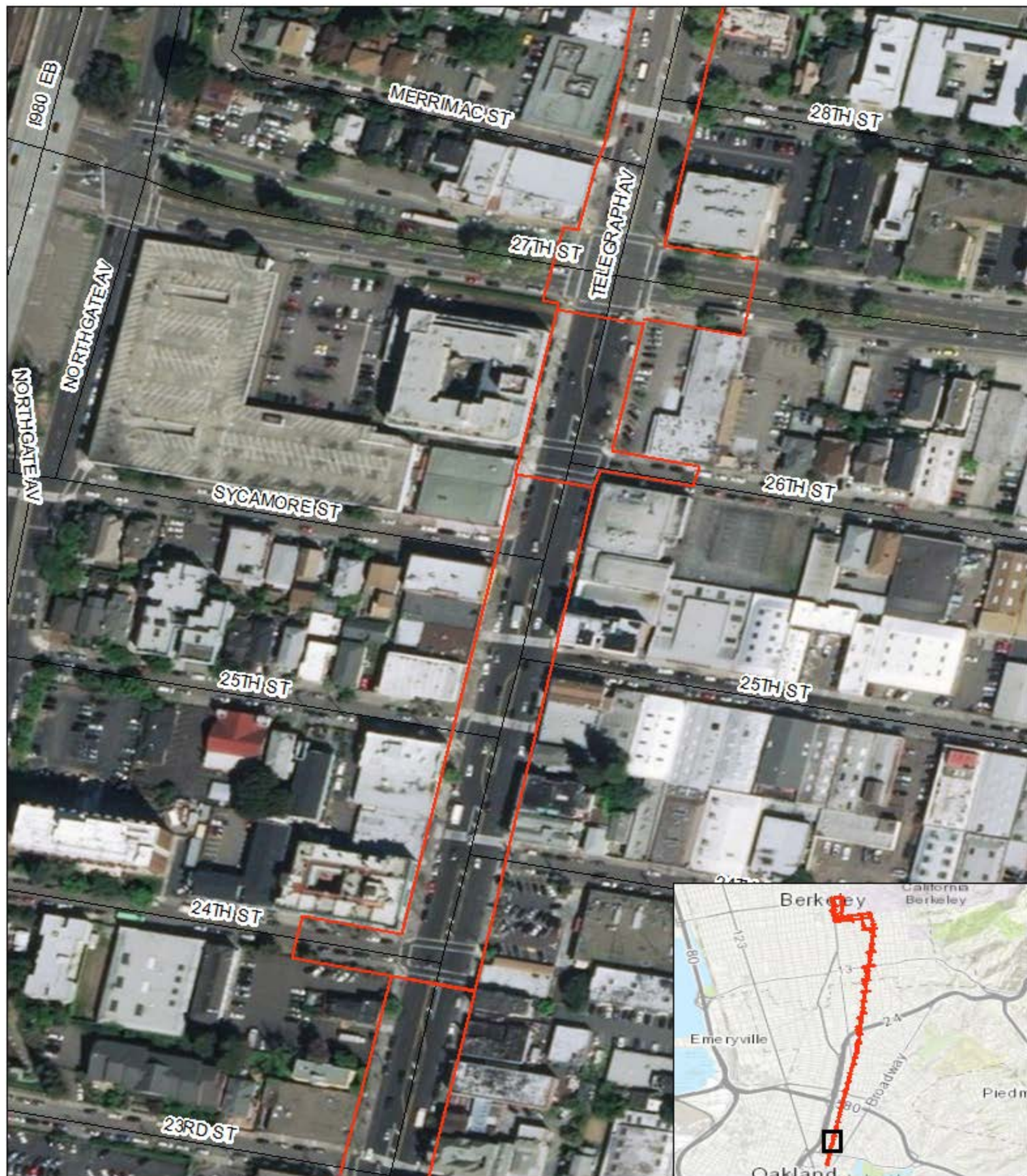


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 17

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0 0.05 0.1 Miles

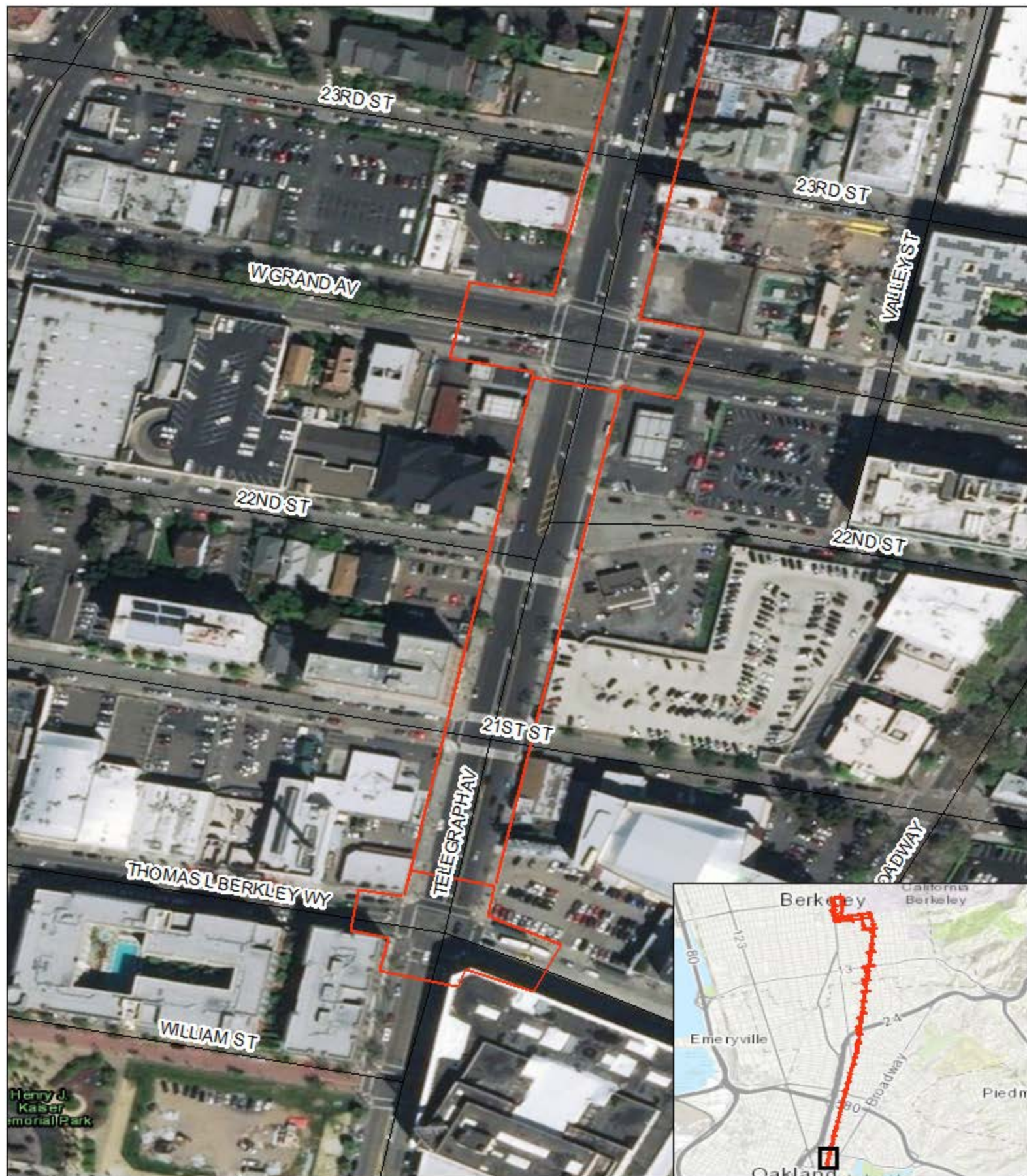


Prepared for



Prepared by





Legend

Area of Potential Effects



Streets



Biological Study Area Map 18

Telegraph Avenue and Grand Avenue Rapid Corridors Project

0

0.05

0.1 Miles

N



Prepared for



Prepared by



Appendix B Observed Plant and Wildlife Species Lists

Table 1. Plant Species Observed During Surveys of the BSA Conducted on January 3, 2019

Scientific Name	Common Name	Native Status
<i>Atriplex prostrata</i>	Fat hen	Non-native
<i>Avena fatua</i>	Wild oats	Non-native
<i>Bellis perennis</i>	English daisy	Non-native
<i>Cortaderia jubata</i>	Pampas grass	Non-native
<i>Elymus caput-medusae</i>	Medusa head	Non-native
<i>Foeniculum vulgare</i>	Sweet fennel	Non-native
<i>Hedera helix</i>	English ivy	Non-native
<i>Hypochaeris radicata</i>	Hairy cat's ear	Non-native
<i>Lactuca serriola</i>	Prickly lettuce	Non-native
<i>Malva neglecta</i>	Common mallow	Non-native
<i>Melilotus albus</i>	White sweetclover	Non-native
<i>Plantago lanceolata</i>	English plantain	Non-native
<i>Poa trivialis</i>	Poa trivialis	Non-native
<i>Raphanus sativus</i>	Wild radish	Non-native
<i>Rosa californica</i>	California wild rose	Native
<i>Sequoia sempervirens</i>	Coast redwood	Native
<i>Solanum americanum</i>	American black nightshade	Native
<i>Sonchus asper</i>	Spiny sowthistle	Non-native
<i>Taraxacum officinale</i>	Common dandelion	Non-native
<i>Verbascum thapsus</i>	Woolly mullein	Non-native

Table 2. Observed Wildlife Species within the BSA

Observed Wildlife	
Scientific Name	Common Name
<i>Branta canadensis</i>	Canada goose
<i>Fulica americana</i>	American coot
<i>Larus californicus</i>	California gull
<i>Larus canus</i>	Common gull
<i>Columba livia</i>	rock Dove
<i>Corvus corax</i>	Common raven
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Corvus brachyrhynchos</i>	American crow
<i>Junco hyemalis</i>	Dark-eyed junco
<i>Phalacrocorax auritus</i>	Double-crested cormorant
<i>Melospiza melodia</i>	song sparrow

Appendix C CNDDDB, CNPS and USFWS Lists

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Alameda County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

🏢 (916) 414-6713

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
 2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Salt Marsh Harvest Mouse <i>Reithrodontomys raviventris</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/613	Endangered

Birds

NAME	STATUS
California Clapper Rail <i>Rallus longirostris obsoletus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern <i>Sterna antillarum browni</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) <i>Masticophis lateralis euryxanthus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5524	Threatened
Green Sea Turtle <i>Chelonia mydas</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6199	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened
Tidewater Goby <i>Eucyclogobius newberryi</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/57	Endangered

Insects

NAME	STATUS
San Bruno Elfin Butterfly <i>Callophrys mossii bayensis</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3394	Endangered

Flowering Plants

NAME	STATUS
California Seablite <i>Suaeda californica</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6310	Endangered
Santa Cruz Tarplant <i>Holocarpha macradenia</i> There is final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6832	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
BREEDING SEASON IS INDICATED
FOR A BIRD ON YOUR LIST, THE
BIRD MAY BREED IN YOUR
PROJECT AREA SOMETIME WITHIN
THE TIMEFRAME SPECIFIED,
WHICH IS A VERY LIBERAL
ESTIMATE OF THE DATES INSIDE
WHICH THE BIRD BREEDS ACROSS
ITS ENTIRE RANGE. "BREEDS
ELSEWHERE" INDICATES THAT THE
BIRD DOES NOT LIKELY BREED IN
YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Breeds Feb 1 to Jul 15

Black Oystercatcher *Haematopus bachmani*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9591>

Breeds Apr 15 to Oct 31

Black Turnstone *Arenaria melanocephala*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds elsewhere

Burrowing Owl *Athene cunicularia*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/9737>

Breeds Mar 15 to Aug 31

Clark's Grebe *Aechmophorus clarkii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Jan 1 to Dec 31

Common Yellowthroat *Geothlypis trichas sinuosa*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/2084>

Breeds May 20 to Jul 31

Golden Eagle *Aquila chrysaetos*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Breeds Jan 1 to Aug 31

Lawrence's Goldfinch <i>Carduelis lawrencei</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511	Breeds elsewhere
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Song Sparrow <i>Melospiza melodia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee <i>Pipilo maculatus clementae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20

Tricolored Blackbird *Agelaius tricolor*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3910>

Whimbrel *Numenius phaeopus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9483>

Willet *Tringa semipalmata*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Yellow-billed Magpie *Pica nuttalli*

Breeds Apr 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9726>

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad> IS > (Richmond (3712283)> OR > Briones Valley (3712282)> OR > Oakland East (3712272)> OR > San Leandro (3712262)> OR > Oakland West (3712273)> OR > Hunters Point (3712263))
> AND > Taxonomic Group> IS > (Ferns> OR > Gymnosperms> OR > Monocots> OR > Dicots> OR > Lichens> OR > Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
<i>Arctostaphylos pallida</i> pallid manzanita	PDERI04110	Threatened	Endangered	G1	S1	1B.1
<i>Astragalus tener</i> var. <i>tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<i>Calochortus pulchellus</i> Mt. Diablo fairy-lantern	PMLIL0D160	None	None	G2	S2	1B.2
<i>Calystegia purpurata</i> ssp. <i>saxicola</i> coastal bluff morning-glory	PDCON040D2	None	None	G4T2T3	S2S3	1B.2
<i>Carex comosa</i> bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
<i>Chorizanthe cuspidata</i> var. <i>cuspidata</i> San Francisco Bay spineflower	PDPGN04081	None	None	G2T1	S1	1B.2
<i>Chorizanthe robusta</i> var. <i>robusta</i> robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
<i>Cicuta maculata</i> var. <i>bolanderi</i> Bolander's water-hemlock	PDAP10M051	None	None	G5T4T5	S2?	2B.1
<i>Cirsium andrewsii</i> Franciscan thistle	PDAST2E050	None	None	G3	S3	1B.2
<i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
<i>Clarkia franciscana</i> Presidio clarkia	PDONA050H0	Endangered	Endangered	G1	S1	1B.1
<i>Dirca occidentalis</i> western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
<i>Eriogonum luteolum</i> var. <i>caninum</i> Tiburon buckwheat	PDPGN083S1	None	None	G5T2	S2	1B.2
<i>Eryngium jepsonii</i> Jepson's coyote-thistle	PDAP10Z130	None	None	G2	S2	1B.2
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Fissidens pauperculus</i> minute pocket moss	NBMUS2W0U0	None	None	G3?	S2	1B.2
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Gilia capitata ssp. chamissonis</i> blue coast gilia	PDPLM040B3	None	None	G5T2	S2	1B.1
<i>Gilia millefoliata</i> dark-eyed gilia	PDPLM04130	None	None	G2	S2	1B.2
<i>Helianthella castanea</i> Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
<i>Hemizonia congesta ssp. congesta</i> congested-headed hayfield tarplant	PDAST4R065	None	None	G5T2	S2	1B.2
<i>Heteranthera dubia</i> water star-grass	PMPON03010	None	None	G5	S2	2B.2
<i>Hoita strobilina</i> Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
<i>Holocarpha macradenia</i> Santa Cruz tarplant	PDAST4X020	Threatened	Endangered	G1	S1	1B.1
<i>Horkelia cuneata var. sericea</i> Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
<i>Isocoma arguta</i> Carquinez goldenbush	PDAST57050	None	None	G1	S1	1B.1
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
<i>Layia carnosa</i> beach layia	PDAST5N010	Endangered	Endangered	G2	S2	1B.1
<i>Leptosiphon rosaceus</i> rose leptosiphon	PDPLM09180	None	None	G1	S1	1B.1
<i>Meconella oregana</i> Oregon meconella	PDPAP0G030	None	None	G2G3	S2	1B.1
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Plagiobothrys chorisianus var. chorisianus</i> Choris' popcornflower	PDBOR0V061	None	None	G3T1Q	S1	1B.2
<i>Plagiobothrys diffusus</i> San Francisco popcornflower	PDBOR0V080	None	Endangered	G1Q	S1	1B.1
<i>Polygonum marinense</i> Marin knotweed	PDPGN0L1C0	None	None	G2Q	S2	3.1
<i>Sanicula maritima</i> adobe sanicle	PDAP11Z0D0	None	Rare	G2	S2	1B.1
<i>Spergularia macrotheca var. longistyla</i> long-styled sand-spurrey	PDCAR0W062	None	None	G5T2	S2	1B.2



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Streptanthus albidus ssp. peramoenus</i> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<i>Stuckenia filiformis ssp. alpina</i> slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
<i>Suaeda californica</i> California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Triphysaria floribunda</i> San Francisco owl's-clover	PDSCR2T010	None	None	G2?	S2?	1B.2
<i>Viburnum ellipticum</i> oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3

Record Count: 45



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Richmond (3712283) OR Briones Valley (3712282) OR Oakland East (3712272) OR San Leandro (3712262) OR Oakland West (3712273) OR Hunters Point (3712263))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Archoplites interruptus</i> Sacramento perch	AFCQB07010	None	None	G2G3	S1	SSC
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Branta hutchinsii leucopareia</i> cackling (=Aleutian Canada) goose	ABNJB05035	Delisted	None	G5T3	S3	WL
<i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
<i>Circus hudsonius</i> northern harrier	ABNKC11011	None	None	G5	S3	SSC
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S1S2	SSC
<i>Danaus plexippus pop. 1</i> monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
<i>Dipodomys heermanni berkeleyensis</i> Berkeley kangaroo rat	AMAFD03061	None	None	G3G4T1	S1	
<i>Egretta thula</i> snowy egret	ABNGA06030	None	None	G5	S4	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S1	
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Haliaeetus leucocephalus</i> bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
<i>Helminthoglypta nickliniana bridgesi</i> Bridges' coast range shoulderband	IMGASC2362	None	None	G3T1	S1S2	
<i>Hydroprogne caspia</i> Caspian tern	ABNNM08020	None	None	G5	S4	
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G5	S3S4	
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G5	S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
<i>Melospiza melodia maxillaris</i> Suisun song sparrow	ABPBXA301K	None	None	G5T3	S3	SSC
<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S	None	None	G5T2?	S2S3	SSC
<i>Melospiza melodia samuelis</i> San Pablo song sparrow	ABPBXA301W	None	None	G5T2	S2	SSC
<i>Microcina leei</i> Lee's micro-blind harvestman	ILARA47040	None	None	G1	S1	
<i>Microtus californicus sanpabloensis</i> San Pablo vole	AMAFF11034	None	None	G5T1T2	S1S2	SSC
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Nyctinomops macrotis</i> big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
<i>Phalacrocorax auritus</i> double-crested cormorant	ABNFD01020	None	None	G5	S4	WL



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G5T1	S1	FP
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
<i>Rynchops niger</i> black skimmer	ABNNM14010	None	None	G5	S2	SSC
<i>Scapanus latimanus parvus</i> Alameda Island mole	AMABB02031	None	None	G5THQ	SH	SSC
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
<i>Sternula antillarum browni</i> California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Trachusa gummiifera</i> San Francisco Bay Area leaf-cutter bee	IIHYM80010	None	None	G1	S1	
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 52



*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

48 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3712283, 3712282, 3712272, 3712262 3712273 and 3712263;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S3	G3
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4	G5?T3T4
Arctostaphylos pallida	pallid manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	1B.1	S1	G1
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S1	G2T1
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Calochortus pulchellus	Mt. Diablo fairy-lantern	Liliaceae	perennial bulbiferous herb	Apr-Jun	1B.2	S2	G2
Calochortus umbellatus	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	Mar-May	4.2	S3?	G3?
Calystegia purpurata ssp. saxicola	coastal bluff morning-glory	Convolvulaceae	perennial herb	(Mar)Apr-Sep	1B.2	S2S3	G4T2T3
Castilleja ambigua var. ambigua	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	4.2	S3S4	G4T4
Centromadia parryi ssp. congdonii	Congdon's tarplant	Asteraceae	annual herb	May-Oct (Nov)	1B.1	S1S2	G3T1T2
Chloropyron maritimum ssp. palustre	Point Reyes bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	1B.2	S2	G4?T2
	San Francisco Bay spineflower	Polygonaceae	annual herb	Apr-Jul (Aug)	1B.2	S1	G2T1

<u>Chorizanthe cuspidata var. cuspidata</u>							
<u>Chorizanthe robusta var. robusta</u>	robust spineflower	Polygonaceae	annual herb	Apr-Sep	1B.1	S1	G2T1
<u>Cirsium andrewsii</u>	Franciscan thistle	Asteraceae	perennial herb	Mar-Jul	1B.2	S3	G3
<u>Clarkia concinna ssp. automixa</u>	Santa Clara red ribbons	Onagraceae	annual herb	(Apr)May-Jun(Jul)	4.3	S3	G5?T3
<u>Clarkia franciscana</u>	Presidio clarkia	Onagraceae	annual herb	May-Jul	1B.1	S1	G1
<u>Dirca occidentalis</u>	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar (Apr)	1B.2	S2	G2
<u>Eriogonum luteolum var. caninum</u>	Tiburon buckwheat	Polygonaceae	annual herb	May-Sep	1B.2	S2	G5T2
<u>Eryngium jepsonii</u>	Jepson's coyote thistle	Apiaceae	perennial herb	Apr-Aug	1B.2	S2?	G2?
<u>Extriplex joaquinana</u>	San Joaquin spearscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G2
<u>Fissidens pauperculus</u>	minute pocket moss	Fissidentaceae	moss		1B.2	S2	G3?
<u>Fritillaria liliacea</u>	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2	G2
<u>Gilia capitata ssp. chamissonis</u>	blue coast gilia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G5T2
<u>Gilia millefoliata</u>	dark-eyed gilia	Polemoniaceae	annual herb	Apr-Jul	1B.2	S2	G2
<u>Helianthella castanea</u>	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
<u>Hoita strobilina</u>	Loma Prieta hoita	Fabaceae	perennial herb	May-Jul (Aug-Oct)	1B.1	S2?	G2?
<u>Holocarpha macradenia</u>	Santa Cruz tarplant	Asteraceae	annual herb	Jun-Oct	1B.1	S1	G1
<u>Horkelia cuneata var. sericea</u>	Kellogg's horkelia	Rosaceae	perennial herb	Apr-Sep	1B.1	S1?	G4T1?
<u>Iris longipetala</u>	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May	4.2	S3	G3
<u>Lasthenia conjugens</u>	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G1
<u>Lathyrus jepsonii var. jepsonii</u>	Delta tule pea	Fabaceae	perennial herb	May-Jul (Aug-Sep)	1B.2	S2	G5T2
<u>Leptosiphon acicularis</u>	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	4.2	S4?	G4?
<u>Meconella oregana</u>	Oregon meconella	Papaveraceae	annual herb	Mar-Apr	1B.1	S2	G2G3
<u>Micropus amphibolus</u>	Mt. Diablo cottonweed	Asteraceae	annual herb	Mar-May	3.2	S3S4	G3G4

<u>Monardella antonina ssp. antonina</u>	San Antonio Hills monardella	Lamiaceae	perennial rhizomatous herb	Jun-Aug	3	S1S3	G4T1T3Q
<u>Monolopia gracilens</u>	woodland woollythreads	Asteraceae	annual herb	(Feb)Mar-Jul	1B.2	S3	G3
<u>Plagiobothrys chorisianus var. chorisianus</u>	Choris' popcornflower	Boraginaceae	annual herb	Mar-Jun	1B.2	S1	G3T1Q
<u>Plagiobothrys diffusus</u>	San Francisco popcornflower	Boraginaceae	annual herb	Mar-Jun	1B.1	S1	G1Q
<u>Polygonum marinense</u>	Marin knotweed	Polygonaceae	annual herb	(Apr)May-Aug(Oct)	3.1	S2	G2Q
<u>Ranunculus lobbii</u>	Lobb's aquatic buttercup	Ranunculaceae	annual herb (aquatic)	Feb-May	4.2	S3	G4
<u>Sanicula maritima</u>	adobe sanicle	Apiaceae	perennial herb	Feb-May	1B.1	S2	G2
<u>Spergularia macrotheca var. longistyla</u>	long-styled sand-spurrey	Caryophyllaceae	perennial herb	Feb-May (Jun)	1B.2	S2	G5T2
<u>Streptanthus albidus ssp. peramoenus</u>	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	1B.2	S2	G2T2
<u>Stuckenia filiformis ssp. alpina</u>	slender-leaved pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	2B.2	S2S3	G5T5
<u>Suaeda californica</u>	California seablite	Chenopodiaceae	perennial evergreen shrub	Jul-Oct	1B.1	S1	G1
<u>Trifolium hydrophilum</u>	saline clover	Fabaceae	annual herb	Apr-Jun	1B.2	S2	G2
<u>Triphysaria floribunda</u>	San Francisco owl's-clover	Orobanchaceae	annual herb	Apr-Jun	1B.2	S2?	G2?
<u>Viburnum ellipticum</u>	oval-leaved viburnum	Adoxaceae	perennial deciduous shrub	May-Jun	2B.3	S3?	G4G5

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 19 December 2019].

Search the Inventory

[Simple Search](#)

[Advanced Search](#)

[Glossary](#)

Information

[About the Inventory](#)

[About the Rare Plant Program](#)

[CNPS Home Page](#)

[About CNPS](#)

[Join CNPS](#)

Contributors

[The Calflora Database](#)

[The California Lichen Society](#)

[California Natural Diversity Database](#)

[The Jepson Flora Project](#)

[The Consortium of California Herbaria](#)

[CalPhotos](#)

Questions and Comments

rareplants@cnps.org

© Copyright 2010-2018 California Native Plant Society. All rights reserved.

Appendix D Representative Photos

Oakland Portion of the BSA



Photo 1. BSA along Grand Avenue by Lake Merritt in Oakland. Facing Southwest. Photo taken January 3, 2020.



Photo 2. BSA at Intersection of Grand and Staten Avenues. Looking West. Photo taken January 3, 2020.



Photo 3. BSA underneath I-580. Bats could potentially roost in crevices under the freeway overpass. Looking Northwest. Photo taken January 3, 2020.



Photo 4. BSA near the Intersection of Grand and El Embarcadero. Looking East. Photo taken January 3, 2020.



Photo 5. BSA at Intersection of Lee and Grand Avenue. Looking West. Photo taken January 3, 2020.



Photo 6. Glen Echo Creek flowing underneath Grant Avenue. Looking North. Photo taken January 3, 2020.



Photo 7. Glen Echo Creek flowing underneath Grand Avenue in the BSA into Lake Merritt. Looking South. Photo taken January 3, 2020.

Attachment 3 – Cultural Memorandum

**Archaeological Screening Review – Alameda Contra Costa Transit District
Rapid Corridor Design Project – Telegraph Avenue and Grand Avenue,
Cities of Oakland and Berkeley, Alameda County**

TO:	Sandra Etchell Senior Biologist WRECO
RE:	Archaeological Screening Review – Alameda Contra Costa Transit District Rapid Corridor Design Project – Telegraph Avenue and Grand Avenue, Cities of Oakland and Berkeley, Alameda County
FROM:	Colin I. Busby, Project Principal (510 430-8441 ext 101)
DATE:	24 January, 2020

INTRODUCTION

The Alameda Contra Costa Transit District's (District) *Telegraph Avenue Rapid Corridors Project* is intended to improve transit operations along four miles of Telegraph Avenue from 20th Street in Oakland to downtown Berkeley, three miles of Grand/West Grand Avenue from Maritime Street to Lake Park Avenue in Oakland and as well as to deliver a portion of the Southside Pilot Transit Project in Berkeley. Bus stop relocations and improvements are proposed north of 52nd Street as part of the Project. Bus stop improvements south of 52nd Street, are not part of this Project, and they will be implemented by the City of Oakland Department of Transportation. The Project will improve transit reliability for Line 6 along Telegraph Avenue and for lines 12 and NL along Grand/West Grand Avenue to implement Rapid Bus service.

This memo provides the results of an initial archaeological screening review of the proposed project's Area of Potential Effects (APE) to identify potential cultural resources issues. The APE for Archaeology includes the area within which an undertaking may directly or indirectly cause changes in the character or use of archaeological resources. The horizontal and vertical APE consists of ground disturbing construction within the current roadway corridors and sidewalks from curb to front of existing buildings and structures. Ground disturbance will be limited to previously impacted roadways and sidewalks. The proposed improvements will not involve modifications or impacts to the existing built environment aside from transitory effects from adjacent construction including dust and intermittent vibration.

PROJECT ELEMENTS

The project includes three elements: (1) Improvements to Bus Stops; (2) Improvements to Traffic Signals; and, (3) Improvement to Traffic Signal Communication.

Improvements to Bus Stops: Providing longer bus stops will allow buses to pull parallel to the curb and improve bus door access. Buses can take advantage transit signal priority with bus stop relocation to far side of intersections so that buses would stop after crossing the

intersection rather than stopping before. This will be complimented with sidewalk improvements at some locations in order to improve access to bus stops.

Improvements to Traffic Signals: Transit Signal Priority (TSP) technology will be installed at all the traffic signals. Improved traffic signals will “hold” the green to allow approaching buses to travel through intersections, which would improve transit reliability and reduce bus delays. Traffic signals will also be retimed and synchronized to provide more crossing time for bicyclists and clearance time for pedestrians and smoother travel for buses. Deployment of TSP technology would also improve safety for transit users, motorists, pedestrians, and bicyclists. The project’s improvement to traffic signal operations would also result in reduced fuel consumption and vehicle emissions.

Improvement to Traffic Signal Communication: The scope of the communication improvements include the installation of signal interconnect cable (SIC) communication system along Telegraph Avenue between 20th Street and 40th Street in Oakland and fixing broken communication along the Grand/West Grand Avenue corridor.

Upgrading the corridor infrastructure would produce cascading benefits that include ridership growth, reducing auto trips and improve air quality. These benefits and goals are consistent with AC Transit’s strategy to maximize operational benefit and efficiency and achieve the Metropolitan Transportation Commission’s Transit Sustainability Project performance metrics.

RESEARCH PROTOCOLS

A prehistoric and historic site records and literature search for each alignment with an 100-foot radius was completed by the California Historical Resources Information System, Northwest Information Center, Sonoma State University (CHRIS/NWIC File No. 19-1053 dated 1/10/2020 by Hagel). Reference material available on the web, the Bancroft Library at the University of California, Berkeley, and Basin Research Associates, San Leandro was also consulted where appropriate. Sources included:

Historic Properties Directory for Alameda County (CAL/OHP 2012a);

National Register of Historic Places listings for Alameda County, California (USNPS 2015-2020);

Listed California Historical Resources (CAL/OHP 2019) with the most recent updates of the National Register of Historic Places; California Historical Landmarks; and, California Points of Historical Interest as well as other evaluations of properties reviewed by the State of California Office of Historic Preservation;

California History Plan (CAL/OHP 1973);

California Inventory of Historic Resources (CAL/OHP 1976);

Five Views: An Ethnic Sites Survey for California (CAL/OHP 1988);

Archaeological Determinations of Eligibility (CAL/OHP 2012b); and,

Various reports - *Alameda-Contra Costa Transit District’s East Bay Bus Rapid Transit Project in Berkeley, Oakland and San Leandro* (see Baker 2005).

The Native American Heritage Commission (NAHC) was not contacted for a review of the *Sacred Lands Inventory*. No other agencies, departments or local historical societies were contacted regarding landmarks, potential historic sites or structures. An archaeological survey of the APE for the proposed project was not conducted due to the urban nature of the alignments and the results of previous field reviews (see Baker 2005).

FINDINGS AND CONCLUSION

This *Initial Screening Memo* was prepared to identify potentially significant archaeological resources listed on or potentially eligible for the California Register of Historical Resources (CRHR)¹ within or adjacent to the project alignments. A review of the built environment was not completed as the proposed improvements will not result in any detrimental impacts to buildings and structures along the alignments that could affect either their eligibility or potential eligibility for listing on the CRHR (see Baker 2005 and references therein for a review of the built environment along the majority of the alignments) (see Tables 1-3).

The research has identified two areas with potential archaeological resources:

- (1) Telegraph Avenue between 57th Street and 52nd Street should be considered moderately to highly sensitive for both prehistoric and historic cultural resources; and,
- (2) Oxford Avenue between Center Street and Allston Way (near Strawberry Creek)

Telegraph Avenue – potential for historic archaeological resources between 52nd and 57th streets. This general area is very near the former site of the historic Vicente Peralta ranch complex built between 1836 and 1867 in the block bounded by 55th and 56th street, Telegraph Avenue and Vicente Street. This block was largely destroyed by construction of State Highway 24, however, the possibility that outlier archaeological features may exist within or adjacent to the Telegraph Avenue right of way cannot be discounted. A review of Hendry & Bowman (1940) indicates that Adobes # 6-12 are within or adjacent to the alignment and may include the approximate location of the Vicente Peralta Adobe Dwelling Site (ca. 1836); the Second Vicente Peralta Adobe Dwelling site (ca. 1847); and, other buildings and structures (ca. 1850-1867) associated with the Peralta family and their occupation and use of the area. The adobes were demolished by the late 1880s.

Telegraph Avenue – potential for prehistoric or protohistoric archaeological resources between 52nd and 57/59th streets on the east side of Telegraph Avenue. This area includes a portion of P-01-010600, a prehistoric or protohistoric site, containing shell beads, a piece of abalone shell, and a piece of Chinese ceramic, has been recorded on the east side of Telegraph Avenue between 56th and 57th streets (5644 Telegraph Avenue). Temescal Creek (now underground at about 51st or 52nd streets) flows just to the south of the prehistoric site

1. A historical resource or archaeological resource may be listed in the California Register of Historical Resources if it meets one or more of the following criteria: "(1) it is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; (2) it is associated with the lives of persons important to local, California or national history; (3) it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or, (4) it has yielded or has the potential to yield information important in the prehistory or history of the local area, California or the nation."

and the former location of the Peralta adobes, near the intersection of Claremont Avenue and Telegraph (see Baker 2005:13). The creek was attractive for both prehistoric and historic use. Baker (2005:20) notes that a “mound of the Juchiyunes” was located south of 56th to 59th streets based on an 1861 deposition by Victor Castro.

Oxford Avenue between Center Street and Allston Way (near Strawberry Creek) – recorded prehistoric site (CA-ALA-607 / P-01-010537). One Native American burial recovered in mid-1950s.

No other archaeological resources are present within or adjacent to the proposed project alignments, aside from many built environment resources, based on the archive and literature review.

The conclusion of this *Initial Screening Memo* is that the proposed improvements except for two potentially sensitive areas will not affect any known archaeological resources.

MANAGEMENT RECOMMENDATIONS

The proposed improvements can proceed as planned with the following recommended cultural resources protection measures. It recommended that the two areas with the potential for subsurface cultural resources be subject to additional review depending on the extent and intensity of the proposed ground disturbing.

The proposed improvements will not affect any historic properties or unique archaeological resources. No subsurface testing for buried archaeological resources appears necessary at this time. The following protection measures are recommended.

- (a) The project proponent shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried prehistoric or historic cultural resources including prehistoric Native American burials at:
 - (1) alignment along Telegraph Avenue between 57th Street and 52nd Street
 - (2) CA-ALA-607 – west side of Oxford Avenue between Center Street and Allston Way near Strawberry Creek
- (b) The project proponent shall retain a Professional Archaeologist on an “on-call” basis during ground disturbing construction for other areas of the project site to review, identify and evaluate cultural resources that may be inadvertently exposed during construction. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under the California Environmental Quality Act (CEQA).
- (c) If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource under CEQA, he/she shall notify the project proponent and other appropriate parties of the evaluation and recommend mitigation measures to mitigate to a less-than significant impact in accordance with California Public Resources Code Section 15064.5. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data

recovery among other options. The completion of a formal *Archaeological Monitoring Plan* (AMP) and/or *Archaeological Treatment Plan* (ATP) that may include data recovery may be recommended by the Professional Archaeologist if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the AMP and ATP and treatment of significant cultural resources will be determined by the project proponent in consultation with any regulatory agencies.

- (d) The treatment of human remains and any associated or unassociated funerary objects discovered during any soil-disturbing activity within the project site shall comply with applicable State laws. This shall include immediate notification of the appropriate county Coroner/Medical Examiner and the project proponent.
- (e) A *Monitoring Closure Report* shall be filed with the project proponent at the conclusion of ground disturbing construction if archaeological and Native American monitoring of excavation was undertaken.

Project Elements:

- Add/Remove/Improve Bus Stops where indicated on diagram maps and tables. This includes adding some as bus-boarding islands.
- Upgrade existing traffic signal communication and wiring throughout Project area. This involves upgrading existing copper SIC with Fiber SIC, investigating and repairing breaks in fiber trunk line.
- Traffic signal improvements (TSI) where indicated on diagram maps and tables

TABLE 1
List of Existing Signalized Project Intersections
Telegraph Avenue, Oakland

ID	Intersection	Activity Bus Stop ID - Action/Other Activity	Cultural Resources Concern (Yes/No)	Cultural Resource Type (Within 100' of Project Location)
1	Telegraph Avenue/20 th Street	TSI and/or fiber work, no bus stop work	N/A	Built Environment
2	Telegraph Avenue/West Grand Avenue	TSI and/or fiber work, no bus stop work	N/A	None
3	Telegraph Avenue/24 th Street	TSI and/or fiber work, no bus stop work	N/A	Built Environment
4	Telegraph Avenue/26 th Street	TSI and/or fiber work, no bus stop work	N/A	Built Environment
5	Telegraph Avenue/27 th Street	TSI and/or fiber work, no bus stop work	N/A	Built Environment
6	Telegraph Avenue/29 th Street	TSI and/or fiber work, no bus stop work	N/A	None
7	Telegraph Avenue/30 th Street	TSI and/or fiber work, no bus stop work	N/A	Built Environment
8	Telegraph Avenue/Hawthorne Avenue	TSI and/or fiber work, no bus stop work	N/A	Built Environment
9	Telegraph Avenue/34 th Street	TSI and/or fiber work, no bus stop work	N/A	Built Environment
10	Telegraph Avenue/West Macarthur Boulevard	TSI and/or fiber work, no bus stop work	N/A	Built Environment
11	Telegraph Avenue/39 th Street	TSI and/or fiber work, no bus stop work	N/A	None
12	Telegraph Avenue/40 th Street	TSI and/or fiber work, no bus stop work	N/A	None
13	Telegraph Avenue/42 nd Street	TSI and/or fiber work, no bus stop work	N/A	None

TABLE 1, con't
List of Existing Signalized Project Intersections
Telegraph Avenue, Oakland

ID	Intersection	Activity Bus Stop ID - Action/Other Activity	Cultural Resources Concern (Yes/No)	Cultural Resource Type (Within 100' of Project Location)
14	Telegraph Avenue/45 th Street	TSI and/or fiber work, no bus stop work	N/A	Built Environment
15	Telegraph Avenue/48 th Street	TSI and/or fiber work, no bus stop work	N/A	None
16	Telegraph Avenue/50 th Street	TSI and/or fiber work, no bus stop work	N/A	Built Environment
17	Telegraph Avenue/51 st Street	TSI and/or fiber work, no bus stop work	N/A	None
18	Telegraph Avenue/52 nd Street/Claremont Avenue	TSI T-NB-1(R) – Remove T-SB-21(R) - Remove	No	Built Environment
19	Telegraph Avenue/55 th Street	TSI T-NB-3 – Add new bus stop/Change signage T-SB-20 – Add new bus stop/Possibly modify sidewalk and landscaping T-NB-2(R) – Remove T-SB-19(R) – Remove	Yes	Hendry & Bowman (1940) – Adobes # 6-12 approx. location of Vicente Peralta Adobe Dwelling Site (ca. 1836); Second Vicente Peralta Adobe Dwelling site (ca. 1847); and other buildings and structures (ca. 1850-1867) - (potential for historic archaeological resources)
20	Telegraph Avenue/56 th Street	TSI	Yes	H&B 6-12 approx. location (potential for historic archaeological resources)
21	Telegraph Avenue/Aileen Street	TSI T-NB-4(R) – Remove T-SB-18(R) – Remove	Yes	P-01-010600 approx. location (potential for prehistoric or protohistoric archaeological resources)

TABLE 1, con't
List of Existing Signalized Project Intersections
Telegraph Avenue, Oakland

ID	Intersection	Activity Bus Stop ID - Action/Other Activity	Cultural Resources Concern (Yes/No)	Cultural Resource Type (Within 100' of Project Location)
	Telegraph Avenue/Midblock 58 th /57 th Street	T-SB-17(R) – Remove	Possible Project Location unknown	P-01-010600 approx. location (potential for prehistoric or protohistoric archaeological resources)
22	Telegraph Avenue/59 th Street	TSI T-SB-16 – Improvements, shift stop location T-NB-5 – No action/no activity	No	Built Environment
	Telegraph Avenue/60 th Street	T-SB-15(R) – Remove	No	None
	Telegraph Avenue/62 nd Street	T-NB-6(R) – Remove T-SB-14(R) – Remove	No	None
23	Telegraph Avenue/Alcatraz Avenue	TSI T-NB-8(R) – Remove T-NB-7 – Add new bus stop T-SB-13 – Add new bus stop/minor modifications to sidewalk and landscaping T-SB-12(R) – Remove	No	Built Environment
24	Telegraph Avenue/66 th Street	TSI	N/A	None

TABLE 2
List of Existing Signalized Project Intersections
Telegraph Avenue and Other Streets, Berkeley

ID #(if provided)	Intersection	Bus Stop I.D.-Action/Other Activity	Cultural Resources Concern (Yes/No)	Cultural Resource Type (Within 100' of Project Location)
1	Telegraph Avenue/Woolsey Street	TSI T-NB-9 – Add new bus stop/Modify sidewalk and signage T-SB-11 – Add new bus stop/Remove 2 trees, rehabilitate sidewalk, modify signage	No	None
	Telegraph Avenue/Prince Street	T-SB-10(R) – Remove T-NB-10(R) – Remove	No	None
2	Telegraph Avenue/Webster Avenue	TSI T-NB-11(R) – Remove T-SB-9(R) – Remove	No	None
3	Telegraph Avenue/Ashby Avenue	TSI T-SB-8 – Add new bus stop T-NB-12 – Improvements/Remove tree, modify sidewalk T-SB-7(R) – Remove	No	None
4	Telegraph Avenue/Russell Street	TSI T-NB-13(R) – Remove T-SB-6(R) – Remove	No	None
5	Telegraph Avenue/Stuart Street	TSI T-NB-14 – Improvements/Sidewalk modifications T-SB-5 – Improvements/Add bench, possible sidewalk modifications	No	Built Environment
6	Telegraph Avenue/Derby Street	TSI T-NB-15(R) – Remove T-SB-4(R) – Remove	No	None

TABLE 2, con't
List of Existing Signalized Project Intersections
Telegraph Avenue and Other Streets, Berkeley

ID #(if provided)	Intersection	Bus Stop I.D.-Action/Other Activity	Cultural Resources Concern (Yes/No)	Cultural Resource Type (Within 100' of Project Location)
	Telegraph Avenue/Parker Street	T-SB-3(R) – Remove T-NB-16(R) – Remove	No	None
7	Telegraph Avenue/Blake Street	TSI T-NB-17 – Add new bus stop/Remove 4 parking spaces T-SB-2 – Add new bus stop/repair sidewalk and pavement, alter signage T-SB-1(R) – Remove	No	None
8	Telegraph Avenue/Dwight Street	TSI T-NB-18(R) – Remove	No	None
9	Telegraph Avenue/Haste Street	TSI D-SB-2 – Add new bus stop – bus boarding island/Upgrade 1 to 4 ADA ramps D-SB-1 – Remove/No other activity	No	None
10	Telegraph Avenue/Channing Way	TSI	N/A	None
	Telegraph Avenue/Durant Avenue	TSI	N/A	Built Environment
12	Telegraph Avenue/Bancroft Way	TSI	N/A	Built Environment
15	Bancroft Way/Fulton Street	TSI or fiber work only, no bus stop work	N/A	Built Environment
16	Oxford Street/Center Street	TSI or fiber work only, no bus stop work	N/A	CA-ALA-0607 / P-01-010538 – Site of Old Kellogg School (prehistoric site with burial) ca. 125-150 feet outside of project location
17	Oxford Street/University Avenue	TSI or fiber work only, no bus stop work	N/A	None

TABLE 2, con't
List of Existing Signalized Project Intersections
Telegraph Avenue and Other Streets, Berkeley

ID #(if provided)	Intersection	Bus Stop I.D.-Action/Other Activity	Cultural Resources Concern (Yes/No)	Cultural Resource Type (Within 100' of Project Location)
18	Shattuck Avenue/University Avenue	TSI or fiber work only, no bus stop work	N/A	Built Environment – within Shattuck Avenue Downtown Historic District
19	Shattuck Avenue/Addison Street	TSI or fiber work only, no bus stop work	N/A	Built Environment – within Shattuck Avenue Downtown Historic District
20	Shattuck Avenue/Center Street	TSI or fiber work only, no bus stop work	N/A	Built Environment – within Shattuck Avenue Downtown Historic District
21	Shattuck Avenue/Allston Way	TSI or fiber work only, no bus stop work	N/A	Built Environment – within Shattuck Avenue Downtown Historic District
22	Shattuck Avenue/Kittredge Street	TSI or fiber work only, no bus stop work	N/A	Built Environment – within Shattuck Avenue Downtown Historic District
23	Bancroft Way/Shattuck Avenue	TSI or fiber work only, no bus stop work	N/A	Built Environment – within Shattuck Avenue Downtown Historic District
24	Durant Avenue/Shattuck Avenue	TSI or fiber work only, no bus stop work	N/A	Built Environment – within Shattuck Avenue Downtown Historic District
25	Durant Avenue/Fulton Street	TSI or fiber work only, no bus stop work	N/A	None
26	Durant Avenue/Ellsworth Street	DU-EB-2(R) – Remove/TSI	No	None
27	Durant Avenue/Dana Street	DU-EB-3 – Improvements/TSI	No	None
28	Dana Avenue/Haste Street	D-SB-1(R) – Remove/ No other activity	No	None
29	Dana Avenue/Dwight Street	TSI	N/A	Built Environment

TABLE 3
List of Existing Signalized Project Intersections
Grand Avenue, Oakland

Intersection	Activity Bus Stop ID - Action/Other Activity	Cultural Resources Concern (Yes/No)	Cultural Resource Type (Within 100' of Project Location)
W. Grand Avenue/Campbell Street and Mandela Parkway – Midblock	TSI WG-WB-8(R) - Remove	No	Built Environment
W. Grand Avenue/Mandela Parkway	WB-EB-1(R) – Remove WG-EB-2 – Add new bus stop/Replace driveway, possibly reconstruct sidewalk WG-WB-6 – Add new bus stop/Pave over existing landscape planter	No	Built Environment
W. Grand Avenue/Adeline Steet	TSI WG-WB-5 – Add new bus stop/Construct new sidewalk WG-WB-4(R) – Remove WG-EB-3 - Improvements	No	Built Environment
W. Grand Avenue/Market Street	TSI WG-EB-2(R) – Remove WG-WB-3 – Add new bus stop/Possibly reconstruct sidewalk, move/reconstruct fence	No	None
W. Grand Avenue/Brush Street	WG-WB-1 – Add new bus stop/Reconstruct sidewalk, fence, and driveways for ADA WG-EB-5 – Add new bus stop	No	Built Environment P-01-009735 San Pablo Avenue Commercial District
W. Grand Avenue/San Pablo Avenue	TSI	N/A	Built Environment P-01-009735 San Pablo Avenue Commercial District
W. Grand Avenue/Telegraph Avenue	TSI	N/A	None
Grand Avenue/Broadway Avenue	TSI	N/A	None

TABLE 3, con't
List of Existing Signalized Project Intersections
Grand Avenue, Oakland

Intersection	Activity Bus Stop ID - Action/Other Activity	Cultural Resources Concern (Yes/No)	Cultural Resource Type (Within 100' of Project Location)
Grand Avenue/Harrison Street	TSI	N/A	Built Environment
Grand Avenue/Park View Terrace	G-WB-8(R) – Remove G-WB-9 – Add new bus stop	No	Built Environment P-01-010894 Lake Merritt District P-01-011571 Lakeside Park (adjacent to APE across street from location)
Grand Avenue/Lee Street	G-WB-7 – Add new bus stop	No	Built Environment P-01-010894 Lake Merritt District P-01-011571 Lakeside Park (adjacent to APE across street from location)
Grand Avenue/Perkins Street	G-EB-4(R) – Remove or Improve G-WB-6(R) – Remove G-EB-5 – Add new bus stop	No	None
Grand Avenue/Staten Avenue	G-EB-6(R) – Remove G-WB-4(R) – Remove G-WB-5 – Add new bus stop	No	None
Grand Avenue/MacArthur Boulevard	TSI	N/A	None
Grand Avenue/Santa Clara Avenue/Lake Park Avenue	TSI	N/A	None

REFERENCES

Baker, Suzanne (Archaeological/Historical Consultants)

- 2005 Positive Archaeological Survey Report for the Alameda-Contra Costa Transit District's East Bay Busby Rapid Transit Project in Berkeley, Oakland and San Leandro. MS on file, S-38249d, California Historical Resources Information System, Northwest Information Center, Sonoma State University, Rohnert Park.

California (State of), Department of Parks and Recreation, Office of Historic Preservation (CAL/OHP)

- 1973 The California History Plan. Volume One - Comprehensive Preservation Program. Volume Two - Inventory of Historic Features.
- 1976 California Inventory of Historic Resources.
- 1988 Five Views: An Ethnic Sites Survey for California.
- 1990 California Historical Landmarks.
- 1992 California Points of Historical Interest [with updates]. May 1, 1992.
- 2012a [Historic Properties Directory] Directory of Properties in the Historic Property Data file for Alameda County (includes National Register of Historic Places status codes, California Historical Landmarks and California Points of Historical Interest listings, etc.). Dated 4/05/2012 [most recent as of 5/28/2019].
- 2012b *Archeological Determinations of Eligibility* for Alameda County. Dated 4/05/2012 [most recent as of 5/28/2019].
- 2019 *Listed California Historical Resources – Alameda County* [including National Register, State Landmark, California Register, and Point of Interest]. <<http://ohp.parks.ca.gov/ListedResources/?view=county&criteria=1>> accessed 12/30/2019.

Hagel, Lisa C. (CHRIS/NWIC staff)

- 2020 Records Search Results. Regarding: ATC Telegraph Grand [Alameda County]. CHRIS/NWIC File No. 19-1053. Dated January 10, 2020. Copy on file, Basin Research Associates, San Leandro.

Hendry, G.W. and J.N. Bowman

- 1940 The Spanish and Mexican Adobe and Other Buildings in the Nine San Francisco Bay Counties, 1776 to about 1850. MS on file, Bancroft Library, University of California, Berkeley.

Quaternary Research Group

- 1976 Archaeology in Alameda County: A Handbook for Planners [written and designed by D.P. Miller]. Alameda County Planning Department, Hayward.

United States Department of the Interior, National Register of Historical Places, National Park Service (USNPS)

2015, 2017, 2020 National Register of Historic Places Spreadsheet listings.

<https://www.nps.gov/subjects/nationalregister/database-research.htm> Multiple Property covers (current to 2015). National Historic Landmarks (NHLs; current to 12/2017). Listed properties (current to 1/8/2020). Web accessed 1/22/2020.

ATTACHMENTS

FIGURES

- | | |
|----------|--|
| FIGURE 1 | General Project Location (ESRI World Street Map) |
| FIGURE 2 | Telegraph Avenue and Grand/West Grand Avenue Study Corridors T1S R4W (USGS Richmond, CA 1995; Briones Valley, CA 1995; Oakland West, CA 1993; and Oakland East, CA 1997) |
| FIGURE 3 | Telegraph Avenue Study Corridor with Archeologically Sensitive Area in Oakland between 52 nd and 58 th Streets |
| FIGURE 4 | Telegraph Avenue Study Corridor with Archeologically Sensitive Area in Downtown Berkeley Near University of California Campus |



Figure 1: General Project Location (ESRI World Street Map)

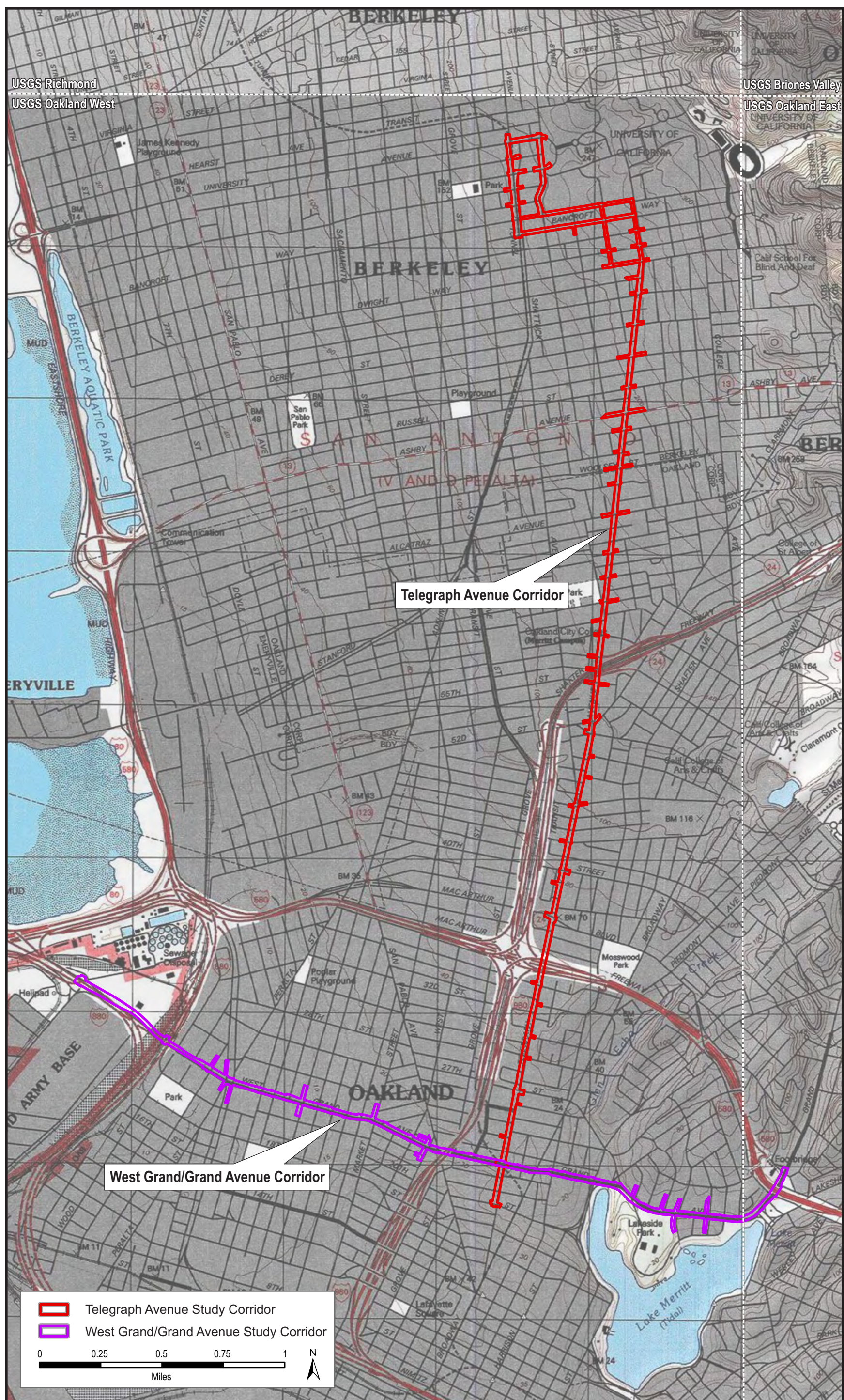


Figure 2: Telegraph Avenue and Grand/West Grand Avenue Study Corridors T1S R4W (USGS Richmond, CA 1995; Briones Valley, CA 1995; Oakland West, CA 1993; and Oakland East, CA 1997)

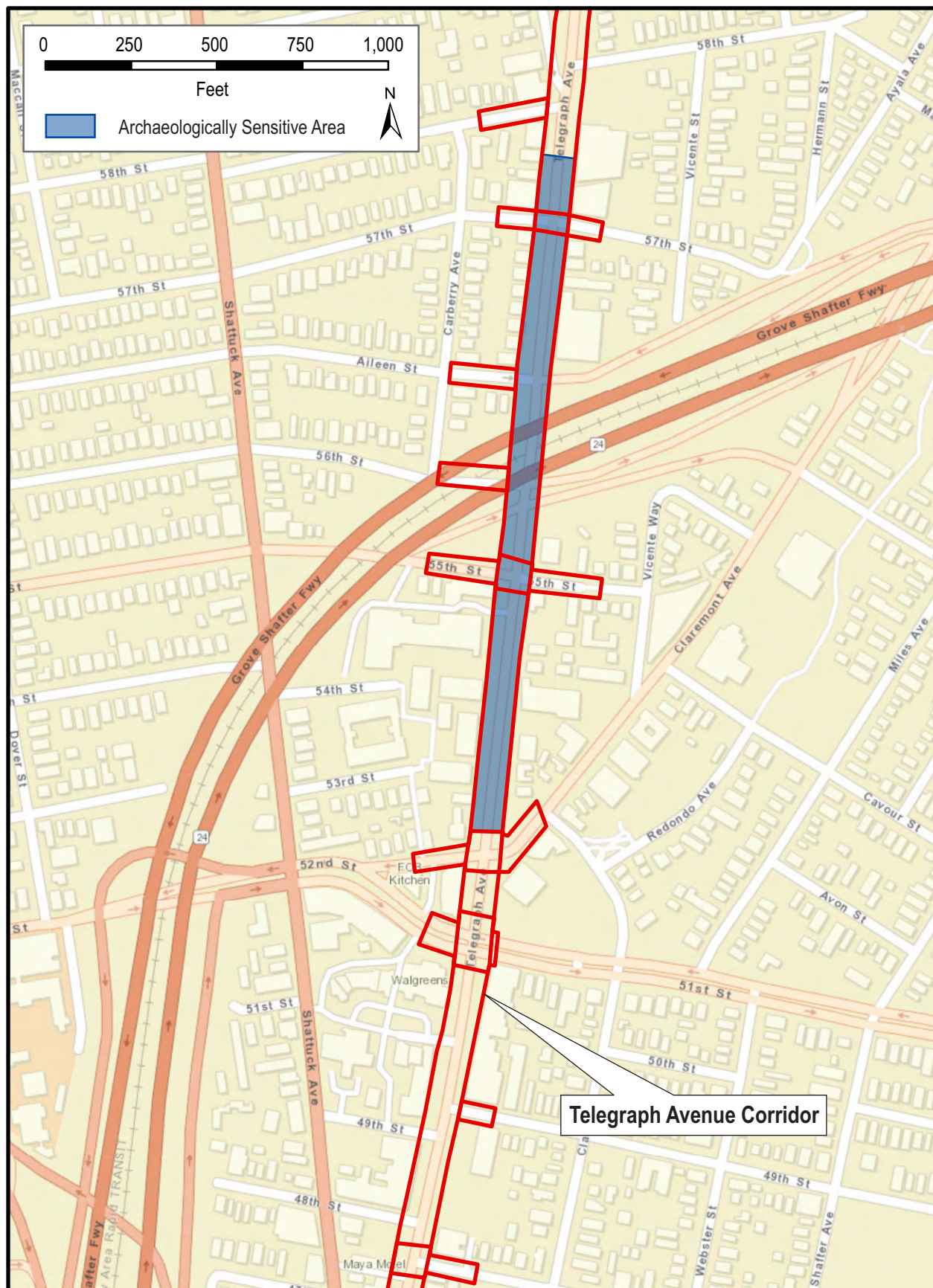


Figure 3: Telegraph Avenue Study Corridor with Archeologically Sensitive Area in Oakland between 52nd and 58th Streets

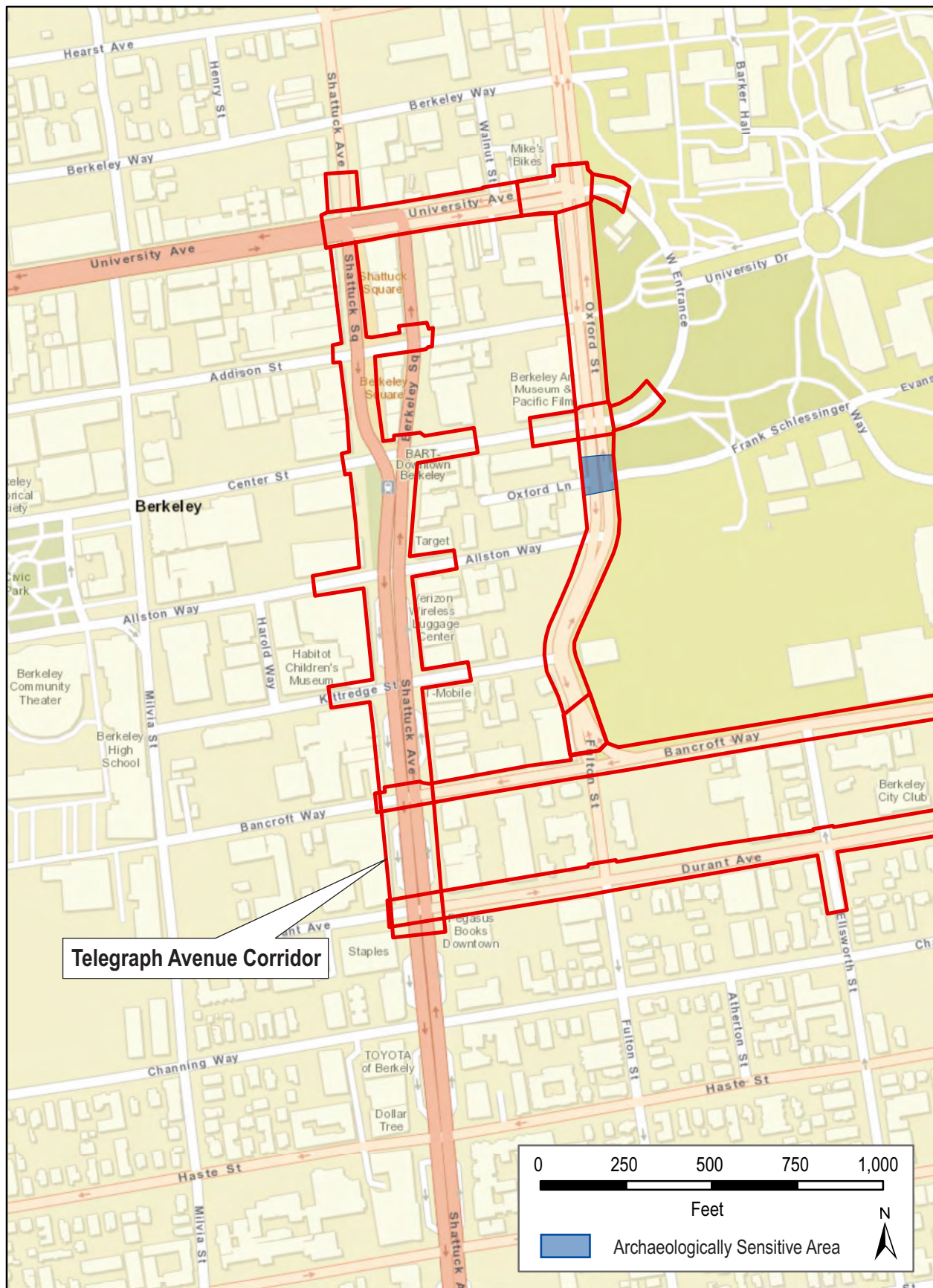
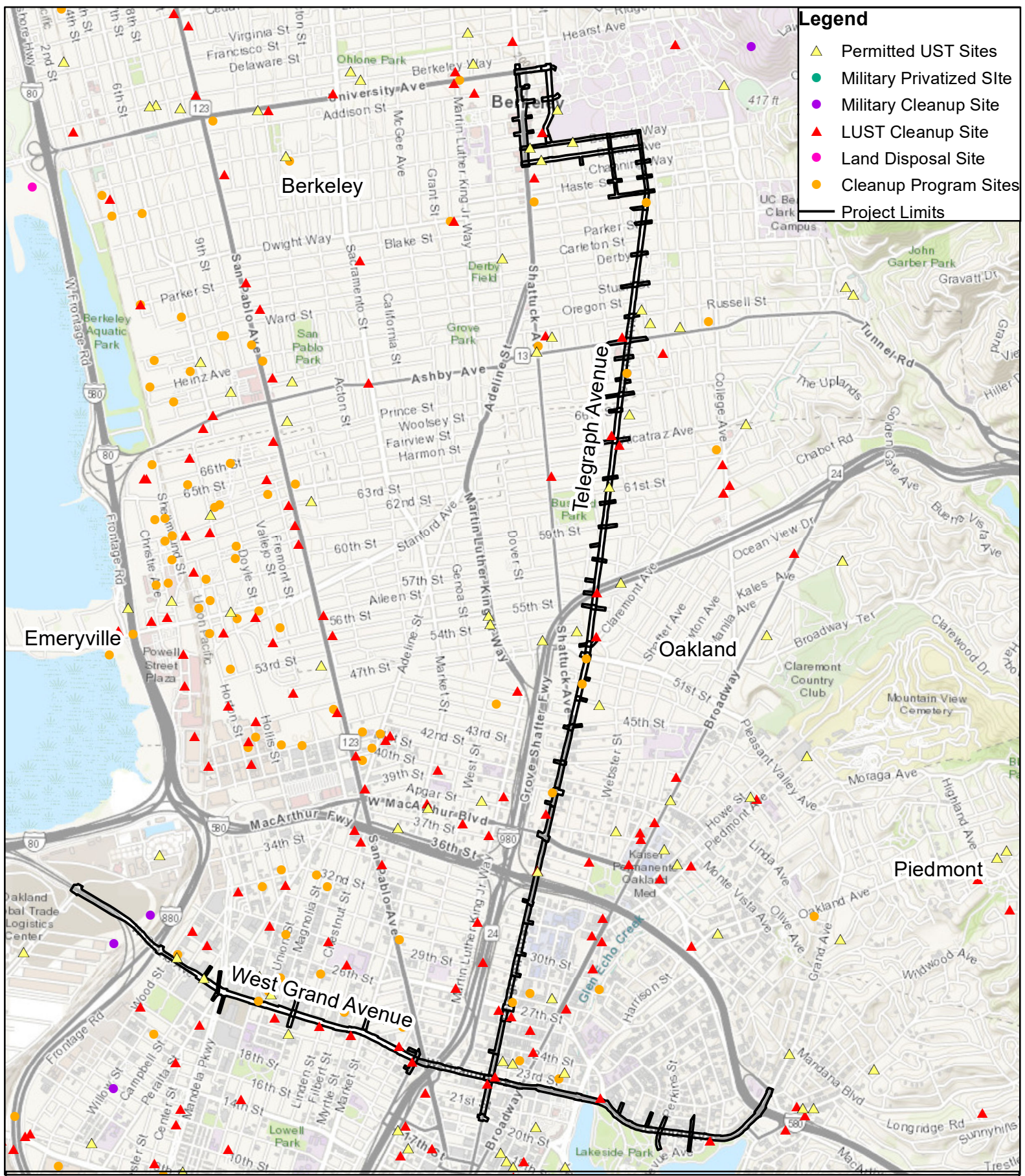


Figure 4: Telegraph Avenue Study Corridor with Archeologically Sensitive Area in Downtown Berkeley Near University of California Campus

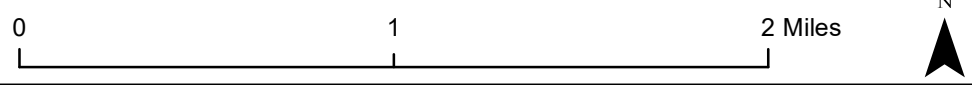
Attachment 4 – GeoTracker Database



- Legend**
- △ Permitted UST Sites
 - Military Privatized Site
 - Military Cleanup Site
 - ▲ LUST Cleanup Site
 - Land Disposal Site
 - Cleanup Program Sites
 - Project Limits

Project Vicinity

Telegraph Avenue and Grand Avenue Rapid Corridors Project



Prepared for 	Prepared by
------------------	-----------------