

2.15 TRANSPORTATION / TRAFFIC

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
TRANSPORTATION / TRAFFIC—				
Would the proposed project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

PROPOSED PROJECT

Construction of project would have temporary effects on segments of the roadway network in San Francisco by increasing traffic volumes on roads that provide access to the construction work areas and by reducing the available width of some roads during periods of the day when underground duct bank installations would occur. The main transportation corridors providing access to the project area are U.S. Highway 101 (US 101) and Interstate 280 (I-280). The arterial roadways that are located in the vicinity of the proposed project route include Third Street, Cesar Chavez Street, Cargo Way, and Evans Avenue. Each roadway is described in more detail below.

Regional Roadways

US 101 is a major four- to six-lane, north-south, State highway that runs the full length of San Francisco County, both as a multi-lane freeway, and as a major arterial (i.e., on Van Ness Avenue and Lombard Street). US 101 functions as a freeway in the immediate project area, with

the project area most directly accessed via the Cesar Chavez Street interchange. Caltrans reports an average of about 250,000 vehicles per day on US 101 near the Cesar Chavez Street interchange, with a peak-hour volume of about 16,000 vehicles. The peak-hour level of service (LOS) in this segment of US 101 generally runs at LOS D to E in the southbound direction and LOS F in the northbound direction.¹

I-280 is a major six- to eight-lane, north-south, freeway that connects San Francisco with the greater San Jose area, and serves as a major commuter route between the two cities. The most central project access from I-280 is at the Cesar Chavez Street interchange. The project route crosses below I-280 in two locations, once on Cesar Chavez Street and once on Evans Avenue. Caltrans reports an average of between 86,000 and 107,000 vehicles per day on I-280 near the Cesar Chavez Street interchange, with a peak-hour volume of between 6,600 and 8,200 vehicles. The level of service in this segment of I-280 generally runs at LOS D to E in the southbound direction and LOS A to C in the northbound direction, during morning peak hour. During the evening peak, traffic flows at LOS D to E for both directions.²

Local Roadways

The proposed project would generate vehicle trips (by construction trucks and workers) that would temporarily increase traffic volumes on local roadways used to access the work zone(s). In addition, local roadways would be affected by trenching and duct bank installation in the paved right-of-way.

Arterial Roads

The major and secondary arterial roadways carry large volumes of traffic from one section of a city to another and beyond.

Third Street is a four- to six-lane, north-south, major arterial that runs most of the length of San Francisco, beginning at its intersection with Market Street in the north and trending southward until it transitions into Bayshore Boulevard near the San Mateo County line. Parallel parking and sidewalks are available on both sides of Third Street. Peak-hour traffic volumes are about 2,000 – 2,200 vehicles south of 25th Street, and about 1,500 – 1,600 vehicles near Evans Avenue (Wilbur Smith Associates, 2000). Muni is currently constructing the Third Street Light Rail Transit Project, which will eliminate one travel lane in each direction on Third Street.

Cesar Chavez Street is a four- to six-lane, east-west, major arterial for most of its length, extending in a westward direction from its intersection with Third Street to its intersection at the endpoint of South Van Ness Avenue, where it transitions into Clipper Street; Cesar Chavez Street extends east of Third Street to Pier 80 as a secondary arterial. Cesar Chavez Street is the central

¹ San Francisco Transportation Authority, 2003 Congestion Management Program. Level of service is a qualitative assessment of the average motorists' perception of the quality of traffic flow, accounting for delays, congestion, maneuverability, etc. Service levels range from LOS A (free flow, with little or no delay) to LOS F (congested flow, with extremely very long delays); LOS D (moderately high delays) is considered the lowest acceptable level in San Francisco.

² See Footnote 1.

freeway exit used to access the project area from US 101 and I-280. Parallel parking is available on either side of the roadway, as are sidewalks. Peak-hour traffic volumes are about 1,500 – 1,800 vehicles near Pennsylvania Avenue, and 1,200 – 1,400 vehicles west of Third Street (Wilbur Smith Associates, 2000).

Evans Avenue is a four-lane roadway running in a southeasterly direction, beginning at Cesar Chavez Street in the northwest and terminating just past its intersection with Jennings Street, where it transitions to Hunters Point Boulevard. It is classified as a major arterial from its origin at Cesar Chavez Street to its intersection with Third Street; it becomes a secondary arterial from Third Street to its eastern terminus. Parallel parking is available on both sides of the roadway, as are sidewalks for most of its length, although the sidewalk is unpaved under I-280. Peak-hour traffic volumes are about 900 – 1,200 vehicles near Third Street (Wilbur Smith Associates, 2000).

Collector and Local Streets

Collector streets are relatively low-capacity streets serving local distribution functions primarily in large, low-density areas, connecting to major and secondary arterials. Local streets are streets intended for access to abutting residential and other land uses, rather than for through traffic. The local street network consists of road segments (some discontinuous), primarily with two travel lanes, that serve areas both within and outside the immediate project area. The following descriptions of collector and local streets that would be affected by the proposed projects pertain to characteristics in the project area.

North-South Streets. *Illinois Street* has parallel parking and sidewalks available on both sides of the road, south of 22nd Street. North of 22nd Street, parking is perpendicular on both sides of the road, and a sidewalk is on the east side of the road only. Illinois Street was recently extended, as a four-lane road, from 25th Street to Marin Street; it transitions to its two-lane cross section between 25th Street and 23rd Street, with two northbound lanes and one southbound lane. The City of San Francisco is planning to extend Illinois Street across the Islais Creek Channel to Cargo Way / Amador Street, as part of the Illinois Street Intermodal Bridge Project. The bridge will provide two lanes for vehicle traffic, and freight rail will be located down the center of the bridge. Construction of the bridge is expected to begin in September 2004 and to be completed in December 2005 (Nokazowa, 2004).

Tennessee Street runs from Mariposa Street to Marin Street; both perpendicular and parallel parking are available, and there are sidewalks on both sides of the road. *Minnesota Street* runs from 23rd Street to Cesar Chavez Street; perpendicular parking is available on both sides of the road, but no sidewalks are provided.

East-West Streets. *23rd Street* runs from Pennsylvania Avenue east toward Potrero Point where it dead-ends near the cargo terminals; parallel parking and sidewalks are available on both sides of the road. *25th Street* runs from Illinois Street to Portola Drive, and provides access to ramps to and from I-280; both perpendicular and parallel parking are available, and there is a sidewalk on the north side of the street only. *Marin Street* runs from Evans Avenue to the south side of the

San Francisco Chronicle parking lot (about 0.1 mile from Evans Avenue); parallel parking and sidewalks are available on both sides of the road.

Commercial Rail

The Port of San Francisco owns several short railroad spurs used to stage cargo from the ships that come to the nearby piers. There is an isolated portion of a railroad spur located on Tennessee Street between 24th and 25th Streets which it is not currently in use that the proposed project route would parallel. The Cargo Way / Quint Street track runs from the east side of Cargo Way in a northwestern direction, crossing Third Street just north of its intersection with Cargo Way. It then turns southwest to run along the center of Quint Street, crosses Evans Avenue just south of Rankin Street, and continues westward toward the warehouses near I-280. This line is typically used once per day on weekdays, varying sometimes depending on demand. The proposed project would cross these tracks along Evans Avenue, just south of Rankin Street.

The Peninsula Corridor Joint Powers Board (JPB) operates Caltrain and owns a 77-mile rail right-of-way from San Francisco through San Jose to Gilroy. Approximately 12 trains per day carry freight on this line. The proposed project route would cross the Caltrain tracks twice along its alignment, at Cesar Chavez Street (beneath the tracks near the intersection of Mississippi Street), and at a point about 0.3 mile from the Evans Avenue / Marin Street intersection.

Public Transit

Caltrain

As described above, the Peninsula Corridor JPB operates Caltrain, contracting with Amtrak to provide commuter service. There are 43 trains in each direction per day traveling between San Francisco and points south.

San Francisco Municipal Railway (Muni)

The project site is served directly by Muni bus lines, with currently three lines (Routes 15, 19, and 44) that operate on streets in the project area. There are three bus stops on the proposed project route along Evans Avenue between Phelps Avenue and Keith Street.

Muni is constructing the Third Street Light Rail Transit Project. The new line is being constructed in two phases – Phase 1 will extend the light rail (Muni Metro) service south from the existing terminal at 4th and King Streets to the Bayshore Caltrain Station, located about three miles southwest of the Hunters Point Power Plant and Switchyard. Service is expected to start in 2005. In addition, a new maintenance facility will be built at 25th Street and Illinois Street to store, maintain, and dispatch light rail vehicles. Phase 2 is not located near the project area.

Bikeways

There are six bikeways in the project area. Class II bike lanes are dedicated lanes on the edges of roadways, and are located on Cesar Chavez Street (between Third Street and Mississippi Street), and on Evans Avenue (between Newhall Street and Hunters Point Boulevard). The

San Francisco Bike Route System map provides a subset of Class III bike routes (on which bikes and vehicles share the road without a dedicated bike lane) by identifying “wide curb lane bike routes”, which are on wider roadways where bicyclists may be able to ride outside the path of vehicle travel. Of the designated bike routes on Minnesota Street (23rd and Cesar Chavez Streets), Indiana Street, Third Street, Cesar Chavez Street (Mississippi and Kansas Streets), and Evans Avenue (Cesar Chavez Street and Newhall Street), only Minnesota Street is a wide curb lane bike route.

Marine Navigation Traffic. No waterways or other such areas designated for shipping or navigation are crossed under the proposed project route.

ALTERNATIVE 1

Road Network. The regional and arterial roadways described above for the proposed project would also provide access to the project area for Alternative 1. While some of the collector and local roadways described for the proposed project could provide local access to the project area for Alternative 1, most would not be directly affected by the conduit installation itself. Roads that would be affected by Alternative 1 that were not described above are as follows:

Cargo Way is a four-lane secondary arterial that connects Third Street eastward to the Hunters Point Power Plant and Switchyard at Jennings Street. Parallel parking is available on the south side of the roadway only. Sidewalks are available on both sides of the road for most of its length, but the sidewalk ends on the north side of Cargo Way near the intersection of Third Street and Amador Street. Peak-hour traffic volumes are about 600 – 800 vehicles near Amador Street (Wilbur Smith Associates, 2000).

Jennings Street is a two-lane collector street that connects Cargo Way southward to Evans Avenue. Parallel parking is available on both sides of the roadway, but a sidewalk is available on the west side of the road only.

Commercial Rail. As described above, the Port of San Francisco owns several short railroad spurs used to stage cargo from the ships that come to the nearby piers. The Illinois Street rail system runs south along the center of Illinois Street until it trends in an eastern direction, toward the piers, just south of the intersection of Illinois Street and Marin Street. This set of tracks is currently not in use, but with the completion of the Illinois Street Bridge (described above), it will be activated as far north as 25th Street. The Alternative 1 route would run along Illinois Street in portions of the railroad spur that will become operational.

The Cargo Way / Quint Street track runs from the east side of Cargo Way in a northwestern direction, crossing Third Street just north of its intersection with Cargo Way. It then turns southwest to run along the center of Quint Street, crosses Evans Avenue just south of Rankin Street, and continues westward toward the warehouses near I-280. This line is typically used once per day on weekdays, varying sometimes depending on demand (Bromley, 2003).

Public Transit. The public transit setting for Alternative 1 is the same as the proposed project.

Bikeways. The bikeways setting for Alternative 1 is the same as the proposed project.

Marine Navigation. The Islais Creek channel is designated to allow for marine traffic. The mouth of Islais Creek is used for Cargo loading and unloading. Past that area, the Creek is not used for marine traffic other than personal marine craft. The U.S. Army Corps of Engineers continues to maintain a channel depth of 40 feet to allow for navigational usage of the Creek in the future.

ALTERNATIVE 2

Road Network. The regional and arterial roadways described above for the proposed project would also provide access to the project area for Alternative 2. In addition, the collector and local roadways that the proposed project would be directly affected by the conduit installation for the proposed project, described above, would be similarly affected under Alternative 2. Cargo Way and Jennings Street, which would be directly affected under Alternative 1, would be similarly affected under Alternative 2. Roads that would be affected by Alternative 2 that were not described above are as follows:

Quint Street is a two-lane local street that connects Evans Avenue northward to Arthur Avenue (the extension of Cargo Way west of Third Street). Parallel and perpendicular parking is available on the northern portion of the road. No formal sidewalks are provided.

Commercial Rail. As described above, the Port of San Francisco owns several short railroad spurs used to stage cargo from the ships that come to the nearby piers. There is an isolated portion of a railroad spur located on Tennessee Street between 24th and 25th Streets, but it is not currently in use; the Alternative 2 route would parallel this track. See above description of the Cargo Way / Quint Street track under Alternative 1.

Public Transit. The public transit setting for Alternative 2 is the same as the proposed project.

Bikeways. The bikeways setting for Alternative 2 is the same as the proposed project.

Marine Navigation Traffic. No waterways or other such areas designated for shipping or navigation are crossed under the route proposed under Alternative 2.

ALTERNATIVE 3

Road Network. The road network setting for Alternative 3 is the same as Alternative 1.

Commercial Rail. The commercial rail setting for Alternative 3 is the same as Alternative 1.

Public Transit. The public transit setting for Alternative 3 is the same as the proposed project.

Bikeways. The bikeways setting for Alternative 3 is the same as the proposed project.

Marine Navigation. The Islais Creek channel is designated to allow for marine traffic. The mouth of Islais Creek is used for Cargo loading and unloading. Past that area, the Creek is not used for marine traffic other than personal marine craft. The U.S. Army Corps of Engineers continues to maintain a channel depth of 40 feet to allow for navigational usage of the Creek in the future.

NO PROJECT ALTERNATIVE

The setting for the No Project Alternative is the same as current conditions for road network, commercial rail, public transit, and bikeways since construction of a 2.5 mile cable project would not occur.

REGULATORY CONTEXT

Local Regulations, Goals, and Policies

Policies, plans, and programs that have been put in place by the local government are put forth in the San Francisco General Plan. In the Transportation Element of the General Plan, Policy 23.5 states: “Minimize obstructions to through pedestrian movement on sidewalks by maintaining an unobstructed width that allows for the passing of people, strollers, and wheelchairs.”

Section 2.4.21 of the San Francisco Department of Public Works Code contains an excavation moratorium that reads, “The Department shall not issue any permit to excavate in any moratorium street; provided, however, that the Director, in his or her discretion, may grant a waiver for good cause.”³ Among the streets currently under moratorium (as of April 2004, the latest list posted on the Department’s Web site [checked June 30, 2004]) are the following streets on the project route:

- Cesar Chavez Street, between Minnesota Street and Mississippi Street, until January 1, 2005
- 23rd Street, between Third Street and Tennessee Street, until June 2, 2005

PG&E is a member of the California Joint Utility Traffic Control Committee, which in 1996 published the Work Area Protection and Traffic Control Manual. The traffic control plans and associated text depicted in this manual conform to the guidelines established by the federal manual regarding basic standards for the safe movement of traffic upon highways and streets in accordance with Section 21400 of the California Vehicle Code. These recommendations include provisions for safe access of police, fire, and other rescue vehicles. In addition, PG&E would apply for an Excavation Permit and a Special Traffic Permit from the City, as well as submit a Traffic Management Plan subject to agency review and approval.

³ Section 2.4.4(n) of the San Francisco Department of Public Works Code defines a “moratorium street” as any block that has been reconstructed, repaved, or resurfaced by the Department or any other owner or person in the preceding five-year period.

IMPACTS DISCUSSION OF TRANSPORTATION / TRAFFIC

METHODOLOGY AND SIGNIFICANCE CRITERIA

To determine the significance of the impacts anticipated from the proposed project, the project's effects were evaluated as provided under the revised CEQA guidelines. These guidelines are summarized in the checklist provided at the beginning of this section. Proposed projects that create a significant increase in traffic, exceed adopted traffic level of service standards, increase traffic hazards, result in inadequate emergency access, or exceed parking capacity may result in a significant effect. Typically these are proposed projects that would generate or attract traffic at a particular location or that would obstruct traffic for a time.

Approach to Analysis

Assessment of impacts related to construction of project components involved evaluating the effects of the project on traffic and circulation resulting from project increases in traffic, loss of travel lanes and/or parking areas, disruptions to public transit, and potential safety effects associated with construction. Construction characteristics, including proposed manpower and equipment, location of construction and rate of construction were determined on the basis of information provided by PG&E. Conservative assumptions were used to determine the potential number of vehicles that would be required for project construction.

PROPOSED PROJECT

Construction Vehicle Trip Generation

Traffic-generating construction activities related to new conduit installation would consist of the daily arrival and departure of construction workers to each work site; trucks hauling equipment and materials to the work site; and the hauling of excavated spoils from, and import of new fill to, each work site.

Approximately 25 construction workers and 6 truck drivers will be required during excavation and conduit installation. Approximately 15 construction personnel would be employed during cable installation. For construction activities at the Potrero and Hunters Point switchyards, the construction crew size would be up to 15 workers. Based on these estimated crew sizes, construction worker trips traveling to and from each work site are not anticipated to exceed 30 round trips (60 one-way trips) per day.

Project-related truck traffic associated with conduit installation would be limited to transporting supplies and equipment to and from the construction and laydown areas along the right-of-way, and hauling excavated materials away from the trench to the excavated materials storage areas near the switchyards. The trench size for open-cut installation within paved roadways would be approximately two feet wide by six feet deep. It is expected that up to 300 feet of trench can be completed in any given day. Using the above trench sizes and construction rate estimates, the number of truck trips per day, for most of the project length, is estimated to be about 16 dump

truck round trips (32 one-way trips) removing excavated materials from the work area per day, 12 dump truck round trips (24 one-way trips) bringing native backfill into the work area per day, and 5 concrete truck round trips (10 one-way trips) to and from the project area per day. Off-site vehicle trips generated at locations where special construction techniques are proposed (e.g., horizontal boring or directional drilling) for crossing major roads or railroad tracks would be less than that generated by trenching within paved roadways.

Project-related truck traffic associated with construction activities at the switchyards would be limited to 3 pickup trucks and a boom truck stationed at the switchyard under construction (first at the Potrero switchyard, and then at the Hunters Point switchyard).⁴ These vehicles could generate 3 trips each (in/out) daily, for a total of 18 trips per day. Additionally, various material delivery trucks would make deliveries twice a week, estimated at 2 trucks times 2 (in/out) weekly, for a total of 8 trips per week.

Impact TRA-1: New conduit installation within or across streets would reduce the number of, or the available width of, travel lanes on roads, resulting in temporary disruption of traffic flows and increases in traffic congestion. (Less than Significant with Identified Mitigation)

Conduit installation would follow within and/or across, a number of roadways, and activities associated with those installations would temporarily disrupt existing transportation and circulation patterns in the vicinity. Impacts would include direct disruption of traffic flows and street operations through lane blockages or street closures that would result in a reduction in travel lanes and curb parking or detour routing. Conduit installation work within and/or across high traffic volume arterials could significantly affect traffic flow and operations at those locations.

The width of the temporary construction work zone required for the proposed new conduit installation in public roadways would be approximately 25 feet. As specified under Construction Vehicle Trip Generation, above, open trench construction within paved roadways would be expected to proceed at a rate of up to about 300 linear feet per day. Special construction techniques (e.g., horizontal boring or directional drilling) are proposed to cross the Third Street light rail at 23rd Street and at Evans Avenue, and to cross a railroad spur on Evans Avenue between Rankin Street and Quint Street. A construction corridor width of 25 feet would be used in most places for the construction of the duct bank, but additional space would be required at the vault and boring locations. Equipment and vehicles generally would be parked on the street opposite the trench. Excavated materials and equipment storage yards would be located near each of the switchyards.

⁴ There also would be some minor construction at both switchyards at the conclusion of the project when the cable would be terminated, energized and tested.

Each of the following roadways are paralleled by the proposed project route and may experience lane closures during construction of the project:

- 23rd Street
- 25th Street
- Cesar Chavez Street
- Evans Avenue
- Illinois Street
- Marin Street
- Minnesota Street
- Tennessee Street

In addition, the following roadways are crossed by the proposed project route and may experience lane closures where they intersect the project route:

- 24th Street
- 26th Street
- Indiana Street
- Jennings Street
- Mendell Street
- Newhall Street
- Napoleon Street
- Phelps Street
- Rankin Street

Collectively, these closures are anticipated to last approximately nine months, though the duration of lane closures on individual streets would be dictated by the pace of construction (anticipated to be about 300 feet per day). One traffic lane would remain open at all times on these roadways. Alternate one-way traffic control would be conducted with traffic control devices (including flaggers) along all affected roadways, with the exception of Cesar Chavez Street and Evans Avenue. Because the latter streets are four-lane roads with two lanes on each side, one-way traffic control would not be required, but traffic could be limited to one lane in each direction. The temporary lane closures, and the increased traffic disruption as a result of those closures would be a short-term, but potentially significant, impact of the project.

Freight Traffic. The proposed project route crosses the Port of San Francisco's Cargo Way / Quint Street railroad spur located on Evans Avenue. PG&E would coordinate with the Port of San Francisco prior to construction to determine the best way to cross these tracks. The tracks would be either open-cut trenched (which would temporarily disrupt access), or crossed via a horizontal jack-and-bore (leaving access open during construction). Under the horizontal jack-and-bore option, bore pits would be excavated on either side of the tracks, but they would be placed to avoid interference with freight traffic. Under the open-cut trenching option, coordination with the Port would be required in order to avoid interruption to rail service. The other spurs in the project area, along Illinois Street north of 25th Street, and on Tennessee Street, between 24th and 25th Streets, currently are not in use and would be open-cut trenched.

Mitigation Measure TRA-1: Obtain and comply with local and state road encroachment permits, and railroad encroachment permits.

PG&E would obtain all necessary road and railroad encroachment permits prior to construction and would comply with all the applicable conditions of approval. As described above, California Joint Utility Traffic Control Committee (of which PG&E is a member) published the Work Area Protection and Traffic Control Manual, which includes requirements to ensure safe maintenance of traffic flow through or around the construction work zone, and safe access of police, fire, and other rescue vehicles. In addition, the City of San Francisco's Excavation Permit and a Special Traffic Permit (for which PG&E would apply), and the applicant-prepared Traffic Management Plan (subject to City review and approval) would govern how traffic flow is safely maintained during project construction.

The following mitigation measures would ensure that all impacts to transportation and traffic resulting from the project would be less than significant:

- PG&E would prepare and implement a Traffic Management Plan that is subject to approval by the City and County of San Francisco prior to construction. The plan would:
 - include a discussion of work hours, haul routes, limits on the lengths of open trench, work area delineation, traffic control and flagging;
 - identify all access and parking restrictions and signage requirements;
 - layout a plan for notifications and a process for communicating with affected residents and businesses prior to the start of construction. Advance public notification would include postings of notices and appropriate signage of construction activities. The written notification would include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access points/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints;
 - include a plan to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers would be notified of the timing, location, and duration of construction activities. All roads would remain passable to emergency service vehicles at all times;
 - include the requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access;
 - specify the street restoration requirements pursuant to PG&E's franchise agreements with the City and County of San Francisco;
- PG&E would identify all roadway locations where special construction techniques (e.g., horizontal boring, directional drilling or night construction) would be used to minimize impacts to traffic flow. If nighttime construction is selected, no construction will take place within 100 feet of the residences on Minnesota Street at night (8 p.m. to 7 a.m.).
- PG&E would develop circulation and detour plans to minimize impacts to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone.

- PG&E would consult with San Francisco Muni at least one month prior to construction to coordinate bus stop relocations (as necessary) and to reduce potential interruption of transit service.
- PG&E would coordinate with the City and County of San Francisco, San Francisco Muni, the Port of San Francisco, and any other appropriate entity, regarding measures to minimize the cumulative effect of simultaneous construction activities in overlapping areas.
- If excavation is scheduled to occur while the moratorium is in effect on Cesar Chavez Street (until January 1, 2005) and on 23rd Street (until June 2, 2005), PG&E would repave and restripe the entire street from curb to curb (not just the area that was trenched).

Impact TRA-2: Construction would result in short-term increases in vehicle trips by construction vehicular activities and construction workers. (Less than Significant with identified mitigation)

Construction-generated traffic would be temporary and therefore would not result in any long-term degradation in operating conditions or level of service on any project roadways. The primary off-site impacts from the movement of construction trucks would include short-term and intermittent lessening of roadway capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles. The majority of the proposed project is located within relative proximity to major arterials and freeways. The use of those routes to reach each day's construction area would minimize the project's effects on traffic flow in the vicinity of the project sites.

As discussed under Construction Vehicle Trip Generation, above, project construction could generate up to 30 off-site construction worker vehicle round-trips (60 one-way trips) and 33 off-site truck round trips (66 one-way trips) per day. Proposed hours of construction are 7:00 a.m. to 8:00 p.m., or during times set by the City and County of San Francisco in the Excavation Permit and a Special Traffic Permit. Construction traffic would occur throughout the day, thus lessening the effect on peak-hour (commute) traffic (generally 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.). The project-generated trips would not be substantial relative to background traffic conditions (i.e., would fall within the daily fluctuations of traffic volumes) for these roadways. Therefore, this short-term increase in vehicle trips would not significantly affect level of service and traffic flow on roadways.

Level of service standards for roadways that are part of county Congestion Management Program (CMP) networks are intended to regulate long-term traffic increases from operation of new development, and do not apply to temporary construction projects. As such, the proposed project would not exceed level-of-service standards established by the San Francisco Transportation Authority for designated CMP roadways.

As specified under Mitigation Measure TRA-1, above, PG&E would obtain all necessary road and railroad encroachment permits prior to construction and would comply with all the applicable conditions of approval. The applicant-prepared Traffic Management Plan (subject to City review

and approval) would govern how traffic flow is safely maintained during project construction. Specific requirements that may be included in the Traffic Management Plan are identified under Mitigation Measure TRA-1. Implementation of Mitigation Measure TRA-1 would ensure potential impacts associated with temporary increases in construction traffic would be less than significant.

Mitigation Measure TRA-2: Implement Mitigation Measure TRA-1.

Impact TRA-3: Daily operations related to the newly installed conduit would result in increases in vehicle trips by inspectors and maintenance personnel. (Less than Significant)

The underground portion of the line would be inspected at the vault locations; therefore, it would not significantly disturb traffic circulation on city streets. The operation of underground powerlines would not conflict with the existing transportation and traffic within the project area. As a result, operation and maintenance of the project would not affect transportation or traffic.

Switchyard monitoring and control functions would be connected to the existing PG&E computer system by two telecommunication circuits. Therefore, no additional trips to the Potrero Switchyard or Hunters Point Switchyard, beyond what currently occurs, would be required during project operation. As a result, there would be no impacts.

Mitigation: None required.

Impact TRA-4: New conduit installation within roadways and railroad rights-of-way would temporarily increase the potential for accidents. (Less than Significant with Identified Mitigation)

The project would not involve any new permanent design features that could be hazardous or incompatible because, upon completion, the conduit would be underground. However, heavy equipment operating adjacent to or within a railroad or road right-of-way would increase the risk of accidents. Construction-generated trucks on project area roadways would interact with other vehicles. Potential conflicts also could occur between construction traffic and bicyclists and pedestrians.

As specified under Mitigation Measure TRA-1, above, PG&E would obtain all necessary road and railroad encroachment permits prior to construction and would comply with all the applicable conditions of approval. The railroads require specific safety training of construction crews before they are permitted to work within the railroad rights-of-way. The applicant-prepared Traffic Management Plan (subject to City review and approval) would govern how project construction would comply with roadside safety protocols, so as to reduce the risk of accident. Specific requirements that may be included in the Traffic Management Plan are identified under

Mitigation Measure TRA-1. Implementation of Mitigation Measure TRA-1 would ensure temporary increases in the potential for accidents would be mitigated to a less than significant level.

Mitigation Measure TRA-4: Implement Mitigation Measure TRA-1.

Impact TRA-5: New conduit installation within or across streets would affect emergency access, and access to local land uses. (Less than Significant with Identified Mitigation)

As discussed in Impact TRA-1, the proposed project could have temporary effects on traffic flow. Pipeline construction within or across streets, and temporary reduction in travel lanes, could result in delays for emergency vehicle access in the vicinity of the work sites. In addition, access to driveways and to cross streets along the construction route would be temporarily blocked due to trenching and paving, thereby affecting access and parking for adjacent residences, institutions, businesses, and other uses. This could be an inconvenience to some and a potentially significant problem for others, particularly schools, and emergency service providers (e.g., police and fire). However, construction of the project would not cause any emergency routes to be closed, and PG&E would coordinate with emergency service providers in the area prior to construction to ensure that construction activities and associated lane closures would not significantly affect emergency response vehicles.

Vehicle access would be restored at the end of each work day through the use of steel trench plates or trench backfilling. Based on the estimated work pace of up to 300 feet per day, construction would occur for about one day in front of an individual property on affected roads. PG&E would notify residents and business owners along the street that would be affected by this construction in advance. For the day of disruption, residents and business employees typically would park on the other side of the street and walk around the construction area to their homes and workplaces. In areas where a residence or business has two access points, one access would be open to traffic at all times. In cases where the inconvenience is not minor, such as with an active business that is dependent on one driveway, the work could be scheduled during night-time hours. The duration of this short-term inconvenience would be a less-than-significant impact with sufficient advance notification of the timing of construction in front of each affected property.

Because construction would require the temporary closure of sidewalks, the project would conflict with Policy 23.5 of the Transportation Element of the General Plan, which requires maintaining an unobstructed width that allows for the passing of people, strollers, and wheelchairs. Construction-related restrictions would generally last for two weeks, but in some locations, restrictions may last up to a month. During these times, the walkways would be rerouted. PG&E would apply for a Special Traffic Permit from the City and County of San Francisco.

Bike routes that could be affected by project construction include the route along Indiana Street at its intersection with Cesar Chavez Street, and the portions of Cesar Chavez Street and Evans Avenue that are designated bike routes. The wide curb lane bike route along Minnesota Street also could be affected by construction activities, and the bike lanes located along Cesar Chavez Street and Evans Avenue might need to be rerouted. Lane closures may temporarily detour bikeways, but impacts would be short term and temporary.

As specified under Mitigation Measure TRA-1, above, PG&E would obtain all necessary road and railroad encroachment permits prior to construction and would comply with all the applicable conditions of approval. The applicant-prepared Traffic Management Plan (subject to City review and approval) would govern how traffic flow (auto, pedestrian and bicycle), and emergency vehicle access, is safely maintained during project construction. Specific requirements that may be included in the Traffic Management Plan are identified under Mitigation Measure TRA-1. Implementation of Mitigation Measure TRA-1 would ensure potential impacts associated with temporary effects on emergency and general access would be mitigated to a less than significant level.

Mitigation Measure TRA-5: Implement Mitigation Measure TRA-1.

Impact TRA-6: Construction for all project components would generate a temporary demand for parking spaces for construction worker vehicles; in addition, conduit installation would temporarily displace existing on-street parking on a number of streets. (Less than Significant)

Project construction would create limited new, temporary parking demand for construction workers and construction vehicles as crews move through the project area. Assuming each worker drives alone to each day's work location, each crew would require up to 25 parking spaces. Parking also could be temporarily displaced during trenching activities along the streets that the proposed project route follows. Given the estimated work pace, impacts to on-street parking would be relatively brief at any one location throughout the project area.

The proposed project route runs through a large parking lot owned by the San Francisco Chronicle on the south side of Cesar Chavez Street, just west of Mississippi Street. PG&E would acquire the necessary rights to use this area. Construction of the project through this parking lot would displace one row of parking spaces (about 24 spaces) for approximately two weeks. However, according to the Chronicle, adequate parking is available in other portions of the lot, and the impact would be less than significant (Hager, 2004).

As specified under Mitigation Measure TRA-1, above, PG&E would obtain all necessary road and railroad encroachment permits prior to construction and would comply with all the applicable conditions of approval. The applicant-prepared Traffic Management Plan (subject to City review and approval) would establish methods for minimizing construction effects on parking. Specific requirements that may be included in the Traffic Management Plan are identified under

Mitigation Measure TRA-1. Implementation of Mitigation Measure TRA-1 would ensure potential impacts associated with temporary increased parking demand and/or decreased parking supply would be less than significant.

Mitigation Measure TRA-6: Implement Mitigation Measure TRA-1.

Impact TRA-7: Cable installation could temporarily disrupt bus service along the proposed alignment. (Less than Significant with Identified Mitigation)

The proposed project would have no lasting impact on demand for alternative transportation or on alternative transportation facilities. However, conduit installation could disrupt access to bus stops along the proposed project route, and slow bus movements. Bus routes on streets may need to be temporarily detoured, and bus stops temporarily relocated.

Construction could result in the temporary relocation of three bus stops located along Evans Avenue. Unless there is an alternative stop in proximity, bus stops would need to be relocated outside of the active work area, as determined by Muni under advance notification of the construction schedule.

The new Third Street Light Rail Transit Project that is currently under construction would not be affected by the project because Third Street would be crossed via a horizontal jack-and-bore, as previously described.

As specified under Mitigation Measure TRA-1, above, PG&E would obtain all necessary road and railroad encroachment permits prior to construction and would comply with all the applicable conditions of approval. The applicant-prepared Traffic Management Plan (subject to City review and approval) would establish methods for minimizing construction effects on transit service. Specific requirements that may be included in the Traffic Management Plan are identified under Mitigation Measure TRA-1. Implementation of Mitigation Measure TRA-1 would ensure potential impacts associated with temporary effects on transit service would be mitigated to a less than significant level.

Mitigation Measure TRA-7: Implement Mitigation Measure TRA-1.

ALTERNATIVE 1

Daily construction vehicle trip generation for Alternative 1 would be the same as described above for the single-circuit duct bank portions of the proposed project, but the total trip generation would be less because of the shorter route. Impacts associated with construction of Alternative 1, related to temporary lane closures (and the increased traffic disruption as a result of those closures), increases in the potential for accidents, emergency and general access, increased

parking demand and/or decreased parking supply, and disruption of transit service, would be less than for the proposed project because the more direct route would affect fewer roads. Impacts on roads on the Alternative 1 route not included in the proposed project route would be similar to the impacts discussed for the proposed project, in Impacts TRA-1 through TRA-7, above. Mitigation Measures TRA-1, TRA-2, and TRA-4 through TRA-7, identified for the proposed project route, would be required to ensure that impacts under Alternative 1 were less than significant.

The Islas Creek channel is designated to allow for marine traffic. Currently, the creek is not used for shipping or marine traffic; however the U.S. Army Corps of Engineers continues to maintain a channel depth of 40 feet in the event of future usage. The construction and operation of Alternative 1 would not result in any impacts to marine traffic since the existing duct bank in which the cable would traverse is constructed at a depth of approximately 33 feet (10 meters) below the bottom of the creek with the entrance areas for the bores located at approximately 290 feet from the creek bank.

ALTERNATIVE 2

Daily construction vehicle trip generation for Alternative 2 would be the same as described above for the single-circuit duct bank portions of the proposed project, but the total trip generation would be somewhat higher because of the longer route. Impacts associated with construction of Alternative 2, related to temporary lane closures (and the increased traffic disruption as a result of those closures), increases in the potential for accidents, emergency and general access, increased parking demand and/or decreased parking supply, and disruption of transit service, would be similar to the impacts resulting from the implementation of the proposed project (see Impacts TRA-1 through TRA-7, above) because the route would affect mostly the same roads. Impacts on roads on the Alternative 2 route not included in the proposed project route would be similar to the impacts discussed for the proposed project. Mitigation Measures TRA-1, TRA-2, and TRA-4 through TRA-7, identified for the proposed project route, would be required to ensure that impacts under Alternative 2 were less than significant.

ALTERNATIVE 3

Daily construction vehicle trip generation for Alternative 3 would be the same as described above for the single-circuit duct bank portions of the proposed project, but the total trip generation would be less because of the shorter route. Impacts associated with construction of Alternative 3, related to temporary lane closures (and the increased traffic disruption as a result of those closures), increases in the potential for accidents, emergency and general access, increased parking demand and/or decreased parking supply, and disruption of transit service, would be less than for the proposed project because the more direct route would affect fewer roads. Impacts on roads on the Alternative 3 route not included in the proposed project route would be similar to the impacts discussed for the proposed project, in Impacts TRA-1 through TRA-7, above. Mitigation Measures TRA-1, TRA-2, and TRA-4 through TRA-7, identified for the proposed project route, would be required to ensure that impacts under Alternative 3 were less than significant.

The Islas Creek channel is designated for navigation. The planning and permitting provisions established by applicable agencies, such as the U.S. Army Corp of Engineers and the San Francisco Port Authority, would be implemented to assure Alternative 3 is designed and constructed according to applicable provisions to avoid impacts to navigational traffic.

NO PROJECT ALTERNATIVE

The No Project Alternative would avoid all impacts to transportation/circulation. This alternative would not contribute to short-term construction related impacts due to the addition of truck and construction vehicle traffic or to vehicular increases on the surrounding street system. Traffic improvements proposed under the proposed project would be unnecessary with this alternative. In fact, impacts associated with transportation/circulation would be less under the No Project Alternative than under the proposed project.

CHECKLIST IMPACT CONCLUSIONS

- a) As described under Impacts TRA-1 through TRA-3 above, with implementation of Mitigation Measure TRA-1 (Traffic Management Plan, etc.), the project would have a less than significant effect on traffic congestion in the project area.
- b) Level of service standards for roadways that are part of county Congestion Management Program (CMP) networks are intended to regulate long-term traffic increases from operation of new development, and do not apply to temporary construction projects. As such, the proposed project would not exceed level-of-service standards established by the San Francisco Transportation Authority for designated CMP roadways.
- c) The proposed project would only involve below-ground installations. Therefore, there would be no impact to air traffic patterns or increase in safety risks as a result of the proposed project.
- d) As described under Impact TRA-4 above, with implementation of Mitigation Measure TRA-1 (Traffic Management Plan, etc.), the project would have a less than significant effect on traffic safety in the project area. The project would not involve any new permanent design features that could be hazardous or incompatible because, upon completion, the conduit would be underground.
- e) As described under Impact TRA-5 above, with implementation of Mitigation Measure TRA-1 (Traffic Management Plan, etc.), the project would have a less than significant effect on emergency and general access in the project area.
- f) As described under Impact TRA-6 above, given the estimated work pace, impacts to on-street parking due to temporary additional parking demand (for construction workers and construction vehicles), and displaced parking (on-street and in a parking lot owned by the San Francisco Chronicle) would be relatively brief at any one location throughout the project area, and the effect would be less than significant.

- g) As described under Impact TRA-7 above, the proposed project would have no lasting impact on demand for alternative transportation or on alternative transportation facilities. In addition, with implementation of Mitigation Measure TRA-1 (Traffic Management Plan, etc.), the project would have a less than significant effect on public transit (relocated bus stop) in the project area.

REFERENCES – Transportation / Traffic

Bromley, John, Union Pacific Railway Public Affairs Office, personal communication, July 2, 2003

California Department of Transportation (Caltrans), 2003 Annual Average Traffic Volumes on State Highways, available at the Caltrans Web Site (<http://www.dot.ca.gov/hq/traffops>).

Hager, Kevin, San Francisco Chronicle, personal communication, June 18, 2004.

Larocco, Nick, Port of San Francisco, email communications, June 30, July 7, and October 28, 2003.

Nokazowa, Kathy, Port of San Francisco, personal communication, June 18, 2004.

San Francisco, City and County of, Department of Public Works, Street Construction Coordination Center. Streets under Moratorium. (<http://209.77.149.9/sfdpw/sccc/download/morator.pdf>), site visited June 2004.

San Francisco, City and County of, San Francisco Bike Map and Walking Guide (<http://sfgov.org/cap/pages/map.pdf>), site visited June 2004.

San Francisco, City and County of, San Francisco General Plan.

San Francisco Transportation Authority (<http://www.sfcta.org/Publications/DataPage.htm>), site visited June 2004.

Wilbur Smith Associates, Southern Waterfront Project Transportation Study, 2000.