The City of Emeryville's Application for SB1 - Trade Corridor Enhancement Program

Prepared for:

California Transportation Commission

City of Emeryville
INCORPORATED 1896
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January 22, 2018
Susan Bransen, Executive Director
California Transportation Commission
1120 N Street, MS-52
P.O. Box 942873
Sacramento, CA 95814

Dear Ms. Bransen:

Attached to this cover letter is the City of Emeryville's application for funding from the 2018 Trade Corridor Enhancement Program to construct Quiet Zone Safety Engineering Measures on 65th, 66th, and 67th Streets on UP's Martinez Subdivision in northwest Emeryville.

The UP-Martinez Subdivision tracks, located through Emeryville, provide an important link in the region's freight and passenger rail network. Local and regional freight and passenger traffic traveling from the Bay Area to Sacramento, the Central Valley, and all along the West Coast from Seattle to San Diego all rely on this corridor to move goods and people. Future freight train growth is estimated to be a function of growth experienced at the nearby Port of Oakland, a major economic engine for the region.

The City has received numerous complaints over the years about the noise of train horns including loss of sleep, interruption of phone conversations and meetings, and a decline in the peace and well-being at their homes. As seen in the letters of support in our application, there is a wide distribution of residents and business owners throughout our city that are affected by train noise. With a city of our size (1.28 square miles), the train noise expands out and reaches nearly our entire population.

Due to these complaints, the City contracted with a consultant and completed a feasibility study for specific improvements to address these community concerns. By installing Supplemental Safety Measures (SSM's) and ultimately establishing a Quiet Zone at the rail crossings at 65th, 66th, and 67th Streets, the detrimental effects of having a major freight/passenger train corridor running through our city will be greatly reduced and thereby improving the quality of life in these communities surrounding the tracks.

The City does not have funding to construct these improvements, however we have been working closely with the Alameda County Transportation Commission and the Metropolitan Transportation Commission to discuss our needs and a plan of action. Both agencies are in support of this project, and there are multiple regional transportation documents and goals that further support this project. To name a few, there is Plan Bay Area 2040, Alameda County Goods Movement Plan, Alameda Countywide

Transportation Plan, MTC's San Francisco Bay Area Goods Movement Plan, and the Draft State Rail Plan.

Specifically, the Alameda Countywide Goods Movement Plan identifies the Martinez Subdivision as the primary freight route heading north out of the Port of Oakland, connecting the Bay Area and Sacramento regions. In this document, improvements are needed on this corridor that facilitate the more efficient movement of freight, support additional passenger train services, and reduce impacts on local communities.

In closing, securing funding from the 2018 Trade Corridor Enhancement Program for a Quiet Zone at 65th, 66th, and 67th Streets on UP's Martinez Subdivision will allow the City to construct these much-needed improvements thereby strengthening safety, maximizing operational efficiencies, minimizing air and noise pollutants and impacts to at risk communities.

I thank you for your time and consideration.

Sincerely,

Carolyn Lehr
City Manager, City of Emeryville

B. Confirmation any new terminal project will not have significant environmental impacts.

This project is not a new terminal project, nor will it have significant environmental impacts, as described in related environmental documents as a result of the storage, handling, or transport of coal in bulk pursuant to Government Code Section 14525.3.

C. Confirmation that any capacity-increasing project or a major street or highway lane realignment project was considered for reversible lanes pursuant to Streets and Highways Code Section 100.15.

This project is not a capacity-increasing project nor a major street/highway lane realignment project. Reversible lanes were not considered as Streets and Highways Code Section 100.15 is not applicable to this project.

D. Project and its proposed benefits including:

i. Project title

Quiet Zone Safety Engineering Improvements in City of Emeryville at the 65th, 66th, and 67th Street At-Grade Crossings

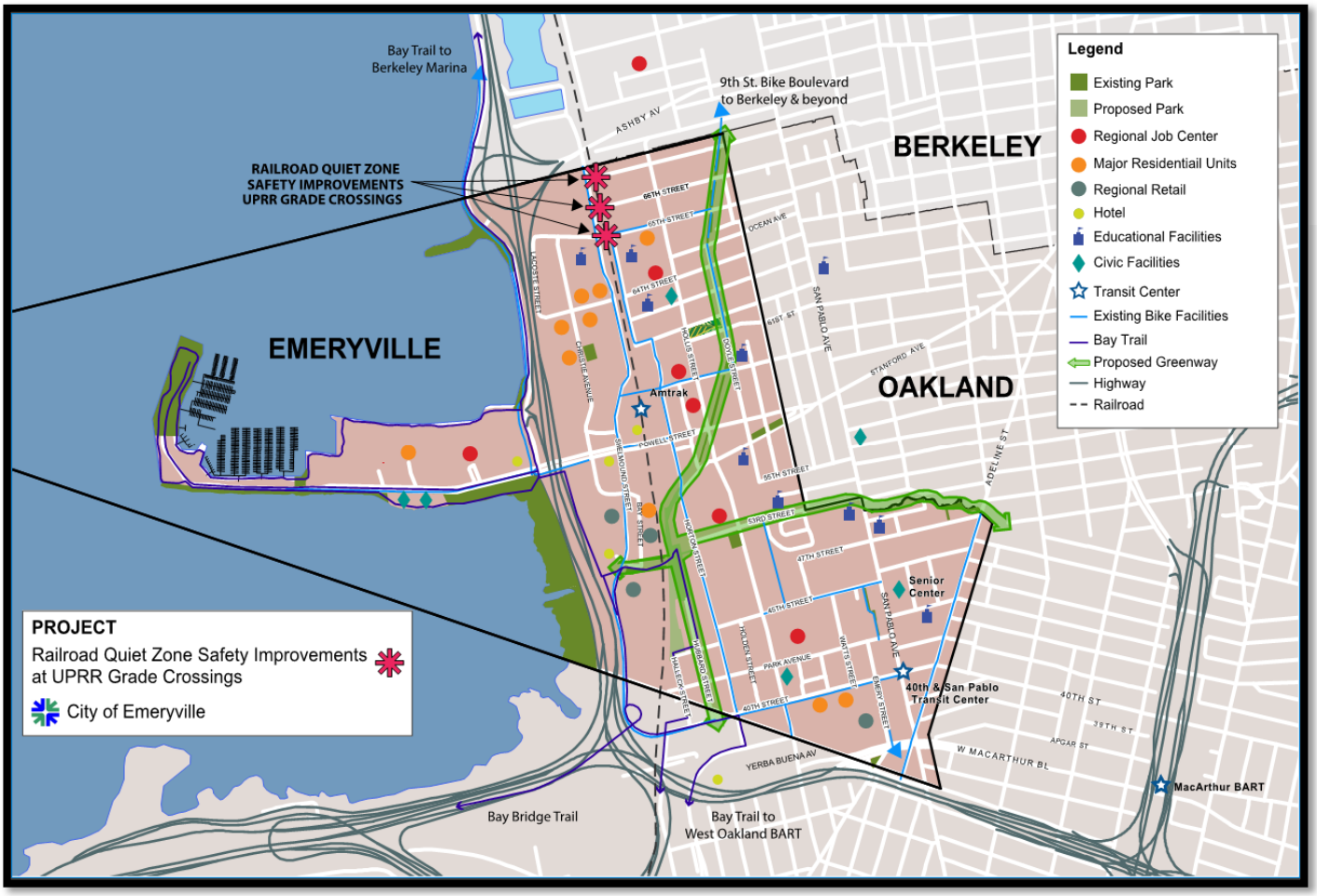

Figure 1 – Overall Map of Proposed Project

Figure 2 – Existing Conditions (Aerials taken in 2017) of the 65th, 66th, and 67th Street At-Grade Crossings

ii. Project priority (if agency is submitting multiple applications)

This is the only application that the City of Emeryville is submitting.

iii. Project background and a purpose and need statement

Emeryville is a thriving city located adjacent to the Port of Oakland, and the primary freight rail corridor serving the Port of Oakland and connecting it to the national rail network, the Martinez Subdivision, runs directly through the heart of growing commercial and residential neighborhoods. There are three at-grade highway-rail crossings in Emeryville. These are located at 65th, 66th, and 67th Streets, all of which cross the Union Pacific (UP) Railroad's Martinez Subdivision in northwestern Emeryville. The UP tracks are used throughout the day (24-hour schedule) by 60 daily trains, with passenger trains more numerous than freight trains. According to federal regulations, engineers of all these trains must sound their train horns when approaching the grade crossings. In the future, the number of trains operating on this corridor will increase, resulting in increased safety risks due to conflicts between trains and autos, bikes and pedestrians, and a greater frequency in train horning soundings.

The establishment of a Quiet Zone in Emeryville would greatly reduce the existing and future safety and noise impacts from freight activity. The implementation of a Quiet Zone would include safety engineering improvements that would improve safety for people living and doing business in Emeryville, and reduce the Quiet Zone Risk Index for all the crossings.

iv. A concise description of the project scope and anticipated benefits

In Emeryville, there are three at-grade crossings of the Martinez Subdivision on 65th Street, 66th Street, and 67th Street just east of Shellmound Street. In 2008, a Quiet Zone Feasibility Study was done to address the impacts of train horns on nearby land uses and safety at the crossings. The study recommended installation of four-quadrant gates at the at-grade crossings, amongst other safety engineering improvements.

It is projected that safety conflicts and train noise will increase as the Port of Oakland expands its freight activity and the number of trains passing through Emeryville grows. Noise impacts are one of the most difficult areas of conflict between freight uses and more sensitive land uses such as residential, schools, and recreational facilities. Emeryville is a very dense city, with many land uses concentrated around the rail line as the city and region concentrate growth near existing infrastructure as part of the region's Sustainable Communities Strategy, Plan Bay Area 2040. A quiet zone and safety improvements in Emeryville would greatly reduce the scale of impacts to adjacent land uses, and is expected to have significant benefits to land use conflicts. A net reduction in noise impacts to the nearby communities can also improve the fairness of the distribution of total environmental burdens in the City, thereby improving horizontal equity.

v. **Freight Goals**

Freight is vital to not only the State of California but also the Bay Area region, where roughly a third of all jobs are associated with goods movement. Emeryville is home to a vital segment of the freight network and thus experiences significant local impacts from the regional and national freight movements. The Union Pacific tracks that run through the City are used daily by both passenger and freight trains. Emeryville continues to see population growth, job growth, increased train volumes running through the City, and higher demand to live near jobs. As the City is

experiencing an evolution from its past industrial uses, there is a critical need to balance mobility and safety while protecting communities and the environment.

The City of Emeryville's Project addresses major deficiencies to UP's Martinez Subdivision in northwestern Emeryville at three at-grade highway-rail crossings at 65th, 66th, and 67th Streets. In 2008, the City completed a feasibility study for improvements along this corridor and these improvements will not only improve the quality of life of the residents in Emeryville but will also positively impact the residents in Berkeley, West Oakland, and the entire East Bay region. These improvements will strengthen safety, maximize operational efficiencies, minimize air and noise pollutants and impacts to at risk communities.

The Project furthers the goals of the California Freight Mobility Plan including:

Economic Competitiveness

- The improvements described in this funding request are of critical importance nationally, regionally, and locally. The UP-Martinez Subdivision tracks, located through Emeryville, provide an important link in the region's freight and passenger rail network. Local and regional freight and passenger traffic traveling from the Bay Area to Sacramento, the Central Valley, and all along the West Coast from Seattle to San Diego all rely on this corridor to move goods and people. It is the primary national rail network connecting the Port of Oakland to the Midwest, and is used to both transport imports to the rest of the nation and also provides a key rail export link for agricultural goods traveling from the Midwest to the Port of Oakland.
- This project will allow the freight line to operate in an efficient and productive manner while improving the safety and quality of life in the nearby communities. Specifically, the three at-grade railroad crossings will not only protect pedestrians, bicyclists, and automobiles from train collisions, but will also allow the line to operate without any accidents or interruptions.
- Future freight train growth is estimated to be a function of growth experienced at the nearby Port of Oakland, a major economic engine for the region. The UP-Martinez Subdivision is the major gateway to the Port of Oakland and these proposed improvements will not only enhance the economic competitiveness of the Port and region, but allow for freight trains to get there without interruption.

Safety & Security

- Over the years, Emeryville land uses have changed from primarily industrial uses to more residential, office, and commercial development. In addition, train traffic has increased resulting in more frequent sounding of train horns felt particularly by residents during evening and night hours and by office workers during daytime hours. New apartment complexes are located on either side of the tracks, and multiple office campuses are located in the surrounding area. Numerous commercial establishments and a hotel are located nearby. By creating Quiet Zones at the rail crossings at 65th, 66th, and 67th Streets, noise (particularly during sleeping hours) will be greatly reduced thereby affecting the quality of life in these communities surrounding the tracks.
- Additionally, this project will improve the safety and security of freight since this project will greatly reduce rates of incidents, collisions, fatalities, and serious injuries that may occur with freight in a built out urban environment at these three major intersections. Emeryville planning and zoning regulations favor infill developments in the surrounding areas, and there is expected population growth from the adjacent land uses that will increase number of conflicts and risks of crossing at these intersections.

- As shown in Section D.xix, the City used the Federal Railroad Administration's (FRA) WEB Accident Prediction System (WBAPS) to see the accident reduction benefits of this project. Applying the 90% reduction in risk to the average predicted collision rates from the WBAPS, the 100-year number of collisions is expected to decrease by 3-5 collisions, from 4-5 collisions (with no improvements) to 0-1 collisions (with proposed improvements).

Freight System Infrastructure Preservation

- Funding for this application will provide for sustainable maintenance to the rail infrastructure by safe guarding these three critical intersections from future accidents thereby keeping the system intact and in a state of good repair.

Environmental Stewardship

- The City has received numerous complaints about the noise of train horns including loss of sleep, interruption of phone conversations and meetings, and a decline in the peace and well-being at their homes. The train noise will increase as the Port of Oakland expands its freight capacity and the number of trains passing through Emeryville grows in the future which includes residential and commercial growth. This project will avoid and reduce adverse environmental and community impacts of the freight transportation system by creating a quiet zone and greatly minimizing the existing conditions on the residents and low-income communities.
- This project will integrate health and social equity considerations, as the quiet zones will have the biggest impact on low income neighborhoods near the three intersections. The quiet zones will greatly reduce noise pollution thereby mitigating the negative context of the project location.

Innovative Technology & Practices

- The City of Emeryville's proposal utilizes innovative technology and practices to optimize the efficiency of the freight transportation system while minimizing community impacts. The traffic signal at 65th Street utilizes video detection technology and wireless communications infrastructure. This ITS infrastructure helps the City keep tabs on current traffic situations in the area remotely, and gives the ability to set performance alarms for any interconnected infrastructure in the area. By installing new barriers and other capital improvements to the three intersections and creating quiet zones, the City will utilize current best practices and improve the quality of life for residents in the vicinity of the rail line and the region.

vi. A description of how local residents and community based organizations were engaged in developing the project.

The City has received numerous complaints over the years about the noise of train horns including loss of sleep, interruption of phone conversations and meetings, and a decline in the peace and well-being at their homes. Vulnerable populations such as the elderly, infants and the ill are particularly impacted. With a city of our size (1.28 square miles) and north-south alignment along the tracks, the train noise expands out and reaches nearly our entire population.

As shown in the letters of support in Attachment A, there is a wide distribution of people throughout our city that are affected by train noise. In January 2018, residents, homeowner's associations, and business owners were asked in an email campaign to sign on to support our Mayor's letter which highlighted the importance of this project. The response from the community was swift and overwhelmingly in support of this project. With emails of support still coming in as the application

was due, we had nearly a thousand residents, businesses, and employees voice their support for this project in a short time frame.

Due to these same types of concerns in 2008, the City contracted with a consultant and completed a feasibility study for specific improvements to address these community concerns. The study showed that by installing Supplemental Safety Measures (SSM's) and ultimately establishing a Quiet Zone at the rail crossings at 65th, 66th, and 67th Streets, the detrimental effects of having a major freight/passenger train corridor running through our city will be greatly reduced. This project would greatly improve the quality of life in these communities surrounding the tracks.

Since the 2008 study, the City has included the creation of railroad quiet zones as a mostly unfunded project within our Capital Improvement Plan. On December 19, 2017, the City of Emeryville's City Council gave staff unanimous direction to pursue and prioritize funding that could bring rail safety improvements to the street-grade crossings at 65th, 66th, and 67th Streets, with the added benefit of creating train horn quiet zones. During the public comment period of council, many members of the public came up to speak and express their desire to prioritize this project.

vii. A description of how the final project will address community-identified needs along with a description and quantification of the benefits the project will provide for disadvantaged communities and low-income areas.

Community Demographics (Low-Income Areas)

As documented by ongoing community complaints, freight transportation also produces noise, undesirable nighttime lighting, vibrations and traffic congestion, all of which affect the quality of life in communities surrounding freight facilities. Each of these needs to be addressed within the context of the communities where they occur and through larger programs that seek to reduce impacts across many communities or address a specific cause at the source. Such impact reduction projects should be eligible for funding from freight program sources, not just as mitigations for new projects but also as improvements for existing problems.

The impacts and the potential solutions are highly dependent on the specific location of the freight activities. For these three locations, the major nuisance is noise which has been a longstanding issue. The worst effects impact the above-mentioned census tracks while the benefits of freight movement are shared by a larger population at the regional, state, or national level. The communities surrounding the freight network are typically being minority, low income, and disproportionately impacted by environmental pollution. Since it has been found that these disadvantaged communities suffer disproportionally high levels of impacts, these locations are well suited for the early implementation of improved approaches to impact reduction. As shown in Table 1, the population of the 94608 zip code (which includes Emeryville and the surrounding areas adjacent to the UPRR Mainline in West Oakland) faces greater socioeconomic disadvantages than the California average.

Table 1 – Community Demographics

Indicator	94608 Zip Code	California	United States
Median Household Income	$58,917	$61,818	$53,819
Persons in Poverty	16.6%	16.3%	15.5%
High School Education	91.9%	81.8%	86.7%
Percent Minority*	62.6%	61%	38%
Source: US Census Bureau. American Community Survey. 2015 5-year estimates			

Furthermore, there are many nearby residents that live just outside of the 94608 zipcode, but attend the schools in Emeryville Unified School District (EUSD). As of the 2017/2018 school year at EUSD, 75.75% of the students enrolled are qualified under the Free and Reduced Priced School Meal programs. To qualify for the program, a household must meet income eligibility requirements that are based on Federal income poverty guidelines. The guidelines are intended to direct benefits to those children most in need and are revised annually to account for changes in the Consumer Price Index.

Disadvantaged Communities

Local and regional freight and passenger traffic traveling from the Bay Area to Sacramento, the Central Valley, and all along the West Coast from Seattle to San Diego all rely on this corridor to move goods and people. Future freight train growth is estimated to be a function of growth experienced at the nearby Port of Oakland, a major economic engine for the region. Many local communities are impacted by freight transportation-related air pollution, noise, and traffic congestion which includes low income and disadvantaged neighborhoods in Emeryville, adjacent Berkeley, and nearby West Oakland that this project is seeking to address.

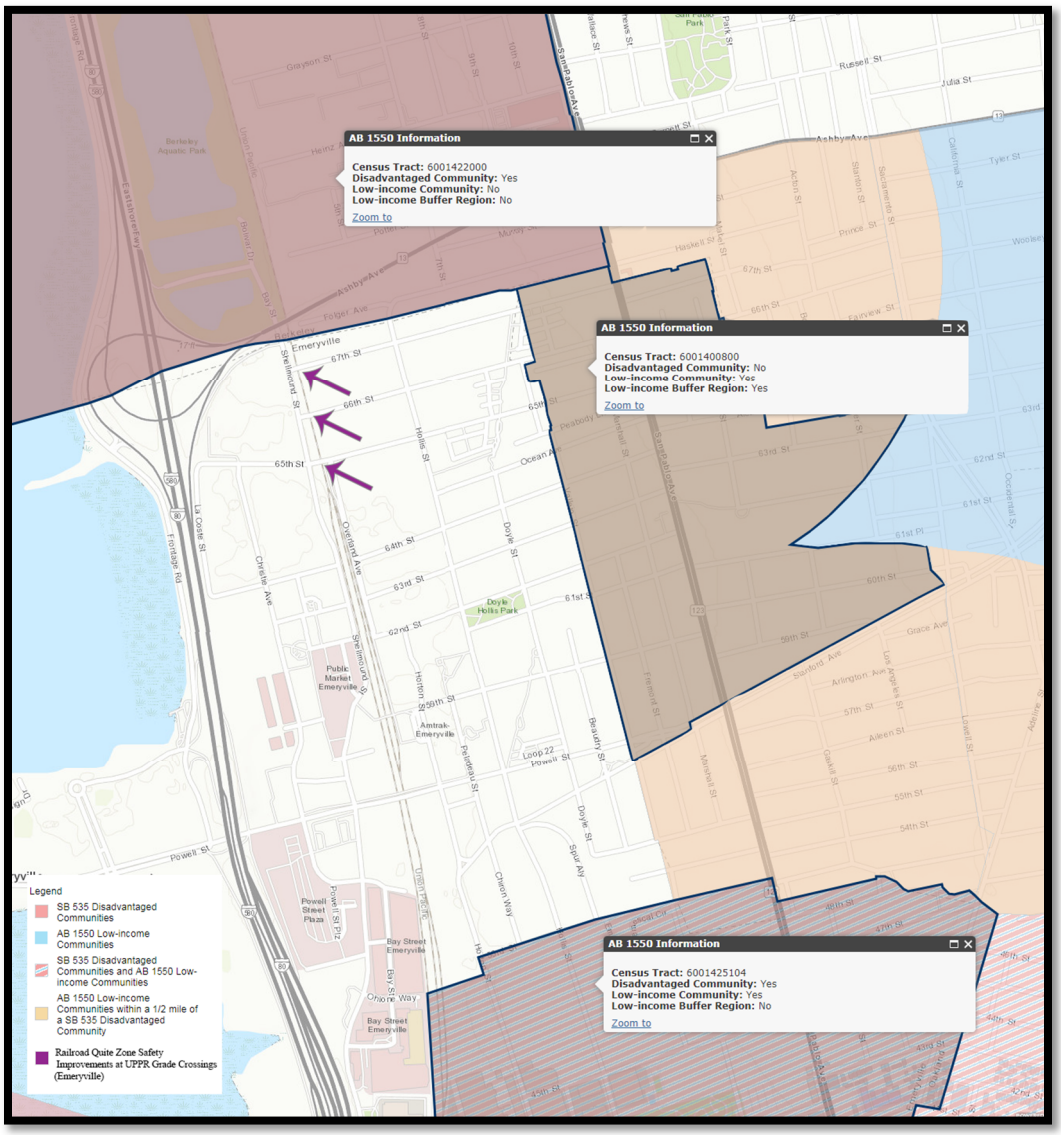

Figure 3 – Nearby Disadvantaged Communities

As shown in Figure 3 above, the proposed improvements are: one block away from Census Tract 6001422000 which is an identified disadvantaged community, two blocks away from Census Tract 6001400800 which is both a low-income community and a low-income buffer region, and in the noise impact range of Census Tract 6001425104 which is both a disadvantaged community and low-income community.

viii. A description and map (or maps) of how the final project will address community identified needs along with a description and quantification of the benefits the project will provide for other communities not falling under the above definitions.

The final project will address community identified needs by installing supplemental safety measures (SSM's) and other physical barriers to restrict pedestrians, bicyclists, and automobiles from entering the train tracks at the wrong time thereby negating the need for trains to blow their horns. The SSM's that will be installed include adding four-quadrant gates and installing raised medians, sidewalks, and other safety features to each crossing. The proposed safety engineering improvements are expected to significantly reduce the risk of rail-highway collisions at the project railroad crossings.

Figure 4 – Adjacent Local/Regional Facilities

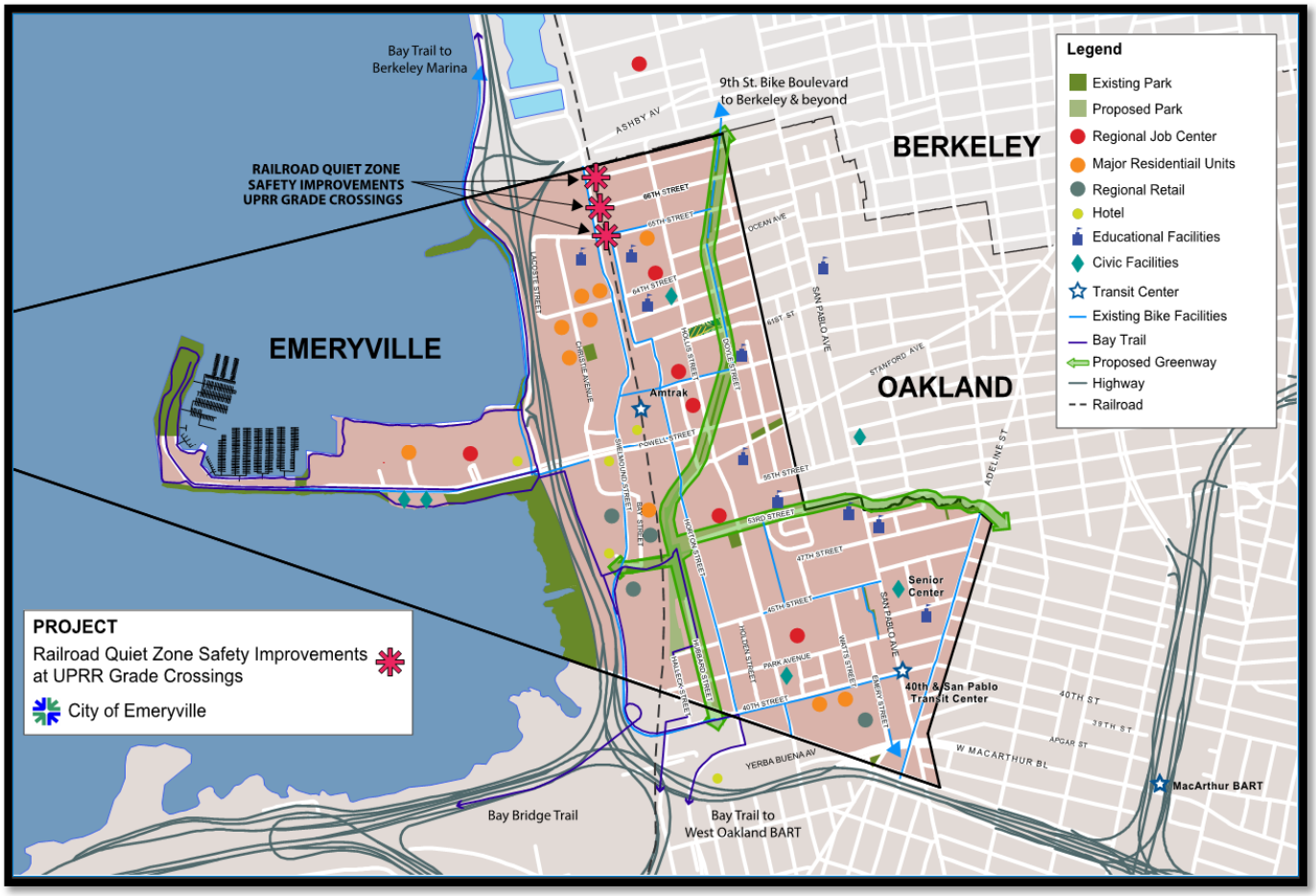

Figure 4 above shows that within the project area there are eight educational facilities, ten major residential complexes (affecting thousands of households), six regional job centers, four regional retail centers, four hotels, open space, and a major transit center. All of these elements will greatly

benefit from the reduction in train noise thereby increasing the quality of life and productivity in the region.

Noise Concerns

Noise can be defined as a sound or series of sounds that are intrusive, irritating, objectionable and/or disruptive to daily life. Background noise is primarily the product of many distant noise sources, which constitute a relatively stable noise background exposure, with individual contributors unidentifiable. Noise levels are also affected by short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual. The known effects of noise on humans include hearing loss, communication interference, sleep interference, physiological responses, and annoyance.

People in residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, natural areas, parks and outdoor recreation areas are generally more sensitive to noise than are people at commercial and industrial establishments. Consequently, noise standards for sensitive land uses are more stringent than for those at less sensitive uses. To protect various human activities in sensitive areas, lower noise levels are generally required.

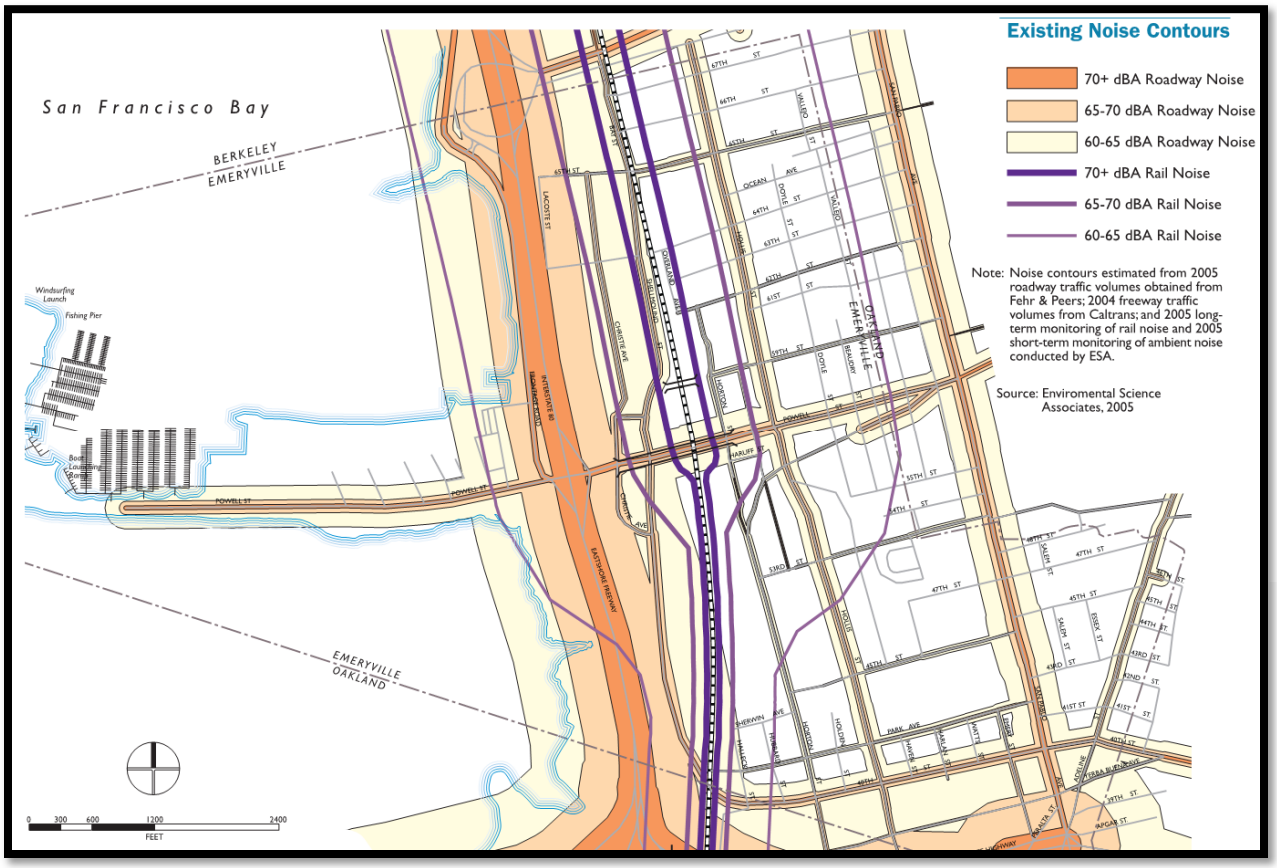

Figure 5 – Existing Noise Contours in Emeryville

As depicted in Figure 5 above, noise levels vary along the railroad tracks, showing higher noise levels in areas where surface crossings occur, generally north of Powell Street. Train noise, however intermittent, is a major source of noise due to its magnitude. Locomotive engines and the interaction of steel wheels and rails generate primary rail noise. Train air horns and crossing bell gates contribute to loud noise levels near grade crossings.

In a 2017 study done as part of the Alameda County Rail Strategy Study, draft grade crossing prioritization analysis, a residential noise index was developed that estimates noise impacts based on the product of the residential population within one-quarter mile of a rail line and the number of trains that use that rail line as shown in the equation below.

Residential Noise Index = (Number of trains) x (Number of residents within ¼ of crossing)

Table 2 – Grade Crossings with Highest Residential Noise Index

Street Name	Crossing Corridor	Number of Trains	Population Within 1/4 Mile of Crossing	Residential Noise Index
65th St.	Martinez – Emeryville	60	1,820	109,000
66th St.	Martinez – Emeryville	60	1,580	95,000
67th St.	Martinez – Emeryville	60	1,250	75,000
29th Ave.	Niles – East Oakland	32	2,090	67,000
Cherry St.	Niles – Centerville	33	1,850	61,000
Blacow Rd.	Niles – Centerville	33	1,850	61,000
Cedar Rd.	Niles – Centerville	33	1,800	59,000
Sycamore St.	Niles – Centerville	33	1,780	59,000
Dusterberry Way	Niles – Downtown District – Fremont	33	1,740	58,000
Maple St.	Niles – Downtown District – Fremont	33	1,500	49,000

The value of one-quarter mile was utilized, because that is the approximate distance at which noise from train horns becomes roughly equivalent to daytime noise in an urban environment. From Table 2 above and Figure 6 below, the three crossings in Emeryville are ranked as the worst three crossings in Alameda County for Residential Noise Index.

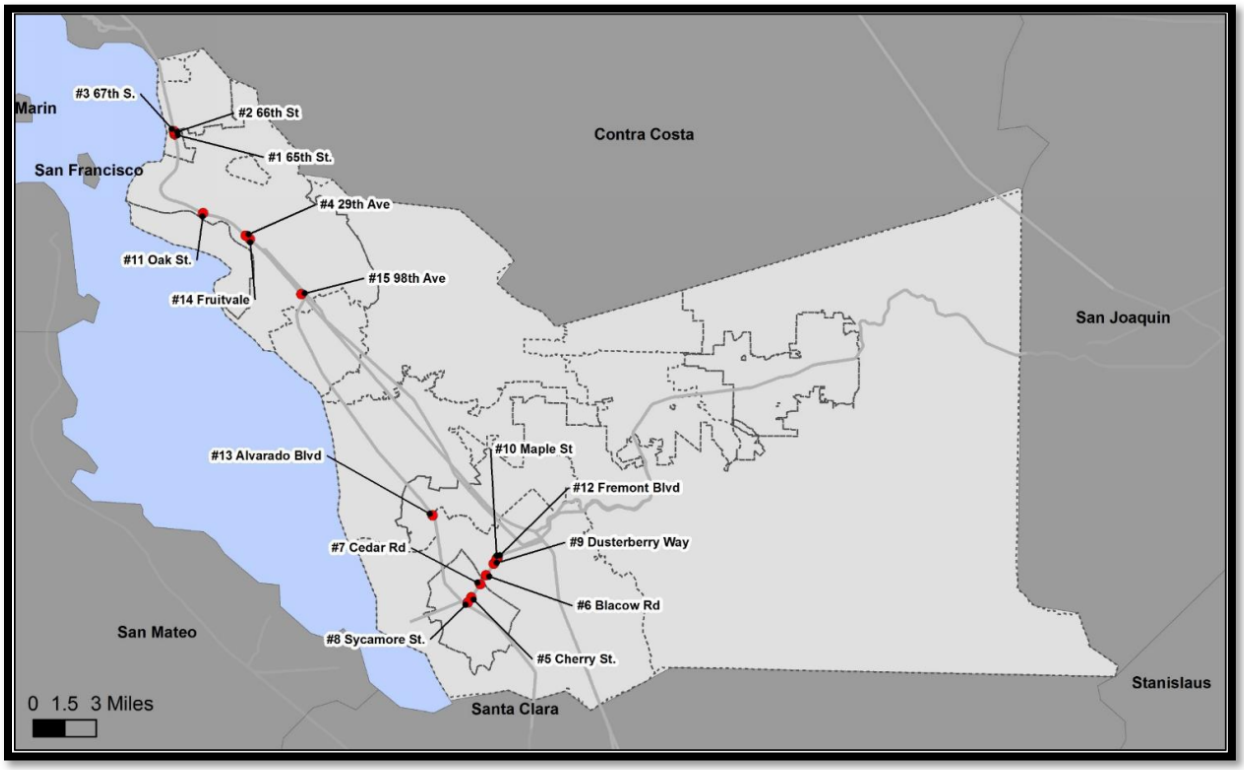

Figure 6 – Top 15 Alameda County Crossings for Residential Noise Index

ix. Project cost estimate

Bid Item	QUANTITY	UNITS	UNIT COST	COST
Mobilization (15%)	1	LS	$ 473,000	$ 473,000
Traffic Control (5%)	1	LS	$ 158,000	$ 158,000
Surveying and Construction Staking (2%)	1	LS	$ 63,000	$ 63,000
Water Pollution Control (2%)	1	LS	$ 63,000	$ 63,000
Utility Coordination (2%)	1	LS	$ 63,000	$ 63,000
Grading (2%)	1	LS	$ 63,000	$ 63,000
Remove Existing Standard Gate	6	EA	$ 10,000	$ 60,000
Railroad Cabinet	3	EA	$ 225,000	$ 675,000
Standard 9 Combo Gate	4	EA	$ 100,000	$ 400,000
Standard 9D Combo Gate	8	EA	$ 175,000	$ 1,400,000
Conduit	3	LS	$ 100,000	$ 300,000
Conductors	3	LS	$ 30,000	$ 90,000
Median Improvements	400	SF	$ 75	$ 30,000
Sidewalk Improvements	4000	SF	$ 50	$ 200,000
Misc Other Improvements (e.g. fencing)	1	LS	$ 100,000	$ 100,000
			Subtotal	$ 4,138,000
			Contingency	$ 1,241,000
			Construction Administration/ DSDC	$ 621,000
			Total Construction Cost	**$ 6,000,000**
			PA/ED	$75,000
			PS&E	$405,000
			Total Project Cost	**$ 6,480,000**

Figure 7 – Cost Estimate

See Attachment B (or Figure 7 above) for estimated construction costs of proposed safety improvements. The cost estimate was made using construction estimates from recent rail projects in the Bay Area that were then escalated to the year of proposed implementation.

The City has budgeted $75,000 for the Project Approval and Environmental Document Phase of this project, and has $405,000 from existing transportation accounts that will be used towards the Plans, Specifications, and Estimate phase of the project. On December 19, 2017, the City of Emeryville's City Council gave staff unanimous direction to pursue and prioritize funding that could bring rail safety improvements to the street-grade crossings at 65th, 66th, and 67th Streets. The management and elected leaders of Emeryville are united on securing funds and re-prioritizing other projects to successfully fund and construct this project under the timelines of the 2018 Trade Corridor Enhancement Program.

The City Manager of Emeryville has signed off on the cost estimate assuring that if any cost overruns are experienced on this project, that the City will need no additional funding from this program and the City will be able to absorb the costs under existing transportation accounts.

x. Preconstruction project components

The City of Emeryville intends to fund all preconstruction project components using local funding sources. A feasibility study was done in 2008 that outlines the scope of supplemental safety measures needed at these crossings, and it also outlines the necessary steps needed by the implementing agency in getting the project approved and ready for construction. The City plans to complete the PA/ED, PS&E, and ROW phases necessary to get the E-76 "Authorization To

Proceed" for Construction by 2019. With that timeline, the City expects to have a completed project by end of 2020 if funded through this program.

xi. A description that demonstrates the ability to absorb any cost overruns and deliver the proposed project with no additional funding from this program, except as noted in Section 9 of these guidelines.

See Attachment B (or Figure 7 from Section D.ix) for estimated construction costs of proposed safety improvements. The cost estimate was made using construction estimates from recent rail projects in the Bay Area that were then escalated to the year of proposed implementation.

If there are any cost overruns on this project, the City of Emeryville has estimated a sufficient amount of contingency funds to cover these unexpected costs. A contingency of 30% and a Construction Administration/ Design Services During Construction (DSDC) of 15% were added to construction costs.

The City Manager of Emeryville has signed off on the cost estimate assuring that if any cost overruns are experienced on this project, that the City will need no additional funding from this program and the City will be able to absorb the costs under existing transportation accounts. If needed in an emergency, the City has an assessment district improvement fund that covers this area that could cover up to a 20% cost overrun.

xii. A description of the project delivery plan

Staff expects to complete the Project Approval and Environmental Document (PA&ED), Plans, Specifications, and Estimate (PS&E), and Right-Of-Way Certificate (ROW) phase of the project in Fiscal Year 2018/2019. The preliminary PA&ED phase documents are nearly ready to be submitted to Local Assistance Staff, and the environmental clearance is expected to be delivered in 2018. The PS&E phase would overlap with the PA&ED phase and be completed by late 2018 or early 2019. As there are no ROW acquisitions or encroachments, the ROW phase will only be a formality that can be quickly completed.

With all of these phases completed, the project should be able to get the E-76 "Authorization To Proceed" for Construction by 2019. With this timeline, the City expects to have a completed project by end of 2020 if funded through this program.

Concurrently as the project goes through the Caltrans Local Assistance Process, the City will be actively working with Union Pacific and the California Public Utilities Commission (CPUC) to assure that all of the necessary safety improvements are being scoped out on this project. Staff from the City of Emeryville has past working experience designing and implementing Supplemental Safety Measures for existing at-grade crossings in Southern California where ultimately the project team was able to establish Quiet Zones. The largest takeaway from that process was to maintain consistent contact with staff from Union Pacific and CPUC in order to avoid unexpected hurdles in construction.

The funding for the non-construction phases are going to be secured through local funding sources, where the City Council has specifically expressed high desire for this project to be completed. On December 19, 2017, the City of Emeryville's City Council gave staff unanimous direction to pursue and prioritize funding that could bring rail safety improvements to the street-grade crossings at 65th, 66th, and 67th Streets. If needed in an emergency, the City has an

assessment district improvement fund that covers this area that could cover up to a 20% cost overrun.

xiii. A description of the transportation corridor and the function of the proposed project within the corridor.

Much of the region's rail system is shared by passenger and freight rail traffic, and several of the key interregional rail corridors already experience capacity constraints. The region has plans to expand intermodal rail and bulk rail terminals to meet the future demands for goods movement without increasing truck traffic on overburdened highways. Increasing traffic on rail lines also will create safety and community impact challenges that will require improvements to at-grade crossings or new rail quiet zones.

The rail system interacts directly with the roadway system where roads cross railroad tracks at-grade. At-grade crossings introduce safety concerns (risk of derailment, emergency response time), and traffic delay issues to the overall transportation system. Crossing safety and traffic delay (including to buses) are related to both roadway traffic volumes and the number of trains using the route. As traffic and train volumes both increase, so do the number of accidents and the amount of traffic delay.

In 2008, the City of Emeryville conducted a study assessing the viability of improving safety at several at-grade railroad crossings. The crossings studied are at 65th Street, 66th Street, and 67th Street along the railroad parallel to Shellmound Street. Based on this study, the City decided that adding four-quadrant gates and installing raised medians at each crossing was the best approach for improving safety. The supplemental safety measures installed by this project are expected to significantly reduce the risk of rail-highway collisions at the project railroad crossings.

The City expects to see a reduction risk of 90% with this project (see Section D.xix). Major rail-highway collisions are less likely to occur after this project is constructed. While there are associated safety social cost benefits, this also means that there will be reduced risk of major delays to the freight corridor and transportation corridor that intersect with these crossings.

xiv. A description of the projected quantification and qualitative measures of the proposed improvements as described in the Evaluation Criteria in Section 16.

Freight System Factors

- Reliability – Project Reduces the variability and unpredictability of travel time
    - With an expected reduction risk of 90% (see Section D.xix), major rail-highway collisions are less likely to occur with this project constructed. This means that there will be reduced risk of major delays to the freight corridor and transportation corridor that intersect with these crossings.

Transportation System Factors

- Safety – Project increases the safety of the public, industry workers, and traffic
    - From Section D.xix, the QZRI shows a 90% reduction in risk after the installation of the proposed safety improvements, from 55,762 (with no improvements) to 5,467 (with proposed improvements). Applying the 90% reduction in risk to the average predicted collision rates from the WBAPS, the 100-year number of collisions is expected to decrease by 3-5 collisions, from 4-5 collisions (with no improvements) to 0-1 collisions (with proposed improvements).

- Interregional Benefits – Project links regions/corridors to serve statewide or national trade corridor needs
    - In the Draft State Rail Plan, this project meets Goal 5: Foster Livable and Healthy Communities and Promote Social Equity. The State supports integrating social equity in the rail planning process. The 2040 Vision plans for many more access points to a transportation network than exist today, or that were envisioned previously, providing economic benefits and opportunities to disadvantaged communities in the state. Implementation actions and investment supported by the 2040 Vision are also associated with discussion and evaluation of improvements to possible community impacts of rail service, including **establishment of quiet zones** and implementation of grade crossing improvements to make rail corridors good neighbors.

- Advanced Technology – Project employs advanced and innovative technology, such as Intelligent Transportation Systems (ITS), or includes supporting infrastructure for deployment of current and future technologies, such as zero and near-zero emission equipment or vehicles or ITS elements.
    - The City of Emeryville's proposal utilizes innovative technology and practices to optimize the efficiency of the freight transportation system while minimizing community impacts. The traffic signal at 65th Street utilizes video detection technology and wireless communications infrastructure. This ITS infrastructure helps the City keep tabs on current traffic situations in the area remotely, and gives the ability to set performance alarms for interconnected infrastructure in the area.

Community Impact Factors

- Community Impact Mitigation – Project reduces negative impacts on communities (noise, localized congestions, safety, public health, etc.)
    - The proposed safety engineering improvements are expected to significantly reduce the risk of rail-highway collisions at the project railroad crossings.
    - Noise impacts are one of the most difficult areas of conflict between freight uses and more sensitive land uses such as residential, schools, and recreational facilities. A Quiet Zone in Emeryville would greatly reduce the scale of impacts to adjacent land uses, and is expected to have significant benefits to land use conflicts. A net reduction in noise impacts to the nearby communities can also improve the fairness of the distribution of total environmental burdens in the City, thereby improving horizontal equity.
    - Lack of sleep and disruption of sleep is routinely reported by residents. A study conducted by the University of Michigan in Alameda County from 1947 to 1972 found seven risk factors associated with poor physical health and excess mortality, with one factor being that sleeping fewer than seven to eight hours per night.
    - Attractiveness of residential units near the UPRR facilities with the implementation of a Quiet Zone could result in additional high density residential units near regionally linked transportation infrastructure which include the nation's first neighborhood LEED platinum-rated neighborhood and a free shuttle service to BART, reducing average vehicle miles traveled for residents.

- Economic/Jobs Growth – Project stimulates local economic activity, enhances trade value, and preserves/creates jobs
    - Emeryville (particularly North Emeryville adjacent to the tracks) is "very walkable" with a walk score of 87 at 65th Street. After the project is completed, there will be

improved pedestrian mobility through the corridor which will help stimulate the local city businesses in the area.
- Major businesses including movie production, regional retail, pharmaceuticals, and food sciences all work within a block of the rail tracks where conference calls are frequently interrupted, or meetings are brought to an abrupt halt.
- Significant investments are put into new nearby developments adjacent to the tracks, such as triple-paned windows.

California Freight Mobility Plan

- The UPRR Martinez Subdivision (Oakland to Martinez) is listed as one of the top 11 rail bottlenecks/chokepoints in the state.
  - With an expected reduction risk of 90% (see Section D.xix), major rail-highway collisions are less likely to occur with this project constructed. This means that there will be reduced risk of major delays to the freight corridor and transportation corridor that intersect with these crossings.

Commitment from Nearby Agencies

- The City of Berkeley has at-grade crossings on the same segment of the UPRR Martinez Subdivision that they have identified as likely candidates for safety engineering improvements, and ultimately a Quiet Zone. The City of Berkeley is applying for the same TCEP grant, and is another recommended project coming from ACTC and MTC. If both projects were constructed (Emeryville's and Berkley's), it would be of great benefit to the surrounding neighborhoods and communities.

xv. Local and corridor effects of the project on diesel particulate

The TCEP application required the completion of the California Life-Cycle Benefit Cost (Cal LCBC) v6.2 model. The City completed the model using the following input and assumptions:

- Average Daily Traffic (ADT) – Shellmound Street Counts (November 2017)
- 20-Year Forecast ADT – Assumed 2% Annual Growth Rate
- Highway Free-Flow Speed – Assumed Posted Speed Limit
- Highway Segment Length – Shellmound/Powell to Emeryville/Berkeley Border
- Grade Crossing Accident Data – FRA Data (2017)
- Statewide Basic Average Accident Rate – Caltrans Collision Data on State Highways (2014)

Since emissions are calculated based on additional vehicle-miles traveled, the results in the Cal LCBC v6.2 model analysis (as shown in Attachment C) show no impact to diesel particulates, nitrogen oxides, greenhouse gases, or other pollutant emissions. The proposed safety improvements are not expected to impact traffic volumes along adjacent routes.

xvi. A description of how the project furthers the goals, performance measures, and targets of the region's Regional Transportation Plan, and if applicable, it's associated Sustainable Communities Strategy and freight plan.

This Project would advance recommendations from state, regional and local rail and goods movement plans. The segment of the Martinez Subdivision from Oakland to Richmond is the busiest rail segment in the Bay Area and it is also one of the most operationally challenged with both UP and BNSF and the Capitol Corridor operating along this line. The Metropolitan Transportation Commission's San Francisco Bay Area Goods Movement Plan states that any

programs to address rail capacity needs and expand operations in this corridor must acknowledge the already high burden that rail traffic places on nearby communities including Emeryville. A programmatic strategy within this plan proposes to provide funding for rail crossing grade separations, safety improvements, quiet zones, and other approaches to address rail noise impacts on communities along the corridor.

The Draft 2018 California State Rail Plan contains a set of goals to provide benefits to California residents and businesses, while minimizing adverse impacts. In the plan, there is Goal 5: Foster Livable and Healthy Communities and Promote Social Equity. The State supports integrating social equity in the rail planning process. The 2040 Vision plans for many more access points to a transportation network than exist today, or that were envisioned previously, providing economic benefits and opportunities to disadvantaged communities in the state. Implementation actions and investment supported by the 2040 Vision are also associated with discussion and evaluation of improvements to possible community impacts of rail service, including **establishment of quiet zones** and implementation of grade crossing improvements to make rail corridors good neighbors.

In the Alameda County Goods Movement Plan, the rail lines that run parallel to the I-80 Corridor were highlighted in a case study. In this case study, various recommendations and strategies were recommended for the crossings in the UP-Martinez Subdivision. Overall, the plan includes several new programs that would provide prioritized grade-crossing improvements, including safety upgrades, grade separations, and the creation of Quiet Zones to reduce the impacts of increased train traffic on communities.

xvii. A description of the corridor plan or other coordinated management strategy being implemented by the nominator and other jurisdictions within the corridor to preserve corridor mobility.

The UP-Martinez Subdivision is the major gateway to the Port of Oakland, connecting the Bay Area and Sacramento to the Midwest. Future freight train growth is estimated to be a function of growth experienced at the nearby Port of Oakland, a major economic engine for the region. These proposed improvements will not only enhance the economic competitiveness of the Port and region, but allow for freight trains to get there without interruption. This project will allow the freight line to operate in an efficient and productive manner while improving the nearby surroundings. Specifically, the three at-grade railroad crossings will not only protect pedestrians, bicyclists, and automobiles from train collisions, but will also allow the line to operate without any accidents or interruptions.

The Alameda Countywide Goods Movement Plan and the MTC San Francisco Bay Area Goods Movement Plan list key strategies that support goods movement and reduce community impacts. This project would construct improvements to the corridor that facilitate the more efficient movement of freight, support additional passenger train services, and reduce impacts on local communities.

xviii. A description of how the project uses advanced, clean, or innovated technologies to support the freight transportation system.

The City of Emeryville's proposal utilizes innovative technology and practices to optimize the efficiency of the freight transportation system while minimizing community impacts. The traffic signal at 65th Street utilizes video detection technology and wireless communications infrastructure. This ITS infrastructure helps the City keep tabs on current traffic situations in the

area remotely, and gives the ability to set performance alarms for any interconnected infrastructure in the area. By installing new barriers and other capital improvements to the three intersections and creating quiet zones, the City will utilize current best practices and improve the quality of life for residents in the vicinity of the rail line and the region.

xix. Expected benefits of the proposed project justify its costs

The cost of the proposed roadway improvements is approximately $6.0 million. These improvements include adding four-quadrant gates and installing raised medians, sidewalks, and other safety features to each crossing. The proposed safety engineering improvements are expected to significantly reduce the risk of rail-highway collisions at the project railroad crossings.

Due to the infrequency of collisions at railroad crossings, the benefit of reduced collisions is difficult to show in the Cal LCBC v6.2 model. However, given the high levels of growth and activity occurring and projected to occur in the area, the safety risks are expected to increase significantly. The Federal Railroad Administration (FRA) Quiet Zone Risk Index (QZRI) and WEB Accident Prediction System (WBAPS) is a better indicator of the accident reduction benefits and should be used instead of the Cal LCBC v6.2 model to document the expected benefits.

Quiet Zone Risk Index

The use of Quiet Zone Risk Index (QZRI) provides a measure of the relative risk at railroad crossings before and after the addition of safety improvements. QZRI measures the average risk in a proposed quiet zone considering the increased risk of rail-highway collisions caused by not utilizing train horns as warning devices. The factors included in calculating the QZRI include the type of warning device, volume of train and vehicle traffic, and railroad crossing configuration.

Table 3 – Quiet Zone Risk Index Values

SCENARIO	QZRI VALUE
Current 2018 (No Improvements)	55,762
Future 2030 (No Improvements)	68,342
Current (Proposed Improvements: 4-Quad Gates and Medians)	5,467

The QZRI from Table 3 above shows a 90% reduction in risk after the installation of the proposed safety improvements, from 55,762 (with no improvements) to 5,467 (with proposed improvements).

WEB Accident Prediction System

Additionally, the FRA uses WEB Accident Prediction System (WBAPS) to determine predicted accident rate values. The WBAPS looks at data regarding the crossing's physical and operating characteristics, as well as five years of accident history at the crossing. The information provided in the WBAPS report on the Emeryville crossings is shown in Table 4.

Table 4 - WEB Accident Prediction System (WBAPS) Values

CROSSING LOCATION	PREDICTED COLLISION RATE
65th Street (751151M)	0.069634
66th Street (751152U)	0.036682
67th Street (751154H)	0.029333
Existing Average (no improvements)	**0.045216**
Average (with proposed Improvements)	**0.004522**

The predicted collision values in Table 4 are the probability that a collision between a train and a highway vehicle will occur at the crossing in a year. The predicted collision rate for all three railroad crossings without any safety improvements is 4-5 collisions every 100 years. If that rate were reduced by 90% due to safety improvements as the QZRI values suggest, the 100-year number of collisions is expected to decrease by 3-5 collisions, from 4-5 collisions (with no improvements) to 0-1 collisions (with proposed improvements).

Social Cost Analysis

Table 5 – Social Costs of Emeryville Crossings for 2035 conditions

										Social Cost Components			
Street Name	Number of Trains	Max Speed FRA	Freight Speed	Pax Speed	ADT	Historical Number of Crashes (10-year)	Historical Number of Fatalities (10-year)	Population Within 1/4 Mile of Crossing	Residential Noise Index	Accident Cost	Emissions Cost	Value of Time Cost	Vehicle Operating Cost
65th St.	67	70	32	63.2	13,218	0	0	2,816	188,668	$506,449	$5,846	$246,964	$22,669
67th S.	67	70	32	63.2	2,780	0	0	1,923	128,834	$502,941	$1,230	$51,951	$4,769
66th St	67	10	32	63.2	4,703	1	0	2,435	163,161	$131,815	$2,080	$87,867	$8,065

As shown in Table 5 above, the total social costs of the three crossings in Emeryville were studied with a projected year of 2035. The total accident social cost for the three crossings is a combined $1,141,205. Applying a 90% reduction in accident costs based on the QZRI values, the safety benefits of this project can be quantified in a single-year valuation for 2035 at $1,027,085. With the estimated cost of this project at $6,480,000, we can assume an annualized cost of $216,000 using a 30-year useful life. The annualized benefit/cost ratio for this project in 2035 is $1,027,085 divided by $216,000, which is **4.76**.

These favorable numbers do not include additional benefits such as reduced construction costs for new developments associated with mitigating rail horn noises, increased property values due to lack of noise concerns, and additional development occurring in proximity to the track due to reduced impacts.

xx. Is funding proposed to improve private infrastructure?

The City of Emeryville's Project addresses major deficiencies to the Union Pacific's Martinez Subdivision in northwestern Emeryville at three at-grade highway-rail crossings at 65th, 66th, and 67th Streets. Union Pacific procedures state that any current or future warning devices required for the crossings (passive or active) will be installed and maintained by Union Pacific employees or contractors at Emeryville's sole expense.

While the improvements proposed will be ultimately owned and maintained by Union Pacific, nearly all of the benefits fall to the general public. The primary benefit of the proposed safety improvements is the significant reduction in the risk of rail-highway collisions at the project intersections.

E. **Documentation for rail investments should acknowledge and describe how the private railroads, regional agencies and appropriate state agencies will come to agreement on public and private investment levels and resulting benefits.**

Per General Order No. 88-B from the California Public Utilities Commission, the removal, reduction, addition, or change in type of warning devices at each public at-grade crossing, shall not be permitted unless authorized by the Commission. This includes any changes that may affect interconnections with adjacent traffic signals, or any other modification that may impact the safety of the at-grade crossing.

The City of Emeryville has had preliminary talks with Union Pacific Railroad about these crossings and minimum supplemental safety measures (SSM's) have been discussed. The City is ready to institute SSM's that exceed the minimums. The Quiet Zone Risk Index (QZRI) shows a 90% reduction in risk after the installation of the proposed safety improvements, from 55,762 (with no improvements) to 5,467 (with proposed improvements).

Coordination between the agency and the railroad is required when working on railroad right of way, even when the agency has a roadway easement/right of way. The agency must review and consider alternative options to replacing/changing roadways on Union Pacific property, as well as consider overall safety concerns for both the railroad and highway users. This review should cover activities prior to, during and after work is to be performed.

Union Pacific procedures state that any current or future warning devices required for the crossing (passive or active) will be installed and maintained by Union Pacific employees or contractors at Emeryville's sole expense. On December 19, 2017, the City of Emeryville's City Council gave staff unanimous direction to pursue and prioritize funding that could bring rail safety improvements to the street-grade crossings at 65th, 66th, and 67th Streets.

The City would oversee and manage the construction improvements in the public right-of-way and in the private-right-of-way of Union Pacific. At project completion, the newly installed equipment at the crossing would be handed over to Union Pacific for maintenance responsibilities as agreed upon in an encroachment permit and funding agreement.

Staff from Emeryville has experience installing SSM's for at-grade crossings in Southern California, and has learned that a successful at-grade crossing improvement project requires consistent contact and check-ins with staff from Union Pacific and CPUC in order to avoid unexpected hurdles in construction.

F. **Each application must include a Project Programming Request (PPR) Form. Each PPR Form must list federal, state, local, and private funding categories by project component and fiscal year. If the project is a scope addition to a project with a prior Project PPR Form, the prior PPR Form should be included.**

See Attachment D – PPR Form.

ALAMEDA County Transportation Commission

1111 Broadway, Suite 800, Oakland, CA 94607 • 510.208.7400 • www.AlamedaCTC.org

January 24, 2018

Susan Bransen
Executive Director
California Transportation Commission
1120 N Street, MS-52
P.O. Box 942873
Sacramento, CA 95814

Dear Ms. Bransen:

The Alameda County Transportation Commission (Alameda CTC) would like to express its support for the City of Emeryville's application for funding under the California Transportation Commission's 2018 Trade Corridor Enhancement Program (TCEP) for Quiet Zone Safety Engineering Improvements at the 65th, 66th, and 67th Street At-Grade Crossings (Project). The Project advances key recommendations from the Alameda County Goods Movement Plan and the San Francisco Bay Area Goods Movement Plan by improving safety and reducing impacts of goods movement on neighboring communities.

The regional San Francisco Bay Area Goods Movement Plan and Alameda CTC's Countywide Goods Movement Plan and Countywide Transit Plan all identified significant growth potential for rail in the region. For the past 18 months, Alameda CTC has undertaken a rail strategy to examine possible future freight and passenger rail growth scenarios and the implications for Alameda County. A key element of the study is a robust analysis of grade crossings in the county to identify priority improvements to facilitate the more efficient movement of goods and people, and reduce safety and quality of life impacts on surrounding neighborhoods.

The Martinez Subdivision, which runs directly through Emeryville, experiences by far the highest passenger and freight rail volumes in the county. Emeryville is particularly impacted given the dense and fast-growing neighborhoods adjacent to the rail tracks, where the city and region have prioritized growth near existing transportation infrastructure as part of the development of the Regional Transportation Plan/ Sustainable Communities Strategy, Plan Bay Area 2040. The Project will address critical safety and quality of life issues in Emeryville,

where train impacts are only expected to increase given projected growth at the neighboring Port of Oakland. The relatively low-cost investments can result in significant improvements in a community heavily impacted by the movement of goods and improve safety for all users of the transportation system.

Alameda CTC strongly recommends the Project to the CTC for funding from the TCEP program. Please contact Carolyn Clevenger, Director of Planning (cclevenger@alamedactc.org; 510.208.7496), if you have any questions.

Sincerely,

for

ARTHUR L. DAO
Executive Director

City of Emeryville
INCORPORATED 1896
OFFICE OF THE MAYOR
1333 Park Avenue. Emeryville, CA 94608-3517
t (510) 596-4300 | f (510) 596-4389

January 18, 2018

Susan Bransen, Executive Director
California Transportation Commission
1120 N Street, MS-52
P.O. Box 942873
Sacramento, CA 95814

RE: Support for City of Emeryville's application to the 2018 Trade Corridor Enhancement Program for a Quiet Zone at 65th, 66th, and 67th Streets on UP's Martinez Subdivision

Dear Ms. Bransen:

On behalf of the City Council of the City of Emeryville, I write to express strong support for the City of Emeryville's application for funding from the 2018 Trade Corridor Enhancement Program to construct Quiet Zones on 65th, 66th, and 67th Streets on UP's Martinez Subdivision in northwest Emeryville.

Over the years, Emeryville land uses have changed from primarily industrial uses to more residential, office and commercial development. New apartment complexes are located on either side of the tracks with office development to the east. Numerous commercial establishments and hotels are located nearby.

The UP-Martinez Subdivision tracks, located through Emeryville, provide an important link in the region's freight and passenger rail network. Local and regional freight and passenger traffic traveling from the Bay Area to Sacramento, the Central Valley, and all along the West Coast from Seattle to San Diego all rely on this corridor to move goods and people. Future freight train growth is estimated to be a function of growth experienced at the nearby Port of Oakland, a major economic engine for the region.

The City has received numerous complaints about the noise of train horns including loss of sleep, interruption of phone conversations and meetings, loss of hotel business, and a decline in the peace and well being of residents at their homes. Creating Quiet Zones at the 65th, 66th, and 67th Street rail crossing will reduce noise, vibrations and traffic congestion. These changes will improve the quality of life for the people who live and work in our small, dense city while also improving safe freight movement and rail crossings.

In 2008, the City completed a feasibility study for improvements along this corridor. That study shows that Quiet Zone crossings will not only impact the quality of life of the residents in Emeryville but will also positively impact the residents in Berkeley, West Oakland, and the greater East Bay region.

Securing funding from the 2018 Trade Corridor Enhancement Program for installation of Quiet Zone crossings at 65th, 66th, and 67th Streets on UP's Martinez Subdivision will allow the City of Emeryville to construct these much-needed improvements that strengthen safety, maximize operational efficiencies, reduce air and noise pollutants and limit impacts to vulnerable members of our population.

I thank you for your time and consideration.

Sincerely,

John J. Bauters
Mayor, City of Emeryville

January 25, 2018

Susan Bransen, Executive Director
California Transportation Commission
1120 N Street, MS-52
P.O. Box 942873
Sacramento, CA 95814

RE: Support for City of Emeryville's application to the 2018 Trade Corridor Enhancement Program for A quiet Zone at 65th, 66th, and 67th Streets on UP's Martinez Subdivision

Dear Ms. Bransen,

We, the undersigned members of the Emeryville community, wish to add our names in support of the letter dated January 18, 2018 and signed by John J. Bauters, Mayor of the City of Emeryville. We strongly support the city's request for funding through the Trade Corridor Enhancement Program to bring Quiet Zones to the train crossings at 65th, 66th, and 67th Streets here in Emeryville. Each of us has read the Mayor's letter and our support can be confirmed with the Mayor's office and city staff upon request.

As a very small city, funding opportunities that can improve both community safety and the quality of life for those who live and work here often necessitates leveraging other sources of funding. We hope you will look favorably upon our community's request and grant us the funding sought by our city council to bring this important infrastructure improvement to our city.

Sincerely,

The Undersigned Members of the Emeryville Community
(List attached)

The Undersigned Members of the Emeryville Community ATTACHMENT A (2/2)

Name	Status
Ron Freund	Resident
Betsy Cooley	Resident
David Mourra	Resident
Nicole Sata	Resident
Bettye Williams	Resident
Charlotte Williams	Resident
Celiena Adcock	Resident
Hanna Amani	Resident
Gail Donaldson	Resident
Rick Tejada-Flores	Resident
Kent Wright	Resident
Robert Hughes	Resident/Business Owner
Ann Lefkovits	Resident
Steve Lefkovits	Resident
Curtis Karplus	Resident
Ralph Briskin	Resident
Donna Briskin	Resident
Pamela Richmond	Resident
Louis Labat	Resident
Mark Sommer	Resident
Deborah Lau	Resident
Brian Carver	Resident
Ronald Silberman	Resident/Business Owner
Margaret Fisher	Resident/Business Owner
Frank Jaffe	Resident
Marie Anne Allain	Resident
Steven Keller	Resident
John Scheuerman	Resident/HOA Board Director
Gwendolyn Donaker	Resident
Daniel Brown	Resident
Mikael Spaeth	Resident
Katherine Armstrong	Resident
David Room	Oakland Resident
Justin Hartung	Resident
Adam Zook	Resident
Jinru Liu	Resident
Leo Paul Gerhardt	Resident
Masako Gerhardt	Resident
Eleanor Margulis	Resident
Marilyn Fulrath	Resident
Rish Ghatikar	Resident
Steven Rasmussen	Business Owner
Felicia Woytak	Business Owner
Kaylah Sterling	Resident
Susan Edmiston	Resident
Becca Jones-Starr	Resident
Carlos Rodriguez	Resident
John Gordon	Resident
Rita Lewis	Resident
Maria Keenan	Resident
Jim Keenan	Resident
Yvonne Behrens	Resident
William Michael Webber	Resident
Paul Koo	Resident
Joseph Lutz	Resident
Dana Utz	Resident
Sheryl Negrin	Resident
Carole Fanning	Resident
Amy Hyde	Resident/Business Owner
Simon Gibson	Resident/Business Owner
Nora Davis	Resident
Pamela Mendelsohn	Resident
Lily Freund	Resident
Ruth Atkin	Resident
Janet Tobacman	Resident
Maryann Villavert	Resident
Lora Nedeva	Resident
Mitra Latifi	Resident
Zoe Chafe	Resident
Dennis Kane	Resident
Barbara Kane	Resident
Kenson Kuboyama	Resident
Marc Nagata	Resident
Steve Centanne	Resident
Joe Cohen	Resident
Coraly Rosario	Resident
Alicia Raffel	Resident
Elisabeth Feldman	Resident
Sarah Nguyen	Resident
Huong Ngyuen	Resident
Sarah Hendlish	Resident
Avrami Hendlish	Resident
Bernadette Geuy	Resident
Tim Geuy	Resident
Mateusz Byczkowski	Resident
Anita Byczkowski	Resident
James Stephenson	Resident
Elise Higgins	Resident
Philip Epstein	Resident
Whitney Krey-Epstein	Resident
Vicki Stipovich	Resident
Jim Stipovich	Resident
David Drucker	Resident
Liam Speden	Resident
Matthew Smith	Resident
Rhonda Erskine	Resident
Johnny Chau	Resident
Tabetha Chau	Resident
Mary Tinney	Resident
Bill Reuter	Resident
Ruth Major	Resident
Laura McCamy	Resident
April Atencio	Resident

Name	Status
Jack Easterday	Resident/HOA Board Director
Jill Easterday	Resident
Deline Davis	Resident
Sean Gibson	Berkeley Resident
Serena Ingre	Berkeley Resident
Jamie Narberes	Employee
Kerstin Neteler	Resident
Will Tait	Resident
Rebecca Fogg	Resident
Alan Tsoi	Resident
Ivan Sifrim	Oakland Resident
Kris Owens	Resident/HOA Board Director
A. Ali Eslami	Resident/HOA Board Director
Mariam Moasser	Resident/HOA Board Director
Michelle Tan	Resident
Saurabh Bansal	Resident
Monisha Bansal	Resident
Tom Stieber	Resident
David Fishbein	Resident
Jason Kintz	Resident
Allie Kintz	Resident
Howard Kui	Resident
Christopher Murray	Resident
Zena Weber	Resident
Grisell Diaz-Ramirez	Resident
Dario Miguel-Perez	Resident
Aaron Feeney	Resident
Joshua Welch	Resident
Danielle Puller	Resident
John Sauve	Resident
Nancy Lynn	Resident
Celeste Burrows	Resident
Cynthia Tobey Klein	Resident
Edwin Knapp	Resident
Himanshu Bhatia	Resident
Shivangi Saxena	Resident
Nancy Girouard	Resident
Ryan McBrayer	Resident
Nikkie McBrayer	Resident
Lawrence Cardoza	Resident
Clara Lee	Resident
Patricia Weber	Resident
Kevin Weber	Resident
Vahan Galachyan	Resident
Lilit Safaryan	Resident
Samvel Safaryan	Resident
Goar Sarkisyan	Resident
Douglas Flock	Resident
Andre Carpiaux	Resident
Merrill Schwartz	Resident
Linda Schwartz	Resident
Melissa Byun	Resident
Jun Kudo	Resident
Sara Miri	Resident
S. Andregg	Resident
P. Davis	Resident
Robert Blam	Resident
Lubor Mrazek	Resident
Arianne Zand	Resident
Charlotte Cochrane	Resident
Tom Knight	Resident
Randall Coleman	Resident
F. Robbins	Resident
Louise Engel	Resident
Eleanor Dahl	Resident
Jeanne Segale	Resident
Michelle Sims	Resident
Alexander Granber	Resident
Anthony Ponce	Employee
Sam Foushee	Resident
La Rae Schneider	Resident
Corona Rivera	Resident
Dolores Guion Del Toso	Resident
Edward Tanovitz	Resident
Satoko Toma	Resident
Trudihope Schlomowitz	Resident
Mark Crow	Resident
Richard Heng	Resident
Nancy Tsang	Resident
Mike Schneider	Resident
Virg Kenery	Resident
Pouria Firouzi	Resident
Gunnar Niemi	Resident
Betty Niemi	Resident
Alexandra Calip	Resident
Jonathan Nucum	Resident
Pawel Gniewek	Resident
Sylvia Do	Resident
Vickie Jo Sowell	Resident/Business Owner
Stephen Skaar	Resident/Business Owner
Clyde Sowell	Resident
Manav Gupta	Resident
Kitty Nanda	Resident
Woody Clint	Resident
Sharon Wilchar	Resident/Business Owner
David To	Resident
Kristin Peterson	Resident
Hannah Kahn	Resident
Kat Vellos	Resident
Jen Hecht	Resident
Tyler McPherron	Resident/Business Owner
Erin Fong	Resident/Business Owner

Name	Status
Thomas Scott Donahue	Resident/Council Member
Lillian Schroth	Resident
Edward Gronke	Resident
Alicia Gronke	Resident
Catherine Courtenaye	Resident
G.B. Carson	Resident
Jerome Derilo	Resident
Melissa Sun	Resident
Tupac Johnson	Resident
Aiyana Johnson	Resident
Jose Villegas	Resident
Daniela Novoa	Resident
Bradford Thomas	Resident
Mark Niu	Resident
Michelle Johnston	Resident
James Johnston	Resident
Harrison Steed	Resident
Christi Toa	Resident
Phaiklyn Oh	Resident
Paulino Manarang	Resident
Genalyn Paculanan	Resident
Harold Manarang	Resident
Rosemary Luo	Resident
Prantik Samal	Resident
Theola To	Resident
Yi Du	Resident
Robert Scherat	Resident
David Rhodes	Resident
Yun Rhodes	Resident
Aaron Tam	Resident
Moira Woisecx	Resident
Mohammed Khan	Resident
Marc Mcleran	Resident
Brad Kesner	Resident
Glenn Cacon	Resident
James Lee	Resident
Cora Klein	Resident
Lynn Craig-Chavez	Resident
Alex Chavez	Resident
Nantin Yang	Resident
Helen Chu	Resident
Zachary Baharova	Resident
Vessy Ivanova	Resident
Ralph Greenberg	Resident
Lina Baharova	Resident
David Gersh	Resident
Nancy Gersh	Resident
Jim Johnston	Resident
Todd Hodes	Resident
Matthew Campi	Resident
Hannah Cowan	Resident
Trailee Johnson	Resident
Eva Kwong	Resident
Karen Lem	Resident
Mitchell Skinner	Resident
Sebastien Belanger	Resident
Trena Partee	Resident
Ashley Bartosh	Resident
Andrew Bartosh	Resident
Jocelyn Lawrence	Resident
Jason Barish	Resident
Jiri Dokladal	Resident
Karl Morgan	Resident
Arthur Morgan	Resident
James Lindsay	Resident
Paula Skene	Business Owner
Kyle Guthrie	Employee
Salema Jafri	Resident
Taimur Khan	Resident
Julie Murphy	Resident
Amanda McCoy	Resident
Roger Williams	Resident
Nancy Williams	Resident
Bonnie Neumann	Resident
Meredith Barge	Resident
Timpthy Lubina	Resident
Jonathan Isaacs	Resident
Ryan Wolfe	Resident
Paridhi Jaisingh	Resident
Paola Segatto	Resident
Daniel Gee	Resident
Jacqueline Chu	Resident
Glen Safholm	Resident
Stephen Yang	Resident
Joy Yang	Resident
Jean Goldman	Resident
Tim Bacon	Business Owner
Chien-Feng Chen	Resident
John Jackson	Resident
Boiana Alexieva-Jackson	Resident
Lawrence Sullivan	Resident
Randy Marcotte	Resident
Chris Hentschel	Resident
Laurie Rosen	Resident
Elmer Shannon	Resident
Marylee Stadler	Resident
Terraces at EmeryStation HOA	Residents/4 Members
Avenue64 Apartments	Residents/224 Units
EMME Apartments	Residents/190 Units
Glashaus HOA	Residents/147 Units
Watergate Condo Association	Residents/18 Members
Berkeley Research Group (BRG)	Business/120 Employees

Attachment B - Cost Estimate

Quiet Zone Safety Engineering Improvements in City of Emeryville
at the 65th, 66th, and 67th Street At-Grade Crossings 2018.01.22
Estimated Costs

Bid Item	QUANTITY	UNITS	UNIT COST	COST
Mobilization (15%)	1	LS	$ 473,000	$ 473,000
Traffic Control (5%)	1	LS	$ 158,000	$ 158,000
Surveying and Construction Staking (2%)	1	LS	$ 63,000	$ 63,000
Water Pollution Control (2%)	1	LS	$ 63,000	$ 63,000
Utility Coordination (2%)	1	LS	$ 63,000	$ 63,000
Grading (2%)	1	LS	$ 63,000	$ 63,000
Remove Existing Standard Gate	6	EA	$ 10,000	$ 60,000
Railroad Cabinet	3	EA	$ 225,000	$ 675,000
Standard 9 Combo Gate	4	EA	$ 100,000	$ 400,000
Standard 9D Combo Gate	8	EA	$ 175,000	$ 1,400,000
Conduit	3	LS	$ 100,000	$ 300,000
Conductors	3	LS	$ 30,000	$ 90,000
Median Improvements	400	SF	$ 75	$ 30,000
Sidewalk Improvements	4000	SF	$ 50	$ 200,000
Misc Other Improvements (e.g. fencing)	1	LS	$ 100,000	$ 100,000
			Subtotal	$ 4,138,000
			Contingency	$ 1,241,000
			Construction Administration/ DSDC	$ 621,000
			Total Construction Cost	**$ 6,000,000**
			PA/ED	$75,000
			PS&E	$405,000
			Total Project Cost	**$ 6,480,000**

The City of Emeryville will need no additional funding from this program and the City will be able to absorb the costs under existing transportation accounts. If needed in an emergency, the City has an assessment district improvement fund that covers this area that could cover up to a 20% cost overrun of the estimated costs above.

Carolyn Lehr

Carolyn Lehr, City of Emeryville City Manager

1-24-18

Date

ATTACHMENT C

District: Alameda County

PROJECT: Quiet Zone Safety Engineering Improvements in City of Emeryville at the 65th, 66th, and 67th Street At-Grade Crossings

EA:
PPNO:

3

INVESTMENT ANALYSIS

SUMMARY RESULTS

Life-Cycle Costs (mil. $)	$6,433.8
Life-Cycle Benefits (mil. $)	$0.0
Net Present Value (mil. $)	-$6,433.8
Benefit / Cost Ratio:	0.0
Rate of Return on Investment:	#NUM!
Payback Period:	20+ years

ITEMIZED BENEFITS (mil. $)	Passenger Benefits	Freight Benefits	Total Over 20 Years	Average Annual
Travel Time Savings	$0.0	$0.0	$0.0	$0.0
Veh. Op. Cost Savings	$0.0	$0.0	$0.0	$0.0
Accident Cost Savings	$0.0	$0.0	$0.0	$0.0
Emission Cost Savings	$0.0	$0.0	$0.0	$0.0
TOTAL BENEFITS	$0.0	$0.0	$0.0	$0.0
Person-Hours of Time Saved			0	0

Should benefit-cost results include:

1) Induced Travel? (y/n)	Y (Default = Y)
2) Vehicle Operating Costs? (y/n)	Y (Default = Y)
3) Accident Costs? (y/n)	Y (Default = Y)
4) Vehicle Emissions? (y/n) includes value for CO_2e	Y (Default = Y)

EMISSIONS REDUCTION	Tons: Total Over 20 Years	Tons: Average Annual	Value (mil. $): Total Over 20 Years	Value (mil. $): Average Annual
CO Emissions Saved	0	0	$0.0	$0.0
CO_2 Emissions Saved	0	0	$0.0	$0.0
NO_X Emissions Saved	0	0	$0.0	$0.0
PM_{10} Emissions Saved	0	0	$0.0	$0.0
$PM_{2.5}$ Emissions Saved	0	0		
SO_X Emissions Saved	0	0	$0.0	$0.0
VOC Emissions Saved	0	0	$0.0	$0.0

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST

DTP-0001 (Revised July 2017)

ATTACHMENT D (1/3)

General Instructions

Amendment (Existing Project)	No					**Date:**	1/24/18
District	**EA**	**Project ID**		**PPNO**	**MPO ID**	**Alt Proj. ID**	
04							

County	**Route/Corridor**	**PM Bk**	**PM Ahd**	**Project Sponsor/Lead Agency**	
ALA	UPRR	4.75	4.90	ACTC / City of Emeryville	
				MPO	**Element**
				MTC	Local Assistance

Project Manager/Contact	**Phone**	**E-mail Address**
Ryan O'Connell	510-596-4346	roconnell@emeryville.org

Project Title

Quiet Zone Safety Engineering Improvements in City of Emeryville at the 65th, 66th, and 67th Street At-Grade Crossings

Location (Project Limits), Description (Scope of Work)

In Emeryville, CA there are three at-grade crossings on 65th Street, 66th Street, and 67th Street just east of Shellmound Street. In 2008, a Quiet Zone Feasibility Study was done to address the impacts of train horns on nearby communities and safety at the crossings. The study recommended installation of four-quadrant gates at the at-grade crossings, amongst other safety engineering improvements.

Component	**Implementing Agency**
PA&ED	City of Emeryville
PS&E	City of Emeryville
Right of Way	City of Emeryville
Construction	City of Emeryville

Legislative Districts

Assembly:	15th	**Senate:**	9th	**Congressional:**	13th

Project Benefits

It is likely that train noise will increase as the Port of Oakland expands its freight capacity and the number of trains passing through Emeryville grows in the future. Noise impacts are one of the most difficult areas of conflict between freight uses and more sensitive land uses such as residential, schools, and recreational facilities. (Continued on Page 2)

Purpose and Need

There are three at-grade highway-rail crossings in Emeryville. These are at 65th, 66th, and 67th Streets, all of which cross the Union Pacific Railroad's Martinez Subdivision in northwestern Emeryville. The UP tracks are used daily by both passenger and freight trains, with passenger trains more numerous than freight trains. (Continued on Page 2)

Category	**Outputs/Outcomes**	**Unit**	**Total**
Intercity Rail/Mass Trans	Grade separations/ rail crossing improvements	each	3
Local streets and roads	Grade separations/ rail crossing improvements	each	3

ADA Improvements Yes	Bike/Ped Improvements Yes	Reversible Lane analysis No
Includes Sustainable Communities Strategy Goals Yes	Reduces Greenhouse Gas Emissions No	

Project Milestone			**Existing**	**Proposed**
Project Study Report Approved			05/01/08	
Begin Environmental (PA&ED) Phase				01/31/18
Circulate Draft Environmental Document	**Document Type**	CE		03/01/18
Draft Project Report				04/01/18
End Environmental Phase (PA&ED Milestone)				05/01/18
Begin Design (PS&E) Phase				07/01/18
End Design Phase (Ready to List for Advertisement Milestone)				02/01/19
Begin Right of Way Phase				02/01/19
End Right of Way Phase (Right of Way Certification Milestone)				04/01/19
Begin Construction Phase (Contract Award Milestone)				09/01/19
End Construction Phase (Construction Contract Acceptance Milestone)				05/01/20
Begin Closeout Phase				05/01/20
End Closeout Phase (Closeout Report)				11/01/20

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Additional Information

Project Benefits (continued…)
A Quiet Zone in Emeryville would greatly reduce the scale of impacts to adjacent land uses, and is expected to have significant benefits to land use conflicts. A net reduction in noise impacts to the nearby communities can also improve the fairness of the distribution of total environmental burdens in the City, thereby improving horizontal equity.

Purpose and Need (continued…)
According to federal regulations, engineers of all these trains must sound their train horns when approaching the grade crossings. In the future, the number of trains operating on this corridor will increase, resulting in a greater frequency in train horning soundings. The implementation of a quiet zone in Emeryville would greatly reduce the existing and future noise impacts from train horn soundings. The implementation would also include safety engineering improvements that would reduce the Quiet Zone Risk Index for all of the crossings.

STATE OF CALIFORNIA ● DEPARTMENT OF TRANSPORTATION

PROJECT PROGRAMMING REQUEST

ATTACHMENT D (3/3)

DTP-0001 (Revised July 2017)

Date: 1/24/18

District	County	Route	EA	Project ID	PPNO	Alt Proj. ID
04	ALA	UPRR				

Project Title: Quiet Zone Safety Engineering Improvements in City of Emeryville at the 65th, 66th, and 67th Street At-Grade Crossings

Existing Total Project Cost ($1,000s)									
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	**Implementing Agency**
E&P (PA&ED)									City of Emeryville
PS&E									City of Emeryville
R/W SUP (CT)									City of Emeryville
CON SUP (CT)									City of Emeryville
R/W									City of Emeryville
CON									City of Emeryville
TOTAL									
Proposed Total Project Cost ($1,000s)									**Notes**
E&P (PA&ED)	30	45						75	
PS&E		405						405	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		6,000						6,000	
TOTAL	30	6,450						6,480	

Fund No. 1:	**Trade Corridors Enhancement Program (TCEP)**								**Program Code**
Existing Funding ($1,000s)									
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	**Funding Agency**
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									**Notes**
E&P (PA&ED)									
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		4,200						4,200	
TOTAL		4,200						4,200	

Fund No. 2:	**Local Funds**								**Program Code**
Existing Funding ($1,000s)									CIP
Component	Prior	18/19	19/20	20/21	21/22	22/23	23/24+	Total	**Funding Agency**
E&P (PA&ED)									City of Emeryville
PS&E									
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON									
TOTAL									
Proposed Funding ($1,000s)									**Notes**
E&P (PA&ED)	30	45						75	$1.8 Million construction costs are 30% Match from $6 Million total construction cost.
PS&E		405						405	
R/W SUP (CT)									
CON SUP (CT)									
R/W									
CON		1,800						1,800	
TOTAL	30	2,250						2,280	