

TWIN RIVERS TRANSIT-ORIENTED DEVELOPMENT AND LIGHT RAIL STATION PROJECT

Draft Initial Study / Environmental Assessment

Prepared for
City of Sacramento

June 2017



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SUMMARY

S.1 Project Overview

The City of Sacramento (City), in partnership with the Sacramento Housing and Redevelopment Agency (SHRA) and the Sacramento Regional Transit District (RT), proposes implementation of the Twin Rivers Transit-Oriented Development and Light Rail Station Project (proposed project). The proposed project would develop a mixed-income, mixed-use community comprising 218 replacement public housing units, 292 new market-rate rental and Low-Income Housing Tax Credit (LIHTC) units, a realigned internal street network, green open space, and other community amenities on two noncontiguous but proximate properties totaling approximately 24.2 acres that currently include public housing and undeveloped land. The project would also include construction and operation of the proposed RT Dos Rios Light Rail Station on the existing RT light rail Blue Line on and adjacent to North 12th Street.

The proposed project is expected to have an estimated project cost of \$291 million. Proposed funding for the project would derive from a number of sources, as summarized below in **Table S-1**.

**TABLE S-1
TWIN RIVERS TRANSIT-ORIENTED DEVELOPMENT AND LIGHT RAIL STATION FUNDING SOURCES**

Funding Source	Amount	Federal, State or Local Funding Source
Private (Tax Credits, Conventional Construction and Mortgage Loans, other)	\$98,000,000	Private
AHSC Funds, CalHFA funds, other	\$28,000,000	State
Housing Replacement Funds, Low/Mod Housing Funds, CDGB Funds, MRB, Fee Credits, other	\$125,000,000	Local
CNI Funds, Infrastructure Grants, other	\$20,000,000	Federal
AHSC and TIRCP Funds	\$16,000,000	State
SACOG Discretionary Funds	\$4,000,000	Federal
Grand Total	\$291,000,000	

S.2 Alternatives

This IS/EA assesses two alternatives: 1) the No Project Alternative; and 2) the Twin Rivers Transit-Oriented Development and Light Rail Station Project Alternative. Briefly, the two alternatives assessed in this document are:

Alternative 1 – No Project Alternative

Under Alternative 1, the project would not be constructed. Replacement housing at the existing Twin Rivers Community Housing Complex would not be constructed, and the existing units would remain in use. Additional housing at the Twin Rivers Community Housing Expansion Area east of North 12th Street would also not be constructed, and the currently vacant parcels would remain in their current condition or made available for development by other parties. A new light rail station would not be constructed on North 12th Street. The entire area would remain in its present condition, subject to the land use and zoning designations currently in place.

Alternative 2 – Twin Rivers Transit-Oriented Development and Light Rail Station Project

Alternative 2 would construct and operate the Twin Rivers Transit-Oriented Development and Light Rail Station Project. Alternative 2 (the proposed project) would develop a mixed-income, mixed-use community comprising 218 replacement public housing units, 281 new market-rate rental Low Income Housing Tax Credit (LIHTC) units, a realigned internal street network, green open space, and other community amenities on two noncontiguous but proximate properties totaling approximately 24.2 acres. The project would also include the construction and operation of the proposed RT Dos Rios Light Rail Station on North 12th Street on the RT light rail transit (LRT) Blue Line on and adjacent to North 12th Street. Other project elements would include appropriate utility improvements to meet the needs the project.

S.3 Environmental Analysis

Topics Analyzed

The IS/EA evaluates a full range of impacts to the physical and social environments associated with implementation of the project alternatives. The implementation of Alternative 1 would result in the continued use of the project site as the current conditions. Accordingly, the impacts for each topic under Alternative 1 were determined be no impact and no effect.

For Alternative 2, the analysis in the IS/EA considers complete development of the project as presented by the proposed project description. The findings of the analysis are summarized below in Table S-2. The following topics are analyzed in detail in the IS/EA:

- Aesthetics and Visual Resources
- Air Quality and Greenhouse Gas Emissions
- Biological Resources
- Cultural and Paleontological Resources
- Environmental Justice
- Geology, Soils, and Mineral Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality

- Land Use, Population, Housing, and Socio-Economics
- Noise and Vibration
- Public Services and Recreation
- Transportation
- Utilities

A number of topical issue areas are not evaluated in detail in this IS/EA, generally because the identified environmental resources are not present within or around the project area or because implementation of the project would clearly have no effect with respect to the topic issue area. These issues are summarized in Section 3.14, *Issues Not Subject to Further Evaluation* of the IS/EA:

- Agricultural and Forestry Resources
- Energy
- Section 4(f) Properties

Results of the Analysis

The results of the analysis contained in the IS/EA is summarized below in **Table S-2**.

This IS/EA will be available for public review. Following the public review period, the City will review the comments received on the IS/EA. The City, as the Lead Agency under CEQA and as the Responsible Entity under NEPA, will consider the comments, respond to them as appropriate, and then will determine whether significant or adverse environmental effects would be likely to result from the proposed project. If the City determines that no adverse effects would occur, then the City would adopt a Mitigated Negative Declaration for purposes of CEQA and would issue a Finding of No Significant Impact (FONSI) for purposes of NEPA. Following these actions, the City would then submit a request for release of funds from HUD.

Subsequent review and approvals of this IS/EA may also be undertaken by the Federal Transit Administration (FTA) for those aspects of the project for which it may provide funding. At its discretion, FTA may utilize the findings contained within this IS/EA to make its own NEPA determination for those portions of the project for which it would provide funds. In such an instance, RT would serve as a joint NEPA lead agency with the FTA as provided for under 23 CFR 771.109(c)(2). In that capacity, RT would prepare environmental review documents for its portion of the project (i.e., the Dos Rios Light Rail Station). The information contained within this IS/EA would form the basis for those documents. FTA would provide guidance during RT's efforts, and would independently evaluate the documents prepared by RT prior to making its own findings with respect to the project's environmental effects.

**TABLE S-2
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.1 Aesthetics and Visual Resources			
AES-1. Would the project create a source of glare that would cause a public hazard or annoyance?	None required	Less than Significant	No Adverse Effect
AES-2. Would the project create a new source of light that would be cast onto oncoming traffic or residential uses?	None required	Less than Significant	No Adverse Effect
AES-3. Would the project substantially degrade the existing visual character of the site or its surroundings?	None required	Beneficial	Beneficial
AES-4. Other NEPA-related aesthetic and visual resource criteria related to the Wild and Scenic Rivers Act.	None required	--	No Adverse Effect
3.2 Air Quality and Greenhouse Gas Emissions			
AQ-1. Would the project produce construction emissions of NOX, ROG, PM10 or PM2.5 that would exceed the SMAQMD's construction significance thresholds?	<p>Mitigation Measure 3.2-1: City approval of any grading or improvement plans shall include the following SMAQMD Basic Construction Emission Control Practices:</p> <ul style="list-style-type: none"> All exposed surfaces shall be watered two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways shall be covered. Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. Limit vehicle speeds on unpaved roads to 15 miles per hour. All roadways, driveways, sidewalks, parking lots shall be paved as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (as required by the state airborne toxics control measure [Title 13, Section 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site. Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment shall be checked by a certified mechanic and determine to be running in proper condition before it is operated. 	Less than Significant	No Adverse Effect

TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.2 Air Quality and Climate Change (cont.)			
AQ-2. Would the project produce operational emissions of NOX, ROG, PM10 or PM2.5 that would exceed the SMAQMD's long-term (operational) significance thresholds?	None required	Less than Significant	No Adverse Effect
AQ-3. Would the project produce CO concentrations that exceed the 1-hour State ambient air quality standard (i.e., 20.0 ppm) or the 8-hour State ambient standard (i.e., 9.0 ppm)?	None required	Less than Significant	No Adverse Effect
AQ-4. Would the project expose sensitive receptors to substantial pollutant concentrations?	None required	Less than Significant	No Adverse Effect
AQ-5. Would the project create objectionable odors?	None required	Less than Significant	No Adverse Effect
AQ-6. Would the project create TAC exposures risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs from mobile sources?	None required	Less than Significant	No Adverse Effect
AQ-7. Would the project fail to satisfy the requirements of the City's Climate Action Plan?	None required	Less than Significant	No Adverse Effect
AQ-8. Would construction-related and operational emissions exceed the General Conformity Thresholds?	None required	--	No Adverse Effect
AQ-9. Would the proposed project generate GHG emissions that would exceed the Federal GHG Reporting Threshold?	None required	--	No Adverse Effect
Cumulative: Would the project conflict with or obstruct implementation of the applicable air quality plan?	None required	Less than Significant	No Adverse Effect
Cumulative: Would the proposed project contribute to cumulative increases in short-term (construction) emissions?	None required	Less than Significant	No Adverse Effect
Cumulative: Would the he proposed project contribute to cumulative increases in long-term (operational) emissions?	None required	Less than Significant	No Adverse Effect
Cumulative: Would the project generate greenhouse gas emissions or conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	Mitigation Measure 3.2-1 (above)	Less than Significant	No Adverse Effect
Cumulative: Would the project generate greenhouse gas emissions or conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	None required	Less than Significant	No Adverse Effect

**TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.3 Biological Resources			
<p>BIO-1. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?</p>	<p>Mitigation Measure 3.3-1: Prior to the issuance of any grading or building permit for the proposed project, the City or its designated cooperator shall purchase compensatory mitigation credits as specified in the project's Biological Opinion issued by the U.S. Fish and Wildlife Service dated December 28, 2016. Credits shall be purchased at the ratios prescribed therein. In addition, the following conditions shall apply, as prescribed in the Biological Opinion:</p> <ol style="list-style-type: none"> 1. The City or its designated cooperator will include full implementation and adherence to the conservation measure as a condition of any permit or contract issued for the proposed project; 2. The City or its designated cooperator will provide a completed bill of sale and payment receipt to the U.S. Fish and Wildlife Service upon purchase of the beetle conservation credits; 3. In order to monitor whether the amount or extent of incidental take anticipated from implementation of the proposed project is approached or exceeded, the City will adhere to the following reporting requirements. Should this anticipated amount or extent of incidental take be exceeded, the City must immediately reinstate formal consultation, as per 50 CFR 402.16. <ol style="list-style-type: none"> a. For those components of the action that will result in habitat degradation or modification whereby incidental take in the form of harm is anticipated, the City will provide a precise accounting of the elderberry plants impacted to the U.S. Fish and Wildlife Service after completion of construction. This report will also include any information about changes in project implementation that result in habitat disturbance not described in the Description of the Action presented in the project Biological Opinion dated December 28, 2016 and not analyzed therein. <p>Mitigation Measure 3.3-2: The City or its designated cooperator shall require construction contractors to conduct tree removal activities outside of the migratory bird and raptor breeding season (defined here as February 1 through August 31), where feasible. For any construction activities that occur between February 1 and August 31, the City or its designated cooperator shall conduct preconstruction surveys in suitable nesting habitat within 500 feet of the construction area for migratory birds and raptor species. In addition, all trees slated for removal during the nesting season shall be surveyed by a qualified biologist no more than 48 hours before removal to ensure that no nesting birds are occupying the tree.</p>	<p>Less than Significant</p>	<p>No Adverse Effect</p>

TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Mitigation Measures	CEQA Impact Significance <i>after Mitigation</i>	NEPA Effect <i>after Mitigation</i>
3.3 Biological Resources (cont.)			
BIO-1 (cont.)	<p>If active nests are found during the survey, the construction contractor shall implement mitigation measures to ensure that the species will not be adversely affected, which will include establishing a no-work buffer zone, around the active nest. Avoidance measures will include:</p> <ol style="list-style-type: none"> 1. Maintaining a 500-foot buffer around each active raptor nest. No construction activities shall be permitted within this buffer. For other migratory birds, a 250-foot no-work buffer zone shall be established, around the active nest. The no-work buffer may vary depending on species and site specific conditions. No project-related activity shall occur within the no-work buffer until a qualified wildlife biologist confirms that the nest is no longer active, or unless otherwise permitted by the California Department of Fish and Wildlife. 2. If an appropriate no-disturbance buffer is infeasible, a qualified biologist shall be present during construction activities for the entire duration of activities within the buffer to monitor the behavior of the potentially affected nesting bird. The biologist shall have the authority to stop-work within the buffer area if the bird(s) exhibit distress and/or abnormal nesting behavior (swooping/stooping, excessive vocalization [distress calls], agitation, failure to remain on nest, failure to deliver prey items for an extended time period, failure to maintain nest, etc.) which may cause reproductive failure (nest abandonment and loss of eggs or young). Work shall not resume in the buffer area until bird's behavior has normalized. Completion of the nesting cycle shall be determined by a qualified biologist. 		
BIO-2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	None required	Less than Significant	No Adverse Effect
BIO-3. Would the project have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, etc.) through direct removal, filling, hydrological interruption, or other means?	None required	No Impact	No Adverse Effect
BIO-4. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	None required	Less than Significant	No Adverse Effect

TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.3 Biological Resources (cont.)			
BIO-5. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	None required	No Impact	No Adverse Effect
BIO-6. Would the project create a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the area affected?	None required	Less than Significant	No Adverse Effect
3.4 Cultural and Paleontological Resources			
CR-1. Would the project have the potential to affect historic properties pursuant to Section 106 of the NHPA, as amended, or cause a substantial change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5?	<p>River District Specific Plan Mitigation Measure 5.3-2:</p> <p>a) Prior to any excavation, grading or other construction on the project site, and in consultation with Native American Tribes and the City's Preservation Director: a qualified archaeologist will prepare a testing plan for testing areas proposed for excavation or any other ground-disturbing activities as part of future projects, which plan shall be approved by the City's Preservation Director. Testing in accordance with that plan will then ensue by the qualified archaeologist, who will prepare a report on findings, and an evaluation of those findings, from those tests and present that report to the City's Preservation Director. Should any findings be considered as potentially significant, further archaeological investigations shall ensue, by the qualified archaeologist, and the archaeologist shall prepare reports on those investigations and evaluations relative to eligibility of the findings to the Sacramento, California or National Registers of Historic & Cultural Resources/ Places and submit that report to the City's Preservation Director and SHPO with recommendations for treatment, disposition, or reburials of significant findings, as appropriate. Also, at the conclusion of the pre-construction testing, evaluation and reports and recommendations, a decision will be made by the City's Preservation Director as to whether on-site monitoring during any project-related excavation or ground-disturbing activities by a qualified archaeologist will be required.</p> <p>b) Discoveries during construction: For those projects where no on-site archaeological monitoring was required, in the event that any prehistoric subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, animal bone, obsidian and/or mortars are discovered during construction-related earth-moving activities, all work within 50 meters of the resources shall be halted, and a qualified archaeologist will be consulted to assess the significance of the find. Archaeological test excavations shall be</p>	Less than Significant	No Adverse Effect

**TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.4 Cultural and Paleontological Resources (cont.)			
CR-1 (cont.)	<p>conducted by a qualified archaeologist to aid in determining the nature and integrity of the find. If the find is determined to be significant by the qualified archaeologist, representatives of the City and the qualified archaeologist shall coordinate to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis and professional museum curation. In addition, a report shall be prepared by the qualified archaeologist according to current professional standards.</p> <p>c) If a Native American site is discovered, the evaluation process shall include consultation with the appropriate Native American representatives.</p> <p>d) If Native American archaeological, ethnographic, or spiritual resources are involved, all identification and treatment shall be conducted by qualified archaeologists, who are certified by the Society of Professional Archaeologists (SOPA) and/or meet the federal standards as stated in the Code of Federal Regulations (36 CFR 61), and Native American representatives, who are approved by the local Native American community as scholars of the cultural traditions.</p> <p>e) In the event that no such Native American is available, persons who represent tribal governments and/or organizations in the locale in which resources could be affected shall be consulted. If historic archaeological sites are involved, all identified treatment is to be carried out by qualified historical archaeologists, who shall meet either Register of Professional Archaeologists (RPA), or 36 CFR 61 requirements.</p> <p>f) If a human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find, and the County Coroner, and City's Preservation Director, shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission, who shall notify the person most likely believed to be a descendant. The most likely descendant shall work with the contractor to develop a program for re-internment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have taken place. Work can continue on other parts of the project site while the unique archaeological resource mitigation takes place.</p>		
CR-2. Would the project directly or indirectly destroy a unique paleontological resource?	River District Specific Plan Mitigation Measure 5.3-2 (see above)	Less than Significant	No Adverse Effect

TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.4 Cultural and Paleontological Resources (cont.)			
CR-3. Would the project disturb any human remains, including those interred outside of formal cemeteries?	River District Specific Plan Mitigation Measure 5.3-2 (see above)	Less than Significant	No Adverse Effect
CR-4: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, as defined in PRC Section 21074?	River District Specific Plan Mitigation Measure 5.3-2 (see above)	Less than Significant	No Adverse Effect
3.5 Environmental Justice			
EJ-1. Would the project have a disproportionate effect on environmental justice populations	None required specific to Environmental Justice.	--	Beneficial
3.6 Geology, Soils, and Mineral Resources			
GEO-1. Would the project be built in a manner that would introduce geologic or seismic hazards by allowing the construction of the project on such a site without protection against those hazards?	None required	No Impact	No Adverse Effect
GEO-2. Would the project result in the loss of a known mineral resource that would be of value to the region and residents of the state, or result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	None required	No Impact	No Adverse Effect
3.7 Hazards and Hazardous Materials			
HAZ-1. Would the project expose people (e.g., residents, pedestrians, construction workers) to existing contaminated soil during construction activities?	Mitigation Measure 3.7-1: Phase II Assessment. Prior to construction or development of the proposed project, a Phase II assessment and subsurface geophysical investigation shall be conducted. If the Phase II assessment concludes that site remediation would be necessary to protect human health and the environment, the site shall not be developed until the site is remediated to levels that would be protective of the most sensitive population for the planned use, as prescribed in applicable regulations.	Less than Significant	No Adverse Effect
HAZ-2. Would the project expose people (e.g., residents, pedestrians, construction workers) to asbestos-containing materials, or other hazardous materials or situations?	River District Specific Plan Mitigation Measure 5.4-1(b): Prior to demolition or renovation of structures, the project applicant shall provide written documentation to the City that either there is no asbestos-containing materials and/or lead-based paint in the structures or that such materials have been abated and that any remaining hazardous substances and/or waste have been removed in compliance with applicable State and local laws.	Less than Significant	No Adverse Effect

TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.7 Hazards and Hazardous Materials (cont.)			
HAZ-3. Would the project expose people (e.g., residents, pedestrians, construction workers) to existing contaminated groundwater during construction or dewatering activities?	None required	Less than Significant	No Adverse Effect
HAZ-4. Would the project place housing in proximity to explosive hazards at distances less than that prescribed in 24 CFR 51 Subpart C?	None required	No Impact	No Effect
3.8 Hydrology and Water Quality			
HYD-1. Would the project substantially degrade water quality and violate any water quality objectives set by the State Water Resources Control Board, due to increases in sediments and other contaminants generated by construction and/or development of the project?	None required	Less than Significant	No Adverse Effect
HYD-2. Would the project substantially increase the exposure of people and/or property to the risk of injury and damage in the event of a 100-year flood?	None required	Less than Significant	No Adverse Effect
HYD-3. Would the project result in a contamination of a sole source aquifer?	None required	No Impact	No Adverse Effect
3.9 Land Use, Population and Housing, and Socioeconomics			
LU-1. Would the project physically divide an established community?	None required	Less than Significant	No Adverse Effect
LU-2. Would the project conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project site?	None required	Less than Significant	No Adverse Effect
LU-3. Would the project result in a change in land use that would be incompatible with surrounding land uses?	None required	Less than Significant	No Adverse Effect
LU-4. Would the project induce substantial population growth within an area, either directly or indirectly?	None required	Less than Significant	No Adverse Effect
LU-5. Would the project displace substantial numbers of residents or businesses?	None required	Less than Significant	No Adverse Effect
LU-6. Would the project reduce employment or otherwise diminish employment opportunities?	None required	Beneficial	Beneficial

TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.9 Land Use, Population and Housing, and Socioeconomics (cont.)			
LU-7. Would the project substantially reduce local jurisdiction revenues through decreases in property tax revenues or other sources of revenue?	None required	Less than Significant	No Adverse Effect
3.10 Noise and Vibration			
NV-1. Would the project result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project's noise level increases?	<p>Mitigation Measure 3.10-1: During the design and construction of exterior residential elements in the Twin Rivers Community Housing Expansion Area, the project applicant shall consult with a certified acoustical professional to design and implement appropriate noise attenuation elements that are of sufficient effectiveness to reduce noise levels to below the City exterior noise standard as shown in General Plan Table EC-1 for residential land uses. The effectiveness of these measures shall be demonstrated to the satisfaction of the City Community Development Department prior to the issuance of occupancy permits.</p> <p>Mitigation Measure 3.10-2: If transfer power substation (TPSS) units are placed nearer than 110 feet from proposed residential uses, the applicant shall submit engineering and acoustical specifications for project air conditioning equipment to the City prior to the issuance of building permits. The engineering and acoustical specification shall demonstrate to the City's satisfaction that the air conditioning equipment design (types, location, enclosure, specification) will control noise from the equipment to at least 10 dBA below existing ambient levels at nearby residential and other noise sensitive receptors.</p>	Less than Significant	--
NV-2. Would the project result in residential interior noise levels of 45 dBA L _{dn} or greater caused by noise level increases due to the project?	<p>Mitigation Measure 3.10-3: Prior to the issuance of building permits for residential projects within the Twin Rivers Community Housing Expansion Area, the City shall require project applicants for residential development to submit a detailed noise analysis, prepared by a qualified acoustical professional, to identify design measures to be implemented to achieve the City interior standard of 45 L_{dn} in the proposed new residences. The resulting study shall be submitted to the City for review and approval. Design measures such as the following could be required, depending on the specific findings of the noise study: double-paned glass windows facing noise sources; solid-core doors; increased sound insulation of exterior walls (such as through staggered-or double-studs, multiple layers of gypsum board, and incorporation of resilient channels); weather-tight seals for doors and windows; or sealed windows with an air conditioning system installed for ventilation. The building plans submitted for building permit approval shall be accompanied by certification of a licensed engineer that the plans include the identified noise-attenuating design measures and satisfy the requirements of City standards.</p>	Less than Significant	--

TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.10 Noise and Vibration (cont.)			
<p>NV-3: Would the project result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance?</p>	<p>Mitigation Measure 3.10-4: The City of Sacramento and the project contractor(s) shall implement the following measures as feasible and appropriate during all phases of project construction:</p> <ul style="list-style-type: none"> Whenever construction occurs within 130 feet of occupied residences (on- or off-site), temporary barriers shall be constructed around the construction sites to shield the ground floor of the noise-sensitive uses. These barriers shall be of ¾-inch Medium Density Overlay (MDO) plywood sheeting, or other material of equivalent utility and appearance, and shall achieve a Sound Transmission Class of STC-30, or greater, based on certified sound transmission loss data taken according to ASTM Test Method E90 or as approved by the City of Sacramento Building Official. Construction equipment staging areas shall be located as far as feasible from residential areas while still serving the needs of construction contractors. Use of auger displacement installation techniques for installation of foundation piles shall be used, if feasible. If impact pile driving is required, sonic pile drivers shall be used, unless engineering studies are submitted to the City that show this is not feasible, based on geotechnical considerations. 	Less than Significant	--
<p>NV-4: Would the project permit existing and/or planned residential and commercial areas to be exposed to peak particle vibration velocities greater than 0.5 inches per second due to project construction?</p>	None required	Less than Significant	--
<p>NV-5: Would the project permit adjacent residential and commercial areas to be exposed to peak particle vibration velocities greater than 0.5 inches per second due to light rail operations?</p>	None required	Less than Significant	--
<p>NV-6: Would the project permit historic buildings and archaeological sites to be exposed to peak particle vibration velocities greater than 0.2 inches per second due to project construction and light rail traffic?</p>	None required	Less than Significant	--
<p>NV-7: Would the project exceed applicable noise impact criteria as established by the Department of Housing and Urban Development?</p>	Mitigation Measures 3.10-1 and 3.10-2 (see above)	--	No Adverse Effect
<p>NV-8: Would the project exceed the Moderate or Severe noise impact criteria as defined by the Federal Transit Administration?</p>	Mitigation Measures 3.10-1 and 3.10-2 (see above)	--	No Adverse Effect

TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.10 Noise and Vibration (cont.)			
NV-9: Would the project exceed Moderate and Severe vibration impact criteria as defined by the Federal Transit Administration?	None required	--	No Adverse Effect
3.11 Public Services and Recreation			
PSR-1. Would the project result in the need for new or altered services related to fire protection, police protection, school facilities, or other governmental services beyond what was anticipated in the 2035 General Plan?	None required	Less than Significant	No Adverse Effect
PSR-2. Would the project cause or accelerate substantial physical deterioration of existing area parks or recreational facilities or create a need for construction or expansion of recreational facilities beyond what was anticipated in the 2035 General Plan?	None required	Beneficial	Beneficial
3.12 Transportation and Traffic			
TRA-1. Would the project have an adverse effect on intersections?	None required	Less than Significant	No Adverse Effect
TRA-2. Would the project have an adverse effect on area freeway facilities?	None required	Less than Significant	No Adverse Effect
TRA-3. Would the project have an adverse effect on transit operations or access to transit?	None required	Beneficial	Beneficial Effect
TRA-4. Would the project have an adverse effect on bicycle facilities or would it fail to provide adequate access for bicycle users?	None required	Beneficial	Beneficial Effect
TRA-5. Would the project adversely affect pedestrian circulation or fail to provide access for pedestrian users?	None required	Beneficial	Beneficial Effect
TRA-6. Would the project result in impacts related to construction-related activities?	<p>Mitigation Measure 3.12-1: <i>Construction Traffic Management Plan.</i> The City shall require the project applicant to develop a Construction Traffic Management Plan. The plan shall ensure that acceptable operating conditions on local roadways and freeway facilities are maintained. At a minimum, the plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> Description of trucks including: number and size of trucks per day, expected arrival/departure times, truck circulation patterns. 	Less than Significant	No Adverse Effect

TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Mitigation Measures	CEQA Impact Significance after Mitigation	NEPA Effect after Mitigation
3.12 Transportation and Traffic (cont.)			
TRA-6 (cont.)	<ul style="list-style-type: none"> Description of staging area including: location, maximum number of trucks simultaneously permitted in staging area, use of traffic control personnel, specific signage. Description of street closures and/or bicycle and pedestrian facility closures including: duration, advance warning and posted signage, safe and efficient access routes for emergency vehicles, use of manual traffic control, and roadway detours. Description of driveway access plan including: provisions for safe vehicular, pedestrian, and bicycle travel, minimum distance from any open trench, special signage, and private vehicle accesses. <p>Pursuant to City code, the management plan shall be reviewed by the City's Traffic Engineer and any affected agencies, incorporate any requested revisions, and then approved by the City's Traffic Engineer prior to the commencement of project construction. This management plan shall be distributed and implemented by all contractors and subcontractors involved in any project construction activity.</p>		
TRA-7. Would the project have an adverse cumulative effect on intersections?	None required	Less than Significant	No Adverse Effect
TRA-8. Would the project have an adverse cumulative effect on area freeway facilities?	Mitigation Measure 3.12-2: <i>I-5 Freeway Subregional Corridor Mitigation Program (SCMP)</i> . To mitigate the freeway mainline and off-ramp queuing impacts under the Cumulative Plus Project scenario, the Twin Rivers development shall remit monetary payment to the I-5 Freeway Subregional Corridor Mitigation Program (SCMP), This remittance shall be completed prior to the commencement of construction.	Less than Significant	No Adverse Effect
TRA-9. Would the project have an adverse cumulative effect on transit operations or access to transit?	None required	Beneficial	Beneficial Effect
TRA-10. Would the project have an adverse cumulative effect on bicycle facilities or would it fail to provide adequate access for bicycle users?	None required	Beneficial	Beneficial Effect
TRA-11. Would the project result in an adverse cumulative effect on pedestrian circulation or fail to provide access for pedestrian users?	None required	Beneficial	Beneficial Effect
TRA-12. Would the project result in adverse cumulative impacts related to construction activities?	Mitigation Measure 3.12-1 (see above)	Less than Significant	No Adverse Effect

**TABLE S-2 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Potential Impact	Mitigation Measures	CEQA Impact Significance <i>after Mitigation</i>	NEPA Effect <i>after Mitigation</i>
3.13 Utilities			
<p>UTL-1. Would the project result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments such that the project would require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts?</p> <ul style="list-style-type: none"> • Water Supply • Wastewater and Stormwater • Solid Waste Disposal • Electricity and Natural Gas 	None required	No Impact	No Adverse Effect

CHAPTER 1.0

Introduction

The City of Sacramento (City), in partnership with the Sacramento Housing and Redevelopment Agency (SHRA) and the Sacramento Regional Transit District (RT), proposes implementation of the Twin Rivers Transit-Oriented Development and Light Rail Station Project (proposed project). The proposed project would develop a mixed-income, mixed-use community comprising 218 replacement public housing units, 281 new market-rate rental and Low-Income Housing Tax Credit (LIHTC) units, a realigned internal street network, green open space, and other community amenities on two noncontiguous but proximate properties totaling approximately 24.2 acres that currently include public housing and undeveloped land. The project would also include construction and operation of the proposed RT Dos Rios Light Rail Station on the existing RT light rail Blue Line on and adjacent to North 12th Street.

1.1 Background to the Proposed Project/Purpose and Need

1.1.1 Choice Neighborhoods Initiative

Beginning in 2005, the Housing Authority of the County of Sacramento (HACOS) initiated development of a strategy to address current and future budget shortfalls as a result of reductions in federal funding for public housing operations and maintenance, leading to the adoption of an Asset Repositioning Strategy and Guiding Principles. The strategy called for, among other things, the upgrading of existing physical public housing stock and the decreased reliance on federal funding sources by leveraging private funding (debt and equity) and other sources such as grants and local funds. The existing Twin Rivers Community Housing Complex (then known as Dos Rios) was identified as a priority “Action Development” under this strategy.

In 2012, after a previously unsuccessful attempt, HACOS was awarded a two-year planning grant from the U.S. Department of Housing and Urban Development (HUD) under the Choice Neighborhoods Initiative (CNI) program¹ to develop a conceptual vision for the redevelopment of the existing Twin Rivers Community Housing Complex. The grant also provided funds to develop strategies to improve the broader neighborhood and the supportive services delivery system to help public housing residents improve their lives.

¹ For more information on the Choice Neighborhoods Initiative, see: http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/ph/cn. Accessed July 20, 2016.

The two-year CNI planning process built on previous planning efforts undertaken during the City's work on the River District and Railyards Specific Plans and included a substantial public involvement component. The CNI planning process culminated in the River District-Railyards Choice Neighborhoods Transformation Plan (NTP) submitted to HUD in January 2014, which called for, among other things, the potential demolition and redevelopment of the existing Twin Rivers complex into a mixed-use, mixed-income, transit-oriented development with a new light rail station at its center (Sacramento Housing and Redevelopment Agency, 2014). As described in the NTP, the redeveloped site would replace the public housing units on a one-for-one basis, and would include additional workforce- and market-rate rental housing to create a more economically balanced neighborhood that could reduce the effects of concentrated poverty. The redeveloped site would accommodate planned changes to the street network as contemplated by the City in the River District Specific Plan (City of Sacramento, 2011).

Also in 2012, the HACOS Board of Commissioners approved the selection of McCormack Baron Salazar (MBS) as the Master Developer for the Twin Rivers site. Since then, SHRA (on behalf of HACOS) and MBS have been working with RT on the design of the proposed Dos Rios light rail station adjacent to the Twin Rivers Community Housing Complex site on the existing Blue Line under the terms of a grant secured by RT from the Sacramento Area Council of Governments (SACOG) in 2013. Design of the station is approximately 35 to 50 percent complete, and RT has been awarded additional grant funds from SACOG to complete the design.

1.1.2 River District-Railyards Initiative

In 2015, HACOS applied for and was awarded a \$30 million implementation grant from HUD for the River District-Railyards Initiative. Over the course of the seven-year term of the grant, HACOS and its implementation team is expected to utilize the funds as seed money to secure additional resources and to carry out the strategies developed during the previously discussed planning process. Of the \$30 million, approximately 70 percent is intended to be used to develop replacement public housing for the existing units to be demolished, 15 percent will be used for programs and projects to improve the surrounding neighborhood, and 15 percent will be used for projects that promote resident self-sufficiency.

With respect to the existing Twin Rivers Community Housing Complex, it is anticipated that the site would be redeveloped in several phases as highly-competitive funds are applied for and received. In general, grant funds would be combined with private funds invested as a result of the sale of federal Low Income Housing Tax Credits (LIHTC) which are allocated to projects on a statewide basis by the California Tax Credit Allocation Committee (CTCAC), as well as funds from the Affordable Housing & Sustainable Communities Fund, awarded competitively by the California Department of Housing & Community Development (HCD) in cooperation with the Strategic Growth Council and California Air Resources Board.

1.1.3 Regional Transit Planning

Even though RT's existing Blue Line light rail route runs directly through the eastern portion of the River District, the nearest stations to the Twin Rivers Community Housing Complex are Alkali Flat/La Valentina, which is more than a half-mile to the south, and Globe, which is over a mile to the north across the American River. Access to the Green Line to Downtown is almost a half-mile to the west. The distance between stations leaves much of the eastern end of the River District effectively isolated from the rest of the city, with limited access to the regional transit system. Based on this identified need, RT conducted an alternatives analysis in 2005 to determine the location for a new station in the River District, with the principal goals being provision of a new station that would maximize opportunities for existing area ridership and eventually provide opportunities for increased ridership as the area undergoes transformation. The proposed location for the new Dos Rios site was chosen to meet these goals. Using grant funds provided through a SACOG Community Design Grant (Federal Transit Administration's Congestion Mitigation and Air Quality Improvement Program) and contributions from SHRA, preliminary design for the station and associated track layout has been undertaken and is continuing for the proposed Dos Rios Station site.

1.2 Purpose of This Document and Intended Use

This environmental document is a joint Environmental Assessment (EA), prepared pursuant to the National Environmental Policy Act (NEPA), and Initial Study (IS), prepared pursuant to the California Environmental Quality Act (CEQA). NEPA documentation is necessary whenever federal action or funding approval is sought. For this project, funding from HUD and the Federal Transit Administration is being sought, and thus compliance with NEPA is required. In the State of California, CEQA documentation is required whenever non-federal public agency approval of a discretionary project is sought. For this project, the City, SHRA, RT and other partners would fund, approve, construct, and operate the proposed project.

The focus of this joint IS/EA is to determine whether the proposed project would have significant environmental consequences. For purposes of NEPA, if the City determines that there would be no significant environmental effects as a result of the proposed project, the City would certify accordingly in its Request for Release of Funds (RROF) documentation that would then be forwarded to HUD. Unless HUD receives information that supports a denial, HUD would accept the City's certifications and follow its procedures. For purposes of CEQA, if the City and its cooperating local agencies determine that there are no significant environmental impacts that were not previously disclosed in the City's 2035 General Plan Master EIR, they would approve a tiered Negative Declaration or Mitigated Negative Declaration. These findings would then enable the City and its cooperating local agencies to move forward with construction of the project. On the other hand, if it is determined that significant environmental consequences would result from the proposed project, then an Environmental Impact Statement (EIS) (pursuant to NEPA) and/or a tiered Focused Environmental Impact Report (EIR) (pursuant to CEQA) would be prepared, unless modifications could be made mitigating all impacts so they are no longer significant, in which case a tiered Mitigated Negative Declaration could be prepared.

1.3 Roles of Participating Entities

1.3.1 NEPA Lead Agency

HUD's regulations for implementing NEPA can be found in the Code of Federal Regulations (CFR) Title 24, Section 58 (24 CFR 58). HUD regulations provide for the delegation of *Responsible Entity* status to local agencies, which allows those agencies to assume responsibility for environmental review, decision-making, and action that would otherwise apply to HUD under NEPA (24 CFR 58.4). For local public housing agencies such as SHRA, Responsible Entity status falls to "the unit of general local government within which the project is located that exercises land use responsibility" (24 CFR 58(a)(7)(B)). Therefore, the City of Sacramento has assumed the role of Responsible Entity under NEPA for purposes of the proposed project.

In addition, the Federal Transit Administration (FTA) may exercise some involvement with the project if funds are sought from FTA by RT to construct the proposed Dos Rios Light Rail Station. At its discretion, FTA may utilize the findings contained within this IS/EA to make its own NEPA determination for those portions of the project for which it would provide funds. In such an instance, RT would serve as a joint NEPA lead agency with the FTA as provided for under 23 CFR 771.109(c)(2). In that capacity, RT would prepare summary environmental review documents for its portion of the project (i.e., the Dos Rios Light Rail Station). The information contained within this IS/EA would form the basis for those documents. FTA would provide guidance during RT's efforts, and would independently evaluate those documents prior to making its own findings with respect to the project's environmental effects.

1.3.2 CEQA Lead Agency

Since it would have the principal responsibility for approving the proposed project, the City of Sacramento is the local lead agency for purposes of CEQA. Other agencies would serve as CEQA Responsible Agencies, and are described further below.

1.3.3 Other Participating Agencies

A number of local agencies would participate in approval, funding, construction, and/or operation of the proposed project. These agencies would each have discretionary authority concerning various aspects of the project, and would use this IS/EA as the basis for their own environmental findings under CEQA. These CEQA Responsible Agencies include:

- Sacramento Housing and Redevelopment Agency (SHRA)
- Sacramento Regional Transit District (RT)
- Housing Authority of the County of Sacramento (HACOS)
- Housing Authority of the City of Sacramento

1.4 Public Input Requested

The City is soliciting views of interested persons and agencies on the content of the environmental information presented in this document. Written comments should be sent at the earliest possible date, but no later than the end of the 30-day review period ending July 11, 2017.

Please send written responses to:

Dana Mahaffey
City of Sacramento Community Development Department
300 Richards Boulevard, 3rd floor
Sacramento, CA 95811
Direct Line: (916) 808-2762
DMahaffey@cityofsacramento.org

References

City of Sacramento. 2011. River District Specific Plan. Available at: <http://www.cityofsacramento.org/Community-Development/Planning/Long-Range/Specific-Plans>. Accessed July 20, 2016.

Sacramento Housing and Redevelopment Agency. 2014. River-District Railyards Choice Neighborhoods Transformation Plan. Available at: <http://www.shra.org/ChoiceNeighborhoodsInitiative/TwinRivers.aspx>. Accessed July 20, 2016.

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CHAPTER 2.0

Project Alternatives

2.1 Introduction

This section of the Initial Study/Environmental Assessment (IS/EA) defines and describes the alternatives examined in this environmental document. This IS/EA assesses two alternatives: 1) the No Project Alternative; and 2) the Twin Rivers Transit-Oriented Development and Light Rail Station Project (proposed project). These alternatives are described in detail later in this chapter.

2.2 Project Location

The project site is located in Sacramento, California, approximately 80 miles east of San Francisco and 85 miles west of Lake Tahoe. The City of Sacramento is bisected by a number of major freeways, including Interstate 5 (I-5) that traverses the state from north to south, and Interstate 80 (I-80) which provides an east-west connection between San Francisco and Reno, Nevada.

Figure 2-1 shows the regional location of the project site in the greater Sacramento region. The region is bisected by the Sacramento River, which flows south from the Lake Shasta Reservoir to the Sacramento River Delta, and the American River, which flows west from the Sierra Nevada Mountains before joining the Sacramento River in Sacramento.

Figure 2-2 shows an aerial view of the project site. The site is comprised of two subareas totaling approximately 24.2 acres that are separated from one another by North 12th Street and adjacent properties. The larger and westernmost subarea is referred to as the “Twin Rivers Community Housing Complex” and is comprised of a single parcel, approximately 21 acres in size. It is generally bounded by Dos Rios Street to the west, Richards Boulevard to the northeast, Louise Street to the east, and North 12th Street to the south. The second and easternmost subarea is referred to as the “Twin Rivers Community Housing Expansion Area” and is separated from the Community Housing Complex by intervening parcels and North 12th Street. The “Expansion Area” site is comprised of six parcels totaling approximately 3.2 acres. Collectively, the two subareas are referred to throughout this document as the “project site.”



SOURCE: ESRI 2014; SHRA, 2015

Twin Rivers Transit-Oriented Development and Light Rail Station Project . 140202

Figure 2-2
Aerial Overview of Project Site

2.3 Previous Environmental Planning in the Project Area

This IS/EA draws and tiers from two previously approved environmental documents: the City of Sacramento 2035 General Plan Master EIR and the River District Specific Plan EIR. Another plan, the Railyards Specific Plan Update, addresses planning efforts for a large-scale development that is in close proximity to the project site. Each of these documents is described below.

2.3.1 City of Sacramento 2035 General Plan and Master EIR

The City's 2035 General Plan (City of Sacramento, 2015a) sets policy guidelines for a host of important issues within the City, including economic growth and physical development. The General Plan incorporates a number of elements and the policies found within these elements are directly applicable to the project area, particularly with respect to land use, housing, and circulation.

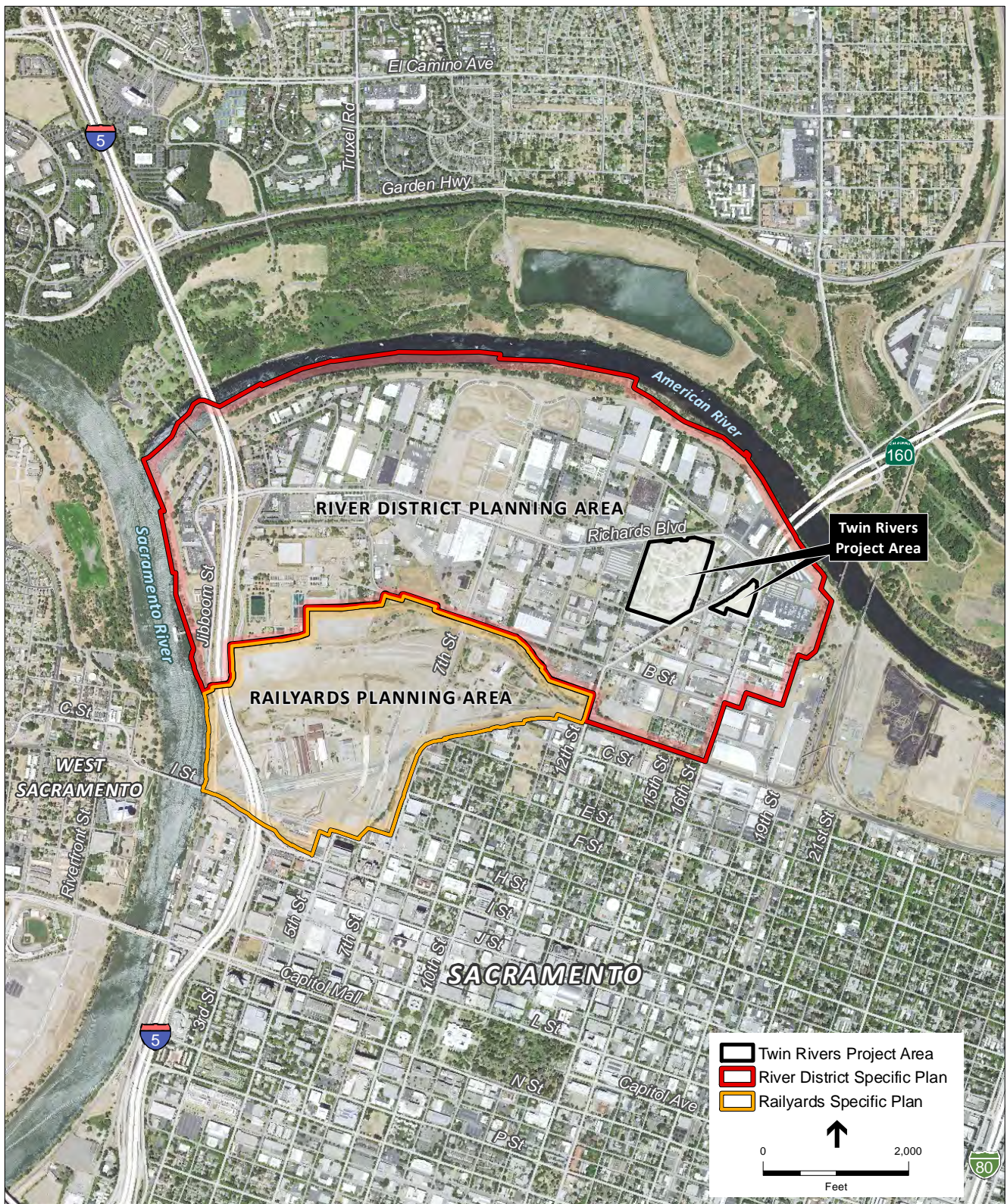
The environmental effects of the General Plan were evaluated in a Master EIR that was released for public circulation in August, 2014. The Final Master EIR was certified and the General Plan was adopted by the Sacramento City Council in March, 2015.

2.3.2 River District Specific Plan and EIR

The project site is within the River District Specific Plan (RDSP) area, located near the confluence of the American and Sacramento rivers just north of the Railyards Specific Plan area and downtown Sacramento. **Figure 2-3** shows the locations of the River District and Railyards planning areas. Beginning in 1990, the City targeted the River District as a redevelopment area. The River District, which has historically served primarily as a warehousing, distribution, and commercial area, has been re-envisioned as a mixed-use infill community connected to the surrounding area by a network of local streets, light rail transit, and bicycle and pedestrian pathways.

The RDSP (City of Sacramento, 2011) was adopted in 2011 and established planning and design standards for the redevelopment of approximately 773 acres of land. The RDSP area includes the entirety of the proposed project area under consideration in this IS/EA, and includes a number of land use and circulation elements and policies that are directly applicable to the proposed project.

The RDSP provides for development of a transit-oriented, mixed-use urban environment that would include 8,144 dwelling units, 3.9 million square feet of office, 854,000 square feet of retail/wholesale, 1.5 million square feet of light industrial, and 3,044 hotel units. Provision of a new light rail station on North 12th Street in the River District is a key part of the plan. The vision for the River District is that of an eclectic mix of uses that will transition from a primarily light-industrial, low-intensity commercial district to that of a series of distinctive walkable neighborhoods within a district that is contiguous to the American River and serves as the northern gateway into the central city.



SOURCE: Microsoft, 2011; ESRI, 2012;
 City of Sacramento, 2015; 2016; ESA, 2016

Twin Rivers Transit-Oriented Development and Light Rail Station Project . 140202

Figure 2-3
 Planning Areas in the Project Vicinity

The environmental effects of the RDSP were analyzed in a Draft EIR that was released for public circulation in July, 2010. The Final EIR was certified and the RDSP was adopted by the Sacramento City Council in February, 2011.

2.3.3 Railyards Specific Plan Update and Subsequent EIR

In June 2016, the City released a Draft Subsequent EIR for an update to the 2007 Railyards Specific Plan (2007 RSP). The Railyards Specific Plan Update (RSPU) revises and refines the land uses and circulation networks and design standards called for in the 2007 RSP. In addition, it provides for the development of a new Kaiser Permanente Medical Center, a multi-purpose sports and entertainment stadium that would serve as the home of a Major League Soccer team, and a new Stormwater Outfall to the Sacramento River. The RSPU and related documents were adopted and the Final Subsequent EIR for the RSPU was certified on November 10, 2016.

The RSP Area is approximately 244 acres that formerly housed a major locomotive works and maintenance yard for the Central Pacific (and later, Southern Pacific) Railroad, situated between the downtown Sacramento Central Business District and the River District, near the confluence of the American and Sacramento rivers. The RSP Area is located to the southwest of the project site and is generally bounded by North B Street and the Sacramento River Water Treatment Plant to the north; the Sacramento River and Interstate 5 (I-5) to the west; I Street, H Street, the Union Pacific heavy rail line, and the Alkali Flat neighborhood to the south; and 12th Street to the east, as shown on Figure 2-3. While the proposed project lies outside of the RSP Area, the Railyards and the River District are immediately adjacent to one another and are interrelated with respect to public infrastructure such as roadways and transit networks.

The RSPU provides for medium- and high-rise single use and mixed use residential, retail, office, and hotel structures as well as a hospital, medical office uses, and a sports and entertainment stadium. The RSPU also provides cultural/recreational facilities, including but not limited to the refurbished Central Shops buildings, as well as numerous public parks and walkways. The RSPU provides a network of public streets with vehicular, bicycle, and pedestrian access, parking facilities, and water, wastewater, and drainage infrastructure and facilities. The RSPU also includes approximately 32 acres designated for the development of the Sacramento Intermodal Transit Facility (SITF) south of the Union Pacific heavy rail line, which would provide multiple modes of public transit service including bus, rail, light rail, and passenger auto.

2.4 Environmental Setting and Surrounding Land Uses

Figure 2-2 shows an aerial view of the project vicinity, with the project site outlined. The project site is comprised of two areas totaling approximately 24.2 acres that are separated from one another by North 12th Street. The larger parcel (21 acres) west of 12th Street contains the existing Twin Rivers Community Housing Complex. The portion of the project area that lies east of 12th Street is comprised of six separate parcels, all of which are undeveloped and vacant. Portions of two additional parcels east of North 12th Street would also need to be acquired to facilitate project construction. **Table 2-1** lists the affected Assessor Parcel Numbers (APN), their respective sizes, their current zoning, and their General Plan land use designations.

**TABLE 2-1
AFFECTED ASSESSOR PARCELS**

APN	Owner	Address	Size (acres)	Existing Zoning	Existing General Plan Land Use Designation	Existing Use
001-0090-003	Sacramento County Housing Authority	1209 Sitka Street	21.0	R-5-SPD - Multi-Family Residential 70-150 Units / Acre/Special Planning District RMX-SPD - Residential Mixed Use/Special Planning District	Urban Center Low Density	Twin Rivers Community Housing Complex
001-0103-001	16th Street LLC	550 North 16th Street	1.48	C-1-SPD - Limited Commercial/Special Planning District C-2-SPD - General Commercial/Special Planning District	Urban Center Low Density	Vacant
001-0103-002	16th Street LLC	540 North 16th Street	0.23	C-1-SPD - Limited Commercial/Special Planning District	Urban Center Low Density	Vacant
001-0103-003	Harold G.	520 North 16th Street	0.57	C-1-SPD - Limited Commercial/Special Planning District	Urban Center Low Density	Vacant
001-0103-006	16th Street LLC	551 North 12th Street	0.58	C-1-SPD - Limited Commercial/Special Planning District	Urban Center Low Density	Vacant
001-0103-010	Bruce J.	1451 Sproule Avenue	0.32	C-1-SPD - Limited Commercial/Special Planning District	Urban Center Low Density	Vacant
001-0103-008	City of Sacramento	Sproule Avenue	0.03	C-1-SPD - Limited Commercial/Special Planning District	Urban Center Low Density	Vacant
001-0103-027	Loaves & Fishes	304 Friendship Alley	0.03	C-4-SPD – Heavy Commercial/Special Planning District	Employment Center (Low Rise)	Loaves & Fishes parking area (partial acquisition) ¹
001-0141-001	Bruce B.	McCormack Avenue	167 square feet	C-4-SPD – Heavy Commercial/Special Planning District	Employment Center (Low Rise)	Endless Auto Body parking area (partial acquisition) ²

NOTES:

¹ Approximately 0.03 acres of this 1.78-acre parcel would be acquired as part of the project. Existing uses on the remaining portions of the parcel would remain.

² Approximately 167 square feet of this 16,291-square foot parcel would be acquired as part of the project. Existing uses on the remaining portions of the parcel would remain.

2.4.1 Twin Rivers Community Housing Complex

The existing Twin Rivers Community Housing Complex is comprised of 218 public housing units in approximately 95 one and two-story multi-family structures that are divided into individual units. The existing population of the Complex is approximately 550 persons. **Table 2-2** shows the existing mix of residential units in the Complex.

**TABLE 2-2
EXISTING UNIT TYPES**

Unit Type	Number of Units
1 Bedroom	52
2 Bedroom	48
3 Bedroom	58
4 Bedroom	18
5 Bedroom	42
Total	218

NOTES:

¹ One 2-bedroom unit has been converted to a non-dwelling

² One 5-bedroom unit has been converted to a non-dwelling

SOURCE: SHRA

Most of the Complex was constructed in the mid-1940s, with a small subset of buildings built in the 1970s. As determined in the 2014 River District-Railyards Choice Neighborhoods Transformation Plan (SHRA, 2014), much of the Complex's buildings and infrastructure have reached the end of their useful lives.

The Complex is landscaped with turf and ornamental trees and shrubs. A tree inventory conducted in 2017 on the existing Complex logged 130 trees of 26 species with trunk diameters four inches or greater.

Two small playgrounds are located near the central portion of the Complex, and a basketball court is located at the Complex's northern boundary adjacent to Richards Boulevard. An administration building is located near the southeastern corner of the Complex.

The Complex contains an internal street structure and is accessible from several points along Richards Boulevard, North 12th Street, and Dos Rios Street. Richards Boulevard is a four-lane arterial roadway with a center turn lane. North 12th Street is also an arterial roadway comprised of four lanes that are restricted to one-way travel in a southwesterly direction. North 12th Street also contains RT's light rail transit (LRT) Blue Line that is comprised of two parallel trackways positioned on the eastern side of the roadway. Dos Rios Street is a two-lane local roadway with travel provided in both directions.

2.4.2 Twin Rivers Community Housing Expansion Area

The Twin Rivers Community Housing Expansion Area is made up of six vacant parcels east of North 12th Street which are dominated primarily by disturbed grassland and ruderal vegetation. Tree of heaven is the dominant tree species within the vacant parcels. Collectively, the parcels make up a site that is roughly triangle-shaped, bounded by North 12th Street to the west, North 16th Street to the east, Sproule Avenue to the south, and Richards Boulevard to the north at the northernmost tip of the site. As noted previously, North 12th Street is an arterial roadway comprised of four lanes that are restricted to one-way travel in a southwesterly direction. North 12th Street also contains RT's light rail transit (LRT) Blue Line that is comprised of two parallel trackways positioned on the eastern side of the roadway. North 16th Street is also an arterial roadway comprised of four lanes that serves as a counterpart to North 12th Street, with travel restricted to one-way travel in a northerly direction. Sproule Avenue is a short two-lane roadway that travels in an east-west direction between North 12th Street and North 16th Street. Since none of the parcels are developed, there are no formal points of ingress or egress to the adjacent streets.

2.5 Land Uses in the Vicinity

Surrounding land uses in the area are generally commercial, industrial, and institutional. Uses adjacent to the Twin Rivers Community Housing Complex include an indoor and outdoor vehicle and boat storage facility and a light commercial complex to the west across Dos Rios Street; similar light industrial and commercial uses to the south, including a print shop and an auto body shop; Loaves & Fishes to the southeast across North 12th Street, which is a private organization that provides services to the homeless; a used car dealership and a commercial/light industrial complex to the east; and the Smythe Academy Middle School and Dos Rios School Park to the north, separated by Richards Boulevard.

Land uses adjacent to the Twin Rivers Community Housing Expansion Area include commercial uses to the west across North 12th Street, including a restaurant supply store and automotive-related commercial retailers; the Downtown Ford dealership and a self-storage facility to the east across North 16th Street; Capital Sheet Metal to the immediate south, and a carpet store, a used car dealership, and an auto/body shop further south across Sproule Avenue, as well as the aforementioned Loaves & Fishes; and the junction of Richards Boulevard, North 12th Street, and North 16th Street to the immediate north.

2.6 Traffic and Circulation

2.6.1 Local Circulation

The Twin Rivers Community Housing Complex is served primarily by Richards Boulevard, an east-west four-lane arterial that connects I-5 to State Route (SR) 160, as well as North 12th Street and North 16th Street, which connect the RDSP area to Downtown Sacramento. North 12th and North 16th Streets are a one-way pair of four-lane roadways designated as SR-160 near the project site. Access to the Complex can also be gained using Dos Rios Street, which is a two-lane street that runs along the western side of the Complex and provides a connection to North 12th

and North B Streets to the south. A number of single-lane streets are also present within the Complex to provide internal circulation. Parking within the Complex is limited to approximately 315 dedicated parking stalls, about 40 of which are located near the Complex's management office and are reserved for community staff and visitors. Roadside parking is also available along Dos Rios Street on the western side of the complex.

The Twin Rivers Community Housing Expansion Area is bounded to the west and east by North 12th Street and North 16th Street, respectively. The southern side of the Expansion Area is bounded by Sproule Avenue, which is a two-lane roadway that runs in an east-west direction between North 12th Street and North 16th Street. Since the Expansion Area is currently vacant, there are no dedicated driveways or access point present, nor are there any parking facilities.

2.6.2 Regional Circulation

Regional vehicular access to the project site is provided by the freeway system that serves the central areas of Sacramento. I-5 is accessed via Richards Boulevard one mile west of the project site and provides access to the southern and northern portions of the city and county, as well as other Central Valley communities. Business Loop Interstate 80 (Business 80), also known as the Capitol City Freeway (and SR-51 between U.S. Route 50 (US-50) and Auburn Avenue), lies approximately one mile east of the project site. Direct access to Business 80 is provided via SR-160 and the 12th Street and 16th Street crossings of the American River, about 0.25-mile north of the project area. SR-160 provides access to North Sacramento, northeastern portions of the city and county, South Natomas via Northgate Boulevard, and I-80 extending into Placer County. The east-west US-50 lies approximately 2.2 miles south of the project site. Access to US-50 is provided primarily via 15th and 16th Streets. To the east, US-50 serves eastern portions of the city and county and extends into El Dorado County. To the west, US-50 extends via the Pioneer Bridge to West Sacramento and Yolo County.

2.6.3 Public Transit

Bus service is provided within and near the project site by RT. Existing RT bus routes include Route 11, which runs from downtown north on North 7th Street to Richards Blvd., then west to I-5 into Natomas; Route 15, which runs along Richards Boulevard from I-5 to North 16th Street and northeast across the American River into North Sacramento; Route 33, which circulates along Sunbeam Avenue, Vine Street, Richards Boulevard and Dos Rios Street, running to the Alkali Flat neighborhood to the south; and Route 29, which runs from Downtown Sacramento to North Sacramento along North 12th Street and North 16th Street. Route 33 was created primarily to serve the Twin Rivers neighborhood in the absence of a station on the Blue Line.

RT's Blue Line light rail service passes through the project area along North 12th Street, but there is no station near the project site. The nearest stations along the Blue Line are the Globe Station approximately one mile to the north across the American River, and the Alkali Flat/La Valentina Station approximately 0.7-mile to the south near 12th Street's intersection with D Street. The nearest Green Line station, Township 9, is 0.4-mile to the west at North 7th Street and Richards Boulevard.

2.6.4 Bicycle Access

Several bicycle pathways and lanes are present in the project vicinity. The American River Bike Trail is a Class I bikeway that provides access to adjacent areas of Sacramento, including the Sacramento River and downtown Sacramento to the west and eastern Sacramento and Sacramento County to the east. The American River Bike Trail lies north of the project site along the American River levee, and is accessible from the intersection of Richards Boulevard and North 12th Street. Class II bike lanes are also provided along both sides of Richards Boulevard north of the project site. Dos Rios Street is classified by the City as a bike route, but no dedicated bike lanes are provided along the roadway in the vicinity of the project site (City of Sacramento, 2015b).

2.7 Alternative 1 – No Project Alternative

Under Alternative 1, the project would not be constructed. Replacement housing at the existing Twin Rivers Community Housing Complex would not be constructed, and the existing units would remain in use. Additional housing at the Twin Rivers Community Housing Expansion Area east of North 12th Street would also not be constructed, and the currently vacant parcels would remain in their current condition or made available for development by other parties. A new light rail station would not be constructed on North 12th Street. The entire area would remain in its present condition, subject to the land use and zoning designations currently in place.

2.8 Alternative 2 – Twin Rivers Transit-Oriented Development and Light Rail Station Project

Alternative 2 (proposed project) would construct and operate the Twin Rivers Transit-Oriented Development and Light Rail Station Project. **Figure 2-4** shows a plan view of the proposed project. There are three main development components to this alternative: 1) the redeveloped and expanded Twin Rivers Community Housing Complex west of North 12th Street; 2) the new Twin Rivers Community Housing Expansion Area east of North 12th Street (Block “F” in Figure 2-4); and 3) the new Dos Rios Light Rail Station on the eastern side of North 12th Street, adjacent to the Expansion Area.

The proposed project would develop a mixed-income, mixed-use community comprising 218 replacement public housing units, 281 new market-rate rental Low Income Housing Tax Credit (LIHTC) units, a realigned internal street network, green open space, and other community amenities on two noncontiguous but proximate properties totaling approximately 24.2 acres. The project would also include the construction of the proposed RT Dos Rios Light Rail Station on North 12th Street on the RT light rail transit (LRT) Blue Line, including realigning light rail tracks to accommodate the proposed station, extending light rail signal blocks, and adding a traction power substation. Other project elements would include appropriate utility improvements to meet the needs the project. Each of these elements is described in detail below.

UNIT COUNT BY TYPE

Block	Area (Acres)	3BR L/W	3BR TH	1BR	2BR	3BR	4BR	Total	DU/Acre	Parking
A	2.92		17	36	49	1	1	104	35.6	77
B	1.66		6	24	31	4	1	66	39.8	50
C	2.75		12	27	33	6	3	81	29.5	64
D	3.25	4	6	30	41	4	2	87	26.8	82
E	1.15		3	24	32	2	1	62	53.9	47
L	2.68		15	57	27			99	36.9	100
Total	14.41	4	59	198	213	17	8	499	34.6	420
		0.8%	11.8%	39.7%	42.7%	3.4%	1.6%			



Existing Street Grid
Large blocks inhibit north-south and east-west movement through the study area

SMYTHE ACADEMY SCHOOL SITE

Richards Boulevard

Vine Street

TO INTERSTATE 5

Legend

- 2-Story 3-Bedroom Townhouse
- 3-Story Garden Apartment Building
- 3-Story Multi-Family Apartment Building
- 4-Story Multi-Family Apartment Building
- 4-Story Multi-Family Apartment Building with Non-Residential Ground Floor
- 3-Story 3-Bedroom Live/Work Unit
- Parking



Dos Rios Street

Street W

North 12th Street

TO DOWNTOWN SACRAMENTO

Sproule Avenue

North 16th Street



2.8.1 Redeveloped and Expanded Twin Rivers Community Housing

Housing

The proposed project would utilize both the 21-acre sub-area that is currently occupied by the Twin Rivers Community Housing Complex and the currently vacant 3.2-acre Twin Rivers Community Housing Expansion subarea across North 12th Street to construct a range of residential unit sizes and types. The units would include multi-story townhouses, garden apartments, live/work units, and multi-family apartment buildings. The existing 218 housing units on the Complex would be demolished and replaced with approximately 400 new housing units. Approximately 99 housing units would be constructed in the Expansion Area, for a total in both areas of approximately 499 units, providing a net increase of 281 housing units. **Table 2-3** lists the unit types and unit specifications for the proposed project. Each residential unit type would contain a mix of public housing, affordable, and market-rate units.

**TABLE 2-3
PROPOSED UNIT TYPES**

Unit Type	Bedroom Size	Number of Units
Townhouse	3-Bedroom	59
Multi-Family Apartments	1-Bedroom	198
	2-Bedroom	213
	3-Bedroom	17
	4-Bedroom	8
Live/Work	3-Bedroom	4
Total Units		499

Figure 2-5 shows the proposed building heights within the project area. **Figure 2-6** shows an architectural rendering of the project site when viewed from the existing Complex's main entrance leading from North 12th Street.

Residential unit designs would include multiple energy efficiency and water conservation features, including high-efficiency water fixtures and toilets; high-efficiency glazing, insulation, and sealing; and Energy-Star rated appliances, including central heating, ventilation and cooling (HVAC) system. All of these features would be part of the overarching goal for the project to attain Leadership in Energy and Environmental Design (LEED) certification, which combines energy-efficiency measures similar to those described above with New Urbanist principles such as neighborhood connectivity, smart locations, neighborhood design, and access to jobs, quality schools, quality services, and retail.





SOURCE: Torti Gallas and Partners • McCormack Baron Salazar, 2015

Twin Rivers Transit-Oriented Development and Light Rail Station Project . 140202

Figure 2-6
Conceptual Street Rendering

Street Alignments

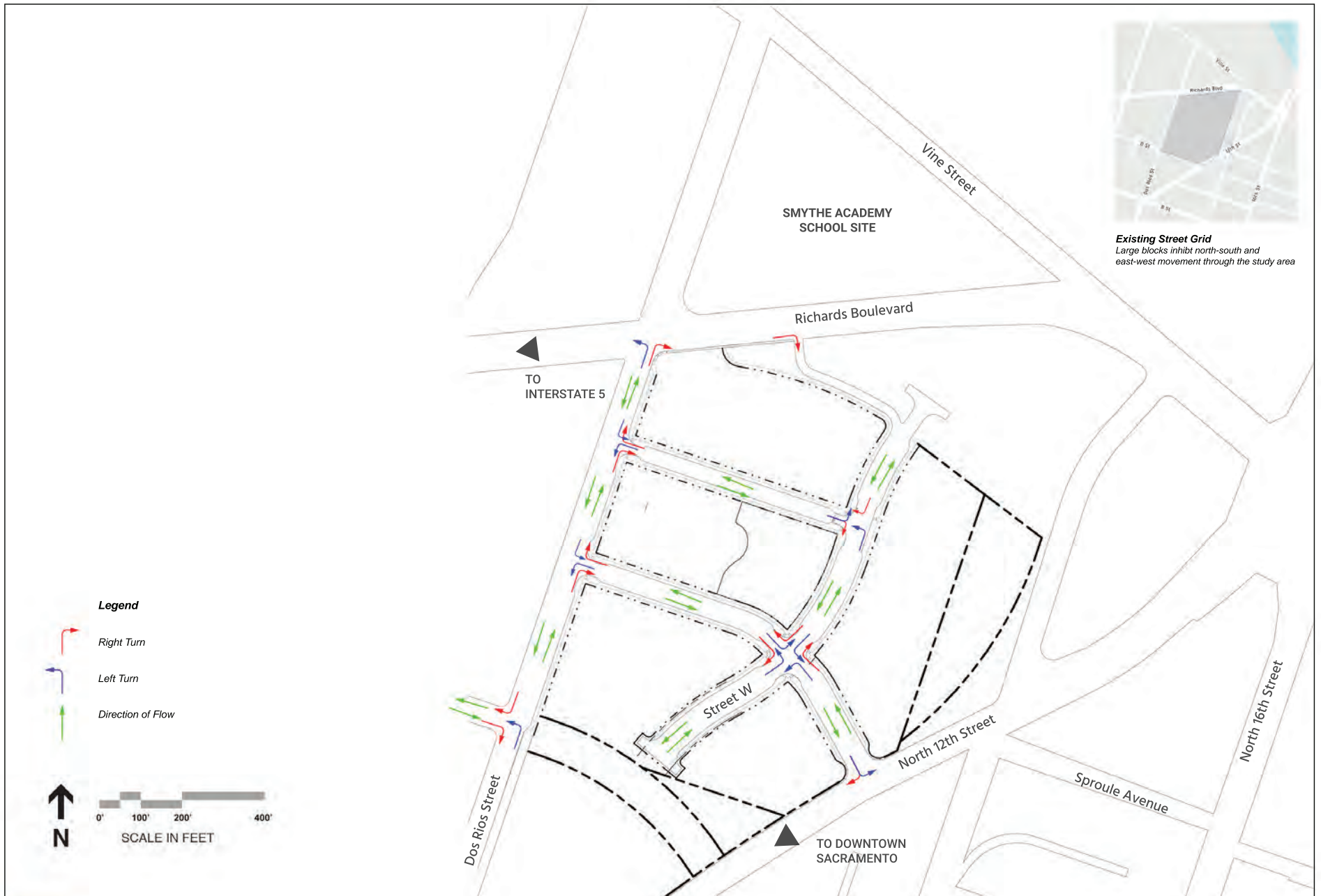
Twin Rivers Community Housing Complex

Within the existing Twin Rivers Community Housing Complex, the proposed project would realign existing streets to facilitate mobility, accessibility, access, development, and continuity with the projected buildout of the RDSP. Proposed turning movements into and out of the project site are shown in **Figure 2-7**. The altered street alignment within the Complex would complement the planned partial realignment of Richards Boulevard, which is not a part of this project but is discussed in more detail below. The proposed project would eliminate neighborhood feeder streets within the existing Complex to make way for new street alignments and alter the shape of residential blocks. Figure 2-4 shows the proposed street layout. Roadways within the Complex area would have the following configurations:

- “Street W” on the site plan would serve as the main roadway within the Complex, and would contain a landscaped median/center turn lane, one traffic lane in each direction, one bicycle lane in each direction, parking lanes, sidewalks and landscape planters along both sides of the roadway, for a total right-of-way (ROW) width of 90 feet.
- The principal entry street would enter the Complex from North 12th Street and pass through the Complex to the existing Dos Rios Street on to the west of the Complex. This roadway would consist of two different street sections. The portion of C Street between W Street and 12th Street would contain a landscaped median/center turn lane, one traffic lane in each direction, one bicycle lane in each direction, parking lanes, sidewalks and landscape planters along both sides of the roadway, for a total ROW width of 90 feet. The portion of C Street between Dos Rios Street and W Street would contain one traffic lane in each direction, one bike lane in each direction, parking lanes, sidewalks and landscape planters along both sides of the roadway, for a total ROW width of 78 feet,
- One additional internal street, comprised of one traffic lane in each direction, parking lanes, sidewalks and landscape planters along both sides of the roadway, for a total ROW width of 68 feet.

Approximately 420 parking spaces would be included as part of the project within the reconfigured Complex. These would be provided through a combination of dedicated parking stalls and on-street parking, for a net increase of approximately 105 spaces above the 315 that are currently available within the Complex.

As mentioned above, the RDSP projected that several streets within the RDSP planning area would eventually be realigned and/or improved to accommodate future buildout and provide more effective circulation. With respect to the proposed project, these planned realignments include realignment of Richards Boulevard in the northern portion of the project site. While not part of the proposed project, this eventual realignment is shown in Figure 2-4 for reference. Richards Boulevard would be realigned to intersect North 12th Street and connect with North 16th Street south of the existing intersections for both roadways.



The realignment of Richards Boulevard would be developed as a separate project at a later time and is not a part of the proposed project. However, the proposed project would preserve the ROW for the eventual full construction of this planned-for RDSP circulation improvements.

Other planned roadway improvements in the project area include the reconfiguration of North 12th Street to include a dedicated bikeway. The City is currently in the design stage for the North 12th Street Complete Streets Project, which will add the bikeway and ancillary improvements to North 12th Street between the American River Bridge near Richards Boulevard to the north and H Street to the south, and reduce a portion of North 12th Street from 4 vehicular lanes to 3 (City of Sacramento, 2015c). Construction of improved sidewalks along the eastern side of North 12th Street between Richards Boulevard and North B Street is currently being planned as part of a separate project. While these two projects are not a part of the proposed project, extensive coordination between the various implementing parties is ongoing to ensure that the proposed project would not interfere with the other projects currently underway or planned in the area.

Twin Rivers Community Housing Expansion Area

With respect to the proposed Twin Rivers Community Housing Expansion Area east of 12th Street (Block “F” in Figure 2-4), new driveways from Sproule Avenue and North 16th Street would be constructed to provide access to the Expansion Area. Approximately 114 parking spaces would be provided to serve the 110 housing units planned for the area.

Landscaping and Open Space/Recreation Areas

Figure 2-8 shows the conceptual landscaping plan for the proposed project. Several open space and recreation areas would be constructed in the reconfigured Twin Rivers Community Housing Complex area, including a 1.15-acre park area in the center of the Complex, as well as a pool and amenity space in the northern portion of the Complex and several small parklets/tot-lots in other areas of the site. A child care center would be located in the northeastern portion of the Complex area and would have its own playground.

All roadways within the Complex would be lined with trees and supplemented by shrubs and other vegetation to provide a complete landscaped effect. Parking areas would also be interspersed with trees. Similar landscape treatments would be applied in the Twin Rivers Community Housing Expansion Area across North 12th Street.

Of the existing 130 trees in the existing Twin Rivers Community Housing Complex area, approximately 100 would be removed. These trees would be replaced with a mix of deciduous and evergreen trees.

Exterior lighting on both the existing Complex and in the Expansion Area sites would consist of street lighting as well as security and building lighting at appropriate locations. All lighting would comply with City of Sacramento exterior lighting standards.



Utilities

Domestic and Irrigation Water Supply

Water supply for the proposed project would be provided by existing water supply infrastructure. The City currently has three water transmission mains (pipes larger than 12 inches) that serve the RDSP area. The proposed project is anticipated to access water supply from existing ancillary water pipes that draw water from a 36-inch main in North B Street and 42-inch main in 18th Street. Proposed domestic water and irrigation water services would be metered services protected with City-approved backflow devices in accordance with City of Sacramento cross control policies. Fire water services would also be protected with approved backflow devices, but would not be metered. The fire water system would be a looped system, with multiple points of connection to the City's public water main system to increase on-site fire supply and pressure.

Stormwater and Sewer Systems

The existing Twin Rivers Community Housing Complex is currently served by the Combined Storm-Sewer System (CSS). The CSS is an underground pipe network system that conveys both storm drain flows and sanitary sewer flows through a single pipe. The Sacramento Regional County Sanitation District (SRCSD) provides wastewater collection and treatment for the project site. Wastewater is conveyed to the Sacramento Regional Wastewater Treatment Plan (SRWTP). The proposed project improvements would re-direct the project storm water runoff from the CSS into the separated storm drain system adjacent the project site. The project sanitary sewer flows will continue to be directed into the CSS adjacent the project site.

The proposed Twin Rivers Community Housing Expansion Area east of North 12th Street is located within the City's CSS. Existing CSS mainlines are located within Sproule Avenue and North 16th Street, ranging in size from 8-inch to 15-inch diameter pipes. Within the CSS, the City standards require on-site sanitary sewer and on-site storm drain systems to be separated, with separate service connections to the City CSS mainlines. Although exact service locations of the proposed storm and sewer services have not been determined, it is assumed the proposed project storm drain and sanitary sewer services would be provided from the existing CSS mainlines located within Sproule Avenue and North 16th Street.

The City requires all infill developments to comply with the City's "Do No Harm" policy, which requires that all existing affected drainage systems function as well, or better, as a result of the new construction, and that there is no increase in flooding or in water surface elevation with negative impacts to individuals, streets, structures, infrastructure, or property. In order to comply with this standard, underground storage facilities through the use of oversized pipes, storm vaults, or similar methods, would be incorporated into the project design. A storm drain study would be submitted to the City Department of Utilities demonstrating compliance with the City's "Do No Harm" policy at time of improvement plan review. Because all flows within the CSS are diverted to the County sewer treatment facilities, the portion of the site located within the CSS system would not be required to provide post-construction stormwater quality treatment. However, the portion of the project site located outside of the CSS (Twin Rivers Community Housing Complex) would provide post construction stormwater quality treatment in accordance with

current City requirements. Post construction treatment methods may include stormwater planters, vegetated swales, subsurface infiltration methods, and possibly underground mechanical systems.

Dos Rios Light Rail Station

The proposed Dos Rios Light Rail Station would add a stop on RT's Blue Line, which runs from Watt Avenue and I-80 in North Sacramento to its southerly terminus at Cosumnes River College located on the southern edge of Sacramento. The Dos Rios Light Rail Station would be located on the east side of North 12th Street, north of Sproule Avenue, adjacent to the Twin Rivers Community Housing Expansion Area.

Station and Tracks

The proposed layout of the light rail station and associated trackwork is shown in **Figure 2-9**. The addition of the station would require realignment of the existing light rail tracks along North 12th Street and site preparation to include demolition, grading, filling and compacting of the station site. The station would consist of raised platforms that allow for safe entry and exit to and from light rail cars for both north and southbound rail lines. The existing track configuration would be shifted east to create space for the platform between the tracks and North 12th Street. Space between the north and southbound tracks would be widened on the approaches to the station to accommodate Overhead Catenary System (OCS) poles that support the overhead electrical conductors.

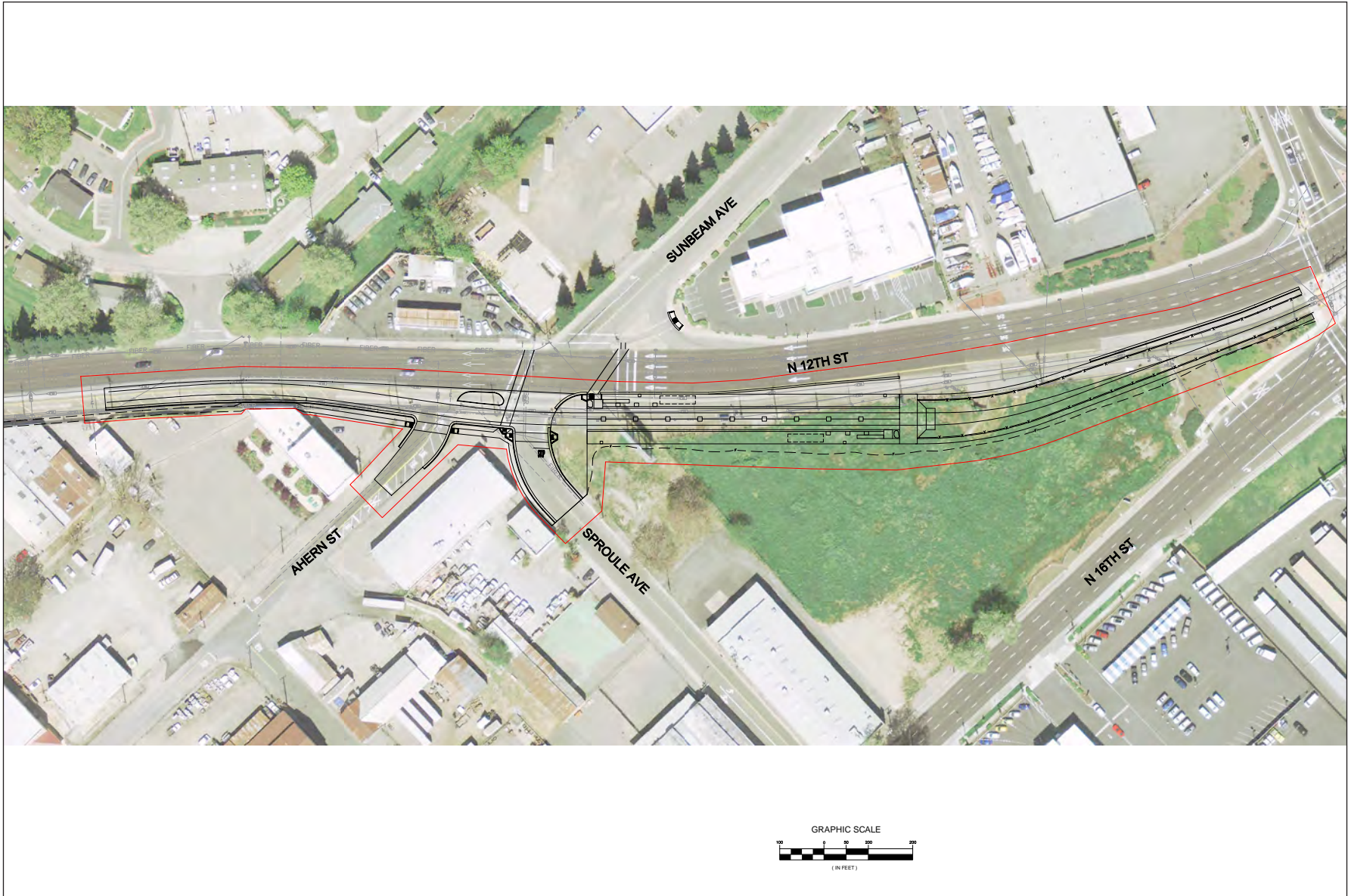
Realignment of the tracks would require acquisition of additional ROW for RT. Two private property parcels would be affected, one on either side of where Ahern Street meets North 12th Street. **Figure 2-10** shows the locations of these two parcels and the amount of property that would be required to facilitate realignment of the RT tracks. Both acquisition areas are currently utilized for parking for the adjoining businesses. **Table 2-4** shows the characteristics of the partial acquisition parcels.

TABLE 2-4
PARTIAL ACQUISITION PARCEL CHARACTERISTICS

Assessor's Parcel Number	Total Size of Parcel (sq ft)	Portion of Parcel to be Acquired	Percentage of Parcel to be Acquired
001-0103-027	179,467	1,306	1%
001-0141-001	16,458	167	1%

SOURCE: RT, 2016

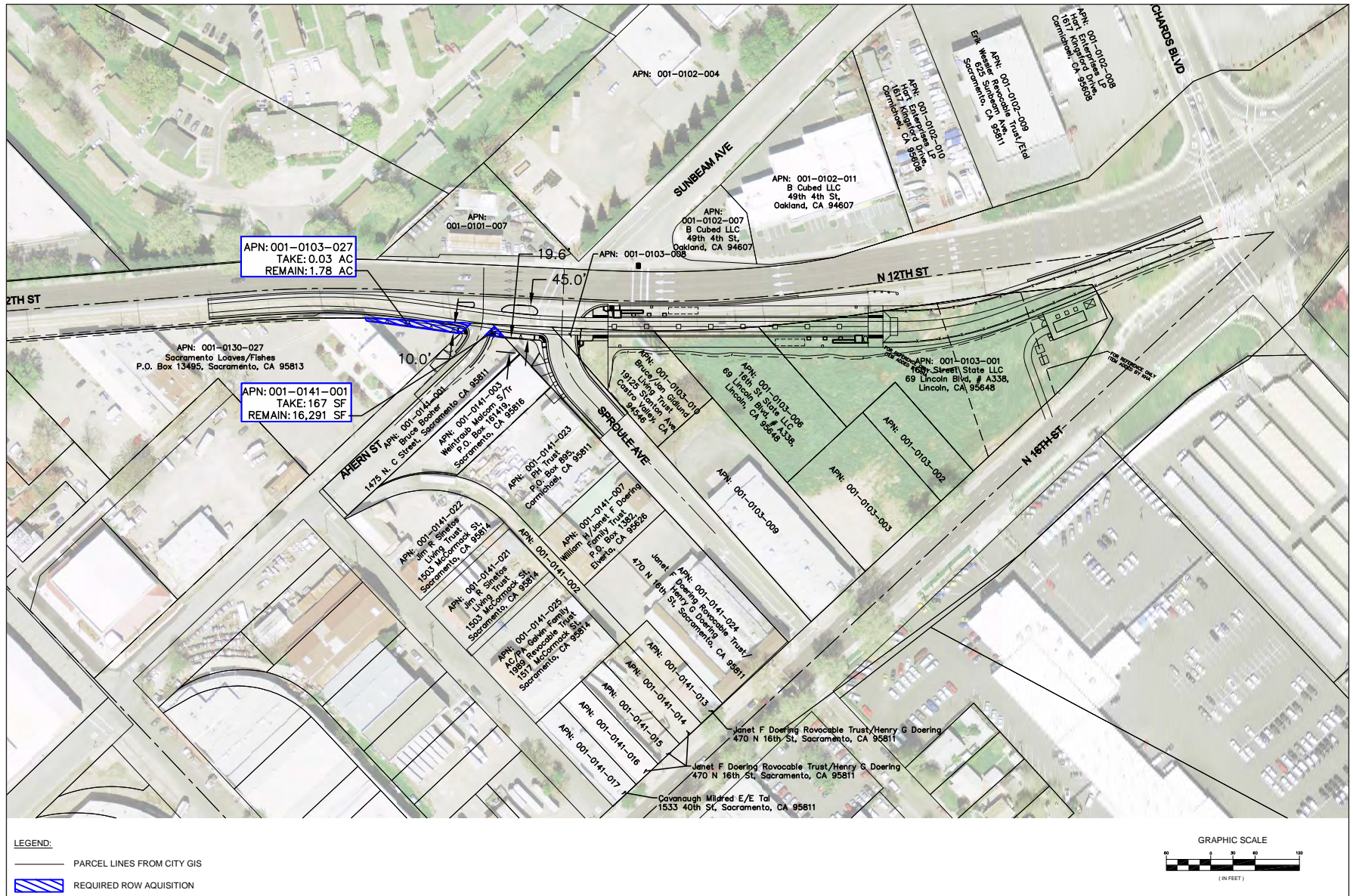
As shown in Table 2-4 and in Figure 2-10, acquisition of a small portion of each parcel would be required, and no full property acquisitions would be needed. Federal and State laws govern the taking of private property, and include requirements for just compensation and other assistance measures. Accordingly, the acquisition of property would occur in accordance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and Amendments (Public Law 91-646) and the California Relocation Act (California Government



SOURCE: Kimley Horn

Twin Rivers Transit-Oriented Development and Light Rail Station Project . 140202

Figure 2-9
Dos Rios LRT Station Plan



SOURCE: Kimley Horn

Twin Rivers Transit-Oriented Development and Light Rail Station Project . 140202

Figure 2-10
 Dos Rios LRT Track Realignment Acquisition Requirements

Code, Chapter 16, Section 7260 *et. seq.*) and related laws and regulations. The acquisition process that would be implemented for this project is explained in detail in Section 3.9 of this IS/EA, Land Use, Population and Housing, and Socio-Economics.

Off-Site Switch Replacement and Signals

South of the proposed station site, there is a crossover that connects the western (inbound, or southbound) and eastern (outbound, or northbound) tracks on North 12th Street, between C and D Streets. The crossover allows trains to use the eastern track for travel in both directions between Richards Boulevard and the Alkali Flat Station (located on 12th Street, between D and E Streets), but currently the crossover is used for emergency purposes only and requires light rail personnel to manually operate the switch. The proposed project would add a powered switch machine, which would be required since the proposed track realignment construction phasing would require trains to operate on a single track through the Dos Rios Station area during portions of the construction. Addition of a powered switch machine would minimize the operating cost of diverting trains to the opposite track. The powered switch machine would be embedded in the pavement similar to the existing manual switch.

The turnouts would be controlled from track circuits and onboard equipment, and not from a central location. A new signal case would be required to house control equipment and interfaces, and would appear similar to similar cases typically used for traffic signal equipment. Railway approach circuits would be added for normal direction of rail traffic. New train signals would be added at appropriate locations.

Where signalized roadway intersections exist in close proximity to a railroad crossing, the railroad signal control equipment and the traffic signal control equipment should be interconnected. The normal operation of the traffic signals controlling the intersection should be preempted to operate in a special control mode when trains are approaching to provide for safe vehicular and pedestrian movements (Institute of Transportation Engineers, 2006). Existing signal blocks to the north and south of the proposed station would require modifications to their timing and logic functions to accommodate the new station. These blocks are controlled by an existing relay case, located to the north of the American River Bridge and another, located at the northeast corner of 12th Street and D Street. The project would add an instrument house at Dos Rios Station and would also modify traffic signal interfaces (pre-emption) between the American River and 12th and E Streets to accommodate dwell time for the new station. The instrument house would have a footprint of approximately 10 feet by 14 feet and would be about 9 feet in height.

Traction Power Substation

Traction power substations (TPSS) are spaced at calculated distances along electrified light rail trackways to allow for power redundancy. Existing TPSS facilities along this section of the Blue Line are located to the south and north of the proposed Dos Rios Station site, but are not optimally situated to provide the required power distribution needed to operate the line following the addition of the new station. As such, a new TPSS would be required in the vicinity of the new station.

TPSS facilities must be located no more than 400 feet from the tracks and the associated OCS poles. Three options are under consideration for placement of the new TPSS:

- Option 1, on City-owned land in the triangular-shaped parcel at the intersection of North 12th Street, North 16th Street, and Richards Boulevard, immediately north of the Twin Rivers Community Housing Expansion Area. This option would require RT to acquire the site from the City.
- Option 2, in the Twin Rivers Community Housing Expansion Area in the area shown as Block “F” in Figure 2-4. This parcel is currently privately-held, but would be acquired as part of the development of the Expansion Area.
- Option 3, on the existing Twin Rivers Community Housing Complex, adjacent to North 12th Street near the existing entrance to the housing complex at the intersection of Sitka Street and North 12th Street.

Regardless of location, the new TPSS would consist of a prefabricated building measuring 14 feet in width, 44 feet in length, and 12 feet in height located within a fenced area approximately 40-feet by 60-feet in size. Maintenance vehicle access would be provided by a 12-foot-wide vehicle gate and a 3-foot-wide personnel gate. Besides the prefabricated building, the fenced area would also include a 12-foot by 25-foot paved vehicle apron between the adjacent public roadway and the gate. Landscaped screening would be provided around the facility.

Electricity, Communications, and Natural Gas

There are existing overhead high voltage Sacramento Municipal Utility District (SMUD) distribution lines along the east side of North 12th Street that would be in conflict with the revised track realignment. The RDSP calls for these overhead lines to be placed underground. SMUD has indicated that these are radial lines, which are not SMUD’s preferred distribution configuration since they feed customers from a single point. SMUD proposes to reroute this overhead line segment via other streets to create an underground loop configuration, which would allow for more service redundancy. The SMUD line undergrounding would be paid for through existing undergrounding commitments between SMUD and City of Sacramento.

Existing City of Sacramento fiber optic traffic signal interconnects exist along North 12th Street. The City fiber optic lines would be rerouted away from the light rail tracks.

Existing PG&E 6” and 8” natural gas distribution pipes cross the light rail tracks at Sproule Avenue. These pipes would be sleeved where the tracks get realigned.

Project Construction

Twin Rivers Community Housing Complex and Expansion Area

The redevelopment of the existing Twin Rivers Community Housing Complex and construction of the Expansion Area housing east of North 12th Street would take approximately seven years, beginning in 2018 with anticipated project completion in 2025. Property acquisition, infrastructure availability, market conditions, demolition, and the timing of the new Dos Rios light rail station construction would have an effect on the phasing of physical development of the housing facilities. In the Expansion Area, the civil, track and systems (signaling, communications, and overhead contact system) work would be completed prior to the construction of the adjacent housing. This would be done to avoid nighttime noise and other construction-related effects on residents that

could arise if housing were to be constructed and occupied prior to the station's construction. Construction within the existing Housing Complex, and construction of the light rail station platform proper, would not be subject to these constraints, and could be constructed at any time.

The proposed phasing plan is shown in **Figure 2-11**. The project would be constructed in phases to meet market conditions and also to potentially facilitate efficient relocation of residents from existing units into new replacement housing as the existing units are demolished. The phasing would involve sequential steps as new housing is constructed, residents are moved into the new units, and the older vacated units are demolished, with the process repeating itself until the project is complete. Some residents may need to be moved to off-site housing during certain phases of construction.

A detailed Relocation Plan would be developed to maximize the options available to residents. These options could include temporary and/or permanent relocation with housing choice vouchers, relocation to other public housing units, and/or the phased demolition and development described previously that would allow residents to move from their current unit to a new unit within the Complex. All relocations would be required to occur in accordance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and Amendments (Public Law 91-646) and the California Relocation Act (California Government Code, Chapter 16, Section 7260 *et. seq.*) and related laws and regulations.

Physical construction of the housing units would occur in typical fashion, with demolition occurring first, followed by site preparation and grading, construction of roadways and utility improvements, and then construction of the housing units. Construction of the housing units would begin with the pouring of foundations, followed by framing and installation of rough electrical, plumbing, and HVAC components. Interior and exterior walls would be finished, followed by final fitting out of interior components and exterior landscaping.

Dos Rios Light Rail Station

Construction of the station and associated light rail modifications would take approximately 18 months for infrastructure work and 12 months for construction of the station proper. Some night work would likely be required to avoid disruption to existing light rail service and also to avoid traffic conflicts along North 12th Street. The civil, track, and systems (signaling, communications, and overhead contact system) work would be completed prior to the construction of the adjacent housing in the Expansion Area. This would be done to avoid nighttime noise and other construction-related impacts to residents that could arise if housing were to be constructed and occupied prior to the station's construction.

Construction of the station would require the temporary closure of Sproule Avenue and Ahern Street at North 12th Street to accommodate construction of the widened track alignment. Construction would generally occur in four phases: 1) utility relocation and streetwork; 2) track realignment and signal modifications; 3) station construction; and 4) TPSS placement.



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Figure 2-11
Proposed Phasing Plan

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CHAPTER 3.0

Environmental Analysis

Introduction

This section provides an overview of the organization and methods of the environmental analysis included in this IS/EA.

Organization of the Analysis

The subsections in Chapter 3 are organized by environmental resource area. Thirteen separate resource areas are presented in these subsections, plus an additional section that briefly describes issues that were not subjected to detailed evaluation. For each environmental resource area, the analysis follows the presentation and organization described below.

Introduction

The introduction provides an overview of the resource area and the issues that are discussed in the subsection.

Environmental Setting

This section describes the existing conditions for the resource area under discussion. The environmental setting provides a point of reference for assessing the environmental effects of the project alternatives. The environmental setting discussion addresses the conditions that exist prior to implementation of the project alternatives and establishes the baseline by which the project alternatives are measured for environmental impacts.

Applicable Policies and Regulations

This section presents relevant information about federal, state, regional, and/or local laws, regulations, plans, or policies that pertain to the environmental resources addressed in each section.

Summary of Analysis Under the 2035 General Plan Master EIR and River District Specific Plan EIR

This section provides an overview of the analysis contained within City of Sacramento 2035 General Plan Master EIR and the City's River District Specific Plan EIR. Future development on

the project site is considered in both of these documents, and both documents provide important information concerning the setting in and around the project site and the anticipated effects of implementing the project pursuant to those two plans. CEQA Guidelines Sections 15175 through 15179.5 describe the process for evaluating subsequent projects that have already been considered in a Master EIR. Similarly, CEQA Guidelines Sections 15162 and 15384 allow for “tiered” evaluation of projects whereby they are assessed within the context of the findings that were presented in a previously certified Program EIR. For the proposed project, this section describes the findings of the two previous EIRs, and also discusses any mitigation measures or policies that were adopted that would apply to the project.

Impact Assessment and Mitigation Measures

This section evaluates the project-specific and cumulative environmental effects that could occur with construction and operation of the project alternatives and, where applicable, identifies mitigation measures to avoid or minimize adverse effects. The major elements of this discussion are described below.

Standards of Significance and Evaluation Criteria

The “standards of significance” describe the criteria by which an environmental impact is determined to be significant and therefore in need of mitigation to avoid or minimize the impact. These criteria are largely based on the State CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.), which generally describe circumstances when impacts would be considered significant. However, since this IS/EA is a combined CEQA and NEPA document, and since CEQA and NEPA use the term “significant” differently, consideration is also given to the definition of significance that is appropriate for NEPA evaluation. “Evaluation Criteria” are listed for specific areas of interest to the Department of Housing and Urban Development (HUD), as listed in their NEPA regulations or NEPA guidance documents. Similar criteria, if any, are also listed for other federal agencies with a potential interest in the project, such as the Federal Transit Administration (FTA).

Where possible, significance criteria are based on federal, state, or local standards. For example, air quality significance criteria, or thresholds, are based on the state, federal, or local ambient air quality standards. In other cases, such as visual resources, the significance criteria are based on standards provided in CEQA and NEPA guidance documents or other established professional standards. In cases where there are overlapping federal, state, local regulations or standards of significance, this IS/EA evaluates environmental effects against the most stringent of the applicable regulations or significance criteria.

Environmental Analysis

The environmental analysis describes the effects of the alternatives on existing conditions, and also compares effects of each of the two project alternatives. Whenever possible, the impacts are quantified so that the effects of the alternatives can be compared.

Effects can generally be thought of as the change from existing conditions. Since this IS/EA serves as a combined CEQA/NEPA document, below is a description of how effects are discussed in this document for both CEQA and NEPA.

This IS/EA employs both qualitative and quantitative significance thresholds to evaluate environmental effects. Some environmental topic areas, such as air quality and noise, lend themselves to scientific or mathematical analysis and, therefore, to quantification. For other impact categories that are more qualitative, such as aesthetics or cultural resources, a quantitative threshold is not generally feasible. In these cases, the definition of significant effects from the CEQA Guidelines (Section 15382), “a substantial adverse change in physical conditions,” has been applied as the significance criterion.

For CEQA, effects are classified as “significant,” “potentially significant,” “less than significant,” “no impact,” and “beneficial.” These five impact levels are defined as follows:

- **Significant impacts** include effects that would exceed the established standard of significance. For example, air emissions that would exceed federal ambient air quality standards, or unauthorized take of a rare or endangered species would be a significant impact.
- **Potentially significant impacts** include effects where a significant impact may occur depending on the timing or conditions present at the time of construction or operation, but depending on unknown factors it is not evident whether a significant impact would occur. The analysis in these instances conservatively assesses the worst-case conditions, but the discussion acknowledges that there is uncertainty regarding the likelihood or severity of the impact.
- **Less-than-significant impacts** include effects that would not exceed the standards of significance. For example, if an area has been determined to be adjacent to habitat for a sensitive species, but if the project would not directly or indirectly impact that species, then the effect would be considered less than significant. Similarly, if the ambient noise levels would increase because of project operations, but the noise levels would not exceed City, HUD, or FTA criteria for a specified level of impact, the effect would be considered less than significant.
- **No impact** includes a condition when the project alternative would clearly not result in any effect on an environmental resource. For example, if there are no agricultural uses on or adjacent to the project site, the project would result in no impacts to agricultural resources.
- **Beneficial** effects include effects that enhance or improve an existing condition, such as conversion of a vacant urban lot to a modern residential facility.

The determination of a significant impact under NEPA is a function of context and intensity. Context means that the significance of an action must be analyzed in several contexts, such as society as a whole (e.g., human, national), the affected region, the affected interests, and the locality. Both short- and long-term effects are relevant. Intensity refers to the severity of impact. To determine significance, the severity of the impact must be examined in terms of the type, quality, and sensitivity of the resource involved; the location of the proposed project; the duration of the effect (i.e., short- or long-term), and other considerations of context.

For NEPA, HUD's guidance lists the following impact determinations:

- **Beneficial effect;**
- **No impact anticipated;**
- **No adverse effect;**
- **Significant or potentially significant** requiring avoidance or modification which may require an EIS.

Mitigation Measures

For each impact identified as being significant under CEQA or minor adverse/significant under NEPA, this IS/EA identifies mitigation measures to avoid, minimize, or eliminate the negative effect for each of the alternatives. The discussion indicates whether the mitigation measures individually or collectively avoid or minimize the effect to a less-than-significant level. If the mitigation measures would not successfully minimize the effects to a less-than-significant level, the impacts are classified as "significant and unavoidable" for the purposes of CEQA and "unavoidable and adverse" for the purposes of NEPA. Based on regulations contained within the CEQA Guidelines and the Council on Environmental Quality (CEQ) NEPA Regulations, such a finding would necessitate preparation of an EIR for the purposes of CEQA and/or an Environmental Impact Statement (EIS) for the purposes of NEPA.

Enumeration of Impacts

Topical issue areas are presented in alphabetical order in this document. For each topical issue, each impact is numbered using an alpha-numerical system that identifies the environmental issue and corresponds with the standards of significance that have been previously described. For example, "*AES-1. Would the project have a substantial adverse effect on a scenic vista?*" denotes the first impact discussion in the Aesthetics and Visual Resources section. The letter codes used to identify the environmental issues discussed in this document are identified below.

- AES – Aesthetics and Visual Resources
- AQ – Air Quality and Greenhouse Gas Emissions
- BR – Biological Resources
- CR – Cultural and Paleontological Resources
- EJ – Environmental Justice
- GEO – Geology, Soils, and Mineral Resources
- HAZ – Hazards and Hazardous Materials
- HYD – Hydrology and Water Quality
- LU – Land Use, Population and Housing, and Socioeconomics
- NV – Noise and Vibration
- PS – Public Services and Recreation
- TRA – Transportation and Circulation
- UT – Utilities and Service Systems

3.1 Aesthetics and Visual Resources

3.1.1 Introduction

Aesthetic or visual resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project would alter the perceived visual character and quality of the environment, an aesthetic or visual impact could occur. This IS/EA section evaluates the potential environmental impacts associated with light and glare, as well as impacts to existing visual resources as defined in the discussion of applicable standards of significance and evaluation criteria below. This analysis of potential visual effects is based on review of a variety of data, including project maps and drawings, aerial and ground-level photographs of the project area, a site visit to the project area, and other data in the record, including local planning documents. The study area for visual resources encompasses the landscapes directly affected by the proposed project and the surrounding areas from which the project would be visible. The visual analysis focuses on travel route views and views from parks and recreational areas. Visual resources consist of the landforms, vegetation, rock and water features, and cultural modifications that create the visual character and sensitivity of a landscape.

3.1.2 Environmental Setting

Existing Visual Conditions

Regional and Local Setting

The detailed Environmental Setting for the City of Sacramento is provided in the Background Report to the 2035 General Plan EIR. As described in the report, Sacramento is frequently referred to as the "City of Trees" due to the abundance of trees throughout the City.

The City is located at the confluence of the Sacramento and American rivers. These river corridors create two of the primary natural scenic resources of the City. The Sacramento River is situated in a north/south direction, and serves as the western boundary for much of the City. The American River flows eastward through the City and meets the Sacramento River near the City's western boundary. The American River Parkway, an open space greenbelt/riparian corridor, extends 29 miles from the confluence of the Sacramento River east to Folsom Dam. The two rivers provide recreational opportunities, create a permanent visual break in the pattern of urban development, and provide scenic contrast and interest in the city.

The average elevation in the Central City portion of Sacramento is approximately 25 feet above sea level. The City of Sacramento's downtown is distinguished by high-rise towers, a few of which are more 400 feet in height and are visible from many locations around the City. Besides the towers, other noteworthy buildings in downtown Sacramento also include the California State Capitol and Sutter's Fort located in downtown and midtown Sacramento, respectively. Historic buildings also make up an important component of the built environment and are located mostly within the Central City.

Project Site

As described in Chapter 2.0, Alternatives, the 24.2 acre project site is comprised of two areas separated from one another by North 12th Street. To the west of North 12th Street is the existing Twin Rivers Community Housing Complex, and to the east of North 12th Street is the currently vacant Twin Rivers Community Housing Complex Expansion Area.

Primarily built in the 1940s, the existing Twin Rivers Community Housing Complex is generally characterized by public housing units in one- and two-story multi-family structures separated by internal streets that provide access to the residences. The Complex is landscaped with turf and ornamental trees and shrubs, including magnolia, cypress, and London plane. Two small playgrounds are located near the central portion of the Complex, and a basketball court is located at the Complex's northern boundary adjacent to Richards Boulevard. For the most part, the Complex presents a typical urban residential visual setting that is somewhat similar to that which would be experienced in an older apartment Complex dating from the same period. Representative photos taken within the Complex are provided in **Figure 3.1-1**.

The Twin Rivers Community Housing Complex Expansion Area east of North 12th Street is currently vacant and is generally dominated by disturbed grassland and ruderal vegetation. Tree of heaven is the dominant tree species within the vacant parcels. The area presents a visual appearance that is typical of an urban vacant lot, with generally untended vegetation and occasional debris. Representative photos of the Expansion Area are provided in **Figure 3.1-2**.

Areas Surrounding the Project Site

The project site is located within the River District Specific Plan (RDSP) area, which is north of the downtown Sacramento Central City area. The RDSP can be characterized as highly urbanized, with an emphasis on commercial and light industrial uses. According to the Design Guidelines for the RDSP, the area surrounding the project site is "eclectic in its existing uses and mixture of building sizes, ranging from two-unit dwellings in a suburban setting, to large warehouses and trucking companies requiring large paved surfaces for deliveries of goods." Landscaping throughout the area is sparse, and generally consists of occasional ornamental trees adjacent to roadways, but minimal landscaping within the interior of nearby parcels. The existing Twin Rivers Community Complex is a residential island that is surrounded by commercial and light industrial uses. These uses are typically housed in large warehouse-type structures that are surrounded by expansive parking and outside storage areas. Many of these uses are automotive or trucking in nature, such as Downtown Ford to the east of the Expansion Area, or the Valet Indoor RV and Self-Storage facility immediately west of the existing Twin Rivers Community Housing Complex. As a result of these types of uses, large parking areas and parked vehicles are prominent features in the area's visual setting. **Figure 3.1-3** presents representative photos of the area surrounding the project site.

Existing Lighting

Existing nighttime lighting in the vicinity primarily consists of street lighting along North 12th Street, Richards Boulevard, and Dos Rios Street, as well as security lighting for the surrounding businesses.