

DRAFT

Initial Study and Mitigated Negative Declaration

City Creek-Alabama Street Bikeways Project

City Project No. str17001

September 2022

Lead Agency:



City of Highland

27215 Base Line

Highland, CA 92346

Prepared by:



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

215 N. Fifth Street

Redlands, CA 92374

DRAFT MITIGATED NEGATIVE DECLARATION CITY CREEK-ALABAMA STREET BIKEWAYS PROJECT

Lead Agency: City of Highland

Project Proponent: City of Highland
27215 Base Line
Highland, CA 92346

Project Location: The City Creek-Alabama Street Bikeways Project (Proposed Project) would be located along the west levee of City Creek from Base Line to Alabama Street within the City of Highland and along both sides of Alabama Street from 3rd Street south approximately 2,000 feet within the limits of the cities of Highland and San Bernardino.

Project Description:

The Proposed Project would build 1.7 miles of new Class I bikeway on the west City Creek levee between Base Line and Alabama Street and 0.6 miles of new Class I/Class II bikeways along Alabama Street between 3rd Street and the south limits of the cities of Highland and San Bernardino.

The Class I bikeway located along the west City Creek levee would consist of a 14-foot-wide Portland cement concrete (PCC) trail with two five-foot wide bicycle lanes, one four-foot-wide pedestrian lane, and two-foot graded shoulders on each side. The Class I bikeway would connect to the existing Boulder Avenue bridge undercrossing and a new State Route 210 (SR-210) undercrossing would be built as part of the Proposed Project. The proposed Class I bikeway would connect to existing Class II bikeways along 5th Street/Greenspot Road. Trail users would use the existing crosswalk at the intersection of 5th Street and Church Street to travel to the south side of 5th Street and connect to the Class I bikeway on the south side of 5th Street/Greenspot Road. The Class I bikeway would also include a crossing at its intersection with the existing Robertson's Ready Mix driveway located approximately 500 feet northeast of Alabama Road. A rest area would also be included along the trail. Potential locations for the rest area would be along the trail near Base Line Street or near Boulder Avenue.

On the northbound side of Alabama Street, a Class I bikeway would be provided from the southern limits of the Proposed Project north to approximately the City Creek levee. From this point north to 3rd Street the Class I bikeway would become a Class II bikeway. The northbound Class I bikeway in this area would include a two-foot-wide barrier separating the bikeway from vehicle travel lanes, a four-foot-wide pedestrian lane, two four-foot-wide bicycle lanes, and a two-foot-wide buffer. The northbound Class II bikeway would consist of a six-foot wide asphalt concrete (ac) bicycle lane.

On the southbound side of Alabama Street, a Class II bikeway would be provided from the intersection of Alabama Street and 3rd Street to the southern limits of the Proposed Project. The southbound Class II bikeway would include a bicycle lane that varies from six to eight feet wide. The southern portion of the Class II bikeway would also include a 16-foot-wide buffer separating the bicycle lane from vehicle travel lanes.

Construction activities associated with the Proposed Project include: earthwork, including excavation and grading; placement of pavement; construction of retaining walls; installation of fencing, railing, access gates, trail delineators, and signage; painting of pavement striping and pavement markings; and

construction of appurtenant features. Construction staging would be on the north side of 5th Street, east of City Creek.

Public Review Period: September 16, 2022 to October 17, 2022

Mitigation Measures Incorporated into the Project to Avoid Significant Effects:

Biological Resources

BIO-1: Habitat Enhancement and Restoration Plan. The Project will offset impacts to Riversidean alluvial sage scrub (RAFSS) and southern willow scrub through implementation of habitat restoration and enhancement activities. As a result, a Habitat Enhancement and Restoration Plan (HERP) will be developed subject to approval by the appropriate regulatory agencies prior to the start of Project construction. The HERP will outline measures that will be implemented to offset the Project-related temporary impacts to native vegetation communities and will include an extensive non-native vegetation removal program. The HERP will also describe the areas within the Project impact area where habitat enhancement and restoration activities will occur. Habitat enhancement and restoration activities will also be conducted in areas outside (adjacent to or near) the Project impact area to offset permanent impacts to native vegetation communities at a 1:1 ratio. As part of the HERP and following completion of Project construction activities, all temporary impact areas will be recontoured to match existing topography within City Creek and the biological study area (BSA). Temporary impact areas within RAFSS will be re-seeded with a native plant palette that matches the surrounding RAFSS to increase the rate of revegetation of the temporary impact areas.

BIO-2: Santa Ana woolly star and slender-horned spineflower survey. A focused pre-Project rare plant survey shall be conducted prior to the start of ground-disturbing activities to ensure no new individuals of Santa Ana woolly star and/or slender-horned spineflower are present in the Project impact area prior to the start of ground-disturbing Project activities, including vegetation removal. The survey will be conducted in accordance with the USFWS, CNPS, and CDFW protocols for surveying special-status plant populations during the blooming periods for slender-horned spineflower (April to June) and Santa Ana River woolly star (May to September) occurring the season prior to the start of Project activities. If slender-horned spineflower and Santa Ana River woolly star are not identified within the Project boundaries or in adjacent areas where Project activities may result in impacts to these species, then ground-disturbing activities may commence. If either species is detected during the pre-Project survey and the location(s) is/are outside the Project impact area, then an Environmentally Sensitive Area (ESA) shall be established around the plant at an appropriately sized buffer determined by a botanist and no Project activities may occur inside the buffer for any reason. If either species is detected during the pre-Project survey and Project-related impacts are unavoidable, then the individuals will be transplanted to a nearby recipient site in coordination with USFWS. If transplanting the individuals is not feasible or if the plant has begun to enter senescence, the qualified botanist will arrange to collect seeds and keep them secure so that the City can have the seeds dispersed in the restoration areas or have the seeds deposited into a USFWS-approved seed bank, such as the Rancho Santa Ana Botanic Garden.

BIO-3: Environmentally Sensitive Areas (ESAs). Prior to the start of ground-disturbing Project activities (including vegetation removal) highly visible barriers (such as orange construction fencing) will be installed along the boundaries of the Project impact area footprint (including necessary construction access), where it abuts natural vegetation communities, to designate Environmentally Sensitive Areas (ESAs) to be preserved. No Project activity of any type will be permitted within ESAs outside the project footprint. All construction equipment shall be operated in a manner so as to prevent accidental damage to nearby preserved areas outside the Project impact area. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within these protected zones. Silt fence barriers will be installed at the ESA boundary to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned

grading activities. All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland areas within the Project impact area. The designated upland areas will be located in such a manner as to prevent any spill runoff from entering waters of the U.S. Ingress and egress of construction equipment and personnel shall be confined to designated access points and cross-country travel by vehicles and equipment shall be prohibited.

BIO-4: Worker Environmental Awareness Program (WEAP). Prior to the start of Project activities, a Worker Environmental Awareness Program (WEAP) shall be developed to educate all Project personnel on the sensitive biological resources present or potentially present in and around the project site. A qualified biologist with experience with the sensitive biological resources in the region will present the WEAP to all personnel working in the project area (either temporarily or permanently) prior to the start of project activities. The WEAP may be videotaped and used to train newly hired workers or those not present for the initial WEAP. The WEAP could include, but will not be limited to: discussions of the sensitive biological resources associated with the project, project-specific measures to avoid or eliminate impacts to these resources, consequences for not complying with project permits and agreements, and contact information for the lead biologist. Logs of personnel who have taken the training will be kept on the site at the construction or project office.

BIO-5: Biological monitoring. A qualified biologist (biological monitor) with experience monitoring for and identifying sensitive biological resources known to occur in the area will be present during all ground-disturbing activities related to the project, including vegetation removal. As required by project permits, the qualifications of a biological monitor may need to be submitted to appropriate wildlife agencies for approval based on the resources the biologist will be monitoring. Biological monitoring duties will include, but are not limited to, conducting worker education training, verifying compliance with project permits, ensuring project activities stay within designated work areas, and inspection of exclusion fencing. The biological monitor will have the right to halt all activities in the area affected if a special-status species is identified in a work area and is in danger of injury or mortality. If work is halted in the area affected as determined by the biological monitor, work will proceed only after the hazards to the individual is removed and the animal is no longer at risk, or the individual has been moved from harm's way in accordance with the Project's permits. The biological monitor will take representative photographs of the daily activities and will also maintain a daily log that documents general project activities and compliance with the project's permit conditions. Non-compliances will also be documented in the daily log, including any measures that were implemented to rectify the issue.

BIO-6: Pre-activity survey for federally and/or state listed avian species. Prior to the start of Project activities, including vegetation removal, and regardless of the time of year the activities commence, a qualified avian biologist will perform a pre-activity survey for federally and/or state listed avian species, including the coastal California gnatcatcher (CAGN), least Bell's vireo (LBVI), and southwestern willow flycatcher (SWFL). The purpose of this survey will be to detect the presence and location(s) of listed bird species that may be using the areas in and around the Project for foraging, migration stopover, or other non-nesting activities. The targeted species for this survey may change depending on the season the survey is conducted at the discretion of the qualified avian biologist if one or more species is not present in the region at the time of the survey (e.g., when LBVI and SWFL are on their wintering grounds). The area to be disturbed and a 500-foot buffer will be surveyed no more than three days prior to Project activities to determine if listed bird species (CAGN, LBVI, SWFL) are present in or near the project site. The exact survey methods shall be determined by the avian biologist but will include, at a minimum, walking throughout the Project and areas within the 500-foot survey buffer to provide 100 percent visual and aural coverage of the survey area. If listed bird species is/are present on the project site or within the 500-foot survey buffer, then a qualified avian biologist will be present during the Project activities to monitor the behavior of the birds present to ensure the Project activities do not result in altered behavior that would fall under the definition of "take" by the corresponding federal and California Endangered Species Acts under which the species is listed. The biologist would also

be present to ensure that Project activities do not occur within suitable habitat for the listed species outside of the Project impact area. If a listed species is present and Project-related impacts to the species are unavoidable, then any Project activities that had commenced in the vicinity of the species shall be ceased and consultation with the appropriate regulatory agency (USFWS or CDFW) shall occur. If no listed species are found to be present during the pre-activity survey, then Project activities may commence without implementing additional species protection measures.

BIO-7: Pre-construction nesting bird survey. To the greatest extent practicable, ground-disturbing activities, including fence installation and vegetation removal, shall be conducted outside of the nesting bird season (September 16 through January 31). If ground-disturbing activities, including fence installation and vegetation removal, are scheduled to occur during the nesting bird season (February 1 through September 15), then a qualified avian biologist shall conduct a preconstruction survey of the Project impact area and a 500-foot buffer no more than 72 hours prior to the start of ground-disturbing activities to identify the location of any active nests on or in the vicinity of the Project impact area. If Project activities cease for any reason and result in no Project-related activity on the Project site for longer than 10 calendar days during the nesting season, then the pre-construction nesting bird survey shall be performed again prior activities resuming to ensure no new nests have been built on or in the vicinity of the Project impact area. The survey shall focus on detecting special-status bird species, including but not limited to coastal California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher. Non-sensitive (i.e., common) avian species shall also be a focus of the survey. If an active nest is observed, an appropriately sized non-disturbance buffer determined by the qualified avian biologist will be established around the active nest location until the qualified avian biologist has determined that nesting is complete, and young are no longer using the nest area. If a federally or state-listed bird species (coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher) is found to be nesting within 500 feet of the Project impact area, then additional biological monitoring during Project activities occurring in the vicinity of the non-disturbance buffer to ensure the Project activities do not result in impacts to the species or the nest. Coordination with the appropriate regulatory agencies shall occur if an active nest belonging to a listed avian species is located in an area that is subject to Project-related impacts and impacts to the active nest or its inhabitants are unavoidable. If no active nests belonging to special-status or common avian species are detected during the pre-construction survey, then Project activities may commence without implementation of additional nesting bird protection measures.

BIO-8: San Bernardino kangaroo rat (SBKR) exclusion fencing. Temporary San Bernardino kangaroo rat (SBKR) exclusion fencing shall be constructed around work areas during Project construction within suitable habitat where there is no barrier (such as riprap) limiting accessibility of the channel bottom. The fencing shall be installed at least two feet underground and extend at least four feet straight above ground, reinforced with metal T posts or similar support materials. If underground installation is not possible due to extremely rocky soils, then the bottom two feet of the fencing shall be folded out and sandbags placed on the edges of the fencing. It is recommended that the fencing material be slick to prevent animals from climbing into the excluded areas, such as Aqua 30 coextruded polyethylene liner or Animex™-style fencing. Installation of the exclusion fencing shall be overseen by a SBKR biologist. Integrity of the exclusionary fencing will be inspected by a biologist or qualified project personnel on a regular basis throughout Project construction. If potential SBKR burrows are found within the proposed pathway of the exclusion fencing construction, then the qualified SBKR biologist will either help the fencing crew identify an alternate route to avoid potential burrows or will hand-excavate potential SBKR burrows at least 200 feet in advance of the fence installation crew/equipment. Any SBKR found during burrow excavation activities will be released outside of the exclusion area into suitable habitat by the SBKR biologist as authorized by the necessary permit mechanisms. Construction of artificial release burrows may be required to facilitate release of SBKR individuals. Any necessary repairs to the exclusionary fencing shall be made within 24 hours of observation. Once construction activities are complete, the fencing will be removed. Fence removal activities shall be overseen by a qualified SBKR biologist.

- BIO-9: San Bernardino kangaroo rat (SBKR) trapping.** Following installation of the exclusionary fence, and prior to initial ground disturbing activities, including vegetation removal, the project area will be trapped by a biologist in possession of a federal 10(a)(1)(A) permit to conduct trapping studies for San Bernardino kangaroo rat (SBKR), and any small mammals captured, including SBKR, will be released into adjacent habitat outside of the fence on the side nearest to the point of capture. The biologist will live-trap and remove as many SBKR as possible from within the enclosed construction area. Trapping will be conducted for at least five consecutive nights. If SBKR are captured on the fourth or fifth night, trapping will continue until there have been two consecutive nights of trapping with no SBKR captures, or until the USFWS and CDFW has provided written approval to discontinue trapping. The biologist will mark all captured SBKR on the chest with a non-toxic marker to identify any SBKR that reenter the exclusion area during the trapping effort. If there are recaptures, the exclusion fence will be examined, repaired as necessary, and trapping will be conducted until there are two consecutive nights with no SBKR captures, or until the USFWS and CDFW has provided written approval to discontinue trapping. Construction of artificial release burrows may be required to facilitate release of SBKR individuals during the trapping effort. Once the trapping effort has been complete, Project activities may commence within the excluded areas. Inspections of the exclusion fence shall be conducted on a daily basis and any required maintenance shall be performed immediately upon discovery or no later than one hour before dusk on the day it was discovered.
- BIO-10: Pre-construction burrowing owl surveys.** Two pre-construction burrowing owl surveys shall be conducted in suitable habitat areas in accordance with the methods outlined in CDFW's Staff Report for Burrowing Owl Mitigation (2012) or the most current accepted protocol recommended by CDFW. The first survey shall be conducted between 14 and 30 days prior, and the second no later than 24 hours prior to the start of ground-disturbing Project activities (including vegetation removal). If burrowing owls or sign of burrowing owl (e.g., whitewash, pellets, burrows) are found within or adjacent to the Project impact area, then additional avoidance and minimization measure may need to be implemented, including but not limited to, establishing non-disturbance buffers, seasonal work restrictions, biological monitoring, or passive relocation. If passive relocation is required or it is determined by a qualified avian biologist that Project-related impacts to burrowing owls are unavoidable, then coordination with CDFW shall be performed.
- BIO-11: Pre-construction bat surveys.** Pre-construction bat surveys consisting of a nighttime exit count and acoustic survey shall be conducted by a qualified bat biologist no more than 30 days prior to ground disturbing activities occurring within 500 feet of bridges and/or prior to bridge construction activities. The survey shall be conducted by a qualified bat biologist and any bridges, culverts, buildings, or appropriate tree roost locations will be inspected during the survey for evidence of bat use during the survey. If bats are determined to be roosting on or within any bridges, structures, or trees within 500 feet of Project-related ground disturbing activities, then appropriate protection measures shall be implemented. These measures may include establishment of avoidance buffers and/or seasonal avoidance of activities such as conducting work outside of the maternity season, avoiding night work near night roosts. If a maternity bat roost is found or suspected to be present during the pre-construction bat surveys by the qualified bat biologist and avoidance of the maternity bat roost is not possible during Project activities, then humane exclusion conducted outside of the maternity and hibernation season by a CDFW-approved bat biologist may be required. Exclusionary devices will be installed in the fall (September or October) and prior to the start of work activities within 500 feet of the maternity roost location. Installation of exclusionary devices will be overseen by a qualified bat biologist. If bat exclusion activities are required for the Project, then coordination with CDFW will need to occur. Development of a Bat Management Plan may be required for the Project as a result of coordination with CDFW.

Cultural Resources

- CUL-1: Unanticipated Discovery:** If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 60-foot radius of the discovery. A

qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the lead agencies and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be eligible for inclusion in the NRHP or CRHR. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not eligible for the NRHP or CRHR; or 2) that the treatment measures have been completed to their satisfaction.

CUL-2: Human Remains: If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the San Bernardino County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Bernardino County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately identify the most likely descendant (MLD) for purposes of receiving notification of discovery. The MLD shall then make recommendations within 48 hours and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. If the MLD fails to make a recommendation regarding the treatment or the recommendation is not feasible per the property owner, then the remains shall be reburied with appropriate dignity and respect on the property in a location not subject to further disturbance.

YSMN CUL-1: In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact and/or historic-era finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

YSMN CUL-2: If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

YSMN CUL-3: If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

Geology and Soils

GEO-1: Unanticipated Discovery of Paleontological Resources: If paleontological resources are discovered during project construction, all work in the area of the find shall cease and a qualified paleontologist shall be retained by the City to investigate the find and to make recommendations on its disposition.

Tribal Cultural Resources

TCR-1: The Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed in YSMN CUL-1, of any pre-contact and/or historic-era cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resource Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

TCR-2: Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN. The Lead Agency and/or applicant shall, in good faith, consult with YSMN throughout the life of the project.



CITY OF HIGHLAND

27215 Base Line, Highland, CA 92346
Telephone (909) 864-6861 FAX: (909) 862-3180

INITIAL STUDY

1. Case No:

Project title: City Creek-Alabama Street Bikeways Project, City Project No. str170001

2. Lead Agency:

City of Highland
27215 Base Line
Highland, CA 92346

3. Contact Person Information:

Carlos Zamano, Public Works Director/City Engineer czamano@cityofhighland.org or
(909) 864-6861 x254

4. Project Location:

The City Creek-Alabama Street Bikeways Project (Proposed Project) would be located along the west levee of City Creek from Base Line to Alabama Street within the City of Highland and along both sides of Alabama Street from 3rd Street south approximately 2,000 feet within the limits of the cities of Highland and San Bernardino (Figures 1 and 2).

5. Project Sponsor:

City of Highland

6. Description of Project:

The Proposed Project would build 1.7 miles of new Class I bikeway on the west City Creek levee between Base Line and Alabama Street and 0.6 miles of new Class I/Class II bikeways along Alabama Street between 3rd Street and the south limits of the cities of Highland and San Bernardino (Figures 3 and 4).

The Class I bikeway located along the west City Creek levee would consist of a 14-foot-wide Portland cement concrete (PCC) trail with two five-foot wide bicycle lanes, one four-foot-wide pedestrian lane, and two-foot graded shoulders on each side. The Class I bikeway would connect to the existing Boulder Avenue bridge undercrossing and a new State Route 210 (SR-210) undercrossing would be built as part of the Proposed Project. The proposed Class I bikeway would connect to existing Class II bikeways along 5th Street/Greenspot Road. Trail users would use the existing crosswalk at the intersection of 5th Street and Church Street to travel to the south side of 5th Street and connect to the Class I bikeway on the south side of 5th Street/Greenspot Road. The Class I bikeway would also include a crossing at its intersection with the existing Robertson's Ready Mix driveway located approximately 500 feet northeast of Alabama Road. A rest area would

also be included along the trail. Potential locations for the rest area would be along the trail near Base Line Street or near Boulder Avenue.

On the northbound side of Alabama Street, a Class I bikeway would be provided from the southern limits of the Proposed Project north to approximately the City Creek levee. From this point north to 3rd Street the Class I bikeway would become a Class II bikeway. The northbound Class I bikeway in this area would include a two-foot-wide barrier separating the bikeway from vehicle travel lanes, a four-foot-wide pedestrian lane, two four-foot-wide bicycle lanes, and a two-foot-wide buffer. The northbound Class II bikeway would consist of a six-foot wide asphalt concrete (ac) bicycle lane.

On the southbound side of Alabama Street, a Class II bikeway would be provided from the intersection of Alabama Street and 3rd Street to the southern limits of the Proposed Project. The southbound Class II bikeway would include a bicycle lane that varies from six to eight feet wide. The southern portion of the Class II bikeway would also include a 16-foot-wide buffer separating the bicycle lane from vehicle travel lanes.

Construction activities associated with the Proposed Project include: earthwork, including excavation and grading; placement of pavement; construction of retaining walls; installation of fencing, railing, access gates, trail delineators, and signage; painting of pavement striping and pavement markings; and construction of appurtenant features. Construction staging would be on the north side of 5th Street, east of City Creek.

7. Present Land Use:

Street ROW, City Creek levee

8. General Plan Designation:

Open Space

9. Zoning:

Open Space

10. Is the proposed action a "project" as defined by CEQA? (See Section 2.6 of State CEQA Guidelines. If more than one project is present in the same area, cumulative impact should be considered) Yes ☒ No ☐
11. If "yes" on 10, does the project fall into any of the Emergency Projects listed in Section 15269 of the State CEQA Guidelines? Yes ☐ No ☒
12. If "no" on 10, does the project fall under any of the Ministerial Acts listed in Section 15268(b) of the State CEQA Guidelines? Yes ☐ No ☒
13. If "no" on 12, does the project fall under any of the Statutory Exemptions listed in Article 18 of the State CEQA Guidelines? Yes ☐ No ☒

14. If "no" on 13, does the project qualify for one of the Categorical Exemptions listed in Article 19 of the State CEQA Guidelines? (Where there is a reasonable probability that the activity will have a significant effect due to special circumstances, a categorical exemption does not apply). Yes ☐ No ☒

15. Surrounding land uses and setting (briefly describe the project's surroundings):

North: Commercial, Open Space

South: Mining, Open Space

East: Mining, Open Space

West: Commercial, Residential, Open Space, Industrial

16. Surrounding General Plan and Zoning:

	General Plan	Zoning
North:	General Commercial, Open Space	General Commercial, Open Space
South:	Open Space	Open Space
East:	Open Space	Open Space
West:	General Commercial, Planned Commercial, Low Density, Industrial	General Commercial, Planned Commercial, Single Family Residential, Industrial

17. Is the proposed project consistent with (if answered "yes" or "n/a", no explanation is required):

City of Highland General Plan Yes ☒ No ☐ N/A ☐

Applicable Specific Plan Yes ☐ No ☐ N/A ☒

City of Highland Zoning Code Yes ☒ No ☐ N/A ☐

South Coast Air Quality Management Plan Yes ☐ No ☐ N/A ☒

San Bernardino International Airport Master Plan Yes ☐ No ☐ N/A ☒

Other: Yes ☐ No ☐ N/A ☒

18. Are any of the following studies required?

Soils Report Yes ☐ No ☒

Slope Study Yes ☐ No ☒

Geological Report Yes ☒ No ☐

Traffic Study Yes ☐ No ☒

Air Quality Study Yes ☐ No ☒

Hydrology	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sewer Study	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Biological Study	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Noise Study	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hazardous Materials Study	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Housing Analysis	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Archaeological Report	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Groundwater Analysis	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Quality Report	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Other	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

19. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement). Only required at the time of development.
- U.S. Army Corps of Engineers – Clean Water Act Section 404 Permit and Section 408 Permit
 - U.S. Fish and Wildlife Service – Section 7 Consultation
 - California Regional Water Quality Control Board: Water Quality Certification Clean Water Act Section 401 Permit
 - California Department of Fish and Wildlife – Fish and Game Code Section 1602 Streambed Alteration Agreement
20. INFORMATION SOURCES CITED: The documents below are incorporated herein by reference and are available for review at Highland City Hall, located at 27215 Base Line, California.
1. City of Highland General Plan and Environmental Impact Report, adopted by the City Council March 14, 2006
 2. City of Highland Municipal Code

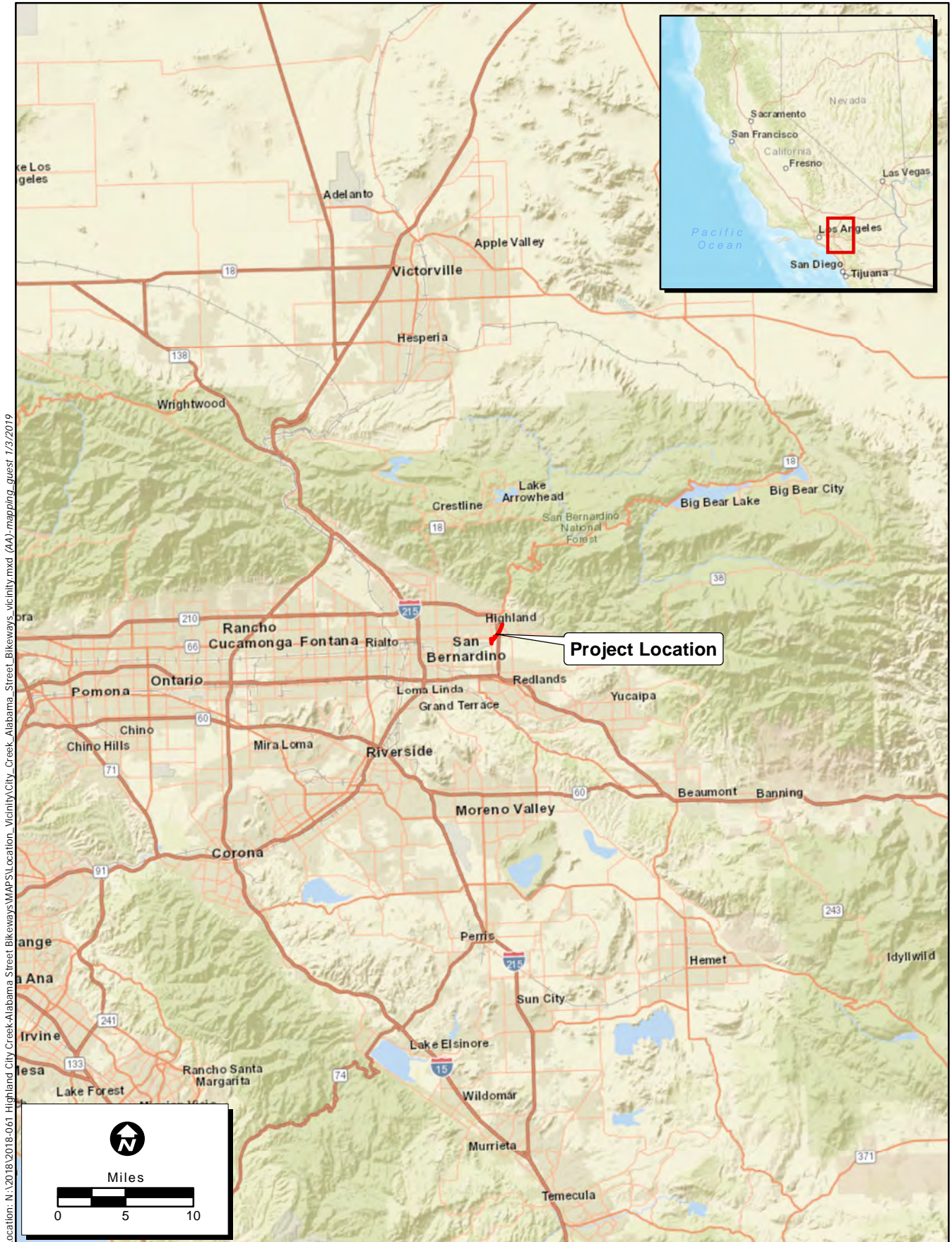


Figure 1. Project Vicinity/Regional Map

2018-061 City Creek-Alabama Street Bikeways Project

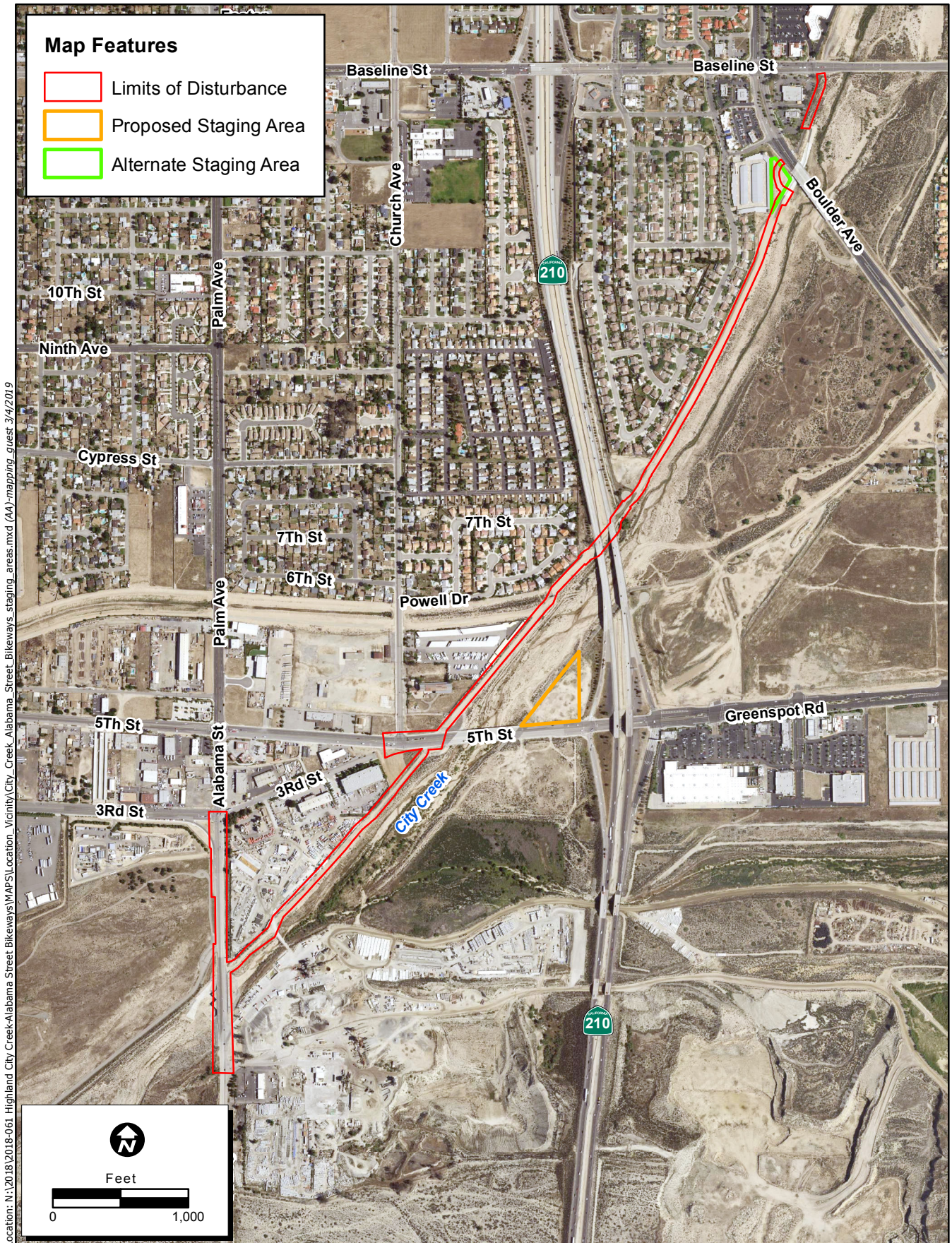


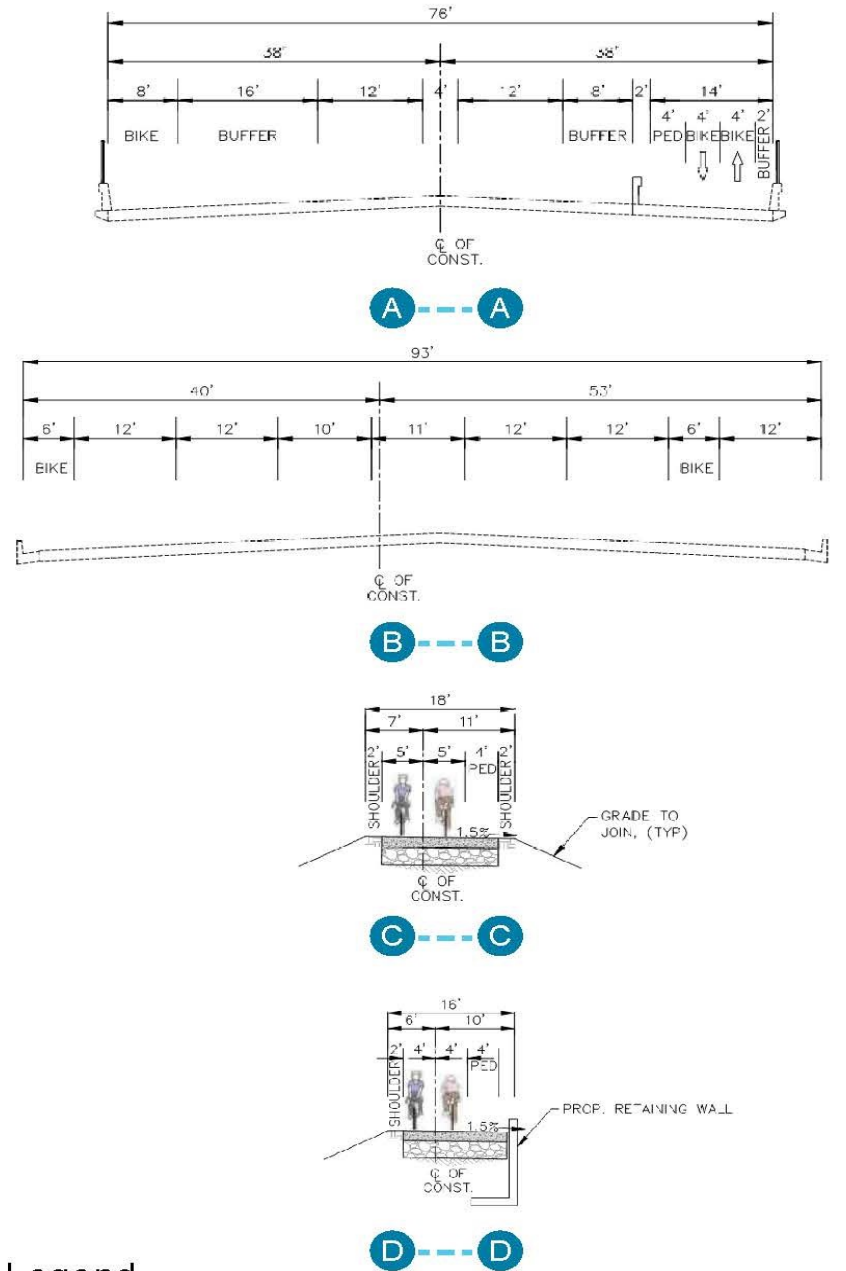
Figure 2. Project Location

2018-061 City Creek-Alabama Street Bikeways Project

R:\Projects\2018 Projects\2018-061 sub to KOA-Highland CityCreek-Alabama St Bikeways PES and IS-CE\CEQA\Initial Study and MND\IS-MND Figures\Publisher Files



Proposed Cross-Sections



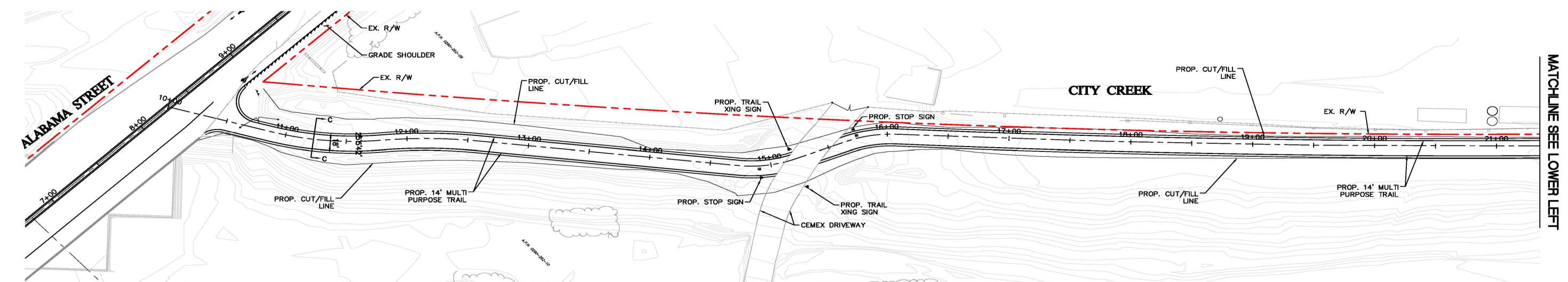
Legend

- Proposed City Creek / Alabama Street Trail (Class I Bikeway/Walkway)
- Proposed Class II Bike Trail
- Proposed Class IV Bike Trail

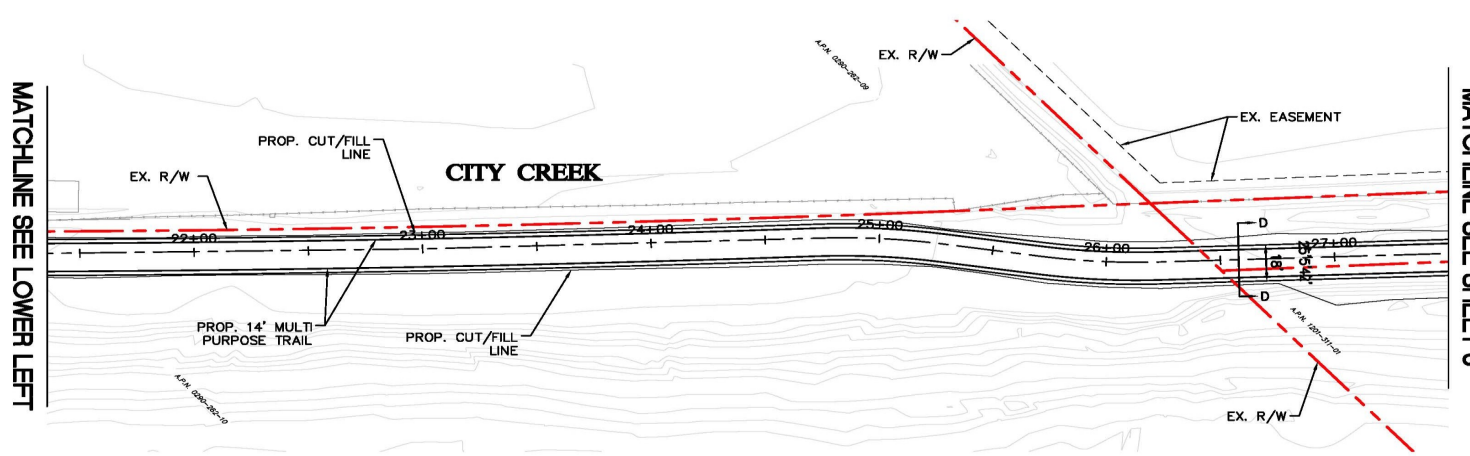
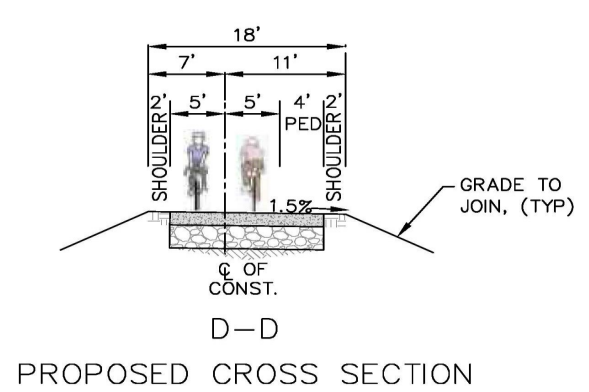
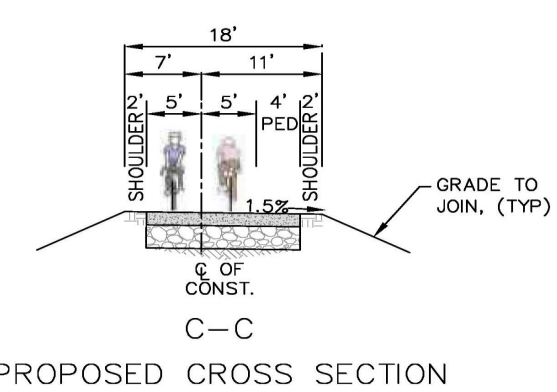
City Creek / Alabama Street Bikeways Project

Figure 4A. Conceptual Layout (1 of 6)
2018-061 City Creek-Alabama Street Bikeways Project

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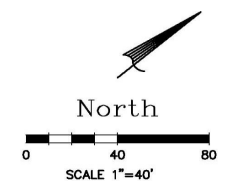


MATCHLINE SEE LOWER LEFT



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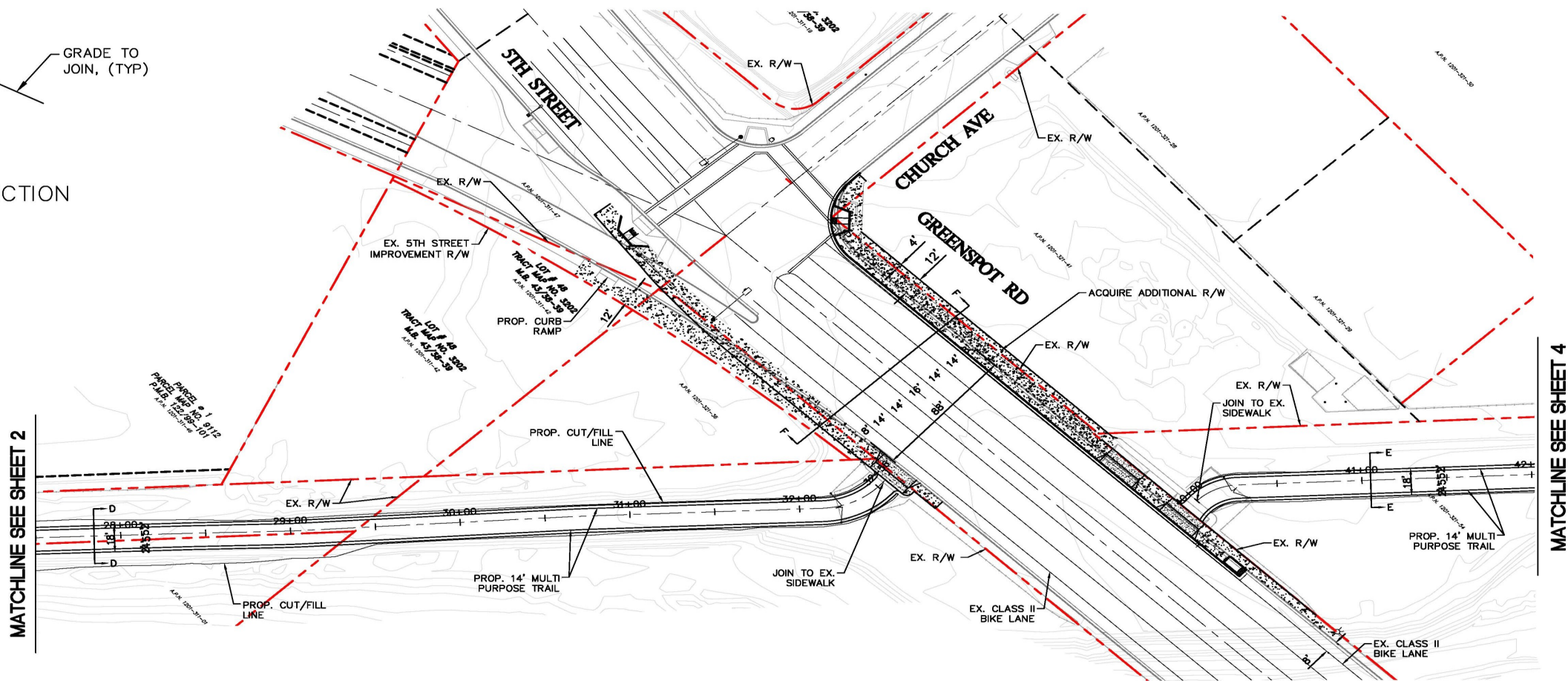
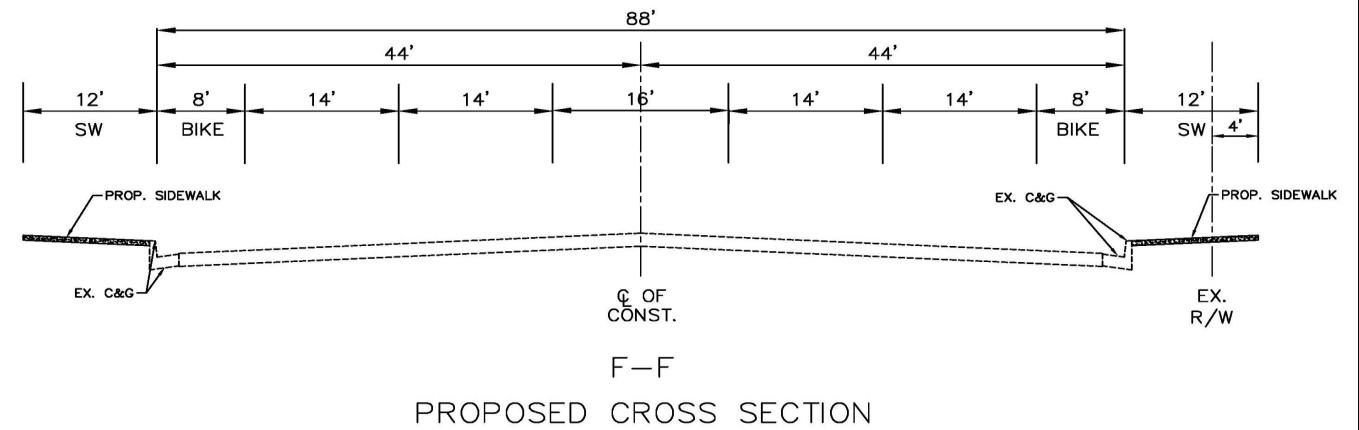
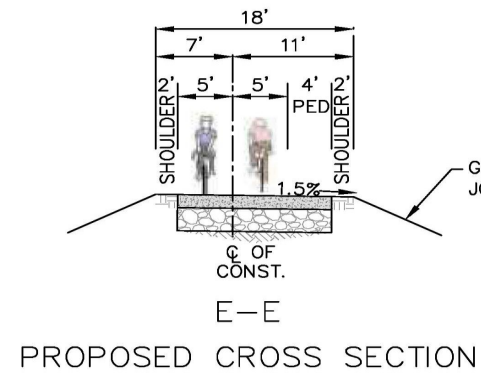
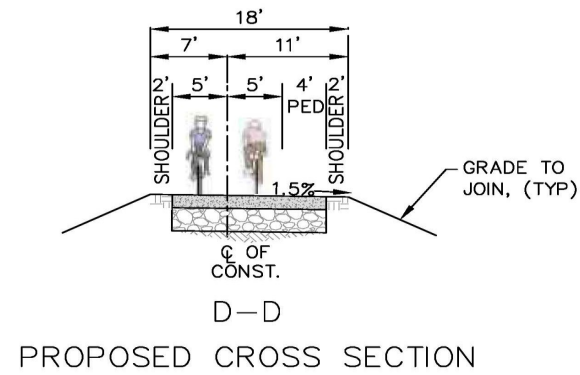


CONCEPTUAL

<div>DIG ALERT</div> <div>CALL BEFORE YOU DIG</div> <div>811</div>	<div>BENCHMARK</div> <div>ELEVATIONS SHOWN HEREON ARE BASED UPON THE CITY OF HIGHLAND BENCH MARK NO. 0001, ELEVATION = 1213.30 FEET (NAVD 88).</div> <div>DESCRIPTION:</div> <div>CHISELED BOX AT THE EAST END OF THE NORTHEAST CURB RETURN AT 5TH STREET AND CHURCH AVENUE.</div>	<div>SEAL</div> <div><div><div>REGISTERED PROFESSIONAL ENGINEER</div><div>MING GUO</div><div>No. 75793</div><div>EXP. 6/30/20</div><div>CIVIL</div><div>STATE OF CALIFORNIA</div></div></div>	<div>PLANS PREPARED UNDER THE SUPERVISION OF:</div> <div>DATE: _____</div> <div>_____</div>	<div>PLANS PREPARED BY:</div> <div><div><div>KOA</div><div>PLANNING & ENGINEERING</div><div>CONSTRUCTION MANAGEMENT</div><div>3190 C. Shelby Street</div><div>Ontario, California 91764</div><div>Tel: (909) 890-9693 Fax: (909) 890-9694</div></div></div>	<div>REVISIONS</div> <table><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table> <div>MARK</div> <div>DESCRIPTION</div> <div>APPR.</div> <div>DATE</div>																																									<div>CITY OF HIGHLAND</div> <div>APPROVED BY THE CITY OF HIGHLAND:</div> <div><div>ERNEST WONG, CITY ENGINEER</div><div>R.C.E. 37413</div><div>DATE</div><div>EXP. 6-30-18</div></div>	<div>CITY CREEK / ALABAMA STREET BIKEWAYS</div> <div>CITY CREEK/ALABAMA STREET BIKEWAYS PROJECT</div> <div>DRAWER NO.</div> <div>SHEET 2 OF 6</div>

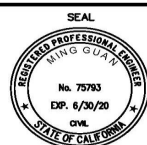
Figure 4B. Conceptual Layout (2 of 6)
2018-061 City Creek-Alabama Street Bikeways Project

R:\Projects\2018 Projects\2018-061 sub to KOA-Highland CityCreek-Alabama St Bikeways PES and IS-CE\CEQA\Initial Study and MND\IS-MND Figures\Publisher Files



DIG ALERT
CALL BEFORE YOU DIG
811

BENCHMARK
ELEVATIONS SHOWN HEREON ARE BASED UPON THE CITY OF
HIGHLAND BENCHMARK NO. 0001,
ELEVATION = 1213.30 FEET (NAVD 83).
DESCRIPTION:
CHISELED BOX AT THE EAST END OF THE NORTHEAST CURB
RETURN AT 5TH STREET AND CHURCH AVENUE.



PLANS PREPARED UNDER THE SUPERVISION OF:

DATE: _____

PLANS PREPARED BY:



REVISIONS

MARK	DESCRIPTION	APPR.	DATE

CITY OF HIGHLAND

APPROVED BY THE CITY OF HIGHLAND:

ERNEST WONG, CITY ENGINEER DATE
R.C.E. 37413 EXP. 6-30-18

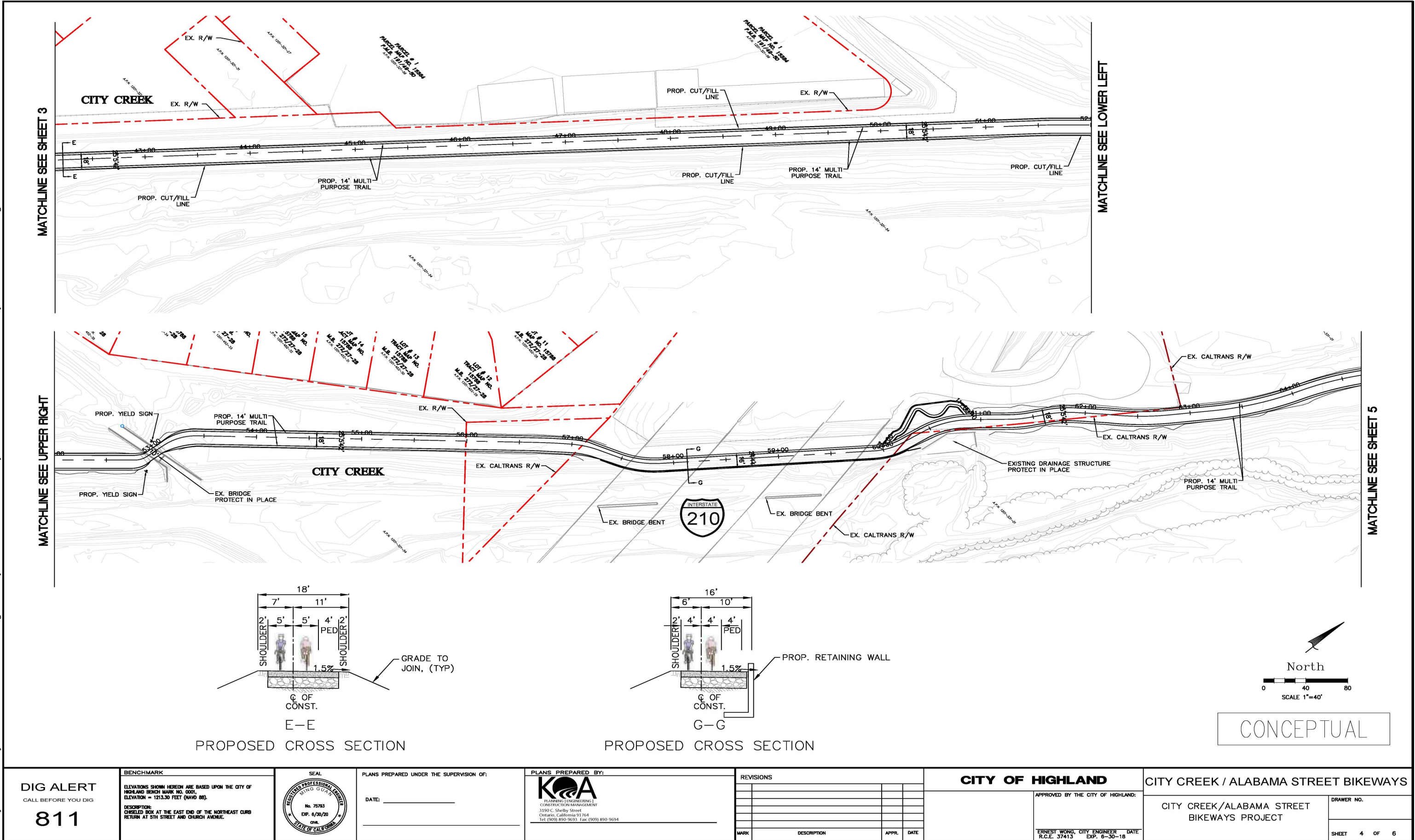
CITY CREEK / ALABAMA STREET BIKEWAYS

CITY CREEK/ALABAMA STREET
BIKEWAYS PROJECT

DRAWER NO.

SHEET 3 OF 6

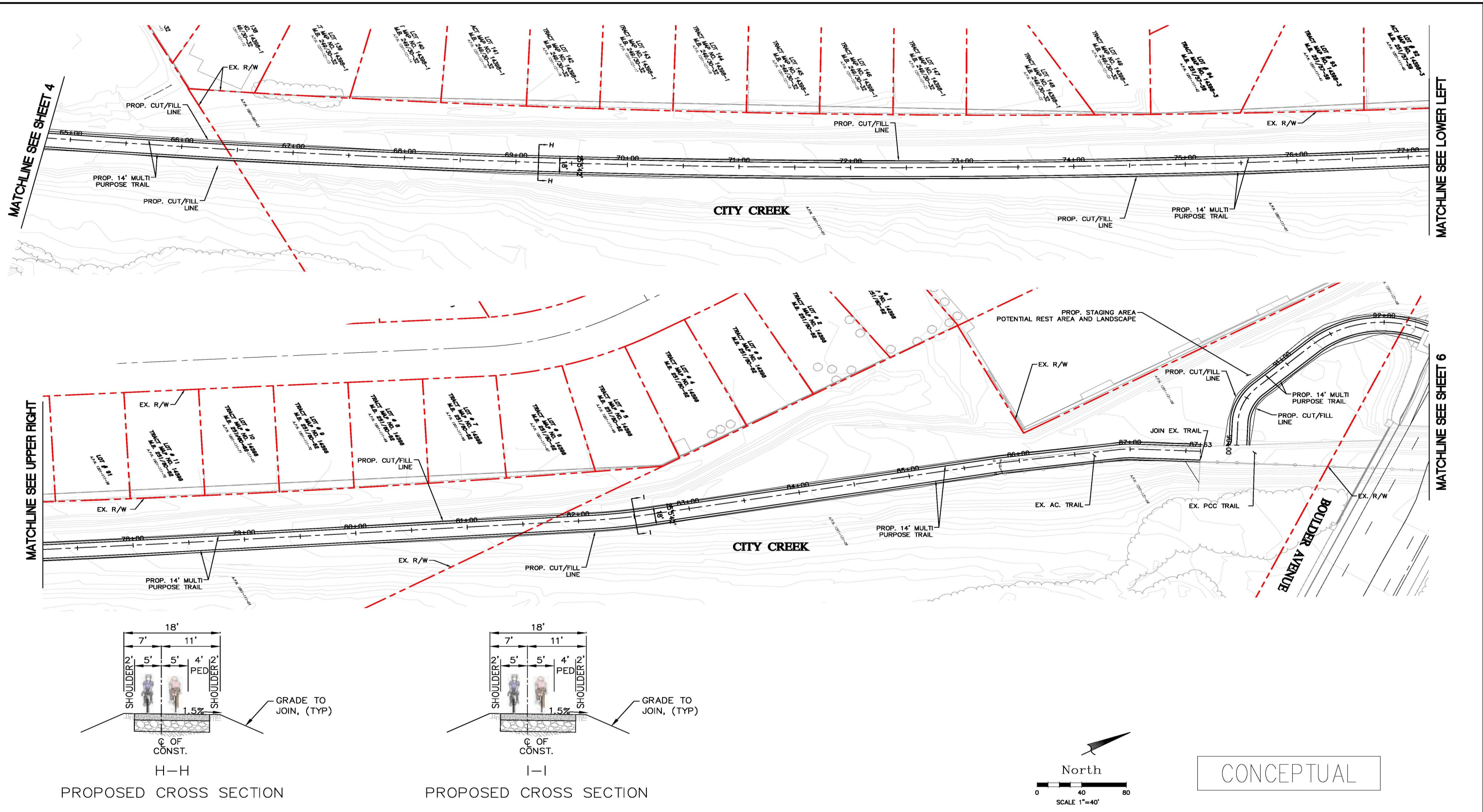
R:\Projects\2018-061 sub to KOA-Highland CityCreek-Alabama St Bikeways PES and IS-CE\CEQA\Initial Study and MND\IS-MND Figures\Publisher Files



<div>DIG ALERT</div> <div>CALL BEFORE YOU DIG</div> <div>811</div>	<div>BENCHMARK</div> <div>ELEVATIONS SHOWN HEREON ARE BASED UPON THE CITY OF HIGHLAND BENCH MARK NO. 0001.</div> <div>ELEVATION = 1213.30 FEET (NAVD 88).</div> <div>DESCRIPTION:</div> <div>CHISELED BOX AT THE EAST END OF THE NORTHEAST CURB RETURN AT 5TH STREET AND CHURCH AVENUE.</div>	<div>SEAL</div> <div><div><div>REGISTERED PROFESSIONAL ENGINEER</div><div>MING GUO</div><div>No. 75793</div><div>EXP. 6/30/20</div><div>GWL</div><div>STATE OF CALIFORNIA</div></div></div>	<div>PLANS PREPARED UNDER THE SUPERVISION OF:</div> <div>DATE: _____</div>	<div>PLANS PREPARED BY:</div> <div><div>KOA</div><div>PLANNING / ENGINEERING /</div><div>CONSTRUCTION MANAGEMENT</div><div>3190 C. 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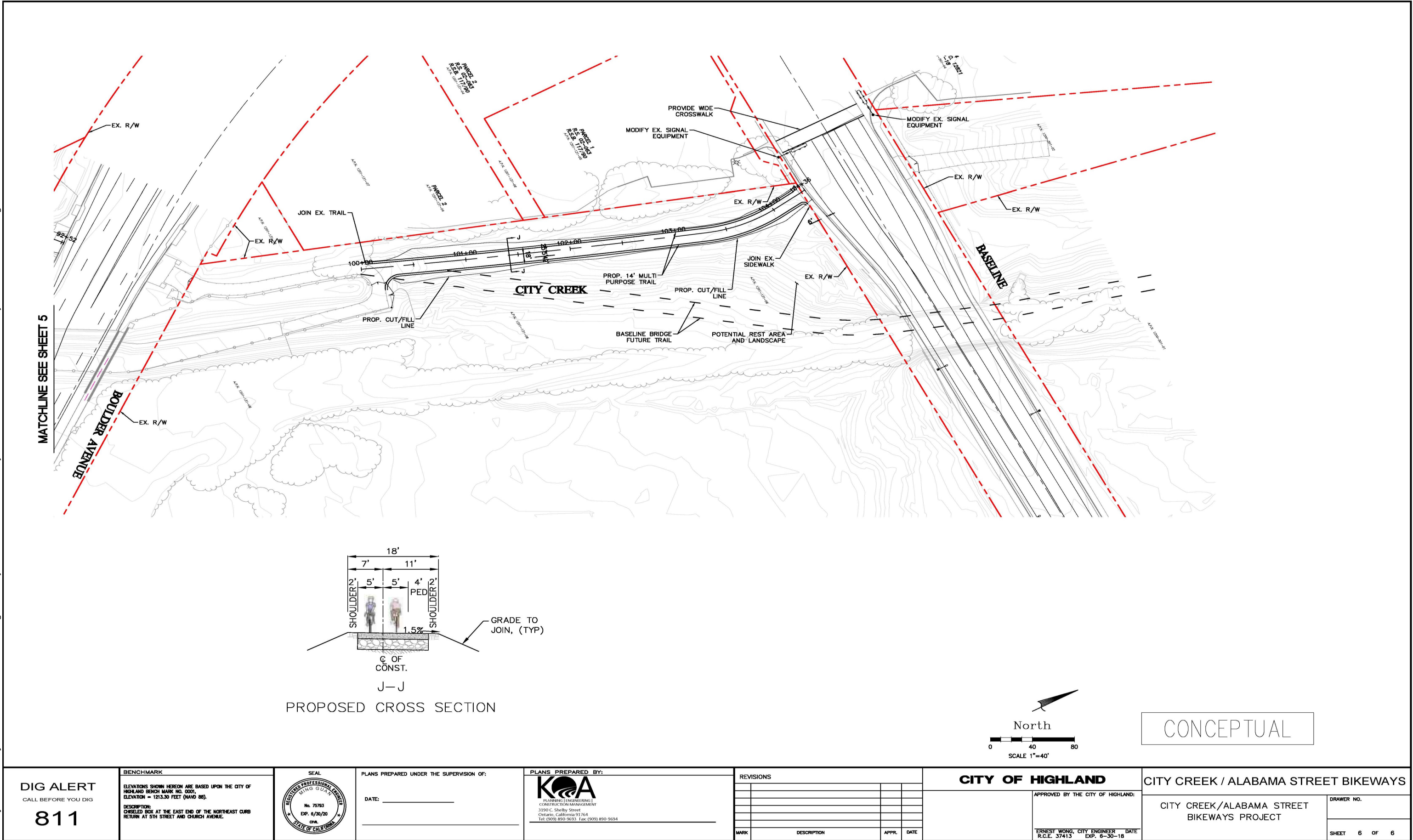
Figure 4D. Conceptual Layout (4 of 6)
2018-061 City Creek-Alabama Street Bikeways Project

R:\Projects\2018-061 sub to KOA-Highland CityCreek-Alabama St Bikeways PES and IS-CE\CEQA\Initial Study and MND\IS-MND Figures\Publisher Files



DIG ALERT CALL BEFORE YOU DIG 811	BENCHMARK ELEVATIONS SHOWN HEREON ARE BASED UPON THE CITY OF HIGHLAND BENCH MARK NO. 0001, ELEVATION = 1213.30 FEET (NAVD 88). DESCRIPTION: CHISELED BOX AT THE EAST END OF THE NORTHEAST CURB RETURN AT 5TH STREET AND CHURCH AVENUE.	<div>SEAL REGISTERED PROFESSIONAL ENGINEER MING GUAN No. 75793 EXP. 6/30/20 CIVIL STATE OF CALIFORNIA</div>	PLANS PREPARED UNDER THE SUPERVISION OF: DATE: _____	PLANS PREPARED BY: <div>KOA PLANNING ENGINEERING CONSTRUCTION MANAGEMENT 3190 C. Shelby Street Ontario, California 91764 Tel: (909) 850-9693 Fax: (909) 850-9694</div>	REVISIONS <table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>																																	CITY OF HIGHLAND APPROVED BY THE CITY OF HIGHLAND: ERNEST WONG, CITY ENGINEER R.C.E. 37413 DATE EXP. 6-30-18	CITY CREEK / ALABAMA STREET BIKEWAYS CITY CREEK/ALABAMA STREET BIKEWAYS PROJECT DRAWER NO. SHEET 5 OF 6

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards/Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.


Planner


Date

EVALUATION OF ENVIRONMENTAL IMPACTS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

- 1a No Impact: The Proposed Project is surrounded by scenic views of City Creek directly adjacent to the project alignment on the east and the San Bernardino Mountains to the north. The Proposed Project would provide 1.7 miles of new Class I bikeway on the west City Creek levee between Base Line and Alabama Street, and 0.6 miles of new Class I/Class II bikeways along Alabama Street between 3rd Street and the south limits of Highland and San Bernardino. The construction of these trails would provide public access to scenic vistas in the project area. The Proposed Project is not anticipated to affect the viewshed or scenic vistas of the site because no structures that could block or degrade such vistas are proposed. No impact would occur.
- 1b No Impact: The Highland General Plan identifies Greenspot Road and Base Line Street (from Boulder Avenue to Weaver Street) as potential scenic routes due to the scenic resources (San Bernardino Mountains, City Creek, Santa Ana River) that can be viewed from these roadways (City of Highland 2006). The project site is not located within a state scenic highway; however, SR-210 is an eligible state scenic highway (Caltrans 2019). The Proposed Project would construct Class I and II bikeways along City Creek and Alabama Street. An at grade road crossing is proposed at 5th Street/Greenspot Road and undercrossings at SR-210 and Boulder Avenue. It should be noted that the undercrossing at Boulder Avenue was already constructed as part of another project. The Proposed Project would not affect the scenic viewsheds along designated or eligible scenic roadways. The Proposed Project would allow public access to areas that allow for views of scenic resources. No impact would occur.
- 1c No Impact: The project site is surrounded by City Creek to the east, commercial and residential development to the north and west, and sparse industrial development to the west. Beyond the immediate project area, the San Bernardino Mountains are located to the north and the Santa Ana River to the south. The Proposed Project is a compatible use with the existing development

of the project area. As previously mentioned, the Proposed Project would allow public access to areas that allows for views of scenic resources. As such, it is not anticipated that the Proposed Project would degrade the existing visual character or quality of public views of the site and its surroundings. No impact would occur.

- 1d No Impact: The Proposed Project does not include lighting. Therefore, no new sources of substantial light or glare, which would adversely affect day or nighttime view in the area, would result from the Proposed Project. No impact would occur.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
2. AGRICULTURE AND FORESTRY RESOURCES – Would the Project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

- 2a No Impact: The Proposed Project is not located on farmland or within the vicinity of any farmland uses (City of Highland 2019). The California Mapping and Monitoring Program, Important Farmland Map for San Bernardino County does not list the soils on the project site or adjacent areas as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) (CDC 2017). Therefore, the Proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use. No impact would occur.
- 2b No Impact: The project site is zoned as Open Space (OS) and is not located in an agricultural use zone (City of Highland 2019). According to the California Department of Conservation Williamson Act Parcels Map for San Bernardino County, the project site is not subject to a Williamson Act Contract (CDC 2016). Therefore, the Proposed Project would not result in a conflict with an agricultural use zoning designation or a Williamson Act contract. No impact would occur.

- 2c No Impact: The project site is zoned as Open Space (OS) and is not located in an agricultural use zone (City of Highland 2019). The project site does not contain forestland or timberland. Surrounding areas are developed with commercial, residential, and industrial uses. No impact would occur.
- 2d No Impact: The project site does not contain forest land. The Proposed Project would be located along an existing levee and roadways. No impact would occur.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3. AIR QUALITY – Would the Project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Explanation:

- 3a No Impact: As part of its enforcement responsibilities, the U.S. Environmental Protection Agency (USEPA) requires each State with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and State ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

The project site is located within the South Coast Air Basin (SoCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which the SoCAB is in nonattainment. In order to reduce such emissions, the SCAQMD drafted the 2016 Air Quality Management Plan (2016 AQMP). The 2016 AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State (California) and national air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, CARB, the Southern California Association of Governments (SCAG), and the USEPA. The plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including SCAG's 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. (SCAG's latest growth forecasts were defined in

consultation with local governments and with reference to local general plans.) The Proposed Project is subject to the SCAQMD's 2016 AQMP.

According to the SCAQMD, in order to determine consistency with SCAQMD's air quality planning two main criteria must be addressed.

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

- a) *Would the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new air quality violations?*

As shown in Tables 3-1 and 3-2, the Proposed Project would result in emissions that would be below the SCAQMD regional and localized thresholds during construction. Furthermore, due to the nature of the Proposed Project as a bike/pedestrian path, it would not generate quantifiable criteria emissions from project operations. Therefore, the Proposed Project would not result in an increase in the frequency or severity of existing air quality violations and would not have the potential to cause or affect a violation of the ambient air quality standards.

- b) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

As shown in Table 3-1, the Proposed Project would not exceed the applicable SCAQMD regional thresholds for construction. Additionally, the Proposed Project would not generate quantifiable criteria emissions from project operations. Since the Proposed Project would result in less than significant regional emission impacts, it would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the SoCAB focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the Proposed Project exceeds the assumptions utilized in preparing the forecasts presented in its air quality planning documents. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

- a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the 2016 AQMP?*

A project is consistent with regional air quality planning efforts in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the SCAQMD air quality plans. Generally, three sources of data form the basis for the projections of air pollutant emissions in Highland. Specifically, SCAG's *Growth Management* Chapter of the *Regional Comprehensive Plan and Guide* (RCPG) provides regional population forecasts for the region and SCAG's 2016 RTP/SCS provides socioeconomic forecast projections of regional population growth. The Highland General Plan is referenced by SCAG in order to assist forecasting future growth in Highland.

The Proposed Project does not include development of new housing or employment centers and would not induce population or employment growth. Therefore, the Proposed Project would not affect local plans for population growth. Therefore, the Proposed Project would be considered

consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP.

b) Would the project implement all feasible air quality mitigation measures?

In order to further reduce emissions, the Proposed Project would be required to comply with emission reduction measures promulgated by the SCAQMD, such as SCAQMD Rules 402, 403, and 1113. SCAQMD Rule 402 prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. SCAQMD Rule 403 requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. SCAQMD Rule 403 is intended to reduce coarse particulate matter (PM₁₀) emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. SCAQMD 1113 requires manufacturers, distributors, and end-users of architectural and industrial maintenance coatings to reduce reactive organic gases (ROG) emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories. As such, the Proposed Project meets this consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth by SCAQMD air quality planning efforts?

The AQMP contains air pollutant reduction strategies based on SCAG's latest growth forecasts, and SCAG's growth forecasts were defined in consultation with local governments and with reference to local general plans. The Proposed Project is consistent with the land use designation and development density presented in the City of Highland General Plan and therefore would not exceed the population or job growth projections used by the SCAQMD to develop the AQMP.

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of a project on air quality. The Proposed Project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards as it is not projected to exceed SCAQMD regional thresholds. As a result, no impact would occur.

3b Less Than Significant:

Project Construction-Generated Criteria Air Quality Emissions

Regional Construction Significance Analysis

Construction-generated emissions are temporary and short term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions would be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., tractors, graders, surfacing equipment), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive particulate matter emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation. Construction activities would be subject to SCAQMD Rule 403, which requires taking reasonable precautions to prevent the emissions of fugitive dust, such as using water or chemicals, where possible, for control of dust during the clearing of land and other construction activities.

Construction-generated emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land

use development projects, based on typical construction requirements. Construction is anticipated to last 12 months. Emissions modeling accounts for the export of 775 cubic yards of soil material as well as a fleet of construction equipment. See Appendix A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 3-1. Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance.

Table 3-1. Construction-Related Emissions (Regional Significance Analysis)						
Construction	Pollutant (pounds per day)					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Construction in 2021	2.31	23.19	18.49	0.05	7.63	2.58
Construction in 2022	3.01	20.70	17.92	0.05	1.50	0.91
<i>SCAQMD Regional Significance Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Exceed SCAQMD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2016.3.2. Refer to Appendix A for Model Data Outputs.

Notes: Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; washing equipment tires before leaving the construction site; water exposed surfaces three times daily; water all haul roads; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied.

Emission estimates account for equipment models provided by KOA.

Emissions estimates account for the ground disturbance of 4.3 acres and export of 775 cubic yards of soil material.

As shown in Table 3-1, emissions generated during construction would not exceed the SCAQMD's regional thresholds of significance. Impacts in this regard would be less than significant.

Localized Construction Significance Analysis

The nearest sensitive receptors to the project site are residences fronting Powell Street, Stoney Creek Court, and Stoney Creek Drive located directly adjacent to the central portion of the bikeway. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing LSTs for construction. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects.

For the Proposed Project, the appropriate source receptor area (SRA) for the localized significance thresholds is the Central San Bernardino Valley SRA 34 as this source receptor area includes the project site. The Proposed Project would disturb approximately four acres total during construction. As previously described, the SCAQMD has produced look-up tables for projects that disturb less than or equal to five acres daily.

Since the entire disturbance footprint of the Proposed Project is approximately four acres, the LST threshold value for a four-acre construction site were sourced from the LST lookup tables. The nearest sensitive receptors are the residences adjacent to the project site, which are located

approximately 35 feet (11 meters) from the proposed development area at the nearest location. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Notwithstanding, the SCAQMD Methodology explicitly states: *It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.* Therefore, LSTs for receptors located at 25 meters were utilized in this analysis.

The SCAQMD's methodology clearly states that "off-site mobile emissions from a project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod "onsite" emissions outputs were considered. Table 3-2 presents the results of localized emissions during the site preparation phase of construction, which is construction activity that disturbs the most acreage daily and generates the most amount of onsite emissions. The LSTs reflect a maximum disturbance of four acres during construction at 25 meters for the Proposed Project.

Table 3-2. Construction-Related Emissions (Localized Significance Analysis)				
Construction	Pollutant (pounds per day)			
	NO_x	CO	PM₁₀	PM_{2.5}
Project Site Preparation	20.89	15.56	7.49	2.54
SCAQMD Localized Significance Threshold	236.67	1,488.00	11.67	6.67
Exceed SCAQMD Threshold?	No	No	No	No

Source: CalEEMod version 2016.3.2. Refer to Appendix A for Model Data Outputs.

Notes: Emission reduction/credits for construction emissions are applied based on the required implementation of SCAQMD Rule 403. The specific Rule 403 measures applied in CalEEMod include the following: sweeping/cleaning adjacent roadway access areas daily; washing equipment tires before leaving the construction site; water exposed surfaces three times daily; water all haul roads; and limit speeds on unpaved roads to 15 miles per hour. Reductions percentages from the SCAQMD CEQA Handbook (Tables XI-A through XI-E) were applied.

Emission estimates account for equipment models provided by KOA.

Emissions estimates account for the ground disturbance of 4.3 acres and export of 775 cubic yards of soil material.

Table 3-2 shows that the emissions of localized pollutants on the peak day of construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Impacts in this regard would be less than significant.

Regional Operational Significance Analysis

The Proposed Project involves the construction of approximately 2.3 linear miles of a bikeway facility. The Proposed Project would not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, would not generate quantifiable air quality emissions from project operations. The Proposed Project does not propose any buildings and therefore no permanent source or stationary source emissions. Once the Proposed Project is completed, there would be no resultant increase in automobile trips to the area because the bikeway would not require daily visits. While it is anticipated that the Proposed Project would require intermittent maintenance to be conducted by City of Highland public works staff, such maintenance would be minimal requiring a negligible amount of traffic trips on an annual basis. Impacts in this regard would be less than significant.

Localized Operational Significance Analysis

According to the SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed project if the project includes stationary sources or attracts mobile

sources that may spend long periods queuing and idling at the site (e.g., warehouse or transfer facilities). The Proposed Project includes the construction of approximately 2.3 linear miles of a bikeway facility. Therefore, in the case of the Proposed Project, the operational phase LST protocol is not applied and no impact would occur.

EPA Conformity Determination Analysis

General Conformity ensures that the actions taken by federal agencies do not interfere with a state's plans to attain and maintain national standards for air quality.

Established under the Clean Air Act (section 176(c)(4)), the General Conformity rule plays an important role in helping states improve air quality in those areas that do not meet the National Ambient Air Quality Standards (NAAQS). Under the General Conformity rule, federal agencies must work with state and local governments in a nonattainment or maintenance area to ensure that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan. The overall purpose of the General Conformity rule is to ensure that: federal activities do not cause or contribute to new violations of NAAQS; actions do not worsen existing violations of the NAAQS; and attainment of the NAAQS is not delayed.

The Proposed Project consists of approximately 2.3 linear miles of a bikeway facility. Per 40 CFR 93.126, bicycle and pedestrian facilities are exempt from the requirement to prepare a conformity determination analysis.

- 3c Less Than Significant: Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary toxic air contaminant (TAC) of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by the CARB in 1998. The potential cancer risk from the inhalation of DPM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Accordingly, DPM is the focus of this discussion.

Based on the emission modeling conducted, the maximum construction-related annual emissions of PM_{2.5} exhaust, considered a surrogate for DPM, would be 0.86 pound per day during construction (see Appendix A). PM_{2.5} is considered a surrogate for DPM because more than 90 percent of DPM is less than one microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., PM_{2.5}). Most PM_{2.5} derives from combustion, such as use of gasoline and diesel fuels by motor vehicles. Furthermore, even during the most intense month of construction, emissions of DPM would be generated from different locations on the project site, rather than a single location.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period

would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-, 30-, or nine-year exposure period; however, such assessments should be limited to the period/duration of activities associated with a proposed project. Consequently, an important consideration is the fact that construction of the Proposed Project is anticipated to last approximately 12 months, which is far less than the minimum duration of exposure from which to calculate health risk (nine years), and that on a day-to-day basis construction activity generally spans eight hours as opposed to throughout the entire day.

Therefore, considering the relatively low mass of DPM emissions that would be generated during even the most intense season of construction and the relatively short duration of construction activities (12 months) required to develop the site, construction-related TAC emissions would not expose sensitive receptors to substantial amounts of air toxics.

Furthermore, the Proposed Project has been evaluated against the SCAQMD's LSTs for construction. As previously stated, LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement I-4 and can be used to assist lead agencies in analyzing localized impacts associated with project-specific level of proposed projects. As shown in Table 3-2, the emissions of pollutants on the peak day of construction would not result in significant concentrations of pollutants at nearby sensitive receptors. Impacts in this regard would be less than significant.

Operational Air Contaminants

Operation of the Proposed Project would not result in the development of any substantial sources of air toxics. There are no stationary sources associated with the operations of the Proposed Project. Nor would the Proposed Project attract mobile sources that spend long periods queuing and idling at the site. Onsite project emissions would not result in significant concentrations of pollutants at nearby sensitive receptors. There would be no impact.

- 3d Less Than Significant: Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity. Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Construction

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, under CEQA, construction odors would result in a less than significant impact related to odor emissions.

Operations

The SCAQMD *CEQA Air Quality Handbook* (1993) identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The Proposed Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, there would be no operational odor impacts from the Proposed Project.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4. BIOLOGICAL RESOURCES – Would the Project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation:

- 4a Less than Significant with Mitigation: Reconnaissance-level surveys of the 2.3-mile-long alignment were conducted as part of the Natural Environment Study (NES) prepared by ECORP Consulting, Inc. (ECORP) to identify plant communities and to assess the presence of suitable habitat for special-status plant and wildlife species (ECORP 2019a). The NES assessed the Proposed Project's potential impacts to biological resources identified within the project's biological study area (BSA). The BSA is composed of the Proposed Project's impact area plus a 150-foot buffer. Additional focused surveys were performed within the BSA following preparation of the NES as part of initial consultation efforts with USFWS and CDFW. The buffer was identified to determine potential indirect project effects on sensitive biological resources that may not be present within the Proposed Project's impact area but may be indirectly affected by project activities if located in adjacent areas.

Special-Status Plants

The literature review and database searches identified 39 special-status plant species potentially occurring in the project region. Of these, only eight special-status plant species were found to have a potential to occur within the BSA (note that the number of special-status plant species analyzed in this section differs from that which is presented in the NES due to updated information) (ECORP 2019a).

Four of these species are federally or state-listed and include:

- San Diego ambrosia (*Ambrosia pumila*), federally listed endangered, California Rare Plant Rank (CRPR) 1B.1
- Nevin's barberry (*Berberis nevernii*), federally listed endangered, state-listed endangered, CRPR 1B.1
- Santa Ana River woolly star (*Eriastrum densifolium* ssp. *sanctorum*), federally listed endangered, state-listed endangered, CRPR 1B.1
- Slender-horned spineflower (*Dodecahema leptoceras*), federally listed endangered, state-listed endangered, CRPR 1B.1

Four other, non-listed special-status plant species were identified during the literature review and have potential to occur in the BSA and include:

- Parry's spineflower (*Chorizanthe parryi* var. *parryi*), CRPR List 1B.1
- White-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*), CRPR List 1B.2
- Mesa horkelia (*Horkelia cuneata* var. *puberula*), CRPR List 1B.2
- Chaparral ragwort (*Senecio aphanactis*), CRPR List 2B.2

Suitable habitat for these special-status plant species is present within the BSA in the areas with Riversidean alluvial fan sage scrub (RAFSS) (both – Pioneer and – Intermediate/Mature). Focused surveys for Santa Ana River woollystar and slender-horned spineflower were conducted in June 2020, and July 2020, respectively, and neither species was observed or detected within the BSA.

Although there is potentially suitable RAFSS habitat with sandy soils present within the BSA for San Diego ambrosia and Nevin's barberry these two species are not expected to occur because the human-influenced disturbances and the location of the project site immediately adjacent to urban development likely preclude these species from occurring on or near the project site. Additionally, San Diego ambrosia has never been documented in San Bernardino County (the closest known population occurs more than 12 miles south of the BSA) and the closest documented occurrence of Nevin's barberry is approximately five miles south of the BSA in higher quality habitat in San Timoteo Canyon. Neither plant species is expected to occur and therefore, Project-related impacts are not expected. No mitigation is required for these two plant species.

If found present prior to the start of Project activities, direct impacts to the remaining six special-status plant species may occur in the form of habitat loss and mortality if individual plants are present and crushed or removed during ground disturbing activities. Habitat degradation could also occur immediately adjacent to the trail if the trail users do not remain on the designated trail. Indirect impacts may occur in the form of dust and introduction of nonnative plant species. Avoidance and minimization measures identified Sections 4.1.1.3, 4.2.3.3, and 4.2.4.3 in the NES will be implemented to reduce impacts to these species. Although these species may be present in the BSA, the Proposed Project is not anticipated to result in the loss of individuals or adversely affect local or regional populations of these species with the implementation of Mitigation Measures BIO-1 through BIO-5. With the implementation of mitigation measures impacts to special-status plant species would be less than significant.

Special-Status Wildlife Species

The literature review and database searches identified 45 special-status wildlife species potentially occurring in the project region. Of these only 24 special-status wildlife species were found to have potential to occur within the BSA due to presence of suitable habitat or proximity to previously documented occurrences or have designated Critical Habitat overlapping the BSA (note that the number of special-status wildlife species analyzed in this section differs from that which is presented in the NES due to updated information) (ECORP 2019a).

Five of these species are federally or state-listed and include:

- Santa Ana sucker (*Catostomus santannae*; Critical Habitat only)
- Coastal California gnatcatcher (CAGN; *Polioptila californica californica*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- San Bernardino kangaroo rat (SBKR, *Dipodomys merriami parvus*, including SBKR Critical Habitat)

Santa Ana Sucker

No direct impacts to Santa Ana sucker are expected because no habitat exists in the impact area of the Proposed Project. The Project impact area is entirely composed of upland areas and does not contain a permanent water source or wetted features that support this fish species. As such, the Proposed Project is not expected to result in the loss of individual fish or adversely affect local or regional populations of Santa Ana sucker.

The Proposed Project does lie within mapped designated Critical Habitat for Santa Ana sucker. The Proposed Project would temporarily disturb 4.65 acres and permanently affect 1.48 acres of designated Santa Ana sucker Critical Habitat. However, the permanent and temporary impacts to Santa Ana sucker Critical Habitat are to areas outside of the active City Creek channel (i.e., in upland areas) that do not have the appropriate Primary Constituent Elements (PCEs) of Santa Ana sucker habitat. PCEs, the required physical and biological conditions that are considered

critical for Santa Ana sucker survival and conservation, were identified in the Federal Register document that re-designated Critical Habitat for the species (USFWS 2010). The remaining areas within the Proposed Project are developed with commercial development or paved roads. As such, the Critical Habitat mapped within the Project impact area does not provide suitable aquatic habitat for the Santa Ana sucker (ECORP 2019a). Indirect impacts in the form of habitat degradation could occur through soil erosion entering City Creek and could temporarily affect Critical Habitat located adjacent to and/or downstream of the BSA. However, development of a Project-specific Stormwater Pollution Prevention Plan (SWPPP) in accordance with the Department's National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (General Permit No. CAS000003) would eliminate potential sedimentation effects to offsite Santa Ana sucker Critical Habitat. Best Management Practices within the SWPPP would minimize any potential for sedimentation resulting from the discharge of untreated stormwater from the Project entering the Santa Ana River during construction. Additionally, implementation of Mitigation Measures BIO-3 through BIO-5 would further reduce the potential for indirect effects to Santa Ana sucker Critical Habitat to a less than significant level.

Coastal California Gnatcatcher

Marginally suitable habitat for CAGN is present in the BSA in the form of RAFSS – Intermediate/Mature. Anthropogenic disturbances to the habitat and proximity to urbanized areas likely limit the presence of CAGN in the project area. One record of this species was documented in 1990 less than one mile east of the BSA (Occurrence No. 451); however, it is stated in the record that the site where CAGN was identified at in 1990 was “destroyed...by gravel mining operations” (CDFW 2019a). Another occurrence from 2006 identified approximately 3.5 miles east of the BSA (Occurrence No. 917). The detailed literature review that was performed for the Wash Plan identified no CAGN records within the BSA (ICF 2018). The Wash Plan also indicates that a small patch of low quality CAGN habitat, potentially suitable for foraging and dispersal activities, is present east of the BSA and south of 5th Street (ICF 2018). There is no designated Critical Habitat for CAGN within or adjacent to the BSA.

The Proposed Project would temporarily disturb 0.42 acre and permanently affect 0.33 acre of low-quality RAFSS – Intermediate/Mature habitat for this species. If this species is found to be present within or adjacent to the BSA, then direct impacts to this species could occur in the form of habitat loss, injury, mortality, or nest destruction or abandonment. Habitat degradation could occur in areas immediately adjacent to the trail if construction activities occur outside of the Project impact area and/or if the trail users do not remain on the designated trail. Indirect impacts to individuals using the riparian areas may occur in the form of increased human activity, ground vibration, and construction noise. Although low-quality suitable habitat is present in the BSA, with implementation of the Mitigation Measures BIO-1 and BIO-3 through 7, the Proposed Project would not result in the loss of individuals and would not adversely affect local or regional populations of CAGN. With the implementation of mitigation measures impacts would be less than significant.

Least Bell's Vireo

During the biological survey least Bell's vireo habitat suitable for breeding, foraging, or migratory activities were identified within the BSA in the southern willow scrub and mule fat scrub communities. Least Bell's vireo was also detected in southern willow scrub within the BSA during surveys and site visits conducted in support of the Project between 5th Street and Alabama Street in April 2019 and just north of SR-210 in May 2019. There is no designated Critical Habitat within or in the vicinity of the BSA (ECORP 2019a).

No permanent impacts to least Bell's vireo habitat would occur. Temporary impacts would occur to 0.03 acre of least Bell's vireo habitat in the form of southern willow scrub. Although direct impacts to suitable habitat may occur, no direct impacts to least Bell's vireo individuals (in the

form of injury or mortality) are expected with implementation of mitigation measures listed below. Habitat degradation could occur in areas immediately adjacent to the trail if construction activities occur outside of the Project's impact area and/or if the trail users do not remain on the designated trail. Indirect impacts to individuals using the riparian areas may occur in the form of increased human activity, ground vibration, and construction noise. Although suitable habitat is present in the BSA, the Proposed Project would not result in the loss of individuals and would not adversely affect local or regional populations of least Bell's vireo with implementation of the Mitigation Measures BIO-1 and BIO-3 through BIO-7. With the implementation of mitigation measures impacts would be less than significant.

Southwestern Willow Flycatcher

Suitable nesting habitat for southwestern willow flycatcher is not present in the BSA; however, marginally suitable habitat for migratory and foraging activities is present in the form of southern willow scrub and mule fat scrub within and/or adjacent to the BSA. The patches of southern willow scrub and mule fat scrub are not large in size and generally lack the cottonwood overstory that is typically associated with southwestern willow flycatcher nesting activities. It is possible that these patches of habitat could be suitable for migratory stopover and foraging activities. There is no designated Critical Habitat for southwestern willow flycatcher within or near the BSA.

Direct impacts to the species are not expected. Temporary impacts would occur to 0.03 acre of southern willow scrub as a result of the Proposed Project. Additionally, habitat degradation could occur in areas immediately adjacent to the trail if the trail users do not remain on the designated trail. Indirect impacts to individuals using the riparian areas during migration may occur in the form of ground vibration and construction noise. The Proposed Project would not result in the loss of individuals and would not adversely affect local or regional populations of southwestern willow flycatcher with implementation of Mitigation Measures BIO-1 and BIO-3 through BIO-7. With the implementation of mitigation measures impacts would be less than significant.

San Bernardino Kangaroo Rat

During the reconnaissance-level surveys, kangaroo rat scat and potential burrows were identified in the RAFSS areas just south of 5th Street. Soils in the RAFSS – Intermediate/Mature in the extreme northern part of the BSA (just south of Base Line Street) were compacted and found to be marginally suitable for kangaroo rat presence due to its location on the City Creek levee; however, this area is contiguous with suitable habitat in the City Creek channel and SBKR could use the area within the Proposed Project's impact area for foraging activities or as refuge during flood events. Focused, protocol-level trapping for SBKR was performed in September 2021 and SBKR were captured within habitat areas adjacent to the Proposed Project impact area between 5th Street and Alabama Street (ECORP 2021). SBKR were not captured in other habitat areas within and adjacent to the Project impact area (ECORP 2021).

The Proposed Project would result in temporary impacts to 0.81 acre of SBKR habitat (0.39 acre of RAFSS – Pioneer and 0.42 acre of RAFSS – Intermediate/Mature) and permanent impacts to 0.54 acre of SBKR habitat (0.21 acre of RAFSS – Pioneer and 0.33 acre of RAFSS – Intermediate/Mature). Direct impacts to SBKR may occur in the form of habitat loss, animals becoming entombed in burrows during ground-disturbing activities, and mortality or injury due to equipment or vehicle strikes during construction. Habitat degradation could also occur immediately adjacent to the trail if construction activities are not restricted to the Proposed Project's impact area and/or if the trail users do not remain on the designated trail once constructed. Indirect impacts may occur in the form of increased human activity, construction noise, and ground vibration.

The Proposed Project would temporarily disturb 8.75 acres and permanently affect 5.02 acres of designated SBKR Critical Habitat. However, only 0.81 acre of temporary impacts and 0.54 acre of permanent impacts within the designated SBKR Critical Habitat would occur to RAFSS

communities that support or potentially support SBKR. The vast majority of the project-related impacts within designated SBKR Critical Habitat are to disturbed and developed lands (mainly the levee and developed areas to the west) that do not provide any suitable habitat for SBKR (ECORP 2019a). Disturbed and developed lands do not have the appropriate PCEs of SBKR habitat, as defined by USFWS (USFWS 2008).

The majority of the Project's impact area that is also within designated SBKR Critical Habitat is located on the City Creek levee and is separated from the RAFSS in the City Creek channel by riprap. Furthermore, the levee is composed of very compacted soils due to the routine maintenance operations conducted on the levee and does not contain any native vegetation. Although the City Creek levee contains elements of SBKR PCE 3 (upland areas adjacent to suitable habitat areas; USFWS 2008), the riprap located at the base of the levee likely represents a physical barrier to SBKR, preventing individuals from gaining access to the top of the levee (as discussed during an on-site meeting with USFWS and CDFW personnel in April 2019; ECORP 2019a). There are areas where there is no riprap at the base of the City Creek levee and SBKR have no restrictions to access the top of the levee. In these locations, there is potential for SBKR to use areas on the slopes and the top of the levee for foraging.

Indirect impacts to Critical Habitat could also occur in the form of habitat degradation if construction activities are not restricted to the Project's impact area and/or if the trail users do not remain on the designated trail once constructed.

The Proposed Project is expecting to obtain the appropriate federal and state permits from USFWS and CDFW, respectively, to authorized incidental take to SBKR. Implementation of protection measures and compensatory mitigation for SBKR in addition to those identified in this document will be required as conditions of those federal and state permits.

Although SBKR is present in a portion of the BSA, the Proposed Project would not be expected to result in the loss of individuals or adversely affect local or regional populations of SBKR with the implementation of Mitigation Measures BIO-1, BIO-3 through BIO-5, BIO-8, and BIO-9. With the implementation of mitigation measures impacts would be less than significant.

Other Special-Status Wildlife Species and Nesting Birds

Eighteen additional special-status wildlife species were identified during the literature review and have potential to occur in the BSA:

- Southern California legless lizard (*Anniella stebbinsi*)
- California glossy snake (*Arizona elegans occidentalis*)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*)
- Red-diamond rattlesnake (*Crotalis ruber*)
- Coast horned lizard (*Phrynosoma blainvillii*)
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*)
- Two-striped gartersnake (*Thamnophis hammondi*)
- Burrowing owl (*Athene cunicularia*)
- Yellow-breasted chat (*Icteria virens*)
- Loggerhead shrike (*Lanius ludovicianus*)
- Yellow warbler (*Setophaga petechia*)
- Pallid bat (*Antrozous pallidus*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- Western mastiff bat (*Eumops perotis californicus*)
- Western yellow bat (*Lasiurus xanthinus*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)
- San Diego desert woodrat (*Neotoma lepida intermedia*)
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)

The BSA contains habitat that supports or potentially supports the presence of the species listed above in the RAFSS and/or southern willow scrub areas. None of the special-status species listed above were detected during the general biological surveys of the BSA; however, focused survey efforts were not conducted for the aforementioned species (ECORP 2019a).

A burrowing owl habitat assessment was conducted in May 2019. Burrowing owls and their sign were neither observed nor detected; however, potential habitat was present in areas within the BSA. Generally, the areas within the BSA classified as disturbed and non-native grassland provided suitable burrowing owl habitat and some areas within the RAFSS also provided suitable burrowing owl habitat. However, soil composition in some areas within the BSA may limit fossorial activities (e.g., very sandy soils in City Creek or compacted soils adjacent to or on top of the levee), which may in turn limit the potential for burrowing owl presence.

A bat habitat assessment was conducted in May 2019, and potential bat habitat was identified throughout the BSA in the bridge structures and the palms and cottonwoods present. The Baseline Street Bridge over City Creek contained numerous crevices that could support bat roosting and/or maternity roosting and guano was identified under the bridge structure during the habitat assessment. The remaining bridge structures in the BSA did not have evidence of bat activity but did have features that could provide roosting habitat for pallid bat and/or western mastiff bat. Palms and cottonwoods within the BSA could provide suitable roosting habitat for western yellow bat.

Vegetation on the project site and in adjacent areas provide habitat for nesting birds. Nesting birds are protected under both the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (Sections 3503, 3503.5, 3513, and 3800) and cannot be subjected to take (as defined in California Fish and Game Code) during the bird breeding season, which typically runs from February 15 to August 30.

The Proposed Project would temporarily disturb 0.81 acre and permanently affect 0.54 acre of RAFSS habitats. Temporary impacts would also occur to 0.03 acre of southern willow scrub. Although not all disturbed areas were found to provide suitable habitat for burrowing owl, temporary impacts may occur to 7.97 acres and permanent impacts may occur to 4.13 acres of potentially suitable burrowing owl habitat. Due to the proximity to special-status wildlife species habitat, the Proposed Project may result in direct impacts in the form of habitat loss and injury or mortality to individuals due to equipment or vehicle use during construction. Construction activities during the bird nesting season could result in impacts to nesting birds, including burrowing owls, in the form of nest destruction or abandonment.

Indirect impacts may occur during construction or over time once the Proposed Project has been constructed. Construction impacts may occur in the form of increased human activity, ground vibration, dust, and construction noise. Over the long term, habitat degradation could occur immediately adjacent to the trail if the trail users do not remain on the designated trail. Although the species described may be present in the BSA, the Proposed Project would not be expected to result in the loss of individuals or adversely affect local or regional populations of these species with the implementation of Mitigation Measures BIO-1, BIO-3 through BIO-5, BIO-7, BIO-10, and BIO-11. With the implementation of the previously listed mitigation measures impacts would be less than significant.

- 4b Less than Significant with Mitigation: Five vegetation communities and land cover types were mapped within the Proposed Project impact area and include: Riversidean alluvial fan sage scrub (RAFSS) – Pioneer, RAFSS – Intermediate/Mature, southern willow scrub, developed, and disturbed (ECORP 2019a). Non-native grassland was mapped within the BSA but is not located within the Proposed Project's impact area. Three vegetation communities within the Proposed Project's impact area are considered sensitive natural communities, which include RAFSS –

Pioneer, RAFSS – Intermediate/Mature, and southern willow scrub. Table 4-1 summarizes impacts to vegetation communities and land cover types within the Proposed Project's impact area.

Table 4-1. Impacts to Land Covers within the Proposed Project's Impact Area			
Vegetation Community or Land Cover Type	Temporary Impact Acreage	Permanent Impact Acreage	Total Acres
Riversidean Alluvial Fan Sage Scrub – Pioneer ¹	0.39	0.21	0.60
Riversidean Alluvial Fan Sage Scrub – Intermediate/Mature ¹	0.42	0.33	0.75
Southern Willow Scrub ¹	0.03	0.00	0.03
Disturbed	7.97	4.13	12.10
Developed	5.71	0.16	5.87
TOTAL	14.52	4.83	19.35

Notes: 1 = Sensitive natural community

Riversidean Alluvial Fan Sage Scrub – Pioneer and Intermediate/Mature

RAFSS – Pioneer and RAFSS – Intermediate/Mature were mapped within the BSA during the biological surveys. Pioneer stages of RAFSS exhibit short and/or sparse plant growth and are generally susceptible to frequent flooding or natural disturbance events such as scouring. Intermediate/Mature stages of RAFSS contain shrubs that are denser and more mature than what is found in the Pioneer stages, but the shrubs are not as mature or as dense as what is found in the mature or more established stages of this vegetation community. For the purposes of discussion, RAFSS – Pioneer and RAFSS – Intermediate/Mature may be collectively referred to as RAFSS.

RAFSS is present throughout the Project impact area and in the BSA; however, it is of low-quality due to anthropogenic disturbances present and its proximity to development. RAFSS has a state conservation status ranking of S1.1, which describes this community as critically imperiled and at a very high risk of extirpation. As summarized in Table 4-1, implementation of the Proposed Project would result in temporary and permanent impacts to RAFSS. With the implementation of Mitigation Measures BIO-1 and BIO-3 through BIO-5 impacts to RAFSS would be less than significant.

Southern Willow Scrub

Southern willow scrub was mapped in the central and southern portions of the BSA during the biological surveys. A very small amount of southern willow scrub is present in the Project's impact area just north of SR-210. This plant community has a state conservation status ranking of S2.1, which describes this community as imperiled and at a high risk of extirpation (ECORP 2019a). As summarized in Table 4-1, implementation of the Proposed Project would result in temporary and permanent impacts to southern willow scrub. With the implementation of Mitigation Measures BIO-1 and BIO-3 through BIO-5 impacts to southern willow scrub would be less than significant.

- 4c Less than Significant: An aquatic resources delineation was completed for the Proposed Project to identify aquatic resources within the delineation area (DA) (ECORP 2019b). The DA is composed of the Project's impact area plus a 100-foot buffer.

Table 4-2 summarizes the aquatic resources potentially jurisdictional to the U.S. Army Corps of Engineers (USACE) that were mapped within the DA. The perennial stream includes the City Creek channel, whereas the ephemeral streams consist of a concrete roadside ditch. There were no suspected wetlands present within the DA (ECORP 2019b).

Table 4-2. USACE Jurisdiction within the Delineation Area	
Type	Acreage¹
Wetlands	
None	N/A
Other Waters	
Perennial Stream	7.07
Ephemeral Stream	0.04
Total	7.11

¹Acreages represent a calculated estimation and are subject to modification following the USACE verification process.

Table 4-3 summarizes the aquatic resources potentially jurisdictional to the California Department of Fish and Wildlife (CDFW). Most of the mapped features are located outside of the Project's impact area, but within the 100-foot buffer of the DA.

Table 4-3. CDFW Jurisdiction within the Delineation Area	
Type	Acreage
City Creek	
Southern Willow Scrub	0.27
Mule Fat Scrub	1.01
Riversidean Alluvial Fan Sage Scrub – Int/Mature	1.28
Riversidean Alluvial Fan Sage Scrub – Pioneer	16.08
Developed	0.77
Roadside Ditch	
Developed	7.07
Total	19.48

The Proposed Project would result in impacts to aquatic resources due to permanent trail features and temporary impacts due to staging and construction access. The majority of permanent impacts are identified on top of the levee itself, above the areas considered to be jurisdictional to the USACE or CDFW. Most of the impacts are associated with temporary construction access, along the edges of the levee facing City Creek. Table 4-4 summarizes anticipated impacts to Waters of the U.S. under USACE jurisdiction. These impacts would occur within City Creek at the proposed SR-210 trail undercrossing.

Table 4-4. Aquatic Resources Impacts - USACE		
Type	Permanent Impacts (Ac.)¹	Temporary Impacts (Ac.)
Wetlands		
None	N/A	N/A
Other Waters		
Perennial Stream	0	0.15
Ephemeral Stream	0	0
Total	0.0	0.15

¹Acreages represent a calculated estimation and are subject to modification following the USACE verification process.

Table 4-5 summarizes anticipated impacts to habitats associated with aquatic resources under the jurisdiction of the CDFW.

Table 4-5. Aquatic Resources Impacts - CDFW		
Type	Permanent Impacts (Ac.)¹	Temporary Impacts (Ac.)
CDFW Habitat		
Developed	0	0.16
Southern willow scrub	0	0.03
RAFSS-I/M	0.37	0.23
RAFSS-P	0	0.94
Total	0.37	1.36

The Proposed Project is anticipated to require the following agency authorizations: a Clean Water Act (CWA) Section 404 and 408 permit authorizations from the USACE; a CWA Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB), and a Fish and Game Code (FGC) Section 1602 Streambed Alteration Agreement from the CDFW. Compliance with the previously listed regulations would reduce impacts to a less than significant level.

- 4d Less than Significant: The project site encompasses approximately 1.7 miles of the west City Creek levee, between Base Line and Alabama Street, and 0.6 miles of Alabama Street, between 3rd Street and the southern limits of the cities of Highland and San Bernardino. In this area, City Creek may act as a wildlife movement corridor for several native wildlife species between the San Bernardino Mountain Ranges and the Santa Ana River. City Creek contains patches of native habitat interspersed with non-native vegetation that could be used by wildlife as cover as they move between open spaces. It should be noted that there are anthropogenic disturbances in the project area which may affect the use of this area as a wildlife movement corridor. Residential and commercial land uses are located adjacent to City Creek to the west. Urban developments are not generally conducive to wildlife travel between natural areas because of vehicular traffic, human presence, the presence of noise and light, and general lack of vegetative cover typically associated with wildlife movement corridors. Despite the developed nature of areas adjacent to the project site, the City Creek levees may be used by wildlife that are adapted to both natural environments and urban ones, such as coyote and bobcat.

Construction of the Proposed Project is not anticipated to interfere with the movement of wildlife in the project area because construction would only occur during daylight hours while wildlife generally moves after dark. As such, construction impacts to wildlife movement would be less than significant.

Operation of the Proposed Project is also not anticipated to substantially interfere with the movement of wildlife. The Proposed Project would not construct barriers that could impede wildlife travel along City Creek or the west City Creek levee. The Proposed Project could result in an increase human presence adjacent to City Creek; however, it is anticipated that most of the trail use would occur during daylight hours. While it is anticipated that the Proposed Project would require intermittent maintenance to be conducted by City public works staff, such maintenance would be minimal and would be carried out during daylight hours. As such, operational impacts to wildlife movement would be less than significant.

- 4e No Impact: The City of Highland's municipal code has the following tree preservation ordinances (City of Highland 2020):
- 16.64.040 Heritage tree preservation requirement

- 16.64.050 Riparian plant conservation

The Proposed Project is not anticipated to require the removal of trees; therefore, no impacts would occur.

- 4f No Impact: Portions of the proposed trail alignment below 5th Street are located within the planning area of the Upper Santa Ana Wash Land Management and Habitat Conservation Plan (Wash Plan). However, the Implementation Plan for the Wash Plan is currently being developed and final approvals from the regulatory agencies have not yet been secured; the status for implementation of the Wash Plan is not definitively known. Therefore, while the Proposed Project's NES analyzed potential project impacts to critical habitat and special's status species for consistency with the Wash Plan draft documents the Proposed Project would proceed independent of the Wash Plan. The Proposed Project would initiate consultation with USFWS to fulfill federal Endangered Species Act requirements. No impact with an adopted habitat or natural community conservation plan would occur.

Mitigation Measures:

BIO-1: Habitat Enhancement and Restoration Plan. The Project will offset impacts to Riversidean alluvial sage scrub (RAFSS) and southern willow scrub through implementation of habitat restoration and enhancement activities. As a result, a Habitat Enhancement and Restoration Plan (HERP) will be developed subject to approval by the appropriate regulatory agencies prior to the start of Project construction. The HERP will outline measures that will be implemented to offset the Project-related temporary impacts to native vegetation communities and will include an extensive non-native vegetation removal program. The HERP will also describe the areas within the Project impact area where habitat enhancement and restoration activities will occur. Habitat enhancement and restoration activities will also be conducted in areas outside (adjacent to or near) the Project impact area to offset permanent impacts to native vegetation communities at a 1:1 ratio. As part of the HERP and following completion of Project construction activities, all temporary impact areas will be recontoured to match existing topography within City Creek and the biological study area (BSA). Temporary impact areas within RAFSS will be re-seeded with a native plant palette that matches the surrounding RAFSS to increase the rate of revegetation of the temporary impact areas.

BIO-2: Santa Ana woolly star and slender-horned spineflower survey. A focused pre-Project rare plant survey shall be conducted prior to the start of ground-disturbing activities to ensure no new individuals of Santa Ana woolly star and/or slender-horned spineflower are present in the Project impact area prior to the start of ground-disturbing Project activities, including vegetation removal. The survey will be conducted in accordance with the USFWS, CNPS, and CDFW protocols for surveying special-status plant populations during the blooming periods for slender-horned spineflower (April to June) and Santa Ana River woolly star (May to September) occurring the season prior to the start of Project activities. If slender-horned spineflower and Santa Ana River woolly star are not identified within the Project boundaries or in adjacent areas where Project activities may result in impacts to these species, then ground-disturbing activities may commence. If either species is detected during the pre-Project survey and the location(s) is/are outside the Project impact area, then an Environmentally Sensitive Area (ESA) shall be established around the plant at an appropriately sized buffer determined by a botanist and no Project activities may occur inside the buffer for any reason. If either species is detected during the pre-Project survey and Project-related impacts are unavoidable, then the individuals will be transplanted to a nearby recipient site in coordination with USFWS. If transplanting the individuals is not feasible or if the plant has begun to enter senescence, the qualified botanist will arrange to collect seeds and keep them secure so that the City can have the seeds dispersed in the restoration areas or have the seeds deposited into a USFWS-approved seed bank, such as the Rancho Santa Ana Botanic Garden.

- BIO-3: Environmentally Sensitive Areas (ESAs).** Prior to the start of ground-disturbing Project activities (including vegetation removal) highly visible barriers (such as orange construction fencing) will be installed along the boundaries of the Project impact area footprint (including necessary construction access), where it abuts natural vegetation communities, to designate Environmentally Sensitive Areas (ESAs) to be preserved. No Project activity of any type will be permitted within ESAs outside the project footprint. All construction equipment shall be operated in a manner so as to prevent accidental damage to nearby preserved areas outside the Project impact area. No structure of any kind, or incidental storage of equipment or supplies, will be allowed within these protected zones. Silt fence barriers will be installed at the ESA boundary to prevent accidental deposition of fill material in areas where vegetation is adjacent to planned grading activities. All equipment maintenance, staging, and dispensing of fuel, oil, or any other such activities will occur in developed or designated non-sensitive upland areas within the Project impact area. The designated upland areas will be located in such a manner as to prevent any spill runoff from entering waters of the U.S. Ingress and egress of construction equipment and personnel shall be confined to designated access points and cross-country travel by vehicles and equipment shall be prohibited.
- BIO-4: Worker Environmental Awareness Program (WEAP).** Prior to the start of Project activities, a Worker Environmental Awareness Program (WEAP) shall be developed to educate all Project personnel on the sensitive biological resources present or potentially present in and around the project site. A qualified biologist with experience with the sensitive biological resources in the region will present the WEAP to all personnel working in the project area (either temporarily or permanently) prior to the start of project activities. The WEAP may be videotaped and used to train newly hired workers or those not present for the initial WEAP. The WEAP could include, but will not be limited to: discussions of the sensitive biological resources associated with the project, project-specific measures to avoid or eliminate impacts to these resources, consequences for not complying with project permits and agreements, and contact information for the lead biologist. Logs of personnel who have taken the training will be kept on the site at the construction or project office.
- BIO-5: Biological monitoring.** A qualified biologist (biological monitor) with experience monitoring for and identifying sensitive biological resources known to occur in the area will be present during all ground-disturbing activities related to the project, including vegetation removal. As required by project permits, the qualifications of a biological monitor may need to be submitted to appropriate wildlife agencies for approval based on the resources the biologist will be monitoring. Biological monitoring duties will include, but are not limited to, conducting worker education training, verifying compliance with project permits, ensuring project activities stay within designated work areas, and inspection of exclusion fencing. The biological monitor will have the right to halt all activities in the area affected if a special-status species is identified in a work area and is in danger of injury or mortality. If work is halted in the area affected as determined by the biological monitor, work will proceed only after the hazards to the individual is removed and the animal is no longer at risk, or the individual has been moved from harm's way in accordance with the Project's permits. The biological monitor will take representative photographs of the daily activities and will also maintain a daily log that documents general project activities and compliance with the project's permit conditions. Non-compliances will also be documented in the daily log, including any measures that were implemented to rectify the issue.
- BIO-6: Pre-activity survey for federally and/or state listed avian species.** Prior to the start of Project activities, including vegetation removal, and regardless of the time of year the activities commence, a qualified avian biologist will perform a pre-activity survey for federally and/or state listed avian species, including the coastal California gnatcatcher (CAGN), least Bell's vireo (LBVI), and southwestern willow flycatcher (SWFL). The purpose of this survey will be to detect the presence and location(s) of listed bird species that may be using the areas in and around the Project for foraging, migration stopover, or other non-nesting activities. The targeted species for this survey may change depending on the season the survey is conducted at the

discretion of the qualified avian biologist if one or more species is not present in the region at the time of the survey (e.g., when LBVI and SWFL are on their wintering grounds). The area to be disturbed and a 500-foot buffer will be surveyed no more than three days prior to Project activities to determine if listed bird species (CAGN, LBVI, SWFL) are present in or near the project site. The exact survey methods shall be determined by the avian biologist but will include, at a minimum, walking throughout the Project and areas within the 500-foot survey buffer to provide 100 percent visual and aural coverage of the survey area. If listed bird species is/are present on the project site or within the 500-foot survey buffer, then a qualified avian biologist will be present during the Project activities to monitor the behavior of the birds present to ensure the Project activities do not result in altered behavior that would fall under the definition of "take" by the corresponding federal and California Endangered Species Acts under which the species is listed. The biologist would also be present to ensure that Project activities do not occur within suitable habitat for the listed species outside of the Project impact area. If a listed species is present and Project-related impacts to the species are unavoidable, then any Project activities that had commenced in the vicinity of the species shall be ceased and consultation with the appropriate regulatory agency (USFWS or CDFW) shall occur. If no listed species are found to be present during the pre-activity survey, then Project activities may commence without implementing additional species protection measures.

BIO-7: Pre-construction nesting bird survey. To the greatest extent practicable, ground-disturbing activities, including fence installation and vegetation removal, shall be conducted outside of the nesting bird season (September 16 through January 31). If ground-disturbing activities, including fence installation and vegetation removal, are scheduled to occur during the nesting bird season (February 1 through September 15), then a qualified avian biologist shall conduct a preconstruction survey of the Project impact area and a 500-foot buffer no more than 72 hours prior to the start of ground-disturbing activities to identify the location of any active nests on or in the vicinity of the Project impact area. If Project activities cease for any reason and result in no Project-related activity on the Project site for longer than 10 calendar days during the nesting season, then the pre-construction nesting bird survey shall be performed again prior activities resuming to ensure no new nests have been built on or in the vicinity of the Project impact area. The survey shall focus on detecting special-status bird species, including but not limited to coastal California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher. Non-sensitive (i.e., common) avian species shall also be a focus of the survey. If an active nest is observed, an appropriately sized non-disturbance buffer determined by the qualified avian biologist will be established around the active nest location until the qualified avian biologist has determined that nesting is complete, and young are no longer using the nest area. If a federally or state-listed bird species (coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher) is found to be nesting within 500 feet of the Project impact area, then additional biological monitoring during Project activities occurring in the vicinity of the non-disturbance buffer to ensure the Project activities do not result in impacts to the species or the nest. Coordination with the appropriate regulatory agencies shall occur if an active nest belonging to a listed avian species is located in an area that is subject to Project-related impacts and impacts to the active nest or its inhabitants are unavoidable. If no active nests belonging to special-status or common avian species are detected during the pre-construction survey, then Project activities may commence without implementation of additional nesting bird protection measures.

BIO-8: San Bernardino kangaroo rat (SBKR) exclusion fencing. Temporary San Bernardino kangaroo rat (SBKR) exclusion fencing shall be constructed around work areas during Project construction within suitable habitat where there is no barrier (such as riprap) limiting accessibility of the channel bottom. The fencing shall be installed at least two feet underground and extend at least four feet straight above ground, reinforced with metal T posts or similar support materials. If underground installation is not possible due to extremely rocky soils, then the bottom two feet of the fencing shall be folded out and sandbags placed on the edges of the fencing. It is recommended that the fencing material be slick to prevent animals from climbing into the excluded areas, such as Aqua 30 coextruded polyethylene liner or Animex™-style

fencing. Installation of the exclusion fencing shall be overseen by a SBKR biologist. Integrity of the exclusionary fencing will be inspected by a biologist or qualified project personnel on a regular basis throughout Project construction. If potential SBKR burrows are found within the proposed pathway of the exclusion fencing construction, then the qualified SBKR biologist will either help the fencing crew identify an alternate route to avoid potential burrows or will hand-excavate potential SBKR burrows at least 200 feet in advance of the fence installation crew/equipment. Any SBKR found during burrow excavation activities will be released outside of the exclusion area into suitable habitat by the SBKR biologist as authorized by the necessary permit mechanisms. Construction of artificial release burrows may be required to facilitate release of SBKR individuals. Any necessary repairs to the exclusionary fencing shall be made within 24 hours of observation. Once construction activities are complete, the fencing will be removed. Fence removal activities shall be overseen by a qualified SBKR biologist.

BIO-9: San Bernardino kangaroo rat (SBKR) trapping. Following installation of the exclusionary fence, and prior to initial ground disturbing activities, including vegetation removal, the project area will be trapped by a biologist in possession of a federal 10(a)(1)(A) permit to conduct trapping studies for San Bernardino kangaroo rat (SBKR), and any small mammals captured, including SBKR, will be released into adjacent habitat outside of the fence on the side nearest to the point of capture. The biologist will live-trap and remove as many SBKR as possible from within the enclosed construction area. Trapping will be conducted for at least five consecutive nights. If SBKR are captured on the fourth or fifth night, trapping will continue until there have been two consecutive nights of trapping with no SBKR captures, or until the USFWS and CDFW has provided written approval to discontinue trapping. The biologist will mark all captured SBKR on the chest with a non-toxic marker to identify any SBKR that reenter the exclusion area during the trapping effort. If there are recaptures, the exclusion fence will be examined, repaired as necessary, and trapping will be conducted until there are two consecutive nights with no SBKR captures, or until the USFWS and CDFW has provided written approval to discontinue trapping. Construction of artificial release burrows may be required to facilitate release of SBKR individuals during the trapping effort. Once the trapping effort has been complete, Project activities may commence within the excluded areas. Inspections of the exclusion fence shall be conducted on a daily basis and any required maintenance shall be performed immediately upon discovery or no later than one hour before dusk on the day it was discovered.

BIO-10: Pre-construction burrowing owl surveys. Two pre-construction burrowing owl surveys shall be conducted in suitable habitat areas in accordance with the methods outlined in CDFW's Staff Report for Burrowing Owl Mitigation (2012) or the most current accepted protocol recommended by CDFW. The first survey shall be conducted between 14 and 30 days prior, and the second no later than 24 hours prior to the start of ground-disturbing Project activities (including vegetation removal). If burrowing owls or sign of burrowing owl (e.g., whitewash, pellets, burrows) are found within or adjacent to the Project impact area, then additional avoidance and minimization measure may need to be implemented, including but not limited to, establishing non-disturbance buffers, seasonal work restrictions, biological monitoring, or passive relocation. If passive relocation is required or it is determined by a qualified avian biologist that Project-related impacts to burrowing owls are unavoidable, then coordination with CDFW shall be performed.

BIO-11: Pre-construction bat surveys. Pre-construction bat surveys consisting of a nighttime exit count and acoustic survey shall be conducted by a qualified bat biologist no more than 30 days prior to ground disturbing activities occurring within 500 feet of bridges and/or prior to bridge construction activities. The survey shall be conducted by a qualified bat biologist and any bridges, culverts, buildings, or appropriate tree roost locations will be inspected during the survey for evidence of bat use during the survey. If bats are determined to be roosting on or within any bridges, structures, or trees within 500 feet of Project-related ground disturbing activities, then appropriate protection measures shall be implemented. These measures may include establishment of avoidance buffers and/or seasonal avoidance of activities such as conducting work outside of the maternity season, avoiding night work near night roosts. If a

maternity bat roost is found or suspected to be present during the pre-construction bat surveys by the qualified bat biologist and avoidance of the maternity bat roost is not possible during Project activities, then humane exclusion conducted outside of the maternity and hibernation season by a CDFW-approved bat biologist may be required. Exclusionary devices will be installed in the fall (September or October) and prior to the start of work activities within 500 feet of the maternity roost location. Installation of exclusionary devices will be overseen by a qualified bat biologist. If bat exclusion activities are required for the Project, then coordination with CDFW will need to occur. Development of a Bat Management Plan may be required for the Project as a result of coordination with CDFW.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5. CULTURAL RESOURCES – Would the Project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation:

- 5a, b Less Than Significant with Mitigation Incorporated: A Historic Property Survey Report (HPSR) was prepared for the Proposed Project. The HPSR included the preparation of an Area of Potential Effect (APE) map and an Archaeological Survey Report (ASR). The APE map and ASR are included as attachments to the HPSR (ECORP 2022). The results of these reports are summarized below.

A cultural resources records search was conducted at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton in April 2019. The records search was conducted to identify previously recorded cultural resources within the Area of Potential Effect (APE) and within a one-mile radius around the APE. In addition to site records and reports on file at the SCCIC, the California Historic Property Data File (HPDF) for San Bernardino County was consulted for the Highland area. The HPDF provides information about resources determined eligible for, or listed on, the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). It also provides information on resources that are California Historical Landmarks and California Points of Historical Interest. Historic-period maps and aerial photographs of the project area were also reviewed in order to identify buildings and features that may be historical in age (ECORP 2022).

The records search results show that 36 cultural resources have been previously recorded within the one-mile records search radius. Of these, one resource (P36-015497), Base Line Road (currently designated as Base Line Street in Highland) runs through the northern end of the northern APE area. Base Line Road is also registered as a California Point of Historic Interest (CPHI-SRR-012). Most of the remaining 35 previously recorded resources within one mile of the APE are historic-period buildings located outside of the APE. A review of the HPDF for San Bernardino County did not include any resources within the APE.

The APE was surveyed by ECORP on May 30, 2019. One previously recorded historic-period resource and eight newly recorded historic-period resources were identified within the APE during

the field survey. The eight newly recorded historic-period resources consist of segments of five historic-period roads (CC-002, -003, -004, -005, and -006), a historic-period headgate (CC-007), a segment of the City Creek Levee (CC-008), and an isolated historic-period glass bottle fragment (CC-001-I). The previously recorded resource identified in the APE consists of a segment of historic-period Base Line Road (P33-015497). These resources are property types that are exempt from evaluation under the Caltrans Programmatic Agreement (PA). No other archaeological resources were identified within or adjacent to the APE by the records search or field survey. Therefore, no known archaeological resources would be affected by the Proposed Project.

The APE is primarily situated atop an earthen levee west of City Creek, with smaller portions of the APE encompassing portions of paved roadways. Surface sediments in the project area consist of Holocene alluvial deposits. Holocene sediments were deposited concurrently with human occupation of the region. Because of this, they are typically considered to have a moderate to high potential for buried resources. Four pre-contact resources have been recorded within one mile of the Proposed Project's APE. These resources consist of two isolated artifacts, a bedrock milling feature, and a concentration of painted sandstone. The concentration of painted sandstone was noted as having been found at a depth of 3 to 4 feet below the surface during the excavation of a trench. This site appears to have been located in Holocene sediments and Soboba-series soils similar to those found within the project APE. Given the age of the sediments, and the fact that sediments and soils similar to those within the APE are known to contain buried archaeological materials, the potential for buried material within undisturbed sediments of this type is considered high. However, the majority of the APE runs along the top of the City Creek Levee, an earthen levee constructed in the 1950s that varies in height from one foot to 20 feet within the APE. It is unknown if the levee was constructed using imported engineered fill or local material. If the levee was constructed with local material, it may still contain cultural resources within it. However, these resources would be out of context and likely mixed in with more recent material. Thus, the potential for intact buried resources in the levee material is considered low. The APE also contains paved streets, sidewalks, and other disturbances. In general, areas of disturbed sediments including the levee, roads, old utility trenches and such are considered to have a low potential for intact archaeological materials. However, sediments below the level of previous disturbance are considered to have a high potential to contain archaeological resources.

Construction of the Proposed Project would require ground disturbing activities, which could affect unknown archaeological resources. The majority of ground disturbance would be limited areas of previous disturbance (levee, roadways). However, the construction of the SR-210 underpass would require excavation up to a depth of 12 feet for the construction of the proposed retaining wall. Excavation in sediments below the level of previous disturbance has the potential to encounter unknown archaeological resources. With the implementation of Mitigation Measures CUL-1, YSMN CUL-1, and YSMN CUL-2 impacts from the unanticipated discovery of archaeological resources would be less than significant.

- 5c Less Than Significant with Mitigation Incorporated: No formal cemeteries are located in or near the project area. Most Native American human remains are found in prehistoric archaeological sites. No prehistoric archaeological sites have been recorded within the project area. No impacts to human remains are anticipated; however, if any are encountered during grading activities, impacts would be significant. Implementation of Mitigation Measures CUL-2 and YSMN CUL-3 would reduce potential impacts to a less than significant level.

Mitigation Measures:

- CUL-1: Unanticipated Discovery:** If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 60-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify

the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the lead agencies and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be eligible for inclusion in the NRHP or CRHR. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not eligible for the NRHP or CRHR; or 2) that the treatment measures have been completed to their satisfaction.

CUL-2: **Human Remains:** If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the San Bernardino County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the San Bernardino County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then immediately identify the most likely descendant (MLD) for purposes of receiving notification of discovery. The MLD shall then make recommendations within 48 hours and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. If the MLD fails to make a recommendation regarding the treatment or the recommendation is not feasible per the property owner, then the remains shall be reburied with appropriate dignity and respect on the property in a location not subject to further disturbance.

YSMN CUL-1: In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact and/or historic-era finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

YSMN CUL-2: If significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

YSMN CUL-3: If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6. Energy – Would the Project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

- 6a Less than Significant: The impact analysis focuses on the source of energy relevant to the Proposed Project: the equipment-fuel necessary for project construction. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use project. For the purpose of this analysis, the amount of fuel necessary for project construction is calculated and compared to that consumed in San Bernardino County.

Total equipment fuel consumption associated with off-road construction equipment in the San Bernardino County in 2018 is estimated at 12,397,671 gallons (CARB 2017). The amount of total project construction-related fuel use was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. Energy consumption associated with the Proposed Project is summarized in Table 6-1.

Table 6-1. Proposed Project Fuel Consumption		
Energy Type	Annual Energy Consumption (gallons)	Percentage Increase Countywide (%)
<i>Off-Road Equipment Fuel Consumption</i>		
Project Construction	51,330 gallons	0.41%

Source: Climate Registry 2016. See Appendix B.

As shown in Table 6-1, the Proposed Project's gasoline fuel consumption during the construction period is estimated to be 51,330 gallons of fuel during construction, which would increase the annual construction-related gasoline fuel use in the County by 0.41 percent. As such, construction of the Proposed Project would have a nominal effect on local and regional energy supplies, especially over the long term. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and require recycling of construction debris, would further reduce the amount of transportation fuel demand during project construction. For these reasons, construction fuel consumption associated with the Proposed Project would not be any more inefficient, wasteful, or unnecessary than other similar projects. This impact would be less than significant.

- 6b No Impact: As discussed under question 6a above, the energy and fuel consumption related to project construction would be minimal. During operations, the Proposed Project would serve as a bikeway and pedestrian facility. Followed by walking, bicycling is the most energy efficient form

of transportation, getting the energy equivalent of over 1,000 miles per gallon (Cambridge 2015). Active transport such as bicycling and walking can provide relatively large energy savings if it substitutes for short urban trips that have high emission rates per mile due to engine-starting (engines are inefficient during the first few minutes of operation) and traffic congestion. As a result, each one percent shift from automobile use to active travel such as walking and bicycling typically reduces fuel consumption two through four percent (Victoria Transport Policy Institute 2019). Thus, the construction of a bikeway and pedestrian facility would not conflict or obstruct any local or state plans for renewable energy or energy efficiency. There is no impact.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
7. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2001), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explanation:

- 7a i) No Impact: The San Andreas Fault Zone runs through the northern part of the City of Highland. However, the project site is not located within this zone or any other known earthquake fault zone (City of Highland 2006; CDC 2019). No impact would occur.
- 7a ii) Less Than Significant Impact: The San Andreas Fault Zone is located approximately one mile north of the project site. Just like most of southern California, in the event of an earthquake strong ground shaking is expected to occur on the project site. No habitable structures would be constructed by the Proposed Project. Design and construction of the bikeways would comply with current codes and standards. Impacts would be less than significant.
- 7a iii) No Impact: Liquefaction is a phenomenon where water-saturated granular soil loses shear strength during strong ground shaking produced by earthquakes. The loss of soil strength occurs when cyclic pore water pressure increases below the groundwater surface. Potential hazards due to liquefaction include the loss of bearing strength beneath structures, possibly causing foundation failure and/or significant settlements. According to the City of Highland General Plan the project site is not in an area susceptible to liquefaction (City of Highland 2006). No impact would occur.
- 7a iv) No Impact: According to the City of Highland's General Plan the project site is not in an area containing an existing mapped landslide. The project site is relatively flat and located along the western City Creek levee and along existing streets. As such, the project site is not located in an area that would be susceptible to landslides. No impact would occur.
- 7b Less Than Significant Impact: Implementation of the Proposed Project would require ground-disturbing activities, such as grading, that could potentially result in soil erosion or loss of topsoil. Construction of the Proposed Project would be required to comply with the Construction General Permit, which would require the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). Best Management Practices (BMPs) are included as part of the SWPPP prepared for the Proposed Project and would be implemented to manage erosion and the loss of topsoil during construction-related activities (see Section 10 Hydrology and Water Quality of this Initial Study). The Proposed Project's grading plan would also ensure that the proposed earthwork is designed to avoid soil erosion. Impacts associated with soil erosion or the loss of topsoil would be less than significant.
- 7c No Impact: Please refer to the responses to question 7a, above. No habitable structures would be constructed as part of the Proposed Project. The project site is not located in an area that is susceptible to an unstable geological unit or soil resulting in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. The project will be designed to address any soil or geologic issues. No impact would occur.
- 7d No Impact: Four soil units or types, have been mapped within the project site (ECORP 2019b). These include:
- Ps – Psamments, Fluvents and Frequently Flooded Soils
 - SoC – Soboba Gravelly-Loamy Sand, 0-9 Percent Slope
 - SpC – Soboba Stony Loamy Sand, 2-3 Percent Slopes
 - TvC – Tujunga Gravelly-Loamy Sand, 0-9 Percent Slopes
- The project site is underlain by alluvial sand and gravel deposits from City Creek. Sand and gravel deposits are usually not considered expansive (SCST, LLC. 2019). No impact would occur.
- 7e No Impact: The Proposed Project does not include septic tanks or alternative wastewater disposal systems. No impact would occur.

- 7f Less Than Significant with Mitigation Incorporated: The Proposed Project would be located within the western City Creek levee and along existing roadways. Subsurface sediments in these developed areas have been previously disturbed during the construction of the levee and the roadways. As such, the potential for these areas to contain paleontological resources or unique geologic features are considered to be low. Excavation required during construction would generally be limited to a couple of feet below the existing ground level. However, the construction of the SR-210 underpass would require excavation up to a depth of 12 feet for the construction of the proposed retaining wall. Excavation in sediments below the level of previous disturbance has the potential to encounter unknown paleontological resources. With the implementation of Mitigation Measure GEO-1 impacts from the unanticipated discovery of paleontological resources would be less than significant.

Mitigation Measures:

GEO-1: Unanticipated Discovery of Paleontological Resources: If paleontological resources are discovered during project construction, all work in the area of the find shall cease and a qualified paleontologist shall be retained by the City to investigate the find and to make recommendations on its disposition.

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

Explanation:

- 8a Less Than Significant:

Project Construction-Generated Greenhouse Gas Emissions

Construction-related activities that would generate greenhouse gas (GHG) emissions include worker commute trips, haul trucks carrying supplies and materials to and from the project site, and off-road construction equipment (e.g., tractors, graders, rollers). Construction-generated GHG emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Construction is anticipated to last 12 months. Emissions modeling accounts for the export of 775 cubic yards of soil material as well as a fleet of construction equipment. See Appendix C for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Construction-generated emissions are short term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant impact if the volume of pollutants generated exceeds the SCAQMD's thresholds of significance. Projected GHG

emissions from construction have been quantified and amortized over the life of the Proposed Project (amortized over 30 years pursuant to SCAQMD guidance). See Table 8-1.

Table 8-1. Construction-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons / Year)
Project Construction	521
Construction Amortized over 30 Years	17
SCAQMD Threshold	3,000
Exceed Threshold?	No

Source: CalEEMod version 2016.3.2. Refer to Appendix C for Model Data Outputs.

Notes: Emission estimates account for equipment models provided by Project Applicant.

Emissions estimates account for the ground disturbance of 4.3 acres and export of 775 cubic yards of soil material.

As shown in Table 8-1, construction of the Proposed Project would result in the generation of approximately 521 metric tons of carbon dioxide equivalents (CO₂e) over the course of construction. Amortized construction emissions equate to 17 metric tons of CO₂e per year. Neither value would exceed the SCAQMD's numeric bright-line threshold of 3,000 metric tons of CO₂e annually. Therefore, the impact is less than significant.

Project Operational Greenhouse Gas Emissions

In terms of operational GHG emissions, the Proposed Project involves the construction of a bikeway and pedestrian facility. The Proposed Project would not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, would not generate quantifiable GHG emissions from project operations. The Proposed Project does not propose any buildings and therefore no permanent source or stationary source emissions. Once the Proposed Project is completed, there would be no resultant increase in automobile trips to the area because the bikeway would not require daily visits. Furthermore, the Proposed Project could be expected to reduce traffic trips in the area, and thus GHG emissions, due to the proposed construction of an alternative transportation facility. A reduction of automobile-generated GHG emissions would represent a beneficial impact. There is no operational GHG-related impact.

- 8b **No Impact:** The City of Highland does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. However, the State of California promulgates several mandates and goals to reduce statewide GHG emissions, including the goal to reduce statewide GHG emissions to 1990 levels by the year 2020 (Assembly Bill 32), and the goal to reduce statewide GHG emissions to 40 percent below 1990 levels by the year 2030 (Senate Bill 32). As previously described, the Proposed Project could potentially reduce traffic trips in the area, and thus GHG emissions, due to the proposed construction of an alternative transportation facility. A reduction of automobile-generated GHG emissions would represent a beneficial impact. The Proposed Project would not result in the generation of operational GHG emissions and could reduce GHG emissions in a manner consistent with AB 32 and other California GHG-reducing legislation by creating an alternative to automobile transportation and thereby reducing mobile-source GHG emissions. Therefore, no impact would occur.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
9. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

- 9a Less Than Significant: The construction phase of the Proposed Project may include the transport, storage, and short-term use of petroleum-based fuels, lubricants, pesticides, and other similar materials. The transport of hazardous materials by truck is regulated by federal safety standards under the jurisdiction of the U.S. Department of Transportation. Additionally, the implementation of BMPs stipulating proper storage of hazardous materials and vehicle refueling would be

implemented during construction as part of the SWPPP. All transport, handling, use, and disposal of substances such as petroleum products paints, and solvents related to the operation and maintenance of the Proposed Project would comply with all Federal, State, and local laws regulating management and use of hazardous materials. Therefore, the use of such material would not create a significant hazard to the public and impacts would be less than significant.

- 9b Less Than Significant: On-site storage and/or use of large quantities of hazardous materials capable of affecting soil and groundwater are not proposed. However, during construction some hazardous materials, such as diesel fuel, would be used. A SWPPP, listing BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements would be prepared for the Proposed Project. The potential risk associated with accidental discharge during use and storage of equipment-related hazardous materials would be low since the handling of such materials would be addressed through the implementation of BMPs. With the implementation of BMPs, the Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous material. Impacts would be less than significant.
- 9c Less Than Significant Impact: There are no schools within a quarter mile of the Proposed Project. The closest school to the Proposed Project is Thompson Elementary School located approximately 0.4 miles west of the project site. Please see the response to questions 9a and b of this Initial Study. The Proposed Project would not create a significant hazard associated with the emission of hazardous or acutely hazardous materials. Impacts would be less than significant.
- 9d No Impact: A search of the Department of Toxic Substances Control's (DTSC) Hazardous Waste and Substance List (Cortese List) and EnviroStor online database and the State Water Resources Control Board's (SWRCB) GeoTracker online database was conducted for the project area (DTSC 2019a and 2019b; SWRCB 2019). The searches revealed no known hazardous material sites within the project site. No impact would occur.
- 9e Less Than Significant Impact: The project site is located approximately 0.5 mile east of San Bernardino International Airport (SBIA). The majority of the project site lies within SBIA's Airport Influence Area (AIA) (City of Highland 2006). The Proposed Project does not include facilities or public infrastructure improvements that would encourage large groups of users to congregate. The Proposed Project would also not include structures that would affect airport operations. As such, the Proposed Project is not anticipated to result in a safety hazard for people residing or working in the project area. Impacts would be less than significant.
- 9f No Impact: The City of Highland General Plan's Public Health & Safety Element discusses the City's emergency preparedness and evacuation routes (City of Highland 2006). Evacuation routes within the City of Highland include major roadways and highways. The Proposed Project would be mainly located along the west City Creek levee and within a portion of Alabama Street. The proposed bikeway would not conflict with access and/or circulation of emergency vehicles. No impact would occur.
- 9g No Impact: The project site is not located within a fire severity zone, as depicted in the City's General Plan Public Health & Safety Element (City of Highland 2006). No impact would occur.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
10. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

- 10a Less Than Significant Impact: Potential water quality impacts associated with the Proposed Project include short-term construction related erosion/sedimentation and construction-related accidental releases of hazardous materials. Because the area of ground disturbance affected by the construction of the Proposed Project would exceed one acre, the Proposed Project would be subject to the requirements of the statewide National Pollutant Discharge Elimination System (NPDES) stormwater permit for construction activity (Construction General Permit). The Construction General Permit covers construction activities including the removal of vegetation, grading, excavating or any other activity that causes disturbances to one acre or more. Compliance with the Construction General Permit would require the preparation of a SWPPP, which would list Best Management Practices (BMPs) to reduce and/or prevent water quality impacts. Construction related water quality impacts would be less than significant.

During operations the Proposed Project would implement a Water Quality Management Plan (WQMP), which describes the Proposed Project's post-construction BMPs that would be installed to protect runoff water quality. Operation of the proposed bikeways is not anticipated to affect the water quality of City Creek as the bikeways are intended to be used only for non-motorized transportation. Impacts would be less than significant.

- 10b Less Than Significant Impact: The Proposed Project does not include the construction of wells or would require the withdrawal of groundwater. The Proposed Project would result in a net increase of impervious surfaces in the project area as it proposes to construct a paved bikeway along the west City Creek levee. However, the net increase if impervious surfaces would be minimal compared to the overall watershed of the project area. As such, impacts to groundwater supplies or recharge would be less than significant.
- 10c i: Less Than Significant Impact: The Proposed Project would require grading of the project site which could result in erosion and/or siltation. Erosion and/or siltation during construction would be minimized by implementation of BMPs included in the Proposed Project's SWPPP. Furthermore, the Proposed Project grading plan system has been designed by a registered civil engineer to meet City development standards and minimize post-construction erosion and siltation. Impacts would be less than significant.
- ii: No Impact: The proposed trail alignment would be sited entirely outside of the City Creek flood plain. Implementation of the Proposed Project would not impact the existing drainage pattern of the area and would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite. No impact would occur.
- iii: Less Than Significant Impact: The Proposed Project is not anticipated to increase post-construction stormwater runoff compared to existing conditions. The runoff generated by the Proposed Project would be treated by implementing BMPs to ensure local and regional stormwater quality is not impacted. Impacts would be less than significant.
- iv: No Impact: The Proposed Project does not include structure that would impede or redirect flood flows. No impact would occur.
- 10d Less than Significant: The project site is located approximately 70 miles inland from the Pacific Ocean. Therefore, the Proposed Project would not be affected by tsunamis. There are no large bodies of open water near the project site; as such, seiches are not a concern for the project site. According to the City of Highland's General Plan Public Health & Safety Element, the project site is located within a special flood hazard area inundated by the 100-year flood. The project site would be constructed on the west City Creek levee, which protects adjacent areas from flooding. Due to the nature of the proposed improvements (Class I/Class II bikeways) the Proposed Project would not create a risk of release of pollutants. Impacts would be less than significant.
- 10e No Impact: The Proposed Project would comply with the NPDES stormwater permit for construction activity (Order 98-08 DWQ), and as such would prepare a SWPPP. Additionally, construction and operation of the Proposed Project would not interfere with any groundwater management or recharge plan. No impact would occur.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
11. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

- 11a No Impact: This project would add 1.7 miles of new Class I bikeway on the west City Creek levee between Base Line and Alabama Street, and 0.6 miles of new Class I/Class II bikeways along Alabama Street between 3rd Street and the south limits of Highland and San Bernardino. The Proposed Project would provide a benefit to the community by giving area residents and visitors an alternative mode of transportation and access to trails in the region. No impact would occur.
- 11b No Impact: The Proposed Project would be consistent with the City of Highland General Plan Circulation Element. In particular with the following goals:
- **Goal 3.4** – Provide a safe circulation system.
 - **Goal 3.7** – Protect and encourage bicycle travel.

The Proposed Project would result in beneficial impacts for the City of Highland.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
12. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

- 12a No Impact: According to the City of Highland General Plan the project site is located within an area designated a Mineral Resource Zone 2 (MRZ-2). More than half of the City is underlain by MRZ-2 rated mineral resources attributed to the large washes and stream channels located in the City. However, the Proposed Project would be located along the western City Creek levee and within existing roadways and would not preclude the mining of mineral resources located in

the project area. As such, no impact to the loss of availability of a known mineral resource would occur.

12b No Impact: Please see the response to question 12a, above. No impact would occur.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
13. NOISE – Would the Project:				
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

13a Less Than Significant Impact: Noise generated by the construction of the Proposed Project would be temporary and no permanent noise sources would be created. Construction activities would take place within permitted hours (5:00 a.m. and 10:00 p.m. on any day in the industrial (I) zone, and between the hours of 7:00 a.m. and 10:00 p.m. on any day in all other zones) per the City of Highland Municipal Code Section 8.50.050, Controlled Hours of Operation.

The Proposed Project would result in the creation of approximately 1.7 miles of Class I bikeways and 0.6 mile of Class I/Class II bikeways in the City of Highland. The Proposed Project would not include new permanent stationary or mobile noise sources. While it is anticipated that the Proposed Project would require intermittent maintenance to be conducted by City public works staff, such maintenance would be minimal requiring a negligible amount of traffic trips on an annual basis. People using the bikeways for recreational activities (e.g., walking, running, cycling) would be the main source of noise during operation of the Proposed Project. The bikeways, however, do not allow motorized vehicles. Furthermore, people would be continuously moving along the bikeways and would not be concentrated at any single point. Impacts would be less than significant.

13b Less Than Significant Impact: The Proposed Project would introduce temporary ground-borne vibrations and noise levels in the project vicinity related to the use of heavy construction equipment. No sources of severe vibration, such as pile driving or blasting, are proposed. The

potential impacts would diminish with distance. The closest sensitive receptors are residences located adjacent to the proposed trail along the western City Creek levee. The closest residential structure to the trail is approximately 30 feet from the trail just west of SR-210. The maximum vibration source amplitudes from heavy construction equipment is estimated to be a maximum of 0.089 peak particle velocity (PPV) for a large bulldozer at 25 feet (Caltrans 2013). A threshold for damage for older residential structures is generally considered to be 0.25 PPV (Caltrans 2013). Given that the nearest residential structure is approximately 30 feet from the project site, and that the vibration amplitudes at 25 feet from the site would be below the threshold for damage to older residential structures, it is not anticipated that significant impacts from vibration would occur. Additionally, the vibration from the use of heavy equipment would end at the completion of the construction activities. A less than significant impact would occur.

- 13c No Impact: The project site is located approximately 0.5 mile east of San Bernardino International Airport. The Proposed Project does not include structures or features permitting human habitation. No impact would occur.

Mitigation Measures: Not Required

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

Explanation:

- 14a No Impact: The Proposed Project is the construction and operation of a bicycle trail and would not result in new residential uses or result in a permanent increase in employment opportunities in the area capable of inducing population growth. No impact would occur.
- 14b No Impact: There are homes adjacent to the project site but not within the Proposed Project's footprint. The project site is located within the western City Creek levee and within existing roadways. The Proposed Project would not displace housing. No impact would occur.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
15. PUBLIC SERVICES – Would the Project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

15ai, ii Less Than Significant: The proposed bikeways would be operated for recreational purposes and would be open to the public during daylight hours for walking and cycling. The City does not anticipate the need for new or expanded police or fire protection. While occasional demand for emergency response may result during operation of the trail, such demand is not expected to substantially affect fire and police response times. Impacts would be less than significant.

15aiii-v No Impact: The Proposed Project would develop bikeways within the City of Highland. The Proposed Project would not result in population growth that would increase the use of schools, parks, or other public facilities. No impacts would occur.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
16. RECREATION – Would the Project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation:

- 16a, b No Impact: The Proposed Project would construct and operate Class I and Class II bikeways, a recreational facility consistent with the goals and policies of the City's General Plan Circulation Element. Long term operation of the bikeways includes regular inspections and maintenance/repairs as needed. Implementation of the Proposed Project is not anticipated to result in substantial physical deterioration of the City's recreational facilities and is anticipated to result in beneficial impacts due to the increase of recreational facilities available to the public and the improved access to existing bikeway facilities in the City and region. No impact would occur.

Mitigation Measures: Not Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
17. TRANSPORTATION – Would the Project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Explanation:

- 17a No Impact: The Proposed Project is the construction and operation of Class I and Class II bikeways within the City of Highland. The Proposed Project would be consistent with the City of Highland's General Plan Circulation Element, specifically with the following goals:

- **Goal 3.4** – Provide a safe circulation system.
- **Goal 3.7** – Protect and encourage bicycle travel.

The Proposed Project would result in beneficial impacts residents and visitors of the City of Highland. No impact would occur.

- 17b No Impact: CEQA Guidelines section 15064.3, subdivision (b) details the use of vehicle miles traveled (VMT) to assess the significance of transportation impacts. As detailed in CEQA Guidelines section 15064.3, subdivision (c), a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide. As of the preparation of this document (September 2022), VMT analysis has not been adopted by the City of Highland and this question does not apply to the Proposed Project.

- 17c No Impact: The final design of the Proposed Project would be completed in accordance with the guidance and requirements of the Caltrans Highway Design Manual, Chapter 1000, "Bikeway Planning and Design". Additionally, project review and approval by the City of Highland would ensure that the final design conforms to applicable development standards and General Plan goals and policies. No impact would occur.
- 17d Less Than Significant: The Proposed Project would be mainly located along the western City Creek levee where impacts to emergency access would be minimal. A portion of the Proposed Project would also be located along Alabama Street between 3rd Street and the south limits of Highland and San Bernardino. Construction of this portion of the Proposed Project would require temporary construction access, which may involve temporary detours and road closures. However, a traffic control plan would be implemented to maintain traffic flow and emergency response access in the project area. Impacts would be less than significant.

Mitigation Measures: Not Required

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

Explanation:

18ai-ii) Less Than Significant with Mitigation:

On September 12, 2022, the City of Highland sent a project notification letter to the following California Native American tribe, which had previously submitted a general consultation request letter pursuant to

21080.3.1(d) of the Public Resources Code:

- Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indians)

The Yuhaaviatam of San Manuel Nation (YSMN) was provided a brief description of the project and its location, the lead agency contact information, and a notification that the tribe has 30 days to request consultation.

On September 12, 2022, the YSMN responded to the notification letter via an email. The response stated that the proposed project area exists within Serrano ancestral territory and, therefore, is of interest to the Tribe. However, due to the nature of the project and its location, the YSMN does not have any concerns with the Proposed Project's implementation. The response also included the tribe's suggested cultural resource and tribal cultural resource mitigation measures for unanticipated discoveries. The City approved the suggested mitigation measures without changes. These suggestions were incorporated into Mitigation Measures YSMN CUL-1, YSMN CUL-2, YSMN CUL-3, TCR-1, and TCR-2. Consultation was formally concluded with the YSMN via the above referenced email on September 12, 2022.

Mitigation Measures:

TCR-1: The Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed in YSMN CUL-1, of any pre-contact and/or historic-era cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

TCR-2: Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN. The Lead Agency and/or applicant shall, in good faith, consult with YSMN throughout the life of the project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
19. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Explanation:

- 19a No Impact: The Proposed Project is the construction and operation of Class I and Class II bikeways. The Proposed Project does not include facilities that would require a permanent water source, generate wastewater, natural gas, or a telecommunication connection. The Proposed Project would also not require the relocation of any such facilities. It is anticipated that post-construction runoff would be similar to existing conditions, as such, no new or expanded stormwater drainage facilities would be required. No impact would occur.
- 19b No Impact: The Proposed Project does not include facilities that would require a water source. The proposed bikeways do not require irrigation nor a potable water resource. No impact would occur.
- 19c No Impact: The Proposed Project does not include facilities that generate wastewater. As such, no impact would occur.
- 19d No Impact: The Proposed Project would generate minor amounts of waste during construction. Operation of the proposed bikeways would be limited to transitory use by pedestrians/bicyclists for recreation and would not generate solid waste; therefore, no new demand on the waste disposal capacity is expected to occur. No impact would occur.
- 19e No Impact: All solid waste generated during project construction would be disposed of by the contractor at an approved site. The contractor is required to comply with federal, State, and local statutes and regulations regarding solid waste. No impact would occur.

Mitigation Measures: Not Required

- | | Potentially
Significant
Impact | Less Than
Significant
with
Mitigation
Incorporated | Less Than
Significant
Impact | No
Impact |
|--|--------------------------------------|--|------------------------------------|-------------------------------------|
| 20. Wildfire – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, would the Project: | | | | |
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? ☐ ☐ ☐ ☒

Explanation:

- 20a No Impact: The project site is not located within a State Responsibility Area (SRA) (CAL FIRE 2019). The project site is also not within a fire hazard area as identified in the City of Highland General Plan (City of Highland 2006). The Proposed Project would construct and operate Class I and Class II bikeways. The proposed improvements would be located along the west City Creek levee and within existing roadways. The bikeways would not conflict with access and/or circulation of emergency vehicles in response to an emergency and/or evacuation. No impact is anticipated.
- 20b No Impact: As previously mentioned, the project site is not located within a SRA or a fire hazard area (CAL FIRE 2019; City of Highland 2006). The proposed improvements would be located in developed areas along the west City Creek levee and within existing roadways. Because of the existing developed nature of the project area it is not anticipated that the Proposed Project would increase the risk related to wildland fires. No impact would occur.
- 20c No Impact: As previously stated, the project site is not located in or near a SRA. The Proposed Project would develop Class I and Class II bikeways along the west City Creek levee and within existing roadways. The Proposed Project would not require the installation or maintenance of infrastructure that would exacerbate fire risk resulting in temporary or ongoing impacts to the environment. No impact would occur.
- 20d No Impact: The Proposed Project would construct and operate a Class I bikeway on the west City Creek levee. The Proposed Project has been designed by registered civil engineers to ensure that the structural stability of the City Creek levee is not affected by the proposed improvements. As such, implementation of the Proposed Project is not expected to expose people or structures to flooding as a result of slope instability or drainage changes. No impact would occur.

Mitigation Measures: Not Required

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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21. MANDATORY FINDINGS OF SIGNIFICANCE – Does the Project:

- a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ☐ ☒ ☐ ☐
- b) Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are ☐ ☒ ☐ ☐

considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

- c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? ☐ ☒ ☐ ☐

Explanation:

- 21a Less Than Significant Impact with Mitigation Incorporated: Impacts to biological and cultural resources are discussed in the respective sections of this Initial Study. Impacts would be less than significant with Mitigation Measures BIO-1 through BIO-11, CUL-1 and CUL-2, YSMN CUL-1 through YSMN CUL-3, and TCR-1 and TCR-2.
- 21b Less Than Significant Impact with Mitigation Incorporated: As shown in this Initial Study, the Proposed Project would result in short-term temporary impacts associated with construction. With the mitigation listed in this Initial Study, impacts from the Proposed Project would be reduced to a less than significant level and would not be cumulatively considerable.
- 21c Less Than Significant Impact with Mitigation Incorporated: Direct and indirect impacts to human beings would be less than significant with the implementation of mitigation measures listed in this Initial Study.

21. Listed below are the person(s) who prepared or participated in the preparation of the Initial Study:

City of Highland

Lead Agency

Carlos Zamano, Public Works Director/City Engineer
Brian Wolfe, Senior Engineer (TKE Engineering, Inc)

ECORP Consulting, Inc.

CEQA Documentation/Biological Resources/Cultural Resources/Air Quality/Greenhouse Gas/Noise

Freddie Olmos, Project Manager
Alfredo Aguirre, Senior Environmental Planner
Wendy Blumel, Senior Archaeologist
Robert Cunningham, Staff Archaeologist
Roger Mason, Ph.D./Principal Investigator – Archaeology
Seth Myers, Air Quality/GHG/Noise Analyst
Scott Taylor, Senior Biologist/Regulatory Specialist
Kristen Wasz, Senior Biologist
Phil Wasz, Senior Wildlife Biologist

KOA Corporation

Design and Project Management

Ming Guan, Project Manager
Mario Ramos, Associate Engineer
Chuck Stephan, Principal

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Cambridge, City of

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[CARB] California Air Resource Board

- 2017 EMFAC Web Database. Available at <https://www.arb.ca.gov/emfac/2017/>.

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- 2019 EQ Zapp: California Earthquake Hazards Zone Application. Available at <https://www.conservation.ca.gov/cgs/geohazards/eq-zapp>. Accessed on August 27, 2019.

[CAL FIRE] California Department of Forestry and Fire Protection

- 2019 State Responsibility Area Viewer. Available at <https://bofdata.fire.ca.gov/projects-and-programs/state-responsibility-area-viewer/>. Accessed on August 30, 2019.

[DTSC] California Department of Toxic Substances Control

- 2019a DTSC's Hazardous Waste and Substances Site List – Site Cleanup (Cortese List). Available at <https://dtsc.ca.gov/dtscs-cortese-list/>. Accessed on August 13, 2019.
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[ECORP] ECORP Consulting, Inc.

- 2019a City of Highland City Creek-Alabama Street Bikeways Project Natural Environment Study. June.
- 2019b Aquatic Resources Delineation City Creek-Alabama Street Bikeways Project San Bernardino County, California. June.
- 2021 Results of a Focused San Bernardino Kangaroo Rat Trapping Survey Conducted for the City of Highland's City Creek/Alabama Street Bikeways Project, San Bernardino County, California. December 15.

- 2022 Historic Property Survey Report for the City Creek-Alabama Street Bikeways Project. Highland ATP 5449(037). March.

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SCST, LLC.

- 2019 Personal communication between Andrew K. Neuhaus and Mario Ramos. September 6, 2019.

[SCAQMD] South Coast Air Quality Management District

- 1993 CEQA Air Quality Handbook.
- 2008 Final Localized Significance Threshold Methodology (dated June 2003 [revised 2008]).

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- 2010 Federal Register, Vol. 75, No. 239. Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for the Santa Ana Sucker (*Catostomus santaanae*); Final Rule. Department of the Interior, United States Fish and Wildlife Service, Washington, DC. 77977-78009.

Victoria Transport Policy Institute

- 2019 Victoria Transport Policy Institute.

APPENDICES

Appendix A – Air Quality Model Data Outputs

Appendix B – Construction-Related Gasoline Usage

Appendix C – GHG Model Data Outputs

APPENDIX A

Appendix A – Air Quality Model Data Outputs

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

City Creek - Alabama Street Bikeway
San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	186.91	1000sqft	4.29	186,912.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

Project Characteristics -

Land Use - Land use area accounts for 1.7 miles of Class 1 bikeway spanning 18 feet in width & 0.6 mile of Class 1/Class 2 bikeway spanning 8 feet in width

Construction Phase - Construction timing per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Grading -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	40
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	22.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	8.00	43.00
tblConstructionPhase	NumDays	18.00	130.00
tblConstructionPhase	NumDays	5.00	88.00
tblConstructionPhase	PhaseEndDate	12/3/2020	6/30/2022
tblConstructionPhase	PhaseEndDate	10/14/2020	5/31/2022
tblConstructionPhase	PhaseEndDate	11/27/2019	11/30/2021
tblConstructionPhase	PhaseEndDate	11/9/2020	5/31/2022
tblConstructionPhase	PhaseEndDate	11/15/2019	9/30/2021
tblConstructionPhase	PhaseStartDate	11/10/2020	6/1/2022
tblConstructionPhase	PhaseStartDate	11/28/2019	12/1/2021
tblConstructionPhase	PhaseStartDate	11/16/2019	10/1/2021

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

tblConstructionPhase	PhaseStartDate	10/15/2020	12/1/2021
tblConstructionPhase	PhaseStartDate	11/9/2019	6/1/2021
tblGrading	MaterialExported	0.00	387.50
tblGrading	MaterialExported	0.00	387.50
tblGrading	MaterialSiltContent	6.90	4.30
tblGrading	MeanVehicleSpeed	7.10	40.00
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

tbOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

2.0 Emissions Summary

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3179	23.1917	18.4913	0.0512	17.0413	0.9367	17.9776	4.3694	0.8618	5.2309	0.0000	5,049.653 7	5,049.653 7	1.1390	0.0000	5,078.127 7
2022	3.0151	20.7005	17.9220	0.0507	1.1151	0.7684	1.8836	0.3002	0.7071	1.0074	0.0000	5,006.808 7	5,006.808 7	1.1333	0.0000	5,035.141 2
Maximum	3.0151	23.1917	18.4913	0.0512	17.0413	0.9367	17.9776	4.3694	0.8618	5.2309	0.0000	5,049.653 7	5,049.653 7	1.1390	0.0000	5,078.127 7

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3179	23.1917	18.4913	0.0512	6.7018	0.9367	7.6382	1.7203	0.8618	2.5818	0.0000	5,049.653 7	5,049.653 7	1.1390	0.0000	5,078.127 7
2022	3.0151	20.7005	17.9220	0.0507	0.7398	0.7684	1.5083	0.2081	0.7071	0.9153	0.0000	5,006.808 7	5,006.808 7	1.1333	0.0000	5,035.141 2
Maximum	3.0151	23.1917	18.4913	0.0512	6.7018	0.9367	7.6382	1.7203	0.8618	2.5818	0.0000	5,049.653 7	5,049.653 7	1.1390	0.0000	5,078.127 7

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	59.01	0.00	53.95	58.70	0.00	43.94	0.00	0.00	0.00	0.00	0.00	0.00

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0822	1.7000e-004	0.0191	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004	0.0000	0.0436

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0822	1.7000e-004	0.0191	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004	0.0000	0.0436

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2021	9/30/2021	5	88	
2	Grading	Grading	10/1/2021	11/30/2021	5	43	
3	Building Construction	Building Construction	12/1/2021	5/31/2022	5	130	
4	Paving	Paving	12/1/2021	5/31/2022	5	130	
5	Architectural Coating	Architectural Coating	6/1/2022	6/30/2022	5	22	

Acres of Grading (Site Preparation Phase): 44**Acres of Grading (Grading Phase): 21.5****Acres of Paving: 4.29****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 11,215 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Site Preparation	Surfacing Equipment	2	8.00	263	0.30
Site Preparation	Rollers	1	8.00	80	0.38
Building Construction	Cranes	0	7.00	231	0.29

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

Building Construction	Forklifts	0	8.00	89	0.20
Grading	Excavators	0	8.00	158	0.38
Paving	Pavers	0	8.00	130	0.42
Paving	Rollers	1	6.00	80	0.38
Site Preparation	Other Construction Equipment	1	8.00	172	0.42
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Generator Sets	0	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	0	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Welders	0	8.00	46	0.45
Site Preparation	Graders	1	8.00	187	0.41
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Rollers	1	8.00	80	0.38
Grading	Surfacing Equipment	2	8.00	263	0.30
Building Construction	Surfacing Equipment	2	8.00	263	0.30
Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Graders	1	8.00	187	0.41
Architectural Coating	Other Construction Equipment	1	8.00	172	0.42

Trips and VMT

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	48.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	48.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	79.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.8305	0.0000	16.8305	4.3134	0.0000	4.3134			0.0000			0.0000
Off-Road	1.8288	20.8997	15.5693	0.0352		0.9347	0.9347		0.8600	0.8600		3,409.0280	3,409.0280	1.1026		3,436.5918
Total	1.8288	20.8997	15.5693	0.0352	16.8305	0.9347	17.7652	4.3134	0.8600	5.1734		3,409.0280	3,409.0280	1.1026		3,436.5918

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.2 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.2400e-003	0.1244	0.0193	4.2000e-004	9.5500e-003	3.5000e-004	9.9000e-003	2.6200e-003	3.4000e-004	2.9500e-003		45.0104	45.0104	2.4100e-003		45.0707
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0915	0.0565	0.7452	1.9800e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0545		196.9345	196.9345	5.6000e-003		197.0746
Total	0.0947	0.1809	0.7644	2.4000e-003	0.2108	1.6400e-003	0.2124	0.0560	1.5300e-003	0.0575		241.9448	241.9448	8.0100e-003		242.1453

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5639	0.0000	6.5639	1.6822	0.0000	1.6822			0.0000			0.0000
Off-Road	1.8288	20.8997	15.5693	0.0352		0.9347	0.9347		0.8600	0.8600	0.0000	3,409.0280	3,409.0280	1.1026		3,436.5918
Total	1.8288	20.8997	15.5693	0.0352	6.5639	0.9347	7.4986	1.6822	0.8600	2.5422	0.0000	3,409.0280	3,409.0280	1.1026		3,436.5918

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.2 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.2400e-003	0.1244	0.0193	4.2000e-004	6.6600e-003	3.5000e-004	7.0100e-003	1.9100e-003	3.4000e-004	2.2500e-003		45.0104	45.0104	2.4100e-003		45.0707
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0915	0.0565	0.7452	1.9800e-003	0.1312	1.2900e-003	0.1325	0.0362	1.1900e-003	0.0374		196.9345	196.9345	5.6000e-003		197.0746
Total	0.0947	0.1809	0.7644	2.4000e-003	0.1379	1.6400e-003	0.1395	0.0381	1.5300e-003	0.0396		241.9448	241.9448	8.0100e-003		242.1453

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5313	0.0000	0.5313	0.0574	0.0000	0.0574			0.0000			0.0000
Off-Road	1.8288	20.8997	15.5693	0.0352		0.9347	0.9347		0.8600	0.8600		3,409.0280	3,409.0280	1.1026		3,436.5918
Total	1.8288	20.8997	15.5693	0.0352	0.5313	0.9347	1.4660	0.0574	0.8600	0.9174		3,409.0280	3,409.0280	1.1026		3,436.5918

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.6300e-003	0.2546	0.0394	8.7000e-004	0.0195	7.2000e-004	0.0203	5.3600e-003	6.9000e-004	6.0400e-003		92.1142	92.1142	4.9400e-003		92.2376
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0915	0.0565	0.7452	1.9800e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0545		196.9345	196.9345	5.6000e-003		197.0746
Total	0.0981	0.3111	0.7846	2.8500e-003	0.2207	2.0100e-003	0.2227	0.0587	1.8800e-003	0.0606		289.0487	289.0487	0.0105		289.3123

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2072	0.0000	0.2072	0.0224	0.0000	0.0224			0.0000			0.0000
Off-Road	1.8288	20.8997	15.5693	0.0352		0.9347	0.9347		0.8600	0.8600	0.0000	3,409.0280	3,409.0280	1.1026		3,436.5918
Total	1.8288	20.8997	15.5693	0.0352	0.2072	0.9347	1.1419	0.0224	0.8600	0.8823	0.0000	3,409.0280	3,409.0280	1.1026		3,436.5918

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.6300e-003	0.2546	0.0394	8.7000e-004	0.0136	7.2000e-004	0.0144	3.9100e-003	6.9000e-004	4.6000e-003		92.1142	92.1142	4.9400e-003		92.2376
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0915	0.0565	0.7452	1.9800e-003	0.1312	1.2900e-003	0.1325	0.0362	1.1900e-003	0.0374		196.9345	196.9345	5.6000e-003		197.0746
Total	0.0981	0.3111	0.7846	2.8500e-003	0.1449	2.0100e-003	0.1469	0.0401	1.8800e-003	0.0420		289.0487	289.0487	0.0105		289.3123

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5925	18.5015	13.1238	0.0318		0.7892	0.7892		0.7260	0.7260		3,079.714 1	3,079.714 1	0.9960		3,104.615 2
Total	1.5925	18.5015	13.1238	0.0318		0.7892	0.7892		0.7260	0.7260		3,079.714 1	3,079.714 1	0.9960		3,104.615 2

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0802	2.9896	0.5625	8.3600e-003	0.1986	5.1300e-003	0.2037	0.0572	4.9000e-003	0.0621		882.2269	882.2269	0.0558		883.6207
Worker	0.4014	0.2481	3.2705	8.6800e-003	0.8830	5.6500e-003	0.8887	0.2342	5.2000e-003	0.2394		864.3236	864.3236	0.0246		864.9386
Total	0.4816	3.2377	3.8330	0.0170	1.0816	0.0108	1.0924	0.2914	0.0101	0.3015		1,746.5505	1,746.5505	0.0804		1,748.5593

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5925	18.5015	13.1238	0.0318		0.7892	0.7892		0.7260	0.7260	0.0000	3,079.7141	3,079.7141	0.9960		3,104.6152
Total	1.5925	18.5015	13.1238	0.0318		0.7892	0.7892		0.7260	0.7260	0.0000	3,079.7141	3,079.7141	0.9960		3,104.6152

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0802	2.9896	0.5625	8.3600e-003	0.1420	5.1300e-003	0.1471	0.0433	4.9000e-003	0.0482		882.2269	882.2269	0.0558		883.6207
Worker	0.4014	0.2481	3.2705	8.6800e-003	0.5760	5.6500e-003	0.5816	0.1588	5.2000e-003	0.1640		864.3236	864.3236	0.0246		864.9386
Total	0.4816	3.2377	3.8330	0.0170	0.7180	0.0108	0.7287	0.2021	0.0101	0.2122		1,746.5505	1,746.5505	0.0804		1,748.5593

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4473	16.3392	12.8881	0.0318		0.6839	0.6839		0.6291	0.6291		3,076.3033	3,076.3033	0.9949		3,101.1768
Total	1.4473	16.3392	12.8881	0.0318		0.6839	0.6839		0.6291	0.6291		3,076.3033	3,076.3033	0.9949		3,101.1768

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0747	2.8353	0.5201	8.2900e-003	0.1985	4.3100e-003	0.2029	0.0572	4.1200e-003	0.0613		875.1535	875.1535	0.0538		876.4991
Worker	0.3749	0.2231	3.0044	8.3600e-003	0.8830	5.4800e-003	0.8885	0.2342	5.0500e-003	0.2392		833.1359	833.1359	0.0221		833.6875
Total	0.4496	3.0584	3.5245	0.0167	1.0816	9.7900e-003	1.0914	0.2914	9.1700e-003	0.3005		1,708.2894	1,708.2894	0.0759		1,710.1866

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4473	16.3392	12.8881	0.0318		0.6839	0.6839		0.6291	0.6291	0.0000	3,076.3033	3,076.3033	0.9949		3,101.1768
Total	1.4473	16.3392	12.8881	0.0318		0.6839	0.6839		0.6291	0.6291	0.0000	3,076.3033	3,076.3033	0.9949		3,101.1768

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0747	2.8353	0.5201	8.2900e-003	0.1420	4.3100e-003	0.1463	0.0433	4.1200e-003	0.0474		875.1535	875.1535	0.0538		876.4991
Worker	0.3749	0.2231	3.0044	8.3600e-003	0.5760	5.4800e-003	0.5814	0.1588	5.0500e-003	0.1639		833.1359	833.1359	0.0221		833.6875
Total	0.4496	3.0584	3.5245	0.0167	0.7179	9.7900e-003	0.7277	0.2021	9.1700e-003	0.2113		1,708.2894	1,708.2894	0.0759		1,710.1866

3.5 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1421	1.4432	1.4103	1.9700e-003		0.0882	0.0882		0.0812	0.0812		190.5667	190.5667	0.0616		192.1075
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2286	1.4432	1.4103	1.9700e-003		0.0882	0.0882		0.0812	0.0812		190.5667	190.5667	0.0616		192.1075

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.5 Paving - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0152	9.4200e-003	0.1242	3.3000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		32.8224	32.8224	9.3000e-004		32.8458
Total	0.0152	9.4200e-003	0.1242	3.3000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		32.8224	32.8224	9.3000e-004		32.8458

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1421	1.4432	1.4103	1.9700e-003		0.0882	0.0882		0.0812	0.0812	0.0000	190.5667	190.5667	0.0616		192.1075
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2286	1.4432	1.4103	1.9700e-003		0.0882	0.0882		0.0812	0.0812	0.0000	190.5667	190.5667	0.0616		192.1075

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.5 Paving - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0152	9.4200e-003	0.1242	3.3000e-004	0.0219	2.1000e-004	0.0221	6.0300e-003	2.0000e-004	6.2300e-003		32.8224	32.8224	9.3000e-004		32.8458
Total	0.0152	9.4200e-003	0.1242	3.3000e-004	0.0219	2.1000e-004	0.0221	6.0300e-003	2.0000e-004	6.2300e-003		32.8224	32.8224	9.3000e-004		32.8458

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1247	1.2944	1.3953	1.9700e-003		0.0746	0.0746		0.0686	0.0686		190.5779	190.5779	0.0616		192.1188
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2112	1.2944	1.3953	1.9700e-003		0.0746	0.0746		0.0686	0.0686		190.5779	190.5779	0.0616		192.1188

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0142	8.4700e-003	0.1141	3.2000e-004	0.0335	2.1000e-004	0.0337	8.8900e-003	1.9000e-004	9.0800e-003		31.6381	31.6381	8.4000e-004		31.6590
Total	0.0142	8.4700e-003	0.1141	3.2000e-004	0.0335	2.1000e-004	0.0337	8.8900e-003	1.9000e-004	9.0800e-003		31.6381	31.6381	8.4000e-004		31.6590

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1247	1.2944	1.3953	1.9700e-003		0.0746	0.0746		0.0686	0.0686	0.0000	190.5779	190.5779	0.0616		192.1188
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2112	1.2944	1.3953	1.9700e-003		0.0746	0.0746		0.0686	0.0686	0.0000	190.5779	190.5779	0.0616		192.1188

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0142	8.4700e-003	0.1141	3.2000e-004	0.0219	2.1000e-004	0.0221	6.0300e-003	1.9000e-004	6.2200e-003		31.6381	31.6381	8.4000e-004		31.6590
Total	0.0142	8.4700e-003	0.1141	3.2000e-004	0.0219	2.1000e-004	0.0221	6.0300e-003	1.9000e-004	6.2200e-003		31.6381	31.6381	8.4000e-004		31.6590

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.3628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5764	5.1818	5.7898	9.0800e-003		0.2786	0.2786		0.2629	0.2629		873.2262	873.2262	0.2097		878.4691
Total	2.9392	5.1818	5.7898	9.0800e-003		0.2786	0.2786		0.2629	0.2629		873.2262	873.2262	0.2097		878.4691

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0759	0.0452	0.6085	1.6900e-003	0.1788	1.1100e-003	0.1800	0.0474	1.0200e-003	0.0485		168.7364	168.7364	4.4700e-003		168.8481
Total	0.0759	0.0452	0.6085	1.6900e-003	0.1788	1.1100e-003	0.1800	0.0474	1.0200e-003	0.0485		168.7364	168.7364	4.4700e-003		168.8481

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.3628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5764	5.1818	5.7898	9.0800e-003		0.2786	0.2786		0.2629	0.2629	0.0000	873.2262	873.2262	0.2097		878.4691
Total	2.9392	5.1818	5.7898	9.0800e-003		0.2786	0.2786		0.2629	0.2629	0.0000	873.2262	873.2262	0.2097		878.4691

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0759	0.0452	0.6085	1.6900e-003	0.1167	1.1100e-003	0.1178	0.0322	1.0200e-003	0.0332		168.7364	168.7364	4.4700e-003		168.8481
Total	0.0759	0.0452	0.6085	1.6900e-003	0.1167	1.1100e-003	0.1178	0.0322	1.0200e-003	0.0332		168.7364	168.7364	4.4700e-003		168.8481

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944

5.0 Energy Detail

 Historical Energy Use: N

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Unmitigated	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0142					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Total	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0142					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Total	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

7.0 Water Detail

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Summer

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

City Creek - Alabama Street Bikeway

San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	186.91	1000sqft	4.29	186,912.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

Project Characteristics -

Land Use - Land use area accounts for 1.7 miles of Class 1 bikeway spanning 18 feet in width & 0.6 mile of Class 1/Class 2 bikeway spanning 8 feet in width

Construction Phase - Construction timing per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Grading -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	40
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	22.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	8.00	43.00
tblConstructionPhase	NumDays	18.00	130.00
tblConstructionPhase	NumDays	5.00	88.00
tblConstructionPhase	PhaseEndDate	12/3/2020	6/30/2022
tblConstructionPhase	PhaseEndDate	10/14/2020	5/31/2022
tblConstructionPhase	PhaseEndDate	11/27/2019	11/30/2021
tblConstructionPhase	PhaseEndDate	11/9/2020	5/31/2022
tblConstructionPhase	PhaseEndDate	11/15/2019	9/30/2021
tblConstructionPhase	PhaseStartDate	11/10/2020	6/1/2022
tblConstructionPhase	PhaseStartDate	11/28/2019	12/1/2021
tblConstructionPhase	PhaseStartDate	11/16/2019	10/1/2021

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

tblConstructionPhase	PhaseStartDate	10/15/2020	12/1/2021
tblConstructionPhase	PhaseStartDate	11/9/2019	6/1/2021
tblGrading	MaterialExported	0.00	387.50
tblGrading	MaterialExported	0.00	387.50
tblGrading	MaterialSiltContent	6.90	4.30
tblGrading	MeanVehicleSpeed	7.10	40.00
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

tbloffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

2.0 Emissions Summary

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3237	23.1732	17.9765	0.0499	17.0413	0.9368	17.9776	4.3694	0.8618	5.2309	0.0000	4,923.0678	4,923.0678	1.1419	0.0000	4,951.6146
2022	3.0155	20.6791	17.4479	0.0495	1.1151	0.7686	1.8837	0.3002	0.7073	1.0075	0.0000	4,883.6153	4,883.6153	1.1364	0.0000	4,912.0260
Maximum	3.0155	23.1732	17.9765	0.0499	17.0413	0.9368	17.9776	4.3694	0.8618	5.2309	0.0000	4,923.0678	4,923.0678	1.1419	0.0000	4,951.6146

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3237	23.1732	17.9765	0.0499	6.7018	0.9368	7.6382	1.7203	0.8618	2.5818	0.0000	4,923.0678	4,923.0678	1.1419	0.0000	4,951.6146
2022	3.0155	20.6791	17.4479	0.0495	0.7398	0.7686	1.5084	0.2081	0.7073	0.9154	0.0000	4,883.6153	4,883.6153	1.1364	0.0000	4,912.0260
Maximum	3.0155	23.1732	17.9765	0.0499	6.7018	0.9368	7.6382	1.7203	0.8618	2.5818	0.0000	4,923.0678	4,923.0678	1.1419	0.0000	4,951.6146

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	59.01	0.00	53.95	58.70	0.00	43.94	0.00	0.00	0.00	0.00	0.00	0.00

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0822	1.7000e-004	0.0191	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004	0.0000	0.0436

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0822	1.7000e-004	0.0191	0.0000	0.0000	7.0000e-005	7.0000e-005	0.0000	7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004	0.0000	0.0436

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2021	9/30/2021	5	88	
2	Grading	Grading	10/1/2021	11/30/2021	5	43	
3	Building Construction	Building Construction	12/1/2021	5/31/2022	5	130	
4	Paving	Paving	12/1/2021	5/31/2022	5	130	
5	Architectural Coating	Architectural Coating	6/1/2022	6/30/2022	5	22	

Acres of Grading (Site Preparation Phase): 44

Acres of Grading (Grading Phase): 21.5

Acres of Paving: 4.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 11,215 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Site Preparation	Surfacing Equipment	2	8.00	263	0.30
Site Preparation	Rollers	1	8.00	80	0.38
Building Construction	Cranes	0	7.00	231	0.29

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

Building Construction	Forklifts	0	8.00	89	0.20
Grading	Excavators	0	8.00	158	0.38
Paving	Pavers	0	8.00	130	0.42
Paving	Rollers	1	6.00	80	0.38
Site Preparation	Other Construction Equipment	1	8.00	172	0.42
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Generator Sets	0	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	0	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Welders	0	8.00	46	0.45
Site Preparation	Graders	1	8.00	187	0.41
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Rollers	1	8.00	80	0.38
Grading	Surfacing Equipment	2	8.00	263	0.30
Building Construction	Surfacing Equipment	2	8.00	263	0.30
Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Graders	1	8.00	187	0.41
Architectural Coating	Other Construction Equipment	1	8.00	172	0.42

Trips and VMT

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	48.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	48.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	79.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					16.8305	0.0000	16.8305	4.3134	0.0000	4.3134			0.0000			0.0000
Off-Road	1.8288	20.8997	15.5693	0.0352		0.9347	0.9347		0.8600	0.8600		3,409.0280	3,409.0280	1.1026		3,436.5918
Total	1.8288	20.8997	15.5693	0.0352	16.8305	0.9347	17.7652	4.3134	0.8600	5.1734		3,409.0280	3,409.0280	1.1026		3,436.5918

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.2 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.3900e-003	0.1249	0.0220	4.1000e-004	9.5500e-003	3.6000e-004	9.9000e-003	2.6200e-003	3.4000e-004	2.9600e-003		43.8308	43.8308	2.6200e-003		43.8963
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0917	0.0595	0.6112	1.7700e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0545		176.6696	176.6696	4.9200e-003		176.7925
Total	0.0951	0.1843	0.6332	2.1800e-003	0.2108	1.6500e-003	0.2124	0.0560	1.5300e-003	0.0575		220.5003	220.5003	7.5400e-003		220.6888

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5639	0.0000	6.5639	1.6822	0.0000	1.6822			0.0000			0.0000
Off-Road	1.8288	20.8997	15.5693	0.0352		0.9347	0.9347		0.8600	0.8600	0.0000	3,409.0280	3,409.0280	1.1026		3,436.5918
Total	1.8288	20.8997	15.5693	0.0352	6.5639	0.9347	7.4986	1.6822	0.8600	2.5422	0.0000	3,409.0280	3,409.0280	1.1026		3,436.5918

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.2 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.3900e-003	0.1249	0.0220	4.1000e-004	6.6600e-003	3.6000e-004	7.0200e-003	1.9100e-003	3.4000e-004	2.2500e-003		43.8308	43.8308	2.6200e-003		43.8963
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0917	0.0595	0.6112	1.7700e-003	0.1312	1.2900e-003	0.1325	0.0362	1.1900e-003	0.0374		176.6696	176.6696	4.9200e-003		176.7925
Total	0.0951	0.1843	0.6332	2.1800e-003	0.1379	1.6500e-003	0.1395	0.0381	1.5300e-003	0.0396		220.5003	220.5003	7.5400e-003		220.6888

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5313	0.0000	0.5313	0.0574	0.0000	0.0574			0.0000			0.0000
Off-Road	1.8288	20.8997	15.5693	0.0352		0.9347	0.9347		0.8600	0.8600		3,409.0280	3,409.0280	1.1026		3,436.5918
Total	1.8288	20.8997	15.5693	0.0352	0.5313	0.9347	1.4660	0.0574	0.8600	0.9174		3,409.0280	3,409.0280	1.1026		3,436.5918

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.9300e-003	0.2556	0.0450	8.4000e-004	0.0195	7.3000e-004	0.0203	5.3600e-003	7.0000e-004	6.0500e-003		89.7001	89.7001	5.3600e-003		89.8342
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0917	0.0595	0.6112	1.7700e-003	0.2012	1.2900e-003	0.2025	0.0534	1.1900e-003	0.0545		176.6696	176.6696	4.9200e-003		176.7925
Total	0.0986	0.3150	0.6562	2.6100e-003	0.2207	2.0200e-003	0.2228	0.0587	1.8900e-003	0.0606		266.3697	266.3697	0.0103		266.6267

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2072	0.0000	0.2072	0.0224	0.0000	0.0224			0.0000			0.0000
Off-Road	1.8288	20.8997	15.5693	0.0352		0.9347	0.9347		0.8600	0.8600	0.0000	3,409.0280	3,409.0280	1.1026		3,436.5918
Total	1.8288	20.8997	15.5693	0.0352	0.2072	0.9347	1.1419	0.0224	0.8600	0.8823	0.0000	3,409.0280	3,409.0280	1.1026		3,436.5918

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	6.9300e-003	0.2556	0.0450	8.4000e-004	0.0136	7.3000e-004	0.0144	3.9100e-003	7.0000e-004	4.6100e-003		89.7001	89.7001	5.3600e-003		89.8342
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0917	0.0595	0.6112	1.7700e-003	0.1312	1.2900e-003	0.1325	0.0362	1.1900e-003	0.0374		176.6696	176.6696	4.9200e-003		176.7925
Total	0.0986	0.3150	0.6562	2.6100e-003	0.1449	2.0200e-003	0.1469	0.0401	1.8900e-003	0.0420		266.3697	266.3697	0.0103		266.6267

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5925	18.5015	13.1238	0.0318		0.7892	0.7892		0.7260	0.7260		3,079.714 1	3,079.714 1	0.9960		3,104.615 2
Total	1.5925	18.5015	13.1238	0.0318		0.7892	0.7892		0.7260	0.7260		3,079.714 1	3,079.714 1	0.9960		3,104.615 2

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0851	2.9577	0.6580	8.0400e-003	0.1986	5.2700e-003	0.2038	0.0572	5.0400e-003	0.0622		847.9589	847.9589	0.0618		849.5038
Worker	0.4023	0.2610	2.6825	7.7800e-003	0.8830	5.6500e-003	0.8887	0.2342	5.2000e-003	0.2394		775.3832	775.3832	0.0216		775.9227
Total	0.4874	3.2187	3.3405	0.0158	1.0816	0.0109	1.0925	0.2914	0.0102	0.3016		1,623.3421	1,623.3421	0.0834		1,625.4265

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5925	18.5015	13.1238	0.0318		0.7892	0.7892		0.7260	0.7260	0.0000	3,079.7141	3,079.7141	0.9960		3,104.6152
Total	1.5925	18.5015	13.1238	0.0318		0.7892	0.7892		0.7260	0.7260	0.0000	3,079.7141	3,079.7141	0.9960		3,104.6152

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3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0851	2.9577	0.6580	8.0400e-003	0.1420	5.2700e-003	0.1473	0.0433	5.0400e-003	0.0483		847.9589	847.9589	0.0618		849.5038
Worker	0.4023	0.2610	2.6825	7.7800e-003	0.5760	5.6500e-003	0.5816	0.1588	5.2000e-003	0.1640		775.3832	775.3832	0.0216		775.9227
Total	0.4874	3.2187	3.3405	0.0158	0.7180	0.0109	0.7289	0.2021	0.0102	0.2123		1,623.3421	1,623.3421	0.0834		1,625.4265

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4473	16.3392	12.8881	0.0318		0.6839	0.6839		0.6291	0.6291		3,076.3033	3,076.3033	0.9949		3,101.1768
Total	1.4473	16.3392	12.8881	0.0318		0.6839	0.6839		0.6291	0.6291		3,076.3033	3,076.3033	0.9949		3,101.1768

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0794	2.8020	0.6109	7.9700e-003	0.1985	4.4300e-003	0.2030	0.0572	4.2400e-003	0.0614		840.8944	840.8944	0.0598		842.3881
Worker	0.3766	0.2345	2.4602	7.5000e-003	0.8830	5.4800e-003	0.8885	0.2342	5.0500e-003	0.2392		747.4553	747.4553	0.0194		747.9396
Total	0.4560	3.0365	3.0711	0.0155	1.0816	9.9100e-003	1.0915	0.2914	9.2900e-003	0.3006		1,588.3497	1,588.3497	0.0791		1,590.3277

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4473	16.3392	12.8881	0.0318		0.6839	0.6839		0.6291	0.6291	0.0000	3,076.3033	3,076.3033	0.9949		3,101.1768
Total	1.4473	16.3392	12.8881	0.0318		0.6839	0.6839		0.6291	0.6291	0.0000	3,076.3033	3,076.3033	0.9949		3,101.1768

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0794	2.8020	0.6109	7.9700e-003	0.1420	4.4300e-003	0.1464	0.0433	4.2400e-003	0.0475		840.8944	840.8944	0.0598		842.3881
Worker	0.3766	0.2345	2.4602	7.5000e-003	0.5760	5.4800e-003	0.5814	0.1588	5.0500e-003	0.1639		747.4553	747.4553	0.0194		747.9396
Total	0.4560	3.0365	3.0711	0.0155	0.7179	9.9100e-003	0.7279	0.2021	9.2900e-003	0.2114		1,588.3497	1,588.3497	0.0791		1,590.3277

3.5 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1421	1.4432	1.4103	1.9700e-003		0.0882	0.0882		0.0812	0.0812		190.5667	190.5667	0.0616		192.1075
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2286	1.4432	1.4103	1.9700e-003		0.0882	0.0882		0.0812	0.0812		190.5667	190.5667	0.0616		192.1075

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.5 Paving - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0153	9.9100e-003	0.1019	3.0000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		29.4449	29.4449	8.2000e-004		29.4654
Total	0.0153	9.9100e-003	0.1019	3.0000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		29.4449	29.4449	8.2000e-004		29.4654

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1421	1.4432	1.4103	1.9700e-003		0.0882	0.0882		0.0812	0.0812	0.0000	190.5667	190.5667	0.0616		192.1075
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2286	1.4432	1.4103	1.9700e-003		0.0882	0.0882		0.0812	0.0812	0.0000	190.5667	190.5667	0.0616		192.1075

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.5 Paving - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0153	9.9100e-003	0.1019	3.0000e-004	0.0219	2.1000e-004	0.0221	6.0300e-003	2.0000e-004	6.2300e-003		29.4449	29.4449	8.2000e-004		29.4654
Total	0.0153	9.9100e-003	0.1019	3.0000e-004	0.0219	2.1000e-004	0.0221	6.0300e-003	2.0000e-004	6.2300e-003		29.4449	29.4449	8.2000e-004		29.4654

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1247	1.2944	1.3953	1.9700e-003		0.0746	0.0746		0.0686	0.0686		190.5779	190.5779	0.0616		192.1188
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2112	1.2944	1.3953	1.9700e-003		0.0746	0.0746		0.0686	0.0686		190.5779	190.5779	0.0616		192.1188

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0143	8.9100e-003	0.0934	2.8000e-004	0.0335	2.1000e-004	0.0337	8.8900e-003	1.9000e-004	9.0800e-003		28.3844	28.3844	7.4000e-004		28.4028
Total	0.0143	8.9100e-003	0.0934	2.8000e-004	0.0335	2.1000e-004	0.0337	8.8900e-003	1.9000e-004	9.0800e-003		28.3844	28.3844	7.4000e-004		28.4028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1247	1.2944	1.3953	1.9700e-003		0.0746	0.0746		0.0686	0.0686	0.0000	190.5779	190.5779	0.0616		192.1188
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2112	1.2944	1.3953	1.9700e-003		0.0746	0.0746		0.0686	0.0686	0.0000	190.5779	190.5779	0.0616		192.1188

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0143	8.9100e-003	0.0934	2.8000e-004	0.0219	2.1000e-004	0.0221	6.0300e-003	1.9000e-004	6.2200e-003		28.3844	28.3844	7.4000e-004		28.4028
Total	0.0143	8.9100e-003	0.0934	2.8000e-004	0.0219	2.1000e-004	0.0221	6.0300e-003	1.9000e-004	6.2200e-003		28.3844	28.3844	7.4000e-004		28.4028

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.3628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5764	5.1818	5.7898	9.0800e-003		0.2786	0.2786		0.2629	0.2629		873.2262	873.2262	0.2097		878.4691
Total	2.9392	5.1818	5.7898	9.0800e-003		0.2786	0.2786		0.2629	0.2629		873.2262	873.2262	0.2097		878.4691

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0475	0.4983	1.5200e-003	0.1788	1.1100e-003	0.1800	0.0474	1.0200e-003	0.0485		151.3834	151.3834	3.9200e-003		151.4814
Total	0.0763	0.0475	0.4983	1.5200e-003	0.1788	1.1100e-003	0.1800	0.0474	1.0200e-003	0.0485		151.3834	151.3834	3.9200e-003		151.4814

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.3628					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5764	5.1818	5.7898	9.0800e-003		0.2786	0.2786		0.2629	0.2629	0.0000	873.2262	873.2262	0.2097		878.4691
Total	2.9392	5.1818	5.7898	9.0800e-003		0.2786	0.2786		0.2629	0.2629	0.0000	873.2262	873.2262	0.2097		878.4691

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0763	0.0475	0.4983	1.5200e-003	0.1167	1.1100e-003	0.1178	0.0322	1.0200e-003	0.0332		151.3834	151.3834	3.9200e-003		151.4814
Total	0.0763	0.0475	0.4983	1.5200e-003	0.1167	1.1100e-003	0.1178	0.0322	1.0200e-003	0.0332		151.3834	151.3834	3.9200e-003		151.4814

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944

5.0 Energy Detail

Historical Energy Use: N

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Unmitigated	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0142					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Total	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0142					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0662					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7800e-003	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436
Total	0.0822	1.7000e-004	0.0191	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0409	0.0409	1.1000e-004		0.0436

7.0 Water Detail

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Winter

7.1 Mitigation Measures Water**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

APPENDIX B

Appendix B – Construction-Related Gasoline Usage

Proposed Project
Total Construction-Related
Gasoline Usage

Action	Carbon Dioxide Equivalents (CO ₂ e) in Metric Tons ¹	Conversion of Metric Tons to Kilograms ²	Construction Equipment Emission Factor ²	Total Gallons of Fuel Consumed
Project Construction	521	521000	10.15	51,330
	Per CalEEMod Output Files.	Per Climate Registry Equation 13e	Per Climate Registry Equation 13e	

Total Gallons Consumed During Project Construction: 51,330

Notes:
Fuel used by all construction equipment, including vehicle hauling trucks, assumed to be diesel.

Sources:

¹ECORP Consulting, 2019.
²Climate Registry. 2016. *General Reporting Protocol for the Voluntary Reporting Program version 2.1*. January 2016.
<http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pdf>



APPENDIX C

Appendix C – GHG Model Data Outputs

City Creek - Alabama Street Bikeway - San Bernardino-South Coast County, Annual

City Creek - Alabama Street Bikeway
San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	186.91	1000sqft	4.29	186,912.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Land use area accounts for 1.7 miles of Class 1 bikeway spanning 18 feet in width & 0.6 mile of Class 1/Class 2 bikeway spanning 8 feet in width

Construction Phase - Construction timing per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Off-road Equipment - Equipment per Project applicant

Grading -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	40
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	18.00	22.00
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	8.00	43.00
tblConstructionPhase	NumDays	18.00	130.00
tblConstructionPhase	NumDays	5.00	88.00
tblConstructionPhase	PhaseEndDate	12/3/2020	6/30/2022
tblConstructionPhase	PhaseEndDate	10/14/2020	5/31/2022
tblConstructionPhase	PhaseEndDate	11/27/2019	11/30/2021
tblConstructionPhase	PhaseEndDate	11/9/2020	5/31/2022
tblConstructionPhase	PhaseEndDate	11/15/2019	9/30/2021
tblConstructionPhase	PhaseStartDate	11/10/2020	6/1/2022
tblConstructionPhase	PhaseStartDate	11/28/2019	12/1/2021
tblConstructionPhase	PhaseStartDate	11/16/2019	10/1/2021

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tblConstructionPhase	PhaseStartDate	10/15/2020	12/1/2021
tblConstructionPhase	PhaseStartDate	11/9/2019	6/1/2021
tblGrading	MaterialExported	0.00	387.50
tblGrading	MaterialExported	0.00	387.50
tblGrading	MaterialSiltContent	6.90	4.30
tblGrading	MeanVehicleSpeed	7.10	40.00
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Surfacing Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

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tbloffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1517	1.6516	1.2714	3.0400e-003	0.7783	0.0716	0.8499	0.1981	0.0658	0.2639	0.0000	268.5997	268.5997	0.0779	0.0000	270.5472
2022	0.1448	1.1675	1.0074	2.7800e-003	0.0605	0.0442	0.1047	0.0163	0.0407	0.0570	0.0000	249.0694	249.0694	0.0572	0.0000	250.4983
Maximum	0.1517	1.6516	1.2714	3.0400e-003	0.7783	0.0716	0.8499	0.1981	0.0658	0.2639	0.0000	268.5997	268.5997	0.0779	0.0000	270.5472

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1517	1.6516	1.2714	3.0400e-003	0.3107	0.0716	0.3822	0.0794	0.0658	0.1452	0.0000	268.5994	268.5994	0.0779	0.0000	270.5469
2022	0.1448	1.1675	1.0074	2.7800e-003	0.0402	0.0442	0.0844	0.0113	0.0407	0.0521	0.0000	249.0692	249.0692	0.0572	0.0000	250.4981
Maximum	0.1517	1.6516	1.2714	3.0400e-003	0.3107	0.0716	0.3822	0.0794	0.0658	0.1452	0.0000	268.5994	268.5994	0.0779	0.0000	270.5469

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	58.17	0.00	51.12	57.70	0.00	38.54	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
7	4-14-2021	7-13-2021	0.3533	0.3533
8	7-14-2021	10-13-2021	0.7565	0.7565
9	10-14-2021	1-13-2022	0.7849	0.7849
10	1-14-2022	4-13-2022	0.7332	0.7332
11	4-14-2022	7-13-2022	0.4796	0.4796
		Highest	0.7849	0.7849

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0149	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0149	2.0000e-005	2.3900e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0149	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0149	2.0000e-005	2.3900e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2021	9/30/2021	5	88	
2	Grading	Grading	10/1/2021	11/30/2021	5	43	
3	Building Construction	Building Construction	12/1/2021	5/31/2022	5	130	
4	Paving	Paving	12/1/2021	5/31/2022	5	130	
5	Architectural Coating	Architectural Coating	6/1/2022	6/30/2022	5	22	

Acres of Grading (Site Preparation Phase): 44

Acres of Grading (Grading Phase): 21.5

Acres of Paving: 4.29

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 11,215 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Site Preparation	Surfacing Equipment	2	8.00	263	0.30
Site Preparation	Rollers	1	8.00	80	0.38
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Grading	Excavators	0	8.00	158	0.38
Paving	Pavers	0	8.00	130	0.42
Paving	Rollers	1	6.00	80	0.38
Site Preparation	Other Construction Equipment	1	8.00	172	0.42
Grading	Rubber Tired Dozers	0	8.00	247	0.40

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Building Construction	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Generator Sets	0	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	0	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Welders	0	8.00	46	0.45
Site Preparation	Graders	1	8.00	187	0.41
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Rollers	1	8.00	80	0.38
Grading	Surfacing Equipment	2	8.00	263	0.30
Building Construction	Surfacing Equipment	2	8.00	263	0.30
Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Graders	1	8.00	187	0.41
Architectural Coating	Other Construction Equipment	1	8.00	172	0.42

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	48.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	18.00	0.00	48.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	79.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	16.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7405	0.0000	0.7405	0.1898	0.0000	0.1898	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0805	0.9196	0.6851	1.5500e-003		0.0411	0.0411		0.0378	0.0378	0.0000	136.0752	136.0752	0.0440	0.0000	137.1754
Total	0.0805	0.9196	0.6851	1.5500e-003	0.7405	0.0411	0.7817	0.1898	0.0378	0.2276	0.0000	136.0752	136.0752	0.0440	0.0000	137.1754

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3.2 Site Preparation - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	5.6000e-003	9.0000e-004	2.0000e-005	4.1000e-004	2.0000e-005	4.3000e-004	1.1000e-004	1.0000e-005	1.3000e-004	0.0000	1.7769	1.7769	1.0000e-004	0.0000	1.7794
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.7600e-003	0.0282	8.0000e-005	8.6800e-003	6.0000e-005	8.7400e-003	2.3100e-003	5.0000e-005	2.3600e-003	0.0000	7.2064	7.2064	2.0000e-004	0.0000	7.2115
Total	3.8000e-003	8.3600e-003	0.0291	1.0000e-004	9.0900e-003	8.0000e-005	9.1700e-003	2.4200e-003	6.0000e-005	2.4900e-003	0.0000	8.9833	8.9833	3.0000e-004	0.0000	8.9908

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2888	0.0000	0.2888	0.0740	0.0000	0.0740	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0805	0.9196	0.6851	1.5500e-003		0.0411	0.0411		0.0378	0.0378	0.0000	136.0750	136.0750	0.0440	0.0000	137.1753
Total	0.0805	0.9196	0.6851	1.5500e-003	0.2888	0.0411	0.3299	0.0740	0.0378	0.1119	0.0000	136.0750	136.0750	0.0440	0.0000	137.1753

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3.2 Site Preparation - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	5.6000e-003	9.0000e-004	2.0000e-005	2.9000e-004	2.0000e-005	3.0000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.7769	1.7769	1.0000e-004	0.0000	1.7794
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.7600e-003	0.0282	8.0000e-005	5.6700e-003	6.0000e-005	5.7300e-003	1.5700e-003	5.0000e-005	1.6200e-003	0.0000	7.2064	7.2064	2.0000e-004	0.0000	7.2115
Total	3.8000e-003	8.3600e-003	0.0291	1.0000e-004	5.9600e-003	8.0000e-005	6.0300e-003	1.6500e-003	6.0000e-005	1.7200e-003	0.0000	8.9833	8.9833	3.0000e-004	0.0000	8.9908

3.3 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0114	0.0000	0.0114	1.2300e-003	0.0000	1.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0393	0.4493	0.3347	7.6000e-004		0.0201	0.0201		0.0185	0.0185	0.0000	66.4913	66.4913	0.0215	0.0000	67.0289
Total	0.0393	0.4493	0.3347	7.6000e-004	0.0114	0.0201	0.0315	1.2300e-003	0.0185	0.0197	0.0000	66.4913	66.4913	0.0215	0.0000	67.0289

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3.3 Grading - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	5.6000e-003	9.0000e-004	2.0000e-005	4.1000e-004	2.0000e-005	4.3000e-004	1.1000e-004	1.0000e-005	1.3000e-004	0.0000	1.7769	1.7769	1.0000e-004	0.0000	1.7794
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.3500e-003	0.0138	4.0000e-005	4.2400e-003	3.0000e-005	4.2700e-003	1.1300e-003	3.0000e-005	1.1500e-003	0.0000	3.5213	3.5213	1.0000e-004	0.0000	3.5238
Total	1.9300e-003	6.9500e-003	0.0147	6.0000e-005	4.6500e-003	5.0000e-005	4.7000e-003	1.2400e-003	4.0000e-005	1.2800e-003	0.0000	5.2982	5.2982	2.0000e-004	0.0000	5.3031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.4500e-003	0.0000	4.4500e-003	4.8000e-004	0.0000	4.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0393	0.4493	0.3347	7.6000e-004		0.0201	0.0201		0.0185	0.0185	0.0000	66.4912	66.4912	0.0215	0.0000	67.0288
Total	0.0393	0.4493	0.3347	7.6000e-004	4.4500e-003	0.0201	0.0246	4.8000e-004	0.0185	0.0190	0.0000	66.4912	66.4912	0.0215	0.0000	67.0288

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3.3 Grading - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5000e-004	5.6000e-003	9.0000e-004	2.0000e-005	2.9000e-004	2.0000e-005	3.0000e-004	8.0000e-005	1.0000e-005	1.0000e-004	0.0000	1.7769	1.7769	1.0000e-004	0.0000	1.7794
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.3500e-003	0.0138	4.0000e-005	2.7700e-003	3.0000e-005	2.8000e-003	7.7000e-004	3.0000e-005	7.9000e-004	0.0000	3.5213	3.5213	1.0000e-004	0.0000	3.5238
Total	1.9300e-003	6.9500e-003	0.0147	6.0000e-005	3.0600e-003	5.0000e-005	3.1000e-003	8.5000e-004	4.0000e-005	8.9000e-004	0.0000	5.2982	5.2982	2.0000e-004	0.0000	5.3031

3.4 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0183	0.2128	0.1509	3.7000e-004		9.0800e-003	9.0800e-003		8.3500e-003	8.3500e-003	0.0000	32.1295	32.1295	0.0104	0.0000	32.3893
Total	0.0183	0.2128	0.1509	3.7000e-004		9.0800e-003	9.0800e-003		8.3500e-003	8.3500e-003	0.0000	32.1295	32.1295	0.0104	0.0000	32.3893

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3.4 Building Construction - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.5000e-004	0.0347	7.0600e-003	9.0000e-005	2.2500e-003	6.0000e-005	2.3100e-003	6.5000e-004	6.0000e-005	7.1000e-004	0.0000	9.0538	9.0538	6.1000e-004	0.0000	9.0690
Worker	4.1800e-003	3.1600e-003	0.0324	9.0000e-005	9.9600e-003	6.0000e-005	0.0100	2.6500e-003	6.0000e-005	2.7100e-003	0.0000	8.2665	8.2665	2.3000e-004	0.0000	8.2722
Total	5.1300e-003	0.0378	0.0394	1.8000e-004	0.0122	1.2000e-004	0.0123	3.3000e-003	1.2000e-004	3.4200e-003	0.0000	17.3202	17.3202	8.4000e-004	0.0000	17.3413

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0183	0.2128	0.1509	3.7000e-004		9.0800e-003	9.0800e-003		8.3500e-003	8.3500e-003	0.0000	32.1295	32.1295	0.0104	0.0000	32.3893
Total	0.0183	0.2128	0.1509	3.7000e-004		9.0800e-003	9.0800e-003		8.3500e-003	8.3500e-003	0.0000	32.1295	32.1295	0.0104	0.0000	32.3893

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3.4 Building Construction - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.5000e-004	0.0347	7.0600e-003	9.0000e-005	1.6100e-003	6.0000e-005	1.6700e-003	4.9000e-004	6.0000e-005	5.5000e-004	0.0000	9.0538	9.0538	6.1000e-004	0.0000	9.0690
Worker	4.1800e-003	3.1600e-003	0.0324	9.0000e-005	6.5100e-003	6.0000e-005	6.5700e-003	1.8000e-003	6.0000e-005	1.8600e-003	0.0000	8.2665	8.2665	2.3000e-004	0.0000	8.2722
Total	5.1300e-003	0.0378	0.0394	1.8000e-004	8.1200e-003	1.2000e-004	8.2400e-003	2.2900e-003	1.2000e-004	2.4100e-003	0.0000	17.3202	17.3202	8.4000e-004	0.0000	17.3413

3.4 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0774	0.8742	0.6895	1.7000e-003		0.0366	0.0366		0.0337	0.0337	0.0000	149.3065	149.3065	0.0483	0.0000	150.5137
Total	0.0774	0.8742	0.6895	1.7000e-003		0.0366	0.0366		0.0337	0.0337	0.0000	149.3065	149.3065	0.0483	0.0000	150.5137

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3.4 Building Construction - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1000e-003	0.1528	0.0304	4.4000e-004	0.0105	2.3000e-004	0.0107	3.0200e-003	2.2000e-004	3.2400e-003	0.0000	41.7767	41.7767	2.7400e-003	0.0000	41.8452
Worker	0.0182	0.0132	0.1381	4.1000e-004	0.0463	2.9000e-004	0.0466	0.0123	2.7000e-004	0.0126	0.0000	37.0712	37.0712	9.7000e-004	0.0000	37.0954
Total	0.0223	0.1660	0.1685	8.5000e-004	0.0568	5.2000e-004	0.0573	0.0153	4.9000e-004	0.0158	0.0000	78.8479	78.8479	3.7100e-003	0.0000	78.9406

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0774	0.8742	0.6895	1.7000e-003		0.0366	0.0366		0.0337	0.0337	0.0000	149.3063	149.3063	0.0483	0.0000	150.5135
Total	0.0774	0.8742	0.6895	1.7000e-003		0.0366	0.0366		0.0337	0.0337	0.0000	149.3063	149.3063	0.0483	0.0000	150.5135

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3.4 Building Construction - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.1000e-003	0.1528	0.0304	4.4000e-004	7.5000e-003	2.3000e-004	7.7300e-003	2.2900e-003	2.2000e-004	2.5100e-003	0.0000	41.7767	41.7767	2.7400e-003	0.0000	41.8452
Worker	0.0182	0.0132	0.1381	4.1000e-004	0.0303	2.9000e-004	0.0306	8.3600e-003	2.7000e-004	8.6300e-003	0.0000	37.0712	37.0712	9.7000e-004	0.0000	37.0954
Total	0.0223	0.1660	0.1685	8.5000e-004	0.0378	5.2000e-004	0.0383	0.0107	4.9000e-004	0.0111	0.0000	78.8479	78.8479	3.7100e-003	0.0000	78.9406

3.5 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6300e-003	0.0166	0.0162	2.0000e-005		1.0100e-003	1.0100e-003		9.3000e-004	9.3000e-004	0.0000	1.9881	1.9881	6.4000e-004	0.0000	2.0042
Paving	9.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.6200e-003	0.0166	0.0162	2.0000e-005		1.0100e-003	1.0100e-003		9.3000e-004	9.3000e-004	0.0000	1.9881	1.9881	6.4000e-004	0.0000	2.0042

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3.5 Paving - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.2000e-004	1.2300e-003	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3139	0.3139	1.0000e-005	0.0000	0.3141
Total	1.6000e-004	1.2000e-004	1.2300e-003	0.0000	3.8000e-004	0.0000	3.8000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3139	0.3139	1.0000e-005	0.0000	0.3141

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6300e-003	0.0166	0.0162	2.0000e-005		1.0100e-003	1.0100e-003		9.3000e-004	9.3000e-004	0.0000	1.9881	1.9881	6.4000e-004	0.0000	2.0042
Paving	9.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.6200e-003	0.0166	0.0162	2.0000e-005		1.0100e-003	1.0100e-003		9.3000e-004	9.3000e-004	0.0000	1.9881	1.9881	6.4000e-004	0.0000	2.0042

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3.5 Paving - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.2000e-004	1.2300e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.3139	0.3139	1.0000e-005	0.0000	0.3141
Total	1.6000e-004	1.2000e-004	1.2300e-003	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.3139	0.3139	1.0000e-005	0.0000	0.3141

3.5 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.6700e-003	0.0693	0.0747	1.1000e-004		3.9900e-003	3.9900e-003		3.6700e-003	3.6700e-003	0.0000	9.2496	9.2496	2.9900e-003	0.0000	9.3244
Paving	4.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0113	0.0693	0.0747	1.1000e-004		3.9900e-003	3.9900e-003		3.6700e-003	3.6700e-003	0.0000	9.2496	9.2496	2.9900e-003	0.0000	9.3244

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3.5 Paving - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.0000e-004	5.2400e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7700e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4078	1.4078	4.0000e-005	0.0000	1.4087
Total	6.9000e-004	5.0000e-004	5.2400e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7700e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.4078	1.4078	4.0000e-005	0.0000	1.4087

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.6700e-003	0.0693	0.0747	1.1000e-004		3.9900e-003	3.9900e-003		3.6700e-003	3.6700e-003	0.0000	9.2496	9.2496	2.9900e-003	0.0000	9.3244
Paving	4.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0113	0.0693	0.0747	1.1000e-004		3.9900e-003	3.9900e-003		3.6700e-003	3.6700e-003	0.0000	9.2496	9.2496	2.9900e-003	0.0000	9.3244

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3.5 Paving - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	5.0000e-004	5.2400e-003	2.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.4078	1.4078	4.0000e-005	0.0000	1.4087
Total	6.9000e-004	5.0000e-004	5.2400e-003	2.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.4078	1.4078	4.0000e-005	0.0000	1.4087

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0260					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3400e-003	0.0570	0.0637	1.0000e-004		3.0600e-003	3.0600e-003		2.8900e-003	2.8900e-003	0.0000	8.7140	8.7140	2.0900e-003	0.0000	8.7663
Total	0.0323	0.0570	0.0637	1.0000e-004		3.0600e-003	3.0600e-003		2.8900e-003	2.8900e-003	0.0000	8.7140	8.7140	2.0900e-003	0.0000	8.7663

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3.6 Architectural Coating - 2022**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.5000e-004	5.7500e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5437	1.5437	4.0000e-005	0.0000	1.5447
Total	7.6000e-004	5.5000e-004	5.7500e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.5437	1.5437	4.0000e-005	0.0000	1.5447

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0260					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.3400e-003	0.0570	0.0637	1.0000e-004		3.0600e-003	3.0600e-003		2.8900e-003	2.8900e-003	0.0000	8.7139	8.7139	2.0900e-003	0.0000	8.7663
Total	0.0323	0.0570	0.0637	1.0000e-004		3.0600e-003	3.0600e-003		2.8900e-003	2.8900e-003	0.0000	8.7139	8.7139	2.0900e-003	0.0000	8.7663

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3.6 Architectural Coating - 2022**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.5000e-004	5.7500e-003	2.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.5437	1.5437	4.0000e-005	0.0000	1.5447
Total	7.6000e-004	5.5000e-004	5.7500e-003	2.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.5437	1.5437	4.0000e-005	0.0000	1.5447

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0149	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003
Unmitigated	0.0149	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003
Total	0.0149	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.6000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0121					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.2000e-004	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003
Total	0.0149	2.0000e-005	2.3900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.6400e-003	4.6400e-003	1.0000e-005	0.0000	4.9400e-003

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation
