Mitigation Monitoring and Reporting Program

The Environmental Impact Report (EIR) identifies the applicable mitigation measures that will be implemented to reduce the impacts associated with the Ashby and North Berkeley BART Stations Transit-Oriented Development (TOD) Zoning Project. The California Environmental Quality Act (CEQA) requires a public agency to adopt a monitoring and reporting program for assessing and ensuring compliance with any required mitigation measures applied to proposed development. As stated in section 21081.6(a)(1) of the Public Resources Code:

...the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.

Section 21081.6 also provides general guidelines for implementing mitigation monitoring programs and indicates that specific reporting and/or monitoring requirements, to be enforced during project implementation, shall be defined as part of adopting an Environmental Impact Report.

The mitigation monitoring table lists those mitigation measures that may be included as performance standards in the zoning, contractual obligations, and/or conditions of approval for the project. To ensure that the mitigation measures are properly implemented, a monitoring program has been devised which identifies the timing and responsibility for monitoring each measure. Future project applicants will have the responsibility for implementing the measures that apply to development activity, and BART and the various City of Berkeley departments will have the primary responsibility for monitoring and reporting the implementation of the mitigation measures.

Mitigation Measure/Condition of Approval	Implementation Procedures	Monitoring and Reporting Action	Monitoring Timing	Monitoring Responsibility	Compliance Verification (Initial, Date Comments)
Air Quality					
AQ-1: Construction Emissions Measures					
As part of the City's development approval process, the City shall require applicants for future development projects within the project sites to comply with the current Bay Area Air Quality Management District's basic control measures for reducing construction emissions of PM ₁₀ (Table 8-2, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of the May 2017 BAAQMD CEQA Guidelines).	Project applicants shall comply with BAAQMD control measures for reducing construction emissions.	Review all demolition, grading, and building permits to ensure compliance.	Prior to permit approval and during construction	City of Berkeley Department of Planning & Development	
Biological Resources					
BIO-1: Worker Environmental Awareness Program					
Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the construction area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All construction employees shall sign a form provided by the trainer indicating they have attended the WEAP and understand the information presented to them. The form shall be submitted to the City to document compliance.	Project applicants shall ensure construction personnel attend a WEAP training conducted by a qualified biologist and consisting of the required program components. Project applicants shall prepare and distribute fact sheet and ensure signatures by construction personnel.	Monitor compliance with WEAP training and verify signed forms have been submitted.	Prior to ground disturbing activities	City of Berkeley Department of Planning & Development	

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BIO-2: Special-status Bat Species Avoidance and Minimiz	ation				
Development that involves removal of mature trees large enough to contain crevices and hollows that could support bat roosting, focused surveys to determine the presence/absence of roosting bats shall be conducted prior to demolition or tree removal. If active maternity roosts are identified, a qualified biologist shall establish avoidance buffers applicable to the species, the roost location and exposure, and the proposed construction activity in the area. If active non-maternity day or night roosts are found on the project site, measures shall be implemented to passively relocate bats from the roosts prior to the onset of construction activities. Such measures may include removal of roosting site during the time of day the roost is unoccupied or the installation of one-way doors, allowing the bats to leave the roost but not to re-enter. These measures shall be presented in a Bat Passive Relocation Plan that shall be submitted to, and approved by, CDFW prior to issuance of grading permit.	For development that involves removal of mature trees, project applicants shall obtain a qualified biologist to conduct surveys. Based on the results of the survey, project applicant shall incorporate measures to relocate bats.	For construction that meets the criteria, review and approve presence/absence survey. If active maternity roosts are identified, review all demolition, grading, and building permits to ensure relocation measures have been implemented.	Prior to issuance of grading permit Ongoing during construction activities	City of Berkeley Department of Planning & Development	
Cultural Resources					
CR-1: Ashby BART Station Interpretive Display					
The proposed project shall be designed to include a permanent, high-quality on-site interpretive display in a publicly-accessible location, preferably near or within the publicly accessible civic plaza at the Ashby BART Station. The display shall focus on the station's history, particularly the community-led effort for the station to be underground and the subsequent use of the land by the community. The interpretive display will be prepared by a professional exhibit designer and historian meeting the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61). The goal of the interpretive display is to educate the public about the property's historic themes and associations within broader cultural contexts and shall include incorporate	Project applicants shall prepare and implement a permanent, high quality on-site interpretive display meeting the requirements of the measure. Project applicants shall obtain review and approval of the	Review/approve a permanent, high quality on-site interpretive display in a publicly-accessible location	Prior to installation	City of Berkeley Department of Planning & Development	

Mitigation Measure/Condition of Approval elements of public art as appropriate. Plans for the display shall be subject to review and approval by the Land Use Planning Division prior to installation.	Implementation Procedures display from the City of Berkeley.	Monitoring and Reporting Action	Monitoring Timing	Monitoring Responsibility	Compliance Verification (Initial, Date, Comments)
Geology and Soils					
GEO-1: Paleontological Resources Studies					
Because the project sites are underlain by geologic units assigned a high paleontological sensitivity, paleontological resources may be encountered during ground-disturbing activities associated with project construction (e.g., grading, excavation, or other ground disturbing construction activity). 1. Qualified Paleontologist. The project applicant shall retain a Qualified Paleontologist to implement the following measures prior to excavations that have potential to impact paleontological resources. The Qualified Paleontologist shall direct all mitigation measures related to paleontological resources. A qualified professional paleontologist is defined by the SVP standards as an individual preferably with an M.S. or Ph.D. in paleontology or geology who is experienced with paleontological procedures and techniques, who is knowledgeable in the geology of California, and who has worked as a paleontological mitigation project supervisor for a least two years (SVP 2010). a. The qualified professional paleontologist shall design a Paleontological Resources Mitigation and Monitoring Program (PRMMP) for submission to the City prior to the issuance of grading permits. The Plan will outline the procedures and protocol for conducting paleontological monitoring and mitigation. Monitoring shall be conducted by a qualified paleontological monitor who meets the minimum qualifications per standards set forth by the SVP. The PRMMP shall address the following procedures and protocols: • Timing and duration of monitoring	Project applicants shall retain a qualified paleontologist. Project applicants shall implement a Worker Environmental Awareness Training (WEAP) on paleontological resources. Project applicants shall hire paleontological monitor, and if fossils are discovered, follow procedures for managing resources. Project applicants shall prepare final Paleontological Monitoring report and shall obtain review and approval of the report from the City of Berkeley.	Verify that qualified paleontologist has been retained and measures have been implemented	Prior to issuance of grading permit, periodically during construction	City of Berkeley Department of Planning & Development	

Mitigation Measure/Condition of Approval	Implementation Procedures	Monitoring and Reporting Action	Monitoring Timing	Monitoring Responsibility	Compliance Verification (Initial, Date, Comments)
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- Procedures for work stoppage and fossil collection
- The type and extent of data that should be collected with any recovered fossils
- Identify an appropriate curatorial institution
- Identify the minimum qualifications for qualified paleontologists and paleontological monitors
- Identify the conditions under which modifications to the monitoring schedule can be implemented
- Details to be included in the final monitoring report.

Prior to issuance of a grading permit, copies of the PRMMP shall be submitted for review to the Department of Planning and Development at the City of Berkeley.

2. Paleontological Worker Environmental Awareness Program (WEAP). Prior to any ground disturbance, the applicant shall incorporate information on paleontological resources into the Project's Worker Environmental Awareness Training (WEAP) materials, or a stand-alone Paleontological Resources WEAP shall be submitted to the Department of Planning and Development at the City of Berkeley. The Qualified Paleontologist or his or her designee shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The Paleontological WEAP training shall be fulfilled simultaneously with the overall WEAP training, or at the first preconstruction meeting at which a Qualified Paleontologist attends prior to ground disturbance. Printed literature (handouts) shall accompany the initial training. Following the initial WEAP training, all new workers and contractors must be trained prior to conducting ground disturbance work.

	Implementation	Monitoring and			Compliance Verification (Initial, Date,
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- 3. Paleontological Monitoring. Paleontological monitoring shall be conducted during any ground disturbing construction activities (i.e., grading, trenching, foundation work) in previously undisturbed (i.e., intact) Pleistocene alluvial fan and fluvial deposits (Qpaf), as well as ground disturbance exceeding depths of five feet within project areas mapped as Quaternary young (late to middle Holocene) alluvial and fluvial deposits (Qhaf)). Paleontological monitoring shall be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources and meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor. The duration and timing of the monitoring will be determined by the Qualified Paleontologist and the location and extent of proposed ground disturbance. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, based on the specific geologic conditions at the surface or at depth, he/she may recommend that monitoring be reduced to periodic spotchecking or cease entirely. Paleontological monitoring is not required for ground-disturbing activities that impact previously disturbed sediments (e.g., artificial fill) only.
- 4. Fossil Discoveries. In the event of a fossil discovery by the paleontological monitor or construction personnel, all work in the immediate vicinity of the find shall cease. A Qualified Paleontologist shall evaluate the find before restarting construction activity in the area. If it is determined that the fossil(s) is (are) scientifically significant, the Qualified Paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources:
 - Salvage of Fossils. If fossils are discovered, all work in the immediate vicinity shall be halted to allow the paleontological monitor, and/or lead paleontologist to evaluate the discovery and determine if the fossil may

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be considered significant. If the fossils are determined to be potentially significant, the qualified paleontologist (or paleontological monitor) shall recover them following standard field procedures for collecting paleontological as outlined in the PRMMP prepared for the project. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case the paleontologist shall have the authority to temporarily direct, divert or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner. If fossils are discovered, the Qualified Paleontologist (or Paleontological Monitor) shall recover them as specified in the project's PRMMP.

- b. Preparation and Curation of Recovered Fossils. Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection (such as the UCMP), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Paleontologist.
- 5. Final Paleontological Mitigation Report. Upon completion of ground disturbing activity (and curation of fossils if necessary) the Qualified Paleontologist shall prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report should include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated. The report shall be submitted to the Department of Planning and

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Development at the City of Berkeley. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.					
Greenhouse Gas Emissions					
GHG-1: Renewable Electricity Resources					
Applicants for future development allowed under the proposed project shall prepare and implement a Greenhouse Gas Reduction Program (GGRP) that includes on-site GHG reduction measures to reduce the project's total remaining GHG emissions to 1.2 MT of CO2e per service person per year or less (a total of approximately 1,027 MT of CO2e per year). Potential options include, but would not be limited to: Supply 100 percent of electricity from renewable energy resources. Current options include opting into EBCE's Renewable 100, PG&E's Solar Choice, or PG&E's Regional Renewable Choice. Install additional electric vehicle charging stations beyond those required under BMC Chapter 19.37 within proposed parking areas. Implement a transportation demand program that includes measures beyond those required City of Berkeley Transportation Demand Management (TDM) requirements. Program measures may include priority parking spaces for carpools, electric rideshare vehicles for residents and employees, and a bicycle sharing program. Prohibit installation of natural gas fireplaces. Use electric-powered construction equipment.	Project applicants shall prepare and implement a GHG Reduction Program. Project applicants shall obtain review and approval of the report from the City of Berkeley.	Verify GHG Reduction Program has been prepared and implemented	During project review	Berkeley Department of Planning & Development, Applicants for future development	

Mitigation Measure/Condition of Approval	Implementation Procedures	Monitoring and Reporting Action	Monitoring Timing	Monitoring Responsibility	Compliance Verification (Initial, Date, Comments)
Hazards and Hazardous Materials					
HAZ-1: Property Assessment – Phase I and II ESAs					
Prior to issuance of a grading permit, the project applicant will retain a qualified environmental professional (EP), as defined by ASTM E-1527 to prepare a project specific Phase I ESA in accordance with standard ASTM methodologies, to assess the land use history of the property that will be developed. The determination of specific areas that require a Phase II ESA (i.e., soil, groundwater, soil vapor subsurface investigations) will be evaluated by the project applicant after the site-specific Phase I ESAs have been completed. The Phase II ESA will be completed prior to construction and will be based on the results of the Phase I ESA. Specifically, if the Phase I ESAs identify recognized environmental conditions or potential concern areas, the project applicant will retain a qualified environmental consultant, California Professional Geologist (PG) or California Professional Engineer (PE), to prepare a Phase II ESA of the project site that will be developed, to determine whether the soil, groundwater, and/or soil vapor has been impacted at concentrations exceeding regulatory screening levels for commercial/industrial land uses. As part of the Phase II ESA, the qualified environmental consultant will screen the analytical results against the San Francisco Regional Water Quality Control Board environmental screening levels (ESL). These ESLs are risk-based screening levels for direct exposure of a construction worker under various depth and land use scenarios. The lead agency will review and approve the Phase I ESA prior to demolition and grading (construction). If the Phase II ESA for the development site indicates that contaminants are detected in the subsurface at the project site, the project applicant will take appropriate steps to protect site workers and the public. This may include the	Project applicant will retain a qualified EP to prepare a Phase I ESA. Based on the results, project applicants will retain a qualified EP to prepare a Phase II ESA and based on the results, implement measures to protect the public and workers.	Review Phase I and Phase II ESAs	Prior to issuance of building or engineering permits	City of Berkeley Department of Planning and Development	

Mitigation Measure/Condition of Approval	Implementation Procedures	Monitoring and Reporting Action	Monitoring Timing	Monitoring Responsibility	Compliance Verification (Initial, Date, Comments)
preparation of a Soil Management Plan for Impacted Soils (see Mitigation Measure HAZ-2) prior to project construction. If the Phase II ESA for the contaminant site indicates that contaminants are present at concentrations exceeding hazardous waste screening thresholds for contaminants in soil and/or groundwater (California Code of Regulations [CCR] Title 22, Section 66261.24 Characteristics of Toxicity), the project applicant will take appropriate steps to protect site workers and the public. This may include the completion of remediation (see Mitigation Measure HAZ-3) at the project site prior to onsite construction.					
HAZ-2: Soil Management Plan for Impacted Soils					
If impacted soils or other impacted wastes are present at the project site, the project applicant will retain a qualified environmental consultant (PG or PE), to prepare a Soil Management Plan (SMP) prior to construction. The SMP, or equivalent document, will be prepared to address onsite handling and management of impacted soils or other impacted wastes, and reduce hazards to construction workers and offsite receptors during construction. The plan must establish remedial measures and/or soil management practices to ensure construction worker safety, the health of future workers and visitors, and the off-site migration of contaminants from the site. These measures and practices may include, but are not limited to: Stockpile management including stormwater pollution prevention and the installation of BMPs Proper disposal procedures of contaminated materials Monitoring and reporting A health and safety plan for contractors working at the site that addresses the safety and health hazards of each phase of site construction activities with the requirements and procedures for employee protection The health and safety plan will also outline proper soil handling procedures and health and safety requirements	Project applicants shall retain a qualified consultant to prepare a SMP. Project applicants shall obtain review and approval of the report from the City of Berkeley.	Review and approve updated SGMP and review all demolition, grading, and building permits to ensure compliance	Prior to issuance of building or engineering permits	City of Berkeley Department of Planning and Development	

Mitigation Measure/Condition of Approval	Implementation Procedures	Monitoring and Reporting Action	Monitoring Timing	Monitoring Responsibility	Compliance Verification (Initial, Date, Comments)
to minimize worker and public exposure to hazardous materials during construction. The City of Berkeley will review and approve the development site Soil Management Plan for Impacted Soils prior to issuance of a grading permit.					
HAZ-3: Remediation					
If soil present within the construction envelope at the development site contains chemicals at concentrations exceeding hazardous waste screening thresholds for contaminants in soil (California Code of Regulations [CCR] Title 22, Section 66261.24), the project applicant will retain a qualified environmental consultant (PG or PE), to conduct additional analytical testing and recommend soil disposal recommendations, or consider other remedial engineering controls, as necessary. The qualified environmental consultant will utilize the development site analytical results for waste characterization purposes prior to offsite transportation or disposal of potentially impacted soils or other impacted wastes. The qualified environmental consultant will provide disposal recommendations and arrange for proper disposal of the waste soils or other impacted wastes (as necessary), and/or provide recommendations for remedial engineering controls, if appropriate. The project applicant will review and approve the disposal recommendations prior to transportation of waste soils offsite, and review and approve remedial engineering controls, prior to construction. Remediation of impacted soils and/or implementation of remedial engineering controls may require additional delineation of impacts; additional analytical testing per landfill or recycling facility requirements; soil excavation; and offsite disposal or recycling. The City of Berkeley will review and approve the development site disposal recommendations prior to	If soil present within the construction envelope at the development site contains chemicals at concentrations exceeding hazardous waste screening thresholds for contaminants in soil, project applicant shall retain a qualified environmental consultant (PG or PE), conduct additional analytical testing, and implement soil disposal recommendations and other remedial engineering controls, as necessary. Project applicant shall obtain review and approval of the controls from the City of Berkeley.	If soil present within the construction envelope at the development site contains chemicals at concentrations exceeding hazardous waste screening thresholds for contaminants in soil, verify a qualified environmental consultant (PG or PE) has conducted additional analytical testing and recommend soil disposal recommendations, or consider other remedial engineering controls, as necessary.	Prior to issuance of grading permit	City of Berkeley Department of Planning and Development	

Mitigation Measure/Condition of Approval	Implementation Procedures	Monitoring and Reporting Action	Monitoring Timing	Monitoring Responsibility	Compliance Verification (Initial, Date, Comments)
transportation of waste soils offsite and review and approve remedial engineering controls, prior to issuance of a grading permit.					
Noise					
N-1: Foundation Pile Noise and Vibration Reduction Meas	ures				
The City shall require the construction contractor at individual future developments on the project sites to implement one of the following measures to minimize noise and vibration from the installation of pile foundations: Use of an impact or sonic pile driver shall not occur; or Use of drilled piles only with temporary noise barriers and/or blankets with a minimum height of 10 feet shall be constructed along the southern project site boundary. The temporary noise barriers and/or blankets may be constructed of material with a minimum weight of two pounds per square foot with no gaps or perforations. Temporary noise barriers and/or blankets may be constructed of, but not limited to, 5/8-inch plywood, 5/8-inch oriented strand board, and hay bales; or If an alternative method for foundation piles is proposed other than drilled piles (e.g., micro piles), the method shall be reviewed by a qualified acoustician to ensure that noise and vibration levels do not exceed the City's noise standards and applicable Caltrans vibration criteria for human annoyance. The analysis shall be performed prior to project approval from the City.	Project applicants shall implement one of two options to minimize noise and vibration from the installation of pile foundations. Project applicant shall obtain review and approval from the City of Berkeley.	Verify that construction contractor is implementing one of two options to minimize noise and vibration from the installation of pile foundations.	Prior to issuance of grading permit, periodically during construction	City of Berkeley Department of Planning and Development.	

Mitigation Measure/Condition of Approval	Implementation Procedures	Monitoring and Reporting Action	Monitoring Timing	Monitoring Responsibility	Compliance Verification (Initial, Date Comments)
N-2: HVAC Noise Reduction Measures					
Prior to the issuance of building permits, applicants for development projects on the project sites shall retain a qualified acoustical consultant to review the type, location, and design of heating, ventilation, and cooling (HVAC) equipment. The acoustical consultant shall determine specific noise reduction measures as necessary to comply with the City's daytime and nighttime exterior noise standards in Section 13.40.050 of the Berkeley Municipal Code at properties in the R-1, R-2, and C-SA zones. Noise reduction measures could include, but are not limited to, selecting HVAC equipment that emits low noise levels, locating HVAC equipment as far from off-site sensitive receptors as possible, and installing equipment enclosures. The City's Planning and Development Department shall review the type, location, and design of HVAC equipment in site plans to verify that the project has incorporated recommended noise reduction measures.	Project applicants shall retain a qualified acoustical consultant to review the HVAC equipment. Project applicants shall implement measures recommended by consultant. Project applicants shall obtain review and approval from the City of Berkeley.	Verify a qualified acoustical consultant has reviewed the type, location, and design of HVAC equipment and that noise reduction measures have been implemented.	Prior to issuance of building permits.	City of Berkeley Department of Planning and Development.	
N-3: Trash Hauling Noise Reduction Measures					
Prior to the issuance of building permits, applicants for development projects on the project sites shall retain a qualified acoustical consultant to review the location and design of proposed loading areas. The acoustical consultant shall recommend measures as necessary to ensure that trash hauling noise at loading areas does not exceed the City's exterior noise standards in Section 13.40.050 of the Berkeley Municipal Code at neighboring properties. This includes compliance with noise standards that may not be exceeded for any period of time and for more than one minute in a given hour. Noise reduction measures could include, but are not limited to, locating loading areas as far as possible from off-site sensitive receptors, shielding loading areas to block the line of sight to sensitive receptors, and installing a damping treatment on dumpsters. The City's Planning and Development Department shall review the	Project applicants shall retain a qualified acoustical consultant to review the loading areas. Project applicants shall implement measures recommended by consultant. Project applicants shall obtain review and approval from the City of Berkeley	Verify the qualified acoustical consultant has reviewed the location and design of proposed loading areas measures to reduce trash hauling noise have been implemented.	Prior to issuance of building permits.	City of Berkeley Department of Planning and Development.	

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layout and design of loading areas in site plans to verify that the project has incorporated recommended noise reduction measures.					