

ATTACHMENT B: MITIGATION MONITORING AND REPORTING PROGRAM

Adopted Mitigation Measures	MONITORING AND REPORTING PROGRAM			
	Monitoring and Reporting Actions	Responsible Party	Reviewing & Approval Party	Implementation Schedule
MITIGATION MEASURES AGREED TO BY PROJECT SPONSOR				
<i>Cultural Resources</i>				
<p>Mitigation Measure M-CR-2a: Archaeological Resources Data Recovery.</p> <p>Because buried prehistoric archeological resources may be present within the archeological C-APE that could be disturbed during project implementation, the following measures shall be undertaken to avoid any potentially significant adverse effect from the project on buried historical resources. The San Francisco Public Utilities Commission (SFPUC) shall retain the services of an archeological consultant selected in consultation with the City and County of San Francisco Environmental Review Officer (ERO) or designee. The archeological consultant shall design an archeological data recovery program as specified herein, to be implemented based on the results of consultation on initial coring conducted as part of the archaeological testing plan for the project. The archeological consultant’s work shall be conducted in accordance with this measure at the direction of ERO or designee. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO or designee for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO or designee. Archeological data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO or designee, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines Section 15064.5 (a)(c).</p>	<p>1. Ensure contract documents include all necessary measures related to Archaeological Resources Data Recovery (ARDP), consultation with descendant communities, and treatment of human remains.</p>	1. SFPUC EMB	1. SFPUC BEM	1. Design
	<p>2. Confirm construction suspended if discoveries occur and data recovery is needed.</p>	2. SFPUC CMB/BEM	2. SFPUC BEM	2. Construction
	<p>3. Ensure descendant group, has been contacted and allowed the opportunity to monitor archeological field investigations; confirm consultation with ERO.</p>	3. SFPUC CMB/ BEM	3. SFPUC BEM and ERO	3. Construction
	<p>4. Prepare ADRP, coordinate approval by ERO, and implement.</p>	4. SFPUC BEM (Qualified Archaeologist)	4. SFPUC BEM and ERO	4. Pre-construction

Acronyms: SFPUC: San Francisco Public Utilities Commission; EMB: Engineering Management Bureau; CMB: Construction Management Bureau; BEM: Bureau of Environmental Management; ERO: Environmental Review Officer (San Francisco Planning Department)

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	5. Ensure construction is halted if needed, and confirm appropriate treatment of human remains and associated funerary objects in accordance with State and Federal Laws. Coordinate development of agreement with the Most Likely Descendant (MLD) for any human remains and associated or unassociated funerary objects.	5. SFPUC CMB/ BEM	5. SFPUC BEM	5. Construction

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<p><i>Consultation with Descendant Communities:</i> On discovery of an archeological site¹ associated with descendant Native Americans, the Overseas Chinese, or other descendant group an appropriate representative² of the descendant group and the ERO or designee shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to consult with the ERO or designee regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archeological Resources Report shall be provided to the representative of the descendant group.</p>	6. Prepare and submit the FARR to the ERO for approval and distribution to identified entities.	6. SFPUC BEM (Qualified Archeologist)	6. SFPUC BEM and ERO	6. Post-construction
<p><i>Archeological Data Recovery Program.</i> The archeological consultant shall prepare and submit to the ERO or designee for review and approval an archeological data recovery plan (ADRP)</p> <p>Data recovery shall be conducted in accord with the ADRP. The archeological consultant, SFPUC, and the ERO or designee shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO or designee. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP shall identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.</p> <p>In the instance of a deeply buried prehistoric archeological deposit</p>				

¹ The term “archeological site” is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

² An “appropriate representative” of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups shall be determined in consultation with the Planning Department archeologist.

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<p>potentially affected by project activities for which conventional data recovery methods are not feasible, the ADRP shall identify data recovery approaches that will result in the maximally significant data that is feasible.</p> <p>The scope of the ADRP shall include the following elements:</p> <ul style="list-style-type: none"> • <i>Field Methods and Procedures.</i> Descriptions of proposed field strategies, procedures, and operations. • <i>Cataloguing and Laboratory Analysis.</i> Description of selected cataloguing system and artifact analysis procedures. • <i>Discard and Deaccession Policy.</i> Description of and rationale for field and post-field discard and deaccession policies. • <i>Interpretive Program.</i> Consideration of an on-site/off-site public interpretive program during the course of the archeological data recovery program. • <i>Security Measures.</i> Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities. • <i>Final Report.</i> Description of proposed report format and distribution of results. • <i>Curation.</i> Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities. 				

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<p><i>Human Remains and Associated or Unassociated Funerary Objects.</i> The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Public Resources Code Section 5097.98). The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond six days of discovery to make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines. Sec. 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO.</p>				

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<p>Final Archeological Resources Report. The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO or designee that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.</p> <p>Once approved by the ERO or designee, copies of the FARR shall be distributed as follows: California Archeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO or designee shall receive a copy of the transmittal of the FARR to the NWIC. As requested by the ERO, the Environmental Planning division of the San Francisco Planning Department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO or designee may require a different final report content, format, and distribution than that presented above.</p>				
<p>Mitigation Measure M-CR-2b: Archaeological Monitoring.</p> <p>Based on the reasonable potential that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of an archeological consultant selected in consultation with the City and County of San Francisco Environmental Review Officer (ERO) or designee.. The archeological consultant shall undertake an archeological monitoring program.</p> <p><i>Archeological monitoring program (AMP).</i> The archeological monitoring program shall minimally include the following provisions:</p>	<ol style="list-style-type: none"> 1. Prepare Archaeological Monitoring Plan (AMP) and submittal for approval by ERO. 2. Ensure monitoring requirements are included in specifications. 3. Ensure construction personnel advised to be alert for evidence of expected resources and how to identify them, as well as the appropriate protocol in the event of discovery. 	<ol style="list-style-type: none"> 1. SFPUC BEM 2. SFPUC EMB 3. SFPUC CMB/ BEM 4. SFPUC CMB/ BEM (Qualified Archeologist) 5. SFPUC CMB/ BEM (Qualified 	<ol style="list-style-type: none"> 1. SFPUC BEM and ERO 2. SFPUC BEM 3. SFPUC BEM 4. SFPUC BEM 5. SFPUC BEM 	<ol style="list-style-type: none"> 1. Pre-Construction 2. Design 3. Construction 4. Construction 5. Construction

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<ul style="list-style-type: none"> • The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the project archeologist shall determine what project activities shall be archeologically monitored. In most cases, any soils disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the potential risk these activities pose to archaeological resources and to their depositional context; • The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archeological resource; • The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with the archeological consultant, determined that project construction activities could have no effects on significant archeological deposits; • The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis; • If an intact archeological deposit is encountered, all soils disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction crews and heavy equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving activity may affect an archeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archeological consultant shall 	<p>4. Conduct monitoring during construction.</p> <p>5. Ensure construction is halted if needed due to discoveries and appropriate treatment and reporting is completed.</p>	Archeologist for reporting)		

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<p>immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, present the findings of this assessment to the ERO.</p> <ul style="list-style-type: none"> • On the finding of the ERO that a potentially significant archeological resource may be affected by the project, the archeological consultant shall undertake a data recovery program in conformance with the archeological data recovery plan required by Mitigation Measure M-CR-2a. • The results of the archeological monitoring program will be reported in the project FARR as required by Mitigation Measure M-CR-2a. 				

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<p>Mitigation Measure M-CR-3: Tribal Cultural Resources Interpretive Program.</p> <p>If the Environmental Review Officer (ERO) determines that preservation-in-place of previously unidentified archaeological resources (as outlined in Mitigation Measure M-CR-2a, Archaeological Resources Data Recovery) is not a sufficient or feasible option, and if in consultation with the affiliated Native American tribal representatives the ERO determines that the resource constitutes a Tribal Cultural Resource (TCR), the SFPUC shall implement an interpretive program for the TCR in consultation with the tribal representatives. An interpretive plan produced in consultation with the ERO and affiliated tribal representatives, at a minimum, and approved by the ERO would be required to guide the interpretive program. The plan shall identify, as appropriate, proposed locations for displays or installations, the proposed content and materials of those displays or installations, the producers or artists of the displays or installations, and a long-term maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifact displays and interpretation, educational panels, or other informational displays.</p>	<p>1. Develop TCR Interpretive Program if needed.</p>	<p>1. SFPUC BEM (Qualified Archaeologist)</p>	<p>1. SFPUC BEM and ERO</p>	<p>1. Construction</p>

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<i>Air Quality</i>				
<p>Mitigation Measure M-AQ-1: NO_x Construction Emissions Minimization.</p> <p>All equipment requirements, construction emissions minimization plan, monitoring and reporting are subject to the San Francisco Clean Construction Ordinance. The SFPUC's contractors shall implement the following in addition to the requirements of the Clean Construction Ordinance:</p> <p>A. Engine Requirements</p> <ol style="list-style-type: none"> 1. All off-road construction equipment equal to or greater than 140 horsepower shall be consistent with the United States Environmental Protection Agency (USEPA) Tier 4 Final off-road emission standards. 2. Renewable diesel shall be used in all diesel on-road trucks and vehicles in Year 5 (only) of construction. <p>Should any deviations from the requirements or the equipment above be proposed prior to or during construction, the project sponsor shall demonstrate, to the satisfaction of the San Francisco Planning Department Environmental Review Officer (ERO), that an equivalent amount of emissions reduction would be achieved.</p> <p>B. Waivers</p> <ol style="list-style-type: none"> 1. The ERO or designee may waive the alternative source of power requirement of Subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO or designee grants the waiver, the contractor must submit documentation that the equipment used for on-site power generation meets the requirements of Subsection (A)(1). 2. The ERO or designee may waive the equipment requirements of Subsection (A)(1) if a particular piece of off-road equipment with Tier 4 Final standards or CARB Level 3 VDECS is 	<ol style="list-style-type: none"> 1. Ensure equipment requirements are included in specifications. 2. Ensure compliance with requirements during construction. 	<ol style="list-style-type: none"> 1. SFPUC EMB 2. SFPUC CMB/ BEM 	<ol style="list-style-type: none"> 1. SFPUC BEM 2. SFPUC BEM 	<ol style="list-style-type: none"> 1. Design 2. Construction

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<p>technically or commercially³ not feasible, the equipment would not produce desired emissions reduction due to expected operating modes, installation of the equipment would create a safety hazard or impaired visibility for the operator, or there is a compelling emergency need to use off-road equipment that is not retrofitted with a CARB Level 3 VDECS. If the ERO or designee grants the waiver, the contractor must use the next cleanest piece of off-road equipment, according to the following table:</p> <table border="1"> <thead> <tr> <th>Compliance Alternative</th> <th>Engine Emission Standard</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Tier 4 Interim</td> </tr> <tr> <td>2</td> <td>Tier 3</td> </tr> <tr> <td>3</td> <td>Tier 2</td> </tr> </tbody> </table> <p>NOTES: How to use the table: If the Environmental Review Officer (ERO) or designee determines that the equipment requirements cannot be met, then the contractor would need to meet Compliance Alternative 1. If the ERO or designee determines that the contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the contractor must meet Compliance Alternative 2. If the ERO or designee determines that the contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the contractor must meet Compliance Alternative 3.</p>		Compliance Alternative	Engine Emission Standard	1	Tier 4 Interim	2	Tier 3	3	Tier 2				
Compliance Alternative	Engine Emission Standard												
1	Tier 4 Interim												
2	Tier 3												
3	Tier 2												

³ For purposes of this mitigation measure, “commercially available” shall mean the availability of Tier 4 equipment taking into consideration factors such as: (1) critical path timing of construction; (ii) geographic proximity to the project site of equipment; and (iii) geographic proximity of access to off-haul deposit sites.